UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D. C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended: December 31, 2019

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from ______________ **to** ______________

Commission File Number: 001-11954 (Vornado Realty Trust)
Commission File Number: 001-34482 (Vornado Realty L.P.)

Vornado Realty Trust
Vornado Realty L.P.

(Exact name of registrants as specified in its charter)

Vornado Realty Trust	**Maryland**	**22-1657560**
	(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
Vornado Realty L.P.	**Delaware**	**13-3925979**
	(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

888 Seventh Avenue, New York, New York 10019
(Address of principal executive offices) (Zip Code)

(212) 894-7000
(Registrants' telephone number, including area code)

N/A
(Former name, former address and former fiscal year, if changed since last report)

Securities registered pursuant to Section 12(b) of the Act:

Registrant	Title of Each Class	Trading Symbol(s)	Name of Exchange on Which Registered
Vornado Realty Trust	Common Shares of beneficial interest, $.04 par value per share	VNO	New York Stock Exchange
	Cumulative Redeemable Preferred Shares of beneficial interest, liquidation preference $25.00 per share:		
Vornado Realty Trust	5.70% Series K	VNO/PK	New York Stock Exchange
Vornado Realty Trust	5.40% Series L	VNO/PL	New York Stock Exchange
Vornado Realty Trust	5.25% Series M	VNO/PM	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

Registrant	Title of Each Class
Vornado Realty Trust	Series A Convertible Preferred Shares of beneficial interest, liquidation preference $50.00 per share
Vornado Realty L.P.	Class A Units of Limited Partnership Interest

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Vornado Realty Trust: Yes ☑ No ☐ Vornado Realty L.P.: Yes ☐ No ☑

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Vornado Realty Trust: Yes ☐ No ☑ Vornado Realty L.P.: Yes ☐ No ☑

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Vornado Realty Trust: Yes ☑ No ☐ Vornado Realty L.P.: Yes ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Vornado Realty Trust: Yes ☑ No ☐ Vornado Realty L.P.: Yes ☑ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” "non-accelerated filer," “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Vornado Realty Trust:

☑ Large Accelerated Filer	☐ Accelerated Filer
☐ Non-Accelerated Filer	☐ Smaller Reporting Company
	☐ Emerging Growth Company

Vornado Realty L.P.:

☐ Large Accelerated Filer	☐ Accelerated Filer
☑ Non-Accelerated Filer	☐ Smaller Reporting Company
	☐ Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Vornado Realty Trust: Yes ☐ No ☑ Vornado Realty L.P.: Yes ☐ No ☑

The aggregate market value of the voting and non-voting common shares held by non-affiliates of Vornado Realty Trust, i.e. by persons other than officers and trustees of Vornado Realty Trust, was $11,264,516,000 at June 30, 2019.

As of December 31, 2019, there were 190,985,677 common shares of beneficial interest outstanding of Vornado Realty Trust.

There is no public market for the Class A units of limited partnership interest of Vornado Realty L.P. Based on the June 30, 2019 closing share price of Vornado Realty Trust’s common shares, which are issuable upon redemption of the Class A units, the aggregate market value of the Class A units held by non-affiliates of Vornado Realty L.P., i.e. by persons other than Vornado Realty Trust and its officers and trustees, was $670,609,000 at June 30, 2019.

Documents Incorporated by Reference

Part III: Portions of Proxy Statement for Annual Meeting of Vornado Realty Trust’s Shareholders to be held on May 14, 2020.

EXPLANATORY NOTE

This report combines the Annual Reports on Form 10-K for the fiscal year ended December 31, 2019 of Vornado Realty Trust and Vornado Realty L.P. Unless stated otherwise or the context otherwise requires, references to “Vornado” refer to Vornado Realty Trust, a Maryland real estate investment trust (“REIT”), and references to the “Operating Partnership” refer to Vornado Realty L.P., a Delaware limited partnership. References to the “Company,” “we,” “us” and “our” mean collectively Vornado, the Operating Partnership and those subsidiaries consolidated by Vornado.

The Operating Partnership is the entity through which we conduct substantially all of our business and own, either directly or through subsidiaries, substantially all of our assets. Vornado is the sole general partner and also a 93.1% limited partner of the Operating Partnership. As the sole general partner of the Operating Partnership, Vornado has exclusive control of the Operating Partnership’s day-to-day management.

Under the limited partnership agreement of the Operating Partnership, unitholders may present their Class A units for redemption at any time (subject to restrictions agreed upon at the time of issuance of the units that may restrict such right for a period of time). Class A units may be tendered for redemption to the Operating Partnership for cash; Vornado, at its option, may assume that obligation and pay the holder either cash or Vornado common shares on a one-for-one basis. Because the number of Vornado common shares outstanding at all times equals the number of Class A units owned by Vornado, the redemption value of each Class A unit is equivalent to the market value of one Vornado common share, and the quarterly distribution to a Class A unitholder is equal to the quarterly dividend paid to a Vornado common shareholder. This one-for-one exchange ratio is subject to specified adjustments to prevent dilution. Vornado generally expects that it will elect to issue its common shares in connection with each such presentation for redemption rather than having the Operating Partnership pay cash. With each such exchange or redemption, Vornado’s percentage ownership in the Operating Partnership will increase. In addition, whenever Vornado issues common shares other than to acquire Class A units of the Operating Partnership, Vornado must contribute any net proceeds it receives to the Operating Partnership and the Operating Partnership must issue to Vornado an equivalent number of Class A units of the Operating Partnership. This structure is commonly referred to as an umbrella partnership REIT, or UPREIT.

The Company believes that combining the Annual Reports on Form 10-K of Vornado and the Operating Partnership into this single report provides the following benefits:

- enhances investors’ understanding of Vornado and the Operating Partnership by enabling investors to view the business as a whole in the same manner as management views and operates the business;
- eliminates duplicative disclosure and provides a more streamlined and readable presentation because a substantial portion of the disclosure applies to both Vornado and the Operating Partnership; and
- creates time and cost efficiencies in the preparation of one combined report instead of two separate reports.

The Company believes it is important to understand the few differences between Vornado and the Operating Partnership in the context of how Vornado and the Operating Partnership operate as a consolidated company. The financial results of the Operating Partnership are consolidated into the financial statements of Vornado. Vornado does not have any significant assets, liabilities or operations, other than its investment in the Operating Partnership. The Operating Partnership, not Vornado, generally executes all significant business relationships other than transactions involving the securities of Vornado. The Operating Partnership holds substantially all of the assets of Vornado. The Operating Partnership conducts the operations of the business and is structured as a partnership with no publicly traded equity. Except for the net proceeds from equity offerings by Vornado, which are contributed to the capital of the Operating Partnership in exchange for Class A units of partnership in the Operating Partnership, and the net proceeds of debt offerings by Vornado, which are contributed to the Operating Partnership in exchange for debt securities of the Operating Partnership, as applicable, the Operating Partnership generates all remaining capital required by the Company’s business. These sources may include working capital, net cash provided by operating activities, borrowings under the revolving credit facility, the issuance of secured and unsecured debt and equity securities and proceeds received from the disposition of certain properties.

To help investors better understand the key differences between Vornado and the Operating Partnership, certain information for Vornado and the Operating Partnership in this report has been separated, as set forth below:

- Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities;
- Item 6. Selected Financial Data;
- Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations includes information specific to each entity, where applicable; and
- Item 8. Financial Statements and Supplementary Data which includes the following specific disclosures for Vornado Realty Trust and Vornado Realty L.P.:
  - Note 11. Redeemable Noncontrolling Interests/Redeemable Partnership Units
  - Note 12. Shareholders' Equity/Partners' Capital
  - Note 15. Stock-based Compensation
  - Note 19. Income Per Share/Income Per Class A Unit
  - Note 24. Summary of Quarterly Results (Unaudited)

This report also includes separate Part II, Item 9A. Controls and Procedures sections and separate Exhibits 31 and 32 certifications for each of Vornado and the Operating Partnership in order to establish that the requisite certifications have been made and that Vornado and the Operating Partnership are compliant with Rule 13a-15 or Rule 15d-15 of the Securities Exchange Act of 1934 and 18 U.S.C. §1350.

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(1) These items are omitted in whole or in part because Vornado, the Operating Partnership’s sole general partner, will file a definitive Proxy Statement pursuant to Regulation 14A under the Securities Exchange Act of 1934 with the Securities and Exchange Commission no later than 120 days after December 31, 2019, portions of which are incorporated by reference herein.

FORWARD-LOOKING STATEMENTS

Certain statements contained herein constitute forward-looking statements as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements are not guarantees of future performance. They represent our intentions, plans, expectations and beliefs and are subject to numerous assumptions, risks and uncertainties. Our future results, financial condition and business may differ materially from those expressed in these forward-looking statements. You can find many of these statements by looking for words such as “approximates,” “believes,” “expects,” “anticipates,” “estimates,” “intends,” “plans,” “would,” “may” or other similar expressions in this Annual Report on Form 10-K. We also note the following forward-looking statements: in the case of our development and redevelopment projects, the estimated completion date, estimated project cost and cost to complete; and estimates of future capital expenditures, dividends to common and preferred shareholders and operating partnership distributions. Many of the factors that will determine the outcome of these and our other forward-looking statements are beyond our ability to control or predict. For further discussion of factors that could materially affect the outcome of our forward-looking statements, see “Item 1A. Risk Factors” in this Annual Report on Form 10-K.

For these statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. You are cautioned not to place undue reliance on our forward-looking statements, which speak only as of the date of this Annual Report on Form 10-K or the date of any document incorporated by reference. All subsequent written and oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section. We do not undertake any obligation to release publicly any revisions to our forward-looking statements to reflect events or circumstances occurring after the date of this Annual Report on Form 10-K.

PART I

ITEM 1. BUSINESS

Vornado is a fully-integrated REIT and conducts its business through, and substantially all of its interests in properties are held by, the Operating Partnership, a Delaware limited partnership. Accordingly, Vornado's cash flow and ability to pay dividends to its shareholders are dependent upon the cash flow of the Operating Partnership and the ability of its direct and indirect subsidiaries to first satisfy their obligations to creditors. Vornado is the sole general partner of, and owned approximately 93.1% of the common limited partnership interest in the Operating Partnership as of December 31, 2019.

We currently own all or portions of:

New York:

- 19.1 million square feet of Manhattan office in 35 properties;
- 2.3 million square feet of Manhattan street retail in 70 properties;
- 1,991 units in 10 residential properties;
- The 1,700 room Hotel Pennsylvania located on Seventh Avenue at 33rd Street in the heart of the Penn District; and
- A 32.4% interest in Alexander's, Inc. ("Alexander's") (NYSE: ALX), which owns seven properties in the greater New York metropolitan area, including 731 Lexington Avenue, the 1.3 million square foot Bloomberg, L.P. headquarters building.

Other Real Estate and Investments:

- The 3.7 million square foot theMART in Chicago;
- A 70% controlling interest in 555 California Street, a three-building office complex in San Francisco's financial district aggregating 1.8 million square feet;
- A 25.0% interest in Vornado Capital Partners, our real estate fund (the "Fund"). We are the general partner and investment manager of the Fund; and
- Other real estate and investments.

OBJECTIVES AND STRATEGY

Our business objective is to maximize Vornado shareholder value. We intend to achieve this objective by continuing to pursue our investment philosophy and to execute our operating strategies through:

- maintaining a superior team of operating and investment professionals and an entrepreneurial spirit;
- investing in properties in select markets, such as New York City, where we believe there is a high likelihood of capital appreciation;
- acquiring quality properties at a discount to replacement cost and where there is a significant potential for higher rents;
- developing and redeveloping our existing properties to increase returns and maximize value; and
- investing in operating companies that have a significant real estate component.

We expect to finance our growth, acquisitions and investments using internally generated funds, proceeds from asset sales and by accessing the public and private capital markets. We may also offer Vornado common or preferred shares or Operating Partnership units in exchange for property and may repurchase or otherwise reacquire these securities in the future.

DISPOSITIONS

We contributed seven properties to Fifth Avenue and Times Square JV and transferred a 48.5% common interest in the joint venture to a group of institutional investors for net cash proceeds of $1.179 billion. We retained the remaining 51.5% common interest and an aggregate $1.828 billion of preferred equity interests in certain of the properties.

We also completed the following sale transactions during 2019:

- $1.61 billion net proceeds from the sale of 54 condominium units at 220 Central Park South;
- $168 million sale of all of our 18,468,969 common shares of Lexington Realty Trust;
- $109 million conversion and sale of all of our 5,717,184 partnership units of Urban Edge Properties;
- $100 million sale of our 25% interest in 330 Madison Avenue; and
- $50 million sale of 3040 M Street.

FINANCINGS

We completed the following financing transactions during 2019:

- $1.50 billion unsecured revolving credit facilities (increased from $1.25 billion) extended to March 2024, lowering the interest rate from LIBOR plus 1.00% to LIBOR plus 0.90%;
- $800 million refinancing of 650 Madison Avenue ($161 million at our 20.1% interest);
- $580 million refinancing of 100 West 33rd Street;
- $575 million mortgage loan repayment on PENN2 with proceeds from our unsecured revolving credit facilities;
- $500 million financing of 640 Fifth Avenue ($260 million at our 52% interest) with proceeds used for the redemption of our temporary preferred equity in the property;
- $400 million redemption of all of the outstanding 5.00% senior unsecured notes;
- $375 million mortgage loan on 888 Seventh Avenue extended to December 2025;
- $168 million refinancing of 61 Ninth Avenue ($76 million at our 45.1% interest);
- $146 million refinancing of 512 West 22nd Street ($80 million at our 55% interest);
- $145 million refinancing of Lucida ($36 million at our 25% interest);
- $96 million refinancing of 435 Seventh Avenue;
- $86 million refinancing of 50-70 West 93rd Street ($43 million at our 49.9% interest);
- $75 million refinancing of 606 Broadway ($38 million at our 50% interest);
- $60 million refinancing of 825 Seventh Avenue ($30 million at our 50% interest); and
- $737 million which fully repaid the $950 million 220 Central Park South loan.

DEVELOPMENT AND REDEVELOPMENT EXPENDITURES

220 Central Park South

We are constructing a residential condominium tower containing 397,000 salable square feet at 220 Central Park South ("220 CPS"). The development cost of this project (exclusive of land cost of $515.4 million) is estimated to be approximately $1.450 billion, of which $1.373 billion has been expended as of December 31, 2019.

Penn District

We are redeveloping PENN1, a 2,545,000 square foot office building located on 34th Street between Seventh and Eighth Avenue. The development cost of this project is estimated to be $325,000,000, of which $69,006,000 has been expended as of December 31, 2019.

We are redeveloping PENN2, a 1,795,000 square foot (as expanded) office building, located on the west side of Seventh Avenue between 31st and 33rd Street. The development cost of this project is estimated to be $750,000,000, of which $40,820,000 has been expended as of December 31, 2019.

We are also making districtwide improvements within the Penn District. The development cost of these improvements is estimated to be $100,000,000, of which $6,314,000 has been expended as of December 31, 2019.

Our 95.0% joint venture (the remaining 5.0% is owned by the Related Companies ("Related")) is developing the Farley Office and Retail Building (the "Project"), which will include approximately 844,000 rentable square feet of commercial space, comprised of approximately 730,000 square feet of office space and approximately 114,000 square feet of retail space. The total development cost of the Project is estimated to be approximately $1,030,000,000. As of December 31, 2019, $597,600,000 has been expended.

The joint venture has entered into a development agreement with Empire State Development (“ESD”), an entity of New York State, to build the adjacent Moynihan Train Hall, with Vornado and Related each guaranteeing the joint venture's obligations. The joint venture has entered into a design-build contract with Skanska Moynihan Train Hall Builders pursuant to which they will build the Moynihan Train Hall, thereby fulfilling all of the joint venture's obligations to ESD. The obligations of Skanska Moynihan Train Hall Builders have been bonded by Skanska USA and bear a full guaranty from Skanska AB. The development expenditures for the Moynihan Train Hall are estimated to be approximately $1.6 billion, which will be funded by governmental agencies.

On December 19, 2019, we paid Kmart Corporation $34,000,000, of which $10,000,000 is expected to be reimbursed, to early terminate their 141,000 square foot retail space lease at PENN1 which was scheduled to expire in January 2036.

We recently entered into a development agreement with Metropolitan Transportation Authority to oversee the development of the Long Island Rail Road 33rd Street entrance at Penn Station which Skanska USA Civil Northeast, Inc. will construct under a fixed price contract for $120,805,000.

Other

We are redeveloping a 78,000 square foot Class A office building at 345 Montgomery Street, a part of our 555 California Street complex in San Francisco (70.0% interest) located at the corner of California and Pine Street. The development cost of this project is estimated to be approximately $50,000,000, of which our share is $35,000,000. As of December 31, 2019, $48,087,000 has been expended, of which our share is $33,661,000.

Other - continued

We are redeveloping a 165,000 square foot office building at 825 Seventh Avenue, located at the corner of 53rd Street and Seventh Avenue (50.0% interest). The redevelopment cost of this project is estimated to be approximately $30,000,000, of which our share is $15,000,000. As of December 31, 2019, $23,128,000 has been expended, of which our share is $11,564,000.

We are also evaluating other development and redevelopment opportunities at certain of our properties in Manhattan including, in particular, the Penn District.

There can be no assurance that the above projects will be completed, completed on schedule or within budget.

COMPETITION

We compete with a large number of real estate investors, property owners and developers, some of which may be willing to accept lower returns on their investments. Principal factors of competition are rents charged, sales prices, attractiveness of location, the quality of the property and the breadth and the quality of services provided. Our success depends upon, among other factors, trends of the global, national, regional and local economies, the financial condition and operating results of current and prospective tenants and customers, availability and cost of capital, construction and renovation costs, taxes, governmental regulations, legislation, population and employment trends. See "Risk Factors" in Item 1A for additional information regarding these factors.

SEGMENT DATA

We operate in the following reportable segments: New York and Other. Financial information related to these reportable segments for the years ended December 31, 2019, 2018 and 2017 is set forth in Note 25 – *Segment Information* to our consolidated financial statements in this Annual Report on Form 10-K.

SEASONALITY

Our revenues and expenses are subject to seasonality during the year which impacts quarterly net earnings, cash flows and funds from operations, and therefore impacts comparisons of the current quarter to the previous quarter. The New York segment has historically experienced higher utility costs in the first and third quarters of the year.

TENANTS ACCOUNTING FOR OVER 10% OF REVENUES

None of our tenants accounted for more than 10% of total revenues in any of the years ended December 31, 2019, 2018 and 2017.

CERTAIN ACTIVITIES

We do not base our acquisitions and investments on specific allocations by type of property. We have historically held our properties for long-term investment; however, it is possible that properties in our portfolio may be sold or otherwise disposed of when circumstances warrant. Further, we have not adopted a policy that limits the amount or percentage of assets which could be invested in a specific property or property type. Generally our activities are reviewed and may be modified from time to time by Vornado’s Board of Trustees without the vote of our shareholders or Operating Partnership unitholders.

EMPLOYEES

As of December 31, 2019, we have approximately 4,008 employees, of which 273 are corporate staff. The New York segment has 3,562 employees, including 2,914 employees of Building Maintenance Services LLC, a wholly owned subsidiary, which provides cleaning, security and engineering services primarily to our New York properties and 462 employees at the Hotel Pennsylvania. theMART has 173 employees. The foregoing does not include employees of partially owned entities.

PRINCIPAL EXECUTIVE OFFICES

Our principal executive offices are located at 888 Seventh Avenue, New York, New York 10019; telephone (212) 894-7000.

MATERIALS AVAILABLE ON OUR WEBSITE

Copies of our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports, as well as Reports on Forms 3, 4 and 5 regarding officers, trustees or 10% beneficial owners, filed or furnished pursuant to Section 13(a), 15(d) or 16(a) of the Securities Exchange Act of 1934 are available free of charge through our website (www.vno.com) as soon as reasonably practicable after they are electronically filed with, or furnished to, the Securities and Exchange Commission. Also available on our website are copies of our Audit Committee Charter, Compensation Committee Charter, Corporate Governance and Nominating Committee Charter, Code of Business Conduct and Ethics, and Corporate Governance Guidelines. In the event of any changes to these charters or the code or guidelines, changed copies will also be made available on our website. Copies of these documents are also available directly from us free of charge. Our website also includes other financial and non-financial information, including certain non-GAAP financial measures, none of which is a part of this Annual Report on Form 10-K. Copies of our filings under the Securities Exchange Act of 1934 are also available free of charge from us, upon request.

ITEM 1A. RISK FACTORS

Material factors that may adversely affect our business, operations and financial condition are summarized below. We refer to the equity and debt securities of both Vornado and the Operating Partnership as our “securities” and the investors who own shares of Vornado or units of the Operating Partnership, or both, as our “equity holders.” The risks and uncertainties described herein may not be the only ones we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business, operations and financial condition. See “Forward-Looking Statements” contained herein on page 6.

OUR INVESTMENTS ARE CONCENTRATED IN THE NEW YORK CITY METROPOLITAN AREA AND CIRCUMSTANCES AFFECTING THIS AREA GENERALLY COULD MATERIALLY AND ADVERSELY AFFECT OUR BUSINESS.

A significant portion of our properties is located in the New York City Metropolitan area and is affected by the economic cycles and risks inherent to this area.

In 2019, approximately 87% of our net operating income ("NOI", a non-GAAP measure) came from properties located in the New York City metropolitan area. We may continue to concentrate a significant portion of our future acquisitions, development and redevelopment in this area. Real estate markets are subject to economic downturns and we cannot predict how economic conditions will impact this market in either the short or long term. Declines in the economy or declines in real estate markets in the New York City metropolitan area could hurt our financial performance and the value of our properties. In addition to the factors affecting the national economic condition generally, the factors affecting economic conditions in this region include:

- financial performance and productivity of the media, advertising, professional services, financial, technology, retail, insurance and real estate industries;
- business layoffs or downsizing;
- industry slowdowns;
- relocations of businesses;
- changing demographics;
- increased telecommuting and use of alternative work places;
- changes in the number of domestic and international tourists to our markets (including as a result of changes in the relative strengths of world currencies);
- infrastructure quality;
- changes in rates or the treatment of the deductibility of state and local taxes; and
- any oversupply of, or reduced demand for, real estate.

It is impossible for us to ensure the accuracy of predictions of the future or the effect of trends in the economic and investment climates of the geographic areas in which we concentrate, and more generally of the United States, or the real estate markets in these areas. Local, national or global economic downturns could negatively affect our businesses and profitability.

We are subject to risks that affect the general and New York City retail environments.

Certain of our properties are Manhattan retail properties. Approximately 22% of our NOI is from Manhattan retail properties. As such, these properties are affected by the general and New York City retail environments, including the level of consumer spending and consumer confidence, Manhattan tourism, the threat of terrorism, increasing competition from on-line retailers, other retailers, and outlet malls, and the impact of technological change upon the retail environment generally. These factors could adversely affect the financial condition of our retail tenants, or result in the bankruptcy of such tenants, and the willingness of retailers to lease space in our retail locations, which could have an adverse effect on our business and profitability.

Terrorist attacks may adversely affect the value of our properties and our ability to generate cash flow.

We have significant investments in the New York City, Chicago and San Francisco metropolitan areas. In response to a terrorist attack or the perceived threat of terrorism, tenants in these areas may choose to relocate their businesses to less populated, lower-profile areas of the United States that may be perceived to be less likely targets of future terrorist activity and fewer customers may choose to patronize businesses in these areas. This, in turn, would trigger a decrease in the demand for space in these areas, which could increase vacancies in our properties and force us to lease space on less favorable terms. Furthermore, we may experience increased costs in security, equipment and personnel. As a result, the value of our properties and the level of our revenues and cash flows could decline materially.

Natural disasters and the effects of climate change could have a concentrated impact on the areas where we operate and could adversely impact our results.

Our investments are concentrated in the New York, Chicago and San Francisco metropolitan areas. Natural disasters, including earthquakes, storms, tornados, floods and hurricanes, could cause significant damage to our properties and the surrounding environment or area. Potentially adverse consequences of "global warming," including rising sea levels, could similarly have an impact on our properties and the economies of the metropolitan areas in which we operate. Over time, these conditions could result in declining demand for office space in our buildings or the inability of us to operate the buildings at all. Climate change may also have indirect effects on our business by increasing the cost of (or making unavailable) property insurance on terms we find acceptable, increasing the cost of energy at our properties and requiring us to expend funds as we seek to repair and protect our properties against such risks. The incurrence of these losses, costs or business interruptions may adversely affect our operating and financial results.

REAL ESTATE INVESTMENTS' VALUE AND INCOME FLUCTUATE DUE TO VARIOUS FACTORS.

Our performance and the value of an investment in us are subject to risks associated with our real estate assets and with the real estate industry.

The value of our real estate and the value of an investment in us fluctuates depending on conditions in the general economy and the real estate business. These conditions may also adversely impact our revenues and cash flows.

The factors that affect the value of our real estate investments include, among other things:

- global, national, regional and local economic conditions;
- competition from other available space;
- local conditions such as an oversupply of space or a reduction in demand for real estate in the area;
- how well we manage our properties;
- the development and/or redevelopment of our properties;
- changes in market rental rates;
- the timing and costs associated with property improvements and rentals;
- whether we are able to pass all or portions of any increases in operating costs through to tenants;
- changes in real estate taxes and other expenses;
- the ability of state and local governments to operate within their budgets;
- whether tenants and users such as customers and shoppers consider a property attractive;
- changes in consumer preferences adversely affecting retailers and retail store values;
- changes in space utilization by our tenants due to technology, economic conditions and business environment;
- the financial condition of our tenants, including the extent of tenant bankruptcies or defaults;
- consequences of any armed conflict involving, or terrorist attacks against, the United States or individual acts of violence in public spaces;
- trends in office real estate;
- the impact on our retail tenants and demand for retail space at our properties due to increased competition from online shopping;
- availability of financing on acceptable terms or at all;
- inflation or deflation;
- fluctuations in interest rates;
- our ability to obtain adequate insurance;
- changes in zoning laws and taxation;
- government regulation;
- potential liability under environmental or other laws or regulations;
- natural disasters;
- general competitive factors; and
- climate changes.

The rents or sales proceeds we receive and the occupancy levels at our properties may decline as a result of adverse changes in any of these factors. If rental revenues, sales proceeds and/or occupancy levels decline, we generally would expect to have less cash available for operating costs, to pay indebtedness and for distribution to equity holders. In addition, some of our major expenses, including mortgage payments, real estate taxes and maintenance costs generally do not decline when the related rents decline.

Capital markets and economic conditions can materially affect our liquidity, financial condition and results of operations as well as the value of an investment in our debt and equity securities.

There are many factors that can affect the value of our debt and equity securities, including the state of the capital markets and the economy. Demand for office and retail space typically declines nationwide due to an economic downturn, bankruptcies, downsizing, layoffs and cost cutting. Government action or inaction may adversely affect the state of the capital markets. The cost and availability of credit may be adversely affected by illiquid credit markets and wider credit spreads, which may adversely affect our liquidity and financial condition, including our results of operations, and the liquidity and financial condition of our tenants. Our inability or the inability of our tenants to timely refinance maturing liabilities and access the capital markets to meet liquidity needs may materially affect our financial condition and results of operations and the value of our securities.

U.S. federal tax reform legislation now and in the future could affect REITs generally, the geographic markets in which we operate, the trading of our shares and our results of operations, both positively and negatively, in ways that are difficult to anticipate.

The Tax Cuts and Jobs Act of 2017 (the "2017 Act") represented sweeping tax reform legislation that made significant changes to corporate and individual tax rates and the calculation of taxes, as well as international tax rules. As a REIT, we are generally not required to pay federal taxes otherwise applicable to regular corporations if we comply with the various tax regulations governing REITs. Shareholders, however, are generally required to pay taxes on REIT dividends. The 2017 Act and future tax reform legislation could impact our share price or how shareholders and potential investors view an investment in REITs. For example, the decrease in corporate tax rates in the 2017 Act could decrease the attractiveness of the REIT structure relative to companies that are not organized as REITs. In addition, while certain elements of the 2017 Act do not impact us directly as a REIT, they could impact the geographic markets in which we operate as well as our tenants in ways, both positive and negative, that are difficult to anticipate. For example, the limitation in the 2017 Act on the deductibility of certain state and local taxes may make operating in jurisdictions that impose such taxes at higher rates less desirable than operating in jurisdictions imposing such taxes at lower rates. The overall impact of the 2017 Act also depends on the future interpretations and regulations that may be issued by U.S. tax authorities, and it is possible that future guidance could adversely impact us.

Real estate is a competitive business and that competition may adversely impact us.

We compete with a large number of real estate investors, property owners and developers, some of which may be willing to accept lower returns on their investments. Principal factors of competition are rents charged, sales prices, attractiveness of location, the quality of the property and the breadth and the quality of services provided. Substantially all of our properties face competition from similar properties in the same market, which may adversely impact the rents we can charge at those properties and our results of operations.

Competition for acquisitions may reduce the number of acquisition opportunities available to us and increase the costs of those acquisitions.

We may acquire properties when we are presented with attractive opportunities. We may face competition for acquisition opportunities from other well-capitalized investors, including publicly traded and privately held REITs, private real estate funds, domestic and foreign financial institutions, life insurance companies, sovereign wealth funds, pension trusts, partnerships and individual investors, which may adversely affect us because that competition may cause an increase in the purchase price for a desired acquisition property or result in a competitor acquiring the desired property instead of us.

If we are unable to successfully acquire additional properties, our ability to grow our business could be adversely affected. In addition, increases in the cost of acquisition opportunities could adversely affect our results of operations.

We depend on leasing space to tenants on economically favorable terms and collecting rent from tenants who may not be able to pay.

Our financial results depend significantly on leasing space in our properties to tenants on economically favorable terms. In addition, because a majority of our income comes from renting of real property, our income, funds available to pay indebtedness and funds available for distribution to equity holders will decrease if a significant number of our tenants cannot pay their rent or if we are not able to maintain occupancy levels on favorable terms. If a tenant does not pay its rent, we may not be able to enforce our rights as landlord without delays and may incur substantial legal and other costs. Even if we are able to enforce our rights, a tenant may not have recoverable assets.

We may be adversely affected by trends in office real estate.

Approximately 72% of our NOI is from our office properties. Telecommuting, flexible work schedules, open workplaces and teleconferencing are becoming more common. These practices enable businesses to reduce their office space requirements. There is also an increasing trend among some businesses to utilize shared office spaces and co-working spaces. A continuation of the movement towards these practices could, over time, erode the overall demand for office space and, in turn, place downward pressure on occupancy, rental rates and property valuations.

We may be unable to renew leases or relet space as leases expire.

When our tenants decide not to renew their leases upon their expiration, we may not be able to relet the space. Even if tenants do renew or we can relet the space, the terms of renewal or reletting, considering among other things, the cost of improvements to the property and leasing commissions, may be less favorable than the terms in the expired leases. In addition, changes in space utilization by our tenants may impact our ability to renew or relet space without the need to incur substantial costs in renovating or redesigning the internal configuration of the relevant property. If we are unable to promptly renew the leases or relet the space at similar rates or if we incur substantial costs in renewing or reletting the space, our cash flow and ability to service debt obligations and pay dividends and distributions to equity holders could be adversely affected.

Bankruptcy or insolvency of tenants may decrease our revenue, net income and available cash.

From time to time, some of our tenants have declared bankruptcy, and other tenants may declare bankruptcy or become insolvent in the future. The bankruptcy or insolvency of a major tenant could cause us to suffer lower revenues and operational difficulties, including leasing the remainder of the property. As a result, the bankruptcy or insolvency of a major tenant could result in decreased net income and funds available to pay our indebtedness or make distributions to equity holders.

The occurrence of cyber incidents, or a deficiency in our cyber security, as well as other disruptions of our IT networks and related systems, could negatively impact our business by causing a disruption to our operations, a compromise or corruption of our confidential information, and/or damage to our business relationships or reputation, all of which could negatively impact our financial results.

We face risks associated with security breaches, whether through cyber attacks or cyber intrusions over the Internet, malware, computer viruses, attachments to e-mails, persons who access our systems from inside or outside our organization, and other significant disruptions of our IT networks and related systems. The risk of a security breach or disruption, particularly through cyber attack or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has generally increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. Although we have not experienced cyber incidents that are individually, or in the aggregate, material, we have experienced cyber attacks in the past, which have thus far been mitigated by preventative, detective, and responsive measures that we have put in place. Our IT networks and related systems are essential to the operation of our business and our ability to perform day-to-day operations (including managing our building systems) and, in some cases, may be critical to the operations of certain of our tenants. Although we make efforts to maintain the security and integrity of these types of IT networks and related systems, and we have implemented various measures to manage the risk of a security breach or disruption, there can be no assurance that our security efforts and measures will be effective or that attempted security breaches or disruptions would not be successful or damaging. Unauthorized parties, whether within or outside our company, may disrupt or gain access to our systems, or those of third parties with whom we do business, through human error, misfeasance, fraud, trickery, or other forms of deceit, including break-ins, use of stolen credentials, social engineering, phishing, computer viruses or other malicious codes, and similar means of unauthorized and destructive tampering. Even the most well protected information, networks, systems and facilities remain potentially vulnerable because the techniques used in such attempted security breaches evolve and generally are not recognized until launched against a target, and in some cases are designed to not be detected and, in fact, may not be detected. Accordingly, we may be unable to anticipate these techniques or to implement adequate security barriers or other preventative measures, and thus it is impossible for us to entirely mitigate this risk.

A security breach or other significant disruption involving our IT networks and related systems could disrupt the proper functioning of our networks and systems and therefore our operations and/or those of certain of our tenants; result in the unauthorized access to, and destruction, loss, theft, misappropriation or release of, proprietary, confidential, sensitive or otherwise valuable information of ours or others, which others could use to compete against us or which could expose us to damage claims by third-parties for disruptive, destructive or otherwise harmful purposes and outcomes; result in our inability to maintain the building systems relied upon by our tenants for the efficient use of their leased space; require significant management attention and resources to remedy any damages that result; subject us to litigation claims for breach of contract, damages, credits, fines, penalties, governmental investigations and enforcement actions or termination of leases or other agreements; or damage our reputation among our tenants and investors generally. Any or all of the foregoing could have a material adverse effect on our results of operations, financial condition and cash flows.

A cyber attack or systems failure could interfere with our ability to comply with financial reporting requirements, which could adversely affect us. A cyber attack could also compromise the confidential information of our employees, tenants, customers and vendors. A successful attack could disrupt and materially affect our business operations, including damaging relationships with tenants, customers and vendors. Any compromise of our information security systems could also result in a violation of applicable privacy and other laws, significant legal and financial exposure, damage to our reputation, loss or misuse of the information (which may be confidential, proprietary and/or commercially sensitive in nature) and a loss of confidence in our security measures, which could harm our business.

Some of our potential losses may not be covered by insurance.

For our properties except the Farley Office and Retail Building, we maintain general liability insurance with limits of $300,000,000 per occurrence and per property, and all risk property and rental value insurance with limits of $2.0 billion per occurrence, with sub-limits for certain perils such as flood and earthquake. Our California properties have earthquake insurance with coverage of $350,000,000 per occurrence and in the aggregate, subject to a deductible in the amount of 5% of the value of the affected property. We maintain coverage for certified terrorism acts with limits of $6.0 billion per occurrence and in the aggregate (as listed below), $1.2 billion for non-certified acts of terrorism, and $5.0 billion per occurrence and in the aggregate for terrorism involving nuclear, biological, chemical and radiological ("NBCR") terrorism events, as defined by the Terrorism Risk Insurance Act of 2002, as amended to date and which has been extended through December 2027.

Penn Plaza Insurance Company, LLC ("PPIC"), our wholly owned consolidated subsidiary, acts as a re-insurer with respect to a portion of all risk property and rental value insurance and a portion of our earthquake insurance coverage, and as a direct insurer for coverage for acts of terrorism including NBCR acts. Coverage for acts of terrorism (excluding NBCR acts) is fully reinsured by third party insurance companies and the Federal government with no exposure to PPIC. For NBCR acts, PPIC is responsible for a deductible of $1,430,413 and 20% of the balance of a covered loss and the Federal government is responsible for the remaining portion of a covered loss. We are ultimately responsible for any loss incurred by PPIC.

For the Farley Office and Retail Building, we maintain general liability insurance with limits of $100,000,000 per occurrence, and builder's risk insurance including coverage for existing property and development activities of $2.8 billion per occurrence and in the aggregate. We maintain coverage for certified and non-certified terrorism acts with limits of $1.0 billion per occurrence and in the aggregate.

We continue to monitor the state of the insurance market and the scope and costs of coverage for acts of terrorism and other events. However, we cannot anticipate what coverage will be available on commercially reasonable terms in the future. We are responsible for uninsured losses and for deductibles and losses in excess of our insurance coverage, which could be material.

Our debt instruments, consisting of mortgage loans secured by our properties, senior unsecured notes and revolving credit agreements contain customary covenants requiring us to maintain insurance. Although we believe that we have adequate insurance coverage for purposes of these agreements, we may not be able to obtain an equivalent amount of coverage at reasonable costs in the future. Further, if lenders insist on greater coverage than we are able to obtain it could adversely affect our ability to finance or refinance our properties and expand our portfolio.

Compliance or failure to comply with the Americans with Disabilities Act ("ADA") or other safety regulations and requirements could result in substantial costs.

ADA generally requires that public buildings, including our properties, meet certain Federal requirements related to access and use by disabled persons. Noncompliance could result in the imposition of fines by the Federal government or the award of damages to private litigants and/or legal fees to their counsel. From time to time persons have asserted claims against us with respect to some of our properties under the ADA, but to date such claims have not resulted in any material expense or liability. If, under the ADA, we are required to make substantial alterations and capital expenditures in one or more of our properties, including the removal of access barriers, it could adversely affect our financial condition and results of operations, as well as the amount of cash available for distribution to equity holders.

Our properties are subject to various federal, state and local regulatory requirements, such as state and local fire and life safety requirements. If we fail to comply with these requirements, we could incur fines or private damage awards. We do not know whether existing requirements will change or whether compliance with future requirements will require significant unanticipated expenditures that will affect our cash flow and results of operations.

Changes in the method pursuant to which the LIBOR rates are determined and phasing out of LIBOR after 2021 may affect our financial results.

The chief executive of the United Kingdom Financial Conduct Authority ("FCA"), which regulates the London Interbank Offered Rate ("LIBOR"), announced that the FCA intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. In response, the Federal Reserve Board and the Federal Reserve Bank of New York organized the Alternative Reference Rates Committee which identified the Secured Overnight Financing Rate ("SOFR") as its preferred alternative to USD-LIBOR in derivatives and other financial contracts. It is not possible to predict the effect of these changes, including when LIBOR will cease to be available or when there will be sufficient liquidity in the SOFR markets.

We have outstanding debt and derivatives with variable rates that are indexed to LIBOR. In the transition from the use of LIBOR to SOFR or other alternatives, the level of interest payments we incur may change. In addition, although certain of our LIBOR based obligations provide for alternative methods of calculating the interest rate payable on certain of our obligations (including transition to an alternative benchmark rate) if LIBOR is not reported, uncertainty as to the extent and manner of future changes may result in interest rates and/or payments that are higher than, lower than or that do not otherwise correlate over time with the interest rates and/or payments that would have been made on our obligations if LIBOR was available in its current form. Use of alternative interest rates or other LIBOR reforms could result in increased volatility or a tightening of credit markets which could adversely affect our ability to obtain cost-effective financing.

We may incur significant costs to comply with environmental laws and environmental contamination may impair our ability to lease and/or sell real estate.

Our operations and properties are subject to various federal, state and local laws and regulations concerning the protection of the environment, including air and water quality, hazardous or toxic substances and health and safety. Under some environmental laws, a current or previous owner or operator of real estate may be required to investigate and clean up hazardous or toxic substances released at a property. The owner or operator may also be held liable to a governmental entity or to third parties for property damage or personal injuries and for investigation and clean-up costs incurred by those parties because of the contamination. These laws often impose liability without regard to whether the owner or operator knew of the release of the substances or caused the release. The presence of contamination or the failure to remediate contamination may also impair our ability to sell or lease real estate or to borrow using the real estate as collateral. Other laws and regulations govern indoor and outdoor air quality including those that can require the abatement or removal of asbestos-containing materials in the event of damage, demolition, renovation or remodeling and govern emissions of and exposure to asbestos fibers in the air. The maintenance and removal of lead paint and certain electrical equipment containing polychlorinated biphenyls (PCBs) are also regulated by federal and state laws. We are also subject to risks associated with human exposure to chemical or biological contaminants such as molds, pollens, viruses and bacteria which, above certain levels, can be alleged to be connected to allergic or other health effects and symptoms in susceptible individuals. Our predecessor companies may be subject to similar liabilities for activities of those companies in the past. We could incur fines for environmental compliance and be held liable for the costs of remedial action with respect to the foregoing regulated substances or related claims arising out of environmental contamination or human exposure to contamination at or from our properties.

Each of our properties has been subject to varying degrees of environmental assessment. To date, these environmental assessments have not revealed any environmental condition material to our business. However, identification of new compliance concerns or undiscovered areas of contamination, changes in the extent or known scope of contamination, human exposure to contamination or changes in clean-up or compliance requirements could result in significant costs to us.

In addition, we may become subject to costs or taxes, or increases therein, associated with natural resource or energy usage (such as a “carbon tax”). These costs or taxes could increase our operating costs and decrease the cash available to pay our obligations or distribute to equity holders.

We face risks associated with our tenants being designated “Prohibited Persons” by the Office of Foreign Assets Control and similar requirements.

Pursuant to Executive Order 13224 and other laws, the Office of Foreign Assets Control of the United States Department of the Treasury (“OFAC”) maintains a list of persons designated as terrorists or who are otherwise blocked or banned (“Prohibited Persons”) from conducting business or engaging in transactions in the United States and thereby restricts our doing business with such persons. In addition, our leases, loans and other agreements may require us to comply with OFAC and related requirements, and any failure to do so may result in a breach of such agreements. If a tenant or other party with whom we conduct business is placed on the OFAC list or is otherwise a party with whom we are prohibited from doing business, we may be required to terminate the lease or other agreement or face other penalties. Any such termination could result in a loss of revenue or otherwise negatively affect our financial results and cash flows.

WE MAY ACQUIRE OR SELL ASSETS OR ENTITIES OR DEVELOP PROPERTIES. OUR FAILURE OR INABILITY TO CONSUMMATE THESE TRANSACTIONS OR MANAGE THE RESULTS OF THESE TRANSACTIONS COULD ADVERSELY AFFECT OUR OPERATIONS AND FINANCIAL RESULTS.

We face risks associated with property acquisitions.

We have acquired in the past and intend to continue to pursue the acquisition of properties and portfolios of properties, including, but not limited to, large portfolios that could increase our size and result in alterations to our capital structure. Our acquisition activities and their success are subject to the following risks:

- even if we enter into an acquisition agreement for a property, we may be unable to complete that acquisition after making a non-refundable deposit and incurring certain other acquisition-related costs;
- we may be unable to obtain or assume financing for acquisitions on favorable terms or at all;
- acquired properties may fail to perform as expected;
- the actual costs of repositioning, redeveloping or maintaining acquired properties may be greater than our estimates and may require significantly greater time and attention of management than anticipated;
- the acquisition agreement will likely contain conditions to closing, including completion of due diligence investigations to our satisfaction or other conditions that are not within our control, which may not be satisfied;
- acquired properties may be located in new markets where we may face risks associated with a lack of market knowledge or understanding of the local economy, lack of business relationships in the area, costs associated with opening a new regional office and unfamiliarity with local governmental and permitting procedures;
- we may acquire real estate through the acquisition of the ownership entity subjecting us to the risks of that entity and we may be exposed to the liabilities of properties or companies acquired, some of which we may not be aware of at the time of acquisition; and

- we may be unable to quickly and efficiently integrate new acquisitions, particularly acquisitions of portfolios of properties, into our existing operations, and this could have an adverse effect on our results of operations and financial condition.

Any delay or failure on our part to identify, negotiate, finance and consummate such acquisitions in a timely manner and on favorable terms, or operate acquired properties to meet our financial expectations, could impede our growth and have an adverse effect on us, including our financial condition, results of operations, cash flow and the market value of our securities.

We are exposed to risks associated with property redevelopment and repositioning that could adversely affect us, including our financial condition and results of operations.

We continue to engage in redevelopment and repositioning activities with respect to our properties, and, accordingly, we are subject to certain risks, which could adversely affect us, including our financial condition and results of operations. These risks include, without limitation, (i) the availability and pricing of financing on favorable terms or at all; (ii) the availability and timely receipt of zoning and other regulatory approvals; (iii) the potential for the fluctuation of occupancy rates and rents at redeveloped properties, which may result in our investment not being profitable; (iv) start up, repositioning and redevelopment costs may be higher than anticipated; (v) cost overruns and untimely completion of construction (including risks beyond our control, such as weather or labor conditions, or material shortages); (vi) the potential that we may fail to recover expenses already incurred if we abandon development or redevelopment opportunities after we begin to explore them; (vii) the potential that we may expend funds on and devote management time to projects which we do not complete; (viii) the inability to complete leasing of a property on schedule or at all, resulting in an increase in construction or redevelopment costs; and (ix) the possibility that properties will be leased at below expected rental rates. These risks could result in substantial unanticipated delays or expenses and could prevent the initiation or the completion of redevelopment activities, any of which could have an adverse effect on our financial condition, results of operations, cash flow, the market value of our common shares and ability to satisfy our principal and interest obligations and to make distributions to our shareholders.

From time to time we have made, and in the future we may seek to make one or more material acquisitions. The announcement of such a material acquisition may result in a rapid and significant decline in the price of our securities.

We are continuously looking at material transactions that we believe will maximize shareholder value. However, an announcement by us of one or more significant acquisitions could result in a quick and significant decline in the price of our securities.

It may be difficult to sell real estate quickly, which may limit our flexibility.

Real estate investments are relatively illiquid. Consequently, we may have limited ability to dispose of assets in our portfolio promptly in response to changes in economic or other conditions which could have an adverse effect on our sources of working capital and our ability to satisfy our debt obligations.

We may not be permitted to dispose of certain properties or pay down the debt associated with those properties when we might otherwise desire to do so without incurring additional costs. In addition, when we dispose of or sell assets, we may not be able to reinvest the sales proceeds and earn similar returns.

As part of an acquisition of a property, or a portfolio of properties, we may agree, and in the past have agreed, not to dispose of the acquired properties or reduce the mortgage indebtedness for a long-term period, unless we pay certain of the resulting tax costs of the seller. These agreements could result in us holding on to properties that we would otherwise sell and not pay down or refinance. In addition, when we dispose of or sell assets, we may not be able to reinvest the sales proceeds and earn returns similar to those generated by the assets that were sold.

From time to time we have made, and in the future we may seek to make investments in companies over which we do not have sole control. Some of these companies operate in industries with different risks than investing and operating real estate.

From time to time we have made, and in the future we may seek to make, investments in companies that we may not control, including, but not limited to, Alexander’s, our Fifth Avenue and Times Square JV, and other equity and loan investments. Although these businesses generally have a significant real estate component, some of them operate in businesses that are different from investing and operating real estate. Consequently, we are subject to operating and financial risks of those industries and to the risks associated with lack of control, such as having differing objectives than our partners or the entities in which we invest, or becoming involved in disputes, or competing directly or indirectly with these partners or entities. In addition, we rely on the internal controls and financial reporting controls of these entities and their failure to maintain effectiveness or comply with applicable standards may adversely affect us.

We are subject to risks involved in real estate activity through joint ventures and private equity real estate funds.

We currently own properties through joint ventures and private equity real estate funds with other persons and entities and may in the future acquire or own properties through joint ventures and funds when we believe circumstances warrant the use of such structures. Joint venture and fund investments involve risk, including: the possibility that our partners might refuse to make capital contributions when due and therefore we may be forced to make contributions to maintain the value of the property; that we may be responsible to our partners for indemnifiable losses; that our partners might at any time have business or economic goals that are inconsistent with ours; and that our partners may be in a position to take action or withhold consent contrary to our recommendations, instructions or requests. We and our respective joint venture partners may each have the right to trigger a buy-sell, put right or forced sale arrangement, which could cause us to sell our interest, or acquire our partner's interest, or to sell the underlying asset, at a time when we otherwise would not have initiated such a transaction, without our consent or on unfavorable terms. In some instances, joint venture and fund partners may have competing interests in our markets that could create conflicts of interest. These conflicts may include compliance with the REIT requirements, and our REIT status could be jeopardized if any of our joint ventures or funds do not operate in compliance with REIT requirements. To the extent our partners do not meet their obligations to us or our joint ventures or funds, or they take action inconsistent with the interests of the joint venture or fund, we may be adversely affected.

OUR ORGANIZATIONAL AND FINANCIAL STRUCTURE GIVES RISE TO OPERATIONAL AND FINANCIAL RISKS.

We may not be able to obtain capital to make investments.

We depend primarily on external financing to fund the growth of our business. This is because one of the requirements of the Internal Revenue Code of 1986, as amended, for a REIT is that it distributes 90% of its taxable income, excluding net capital gains, to its shareholders. This, in turn, requires the Operating Partnership to make distributions to its unitholders. There is a separate requirement to distribute net capital gains or pay a corporate level tax in lieu thereof. Our access to debt or equity financing depends on the willingness of third parties to lend or make equity investments and on conditions in the capital markets generally. Although we believe that we will be able to finance any investments we may wish to make in the foreseeable future, there can be no assurance that new financing will be available or available on acceptable terms. For information about our available sources of funds, see *"Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources"* and the notes to the consolidated financial statements in this Annual Report on Form 10-K.

We depend on dividends and distributions from our direct and indirect subsidiaries. The creditors and preferred equity holders of these subsidiaries are entitled to amounts payable to them by the subsidiaries before the subsidiaries may pay any dividends or distributions to us.

Substantially all of Vornado's assets are held through its Operating Partnership that holds substantially all of its properties and assets through subsidiaries. The Operating Partnership's cash flow is dependent on cash distributions to it by its subsidiaries, and in turn, substantially all of Vornado's cash flow is dependent on cash distributions to it by the Operating Partnership. The creditors of each of Vornado's direct and indirect subsidiaries are entitled to payment of that subsidiary's obligations to them, when due and payable, before distributions may be made by that subsidiary to its equity holders. Thus, the Operating Partnership's ability to make distributions to its equity holders depends on its subsidiaries' ability first to satisfy their obligations to their creditors and then to make distributions to the Operating Partnership. Likewise, Vornado's ability to pay dividends to its holders of common and preferred shares depends on the Operating Partnership's ability first to satisfy its obligations to its creditors and make distributions to holders of its preferred units and then to make distributions to Vornado.

Furthermore, the holders of preferred units of the Operating Partnership are entitled to receive preferred distributions before payment of distributions to the Operating Partnership's equity holders, including Vornado. Thus, Vornado's ability to pay cash dividends to its equity holders and satisfy its debt obligations depends on the Operating Partnership's ability first to satisfy its obligations to its creditors and make distributions to holders of its preferred units and then to its equity holders, including Vornado. As of December 31, 2019, there were four series of preferred units of the Operating Partnership not held by Vornado with a total liquidation value of $55,075,000.

In addition, Vornado's participation in any distribution of the assets of any of its direct or indirect subsidiaries upon the liquidation, reorganization or insolvency, is only after the claims of the creditors, including trade creditors and preferred equity holders, are satisfied.

We have a substantial amount of indebtedness that could affect our future operations.

As of December 31, 2019, our consolidated mortgages and unsecured indebtedness, excluding related premium, discount and deferred financing costs, net, totaled $7.4 billion. We are subject to the risks normally associated with debt financing, including the risk that our cash flow from operations will be insufficient to meet our required debt service. Our debt service costs generally will not be reduced if developments in the market or at our properties, such as the entry of new competitors or the loss of major tenants, cause a reduction in the income from our properties. Should such events occur, our operations may be adversely affected. If a property is mortgaged to secure payment of indebtedness and income from such property is insufficient to pay that indebtedness, the property could be foreclosed upon by the mortgagee resulting in a loss of income and a decline in our total asset value.

We have outstanding debt, and the amount of debt and its cost may increase and refinancing may not be available on acceptable terms.

We rely on both secured and unsecured, variable rate and non-variable rate debt to finance acquisitions and development activities and for working capital. If we are unable to obtain debt financing or refinance existing indebtedness upon maturity, our financial condition and results of operations would likely be adversely affected. In addition, the cost of our existing debt may increase, especially in the case of a rising interest rate environment, and we may not be able to refinance our existing debt in sufficient amounts or on acceptable terms. If the cost or amount of our indebtedness increases or we cannot refinance our debt in sufficient amounts or on acceptable terms, we are at risk of credit ratings downgrades and default on our obligations that could adversely affect our financial condition and results of operations.

Covenants in our debt instruments could adversely affect our financial condition and our acquisitions and development activities.

The mortgages on our properties contain customary covenants such as those that limit our ability, without the prior consent of the applicable lender, to further mortgage the applicable property or to discontinue insurance coverage. Our unsecured indebtedness and debt that we may obtain in the future may contain customary restrictions, requirements and other limitations on our ability to incur indebtedness, including covenants that limit our ability to incur debt based upon the level of our ratio of total debt to total assets, our ratio of secured debt to total assets, our ratio of EBITDA to interest expense, and fixed charges, and that require us to maintain a certain ratio of unencumbered assets to unsecured debt. Our ability to borrow is subject to compliance with these and other covenants. In addition, failure to comply with our covenants could cause a default under the applicable debt instrument, and we may then be required to repay such debt with capital from such other sources or give possession of a secured property to the lender. Under those circumstances, other sources of capital may not be available to us or may be available only on unattractive terms.

A downgrade in our credit ratings could materially and adversely affect our business and financial condition.

Our credit rating and the credit ratings assigned to our debt securities and our preferred shares could change based upon, among other things, our results of operations and financial condition. These ratings are subject to ongoing evaluation by credit rating agencies, and any rating could be changed or withdrawn by a rating agency in the future if, in its judgment, circumstances warrant such action. Moreover, these credit ratings are not recommendations to buy, sell or hold our common shares or any other securities. If any of the credit rating agencies that have rated our securities downgrades or lowers its credit rating, or if any credit rating agency indicates that it has placed any such rating on a “watch list” for a possible downgrading or lowering, or otherwise indicates that its outlook for that rating is negative, such action could have a material adverse effect on our costs and availability of funding, which could in turn have a material adverse effect on our financial condition, results of operations, cash flows, the trading/redemption price of our securities, and our ability to satisfy our debt service obligations and to pay dividends and distributions to our equity holders.

Vornado may fail to qualify or remain qualified as a REIT and may be required to pay federal income taxes at corporate rates.

Although we believe that Vornado will remain organized and will continue to operate so as to qualify as a REIT for federal income tax purposes, Vornado may fail to remain so qualified. Qualifications are governed by highly technical and complex provisions of the Internal Revenue Code for which there are only limited judicial or administrative interpretations and depend on various facts and circumstances that are not entirely within our control. In addition, legislation, new regulations, administrative interpretations or court decisions may significantly change the relevant tax laws and/or the federal income tax consequences of qualifying as a REIT. If, with respect to any taxable year, Vornado fails to maintain its qualification as a REIT and does not qualify under statutory relief provisions, Vornado could not deduct distributions to shareholders in computing our taxable income and would have to pay federal income tax on its taxable income at regular corporate rates. The federal income tax payable would include any applicable alternative minimum tax. If Vornado had to pay federal income tax, the amount of money available to distribute to equity holders and pay its indebtedness would be reduced for the year or years involved, and Vornado would not be required to make distributions to shareholders in that taxable year and in future years until it was able to qualify as a REIT and did so. In addition, Vornado would also be disqualified from treatment as a REIT for the four taxable years following the year during which qualification was lost, unless Vornado were entitled to relief under the relevant statutory provisions.

We may face possible adverse federal tax audits and changes in federal tax laws, which may result in an increase in our tax liability.

In the normal course of business, certain entities through which we own real estate either have undergone or may undergo tax audits. Although we believe that we have substantial arguments in favor of our positions, in some instances there is no controlling precedent or interpretive guidance. There can be no assurance that audits will not occur with increased frequency or that the ultimate result of such audits will not have a material adverse effect on our results of operations.

At any time, the U.S. federal income tax laws governing REITs or the administrative interpretations of those laws may be amended, including with respect to our hotel ownership structure. We cannot predict if or when any new U.S. federal income tax law, regulation, or administrative interpretation, or any amendment to any existing U.S. federal income tax law, Treasury regulation or administrative interpretation, will be adopted, promulgated or become effective and any such law, regulation, or interpretation may take effect retroactively. Vornado, its taxable REIT subsidiaries, and our securityholders could be adversely affected by any such change in, or any new, U.S. federal income tax law, Treasury regulation or administrative interpretation.

We may face possible adverse state and local tax audits and changes in state and local tax law.

Because Vornado is organized and qualifies as a REIT, it is generally not subject to federal income taxes, but we are subject to certain state and local taxes. In the normal course of business, certain entities through which we own real estate either have undergone, or are currently undergoing, tax audits. Although we believe that we have substantial arguments in favor of our positions in the ongoing audits, in some instances there is no controlling precedent or interpretive guidance on the specific point at issue. There can be no assurance that audits will not occur with increased frequency or that the ultimate result of such audits will not have a material adverse effect on our results of operations.

From time to time changes in state and local tax laws or regulations are enacted, which may result in an increase in our tax liability. A shortfall in tax revenues for states and municipalities in which we operate may lead to an increase in the frequency and size of such changes. If such changes occur, we may be required to pay additional taxes on our assets or income. These increased tax costs could adversely affect our financial condition and results of operations and the amount of cash available for the payment of dividends and distributions to our security holders.

Loss of our key personnel could harm our operations and adversely affect the value of our common shares and Operating Partnership Class A units.

We are dependent on the efforts of Steven Roth, the Chairman of the Board of Trustees and Chief Executive Officer of Vornado. While we believe that we could find a replacement for him and other key personnel, the loss of their services could harm our operations and adversely affect the value of our securities.

VORNADO'S CHARTER DOCUMENTS AND APPLICABLE LAW MAY HINDER ANY ATTEMPT TO ACQUIRE US.

Vornado's Amended and Restated Declaration of Trust (the "declaration of trust") sets limits on the ownership of its shares.

Generally, for Vornado to maintain its qualification as a REIT under the Internal Revenue Code, not more than 50% in value of the outstanding shares of beneficial interest of Vornado may be owned, directly or indirectly, by five or fewer individuals at any time during the last half of Vornado's taxable year. The Internal Revenue Code defines "individuals" for purposes of the requirement described in the preceding sentence to include some types of entities. Under Vornado's declaration of trust, as amended, no person may own more than 6.7% of the outstanding common shares of any class, or 9.9% of the outstanding preferred shares of any class, with some exceptions for persons who held common shares in excess of the 6.7% limit before Vornado adopted the limit and other persons approved by Vornado's Board of Trustees. In addition, our declaration of trust includes restrictions on ownership of our common shares and preferred shares to preserve our status as a "domestically controlled qualified investment entity" within the meaning of Section 897 (h)(4)(B) of the Internal Revenue Code of 1986, as amended. These restrictions on transferability and ownership may delay, deter or prevent a change in control of Vornado or other transaction that might involve a premium price or otherwise be in the best interest of equity holders.

The Maryland General Corporation Law (the "MGCL") contains provisions that may reduce the likelihood of certain takeover transactions.

The MGCL imposes conditions and restrictions on certain "business combinations" (including, among other transactions, a merger, consolidation, share exchange, or, in certain circumstances, an asset transfer or issuance of equity securities) between a Maryland REIT and certain persons who beneficially own at least 10% of the corporation's stock (an "interested shareholder"). Unless approved in advance by the board of trustees of the trust, or otherwise exempted by the statute, such a business combination is prohibited for a period of five years after the most recent date on which the interested shareholder became an interested shareholder. After such five-year period, a business combination with an interested shareholder must be: (a) recommended by the board of trustees of the trust, and (b) approved by the affirmative vote of at least (i) 80% of the trust's outstanding shares entitled to vote and (ii) two-thirds of the trust's outstanding shares entitled to vote which are not held by the interested shareholder with whom the business combination is to be effected, unless, among other things, the trust's common shareholders receive a "fair price" (as defined by the statute) for their shares and the consideration is received in cash or in the same form as previously paid by the interested shareholder for his or her shares.

In approving a transaction, Vornado's Board of Trustees may provide that its approval is subject to compliance, at or after the time of approval, with any terms and conditions determined by the Board of Trustees. Vornado's Board of Trustees has adopted a resolution exempting any business combination between Vornado and any trustee or officer of Vornado or its affiliates. As a result, any trustee or officer of Vornado or its affiliates may be able to enter into business combinations with Vornado that may not be in the best interest of our equity holders. With respect to business combinations with other persons, the business combination provisions of the MGCL may have the effect of delaying, deferring or preventing a change in control of Vornado or other transaction that might involve a premium price or otherwise be in the best interest of our equity holders. The business combination statute may discourage others from trying to acquire control of Vornado and increase the difficulty of consummating any offer.

Title 3, Subtitle 8 of the MGCL permits our Board of Trustees, without shareholder approval and regardless of what is currently provided in our declaration of trust or bylaws, to implement certain takeover defenses, including adopting a classified board or increasing the vote required to remove a trustee. Such takeover defenses may have the effect of inhibiting a third party from making an acquisition proposal for us or of delaying, deferring or preventing a change in control of us under the circumstances that otherwise could provide our common shareholders with the opportunity to realize a premium over the then current market price.

Vornado may issue additional shares in a manner that could adversely affect the likelihood of certain takeover transactions.

Vornado's declaration of trust authorizes the Board of Trustees to:

- cause Vornado to issue additional authorized but unissued common shares or preferred shares;
- classify or reclassify, in one or more series, any unissued preferred shares;
- set the preferences, rights and other terms of any classified or reclassified shares that Vornado issues; and
- increase, without shareholder approval, the number of shares of beneficial interest that Vornado may issue.

Vornado's Board of Trustees could establish a series of preferred shares whose terms could delay, deter or prevent a change in control of Vornado, and therefore of the Operating Partnership, or other transaction that might involve a premium price or otherwise be in the best interest of our equity holders, although Vornado's Board of Trustees does not now intend to establish a series of preferred shares of this kind. Vornado's declaration of trust and bylaws contain other provisions that may delay, deter or prevent a change in control of Vornado or other transaction that might involve a premium price or otherwise be in the best interest of our equity holders.

We may change our policies without obtaining the approval of our equity holders.

Our operating and financial policies, including our policies with respect to acquisitions of real estate or other companies, growth, operations, indebtedness, capitalization, dividends and distributions, are exclusively determined by Vornado's Board of Trustees. Accordingly, our equity holders do not control these policies.

OUR OWNERSHIP STRUCTURE AND RELATED-PARTY TRANSACTIONS MAY GIVE RISE TO CONFLICTS OF INTEREST.

Steven Roth and Interstate Properties may exercise substantial influence over us. They and some of Vornado's other trustees and officers have interests or positions in other entities that may compete with us.

As of December 31, 2019, Interstate Properties, a New Jersey general partnership, and its partners beneficially owned an aggregate of approximately 7.1% of the common shares of beneficial interest of Vornado and 26.1% of the common stock of Alexander's, which is described below. Steven Roth, David Mandelbaum and Russell B. Wight, Jr. are the three partners of Interstate Properties. Mr. Roth is the Chairman of the Board of Trustees and Chief Executive Officer of Vornado, the managing general partner of Interstate Properties, and the Chairman of the Board of Directors and Chief Executive Officer of Alexander's. Messrs. Wight and Mandelbaum are Trustees of Vornado and Directors of Alexander's.

Because of these overlapping interests, Mr. Roth and Interstate Properties and its partners may have substantial influence over Vornado, and therefore over the Operating Partnership. In addition, certain decisions concerning our operations or financial structure may present conflicts of interest among Messrs. Roth, Mandelbaum and Wight and Interstate Properties and our other equity holders. In addition, Mr. Roth, Interstate Properties and its partners, and Alexander's currently and may in the future engage in a wide variety of activities in the real estate business which may result in conflicts of interest with respect to matters affecting us, such as which of these entities or persons, if any, may take advantage of potential business opportunities, the business focus of these entities, the types of properties and geographic locations in which these entities make investments, potential competition between business activities conducted, or sought to be conducted, competition for properties and tenants, possible corporate transactions such as acquisitions and other strategic decisions affecting the future of these entities.

We manage and lease the real estate assets of Interstate Properties under a management agreement for which we receive an annual fee equal to 4% of annual base rent and percentage rent. See Note 23 – *Related Party Transactions* to our consolidated financial statements in this Annual Report on Form 10-K for additional information.

There may be conflicts of interest between Alexander's and us.

As of December 31, 2019, we owned 32.4% of the outstanding common stock of Alexander's. Alexander's is a REIT that has seven properties, which are located in the greater New York metropolitan area. In addition to the 2.3% that they indirectly own through Vornado, Interstate Properties, which is described above, and its partners owned 26.1% of the outstanding common stock of Alexander's as of December 31, 2019. Mr. Roth is the Chairman of the Board of Trustees and Chief Executive Officer of Vornado, the managing general partner of Interstate Properties, and the Chairman of the Board of Directors and Chief Executive Officer of Alexander's. Messrs. Wight and Mandelbaum are Trustees of Vornado and Directors of Alexander's and general partners of Interstate Properties. Dr. Richard West is a Trustee of Vornado and a Director of Alexander's. In addition, Joseph Macnow, our Executive Vice President – Chief Financial Officer and Chief Administrative Officer, is the Treasurer of Alexander's and Matthew Iocco, our Executive Vice President – Chief Accounting Officer, is the Chief Financial Officer of Alexander's.

We manage, develop and lease Alexander's properties under management, development and leasing agreements under which we receive annual fees from Alexander's. These agreements are described in Note 6 - *Investments in Partially Owned Entities* to our consolidated financial statements in this Annual Report on Form 10-K.

THE NUMBER OF SHARES OF VORNADO REALTY TRUST AND THE MARKET FOR THOSE SHARES GIVE RISE TO VARIOUS RISKS.

The trading price of Vornado's common shares has been volatile and may continue to fluctuate.

The trading price of Vornado's common shares has been volatile and may continue to fluctuate widely as a result of several factors, many of which are outside our control. In addition, the stock market is subject to fluctuations in the share prices and trading volumes that affect the market prices of the shares of many companies. These broad market fluctuations have in the past and may in the future adversely affect the market price of Vornado's common shares and the redemption price of the Operating Partnership's Class A units. Among those factors are:

- our financial condition and performance;
- the financial condition of our tenants, including the extent of tenant bankruptcies or defaults;
- actual or anticipated quarterly fluctuations in our operating results and financial condition;
- our dividend policy;
- the reputation of REITs and real estate investments generally and the attractiveness of REIT equity securities in comparison to other equity securities, including securities issued by other real estate companies, and fixed income securities;
- uncertainty and volatility in the equity and credit markets;
- fluctuations in interest rates;
- changes in revenue or earnings estimates or publication of research reports and recommendations by financial analysts or actions taken by rating agencies with respect to our securities or those of other REITs;
- failure to meet analysts' revenue or earnings estimates;
- speculation in the press or investment community;
- strategic actions by us or our competitors, such as acquisitions or restructurings;
- the extent of institutional investor interest in us;
- the extent of short-selling of Vornado common shares and the shares of our competitors;
- fluctuations in the stock price and operating results of our competitors;
- general financial and economic market conditions and, in particular, developments related to market conditions for REITs and other real estate related companies;
- domestic and international economic factors unrelated to our performance;
- changes in tax laws and rules; and
- all other risk factors addressed elsewhere in this Annual Report on Form 10-K.

A significant decline in Vornado's stock price could result in substantial losses for our equity holders.

Vornado has many shares available for future sale, which could hurt the market price of its shares and the redemption price of the Operating Partnership's units.

The interests of equity holders could be diluted if we issue additional equity securities. As of December 31, 2019, Vornado had authorized but unissued, 59,014,323 common shares of beneficial interest, $.04 par value and 70,384,360 preferred shares of beneficial interest, no par value; of which 21,960,441 common shares are reserved for issuance upon redemption of Class A Operating Partnership units, convertible securities and employee stock options and 11,200,000 preferred shares are reserved for issuance upon redemption of preferred Operating Partnership units. Any shares not reserved may be issued from time to time in public or private offerings or in connection with acquisitions. In addition, common and preferred shares reserved may be sold upon issuance in the public market after registration under the Securities Act or under Rule 144 under the Securities Act or other available exemptions from registration. We cannot predict the effect that future sales of Vornado's common and preferred shares or Operating Partnership Class A and preferred units will have on the market prices of our securities.

In addition, under Maryland law, Vornado's Board of Trustees has the authority to increase the number of authorized shares without shareholder approval.

ITEM 1B. UNRESOLVED STAFF COMMENTS

There are no unresolved comments from the staff of the Securities and Exchange Commission as of the date of this Annual Report on Form 10-K.

ITEM 2. PROPERTIES

We operate in two reportable segments: New York and Other. The following pages provide details of our real estate properties as of December 31, 2019.

				Square Feet		
NEW YORK SEGMENT **Property**	**% Ownership**	**Type**	**% Occupancy**	**In Service**	**Under Development or Not Available for Lease**	**Total Property**
PENN1 (ground leased through 2098)(1)	100.0%	Office / Retail	90.4%	2,206,000	339,000	2,545,000
1290 Avenue of the Americas	70.0%	Office / Retail	98.5%	2,117,000	—	2,117,000
PENN2	100.0%	Office / Retail	100.0%	1,232,000	383,000	1,615,000
909 Third Avenue (ground leased through 2063)(1)	100.0%	Office	98.6%	1,352,000	—	1,352,000
Independence Plaza, Tribeca (1,327 units)(2)	50.1%	Retail / Residential	100.0% (3)	1,241,000	16,000	1,257,000
280 Park Avenue(2)	50.0%	Office / Retail	97.4%	1,262,000	—	1,262,000
770 Broadway	100.0%	Office / Retail	99.3%	1,182,000	—	1,182,000
PENN11	100.0%	Office / Retail	99.8%	1,153,000	—	1,153,000
90 Park Avenue	100.0%	Office / Retail	98.8%	956,000	—	956,000
One Park Avenue(2)	55.0%	Office / Retail	100.0%	943,000	—	943,000
888 Seventh Avenue (ground leased through 2067)(1)	100.0%	Office / Retail	92.7%	885,000	—	885,000
100 West 33rd Street	100.0%	Office	100.0%	859,000	—	859,000
Farley Office and Retail Building (ground and building leased through 2116)(1)	95.0%	Office / Retail	**(4)**	—	844,000	844,000
330 West 34th Street (65.2% ground leased through 2149)(1)	100.0%	Office / Retail	98.6%	724,000	—	724,000
85 Tenth Avenue(2)	49.9%	Office / Retail	100.0%	627,000	—	627,000
650 Madison Avenue(2)	20.1%	Office / Retail	98.0%	601,000	—	601,000
350 Park Avenue	100.0%	Office / Retail	97.8%	571,000	—	571,000
150 East 58th Street(5)	100.0%	Office / Retail	98.5%	543,000	—	543,000
7 West 34th Street(2)	53.0%	Office / Retail	100.0%	477,000	—	477,000
33-00 Northern Boulevard (Center Building)	100.0%	Office	95.5%	471,000	—	471,000
595 Madison Avenue	100.0%	Office / Retail	89.8%	329,000	—	329,000
640 Fifth Avenue(2)	52.0%	Office / Retail	96.2%	315,000	—	315,000
50-70 W 93rd Street (325 units)(2)	49.9%	Residential	96.6%	283,000	—	283,000
Manhattan Mall	100.0%	Retail	99.0%	256,000	—	256,000
40 Fulton Street	100.0%	Office / Retail	79.9%	251,000	—	251,000
4 Union Square South	100.0%	Retail	91.3%	206,000	—	206,000
260 Eleventh Avenue (ground leased through 2114)(1)	100.0%	Office	100.0%	184,000	—	184,000
512 W 22nd Street(2)	55.0%	Office	100.0%	20,000	153,000	173,000
825 Seventh Avenue	51.2%	Office (2) / Retail	**(4)**	—	169,000	169,000
61 Ninth Avenue (ground leased through 2115)(1)(2)	45.1%	Office / Retail	100.0%	166,000	—	166,000
1540 Broadway(2)	52.0%	Retail	100.0%	161,000	—	161,000
608 Fifth Avenue (ground leased through 2033)(1)(6)	100.0%	Office / Retail	92.4%	93,000	44,000	137,000
Paramus	100.0%	Office	87.2%	129,000	—	129,000
666 Fifth Avenue (2)(7)	52.0%	Retail	100.0%	114,000	—	114,000
1535 Broadway(2)	52.0%	Retail / Theatre	98.2%	107,000	—	107,000
57th Street (2 buildings)(2)	50.0%	Office / Retail	70.0%	103,000	—	103,000
689 Fifth Avenue(2)	52.0%	Office / Retail	85.3%	98,000	—	98,000
478-486 Broadway (2 buildings) (10 units)	100.0%	Retail / Residential	100.0% (3)	35,000	50,000	85,000
150 West 34th Street	100.0%	Retail	100.0%	78,000	—	78,000
510 Fifth Avenue	100.0%	Retail	100.0%	66,000	—	66,000
655 Fifth Avenue(2)	50.0%	Retail	100.0%	57,000	—	57,000
155 Spring Street	100.0%	Retail	97.3%	50,000	—	50,000
435 Seventh Avenue	100.0%	Retail	100.0%	43,000	—	43,000

See notes on page 24.

NEW YORK SEGMENT – CONTINUED Property	% Ownership	Type	% Occupancy	Square Feet In Service	Under Development or Not Available for Lease	Total Property
692 Broadway	100.0%	Retail	100.0%	36,000	—	36,000
606 Broadway	50.0%	Office / Retail	100.0%	36,000	—	36,000
697-703 Fifth Avenue[(2)]	44.8%	Retail	100.0%	26,000	—	26,000
715 Lexington Avenue	100.0%	Retail	100.0%	16,000	6,000	22,000
1131 Third Avenue	100.0%	Retail	100.0%	23,000	—	23,000
759-771 Madison Avenue (40 East 66th Street (5 units))	100.0%	Retail / Residential	66.7% [(3)]	26,000	—	26,000
131-135 West 33rd Street	100.0%	Retail	100.0%	23,000	—	23,000
828-850 Madison Avenue	100.0%	Retail	42.4%	14,000	4,000	18,000
443 Broadway	100.0%	Retail	100.0%	16,000	—	16,000
334 Canal Street (4 units)	100.0%	Retail / Residential	—% [(3)]	15,000	—	15,000
537 West 26th Street	100.0%	Retail	—%	14,000	—	14,000
304 Canal Street (4 units)	100.0%	Retail / Residential	—% [(3)]	13,000	—	13,000
677-679 Madison Avenue (8 units)	100.0%	Retail / Residential	100.0% [(3)]	13,000	—	13,000
431 Seventh Avenue	100.0%	Retail	100.0%	10,000	—	10,000
138-142 West 32nd Street	100.0%	Retail	100.0%	8,000	—	8,000
148 Spring Street	100.0%	Retail	100.0%	8,000	—	8,000
339 Greenwich Street	100.0%	Retail	100.0%	8,000	—	8,000
150 Spring Street (1 unit)	100.0%	Retail / Residential	100.0% [(3)]	7,000	—	7,000
966 Third Avenue	100.0%	Retail	100.0%	7,000	—	7,000
968 Third Avenue[(2)]	50.0%	Retail	100.0%	7,000	—	7,000
488 Eighth Avenue	100.0%	Retail	100.0%	6,000	—	6,000
137 West 33rd Street	100.0%	Retail	100.0%	3,000	—	3,000
57th Street (3 properties)[(2)]	50.0%	Land	**(4)**	—	—	—
Eighth Avenue and 34th Street (4 properties)	100.0%	Land	**(4)**	—	—	—
Other (3 buildings)	100.0%	Retail	70.0%	15,000	—	15,000
Hotel Pennsylvania	100.0%	Hotel	n/a	1,400,000	—	1,400,000
Alexander's, Inc.:						
731 Lexington Avenue[(2)]	32.4%	Office / Retail	99.0%	1,051,000	24,000	1,075,000
Rego Park II, Queens (6.6 acres)[(2)]	32.4%	Retail	91.5%	609,000	—	609,000
Rego Park I, Queens (4.8 acres)[(2)]	32.4%	Retail	100.0%	148,000	195,000	343,000
The Alexander Apartment Tower, Queens (312 units)[(2)]	32.4%	Residential	93.6%	255,000	—	255,000
Flushing, Queens (1.0 acre ground leased through 2037)[(1)(2)]	32.4%	Retail	100.0%	167,000	—	167,000
Paramus, New Jersey (30.3 acres ground leased to IKEA through 2041)[(1)(2)]	32.4%	Retail	100.0%	—	—	—
Rego Park III (3.4 acres)[(2)]	32.4%	—	**(4)**	—	—	—
Total New York Segment			**96.8%**	**26,526,000**	**2,227,000**	**28,753,000**
Our Ownership Interest			**96.7%**	**20,953,000**	**1,876,000**	**22,829,000**

See notes on page 24.

OTHER SEGMENT Property	% Ownership	Type	% Occupancy	Square Feet In Service	Square Feet Under Development or Not Available for Lease	Square Feet Total Property
theMART:						
theMART, Chicago	100.0%	Office / Retail / Showroom	94.6%	3,674,000	—	3,674,000
Piers 92 and 94 (New York) (ground and building leased through 2110)(1)	100.0%	—	—%	133,000	75,000	208,000
Other (2 properties)(2)	50.0%	Retail	100.0%	19,000	—	19,000
Total theMART			**94.6%**	**3,826,000**	**75,000**	**3,901,000**
Our Ownership Interest			**94.6%**	**3,817,000**	**75,000**	**3,892,000**
555 California Street:						
555 California Street	70.0%	Office / Retail	99.7%	1,506,000	—	1,506,000
315 Montgomery Street	70.0%	Office / Retail	100.0%	235,000	—	235,000
345 Montgomery Street	70.0%	Office / Retail	**(4)**	—	78,000	78,000
Total 555 California Street			**99.8%**	**1,741,000**	**78,000**	**1,819,000**
Our Ownership Interest			**99.8%**	**1,218,000**	**55,000**	**1,273,000**
Vornado Capital Partners Real Estate Fund ("Fund")(8) :						
Crowne Plaza Times Square, NY (0.64 acres owned in fee; 0.18 acres ground leased through 2187 and 0.05 acres ground leased through 2035) (1)(9)	75.3%	Office / Retail / Hotel	99.9%	246,000	—	246,000
Lucida, 86th Street and Lexington Avenue, NY (ground leased through 2082)(1) (39 units)	100.0%	Retail / Residential	98.1% (3)	155,000	—	155,000
1100 Lincoln Road, Miami, FL	100.0%	Retail / Theatre	86.5%	130,000	—	130,000
501 Broadway, NY	100.0%	Retail	100.0%	9,000	—	9,000
Total Real Estate Fund			**95.7%**	**540,000**	**—**	**540,000**
Our Ownership Interest			**96.8%**	**155,000**	**—**	**155,000**
Other:						
Rosslyn Plaza (197 units)(2)	46.2%	Office / Residential	67.6% (3)	685,000	304,000	989,000
Fashion Centre Mall(2)	7.5%	Retail	96.9%	868,000	—	868,000
Washington Tower(2)	7.5%	Office	75.0%	170,000	—	170,000
Wayne Towne Center, Wayne (ground leased through 2064)(1)	100.0%	Retail	100.0%	682,000	—	682,000
Annapolis (ground leased through 2042)(1)	100.0%	Retail	100.0%	128,000	—	128,000
Total Other			**89.9%**	**2,533,000**	**304,000**	**2,837,000**
Our Ownership Interest			**92.7%**	**1,198,000**	**140,000**	**1,338,000**

(1) Term assumes all renewal options exercised, if applicable.
(2) Denotes property not consolidated in the accompanying consolidated financial statements and related financial data included in the Annual Report on Form 10-K.
(3) Excludes residential occupancy statistics.
(4) Properties under development or to be developed.
(5) Includes 962 Third Avenue (the Annex building to 150 East 58th Street) 50.0% ground leased through 2118(1).
(6) In August 2019, we delivered notice to the ground lessor that we will surrender the property in May 2020.
(7) 75,000 square feet is leased from 666 Fifth Avenue Office Condominium.
(8) We own a 25% interest in the Fund. The ownership percentage in this section represents the Fund's ownership in the underlying assets.
(9) We own a 32.9% economic interest through the Fund and the Crowne Plaza Joint Venture.

NEW YORK

As of December 31, 2019, our New York segment consisted of 26.5 million square feet in 85 properties. The 26.5 million square feet is comprised of 19.1 million square feet of Manhattan office in 35 properties, 2.3 million square feet of Manhattan street retail in 70 properties, 1,991 units in 10 residential properties, the 1.4 million square foot Hotel Pennsylvania, and our 32.4% interest in Alexander's, which owns seven properties in the greater New York metropolitan area. The New York segment also includes 10 garages totaling 1.7 million square feet (4,875 spaces) which are managed by, or leased to, third parties.

New York lease terms generally range from five to seven years for smaller tenants to as long as 20 years for major tenants, and may provide for extension options at market rates. Leases typically provide for periodic step-ups in rent over the term of the lease and pass through to tenants their share of increases in real estate taxes and operating expenses over a base year. Electricity is provided to tenants on a sub-metered basis or included in rent based on surveys and adjusted for subsequent utility rate increases. Leases also typically provide for free rent and tenant improvement allowances for all or a portion of the tenant's initial construction costs of its premises.

As of December 31, 2019, the occupancy rate for our New York segment was 96.7%.

Occupancy and weighted average annual rent per square foot (in service):

Office:

		Vornado's Ownership Interest		
As of December 31,	**Total Property Square Feet**	**Square Feet**	**Occupancy Rate**	**Weighted Average Annual Escalated Rent Per Square Foot**
2019 (1)	19,070,000	16,195,000	96.9%	$ 76.26
2018	19,858,000	16,632,000	97.2%	74.04
2017	20,256,000	16,982,000	97.1%	71.09
2016	20,227,000	16,962,000	96.3%	68.90
2015	19,918,000	16,734,000	97.1%	66.42

Retail:

		Vornado's Ownership Interest		
As of December 31,	**Total Property Square Feet**	**Square Feet**	**Occupancy Rate**	**Weighted Average Annual Escalated Rent Per Square Foot**
2019 (1)	2,300,000	1,842,000	94.5%	$ 209.86
2018	2,648,000	2,419,000	97.3%	228.43
2017	2,720,000	2,471,000	96.9%	217.17
2016	2,672,000	2,464,000	97.1%	213.85
2015	2,596,000	2,396,000	96.1%	202.72

Occupancy and average monthly rent per unit (in service):

Residential:

		Vornado's Ownership Interest		
As of December 31,	**Number of Units**	**Number of Units**	**Occupancy Rate**	**Average Monthly Rent Per Unit**
2019	1,991	955	97.0%	$ 3,889
2018	1,999	963	96.6%	3,803
2017	2,009	981	96.7%	3,722
2016 (2)	2,004	977	95.7%	3,576
2015	1,711	886	95.0%	3,495

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.
(2) Includes The Alexander Apartment Tower (32.4% ownership) from the date of stabilization in the third quarter of 2016.

NEW YORK – CONTINUED

Tenants accounting for 2% or more of revenues:

Tenant	Square Feet Leased		2019 Revenues	Percentage of New York Total Revenues	Percentage of Total Revenues
IPG and affiliates	924,000	$	62,252,000	3.9%	3.2%
Facebook	758,000		49,180,000	3.1%	2.6%
Macy's	625,000		42,106,000	2.7%	2.2%
AXA Equitable Life Insurance	481,000		42,492,000	2.7%	2.2%
Neuberger Berman Group LLC	412,000		34,388,000	2.2%	1.8%
Ziff Brothers Investments, Inc.	287,000		32,268,000	2.0%	1.7%

2019 rental revenue by tenants' industry:

Industry	Percentage
Office:	
Financial Services	15%
Communications	8%
Advertising/Marketing	7%
Technology	6%
Family Apparel	5%
Legal Services	4%
Insurance	4%
Real Estate	4%
Publishing	3%
Government	3%
Engineering, Architect,& Surveying	3%
Banking	2%
Entertainment and Electronics	2%
Health Services	1%
Pharmaceutical	1%
Other	8%
	76%
Retail:	
Family Apparel	7%
Luxury Retail	4%
Women's Apparel	4%
Restaurants	2%
Banking	2%
Department Stores	1%
Discount Stores	1%
Other	3%
	24%
Total	100%

Lease expirations as of December 31, 2019, assuming none of the tenants exercise renewal options:

Year	Number of Expiring Leases	Square Feet of Expiring Leases[(1)]	Percentage of New York Square Feet	Weighted Average Annual Rent of Expiring Leases Total	Per Square Foot
Office:					
Month to month	10	39,000	0.3%	$ 2,593,000	$ 66.49
2020	89	1,090,000	7.1%	76,599,000	70.27 [(2)]
2021	130	1,106,000	7.2%	86,140,000	77.88
2022	83	668,000	4.3%	43,998,000	65.87
2023	92	1,986,000	12.9%	166,729,000	83.95
2024	110	1,484,000	9.6%	123,761,000	83.40
2025	62	797,000 [(3)]	5.2%	62,199,000	78.04
2026	82	1,205,000	7.8%	92,434,000	76.71
2027	74	1,094,000	7.1%	79,658,000	72.81
2028	47	890,000	5.8%	62,039,000	69.71
2029	36	679,000	4.4%	55,356,000	81.53
Retail:					
Month to month	16	29,000	2.1%	$ 6,911,000	$ 238.31
2020	29	104,000	7.4%	22,696,000	218.24 [(4)]
2021	14	82,000	5.9%	9,342,000	113.93
2022	8	25,000	1.8%	6,713,000	268.52
2023	20	159,000	11.4%	35,669,000	224.33
2024	19	187,000	13.4%	44,697,000	239.02
2025	10	37,000	2.6%	12,473,000	337.11
2026	14	71,000	5.1%	26,134,000	368.08
2027	10	29,000	2.1%	20,408,000	703.72
2028	13	25,000	1.8%	12,750,000	510.00
2029	14	201,000	14.4%	39,579,000	196.91

(1) Excludes storage, vacancy and other.
(2) Based on current market conditions, we expect to re-lease this space at rents between $80 to $90 per square foot.
(3) Excludes 492,000 square feet leased at 909 Third Avenue to the U.S. Post Office through 2038 (including three 5-year renewal options) for which the annual escalated rent is $13.51 per square foot.
(4) Based on current market conditions, we expect to re-lease this space at rents between $200 to $225 per square foot.

Alexander's

As of December 31, 2019, we own 32.4% of the outstanding common stock of Alexander's, which owns seven properties in the greater New York metropolitan area aggregating 2.4 million square feet, including 731 Lexington Avenue, the 1.3 million square foot Bloomberg L.P. headquarters building. Alexander's had $974,836,000 of outstanding debt as of December 31, 2019, of which our pro rata share was $315,847,000, none of which is recourse to us.

Hotel Pennsylvania

We own the Hotel Pennsylvania which is located in New York City on Seventh Avenue at 33rd Street in the heart of the Penn District and consists of a hotel portion containing 1,000,000 square feet of hotel space with 1,700 rooms and a commercial portion containing 400,000 square feet of retail and office space.

	For the Year Ended December 31, 2019	2018	2017	2016	2015
Hotel Pennsylvania:					
Average occupancy rate	82.1%	86.4%	87.3%	84.7%	90.7%
Average daily rate	$ 137.67	$ 138.35	$ 139.09	$ 134.38	$ 147.46
Revenue per available room	113.08	119.47	121.46	113.84	133.69

OTHER REAL ESTATE AND INVESTMENTS

theMART

As of December 31, 2019, we own the 3.7 million square foot theMART in Chicago, whose largest tenant is Motorola Mobility at 609,000 square feet, the lease of which is guaranteed by Google. theMART is encumbered by a $675,000,000 mortgage loan that bears interest at a fixed rate of 2.70% and matures in September 2021. As of December 31, 2019, theMART had an occupancy rate of 94.6% and a weighted average annual rent per square foot of $48.54.

555 California Street

As of December 31, 2019, we own a 70% controlling interest in a three-building office complex containing 1.8 million square feet, located at California and Montgomery Streets in San Francisco’s financial district (“555 California Street”). 555 California Street is encumbered by a $548,075,000 mortgage loan that bears interest at a fixed rate of 5.10% and matures in September 2021. As of December 31, 2019, 555 California Street had an occupancy rate of 99.8% and a weighted average annual rent per square foot of $81.92.

Vornado Capital Partners Real Estate Fund (the “Fund”) and Crowne Plaza Times Square Hotel Joint Venture (the “Crowne Plaza Joint Venture”)

As of December 31, 2019, we own a 25.0% interest in the Fund, which is in wind down and currently has four investments, one of which is the Crowne Plaza Times Square Hotel in which we also own an additional interest through the Crowne Plaza Joint Venture. We are the general partner and investment manager of the Fund. As of December 31, 2019, these four investments are carried on our consolidated balance sheet at an aggregate fair value of $222,649,000, including the Crowne Plaza Joint Venture. As of December 31, 2019, our share of unfunded commitments was $11,242,000.

ITEM 3. LEGAL PROCEEDINGS

We are from time to time involved in legal actions arising in the ordinary course of business. In our opinion, after consultation with legal counsel, the outcome of such matters is not expected to have a material adverse effect on our financial position, results of operations or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Vornado Realty Trust

Vornado's common shares are traded on the New York Stock Exchange under the symbol "VNO."

As of February 1, 2020, there were 875 holders of record of Vornado common shares.

Vornado Realty L.P.

There is no established trading market for the Operating Partnership's Class A units. Class A units that are not held by Vornado may be tendered for redemption to the Operating Partnership for cash; Vornado, at its option, may assume that obligation and pay the holder either cash or Vornado common shares on a one-for-one basis. Because the number of Vornado common shares outstanding at all times equals the number of Class A units owned by Vornado, the redemption value of each Class A unit is equivalent to the market value of one Vornado common share, and the quarterly distribution to a Class A unit holder is equal to the quarterly dividend paid to a Vornado common shareholder.

As of February 1, 2020, there were 945 Class A unitholders of record.

Recent Sales of Unregistered Securities

During 2019, the Operating Partnership issued 1,493,309 Class A units in connection with equity awards issued pursuant to Vornado's omnibus share plan, including with respect to grants of restricted Vornado common shares and restricted units of the Operating Partnership and upon conversion, surrender or exchange of the Operating Partnership's units or Vornado stock options, and consideration received included $17,062,788 in cash proceeds. Such units were issued in reliance on an exemption from registration under Section 4(2) of the Securities Act of 1933, as amended.

From time to time, in connection with equity awards granted under our Omnibus Share Plan, we may withhold common shares for tax purposes or acquire common shares as part of the payment of the exercise price. Although we treat these as repurchases for certain financial statement purposes, these withheld or acquired shares are not considered by us as repurchases for this purpose.

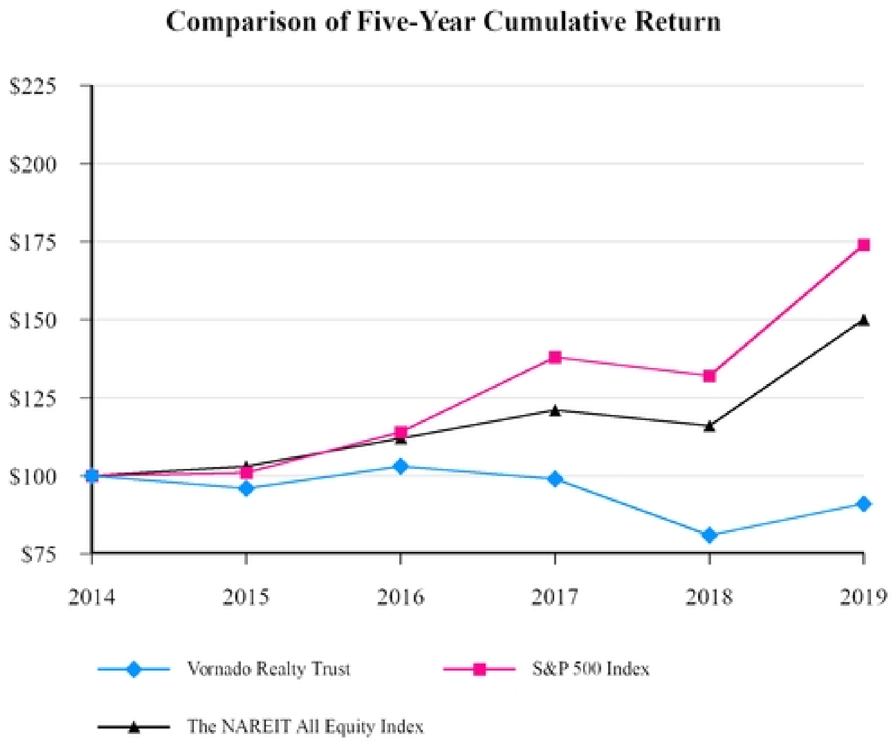
Information relating to compensation plans under which Vornado's equity securities are authorized for issuance is set forth under Part III, Item 12 of this Annual Report on Form 10-K and such information is incorporated by reference herein.

Recent Purchases of Equity Securities

None.

Performance Graph

The following graph is a comparison of the five-year cumulative return of Vornado's common shares, the Standard & Poor's 500 Index (the "S&P 500 Index") and the National Association of Real Estate Investment Trusts' ("NAREIT") All Equity Index, a peer group index. The graph assumes that $100 was invested on December 31, 2014 in our common shares, the S&P 500 Index and the NAREIT All Equity Index and that all dividends were reinvested without the payment of any commissions. There can be no assurance that the performance of our shares will continue in line with the same or similar trends depicted in the graph below.



	2014	2015	2016	2017	2018	2019
Vornado Realty Trust	$ 100	$ 96	$ 103	$ 99	$ 81	$ 91
S&P 500 Index	100	101	114	138	132	174
The NAREIT All Equity Index	100	103	112	121	116	150

ITEM 6. SELECTED FINANCIAL DATA

Vornado Realty Trust

(Amounts in thousands, except per share amounts)	For the Year Ended December 31,				
	2019[1]	2018	2017	2016	2015
Operating Data:					
REVENUES:					
Rental revenues	$ 1,767,222	$ 2,007,333	$ 1,948,376	$ 1,883,656	$ 1,845,605
Fee and other income	157,478	156,387	135,750	120,086	139,890
Total revenues	1,924,700	2,163,720	2,084,126	2,003,742	1,985,495
EXPENSES:					
Operating	(917,981)	(963,478)	(886,596)	(844,566)	(824,511)
Depreciation and amortization	(419,107)	(446,570)	(429,389)	(421,023)	(379,803)
General and administrative	(169,920)	(141,871)	(150,782)	(143,643)	(148,982)
(Expense) benefit from deferred compensation plan liability	(11,609)	2,480	(6,932)	(5,213)	(111)
Transaction related costs, impairment losses and other	(106,538)	(31,320)	(1,776)	(9,451)	(12,511)
Total expenses	(1,625,155)	(1,580,759)	(1,475,475)	(1,423,896)	(1,365,918)
Income (loss) from partially owned entities	78,865	9,149	15,200	168,948	(9,947)
(Loss) income from real estate fund investments	(104,082)	(89,231)	3,240	(23,602)	74,081
Interest and other investment income, net	21,819	17,057	30,861	24,335	27,129
Income (loss) from deferred compensation plan assets	11,609	(2,480)	6,932	5,213	111
Interest and debt expense	(286,623)	(347,949)	(345,654)	(330,240)	(309,298)
Net gain on transfer to Fifth Avenue and Times Square JV	2,571,099	—	—	—	—
Purchase price fair value adjustment	—	44,060	—	—	—
Net gains on disposition of wholly owned and partially owned assets	845,499	246,031	501	160,433	149,417
Income before income taxes	3,437,731	459,598	319,731	584,933	551,070
Income tax (expense) benefit	(103,439)	(37,633)	(42,375)	(7,923)	84,849
Income from continuing operations	3,334,292	421,965	277,356	577,010	635,919
(Loss) income from discontinued operations	(30)	638	(13,228)	404,912	223,511
Net income	3,334,262	422,603	264,128	981,922	859,430
Less net loss (income) attributable to noncontrolling interests in:					
Consolidated subsidiaries	24,547	53,023	(25,802)	(21,351)	(55,765)
Operating Partnership	(210,872)	(25,672)	(10,910)	(53,654)	(43,231)
Net income attributable to Vornado	3,147,937	449,954	227,416	906,917	760,434
Preferred share dividends	(50,131)	(50,636)	(65,399)	(75,903)	(80,578)
Preferred share issuance costs	—	(14,486)	—	(7,408)	—
NET INCOME attributable to common shareholders	$ 3,097,806	$ 384,832	$ 162,017	$ 823,606	$ 679,856
Per Share Data:					
Income from continuing operations, net - basic	$ 16.23	$ 2.02	$ 0.92	$ 2.35	$ 2.49
Income from continuing operations, net - diluted	16.21	2.01	0.91	2.34	2.48
Net income per common share - basic	16.23	2.02	0.85	4.36	3.61
Net income per common share - diluted	16.21	2.01	0.85	4.34	3.59
Aggregate quarterly dividends	2.64	2.52	2.62 [2]	2.52	2.52 [3]
Special dividend declared on December 18, 2019	1.95	—	—	—	—
Balance Sheet Data:					
Total assets	$ 18,287,013	$ 17,180,794	$ 17,397,934	$ 20,814,847	$ 21,143,293
Real estate, at cost	13,074,012	16,237,883	14,756,295	14,187,820	13,545,295
Accumulated depreciation and amortization	(3,015,958)	(3,180,175)	(2,885,283)	(2,581,514)	(2,356,728)
Debt, net	7,406,609	9,836,621	9,729,487	9,446,670	9,095,670
Total equity	7,310,978	5,107,883	5,007,701	7,618,496	7,476,078

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.
(2) Post spin-off of JBG SMITH Properties (NYSE: JBGS) on July 17, 2017.
(3) Post spin-off of Urban Edge Properties (NYSE: UE) on January 15, 2015.

ITEM 6. SELECTED FINANCIAL DATA – CONTINUED

Vornado Realty Trust

(Amounts in thousands)	For the Year Ended December 31,				
	2019[1]	2018	2017	2016	2015
Other Data:					
Funds From Operations ("FFO")[2]:					
Net income attributable to common shareholders	$ 3,097,806	$ 384,832	$ 162,017	$ 823,606	$ 679,856
FFO adjustments:					
Depreciation and amortization of real property	389,024	413,091	467,966	531,620	514,085
Net gains on sale of real estate	(178,711)	(158,138)	(3,797)	(177,023)	(289,117)
Real estate impairment losses	32,001	12,000	—	160,700	256
Net gain on transfer to Fifth Avenue and Times Square JV on April 18, 2019, net of $11,945 attributable to noncontrolling interests	(2,559,154)	—	—	—	—
Net gain from sale of Urban Edge ("UE") common shares (sold on March 4, 2019)	(62,395)	—	—	—	—
Decrease (increase) in fair value of marketable securities:					
Pennsylvania Real Estate Investment Trust ("PREIT")	21,649	—	—	—	—
Lexington Realty Trust ("Lexington") (sold on March 1, 2019)	(16,068)	26,596	—	—	—
Other	(48)	(143)	—	—	—
After-tax purchase price fair value adjustment on depreciable real estate	—	(27,289)	—	—	—
Proportionate share of adjustments to equity in net income (loss) of partially owned entities to arrive at FFO:					
Depreciation and amortization of real property	134,706	101,591	137,000	154,795	143,960
Net gains on sale of real estate	—	(3,998)	(17,777)	(2,853)	(4,513)
Real estate impairment losses	—	—	7,692	6,328	16,758
Decrease in fair value of marketable securities	2,852	3,882	—	—	—
	(2,236,144)	367,592	591,084	673,567	381,429
Noncontrolling interests' share of above adjustments	141,679	(22,746)	(36,420)	(41,267)	(22,342)
FFO adjustments, net	(2,094,465)	344,846	554,664	632,300	359,087
FFO attributable to common shareholders	1,003,341	729,678	716,681	1,455,906	1,038,943
Convertible preferred share dividends	57	62	77	86	92
Earnings allocated to Out-Performance Plan units	—	—	1,047	1,591	—
FFO attributable to common shareholders plus assumed conversions[1]	$ 1,003,398	$ 729,740	$ 717,805	$ 1,457,583	$ 1,039,035

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.

(2) FFO is computed in accordance with the definition adopted by the Board of Governors of the National Association of Real Estate Investment Trusts ("NAREIT"). NAREIT defines FFO as GAAP net income or loss adjusted to exclude net gains from sales of depreciable real estate assets, real estate impairment losses, depreciation and amortization expense from real estate assets and other specified items, including the pro rata share of such adjustments of unconsolidated subsidiaries. FFO and FFO per diluted share are non-GAAP financial measures used by management, investors and analysts to facilitate meaningful comparisons of operating performance between periods and among our peers because it excludes the effect of real estate depreciation and amortization and net gains on sales, which are based on historical costs and implicitly assume that the value of real estate diminishes predictably over time, rather than fluctuating based on existing market conditions. FFO does not represent cash generated from operating activities and is not necessarily indicative of cash available to fund cash requirements and should not be considered as an alternative to net income as a performance measure or cash flow as a liquidity measure. FFO may not be comparable to similarly titled measures employed by other companies.

Vornado Realty L.P.

(Amounts in thousands, except per unit amounts)	For the Year Ended December 31,				
	2019[1]	2018	2017	2016	2015
Operating Data:					
REVENUES:					
Rental revenues	$ 1,767,222	$ 2,007,333	$ 1,948,376	$ 1,883,656	$ 1,845,605
Fee and other income	157,478	156,387	135,750	120,086	139,890
Total revenues	1,924,700	2,163,720	2,084,126	2,003,742	1,985,495
EXPENSES:					
Operating	(917,981)	(963,478)	(886,596)	(844,566)	(824,511)
Depreciation and amortization	(419,107)	(446,570)	(429,389)	(421,023)	(379,803)
General and administrative	(169,920)	(141,871)	(150,782)	(143,643)	(148,982)
(Expense) benefit from deferred compensation plan liability	(11,609)	2,480	(6,932)	(5,213)	(111)
Transaction related costs, impairment losses and other	(106,538)	(31,320)	(1,776)	(9,451)	(12,511)
Total expenses	(1,625,155)	(1,580,759)	(1,475,475)	(1,423,896)	(1,365,918)
Income (loss) from partially owned entities	78,865	9,149	15,200	168,948	(9,947)
(Loss) income from real estate fund investments	(104,082)	(89,231)	3,240	(23,602)	74,081
Interest and other investment income, net	21,819	17,057	30,861	24,335	27,129
Income (loss) from deferred compensation plan assets	11,609	(2,480)	6,932	5,213	111
Interest and debt expense	(286,623)	(347,949)	(345,654)	(330,240)	(309,298)
Net gain on transfer to Fifth Avenue and Times Square JV	2,571,099	—	—	—	—
Purchase price fair value adjustment	—	44,060	—	—	—
Net gains on disposition of wholly owned and partially owned assets	845,499	246,031	501	160,433	149,417
Income before income taxes	3,437,731	459,598	319,731	584,933	551,070
Income tax (expense) benefit	(103,439)	(37,633)	(42,375)	(7,923)	84,849
Income from continuing operations	3,334,292	421,965	277,356	577,010	635,919
(Loss) income from discontinued operations	(30)	638	(13,228)	404,912	223,511
Net income	3,334,262	422,603	264,128	981,922	859,430
Less net loss (income) attributable to noncontrolling interests in consolidated subsidiaries	24,547	53,023	(25,802)	(21,351)	(55,765)
Net income attributable to Vornado Realty L.P.	3,358,809	475,626	238,326	960,571	803,665
Preferred unit distributions	(50,296)	(50,830)	(65,593)	(76,097)	(80,736)
Preferred unit issuance costs	—	(14,486)	—	(7,408)	—
NET INCOME attributable to Class A unitholders	$ 3,308,513	$ 410,310	$ 172,733	$ 877,066	$ 722,929
Per Unit Data:					
Income from continuing operations, net - basic	$ 16.22	$ 2.01	$ 0.91	$ 2.34	$ 2.49
Income from continuing operations, net - diluted	16.19	2.00	0.90	2.32	2.46
Net income per Class A unit - basic	16.22	2.02	0.84	4.36	3.61
Net income per Class A unit - diluted	16.19	2.00	0.83	4.32	3.57
Aggregate quarterly distributions	2.64	2.52	2.62 [2]	2.52	2.52 [3]
Special distribution declared on December 18, 2019	1.95	—	—	—	—
Balance Sheet Data:					
Total assets	$ 18,287,013	$ 17,180,794	$ 17,397,934	$ 20,814,847	$ 21,143,293
Real estate, at cost	13,074,012	16,237,883	14,756,295	14,187,820	13,545,295
Accumulated depreciation and amortization	(3,015,958)	(3,180,175)	(2,885,283)	(2,581,514)	(2,356,728)
Debt, net	7,406,609	9,836,621	9,729,487	9,446,670	9,095,670
Total equity	7,310,978	5,107,883	5,007,701	7,618,496	7,476,078

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.
(2) Post spin-off of JBG SMITH Properties (NYSE: JBGS) on July 17, 2017.
(3) Post spin-off of Urban Edge Properties (NYSE: UE) on January 15, 2015.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Introduction

The following discussion should be read in conjunction with the financial statements and related notes included under Part II, Item 8 of this Annual Report on Form 10-K.

Our Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") within this section is focused on the years ended December 31, 2019 and 2018, including year-to-year comparisons between these years. Our MD&A for the year ended December 31, 2017, including year-to-year comparisons between 2018 and 2017, can be found in Part II, Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

Overview

Vornado Realty Trust (“Vornado”) is a fully-integrated real estate investment trust (“REIT”) and conducts its business through, and substantially all of its interests in properties are held by, Vornado Realty L.P., a Delaware limited partnership (the “Operating Partnership”). Accordingly, Vornado’s cash flow and ability to pay dividends to its shareholders are dependent upon the cash flow of the Operating Partnership and the ability of its direct and indirect subsidiaries to first satisfy their obligations to creditors. Vornado is the sole general partner of, and owned approximately 93.1% of the common limited partnership interest in the Operating Partnership as of December 31, 2019. All references to the “Company,” “we,” “us” and “our” mean collectively Vornado, the Operating Partnership and those subsidiaries consolidated by Vornado.

We own and operate office and retail properties with a concentration in the New York City metropolitan area. In addition, we have a 32.4% interest in Alexander’s, Inc. (“Alexander’s”) (NYSE: ALX), which owns seven properties in the greater New York metropolitan area, as well as interests in other real estate and investments.

Our business objective is to maximize Vornado shareholder value, which we measure by the total return provided to our shareholders. Below is a table comparing Vornado’s performance to the FTSE NAREIT Office Index (“Office REIT”) and the MSCI US REIT Index (“MSCI”) for the following periods ended December 31, 2019:

	Total Return[(1)]		
	Vornado	**Office REIT**	**MSCI**
Three-month	5.8 %	7.0%	(0.8)%
One-year	12.0 %	31.4%	25.8 %
Three-year	(11.9)%	18.3%	26.2 %
Five-year	(9.2)%	34.2%	40.5 %
Ten-year	82.2 %	139.2%	208.7 %

(1) Past performance is not necessarily indicative of future performance.

We intend to achieve this objective by continuing to pursue our investment philosophy and to execute our operating strategies through:

- maintaining a superior team of operating and investment professionals and an entrepreneurial spirit;
- investing in properties in select markets, such as New York City, where we believe there is a high likelihood of capital appreciation;
- acquiring quality properties at a discount to replacement cost and where there is a significant potential for higher rents;
- developing and redeveloping our existing properties to increase returns and maximize value; and
- investing in operating companies that have a significant real estate component.

We expect to finance our growth, acquisitions and investments using internally generated funds, proceeds from asset sales and by accessing the public and private capital markets. We may also offer Vornado common or preferred shares or Operating Partnership units in exchange for property and may repurchase or otherwise reacquire these securities in the future.

We compete with a large number of real estate investors, property owners and developers, some of which may be willing to accept lower returns on their investments. Principal factors of competition are rents charged, sales prices, attractiveness of location, the quality of the property and the breadth and the quality of services provided. Our success depends upon, among other factors, trends of the global, national, regional and local economies, the financial condition and operating results of current and prospective tenants and customers, availability and cost of capital, construction and renovation costs, taxes, governmental regulations, legislation, population and employment trends. See “Risk Factors” in Item 1A for additional information regarding these factors.

Overview - continued

Quarter Ended December 31, 2019 Financial Results Summary

Net income attributable to common shareholders for the quarter ended December 31, 2019 was $193,217,000, or $1.01 per diluted share, compared to $100,494,000, or $0.53 per diluted share, for the prior year’s quarter. The quarters ended December 31, 2019 and 2018 include certain items that impact net income attributable to common shareholders, which are listed in the table on the following page. The aggregate of these items, net of amounts attributable to noncontrolling interests, increased net income attributable to common shareholders by $136,836,000, or $0.72 per diluted share, for the quarter ended December 31, 2019 and $51,058,000, or $0.27 per diluted share, for the quarter ended December 31, 2018.

Funds From Operations (“FFO”) attributable to common shareholders plus assumed conversions for the quarter ended December 31, 2019 was $311,876,000, or $1.63 per diluted share, compared to $210,100,000, or $1.10 per diluted share, for the prior year’s quarter. The quarters ended December 31, 2019 and 2018 include certain items that impact FFO, which are listed in the table on the following page. The aggregate of these items, net of amounts attributable to noncontrolling interests, increased FFO by $140,846,000, or $0.74 per diluted share, for the quarter ended December 31, 2019 and $40,226,000, or $0.21 per diluted share, for the quarter ended December 31, 2018.

Year Ended December 31, 2019 Financial Results Summary

Net income attributable to common shareholders for the year ended December 31, 2019 was $3,097,806,000, or $16.21 per diluted share, compared to $384,832,000, or $2.01 per diluted share, for the year ended December 31, 2018. The years ended December 31, 2019 and 2018 include certain items that impact net income attributable to common shareholders, which are listed in the table on the following page. The aggregate of these items, net of amounts attributable to noncontrolling interests, increased net income attributable to common shareholders by $2,921,090,000, or $15.29 per diluted share, for the year ended December 31, 2019 and $146,132,000, or $0.76 per diluted share, for the year ended December 31, 2018.

The increase in net income attributable to common shareholders was partially offset by (i) $10,447,000, or $0.05 per diluted share, of non-cash expense for the time-based equity compensation granted in connection with the new leadership group announced in April 2019, (ii) $9,416,000 (at share), or $0.05 per diluted share, from the non-cash write-off of straight-line rent receivables, and (iii) $8,477,000, or $0.04 per share, of non-cash expense for the accelerated vesting of previously issued restricted Operating Partnership units ("OP Units") and Vornado restricted stock due to the removal of the time-based vesting requirement for participants who have reached 65 years of age.

FFO attributable to common shareholders plus assumed conversions for the year ended December 31, 2019 was $1,003,398,000, or $5.25 per diluted share, compared to $729,740,000, or $3.82 per diluted share, for the year ended December 31, 2018. The years ended December 31, 2019 and 2018 include certain items that impact FFO, which are listed in the table on the following page. The aggregate of these items, net of amounts attributable to noncontrolling interests, increased FFO by $337,191,000, or $1.76 per diluted share, for the year ended December 31, 2019 and $16,252,000, or $0.09 per diluted share, for the year ended December 31, 2018.

The increase in FFO attributable to common shareholders plus assumed conversions was partially offset by (i) $10,447,000, or $0.05 per diluted share, of non-cash expense for the time-based equity compensation granted in connection with the new leadership group announced in April 2019, (ii) $9,416,000 (at share), or $0.05 per diluted share, from the non-cash write-off of straight-line rent receivables, and (iii) $8,477,000, or $0.04 per share, of non-cash expense for the accelerated vesting of previously issued OP Units and Vornado restricted stock due to the removal of the time-based vesting requirement for participants who have reached 65 years of age.

Overview - continued

The following table reconciles the difference between our net income attributable to common shareholders and our net income attributable to common shareholders, as adjusted:

(Amounts in thousands)	For the Three Months Ended December 31,		For the Year Ended December 31,	
	2019	2018	2019	2018
Certain (income) expense items that impact net income attributable to common shareholders:				
After-tax net gain on sale of 220 Central Park South ("220 CPS") condominium units	$ (173,655)	$ (67,336)	$ (502,565)	$ (67,336)
Our share of loss from real estate fund investments	26,600	24,366	48,808	23,749
Mark-to-market decrease in Pennsylvania Real Estate Investment Trust ("PREIT") common shares (accounted for as a marketable security from March 12, 2019)	2,438	—	21,649	—
Non-cash impairment losses and related write-offs (primarily 608 Fifth Avenue in 2019)	565	12,000	109,157	12,000
After-tax purchase price fair value adjustment related to the increase in ownership of the Farley joint venture	—	(27,289)	—	(27,289)
Mark-to-market decrease (increase) in Lexington Realty Trust ("Lexington") common shares (sold on March 1, 2019)	—	1,662	(16,068)	26,596
Previously capitalized internal leasing costs[(1)]	—	(1,655)	—	(5,538)
Net gain on transfer to Fifth Avenue and Times Square retail JV on April 18, 2019, net of $11,945 attributable to noncontrolling interests	—	—	(2,559,154)	—
Net gains on sale of real estate (primarily our 25% interest in 330 Madison Avenue in 2019)	—	—	(178,769)	(27,786)
Net gain from sale of Urban Edge Properties ("UE") common shares (sold on March 4, 2019)	—	—	(62,395)	—
Prepayment penalty in connection with redemption of $400 million 5.00% senior unsecured notes due January 2022	—	—	22,540	—
Net gain on sale of our ownership interests in 666 Fifth Avenue Office Condominium	—	—	—	(134,032)
Our share of additional New York City transfer taxes	—	—	—	23,503
Preferred share issuance costs	—	—	—	14,486
Other	(2,034)	3,825	(2,892)	5,886
	(146,086)	(54,427)	(3,119,689)	(155,761)
Noncontrolling interests' share of above adjustments	9,250	3,369	198,599	9,629
Total of certain (income) expense items that impact net income attributable to common shareholders	$ (136,836)	$ (51,058)	$ (2,921,090)	$ (146,132)

See note below.

The following table reconciles the difference between our FFO attributable to common shareholders plus assumed conversions and our FFO attributable to common shareholders plus assumed conversions, as adjusted:

(Amounts in thousands)	For the Three Months Ended December 31,		For the Year Ended December 31,	
	2019	2018	2019	2018
Certain (income) expense items that impact FFO attributable to common shareholders plus assumed conversions:				
After-tax net gain on sale of 220 CPS condominium units	$ (173,655)	$ (67,336)	$ (502,565)	$ (67,336)
Our share of loss from real estate fund investments	26,600	24,366	48,808	23,749
Previously capitalized internal leasing costs[(1)]	—	(1,655)	—	(5,538)
Non-cash impairment loss and related write-offs on 608 Fifth Avenue	—	—	77,156	—
Prepayment penalty in connection with redemption of $400 million 5.00% senior unsecured notes due January 2022	—	—	22,540	—
Our share of additional New York City transfer taxes	—	—	—	23,503
Preferred share issuance costs	—	—	—	14,486
Other	(3,187)	1,745	(6,119)	(6,109)
	(150,242)	(42,880)	(360,180)	(17,245)
Noncontrolling interests' share of above adjustments	9,396	2,654	22,989	993
Total of certain (income) expense items that impact FFO attributable to common shareholders plus assumed conversions, net	$ (140,846)	$ (40,226)	$ (337,191)	$ (16,252)

(1) The three months and year ended December 31, 2018 have been reduced by $1,655 and $5,538, respectively, for previously capitalized internal leasing costs to present 2018 “as adjusted” financial results on a comparable basis with the current year as a result of the January 1, 2019 adoption of a new GAAP accounting standard under which internal leasing costs can no longer be capitalized.

Overview - continued

Same Store Net Operating Income ("NOI") At Share

The percentage increase (decrease) in same store NOI at share and same store NOI at share - cash basis of our New York segment, theMART and 555 California Street are summarized below.

	Total	New York[1]	theMART	555 California Street
Same store NOI at share % increase (decrease):				
Year ended December 31, 2019 compared to December 31, 2018	2.1%	0.5%	15.9 % [2]	9.7 %
Three months ended December 31, 2019 compared to December 31, 2018	7.1%	2.6%	114.3 % [3]	3.3 %
Three months ended December 31, 2019 compared to September 30, 2019	1.7%	3.0%	(7.4)%	(4.8)%
Same store NOI at share - cash basis % increase (decrease):				
Year ended December 31, 2019 compared to December 31, 2018	3.6%	1.6%	18.6 % [2]	12.7 %
Three months ended December 31, 2019 compared to December 31, 2018	6.6%	1.7%	100.0 % [3]	4.1 %
Three months ended December 31, 2019 compared to September 30, 2019	2.6%	3.9%	(4.8)%	(5.4)%

(1) Excluding Hotel Pennsylvania, same store NOI at share % increase:

Year ended December 31, 2019 compared to December 31, 2018	0.9%
Three months ended December 31, 2019 compared to December 31, 2018	2.6%
Three months ended December 31, 2019 compared to September 30, 2019	1.7%

Excluding Hotel Pennsylvania, same store NOI at share - cash basis % increase:

Year ended December 31, 2019 compared to December 31, 2018	2.2%
Three months ended December 31, 2019 compared to December 31, 2018	1.8%
Three months ended December 31, 2019 compared to September 30, 2019	2.6%

(2) Primarily due to $11,131,000 of tenant reimbursement revenue received in 2019 related to real estate tax expense accrued in 2018.

(3) The three months ended December 31, 2018 includes an additional $12,814,000 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

Calculations of same store NOI at share, reconciliations of our net income to NOI at share, NOI at share - cash basis and FFO and the reasons we consider these non-GAAP financial measures useful are provided in the following pages of Management's Discussion and Analysis of the Financial Condition and Results of Operations.

220 CPS

During the three months ended December 31, 2019, we closed on the sale of 17 condominium units at 220 CPS for net proceeds of $565,863,000 resulting in a financial statement net gain of $203,893,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income. In connection with these sales, $30,238,000 of income tax expense was recognized on our consolidated statements of income. During the year ended December 31, 2019, we closed on the sale of 54 condominium units at 220 CPS for net proceeds of $1,605,356,000 resulting in a financial statement net gain of $604,393,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income. In connection with these sales, $101,828,000 of income tax expense was recognized on our consolidated statements of income. From inception to December 31, 2019, we closed on the sale of 65 units for aggregate net proceeds of $1,820,132,000. During the year ended December 31, 2019, we repaid the remaining $737,000,000 of the $950,000,000 220 CPS loan.

Dispositions

Lexington

On March 1, 2019, we sold all of our 18,468,969 common shares of Lexington, realizing net proceeds of $167,698,000. We recorded a $16,068,000 gain (mark-to-market increase), which is included in "interest and other investment income, net" on our consolidated statements of income for the year ended December 31, 2019.

UE

On March 4, 2019, we converted to common shares and sold all of our 5,717,184 partnership units of UE, realizing net proceeds of $108,512,000. The sale resulted in a net gain of $62,395,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income for the year ended December 31, 2019.

Overview - continued

Dispositions - continued

Fifth Avenue and Times Square JV

On April 18, 2019 (the “Closing Date”), we entered into a transaction agreement (the “Transaction Agreement”) with a group of institutional investors (the “Investors”). The Transaction Agreement provides for a series of transactions (collectively, the “Transaction”) pursuant to which (i) prior to the Closing Date, we contributed our interests in properties located at 640 Fifth Avenue, 655 Fifth Avenue, 666 Fifth Avenue, 689 Fifth Avenue, 697-703 Fifth Avenue, 1535 Broadway and 1540 Broadway (collectively, the “Properties”) to subsidiaries of a newly formed joint venture (“Fifth Avenue and Times Square JV”) and (ii) on the Closing Date, transferred a 48.5% common interest in Fifth Avenue and Times Square JV to the Investors. The 48.5% common interest in the joint venture represents an effective 47.2% interest in the Properties (of which 45.4% was transferred from Vornado). The Properties include approximately 489,000 square feet of retail space, 327,000 square feet of office space, signage associated with 1535 and 1540 Broadway, the parking garage at 1540 Broadway and the theater at 1535 Broadway.

We retained the remaining 51.5% common interest in Fifth Avenue and Times Square JV which represents an effective 51.0% interest in the Properties and an aggregate $1.828 billion of preferred equity interests in certain of the properties. We also provided $500,000,000 of temporary preferred equity on 640 Fifth Avenue until May 23, 2019 when mortgage financing was completed. All of the preferred equity has an annual coupon of 4.25% for the first five years, increasing to 4.75% for the next five years and thereafter at a formulaic rate. It can be redeemed under certain conditions on a tax deferred basis.

Net cash proceeds from the Transaction were $1.179 billion, after (i) deductions for the defeasance of a $390,000,000 mortgage loan on 666 Fifth Avenue and the repayment of a $140,000,000 mortgage loan on 655 Fifth Avenue, (ii) proceeds from a $500,000,000 mortgage loan on 640 Fifth Avenue, described below, (iii) approximately $23,000,000 used to purchase noncontrolling investors' interests and (iv) approximately $53,000,000 of transaction costs (including $17,000,000 of costs related to the defeasance of the 666 Fifth Avenue mortgage loan).

We continue to manage and lease the Properties. We share control with the Investors over major decisions of the joint venture, including decisions regarding leasing, operating and capital budgets, and refinancings. Accordingly, we no longer hold a controlling financial interest in the Properties which has been transferred to the joint venture. As a result, our investment in Fifth Avenue and Times Square JV is accounted for under the equity method from the date of transfer. The Transaction valued the Properties at $5.556 billion resulting in a financial statement net gain of $2.571 billion, before noncontrolling interest of $11,945,000, including the related step up in our basis of the retained portion of the assets to fair value. The net gain is included in "net gain on transfer to Fifth Avenue and Times Square JV" on our consolidated statements of income for the year ended December 31, 2019. The gain for tax purposes was approximately $735,000,000.

On May 23, 2019, we received $500,000,000 from the redemption of our temporary preferred equity in 640 Fifth Avenue. The temporary preferred equity was redeemed from the proceeds of a $500,000,000 mortgage financing that was completed on the property. The five-year loan, which is guaranteed by us, is interest-only at LIBOR plus 1.01%. The interest rate was swapped for four years to a fixed rate of 3.07%.

330 Madison Avenue

On July 11, 2019, we sold our 25% interest in 330 Madison Avenue to our joint venture partner. We received net proceeds of approximately $100,000,000 after deducting our share of the existing $500,000,000 mortgage loan resulting in a financial statement net gain of $159,292,000. The net gain is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income for the year ended December 31, 2019. The gain for tax purposes was approximately $139,000,000.

3040 M Street

On September 18, 2019, we completed the $49,750,000 sale of 3040 M Street, a 44,000 square foot retail building in Washington, DC, which resulted in a net gain of $19,477,000 which is included in “net gains on disposition of wholly owned and partially owned assets” on our consolidated statements of income for year ended December 31, 2019. The gain for tax purposes was approximately $19,000,000.

PREIT

On January 23, 2020, we sold all of our 6,250,000 common shares of PREIT, realizing net proceeds of $28,375,000. A $4,938,000 loss (mark-to-market decrease) will be recorded in the first quarter of 2020.

Financings

Senior Unsecured Notes

On March 1, 2019, we called for redemption all of our $400,000,000 5.00% senior unsecured notes. The notes, which were scheduled to mature in January 2022, were redeemed on April 1, 2019 at a redemption price of 105.51% of the principal amount plus accrued interest. In connection therewith, we expensed $22,540,000 relating to debt prepayment costs which is included in "interest and debt expense" on our consolidated statements of income for the year ended December 31, 2019.

Financings - continued

Unsecured Revolving Credit

On March 26, 2019, we increased to $1.5 billion (from $1.25 billion) and extended to March 2024 (as fully extended) from February 2022 one of our two unsecured revolving credit facilities. The interest rate on the extended facility was lowered from LIBOR plus 1.00% to LIBOR plus 0.90%. The facility fee remains unchanged at 20 basis points.

Other Financings

On January 28, 2019, a joint venture in which we have a 45.1% interest, completed a $167,500,000 refinancing of 61 Ninth Avenue, a 166,000 square foot Manhattan office and retail property. The seven-year interest-only loan carries a rate of LIBOR plus 1.35% (3.07% as of December 31, 2019) and matures in January 2026. We realized net proceeds of approximately $31,000,000. The loan replaces the previous $90,000,000 construction loan that bore interest at LIBOR plus 3.05% and was scheduled to mature in December 2021.

On February 4, 2019, we completed a $95,700,000 refinancing of 435 Seventh Avenue, a 43,000 square foot Manhattan retail property. The interest-only loan carries a rate of LIBOR plus 1.30% (3.00% as of December 31, 2019) and matures in February 2024. The recourse loan replaces the previous $95,700,000 loan that bore interest at LIBOR plus 2.25% and was scheduled to mature in August 2019.

On February 12, 2019, we completed a $580,000,000 refinancing of 100 West 33rd Street, a 1.1 million square foot Manhattan property comprised of 859,000 square feet of office space and the 256,000 square foot Manhattan Mall. The interest-only loan carries a rate of LIBOR plus 1.55% (3.25% as of December 31, 2019) and matures in April 2024, with two one-year extension options. The loan replaces the previous $580,000,000 loan that bore interest at LIBOR plus 1.65% and was scheduled to mature in July 2020.

On May 24, 2019, we extended our $375,000,000 mortgage loan on 888 Seventh Avenue, a 885,000 square foot Manhattan office building, from December 2020 to December 2025. The interest rate on the new amortizing mortgage loan is LIBOR plus 1.70% (3.44% as of December 31, 2019). Pursuant to an existing swap agreement, the interest rate on the $375,000,000 mortgage loan has been swapped to 3.25% through December 2020.

On June 28, 2019, a joint venture in which we have a 55% interest, completed a $145,700,000 refinancing of 512 West 22nd Street, a 173,000 square foot Manhattan office building, of which $109,565,000 was outstanding as of December 31, 2019. The four-year interest-only loan carries a rate of LIBOR plus 2.00% (3.72% as of December 31, 2019) and matures in June 2023 with a one-year extension option. The loan replaces the previous $126,000,000 construction loan that bore interest at LIBOR plus 2.65% and was scheduled to mature in November 2019.

On July 25, 2019, a joint venture in which we have a 50% interest, completed a $60,000,000 refinancing of 825 Seventh Avenue, a 165,000 square foot Manhattan office building, of which $31,889,000 was outstanding as of December 31, 2019. The interest-only loan carries a rate of LIBOR plus 1.65% (3.40% as of December 31, 2019) and matures in July 2022 with a one-year extension option. The loan replaces the previous $20,500,000 loan that bore interest at LIBOR plus 1.40% and was scheduled to mature in September 2019.

On September 5, 2019, a consolidated joint venture, in which we have a 50% interest, completed a $75,000,000 refinancing of 606 Broadway, a 36,000 square foot Manhattan office and retail building, of which $67,804,000 was outstanding as of December 31, 2019. The interest-only loan carries a rate of LIBOR plus 1.80% (3.52% as of December 31, 2019) and matures in September 2024. In connection therewith, the joint venture purchased an interest rate cap that caps LIBOR at a rate of 4.00%. The loan replaces the previous $65,000,000 construction loan. The construction loan bore interest at LIBOR plus 3.00% and was scheduled to mature in May 2021.

On September 27, 2019, we repaid the $575,000,000 mortgage loan on PENN2 with proceeds from our unsecured revolving credit facilities. The mortgage loan was scheduled to mature in December 2019. PENN2 is a 1,795,000 square foot (as expanded) Manhattan office building currently under redevelopment.

On November 6, 2019, the Fund completed a $145,075,000 refinancing of Lucida, a 155,000 square foot Manhattan retail and residential property. The three-year interest-only loan carries a rate of LIBOR plus 1.85% (3.54% as of December 31, 2019) with two one-year extension options. The loan replaces the previous $146,000,000 loan that bore interest at LIBOR plus 1.55% and was scheduled to mature in December 2019.

On November 26, 2019, a joint venture in which we have a 20.1% interest, completed a $800,000,000 refinancing of 650 Madison Avenue, a 601,000 square foot Manhattan office and retail property. The ten-year interest-only loan carries a fixed rate of 3.49% and matures in December 2029. The loan replaces the previous $800,000,000 loan that bore interest at a fixed rate of 4.39% and was scheduled to mature in October 2020.

On December 23, 2019, a joint venture in which we have a 49.9% interest, completed a $85,500,000 refinancing, of which $82,500,000 was outstanding as of December 31, 2019, of 50-70 West 93rd Street, a 325-unit Manhattan residential complex. The five-year interest-only loan carries an interest rate of LIBOR plus 1.53%, which was swapped to a fixed rate of 3.14%, and matures in December 2024. The loan replaces the previous $80,000,000 loan that bore interest at LIBOR plus 1.70% and was scheduled to mature in August 2021, as extended.

Overview - continued

Leasing Activity

The leasing activity and related statistics in the tables below are based on leases signed during the period and are not intended to coincide with the commencement of rental revenue in accordance with accounting principles generally accepted in the United States of America ("GAAP"). Second generation relet space represents square footage that has not been vacant for more than nine months and tenant improvements and leasing commissions are based on our share of square feet leased during the period.

(Square feet in thousands)	New York			
	Office	Retail	theMART	555 California Street
Quarter Ended December 31, 2019:				
Total square feet leased	173	94	52	30
Our share of square feet leased	117	73	52	21
Initial rent[(1)]	$ 101.67	$ 233.55	$ 50.26	$ 94.00
Weighted average lease term (years)	6.6	9.4	5.0	5.0
Second generation relet space:				
Square feet	54	52	50	21
GAAP basis:				
Straight-line rent[(2)]	$ 93.62	$ 309.06	$ 50.96	$ 99.81
Prior straight-line rent	$ 97.06	$ 308.17	$ 49.41	$ 49.77
Percentage (decrease) increase	(3.5)%	0.3%	3.1 %	100.5%
Cash basis:				
Initial rent[(1)]	$ 94.90	$ 335.00	$ 50.02	$ 94.00
Prior escalated rent	$ 100.06	$ 300.90	$ 51.21	$ 54.49
Percentage (decrease) increase	(5.2)%	11.3%	(2.3)%	72.5%
Tenant improvements and leasing commissions:				
Per square foot	$ 89.30	$ 100.79	$ 26.91	$ 36.38
Per square foot per annum:	$ 13.53	$ 10.72	$ 5.38	$ 7.28
Percentage of initial rent	13.3 %	4.6%	10.7 %	7.7%
Year Ended December 31, 2019:				
Total square feet leased	987	238	286	172
Our share of square feet leased	793	207	286	120
Initial rent[(1)]	$ 82.17	$ 175.35	$ 49.43	$ 88.70
Weighted average lease term (years)	7.7	10.9	6.1	6.1
Second generation relet space:				
Square feet	553	171	280	115
GAAP basis:				
Straight-line rent[(2)]	$ 76.12	$ 198.05	$ 48.71	$ 93.86
Prior straight-line rent	$ 72.18	$ 175.46	$ 44.01	$ 56.93
Percentage increase	5.5%	12.9%	10.7%	64.9%
Cash basis:				
Initial rent[(1)]	$ 77.51	$ 197.12	$ 49.25	$ 88.54
Prior escalated rent	$ 74.10	$ 179.49	$ 47.08	$ 64.11
Percentage increase	4.6%	9.8%	4.6%	38.1%
Tenant improvements and leasing commissions:				
Per square foot	$ 83.82	$ 68.59	$ 33.87	$ 53.93
Per square foot per annum:	$ 10.89	$ 6.29	$ 5.55	$ 8.84
Percentage of initial rent	13.3%	3.6%	11.2%	10.0%

See notes on the following page.

Overview - continued

Leasing Activity – continued

(Square feet in thousands)	New York			
	Office	Retail	theMART	555 California Street
Year Ended December 31, 2018:				
Total square feet leased	1,827	255	243	249
Our share of square feet leased:	1,627	236	243	174
Initial rent[1]	$ 79.03	$ 171.25	$ 53.47	$ 89.28
Weighted average lease term (years)	9.6	5.5	5.8	10.3
Second generation relet space:				
Square feet	1,347	216	232	62
GAAP basis:				
Straight-line rent[2]	$ 81.57	$ 180.01	$ 54.11	$ 104.06
Prior straight-line rent	$ 60.99	$ 232.98	$ 44.77	$ 77.46
Percentage increase (decrease)	33.7%	(22.7)%	20.9%	34.3%
Cash basis:				
Initial rent[1]	$ 79.22	$ 164.74	$ 53.49	$ 97.28
Prior escalated rent	$ 64.59	$ 166.35	$ 47.48	$ 85.77
Percentage increase (decrease)	22.7%	(1.0)%	12.7%	13.4%
Tenant improvements and leasing commissions:				
Per square foot	$ 92.69	$ 59.17	$ 17.63	$ 94.98
Per square foot per annum:	$ 9.66	$ 10.76	$ 3.04	$ 9.22
Percentage of initial rent	12.2%	6.3 %	5.7%	10.3%

(1) Represents the cash basis weighted average starting rent per square foot, which is generally indicative of market rents. Most leases include free rent and periodic step-ups in rent which are not included in the initial cash basis rent per square foot but are included in the GAAP basis straight-line rent per square foot.

(2) Represents the GAAP basis weighted average rent per square foot that is recognized over the term of the respective leases, and includes the effect of free rent and periodic step-ups in rent.

Overview - continued

Square footage (in service) and Occupancy as of December 31, 2019:

(Square feet in thousands)	Number of properties	Square Feet (in service) Total Portfolio	Square Feet (in service) Our Share	Occupancy %
New York:				
Office	35	19,070	16,195	96.9%
Retail (includes retail properties that are in the base of our office properties)	70	2,300	1,842	94.5%
Residential - 1,679 units	9	1,526	793	97.0%
Alexander's, including 312 residential units	7	2,230	723	96.5%
Hotel Pennsylvania	1	1,400	1,400	
		26,526	20,953	96.7%
Other:				
theMART	4	3,826	3,817	94.6%
555 California Street	3	1,741	1,218	99.8%
Other	10	2,533	1,198	92.7%
		8,100	6,233	
Total square feet at December 31, 2019		34,626	27,186	

Square footage (in service) and Occupancy as of December 31, 2018:

(Square feet in thousands)	Number of properties	Square Feet (in service) Total Portfolio	Square Feet (in service) Our Share	Occupancy %
New York:				
Office	36	19,858	16,632	97.2%
Retail (includes retail properties that are in the base of our office properties)	71	2,648	2,419	97.3%
Residential - 1,687 units	10	1,533	800	96.6%
Alexander's, including 312 residential units	7	2,437	790	91.4%
Hotel Pennsylvania	1	1,400	1,400	
		27,876	22,041	97.0%
Other:				
theMART	3	3,694	3,685	94.7%
555 California Street	3	1,743	1,220	99.4%
Other	10	2,522	1,187	92.8%
		7,959	6,092	
Total square feet at December 31, 2018		35,835	28,133	

Critical Accounting Policies

In preparing the consolidated financial statements we have made estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates. Set forth below is a summary of the accounting policies that we believe are critical to the preparation of our consolidated financial statements. The summary should be read in conjunction with the more complete discussion of our accounting policies included in Note 2 - *Basis of Presentation and Significant Accounting Policies*, Note 3 - *Revenue Recognition* and Note 20 - *Leases* to our consolidated financial statements in this Annual Report on Form 10-K.

Real Estate

Real estate is carried at cost, net of accumulated depreciation and amortization. Betterments, major renewals and certain costs directly related to the improvement and leasing of real estate are capitalized. Maintenance and repairs are expensed as incurred. For redevelopment of existing operating properties, the net book value of the existing property under redevelopment plus the cost for the construction and improvements incurred in connection with the redevelopment are capitalized to the extent the capitalized costs of the property do not exceed the estimated fair value of the redeveloped property when complete. If the cost of the redeveloped property, including the net book value of the existing property, exceeds the estimated fair value of the redeveloped property, the excess is charged to expense. Depreciation is recognized on a straight-line basis over the estimated useful lives which range from 7 to 40 years. Tenant allowances are amortized on a straight-line basis over the lives of the related leases, which approximate the useful lives of the assets.

Upon the acquisition of real estate, we assess the fair value of acquired assets (including land, buildings and improvements, identified intangibles, such as acquired above and below-market leases, acquired in-place leases and tenant relationships) and acquired liabilities and we allocate the purchase price based on these assessments which are on a relative fair value basis. We assess fair value based on estimated cash flow projections that utilize appropriate discount and capitalization rates and available market information. Estimates of future cash flows are based on a number of factors including historical operating results, known trends, and market/economic conditions. We amortize identified intangibles that have finite lives over the period they are expected to contribute directly or indirectly to the future cash flows of the property or business acquired.

As of December 31, 2019 and 2018, the carrying amounts of real estate, net of accumulated depreciation and amortization, were $10.1 billion and $13.1 billion, respectively. As of December 31, 2019 and 2018, the carrying amounts of identified intangible assets (including acquired above-market leases, tenant relationships and acquired in-place leases) were $30,965,000 and $136,781,000, respectively, and the carrying amounts of identified intangible liabilities, a component of “deferred revenue” on our consolidated balance sheets, were $53,539,000 and $161,594,000, respectively.

Our properties, including any related right-of-use assets and intangible assets, are individually reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment exists when the carrying amount of an asset exceeds the aggregate projected future cash flows over the anticipated holding period on an undiscounted basis. An impairment loss is measured based on the excess of the property’s carrying amount over its estimated fair value. Impairment analyses are based on our current plans, intended holding periods and available market information at the time the analyses are prepared. If our estimates of the projected future cash flows, or market conditions change, our evaluation of impairment losses may be different and such differences could be material to our consolidated financial statements. The evaluation of anticipated discounted cash flows is subjective and is based, in part, on estimates and assumptions regarding future occupancy, rental rates, capital requirements, capitalization rates and discount rates that could differ materially from actual results. Plans to hold properties over longer periods decrease the likelihood of recording impairment losses.

Partially Owned Entities

We consolidate entities in which we have a controlling financial interest. In determining whether we have a controlling financial interest in a partially owned entity and the requirement to consolidate the accounts of that entity, we consider (i) whether the entity is a variable interest entity (“VIE”) in which we are the primary beneficiary or (ii) whether the entity is a voting interest entity in which we have a majority of the voting interests of the entity. We are deemed to be the primary beneficiary of a VIE when we have (i) the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance and (ii) the obligation to absorb losses or receive benefits that could potentially be significant to the VIE. We generally do not control a partially owned entity if the approval of all of the partners/members is contractually required with respect to decisions that most significantly impact the performance of the partially owned entity. This includes decisions regarding operating/capital budgets, and the placement of new or additional financing secured by the assets of the venture, among others. We account for investments under the equity method when the requirements for consolidation are not met, and we have significant influence over the operations of the investee. Equity method investments are initially recorded at cost and subsequently adjusted for our share of net income or loss and cash contributions and distributions each period. Investments that do not qualify for consolidation or equity method accounting are accounted for under the cost method.

Partially Owned Entities - continued

Investments in partially owned entities are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recorded when there is a decline in the fair value below the carrying value and we conclude such decline is other-than-temporary. An impairment loss is measured based on the excess of the carrying amount of an investment over its estimated fair value. Impairment analyses are based on current plans, intended holding periods and available information at the time the analyses are prepared. The ultimate realization of our investments in partially owned entities is dependent on a number of factors, including the performance of each investment and market conditions. If our estimates of the projected future cash flows, the nature of development activities for properties for which such activities are planned and the estimated fair value of the investment change based on market conditions or otherwise, our evaluation of impairment losses may be different and such differences could be material to our consolidated financial statements. The evaluation of anticipated cash flows is subjective and is based, in part, on estimates and assumptions regarding future occupancy, rental rates, capital requirements, capitalization rates and discount rates that could differ materially from actual results.

As of December 31, 2019 and 2018, the carrying amounts of investments in partially owned entities were $4.0 billion and $0.9 billion, respectively.

Revenue Recognition

We have the following revenue sources and revenue recognition policies:

- Rental revenues include revenues from the leasing of space at our properties to tenants, lease termination income, revenues from the Hotel Pennsylvania, trade shows and tenant services.
    - Revenues from the leasing of space at our properties to tenants includes (i) lease components, including fixed and variable lease payments, and nonlease components which include reimbursement of common area maintenance expenses, and (ii) reimbursement of real estate taxes and insurance expenses. As lessor, we have elected to combine the lease and nonlease components of our operating lease agreements and account for the components as a single lease component. Revenues derived from fixed lease payments are recognized on a straight-line basis over the non-cancelable period of the lease, together with renewal options that are reasonably certain of being exercised. We commence rental revenue recognition when the underlying asset is available for use by the lessee. Revenue derived from the reimbursement of real estate taxes, insurance expenses and common area maintenance expenses are generally recognized in the same period as the related expenses are incurred.
    - Lease termination income is recognized immediately if a tenant vacates or is recognized on a straight-line basis over the shortened remaining lease term.
    - Hotel revenue arising from the operation of Hotel Pennsylvania consists of room revenue, food and beverage revenue, and banquet revenue. Room revenue is recognized when the rooms are made available for the guest.
    - Trade shows revenue arising from the operation of trade shows is primarily booth rentals. This revenue is recognized upon the occurrence of the trade shows when the trade show booths are made available for use by the exhibitors.
    - Tenant services revenue arises from sub-metered electric, elevator, trash removal and other services provided to tenants at their request. This revenue is recognized as the services are transferred.
- Fee and other income includes management, leasing and other revenue arising from contractual agreements with third parties or with partially owned entities and includes Building Maintenance Services LLC (“BMS”) cleaning, engineering and security services. This revenue is recognized as the services are transferred.

We assess, on an individual lease basis, whether it is probable that we will collect the future lease payments. We consider the tenant's payment history and current credit status when assessing collectability. When collectability is not deemed probable, we write off the tenant's receivables, including straight-line rent receivables, and limit lease income to cash received. Changes to the collectability of our operating leases are recorded as adjustments to "rental revenues" on our consolidated statements of income. If our assessment of the collectability of revenue changes, the impact on our consolidated financial statements could be material.

Income Taxes

Vornado operates in a manner intended to enable it to continue to qualify as a REIT under Sections 856-860 of the Internal Revenue Code of 1986, as amended. Under those sections, a REIT which distributes at least 90% of its REIT taxable income as a dividend to its shareholders each year and which meets certain other conditions will not be taxed on that portion of its taxable income which is distributed to its shareholders. Vornado distributes to its shareholders 100% of its REIT taxable income and therefore, no provision for Federal income taxes is required. If Vornado fails to distribute the required amount of income to its shareholders, or fails to meet other REIT requirements, it may fail to qualify as a REIT which may result in substantial adverse tax consequences.

Recent Accounting Pronouncements

See Note 2 – *Basis of Presentation and Significant Accounting Policies* to our consolidated financial statements in this Annual Report on Form 10-K for a discussion concerning recent accounting pronouncements.

NOI At Share by Segment for the Years Ended December 31, 2019 and 2018

NOI at share represents total revenues less operating expenses including our share of partially owned entities. NOI at share - cash basis represents NOI at share adjusted to exclude straight-line rental income and expense, amortization of acquired below and above market leases, net and other non-cash adjustments. We consider NOI at share - cash basis to be the primary non-GAAP financial measure for making decisions and assessing the unlevered performance of our segments as it relates to the total return on assets as opposed to the levered return on equity. As properties are bought and sold based on NOI at share - cash basis, we utilize this measure to make investment decisions as well as to compare the performance of our assets to that of our peers. NOI at share and NOI at share - cash basis should not be considered alternatives to net income or cash flow from operations and may not be comparable to similarly titled measures employed by other companies.

Below is a summary of NOI at share and NOI at share - cash basis by segment for the years ended December 31, 2019 and 2018.

(Amounts in thousands)	For the Year Ended December 31, 2019		
	Total	New York[(1)]	Other
Total revenues	$ 1,924,700	$ 1,577,860	$ 346,840
Operating expenses	(917,981)	(758,304)	(159,677)
NOI - consolidated	1,006,719	819,556	187,163
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(69,332)	(40,896)	(28,436)
Add: NOI from partially owned entities	322,390	294,168	28,222
NOI at share	1,259,777	1,072,828	186,949
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(6,060)	(12,318)	6,258
NOI at share - cash basis	$ 1,253,717	$ 1,060,510	$ 193,207

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.

(Amounts in thousands)	For the Year Ended December 31, 2018		
	Total	New York	Other
Total revenues	$ 2,163,720	$ 1,836,036	$ 327,684
Operating expenses	(963,478)	(806,464)	(157,014)
NOI - consolidated	1,200,242	1,029,572	170,670
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(71,186)	(48,490)	(22,696)
Add: NOI from partially owned entities	253,564	195,908	57,656
NOI at share	1,382,620	1,176,990	205,630
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(44,704)	(45,427)	723
NOI at share - cash basis	$ 1,337,916	$ 1,131,563	$ 206,353

NOI At Share by Segment for the Years Ended December 31, 2019 and 2018 - continued

The elements of our New York and Other NOI at share for the years ended December 31, 2019 and 2018 are summarized below.

(Amounts in thousands)	For the Year Ended December 31,	
	2019	2018
New York:		
Office[1]	$ 724,526	$ 743,001
Retail[1]	273,217	353,425
Residential	23,363	23,515
Alexander's	44,325	45,133
Hotel Pennsylvania	7,397	11,916
Total New York	1,072,828	1,176,990
Other:		
theMART[2]	102,071	90,929
555 California Street	59,657	54,691
Other investments[3]	25,221	60,010
Total Other	186,949	205,630
NOI at share	$ 1,259,777	$ 1,382,620

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.
(2) 2019 includes $11,131 of tenant reimbursement revenue related to real estate tax expense accrued in 2018.
(3) The year ended December 31, 2018 includes $20,032 from PREIT (accounted for as a marketable security beginning March 12, 2019), $12,145 from 666 Fifth Avenue Office Condominium (sold on August 3, 2018) and $11,822 from UE (sold on March 4, 2019).

The elements of our New York and Other NOI at share - cash basis for the years ended December 31, 2019 and 2018 are summarized below.

(Amounts in thousands)	For the Year Ended December 31,	
	2019	2018
New York:		
Office[1]	$ 718,734	$ 726,108
Retail[1]	267,655	324,219
Residential	21,894	22,076
Alexander's	45,093	47,040
Hotel Pennsylvania	7,134	12,120
Total New York	1,060,510	1,131,563
Other:		
theMART[2]	108,130	94,070
555 California Street	60,156	53,488
Other investments[3]	24,921	58,795
Total Other	193,207	206,353
NOI at share - cash basis	$ 1,253,717	$ 1,337,916

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.
(2) 2019 includes $11,131 of tenant reimbursement revenue related to real estate tax expense accrued in 2018.
(3) The year ended December 31, 2018 includes $19,767 from PREIT (accounted for as a marketable security beginning March 12, 2019), $12,025 from 666 Fifth Avenue Office Condominium (sold on August 3, 2018) and $10,428 from UE (sold on March 4, 2019).

Reconciliation of Net Income to NOI At Share and NOI At Share - Cash Basis for the Years Ended December 31, 2019 and 2018

(Amounts in thousands)	For the Year Ended December 31,	
	2019	2018
Net income	$ 3,334,262	$ 422,603
Depreciation and amortization expense	419,107	446,570
General and administrative expense	169,920	141,871
Transaction related costs, impairment losses and other	106,538	31,320
Income from partially owned entities	(78,865)	(9,149)
Loss from real estate fund investments	104,082	89,231
Interest and other investment income, net	(21,819)	(17,057)
Interest and debt expense	286,623	347,949
Net gain on transfer to Fifth Avenue and Times Square JV	(2,571,099)	—
Purchase price fair value adjustment	—	(44,060)
Net gains on disposition of wholly owned and partially owned assets	(845,499)	(246,031)
Income tax expense	103,439	37,633
Loss (income) from discontinued operations	30	(638)
NOI from partially owned entities	322,390	253,564
NOI attributable to noncontrolling interests in consolidated subsidiaries	(69,332)	(71,186)
NOI at share	1,259,777	1,382,620
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(6,060)	(44,704)
NOI at share - cash basis	$ 1,253,717	$ 1,337,916

NOI At Share by Region

	For the Year Ended December 31,	
	2019	2018
Region:		
New York City metropolitan area	87%	89%
Chicago, IL	8%	7%
San Francisco, CA	5%	4%
	100%	100%

Results of Operations – Year Ended December 31, 2019 Compared to December 31, 2018

Revenues

Our revenues, which consist of rental revenues and fee and other income, were $1,924,700,000 for the year ended December 31, 2019 compared to $2,163,720,000 in the prior year, a decrease of $239,020,000. Below are the details of the (decrease) increase by segment:

(Amounts in thousands) (Decrease) increase due to:	Total	New York	Other
Rental revenues:			
Acquisitions, dispositions and other	$ (8,877)	$ (8,195)	$ (682)
Development and redevelopment	(17,613)	(17,991)	378
Hotel Pennsylvania	(4,034)	(4,034)	—
Trade shows	(1,959)	—	(1,959)
Properties transferred to Fifth Avenue and Times Square JV	(208,360)	(208,360)	—
Same store operations	732	(20,406) [1]	21,138
	(240,111)	(258,986)	18,875
Fee and other income:			
BMS cleaning fees	4,317	4,270	47
Management and leasing fees	218	1,491	(1,273)
Properties transferred to Fifth Avenue and Times Square JV	(833)	(833)	—
Other income	(2,611)	(4,118)	1,507
	1,091	810	281
Total (decrease) increase in revenues	$ (239,020)	$ (258,176)	$ 19,156

(1) Primarily due to (i) $9,882 of lower acquired below-market lease amortization in 2019 as a result of Old Navy's lease modification at 150 West 34th Street, and (ii) $5,967 from the non-cash write-off of straight-line rent receivables related to Topshop at 478-486 Broadway in 2019.

Results of Operations – Year Ended December 31, 2019 Compared to December 31, 2018 - continued

Expenses

Our expenses, which consist primarily of operating, depreciation and amortization, general and administrative, expense from deferred compensation plan liability, and transaction related costs, impairment losses and other, were $1,625,155,000 for the year ended December 31, 2019 compared to $1,580,759,000 in the prior year, an increase of $44,396,000. Below are the details of the increase by segment:

(Amounts in thousands)			
Increase (decrease) due to:	Total	New York	Other
Operating:			
Acquisitions, dispositions and other	$ (1,659)	$ (3,901)	$ 2,242
Development and redevelopment	(4,831)	(5,480)	649
Non-reimbursable expenses	(14,190)	(13,222)	(968)
Hotel Pennsylvania	495	495	—
Trade shows	535	—	535
BMS expenses	3,188	3,141	47
Properties transferred to Fifth Avenue and Times Square JV	(41,583)	(41,583)	—
Same store operations	12,548	12,390	158
	(45,497)	(48,160)	2,663
Depreciation and amortization:			
Acquisitions, dispositions and other	598	586	12
Development and redevelopment	(6,454)	(6,683)	229
Properties transferred to Fifth Avenue and Times Square JV	(56,545)	(56,545)	—
Same store operations	34,938	31,636	3,302
	(27,463)	(31,006)	3,543
General and administrative	28,049 (1)	19,376	8,673
Expense from deferred compensation plan liability	14,089	—	14,089
Transaction related costs, impairment losses and other	75,218	75,846 (2)	(628)
Total increase in expenses	$ 44,396	$ 16,056	$ 28,340

(1) 2019 includes (i) $10,447 of non-cash stock-based compensation expense for the time-based equity compensation granted in connection with the new leadership group announced in April 2019 (additional non-cash expense associated with these awards will be $9,603 in each of 2020 and 2021, $7,718 in 2022 and $2,655 in 2023), (ii) $8,477 of non-cash stock-based compensation expense for the accelerated vesting of previously issued OP Units and Vornado restricted stock due to the removal of the time-based vesting requirement for participants who have reached 65 years of age, and (iii) $5,538 of previously capitalized internal leasing costs as a result of the January 1, 2019 adoption of Accounting Standard Update 2016-02, *Leases*, under which internal leasing costs can no longer be capitalized.

(2) 2019 includes $101,925 of non-cash impairment losses and related write-offs, primarily 608 Fifth Avenue, partially offset by (i) $12,000 non-cash impairment loss in 2018 and (ii) $13,103 additional New York City real property transfer tax ("Transfer Tax") recognized in the first quarter of 2018 related to the acquisition of Independence Plaza. The joint venture that owns Independence Plaza, in which we have a 50.1% economic interest, recognized this expense based on the precedent established by the New York City Tax Appeals Tribunal (the "Tax Tribunal") decision regarding One Park Avenue. See Note 4 - *Real Estate Fund Investments* to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information regarding this matter.

Results of Operations – Year Ended December 31, 2019 Compared to December 31, 2018 - continued

Income from Partially Owned Entities

Below are the components of income (loss) from partially owned entities for the years ended December 31, 2019 and 2018.

(Amounts in thousands)	Percentage Ownership at December 31, 2019	For the Year Ended December 31, 2019	2018
Our share of net income (loss):			
Fifth Avenue and Times Square JV[1]:			
Equity in net income	51.5%	$ 31,130	$ —
Return on preferred equity, net of our share of the expense		27,586	—
		58,716	—
Alexander's[2]	32.4%	23,779	15,045
Partially owned office buildings[3]	Various	(3,443)	(3,085)
Other investments[4]	Various	(187)	(2,811)
		$ 78,865	$ 9,149

(1) The year ended December 31, 2019 includes our 51.5% ownership in the Fifth Avenue and Times Square JV since April 2019. See Note 6 - *Investments in Partially Owned Entities* to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information.

(2) 2018 includes our $7,708 share of Alexander's additional Transfer Tax related to the November 2012 sale of Kings Plaza Regional Shopping Center. Alexander's recorded this expense based on the precedent established by the Tax Tribunal's decision regarding One Park Avenue. See Note 4 - *Real Estate Fund Investments* to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information regarding this matter.

(3) Includes interests in 280 Park Avenue, 650 Madison Avenue, One Park Avenue, 7 West 34th Street, 330 Madison Avenue (sold on July 11, 2019), 512 West 22nd Street, 61 Ninth Avenue, 85 Tenth Avenue and others. 2018 includes our $4,978 share of additional Transfer Tax related to the March 2011 acquisition of One Park Avenue. See Note 4 - *Real Estate Fund Investments* to the consolidated financial statements in Part II, Item 8 of this Annual Report on Form 10-K for additional information regarding this matter.

(4) Includes interests in Independence Plaza, Fashion Centre Mall/Washington Tower, Rosslyn Plaza, 50-70 West 93rd Street, 666 Fifth Avenue Office Condominium (sold on August 3, 2018), UE (sold on March 4, 2019), PREIT (accounted for as a marketable security from March 12, 2019) and others.

Loss from Real Estate Fund Investments

Below are the components of the loss from our real estate fund investments for the years ended December 31, 2019 and 2018.

(Amounts in thousands)	For the Year Ended December 31, 2019	2018
Net investment income	$ 2,027	$ 6,105
Net unrealized loss on held investments	(106,109)	(83,794)
Net realized loss on exited investments	—	(912)
Transfer tax	—	(10,630) [1]
Loss from real estate fund investments	(104,082)	(89,231)
Less loss attributable to noncontrolling interests in consolidated subsidiaries	55,274	61,230
Loss from real estate fund investments net of controlling interests in consolidated subsidiaries[2]	$ (48,808)	$ (28,001)

(1) Due to the additional Transfer Tax related to the March 2011 acquisition of One Park Avenue which was recognized as a result of the Tax Tribunal decision in the first quarter of 2018. We appealed the Tax Tribunal's decision to the New York State Supreme Court, Appellate Division, First Department ("Appellate Division"). Our appeal was heard on April 2, 2019. On April 25, 2019, the Appellate Division entered a unanimous decision and order that confirmed the decision of the Tax Tribunal and dismissed our appeal. On June 20, 2019, we filed a motion to reargue the Appellate Division's decision or for leave to appeal to the New York State Court of Appeals. That motion was denied on December 12, 2019 and can no longer be appealed.

(2) 2018 includes $4,252 of loss related to One Park Avenue additional transfer taxes and reduction in carried interest.

Interest and Other Investment Income, net

Below are the components of interest and other investment, net for the years ended December 31, 2019 and 2018.

(Amounts in thousands)	For the Year Ended December 31,	
	2019	2018
Interest on cash and cash equivalents and restricted cash	$ 13,380	$ 15,827
Interest on loans receivable[(1)]	6,326	10,298
Decrease in fair value of marketable securities	(5,533)	(26,453)
Dividends on marketable securities	3,938	13,339
Other, net	3,708	4,046
	$ 21,819	$ 17,057

(1) 2018 includes $6,707 of profit participation in connection with an investment in a mezzanine loan which was previously repaid to us.

Interest and Debt Expense

Interest and debt expense was $286,623,000 for the year ended December 31, 2019, compared to $347,949,000 in the prior year, a decrease of $61,326,000. This decrease was primarily due to (i) $30,245,000 of lower interest expense resulting from the repayment of the 220 CPS loan, (ii) $30,029,000 of lower interest expense resulting from the deconsolidation of mortgages payable of the properties contributed to Fifth Avenue and Times Square JV in April 2019, (iii) $15,137,000 of lower interest from the redemption of the $400,000,000 5.00% senior unsecured notes in April 2019, and (iv) $13,077,000 lower capital lease interest due to the acquisition of the fee interest in 1535 Broadway in September 2018, partially offset by (v) $22,540,000 of expense from debt prepayment costs relating to redemption of the senior unsecured notes, and (vi) $5,457,000 of higher interest from the interest rate swap on our $750,000,000 unsecured term loan.

Net Gain on Transfer to Fifth Avenue and Times Square JV

In April 2019, we recognized a $2,571,099,000 net gain from the transfer of common equity in the properties contributed to Fifth Avenue and Times Square JV, including the related step-up in our basis of the retained portion of the assets to fair value.

Purchase Price Fair Value Adjustment

The purchase price fair value adjustment of $44,060,000 for the year ended December 31, 2018 represents the difference between the estimated fair market value and the book basis of our 50.1% interest in the joint venture that is developing the Farley Office and Retail Building as a result of our increased ownership in the joint venture to 95.0% from 50.1%.

Net Gains on Disposition of Wholly Owned and Partially Owned Assets

Net gains on disposition of wholly owned and partially owned assets of $845,499,000 for the year ended December 31, 2019 primarily consists of (i) $604,393,000 of net gains on sale of 220 CPS condominium units, (ii) $159,292,000 net gain on sale of our 25% interest in 330 Madison Avenue, (iii) $62,395,000 net gain from the sale of all of our UE partnership units, and (iv) $19,477,000 net gain on sale of 3040 M Street. Net gains of $246,031,000 for the year ended December 31, 2018 primarily consists of (i) $134,032,000 net gain on the sale of our 49.5% interests in 666 Fifth Avenue Office Condominium, (ii) $81,224,000 net gain on sale of 220 CPS condominium units, (iii) $23,559,000 net gain on sale of 27 Washington Square North, and (iv) $7,308,000 net gain from repayment of our interest on the mortgage loan on 666 Fifth Avenue Office Condominium.

Income Tax Expense

For the year ended December 31, 2019, we had income tax expense of $103,439,000, compared to $37,633,000 in the prior year, an increase of $65,806,000. This increase was primarily due to $87,940,000 of higher income tax expense on the sale of 220 CPS condominium units, partially offset by $16,771,000 of expense in the year ended December 31, 2018 due to the $44,060,000 purchase price fair value adjustment recognized as a result of our increased ownership in the Farley Office and Retail Building joint venture.

(Loss) Income from Discontinued Operations

Loss from discontinued operations for the year ended December 31, 2019 was $30,000 compared to income of $638,000 in the prior year, a decrease in income of $668,000.

Net Loss Attributable to Noncontrolling Interests in Consolidated Subsidiaries

Net loss attributable to noncontrolling interests in consolidated subsidiaries was $24,547,000 for the year ended December 31, 2019, compared to $53,023,000 in the prior year, a decrease of $28,476,000. This decrease resulted primarily from (i) $11,945,000 net gain on transfer to Fifth Avenue and Times Square JV attributable to noncontrolling interests for the year ended December 31, 2019, (ii) $6,538,000 of additional Transfer Tax allocated to noncontrolling interests related to the acquisition of Independence Plaza for the year ended December 31, 2018, and (iii) $5,956,000 of lower net loss allocated to the noncontrolling interests of our real estate fund investments,

Net Income Attributable to Noncontrolling Interests in the Operating Partnership (Vornado Realty Trust)

Net income attributable to noncontrolling interests in the Operating Partnership was $210,872,000 for the year ended December 31, 2019, compared to $25,672,000 in the prior year, an increase of $185,200,000. The increase resulted primarily from higher net income subject to allocation to Class A unitholders due to the net gain on transfer to Fifth Avenue and Times Square JV.

Preferred Share Dividends of Vornado Realty Trust

Preferred share dividends were $50,131,000 for the year ended December 31, 2019, compared to $50,636,000 in the prior year, a decrease of $505,000.

Preferred Unit Distributions of Vornado Realty L.P.

Preferred unit distributions were $50,296,000 for the year ended December 31, 2019, compared to $50,830,000 in the prior year, a decrease of $534,000.

Preferred Share/Unit Issuance Costs

For the year ended December 31, 2018, we recognized preferred share/unit issuance costs of $14,486,000 representing the write-off of issuance costs upon the redemption of all the outstanding Series G and Series I cumulative redeemable preferred shares/units in January 2018.

Same Store Net Operating Income At Share

Same store NOI at share represents NOI at share from operations which are in service in both the current and prior year reporting periods. Same store NOI at share - cash basis is same store NOI at share adjusted to exclude straight-line rental income and expense, amortization of acquired below and above market leases, net and other non-cash adjustments. We present these non-GAAP measures to (i) facilitate meaningful comparisons of the operational performance of our properties and segments, (ii) make decisions on whether to buy, sell or refinance properties, and (iii) compare the performance of our properties and segments to those of our peers. Same store NOI at share and same store NOI at share - cash basis should not be considered alternatives to net income or cash flow from operations and may not be comparable to similarly titled measures employed by other companies.

Below are reconciliations of NOI at share to same store NOI at share for our New York segment, theMART, 555 California Street and other investments for the year ended December 31, 2019 compared to December 31, 2018.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
NOI at share for the year ended December 31, 2019	$ 1,259,777	$ 1,072,828	$ 102,071	$ 59,657	$ 25,221
Less NOI at share from:					
Acquisitions	(334)	(334)	—	—	—
Change in ownership interests in properties contributed to Fifth Avenue and Times Square JV	(5,479)	(5,479)	—	—	—
Dispositions	(7,420)	(7,420)	—	—	—
Development properties	(54,099)	(54,099)	—	—	—
Other non-same store (income) expense, net	(33,028)	(5,585)	(2,635)	413	(25,221)
Same store NOI at share for the year ended December 31, 2019	$ 1,159,417	$ 999,911	$ 99,436	$ 60,070	$ —
NOI at share for the year ended December 31, 2018	$ 1,382,620	$ 1,176,990	$ 90,929	$ 54,691	$ 60,010
Less NOI at share from:					
Acquisitions	(121)	(121)	—	—	—
Change in ownership interests in properties contributed to Fifth Avenue and Times Square JV	(84,020)	(84,020)	—	—	—
Dispositions	(14,949)	(14,949)	—	—	—
Development properties	(74,720)	(74,720)	—	—	—
Other non-same store (income) expense, net	(72,930)	(7,825)	(5,155)	60	(60,010)
Same store NOI at share for the year ended December 31, 2018	$ 1,135,880	$ 995,355	$ 85,774	$ 54,751	$ —
Increase in same store NOI at share for the year ended December 31, 2019 compared to December 31, 2018	$ 23,537	$ 4,556	$ 13,662	$ 5,319	$ —
% increase in same store NOI at share	2.1%	0.5% (1)	15.9% (2)	9.7%	—%

(1) Excluding Hotel Pennsylvania, same store NOI at share increased by 0.9%.
(2) Primarily due to $11,131 of tenant reimbursement revenue received in 2019 related to real estate tax expense accrued in 2018.

Results of Operations – Year Ended December 31, 2019 Compared to December 31, 2018 - continued

Same Store Net Operating Income At Share - continued

Below are reconciliations of NOI at share - cash basis to same store NOI at share - cash basis for our New York segment, theMART, 555 California Street and other investments for the year ended December 31, 2019 compared to December 31, 2018.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
NOI at share - cash basis for the year ended December 31, 2019	$ 1,253,717	$ 1,060,510	$ 108,130	$ 60,156	$ 24,921
Less NOI at share - cash basis from:					
Acquisitions	(266)	(266)	—	—	—
Change in ownership interests in properties contributed to Fifth Avenue and Times Square JV	(5,183)	(5,183)	—	—	—
Dispositions	(8,219)	(8,219)	—	—	—
Development properties	(64,359)	(64,359)	—	—	—
Other non-same store (income) expense, net	(52,594)	(24,892)	(2,973)	192	(24,921)
Same store NOI at share - cash basis for the year ended December 31, 2019	$ 1,123,096	$ 957,591	$ 105,157	$ 60,348	$ —
NOI at share - cash basis for the year ended December 31, 2018	$ 1,337,916	$ 1,131,563	$ 94,070	$ 53,488	$ 58,795
Less NOI at share - cash basis from:					
Acquisitions	(121)	(121)	—	—	—
Change in ownership interests in properties contributed to Fifth Avenue and Times Square JV	(79,427)	(79,427)	—	—	—
Dispositions	(14,764)	(14,764)	—	—	—
Development properties	(81,137)	(81,137)	—	—	—
Other non-same store (income) expense, net	(78,119)	(14,011)	(5,373)	60	(58,795)
Same store NOI at share - cash basis for the year ended December 31, 2018	$ 1,084,348	$ 942,103	$ 88,697	$ 53,548	$ —
Increase in same store NOI at share - cash basis for the year ended December 31, 2019 compared to December 31, 2018	$ 38,748	$ 15,488	$ 16,460	$ 6,800	$ —
% increase in same store NOI at share - cash basis	3.6%	1.6% (1)	18.6% (2)	12.7%	—%

(1) Excluding Hotel Pennsylvania, same store NOI at share - cash basis increased by 2.2%.
(2) Primarily due to $11,131 of tenant reimbursement revenue received in 2019 related to real estate tax expense accrued in 2018.

Supplemental Information

NOI At Share by Segment for the Three Months Ended December 31, 2019 and 2018

Below is a summary of NOI at share by segment for the three months ended December 31, 2019 and 2018.

(Amounts in thousands)	For the Three Months Ended December 31, 2019		
	Total	New York[1]	Other
Total revenues	$ 460,968	$ 377,626	$ 83,342
Operating expenses	(223,975)	(184,231)	(39,744)
NOI - consolidated	236,993	193,395	43,598
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(17,417)	(9,885)	(7,532)
Add: NOI from partially owned entities	85,990	82,774	3,216
NOI at share	305,566	266,284	39,282
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(6,590)	(8,577)	1,987
NOI at share - cash basis	$ 298,976	$ 257,707	$ 41,269

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.

(Amounts in thousands)	For the Three Months Ended December 31, 2018		
	Total	New York	Other
Total revenues	$ 543,417	$ 466,554	$ 76,863
Operating expenses	(254,320)	(206,696)	(47,624)
NOI - consolidated	289,097	259,858	29,239
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(19,771)	(13,837)	(5,934)
Add: NOI from partially owned entities	60,205	49,178	11,027
NOI at share	329,531	295,199	34,332
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(5,532)	(6,266)	734
NOI at share - cash basis	$ 323,999	$ 288,933	$ 35,066

Supplemental Information - continued

NOI At Share by Segment for the Three Months Ended December 31, 2019 and 2018 - continued

The elements of our New York and Other NOI at share for the three months ended December 31, 2019 and 2018 are summarized below.

(Amounts in thousands)	For the Three Months Ended December 31,	
	2019	2018
New York:		
Office[1]	$ 183,925	$ 186,832
Retail[1]	59,728	85,549
Residential	5,835	5,834
Alexander's	10,626	11,023
Hotel Pennsylvania	6,170	5,961
Total New York	266,284	295,199
Other:		
theMART[2]	22,712	10,981
555 California Street	14,533	14,005
Other investments[3]	2,037	9,346
Total Other	39,282	34,332
NOI at share	$ 305,566	$ 329,531

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.
(2) The three months ended December 31, 2018 includes an additional $12,814 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.
(3) The three months ended December 31, 2018 includes $4,683 from PREIT (accounted for as a marketable security beginning March 12, 2019) and $3,198 from UE (sold on March 4, 2019).

The elements of our New York and Other NOI at share - cash basis for the three months ended December 31, 2019 and 2018 are summarized below.

(Amounts in thousands)	For the Three Months Ended December 31,	
	2019	2018
New York:		
Office[1]	$ 180,762	$ 185,624
Retail[1]	54,357	80,515
Residential	5,763	5,656
Alexander's	10,773	11,129
Hotel Pennsylvania	6,052	6,009
Total New York	257,707	288,933
Other:		
theMART[2]	24,646	12,758
555 California Street	14,491	13,784
Other investments[3]	2,132	8,524
Total Other	41,269	35,066
NOI at share - cash basis	$ 298,976	$ 323,999

(1) Reflects the transfer of 45.4% of common equity in the properties contributed to the Fifth Avenue and Times Square JV on April 18, 2019.
(2) The three months ended December 31, 2018 includes an additional $12,814 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.
(3) The three months ended December 31, 2018 includes $4,612 from PREIT (accounted for as a marketable security beginning March 12, 2019) and $2,320 from UE (sold on March 4, 2019).

Supplemental Information - continued

Reconciliation of Net Income to NOI At Share and NOI At Share - Cash Basis for the Three Months Ended December 31, 2019 and 2018

(Amounts in thousands)	For the Three Months Ended December 31,	
	2019	2018
Net income	$ 160,676	$ 97,821
Depreciation and amortization expense	92,926	112,869
General and administrative expense	39,791	32,934
Transaction related costs, impairment losses and other	3,223	14,637
Income from partially owned entities	(22,726)	(3,090)
Loss from real estate fund investments	90,302	51,258
Interest and other investment income, net	(5,889)	(7,656)
Interest and debt expense	59,683	83,175
Purchase price fair value adjustment	—	(44,060)
Net gains on disposition of wholly owned and partially owned assets	(203,835)	(81,203)
Income tax expense	22,897	32,669
Income from discontinued operations	(55)	(257)
NOI from partially owned entities	85,990	60,205
NOI attributable to noncontrolling interests in consolidated subsidiaries	(17,417)	(19,771)
NOI at share	305,566	329,531
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(6,590)	(5,532)
NOI at share - cash basis	$ 298,976	$ 323,999

NOI At Share by Region

	For the Three Months Ended December 31,	
	2019	2018
Region:		
New York City metropolitan area	88%	92%
Chicago, IL	7%	3%
San Francisco, CA	5%	5%
	100%	100%

Supplemental Information - continued

Three Months Ended December 31, 2019 Compared to December 31, 2018

Same Store Net Operating Income At Share

Below are reconciliations of NOI at share to same store NOI at share for our New York segment, theMART, 555 California Street and other investments for the three months ended December 31, 2019 compared to December 31, 2018.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
NOI at share for the three months ended December 31, 2019	$ 305,566	$ 266,284	$ 22,712	$ 14,533	$ 2,037
Less NOI at share from:					
Acquisitions	(122)	(122)	—	—	—
Dispositions	(62)	(62)	—	—	—
Development properties	(16,082)	(16,082)	—	—	—
Other non-same store (income) expense, net	(8,164)	(5,969)	(172)	14	(2,037)
Same store NOI at share for the three months ended December 31, 2019	$ 281,136	$ 244,049	$ 22,540	$ 14,547	$ —
NOI at share for the three months ended December 31, 2018	$ 329,531	$ 295,199	$ 10,981	$ 14,005	$ 9,346
Less NOI at share from:					
Change in ownership interests in properties contributed to Fifth Avenue and Times Square JV	(28,683)	(28,683)	—	—	—
Dispositions	(3,614)	(3,614)	—	—	—
Development properties	(21,797)	(21,811)	—	14	—
Other non-same store (income) expense, net	(13,041)	(3,291)	(463)	59	(9,346)
Same store NOI at share for the three months ended December 31, 2018	$ 262,396	$ 237,800	$ 10,518	$ 14,078	$ —
Increase in same store NOI at share for the three months ended December 31, 2019 compared to December 31, 2018	$ 18,740	$ 6,249	$ 12,022	$ 469	$ —
% increase in same store NOI at share	7.1%	2.6% (1)	114.3% (2)	3.3%	—%

(1) Excluding Hotel Pennsylvania, same store NOI at share remained unchanged.
(2) The three months ended December 31, 2018 includes an additional $12,814 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

Three Months Ended December 31, 2019 Compared to December 31, 2018 - continued

Same Store Net Operating Income At Share - continued

Below are reconciliations of NOI at share - cash basis to same store NOI at share - cash basis for our New York segment, theMART,555 California Street and other investments for the three months ended December 31, 2019 compared to December 31, 2018.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
NOI at share - cash basis for the three months ended December 31, 2019	$ 298,976	$ 257,707	$ 24,646	$ 14,491	$ 2,132
Less NOI at share - cash basis from:					
Acquisitions	(54)	(54)	—	—	—
Dispositions	(66)	(66)	—	—	—
Development properties	(16,948)	(16,948)	—	—	—
Other non-same store income, net	(9,736)	(7,373)	(172)	(59)	(2,132)
Same store NOI at share - cash basis for the three months ended December 31, 2019	$ 272,172	$ 233,266	$ 24,474	$ 14,432	$ —
NOI at share - cash basis for the three months ended December 31, 2018	$ 323,999	$ 288,933	$ 12,758	$ 13,784	$ 8,524
Less NOI at share - cash basis from:					
Change in ownership interests in properties contributed to Fifth Avenue and Times Square JV	(27,243)	(27,243)	—	—	—
Dispositions	(3,870)	(3,870)	—	—	—
Development properties	(24,090)	(24,104)	—	14	—
Other non-same store (income) expense, net	(13,400)	(4,416)	(520)	60	(8,524)
Same store NOI at share - cash basis for the three months ended December 31, 2018	$ 255,396	$ 229,300	$ 12,238	$ 13,858	$ —
Increase in same store NOI at share - cash basis for the three months ended December 31, 2019 compared to December 31, 2018	$ 16,776	$ 3,966	$ 12,236	$ 574	$ —
% increase in same store NOI at share - cash basis	6.6%	1.7% (1)	100.0% (2)	4.1%	—%

(1) Excluding Hotel Pennsylvania, same store NOI at share - cash basis increased by 1.8%.
(2) The three months ended December 31, 2018 includes an additional $12,814 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

Supplemental Information - continued

NOI At Share by Segment for the Three Months Ended December 31, 2019 and September 30, 2019

Below is a summary of NOI at share and NOI at share - cash basis by segment for the three months ended December 31, 2019 and September 30, 2019.

(Amounts in thousands)	For the Three Months Ended December 31, 2019		
	Total	New York	Other
Total revenues	$ 460,968	$ 377,626	$ 83,342
Operating expenses	(223,975)	(184,231)	(39,744)
NOI - consolidated	236,993	193,395	43,598
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(17,417)	(9,885)	(7,532)
Add: NOI from partially owned entities	85,990	82,774	3,216
NOI at share	305,566	266,284	39,282
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(6,590)	(8,577)	1,987
NOI at share - cash basis	$ 298,976	$ 257,707	$ 41,269

(Amounts in thousands)	For the Three Months Ended September 30, 2019		
	Total	New York	Other
Total revenues	$ 465,961	$ 380,568	$ 85,393
Operating expenses	(226,359)	(188,159)	(38,200)
NOI - consolidated	239,602	192,409	47,193
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(18,096)	(9,574)	(8,522)
Add: NOI from partially owned entities	86,024	82,649	3,375
NOI at share	307,530	265,484	42,046
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(4,037)	(5,560)	1,523
NOI at share - cash basis	$ 303,493	$ 259,924	$ 43,569

Supplemental Information - continued

NOI At Share by Segment for the Three Months Ended December 31, 2019 and September 30, 2019 - continued

The elements of our New York and Other NOI at share for the three months ended December 31, 2019 and September 30, 2019 are summarized below.

(Amounts in thousands)	For the Three Months Ended	
	December 31, 2019	September 30, 2019
New York:		
Office	$ 183,925	$ 177,469
Retail	59,728	68,159
Residential	5,835	5,575
Alexander's	10,626	11,269
Hotel Pennsylvania	6,170	3,012
Total New York	266,284	265,484
Other:		
theMART	22,712	24,862
555 California Street	14,533	15,265
Other investments	2,037	1,919
Total Other	39,282	42,046
NOI at share	$ 305,566	$ 307,530

The elements of our New York and Other NOI at share - cash basis for the three months ended December 31, 2019 and September 30, 2019 are summarized below.

(Amounts in thousands)	For the Three Months Ended	
	December 31, 2019	September 30, 2019
New York:		
Office	$ 180,762	$ 174,796
Retail	54,357	65,636
Residential	5,763	5,057
Alexander's	10,773	11,471
Hotel Pennsylvania	6,052	2,964
Total New York	257,707	259,924
Other:		
theMART	24,646	26,588
555 California Street	14,491	15,325
Other investments	2,132	1,656
Total Other	41,269	43,569
NOI at share - cash basis	$ 298,976	$ 303,493

Supplemental Information - continued

Reconciliation of Net Income to NOI At Share and NOI At Share - Cash Basis for the Three Months Ended December 31, 2019 and September 30, 2019

(Amounts in thousands)	For the Three Months Ended	
	December 31, 2019	September 30, 2019
Net income	$ 160,676	$ 363,849
Depreciation and amortization expense	92,926	96,437
General and administrative expense	39,791	33,237
Transaction related costs, impairment losses and other	3,223	1,576
Income from partially owned entities	(22,726)	(25,946)
Loss (income) from real estate fund investments	90,302	(2,190)
Interest and other investment income, net	(5,889)	(3,045)
Interest and debt expense	59,683	61,448
Net gains on disposition of wholly owned and partially owned assets	(203,835)	(309,657)
Income tax expense	22,897	23,885
(Income) loss from discontinued operations	(55)	8
NOI from partially owned entities	85,990	86,024
NOI attributable to noncontrolling interests in consolidated subsidiaries	(17,417)	(18,096)
NOI at share	305,566	307,530
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(6,590)	(4,037)
NOI at share - cash basis	$ 298,976	$ 303,493

Supplemental Information - continued

Three Months Ended December 31, 2019 Compared to September 30, 2019

Same Store Net Operating Income At Share

Below are reconciliations of NOI at share to same store NOI at share for our New York segment, theMART, 555 California Street and other investments for the three months ended December 31, 2019 compared to September 30, 2019.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
NOI at share for the three months ended December 31, 2019	$ 305,566	$ 266,284	$ 22,712	$ 14,533	$ 2,037
Less NOI at share from:					
Acquisitions	(118)	(118)	—	—	—
Dispositions	(62)	(62)	—	—	—
Development properties	(16,087)	(16,087)	—	—	—
Other non-same store (income) expense, net	(8,103)	(5,968)	(172)	74	(2,037)
Same store NOI at share for the three months ended December 31, 2019	$ 281,196	$ 244,049	$ 22,540	$ 14,607	$ —
NOI at share for the three months ended September 30, 2019	$ 307,530	$ 265,484	$ 24,862	$ 15,265	$ 1,919
Less NOI at share from:					
Dispositions	(262)	(262)	—	—	—
Development properties	(19,429)	(19,429)	—	—	—
Other non-same store (income) expense, net	(11,254)	(8,877)	(532)	74	(1,919)
Same store NOI at share for the three months ended September 30, 2019	$ 276,585	$ 236,916	$ 24,330	$ 15,339	$ —
Increase (decrease) in same store NOI at share for the three months ended December 31, 2019 compared to September 30, 2019	$ 4,611	$ 7,133	$ (1,790)	$ (732)	$ —
% increase (decrease) in same store NOI at share	1.7%	3.0% (1)	(7.4)%	(4.8)%	—%

(1) Excluding Hotel Pennsylvania, same store NOI at share increased by 1.7%.

Supplemental Information - continued

Three Months Ended December 31, 2019 Compared to September 30, 2019 - continued

Same Store Net Operating Income At Share - continued

Below are reconciliations of NOI at share - cash basis to same store NOI at share - cash basis for our New York segment, theMART, 555 California Street and other investments for the three months ended December 31, 2019 compared to September 30, 2019.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
NOI at share - cash basis for the three months ended December 31, 2019	$ 298,976	$ 257,707	$ 24,646	$ 14,491	$ 2,132
Less NOI at share - cash basis from:					
Acquisitions	(49)	(49)	—	—	—
Dispositions	(66)	(66)	—	—	—
Development properties	(16,952)	(16,952)	—	—	—
Other non-same store income, net	(9,678)	(7,374)	(172)	—	(2,132)
Same store NOI at share - cash basis for the three months ended December 31, 2019	$ 272,231	$ 233,266	$ 24,474	$ 14,491	$ —
NOI at share - cash basis for the three months ended September 30, 2019	$ 303,493	$ 259,924	$ 26,588	$ 15,325	$ 1,656
Less NOI at share - cash basis from:					
Dispositions	(693)	(693)	—	—	—
Development properties	(24,641)	(24,641)	—	—	—
Other non-same store income, net	(12,701)	(10,174)	(871)	—	(1,656)
Same store NOI at share - cash basis for the three months ended September 30, 2019	$ 265,458	$ 224,416	$ 25,717	$ 15,325	$ —
Increase (decrease) in same store NOI at share - cash basis for the three months ended December 31, 2019 compared to September 30, 2019	$ 6,773	$ 8,850	$ (1,243)	$ (834)	$ —
% increase (decrease) in same store NOI at share - cash basis	2.6%	3.9% (1)	(4.8)%	(5.4)%	—%

(1) Excluding Hotel Pennsylvania, same store NOI at share - cash basis increased by 2.6%.

Related Party Transactions

See Note 23 - *Related Party Transactions* to our consolidated financial statements in this Annual Report on Form 10-K for a discussion concerning related party transactions.

Liquidity and Capital Resources

Rental revenue is our primary source of cash flow and is dependent upon the occupancy and rental rates of our properties. Our cash requirements include property operating expenses, capital improvements, tenant improvements, debt service, leasing commissions, dividends to shareholders and distributions to unitholders of the Operating Partnership, as well as acquisition and development costs. Other sources of liquidity to fund cash requirements include proceeds from debt financings, including mortgage loans, senior unsecured borrowings, unsecured term loans and unsecured revolving credit facilities; proceeds from the issuance of common and preferred equity; and asset sales.

We anticipate that cash flow from continuing operations over the next twelve months will be adequate to fund our business operations, cash distributions to unitholders of the Operating Partnership, cash dividends to shareholders, debt amortization and recurring capital expenditures. Capital requirements for development expenditures and acquisitions may require funding from borrowings and/or equity offerings.

We expect to generate net cash of approximately $2 billion resulting from the sales of 100% of the 220 CPS residential condominium units, including $1 billion of after-tax net gain, of which $569,901,000 was recognized in our consolidated statements of income from inception to December 31, 2019. As of December 31, 2019, 91% of the condominium units are sold or under sales contracts, with closings scheduled through 2020.

We may from time to time purchase or retire outstanding debt securities or redeem our equity securities. Such purchases, if any, will depend on prevailing market conditions, liquidity requirements and other factors. The amounts involved in connection with these transactions could be material to our consolidated financial statements.

Dividends

On December 18, 2019, Vornado's Board of Trustees declared a special dividend of $1.95 per share to common shareholders of record on December 30, 2019 (the "Record Date"). On January 15, 2020, $372,380,000 of cash was paid to Vornado's common shareholders and $25,912,000 of cash was paid to non-affiliated unitholders of the Operating Partnership for the special dividend.

On January 15, 2020, Vornado declared a quarterly common dividend of $0.66 per share (an indicated annual rate of $2.64 per common share). This dividend, if declared by the Board of Trustees for all of 2020, would require Vornado to pay out approximately $504,000,000 of cash for common share dividends. In addition, during 2020, Vornado expects to pay approximately $50,000,000 of cash dividends on outstanding preferred shares and approximately $35,000,000 of cash distributions to unitholders of the Operating Partnership.

Liquidity and Capital Resources - continued

Financing Activities and Contractual Obligations

We have an effective shelf registration for the offering of our equity and debt securities that is not limited in amount due to our status as a "well-known seasoned issuer." We have issued senior unsecured notes from a shelf registration statement that contain financial covenants that restrict our ability to incur debt, and that require us to maintain a level of unencumbered assets based on the level of our secured debt. Our unsecured revolving credit facilities contain financial covenants that require us to maintain minimum interest coverage and maximum debt to market capitalization ratios, and provide for higher interest rates in the event of a decline in our ratings below Baa3/BBB. Our unsecured revolving credit facilities also contain customary conditions precedent to borrowing, including representations and warranties, and contain customary events of default that could give rise to accelerated repayment, including such items as failure to pay interest or principal. As of December 31, 2019, we are in compliance with all of the financial covenants required by our senior unsecured notes and our unsecured revolving credit facilities.

As of December 31, 2019, we had $1,515,012,000 of cash and cash equivalents and $2,159,120,000 of borrowing capacity under our unsecured revolving credit facilities, net of letters of credit of $15,880,000. A summary of our consolidated debt as of December 31, 2019 and 2018 is presented below.

(Amounts in thousands)	As of December 31, 2019		As of December 31, 2018	
Consolidated debt:	Balance	Weighted Average Interest Rate	Balance	Weighted Average Interest Rate
Variable rate	$ 1,643,500	3.09%	$ 3,292,382	4.31%
Fixed rate	5,801,516	3.57%	6,603,465	3.65%
Total	7,445,016	3.46%	9,895,847	3.87%
Deferred financing costs, net and other	(38,407)		(59,226)	
Total, net	$ 7,406,609		$ 9,836,621	

Our consolidated outstanding debt, net of deferred financing costs and other, was $7,406,609,000 at December 31, 2019, a $2,430,012,000 decrease from the balance at December 31, 2018. During 2020 and 2021, $450,000,000 and $2,326,516,000, respectively, of our outstanding debt matures; we may refinance this maturing debt as it comes due or choose to repay it using cash and cash equivalents or our unsecured revolving credit facilities. We may also refinance or prepay other outstanding debt depending on prevailing market conditions, liquidity requirements and other factors. The amounts involved in connection with these transactions could be material to our consolidated financial statements.

Below is a schedule of our contractual obligations and commitments at December 31, 2019.

(Amounts in thousands) Contractual cash obligations[(1)] (principal and interest[(2)]):	Total	Less than 1 Year	1 – 3 Years	3 – 5 Years	Thereafter
Notes and mortgages payable	$ 6,190,143	$ 1,719,730	$ 2,812,979	$ 886,033	$ 771,401
Operating leases	1,206,060	28,192	60,351	62,636	1,054,881
Purchase obligations, primarily construction commitments	679,579	558,568	121,011	—	—
Senior unsecured notes due 2025	529,406	15,750	31,500	31,500	450,656
Unsecured term loan	866,233	29,038	58,076	779,119	—
Revolving credit facilities	618,596	14,260	26,911	577,425	—
Other obligations[(3)]	556,852	6,991	14,673	16,139	519,049
Total contractual cash obligations	$ 10,646,869	$ 2,372,529	$ 3,125,501	$ 2,352,852	$ 2,795,987
Commitments:					
Capital commitments to partially owned entities	$ 12,643	$ 12,643	$ —	$ —	$ —
Standby letters of credit	15,880	15,880	—	—	—
Total commitments	$ 28,523	$ 28,523	$ —	$ —	$ —

(1) Excludes committed tenant-related obligations as timing and amounts of payments are uncertain and may only be due upon satisfactory performance of certain conditions.
(2) Interest on variable rate debt is computed using rates in effect at December 31, 2019.
(3) Represents rent and fixed payments in lieu of real estate taxes due to Empire State Development ("ESD"), an entity of New York State, for the Farley Office and Retail Building.

Financing Activities and Contractual Obligations – continued

Details of 2019 financing activities are provided in the "Overview" of Management's Discussion and Analysis of Financial Conditions and Results of Operations. Details of 2018 financing activities are discussed below.

Preferred Securities

On January 4 and 11, 2018, we redeemed all of the outstanding 6.625% Series G and Series I cumulative redeemable preferred shares/ units at their redemption price of $25.00 per share/unit, or $470,000,000 in the aggregate, plus accrued and unpaid dividends/distributions through the date of redemption, and expensed $14,486,000 of previously capitalized issuance costs.

Unsecured Term Loan

On October 26, 2018, we extended our $750,000,000 unsecured term loan from October 2020 to February 2024. The interest rate on the extended unsecured term loan was lowered from LIBOR plus 1.15% to LIBOR plus 1.00%. In connection with the extension of our unsecured term loan, we entered into an interest rate swap from LIBOR plus 1.00% to a fixed rate of 3.87% through October 2023.

Secured Debt

On January 5, 2018, we completed a $100,000,000 refinancing of 33-00 Northern Boulevard (Center Building), a 471,000 square foot office building in Long Island City, New York. The seven-year loan is at LIBOR plus 1.80%, which was swapped to a fixed rate of 4.14%. We realized net proceeds of approximately $37,200,000 after repayment of the existing 4.43% $59,800,000 mortgage and closing costs.

On April 19, 2018, the joint venture between the Fund and the Crowne Plaza Joint Venture completed a $255,000,000 refinancing of the Crowne Plaza Times Square Hotel. The interest-only loan is at LIBOR plus 3.53% and matures in May 2020 with three one-year extension options. In connection therewith, the joint venture purchased an interest rate cap that caps LIBOR at a rate of 4.00%. The Crowne Plaza Times Square Hotel was previously encumbered by a $310,000,000 interest-only mortgage at LIBOR plus 2.80%, which was scheduled to mature in December 2018.

On June 11, 2018, the joint venture that owns Independence Plaza, a three-building 1,327-unit Manhattan residential complex completed a $675,000,000 refinancing of Independence Plaza. The seven-year interest-only loan matures in July 2025 and has a fixed rate of 4.25%. Our share of net proceeds, after repayment of the existing 3.48% $550,000,000 mortgage and closing costs, was $55,618,000.

On August 9, 2018, we completed a $120,000,000 refinancing of 4 Union Square South, a 206,000 square foot Manhattan retail property. The interest-only loan carries a rate of LIBOR plus 1.40% and matures in 2025, as extended. The property was previously encumbered by a $113,000,000 mortgage at LIBOR plus 2.15%, which was scheduled to mature in 2019.

On November 16, 2018, we completed a $205,000,000 refinancing of 150 West 34th Street, a 78,000 square foot Manhattan retail property. The interest-only loan carries a rate of LIBOR plus 1.88% and matures in 2024, as extended. Concurrently, we invested $105,000,000 in a participation in the refinanced mortgage loan, which earns interest at a rate of LIBOR plus 2.00% and also matures in 2024, as extended, and is included in "other assets" on our consolidated balance sheets. The property was previously encumbered by a mortgage of the same amount at LIBOR plus 2.25%, which was scheduled to mature in 2020.

Off-Balance Sheet Arrangements

Our off-balance sheet arrangements consist primarily of our investments in joint ventures. All debt of our joint venture arrangements is non-recourse to us except for the mortgage loans secured by 640 Fifth Avenue and 7 West 34th Street, which we guaranteed and therefore are part of our tax basis. Our off-balance sheet arrangements are discussed in Note 6 - *Investments in Partially Owned Entities* and Note 22 - *Commitments and Contingencies* in our consolidated financial statements in this Annual Report on Form 10-K.

Liquidity and Capital Resources – continued

Certain Future Cash Requirements

Capital Expenditures

The following table summarizes anticipated 2020 capital expenditures.

(Amounts in millions, except per square foot data)	Total	New York	theMART	555 California Street
Expenditures to maintain assets	$ 113.0	$ 90.0	$ 18.0	$ 5.0
Tenant improvements	143.0	128.0	15.0	—
Leasing commissions	47.0	42.0	5.0	—
Total recurring tenant improvements, leasing commissions and other capital expenditures	$ 303.0	$ 260.0	$ 38.0	$ 5.0
Square feet budgeted to be leased (in thousands)		*2,000*	*400*	—
Weighted average lease term (years)		*10.0*	*8.5*	—
Tenant improvements and leasing commissions:				
Per square foot		*$ 85.00*	*$ 50.00*	*$* —
Per square foot per annum		*8.50*	*6.00*	—

The table above excludes anticipated capital expenditures of each of our partially owned non-consolidated subsidiaries, as these entities fund their capital expenditures without additional equity contributions from us.

Development and Redevelopment Expenditures

220 CPS

We are constructing a residential condominium tower containing 397,000 salable square feet at 220 CPS. The development cost of this project (exclusive of land cost of $515.4 million) is estimated to be approximately $1.450 billion, of which $1.373 billion has been expended as of December 31, 2019.

Penn District

We are redeveloping PENN1, a 2,545,000 square foot office building located on 34th Street between Seventh and Eighth Avenue. The development cost of this project is estimated to be $325,000,000, of which $69,006,000 has been expended as of December 31, 2019.

We are redeveloping PENN2, a 1,795,000 square foot (as expanded) office building, located on the west side of Seventh Avenue between 31st and 33rd Street. The development cost of this project is estimated to be $750,000,000, of which $40,820,000 has been expended as of December 31, 2019.

We are also making districtwide improvements within the Penn District. The development cost of these improvements is estimated to be $100,000,000, of which $6,314,000 has been expended as of December 31, 2019.

Our 95.0% joint venture (the remaining 5.0% is owned by the Related Companies ("Related")) is developing the Farley Office and Retail Building (the "Project"), which will include approximately 844,000 rentable square feet of commercial space, comprised of approximately 730,000 square feet of office space and approximately 114,000 square feet of retail space. The total development cost of the Project is estimated to be approximately $1,030,000,000. As of December 31, 2019, $597,600,000 has been expended.

The joint venture has entered into a development agreement with ESD to build the adjacent Moynihan Train Hall, with Vornado and Related each guaranteeing the joint venture's obligations. The joint venture has entered into a design-build contract with Skanska Moynihan Train Hall Builders pursuant to which they will build the Moynihan Train Hall, thereby fulfilling all of the joint venture's obligations to ESD. The obligations of Skanska Moynihan Train Hall Builders have been bonded by Skanska USA and bear a full guaranty from Skanska AB. The development expenditures for the Moynihan Train Hall are estimated to be approximately $1.6 billion, which will be funded by governmental agencies.

On December 19, 2019, we paid Kmart Corporation $34,000,000, of which $10,000,000 is expected to be reimbursed, to early terminate their 141,000 square foot retail space lease at PENN1 which was scheduled to expire in January 2036.

We recently entered into a development agreement with Metropolitan Transportation Authority to oversee the development of the Long Island Rail Road 33rd Street entrance at Penn Station which Skanska USA Civil Northeast, Inc. will construct under a fixed price contract for $120,805,000.

Development and Redevelopment Expenditures - continued

Other

We are redeveloping a 78,000 square foot Class A office building at 345 Montgomery Street, a part of our 555 California Street complex in San Francisco (70.0% interest) located at the corner of California and Pine Street. The development cost of this project is estimated to be approximately $50,000,000, of which our share is $35,000,000. As of December 31, 2019, $48,087,000 has been expended, of which our share is $33,661,000.

We are redeveloping a 165,000 square foot office building at 825 Seventh Avenue, located at the corner of 53rd Street and Seventh Avenue (50.0% interest). The redevelopment cost of this project is estimated to be approximately $30,000,000, of which our share is $15,000,000. As of December 31, 2019, $23,128,000 has been expended, of which our share is $11,564,000.

We are also evaluating other development and redevelopment opportunities at certain of our properties in Manhattan including, in particular, the Penn District.

There can be no assurance that the above projects will be completed, completed on schedule or within budget.

Insurance

For our properties except the Farley Office and Retail Building, we maintain general liability insurance with limits of $300,000,000 per occurrence and per property, and all risk property and rental value insurance with limits of $2.0 billion per occurrence, with sub-limits for certain perils such as flood and earthquake. Our California properties have earthquake insurance with coverage of $350,000,000 per occurrence and in the aggregate, subject to a deductible in the amount of 5% of the value of the affected property. We maintain coverage for certified terrorism acts with limits of $6.0 billion per occurrence and in the aggregate (as listed below), $1.2 billion for non-certified acts of terrorism, and $5.0 billion per occurrence and in the aggregate for terrorism involving nuclear, biological, chemical and radiological ("NBCR") terrorism events, as defined by the Terrorism Risk Insurance Act of 2002, as amended to date and which has been extended through December 2027.

Penn Plaza Insurance Company, LLC ("PPIC"), our wholly owned consolidated subsidiary, acts as a re-insurer with respect to a portion of all risk property and rental value insurance and a portion of our earthquake insurance coverage, and as a direct insurer for coverage for acts of terrorism including NBCR acts. Coverage for acts of terrorism (excluding NBCR acts) is fully reinsured by third party insurance companies and the Federal government with no exposure to PPIC. For NBCR acts, PPIC is responsible for a deductible of $1,430,413 and 20% of the balance of a covered loss and the Federal government is responsible for the remaining portion of a covered loss. We are ultimately responsible for any loss incurred by PPIC.

For the Farley Office and Retail Building, we maintain general liability insurance with limits of $100,000,000 per occurrence, and builder's risk insurance including coverage for existing property and development activities of $2.8 billion per occurrence and in the aggregate. We maintain coverage for certified and non-certified terrorism acts with limits of $1.0 billion per occurrence and in the aggregate.

We continue to monitor the state of the insurance market and the scope and costs of coverage for acts of terrorism and other events. However, we cannot anticipate what coverage will be available on commercially reasonable terms in the future. We are responsible for uninsured losses and for deductibles and losses in excess of our insurance coverage, which could be material.

Our debt instruments, consisting of mortgage loans secured by our properties, senior unsecured notes and revolving credit agreements contain customary covenants requiring us to maintain insurance. Although we believe that we have adequate insurance coverage for purposes of these agreements, we may not be able to obtain an equivalent amount of coverage at reasonable costs in the future. Further, if lenders insist on greater coverage than we are able to obtain it could adversely affect our ability to finance or refinance our properties and expand our portfolio.

Other Commitments and Contingencies

We are from time to time involved in legal actions arising in the ordinary course of business. In our opinion, after consultation with legal counsel, the outcome of such matters is not currently expected to have a material adverse effect on our financial position, results of operations or cash flows.

Each of our properties has been subjected to varying degrees of environmental assessment at various times. The environmental assessments did not reveal any material environmental contamination. However, there can be no assurance that the identification of new areas of contamination, changes in the extent or known scope of contamination, the discovery of additional sites, or changes in cleanup requirements would not result in significant costs to us.

In July 2018, we leased 78,000 square feet at 345 Montgomery Street in San Francisco, CA, to a subsidiary of Regus PLC, for an initial term of 15 years. The obligations under the lease were guaranteed by Regus PLC in an amount of up to $90,000,000. The tenant purported to terminate the lease prior to space delivery. We commenced a suit on October 23, 2019 seeking to enforce the lease and the guarantee.

Our mortgage loans are non-recourse to us, except for the mortgage loans secured by 640 Fifth Avenue, 7 West 34th Street and 435 Seventh Avenue, which we guaranteed and therefore are part of our tax basis. In certain cases we have provided guarantees or master leased tenant space. These guarantees and master leases terminate either upon the satisfaction of specified circumstances or repayment of the underlying loans. In addition, we have guaranteed the rent and payments in lieu of real estate taxes due to ESD, an entity of New York State, for the Farley Office and Retail Building. As of December 31, 2019, the aggregate dollar amount of these guarantees and master leases is approximately $1,524,000,000.

As of December 31, 2019, $15,880,000 of letters of credit were outstanding under one of our unsecured revolving credit facilities. Our unsecured revolving credit facilities contain financial covenants that require us to maintain minimum interest coverage and maximum debt to market capitalization ratios, and provide for higher interest rates in the event of a decline in our ratings below Baa3/BBB. Our unsecured revolving credit facilities also contain customary conditions precedent to borrowing, including representations and warranties, and also contain customary events of default that could give rise to accelerated repayment, including such items as failure to pay interest or principal.

The joint venture in which we own a 95.0% ownership interest was designated by ESD to develop the Farley Office and Retail Building. The joint venture entered into a development agreement with ESD and a design-build contract with Skanska Moynihan Train Hall Builders. Under the development agreement with ESD, the joint venture is obligated to build the Moynihan Train Hall, with Vornado and Related each guaranteeing the joint venture's obligations. Under the design-build agreement, Skanska Moynihan Train Hall Builders is obligated to fulfill all of the joint venture's obligations. The obligations of Skanska Moynihan Train Hall Builders have been bonded by Skanska USA and bear a full guaranty from Skanska AB.

As of December 31, 2019, we expect to fund additional capital to certain of our partially owned entities aggregating approximately $12,700,000.

As of December 31, 2019, we have construction commitments aggregating approximately $627,000,000.

Cash Flows for the Year Ended December 31, 2019 Compared to December 31, 2018

Our cash flow activities for the years ended December 31, 2019 and 2018 are summarized as follows:

(Amounts in thousands)	For the Year Ended December 31,		(Decrease) Increase in Cash Flow
	2019	**2018**	
Net cash provided by operating activities	$ 662,539	$ 802,641	$ (140,102)
Net cash provided by (used in) investing activities	2,463,276	(877,722)	3,340,998
Net cash used in financing activities	(2,235,589)	(1,122,826)	(1,112,763)

Cash and cash equivalents and restricted cash was $1,607,131,000 at December 31, 2019, a $890,226,000 increase from the balance at December 31, 2018.

Net cash provided by operating activities of $662,539,000 for the year ended December 31, 2019 was comprised of $687,705,000 of cash from operations, including distributions of income from partially owned entities of $116,826,000 and a net decrease of $25,166,000 in cash due to the timing of cash receipts and payments related to changes in operating assets and liabilities.

Liquidity and Capital Resources – continued

Cash Flows for the Year Ended December 31, 2019 Compared to December 31, 2018 - continued

The following table details the cash provided by (used in) investing activities for the years ended December 31, 2019 and 2018:

(Amounts in thousands)	For the Year Ended December 31, 2019	For the Year Ended December 31, 2018	Increase (Decrease) in Cash Flow
Proceeds from sale of condominium units at 220 Central Park South	$ 1,605,356	$ 214,776	$ 1,390,580
Proceeds from transfer of interest in Fifth Avenue and Times Square JV (net of $35,562 of transaction costs and $10,899 of deconsolidated cash and restricted cash)	1,248,743	—	1,248,743
Development costs and construction in progress	(649,056)	(418,186)	(230,870)
Proceeds from redemption of 640 Fifth Avenue preferred equity	500,000	—	500,000
Moynihan Train Hall expenditures	(438,935)	(74,609)	(364,326)
Proceeds from sale of real estate and related investments	324,201	219,731	104,470
Additions to real estate	(233,666)	(234,602)	936
Proceeds from sales of marketable securities	168,314	4,101	164,213
Acquisitions of real estate and other	(69,699)	(574,812)	505,113
Distributions of capital from partially owned entities	24,880	100,178	(75,298)
Investments in partially owned entities	(18,257)	(37,131)	18,874
Proceeds from repayments of loans receivable	1,395	25,757	(24,362)
Investments in loans receivable	—	(105,000)	105,000
Net consolidation of Farley Office and Retail Building	—	2,075	(2,075)
Net cash provided by (used in) investing activities	$ 2,463,276	$ (877,722)	$ 3,340,998

The following table details the cash used in financing activities for the years ended December 31, 2019 and 2018:

(Amounts in thousands)	For the Year Ended December 31, 2019	For the Year Ended December 31, 2018	(Decrease) Increase in Cash Flow
Repayments of borrowings	$ (2,718,987)	$ (685,265)	$ (2,033,722)
Proceeds from borrowings	1,108,156	526,766	581,390
Dividends paid on common shares/Distributions to Vornado	(503,785)	(479,348)	(24,437)
Moynihan Train Hall reimbursement from Empire State Development	438,935	74,609	364,326
Purchase of marketable securities in connection with defeasance of mortgage payable	(407,126)	—	(407,126)
Distributions to redeemable security holders and noncontrolling interests in consolidated subsidiaries	(80,194)	(76,149)	(4,045)
Dividends paid on preferred shares/Distributions to preferred unitholders	(50,131)	(55,115)	4,984
Contributions from noncontrolling interests in consolidated subsidiaries	17,871	61,062	(43,191)
Prepayment penalty on redemption of senior unsecured notes due 2022	(22,058)	—	(22,058)
Debt issuance costs	(15,588)	(12,908)	(2,680)
Repurchase of shares/Class A units related to stock compensation agreements and related tax withholdings and other	(8,692)	(12,969)	4,277
Proceeds received from exercise of Vornado stock options and other	6,903	7,309	(406)
Redemption of preferred shares/units	(893)	(470,000)	469,107
Debt prepayment and extinguishment costs	—	(818)	818
Net cash used in financing activities	$ (2,235,589)	$ (1,122,826)	$ (1,112,763)

Liquidity and Capital Resources – continued

Capital Expenditures for the Year Ended December 31, 2019

Capital expenditures consist of expenditures to maintain assets, tenant improvement allowances and leasing commissions. Recurring capital expenditures include expenditures to maintain a property's competitive position within the market and tenant improvements and leasing commissions necessary to re-lease expiring leases or renew or extend existing leases. Non-recurring capital improvements include expenditures to lease space that has been vacant for more than nine months and expenditures completed in the year of acquisition and the following two years that were planned at the time of acquisition, as well as tenant improvements and leasing commissions for space that was vacant at the time of acquisition of a property.

Below is a summary of amounts paid for capital expenditures and leasing commissions for the year ended December 31, 2019.

(Amounts in thousands)	Total	New York	theMART	555 California Street
Expenditures to maintain assets	$ 93,226	$ 80,416	$ 9,566	$ 3,244
Tenant improvements	98,261	84,870	9,244	4,147
Leasing commissions	18,229	16,316	827	1,086
Recurring tenant improvements, leasing commissions and other capital expenditures	209,716	181,602	19,637	8,477
Non-recurring capital expenditures	30,374	28,269	332	1,773
Total capital expenditures and leasing commissions	$ 240,090	$ 209,871	$ 19,969	$ 10,250

Development and Redevelopment Expenditures for the Year Ended December 31, 2019

Development and redevelopment expenditures consist of all hard and soft costs associated with the development or redevelopment of a property, including capitalized interest, debt and operating costs until the property is substantially completed and ready for its intended use. Our development project estimates below include initial leasing costs, which are reflected as non-recurring capital expenditures in the table above.

Below is a summary of amounts paid for development and redevelopment expenditures in the year ended December 31, 2019. These expenditures include interest and debt expense of $72,200,000, payroll of $16,014,000, and other soft costs (primarily architectural and engineering fees, permits, real estate taxes and professional fees) aggregating $83,463,000, which were capitalized in connection with the development and redevelopment of these projects.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
Farley Office and Retail Building	$ 265,455	$ 265,455	$ —	$ —	$ —
220 CPS	181,177	—	—	—	181,177
PENN1	51,168	51,168	—	—	—
345 Montgomery Street	29,441	—	—	29,441	—
PENN2	28,719	28,719	—	—	—
606 Broadway	7,434	7,434	—	—	—
1535 Broadway	1,031	1,031	—	—	—
Other	84,631	78,128	2,322	3,896	285
	$ 649,056	$ 431,935	$ 2,322	$ 33,337	$ 181,462

Liquidity and Capital Resources – continued

Capital Expenditures for the Year Ended December 31, 2018

Below is a summary of amounts paid for capital expenditures and leasing commissions for the year ended December 31, 2018.

(Amounts in thousands)	Total	New York	theMART	555 California Street
Expenditures to maintain assets	$ 92,386	$ 70,954	$ 13,282	$ 8,150
Tenant improvements	100,191	76,187	15,106	8,898
Leasing commissions	33,254	29,435	459	3,360
Recurring tenant improvements, leasing commissions and other capital expenditures	225,831	176,576	28,847	20,408
Non-recurring capital expenditures	43,135	31,381	260	11,494
Total capital expenditures and leasing commissions	$ 268,966	$ 207,957	$ 29,107	$ 31,902

Development and Redevelopment Expenditures for the Year Ended December 31, 2018

Below is a summary of amounts paid for development and redevelopment expenditures in the year ended December 31, 2018. These expenditures include interest and debt expense of $73,166,000, payroll of $12,120,000, and other soft costs (primarily architectural and engineering fees, permits, real estate taxes and professional fees) aggregating $66,651,000, which were capitalized in connection with the development and redevelopment of these projects.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
220 CPS	$ 295,827	$ —	$ —	$ —	$ 295,827
Farley Office and Retail Building[(1)]	18,995	18,995	—	—	—
345 Montgomery Street	18,187	—	—	18,187	—
PENN2	16,288	16,288	—	—	—
606 Broadway	15,959	15,959	—	—	—
PENN1	8,856	8,856	—	—	—
1535 Broadway	8,645	8,645	—	—	—
Other	35,429	20,372	10,790	445	3,822
	$ 418,186	$ 89,115	$ 10,790	$ 18,632	$ 299,649

(1) Includes amounts paid for development from October 30, 2018, the date of consolidation of the Farley Office and Retail Building.

Funds From Operations

Vornado Realty Trust

FFO is computed in accordance with the definition adopted by the Board of Governors of the National Association of Real Estate Investment Trusts ("NAREIT"). NAREIT defines FFO as GAAP net income or loss adjusted to exclude net gains from sales of depreciable real estate assets, real estate impairment losses, depreciation and amortization expense from real estate assets and other specified items, including the pro rata share of such adjustments of unconsolidated subsidiaries. FFO and FFO per diluted share are non-GAAP financial measures used by management, investors and analysts to facilitate meaningful comparisons of operating performance between periods and among our peers because it excludes the effect of real estate depreciation and amortization and net gains on sales, which are based on historical costs and implicitly assume that the value of real estate diminishes predictably over time, rather than fluctuating based on existing market conditions. FFO does not represent cash generated from operating activities and is not necessarily indicative of cash available to fund cash requirements and should not be considered as an alternative to net income as a performance measure or cash flow as a liquidity measure. FFO may not be comparable to similarly titled measures employed by other companies. The calculations of both the numerator and denominator used in the computation of income per share are disclosed in Note 19 – *Income Per Share/Income Per Class A Unit*, in our consolidated financial statements on page 130 of this Annual Report on Form 10-K.

FFO - continued

Vornado Realty Trust - continued

FFO attributable to common shareholders plus assumed conversions was $311,876,000, or $1.63 per diluted share, for the three months ended December 31, 2019, compared to $210,100,000, or $1.10 per diluted share, for the prior year's three months. FFO attributable to common shareholders plus assumed conversions was $1,003,398,000, or $5.25 per diluted share, for the year ended December 31, 2019, compared to $729,740,000, or $3.82 per diluted share, for the prior year. Details of certain items that impact FFO are discussed in the financial results summary of our "Overview."

(Amounts in thousands, except per share amounts)	For the Three Months Ended December 31,		For the Year Ended December 31,	
	2019	2018	2019	2018
Reconciliation of our net income attributable to common shareholders to FFO attributable to common shareholders plus assumed conversions:				
Net income attributable to common shareholders	$ 193,217	$ 100,494	$ 3,097,806	$ 384,832
Per diluted share	$ 1.01	$ 0.53	$ 16.21	$ 2.01
FFO adjustments:				
Depreciation and amortization of real property	$ 85,609	$ 104,067	$ 389,024	$ 413,091
Net losses (gains) on sale of real estate	58	—	(178,711)	(158,138)
Real estate impairment losses	565	12,000	32,001	12,000
Net gain on transfer to Fifth Avenue and Times Square JV on April 18, 2019, net of $11,945 attributable to noncontrolling interests	—	—	(2,559,154)	—
Net gain from sale of UE common shares (sold on March 4, 2019)	—	—	(62,395)	—
Decrease (increase) in fair value of marketable securities:				
PREIT	2,438	—	21,649	—
Lexington (sold on March 1, 2019)	—	1,662	(16,068)	26,596
Other	—	(10)	(48)	(143)
After-tax purchase price fair value adjustment on depreciable real estate	—	(27,289)	—	(27,289)
Proportionate share of adjustments to equity in net income of partially owned entities to arrive at FFO:				
Depreciation and amortization of real property	37,389	24,309	134,706	101,591
Net gains on sale of real estate	—	—	—	(3,998)
Decrease in fair value of marketable securities	864	2,081	2,852	3,882
	126,923	116,820	(2,236,144)	367,592
Noncontrolling interests' share of above adjustments	(8,278)	(7,229)	141,679	(22,746)
FFO adjustments, net	$ 118,645	$ 109,591	$ (2,094,465)	$ 344,846
FFO attributable to common shareholders	$ 311,862	$ 210,085	$ 1,003,341	$ 729,678
Convertible preferred share dividends	14	15	57	62
FFO attributable to common shareholders plus assumed conversions	$ 311,876	$ 210,100	$ 1,003,398	$ 729,740
Per diluted share	$ 1.63	$ 1.10	$ 5.25	$ 3.82
Reconciliation of Weighted Average Shares				
Weighted average common shares outstanding	190,916	190,348	190,801	190,219
Effect of dilutive securities:				
Employee stock options and restricted share awards	191	814	216	933
Convertible preferred shares	33	37	34	37
Denominator for FFO per diluted share	191,140	191,199	191,051	191,189

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We have exposure to fluctuations in market interest rates. Market interest rates are sensitive to many factors that are beyond our control. Our exposure to a change in interest rates on our consolidated and non-consolidated debt (all of which arises out of non-trading activity) is as follows:

(Amounts in thousands, except per share and unit amounts)	2019			2018	
	December 31, Balance	Weighted Average Interest Rate	Effect of 1% Change In Base Rates	December 31, Balance	Weighted Average Interest Rate
Consolidated debt:					
Variable rate	$ 1,643,500	3.09%	$ 16,435	$ 3,292,382	4.31%
Fixed rate	5,801,516	3.57%	—	6,603,465	3.65%
	$ 7,445,016	3.46%	16,435	$ 9,895,847	3.87%
Pro rata share of debt of non-consolidated entities[(1)(2)]:					
Variable rate	$ 1,441,690	3.34%	14,417	$ 1,237,388	4.06%
Fixed rate	1,361,169	3.93%	—	1,382,068	4.19%
	$ 2,802,859	3.62%	14,417	$ 2,619,456	4.13%
Noncontrolling interests' share of consolidated subsidiaries			(339)		
Total change in annual net income attributable to the Operating Partnership			30,513		
Noncontrolling interests' share of the Operating Partnership			(1,944)		
Total change in annual net income attributable to Vornado			$ 28,569		
Total change in annual net income attributable to the Operating Partnership per diluted Class A unit			$ 0.15		
Total change in annual net income attributable to Vornado per diluted share			$ 0.15		

(1) As a result of the bankruptcy plan of reorganization for Toys "R" Us, Inc. ("Toys") being declared effective and our stock in Toys being canceled, we no longer hold an investment in Toys. Accordingly, no Toys debt is included in our pro rata share of debt of non-consolidated entities.

(2) Our pro rata share of debt of non-consolidated entities as of December 31, 2019 and 2018 is net of our $63,409 share of Alexander's participation in its Rego Park II shopping center mortgage loan which is considered partially extinguished as the participation interest is a reacquisition of debt.

Derivatives and Hedging

We utilize various financial instruments to mitigate the impact of interest rate fluctuations on our cash flows and earnings, including hedging strategies, depending on our analysis of the interest rate environment and the costs and risks of such strategies. The following table summarizes our consolidated derivative instruments, all of which hedge variable rate debt, as of December 31, 2019.

(Amounts in thousands)	As of December 31, 2019					
			Variable Rate			
Hedged Item (Interest rate swaps)	Fair Value	Notional Amount	Spread over LIBOR	Interest Rate	Swapped Rate	Expiration Date
Included in other assets:						
770 Broadway mortgage loan	$ 4,045	$ 700,000	L+175	3.46%	2.56%	9/20
888 Seventh Avenue mortgage loan	218	375,000	L+170	3.44%	3.25%	12/20
Other	64	175,000				
	$ 4,327	$ 1,250,000				
Included in other liabilities:						
Unsecured term loan	$ 36,809	$ 750,000	L+100	2.80%	3.87%	10/23
33-00 Northern Boulevard mortgage loan	3,545	100,000	L+180	3.52%	4.14%	1/25
	$ 40,354	$ 850,000				

Fair Value of Debt

The estimated fair value of our consolidated debt is calculated based on current market prices and discounted cash flows at the current rate at which similar loans would be made to borrowers with similar credit ratings for the remaining term of such debt. As of December 31, 2019, the estimated fair value of our consolidated debt was $7,507,000,000.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

INDEX TO FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Trustees
Vornado Realty Trust
New York, New York

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Vornado Realty Trust and subsidiaries (the "Company") as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with the accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 18, 2020, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Investments in Partially Owned Entities - Fifth Avenue and Times Square JV - Refer to Notes 2 and 6 to the financial statements

Critical Audit Matter Description

Prior to April 18, 2019, the Company contributed its interests in properties located at 640 Fifth Avenue, 655 Fifth Avenue, 666 Fifth Avenue, 689 Fifth Avenue, 697-703 Fifth Avenue, 1535 Broadway, and 1540 Broadway (collectively, the “Properties”) to subsidiaries of a newly formed joint venture (“Fifth Avenue and Times Square JV”). On April 18, 2019, the Company transferred a 48.5% common interest in the joint venture to a group of institutional investors (the “Investors”) and retained the remaining 51.5% common interest in the joint venture and an aggregate $1.828 billion of preferred equity interests in certain of the Properties. Net cash proceeds from the transaction were $1.179 billion. The Company continues to manage and lease the Properties. The Company shares control with the Investors over major decisions of the joint venture, including decisions regarding leasing, operating and capital budgets, and refinancings.

The Company performed a Variable Interest Entity ("VIE") and a Voting Interest Entity ("VOE") analysis for the entities in the organizational structure of the transaction and concluded Fifth Avenue and Times Square JV is a VOE. The Company also determined that the entities in the organizational structure did not meet the criteria to qualify as a VIE. Through its detailed analysis of the various decision-making rights and powers that each party possesses, management concluded that the Company and the Investors both have the ability to block or participate in the activities that most significantly impact the entity's economic performance. The Company no longer held a controlling financial interest in the joint venture and as a result deconsolidated the joint venture and began accounting for the investment under the equity method of accounting from the date of transfer. The transaction valued the Properties at $5.556 billion. As a result, there was a step-up in basis of the Company's retained portion of the Properties to fair value. The gain on transfer consisted of both the gain on the partial sale of the Company's interest and the gain resulting from the step-up in basis of the retained interest to fair value, less transaction costs, to arrive at an overall net gain of $2.571 billion.

We identified the consolidation analysis as a critical audit matter because the consolidation analysis, specifically the determination of control, and the propriety of gain recognition, involved an interpretation of especially complex accounting principles generally accepted in the United States of America. The evaluation of management's determination of control required an increased extent of effort.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the accounting treatment of the partial sale included, among other things, the following:

- We tested the effectiveness of controls over management's determination of control over the joint venture, the resulting deconsolidation of the Properties, and whether a gain or loss should be recognized.
- We read transaction agreements, traced and agreed the facts included in the Company's accounting treatment memo to the agreements, and evaluated the assumptions used to arrive at the determined conclusion.
- We consulted with our consolidation subject matter experts to assess the reasonableness of the Company's accounting conclusions.
- We evaluated whether the assumptions were consistent with evidence obtained in other areas of the audit.

Critical Audit Matter Description

The Fifth Avenue and Times Square JV transaction valued the Properties at $5.556 billion resulting in a financial statement net gain of $2.571 billion. The value was allocated to the assets and liabilities of each property based on their relative fair values. The Company utilized the market approach and the income approach to determine relative fair values. The income approach utilizes the present value of future cash flows that are based on a number of factors, including significant management estimates related to discount rates and capitalization rates, to determine the value of each asset and liability by property.

We identified the valuation of the Properties as a critical audit matter because performing audit procedures to evaluate the reasonableness of the discount rates and capitalization rates used to determine the value of each asset and liability by property required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the relative fair value of assets acquired and liabilities assumed for the Fifth Avenue and Times Square JV transaction included, among other things, the following:

- We tested the effectiveness of controls over the Company's review of the compilation of inputs related to the valuation and the determination of fair value of assets acquired and liabilities assumed, including management's valuation methodology.
- With the assistance of our fair value specialists, we assessed the reasonableness of management's significant assumptions, such as discount and capitalization rates, using comparable market data.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the significant assumptions, including testing the source information underlying the determination of these assumptions, testing the mathematical accuracy of the calculation, and developing a range of independent estimates and comparing those to the assumptions selected by management.
- We evaluated whether the assumptions were consistent with evidence obtained in other areas of the audit.

Impairment Losses - Refer to Notes 2, 14, and 16 to the financial statements

Critical Audit Matter Description

The Company's properties, including any related right-of-use assets and intangible assets, are individually reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment exists when the carrying amount of an asset exceeds the aggregate projected future cash flows over the anticipated holding period on an undiscounted basis. An impairment loss is measured based on the excess of the property's carrying amount over its fair value. The Company's undiscounted cash flows is subjective and is based, in part, on estimates and assumptions such as market rental rates and capitalization rates. In the event a property is not recoverable, the Company's evaluation of anticipated discounted cash flows is subjective and is based, in part, on estimates and assumptions such as market rental rates, capitalization rates, and discount rates that could differ materially from actual results. The Company recognizes impairment losses within "Transaction related costs, impairment losses and other" within the consolidated statements of income. Total non-cash impairment losses for the year ended December 31, 2019 were $107,221,000.

We identified the impairment of long-lived assets as a critical audit matter because of the significant estimates and assumptions management makes to evaluate the recoverability and fair value of the assets, specifically the estimates of market rental rates, capitalization rates, and discount rates for each real estate asset. Performing audit procedures to evaluate the reasonableness of these estimates and assumptions required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the undiscounted and discounted cash flow analyses included, among other things, the following:

- We tested the effectiveness of controls over management's evaluation of the recoverability of long-lived assets based on undiscounted cash flows and the measurement of impairment based on discounted cash flows, including those over the market rental rates, capitalization rates, and discount rates used in the assessment.
- With the assistance of our fair value specialists, we evaluated the reasonableness of significant assumptions in the undiscounted and discounted cash flow analyses, including estimates of market rental rates, capitalization rates, and discount rates, for properties with impairment indicators. We developed independent estimates of the market rental rates, capitalization rates, and discount rates, focusing on geographical location and property type and compared our independent estimates to the estimates and assumptions used by the Company. In addition, we tested the mathematical accuracy of the undiscounted and discounted cash flow analyses.
- We evaluated the reasonableness of management's undiscounted and discounted cash flow analyses by comparing management's projections to the Company's historical results and external market sources.
- We evaluated whether the assumptions were consistent with evidence obtained in other areas of the audit.

/s/ DELOITTE & TOUCHE LLP

New York, New York
February 18, 2020

We have served as the Company's auditor since 1976.

VORNADO REALTY TRUST
CONSOLIDATED BALANCE SHEETS

(Amounts in thousands, except unit, share and per share amounts)	As of December 31,	
	2019	2018
ASSETS		
Real estate, at cost:		
Land	$ 2,591,261	$ 3,306,280
Buildings and improvements	7,953,163	10,110,992
Development costs and construction in progress	1,490,614	2,266,491
Moynihan Train Hall development expenditures	914,960	445,693
Leasehold improvements and equipment	124,014	108,427
Total	13,074,012	16,237,883
Less accumulated depreciation and amortization	(3,015,958)	(3,180,175)
Real estate, net	10,058,054	13,057,708
Right-of-use assets	379,546	—
Cash and cash equivalents	1,515,012	570,916
Restricted cash	92,119	145,989
Marketable securities	33,313	152,198
Tenant and other receivables	95,733	73,322
Investments in partially owned entities	3,999,165	858,113
Real estate fund investments	222,649	318,758
220 Central Park South condominium units ready for sale	408,918	99,627
Receivable arising from the straight-lining of rents	742,206	935,131
Deferred leasing costs, net of accumulated amortization of $196,229 and $207,529	353,986	400,313
Identified intangible assets, net of accumulated amortization of $98,587 and $172,114	30,965	136,781
Other assets	355,347	431,938
	$ 18,287,013	$ 17,180,794
LIABILITIES, REDEEMABLE NONCONTROLLING INTERESTS AND EQUITY		
Mortgages payable, net	$ 5,639,897	$ 8,167,798
Senior unsecured notes, net	445,872	844,002
Unsecured term loan, net	745,840	744,821
Unsecured revolving credit facilities	575,000	80,000
Lease liabilities	498,254	—
Moynihan Train Hall obligation	914,960	445,693
Special dividend/distribution payable on January 15, 2020	398,292	—
Accounts payable and accrued expenses	440,049	430,976
Deferred revenue	59,429	167,730
Deferred compensation plan	103,773	96,523
Other liabilities	265,754	311,806
Total liabilities	10,087,120	11,289,349
Commitments and contingencies		
Redeemable noncontrolling interests:		
Class A units - 13,298,956 and 12,544,477 units outstanding	884,380	778,134
Series D cumulative redeemable preferred units - 141,401 and 177,101 units outstanding	4,535	5,428
Total redeemable noncontrolling interests	888,915	783,562
Shareholders' equity:		
Preferred shares of beneficial interest: no par value per share; authorized 110,000,000 shares; issued and outstanding 36,795,640 and 36,798,580 shares	891,214	891,294
Common shares of beneficial interest: $0.04 par value per share; authorized 250,000,000 shares; issued and outstanding 190,985,677 and 190,535,499 shares	7,618	7,600
Additional capital	7,827,697	7,725,857
Earnings less than distributions	(1,954,266)	(4,167,184)
Accumulated other comprehensive (loss) income	(40,233)	7,664
Total shareholders' equity	6,732,030	4,465,231
Noncontrolling interests in consolidated subsidiaries	578,948	642,652
Total equity	7,310,978	5,107,883
	$ 18,287,013	$ 17,180,794

See notes to the consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF INCOME

(Amounts in thousands, except per share amounts)	For the Year Ended December 31,		
	2019	2018	2017
REVENUES:			
Rental revenues	$ 1,767,222	$ 2,007,333	$ 1,948,376
Fee and other income	157,478	156,387	135,750
Total revenues	1,924,700	2,163,720	2,084,126
EXPENSES:			
Operating	(917,981)	(963,478)	(886,596)
Depreciation and amortization	(419,107)	(446,570)	(429,389)
General and administrative	(169,920)	(141,871)	(150,782)
(Expense) benefit from deferred compensation plan liability	(11,609)	2,480	(6,932)
Transaction related costs, impairment losses and other	(106,538)	(31,320)	(1,776)
Total expenses	(1,625,155)	(1,580,759)	(1,475,475)
Income from partially owned entities	78,865	9,149	15,200
(Loss) income from real estate fund investments	(104,082)	(89,231)	3,240
Interest and other investment income, net	21,819	17,057	30,861
Income (loss) from deferred compensation plan assets	11,609	(2,480)	6,932
Interest and debt expense	(286,623)	(347,949)	(345,654)
Net gain on transfer to Fifth Avenue and Times Square JV	2,571,099	—	—
Purchase price fair value adjustment	—	44,060	—
Net gains on disposition of wholly owned and partially owned assets	845,499	246,031	501
Income before income taxes	3,437,731	459,598	319,731
Income tax expense	(103,439)	(37,633)	(42,375)
Income from continuing operations	3,334,292	421,965	277,356
(Loss) income from discontinued operations	(30)	638	(13,228)
Net income	3,334,262	422,603	264,128
Less net loss (income) attributable to noncontrolling interests in:			
Consolidated subsidiaries	24,547	53,023	(25,802)
Operating Partnership	(210,872)	(25,672)	(10,910)
Net income attributable to Vornado	3,147,937	449,954	227,416
Preferred share dividends	(50,131)	(50,636)	(65,399)
Preferred share issuance costs	—	(14,486)	—
NET INCOME attributable to common shareholders	$ 3,097,806	$ 384,832	$ 162,017
INCOME PER COMMON SHARE - BASIC:			
Income from continuing operations, net	$ 16.23	$ 2.02	$ 0.92
Loss from discontinued operations, net	—	—	(0.07)
Net income per common share	$ 16.23	$ 2.02	$ 0.85
Weighted average shares outstanding	190,801	190,219	189,526
INCOME PER COMMON SHARE - DILUTED:			
Income from continuing operations, net	$ 16.21	$ 2.01	$ 0.91
Loss from discontinued operations, net	—	—	(0.06)
Net income per common share	$ 16.21	$ 2.01	$ 0.85
Weighted average shares outstanding	191,053	191,290	191,258

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Net income	$ 3,334,262	$ 422,603	$ 264,128
Other comprehensive (loss) income:			
(Reduction) increase in value of interest rate swaps and other	(47,883)	(14,635)	15,477
Amounts reclassified from accumulated other comprehensive (loss) income relating to nonconsolidated subsidiaries	(2,311)	—	14,402
Other comprehensive (loss) income of nonconsolidated subsidiaries	(938)	1,155	1,425
Reduction in unrealized net gain on available-for-sale securities	—	—	(20,951)
Comprehensive income	3,283,130	409,123	274,481
Less comprehensive (income) loss attributable to noncontrolling interests	(183,090)	28,187	(37,356)
Comprehensive income attributable to Vornado	$ 3,100,040	$ 437,310	$ 237,125

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Amounts in thousands, except per share amounts)

	Preferred Shares		Common Shares						
	Shares	Amount	Shares	Amount	Additional Capital	Earnings Less Than Distributions	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests in Consolidated Subsidiaries	Total Equity
Balance, December 31, 2018	36,800	$ 891,294	190,535	$ 7,600	$ 7,725,857	$ (4,167,184)	$ 7,664	$ 642,652	$ 5,107,883
Net income attributable to Vornado	—	—	—	—	—	3,147,937	—	—	3,147,937
Net loss attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	—	(24,547)	(24,547)
Dividends on common shares:									
Special dividend ($1.95 per share)	—	—	—	—	—	(372,380)	—	—	(372,380)
Aggregate quarterly dividends (see Note 12 for dividends per share amounts)	—	—	—	—	—	(503,785)	—	—	(503,785)
Dividends on preferred shares (see Note 12 for dividends per share amounts)	—	—	—	—	—	(50,131)	—	—	(50,131)
Common shares issued:									
Upon redemption of Class A units, at redemption value	—	—	171	7	11,243	—	—	—	11,250
Under employees' share option plan	—	—	245	10	5,479	(8,587)	—	—	(3,098)
Under dividend reinvestment plan	—	—	22	1	1,413	—	—	—	1,414
Contributions:									
Real estate fund investments	—	—	—	—	—	—	—	9,023	9,023
Other	—	—	—	—	—	—	—	8,848	8,848
Distributions	—	—	—	—	—	—	—	(45,587)	(45,587)
Conversion of Series A preferred shares to common shares	(2)	(80)	6	—	80	—	—	—	—
Deferred compensation shares and options	—	—	7	—	1,095	(105)	—	—	990
Amounts reclassified related to a nonconsolidated subsidiary	—	—	—	—	—	—	(2,311)	—	(2,311)
Other comprehensive loss of nonconsolidated subsidiaries	—	—	—	—	—	—	(938)	—	(938)
Reduction in value of interest rate swaps	—	—	—	—	—	—	(47,885)	—	(47,885)
Unearned 2016 Out-Performance Plan awards acceleration	—	—	—	—	11,720	—	—	—	11,720
Adjustments to carry redeemable Class A units at redemption value	—	—	—	—	70,810	—	—	—	70,810
Redeemable noncontrolling interests' share of above adjustments	—	—	—	—	—	—	3,235	—	3,235
Deconsolidation of partially owned entity	—	—	—	—	—	—	—	(11,441)	(11,441)
Other	(2)	—	—	—	—	(31)	2	—	(29)
Balance, December 31, 2019	36,796	$ 891,214	190,986	$ 7,618	$ 7,827,697	$ (1,954,266)	$ (40,233)	$ 578,948	$ 7,310,978

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY - CONTINUED

(Amounts in thousands, except per share amount)

	Preferred Shares		Common Shares		Additional Capital	Earnings Less Than Distributions	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests in Consolidated Subsidiaries	Total Equity
	Shares	Amount	Shares	Amount					
Balance, December 31, 2017	36,800	$ 891,988	189,984	$ 7,577	$ 7,492,658	$ (4,183,253)	$ 128,682	$ 670,049	$ 5,007,701
Cumulative effect of accounting change	—	—	—	—	—	122,893	(108,374)	—	14,519
Net income attributable to Vornado	—	—	—	—	—	449,954	—	—	449,954
Net loss attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	—	(53,023)	(53,023)
Dividends on common shares ($2.52 per share)	—	—	—	—	—	(479,348)	—	—	(479,348)
Dividends on preferred shares	—	—	—	—	—	(50,636)	—	—	(50,636)
Series G and Series I cumulative redeemable preferred shares issuance costs	—	(663)	—	—	—	(14,486)	—	—	(15,149)
Common shares issued:									
Upon redemption of Class A units, at redemption value	—	—	244	10	17,058	—	—	—	17,068
Under employees' share option plan	—	—	279	12	5,907	(12,185)	—	—	(6,266)
Under dividend reinvestment plan	—	—	20	1	1,389	—	—	—	1,390
Contributions:									
Real estate fund investments	—	—	—	—	—	—	—	46,942	46,942
Other	—	—	—	—	—	—	—	15,715	15,715
Distributions:									
Real estate fund investments	—	—	—	—	—	—	—	(12,665)	(12,665)
Other	—	—	—	—	—	—	—	(33,250)	(33,250)
Conversion of Series A preferred shares to common shares	—	(31)	2	—	30	—	—	—	(1)
Deferred compensation shares and options	—	—	6	—	1,157	(121)	—	—	1,036
Other comprehensive income of nonconsolidated subsidiaries	—	—	—	—	—	—	1,155	—	1,155
Reduction in value of interest rate swaps	—	—	—	—	—	—	(14,634)	—	(14,634)
Unearned 2015 Out-Performance Plan awards acceleration	—	—	—	—	9,046	—	—	—	9,046
Adjustments to carry redeemable Class A units at redemption value	—	—	—	—	198,064	—	—	—	198,064
Redeemable noncontrolling interests' share of above adjustments	—	—	—	—	—	—	836	—	836
Consolidation of the Farley joint venture	—	—	—	—	—	—	—	8,720	8,720
Other	—	—	—	—	548	(2)	(1)	164	709
Balance, December 31, 2018	36,800	$ 891,294	190,535	$ 7,600	$ 7,725,857	$ (4,167,184)	$ 7,664	$ 642,652	$ 5,107,883

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY - CONTINUED

(Amounts in thousands, except per share amount)

	Preferred Shares		Common Shares						
	Shares	Amount	Shares	Amount	Additional Capital	Earnings Less Than Distributions	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests in Consolidated Subsidiaries	Total Equity
Balance, December 31, 2016	42,825	$ 1,038,055	189,101	$ 7,542	$ 7,153,332	$ (1,419,382)	$ 118,972	$ 719,977	$ 7,618,496
Net income attributable to Vornado	—	—	—	—	—	227,416	—	—	227,416
Net income attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	—	25,802	25,802
Dividends on common shares ($2.62 per share)	—	—	—	—	—	(496,490)	—	—	(496,490)
Dividends on preferred shares	—	—	—	—	—	(65,399)	—	—	(65,399)
Series M cumulative redeemable preferred shares issuance	12,780	309,609	—	—	—	—	—	—	309,609
Series G and Series I cumulative redeemable preferred shares called for redemption	(18,800)	(455,514)	—	—	—	—	—	—	(455,514)
Common shares issued:									
Upon redemption of Class A units, at redemption value	—	—	403	16	38,731	—	—	—	38,747
Under employees' share option plan	—	—	449	18	28,235	—	—	—	28,253
Under dividend reinvestment plan	—	—	17	1	1,458	—	—	—	1,459
Contributions	—	—	—	—	—	—	—	1,044	1,044
Distributions:									
JBG SMITH Properties	—	—	—	—	—	(2,428,345)	—	—	(2,428,345)
Real estate fund investments	—	—	—	—	—	—	—	(73,850)	(73,850)
Other	—	—	—	—	—	—	—	(2,618)	(2,618)
Conversion of Series A preferred shares to common shares	(5)	(162)	10	—	162	—	—	—	—
Deferred compensation shares and options	—	—	—	—	2,246	(418)	—	—	1,828
Reduction in unrealized net gain on available-for-sale securities	—	—	—	—	—	—	(20,951)	—	(20,951)
Amounts reclassified related to a nonconsolidated subsidiary	—	—	—	—	—	—	14,402	—	14,402
Other comprehensive income of nonconsolidated subsidiaries	—	—	—	—	—	—	1,425	—	1,425
Increase in value of interest rate swaps	—	—	—	—	—	—	15,477	—	15,477
Adjustments to carry redeemable Class A units at redemption value	—	—	—	—	268,494	—	—	—	268,494
Redeemable noncontrolling interests' share of above adjustments	—	—	—	—	—	—	(642)	—	(642)
Other	—	—	4	—	—	(635)	(1)	(306)	(942)
Balance, December 31, 2017	36,800	$ 891,988	189,984	$ 7,577	$ 7,492,658	$ (4,183,253)	$ 128,682	$ 670,049	$ 5,007,701

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Cash Flows from Operating Activities:			
Net income	$ 3,334,262	$ 422,603	$ 264,128
Adjustments to reconcile net income to net cash provided by operating activities:			
Net gain on transfer to Fifth Avenue and Times Square JV	(2,571,099)	—	—
Net gains on disposition of wholly owned and partially owned assets	(845,499)	(246,031)	(501)
Depreciation and amortization (including amortization of deferred financing costs)	438,933	472,785	529,826
Distributions of income from partially owned entities	116,826	78,831	82,095
Net realized and unrealized loss on real estate fund investments	106,109	84,706	15,267
Equity in net income of partially owned entities	(78,865)	(9,149)	(15,635)
Non-cash impairment loss on 608 Fifth Avenue right-of-use asset	75,220	—	—
Stock-based compensation expense	53,908	31,722	32,829
Real estate impairment losses and related write-offs	26,705	12,000	—
Prepayment penalty on redemption of senior unsecured notes due 2022	22,058	—	—
Amortization of below-market leases, net	(19,830)	(38,573)	(46,790)
Straight-lining of rents	9,679	(7,605)	(45,792)
Decrease in fair value of marketable securities	5,533	26,453	—
Purchase price fair value adjustment	—	(44,060)	—
Return of capital from real estate fund investments	—	20,290	91,606
Change in valuation of deferred tax assets and liabilities	—	12,835	34,800
Net gains on real estate and other	—	—	(3,489)
Other non-cash adjustments	13,765	7,499	23,651
Changes in operating assets and liabilities:			
Real estate fund investments	(10,000)	(68,950)	—
Tenant and other receivables, net	(25,988)	(14,532)	1,183
Prepaid assets	7,558	151,533	(12,292)
Other assets	(4,302)	(84,222)	(79,199)
Accounts payable and accrued expenses	5,940	5,869	3,760
Other liabilities	1,626	(11,363)	(15,305)
Net cash provided by operating activities	662,539	802,641	860,142
Cash Flows from Investing Activities:			
Proceeds from sale of condominium units at 220 Central Park South	1,605,356	214,776	—
Proceeds from transfer of interest in Fifth Avenue and Times Square JV (net of $35,562 of transaction costs and $10,899 of deconsolidated cash and restricted cash)	1,248,743	—	—
Development costs and construction in progress	(649,056)	(418,186)	(355,852)
Proceeds from redemption of 640 Fifth Avenue preferred equity	500,000	—	—
Moynihan Train Hall expenditures	(438,935)	(74,609)	—
Proceeds from sale of real estate and related investments	324,201	219,731	9,543
Additions to real estate	(233,666)	(234,602)	(271,308)
Proceeds from sales of marketable securities	168,314	4,101	—
Acquisitions of real estate and other	(69,699)	(574,812)	(30,607)
Distributions of capital from partially owned entities	24,880	100,178	366,155
Investments in partially owned entities	(18,257)	(37,131)	(40,537)
Proceeds from repayments of loans receivable	1,395	25,757	659
Investments in loans receivable	—	(105,000)	—
Net consolidation of Farley Office and Retail Building	—	2,075	—
Proceeds from the repayment of JBG SMITH Properties loan receivable	—	—	115,630
Net cash provided by (used in) investing activities	2,463,276	(877,722)	(206,317)

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CASH FLOWS – CONTINUED

(Amounts in thousands)	Year Ended December 31,		
	2019	2018	2017
Cash Flows from Financing Activities:			
Repayments of borrowings	$ (2,718,987)	$ (685,265)	$ (631,681)
Proceeds from borrowings	1,108,156	526,766	1,055,872
Dividends paid on common shares	(503,785)	(479,348)	(496,490)
Moynihan Train Hall reimbursement from Empire State Development	438,935	74,609	—
Purchase of marketable securities in connection with defeasance of mortgage payable	(407,126)	—	—
Distributions to noncontrolling interests	(80,194)	(76,149)	(109,697)
Dividends paid on preferred shares	(50,131)	(55,115)	(64,516)
Contributions from noncontrolling interests	17,871	61,062	1,044
Prepayment penalty on redemption of senior unsecured notes due 2022	(22,058)	—	—
Debt issuance costs	(15,588)	(12,908)	(12,325)
Repurchase of shares related to stock compensation agreements and related tax withholdings and other	(8,692)	(12,969)	(418)
Proceeds received from exercise of employee share options and other	6,903	7,309	29,712
Redemption of preferred shares	(893)	(470,000)	—
Debt prepayment and extinguishment costs	—	(818)	(3,217)
Cash and cash equivalents and restricted cash included in the spin-off of JBG SMITH Properties ($275,000 plus The Bartlett financing proceeds less transaction costs and other mortgage items)	—	—	(416,237)
Proceeds from issuance of preferred units	—	—	309,609
Net cash used in financing activities	(2,235,589)	(1,122,826)	(338,344)
Net increase (decrease) in cash and cash equivalents and restricted cash	890,226	(1,197,907)	315,481
Cash and cash equivalents and restricted cash at beginning of period	716,905	1,914,812	1,599,331
Cash and cash equivalents and restricted cash at end of period	$ 1,607,131	$ 716,905	$ 1,914,812
Reconciliation of Cash and Cash Equivalents and Restricted Cash:			
Cash and cash equivalents at beginning of period	$ 570,916	$ 1,817,655	$ 1,501,027
Restricted cash at beginning of period	145,989	97,157	95,032
Restricted cash included in discontinued operations at beginning of period	—	—	3,272
Cash and cash equivalents and restricted cash at beginning of period	$ 716,905	$ 1,914,812	$ 1,599,331
Cash and cash equivalents at end of period	$ 1,515,012	$ 570,916	$ 1,817,655
Restricted cash at end of period	92,119	145,989	97,157
Cash and cash equivalents and restricted cash at end of period	$ 1,607,131	$ 716,905	$ 1,914,812

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CASH FLOWS – CONTINUED

(Amounts in thousands)	Year Ended December 31,		
	2019	2018	2017
Supplemental Disclosure of Cash Flow Information:			
Cash payments for interest, excluding capitalized interest of $67,980, $67,402 and $43,071	$ 283,613	$ 311,835	$ 338,983
Cash payments for income taxes	$ 59,834	$ 62,225	$ 6,727
Non-Cash Investing and Financing Activities:			
Investments received in exchange for transfer to Fifth Avenue and Times Square JV:			
Preferred equity	$ 2,327,750	$ —	$ —
Common equity	1,449,495	—	—
Reclassification of condominium units from "development costs and construction in progress" to "220 Central Park South condominium units ready for sale"	1,311,468	233,179	—
Lease liabilities arising from the recognition of right-of-use assets	526,866	—	—
Marketable securities transferred in connection with the defeasance of mortgage payable	(407,126)	—	—
Special dividend/distribution declared and payable on January 15, 2020	398,292	—	—
Defeased mortgage payable	390,000	—	—
Write-off of fully depreciated assets	(122,813)	(86,064)	(58,810)
Accrued capital expenditures included in accounts payable and accrued expenses	109,975	88,115	102,976
Adjustments to carry redeemable Class A units at redemption value	70,810	198,064	268,494
Recognition of negative basis related to the sale of our investment in 330 Madison Avenue	60,052	—	—
Amounts related to our investment in Pennsylvania Real Estate Investment Trust reclassified from "investments in partially owned entities" and "accumulated other comprehensive (loss) income" to "marketable securities" upon conversion of operating partnership units to common shares	54,962	—	—
Increase in assets and liabilities resulting from the consolidation of Farley Office and Retail Building:			
Real estate, net	—	401,708	—
Mortgage payable, net	—	249,459	—
Increase in assets and liabilities resulting from the consolidation of Moynihan Train Hall:			
Real estate, net	—	346,926	—
Moynihan Train Hall obligation	—	346,926	—
Non-cash distribution to JBG SMITH Properties:			
Assets	—	—	3,432,738
Liabilities	—	—	(1,414,186)
Equity	—	—	(2,018,552)
Reclassification of Series G and Series I cumulative redeemable preferred shares to liabilities upon call for redemption	—	—	455,514
Loan receivable established upon the spin-off of JBG SMITH Properties	—	—	115,630
Reduction in unrealized net gain on available-for-sale securities	—	—	(20,951)

See notes to consolidated financial statements.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Partners
Vornado Realty L.P.
New York, New York

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Vornado Realty L.P. and subsidiaries (the "Partnership") as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the three years in the period ended December 31, 2019, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Partnership as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2019, in conformity with the accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Partnership's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 18, 2020, expressed an unqualified opinion on the Partnership's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Partnership's management. Our responsibility is to express an opinion on the Partnership's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Partnership in accordance with the US federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Investments in Partially Owned Entities - Fifth Avenue and Times Square JV - Refer to Notes 2 and 6 to the financial statements

Critical Audit Matter Description

Prior to April 18, 2019, the Partnership contributed its interests in properties located at 640 Fifth Avenue, 655 Fifth Avenue, 666 Fifth Avenue, 689 Fifth Avenue, 697-703 Fifth Avenue, 1535 Broadway, and 1540 Broadway (collectively, the “Properties”) to subsidiaries of a newly formed joint venture (“Fifth Avenue and Times Square JV”). On April 18, 2019, the Partnership transferred a 48.5% common interest in the joint venture to a group of institutional investors (the “Investors”) and retained the remaining 51.5% common interest in the joint venture and an aggregate $1.828 billion of preferred equity interests in certain of the Properties. Net cash proceeds from the transaction were $1.179 billion. The Partnership continues to manage and lease the Properties. The Partnership shares control with the Investors over major decisions of the joint venture, including decisions regarding leasing, operating and capital budgets, and refinancings.

The Partnership performed a Variable Interest Entity ("VIE") and a Voting Interest Entity ("VOE") analysis for the entities in the organizational structure of the transaction and concluded Fifth Avenue and Times Square JV is a VOE. The Partnership also determined that the entities in the organizational structure did not meet the criteria to qualify as a VIE. Through its detailed analysis of the various decision-making rights and powers that each party possesses, management concluded that the Partnership and the Investors both have the ability to block or participate in the activities that most significantly impact the entity's economic performance. The Partnership no longer held a controlling financial interest in the joint venture and as a result deconsolidated the joint venture and began accounting for the investment under the equity method of accounting from the date of transfer. The transaction valued the Properties at $5.556 billion. As a result, there was a step-up in basis of the Partnership's retained portion of the Properties to fair value. The gain on transfer consisted of both the gain on the partial sale of the Partnership's interest and the gain resulting from the step-up in basis of the retained interest to fair value, less transaction costs, to arrive at an overall net gain of $2.571 billion.

We identified the consolidation analysis as a critical audit matter because the consolidation analysis, specifically the determination of control, and the propriety of gain recognition, involved an interpretation of especially complex accounting principles generally accepted in the United States of America. The evaluation of management's determination of control required an increased extent of effort.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the accounting treatment of the partial sale included, among other things, the following:

- We tested the effectiveness of controls over management's determination of control over the joint venture, the resulting deconsolidation of the Properties, and whether a gain or loss should be recognized.
- We read transaction agreements, traced and agreed the facts included in the Partnership's accounting treatment memo to the agreements, and evaluated the assumptions used to arrive at the determined conclusion.
- We consulted with our consolidation subject matter experts to assess the reasonableness of the Partnership's accounting conclusions.
- We evaluated whether the assumptions were consistent with evidence obtained in other areas of the audit.

Critical Audit Matter Description

The Fifth Avenue and Times Square JV transaction valued the Properties at $5.556 billion resulting in a financial statement net gain of $2.571 billion. The value was allocated to the assets and liabilities of each property based on their relative fair values. The Partnership utilized the market approach and the income approach to determine relative fair values. The income approach utilizes the present value of future cash flows that are based on a number of factors, including significant management estimates related to discount rates and capitalization rates, to determine the value of each asset and liability by property.

We identified the valuation of the Properties as a critical audit matter because performing audit procedures to evaluate the reasonableness of the discount rates and capitalization rates used to determine the value of each asset and liability by property required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the relative fair value of assets acquired and liabilities assumed for the Fifth Avenue and Times Square JV transaction included, among other things, the following:

- We tested the effectiveness of controls over the Partnership's review of the compilation of inputs related to the valuation and the determination of fair value of assets acquired and liabilities assumed, including management's valuation methodology.
- With the assistance of our fair value specialists, we assessed the reasonableness of management's significant assumptions, such as discount and capitalization rates, using comparable market data.
- With the assistance of our fair value specialists, we evaluated the reasonableness of the significant assumptions, including testing the source information underlying the determination of these assumptions, testing the mathematical accuracy of the calculation, and developing a range of independent estimates and comparing those to the assumptions selected by management.
- We evaluated whether the assumptions were consistent with evidence obtained in other areas of the audit.

Impairment Losses - Refer to Notes 2, 14, and 16 to the financial statements

Critical Audit Matter Description

The Partnership's properties, including any related right-of-use assets and intangible assets, are individually reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment exists when the carrying amount of an asset exceeds the aggregate projected future cash flows over the anticipated holding period on an undiscounted basis. An impairment loss is measured based on the excess of the property's carrying amount over its fair value. The Partnership's undiscounted cash flows is subjective and is based, in part, on estimates and assumptions such as market rental rates and capitalization rates. In the event a property is not recoverable, the Partnership's evaluation of anticipated discounted cash flows is subjective and is based, in part, on estimates and assumptions such as market rental rates, capitalization rates, and discount rates that could differ materially from actual results. The Partnership recognizes impairment losses within "Transaction related costs, impairment losses and other" within the consolidated statements of income. Total non-cash impairment losses for the year ended December 31, 2019 were $107,221,000.

We identified the impairment of long-lived assets as a critical audit matter because of the significant estimates and assumptions management makes to evaluate the recoverability and fair value of the assets, specifically the estimates of market rental rates, capitalization rates, and discount rates for each real estate asset. Performing audit procedures to evaluate the reasonableness of these estimates and assumptions required a high degree of auditor judgment and an increased extent of effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the undiscounted and discounted cash flow analyses included, among other things, the following:

- We tested the effectiveness of controls over management's evaluation of the recoverability of long-lived assets based on undiscounted cash flows and the measurement of impairment based on discounted cash flows, including those over the market rental rates, capitalization rates, and discount rates used in the assessment.
- With the assistance of our fair value specialists, we evaluated the reasonableness of significant assumptions in the undiscounted and discounted cash flow analyses, including estimates of market rental rates, capitalization rates, and discount rates, for properties with impairment indicators. We developed independent estimates of the market rental rates, capitalization rates, and discount rates, focusing on geographical location and property type and compared our independent estimates to the estimates and assumptions used by the Partnership. In addition, we tested the mathematical accuracy of the undiscounted and discounted cash flow analyses.
- We evaluated the reasonableness of management's undiscounted and discounted cash flow analyses by comparing management's projections to the Partnership's historical results and external market sources.
- We evaluated whether the assumptions were consistent with evidence obtained in other areas of the audit.

/s/ DELOITTE & TOUCHE LLP

New York, New York
February 18, 2020

We have served as the Partnership's auditor since 1997.

VORNADO REALTY L.P.
CONSOLIDATED BALANCE SHEETS

(Amounts in thousands, except unit amounts)	As of December 31,	
	2019	2018
ASSETS		
Real estate, at cost:		
Land	$ 2,591,261	$ 3,306,280
Buildings and improvements	7,953,163	10,110,992
Development costs and construction in progress	1,490,614	2,266,491
Moynihan Train Hall development expenditures	914,960	445,693
Leasehold improvements and equipment	124,014	108,427
Total	13,074,012	16,237,883
Less accumulated depreciation and amortization	(3,015,958)	(3,180,175)
Real estate, net	10,058,054	13,057,708
Right-of-use assets	379,546	—
Cash and cash equivalents	1,515,012	570,916
Restricted cash	92,119	145,989
Marketable securities	33,313	152,198
Tenant and other receivables	95,733	73,322
Investments in partially owned entities	3,999,165	858,113
Real estate fund investments	222,649	318,758
220 Central Park South condominium units ready for sale	408,918	99,627
Receivable arising from the straight-lining of rents	742,206	935,131
Deferred leasing costs, net of accumulated amortization of $196,229 and $207,529	353,986	400,313
Identified intangible assets, net of accumulated amortization of $98,587 and $172,114	30,965	136,781
Other assets	355,347	431,938
	$ 18,287,013	$ 17,180,794
LIABILITIES, REDEEMABLE PARTNERSHIP UNITS AND EQUITY		
Mortgages payable, net	$ 5,639,897	$ 8,167,798
Senior unsecured notes, net	445,872	844,002
Unsecured term loan, net	745,840	744,821
Unsecured revolving credit facilities	575,000	80,000
Lease liabilities	498,254	—
Moynihan Train Hall obligation	914,960	445,693
Special distribution payable on January 15, 2020	398,292	—
Accounts payable and accrued expenses	440,049	430,976
Deferred revenue	59,429	167,730
Deferred compensation plan	103,773	96,523
Other liabilities	265,754	311,806
Total liabilities	10,087,120	11,289,349
Commitments and contingencies		
Redeemable partnership units:		
Class A units - 13,298,956 and 12,544,477 units outstanding	884,380	778,134
Series D cumulative redeemable preferred units - 141,401 and 177,101 units outstanding	4,535	5,428
Total redeemable partnership units	888,915	783,562
Partners' equity:		
Partners' capital	8,726,529	8,624,751
Earnings less than distributions	(1,954,266)	(4,167,184)
Accumulated other comprehensive (loss) income	(40,233)	7,664
Total partners' equity	6,732,030	4,465,231
Noncontrolling interests in consolidated subsidiaries	578,948	642,652
Total equity	7,310,978	5,107,883
	$ 18,287,013	$ 17,180,794

See notes to the consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF INCOME

(Amounts in thousands, except per unit amounts)	For the Year Ended December 31,		
	2019	2018	2017
REVENUES:			
Rental revenues	$ 1,767,222	$ 2,007,333	$ 1,948,376
Fee and other income	157,478	156,387	135,750
Total revenues	1,924,700	2,163,720	2,084,126
EXPENSES:			
Operating	(917,981)	(963,478)	(886,596)
Depreciation and amortization	(419,107)	(446,570)	(429,389)
General and administrative	(169,920)	(141,871)	(150,782)
(Expense) benefit from deferred compensation plan liability	(11,609)	2,480	(6,932)
Transaction related costs, impairment losses and other	(106,538)	(31,320)	(1,776)
Total expenses	(1,625,155)	(1,580,759)	(1,475,475)
Income from partially owned entities	78,865	9,149	15,200
(Loss) income from real estate fund investments	(104,082)	(89,231)	3,240
Interest and other investment income, net	21,819	17,057	30,861
Income (loss) from deferred compensation plan assets	11,609	(2,480)	6,932
Interest and debt expense	(286,623)	(347,949)	(345,654)
Net gain on transfer to Fifth Avenue and Times Square JV	2,571,099	—	—
Purchase price fair value adjustment	—	44,060	—
Net gains on disposition of wholly owned and partially owned assets	845,499	246,031	501
Income before income taxes	3,437,731	459,598	319,731
Income tax expense	(103,439)	(37,633)	(42,375)
Income from continuing operations	3,334,292	421,965	277,356
(Loss) income from discontinued operations	(30)	638	(13,228)
Net income	3,334,262	422,603	264,128
Less net loss (income) attributable to noncontrolling interests in consolidated subsidiaries	24,547	53,023	(25,802)
Net income attributable to Vornado Realty L.P.	3,358,809	475,626	238,326
Preferred unit distributions	(50,296)	(50,830)	(65,593)
Preferred unit issuance costs	—	(14,486)	—
NET INCOME attributable to Class A unitholders	$ 3,308,513	$ 410,310	$ 172,733
INCOME PER CLASS A UNIT - BASIC:			
Income from continuing operations, net	$ 16.22	$ 2.01	$ 0.91
Income (loss) from discontinued operations, net	—	0.01	(0.07)
Net income per Class A unit	$ 16.22	$ 2.02	$ 0.84
Weighted average units outstanding	202,947	202,068	201,214
INCOME PER CLASS A UNIT - DILUTED:			
Income from continuing operations, net	$ 16.19	$ 2.00	$ 0.90
Loss from discontinued operations, net	—	—	(0.07)
Net income per Class A unit	$ 16.19	$ 2.00	$ 0.83
Weighted average units outstanding	203,248	203,412	203,300

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Net income	$ 3,334,262	$ 422,603	$ 264,128
Other comprehensive (loss) income:			
(Reduction) increase in value of interest rate swaps and other	(47,883)	(14,635)	15,477
Amounts reclassified from accumulated other comprehensive (loss) income relating to nonconsolidated subsidiaries	(2,311)	—	14,402
Other comprehensive (loss) income of nonconsolidated subsidiaries	(938)	1,155	1,425
Reduction in unrealized net gain on available-for-sale securities	—	—	(20,951)
Comprehensive income	3,283,130	409,123	274,481
Less comprehensive loss (income) attributable to noncontrolling interests in consolidated subsidiaries	24,547	53,023	(25,802)
Comprehensive income attributable to Vornado Realty L.P.	$ 3,307,677	$ 462,146	$ 248,679

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Amounts in thousands, except per unit amounts)	Preferred Units		Class A Units Owned by Vornado		Earnings Less Than Distributions	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests in Consolidated Subsidiaries	Total Equity
	Units	Amount	Units	Amount				
Balance, December 31, 2018	36,800	$ 891,294	190,535	$ 7,733,457	$ (4,167,184)	$ 7,664	$ 642,652	$ 5,107,883
Net income attributable to Vornado Realty L.P.	—	—	—	—	3,358,809	—	—	3,358,809
Net income attributable to redeemable partnership units	—	—	—	—	(210,872)	—	—	(210,872)
Net loss attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	(24,547)	(24,547)
Distributions to Vornado:								
Special distribution ($1.95 per Class A unit)	—	—	—	—	(372,380)	—	—	(372,380)
Aggregate quarterly distributions to Vornado (see Note 12 for distributions per unit amounts)	—	—	—	—	(503,785)	—	—	(503,785)
Distributions to preferred unitholders (see Note 12 for distributions per unit amounts)	—	—	—	—	(50,131)	—	—	(50,131)
Class A Units issued to Vornado:								
Upon redemption of redeemable Class A units, at redemption value	—	—	171	11,250	—	—	—	11,250
Under Vornado's employees' share option plan	—	—	245	5,489	(8,587)	—	—	(3,098)
Under Vornado's dividend reinvestment plan	—	—	22	1,414	—	—	—	1,414
Contributions:								
Real estate fund investments	—	—	—	—	—	—	9,023	9,023
Other	—	—	—	—	—	—	8,848	8,848
Distributions	—	—	—	—	—	—	(45,587)	(45,587)
Conversion of Series A preferred units to Class A units	(2)	(80)	6	80	—	—	—	—
Deferred compensation units and options	—	—	7	1,095	(105)	—	—	990
Amounts reclassified related to a nonconsolidated subsidiary	—	—	—	—	—	(2,311)	—	(2,311)
Other comprehensive loss of nonconsolidated subsidiaries	—	—	—	—	—	(938)	—	(938)
Reduction in value of interest rate swaps	—	—	—	—	—	(47,885)	—	(47,885)
Unearned 2016 Out-Performance Plan awards acceleration	—	—	—	11,720	—	—	—	11,720
Adjustments to carry redeemable Class A units at redemption value	—	—	—	70,810	—	—	—	70,810
Redeemable partnership units' share of above adjustments	—	—	—	—	—	3,235	—	3,235
Deconsolidation of partially owned entity	—	—	—	—	—	—	(11,441)	(11,441)
Other	(2)	—	—	—	(31)	2	—	(29)
Balance, December 31, 2019	36,796	$ 891,214	190,986	$ 7,835,315	$ (1,954,266)	$ (40,233)	$ 578,948	$ 7,310,978

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY – CONTINUED

(Amounts in thousands, except per unit amount)	Preferred Units		Class A Units Owned by Vornado		Earnings Less Than Distributions	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests in Consolidated Subsidiaries	Total Equity
	Units	Amount	Units	Amount				
Balance, December 31, 2017	36,800	$ 891,988	189,984	$ 7,500,235	$ (4,183,253)	$ 128,682	$ 670,049	$ 5,007,701
Cumulative effect of accounting change	—	—	—	—	122,893	(108,374)	—	14,519
Net income attributable to Vornado Realty L.P.	—	—	—	—	475,626	—	—	475,626
Net income attributable to redeemable partnership units	—	—	—	—	(25,672)	—	—	(25,672)
Net loss attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	(53,023)	(53,023)
Distributions to Vornado ($2.52 per Class A unit)	—	—	—	—	(479,348)	—	—	(479,348)
Distributions to preferred unitholders	—	—	—	—	(50,636)	—	—	(50,636)
Series G and Series I cumulative redeemable preferred units issuance costs	—	(663)	—	—	(14,486)	—	—	(15,149)
Class A Units issued to Vornado:								
Upon redemption of redeemable Class A units, at redemption value	—	—	244	17,068	—	—	—	17,068
Under Vornado's employees' share option plan	—	—	279	5,919	(12,185)	—	—	(6,266)
Under Vornado's dividend reinvestment plan	—	—	20	1,390	—	—	—	1,390
Contributions:								
Real estate fund investments	—	—	—	—	—	—	46,942	46,942
Other	—	—	—	—	—	—	15,715	15,715
Distributions:								
Real estate fund investments	—	—	—	—	—	—	(12,665)	(12,665)
Other	—	—	—	—	—	—	(33,250)	(33,250)
Conversion of Series A preferred units to Class A units	—	(31)	2	30	—	—	—	(1)
Deferred compensation units and options	—	—	6	1,157	(121)	—	—	1,036
Other comprehensive income of nonconsolidated subsidiaries	—	—	—	—	—	1,155	—	1,155
Reduction in value of interest rate swaps	—	—	—	—	—	(14,634)	—	(14,634)
Unearned 2015 Out-Performance Plan awards acceleration	—	—	—	9,046	—	—	—	9,046
Adjustments to carry redeemable Class A units at redemption value	—	—	—	198,064	—	—	—	198,064
Redeemable partnership units' share of above adjustments	—	—	—	—	—	836	—	836
Consolidation of the Farley joint venture	—	—	—	—	—	—	8,720	8,720
Other	—	—	—	548	(2)	(1)	164	709
Balance, December 31, 2018	36,800	$ 891,294	190,535	$ 7,733,457	$ (4,167,184)	$ 7,664	$ 642,652	$ 5,107,883

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY – CONTINUED

(Amounts in thousands, except per unit amount)	Preferred Units		Class A Units Owned by Vornado		Earnings Less Than Distributions	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests in Consolidated Subsidiaries	Total Equity
	Units	Amount	Units	Amount				
Balance, December 31, 2016	42,825	$ 1,038,055	189,101	$ 7,160,874	$ (1,419,382)	$ 118,972	$ 719,977	$ 7,618,496
Net income attributable to Vornado Realty L.P.	—	—	—	—	238,326	—	—	238,326
Net income attributable to redeemable partnership units	—	—	—	—	(10,910)	—	—	(10,910)
Net income attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	25,802	25,802
Distributions to Vornado ($2.62 per Class A unit)	—	—	—	—	(496,490)	—	—	(496,490)
Distributions to preferred unitholders	—	—	—	—	(65,399)	—	—	(65,399)
Series M cumulative redeemable preferred units issuance	12,780	309,609	—	—	—	—	—	309,609
Series G and Series I cumulative redeemable preferred units called for redemption	(18,800)	(455,514)	—	—	—	—	—	(455,514)
Class A Units issued to Vornado:								
Upon redemption of redeemable Class A units, at redemption value	—	—	403	38,747	—	—	—	38,747
Under Vornado's employees' share option plan	—	—	449	28,253	—	—	—	28,253
Under Vornado's dividend reinvestment plan	—	—	17	1,459	—	—	—	1,459
Contributions	—	—	—	—	—	—	1,044	1,044
Distributions:								
JBG SMITH Properties	—	—	—	—	(2,428,345)	—	—	(2,428,345)
Real estate fund investments	—	—	—	—	—	—	(73,850)	(73,850)
Other	—	—	—	—	—	—	(2,618)	(2,618)
Conversion of Series A preferred units to Class A units	(5)	(162)	10	162	—	—	—	—
Deferred compensation units and options	—	—	—	2,246	(418)	—	—	1,828
Reduction in unrealized net gain on available-for-sale securities	—	—	—	—	—	(20,951)	—	(20,951)
Amounts reclassified related to a nonconsolidated subsidiary	—	—	—	—	—	14,402	—	14,402
Other comprehensive income of nonconsolidated subsidiaries	—	—	—	—	—	1,425	—	1,425
Increase in value of interest rate swaps	—	—	—	—	—	15,477	—	15,477
Adjustments to carry redeemable Class A units at redemption value	—	—	—	268,494	—	—	—	268,494
Redeemable partnership units' share of above adjustments	—	—	—	—	—	(642)	—	(642)
Other	—	—	4	—	(635)	(1)	(306)	(942)
Balance, December 31, 2017	36,800	$ 891,988	189,984	$ 7,500,235	$ (4,183,253)	$ 128,682	$ 670,049	$ 5,007,701

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Cash Flows from Operating Activities:			
Net income	$ 3,334,262	$ 422,603	$ 264,128
Adjustments to reconcile net income to net cash provided by operating activities:			
Net gain on transfer to Fifth Avenue and Times Square JV	(2,571,099)	—	—
Net gains on disposition of wholly owned and partially owned assets	(845,499)	(246,031)	(501)
Depreciation and amortization (including amortization of deferred financing costs)	438,933	472,785	529,826
Distributions of income from partially owned entities	116,826	78,831	82,095
Net realized and unrealized loss on real estate fund investments	106,109	84,706	15,267
Equity in net income of partially owned entities	(78,865)	(9,149)	(15,635)
Non-cash impairment loss on 608 Fifth Avenue right-of-use asset	75,220	—	—
Stock-based compensation expense	53,908	31,722	32,829
Real estate impairment losses and related write-offs	26,705	12,000	—
Prepayment penalty on redemption of senior unsecured notes due 2022	22,058	—	—
Amortization of below-market leases, net	(19,830)	(38,573)	(46,790)
Straight-lining of rents	9,679	(7,605)	(45,792)
Decrease in fair value of marketable securities	5,533	26,453	—
Purchase price fair value adjustment	—	(44,060)	—
Return of capital from real estate fund investments	—	20,290	91,606
Change in valuation of deferred tax assets and liabilities	—	12,835	34,800
Net gains on real estate and other	—	—	(3,489)
Other non-cash adjustments	13,765	7,499	23,651
Changes in operating assets and liabilities:			
Real estate fund investments	(10,000)	(68,950)	—
Tenant and other receivables, net	(25,988)	(14,532)	1,183
Prepaid assets	7,558	151,533	(12,292)
Other assets	(4,302)	(84,222)	(79,199)
Accounts payable and accrued expenses	5,940	5,869	3,760
Other liabilities	1,626	(11,363)	(15,305)
Net cash provided by operating activities	662,539	802,641	860,142
Cash Flows from Investing Activities:			
Proceeds from sale of condominium units at 220 Central Park South	1,605,356	214,776	—
Proceeds from transfer of interest in Fifth Avenue and Times Square JV (net of $35,562 of transaction costs and $10,899 of deconsolidated cash and restricted cash)	1,248,743	—	—
Development costs and construction in progress	(649,056)	(418,186)	(355,852)
Proceeds from redemption of 640 Fifth Avenue preferred equity	500,000	—	—
Moynihan Train Hall expenditures	(438,935)	(74,609)	—
Proceeds from sale of real estate and related investments	324,201	219,731	9,543
Additions to real estate	(233,666)	(234,602)	(271,308)
Proceeds from sales of marketable securities	168,314	4,101	—
Acquisitions of real estate and other	(69,699)	(574,812)	(30,607)
Distributions of capital from partially owned entities	24,880	100,178	366,155
Investments in partially owned entities	(18,257)	(37,131)	(40,537)
Proceeds from repayments of loans receivable	1,395	25,757	659
Investments in loans receivable	—	(105,000)	—
Net consolidation of Farley Office and Retail Building	—	2,075	—
Proceeds from the repayment of JBG SMITH Properties loan receivable	—	—	115,630
Net cash provided by (used in) investing activities	2,463,276	(877,722)	(206,317)

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF CASH FLOWS – CONTINUED

(Amounts in thousands)	Year Ended December 31,		
	2019	2018	2017
Cash Flows from Financing Activities:			
Repayments of borrowings	$ (2,718,987)	$ (685,265)	$ (631,681)
Proceeds from borrowings	1,108,156	526,766	1,055,872
Distributions to Vornado	(503,785)	(479,348)	(496,490)
Moynihan Train Hall reimbursement from Empire State Development	438,935	74,609	—
Purchase of marketable securities in connection with defeasance of mortgage payable	(407,126)	—	—
Distributions to redeemable security holders and noncontrolling interests in consolidated subsidiaries	(80,194)	(76,149)	(109,697)
Distributions to preferred unitholders	(50,131)	(55,115)	(64,516)
Contributions from noncontrolling interests in consolidated subsidiaries	17,871	61,062	1,044
Prepayment penalty on redemption of senior unsecured notes due 2022	(22,058)	—	—
Debt issuance costs	(15,588)	(12,908)	(12,325)
Repurchase of Class A units related to stock compensation agreements and related tax withholdings and other	(8,692)	(12,969)	(418)
Proceeds received from exercise of Vornado stock options and other	6,903	7,309	29,712
Redemption of preferred units	(893)	(470,000)	—
Debt prepayment and extinguishment costs	—	(818)	(3,217)
Cash and cash equivalents and restricted cash included in the spin-off of JBG SMITH Properties ($275,000 plus The Bartlett financing proceeds less transaction costs and other mortgage items)	—	—	(416,237)
Proceeds from issuance of preferred units	—	—	309,609
Net cash used in financing activities	(2,235,589)	(1,122,826)	(338,344)
Net increase (decrease) in cash and cash equivalents and restricted cash	890,226	(1,197,907)	315,481
Cash and cash equivalents and restricted cash at beginning of period	716,905	1,914,812	1,599,331
Cash and cash equivalents and restricted cash at end of period	$ 1,607,131	$ 716,905	$ 1,914,812
Reconciliation of Cash and Cash Equivalents and Restricted Cash:			
Cash and cash equivalents at beginning of period	$ 570,916	$ 1,817,655	$ 1,501,027
Restricted cash at beginning of period	145,989	97,157	95,032
Restricted cash included in discontinued operations at beginning of period	—	—	3,272
Cash and cash equivalents and restricted cash at beginning of period	$ 716,905	$ 1,914,812	$ 1,599,331
Cash and cash equivalents at end of period	$ 1,515,012	$ 570,916	$ 1,817,655
Restricted cash at end of period	92,119	145,989	97,157
Cash and cash equivalents and restricted cash at end of period	$ 1,607,131	$ 716,905	$ 1,914,812

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF CASH FLOWS – CONTINUED

(Amounts in thousands)	Year Ended December 31,		
	2019	2018	2017
Supplemental Disclosure of Cash Flow Information:			
Cash payments for interest, excluding capitalized interest of $67,980, $67,402 and $43,071	$ 283,613	$ 311,835	$ 338,983
Cash payments for income taxes	$ 59,834	$ 62,225	$ 6,727
Non-Cash Investing and Financing Activities:			
Investments received in exchange for transfer to Fifth Avenue and Times Square JV:			
Preferred equity	$ 2,327,750	$ —	$ —
Common equity	1,449,495	—	—
Reclassification of condominium units from "development costs and construction in progress" to "220 Central Park South condominium units ready for sale"	1,311,468	233,179	—
Lease liabilities arising from the recognition of right-of-use assets	526,866	—	—
Marketable securities transferred in connection with the defeasance of mortgage payable	(407,126)	—	—
Special distribution declared and payable on January 15, 2020	398,292	—	—
Defeased mortgage payable	390,000	—	—
Write-off of fully depreciated assets	(122,813)	(86,064)	(58,810)
Accrued capital expenditures included in accounts payable and accrued expenses	109,975	88,115	102,976
Adjustments to carry redeemable Class A units at redemption value	70,810	198,064	268,494
Recognition of negative basis related to the sale of our investment in 330 Madison Avenue	60,052	—	—
Amounts related to our investment in Pennsylvania Real Estate Investment Trust reclassified from "investments in partially owned entities" and "accumulated other comprehensive (loss) income" to "marketable securities" upon conversion of operating partnership units to common shares	54,962	—	—
Increase in assets and liabilities resulting from the consolidation of Farley Office and Retail Building:			
Real estate, net	—	401,708	—
Mortgage payable, net	—	249,459	—
Increase in assets and liabilities resulting from the consolidation of Moynihan Train Hall:			
Real estate, net	—	346,926	—
Moynihan Train Hall obligation	—	346,926	—
Non-cash distribution to JBG SMITH Properties:			
Assets	—	—	3,432,738
Liabilities	—	—	(1,414,186)
Equity	—	—	(2,018,552)
Reclassification of Series G and Series I cumulative redeemable preferred shares to liabilities upon call for redemption	—	—	455,514
Loan receivable established upon the spin-off of JBG SMITH Properties	—	—	115,630
Reduction in unrealized net gain on available-for-sale securities	—	—	(20,951)

See notes to consolidated financial statements.

1. Organization and Business

Vornado Realty Trust (“Vornado”) is a fully-integrated real estate investment trust (“REIT”) and conducts its business through, and substantially all of its interests in properties are held by, Vornado Realty L.P., a Delaware limited partnership (the “Operating Partnership”). Accordingly, Vornado’s cash flow and ability to pay dividends to its shareholders are dependent upon the cash flow of the Operating Partnership and the ability of its direct and indirect subsidiaries to first satisfy their obligations to creditors. Vornado is the sole general partner of, and owned approximately 93.1% of the common limited partnership interest in the Operating Partnership as of December 31, 2019. All references to the “Company,” “we,” “us” and “our” mean collectively Vornado, the Operating Partnership and those subsidiaries consolidated by Vornado.

We currently own all or portions of:

New York:

- 19.1 million square feet of Manhattan office in 35 properties;
- 2.3 million square feet of Manhattan street retail in 70 properties;
- 1,991 units in 10 residential properties;
- The 1,700 room Hotel Pennsylvania located on Seventh Avenue at 33rd Street in the heart of the Penn District; and
- A 32.4% interest in Alexander’s, Inc. (“Alexander’s”) (NYSE: ALX), which owns seven properties in the greater New York metropolitan area, including 731 Lexington Avenue, the 1.3 million square foot Bloomberg, L.P. headquarters building.

Other Real Estate and Investments:

- The 3.7 million square foot theMART in Chicago;
- A 70% controlling interest in 555 California Street, a three-building office complex in San Francisco’s financial district aggregating 1.8 million square feet;
- A 25.0% interest in Vornado Capital Partners, our real estate fund. We are the general partner and investment manager of the fund; and
- Other real estate and investments.

2. Basis of Presentation and Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements include the accounts of Vornado and the Operating Partnership and their consolidated subsidiaries. All inter-company amounts have been eliminated. Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”), which require us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Certain prior year balances have been reclassified in order to conform to the current period presentation. For the years ended December 31, 2018 and 2017, "property rentals" of $1,760,205,000 and $1,714,952,000, respectively, and "tenant expense reimbursements" of $247,128,000 and $233,424,000 , respectively, were grouped into "rental revenues" on our consolidated statements of income in accordance with Accounting Standards Codification ("ASC") Topic 205, *Presentation of Financial Statements.*

Recently Issued Accounting Literature

In February 2016, the Financial Accounting Standards Board ("FASB") issued an update (“ASU 2016-02”) establishing ASC Topic 842, *Leases* ("ASC 842"), as amended by subsequent ASUs on the topic, which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. ASU 2016-02 requires lessees to apply a two-method approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase. Lessees are required to record a right-of-use ("ROU") asset and a lease liability for all leases with a term of greater than 12 months. Lease liabilities equal the present value of future lease payments. Right-of-use assets equal the lease liabilities adjusted for accrued rent expense, initial direct costs, lease incentives and prepaid lease payments. Leases with a term of 12 months or less will be accounted for similar to the previously existing lease guidance under ASC Topic 840, *Leases* ("ASC 840"). Lease expense is recognized based on the effective interest method for finance leases or on a straight-line basis for operating leases. The accounting applied by the lessor is largely unchanged from that applied under ASC 840. We adopted this standard effective January 1, 2019. In transitioning to ASC 842, we elected to use the practical expedient package available to us and did not elect to use hindsight. As of January 1, 2019, we had 12 ground leases classified as operating leases, for which we were required to record a right-of-use asset and a lease liability equal to the present value of the future lease payments. We will continue to recognize expense on a straight-line basis for these leases. We recorded an aggregate of $526,866,000 of ROU assets and a corresponding $526,866,000 of lease liabilities as a result of the adoption of this standard (see Note 20 - *Leases*).

2. Basis of Presentation and Significant Accounting Policies - continued

Recently Issued Accounting Literature - continued

Under ASU 2016-02, initial direct costs for both lessees and lessors would include only those costs that are incremental to the arrangement and would not have been incurred if the lease had not been obtained. As a result, beginning January 1, 2019, we no longer capitalize internal leasing costs and instead expense these costs as incurred, as a component of "general and administrative" expense on our consolidated statements of income. For the years ended December 31, 2018 and 2017, we capitalized $5,538,000 and $5,243,000, respectively, of internal leasing costs.

In June 2016, the FASB issued an update (“ASU 2016-13”) *Measurement of Credit Losses on Financial Instruments* establishing ASC Topic 326, *Financial Instruments - Credit Losses*, as amended by subsequent ASUs on the topic. ASU 2016-13 changes how entities will account for credit losses for most financial assets and certain other instruments that are not measured at fair value through net income. The guidance replaces the current “incurred loss” model with an “expected loss” model that requires consideration of a broader range of information to estimate expected credit losses over the lifetime of the financial asset. ASU 2016-13 is effective for interim and annual reporting periods in fiscal years beginning after December 15, 2019. We are currently evaluating the impact of the adoption of ASU 2016-13 on our consolidated financial statements, but do not believe the adoption of this standard will have a material impact on our consolidated financial statements.

In August 2018, the FASB issued an update (“ASU 2018-13”) *Disclosure Framework-Changes to the Disclosure Requirements for Fair Value Measurement* to ASC Topic 820, *Fair Value Measurement* (“ASC 820”). ASU 2018-13 modifies the disclosure requirements for fair value measurements by removing, modifying, and/or adding certain disclosures. ASU 2018-13 is effective for interim and annual reporting periods in fiscal years beginning after December 15, 2019. We elected to early adopt ASU 2018-13 effective January 1, 2019. The adoption of this update did not have a material impact on our consolidated financial statements and disclosures.

In October 2018, the FASB issued an update ("ASU 2018-16") *Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes* to ASC Topic 815, *Derivatives and Hedging*. ASU 2018-16 expands the list of U.S. benchmark interest rates permitted in the application of hedge accounting by adding the OIS rate based on SOFR as an eligible benchmark interest rate. ASU 2018-16 is effective for interim and annual reporting periods in fiscal years beginning after December 15, 2018. We adopted this update effective January 1, 2019. The adoption of this update did not have any impact on our consolidated financial statements.

2. Basis of Presentation and Significant Accounting Policies - continued

Significant Accounting Policies

Real Estate: Real estate is carried at cost, net of accumulated depreciation and amortization. Betterments, major renewals and certain costs directly related to the improvement and leasing of real estate are capitalized. Maintenance and repairs are expensed as incurred. For redevelopment of existing operating properties, the net book value of the existing property under redevelopment plus the cost for the construction and improvements incurred in connection with the redevelopment are capitalized to the extent the capitalized costs of the property do not exceed the estimated fair value of the redeveloped property when complete. If the cost of the redeveloped property, including the net book value of the existing property, exceeds the estimated fair value of the redeveloped property, the excess is charged to expense. Depreciation is recognized on a straight-line basis over the estimated useful lives which range from 7 to 40 years. Tenant allowances are amortized on a straight-line basis over the lives of the related leases, which approximate the useful lives of the assets. Additions to real estate include interest and debt expense capitalized during construction of $72,200,000 and $73,166,000 for the years ended December 31, 2019 and 2018, respectively.

Upon the acquisition of real estate, we assess the fair value of acquired assets (including land, buildings and improvements, identified intangibles, such as acquired above and below-market leases, acquired in-place leases and tenant relationships) and acquired liabilities and we allocate the purchase price based on these assessments which are on a relative fair value basis. We assess fair value based on estimated cash flow projections that utilize appropriate discount and capitalization rates and available market information. Estimates of future cash flows are based on a number of factors including historical operating results, known trends, and market/economic conditions. We amortize identified intangibles that have finite lives over the period they are expected to contribute directly or indirectly to the future cash flows of the property or business acquired.

Our properties, including any related right-of-use assets and intangible assets, are individually reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment exists when the carrying amount of an asset exceeds the aggregate projected future cash flows over the anticipated holding period on an undiscounted basis. An impairment loss is measured based on the excess of the property's carrying amount over its estimated fair value. Impairment analyses are based on our current plans, intended holding periods and available market information at the time the analyses are prepared. If our estimates of the projected future cash flows, or market conditions change, our evaluation of impairment losses may be different and such differences could be material to our consolidated financial statements. The evaluation of anticipated discounted cash flows is subjective and is based, in part, on estimates and assumptions regarding future occupancy, rental rates, capital requirements, capitalization rates and discount rates that could differ materially from actual results. Plans to hold properties over longer periods decrease the likelihood of recording impairment losses. We recognized impairment losses of $107,221,000 and $12,000,000 for the years ended December 31, 2019 and 2018, respectively. There were no impairment losses in the year ended December 31, 2017.

Our 95.0% joint venture (the remaining 5.0% is owned by the Related Companies ("Related")) which is developing the Farley Office and Retail Building has entered into a development agreement with Empire State Development ("ESD"), an entity of New York State, to build the adjacent Moynihan Train Hall, with Vornado and Related each guaranteeing the joint venture's obligations. The joint venture has entered into a design-build contract with Skanska Moynihan Train Hall Builders pursuant to which they will build the Moynihan Train Hall, thereby fulfilling all of the joint venture's obligations to ESD. The obligations of Skanska Moynihan Train Hall Builders have been bonded by Skanska USA and bear a full guaranty from Skanska AB. The development expenditures for the Moynihan Train Hall are estimated to be approximately $1.6 billion, which will be funded by governmental agencies. Pursuant to ASC 842-40-55, the joint venture, which we consolidate on our consolidated balance sheets, is required to recognize all development expenditures for the Moynihan Train Hall. Accordingly, the development expenditures paid for by governmental agencies through December 31, 2019 and 2018 of $914,960,000 and $445,693,000, respectively, are shown as "Moynihan Train Hall development expenditures" with a corresponding obligation recorded in "Moynihan Train Hall obligation" on our consolidated balance sheets. Upon completion of the development, the "Moynihan Train Hall development expenditures" and the offsetting "Moynihan Train Hall obligation" will be removed from our consolidated balance sheets.

Partially Owned Entities: We consolidate entities in which we have a controlling financial interest. In determining whether we have a controlling financial interest in a partially owned entity and the requirement to consolidate the accounts of that entity, we consider (i) whether the entity is a variable interest entity ("VIE") in which we are the primary beneficiary or (ii) whether the entity is a voting interest entity in which we have a majority of the voting interests of the entity. We are deemed to be the primary beneficiary of a VIE when we have (i) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and (ii) the obligation to absorb losses or receive benefits that could potentially be significant to the VIE. We generally do not control a partially owned entity if the approval of all of the partners/members is contractually required with respect to decisions that most significantly impact the performance of the partially owned entity. This includes decisions regarding operating/capital budgets, and the placement of new or additional financing secured by the assets of the venture, among others. We account for investments under the equity method when the requirements for consolidation are not met, and we have significant influence over the operations of the investee. Equity method investments are initially recorded at cost and subsequently adjusted for our share of net income or loss and cash contributions and distributions each period. Investments that do not qualify for consolidation or equity method accounting are accounted for under the cost method.

2. Basis of Presentation and Significant Accounting Policies - continued

Significant Accounting Policies - continued

Partially Owned Entities - continued: Investments in partially owned entities are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recorded when there is a decline in the fair value below the carrying value and we conclude such decline is other-than-temporary. An impairment loss is measured based on the excess of the carrying amount of an investment over its estimated fair value. Impairment analyses are based on current plans, intended holding periods and available information at the time the analyses are prepared. In the year ended December 31, 2017, we recognized non-cash impairment losses on investments in partially owned entities aggregating $44,465,000. There were no non-cash impairment losses on investments in partially owned entities in the years ended December 31, 2019 and 2018.

220 Central Park South Condominium Units Ready For Sale: We are constructing a residential condominium tower at 220 Central Park South ("220 CPS"). Condominium units are reclassed from "development costs and construction in progress" to "220 Central Park South condominium units ready for sale" upon receipt of the unit's temporary certificate of occupancy. These units are substantially complete and ready for sale. Each unit is carried at the lower of its carrying amount or fair value less costs to sell. We have used the relative sales value method to allocate costs to individual condominium units. GAAP income is recognized when legal title transfers upon closing of the condominium unit sales and is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income. As of December 31, 2019 and 2018, none of the 220 CPS condominium units ready for sale had a carrying value that exceeded fair value.

Cash and Cash Equivalents: Cash and cash equivalents consist of highly liquid investments with original maturities of three months or less and are carried at cost, which approximates fair value due to their short-term maturities. The majority of our cash and cash equivalents consists of (i) deposits at major commercial banks, which may at times exceed the Federal Deposit Insurance Corporation limit, (ii) United States Treasury Bills, and (iii) Certificate of Deposits placed through an Account Registry Service.

Restricted Cash: Restricted cash consists of security deposits, cash restricted for the purposes of facilitating a Section 1031 Like-Kind exchange, cash restricted in connection with our deferred compensation plan and cash escrowed under loan agreements, including for debt service, real estate taxes, property insurance and capital improvements.

Deferred Charges: Direct financing costs are deferred and amortized over the terms of the related agreements as a component of interest expense. Direct costs related to successful leasing activities are capitalized and amortized on a straight-line basis over the lives of the related leases. All other deferred charges are amortized on a straight-line basis, which approximates the effective interest rate method, in accordance with the terms of the agreements to which they relate.

Income Taxes: Vornado operates in a manner intended to enable it to continue to qualify as a REIT under Sections 856-860 of the Internal Revenue Code of 1986, as amended. Under those sections, a REIT which distributes at least 90% of its REIT taxable income as a dividend to its shareholders each year and which meets certain other conditions will not be taxed on that portion of its taxable income which is distributed to its shareholders. Vornado distributes to its shareholders 100% of its REIT taxable income and therefore, no provision for Federal income taxes is required. Dividends distributed for the year ended December 31, 2019, were characterized, for federal income tax purposes, as 62.1% ordinary income and 37.9% long-term capital gain. Dividends distributed for the year ended December 31, 2018, were characterized, for federal income tax purposes, as 91.7% ordinary income and 8.3% long-term capital gain. Dividends distributed for the year ended December 31, 2017, were characterized, for federal income tax purposes, as ordinary income.

On December 18, 2019, Vornado's Board of Trustees declared a special dividend of $1.95 per share which was paid on January 15, 2020 to common shareholders of record on December 30, 2019 (the "Record Date"). Class A unitholders of the Operating Partnership as of the Record Date received the same distribution amount per unit on January 15, 2020. Approximately $1.74 per share of the special dividend was a long-term capital gain. The dividend was the result of gains from the transfer of a 45.4% common equity interest in the Fifth Avenue and Times Square JV(see Note 6 - *Investments in Partially Owned Entities*), the sale of our 25% interest in 330 Madison Avenue (see Note 6 - *Investments in Partially Owned Entities*) and other previously disclosed asset sales, partially offset by a tax deduction resulting from our former investment in Toys "R" Us (see Note 6 - *Investments in Partially Owned Entities*).

We have elected to treat certain consolidated subsidiaries, and may in the future elect to treat newly formed subsidiaries, as taxable REIT subsidiaries pursuant to an amendment to the Internal Revenue Code that became effective January 1, 2001. Taxable REIT subsidiaries may participate in non-real estate related activities and/or perform non-customary services for tenants and are subject to Federal and State income tax at regular corporate tax rates. Our 220 Central Park South condominium project is held through a taxable REIT subsidiary.

2. Basis of Presentation and Significant Accounting Policies - continued

Significant Accounting Policies - continued

At December 31, 2019 and 2018, our taxable REIT subsidiaries had deferred tax assets, net of valuation allowances, of $57,226,000 and $109,949,000, respectively, and are included in “other assets” on our consolidated balance sheets. At December 31, 2019 and 2018, our taxable REIT subsidiaries had deferred tax liabilities of $29,444,000 and $28,676,000, respectively, which are included in "other liabilities" on our consolidated balance sheets. The deferred tax assets and liabilities relate to net operating loss carry forwards and temporary differences between the book and tax basis of asset and liabilities. During 2019, we utilized $10,257,000 of deferred tax assets related to net operating loss carry forwards associated with our 220 CPS project.

For the years ended December 31, 2019, 2018 and 2017, we recognized $103,439,000, $37,633,000 and $42,375,000 of income tax expense, respectively, based on effective tax rates of approximately 3.0%, 8.2% and 13.3%, respectively. Income tax expense recorded in each of the years primarily relates to our consolidated taxable REIT subsidiaries, and certain state, local, and franchise taxes. The year ended December 31, 2019 included $101,828,000 of income tax expense recognized on the sale of 220 CPS condominium units. The year ended December 31, 2018 included $16,771,000 of income tax expense relating to the purchase price fair value adjustment recorded upon our acquisition of an additional 44.9% ownership interest in Farley Office and Retail Building and $13,888,000 of income tax expense recognized on the sale of 220 CPS units. The Company has no uncertain tax positions recognized as of December 31, 2019 and 2018.

The Operating Partnership’s partners are required to report their respective share of taxable income on their individual tax returns.

The following table reconciles net income attributable to Vornado common shareholders to estimated taxable income for the years ended December 31, 2019, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Net income attributable to Vornado common shareholders	$ 3,097,806	$ 384,832	$ 162,017
Book to tax differences (unaudited):			
Sale of real estate and other capital transactions	(2,575,435)	31,527	11,991
Depreciation and amortization	200,913	234,325	213,083
Earnings of partially owned entities	150,550	15,711	(3,054)
Impairment losses	95,371	11,260	49,062
Tangible property regulations	(57,078)	(86,040)	—
Vornado stock options	(16,597)	(22,992)	(6,383)
Straight-line rent adjustments	9,057	(7,133)	(36,696)
Tax expense related to the reduction of our taxable REIT subsidiaries' deferred tax assets	—	—	32,663
Other, net	12,575	18,956	25,057
Estimated taxable income (unaudited)	$ 917,162	$ 580,446	$ 447,740

The net basis of Vornado’s assets and liabilities for tax reporting purposes is approximately $4.0 billion lower than the amounts reported in Vornado’s consolidated balance sheet at December 31, 2019.

3. Revenue Recognition

Our revenues primarily consist of rental revenues and fee and other income. We operate in two reportable segments: New York and Other, with a significant portion of our revenues included in the New York segment. We have the following revenue sources and revenue recognition policies:

- Rental revenues include revenues from the leasing of space at our properties to tenants, lease termination income, revenues from the Hotel Pennsylvania, trade shows and tenant services.
  - Revenues from the leasing of space at our properties to tenants includes (i) lease components, including fixed and variable lease payments, and nonlease components which include reimbursement of common area maintenance expenses, and (ii) reimbursement of real estate taxes and insurance expenses. As lessor, we have elected to combine the lease and nonlease components of our operating lease agreements and account for the components as a single lease component in accordance with ASC 842. Lease revenues and reimbursement of common area maintenance, real estate taxes and insurance are presented in the following tables as "property rentals." Revenues derived from fixed lease payments are recognized on a straight-line basis over the non-cancelable period of the lease, together with renewal options that are reasonably certain of being exercised. We commence rental revenue recognition when the underlying asset is available for use by the lessee. Revenue derived from the reimbursement of real estate taxes, insurance expenses and common area maintenance expenses are generally recognized in the same period as the related expenses are incurred.
  - Lease termination income is recognized immediately if a tenant vacates or is recognized on a straight-line basis over the shortened remaining lease term in accordance with ASC 842.
  - Hotel revenue arising from the operation of Hotel Pennsylvania consists of room revenue, food and beverage revenue, and banquet revenue. Room revenue is recognized when the rooms are made available for the guest, in accordance with ASC 842.
  - Trade shows revenue arising from the operation of trade shows is primarily booth rentals. This revenue is recognized upon the occurrence of the trade shows when the trade show booths are made available for use by the exhibitors, in accordance with ASC 842.
  - Tenant services revenue arises from sub-metered electric, elevator, trash removal and other services provided to tenants at their request. This revenue is recognized as the services are transferred in accordance with ASC Topic 606, *Revenue from Contracts with Customers* ("ASC 606").
- Fee and other income includes management, leasing and other revenue arising from contractual agreements with third parties or with partially owned entities and includes Building Maintenance Services LLC (“BMS”) cleaning, engineering and security services. This revenue is recognized as the services are transferred in accordance with ASC 606.

Below is a summary of our revenues by segment. Additional financial information related to these reportable segments for the years ended December 31, 2019, 2018 and 2017 is set forth in Note 25 - *Segment Information.*

(Amounts in thousands)	For the Year Ended December 31, 2019		
	Total	New York	Other
Property rentals	$ 1,589,539	$ 1,300,385	$ 289,154
Hotel Pennsylvania	89,594	89,594	—
Trade shows	40,577	—	40,577
Lease revenues	1,719,710	1,389,979	329,731
Tenant services	47,512	35,011	12,501
Rental revenues	1,767,222	1,424,990	342,232
BMS cleaning fees	124,674	133,358	(8,684) [(1)]
Management and leasing fees	13,542	13,694	(152)
Other income	19,262	5,818	13,444
Fee and other income	157,478	152,870	4,608
Total revenues	$ 1,924,700	$ 1,577,860	$ 346,840

See note on the following page.

3. Revenue Recognition - continued

(Amounts in thousands)	For the Year Ended December 31, 2018		
	Total	New York	Other
Property rentals	$ 1,816,329	$ 1,548,226	$ 268,103
Hotel Pennsylvania	94,399	94,399	—
Trade shows	42,684	—	42,684
Lease revenues	1,953,412	1,642,625	310,787
Tenant services	53,921	41,351	12,570
Rental revenues	2,007,333	1,683,976	323,357
BMS cleaning fees	120,357	129,088	(8,731) (1)
Management and leasing fees	13,324	12,203	1,121
Other income	22,706	10,769	11,937
Fee and other income	156,387	152,060	4,327
Total revenues	$ 2,163,720	$ 1,836,036	$ 327,684

(1) See note below.

(Amounts in thousands)	For the Year Ended December 31, 2017		
	Total	New York	Other
Property rentals	$ 1,762,824	$ 1,512,617	$ 250,207
Hotel Pennsylvania	89,302	89,302	—
Trade shows	42,207	—	42,207
Lease revenues	1,894,333	1,601,919	292,414
Tenant services	54,043	42,273	11,770
Rental revenues	1,948,376	1,644,192	304,184
BMS cleaning fees	104,143	110,986	(6,843) (1)
Management and leasing fees	10,087	8,599	1,488
Other income	21,520	15,530	5,990
Fee and other income	135,750	135,115	635
Total revenues	$ 2,084,126	$ 1,779,307	$ 304,819

(1) Represents the elimination of theMART and 555 California Street BMS cleanings fees which are included as income in the New York segment.

4. Real Estate Fund Investments

We are the general partner and investment manager of Vornado Capital Partners Real Estate Fund (the “Fund”) and own a 25.0% interest in the Fund, which had an initial eight-year term ending February 2019. On January 29, 2018, the Fund's term was extended to February 2023. The Fund's three-year investment period ended in July 2013. The Fund is accounted for under ASC 946, *Financial Services – Investment Companies* (“ASC 946”) and its investments are reported on its balance sheet at fair value, with changes in value each period recognized in earnings. We consolidate the accounts of the Fund into our consolidated financial statements, retaining the fair value basis of accounting.

We are also the general partner and investment manager of the Crowne Plaza Times Square Hotel Joint Venture (the “Crowne Plaza Joint Venture”) and own a 57.1% interest in the joint venture which owns the 24.7% interest in the Crowne Plaza Times Square Hotel not owned by the Fund. The Crowne Plaza Joint Venture is also accounted for under ASC 946 and we consolidate the accounts of the joint venture into our consolidated financial statements, retaining the fair value basis of accounting.

On November 6, 2019, the Fund completed a $145,075,000 refinancing of Lucida, a 155,000 square foot Manhattan retail and residential property. The three-year interest-only loan carries a rate of LIBOR plus 1.85% (3.54% as of December 31, 2019) with two one-year extension options. The loan replaces the previous $146,000,000 loan that bore interest at LIBOR plus 1.55% and was scheduled to mature in December 2019.

As of December 31, 2019, we had four real estate fund investments through the Fund and the Crowne Plaza Joint Venture with an aggregate fair value of $222,649,000, or $112,915,000 below cost, and had remaining unfunded commitments of $35,194,000, of which our share was $11,242,000. At December 31, 2018, the Fund had four real estate fund investments with an aggregate fair value of $318,758,000.

Below is a summary of (loss) income from the Fund and the Crowne Plaza Joint Venture for the years ended December 31, 2019, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Net investment income	$ 2,027	$ 6,105	$ 18,507
Net unrealized loss on held investments	(106,109)	(83,794)	(25,807)
Net realized (loss) gain on exited investments	—	(912)	36,078
Previously recorded unrealized gain on exited investment	—	—	(25,538)
New York City real property transfer tax (the "Transfer Tax")	—	(10,630) [(1)]	—
(Loss) income from real estate fund investments	(104,082)	(89,231)	3,240
Less loss (income) attributable to noncontrolling interests in consolidated subsidiaries	55,274	61,230	(14,044)
Loss from real estate fund investments net of controlling interests in consolidated subsidiaries[(2)]	$ (48,808)	$ (28,001)	$ (10,804)

(1) Due to the additional Transfer Tax related to the March 2011 acquisition of One Park Avenue which was recognized as a result of the New York City Tax Appeals Tribunal (the "Tax Tribunal") decision in the first quarter of 2018. We appealed the Tax Tribunal's decision to the New York State Supreme Court, Appellate Division, First Department ("Appellate Division"). Our appeal was heard on April 2, 2019. On April 25, 2019, the Appellate Division entered a unanimous decision and order that confirmed the decision of the Tax Tribunal and dismissed our appeal. On June 20, 2019, we filed a motion to reargue the Appellate Division's decision or for leave to appeal to the New York State Court of Appeals. That motion was denied on December 12, 2019 and can no longer be appealed.

(2) 2018 includes $4,252 of loss related to One Park Avenue additional transfer taxes and reduction in carried interest.

5. Marketable Securities

Our portfolio of marketable securities is comprised of equity securities that are presented on our consolidated balance sheets at fair value. Our marketable securities are accounted for in accordance with ASC Topic 321, *Investments - Equity Securities* ("ASC 321"), which requires changes in the fair value of our marketable securities to be recorded in current period earnings. Changes in the fair value are recorded to "interest and other investment income, net" on our consolidated statements of income (see Note 17 - *Interest and Other Investment Income, Net*).

Lexington Realty Trust ("Lexington") (NYSE: LXP)

On March 1, 2019, we sold all of our 18,468,969 common shares of Lexington, realizing net proceeds of $167,698,000. We recorded a $16,068,000 gain (mark-to-market increase), which is included in "interest and other investment income, net" on our consolidated statements of income for the year ended December 31, 2019.

5. Marketable Securities - continued

Pennsylvania Real Estate Investment Trust ("PREIT") (NYSE: PEI)

On March 12, 2019 (the "Conversion Date"), we converted all of our 6,250,000 PREIT operating partnership units into common shares and began accounting for our investment as a marketable security in accordance with ASC 321. Prior to the Conversion Date, we accounted for our investment under the equity method. For the year ended December 31, 2019 we recorded a decrease of $21,649,000 in the value of our investment based on PREIT's year ended closing share price, which is included in "interest and other investment income, net" on our consolidated statements of income.

On January 23, 2020, we sold all of our 6,250,000 common shares of PREIT, realizing net proceeds of $28,375,000. A $4,938,000 loss (mark-to-market decrease) will be recorded in the first quarter of 2020.

The table below summarizes the changes of our marketable securities portfolio for the years ended December 31, 2019 and 2018.

(Amounts in thousands)

	Total	Lexington	PREIT	Other
Balance as of December 31, 2017	$ 182,752	$ 178,226	$ —	$ 4,526
(Decrease) increase in fair value of marketable securities	(26,453)	(26,596)	—	143
Sale of marketable securities	(4,101)	—	—	(4,101)
Balance as of December 31, 2018	152,198	151,630	—	568
Sale of marketable securities	(168,314)	(167,698)	—	(616)
Transfer of PREIT investment balance at Conversion Date	54,962	—	54,962	—
(Decrease) increase in fair value of marketable securities	(5,533)	16,068	(21,649)	48
Balance as of December 31, 2019	$ 33,313	$ —	$ 33,313	$ —

6. Investments in Partially Owned Entities

Fifth Avenue and Times Square JV

On April 18, 2019 (the "Closing Date"), we entered into a transaction agreement (the "Transaction Agreement") with a group of institutional investors (the "Investors"). The Transaction Agreement provides for a series of transactions (collectively, the "Transaction") pursuant to which (i) prior to the Closing Date, we contributed our interests in properties located at 640 Fifth Avenue, 655 Fifth Avenue, 666 Fifth Avenue, 689 Fifth Avenue, 697-703 Fifth Avenue, 1535 Broadway and 1540 Broadway (collectively, the "Properties") to subsidiaries of a newly formed joint venture ("Fifth Avenue and Times Square JV") and (ii) on the Closing Date, transferred a 48.5% common interest in Fifth Avenue and Times Square JV to the Investors. The 48.5% common interest in the joint venture represents an effective 47.2% interest in the Properties (of which 45.4% was transferred from Vornado). The Properties include approximately 489,000 square feet of retail space, 327,000 square feet of office space, signage associated with 1535 and 1540 Broadway, the parking garage at 1540 Broadway and the theater at 1535 Broadway.

We retained the remaining 51.5% common interest in Fifth Avenue and Times Square JV which represents an effective 51.0% interest in the Properties and an aggregate $1.828 billion of preferred equity interests in certain of the properties. We also provided $500,000,000 of temporary preferred equity on 640 Fifth Avenue until May 23, 2019 when mortgage financing was completed. All of the preferred equity has an annual coupon of 4.25% for the first five years, increasing to 4.75% for the next five years and thereafter at a formulaic rate. It can be redeemed under certain conditions on a tax deferred basis.

Net cash proceeds from the Transaction were $1.179 billion, after (i) deductions for the defeasance of a $390,000,000 mortgage loan on 666 Fifth Avenue and the repayment of a $140,000,000 mortgage loan on 655 Fifth Avenue, (ii) proceeds from a $500,000,000 mortgage loan on 640 Fifth Avenue, described below, (iii) approximately $23,000,000 used to purchase noncontrolling investors' interests and (iv) approximately $53,000,000 of transaction costs (including $17,000,000 of costs related to the defeasance of the 666 Fifth Avenue mortgage loan).

We continue to manage and lease the Properties. We share control with the Investors over major decisions of the joint venture, including decisions regarding leasing, operating and capital budgets, and refinancings. Accordingly, we no longer hold a controlling financial interest in the Properties which has been transferred to the joint venture. As a result, our investment in Fifth Avenue and Times Square JV is accounted for under the equity method from the date of transfer. The Transaction valued the Properties at $5.556 billion resulting in a financial statement net gain of $2.571 billion, before noncontrolling interest of $11,945,000, including the related step up in our basis of the retained portion of the assets to fair value. The net gain is included in "net gain on transfer to Fifth Avenue and Times Square JV" on our consolidated statements of income for the year ended December 31, 2019. The gain for tax purposes was approximately $735,000,000.

6. Investments in Partially Owned Entities - continued

Fifth Avenue and Times Square JV - continued

On May 23, 2019, we received $500,000,000 from the redemption of our temporary preferred equity in 640 Fifth Avenue. The temporary preferred equity was redeemed from the proceeds of a $500,000,000 mortgage financing that was completed on the property. The five-year loan, which is guaranteed by us, is interest-only at LIBOR plus 1.01%. The interest rate was swapped for four years to a fixed rate of 3.07%.

Management, Development, Leasing and Other Agreements

We provide various services to Fifth Avenue and Times Square JV in accordance with management, development, leasing and other agreements, as described below.

We receive an annual fee for managing the Properties equal to 2% of the gross revenues from the Properties. In addition, we are entitled to a development fee of 5% of development costs, plus reimbursement of certain costs, for development projects performed by us. We are entitled to 1.5% of development costs, plus reimbursement of certain costs, as a supervisory fee for development projects not performed by us. We provide leasing services for fees calculated based on a percentage of rents, less any commissions paid to third-party real estate brokers, if applicable. We jointly provide leasing services for the retail space with Crown Acquisitions Inc. ("Crown"), and exclusively provide leasing services for the office space. During the year ended December 31, 2019, we recognized $3,085,000 of property management fee income which is included in "fee and other income" on our consolidated statements of income.

BMS, our wholly-owned subsidiary, supervises cleaning, security and engineering services at certain of the Properties. During the year ended December 31, 2019, we recognized $3,087,000 of income for these services which is included in "fee and other income" on our consolidated statements of income.

We believe, based on comparable fees charged by other real estate companies, that the fees described above are at fair market value.

Alexander's, Inc

As of December 31, 2019, we own 1,654,068 Alexander's common shares, or approximately 32.4% of Alexander's common equity. We manage, develop and lease Alexander's properties pursuant to agreements which expire in March of each year and are automatically renewable. As of December 31, 2019 and 2018, Alexander's owed us an aggregate of $1,426,000 and $708,000, respectively, pursuant to such agreements.

As of December 31, 2019 the market value ("fair value" pursuant to ASC 820) of our investment in Alexander's, based on Alexander's December 31, 2019 closing share price of $330.35, was $546,421,000, or $447,878,000 in excess of the carrying amount on our consolidated balance sheet. As of December 31, 2019, the carrying amount of our investment in Alexander's, excluding amounts owed to us, exceeds our share of the equity in the net assets of Alexander's by approximately $38,838,000. The majority of this basis difference resulted from the excess of our purchase price for the Alexander's common stock acquired over the book value of Alexander's net assets. Substantially all of this basis difference was allocated, based on our estimates of the fair values of Alexander's assets and liabilities, to real estate (land and buildings). We are amortizing the basis difference related to the buildings into earnings as additional depreciation expense over their estimated useful lives. This depreciation is not material to our share of equity in Alexander's net income. The basis difference related to the land will be recognized upon disposition of our investment.

Management, Development, Leasing and Other Agreements

We receive an annual fee for managing Alexander's and all of its properties equal to the sum of (i) $2,800,000, (ii) 2% of the gross revenue from the Rego Park II Shopping Center, (iii) $0.50 per square foot of the tenant-occupied office and retail space at 731 Lexington Avenue, and (iv) $324,000, escalating at 3% per annum, for managing the common area of 731 Lexington Avenue. In addition, we are entitled to a development fee of 6% of development costs, as defined.

We provide Alexander's with leasing services for a fee of 3% of rent for the first ten years of a lease term, 2% of rent for the eleventh through twentieth year of a lease term and 1% of rent for the twenty-first through thirtieth year of a lease term, subject to the payment of rents by Alexander's tenants. In the event third-party real estate brokers are used, our fee increases by 1% and we are responsible for the fees to the third-parties. We are also entitled to a commission upon the sale of any of Alexander's assets equal to 3% of gross proceeds, as defined, for asset sales less than $50,000,000, and 1% of gross proceeds, as defined, for asset sales of $50,000,000 or more.

BMS, our wholly-owned subsidiary, supervises (i) cleaning, engineering and security services at Alexander's 731 Lexington Avenue property and (ii) security services at Alexander's Rego Park I, Rego Park II properties and The Alexander apartment tower. During the years ended December 31, 2019, 2018 and 2017, we recognized $3,613,000, $2,705,000 and $2,678,000 of income, respectively, for these services.

6. Investments in Partially Owned Entities - continued

61 Ninth Avenue

On January 28, 2019, a joint venture in which we have a 45.1% interest, completed a $167,500,000 refinancing of 61 Ninth Avenue, a 166,000 square foot Manhattan office and retail property. The seven-year interest-only loan carries a rate of LIBOR plus 1.35% (3.07% as of December 31, 2019) and matures in January 2026. We realized net proceeds of approximately $31,000,000. The loan replaces the previous $90,000,000 construction loan that bore interest at LIBOR plus 3.05% and was scheduled to mature in December 2021.

Urban Edge Properties (“UE”) (NYSE: UE)

On March 4, 2019, we converted to common shares and sold all of our 5,717,184 partnership units of UE, realizing net proceeds of $108,512,000. The sale resulted in a net gain of $62,395,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income for the year ended December 31, 2019.

512 West 22nd Street

On June 28, 2019, a joint venture in which we have a 55% interest, completed a $145,700,000 refinancing of 512 West 22nd Street, a 173,000 square foot Manhattan office building, of which $109,565,000 was outstanding as of December 31, 2019. The four-year interest-only loan carries a rate of LIBOR plus 2.00% (3.72% as of December 31, 2019) and matures in June 2023 with a one-year extension option. The loan replaces the previous $126,000,000 construction loan that bore interest at LIBOR plus 2.65% and was scheduled to mature in November 2019.

330 Madison Avenue

On July 11, 2019, we sold our 25% interest in 330 Madison Avenue to our joint venture partner. We received net proceeds of approximately $100,000,000 after deducting our share of the existing $500,000,000 mortgage loan resulting in a financial statement net gain of $159,292,000. The net gain is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income for the year ended December 31, 2019. The gain for tax purposes was approximately $139,000,000.

825 Seventh Avenue

On July 25, 2019, a joint venture in which we have a 50% interest, completed a $60,000,000 refinancing of 825 Seventh Avenue, a 165,000 square foot Manhattan office building, of which $31,889,000 was outstanding as of December 31, 2019. The interest-only loan carries a rate of LIBOR plus 1.65% (3.40% as of December 31, 2019) and matures in July 2022 with a one-year extension option. The loan replaces the previous $20,500,000 loan that bore interest at LIBOR plus 1.40% and was scheduled to mature in September 2019.

Toys "R" Us, Inc. ("Toys")

On September 18, 2017, Toys filed a voluntary petition under Chapter 11 of the United States Bankruptcy Code. In the second quarter of 2018, Toys ceased U.S. operations. On February 1, 2019, the plan of reorganization for Toys, in which we owned a 32.5% interest, was declared effective, and our stock in Toys was canceled. At December 31, 2018, we carried our Toys investment at zero. The canceling of our stock in Toys resulted in approximately a $420,000,000 capital loss deduction which was utilized in 2019 to partially offset taxable gains resulting from the transfer of our 45.4% common equity interest in Fifth Avenue and Times Square JV, the sale of our 25% interest in 330 Madison Avenue and sales of other assets.

650 Madison Avenue

On November 26, 2019, a joint venture in which we have a 20.1% interest, completed a $800,000,000 refinancing of 650 Madison Avenue, a 601,000 square foot Manhattan office and retail property. The ten-year interest-only loan carries a fixed rate of 3.49% and matures in December 2029. The loan replaces the previous $800,000,000 loan that bore interest at a fixed rate of 4.39% and was scheduled to mature in October 2020.

50-70 West 93rd Street

On December 23, 2019, a joint venture in which we have a 49.9% interest, completed a $85,500,000 refinancing, of which $82,500,000 was outstanding as of December 31, 2019, of 50-70 West 93rd Street, a 325-unit Manhattan residential complex. The five-year interest-only loan carries an interest rate of LIBOR plus 1.53%, which was swapped to a fixed rate of 3.14%, and matures in December 2024. The loan replaces the previous $80,000,000 loan that bore interest at LIBOR plus 1.70% and was scheduled to mature in August 2021, as extended.

6. Investments in Partially Owned Entities – continued

Below is a schedule summarizing our investments in partially owned entities.

(Amounts in thousands)	Percentage Ownership at December 31, 2019	As of December 31, 2019	As of December 31, 2018
Investments:			
Fifth Avenue and Times Square JV (see pages 110 and 111 for details)	51.5%	$ 3,291,231	$ —
Partially owned office buildings/land[(1)]	Various	464,109	499,005
Alexander's	32.4%	98,543	107,983
PREIT[(2)]	N/A	—	59,491
UE[(3)]	N/A	—	45,344
Other investments[(4)]	Various	145,282	146,290
		$ 3,999,165	$ 858,113
Investments in partially owned entities included in other liabilities[(5)]:			
7 West 34th Street	53.0%	$ (54,004)	$ (51,579)
85 Tenth Avenue	49.9%	(6,186)	—
330 Madison Avenue[(6)]	N/A	—	(58,117)
		$ (60,190)	$ (109,696)

(1) Includes interests in 280 Park Avenue, 650 Madison Avenue, One Park Avenue, 512 West 22nd Street, 61 Ninth Avenue and others.
(2) On March 12, 2019, we converted all of our PREIT operating partnership units into common shares and began accounting for our investment as a marketable security in accordance with ASC 321 (see Note 5 - *Marketable Securities*).
(3) Sold on March 4, 2019 (see page 112 for details).
(4) Includes interests in Independence Plaza, Fashion Centre Mall/Washington Tower, Rosslyn Plaza, 50-70 West 93rd Street and others.
(5) Our negative basis results from distributions in excess of our investment.
(6) Sold on July 11, 2019 (see page 112 for details).

Below is a schedule of net income (loss) from partially owned entities.

(Amounts in thousands)	Percentage Ownership at December 31, 2019	For the Year Ended December 31, 2019	2018	2017
Our share of net income (loss):				
Fifth Avenue and Times Square JV (see pages 110 and 111 for details):				
Equity in net income	51.5%	$ 31,130	$ —	$ —
Return on preferred equity, net of our share of the expense		27,586	—	—
		58,716	—	—
Alexander's (see page 111 for details):				
Equity in net income[(1)]	32.4%	19,204	10,485	25,820
Management, leasing and development fees		4,575	4,560	6,033
		23,779	15,045	31,853
Partially owned office buildings[(2)]	Various	(3,443)	(3,085)	2,109
Other investments[(3)]	Various	(187)	(2,811)	(18,762)
		$ 78,865	$ 9,149	$ 15,200

(1) 2018 includes our $7,708 share of Alexander's additional Transfer Tax related to the November 2012 sale of Kings Plaza Regional Shopping Center. Alexander's recorded this expense based on the precedent established by the Tax Tribunal's decision regarding One Park Avenue (see Note 4 - *Real Estate Fund Investments*).
(2) Includes interests in 280 Park Avenue, 650 Madison Avenue, One Park Avenue, 7 West 34th Street, 330 Madison Avenue (sold on July 11, 2019), 512 West 22nd Street, 61 Ninth Avenue, 85 Tenth Avenue and others. 2018 includes our $4,978 share of additional Transfer Tax related to the March 2011 acquisition of One Park Avenue (see Note 4 - *Real Estate Fund Investments*).
(3) Includes interests in Independence Plaza, Fashion Centre Mall/Washington Tower, Rosslyn Plaza, 50-70 West 93rd Street, 666 Fifth Avenue Office Condominium (sold on August 3, 2018), UE (sold on March 4, 2019), PREIT (accounted as a marketable security from March 12, 2019) and others. In 2018 and 2017, we recognized net losses of $4,873 and $25,414, respectively, from our 666 Fifth Avenue Office Condominium joint venture as a result of our share of depreciation expense. 2017 includes (i) a $44,465 non-cash impairment loss on our investment in PREIT (ii) $21,100 of net gains resulting from UE operating partnership unit issuances and (iii) $26,687 of net gains, comprised of $15,314 for our share of a net gain on the sale of Suffolk Downs and $11,373 for the net gain on repayment of our debt investments in Suffolk Downs JV.

6. Investments in Partially Owned Entities – continued

Below is a summary of the debt of our partially owned entities as of December 31, 2019 and 2018.

(Amounts in thousands)	Percentage Ownership at December 31, 2019	Maturity	Interest Rate at December 31, 2019	100% Partially Owned Entities' Debt at December 31,[1] 2019	2018
Partially owned office buildings[2]:					
Mortgages payable	Various	2021-2029	3.68%	$ 3,604,104	$ 3,985,855
Alexander's:					
Mortgages payable	32.4%	2021-2025	2.98%	974,836	1,170,544
Fifth Avenue and Times Square JV:					
Mortgages payable	51.5%	2022-2024	3.31%	950,000	—
Other[3]:					
Mortgages payable and other	Various	2021-2025	4.36%	1,290,227	4,564,489

(1) All amounts are non-recourse to us except (i) the $500,000 mortgage loan on 640 Fifth Avenue, included in the Fifth Avenue and Times Square JV, and (ii) the $300,000 mortgage loan on 7 West 34th Street which we guaranteed in connection with the sale of a 47.0% equity interest in May 2016.
(2) Includes 280 Park Avenue, 85 Tenth Avenue, One Park Avenue, 650 Madison Avenue, 7 West 34th Street, 61 Ninth Avenue, 512 West 22nd Street, 330 Madison Avenue (in 2018 only) and others.
(3) Includes Independence Plaza, Rosslyn Plaza, Fashion Centre Mall/Washington Tower, 50-70 West 93rd Street, UE (in 2018 only), PREIT (in 2018 only) and others.

Based on our ownership interest in the partially owned entities above, our pro rata share of the debt of these partially owned entities was $2,802,859,000 and $2,682,865,000 as of December 31, 2019 and 2018, respectively.

Summary of Condensed Combined Financial Information

The following is a summary of condensed combined financial information for all of our partially owned entities as of December 31, 2019 and 2018 and for the years ended December 31, 2019, 2018 and 2017.

(Amounts in thousands)	As of December 31, 2019	2018
Balance Sheet:		
Assets	$ 13,384,000	$ 13,258,000
Liabilities	7,548,000	10,456,000
Noncontrolling interests	2,054,000	139,000
Equity	3,782,000	2,663,000

(Amounts in thousands)	For the Year Ended December 31, 2019	2018	2017
Income Statement:			
Total revenue	$ 1,504,000	$ 1,798,000	$ 12,991,000
Net income (loss)	39,000	52,000	(542,000)

7. 220 Central Park South ("220 CPS")

We are constructing a residential condominium tower containing 397,000 salable square feet at 220 CPS. The development cost of this project (exclusive of land cost) is estimated to be approximately $1.450 billion, of which $1.373 billion has been expended as of December 31, 2019.

During the year ended December 31, 2019, we closed on the sale of 54 condominium units at 220 CPS for net proceeds of $1,605,356,000 resulting in a financial statement net gain of $604,393,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income. In connection with these sales, $101,828,000 of income tax expense was recognized on our consolidated statements of income. From inception to December 31, 2019, we closed on the sale of 65 units for aggregate net proceeds of $1,820,132,000. During the year ended December 31, 2019, we repaid the remaining $737,000,000 of the $950,000,000 220 CPS loan.

As of December 31, 2019, 91% of the condominium units are sold or under sales contracts, with closings scheduled through 2020.

8. Dispositions

3040 M Street

On September 18, 2019, we completed the $49,750,000 sale of 3040 M Street, a 44,000 square foot retail building in Washington, DC, which resulted in a net gain of $19,477,000 which is included in “net gains on disposition of wholly owned and partially owned assets” on our consolidated statements of income for year ended December 31, 2019. The gain for tax purposes was approximately $19,000,000.

9. Identified Intangible Assets and Liabilities

The following summarizes our identified intangible assets (primarily above-market leases) and liabilities (primarily below-market leases) as of December 31, 2019 and 2018.

(Amounts in thousands)	As of December 31,	
	2019	**2018**
Identified intangible assets:		
Gross amount	$ 129,552	$ 308,895
Accumulated amortization	(98,587)	(172,114)
Total, net	$ 30,965	$ 136,781
Identified intangible liabilities (included in deferred revenue):		
Gross amount	$ 316,119	$ 503,373
Accumulated amortization	(262,580)	(341,779)
Total, net	$ 53,539	$ 161,594

Amortization of acquired below-market leases, net of acquired above-market leases, resulted in an increase to rental revenues of $19,830,000, $38,573,000 and $46,103,000 for the years ended December 31, 2019, 2018 and 2017, respectively. Estimated annual amortization of acquired below-market leases, net of acquired above-market leases, for each of the five succeeding years commencing January 1, 2020 is as follows:

(Amounts in thousands)	
2020	$ 16,643
2021	11,934
2022	8,792
2023	6,261
2024	2,518

9. Identified Intangible Assets and Liabilities - continued

Amortization of all other identified intangible assets (a component of depreciation and amortization expense) was $8,666,000, $18,018,000 and $25,057,000 for the years ended December 31, 2019, 2018 and 2017, respectively. Estimated annual amortization of all other identified intangible assets including acquired in-place leases for each of the five succeeding years commencing January 1, 2020 is as follows:

(Amounts in thousands)		
2020	$	6,235
2021		4,697
2022		2,985
2023		2,898
2024		2,286

10. Debt

Secured Debt

On February 4, 2019, we completed a $95,700,000 refinancing of 435 Seventh Avenue, a 43,000 square foot Manhattan retail property. The interest-only loan carries a rate of LIBOR plus 1.30% (3.00% as of December 31, 2019) and matures in February 2024. The recourse loan replaces the previous $95,700,000 loan that bore interest at LIBOR plus 2.25% and was scheduled to mature in August 2019.

On February 12, 2019, we completed a $580,000,000 refinancing of 100 West 33rd Street, a 1.1 million square foot Manhattan property comprised of 859,000 square feet of office space and the 256,000 square foot Manhattan Mall. The interest-only loan carries a rate of LIBOR plus 1.55% (3.25% as of December 31, 2019) and matures in April 2024, with two one-year extension options. The loan replaces the previous $580,000,000 loan that bore interest at LIBOR plus 1.65% and was scheduled to mature in July 2020.

On May 24, 2019, we extended our $375,000,000 mortgage loan on 888 Seventh Avenue, a 885,000 square foot Manhattan office building, from December 2020 to December 2025. The interest rate on the new amortizing mortgage loan is LIBOR plus 1.70% (3.44% as of December 31, 2019). Pursuant to an existing swap agreement, the interest rate on the $375,000,000 mortgage loan has been swapped to 3.25% through December 2020.

On September 5, 2019, a consolidated joint venture, in which we have a 50% interest, completed a $75,000,000 refinancing of 606 Broadway, a 36,000 square foot Manhattan office and retail building, of which $67,804,000 was outstanding as of December 31, 2019. The interest-only loan carries a rate of LIBOR plus 1.80% (3.52% as of December 31, 2019) and matures in September 2024. In connection therewith, the joint venture purchased an interest rate cap that caps LIBOR at a rate of 4.00%. The loan replaces the previous $65,000,000 construction loan. The construction loan bore interest at LIBOR plus 3.00% and was scheduled to mature in May 2021.

On September 27, 2019, we repaid the $575,000,000 mortgage loan on PENN2 with proceeds from our unsecured revolving credit facilities. The mortgage loan was scheduled to mature in December 2019. PENN2 is a 1,795,000 square foot (as expanded) Manhattan office building currently under redevelopment.

Senior Unsecured Notes

On March 1, 2019, we called for redemption all of our $400,000,000 5.00% senior unsecured notes. The notes, which were scheduled to mature in January 2022, were redeemed on April 1, 2019 at a redemption price of 105.51% of the principal amount plus accrued interest. In connection therewith, we expensed $22,540,000 relating to debt prepayment costs which is included in "interest and debt expense" on our consolidated statements of income for the year ended December 31, 2019.

10. Debt - continued

Unsecured Revolving Credit

On March 26, 2019, we increased to $1.5 billion (from $1.25 billion) and extended to March 2024 (as fully extended) from February 2022 one of our two unsecured revolving credit facilities. The interest rate on the extended facility was lowered from LIBOR plus 1.00% to LIBOR plus 0.90%. The facility fee remains unchanged at 20 basis points.

The following is a summary of our debt:

(Amounts in thousands)	Weighted Average Interest Rate at December 31, 2019	Balance as of December 31, 2019	Balance as of December 31, 2018
Mortgages Payable:			
Fixed rate	3.52%	$ 4,601,516	$ 5,003,465
Variable rate	3.30%	1,068,500	3,212,382
Total	3.48%	5,670,016	8,215,847
Deferred financing costs, net and other		(30,119)	(48,049)
Total, net		$ 5,639,897	$ 8,167,798
Unsecured Debt:			
Senior unsecured notes	3.50%	$ 450,000	$ 850,000
Deferred financing costs, net and other		(4,128)	(5,998)
Senior unsecured notes, net		445,872	844,002
Unsecured term loan	3.87%	750,000	750,000
Deferred financing costs, net and other		(4,160)	(5,179)
Unsecured term loan, net		745,840	744,821
Unsecured revolving credit facilities	2.70%	575,000	80,000
Total, net		$ 1,766,712	$ 1,668,823

The net carrying amount of properties collateralizing the above indebtedness amounted to $5.6 billion as of December 31, 2019.

As of December 31, 2019, the principal repayments required for the next five years and thereafter are as follows:

(Amounts in thousands)	Mortgages Payable	Senior Unsecured Notes, Unsecured Term Loan and Unsecured Revolving Credit Facilities
Year Ended December 31,		
2020	$ 1,541,567	$ —
2021	1,635,549	—
2022	971,600	—
2023	23,400	575,000
2024	766,900	750,000
Thereafter	731,000	450,000

11. Redeemable Noncontrolling Interests/Redeemable Partnership Units

Redeemable noncontrolling interests on Vornado's consolidated balance sheets and redeemable partnership units on the consolidated balance sheets of the Operating Partnership are primarily comprised of Class A Operating Partnership units held by third parties and are recorded at the greater of their carrying amount or redemption value at the end of each reporting period. Changes in the value from period to period are charged to "additional capital" in Vornado's consolidated statements of changes in equity and to "partners' capital" on the consolidated balance sheets of the Operating Partnership. Class A units may be tendered for redemption to the Operating Partnership for cash; Vornado, at its option, may assume that obligation and pay the holder either cash or Vornado common shares on a one-for-one basis. Because the number of Vornado common shares outstanding at all times equals the number of Class A units owned by Vornado, the redemption value of each Class A unit is equivalent to the market value of one Vornado common share, and the quarterly distribution to a Class A unitholder is equal to the quarterly dividend paid to a Vornado common shareholder.

Below are the details of redeemable noncontrolling interests/redeemable partnership units as of December 31, 2019 and 2018.

(Amounts in thousands, except units and per unit amounts)	Balance as of December 31,		Units Outstanding as of December 31,			
Unit Series	2019	2018	2019	2018	Per Unit Liquidation Preference	Preferred or Annual Distribution Rate
Common:						
Class A units held by third parties	$ 884,380	$ 778,134	13,298,956	12,544,477	n/a	$ 2.64
Perpetual Preferred/Redeemable Preferred[(1)]:						
5.00% D-16 Cumulative Redeemable	$ 1,000	$ 1,000	1	1	$ 1,000,000.00	$ 50,000.00
3.25% D-17 Cumulative Redeemable	$ 3,535	$ 4,428	141,400	177,100	$ 25.00	$ 0.8125

(1) Holders may tender units for redemption to the Operating Partnership for cash at their stated redemption amount; Vornado, at its option, may assume that obligation and pay the holders either cash or Vornado preferred shares on a one-for-one basis. These units are redeemable at Vornado's option at any time.

Below is a table summarizing the activity of redeemable noncontrolling interests/redeemable partnership units.

(Amounts in thousands)	For the Year Ended December 31,	
	2019	2018
Beginning balance	$ 783,562	$ 984,937
Net income	210,872	25,672
Other comprehensive loss	(3,235)	(836)
Distributions	(34,607)	(31,828)
Special distribution declared on December 18, 2019 (see Note 12 - *Shareholders' Equity/Partners' Capital*)	(25,912)	—
Redemption of Class A units for Vornado common shares, at redemption value	(11,250)	(17,068)
Adjustments to carry redeemable Class A units at redemption value	(70,810)	(198,064)
Other, net	40,295	20,749
Ending balance	$ 888,915	$ 783,562

Redeemable noncontrolling interests/redeemable partnership units exclude our Series G-1 through G-4 convertible preferred units and Series D-13 cumulative redeemable preferred units, as they are accounted for as liabilities in accordance with ASC Topic 480, *Distinguishing Liabilities and Equity*, because of their possible settlement by issuing a variable number of Vornado common shares. Accordingly, the fair value of these units is included as a component of "other liabilities" on our consolidated balance sheets and aggregated $50,561,000 as of December 31, 2019 and 2018. Changes in the value from period to period, if any, are charged to "interest and debt expense" on our consolidated statements of income.

12. Shareholders' Equity/Partners' Capital

Common Shares (Vornado Realty Trust)

As of December 31, 2019, there were 190,985,677 common shares outstanding. During 2019, we paid an aggregate of $503,785,000 of common dividends comprised of quarterly common dividends of $0.66 per share.

On December 18, 2019, Vornado's Board of Trustees declared a special dividend of $1.95 per share, or $372,380,000 in the aggregate, which was paid on January 15, 2020 to common shareholders as of the Record Date.

Class A Units (Vornado Realty L.P.)

As of December 31, 2019, there were 190,985,677 Class A units outstanding that were held by Vornado. These units are classified as "partners' capital" on the consolidated balance sheets of the Operating Partnership. As of December 31, 2019, there were 13,298,956 Class A units outstanding, that were held by third parties. These units are classified outside of "partners' capital" as "redeemable partnership units" on the consolidated balance sheets of the Operating Partnership (See Note 11 – *Redeemable Noncontrolling Interests/Redeemable Partnership Units*). During 2019, the Operating Partnership paid an aggregate of $503,785,000 of distributions to Vornado comprised of quarterly common distributions of $0.66 per unit.

On January 15, 2020, distributions of $1.95 per unit, or $398,292,000 in the aggregate, were paid to Class A unitholders of the Operating Partnership as of the Record Date, of which $372,380,000 was distributed to Vornado, in connection with the special dividend declared on December 18, 2019 by Vornado's Board of Trustees.

The following table sets forth the details of our preferred shares of beneficial interest and the preferred units of the Operating Partnership as of December 31, 2019 and 2018.

(Amounts in thousands, except share/unit and per share/per unit amounts)

Preferred Shares/Units	Balance as of December 31, 2019	Balance as of December 31, 2018	Shares/Units Outstanding as of December 31, 2019	Shares/Units Outstanding as of December 31, 2018	Per Share/Unit Liquidation Preference	Per Share/Unit Annual Dividend/ Distribution[(1)]
Convertible Preferred:						
6.5% Series A: authorized 15,640 shares/units[(2)]	$ 991	$ 1,071	15,640	18,580	$ 50.00	$ 3.25
Cumulative Redeemable Preferred:						
5.70% Series K: authorized 12,000,000 shares/units[(3)]	290,971	290,971	12,000,000	12,000,000	25.00	1.425
5.40% Series L: authorized 13,800,000 shares/units[(3)]	290,306	290,306	12,000,000	12,000,000	25.00	1.35
5.25% Series M: authorized 13,800,000 shares/units[(3)]	308,946	308,946	12,780,000	12,780,000	25.00	1.3125
	$ 891,214	$ 891,294	36,795,640	36,798,580		

(1) Dividends on preferred shares and distributions on preferred units are cumulative and are payable quarterly in arrears.
(2) Redeemable at the option of Vornado under certain circumstances, at a redemption price of 1.9531 common shares/Class A units per Series A Preferred Share/Unit plus accrued and unpaid dividends/distributions through the date of redemption, or convertible at any time at the option of the holder for 1.9531 common shares/Class A units per Series A Preferred Share/Unit.
(3) Redeemable at Vornado's option at a redemption price of $25.00 per share/unit, plus accrued and unpaid dividends/distributions through the date of redemption.

During 2019, we paid an aggregate of $50,131,000 of preferred dividends.

Accumulated Other Comprehensive (Loss) Income

The following table sets forth the changes in accumulated other comprehensive (loss) income by component for the year ended December 31, 2019.

(Amounts in thousands)

	Total	Accumulated other comprehensive income of nonconsolidated subsidiaries	Interest rate swaps	Other
Accumulated other comprehensive income (loss) as of December 31, 2018	$ 7,664	$ 3,253	$ 11,759	$ (7,348)
Other comprehensive (loss) income	(45,586)	(938)	(47,885)	3,237
Amount reclassified from accumulated other comprehensive income[(1)]	(2,311)	(2,311)	—	—
Accumulated other comprehensive (loss) income as of December 31, 2019	$ (40,233)	$ 4	$ (36,126)	$ (4,111)

(1) Amount reclassified related to the conversion of our PREIT operating partnership units into common shares.

13. Variable Interest Entities

Unconsolidated VIEs

As of December 31, 2019 and 2018, we have several unconsolidated VIEs. We do not consolidate these entities because we are not the primary beneficiary and the nature of our involvement in the activities of these entities does not give us power over decisions that significantly affect these entities' economic performance. We account for our investment in these entities under the equity method (see Note 6 – *Investments in Partially Owned Entities*). As of December 31, 2019 and 2018, the net carrying amount of our investments in these entities was $217,451,000 and $257,882,000, respectively, and our maximum exposure to loss in these entities is limited to the carrying amount of our investments.

Consolidated VIEs

Our most significant consolidated VIEs are the Operating Partnership (for Vornado), the Fund and the Crowne Plaza Joint Venture, the Farley joint venture and certain properties that have non-controlling interests. These entities are VIEs because the non-controlling interests do not have substantive kick-out or participating rights. We consolidate these entities because we control all significant business activities.

As of December 31, 2019, the total assets and liabilities of our consolidated VIEs, excluding the Operating Partnership, were $4,923,656,000 and $2,646,623,000 respectively. As of December 31, 2018, the total assets and liabilities of our consolidated VIEs, excluding the Operating Partnership, were $4,445,436,000 and $2,533,753,000, respectively.

14. Fair Value Measurements

ASC 820 defines fair value and establishes a framework for measuring fair value. The objective of fair value is to determine the price that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (the exit price). ASC 820 establishes a fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three levels: Level 1 – quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities; Level 2 – observable prices that are based on inputs not quoted in active markets, but corroborated by market data; and Level 3 – unobservable inputs that are used when little or no market data is available. The fair value hierarchy gives the highest priority to Level 1 inputs and the lowest priority to Level 3 inputs. In determining fair value, we utilize valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible, as well as consider counterparty credit risk in our assessment of fair value. Considerable judgment is necessary to interpret Level 2 and 3 inputs in determining the fair value of our financial and non-financial assets and liabilities. Accordingly, our fair value estimates, which are made at the end of each reporting period, may be different than the amounts that may ultimately be realized upon sale or disposition of these assets.

14. Fair Value Measurements - continued

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

Financial assets and liabilities that are measured at fair value on our consolidated balance sheets consist of (i) marketable securities, (ii) real estate fund investments, (iii) the assets in our deferred compensation plan (for which there is a corresponding liability on our consolidated balance sheets), (iv) interest rate swaps and (v) mandatorily redeemable instruments (Series G-1 through G-4 convertible preferred units, Series D-13 cumulative redeemable preferred units). The tables below aggregate the fair values of these financial assets and liabilities by their levels in the fair value hierarchy as of December 31, 2019 and 2018, respectively.

(Amounts in thousands)	As of December 31, 2019			
	Total	Level 1	Level 2	Level 3
Marketable securities	$ 33,313	$ 33,313	$ —	$ —
Real estate fund investments	222,649	—	—	222,649
Deferred compensation plan assets ($11,819 included in restricted cash and $91,954 in other assets)	103,773	71,338	—	32,435
Interest rate swaps (included in other assets)	4,327	—	4,327	—
Total assets	$ 364,062	$ 104,651	$ 4,327	$ 255,084
Mandatorily redeemable instruments (included in other liabilities)	$ 50,561	$ 50,561	$ —	$ —
Interest rate swaps (included in other liabilities)	40,354	—	40,354	—
Total liabilities	$ 90,915	$ 50,561	$ 40,354	$ —

(Amounts in thousands)	As of December 31, 2018			
	Total	Level 1	Level 2	Level 3
Marketable securities	$ 152,198	$ 152,198	$ —	$ —
Real estate fund investments	318,758	—	—	318,758
Deferred compensation plan assets ($8,402 included in restricted cash and $88,122 in other assets)	96,524	58,716	—	37,808
Interest rate swaps (included in other assets)	27,033	—	27,033	—
Total assets	$ 594,513	$ 210,914	$ 27,033	$ 356,566
Mandatorily redeemable instruments (included in other liabilities)	$ 50,561	$ 50,561	$ —	$ —
Interest rate swaps (included in other liabilities)	15,236	—	15,236	—
Total liabilities	$ 65,797	$ 50,561	$ 15,236	$ —

Real Estate Fund Investments

As of December 31, 2019, we had four real estate fund investments with an aggregate fair value of $222,649,000, or $112,915,000 below cost. These investments are classified as Level 3.

Significant unobservable quantitative inputs used in determining the fair value of each investment include capitalization rates and discount rates. These rates are based on the location, type and nature of each property, current and anticipated market conditions, industry publications and from the experience of our Acquisitions and Capital Markets departments. Significant unobservable quantitative inputs in the table below were utilized in determining the fair value of these real estate fund investments as of December 31, 2019 and 2018.

	Range		Weighted Average (based on fair value of investments)	
Unobservable Quantitative Input	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
Discount rates	8.2% to 12.0%	10.0% to 15.0%	9.3%	13.4%
Terminal capitalization rates	4.6% to 8.2%	5.4% to 7.7%	5.3%	5.7%

14. Fair Value Measurements - continued

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis - continued

Real Estate Fund Investments - continued

The inputs on the previous page are subject to change based on changes in economic and market conditions and/or changes in use or timing of exit. Changes in discount rates and terminal capitalization rates result in increases or decreases in the fair values of these investments. The discount rates encompass, among other things, uncertainties in the valuation models with respect to terminal capitalization rates and the amount and timing of cash flows. Therefore, a change in the fair value of these investments resulting from a change in the terminal capitalization rate may be partially offset by a change in the discount rate. It is not possible for us to predict the effect of future economic or market conditions on our estimated fair values.

The table below summarizes the changes in the fair value of real estate fund investments that are classified as Level 3, for the years ended December 31, 2019 and 2018.

(Amounts in thousands)	For the Year Ended December 31,	
	2019	2018
Beginning balance	$ 318,758	$ 354,804
Net unrealized loss on held investments	(106,109)	(83,794)
Purchases/additional fundings	10,000	68,950
Dispositions	—	(20,290)
Net realized loss on exited investments	—	(912)
Ending balance	$ 222,649	$ 318,758

Deferred Compensation Plan Assets

Deferred compensation plan assets that are classified as Level 3 consist of investments in limited partnerships and investment funds, which are managed by third parties. We receive quarterly financial reports from a third-party administrator, which are compiled from the quarterly reports provided to them from each limited partnership and investment fund. The quarterly reports provide net asset values on a fair value basis which are audited by independent public accounting firms on an annual basis. The period of time over which these underlying assets are expected to be liquidated is unknown. The third-party administrator does not adjust these values in determining our share of the net assets and we do not adjust these values when reported in our consolidated financial statements.

The table below summarizes the changes in the fair value of deferred compensation plan assets that are classified as Level 3, for the years ended December 31, 2019 and 2018.

(Amounts in thousands)	For the Year Ended December 31,	
	2019	2018
Beginning balance	$ 37,808	$ 40,128
Sales	(27,053)	(12,621)
Purchases	18,494	9,183
Realized and unrealized gains (losses)	1,947	(274)
Other, net	1,239	1,392
Ending balance	$ 32,435	$ 37,808

Fair Value Measurements on a Nonrecurring Basis

Assets measured at fair value on a nonrecurring basis on our consolidated balance sheets consist primarily of real estate assets required to be measured for impairment at December 31, 2018. The fair values of real estate assets required to be measured for impairment were determined using comparable sales activity. There were no assets measured at fair value on a nonrecurring basis on our consolidated balance sheets at December 31, 2019.

(Amounts in thousands)	As of December 31, 2018			
	Total	Level 1	Level 2	Level 3
Real estate asset	$ 14,971	$ —	$ —	$ 14,971

14. Fair Value Measurements – continued

Financial Assets and Liabilities not Measured at Fair Value

Financial assets and liabilities that are not measured at fair value on our consolidated balance sheets include cash equivalents (primarily money market funds, which invest in obligations of the United States government), and our secured and unsecured debt. Estimates of the fair value of these instruments are determined by the standard practice of modeling the contractual cash flows required under the instrument and discounting them back to their present value at the appropriate current risk adjusted interest rate, which is provided by a third-party specialist. For floating rate debt, we use forward rates derived from observable market yield curves to project the expected cash flows we would be required to make under the instrument. The fair value of cash equivalents and borrowings under our unsecured revolving credit facilities and unsecured term loan are classified as Level 1. The fair value of our secured debt and unsecured debt are classified as Level 2. The table below summarizes the carrying amounts and fair value of these financial instruments as of December 31, 2019 and 2018.

(Amounts in thousands)	As of December 31, 2019		As of December 31, 2018	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Cash equivalents	$ 1,276,815	$ 1,277,000	$ 261,981	$ 262,000
Debt:				
Mortgages payable	$ 5,670,016	$ 5,714,000	$ 8,215,847	$ 8,179,000
Senior unsecured notes	450,000	468,000	850,000	847,000
Unsecured term loan	750,000	750,000	750,000	750,000
Unsecured revolving credit facilities	575,000	575,000	80,000	80,000
Total	$ 7,445,016 (1)	$ 7,507,000	$ 9,895,847 (1)	$ 9,856,000

(1) Excludes $38,407 and $59,226 of deferred financing costs, net and other as of December 31, 2019 and 2018 respectively.

Derivatives and Hedging

We utilize various financial instruments to mitigate the impact of interest rate fluctuations on our cash flows and earnings, including hedging strategies, depending on our analysis of the interest rate environment and the costs and risks of such strategies. We recognize the fair values of all derivatives in "other assets" or "other liabilities" on our consolidated balance sheets. Derivatives that are not hedges are adjusted to fair value through earnings. If a derivative is a hedge, depending on the nature of the hedge, changes in the fair value of the derivative will either be offset against the change in fair value of the hedge asset, liability, or firm commitment through earnings, or recognized in other comprehensive income until the hedged item is recognized in earnings. Reported net income and equity may increase or decrease prospectively, depending on future levels of interest rates and other variables affecting the fair values of derivative instruments and hedged items, but will have no effect on cash flows.

The following table summarizes our consolidated derivative instruments, all of which hedge variable rate debt, as of December 31, 2019.

(Amounts in thousands)	As of December 31, 2019					
			Variable Rate			
Hedged Item (Interest rate swaps)	Fair Value	Notional Amount	Spread over LIBOR	Interest Rate	Swapped Rate	Expiration Date
Included in other assets:						
770 Broadway mortgage loan	$ 4,045	$ 700,000	L+175	3.46%	2.56%	9/20
888 Seventh Avenue mortgage loan	218	375,000	L+170	3.44%	3.25%	12/20
Other	64	175,000				
	$ 4,327	$ 1,250,000				
Included in other liabilities:						
Unsecured term loan	$ 36,809	$ 750,000	L+100	2.80%	3.87%	10/23
33-00 Northern Boulevard mortgage loan	3,545	100,000	L+180	3.52%	4.14%	1/25
	$ 40,354	$ 850,000				

15. Stock-based Compensation

On May 16, 2019, our shareholders approved the 2019 Omnibus Share Plan (the "Plan"), which replaces the 2010 Omnibus Share Plan. Under the Plan, the Compensation Committee of Vornado's Board of Trustees (the "Committee") may grant incentive and non-qualified Vornado stock options, restricted stock, restricted Operating Partnership units ("OP units"), out-performance plan awards ("OPPs"), appreciation-only long-term incentive plan units ("AO LTIP Units") and Performance Conditioned AO LTIP Units to certain of our employees and officers. Awards may be granted up to a maximum 5,500,000 shares, if all awards granted are Full Value awards, as defined in the Plan, and up to 11,000,000 shares, if all of the awards granted are Not Full Value Awards, as defined in the Plan. Full Value Awards are awards of securities, such as restricted shares, that, if all vesting requirements are met, do not require the payment of an exercise price or strike price to acquire the securities. Not Full Value Awards are awards of securities, such as options, that do require the payment of an exercise price or strike price. As of December 31, 2019, Vornado has approximately 5,207,000 shares available for future grants under the Plan, if all awards granted are Full Value Awards, as defined.

We account for all equity-based compensation in accordance with ASC Topic 718, *Compensation - Stock Compensation*. Below is a summary of our stock-based compensation expense, a component of "general and administrative" expense on our consolidated statements of income.

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
OP Units	$ 39,969	$ 17,763	$ 20,630
Performance Conditioned AO LTIP Units	8,263	—	—
AO LTIP Units	2,636	2,113	—
OPPs	1,944	10,689	10,723
Vornado restricted stock	549	570	729
Vornado stock options	547	587	747
	$ 53,908	$ 31,722	$ 32,829

Stock-based compensation expense in the first quarter of 2019 included $16,211,000 from the accelerated vesting of previously issued OP units and Vornado restricted stock due to the removal of the time-based vesting requirement for participants who have reached 65 years of age. The right to sell such awards remains subject to original terms of grant. The increase in expense in the first quarter of 2019 was partially offset by lower stock-based compensation expense of $2,578,000 in each of the second, third and fourth quarter of 2019 and will be completely offset by lower stock-based compensation expense of $8,477,000 thereafter.

Stock-based compensation expense for the year ended December 31, 2019 also includes $8,143,000 for OP units granted outside of the Plan to an executive officer in connection with his employment in reliance on the employment inducement exception to shareholder approval provided under the New York Stock Exchange Listing Rule 303A.08; and $2,304,000 for the year ended December 31, 2019 for OP units granted under the Plan to certain executive officers as a result of promotions. The award granted outside of the Plan has a grant date fair value of $25,500,000 and vests 20% on the grant date, 40% on the three-year anniversary of the date of grant, and 40% on the four-year anniversary of the date of grant. The awards granted under the Plan have an aggregate grant date fair value of $15,000,000 and cliff vest after four years. Compensation expense related to OP unit grants are recognized ratably over the vesting period. Additional non-cash expense associated with these awards will be $9,603,000 in each of 2020 and 2021, $7,718,000 in 2022 and $2,655,000 in 2023.

Below is a summary of unrecognized compensation expense for the year ended December 31, 2019.

(Amounts in thousands)	As of December 31, 2019	Weighted-Average Remaining Contractual Term
OP Units	$ 36,390	2.0
AO LTIP Units	2,029	1.5
OPPs	1,783	1.6
Vornado restricted stock	833	1.7
Vornado stock options	832	1.7
Performance Conditioned AO LTIP Units	720	1.6
	$ 42,587	1.9

15. Stock-based Compensation - continued

OPPs

OPPs are multi-year, performance-based equity compensation plans under which participants have the opportunity to earn a class of units (“OPP units”) of the Operating Partnership if, and only if, Vornado outperforms a predetermined total shareholder return (“TSR”) and/or outperform the market with respect to a relative TSR during the three-year performance period (the “Performance Period”) as described below. OPP units, if earned, become convertible into Class A units of the Operating Partnership (and ultimately into Vornado common shares) following vesting.

Awards under the 2018 OPP may be earned if Vornado (i) achieves a TSR level greater than 21% over the Performance Period (the “Absolute Component”) and/or (ii) achieves a TSR above a benchmark weighted index comprised of 70% of the SNL US Office REIT Index and 30% of the SNL US Retail Index over the Performance Period (the “Relative Component”).

The value of awards under the Relative Component and Absolute Component will be calculated separately and will each be subject to an aggregate $35,000,000 maximum award cap for all participants. The two components will be added together to determine the aggregate award size, which shall also be subject to the aggregate $35,000,000 maximum award cap for all participants. In the event awards are earned under the Absolute Component, but Vornado underperforms the index by more than 200 basis points per annum over the Performance Period (600 basis points over the three years), the amount earned under the Absolute Component will be reduced (and potentially fully negated) based on the degree by which the index exceeds Vornado’s TSR. In the event these awards are earned under the Relative Component, but Vornado fails to achieve a TSR of at least 3% per annum, awards earned under the Relative Component will be reduced on a ratable sliding scale based on Vornado’s absolute TSR performance, with awards earned under the Relative Component being reduced by a maximum of 50% in the event Vornado’s TSR during the applicable measurement period is 0% or negative.

If the designated performance objectives are achieved, awards under the 2018 OPP will vest ratably in each of years three, four and five. In addition, all of Vornado’s Named Executive Officers (as defined in Vornado’s Proxy Statement filed on Schedule 14A with the Securities and Exchange Commission on April 5, 2019) are required to hold any earned and vested awards for one year following each such vesting date. Dividends on awards granted under the 2018 OPP accrue during the Performance Period and are paid to participants if awards are ultimately earned based on the achievement of the designated performance objectives.

Below is the summary of the OPP units granted during the years December 31, 2018, 2017 and 2016.

Plan Year	Total Plan Notional Amount	Percentage of Notional Amount Granted	Grant Date Fair Value[(1)]	OPP Units Earned
2018	$ 35,000,000	78.2%	$ 10,300,000	To be determined in 2021
2017	35,000,000	86.6%	10,800,000	Not earned
2016	40,000,000	86.7%	11,800,000	Not earned

(1) During the years ended December 31, 2018 and 2017, $8,040,000, and $7,558,000, respectively, was immediately expensed on the respective grant date due to acceleration of vesting for employees who are retirement eligible (have reached age 65 or age 60 with at least 20 years of service).

15. Stock-based Compensation - continued

Vornado Stock Options

Vornado stock options are granted at an exercise price equal to the average of the high and low market price of Vornado's common shares on the NYSE on the date of grant, generally vest over 4 years and expire 10 years from the date of grant. Compensation expense related to Vornado stock option awards is recognized on a straight-line basis over the vesting period.

Below is a summary of Vornado's stock option activity for the year ended December 31, 2019.

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding as of December 31, 2018	2,280,126	$ 50.81		
Granted	35,106	62.68		
Exercised	(534,972)	29.25		
Cancelled or expired	(11,383)	78.07		
Outstanding as of December 31, 2019	1,768,877	$ 57.39	1.1	$ 16,247,000
Options vested and expected to vest as of December 31, 2019	1,767,546	$ 57.37	1.1	$ 16,246,000
Options exercisable as of December 31, 2019	1,693,192	$ 56.87	0.8	$ 16,133,000

The fair value of each option grant is estimated on the date of grant using an option-pricing model with the following weighted-average assumptions for grants in the years ended December 31, 2019, 2018 and 2017.

	As of December 31,		
	2019	2018	2017
Expected volatility	35%	35%	35%
Expected life	5.0 years	5.0 years	5.0 years
Risk free interest rate	2.50%	2.25%	1.95%
Expected dividend yield	2.9%	2.9%	3.0%

The weighted average grant date fair value of options granted during the years ended December 31, 2019, 2018 and 2017 was $16.64, $18.42 and $25.84, respectively. Cash received from option exercises for the years ended December 31, 2019, 2018 and 2017 was $5,495,000, $5,927,000 and $28,253,000, respectively. The total intrinsic value of options exercised during the years ended December 31, 2019, 2018 and 2017 was $18,954,000, $25,820,000 and $9,178,000, respectively.

15. Stock-based Compensation - continued

Performance Conditioned AOLTIP Units

On January 14, 2019, the Committee approved the issuance of performance conditioned appreciation-only long-term incentive plan units ("Performance Conditioned AO LTIP Units") pursuant to the 2010 Omnibus Share Plan to our named executive officers ("NEOs") in our 2019 proxy statement. Performance Conditioned AO LTIP Units are AO LTIP Units that require the achievement of certain performance conditions by a specified date or they are forfeited. The performance-based condition is met if Vornado common shares trade at or above 110% of the $64.48 grant price per share for any 20 consecutive days on or before the fourth anniversary following the date of grant. If the performance conditions are not met, the awards are forfeited. If the performance conditions are met, once vested, the awards may be converted into Class A Operating Partnership units in the same manner as AO LTIP Units until ten years from the date of grant.

	Units	Weighted-Average Grant-Date Fair Value
Granted	496,762	$ 62.62
Outstanding as of December 31, 2019	496,762	62.62

The fair value of the Performance Conditioned AO LTIP Units on the date of grant was $8,983,000, of which $7,481,000 was immediately expensed due to the acceleration of vesting for employees who are retirement eligible. The remaining $1,502,000 is being amortized into expense over a four-year period from the date of grant using a graded vesting attribution model.

	As of December 31, 2019
Expected volatility	35%
Expected life	8.0 years
Risk free interest rate	2.76%
Expected dividend yield	3.1%

AO LTIP Units

AO LTIP Units are a class of partnership interests in the Operating Partnership that are intended to qualify as “profits interests” for federal income tax purposes and generally only allow the recipient to realize value to the extent the fair market value of a Vornado common share exceeds the threshold level set at the time the AO LTIP Units are granted, subject to any vesting conditions applicable to the award. The threshold level is intended to be equal to 100% of the then fair market value of a Vornado common share on the date of grant. The value of vested AO LTIP Units is realized through conversion of the AO LTIP Units into Class A Operating Partnership units. The number of Class A Units into which vested AO LTIP Units may be converted is determined based on the quotient of (i) the excess of the conversion value on the conversion date over the threshold value designated at the time the AO LTIP Unit was granted, divided by (ii) the conversion value on the conversion date. The “conversion value” is the value of a Vornado common share on the conversion date multiplied by the Conversion Factor as defined in the Partnership Agreement, which is currently one. AO LTIP Units have a term of 10 years from the grant date. Each holder will generally receive special income allocations in respect of an AO LTIP Unit equal to 10% (or such other percentage specified in the applicable award agreement) of the income allocated in respect of a Class A Unit. Upon conversion of AO LTIP Units to Class A Units, holders will be entitled to receive in respect of each such AO LTIP Unit, on a per unit basis, a special distribution equal to 10% (or such other percentage specified in the applicable award agreement) of the distributions received by a holder of an equivalent number of Class A Units during the period from the grant date of the AO LTIP Units through the date of conversion.

Below is a summary of AO LTIP Units activity for the year ended December 31, 2019.

	Units	Weighted-Average Grant-Date Fair Value
Outstanding as of December 31, 2018	183,233	$ 70.34
Granted	207,808	62.66
Vested	(46,285)	70.31
Cancelled or expired	(7,058)	67.59
Outstanding as of December 31, 2019	337,698	65.67

15. Stock-based Compensation - continued

AO LTIP Units - continued

AO LTIP Units granted during the years ended December 31, 2019 and 2018 had a fair value of $3,429,000 and $3,484,000, respectively. The fair value of each AO LTIP Units granted is estimated on the date of grant using an option-pricing model with the following weighted-average assumptions for grants in the year ended December 31, 2019.

	As of December 31,	
	2019	2018
Expected volatility	35%	35%
Expected life	5.0 years	5.0 years
Risk free interest rate	2.50%	2.25%
Expected dividend yield	2.9%	2.9%

OP Units

OP Units are granted at the average of the high and low market price of Vornado's common shares on the NYSE on the date of grant, vest ratably over four years and are subject to a taxable book-up event, as defined. Compensation expense related to OP Units is recognized ratably over the vesting period using a graded vesting attribution model. Distributions paid on unvested OP Units are charged to "net income attributable to noncontrolling interests in the Operating Partnership" on Vornado's consolidated statements of income and to "preferred unit distributions" on the Operating Partnership's consolidated statements of income and amounted to $4,070,000, $2,559,000 and $2,310,000 in the years ended December 31, 2019, 2018 and 2017, respectively.

Below is a summary of restricted OP unit activity for the year ended December 31, 2019.

Unvested Units	Units	Weighted-Average Grant-Date Fair Value
Unvested as of December 31, 2018	641,844	$ 72.79
Granted	927,812	63.30
Vested	(418,692)	66.45
Cancelled or expired	(2,651)	68.34
Unvested as of December 31, 2019	1,148,313	67.45

OP Units granted in 2019, 2018 and 2017 had a fair value of $58,732,000, $17,463,000 and $24,927,000, respectively. The fair value of OP Units that vested during the years ended December 31, 2019, 2018 and 2017 was $27,821,000, $18,037,000 and $20,903,000, respectively.

Vornado Restricted Stock

Vornado restricted stock awards are granted at the average of the high and low market price of Vornado's common shares on the NYSE on the date of grant and generally vest over four years. Compensation expense related to Vornado's restricted stock awards is recognized on a straight-line basis over the vesting period. Dividends paid on unvested Vornado restricted stock are charged directly to retained earnings and amounted to $51,000, $44,000 and $46,000 for the years ended December 31, 2019, 2018 and 2017, respectively.

Below is a summary of Vornado's restricted stock activity for the year ended December 31, 2019.

Unvested Shares	Shares	Weighted-Average Grant-Date Fair Value
Unvested as of December 31, 2018	16,686	$ 77.54
Granted	8,805	64.48
Vested	(5,996)	79.47
Cancelled or expired	(568)	73.98
Unvested as of December 31, 2019	18,927	70.96

Vornado restricted stock awards granted in 2019, 2018 and 2017 had a fair value of $568,000, $623,000 and $601,000, respectively. The fair value of restricted stock that vested during the years ended December 31, 2019, 2018 and 2017 was $477,000, $492,000 and $645,000, respectively.

16. Transaction Related Costs, Impairment Losses and Other

The following table sets forth the details of transaction related costs, impairment losses and other:

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Non-cash impairment losses and related write-offs(1)	$ 101,925	$ 12,000	$ —
Transaction related costs	4,613	6,217	1,776
Transfer tax(2)	—	13,103	—
	$ 106,538	$ 31,320	$ 1,776

(1) 2019 primarily from 608 Fifth Avenue (see below).
(2) Additional Transfer Tax recorded in the first quarter 2018 related to the acquisition of Independence Plaza. The joint venture, in which we have a 50.1% economic interest, that owns Independence Plaza recognized this expense based on the precedent established by the Tax Tribunal's decision regarding One Park Avenue (see Note 4 - *Real Estate Fund Investments).*

608 Fifth Avenue

During the second quarter of 2019, Arcadia Group US Ltd ("Arcadia Group"), the operator of Topshop, our retail tenant at 608 Fifth Avenue, filed for Chapter 15 bankruptcy protection in the United States. On June 28, 2019, Arcadia Group closed all of its stores in the United States. 608 Fifth Avenue is subject to a land and building lease which expires in 2033. The non-recourse lease calls for fixed lease payments through the term, plus payments for real estate taxes, insurance and operating expenses. Consequently, based on projected future cash flows we concluded that the excess of the carrying amount of the property, which includes our right-of-use asset, over our estimate of fair value was not recoverable resulting in a write down to zero. Our estimate of fair value of the property was derived from a discounted cash flow model using a 7% discount rate and based upon market conditions and expectations of growth. We recognized a $93,860,000 non-cash impairment loss on our consolidated statements of income in the second quarter of 2019, of which $75,220,000 resulted from the impairment of our right-of-use asset. As of December 31, 2019, a $71,582,000 lease liability remains, which will be recognized as income when the non-recourse lease is terminated. In August 2019, we delivered the required nine month notice to the ground lessor that we will surrender the property in May 2020.

17. Interest and Other Investment Income, Net

The following table sets forth the details of our interest and other investment income, net:

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
(Decrease) increase in fair value of marketable securities:			
PREIT (see page 110 for details)	$ (21,649)	$ —	$ —
Lexington (see page 109 for details)	16,068	(26,596)	—
Other	48	143	—
	(5,533)	(26,453)	—
Interest on cash and cash equivalents and restricted cash	13,380	15,827	8,171
Interest on loans receivable	6,326	10,298 (1)	4,352
Dividends on marketable securities	3,938	13,339	13,276
Other, net	3,708	4,046	5,062
	$ 21,819	$ 17,057	$ 30,861

(1) Includes $6,707 of profit participation in connection with an investment in a mezzanine loan which was previously repaid to us.

18. Interest and Debt Expense

The following table sets forth the details of interest and debt expense:

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Interest expense	$ 335,016 (1)	$ 389,136	$ 359,819
Capitalized interest and debt expense	(72,200)	(73,166)	(48,231)
Amortization of deferred financing costs	23,807	31,979	34,066
	$ 286,623	$ 347,949	$ 345,654

(1) Includes $22,540 debt prepayment costs in connection with the redemption of $400,000 5.00% senior unsecured noted which were scheduled to mature in January 2022.

19. Income Per Share/Income Per Class A Unit

Vornado Realty Trust

The following table presents the calculations of (i) basic income per common share which includes the weighted average number of common shares outstanding without regard to dilutive potential common shares and (ii) diluted income per common share which includes the weighted average common shares and dilutive share equivalents. Unvested share-based payment awards that contain nonforfeitable rights to dividends, whether paid or unpaid, are accounted for as participating securities. Earnings are allocated to participating securities, which include restricted stock awards, based on the two-class method. Other potential dilutive share equivalents such as our employee stock options, OP Units, OPPs, AO LTIP Units and Performance Conditioned AO LTIP Units are included in the computation of diluted Earnings Per Share ("EPS") using the treasury stock method, while the dilutive effect of our Series A convertible preferred shares is reflected in diluted EPS by application of the if-converted method.

(Amounts in thousands, except per share amounts)	For the Year Ended December 31,		
	2019	2018	2017
Numerator:			
Income from continuing operations, net of income attributable to noncontrolling interests	$ 3,147,965	$ 449,356	$ 239,824
(Loss) income from discontinued operations, net of income attributable to noncontrolling interests	(28)	598	(12,408)
Net income attributable to Vornado	3,147,937	449,954	227,416
Preferred share dividends	(50,131)	(50,636)	(65,399)
Preferred share issuance costs	—	(14,486)	—
Net income attributable to common shareholders	3,097,806	384,832	162,017
Earnings allocated to unvested participating securities	(309)	(44)	(46)
Numerator for basic income per share	3,097,497	384,788	161,971
Impact of assumed conversions:			
Convertible preferred share dividends	57	62	—
Earnings allocated to Out-Performance Plan units	9	174	230
Numerator for diluted income per share	$ 3,097,563	$ 385,024	$ 162,201
Denominator:			
Denominator for basic income per share – weighted average shares	190,801	190,219	189,526
Effect of dilutive securities [(1)]:			
Employee stock options and restricted stock awards	216	933	1,448
Convertible preferred shares	34	37	—
Out-Performance Plan units	2	101	284
Denominator for diluted income per share – weighted average shares and assumed conversions	191,053	191,290	191,258
INCOME PER COMMON SHARE - BASIC:			
Income from continuing operations, net	$ 16.23	$ 2.02	$ 0.92
Loss from discontinued operations, net	—	—	(0.07)
Net income per common share	$ 16.23	$ 2.02	$ 0.85
INCOME PER COMMON SHARE - DILUTED:			
Income from continuing operations, net	$ 16.21	$ 2.01	$ 0.91
Loss from discontinued operations, net	—	—	(0.06)
Net income per common share	$ 16.21	$ 2.01	$ 0.85

(1) The effect of dilutive securities in the years ended December 31, 2019, 2018 and 2017 excludes an aggregate of 13,020, 12,232 and 12,165 weighted average common share equivalents, respectively, as their effect was anti-dilutive.

19. Income Per Share/Income Per Class A Unit – continued

Vornado Realty L.P.

The following table presents the calculations of (i) basic income per Class A unit which includes the weighted average number of Class A units outstanding without regard to dilutive potential Class A units and (ii) diluted income per Class A unit which includes the weighted average Class A unit and dilutive Class A unit equivalents. Unvested share-based payment awards that contain non-forfeitable rights to dividends, whether paid or unpaid, are accounted for as participating securities. Earnings are allocated to participating securities, which include Vornado restricted stock awards, OP Units and OPPs, based on the two-class method. Other potential dilutive unit equivalents such as Vornado stock options, AO LTIP Units and Performance Conditioned AO LTIP Units are included in the computation of diluted income per unit ("EPU") using the treasury stock method, while the dilutive effect of our Series A convertible preferred units is reflected in diluted EPU by application of the if-converted method.

(Amounts in thousands, except per unit amounts)	For the Year Ended December 31,		
	2019	2018	2017
Numerator:			
Income from continuing operations, net of income attributable to noncontrolling interests in consolidated subsidiaries	$ 3,358,839	$ 474,988	$ 251,554
(Loss) income from discontinued operations	(30)	638	(13,228)
Net income attributable to Vornado Realty L.P.	3,358,809	475,626	238,326
Preferred unit distributions	(50,296)	(50,830)	(65,593)
Preferred unit issuance costs	—	(14,486)	—
Net income attributable to Class A unitholders	3,308,513	410,310	172,733
Earnings allocated to unvested participating securities	(17,296)	(2,973)	(3,232)
Numerator for basic income per Class A unit	3,291,217	407,337	169,501
Impact of assumed conversions:			
Convertible preferred unit distributions	57	62	—
Numerator for diluted income per Class A unit	$ 3,291,274	$ 407,399	$ 169,501
Denominator:			
Denominator for basic income per Class A unit – weighted average units	202,947	202,068	201,214
Effect of dilutive securities [(1)]:			
Vornado stock options, Vornado restricted stock awards, OP Units and OPPs	267	1,307	2,086
Convertible preferred units	34	37	—
Denominator for diluted income per Class A unit – weighted average units and assumed conversions	203,248	203,412	203,300
INCOME PER CLASS A UNIT - BASIC:			
Income from continuing operations, net	$ 16.22	$ 2.01	$ 0.91
Income (loss) from discontinued operations, net	—	0.01	(0.07)
Net income per Class A unit	$ 16.22	$ 2.02	$ 0.84
INCOME PER CLASS A UNIT - DILUTED:			
Income from continuing operations, net	$ 16.19	$ 2.00	$ 0.90
Loss from discontinued operations, net	—	—	(0.07)
Net income per Class A unit	$ 16.19	$ 2.00	$ 0.83

(1) The effect of dilutive securities in the years ended December 31, 2019, 2018 and 2017 excludes an aggregate of 825, 110 and 124 weighted average Class A unit equivalents, respectively, as their effect was anti-dilutive.

20. Leases

As lessor

We lease space to tenants under operating leases. Most of the leases provide for the payment of fixed base rent payable monthly in advance. Office building leases generally require tenants to reimburse us for operating costs and real estate taxes above their base year costs. Certain leases provide for pass-through to tenants for their share of real estate taxes, insurance and common area maintenance. Certain leases also require additional variable rent payments based on a percentage of the tenants' sales. None of our tenants accounted for more than 10% of total revenues in any of the years ended December 31, 2019, 2018 and 2017. We have elected to account for lease revenues (including base and variable rent) and the reimbursement of common area maintenance expenses as a single lease component recorded as "rental revenues" on our consolidated statements of income.

Under ASC 842, we assess on an individual lease basis whether it is probable that we will collect the future lease payments. We consider the tenant's payment history and current credit status when assessing collectability. When collectability is not deemed probable we write-off the tenant's receivables, including straight-line rent receivables, and limit lease income to cash received. Changes to the collectability of our operating leases are recorded as adjustments to "rental revenues" on our consolidated statements of income, which resulted in a decrease in income of $17,237,000 for the year ended December 31, 2019. As a result, there is no allowance for doubtful accounts as of December 31, 2019. Prior to the adoption of ASC 842, we maintained an allowance for doubtful accounts for estimated losses on receivables under our lease agreements, including receivables arising from the straight-lining of rent. As of December 31, 2018 and 2017 our allowance for doubtful accounts were as follows:

(Amounts in thousands)

Description	Balance at Beginning of Year	Additions Charged Against Operations	Uncollectible Accounts Written-off	Balance at End of Year
Year Ended December 31, 2018				
Allowance for doubtful accounts	$ 6,480	$ 1,910	$ (2,592)	$ 5,798
Year Ended December 31, 2017				
Allowance for doubtful accounts	$ 8,621	$ 26	$ (2,167)	$ 6,480

As of December 31, 2019, under ASC 842, future undiscounted cash flows under non-cancelable operating leases were as follows:

(Amounts in thousands)	As of December 31, 2019
For the year ended December 31,	
2020	$ 1,285,867
2021	1,248,659
2022	1,181,887
2023	1,067,014
2024	894,362
Thereafter	4,435,225

As of December 31, 2018, under ASC 840, future undiscounted cash flows under non-cancelable operating leases were as follows:

(Amounts in thousands)	As of December 31, 2018
For the year ended December 31:	
2019	$ 1,547,162
2020	1,510,097
2021	1,465,024
2022	1,407,615
2023	1,269,141
Thereafter	5,832,467

The components of lease revenues for the year ended December 31, 2019 were as follows:

(Amounts in thousands)	For the Year Ended December 31, 2019
Fixed lease revenues	$ 1,513,033
Variable lease revenues	206,677
Lease revenues	$ 1,719,710

20. Leases - continued

As lessee

We have a number of ground leases which are classified as operating leases. On January 1, 2019, we recorded $526,866,000 of ROU assets and lease liabilities. Our ROU assets were reduced by $37,269,000 of accrued rent expense reclassified from “other liabilities” and $4,267,000 of acquired above-market lease liabilities, net, reclassified from “deferred revenue” and increased by $23,665,000 of acquired below-market lease assets, net, reclassified from “identified intangible assets, net of accumulated amortization” and $1,584,000 of prepaid lease payments reclassified from "other assets." During the second quarter of 2019, we recorded a $75,220,000 impairment loss on our 608 Fifth Avenue ROU Asset (See Note 16 – *Transaction Related Costs, Impairment Losses and Other*). As of December 31, 2019, our ROU assets and lease liabilities were $379,546,000 and $498,254,000, respectively.

The discount rate applied to measure each ROU asset and lease liability is based on our incremental borrowing rate ("IBR"). We consider the general economic environment and our credit rating and factor in various financing and asset specific adjustments to ensure the IBR is appropriate to the intended use of the underlying lease. As we did not elect to apply hindsight, lease term assumptions determined under ASC 840 were carried forward and applied in calculating the lease liabilities recorded under ASC 842. Certain of our ground leases offer renewal options which we assess against relevant economic factors to determine whether we are reasonably certain of exercising or not exercising the option. Lease payments associated with renewal periods that we are reasonably certain will be exercised are included in the measurement of the corresponding lease liability and ROU asset.

The following table sets forth information related to the measurement of our lease liabilities as of December 31, 2019:

(Amounts in thousands)		As of December 31, 2019
Weighted average remaining lease term (in years)		40.20
Weighted average discount rate		4.84%
Cash paid for operating leases	$	27,817

We recognize rent expense as a component of "operating" expenses on our consolidated statements of income. Rent expense is comprised of fixed and variable lease payments. Variable lease payments include percentage rent and rent resets based on an index or rate. The following table sets forth the details of rent expense for the year ended December 31, 2019:

(Amounts in thousands)		For the Year Ended December 31, 2019
Fixed rent expense	$	33,738
Variable rent expense		1,978
Rent expense	$	35,716

As of December 31, 2019, future lease payments under operating ground leases were as follows:

(Amounts in thousands)		As of December 31, 2019
For the year ended December 31,		
2020	$	28,192
2021		29,711
2022		30,640
2023		31,085
2024		31,551
Thereafter		1,054,881
Total undiscounted cash flows		1,206,060
Present value discount		(707,806)
Lease liabilities	$	498,254

20. Leases - continued

As lessee - continued

As of December 31, 2018, under ASC 840, future lease payments under operating ground leases were as follows:

(Amounts in thousands)	As of December 31, 2018
For the year ended December 31,	
2019	$ 46,147
2020	45,258
2021	42,600
2022	43,840
2023	44,747
Thereafter	1,612,627

Certain of our ground leases are subject to fair market rent resets based on a percentage of the appraised value of the underlying assets at specified future dates. Fair market rent resets do not give rise to remeasurement of the related right-of-use assets and lease liabilities. Fair market rent resets, which may be material, will be recognized in the periods in which they are incurred.

Farley Office and Retail Building

The future lease payments detailed previously exclude the ground and building lease at the Farley Office and Retail Building (the "Project"). We have a 95.0% ownership interest in a joint venture with Related which was designated by ESD, an entity of New York State, to develop the Project. The Project will include a new Moynihan Train Hall and approximately 844,000 rentable square feet of commercial space, comprised of approximately 730,000 square feet of office space and approximately 114,000 square feet of retail space. The joint venture has a 99-year triple-net lease with ESD for the commercial space at the Project. For GAAP purposes the lease has not yet commenced since construction of the Project is ongoing. The lease calls for annual rent payments of $5,000,000 plus fixed payments in lieu of real estate taxes ("PILOT") through June 2030. Following the fixed PILOT payment period, the PILOT is calculated in a manner consistent with buildings subject to New York City real estate taxes and assessments. As of December 31, 2019, future rent and fixed PILOT payments are $556,852,000.

The joint venture has entered into a development agreement with ESD to build the adjacent Moynihan Train Hall, with Vornado and Related each guaranteeing the joint venture's obligations. The joint venture has entered into a design-build contract with Skanska Moynihan Train Hall Builders pursuant to which they will build the Moynihan Train Hall, thereby fulfilling all of the joint venture's obligations to ESD. The obligations of Skanska Moynihan Train Hall Builders have been bonded by Skanska USA and bear a full guaranty from Skanska AB. As a result of our involvement in the construction of the asset, we have been deemed the accounting owner of the property in accordance with ASC 842-40-55.

21. Multiemployer Benefit Plans

Our subsidiaries make contributions to certain multiemployer defined benefit plans (“Multiemployer Pension Plans”) and health plans (“Multiemployer Health Plans”) for our union represented employees, pursuant to the respective collective bargaining agreements.

Multiemployer Pension Plans

Multiemployer Pension Plans differ from single-employer pension plans in that (i) contributions to multiemployer plans may be used to provide benefits to employees of other participating employers and (ii) if other participating employers fail to make their contributions, each of our participating subsidiaries may be required to bear its then pro rata share of unfunded obligations. If a participating subsidiary withdraws from a plan in which it participates, it may be subject to a withdrawal liability. As of December 31, 2019, our subsidiaries’ participation in these plans was not significant to our consolidated financial statements.

In the years ended December 31, 2019, 2018 and 2017, we contributed $10,793,000, $10,377,000 and $10,113,000, respectively, towards Multiemployer Pension Plans, which is included as a component of “operating” expenses on our consolidated statements of income. Our subsidiaries’ contributions did not represent more than 5% of total employer contributions in any of these plans for the years ended December 31, 2019, 2018 and 2017.

Multiemployer Health Plans

Multiemployer Health Plans in which our subsidiaries participate provide health benefits to eligible active and retired employees. In the years ended December 31, 2019, 2018 and 2017, our subsidiaries contributed $32,407,000, $30,354,000 and $29,549,000, respectively, towards these plans, which is included as a component of “operating” expenses on our consolidated statements of income.

22. Commitments and Contingencies

Insurance

For our properties except the Farley Office and Retail Building, we maintain general liability insurance with limits of $300,000,000 per occurrence and per property, and all risk property and rental value insurance with limits of $2.0 billion per occurrence, with sub-limits for certain perils such as flood and earthquake. Our California properties have earthquake insurance with coverage of $350,000,000 per occurrence and in the aggregate, subject to a deductible in the amount of 5% of the value of the affected property. We maintain coverage for certified terrorism acts with limits of $6.0 billion per occurrence and in the aggregate (as listed below), $1.2 billion for non-certified acts of terrorism, and $5.0 billion per occurrence and in the aggregate for terrorism involving nuclear, biological, chemical and radiological ("NBCR") terrorism events, as defined by the Terrorism Risk Insurance Act of 2002, as amended to date and which has been extended through December 2027.

Penn Plaza Insurance Company, LLC ("PPIC"), our wholly owned consolidated subsidiary, acts as a re-insurer with respect to a portion of all risk property and rental value insurance and a portion of our earthquake insurance coverage, and as a direct insurer for coverage for acts of terrorism including NBCR acts. Coverage for acts of terrorism (excluding NBCR acts) is fully reinsured by third party insurance companies and the Federal government with no exposure to PPIC. For NBCR acts, PPIC is responsible for a deductible of $1,430,413 and 20% of the balance of a covered loss and the Federal government is responsible for the remaining portion of a covered loss. We are ultimately responsible for any loss incurred by PPIC.

For the Farley Office and Retail Building, we maintain general liability insurance with limits of $100,000,000 per occurrence, and builder's risk insurance including coverage for existing property and development activities of $2.8 billion per occurrence and in the aggregate. We maintain coverage for certified and non-certified terrorism acts with limits of $1.0 billion per occurrence and in the aggregate.

We continue to monitor the state of the insurance market and the scope and costs of coverage for acts of terrorism and other events. However, we cannot anticipate what coverage will be available on commercially reasonable terms in the future. We are responsible for uninsured losses and for deductibles and losses in excess of our insurance coverage, which could be material.

Our debt instruments, consisting of mortgage loans secured by our properties, senior unsecured notes and revolving credit agreements contain customary covenants requiring us to maintain insurance. Although we believe that we have adequate insurance coverage for purposes of these agreements, we may not be able to obtain an equivalent amount of coverage at reasonable costs in the future. Further, if lenders insist on greater coverage than we are able to obtain it could adversely affect our ability to finance or refinance our properties and expand our portfolio.

Other Commitments and Contingencies

We are from time to time involved in legal actions arising in the ordinary course of business. In our opinion, after consultation with legal counsel, the outcome of such matters is not currently expected to have a material adverse effect on our financial position, results of operations or cash flows.

Each of our properties has been subjected to varying degrees of environmental assessment at various times. The environmental assessments did not reveal any material environmental contamination. However, there can be no assurance that the identification of new areas of contamination, changes in the extent or known scope of contamination, the discovery of additional sites, or changes in cleanup requirements would not result in significant costs to us.

In July 2018, we leased 78,000 square feet at 345 Montgomery Street in San Francisco, CA, to a subsidiary of Regus PLC, for an initial term of 15 years. The obligations under the lease were guaranteed by Regus PLC in an amount of up to $90,000,000. The tenant purported to terminate the lease prior to space delivery. We commenced a suit on October 23, 2019 seeking to enforce the lease and the guarantee.

Our mortgage loans are non-recourse to us, except for the mortgage loans secured by 640 Fifth Avenue, 7 West 34th Street and 435 Seventh Avenue, which we guaranteed and therefore are part of our tax basis. In certain cases we have provided guarantees or master leased tenant space. These guarantees and master leases terminate either upon the satisfaction of specified circumstances or repayment of the underlying loans. In addition, we have guaranteed the rent and payments in lieu of real estate taxes due to ESD, an entity of New York State, for the Farley Office and Retail Building. As of December 31, 2019, the aggregate dollar amount of these guarantees and master leases is approximately $1,524,000,000.

As of December 31, 2019, $15,880,000 of letters of credit were outstanding under one of our unsecured revolving credit facilities. Our unsecured revolving credit facilities contain financial covenants that require us to maintain minimum interest coverage and maximum debt to market capitalization ratios, and provide for higher interest rates in the event of a decline in our ratings below Baa3/BBB. Our unsecured revolving credit facilities also contain customary conditions precedent to borrowing, including representations and warranties, and also contain customary events of default that could give rise to accelerated repayment, including such items as failure to pay interest or principal.

22. Commitments and Contingencies – continued

Other Commitments and Contingencies - continued

The joint venture in which we own a 95.0% ownership interest was designated by ESD to develop the Farley Office and Retail Building. The joint venture entered into a development agreement with ESD and a design-build contract with Skanska Moynihan Train Hall Builders. Under the development agreement with ESD, the joint venture is obligated to build the Moynihan Train Hall, with Vornado and Related each guaranteeing the joint venture's obligations. Under the design-build agreement, Skanska Moynihan Train Hall Builders is obligated to fulfill all of the joint venture's obligations. The obligations of Skanska Moynihan Train Hall Builders have been bonded by Skanska USA and bear a full guaranty from Skanska AB.

As of December 31, 2019, we expect to fund additional capital to certain of our partially owned entities aggregating approximately $12,700,000.

As of December 31, 2019, we have construction commitments aggregating approximately $627,000,000.

23. Related Party Transactions

Alexander's, Inc.

We own 32.4% of Alexander's. Steven Roth, the Chairman of Vornado's Board of Trustee's and its Chief Executive Officer, is also the Chairman of the Board of Directors and Chief Executive Officer of Alexander's. We provide various services to Alexander's in accordance with management, development and leasing agreements. These agreements are described in Note 6 - *Investments in Partially Owned Entities*.

Interstate Properties ("Interstate")

Interstate is a general partnership in which Mr. Roth is the managing general partner. David Mandelbaum and Russell B. Wight, Jr., Trustees of Vornado and Directors of Alexander's, respectively, are Interstate's two other general partners. As of December 31, 2019, Interstate and its partners beneficially owned an aggregate of approximately 7.1% of the common shares of beneficial interest of Vornado and 26.1% of Alexander's common stock.

We manage and lease the real estate assets of Interstate pursuant to a management agreement for which we receive an annual fee equal to 4% of annual base rent and percentage rent. The management agreement has a term of one year and is automatically renewable unless terminated by either of the parties on 60 days' notice at the end of the term. We believe, based upon comparable fees charged by other real estate companies, that the management agreement terms are fair to us. We earned $300,000, $453,000, and $501,000 of management fees under the agreement for the years ended December 31, 2019, 2018 and 2017, respectively.

Urban Edge Properties

On March 4, 2019, we converted to common shares and sold all of our 5,717,184 partnership units of UE. In prior years, we provided UE with information technology support. UE is providing us with leasing and property management services for (i) certain small retail properties and (ii) our affiliate, Alexander's, Rego retail assets. Fees paid to UE for servicing the retail assets of Alexander's are similar to the fees that we are receiving from Alexander's.

220 Central Park South

We are constructing a residential condominium tower at 220 CPS. Of the condominium units closed during the year ended December 31, 2019, one was sold to a limited liability company owned by the spouse of a related party, David Mandelbaum, a Trustee and a Director of Alexander's, and another was sold to Mr. Mandelbaum's brother. The net proceeds were $23,357,000 and $16,099,000, respectively.

Fifth Avenue and Times Square JV

We provide various services to Fifth Avenue and Times Square JV in accordance with management, development, leasing and other agreements. These agreements are described in Note 6 - *Investments in Partially Owned Entities*. Haim Chera, Executive Vice President - Head of Retail, has an investment in Crown, a company controlled by Mr. Chera's family. Crown has a nominal minority interest in Fifth Avenue and Times Square JV. Additionally, we have other investments with Crown.

24. Summary of Quarterly Results (Unaudited)

Vornado Realty Trust

The following summary represents the results of operations for each quarter in 2019 and 2018:

(Amounts in thousands, except per share amounts)	For the Three Months Ended			
	March 31, 2019	**June 30, 2019**	**September 30, 2019**	**December 31, 2019**
Revenues	$ 534,668	$ 463,103	$ 465,961	$ 460,968
Net income attributable to common shareholders[(1)]	181,488	2,400,195	322,906	193,217
Per share - basic[(2)]	0.95	12.58	1.69	1.01
Per share - diluted[(2)]	0.95	12.56	1.69	1.01

(Amounts in thousands, except per share amounts)	For the Three Months Ended			
	March 31, 2018	**June 30, 2018**	**September 30, 2018**	**December 31, 2018**
Revenues	$ 536,437	$ 541,818	$ 542,048	$ 543,417
Net (loss) income attributable to common shareholders[(1)]	(17,841)	111,534	190,645	100,494
Per share - basic[(2)]	(0.09)	0.59	1.00	0.53
Per share - diluted[(2)]	(0.09)	0.58	1.00	0.53

(1) Fluctuations among quarters resulted primarily from non-cash impairment losses, net gain on transfer to Fifth Avenue and Times Square JV, net gains on sale of real estate and other items and from seasonality of business operations.
(2) The total for the year may differ from the sum of the quarters as a result of weighting.

Vornado Realty L.P.

The following summary represents the results of operations for each quarter in 2019 and 2018:

(Amounts in thousands, except per share amounts)	For the Three Months Ended			
	March 31, 2019	**June 30, 2019**	**September 30, 2019**	**December 31, 2019**
Revenues	$ 534,668	$ 463,103	$ 465,961	$ 460,968
Net income attributable to Class A unitholders[(1)]	193,649	2,562,669	345,501	206,694
Per unit - basic[(2)]	0.95	12.58	1.69	1.01
Per unit - diluted[(2)]	0.95	12.54	1.69	1.01

(Amounts in thousands, except per share amounts)	For the Three Months Ended			
	March 31, 2018	**June 30, 2018**	**September 30, 2018**	**December 31, 2018**
Revenues	$ 536,437	$ 541,818	$ 542,048	$ 543,417
Net (loss) income attributable to Class A unitholders[(1)]	(19,014)	118,931	203,268	107,125
Per unit - basic[(2)]	(0.10)	0.58	1.00	0.53
Per unit - diluted[(2)]	(0.10)	0.58	0.99	0.52

(1) Fluctuations among quarters resulted primarily from non-cash impairment losses, net gain on transfer to Fifth Avenue and Times Square JV, net gains on sale of real estate and other items and from seasonality of business operations.
(2) The total for the year may differ from the sum of the quarters as a result of weighting.

25. Segment Information

We operate in two reportable segments, New York and Other, which is based on how we manage our business.

Net operating income ("NOI") at share represents total revenues less operating expenses including our share of partially owned entities. NOI at share - cash basis represents NOI at share adjusted to exclude straight-line rental income and expense, amortization of acquired below and above market leases, net and other non-cash adjustments. We consider NOI at share - cash basis to be the primary non-GAAP financial measure for making decisions and assessing the unlevered performance of our segments as it relates to the total return on assets as opposed to the levered return on equity. As properties are bought and sold based on NOI at share - cash basis, we utilize this measure to make investment decisions as well as to compare the performance of our assets to that of our peers. NOI at share and NOI at share - cash basis should not be considered alternatives to net income or cash flow from operations and may not be comparable to similarly titled measures employed by other companies.

Below is a reconciliation of net income to NOI at share and NOI at share - cash basis for the years ended December 31, 2019, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31,		
	2019	2018	2017
Net income	$ 3,334,262	$ 422,603	$ 264,128
Depreciation and amortization expense	419,107	446,570	429,389
General and administrative expense	169,920	141,871	150,782
Transaction related costs, impairment losses and other	106,538	31,320	1,776
Income from partially owned entities	(78,865)	(9,149)	(15,200)
Loss (income) from real estate fund investments	104,082	89,231	(3,240)
Interest and other investment income, net	(21,819)	(17,057)	(30,861)
Interest and debt expense	286,623	347,949	345,654
Net gain on transfer to Fifth Avenue and Times Square JV	(2,571,099)	—	—
Purchase price fair value adjustment	—	(44,060)	—
Net gains on disposition of wholly owned and partially owned assets	(845,499)	(246,031)	(501)
Income tax expense	103,439	37,633	42,375
Loss (income) from discontinued operations	30	(638)	13,228
NOI from partially owned entities	322,390	253,564	269,164
NOI attributable to noncontrolling interests in consolidated subsidiaries	(69,332)	(71,186)	(65,311)
NOI at share	1,259,777	1,382,620	1,401,383
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(6,060)	(44,704)	(86,842)
NOI at share - cash basis	$ 1,253,717	$ 1,337,916	$ 1,314,541

25. Segment Information - continued

Below is a summary of NOI at share, NOI at share - cash basis and selected balance sheet data by segment for the years ended December 31, 2019, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31, 2019		
	Total	New York	Other
Total revenues	$ 1,924,700	$ 1,577,860	$ 346,840
Operating expenses	(917,981)	(758,304)	(159,677)
NOI - consolidated	1,006,719	819,556	187,163
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(69,332)	(40,896)	(28,436)
Add: NOI from partially owned entities	322,390	294,168	28,222
NOI at share	1,259,777	1,072,828	186,949
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(6,060)	(12,318)	6,258
NOI at share - cash basis	$ 1,253,717	$ 1,060,510	$ 193,207
Balance Sheet Data:			
Real estate, at cost	$ 13,074,012	$ 10,272,458	$ 2,801,554
Investments in partially owned entities	3,999,165	3,964,289	34,876
Total assets	18,287,013	16,429,159	1,857,854

(Amounts in thousands)	For the Year Ended December 31, 2018		
	Total	New York	Other
Total revenues	$ 2,163,720	$ 1,836,036	$ 327,684
Operating expenses	(963,478)	(806,464)	(157,014)
NOI - consolidated	1,200,242	1,029,572	170,670
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(71,186)	(48,490)	(22,696)
Add: NOI from partially owned entities	253,564	195,908	57,656
NOI at share	1,382,620	1,176,990	205,630
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(44,704)	(45,427)	723
NOI at share - cash basis	$ 1,337,916	$ 1,131,563	$ 206,353
Balance Sheet Data:			
Real estate, at cost	$ 16,237,883	$ 12,351,943	$ 3,885,940
Investments in partially owned entities	858,113	719,456	138,657
Total assets	17,180,794	14,628,712	2,552,082

(Amounts in thousands)	For the Year Ended December 31, 2017		
	Total	New York	Other
Total revenues	$ 2,084,126	$ 1,779,307	$ 304,819
Operating expenses	(886,596)	(756,670)	(129,926)
NOI - consolidated	1,197,530	1,022,637	174,893
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(65,311)	(45,899)	(19,412)
Add: Our share of NOI from partially owned entities	269,164	189,327	79,837
NOI at share	1,401,383	1,166,065	235,318
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(86,842)	(79,202)	(7,640)
NOI at share - cash basis	$ 1,314,541	$ 1,086,863	$ 227,678

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Vornado Realty Trust

Disclosure Controls and Procedures: Our management, with the participation of Vornado’s Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rule 13a-15 (e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, Vornado’s Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, our disclosure controls and procedures are effective.

Internal Control Over Financial Reporting: There have not been any changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended) during the fourth quarter of the fiscal year to which this report relates that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management’s Report on Internal Control over Financial Reporting

Management of Vornado Realty Trust, together with its consolidated subsidiaries (the “Company”), is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed under the supervision of Vornado’s principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America.

As of December 31, 2019, management conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management has determined that our internal control over financial reporting as of December 31, 2019 was effective.

Our internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; provide reasonable assurances that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States, and that receipts and expenditures are being made only in accordance with authorizations of management and our trustees; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report appearing on the following page, which expresses an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 31, 2019.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Shareholders and Board of Trustees
Vornado Realty Trust
New York, New York

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Vornado Realty Trust and subsidiaries (the "Company") as of December 31, 2019, based on criteria established in Internal Control - *Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013*) issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Company and our report dated February 18, 2020, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

New York, New York
February 18, 2020

Vornado Realty L.P.

Disclosure Controls and Procedures: Vornado Realty L.P.'s management, with the participation of Vornado's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rule 13a-15 (e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this Annual Report on Form 10-K. Based on such evaluation, Vornado's Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, our disclosure controls and procedures are effective.

Internal Control Over Financial Reporting: There have not been any changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934, as amended) during the fourth quarter of the fiscal year to which this report relates that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Management of Vornado Realty Trust, sole general partner of Vornado Realty L.P., together with Vornado Realty L.P.'s consolidated subsidiaries (the "Company"), is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed under the supervision of Vornado's principal executive and principal financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of our financial statements for external reporting purposes in accordance with accounting principles generally accepted in the United States of America.

As of December 31, 2019, management conducted an assessment of the effectiveness of our internal control over financial reporting based on the framework established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management has determined that our internal control over financial reporting as of December 31, 2019 was effective.

Our internal control over financial reporting includes policies and procedures that pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect transactions and dispositions of assets; provide reasonable assurances that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States, and that receipts and expenditures are being made only in accordance with authorizations of management and Vornado's trustees; and provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

The effectiveness of our internal control over financial reporting as of December 31, 2019 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report appearing on the following page, which expresses an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 31, 2019.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Partners
Vornado Realty L.P.
New York, New York

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Vornado Realty L.P. and subsidiaries (the "Partnership") as of December 31, 2019, based on criteria established in Internal Control - *Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Partnership maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2019, of the Partnership and our report dated February 18, 2020, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Partnership's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Partnership's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Partnership in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

New York, New York
February 18, 2020

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information relating to trustees of Vornado, the Operating Partnership's sole general partner, including its audit committee and audit committee financial expert, will be contained in Vornado's definitive Proxy Statement involving the election of Vornado's trustees which Vornado will file with the Securities and Exchange Commission pursuant to Regulation 14A under the Securities Exchange Act of 1934 not later than 120 days after December 31, 2019, and such information is incorporated herein by reference. Also incorporated herein by reference is the information under the caption "16(a) Beneficial Ownership Reporting Compliance" of the Proxy Statement.

Executive Officers of the Registrant

The following is a list of the names, ages, principal occupations and positions with Vornado of the executive officers of Vornado and the positions held by such officers during the past five years. All executive officers of Vornado have terms of office that run until the next succeeding meeting of the Board of Trustees of Vornado following the Annual Meeting of Vornado's Shareholders unless they are removed sooner by Vornado's Board.

Name	Age	PRINCIPAL OCCUPATION, POSITION AND OFFICE (Current and during past five years with Vornado unless otherwise stated)
Steven Roth	78	Chairman of the Board; Chief Executive Officer since April 2013 and from May 1989 to May 2009; Managing General Partner of Interstate Properties, an owner of shopping centers and an investor in securities and partnerships; Chief Executive Officer of Alexander's, Inc. since March 1995, a Director since 1989, and Chairman of the Board since May 2004.
David R. Greenbaum	68	Vice Chairman since April 2019; President of the New York Division from April 1997 to April 2019.
Michael J. Franco	51	President since April 2019; Executive Vice President - Chief Investment Officer from April 2015 to April 2019; Executive Vice President - Head of Acquisitions and Capital Markets from November 2010 to April 2015.
Joseph Macnow	74	Executive Vice President - Chief Financial Officer and Chief Administrative Officer since February 2017; Executive Vice President - Finance and Chief Administrative Officer from June 2013 to February 2017; Executive Vice President - Finance and Administration from January 1998 to June 2013, and Chief Financial Officer from March 2001 to June 2013; Treasurer since May 2017, and Executive Vice President and Chief Financial Officer from August 1995 to April 2017 of Alexander's Inc.
Haim Chera	50	Executive Vice President - Head of Retail since April 2019; Principal at Crown Acquisitions from January 2000 - April 2019.
Barry S. Langer	41	Executive Vice President - Development - Co-Head of Real Estate since April 2019; Executive Vice President - Head of Development from May 2015 to April 2019.
Glen J. Weiss	50	Executive Vice President - Office Leasing - Co-Head of Real Estate since April 2019; Executive Vice President - Office Leasing from May 2013 to April 2019.

Vornado, the Operating Partnership's sole general partner, has adopted a Code of Business Conduct and Ethics that applies to, among others, the above executive officers, and its principal accounting officer, Matthew Iocco, Vornado's Executive Vice President - Chief Accounting Officer. Mr. Iocco, 49 years of age, has been the Executive Vice President - Chief Accounting Officer of Vornado since May 2015 and Chief Financial Officer of Alexander's, Inc. since April 2017. From May 2012 to May 2015, Mr. Iocco was the Senior Vice President - Chief Accounting Officer of Vornado. This Code is available on Vornado's website at www.vno.com.

ITEM 11. EXECUTIVE COMPENSATION

Information relating to Vornado's executive officer and trustee compensation will be contained in Vornado's Proxy Statement referred to above in Item 10, "Directors, Executive Officers and Corporate Governance," and such information is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information relating to security ownership of certain beneficial owners and management and related stockholder matters will be contained in Vornado's Proxy Statement referred to in Item 10, "Directors, Executive Officers and Corporate Governance," and such information is incorporated herein by reference.

Equity compensation plan information

The following table provides information as of December 31, 2019 regarding Vornado's equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the second column)
Equity compensation plans approved by security holders	4,663,964 [(1)]	$ 57.39	5,207,363 [(2)]
Equity compensation awards not approved by security holders	—	—	—
Total	4,663,964	$ 57.39	5,207,363

(1) Includes an aggregate of 2,895,087 shares/units, comprised of (i) 18,927 restricted Vornado common shares, (ii) 1,148,313 restricted Operating Partnership units, (iii) 337,698 Appreciation-Only Long-Term Incentive Plan units (iv) 496,762 Performance Conditioned AO LTIP Units and (v) 893,387 Out-Performance Plan units, which do not have an exercise price.

(2) Based on awards being granted as "Full Value Awards," as defined. If we were to grant "Not Full Value Awards," as defined, the number of securities available for future grants would be 10,414,725.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information relating to certain relationships and related transactions, and director independence will be contained in Vornado's Proxy Statement referred to in Item 10, "Directors, Executive Officers and Corporate Governance," and such information is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information relating to principal accounting fees and services will be contained in Vornado's Proxy Statement referred to in Item 10, "Directors, Executive Officers and Corporate Governance," under the caption "Ratification of The Appointment of Independent Accounting Firm" and such information is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this report:

1. The consolidated financial statements are set forth in Item 8 of this Annual Report on Form 10-K.

The following financial statement schedules should be read in conjunction with the financial statements included in Item 8 of this Annual Report on Form 10-K.

	Page in this Annual Report on Form 10-K
III--Real Estate and Accumulated Depreciation as of December 31, 2019, 2018 and 2017	146

Schedules other than those listed above are omitted because they are not applicable or the information required is included in the consolidated financial statements or the notes thereto.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
SCHEDULE III
REAL ESTATE AND ACCUMULATED DEPRECIATION
(Amounts in thousands)

COLUMN A	COLUMN B	COLUMN C		COLUMN D	COLUMN E			COLUMN F	COLUMN G	COLUMN H	COLUMN I
		Initial cost to company			Gross amount at which carried at close of period						
	Encumbrances (1)	Land	Buildings and improvements	Costs capitalized subsequent to acquisition	Land	Buildings and improvements	Total (2)	Accumulated depreciation and amortization	Date of construction (3)	Date acquired	Life on which depreciation in latest income statement is computed
New York											
Manhattan											
1290 Avenue of the Americas	$ 950,000	$518,244	$ 926,992	$ 245,488	$518,244	$ 1,172,480	$1,690,724	$ 371,498	1963	2007	(4)
350 Park Avenue	400,000	265,889	363,381	50,983	265,889	414,364	680,253	142,819	1960	2006	(4)
PENN1	—	—	412,169	355,815	—	767,984	767,984	313,467	1972	1998	(4)
100 West 33rd Street	398,402	242,776	247,970	36,785	242,776	284,755	527,531	96,665	1911	2007	(4)
150 West 34th Street	205,000	119,657	268,509	—	119,657	268,509	388,166	30,767	1900	2015	(4)
PENN2	575,000 (5)	53,615	164,903	139,650	52,689	305,479	358,168	156,464	1968	1997	(4)
90 Park Avenue	—	8,000	175,890	195,597	8,000	371,487	379,487	144,841	1964	1997	(4)
Manhattan Mall	181,598	88,595	113,473	66,604	88,595	180,077	268,672	64,806	2009	2007	(4)
770 Broadway	700,000	52,898	95,686	146,545	52,898	242,231	295,129	100,740	1907	1998	(4)
888 Seventh Avenue	375,000	—	117,269	154,252	—	271,521	271,521	132,586	1980	1998	(4)
PENN11	450,000	40,333	85,259	110,048	40,333	195,307	235,640	85,014	1923	1997	(4)
909 Third Avenue	350,000	—	120,723	122,351	—	243,074	243,074	105,540	1969	1999	(4)
150 East 58th Street	—	39,303	80,216	52,036	39,303	132,252	171,555	64,382	1969	1998	(4)
595 Madison Avenue	—	62,731	62,888	44,762	62,731	107,650	170,381	45,576	1968	1999	(4)
330 West 34th Street	—	—	8,599	154,874	—	163,473	163,473	37,686	1925	1998	(4)
828-850 Madison Avenue	—	107,937	28,261	6,225	107,937	34,486	142,423	10,365		2005	(4)
715 Lexington Avenue	—	—	26,903	65,078	63,000	28,981	91,981	10,048	1923	2001	(4)
478-486 Broadway	—	30,000	20,063	36,562	30,000	56,625	86,625	15,186	2009	2007	(4)
4 Union Square South	120,000	24,079	55,220	3,509	24,079	58,729	82,808	22,579	1965/2004	1993	(4)
Farley Office and Retail Building	—	—	476,235	321,046	—	797,281	797,281	—	1912	2018	(4)
Moynihan Train Hall	—	—	346,926	568,034	—	914,960	914,960	—	1912	2018	(4)
260 Eleventh Avenue	—	—	80,482	4,378	—	84,860	84,860	9,998	1911	2015	(4)
510 Fifth Avenue	—	34,602	18,728	32,300	48,403	37,227	85,630	8,754		2010	(4)
606 Broadway	67,804	45,406	8,993	46,535	45,298	55,636	100,934	564		2016	(4)
40 Fulton Street	—	15,732	26,388	35,050	15,732	61,438	77,170	19,976	1987	1998	(4)
443 Broadway	—	11,187	41,186	—	11,187	41,186	52,373	6,864		2013	(4)
40 East 66th Street	—	13,616	34,635	159	13,616	34,794	48,410	12,220		2005	(4)
155 Spring Street	—	13,700	30,544	6,976	13,700	37,520	51,220	11,127		2007	(4)
435 Seventh Avenue	95,696	19,893	19,091	2,073	19,893	21,164	41,057	8,571	2002	1997	(4)
608 Fifth Avenue (6)	—	—	—	—	—	—	—	—	1932	2012	(4)
692 Broadway	—	6,053	22,908	3,739	6,053	26,647	32,700	9,965		2005	(4)
131-135 West 33rd Street	—	8,315	21,312	316	8,315	21,628	29,943	1,971		2016	(4)

(Amounts in thousands)

COLUMN A	COLUMN B	COLUMN C		COLUMN D	COLUMN E			COLUMN F	COLUMN G	COLUMN H	COLUMN I
		Initial cost to company		Costs capitalized subsequent to acquisition	Gross amount at which carried at close of period			Accumulated depreciation and amortization	Date of construction (3)	Date acquired	Life on which depreciation in latest income statement is computed
	Encumbrances (1)	Land	Buildings and improvements		Land	Buildings and improvements	Total (2)				
New York - continued											
Manhattan - continued											
265 West 34th Street	$ —	$ 28,500	$ —	$ 295	$ 28,500	$ 295	$ 28,795	$ —	1920	2015	(4)
304 Canal Street	—	3,511	12,905	(684)	3,511	12,221	15,732	986	1910	2014	(4)
677-679 Madison Avenue	—	13,070	9,640	556	13,070	10,196	23,266	3,425		2006	(4)
1131 Third Avenue	—	7,844	7,844	5,708	7,844	13,552	21,396	2,299		1997	(4)
486 Eighth Avenue	—	20,000	71	244	20,000	315	20,315	—	1928	2016	(4)
431 Seventh Avenue	—	16,700	2,751	—	16,700	2,751	19,451	877		2007	(4)
138-142 West 32nd Street	—	9,252	9,936	968	9,252	10,904	20,156	1,223	1920	2015	(4)
334 Canal Street	—	1,693	6,507	7,609	1,693	14,116	15,809	1,682		2011	(4)
267 West 34th Street	—	5,099	10,037	(9,760)	5,099	277	5,376	—		2013	(4)
966 Third Avenue	—	8,869	3,631	—	8,869	3,631	12,500	575		2013	(4)
148 Spring Street	—	3,200	8,112	398	3,200	8,510	11,710	2,491		2008	(4)
150 Spring Street	—	3,200	5,822	274	3,200	6,096	9,296	1,776		2008	(4)
137 West 33rd Street	—	6,398	1,550	—	6,398	1,550	7,948	184	1932	2015	(4)
488 Eighth Avenue	—	10,650	1,767	(4,643)	6,859	915	7,774	267		2007	(4)
484 Eighth Avenue	—	3,856	762	773	3,856	1,535	5,391	—		1997	(4)
825 Seventh Avenue	—	1,483	697	2,697	1,483	3,394	4,877	419		1997	(4)
537 West 26th Street	—	10,370	17,632	16,301	26,631	17,672	44,303	866		2018	(4)
339 Greenwich	—	2,622	12,333	—	2,622	12,333	14,955	898		2017	(4)
Other (Including Signage)	—	72,372	19,135	88,457	72,372	107,592	179,964	18,952			
Total Manhattan	4,868,500	2,051,250	4,632,934	3,116,963	2,139,487	7,661,660	9,801,147	2,077,959			
Other Properties											
Hotel Pennsylvania, New York	—	29,903	121,712	125,590	29,903	247,302	277,205	129,258	1919	1997	(4)
33-00 Northern Boulevard, Queens, New York	100,000	46,505	86,226	9,808	46,505	96,034	142,539	12,491	1915	2015	(4)
Paramus, New Jersey	—	—	—	23,392	1,036	22,356	23,392	16,964	1967	1987	(4)
Total Other Properties	100,000	76,408	207,938	158,790	77,444	365,692	443,136	158,713			
Total New York	4,968,500	2,127,658	4,840,872	3,275,753	2,216,931	8,027,352	10,244,283	2,236,672			

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
SCHEDULE III
REAL ESTATE AND ACCUMULATED DEPRECIATION - CONTINUED
(Amounts in thousands)

COLUMN A	COLUMN B	COLUMN C		COLUMN D	COLUMN E			COLUMN F	COLUMN G	COLUMN H	COLUMN I
		Initial cost to company			Gross amount at which carried at close of period						
	Encumbrances (1)	Land	Buildings and improvements	Costs capitalized subsequent to acquisition	Land	Buildings and improvements	Total (2)	Accumulated depreciation and amortization	Date of construction (3)	Date acquired	Life on which depreciation in latest income statement is computed
Other											
theMART											
theMART, Illinois	$ 675,000	$ 64,528	$ 319,146	$ 414,558	$ 64,535	$ 733,697	$ 798,232	$ 329,198	1930	1998	(4)
527 West Kinzie, Illinois	—	5,166	—	67	5,166	67	5,233	—		1998	(4)
Piers 92 and 94, New York	—	—	—	16,961	—	16,961	16,961	3,335		2008	(4)
Total theMART	675,000	69,694	319,146	431,586	69,701	750,725	820,426	332,533			
555 California Street, California	548,075	223,446	895,379	227,455	211,459	1,134,821	1,346,280	326,893	1922,1969 -1970	2007	(4)
220 Central Park South, New York	—	115,720	16,445	200,598	—	332,763	332,763	—		2005	(4)
Borgata Land, Atlantic City, NJ	53,441	83,089	—	—	83,089	—	83,089	—		2010	
40 East 66th Residential, New York	—	8,454	13,321	—	8,454	13,321	21,775	4,231		2005	(4)
677-679 Madison Avenue, New York	—	1,462	1,058	285	1,627	1,178	2,805	510		2006	(4)
Annapolis, Maryland	—	—	9,652	—	—	9,652	9,652	4,211		2005	(4)
Wayne Towne Center, New Jersey	—	—	26,137	57,453	—	83,590	83,590	25,103		2010	(4)
Other	—	—	—	5,335	—	5,335	5,335	1,536			(4)
Total Other	1,276,516	501,865	1,281,138	922,712	374,330	2,331,385	2,705,715	695,017			
Leasehold improvements equipment and other	—	—	—	124,014	—	124,014	124,014	84,269			
December 31, 2019	$ 6,245,016	$2,629,523	$ 6,122,010	$4,322,479	$2,591,261	$10,482,751	$13,074,012	$3,015,958			

(1) Represents contractual debt obligations.
(2) The net basis of Vornado's assets and liabilities for tax reporting purposes is approximately $4.0 billion lower than the amounts reported for financial statement purposes.
(3) Date of original construction — many properties have had substantial renovation or additional construction — see Column D.
(4) Depreciation of the buildings and improvements are calculated over lives ranging from the life of the lease to forty years.
(5) Secured amount outstanding on revolving credit facilities.
(6) In August 2019, we delivered notice to the ground lessor that we will surrender the property in May 2020.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
SCHEDULE III
REAL ESTATE AND ACCUMULATED DEPRECIATION
(Amounts in thousands)

The following is a reconciliation of real estate assets and accumulated depreciation:

	Year Ended December 31,		
	2019	2018	2017
Real Estate			
Balance at beginning of period	$ 16,237,883	$ 14,756,295	$ 14,187,820
Additions during the period:			
Land	46,074	170,065	21,298
Buildings & improvements and other	1,391,784	1,665,684	598,820
	17,675,741	16,592,044	14,807,938
Less: Assets sold, written-off, reclassified to ready for sale and deconsolidated	4,601,729	354,161	51,643
Balance at end of period	$ 13,074,012	$ 16,237,883	$ 14,756,295
Accumulated Depreciation			
Balance at beginning of period	$ 3,180,175	$ 2,885,283	$ 2,581,514
Additions charged to operating expenses	360,194	381,500	360,391
	3,540,369	3,266,783	2,941,905
Less: Accumulated depreciation on assets sold, written-off and deconsolidated	524,411	86,608	56,622
Balance at end of period	$ 3,015,958	$ 3,180,175	$ 2,885,283

(b) Exhibits:

Exhibit No.			
2.1	—	Master Transaction Agreement, dated as of October 31, 2016, by and among Vornado Realty Trust, Vornado Realty L.P., JBG Properties, Inc., JBG/Operating Partners, L.P., certain affiliates of JBG Properties Inc. and JBG/Operating Partners set forth on Schedule A thereto, JBG SMITH Properties and JBG SMITH Properties LP. Incorporated by reference to Exhibit 2.1 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2016 (File No. 001-11954), filed February 13, 2017	*
3.1	—	Articles of Restatement of Vornado Realty Trust, as filed with the State Department of Assessments and Taxation of Maryland on July 30, 2007 - Incorporated by reference to Exhibit 3.75 to Vornado Realty Trust’s Quarterly Report on Form 10-Q for the quarter ended June 30, 2007 (File No. 001-11954), filed on July 31, 2007	*
3.2	—	Amended and Restated Bylaws of Vornado Realty Trust, as amended on March 2, 2000 - Incorporated by reference to Exhibit 3.12 to Vornado Realty Trust’s Annual Report on Form 10-K for the year ended December 31, 1999 (File No. 001-11954), filed on Thursday, March 9, 2000	*
3.3	—	Articles Supplementary, 5.40% Series L Cumulative Redeemable Preferred Shares of Beneficial Interest, liquidation preference $25.00 per share, no par value – Incorporated by reference to Exhibit 3.6 to Vornado Realty Trust’s Registration Statement on Form 8-A (File No. 001-11954), filed on January 25, 2013	*
3.4	—	Articles Supplementary Classifying Vornado Realty Trust's 5.25% Series M Cumulative Redeemable Preferred Shares of Beneficial Interest, liquidation preference $25.00 per share, no par value - Incorporated by reference to Exhibit 3.7 to Vornado Realty Trust's Registration Statement on Form 8-A (File No. 001-11954), filed on December 13, 2017	*
3.5	—	Second Amended and Restated Agreement of Limited Partnership of Vornado Realty L.P., dated as of October 20, 1997 (the “Partnership Agreement”) – Incorporated by reference to Exhibit 3.26 to Vornado Realty Trust’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2003 (File No. 001-11954), filed on May 8, 2003	*
3.6	—	Amendment to the Partnership Agreement, dated as of December 16, 1997 – Incorporated by reference to Exhibit 3.27 to Vornado Realty Trust’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2003 (File No. 001-11954), filed on May 8, 2003	*
3.7	—	Second Amendment to the Partnership Agreement, dated as of April 1, 1998 – Incorporated by reference to Exhibit 3.5 to Vornado Realty Trust’s Registration Statement on Form S-3 (File No. 333-50095), filed on April 14, 1998	*
3.8	—	Third Amendment to the Partnership Agreement, dated as of November 12, 1998 - Incorporated by reference to Exhibit 3.2 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on November 30, 1998	*
3.9	—	Fourth Amendment to the Partnership Agreement, dated as of November 30, 1998 - Incorporated by reference to Exhibit 3.1 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on February 9, 1999	*
3.10	—	Fifth Amendment to the Partnership Agreement, dated as of March 3, 1999 - Incorporated by reference to Exhibit 3.1 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on March 17, 1999	*
3.11	—	Sixth Amendment to the Partnership Agreement, dated as of March 17, 1999 - Incorporated by reference to Exhibit 3.2 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on July 7, 1999	*
3.12	—	Seventh Amendment to the Partnership Agreement, dated as of May 20, 1999 - Incorporated by reference to Exhibit 3.3 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on July 7, 1999	*
3.13	—	Eighth Amendment to the Partnership Agreement, dated as of May 27, 1999 - Incorporated by reference to Exhibit 3.4 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on July 7, 1999	*
3.14	—	Ninth Amendment to the Partnership Agreement, dated as of September 3, 1999 - Incorporated by reference to Exhibit 3.3 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on October 25, 1999	*
3.15	—	Tenth Amendment to the Partnership Agreement, dated as of September 3, 1999 - Incorporated by reference to Exhibit 3.4 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954), filed on October 25, 1999	*
3.16	—	Eleventh Amendment to the Partnership Agreement, dated as of November 24, 1999 - Incorporated by reference to Exhibit 3.2 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on December 23, 1999	*
3.17	—	Twelfth Amendment to the Partnership Agreement, dated as of May 1, 2000 - Incorporated by reference to Exhibit 3.2 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on May 19, 2000	*
3.18	—	Thirteenth Amendment to the Partnership Agreement, dated as of May 25, 2000 - Incorporated by reference to Exhibit 3.2 to Vornado Realty Trust’s Current Report on Form 8-K (File No. 001-11954), filed on June 16, 2000	*

* Incorporated by reference

3.19	—	Fourteenth Amendment to the Partnership Agreement, dated as of December 8, 2000 - Incorporated by reference to Exhibit 3.2 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954), filed on December 28, 2000	*
3.20	—	Fifteenth Amendment to the Partnership Agreement, dated as of December 15, 2000 - Incorporated by reference to Exhibit 4.35 to Vornado Realty Trust's Registration Statement on Form S-8 (File No. 333-68462), filed on August 27, 2001	*
3.21	—	Sixteenth Amendment to the Partnership Agreement, dated as of July 25, 2001 - Incorporated by reference to Exhibit 3.3 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954), filed on October 12, 2001	*
3.22	—	Seventeenth Amendment to the Partnership Agreement, dated as of September 21, 2001 - Incorporated by reference to Exhibit 3.4 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954), filed on October 12, 2001	*
3.23	—	Eighteenth Amendment to the Partnership Agreement, dated as of January 1, 2002 - Incorporated by reference to Exhibit 3.1 to Vornado Realty Trust's Current Report on Form 8-K/A (File No. 001-11954), filed on March 18, 2002	*
3.24	—	Nineteenth Amendment to the Partnership Agreement, dated as of July 1, 2002 - Incorporated by reference to Exhibit 3.47 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended June 30, 2002 (File No. 001-11954), filed on August 7, 2002	*
3.25	—	Twentieth Amendment to the Partnership Agreement, dated April 9, 2003 - Incorporated by reference to Exhibit 3.46 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2003 (File No. 001-11954), filed on May 8, 2003	*
3.26	—	Twenty-First Amendment to the Partnership Agreement, dated as of July 31, 2003 - Incorporated by reference to Exhibit 3.47 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended September 30, 2003 (File No. 001-11954), filed on November 7, 2003	*
3.27	—	Twenty-Second Amendment to the Partnership Agreement, dated as of November 17, 2003 – Incorporated by reference to Exhibit 3.49 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2003 (File No. 001-11954), filed on March 3, 2004	*
3.28	—	Twenty-Third Amendment to the Partnership Agreement, dated May 27, 2004 – Incorporated by reference to Exhibit 99.2 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954), filed on June 14, 2004	*
3.29	—	Twenty-Fourth Amendment to the Partnership Agreement, dated August 17, 2004 – Incorporated by reference to Exhibit 3.57 to Vornado Realty Trust and Vornado Realty L.P.'s Registration Statement on Form S-3 (File No. 333-122306), filed on January 26, 2005	*
3.30	—	Twenty-Fifth Amendment to the Partnership Agreement, dated November 17, 2004 – Incorporated by reference to Exhibit 3.58 to Vornado Realty Trust and Vornado Realty L.P.'s Registration Statement on Form S-3 (File No. 333-122306), filed on January 26, 2005	*
3.31	—	Twenty-Sixth Amendment to the Partnership Agreement, dated December 17, 2004 – Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on December 21, 2004	*
3.32	—	Twenty-Seventh Amendment to the Partnership Agreement, dated December 20, 2004 – Incorporated by reference to Exhibit 3.2 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on December 21, 2004	*
3.33	—	Twenty-Eighth Amendment to the Partnership Agreement, dated December 30, 2004 - Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on January 4, 2005	*
3.34	—	Twenty-Ninth Amendment to the Partnership Agreement, dated June 17, 2005 - Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on June 21, 2005	*
3.35	—	Thirtieth Amendment to the Partnership Agreement, dated August 31, 2005 - Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on September 1, 2005	*
3.36	—	Thirty-First Amendment to the Partnership Agreement, dated September 9, 2005 - Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on September 14, 2005	*
3.37	—	Thirty-Second Amendment and Restated Agreement of Limited Partnership, dated as of December 19, 2005 – Incorporated by reference to Exhibit 3.59 to Vornado Realty L.P.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2006 (File No. 000-22685), filed on May 8, 2006	*

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* Incorporated by reference

3.38		—	Thirty-Third Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of April 25, 2006 – Incorporated by reference to Exhibit 10.2 to Vornado Realty Trust's Form 8-K (File No. 001-11954), filed on May 1, 2006	*
3.39		—	Thirty-Fourth Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of May 2, 2006 – Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on May 3, 2006	*
3.40		—	Thirty-Fifth Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of August 17, 2006 – Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Form 8-K (File No. 000-22685), filed on August 23, 2006	*
3.41		—	Thirty-Sixth Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of October 2, 2006 – Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Form 8-K (File No. 000-22685), filed on January 22, 2007	*
3.42		—	Thirty-Seventh Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of June 28, 2007 – Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on June 27, 2007	*
3.43		—	Thirty-Eighth Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of June 28, 2007 – Incorporated by reference to Exhibit 3.2 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on June 27, 2007	*
3.44		—	Thirty-Ninth Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of June 28, 2007 – Incorporated by reference to Exhibit 3.3 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on June 27, 2007	*
3.45		—	Fortieth Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of June 28, 2007 – Incorporated by reference to Exhibit 3.4 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on June 27, 2007	*
3.46		—	Forty-First Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of March 31, 2008 – Incorporated by reference to Exhibit 3.44 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008 (file No. 001-11954), filed on May 6, 2008	*
3.47		—	Forty-Second Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of December 17, 2010 – Incorporated by reference to Exhibit 99.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No 000-22685), filed on December 21, 2010	*
3.48		—	Forty-Third Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of April 20, 2011 – Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 000-22685), filed on April 21, 2011	*
3.49		—	Forty-Fourth Amendment to Second Amended and Restated Agreement of Limited Partnership of Vornado Realty L.P., dated as, of March 30, 2012 - Incorporated by reference to Exhibit 99.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 001-34482), filed on April 5, 2012	*
3.50		—	Forty-Fourth Amendment to Second Amended and Restated Agreement of Limited Partnership dated as of July 18, 2012 – Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 001-34482), filed on July 18, 2012	*
3.51		—	Forty-Fifth Amendment to Second Amended and Restated Agreement of Limited Partnership, dated as of January 25, 2013 – Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 001-34482), filed on January 25, 2013	*
3.52		—	Forty-Sixth Amendment to Second Amended and Restated Agreement of Limited Partnership of Vornado Realty L.P., dated April 1, 2015 - Incorporated by reference to Exhibit 3.1 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 001-34482), filed on April 2, 2015	*
3.53	**	—	Forty-Seventh Amendment to Second Amended and Restated Agreement of Limited Partnership of Vornado Realty L.P., dated December 13, 2017 - Incorporated by reference to Exhibit 3.2 to Vornado Realty L.P.'s Current Report on Form 8-K (File No. 001-34482), filed on December 13, 2017	*

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* Incorporated by reference

** Management contract or compensatory agreement

3.54	**	—	Forty-Eighth Amendment to Second Amended and Restated Agreement of Limited Partnership of Vornado Realty L.P., dated as of January 12, 2018 - Incorporated by reference to Exhibit 3.53 to Vornado Realty Trust's Annual Report on 10-K for the year ended December 31, 2017 (File No. 001-11954), filed on February 12, 2018	*
3.55		—	Articles of Amendment to Declaration of Trust, dated June 13, 2018 - Incorporated by reference to Exhibit 3.54 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 (File No. 001-11954), filed on July 30, 2018	*
3.56		—	Amended and Restated Bylaws of Vornado Realty Trust, as amended on July 25, 2018 - Incorporated by reference to Exhibit 3.55 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 (File No. 001-11954), filed on July 30, 2018	*
3.57		—	Forty-Ninth Amendment to Second Amended and Restated Agreement of Limited Partnership of Vornado Realty L.P., dated as of August 7, 2019 - Incorporated by reference to Exhibit 3.2 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954), filed on August 8, 2019	*
4.1		—	Indenture, dated as of November 25, 2003, between Vornado Realty L.P. and The Bank of New York, as Trustee - Incorporated by reference to Exhibit 4.10 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2005 (File No. 001-11954), filed on April 28, 2005	*
4.2		—	Indenture, dated as of November 20, 2006, among Vornado Realty Trust, as Issuer, Vornado Realty L.P., as Guarantor and The Bank of New York, as Trustee – Incorporated by reference to Exhibit 4.1 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954), filed on November 27, 2006	*
			Certain instruments defining the rights of holders of long-term debt securities of Vornado Realty Trust and its subsidiaries are omitted pursuant to Item 601(b)(4)(iii) of Regulation S-K. Vornado Realty Trust hereby undertakes to furnish to the Securities and Exchange Commission, upon request, copies of such instruments	
4.3		—	Description of the Vornado Realty Trust securities registered pursuant to Section 12 of the Securities Exchange Act	***
4.4		—	Description of Class A units of Vornado Realty L.P. and certain provisions of its agreement of limited partnership	***
10.1		—	Registration Rights Agreement between Vornado, Inc. and Steven Roth, dated December 29, 1992 - Incorporated by reference to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 1992 (File No. 001-11954), filed February 16, 1993	*
10.2	**	—	Management Agreement between Interstate Properties and Vornado, Inc. dated July 13, 1992 – Incorporated by reference to Vornado, Inc.'s Annual Report on Form 10-K for the year ended December 31, 1992 (File No. 001-11954), filed February 16, 1993	*
10.3	**	—	Employment Agreement, dated as of April 15, 1997, by and among Vornado Realty Trust, The Mendik Company, L.P. and David R. Greenbaum - Incorporated by reference to Exhibit 10.4 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954), filed on April 30, 1997	*
10.4		—	Tax Reporting and Protection Agreement, dated December 31, 2001, by and among Vornado, Vornado Realty L.P., Charles E. Smith Commercial Realty L.P. and Charles E. Smith Commercial Realty L.L.C. - Incorporated by reference to Exhibit 10.3 to Vornado Realty Trust's Current Report on Form 8-K/A (File No. 1-11954), filed on March 18, 2002	*
10.5	**	—	Amendment to Real Estate Retention Agreement, dated as of July 3, 2002, by and between Alexander's, Inc. and Vornado Realty L.P. - Incorporated by reference to Exhibit 10(i)(E)(3) to Alexander's Inc.'s Quarterly Report for the quarter ended June 30, 2002 (File No. 001-06064), filed on August 7, 2002	*
10.6	**	—	59th Street Real Estate Retention Agreement, dated as of July 3, 2002, by and between Vornado Realty L.P., 731 Residential LLC and 731 Commercial LLC - Incorporated by reference to Exhibit 10(i)(E)(4) to Alexander's Inc.'s Quarterly Report for the quarter ended June 30, 2002 (File No. 001-06064), filed on August 7, 2002	*
10.7		—	Amended and Restated Management and Development Agreement, dated as of July 3, 2002, by and between Alexander's, Inc., the subsidiaries party thereto and Vornado Management Corp. - Incorporated by reference to Exhibit 10(i)(F)(1) to Alexander's Inc.'s Quarterly Report on Form 10-Q for the quarter ended June 30, 2002 (File No. 001-06064), filed on August 7, 2002	*
10.8	**	—	Amended and Restated Employment Agreement between Vornado Realty Trust and Joseph Macnow dated July 27, 2006 – Incorporated by reference to Exhibit 10.54 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006 (File No. 001-11954), filed on August 1, 2006	*

* Incorporated by reference

** Management contract or compensatory agreement

*** Filed herewith

10.9	**	—	Second Amendment to Real Estate Retention Agreement, dated January 1, 2007, by and between Vornado Realty L.P. and Alexander's Inc. – Incorporated by reference to Exhibit 10.55 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2006 (File No. 001-11954), filed on February 27, 2007	*
10.10	**	—	Amendment to 59th Street Real Estate Retention Agreement, dated January 1, 2007, by and among Vornado Realty L.P., 731 Retail One LLC, 731 Restaurant LLC, 731 Office One LLC and 731 Office Two LLC. – Incorporated by reference to Exhibit 10.56 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2006 (File No. 001-11954), filed on February 27, 2007	*
10.11	**	—	Amendment to Employment Agreement between Vornado Realty Trust and Joseph Macnow, dated December 29, 2008 - Incorporated by reference to Exhibit 10.48 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2008 (File No. 001-11954) filed on February 24, 2009	*
10.12	**	—	Amendment to Employment Agreement between Vornado Realty Trust and David R. Greenbaum, dated December 29, 2008 - Incorporated by reference to Exhibit 10.49 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2008 (File No. 001-11954) filed on February 24, 2009	*
10.13	**	—	Amendment to Indemnification Agreement between Vornado Realty Trust and David R. Greenbaum, dated December 29, 2008 - Incorporated by reference to Exhibit 10.50 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2008 (File No. 001-11954) filed on February 24, 2009	*
10.14	**	—	Vornado Realty Trust's 2010 Omnibus Share Plan - Incorporated by reference to Exhibit 10.41 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended June 30, 2010 (File No. 001-11954) filed on August 3, 2010	*
10.15	**	—	Form of Vornado Realty Trust 2010 Omnibus Share Plan Incentive / Non-Qualified Stock Option Agreement - Incorporated by reference to Exhibit 99.1 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954) filed on April 5, 2012	*
10.16	**	—	Form of Vornado Realty Trust 2010 Omnibus Share Plan Restricted Stock Agreement - Incorporated by reference to Exhibit 99.2 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954) filed on April 5, 2012	*
10.17	**	—	Form of Vornado Realty Trust 2010 Omnibus Share Plan Restricted LTIP Unit Agreement - Incorporated by reference to Exhibit 99.3 to Vornado Realty Trust's Current Report on Form 8-K (File No. 001-11954) filed on April 5, 2012	*
10.18	**	—	Form of Vornado Realty Trust 2012 Outperformance Plan Award Agreement - Incorporated by reference to Exhibit 10.45 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2012 (File No. 001-11954) filed on February 26, 2013	*
10.19	**	—	Form of Vornado Realty Trust 2013 Outperformance Plan Award Agreement - Incorporated by reference to Exhibit 10.50 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013 (File No. 001-11954), filed on May 6, 2013	*
10.20	**	—	Employment agreement between Vornado Realty Trust and Michael J. Franco dated January 10, 2014 - Incorporated by reference to Exhibit 10.52 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 (File No. 001-11954), filed on May 5, 2014	*
10.21	**	—	Form of 2017 Amendment to Vornado Realty Trust 2015, 2016, 2017 Outperformance Plan Award Agreements - Incorporated by reference to Exhibit 10.32 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 (File No. 001-11954), filed on July 31, 2017	*
10.22	**	—	Form of Vornado Realty Trust 2010 Omnibus Share Plan AO LTIP Unit Award Agreement - Incorporated by reference to Exhibit 10.34 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2017 (File No. 001-11954), filed on February 12, 2018	*
10.23	**	—	Form of Vornado Realty Trust 2018 Outperformance Plan Award Agreement - Incorporated by reference to Exhibit 10.35 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2018 (File No. 001-11954) filed on April 30, 2018	*

* Incorporated by reference

** Management contract or compensatory agreement

10.24		—	Amended and Restated Term Loan Agreement dated as of October 26, 2018 among Vornado Realty L.P. as Borrower, Vornado Realty Trust as General Partner, the Banks listed on the signature pages thereof, and JP Morgan Chase Bank N.A. as Administrative Agent for the Banks - Incorporated by reference to Exhibit 10.36 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018 (File No. 001-11954), filed on October 29, 2018	*
10.25	**	—	Form of Performance Conditioned AO LTIP Award Agreement - Incorporated by reference to Exhibit 10.36 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11954), filed on February 11, 2019	*
10.26	**	—	Form of 2019 Amendment to Restricted LTIP Unit and Restricted Stock Agreements - Incorporated by reference to Exhibit 10.37 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11954), filed on February 11, 2019	*
10.27	**	—	Form of Vornado Realty Trust 2010 Omnibus Share Plan Restricted LTIP Unit Agreement - Incorporated by reference to Exhibit 10.38 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11954), filed on February 11, 2019	*
10.28	**	—	Form of Vornado Realty Trust 2010 Omnibus Share Plan Restricted Stock Agreement - Incorporated by reference to Exhibit 10.39 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-11954), filed on February 11, 2019	*
10.29		—	Second Amended and Restated Revolving Credit Agreement dated as of March 26, 2019, among Vornado Realty L.P., as Borrower, Vornado Realty Trust as General Partner, the Banks listed on the signature pages thereof, and JPMorgan Chase Bank N.A., as Administrative Agent for the Banks - Incorporated by reference to Exhibit 10.40 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2019 (File No. 001-11954), filed on April 29, 2019	*
10.30	**	—	Form of Vornado Realty Trust 2019 Omnibus Share Plan - Incorporated by reference to Annex B to Vornado Realty Trust's Proxy Statement dated April 5, 2019 (File No. 001-11954), filed on April 5, 2019	*
10.31		—	Transaction Agreement between Vornado Realty L.P. and Crown Jewel Partner LLC, dated April 18, 2019 - Incorporated by reference to Exhibit 10.42 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 (File No. 001-11954), filed on July 29, 2019	*
10.32	**	—	Form of Vornado Realty Trust 2019 Omnibus Share Plan Restricted Stock Agreement	***
10.33	**	—	Form of Vornado Realty Trust 2019 Omnibus Share Plan Restricted LTIP Unit Agreement	***
10.34	**	—	Form of Vornado Realty Trust 2019 Omnibus Share Plan Incentive/Non-Qualified Stock Option Agreement	***

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*	Incorporated by reference
**	Management contract or compensatory agreement
***	Filed herewith

21	—	Subsidiaries of Vornado Realty Trust and Vornado Realty L.P.	***
23.1	—	Consent of Independent Registered Public Accounting Firm for Vornado Realty Trust	***
23.2	—	Consent of Independent Registered Public Accounting Firm for Vornado Realty L.P.	***
31.1	—	Rule 13a-14 (a) Certification of the Chief Executive Officer of Vornado Realty Trust	***
31.2	—	Rule 13a-14 (a) Certification of the Chief Financial Officer of Vornado Realty Trust	***
31.3	—	Rule 13a-14 (a) Certification of the Chief Executive Officer of Vornado Realty L.P.	***
31.4	—	Rule 13a-14 (a) Certification of the Chief Financial Officer of Vornado Realty L.P.	***
32.1	—	Section 1350 Certification of the Chief Executive Officer of Vornado Realty Trust	***
32.2	—	Section 1350 Certification of the Chief Financial Officer of Vornado Realty Trust	***
32.3	—	Section 1350 Certification of the Chief Executive Officer of Vornado Realty L.P.	***
32.4	—	Section 1350 Certification of the Chief Financial Officer of Vornado Realty L.P.	***
101	—	The following financial information from Vornado Realty Trust and Vornado Realty L.P. Annual Report on Form 10-K for the year ended December 31, 2019 formatted in Inline Extensible Business Reporting Language (iXBRL) includes: (i) consolidated balance sheets, (ii) consolidated statements of income, (iii) consolidated statements of comprehensive income, (iv) consolidated statements of changes in equity, (v) consolidated statements of cash flows, and (vi) the notes to consolidated financial statements.	***
104	—	The cover page from the Vornado Realty Trust and Vornado Realty L.P. Annual Report on Form 10-K for the year ended December 31, 2019, formatted as iXBRL and contained in Exhibit 101	***

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*** Filed herewith

ITEM 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

		VORNADO REALTY TRUST
		(Registrant)
Date: February 18, 2020	By:	/s/ Matthew Iocco
		Matthew Iocco, Chief Accounting Officer (duly authorized officer and principal accounting officer)

SIGNATURES - CONTINUED

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

	Signature	Title	Date
By:	/s/Steven Roth (Steven Roth)	Chairman of the Board of Trustees and Chief Executive Officer (Principal Executive Officer)	February 18, 2020
By:	/s/Candace K. Beinecke (Candace K. Beinecke)	Trustee	February 18, 2020
By:	/s/Michael D. Fascitelli (Michael D. Fascitelli)	Trustee	February 18, 2020
By:	/s/William W. Helman IV (William W. Helman IV)	Trustee	February 18, 2020
By:	/s/David Mandelbaum (David Mandelbaum)	Trustee	February 18, 2020
By:	/s/Mandakini Puri (Mandakini Puri)	Trustee	February 18, 2020
By:	/s/Daniel R. Tisch (Daniel R. Tisch)	Trustee	February 18, 2020
By:	/s/Richard R. West (Richard R. West)	Trustee	February 18, 2020
By:	/s/Russell B. Wight, Jr. (Russell B. Wight, Jr.)	Trustee	February 18, 2020
By:	/s/Joseph Macnow (Joseph Macnow)	Chief Financial Officer (Principal Financial Officer)	February 18, 2020
By:	/s/Matthew Iocco (Matthew Iocco)	Chief Accounting Officer (Principal Accounting Officer)	February 18, 2020

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

		VORNADO REALTY L.P.
		(Registrant)
Date: February 18, 2020	By:	/s/ Matthew Iocco
		Matthew Iocco, Chief Accounting Officer of Vornado Realty Trust, sole General Partner of Vornado Realty L.P. (duly authorized officer and principal accounting officer)

SIGNATURES - CONTINUED

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated:

	Signature	Title	Date
By:	/s/Steven Roth (Steven Roth)	Chairman of the Board of Trustees and Chief Executive Officer of Vornado Realty Trust (Principal Executive Officer)	February 18, 2020
By:	/s/Candace K. Beinecke (Candace K. Beinecke)	Trustee of Vornado Realty Trust	February 18, 2020
By:	/s/Michael D. Fascitelli (Michael D. Fascitelli)	Trustee of Vornado Realty Trust	February 18, 2020
By:	/s/William W. Helman IV (William W. Helman IV)	Trustee of Vornado Realty Trust	February 18, 2020
By:	/s/David Mandelbaum (David Mandelbaum)	Trustee of Vornado Realty Trust	February 18, 2020
By:	/s/Mandakini Puri (Mandakini Puri)	Trustee of Vornado Realty Trust	February 18, 2020
By:	/s/Daniel R. Tisch (Daniel R. Tisch)	Trustee of Vornado Realty Trust	February 18, 2020
By:	/s/Richard R. West (Richard R. West)	Trustee of Vornado Realty Trust	February 18, 2020
By:	/s/Russell B. Wight, Jr. (Russell B. Wight, Jr.)	Trustee of Vornado Realty Trust	February 18, 2020
By:	/s/Joseph Macnow (Joseph Macnow)	Chief Financial Officer of Vornado Realty Trust (Principal Financial Officer)	February 18, 2020
By:	/s/Matthew Iocco (Matthew Iocco)	Chief Accounting Officer of Vornado Realty Trust (Principal Accounting Officer)	February 18, 2020

EXHIBIT 4.3

DESCRIPTION OF VORNADO REALTY TRUST SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

The following description of the material terms of the shares of beneficial interest of Vornado Realty Trust is only a summary and is subject to, and qualified in its entirety by reference to, the more complete descriptions of the shares in the following documents: (a) Vornado Realty Trust's Declaration of Trust, as amended and supplemented (including the applicable articles supplementary), which we refer to as our Declaration of Trust, and (b) Vornado Realty Trust's amended and restated bylaws, which we refer to as our bylaws, copies of which are exhibits to this Annual Report on Form 10-K. Please note that references to "Vornado," "we," "our" and "us" refer only to Vornado Realty Trust. Capitalized terms used but not defined herein have the meanings set forth in the Annual Report on Form 10-K to which this description is an exhibit.

General

The Declaration of Trust authorizes the issuance of up to 720,000,000 shares of beneficial interest, consisting of 250,000,000 common shares of beneficial interest, $.04 par value per share (the "Common Shares"), 110,000,000 preferred shares of beneficial interest, no par value per share (the "Preferred Shares"),and 360,000,000 excess shares, $.04 par value per share. The Board of Trustees may classify or reclassify any unissued Preferred Shares from time to time in one or more series, without shareholder approval, with such designations, preferences, conversion or other rights, voting powers, restrictions, limitations as to dividends, qualifications and terms and conditions of redemption thereof as established by our Board of Trustees.

As permitted by Maryland law, the Declaration of Trust authorizes our Board of Trustees, without any action by our shareholders, to amend the Declaration of Trust from time to time to increase or decrease the aggregate number of shares of beneficial interest or the number of shares of beneficial interest of any class that we are authorized to issue. The effect of this provision in our Declaration of Trust is to permit our Board of Trustees, without shareholder action, to increase or decrease (a) the total number of authorized shares of beneficial interest of Vornado Realty Trust and/or (b) the number of authorized shares of beneficial interest of any one or more classes. Maryland law permits a real estate investment trust to have shares of beneficial interest that are assigned to a particular class as well as shares that are not assigned to a particular class but are available to be classified by the Board of Trustees at a later time. Thus, the total number of authorized shares of beneficial interest may exceed the total number of authorized shares of all classes. Currently, all of our authorized shares of beneficial interest are assigned to one of the three classes set forth above.

(a) Common Shares, $0.04 par value share

Dividend Rights

The holders of Common Shares are entitled to receive dividends when, if and as authorized by the Board of Trustees and declared by Vornado out of assets legally available to pay dividends, if receipt of the dividends is in compliance with the provisions in the Declaration of Trust restricting the ownership and transfer of shares of beneficial interest. However, the terms of Vornado's issued and outstanding Preferred Shares provide that, other than in compliance with requirements of an employee incentive or benefit plan or as permitted under Article IV of the Declaration of Trust, Vornado may only pay dividends or other distributions on Common Shares or purchase Common Shares if full cumulative dividends have, for all past dividend periods and the then-current dividend period, been paid or set apart for payment on all outstanding Preferred Shares. The terms of the Preferred Shares that are now issued and outstanding do not provide for any mandatory sinking fund in connection with the payment of dividends on Preferred Shares.

Voting Rights

Subject to the provisions of the Declaration of Trust regarding the restrictions on ownership and transfer of Common Shares, the holders of Common Shares are entitled to one vote for each share on all matters on which shareholders are entitled to vote, including elections of Trustees. There is no cumulative voting in the election of Trustees, which means that the holders of a majority of the outstanding Common Shares may elect all of the Trustees then standing for election. The holders of Common Shares do not have any conversion, redemption or preemptive rights to subscribe to any securities of Vornado.

Listing of Common Shares

Our Common Shares are listed on the New York Stock Exchange under the symbol "VNO".

Rights Upon Liquidation

If Vornado is dissolved, liquidated or wound up, holders of Common Shares are entitled to share proportionally in any assets available for distribution after the prior rights of creditors, including holders of Vornado's indebtedness, and the aggregate liquidation preference of any Preferred Shares then outstanding are satisfied in full.

Restrictions on Ownership of Common Shares

The Common Shares Beneficial Ownership Limit. For Vornado to maintain its qualification as a REIT under the Internal Revenue Code of 1986, as amended (the "Code"), not more than 50% of the value of its outstanding shares of beneficial interest may be owned, directly or indirectly, by five or fewer individuals at any time during the last half of a taxable year and the shares of beneficial interest must be beneficially owned by 100 or more persons during at least 335 days of a taxable year of 12 months, or during a proportionate part of a shorter taxable year. The Code defines "individuals" to include some entities for purposes of the preceding sentence. All references to a shareholder's ownership of Common Shares in this section " — The Common Shares Beneficial Ownership Limit" assume application of the applicable attribution rules of the Code under which, for example, a shareholder is deemed to own shares owned by his or her spouse.

The Declaration of Trust contains a number of provisions that restrict the ownership and transfer of shares and are designed to safeguard Vornado against loss of its REIT status. These provisions may also have the effect of deterring non-negotiated acquisitions of, and proxy fights for, us by third parties. The Declaration of Trust contains a limitation that restricts, with some exceptions, shareholders from owning more than a specified percentage of the outstanding Common Shares. We call this percentage the "common shares beneficial ownership limit." The common shares beneficial ownership limit was initially set at 2.0% of the outstanding Common Shares. Our Board of Trustees subsequently adopted a resolution raising the common shares beneficial ownership limit from 2.0% to 6.7% of the outstanding Common Shares and has the authority to grant exemptions from the common shares beneficial ownership limit. The shareholders who owned more than 6.7% of the Common Shares immediately after the merger of Vornado, Inc. into Vornado in May 1993 may continue to do so and may acquire additional Common Shares through stock option and similar plans or from other shareholders who owned more than 6.7% of the Common Shares immediately after that merger. However, Common Shares may not be transferred if, as a result, more than 50% in value of the outstanding shares of Vornado would be owned by five or fewer individuals. While the shareholders who owned more than 6.7% of the Common Shares immediately after the merger of Vornado, Inc. into Vornado in May 1993 are not generally permitted to acquire additional Common Shares from any other source, these shareholders may acquire additional Common Shares from any source if Vornado issues additional Common Shares, up to the percentage held by them immediately before Vornado issues the additional shares.

Shareholders should be aware that events other than a purchase or other transfer of Common Shares may result in ownership, under the applicable attribution rules of the Code, of Common Shares in excess of the common shares beneficial ownership limit. For instance, if two shareholders, each of whom owns 3.5% of the outstanding Common Shares, were to marry, then after their marriage both shareholders would be deemed to own 7.0% of the outstanding Common Shares, which is in excess of the common shares beneficial ownership limit. Similarly, if a shareholder who owns 4.9% of the outstanding Common Shares were to acquire a 50% interest in a corporation which owns 4.8% of the outstanding Common Shares, then the shareholder would be deemed to own 7.3% of the outstanding Common Shares. You should consult your own tax advisors concerning the application of the attribution rules of the Code in your particular circumstances.

The Constructive Ownership Limit. Under the Code, rental income received by a REIT from persons in which the REIT is treated, under the applicable attribution rules of the Code, as owning a 10% or greater interest does not constitute qualifying income for purposes of the income requirements that REITs must satisfy. For these purposes, a REIT is treated as owning any stock owned, under the applicable attribution rules of the Code, by a person that owns 10% or more of the value of the outstanding shares of the REIT. The attribution rules of the Code applicable for these purposes are different from those applicable with respect to the common shares beneficial ownership limit. All references to a shareholder's ownership of Common Shares in this section "— The Constructive Ownership Limit" assume application of the applicable attribution rules of the Code.

In order to ensure that rental income of Vornado will not be treated as nonqualifying income under the rule described in the preceding paragraph, and thus to ensure that Vornado will not lose its REIT status as a result of the ownership of shares by a tenant, or a person that holds an interest in a tenant, the Declaration of Trust contains an ownership limit that restricts, with some exceptions, shareholders from owning more than 9.9% of the outstanding shares of any class. We refer to this 9.9% ownership limit as the "constructive ownership limit." The shareholders who owned shares in excess of the constructive ownership limit immediately after the merger of Vornado, Inc. into Vornado in May 1993 generally are not subject to the constructive ownership limit. The Declaration of Trust also contains restrictions that are designed to ensure that the shareholders who owned shares in excess of the constructive ownership limit immediately after the merger of Vornado, Inc. into Vornado in May 1993 will not, in the aggregate, own a large enough interest in a tenant or subtenant of the REIT to cause rental income received, directly or indirectly, by the REIT from that tenant or subtenant to be treated as nonqualifying income for purposes of the income requirements that REITs must satisfy. The restrictions described in the preceding sentence have an exception for tenants and subtenants from whom the REIT receives, directly or indirectly, rental income that is not in excess of a specified threshold.

Shareholders should be aware that events other than a purchase or other transfer of shares may result in ownership, under the applicable attribution rules of the Code, of shares in excess of the constructive ownership limit. As the attribution rules that apply with respect to the constructive ownership limit differ from those that apply with respect to the common shares beneficial ownership limit, the events other than a purchase or other transfer of shares which may result in share ownership in excess of the constructive ownership limit may differ from those which may result in share ownership in excess of the common shares beneficial ownership limit. You should consult your own tax advisors concerning the application of the attribution rules of the Code in your particular circumstances.

DREIT Ownership Limit. Under the Code, a domestically controlled qualified investment entity includes a REIT in which, at all times during the relevant testing period, less than 50% in value of the REIT's stock was held directly or indirectly by foreign persons, as such term is used in the provision of the Code defining a domestically controlled qualified investment entity. Our qualification as a domestically controlled qualified investment entity (which, in our case, would mean that we would be a domestically controlled REIT) would mean that foreign investors that enter into joint venture structures with us that utilize subsidiary REITs may be able to treat our interest in such subsidiary REITs as being held entirely by U.S. persons for purposes of determining whether the subsidiary REIT is itself a domestically controlled qualified investment entity (and, therefore, a domestically controlled REIT), thereby enabling such foreign investors to avail themselves of certain tax benefits under the Foreign Investment in Real Property Tax Act of 1980 that may not otherwise be available.

The Declaration of Trust contains provisions that restrict the ownership and transfer of shares and are designed to assist us prospectively in qualifying as a domestically controlled qualified investment entity. Specifically, if any transfer or non-transfer event involving our capital shares would result in Vornado failing to qualify as a domestically controlled qualified investment entity, the purported transferee or affected holder will be a "prohibited owner" and would not acquire any right or interest in those shares.

Issuance of Excess Shares If the Ownership Limits Are Violated. The Declaration of Trust provides that a transfer of Common Shares that would otherwise result in ownership, under the applicable attribution rules of the Code, of Common Shares in excess of the common shares beneficial ownership limit or the constructive ownership limit, or which would cause the shares of beneficial interest of Vornado to be beneficially owned by fewer than 100 persons, will be void and the purported transferee will acquire no rights or economic interest in the Common Shares. In addition, the Declaration of Trust provides that Common Shares that would otherwise be owned, under the applicable attribution rules of the Code, in excess of the common shares beneficial ownership limit or the constructive ownership limit will be automatically exchanged for excess shares. The Declaration of Trust further provides that, if there is a purported transfer or any other event that would, if effective, result in Vornado failing to qualify as a domestically controlled qualified investment entity, then the smallest number of Common Shares owned or purported to be owned, directly or indirectly within the meaning of Section 897(h)(4)(B) of the Code, by the purported transferee or affected holder which, if exchanged for excess shares, would not cause Vornado to fail to qualify as a domestically controlled qualified investment entity shall be automatically exchanged for an equal number of excess shares. These excess shares will be transferred, by operation of law, to Vornado as trustee of a trust for the exclusive benefit of a beneficiary designated by the purported transferee or purported holder. While so held in trust, excess shares are not entitled to vote and are not entitled to participate in any dividends or distributions made by Vornado. Any dividends or distributions received by the purported transferee or other purported holder of the excess shares before Vornado discovers the automatic exchange for excess shares must be repaid to Vornado upon demand.

If the purported transferee or purported holder elects to designate a beneficiary of an interest in the trust with respect to the excess shares, he or she may designate only a person whose ownership of the shares will not violate the common shares beneficial ownership limit or the constructive ownership limit. When the designation is made, the excess shares will be automatically exchanged for Common Shares. The Declaration of Trust contains provisions designed to ensure that the purported transferee or other purported holder of the excess shares may not receive, in return for transferring an interest in the trust with respect to the excess shares, an amount that reflects any appreciation in the Common Shares for which the excess shares were exchanged during the period that the excess shares were outstanding but will bear the burden of any decline in value during that period. Any amount received by a purported transferee or other purported holder for designating a beneficiary in excess of the amount permitted to be received must be turned over to Vornado. The Declaration of Trust provides that Vornado, or its designee, may purchase any excess shares that have been automatically exchanged for Common Shares as a result of a purported transfer or other event. The price at which Vornado, or its designee, may purchase the excess shares will be equal to the lesser of:

- in the case of excess shares resulting from a purported transfer for value, the price per share in the purported transfer that resulted in the automatic exchange for excess shares, or in the case of excess shares resulting from some other event, the market price of the Common Shares exchanged on the date of the automatic exchange for excess shares; and

- the market price of the Common Shares exchanged for the excess shares on the date that Vornado accepts the deemed offer to sell the excess shares.

Vornado's right to buy the excess shares will exist for 90 days, beginning on the date that the automatic exchange for excess shares occurred or, if Vornado did not receive a notice concerning the purported transfer that resulted in the automatic exchange for excess shares, the date on which the Board of Trustees determines in good faith that an exchange for excess shares has occurred.

Other Provisions Concerning the Restrictions on Ownership. Our Board of Trustees may exempt persons from the common shares beneficial ownership limit or the constructive ownership limit, including the limitations applicable to holders who owned in excess of 6.7% of the Common Shares immediately after the merger of Vornado, Inc. into Vornado in May 1993, if evidence satisfactory to the Board of Trustees is presented showing that the exemption will not jeopardize Vornado's status as a REIT under the Code. No exemption to a person that is an individual for purposes of Section 542(a)(2) of the Code, however, may permit the individual to have beneficial ownership in excess of 9.9% of the outstanding shares of the class. Before granting an exemption of this kind, the Board of Trustees is required to obtain a ruling from the IRS or an opinion of counsel satisfactory to it and representations and undertakings, including representations, from the applicant, that demonstrate, to the reasonable satisfaction of the Board of Trustees, that such ownership would not jeopardize the REIT status of Vornado.

The foregoing restrictions on transfer and ownership will not apply if the Board of Trustees determines that it is no longer in the best interests of Vornado to attempt to qualify, or to continue to qualify, as a REIT.

All persons who own, directly or by virtue of the applicable attribution rules of the Code, more than 2.0% of the outstanding Common Shares must give a written notice to Vornado containing the information specified in the Declaration of Trust by January 31 of each year. In addition, each shareholder will be required to disclose to Vornado upon demand any information that Vornado may request, in good faith, to determine Vornado's status as a REIT or to comply with Treasury regulations promulgated under the REIT provisions of the Code.

The ownership restrictions described above may have the effect of precluding acquisition of control of Vornado unless the Vornado Board determines that maintenance of REIT status is no longer in the best interests of Vornado.

(b) Preferred Shares of beneficial interest, no par value

The Declaration of Trust authorizes the issuance of 110,000,000 preferred shares. Of the 110,000,000 authorized preferred shares, as of December 31, 2019, the Declaration of Trust authorizes Vornado to issue:

15,640 as $3.25 Series A Convertible Preferred Shares (the "Series A Convertible Preferred Shares");

3,200,000 as Series D-10 7.00% Cumulative Redeemable Preferred Shares;

1,400,000 as Series D-11 7.20% Cumulative Redeemable Preferred Shares;

800,000 as Series D-12 6.55% Cumulative Redeemable Preferred Shares;

4,000,000 as Series D-14 6.75% Cumulative Redeemable Preferred Shares;

1,800,000 as Series D-15 6.875% Cumulative Redeemable Preferred Shares;

12,000,000 as 5.70% Series K Cumulative Redeemable Preferred Shares (the "Series K Preferred Shares");

13,800,000 as 5.40% Series L Cumulative Redeemable Preferred Shares (the "Series L Preferred Shares"); and

13,800,000 as 5.25% Series M Cumulative Redeemable Preferred Shares (the "Series M Preferred Shares").

As of December 31, 2019, 15,640 of $3.25 Series A Convertible Preferred Shares, 12,000,000 of 5.70% Series K Preferred Shares of 12,000,000 5.40% Series L Preferred Shares and 12,780,000 of 5.25% Series M Preferred Shares, and no other series of preferred shares, were issued and outstanding. Series D-10 7.00% Cumulative Redeemable Preferred Shares, Series D-11 7.20% Cumulative Redeemable Preferred Shares, Series D-12 6.55% Cumulative Redeemable Preferred Shares, Series D-14 6.75% Cumulative Redeemable Preferred Shares or Series D-15 6.875% Cumulative Redeemable Preferred Shares may be issued upon the redemption of preferred units of limited partnership interest of Vornado Realty L.P. of a corresponding series.

Item 601(b)(4)(vi) of Regulation S-K requires a description of each class of equity securities registered under the Section 12 of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Accordingly, the only series of preferred shares described below are the Series A Convertible Preferred Shares and the Series K, L and M Preferred Shares.

Dividend Rights

Dividends on the Series A Convertible Preferred Shares are cumulative from the date of original issue of this series and payable quarterly in arrears on January 1, April 1, July 1 and October 1 of each year, commencing on July 1, 1997, at the rate of $3.25 per Series A Convertible Preferred Share per annum.

Dividends on the Series K Preferred Shares are cumulative from the date of original issue of this series and payable quarterly in arrears on January 1, April 1, July 1 and October 1 of each year, commencing on October 1, 2012, at the rate of 5.70% of the liquidation preference per annum, or $1.425 per Series K Preferred Share per annum.

Dividends on the Series L Preferred Shares are cumulative from the date of original issue of this series and payable quarterly in arrears on January 1, April 1, July 1 and October 1 of each year, commencing April 1, 2013, at the rate of 5.40% of the liquidation preference per annum, or $1.35 per Series L Preferred Share per annum.

Dividends on the Series M Preferred Shares are cumulative from the date of original issue of this series and payable quarterly in arrears on January 1, April 1, July 1 and October 1 of each year, commencing on April 1, 2018, at the rate of 5.25% of the liquidation preference per annum, or $1.3125 per Series M Preferred Share per annum.

Redemption at Option of Vornado

The Series A Convertible Preferred Shares are currently redeemable by the Company, in whole or in part, at the option of the Company, for such number of Common Shares as are issuable at the initial conversion rate of 0.68728 Common Share for each Series A Convertible Preferred Share, subject to adjustment in certain circumstances. The conversion rate as of December 31, 2019 is 1.9531 Common Share for each Series A Convertible Preferred Share. The Company may exercise this option only if for 20 trading days within any period of 30 consecutive trading days, including the last trading day of such period, the closing price of the Common Shares on the New York Stock Exchange ("NYSE") exceeds $87.30 per share, subject to adjustment in certain circumstances. In order to exercise its redemption option, the Company must issue a press release announcing the redemption prior to the opening of business on the second trading day after the conditions described in the preceding sentences have, from time to time, been met. The Series A Convertible Preferred Shares are not redeemable for cash.

We may redeem the Series K Preferred Shares in whole at any time or in part from time to time at a redemption price of $25.00 per share, plus any accrued and unpaid dividends through the date of redemption. The Series K Preferred Shares have no maturity date and will remain outstanding indefinitely unless redeemed. We are not required to set aside funds to redeem the Series K Preferred Shares.

We may redeem the Series L Preferred Shares in whole at any time or in part from time to time at a redemption price of $25.00 per share, plus any accrued and unpaid dividends through the date of redemption. The Series L Preferred Shares have no maturity date and will remain outstanding indefinitely unless redeemed. We are not required to set aside funds to redeem the Series L Preferred Shares.

Except in instances relating to preservation of our status as a real estate investment trust, the Series M Preferred Shares are not redeemable until December 13, 2022. On and after December 13, 2022, we may redeem the Series M Preferred Shares in whole at any time or in part from time to time at a redemption price of $25.00 per share, plus any accrued and unpaid dividends through the date of redemption. The Series M Preferred Shares have no maturity date and will remain outstanding indefinitely unless redeemed. We are not required to set aside funds to redeem the Series M Preferred Shares.

Liquidation Preference

The holders of Series A Convertible Preferred Shares will be entitled to receive in the event of any liquidation, dissolution or winding up of Vornado, whether voluntary or involuntary, $50.00 per Series A Convertible Preferred Share, and the holders of Series K, L and M Preferred Shares will be entitled to receive in the event of any liquidation, dissolution or winding up of Vornado, whether voluntary or involuntary, $25.00 per Preferred Share (such amounts, the "Liquidation Preference") plus an amount per Preferred Share equal to all dividends (whether or not earned or declared) accrued and unpaid thereon to the date of final distribution to such holders.

Until the holders of the Series A Convertible Preferred Shares and the Series K, L and M Preferred Shares have been paid the Liquidation Preference and all accrued and unpaid dividends in full, no payment will be made to any holder of Junior Shares upon the liquidation, dissolution or winding up of Vornado. If, upon any liquidation, dissolution or winding up of Vornado, the assets of Vornado, or proceeds thereof, distributable among the holders of the Parity Shares (as defined below under "—Ranking") are insufficient to pay in full the Liquidation Preference and all accrued and unpaid dividends and the liquidation preference and all accrued and unpaid dividends with respect to any other shares of Parity Shares, then such assets, or the proceeds thereof, will be distributed among the holders of Preferred Shares and any such Parity Shares ratably in accordance with the respective amounts which would be payable on such Preferred Shares and any such Parity Shares if all amounts payable thereon were paid in full. None of (i) a consolidation or merger of Vornado with one or more entities, (ii) a statutory share exchange by Vornado or (iii) a sale or transfer of all or substantially all of Vornado's assets will be considered a liquidation, dissolution or winding up, voluntary or involuntary, of Vornado.

The term "Junior Shares" means the Common Shares, and any other class of capital stock of Vornado now or hereafter issued and outstanding that ranks junior as to the payment of dividends or amounts upon liquidation, dissolution and winding up to the Series A Convertible Preferred Shares and the Series K, L and M Preferred Shares.

Ranking

The Series A Convertible Preferred Shares and the Series K, L and M Preferred Shares rank senior to the Junior Shares, including the Common Shares, with respect to payment of dividends and amounts upon liquidation, dissolution or winding up. While any Series A Convertible Preferred Shares or any K, L or M Preferred Shares are outstanding, we may not authorize, create or increase the authorized amount of any class or series of beneficial interest that ranks senior to the Series A Convertible Preferred Shares or the Series K, L or M Preferred Shares with respect to the payment of amounts upon liquidation, dissolution or winding up without the consent of the holders of two-thirds of the outstanding Series A Convertible Preferred Shares, and the Series K, L and M Preferred Shares and all other shares of Voting Preferred Shares (as defined under "—Voting Rights" below), voting as a single class. However, we may create additional classes of beneficial interest, increase the authorized number of Preferred Shares or issue series of Preferred Shares ranking on parity with the Series A Convertible Preferred Shares or the Series K, L or M Preferred Shares with respect, in each case, to the payment of dividends and amounts upon liquidation, dissolution or winding up ("Parity Shares") without the consent of any holder of Series A Convertible Preferred Shares or Series K, L or M Preferred Shares.

Voting Rights

The holders of the Series A Convertible Preferred Shares and the K, L and M Preferred Shares will generally have no voting rights. However, if dividends on any series of the Preferred Shares upon which like voting rights have been conferred and are exercisable, (together with the Series A Convertible Preferred Shares and the K, L and M Preferred Shares, the “Voting Preferred Shares”) are in arrears for six quarterly dividend periods (whether or not consecutive), the holders of the Voting Preferred Shares (voting separately as a class with holders of all other series of parity preferred shares upon which like voting rights have been conferred and are exercisable) will have the right to elect two additional trustees to serve on our Board of Trustees until such dividend arrearage is eliminated.

The approval of two-thirds of the votes entitled to be cast by the holders of outstanding Series A Convertible Preferred Shares and all other series of Voting Preferred Shares, acting as a single class either at a meeting of shareholders or by written consent, is required in order to (i) amend, alter or repeal any of the provisions of the Declaration of Trust to materially and adversely affect the voting powers, rights or preferences of the Series A Convertible Preferred Shares and the Voting Preferred Shares; provided that any filing with the State Department of Assessments and Taxation of Maryland in connection with a merger, consolidation or sale of all or substantially all the assets of Vornado shall not be deemed to be an amendment, alteration or repeal of any provisions of the Declaration of Trust, or (ii) to authorize, create, or increase the authorized amount of, any shares of any class or series or any security convertible into shares of any class or series having rights senior to the Series A Convertible Preferred Shares with respect to the payment of dividends or amounts upon liquidation, dissolution or winding up.

The approval of two-thirds of the votes entitled to be cast by the holders of outstanding Series K, L and M Preferred Shares and all other series of Voting Preferred Shares, acting as a single class either at a meeting of shareholders or by written consent, is required in order (i) to amend, alter or repeal any provisions of the Declaration of Trust, whether by merger, consolidation or otherwise, to affect materially and adversely the voting powers, rights or preferences of the holders of the Series K, L or M Preferred Shares, unless in connection with any such amendment, alteration or repeal, each such share remains outstanding without the terms thereof being materially changed in any respect adverse to the holders thereof or is converted into or exchanged for preferred stock of the surviving entity having preferences, conversion and other rights, voting powers, restrictions, limitations as to dividends, qualifications and terms and conditions of redemption thereof identical to those of the applicable Preferred Shares (except for changes that do not materially and adversely affect the holders of such shares), or (ii) to authorize, create, or increase the authorized amount of, any class or series of beneficial interest having rights senior to the Series K, L or M Preferred Shares with respect to the payment of dividends or amounts upon liquidation, dissolution or winding up.

For all Voting Preferred Shares, if such amendment affects materially and adversely the rights, preferences, privileges or voting powers of one or more but not all of the series of Voting Preferred Shares, then only the consent of the holders of at least two-thirds of the votes entitled to be cast by the series so affected is required in lieu of the consent of the holders of two-thirds of the Voting Preferred Shares as a class.

We may create additional classes of shares that rank junior to or on parity with the Series A Convertible Preferred Shares or the Series K, L and M Preferred Shares, increase the authorized number of shares of classes that rank junior to or on parity with the Series A Convertible Preferred Shares or the Series K, L and M Preferred Shares and issue additional shares of classes that rank junior to or on parity with the Series A Convertible Preferred Shares or the Series K, L and M Preferred Shares without the consent of any holder of the Series A Convertible Preferred Shares or the Series K, L and M Preferred Shares.

Listing of Preferred Shares

As of the date of filing of this Exhibit 4.3, our Series K, L and M Preferred Shares are listed on the New York Stock Exchange under the symbols "VNO Pr K, " "VNO Pr L," and "VNO Pr M," respectively.

Conversion Rights

The Series A Convertible A Preferred Shares are convertible, in whole or in part, at the option of the holder at any time, unless previously redeemed, into Common Shares, at an initial conversion price of $72.75 of Liquidation Preference per Common Share, subject to adjustment in certain circumstances. As of December 31, 2019, the conversion price is $1.9531 per Common Share.

The Series K, L and M Preferred Shares are not convertible into or exchangeable for any other property or securities of Vornado.

Restrictions on Ownership of Preferred Shares

As noted above, for us to maintain our qualification as a REIT under the Code, not more than 50% in value of our outstanding shares of beneficial interest may be owned, beneficially or constructively, by five or fewer individuals (as defined in the Code to include certain entities) at any time during the last half of a taxable year, and the shares of beneficial interest must be beneficially owned by 100 or more persons during at least 335 days of a taxable year of 12 months (or during a proportionate part of a shorter taxable year). For this and other reasons, the Declaration of Trust and the Articles Supplementary for each series of Preferred Shares contain provisions that restrict the ownership and transfer of shares of beneficial interest.

Our Declaration of Trust contains a Preferred Share ownership limit that restricts shareholders from owning, under the applicable attribution rules of the Code, more than 9.9% of the outstanding Preferred Shares of any class or series and a Common Share ownership limit that generally restricts shareholders from owning, under the applicable attribution rules of the Code, more than 6.7% of the Outstanding Common Shares. In addition, our Declaration of Trust contains provisions that limit ownership under the applicable attribution rules of the Code of our Preferred Shares and our Common Shares to the extent that such ownership of such shares would cause us to fail to qualify as a "domestically controlled qualified investment entity" within the meaning of Section 897(h)(4)(B) of the Code. Shares owned in excess of any of these limits will be automatically exchanged for excess shares pursuant to our Declaration of Trust. Excess shares will be held in trust by us and, while held in trust, will not be entitled to vote or participate in dividends or distributions made by us.

(c) Certain Provisions of Maryland Law and of our Declaration of Trust and our bylaws

The following description of certain provisions of Maryland law and of our Declaration of Trust and bylaws is only a summary. For a complete description, we refer you to Maryland law, our Declaration of Trust and our bylaws.

Board of Trustees

Our Declaration of Trust provides that the number of trustees of the Company will not be more than fifteen and may be increased or decreased by a vote of the trustees then in office. Our bylaws provide that any vacancy on the Board may be filled only by a majority of the remaining trustees, even if the remaining trustees do not constitute a quorum. Any trustee elected to fill a vacancy will hold office for the remainder of the full term of the class of trustees in which the vacancy occurred and until a successor is duly elected and qualifies. Pursuant to our Declaration of Trust and bylaws, each member of our Board of Trustees is elected by our shareholders to serve until the next annual meeting of shareholders and until his or her successor is duly elected and qualifies. Holders of Common Shares have no right to cumulative voting in the election of trustees and trustees will be elected by a plurality of the votes cast in the election of trustees.

Removal of Trustees

Our Declaration of Trust provides that a trustee may be removed only for cause and only by the affirmative vote of at least two-thirds of the votes entitled to be cast in the election of trustees. This provision, when coupled with the provision in our bylaws authorizing the Board of Trustees to fill vacant trusteeships, precludes shareholders from removing incumbent trustees except for cause and by a substantial affirmative vote and thereafter filling the vacancies created by the removal with their own nominees.

Business Combinations

Under Maryland law, "business combinations" between a Maryland real estate investment trust and an interested shareholder or an affiliate of an interested shareholder are prohibited for five years after the most recent date on which the interested shareholder becomes an interested shareholder. These business combinations include a merger, consolidation, share exchange, or, in circumstances specified in the statute, an asset transfer or issuance or reclassification of equity securities. An interested shareholder is defined as:

- any person who beneficially owns, directly or indirectly, ten percent or more of the voting power of the trust's outstanding shares; or
- an affiliate or associate of the trust who, at any time within the two-year period prior to the date in question, was the beneficial owner, directly or indirectly, of ten percent or more of the voting power of the then-outstanding voting shares of the trust.

A person is not an interested shareholder under the statute if the Board of Trustees approved in advance the transaction by which the interested shareholder otherwise would have become an interested shareholder. However, in approving a transaction, the Board of Trustees may provide that its approval is subject to compliance, at or after the time of approval, with any terms and conditions determined by the Board.

After the five-year prohibition, any business combination between the Maryland trust and an interested shareholder generally must be recommended by the Board of Trustees of the trust and approved by the affirmative vote of at least:

- 80% of the votes entitled to be cast by holders of outstanding shares of the trust; and
- two-thirds of the votes entitled to be cast by holders of voting shares of the trust other than voting shares held by the interested shareholder with whom or with whose affiliate the business combination is to be effected or held by an affiliate or associate of the interested shareholder.

These super-majority vote requirements do not apply if the holders of the trust's Common Shares receive a minimum price, as defined under Maryland law, for their shares in the form of cash or other consideration in the same form as previously paid by the interested shareholder for its shares.

The statute permits various exemptions from its provisions, including business combinations that are exempted by the Board of Trustees before the time that the interested shareholder becomes an interested shareholder.

Our Board of Trustees has adopted a resolution exempting any business combination between any trustee or officer of Vornado, or their affiliates, and Vornado. Consequently, the five-year prohibition and the super-majority vote requirements will not apply to business combinations between us and any of them. As a result, the trustees and officers of Vornado and their affiliates may be able to enter into business combinations with us without compliance with the super-majority vote requirements and the other provisions of the statute. With respect to business combinations with other persons, the business combination provisions of Maryland law may have the effect of delaying, deferring or preventing a change in control of Vornado or other transaction that might involve a premium price or otherwise be in the best interest of the shareholders. The business combination statute may discourage others from trying to acquire control of Vornado and increase the difficulty of consummating any offer.

Control Share Acquisitions

Maryland law provides that control shares of a Maryland real estate investment trust acquired in a control share acquisition have no voting rights except to the extent approved by a vote of two-thirds of the votes entitled to be cast on the matter. Shares owned by the acquiror, by officers or by employees who are trustees of the trust are excluded from shares entitled to vote on the matter. Control shares are voting shares which, if aggregated with all other shares owned by the acquiror or in respect of which the acquiror is able to exercise or direct the exercise of voting power (except solely by virtue of a revocable proxy), would entitle the acquiror to exercise voting power in electing trustees within one of the following ranges of voting power:

- one-tenth or more but less than one-third,
- one-third or more but less than a majority, or
- a majority or more of all voting power.

Control shares do not include shares the acquiring person is then entitled to vote as a result of having previously obtained shareholder approval, or shares acquired directly from the trust. A control share acquisition means the acquisition of control shares, subject to certain exceptions.

A person who has made or proposes to make a control share acquisition may compel the board of trustees of the trust to call a special meeting of shareholders to be held within 50 days of demand to consider the voting rights of the shares. The right to compel the calling of a special meeting is subject to the satisfaction of certain conditions, including an undertaking to pay the expenses of the meeting. If no request for a meeting is made, the trust may itself present the question at any shareholders meeting.

If voting rights are not approved at the meeting or if the acquiring person does not deliver an acquiring person statement as required by the statute, then the trust may redeem for fair value any or all of the control shares, except those for which voting rights have previously been approved. The right of the trust to redeem control shares is subject to certain conditions and limitations. Fair value is determined, without regard to the absence of voting rights for the control shares, as of the date of the last control share acquisition by the acquiror or of any meeting of shareholders at which the voting rights of the shares are considered and not approved. If voting rights for control shares are approved at a shareholders meeting and the acquiror becomes entitled to vote a majority of the shares entitled to vote, all other shareholders may exercise appraisal rights. The fair value of the shares as determined for purposes of appraisal rights may not be less than the highest price per share paid by the acquiror in the control share acquisition.

The control share acquisition statute does not apply (a) to shares acquired in a merger, consolidation or share exchange if the trust is a party to the transaction, or (b) to acquisitions approved or exempted by the declaration of trust or bylaws of the trust.

Our bylaws contain a provision exempting from the control share acquisition statute any and all acquisitions by any person of our shares. There can be no assurance that this provision will not be amended or eliminated at any time in the future.

Approval of Extraordinary Trust Action; Amendment of Declaration of Trust and Bylaws

Under Maryland law, a Maryland real estate investment trust generally may not amend its declaration of trust, dissolve, merge or consolidate with or convert into another entity, sell all or substantially all of its assets or engage in a statutory share exchange, unless approved by the affirmative vote of shareholders holding at least two-thirds of the shares entitled to vote on the matter. However, a Maryland real estate investment trust may provide in its declaration of trust for approval of these matters by a lesser percentage, but not less than a majority of all of the votes entitled to be cast on the matter. Vornado may take any of these actions if approved by the Board of Trustees and by the affirmative vote of not less than a majority of all of the votes entitled to be cast on the matter. Similarly, our Declaration of Trust provides for approval of amendments by the affirmative vote of a majority of the votes entitled to be cast on the matter. Some limited exceptions (including amendments to the provisions of our Declaration of Trust related to the removal of trustees, ownership and transfer restrictions and amendments) require the affirmative vote of shareholders holding at least two-thirds of the shares entitled to vote on the matter.

Under Maryland law, the declaration of trust of a Maryland real estate investment trust may permit the trustees, by a two-thirds vote, to amend the declaration of trust from time to time to qualify as a REIT under the Code or the Maryland REIT Law, without the affirmative vote or written consent of the shareholders. Our Declaration of Trust permits such action by the Board of Trustees. In addition, our Declaration of Trust, as permitted by Maryland law, contains a provision that permits our Board, without a shareholder vote, to amend the Declaration of Trust to increase or decrease the total number of shares of beneficial interest that we are authorized to issue and the number of authorized shares of any class or series of beneficial interest that we are authorized to issue.

The Board of Trustees has the right to adopt and amend the bylaws. Additionally, our bylaws provide that shareholders may adopt, alter or repeal any bylaw by the affirmative vote of a majority of the votes entitled to be cast on the matter, to the extent permitted by law.

Advance Notice of Trustee Nominations and New Business

Our bylaws provide that with respect to an annual meeting of shareholders, nominations of persons for election to the Board of Trustees and the proposal of business to be considered by shareholders may be made only (i) pursuant to our notice of the meeting, (ii) by the Board of Trustees or (iii) by a shareholder or record who is entitled to vote at the meeting and who has complied with the advance notice procedures of our bylaws. With respect to special meetings of shareholders, only the business specified in our notice of the meeting may be brought before the meeting. Nominations of persons for election to the Board of Trustees at a special meeting may be made only (i) by the Board of Trustees, or (ii) pursuant to our notice of the meeting, provided that the Board of Trustees has determined that trustees will be elected at the meeting, by a shareholder of record who is entitled to vote at the meeting and who has complied with the advance notice provisions of our bylaws.

Proxy Access Procedures for Qualifying Shareholders

Our bylaws permit a shareholder, or a group of up to 20 stockholders, that owns 3% or more of the our outstanding Common Shares, continuously for at least three years, to nominate and include in our proxy statement for an annual meeting of shareholders, trustee nominees constituting up to the greater of two nominees or 20% of our Board of Trustees, provided that the shareholder(s) and the trustee nominee(s) satisfy the requirements specified in our bylaws.

Subtitle 8

Maryland law permits a Maryland real estate investment trust with a class of equity securities registered under the Exchange Act and at least three independent trustees to elect, without shareholder approval, to classify our Board of Trustees.

Anti-takeover Effect of Certain Provisions of Maryland Law and of the Declaration of Trust and Bylaws

The business combination provisions and, if the applicable provision in our bylaws is rescinded, the control share acquisition provisions of Maryland law, the provisions in our Declaration of Trust on removal of trustees and the advance notice provisions of our bylaws could delay, defer or prevent a transaction or a change in control of Vornado that might involve a premium price for holders of Common Shares or otherwise be in their best interest.

DESSCRIPTION OF CLASS A UNITS OF VORNADO REALTY L.P. AND CERTAIN PROVISIONS OF ITS AGREEMENT OF LIMITED PARTERNSHIP

The following description of the material terms of the class A units of Vornado Realty L.P., which we refer to as the “operating partnership,” and some material provisions of the operating partnership’s agreement of limited partnership, which we refer to as the “partnership agreement,” does not describe every aspect of the units or the partnership agreement and is only a summary of, and qualified in its entirety by reference to, applicable provisions of Delaware law and the partnership agreement. A copy of the partnership agreement is filed as an exhibit to the Annual Report on Form 10-K to which this Exhibit is attached.

The Operating Partnership's Outstanding Classes of Units

Holders of units, other than Vornado Realty Trust in its capacity as general partner, hold a limited partnership interest in the operating partnership. All holders of units, including Vornado Realty Trust in its capacity as general partner, are entitled to share in cash distributions from, and in the profits and losses of, the operating partnership.

Holders of units have the rights to which limited partners are entitled under the partnership agreement and the Delaware Revised Uniform Limited Partnership Act. Class A units are registered with the SEC under the Exchange Act. No other class of units is registered under Federal law and no units are registered under any state securities laws, and no units are listed on any exchange or quoted on any national market system. The partnership agreement imposes restrictions on the transfer of units. See "—Restrictions on Transfers of Units by Limited Partners" below for further information about these restrictions.

As of December 31, 2019, there were outstanding:

- 15,640 series A preferred units;
- 12,000,000 series K pass-through preferred units;
- 12,000,000 series L pass-through preferred units;
- 12,780,000 series M preferred units;
- 1,867,311 series D-13 preferred units;
- 1 series D-16 preferred unit;
- 141,400 series D-17 preferred units;
- 5,828 series G-1 preferred units;
- 14,424 series G-2 preferred units;
- 43,532 series G-3 preferred units;
- 91,335 series G-4 preferred units;
- 2,680,773 restricted operating partnership units (“LTIP units”), including 855,373 appreciation-only long-term incentive plan units issued in connection with out-performance plan awards; and
- 202,458,052 class A units, including 11,472,375 not held by Vornado Realty Trust.

Distributions with Respect to Units

The partnership agreement provides for distributions, as determined in the manner provided in the partnership agreement, to Vornado Realty Trust and the limited partners in proportion to their percentage interests in the operating partnership, subject to the distribution preferences that are described in the next paragraph. As general partner of the operating partnership, Vornado Realty Trust has the exclusive right to declare and cause the operating partnership to make distributions as and when it deems appropriate or desirable in its discretion. For so long as Vornado Realty Trust elects to qualify as a REIT, it will make reasonable efforts, as determined by Vornado Realty Trust in its sole discretion, to make distributions to partners in amounts such that it will be able to pay shareholder dividends that will satisfy the requirements for qualification as a REIT and avoid any federal income or excise tax liability for Vornado Realty Trust.

Distributions vary among the holders of different classes of units:

- The series A preferred units entitle Vornado Realty Trust as their holder to a cumulative preferential distribution at an annual rate of $3.25 per series A preferred unit, which we refer to as the "series A preferred distribution preference." The series A preferred units correspond to Vornado Realty Trust’s series A convertible preferred shares.
- The series K preferred units entitle their holder to a preferential distribution at the annual rate of $1.425 per unit, which we refer to as the "series K preferred distribution preference." The series K preferred units correspond to Vornado Realty Trust’s series K preferred shares.
- The series L preferred units entitle their holder to a preferential distribution at the annual rate of $1.35 per unit, which we refer to as the "series L preferred distribution preference." The series L preferred units correspond to Vornado Realty Trust’s series L preferred shares.

- The series M preferred units entitle their holder to a preferential distribution at the annual rate of $1.3125 per unit, which we refer to as the "series M preferred distribution preference." The series M preferred units correspond to Vornado's series M preferred shares.
- The series D-13 preferred units entitle their holder to a preferential distribution at the annual rate of $0.75 per unit, which we refer to as the "series D-13 preferred distribution preference."
- The series D-16 preferred unit entitles their holder to a preferential distribution at the annual rate of $50,000 per unit, which we refer to as the "series D-16 preferred distribution preference."
- The series D-17 preferred units entitle their holder to a preferential distribution at the annual rate of $0.8125 per unit, which we refer to as the "series D-17 preferred distribution preference."
- The series G-1 preferred units entitle their holder to a preferential distribution at the annual rate of LIBOR plus 90 basis points per unit, which we refer to as the "series G-1 preferred distribution preference."
- The series G-2 preferred units entitle their holder to a preferential distribution at the annual rate of $1.375 per unit, which we refer to as the "series G-2 preferred distribution preference."
- The series G-3 preferred units entitle their holder to a preferential distribution at the annual rate of LIBOR plus 90 basis points per unit, which we refer to as the "series G-3 preferred distribution preference."
- The series G-4 preferred units entitle their holder to a preferential distribution at the annual rate of $1.375 per unit, which we call the "series G-4 preferred distribution preference."

In this description we sometimes refer to the series A preferred distribution preference, the series K pass-through preferred distribution preference, the series L pass-through distribution preference, the series M preferred distribution preference, the series D-13 preferred distribution preference, the series D-16 preferred distribution preference, the series D-17 preferred distribution preference, the series G-1 preferred distribution preference, the series G-2 preferred distribution preference, the series G-3 preferred distribution preference, and the series G-4 preferred distribution preference as the "preferred distribution preferences."

The value of each class A unit, which is the operating partnership's common unit, regardless of its class, equates to one common share of Vornado Realty Trust. Preferred units do not have a value equating to one common share, but have the liquidation preferences and conversion prices for conversion into class A units or terms for redemption for cash or corresponding preferred shares that are established in the partnership agreement. LTIP units have a value equating to one class A unit if and when the LTIP unit becomes exchangeable for one class A unit.

The partnership agreement provides that the operating partnership will make distributions when, as and if declared by Vornado Realty Trust in the order of preference provided for in the partnership agreement. The order of preference in the partnership agreement provides that distributions will be paid first to Vornado Realty Trust as necessary to enable Vornado Realty Trust to pay REIT expenses. The partnership agreement defines "REIT expenses" to mean the following in respect of Vornado Realty Trust:

- costs and expenses relating to the continuity of is existence and any entity in which Vornado Realty Trust owns an equity interest;
- costs and expenses relating to any of the offer or registration of securities;
- costs and expenses associated with preparing and filing of periodic reports under federal, state and local laws, including SEC filings;
- costs and expenses associated with its compliance with laws, rules and regulations applicable to it; and
- all other operating or administrative expenses incurred in the ordinary course of its business.

After the operating partnership pays Vornado Realty Trust distributions as necessary to enable it to pay REIT expenses, distributions will be paid:

- first, to holders of any class of preferred units ranking senior, as to distributions or redemption or voting rights, to class A units and LTIP units; and
- second, to holders of class A units and LTIP units.

Ranking of Units

The series A preferred units, series K preferred units, series L preferred units, series M preferred units, series D-13 preferred units, series D-16 preferred unit, series D-17 preferred units, series G-1 preferred units, series G-2 preferred units, series G-3 preferred units, and series G-4 preferred units rank senior to the class A and LTIP units with respect to the payment of distributions and amounts upon liquidation, dissolution or winding up of the operating partnership. The series A preferred units, series K preferred units, series L preferred units, series M preferred units, series D-13 preferred units, series D-16 preferred unit, series D-17 preferred units, series G-1 preferred units, series G-2 preferred units, series G-3 preferred units, and series G-4 preferred units and any other units designated as "parity units" all rank on a parity with each other, in each case with respect to the payment of distributions and amounts upon liquidation, dissolution or winding up of the operating partnership, without preference or priority of one over the other.

The series of preferred units have the following liquidation preferences:

- $50.00 per series A preferred unit;
- $25.00 per series K unit, series L preferred unit, series M preferred unit, series D-13 preferred unit, series D-17 preferred unit, series G-1 preferred unit, series G-2 preferred unit, series G-3 preferred unit and series G-4 preferred unit; and
- $1,000,000 per series D-16 preferred unit

From time to time as determined by Vornado Realty Trust, in its discretion, the operating partnership may create additional series of preference units or classes of other units senior to or on parity with the class A units with respect to the payment of distributions and amounts upon liquidation, dissolution or winding up of the partnership.

Redemption or Conversion of Units

The holders of class A units, other than Vornado Realty Trust or any of its subsidiaries, have the right to redeem their units for cash or, at the option of Vornado Realty Trust, an equivalent number of Vornado Realty Trust's common shares.

The series A preferred units became redeemable at Vornado Realty Trust's option for class A units on April 1, 2001, and are convertible at its option into class A units at any time, provided that an equivalent number of series A preferred shares are concurrently converted into common shares by their holders. The number of class A units into which the series A preferred units are redeemable or convertible is equal to the aggregate liquidation preference of the series A preferred units being redeemed or converted divided by their conversion price. The conversion price of the series A preferred units is now 1.9531 and may be adjusted from time to time to take account of stock dividends and other transactions.

The series K, series L and Series M preferred units are redeemable for cash equal to the liquidation preference of $25.00 per unit plus any accrued and unpaid distributions at the option of Vornado Realty Trust, provided that an equivalent number of series K, series L or Series M preferred shares of Vornado Realty Trust, respectively, are concurrently redeemed by Vornado Realty Trust.

The series D-13 preferred units are redeemable by the holder for cash equal to the liquidation preference of $25.00 per unit plus any accrued and unpaid distribution, provided that Vornado Realty Trust may determine, at its option, to deliver its common shares with a value equal to the liquidation preference of $25.00 per unit plus any accrued and unpaid distributions.

The series D-16 preferred unit is redeemable for cash (i) at the option of Vornado Realty Trust and (ii) at the option of the holder, in each case following certain events for $25,000,000 less the aggregate amount of debt financed distributions.

The series D-17 preferred units are redeemable for cash (i) at the option of Vornado Realty Trust and (ii) at the option of the holder, in each case following certain events equal to the liquidation preference of $25.00 per unit plus any accrued and unpaid distributions.

Any redemption of units must comply with the delivery and other requirements of the operating partnership agreement which may limit the ability of a holder to redeem their units at a particular time or in a particular quantity.

Formation of the Operating Partnership

The operating partnership was formed as a limited partnership under the Delaware Revised Uniform Limited Partnership Act on October 2, 1996. Vornado Realty Trust is the sole general partner of, and owned approximately 93.1% the common limited partnership interest in, the operating partnership at December 31, 2019.

Purposes, Business and Management of the Operating Partnership

The purpose of the operating partnership includes the conduct of any business that may be lawfully conducted by a limited partnership formed under the Delaware Revised Uniform Limited Partnership Act, except that the partnership agreement requires the business of the operating partnership to be conducted in a manner that will permit Vornado Realty Trust to be classified as a REIT under Section 856 of the Internal Revenue Code, unless it ceases to qualify as a REIT for any reason. In furtherance of its business, the operating partnership may enter into partnerships, joint ventures, limited liability companies or similar arrangements and may own interests in any other entity engaged, directly or indirectly, in any of the foregoing.

As the general partner of the operating partnership, Vornado Realty Trust has the exclusive power and authority to conduct the business of the operating partnership, except that the consent of the limited partners is required in some limited circumstances discussed under "—Meetings and Voting" below. No limited partner may take part in the operation, management or control of the business of the operating partnership by virtue of being a holder of units.

In particular, the limited partners expressly acknowledge in the partnership agreement that the general partner is acting on behalf of the operating partnership and the shareholders of Vornado Realty Trust collectively, and is under no obligation to consider the tax consequences to, or other separate interests of, limited partners when making decisions on behalf of the operating partnership. Except as required by lockup agreements described below, Vornado Realty Trust intends to make decisions in its capacity as general partner of the operating partnership taking into account its interests and the operating partnership as a whole, independent of the tax effects on the limited partners. See "—Borrowing by the Operating Partnership" below for a discussion of lockup agreements. Vornado Realty Trust and its trustees and officers will have no liability to the operating partnership or to any partner or assignee for any losses sustained, liabilities incurred or benefits not derived as a result of errors in judgment or mistakes of fact or law or any act or omission if it acted in good faith.

Ability to Engage in Other Businesses; Conflicts of Interest

Vornado Realty Trust generally may not conduct any business other than through the operating partnership without the consent of the holders of a majority of the common limited partnership interests, excluding the limited partnership interests held by it. Other persons including Vornado Realty Trust's officers, trustees, employees, agents and its other affiliates are not prohibited under the partnership agreement from engaging in other business activities and are not required to present any business opportunities to the operating partnership. In addition, the partnership agreement does not prevent another person or entity that acquires control of Vornado Realty Trust in the future from conducting other businesses or owning other assets, even though those businesses or assets may be ones that it would be in the best interests of the limited partners for the operating partnership to own.

Borrowing by the Operating Partnership

Vornado Realty Trust is authorized to cause the operating partnership to borrow money and to issue and guarantee debt as it deems necessary for the conduct of the activities of the operating partnership. The operating partnership's debt may be secured by mortgages, deeds of trust, liens or encumbrances on the operating partnership's properties. Vornado Realty Trust also may cause the operating partnership to borrow money to enable the operating partnership to make distributions, including distributions in an amount sufficient to permit us to avoid the payment of any federal income tax.

From time to time in connection with acquisitions of properties or other assets in exchange for limited partner interests in the operating partnership, Vornado Realty Trust and the operating partnership have entered into contractual arrangements that impose restrictions on the operating partnership's ability to sell, finance, refinance and, in some instances, pay down existing financing on certain of the operating partnership's properties or other assets. These arrangements are sometimes referred to as "lockup agreements" and include, for example, arrangements in which the operating partnership agrees that it will not sell the property or other assets in question for a period of years unless the operating partnership also pays the contributing partner a portion of the federal income tax liability that will accrue to that partner as a result of the sale. Arrangements of this kind may significantly reduce the operating partnership's ability to sell, finance or repay indebtedness secured by the subject properties or assets. Vornado Realty Trust expects to cause the operating partnership to continue entering into transactions of this type in the future and may do so without obtaining the consent of any partners in the operating partnership.

Reimbursement; Transactions with Vornado Realty Trust and Its Affiliates

Vornado Realty Trust does not receive any compensation for its services as general partner of the operating partnership. However, as a partner in the operating partnership, it has the same right to allocations and distributions with respect to the units it holds as other partners in the operating partnership holding the same classes of units. In addition, the operating partnership reimburses Vornado Realty Trust for all expenses it incurs relating to its ongoing operations and any offering of additional partnership interests in the operating partnership, its securities or rights, options, warrants or convertible or exchangeable securities, including expenses in connection with the registration of Vornado Realty Trust's common shares for issuance in exchange for units if it assumes the obligation to redeem units and elects to redeem them for common shares instead of cash when a limited partner in the operating partnership exercises the right to redeem units. See "Redemption or Conversion of Units" above for further information about the right to redeem units.

Except as expressly permitted by the partnership agreement, the operating partnership will not, directly or indirectly, sell, transfer or convey any property to, or purchase any property from, or borrow funds from, or lend funds to, any partner in the operating partnership or any affiliate of the operating partnership or Vornado Realty Trust that is not also a subsidiary of the operating partnership, except in a transaction that has been approved by a majority of Vornado Realty Trust's disinterested trustees, taking into account its fiduciary duties to the limited partners of the operating partnership.

Vornado Realty Trust's Liability and Limited Partners

Vornado Realty Trust, as general partner of the operating partnership, is liable for all general recourse obligations of the operating partnership to the extent not paid by the operating partnership. Vornado Realty Trust is not liable for the nonrecourse obligations of the operating partnership.

The limited partners in the operating partnership are not required to make additional contributions to the operating partnership. Assuming that a limited partner does not take part in the control of the business of the operating partnership and otherwise complies with the provisions of the partnership agreement, the liability of a limited partner for obligations of the operating partnership under the partnership agreement and the Delaware Revised Uniform Limited Partnership Act will be limited, with some exceptions, generally to the loss of the limited partner's investment in the operating partnership represented by his or her units. Under the Delaware Revised Uniform Limited Partnership Act, a limited partner may not receive a distribution from the operating partnership if, at the time of the distribution and after giving effect to the distribution, the liabilities of the operating partnership, other than liabilities to parties on account of their interests in the operating partnership and liabilities for which recourse is limited to specified property of the operating partnership, exceed the fair value of the operating partnership's assets, other than the fair value of any property subject to nonrecourse liabilities of the operating partnership, but only to the extent of such liabilities. The Delaware Revised Uniform Limited Partnership Act provides that a limited partner who receives a distribution knowing at the time that it violates the foregoing prohibition is liable to the operating partnership for the amount of the distribution. Unless otherwise agreed, a limited partner in the circumstances described in the preceding sentence will not be liable for the return of the distribution after the expiration of three years from the date of the distribution.

The operating partnership has qualified to conduct business in the State of New York and may qualify in certain other jurisdictions. Maintenance of limited liability status may require compliance with legal requirements of those jurisdictions and some other jurisdictions. Limitations on the liability of a limited partner for the obligations of a limited partnership have not been clearly established in many jurisdictions. Accordingly, if it were determined that the right, or exercise of the right by the limited partners, to make some amendments to the partnership agreement or to take other action under the partnership agreement constituted "control" of the operating partnership's business for the purposes of the statutes of any relevant jurisdiction, the limited partners might be held personally liable for the operating partnership's obligations.

Exculpation and Indemnification of Vornado Realty Trust

The partnership agreement generally provides that Vornado Realty Trust, as general partner of the operating partnership, will incur no liability to the operating partnership or any limited partner for losses sustained, liabilities incurred or benefits not derived as a result of errors in judgment or mistakes of fact or law or any act or omission, if it acted in good faith. In addition, Vornado Realty Trust is not responsible for any misconduct or negligence on the part of its agents, provided it appointed those agents in good faith. Vornado Realty Trust may consult with legal counsel, accountants, appraisers, management consultants, investment bankers and other consultants and advisors, and any action it takes or omits to take in reliance upon the opinion of those persons, as to matters that it reasonably believes to be within their professional or expert competence, will be conclusively presumed to have been done or omitted in good faith and in accordance with the opinion of those persons.

The partnership agreement also provides for indemnification of Vornado Realty Trust and the indemnification of its trustees and officers and any other persons that it may from time to time designate against any and all losses, claims, damages, liabilities, expenses, judgments, fines, settlements and other amounts incurred by an indemnified person in connection with any proceeding and related to the operating partnership or Vornado Realty Trust, the formation and operations of the operating partnership or Vornado Realty Trust or the ownership of property by the operating partnership or Vornado Realty Trust, unless it is established by a final determination of a court of competent jurisdiction that:

- the act or omission of the indemnified person was material to the matter giving rise to the proceeding and either was committed in bad faith or was the result of active and deliberate dishonesty;
- the indemnified person actually received an improper personal benefit in money, property or services; or
- in the case of any criminal proceeding, the indemnified person had reasonable cause to believe that the act or omission was unlawful.

Sales of Assets

Under the partnership agreement, Vornado Realty Trust generally has the exclusive authority to determine whether, when and on what terms assets of the operating partnership will be sold, as long as any sale of a property covered by a lockup agreement complies with such agreement. The partnership agreement prohibits Vornado Realty Trust from engaging in any merger, consolidation or other combination with or into another person, sale of all or substantially all of its assets or any reclassification, recapitalization or change of the terms of any outstanding common shares unless, in connection with the transaction, all limited partners other than Vornado Realty Trust and entities controlled by Vornado Realty Trust will have the right to elect to receive, or will receive, for each unit an amount of cash, securities or other property equal to the conversion factor multiplied by the greatest amount of cash, securities or other property paid to a holder of shares of beneficial interest of Vornado, if any, corresponding to that unit in consideration of one share of that kind. Vornado Realty Trust refers to transactions described in the preceding sentence as "termination transactions." The conversion factor is initially 1.0, but will be adjusted as necessary to prevent dilution or inflation of the interests of limited partners that would result if Vornado Realty Trust were to pay a dividend on its outstanding shares of beneficial interest in shares of beneficial interest, subdivide its outstanding shares of beneficial interest or combine its outstanding shares of beneficial interest into a smaller number of shares, in each case without a corresponding issuance to, or redemption or exchange of interests held by, limited partners in the operating partnership.

See "—Borrowing by the Operating Partnership" above for information about lockup agreements which limit the ability of Vornado Realty Trust to sell some of its properties.

Removal of the General Partner; Transfer of Interests of Vornado Realty Trust

The partnership agreement provides that the limited partners may not remove Vornado Realty Trust as general partner of the operating partnership with or without cause. The partnership agreement also generally prohibits Vornado Realty Trust from withdrawing as general partner of the operating partnership or transferring any of its interests in the operating partnership to any other person, except in each case, in connection with a termination transaction. In addition, the partnership agreement prohibits Vornado Realty Trust from engaging in any termination transaction unless all limited partners other than Vornado Realty Trust and entities controlled by Vornado Realty Trust will have the right in the termination transaction to elect to receive, or will receive, for each unit an amount of cash, securities or other property equal to the conversion factor multiplied by the greatest amount of cash, securities or other property paid to a holder of shares of beneficial interest of Vornado, if any, corresponding to that unit in consideration of one share of Vornado. The lock-up provisions and the gross-up provisions do not apply to a sale or other transfer by Vornado Realty Trust of is interests as a partner in the operating partnership, but they would apply to transfers of assets of the operating partnership undertaken during the period when the lock-up agreements are in effect as part of any sale or other transfer by Vornado Realty Trust of its interests as a partner in the operating partnership. See "—Borrowing by the Operating Partnership" for a description of the restrictions on transfers of assets under the lock-up agreements.

The partnership agreement does not prevent a transaction in which another entity acquires control or all of Vornado Realty Trust's shares nor does it prevent any holder of interests in Vornado Realty Trust from owning assets or conducting businesses outside of the operating partnership.

Restrictions on Transfers of Units by Limited Partners

Subject to the percentage limitations discussed below, a limited partner, other than Vornado Realty Trust and some members of the Mendik group and FW/Mendik REIT, is permitted to transfer all or any portion of his or her units without restriction, provided that the limited partner obtains the prior written consent of Vornado Realty Trust, which it may withhold only if (a) it determines in its sole discretion exercised in good faith that the transfer would cause the operating partnership or any or all of the partners other than the partner seeking to make the transfer to incur tax liability or (b) if it determines that any of the circumstances referred to in the next paragraph exist. In addition, limited partners other than Vornado Realty Trust or any of its subsidiaries are permitted to dispose of their units by exercising their right to redeem units as described under "Redemption and Conversion of Units" above.

Vornado Realty Trust may withhold its consent to any proposed transfer (including any sale, assignment, gift, pledge, encumbrance or other disposition by law or otherwise, and including any redemption pursuant to the redemption rights described under "—Redemption or Conversion of Units" above) for a variety of reasons set forth in Article XI of the partnership agreement. These reasons include, without limitation, a determination by Vornado Realty Trust, in its sole and absolute discretion, that the transfer in question would (i) cause a termination of the operating partnership for tax purposes, (ii) cause the operating partnership to become a "party-in-interest" or a "disqualified person" with respect to any employee benefit plan subject to ERISA, (iii) cause the operating partnership to become a publicly-traded partnership (as defined in Section 469(k)(2) or Section 7704 of the Internal Revenue Code), (iv) cause the operating partnership to become subject to regulation under the Investment Company Act of 1940 or ERISA, (v) adversely affect Vornado Realty Trust's ability to continue to qualify as a REIT or (vi) subject Vornado Realty Trust or the operating partnership to any additional taxes under Section 857 or Section 4981 of the Internal Revenue Code. In addition, no partner of the operating partnership may pledge or transfer any of its units to a lender to the operating partnership or any person who is related (within the meaning of Section 1.752-4(b) of the Treasury regulations) to any lender to the operating partnership whose loan constitutes a nonrecourse liability without the consent of Vornado Realty Trust, in its sole and absolute discretion, and without entering into an agreement with Vornado Realty Trust as described in the partnership agreement. The partnership agreement also provides that unless exempt due to a waiver granted by Vornado Realty Trust, no limited partnership interest in the operating partnership or portion thereof may be transferred in whole or in part, directly or indirectly, if such transfer would cause (i) any "foreign person" (as such term is used in Section 897(h)(4)(b) of the Internal Revenue Code) who already owns any limited partnership interest, to increase its direct or indirect ownership of limited partnership interests, or (ii) any foreign person, other than an a foreign person that owns any direct or indirect interest in the operating partnership on and as of August 7, 2019, to directly or indirectly own any such limited partnership interests. Any purported transfer to a foreign person in violation of the foregoing shall be deemed void ab initio and shall have no force or effect.

Transfers of operating partnership units (other than "private transfers" as defined in the regulations under the Internal Revenue Code) are limited in any one taxable year of the operating partnership to 2% of the interests in capital or profits not held by Vornado Realty Trust or certain of its affiliates, and Vornado Realty Trust has the right and currently intends to refuse to permit any attempted transfer of operating partnership units by a holder of such units that, when aggregated with prior redemptions and transfers by other holders of operating partnership units, would exceed this limit. In addition, redemptions of operating partnership units by the operating partnership pursuant to the redemption right of such units and transfers of operating partnership units to Vornado Realty Trust as a result of its assumption and performance of the operating partnership's obligation with respect to the redemption right of units, together with other transfers and redemptions (other than certain of the redemptions or transfers qualifying as "private transfers" under the regulations under Section 7704 of the Internal Revenue Code), are limited in any one taxable year to 10% of the interests in capital or profits not held by Vornado Realty Trust or certain of its affiliates, and it has the right and currently intends to refuse to permit certain redemptions and other transfers of operating partnership units that, when aggregated with prior redemptions and transfers, would exceed this limit.

Any permitted transferee of units may become a substituted limited partner only with Vornado Realty Trust's consent, and it may withhold its consent in its sole and absolute discretion. If it does not consent to the admission of a transferee of units as a substituted limited partner, then the transferee will succeed to the economic rights and benefits attributable to the units, including the right to redeem units, but will not become a limited partner or possess any other rights of limited partners, including the right to vote.

No Withdrawal by Limited Partners

No limited partner has the right to withdraw from or reduce his or her capital contribution to the operating partnership, except as a result of the redemption, exchange or transfer of units under the terms of the partnership agreement.

Issuance of Limited Partnership Interests

Vornado Realty Trust is authorized, without the consent of the limited partners, to cause the operating partnership to issue limited partnership interests to Vornado Realty Trust, to the limited partners and to other persons for the consideration and upon the terms and conditions that it deems appropriate. The operating partnership also may issue partnership interests in different series or classes. Units may be issued to Vornado Realty Trust only if it issues shares of beneficial interest and contributes to the operating partnership the proceeds received by it from the issuance of the shares. Consideration for partnership interests may be cash or any property or other assets permitted by the Delaware Revised Uniform Limited Partnership Act. Except to the extent expressly granted by Vornado Realty Trust on behalf of the partnership pursuant to another agreement, no limited partner has preemptive, preferential or similar rights with respect to capital contributions to the operating partnership or the issuance or sale of any partnership interests.

Meetings and Voting

Meetings of the limited partners may be proposed and called only by Vornado Realty Trust. Limited partners may vote either in person or by proxy at meetings. Any action that is required or permitted to be taken by the limited partners may be taken either at a meeting of the limited partners or without a meeting if consents in writing stating the action so taken are signed by limited partners owning not less than the minimum number of units that would be necessary to authorize or take the action at a meeting of the limited partners at which all limited partners entitled to vote on the action were present. On matters in which limited partners are entitled to vote, each limited partner, including Vornado Realty Trust to the extent it holds units, will have a vote equal to the number of common units he or she holds. At this time, there is no voting preference among the classes of common units. The preferred units have no voting rights, except as required by law or the terms of a particular series of preferred units. A transferee of units who has not been admitted as a substituted limited partner with respect to his or her transferred units will have no voting rights with respect to those units, even if the transferee holds other units as to which he or she has been admitted as a limited partner, and units owned by the transferee will be deemed to be voted on any matter in the same proportion as all other interests held by limited partners are voted. The partnership agreement does not provide for annual meetings of the limited partners, and Vornado Realty Trust does not anticipate calling such meetings.

Amendment of the Partnership Agreement

Amendments to the partnership agreement may be proposed only by Vornado Realty Trust. Vornado Realty Trust generally has the power, without the consent of any limited partners, to amend the partnership agreement as may be required to reflect any changes to the agreement that it deems necessary or appropriate in its sole discretion, provided that the amendment does not adversely affect or eliminate any right granted to a limited partner that is protected by the special voting provisions described below. Limitations on its power to amend the partnership agreement are described below.

The partnership agreement provides that it generally may not be amended with respect to any partner adversely affected by the amendment without the consent of that partner if the amendment would:

- convert a limited partner's interest into a general partner's interest;
- modify the limited liability of a limited partner;
- amend Section 7.11.A, which prohibits Vornado Realty Trust from taking any action in contravention of an express prohibition or limitation in the partnership agreement without the written consent of all partners adversely affected by the action or any lower percentage of the limited partnership interests that may be specifically provided for in the partnership agreement or under the Delaware Revised Uniform Limited Partnership Act;
- amend Article V, which governs distributions, Article VI, which governs allocations of income and loss for capital account purposes, or Section 13.2.A(3), which provides for distributions, after payment of partnership debts, among partners according to their capital accounts upon a winding up of the operating partnership;
- amend Section 8.6, which provides redemption rights; or
- amend the provision being described in this paragraph.

In addition, except with the consent of a majority of the common limited partners, excluding Vornado Realty Trust and entities controlled by Vornado Realty Trust, Vornado Realty Trust may not amend:

- Section 4.2.A, which authorizes issuance of additional limited partnership interests;
- Section 5.1.C, which requires that if Vornado Realty Trust is not a REIT or a publicly traded entity it must for each taxable year make cash distributions equal to at least 95% of the operating partnership's taxable income;
- Section 7.5, which prohibits Vornado Realty Trust from conducting any business other than in connection with the ownership of interests in the operating partnership except with the consent of a majority of the common limited partners, excluding Vornado Realty Trust and any entity controlled by Vornado Realty Trust;
- Section 7.6, which limits the operating partnership's ability to enter into transactions with affiliates;
- Section 7.8, which establishes limits on Vornado Realty Trust’s liabilities to the operating partnership and the limited partners;
- Section 11.2, which limits Vornado Realty Trust’ ability to transfer its interests in the operating partnership;
- Section 13.1, which describes the manner and circumstances in which the operating partnership will be dissolved;
- Section 14.1.C, which establishes the limitations on amendments being described in this paragraph; or
- Section 14.2, which establishes the rules governing meetings of partners.

In addition, any amendment that would affect those lockup agreements that are part of the partnership agreement requires the consent of 75% of the limited partners benefited by those lockup agreements, with some exceptions. See "—Borrowing by the Operating Partnership" above for information about the lockup agreements.

Books and Reports

Vornado Realty Trust is required to keep the operating partnership's books and records at the principal office of the operating partnership. The books of the operating partnership are required to be maintained for financial and tax reporting purposes on an accrual basis in accordance with generally accepted accounting principles, which we refer to as "GAAP." The limited partners have the right, with some limitations, to receive copies of the most recent annual and quarterly reports filed with the SEC by Vornado Realty Trust, the operating partnership's federal, state and local income tax returns, a list of limited partners, the partnership agreement and the partnership certificate and all amendments to the partnership certificate. Vornado Realty Trust may keep confidential from the limited partners any information that it believes to be in the nature of trade secrets or other information whose disclosure it in good faith believes is not in the best interests of the operating partnership or which the operating partnership is required by law or by agreements with unaffiliated third parties to keep confidential.

Vornado Realty Trust will furnish to each limited partner, no later than the date on which it mails its annual report to its shareholders, an annual report containing financial statements of the operating partnership, or of Vornado Realty Trust, if it prepares consolidated financial statements including the operating partnership, for each fiscal year, presented in accordance with GAAP. The financial statements will be audited by a nationally recognized firm of independent public accountants selected by Vornado Realty Trust. In addition, if and to the extent that it mails quarterly reports to its shareholders, Vornado Realty Trust will furnish to each limited partner, no later than the date on which it mails the quarterly reports to its shareholders, a report containing unaudited financial statements of the operating partnership, or of Vornado Realty Trust, if the reports are prepared on a consolidated basis, as of the last day of the quarter and any other information that may be required by applicable law or regulation or that it deems appropriate.

The operating partnership is presently subject to the informational requirements of the Exchange Act, and in accordance therewith, files reports and other information with the SEC. Such reports and other information are also available from the SEC's Internet site (*https://www.sec.gov*).

Vornado Realty Trust will use reasonable efforts to furnish to each limited partner, within 90 days after the close of each taxable year, the tax information reasonably required by the limited partners for Federal and state income tax reporting purposes.

Power of Attorney

Under the terms of the partnership agreement, each limited partner and each assignee appoints Vornado Realty Trust, any liquidator, and the authorized officers and attorneys-in-fact of each, as the limited partner's or assignee's attorney-in-fact to do the following:

- to execute, swear to, acknowledge, deliver, file and record in the appropriate public offices (a) all certificates, documents and other instruments including, among other things, the partnership agreement and the certificate of limited partnership and all amendments or restatements of the certificate of limited partnership that Vornado Realty Trust or any liquidator deems appropriate or necessary to form, qualify or maintain the existence of the operating partnership as a limited partnership in the State of Delaware and in all other jurisdictions in which the operating partnership may conduct business or own property, (b) all instruments that Vornado Realty Trust or any liquidator deems appropriate or necessary to reflect any amendment or restatement of the partnership agreement in accordance with its terms, (c) all conveyances and other instruments that Vornado Realty Trust or any liquidator deems appropriate or necessary to reflect the dissolution and liquidation of the operating partnership under the terms of the partnership agreement, (d) all instruments relating to the admission, withdrawal, removal or substitution of any partner, any transfer of units or the capital contribution of any partner and (e) all certificates, documents and other instruments relating to the determination of the rights, preferences and privileges of partnership interests; and
- to execute, swear to, acknowledge and file all ballots, consents, approvals, waivers, certificates and other instruments appropriate or necessary, in the sole and absolute discretion of Vornado Realty Trust or any liquidator, to make, evidence, give, confirm or ratify any vote, consent, approval, agreement or other action which is made or given by the partners under the partnership agreement or is consistent with the terms of the partnership agreement or appropriate or necessary, in the sole discretion of Vornado Realty Trust or any liquidator, to effectuate the terms or intent of the partnership agreement.

The partnership agreement provides that this power of attorney is irrevocable, will survive the subsequent incapacity of any limited partner and the transfer of all or any portion of the limited partner’s or assignee's units and will extend to the limited partner's or assignee's heirs, successors, assigns and personal representatives.

Dissolution, Winding Up and Termination

The operating partnership will continue until December 31, 2095, as this date may be extended by Vornado Realty Trust in its sole discretion, unless sooner dissolved and terminated. The operating partnership will be dissolved before the expiration of its term, and its affairs wound up upon the occurrence of the earliest of:

- Vornado Realty Trust’s withdrawal as general partner without the permitted transfer of its interest to a successor general partner, except in some limited circumstances;
- the sale of all or substantially all of the operating partnership's assets and properties, subject to the lock-up agreements during the period when the lock-up agreements are in effect;
- the entry of a decree of judicial dissolution of the operating partnership under the provisions of the Delaware Revised Uniform Limited Partnership Act;
- the entry of a final non-appealable order for relief in a bankruptcy proceeding of the general partner, or the entry of a final non-appealable judgment ruling that the general partner is bankrupt or insolvent, except that, in either of these cases, in some circumstances the limited partners other than Vornado Realty Trust may vote to continue the operating partnership and substitute a new general partner in Vornado Realty Trust’s place; or
- after December 31, 2046, on election by Vornado Realty Trust, in its sole and absolute discretion.

Upon dissolution, Vornado Realty Trust, as general partner, or any liquidator will proceed to liquidate the assets of the operating partnership and apply the proceeds from the liquidation in the order of priority provided in the partnership agreement.

EXHIBIT 10.32

VORNADO REALTY TRUST 2019 OMNIBUS SHARE PLAN
RESTRICTED STOCK AGREEMENT

RESTRICTED STOCK AGREEMENT made as of date set forth on Schedule A hereto between VORNADO REALTY TRUST, a Maryland real estate investment trust (the "Company"), and the employee of the Company or one of its affiliates listed on Schedule A (the "Employee").

RECITALS

A. In accordance with the Vornado Realty Trust 2019 Omnibus Share Plan, as it may be amended from time to time (the "Plan"), the Company desires in connection with the employment of the Employee, to provide the Employee with an opportunity to acquire shares of the Company's common shares of beneficial interest, par value $0.04 per share (the "Common Shares"), and thereby provide additional incentive for the Employee to promote the progress and success of the business of the Company and its subsidiaries.

B. Schedule A hereto sets forth certain significant details of the share grant herein and is incorporated herein by reference. Capitalized terms used herein and not otherwise defined have the meanings provided on Schedule A.

NOW, THEREFORE, the Company and the Employee hereby agree as follows:

AGREEMENT

1. Grant of Restricted Stock. On the terms and conditions set forth below, as well as the terms and conditions of the Plan, the Company hereby grants to the Employee such number of Common Shares as is set forth on Schedule A (the "Restricted Stock").

2. Vesting Period. The vesting period of the Restricted Stock (the "Vesting Period") begins on the Grant Date and continues until such date as is set forth on Schedule A as the date on which the Restricted Stock is fully vested. On the first Annual Vesting Date following the date of this Agreement and each Annual Vesting Date thereafter the number of shares of Restricted Stock equal to the Annual Vesting Amount shall become vested, subject to earlier forfeiture as provided in this Agreement. To the extent that Schedule A provides for amounts or schedules of vesting that conflict with the provisions of this paragraph, the provisions of Schedule A will govern. Except as permitted under Section 10, the shares of Restricted Stock for which the applicable Vesting Period has not expired may not be sold, assigned, transferred, pledged or otherwise disposed of or encumbered (whether voluntary or involuntary or by judgment, levy, attachment, garnishment or other legal or equitable proceeding).

The Employee shall not have the right to receive dividends paid on shares of Restricted Stock for which the applicable Vesting Period has not expired. In lieu thereof, the Employee shall have the right to receive from the Company an amount, in cash, equal to the dividends payable on shares of Restricted Stock for which the applicable Vesting Period has not expired, provided the Employee is employed by the Company or its affiliates on the payroll date coinciding with or immediately following the date any such dividends are paid on the Restricted Shares.

The Employee shall have the right to vote the Restricted Stock, regardless of whether the applicable Vesting Period has expired.

3. Forfeiture of Restricted Stock. If the employment of the Employee by the Company or its affiliates terminates for any reason except Retirement, death or following a Change in Control as described below, the shares of Restricted Stock for which the applicable Vesting Period has not expired as of the date of such termination shall be forfeited and returned to the Company. Upon the Employee's Retirement, any shares of Restricted Stock for which the applicable Vesting Period has not expired as of the date of such termination shall not be forfeited, and shall continue to vest in accordance with the vesting schedule set forth on Schedule A as if the Employee had remained employed with the Company and the Employee shall have the right to receive a cash amount in accordance with Section 2 equal to dividends payable on such shares of Restricted Stock following the Employee's Retirement as if the Employee was employed on the applicable record date. Upon the Employee's death, all of the shares of Restricted Stock (whether or not vested) shall become fully vested and shall not be forfeitable. Upon the occurrence of (a) a Change in Control of the Company, and (b) the termination of employment of the Employee with the Company or its affiliates within 24 months of such Change in Control either (i) by the Company (or its successor) without Cause (as defined below) or (ii) by the Employee for Good Reason (as defined below), then any shares of Restricted Stock for which the applicable Vesting Period has not expired, shall become fully vested and shall not be forfeitable. For purposes of this Restricted Stock Agreement, a "Change in Control" of the Company means the occurrence of one of the following events:

(i) individuals who, on the Grant Date, constitute the Board of Trustees of the Company (the "Incumbent Trustees") cease for any reason to constitute at least a majority of the Board of Trustees (the "Board"), provided that any person becoming a trustee subsequent to the Grant Date whose election or nomination for election was approved by a vote of at least two-thirds of the Incumbent Trustees then on the Board (either by a specific vote or by approval of the proxy statement of the Company in which such person is named as a nominee for trustee, without objection to such nomination) shall be an Incumbent Trustee; provided, however, that no individual initially elected or nominated as a trustee of the Company as a result of an actual or threatened election contest with respect to trustees or as a result of any other actual or threatened solicitation of proxies by or on behalf of any person other than the Board shall be an Incumbent Trustee;

(ii) any "person" (as such term is defined in Section 3(a)(9) of the Securities Exchange Act of 1934 (the "Exchange Act") and as used in Sections 13(d)(3) and 14(d)(2) of the Exchange Act) is or becomes, after the Grant Date, a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 30% or more of the combined voting power of the Company's then outstanding securities eligible to vote for the election of the Board (the "Company Voting Securities"); provided, however, that an event described in this paragraph (ii) shall not be deemed to be a Change in Control if any of following becomes such a beneficial owner: (A) the Company or any majority-owned subsidiary of the Company (provided that this exclusion applies solely to the ownership levels of the Company or the majority-owned subsidiary), (B) any tax-qualified, broad-based employee benefit plan sponsored or maintained by the Company or any such majority-owned subsidiary, (C) any underwriter temporarily holding securities pursuant to an offering of such securities, (D) any person pursuant to a Non-Qualifying Transaction (as defined in paragraph (iii)), (E) (a) any of the partners (as of the Grant Date) in Interstate Properties ("Interstate") including immediate family members and family trusts or family-only partnerships and any charitable foundations of such partners (the "Interstate Partners"), (b) any entities the majority of the voting interests of which are beneficially owned by the Interstate Partners, or (c) any "group" (as described in Rule 13d-5(b)(i) under the Exchange Act) including the Interstate Partners (the persons in (a), (b) and (c) shall be individually and collectively referred to herein as, "Interstate Holders");

(iii) the consummation of a merger, consolidation, share exchange or similar form of transaction involving the Company or any of its subsidiaries, or the sale of all or substantially all of the Company's assets (a "Business Transaction"), unless immediately following such Business Transaction (a) more than 50% of the total voting power of the entity resulting from such Business Transaction or the entity acquiring the Company's assets in such Business Transaction (the "Surviving Corporation") is beneficially owned, directly or indirectly, by the Interstate Holders or the Company's shareholders immediately prior to any such Business Transaction, and (b) no person (other than the persons set forth in clauses (A), (B), (C), or (F) of paragraph (ii) above or any tax-qualified, broad-based employee benefit plan of the Surviving Corporation or its affiliates) beneficially owns, directly or indirectly, 30% or more of the total voting power of the Surviving Corporation (a "Non-Qualifying Transaction"); or

(iv) Board approval of a liquidation or dissolution of the Company, unless the voting common equity interests of an ongoing entity (other than a liquidating trust) are beneficially owned, directly or indirectly, by the Company's shareholders in substantially the same proportions as such shareholders owned the Company's Voting Securities immediately prior to such liquidation and such ongoing entity assumes all existing obligations of the Company to Employee under this Restricted Stock Agreement.

For the purposes of this Section, "Cause" will mean with respect to the Employee, the Employee's: (a) conviction of, or plea of guilty or *nolo contendre* to, a felony pertaining or otherwise relating to his or her employment with the Company or an affiliate; or (b) willful misconduct that is materially economically injurious to the Company or any of its affiliates, in each case as determined in the Company's sole discretion. For the purposes of this Section, "Good Reason" will mean (a) the assignment to the Employee of duties materially and adversely inconsistent with the Employee's status prior to the Change in Control or a material and adverse alteration in the nature of the Employee's duties, responsibilities or authority; (b) a reduction in the Employee's base salary; or (c) a relocation of the Employee's own office location to a location more than 30 miles from its location prior to the Change in Control. In the event the Employee is a party to an employment agreement with the Company or an affiliate thereof, and the definitions of Cause or Good Reason contained herein conflict with terms provided therefor in such employment agreement (or similar terms or provisions intended to cover substantially similar circumstances) the definitions contained in such employment agreement will govern.

For the purposes of this Section, "Retirement" will mean (A) if the Employee is a party to an employment agreement with the Company or an affiliate thereof immediately prior to such event, and "Retirement" is defined therein, then "Retirement" shall have the meaning set forth in such agreement, or (B) if the Employee is not party to an employment agreement with the Company or an affiliate thereof immediately prior to such event or if the Employee is party to such an agreement and such agreement does not define "Retirement" or a substantially equivalent term, then "Retirement" shall mean the Employee's termination of his or her employment with the Company and its affiliates after attainment of age 65.

4. Certificates. Each certificate issued in respect of the Restricted Stock awarded under this Restricted Stock Agreement shall be registered in the Employee's name and held by the Company until the expiration of the applicable Vesting Period. At the expiration of each Vesting Period, the Company shall deliver to the Employee (or, if applicable, to the Employee's legal representatives, beneficiaries or heirs) certificates representing the number of Common Shares that vested upon the expiration of such Vesting Period. The Employee agrees that any resale of the Common Shares received upon the expiration of the applicable Vesting Period shall not occur during the "blackout periods" forbidding sales of Company securities, as set forth in the then applicable Company employee manual or insider trading policy. In addition, any resale shall be made in compliance with the registration requirements of the Securities Act of 1933, as amended, or an applicable exemption therefrom, including, without limitation, the exemption provided by Rule 144 promulgated thereunder (or any successor rule).

5. Tax Withholding. The Company or its applicable affiliate has the right to withhold from cash compensation payable to the Employee all applicable income and employment taxes due and owing at the time the applicable portion of the Restricted Stock becomes includible in the Employee's income (the "Withholding Amount"), and/or to delay delivery of Restricted Stock until appropriate arrangements have been made for

payment of such withholding. In the alternative, the Company has the right to retain and cancel, or sell or otherwise dispose of such number of shares of Restricted Stock as have a market value determined at date the applicable shares vest, approximately equal to the Withholding Amount with any excess proceeds being paid to Employee.

6. Certain Adjustments. In the event of any change in the outstanding Common Shares by reason of any share dividend or split, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other corporate change, or any distribution to common shareholders other than regular dividends, any shares or other securities received by the Employee with respect to the applicable Restricted Stock for which the Vesting Period shall not have expired will be subject to the same restrictions as the Restricted Stock with respect to an equivalent number of shares and shall be deposited with the Company.

7. No Right to Employment. Nothing herein contained shall affect the right of the Company or any affiliate to terminate the Employee's services, responsibilities and duties at any time for any reason whatsoever.

8. Notice. Any notice to be given to the Company shall be addressed to the Secretary of the Company at 888 Seventh Avenue, New York, New York 10019 and any notice to be given the Employee shall be addressed to the Employee at the Employee's address as it appears on the employment records of the Company, or at such other address as the Company or the Employee may hereafter designate in writing to the other.

9. Governing Law. This Restricted Stock Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Maryland, without references to principles of conflict of laws.

10. Successors and Assigns. This Restricted Stock Agreement shall be binding upon and inure to the benefit of the parties hereto and any successors to the Company and any successors to the Employee by will or the laws of descent and distribution, but this Restricted Stock Agreement shall not otherwise be assignable or otherwise subject to hypothecation by the Employee.

11. Severability. If, for any reason, any provision of this Restricted Stock Agreement is held invalid, such invalidity shall not affect any other provision of this Restricted Stock Agreement not so held invalid, and each such other provision shall to the full extent consistent with law continue in full force and effect. If any provision of this Restricted Stock Agreement shall be held invalid in part, such invalidity shall in no way affect the rest of such provision not held so invalid, and the rest of such provision, together with all other provisions of this Restricted Stock Agreement, shall to the full extent consistent with law continue in full force and effect.

12. Headings. The headings of paragraphs hereof are included solely for convenience of reference and shall not control the meaning or interpretation of any of the provisions of this Restricted Stock Agreement.

13. Counterparts. This Restricted Stock Agreement may be executed in multiple counterparts with the same effect as if each of the signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

14. Miscellaneous. This Restricted Stock Agreement may not be amended except in writing signed by the Company and the Employee. Notwithstanding the foregoing, this Restricted Stock Agreement may be amended in writing signed only by the Company to: (a) correct any errors or ambiguities in this Restricted Stock Agreement; and/or (b) to make such changes that do not materially adversely affect the Employee's rights hereunder. This grant shall in no way affect the Employee's participation or benefits under any other plan or benefit program maintained or provided by the Company. In the event of a conflict between this Restricted Stock Agreement and the Plan, the Plan shall govern.

15. CONFLICT WITH EMPLOYMENT AGREEMENT. If (and only if) the Employee and the Company or its affiliates have entered into an employment agreement, in the event of any conflict between any of the provisions of this Agreement and any such employment agreement the provisions of such employment agreement will govern. As further provided in Section 7, nothing herein shall imply that any employment agreement exists between the Employee and the Company or its affiliates.

[signature page follows]

IN WITNESS WHEREOF, this Restricted Stock Agreement has been executed by the parties hereto as of the date and year first above written.

VORNADO REALTY TRUST

By: ______________________________

Name: Joseph Macnow

Title: Executive Vice President - Finance
Chief Administrative Officer
Chief Financial Officer

____

Name:

SCHEDULE A TO RESTRICTED STOCK AGREEMENT
(Terms being defined are in quotation marks.)

Date of Restricted Stock Agreement:	
Name of Employee:	
Number of Common Shares Subject to Grant:	
Date of Grant:	
Date on Which Restricted Stock is Fully Vested:	
Vesting Period:	
"Annual Vesting Amount" *Insert the number of Restricted Shares that vest each year or other applicable vesting schedule.*	
"Annual Vesting Date" (or if such date is not a business day, on the next succeeding business day): *Insert the calendar date of each year on which Restricted Shares will vest or other appropriate vesting schedule.*	

Initials of Company representative: ____

Initials of Employee: ____

EXHIBIT 10.33

VORNADO REALTY TRUST 2019 OMNIBUS SHARE PLAN
RESTRICTED LTIP UNIT AGREEMENT

RESTRICTED LTIP UNIT AGREEMENT made as of the date set forth on Schedule A hereto between VORNADO REALTY TRUST, a Maryland real estate investment trust (the "Company"), its subsidiary Vornado Realty L.P., a Delaware limited partnership (the "Partnership"), and the employee of the Company or one of its affiliates listed on Schedule A (the "Employee").

RECITALS

A. In accordance with the Vornado Realty Trust 2019 Omnibus Share Plan, as it may be amended from time to time (the "Plan"), the Company desires in connection with the employment of the Employee, to provide the Employee with an opportunity to acquire LTIP Units (as defined in the agreement of limited partnership of the Partnership, as amended (the "Partnership Agreement")) having the rights, voting powers, restrictions, limitations as to distributions, qualifications and terms and conditions of redemption and conversion set forth herein, in the Plan and in the Partnership Agreement, and thereby provide additional incentive for the Employee to promote the progress and success of the business of the Company, the Partnership and its subsidiaries.

B. Schedule A hereto sets forth certain significant details of the LTIP Unit grant herein and is incorporated herein by reference. Capitalized terms used herein and not otherwise defined have the meanings provided on Schedule A.

NOW, THEREFORE, the Company, the Partnership and the Employee hereby agree as follows:

AGREEMENT

1. Grant of Restricted LTIP Units. On the terms and conditions set forth below, as well as the terms and conditions of the Plan, the Company hereby grants to the Employee such number of LTIP Units as is set forth on Schedule A (the "Restricted LTIP Units" or "LTIP Units").

2. Vesting Period. The vesting period of the Restricted LTIP Units (the "Vesting Period") begins on the Grant Date and continues until such date as is set forth on Schedule A as the date on which the Restricted LTIP Units are fully vested. On the first Annual Vesting Date following the date of this Agreement and each Annual Vesting Date thereafter, the number of LTIP Units equal to the Annual Vesting Amount shall become vested, subject to earlier forfeiture as provided in this Agreement. To the extent that Schedule A provides for amounts or schedules of vesting that conflict with the provisions of this paragraph, the provisions of Schedule A will govern. Except as permitted under Section 10, the Restricted LTIP Units for which the applicable Vesting Period has not expired may not be sold, assigned, transferred, pledged or otherwise

disposed of or encumbered (whether voluntary or involuntary or by judgment, levy, attachment, garnishment or other legal or equitable proceeding).

The Employee shall be entitled to receive distributions with respect to Restricted LTIP Units to the extent provided for in the Partnership Agreement, as modified hereby, if applicable. The Distribution Participation Date (as defined in the Partnership Agreement) for the Restricted LTIP Units shall be the Grant Date. Notwithstanding the foregoing, the Employee shall not have the right to receive cash distributions paid on Restricted LTIP Units for which the applicable Vesting Period has not expired unless the Employee is employed by the Company or an affiliate on the record date for each such distribution.

The Employee shall have the right to vote the Restricted LTIP Units if and when voting is allowed under the Partnership Agreement, regardless of whether the applicable Vesting Period has expired.

3. Forfeiture of Restricted LTIP Units. If the employment of the Employee by the Company or an affiliate terminates for any reason except Retirement, death or following a Change in Control as described below, the Restricted LTIP Units for which the applicable Vesting Period has not expired as of the date of such termination shall be forfeited and returned to the Company for delivery to the Partnership and cancellation. Upon the Employee's Retirement, any Restricted LTIP Units for which the applicable Vesting Period has not expired as of the date of such termination shall not be forfeited and shall continue to vest in accordance with the vesting schedule set forth on Schedule A as if the Employee had remained employed by the Company and the Employee shall have the right to receive distributions in accordance with Section 2 with respect to such Restricted LTIP Units following the Employee's Retirement as if the Employee was employed on the applicable record date. Upon the Employee's death, all of the Restricted LTIP Units (whether or not vested) shall become fully vested and shall not be forfeitable. Upon the occurrence of (a) a Change in Control of the Company, and (b) the termination of employment of the Employee with the Company or its affiliates within 24 months of such Change in Control either (i) by the Company (or its successor) without Cause (as defined below) or (ii) by the Employee for Good Reason (as defined below), then any Restricted LTIP Units for which the applicable Vesting Period has not expired, shall become fully vested and shall not be forfeitable. For purposes of this Restricted LTIP Unit Agreement, a "Change in Control" of the Company means the occurrence of one of the following events:

(i) individuals who, on the Grant Date, constitute the Board of Trustees of the Company (the "Incumbent Trustees") cease for any reason to constitute at least a majority of the Board of Trustees (the "Board"), provided that any person becoming a trustee subsequent to the Grant Date whose election or nomination for election was approved by a vote of at least two-thirds of the Incumbent Trustees then on the Board (either by a specific vote or by approval of the proxy statement of the Company in which such person is named as a nominee for trustee, without objection to such nomination) shall be an Incumbent Trustee; provided, however, that no individual initially elected or nominated as a trustee of the Company as a result of an actual or threatened election contest with respect to trustees or as a result of any other actual or threatened solicitation of proxies by or on behalf of any person other than the Board shall be an Incumbent Trustee;

(ii) any "person" (as such term is defined in Section 3(a)(9) of the Securities Exchange Act of 1934 (the "Exchange Act") and as used in Sections 13(d)(3) and 14(d)(2) of the Exchange Act) is or becomes, after the Grant Date, a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 30% or more of the combined voting power of the Company's then outstanding securities eligible to vote for the election of the Board (the "Company Voting Securities"); provided, however, that an event described in this paragraph (ii) shall not be deemed to be a Change in Control if any of following becomes such a beneficial owner: (A) the Company or any majority-owned subsidiary of the Company (provided that this exclusion applies solely to the ownership levels of the Company or the majority-owned subsidiary), (B) any tax-qualified, broad-based employee benefit plan sponsored or maintained by the Company or any such majority-owned subsidiary, (C) any underwriter temporarily holding securities pursuant to an offering of such securities, (D) any person pursuant to a Non-Qualifying Transaction (as defined in paragraph (iii)), (E) (a) any of the partners (as of the Grant Date) in Interstate Properties ("Interstate") including immediate family members and family trusts or family-only partnerships and any charitable foundations of such partners (the "Interstate Partners"), (b) any entities the majority of the voting interests of which are beneficially owned by the Interstate Partners, or (c) any "group" (as described in Rule 13d-5(b)(i) under the Exchange Act) including the Interstate Partners (the persons in (a), (b) and (c) shall be individually and collectively referred to herein as, "Interstate Holders");

(iii) the consummation of a merger, consolidation, share exchange or similar form of transaction involving the Company or any of its subsidiaries, or the sale of all or substantially all of the Company's assets (a "Business Transaction"), unless immediately following such Business Transaction (a) more than 50% of the total voting power of the entity resulting from such Business Transaction or the entity acquiring the Company's assets in such Business Transaction (the "Surviving Corporation") is beneficially owned, directly or indirectly, by the Interstate Holders or the Company's shareholders immediately prior to any such Business Transaction, and (b) no person (other than the persons set forth in clauses (A), (B), (C), or (F) of paragraph (ii) above or any tax-qualified, broad-based employee benefit plan of the Surviving Corporation or its affiliates) beneficially owns, directly or indirectly, 30% or more of the total voting power of the Surviving Corporation (a "Non-Qualifying Transaction"); or

(iv) Board approval of a liquidation or dissolution of the Company, unless the voting common equity interests of an ongoing entity (other than a liquidating trust) are beneficially owned, directly or indirectly, by the Company's shareholders in substantially the same proportions as such shareholders owned the Company's Voting Securities immediately prior to such liquidation and such ongoing entity assumes all existing obligations of the Company to Employee under this Restricted LTIP Unit Agreement.

For the purposes of this Section, "Cause" will mean with respect to the Employee, the Employee's: (a) conviction of, or plea of guilty or *nolo contendre* to, a felony pertaining or otherwise relating to his or her employment with the Company or an affiliate; or (b) willful misconduct that is materially economically injurious to the Company or any of its affiliates, in each case as determined in the Company's sole discretion. For the purposes of this Section, "Good Reason" will mean (a) the assignment to the Employee of duties materially and adversely inconsistent with the Employee's status prior to the Change in Control or a material and adverse alteration in the nature of the Employee's duties, responsibilities or authority; (b) a reduction in the Employee's base salary; or (c) a relocation of the Employee's own office location to a location more than 30 miles from its location prior to the Change in Control. In the event the Employee is a party to an employment agreement with the Company or an affiliate thereof, and the definitions of Cause or Good Reason contained herein conflict with terms provided therefor in such employment agreement (or similar terms or provisions intended to cover substantially similar circumstances) the definitions contained in such employment agreement will govern.

For the purposes of this Section, "Retirement" will mean (A) if the Employee is a party to an employment agreement with the Company or an affiliate thereof immediately prior to such event, and "Retirement" is defined therein, then "Retirement" shall have the meaning set forth in such agreement, or (B) if the Employee is not a party to an employment agreement with the Company or an affiliate thereof immediately prior to such event or if the Employee is a party to such an agreement and such agreement does not define "Retirement" or a substantially equivalent term, then "Retirement" shall mean the Employee's termination of his or her employment with the Company and its affiliates after attainment of age 65.

4. Certificates. Each certificate, if any, issued in respect of the Restricted LTIP Units awarded under this Restricted LTIP Unit Agreement shall be registered in the Employee's name and held by the Company until the expiration of the applicable Vesting Period. If certificates representing the LTIP Units are issued by the Partnership at the time, at the expiration of each Vesting Period, the Company shall deliver to the Employee (or, if applicable, to the Employee's legal representatives, beneficiaries or heirs) certificates representing the number of LTIP Units that vested upon the expiration of such Vesting Period. The Employee agrees that any resale of the LTIP Units received upon the expiration of the applicable Vesting Period (or shares of Company's common shares of beneficial interest, par value $0.04 per share (the "Common Shares") received upon redemption of or in exchange for LTIP Units or Class A Units of the Partnership into which LTIP Units may have been converted) shall not occur during the "blackout periods" forbidding sales of Company securities, as set forth in the then applicable Company employee manual or insider trading policy. In addition, any resale shall be

made in compliance with the registration requirements of the Securities Act of 1933, as amended (the "Securities Act"), or an applicable exemption therefrom, including, without limitation, the exemption provided by Rule 144 promulgated thereunder (or any successor rule).

5. Tax Withholding. The Company or its applicable affiliate has the right to withhold from cash compensation payable to the Employee all applicable income and employment taxes due and owing at the time the applicable portion of the Restricted LTIP Units becomes includible in the Employee's income (the "Withholding Amount"), and/or to delay delivery of Restricted LTIP Units until appropriate arrangements have been made for payment of such withholding. In the alternative, the Company has the right to retain and cancel, or sell or otherwise dispose of such number of Restricted LTIP Units as have a market value determined at date the applicable LTIP Units vest, approximately equal to the Withholding Amount with any excess proceeds being paid to Employee.

6. Certain Adjustments. If (i) the Company shall at any time be involved in a merger, consolidation, dissolution, liquidation, reorganization, exchange of shares, sale of all or substantially all of the assets or stock of the Company or other transaction similar thereto, (ii) any stock dividend, stock split, reverse stock split, stock combination, reclassification, recapitalization, significant repurchases of stock, or other similar change in the capital structure of the Company, or any extraordinary dividend or other distribution to holders of Common Shares or Class A Units other than regular dividends shall occur, or (iii) any other event shall occur that in each case in the good faith judgment of the Committee necessitates action by way of appropriate equitable adjustment in the terms of this Restricted LTIP Unit Agreement, the Plan or the LTIP Units, then the Committee shall take such action as it deems necessary to maintain the Employee's rights hereunder so that they are substantially proportionate to the rights existing under this Agreement and the terms of the LTIP Units prior to such event, including, without limitation: (A) adjustments in the LTIP Units; and (B) substitution of other awards under the Plan or otherwise. In the event of any change in the outstanding Common Shares (or corresponding change in the Conversion Factor applicable to Class A Units of the Partnership) by reason of any share dividend or split, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other corporate change, or any distribution to common shareholders of the Company other than regular dividends, any Class A Units, shares or other securities received by the Employee with respect to the applicable Restricted LTIP Units for which the Vesting Period shall not have expired will be subject to the same restrictions as the Restricted LTIP Units with respect to an equivalent number of shares or securities and shall be deposited with the Company.

7. No Right to Employment. Nothing herein contained shall affect the right of the Company or any affiliate to terminate the Employee's services, responsibilities and duties at any time for any reason whatsoever.

8. Notice. Any notice to be given to the Company shall be addressed to the Executive Vice President of the Company at 888 Seventh Avenue, New York, New

York 10019 and any notice to be given the Employee shall be addressed to the Employee at the Employee's address as it appears on the employment records of the Company, or at such other address as the Company or the Employee may hereafter designate in writing to the other.

9. Governing Law. This Restricted LTIP Unit Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Maryland, without references to principles of conflict of laws.

10. Successors and Assigns. This Restricted LTIP Unit Agreement shall be binding upon and inure to the benefit of the parties hereto and any successors to the Company and any successors to the Employee by will or the laws of descent and distribution, but this Restricted LTIP Unit Agreement shall not otherwise be assignable or otherwise subject to hypothecation by the Employee. None of the LTIP Units shall be sold, assigned, transferred, pledged or otherwise disposed of or encumbered (whether voluntarily or involuntarily or by judgment, levy, attachment, garnishment or other legal or equitable proceeding) (each such action a "Transfer"), or redeemed in accordance with the Partnership Agreement (a) prior to vesting and (b) unless such Transfer is in compliance with all applicable securities laws (including, without limitation, the Securities Act, and such Transfer is in accordance with the applicable terms and conditions of the Partnership Agreement. Any attempted Transfer of LTIP Units not in accordance with the terms and conditions of this Section 10 shall be null and void, and the Partnership shall not reflect on its records any change in record ownership of any LTIP Units as a result of any such Transfer, and shall otherwise refuse to recognize any such Transfer.

11. Severability. If, for any reason, any provision of this Restricted LTIP Unit Agreement is held invalid, such invalidity shall not affect any other provision of this Restricted LTIP Unit Agreement not so held invalid, and each such other provision shall to the full extent consistent with law continue in full force and effect. If any provision of this Restricted LTIP Unit Agreement shall be held invalid in part, such invalidity shall in no way affect the rest of such provision not held so invalid, and the rest of such provision, together with all other provisions of this Restricted LTIP Unit Agreement, shall to the full extent consistent with law continue in full force and effect.

12. Headings. The headings of paragraphs hereof are included solely for convenience of reference and shall not control the meaning or interpretation of any of the provisions of this Restricted LTIP Unit Agreement.

13. Counterparts. This Restricted LTIP Unit Agreement may be executed in multiple counterparts with the same effect as if each of the signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

14. Miscellaneous. This Restricted LTIP Unit Agreement may not be amended except in writing signed by the Company and the Employee. Notwithstanding

the foregoing, this Restricted LTIP Unit Agreement may be amended in writing signed only by the Company to: (a) correct any errors or ambiguities in this Restricted LTIP Unit Agreement; and/or (b) to make such changes that do not materially adversely affect the Employee's rights hereunder. This grant shall in no way affect the Employee's participation or benefits under any other plan or benefit program maintained or provided by the Company. In the event of a conflict between this Restricted LTIP Unit Agreement and the Plan, the Plan shall govern.

15. Conflict With Employment Agreement. If (and only if) the Employee and the Company or its affiliates have entered into an employment agreement, in the event of any conflict between any of the provisions of this Agreement and any such employment agreement the provisions of such employment agreement will govern. As further provided in Section 7, nothing herein shall imply that any employment agreement exists between the Employee and the Company or its affiliates.

16. Status as a Partner. As of the Grant Date, the Employee shall be admitted as a partner of the Partnership with beneficial ownership of the number of LTIP Units issued to the Employee as of such date pursuant to this Restricted LTIP Unit Agreement by: (A) signing and delivering to the Partnership a copy of this Agreement; and (B) signing, as a Limited Partner, and delivering to the Partnership a counterpart signature page to the Partnership Agreement (attached hereto as Exhibit A).

17. Status of LTIP Units under the Plan. The LTIP Units are both issued as equity securities of the Partnership and granted as awards under the Plan. The Company will have the right at its option, as set forth in the Partnership Agreement, to issue Common Shares in exchange for Class A Units into which LTIP Units may have been converted pursuant to the Partnership Agreement, subject to certain limitations set forth in the Partnership Agreement, and such Common Shares, if issued, will be issued under the Plan. The Employee must be eligible to receive the LTIP Units in compliance with applicable federal and state securities laws and to that effect is required to complete, execute and deliver certain covenants, representations and warranties (attached as Exhibit B). The Employee acknowledges that the Employee will have no right to approve or disapprove such determination by the Company.

18. Investment Representations; Registration. The Employee hereby makes the covenants, representations and warranties and set forth on Exhibit B attached hereto. All of such covenants, warranties and representations shall survive the execution and delivery of this Restricted LTIP Unit Agreement by the Employee. The Partnership will have no obligation to register under the Securities Act any LTIP Units or any other securities issued pursuant to this Restricted LTIP Unit Agreement or upon conversion or exchange of LTIP Units.

19. Section 83(b) Election. In connection with this Restricted LTIP Unit Agreement the Employee hereby agrees to make an election to include in gross income in the year of transfer the applicable LTIP Units pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended, substantially in the form attached hereto as

Exhibit C and to supply the necessary information in accordance with the regulations promulgated thereunder.

[signature page follows]

IN WITNESS WHEREOF, this Restricted LTIP Unit Agreement has been executed by the parties hereto as of the date and year first above written.

VORNADO REALTY TRUST

By: ____________________________________
Joseph Macnow
Executive Vice President - Finance
Chief Administrative Officer
Chief Financial Officer

VORNADO REALTY L.P.

By: Vornado Realty Trust, its general partner

By: ____________________________________
Joseph Macnow
Executive Vice President - Finance
Chief Administrative Officer
Chief Financial Officer

EMPLOYEE

____
Name:

EXHIBIT A

FORM OF LIMITED PARTNER SIGNATURE PAGE

The Employee, desiring to become one of the within named Limited Partners of Vornado Realty L.P., hereby accepts all of the terms and conditions of (including, without limitation, the provisions related to powers of attorney), and becomes a party to, the Second Amended and Restated Agreement of Limited Partnership, dated as of October 20, 1997, of Vornado Realty L.P., as amended (the "Partnership Agreement"). Capitalized terms used but not defined herein have the meaning ascribed thereto in the Partnership Agreement. The Employee agrees that this signature page may be attached to any counterpart of the Partnership Agreement and further agrees as follows (where the term "Limited Partner" refers to the Employee):

1. The Limited Partner hereby confirms that it has reviewed the terms of the Partnership Agreement and affirms and agrees that it is bound by each of the terms and conditions of the Partnership Agreement, including, without limitation, the provisions thereof relating to limitations and restrictions on the transfer of Partnership Units.

2. The Limited Partner hereby confirms that it is acquiring the Partnership Units for its own account as principal, for investment and not with a view to resale or distribution, and that the Partnership Units may not be transferred or otherwise disposed of by the Limited Partner otherwise than in a transaction pursuant to a registration statement filed by the Partnership (which it has no obligation to file) or that is exempt from the registration requirements of the Securities Act of 1933, as amended (the "Securities Act"), and all applicable state and foreign securities laws, and the General Partner may refuse to transfer any Partnership Units as to which evidence of such registration or exemption from registration satisfactory to the General Partner is not provided to it, which evidence may include the requirement of a legal opinion regarding the exemption from such registration. If the General Partner delivers to the Limited Partner Common Shares of Beneficial Interest of the General Partner ("Common Shares") upon redemption of any Partnership Units, the Common Shares will be acquired for the Limited Partner's own account as principal, for investment and not with a view to resale or distribution, and the Common Shares may not be transferred or otherwise disposed of by the Limited Partner otherwise than in a transaction pursuant to a registration statement filed by the General Partner with respect to such Common Shares (which it has no obligation under the Partnership Agreement to file) or that is exempt from the registration requirements of the Securities Act and all applicable state and foreign securities laws, and the General Partner may refuse to transfer any Common Shares as to which evidence of such registration or exemption from such registration satisfactory to the General Partner is not provided to it, which evidence may include the requirement of a legal opinion regarding the exemption from such registration.

3. The Limited Partner hereby affirms that it has appointed the General Partner, any Liquidator and authorized officers and attorneys-in-fact of each, and each of those acting singly, in each case with full power of substitution, as its true and lawful agent and

attorney-in-fact, with full power and authority in its name, place and stead, in accordance with Section 15.11 of the Partnership Agreement, which section is hereby incorporated by reference. The foregoing power of attorney is hereby declared to be irrevocable and a power coupled with an interest, and it shall survive and not be affected by the death, incompetency, dissolution, disability, incapacity, bankruptcy or termination of the Limited Partner and shall extend to the Limited Partner's heirs, executors, administrators, legal representatives, successors and assigns.

4. The Limited Partner hereby confirms that, notwithstanding any provisions of the Partnership Agreement to the contrary, the LTIP Units shall not be redeemable by the Limited Partner pursuant to Section 8.6 of the Partnership Agreement.

5. a. The Limited Partner hereby irrevocably consents in advance to any amendment to the Partnership Agreement, as may be recommended by the General Partner, intended to avoid the Partnership being treated as a publicly-traded partnership within the meaning of Section 7704 of the Internal Revenue Code, including, without limitation, (x) any amendment to the provisions of Section 8.6 of the Partnership Agreement intended to increase the waiting period between the delivery of a Notice of Redemption and the Specified Redemption Date and/or the Valuation Date to up to sixty (60) days or (y) any other amendment to the Partnership Agreement intended to make the redemption and transfer provisions, with respect to certain redemptions and transfers, more similar to the provisions described in Treasury Regulations Section 1.7704-1(f).

b. The Limited Partner hereby appoints the General Partner, any Liquidator and authorized officers and attorneys-in-fact of each, and each of those acting singly, in each case with full power of substitution, as its true and lawful agent and attorney-in-fact, with full power and authority in its name, place and stead, to execute and deliver any amendment referred to in the foregoing paragraph 5(a) on the Limited Partner's behalf. The foregoing power of attorney is hereby declared to be irrevocable and a power coupled with an interest, and it shall survive and not be affected by the death, incompetency, dissolution, disability, incapacity, bankruptcy or termination of the Limited Partner and shall extend to the Limited Partner's heirs, executors, administrators, legal representatives, successors and assigns.

6. The Limited Partner agrees that it will not transfer any interest in the Partnership Units (x) through (i) a national, non-U.S., regional, local or other securities exchange, (ii) PORTAL or (iii) an over-the-counter market (including an interdealer quotation system that regularly disseminates firm buy or sell quotations by identified brokers or dealers by electronic means or otherwise) or (y) to or through (a) a person, such as a broker or dealer, that makes a market in, or regularly quotes prices for, interests in the Partnership or (b) a person that regularly makes available to the public (including customers or subscribers) bid or offer quotes with respect to any interests in the Partnership and stands ready to effect transactions at the quoted prices for itself or on behalf of others.

7. The Limited Partner acknowledges that the General Partner shall be a third party beneficiary of the representations, covenants and agreements set forth in Sections 4 and 6 hereof. The Limited Partner agrees that it will transfer, whether by assignment or otherwise, Partnership Units only to the General Partner or to transferees that provide the Partnership and the General Partner with the representations and covenants set forth in Sections 4 and 6 hereof.

8. This Acceptance shall be construed and enforced in accordance with and governed by the laws of the State of Delaware, without regard to the principles of conflicts of law.

Signature Line for Limited Partner:

Name: ______________________________

Date: ______________________________, 20__

Address of Limited Partner:

____

____

____

EXHIBIT B

EMPLOYEE'S COVENANTS, REPRESENTATIONS AND WARRANTIES

The Employee hereby represents, warrants and covenants as follows:

(a) The Employee has received and had an opportunity to review the following documents (the "Background Documents"):

(i) Vornado Realty Trust's latest Annual Report to Shareholders;

(ii) Vornado Realty Trust's Proxy Statement for its most recent Annual Meeting of Shareholders;

(iii) Vornado Realty Trust's and Vornado Realty L.P.'s Report on Form 10-K for the fiscal year most recently ended;

(iv) Vornado Realty Trust's and Vornado Realty L.P.'s Form 10-Q, if any, for the most recently ended quarter filed by Vornado Realty Trust and Vornado Realty L.P. with the Securities and Exchange Commission since the filing of the Form 10-K described in clause (iii) above;

(v) Each of the Current Report(s) on Form 8-K of Vornado Realty Trust and Vornado Realty L.P., if any, filed since the end of the fiscal year most recently ended for which a Form 10-K has been filed by Vornado Realty Trust and Vornado Realty L.P.;

(vi) The Partnership Agreement;

(vii) Vornado Realty Trust's 2019 Omnibus Share Plan; and

(viii) Vornado Realty L.P.'s Second Amended and Restated Agreement of Limited Partnership, as amended.

The Employee also acknowledges that any delivery of the Background Documents and other information relating to Vornado Realty Trust and Vornado Realty L.P. prior to the determination by Vornado Realty L.P. of the suitability of the Employee as a holder of LTIP Units shall not constitute an offer of LTIP Units until such determination of suitability shall be made.

(b) The Employee hereby represents and warrants that

(i) The Employee either (A) is an "accredited investor" as defined in Rule 501(a) under the Securities Act of 1933, as amended (the "Securities Act"), or (B) by reason of the business and financial experience of the Employee, together with the business and financial experience of those persons, if any, retained by the Employee to represent or advise him with respect to the grant to him of LTIP Units, the potential conversion of LTIP Units into Class A Units of the Partnership ("Common Units") and the potential redemption of such Common Units for Vornado Realty Trust's Common Shares ("REIT Shares"), has such knowledge, sophistication and experience in financial and business matters and in making investment decisions of this type that the Employee (I) is capable of evaluating the merits and risks of an investment in the Partnership and potential investment in Vornado Realty Trust and of making an informed investment decision, (II) is capable of protecting his own interest or has engaged representatives or advisors to assist him in protecting his interests, and (III) is capable of bearing the economic risk of such investment.

(ii) The Employee understands that (A) the Employee is responsible for consulting his own tax advisors with respect to the application of the U.S. federal income tax laws, and the tax laws of any state, local or other taxing jurisdiction to which the Employee is or by reason of the award of LTIP Units may become subject, to his particular situation; (B) the Employee has not received or relied upon business or tax advice from Vornado Realty Trust, the Partnership or any of their respective employees, agents, consultants or advisors, in their capacity as such; (C) the Employee provides services to the Partnership on a regular basis and in such capacity has access to such information, and has such experience of and involvement in the business and operations of the Partnership, as the Employee believes to be necessary and appropriate to make an informed decision to accept this award of LTIP Units; and (D) an investment in the Partnership and/or Vornado Realty Trust involves substantial risks. The Employee has been given the opportunity to make a thorough investigation of matters relevant to the LTIP Units and has been furnished with, and has reviewed and understands, materials relating to the Partnership and Vornado Realty Trust and their respective activities (including, but not limited to, the Background Documents). The Employee has been afforded the opportunity to obtain any additional information (including any exhibits to the Background Documents) deemed necessary by the Employee to verify the accuracy of information conveyed to the Employee. The Employee confirms that all documents, records, and books pertaining to his receipt of LTIP Units which were requested by the Employee have been made available or delivered to the Employee. The Employee has had an opportunity to ask questions of and receive answers from the Partnership and Vornado Realty Trust, or from a person or persons acting on their behalf, concerning the terms and conditions of the LTIP Units. **The Employee has relied upon, and is making its decision solely upon, the Background Documents and other written information provided to the Employee by the Partnership or Vornado Realty Trust.**

(iii) The LTIP Units to be issued, the Common Units issuable upon conversion of the LTIP Units and any REIT Shares issued in connection with the redemption of any such Common Units will be acquired for the account of the

Employee for investment only and not with a current view to, or with any intention of, a distribution or resale thereof, in whole or in part, or the grant of any participation therein, without prejudice, however, to the Employee's right (subject to the terms of the LTIP Units, the Stock Plan and this Agreement) at all times to sell or otherwise dispose of all or any part of his LTIP Units, Common Units or REIT Shares in compliance with the Securities Act, and applicable state securities laws, and subject, nevertheless, to the disposition of his assets being at all times within his control.

(iv) The Employee acknowledges that (A) neither the LTIP Units to be issued, nor the Common Units issuable upon conversion of the LTIP Units, have been registered under the Securities Act or state securities laws by reason of a specific exemption or exemptions from registration under the Securities Act and applicable state securities laws and, if such LTIP Units or Common Units are represented by certificates, such certificates will bear a legend to such effect, (B) the reliance by the Partnership and Vornado Realty Trust on such exemptions is predicated in part on the accuracy and completeness of the representations and warranties of the Employee contained herein, (C) such LTIP Units or Common Units, therefore, cannot be resold unless registered under the Securities Act and applicable state securities laws, or unless an exemption from registration is available, (D) there is no public market for such LTIP Units and Common Units and (E) neither the Partnership nor Vornado Realty Trust has any obligation or intention to register such LTIP Units or the Common Units issuable upon conversion of the LTIP Units under the Securities Act or any state securities laws or to take any action that would make available any exemption from the registration requirements of such laws, except, that, upon the redemption of the Common Units for REIT Shares, Vornado Realty Trust may issue such REIT Shares under the 2019 Omnibus Share Plan (the "Stock Plan") and pursuant to a Registration Statement on Form S-8 under the Securities Act, to the extent that (I) the Employee is eligible to receive such REIT Shares under the Stock Plan at the time of such issuance, (II) Vornado Realty Trust has filed a Form S-8 Registration Statement with the Securities and Exchange Commission registering the issuance of such REIT Shares and (III) such Form S-8 is effective at the time of the issuance of such REIT Shares. The Employee hereby acknowledges that because of the restrictions on transfer or assignment of such LTIP Units acquired hereby and the Common Units issuable upon conversion of the LTIP Units which are set forth in the Partnership Agreement or this Agreement, the Employee may have to bear the economic risk of his ownership of the LTIP Units acquired hereby and the Common Units issuable upon conversion of the LTIP Units for an indefinite period of time.

(v) The Employee has determined that the LTIP Units are a suitable investment for the Employee.

(vi) No representations or warranties have been made to the Employee by the Partnership or Vornado Realty Trust, or any officer, director, shareholder, agent, or affiliate of any of them, and the Employee has received no information relating to an investment in the Partnership or the LTIP Units except the information specified in paragraph (b) above.

(c) So long as the Employee holds any LTIP Units, the Employee shall disclose to the Partnership in writing such information as may be reasonably requested with respect to ownership of LTIP Units as the Partnership may deem reasonably necessary to ascertain and to establish compliance with provisions of the Code, applicable to the Partnership or to comply with requirements of any other appropriate taxing authority.

(d) The Employee hereby agrees to make an election under Section 83(b) of the Code with respect to the LTIP Units awarded hereunder, and has delivered with this Agreement a completed, executed copy of the election form attached hereto as Exhibit C. The Employee agrees to file the election (or to permit the Partnership to file such election on the Employee's behalf) within thirty (30) days after the award of the LTIP Units hereunder with the IRS Service Center at which such Employee files his personal income tax returns, and to file a copy of such election with the Employee's U.S. federal income tax return for the taxable year in which the LTIP Units are awarded to the Employee.

(e) The address set forth on the signature page of this Agreement is the address of the Employee's principal residence, and the Employee has no present intention of becoming a resident of any country, state or jurisdiction other than the country and state in which such residence is sited.

SCHEDULE A TO RESTRICTED LTIP UNIT AGREEMENT

(Terms being defined are in quotation marks.)

Date of Restricted LTIP Unit Agreement:	As of:
Name of Employee:	
Number of LTIP Units Subject to Grant:	
Date of Grant:	
Date on Which Restricted LTIP Units are Fully Vested:	
Vesting Period:	
"Annual Vesting Amount" *Insert the number of LTIP Units that vest each year or other applicable vesting schedule.*	
"Annual Vesting Date" (or if such date is not a business day, on the next succeeding business day): *Insert the calendar date of each year on which LTIP Units will vest or other appropriate vesting schedule.*	
Additional Matters:	

Initials of Vornado Realty Trust representative: ____

Initials of Employee: ______

VORNADO REALTY TRUST 2019 OMNIBUS SHARE PLAN
[INCENTIVE/NON-QUALIFIED] STOCK OPTION AGREEMENT

STOCK OPTION AGREEMENT made as of date set forth on Schedule A hereto between Vornado Realty Trust, a Maryland real estate investment trust (the "Company"), and the employee of the Company or one of its affiliates listed on Schedule A (the "Employee").

RECITALS

A. In accordance with the Vornado Realty Trust 2019 Omnibus Share Plan, as it may be amended or modified from time to time (the "Plan"), the Company desires in connection with the employment of the Employee, to provide the Employee with an opportunity to acquire shares of the Company's common shares of beneficial interest, par value $.04 per share (the "Common Shares"), and thereby provide additional incentive for the Employee to promote the progress and success of the business of the Company and its subsidiaries.

B. Schedule A hereto sets forth certain significant details of the option grant herein and is incorporated herein by reference. Capitalized terms used herein and not otherwise defined have the meanings provided on Schedule A.

NOW, THEREFORE, the Company and the Employee hereby agree as follows:

AGREEMENT

1. GRANT OF OPTIONS: On the terms and conditions set forth below, as well as the terms and conditions of the Plan and subject to adjustment as provided in Section 8 hereof, the Company hereby grants to the Employee the right to purchase (the "Option") an aggregate of such number of Common Shares as is set forth on Schedule A at a purchase price per Common Share equal to the Exercise Price set forth on Schedule A. The Option [is/is not] intended to be an "incentive stock option" within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended (the "Code") to the extent set forth on Schedule A.

2. TERM OF OPTION: The term of the Option shall be the time period indicated on Schedule A from the date of grant referred to on Schedule A, subject to earlier termination or cancellation as provided in this Agreement.

Except as otherwise permitted under Section 7 hereof, the Option shall not be exercisable unless the Employee shall, at the time of exercise, be an employee of the Company or its affiliates.

3. NON-TRANSFERABILITY OF OPTION: The Option shall not be transferable otherwise than by will or by the laws of descent and distribution, and the

Option may be exercised during the Employee's lifetime only by the Employee. More particularly, but without limiting the generality of the foregoing, the Option may not be assigned, transferred (except as provided in the preceding sentence), pledged, or hypothecated in any way (whether by operation of law or otherwise), and shall not be subject to execution, attachment or similar process. Any attempted assignment, transfer, pledge, hypothecation or other disposition of the Option contrary to the provisions of the Plan or this Agreement, and any levy of any attachment or similar process upon the Option, shall be null and void and without effect, and the Compensation Committee of the Company (the "Committee") may, in its discretion, upon the happening of any such event, terminate the Option forthwith.

4. EXERCISE OF OPTION: Unless terminated pursuant to Section 7 hereof, the Option may be exercised as to not more than the Annual Option Vesting Amount (as defined on Schedule A) of the aggregate number of Common Shares originally subject thereto commencing on the first Annual Vesting Date (as defined on Schedule A) following the date of grant. Thereafter, on each Annual Vesting Date and until the expiration of the term of this Agreement (unless earlier terminated or canceled as provided in this Agreement), the Option may be exercised for an additional Annual Option Vesting Amount. To the extent that Schedule A provides for amounts or schedules of vesting that conflict with the provisions of this paragraph, the provisions of Schedule A will govern.

The right to purchase Common Shares pursuant to the Option shall be cumulative. If the full number of Common Shares available for purchase under the Option, to the extent the Option is vested, has not been purchased, the balance may be purchased at any time or from time to time thereafter, but prior to the termination of such Option. The Option shall not, however, be exercisable after the expiration thereof; and except as provided in Section 7 hereof, the Option shall not be exercisable unless the Employee is an employee of the Company or its affiliates at the time of exercise.

The holder of the Option shall not have any rights to dividends or any other rights of a shareholder with respect to the Common Shares subject to the Option until such Common Shares shall have been issued to him (as evidenced by the appropriate entry on the books of a duly authorized transfer agent of the Company), upon the purchase of such Common Shares through exercise of the Option.

Notwithstanding the foregoing or anything to the contrary set forth herein, upon (a) the occurrence of a Change in Control of the Company and (b) the termination of employment of the Employee with the Company or its affiliates within 24 months of such Change of Control either (i) by the Company (or its successor) without Cause (as defined below) or (ii) by the Employee for Good Reason (as defined below), then the Option shall become vested and immediately exercisable in full. For purposes of this Agreement, a "Change in Control" of the Company means the occurrence of one of the following events:

(i) individuals who, on the date hereof, constitute the Board of Trustees of the Company (the "Incumbent Trustees") cease for any reason to constitute at least a majority of the Board of Trustees (the "Board"), provided that any person becoming a trustee subsequent to the date hereof whose election or nomination for election was approved by a vote of at least two-thirds of the Incumbent Trustees then on the Board (either by a specific vote or by approval of the proxy statement of the Company in which such person is named as a nominee for trustee, without objection to such nomination) shall be an Incumbent Trustee; provided, however, that no individual initially elected or nominated as a trustee of the Company as a result of an actual or threatened election contest with respect to trustees or as a result of any other actual or threatened solicitation of proxies by or on behalf of any person other than the Board shall be an Incumbent Trustee;

(ii) any "person" (as such term is defined in Section 3(a)(9) of the Securities Exchange Act of 1934 (the "Exchange Act") and as used in Sections 13(d)(3) and 14(d)(2) of the Exchange Act) is or becomes, after the date hereof, a "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 30% or more of the combined voting power of the Company's then outstanding securities eligible to vote for the election of the Board (the "Company Voting Securities"); provided, however, that an event described in this paragraph (ii) shall not be deemed to be a Change in Control if any of following becomes such a beneficial owner: (A) the Company or any majority-owned subsidiary of the Company (provided that this exclusion applies solely to the ownership levels of the Company or the majority-owned subsidiary), (B) any tax-qualified, broad-based employee benefit plan sponsored or maintained by the Company or any such majority-owned subsidiary, (C) any underwriter temporarily holding securities pursuant to an offering of such securities, (D) any person pursuant to a Non-Qualifying Transaction (as defined in paragraph (iii)), (E) (a) any of the partners (as of the date hereof) in Interstate Properties ("Interstate") including immediate family members and family trusts or family-only partnerships and any charitable foundations of such partners (the "Interstate Partners"), (b) any entities the majority of the voting interests of which are beneficially owned by the Interstate Partners, or (c) any "group" (as described in Rule 13d-5(b)(1) under the Exchange Act) including the Interstate Partners, provided that the Interstate Partners beneficially own a majority of the Company Voting Securities beneficially owned by such group (the persons in (a), (b) and (c) shall be individually and collectively referred to herein as, "Interstate Holders");

(iii) the consummation of a merger, consolidation, share exchange or similar form of transaction involving the Company or any of its subsidiaries, or the sale of all or substantially all of the Company's assets (a "Business Transaction"), unless immediately following such Business Transaction (a) more than 50% of the total voting power of the entity resulting from such Business Transaction or the entity acquiring the Company's assets in such Business Transaction (the "Surviving Corporation") is beneficially owned, directly or indirectly, by the Interstate Holders or the Company's shareholders immediately prior to any such Business Transaction, and (b) no person (other than the persons set forth in clauses (A), (B), (C), or (E) of paragraph (ii) above or any tax-qualified, broad-based employee benefit plan of the Surviving Corporation or its affiliates) beneficially owns, directly or indirectly, 30% or more of the total voting power of the Surviving Corporation (a "Non-Qualifying Transaction"); or

(iv) Board approval of a liquidation or dissolution of the Company, unless the voting common equity interests of an ongoing entity (other than a liquidating trust) are beneficially owned, directly or indirectly, by the Company's shareholders in substantially the same proportions as such shareholders owned the Company's Voting Securities immediately prior to such liquidation and such ongoing entity assumes all existing obligations of the Company to Employee under this Agreement.

For the purposes of this Section and Section 7, "Cause" will mean with respect to the Employee, the Employee's: (a) conviction of, or plea of guilty or *nolo contendre* to, a felony pertaining or otherwise relating to his or her employment with the Company or an affiliate; or (b) willful misconduct that is materially economically injurious to the Company or any of its affiliates, in each case as determined in the Company's sole discretion. For the purposes of this Section, "Good Reason" will mean (a) the assignment to the Employee of duties materially and adversely inconsistent with the Employee's status prior to the Change in Control or a material and adverse alteration in the nature of the Employee's duties, responsibilities or authority; (b) a reduction in the Employee's base salary; or (c) a relocation of the Employee's own office location to a location more than 30 miles from its location prior to the Change in Control. In the event the Employee is a party to an employment agreement with the Company or an affiliate thereof, and the definitions of Cause or Good Reason contained herein conflict with terms provided therefor in such employment agreement (or similar terms or provisions intended to cover substantially similar circumstances) the definitions contained in such employment agreement will govern.

5. METHOD OF EXERCISE: The Option shall be exercisable by written notice specifying the number of Common Shares purchased and accompanied by payment in full in cash or by certified or bank cashier's check payable to the order of the Company, by tender of Common Shares owned by the employee valued at fair market value as of the date of exercise or by a combination of cash and Common Shares. Upon delivery, by hand or by registered mail directed to the Company at its executive offices (currently at 888 Seventh Avenue, New York, NY 10019 Attn: Stock Option Administrator) the Company shall issue the number of Common Shares purchased, which issuance shall, in the event of a hand delivery of the exercise price, occur immediately upon such delivery, provided the holder of the Option shall have given two business days' advance notice of such delivery. In no case may a fraction of a Common Share be purchased or issued pursuant to the exercise of an Option. The Option shall be deemed to have been exercised with respect to any particular Common Shares, if, and only if, the provisions of this Agreement shall have been complied with, in which event the Option shall be deemed to have been exercised on the date on which the notice described above

shall have been delivered to the Company. The certificate or certificates of Common Shares as to which the Options shall be exercised shall be registered in the name of the person or persons exercising the Option.

6. RESTRICTIONS ON COMMON SHARES: Common Shares issued upon the exercise of the Option shall be issued only to the holder of the Option. Any restrictions upon transfer of Common Shares issued upon the exercise of the Option, which in the opinion of the Company's counsel are required by the Securities Act of 1933, as amended, shall be noted on the certificate thereof by appropriate legend.

7. TERMINATION OF EMPLOYMENT: Any Options held by the Employee upon termination of employment shall remain exercisable as follows:

(I) If the Employee's termination of employment is due to death, all unvested Options shall become immediately exercisable in full and shall be exercisable by the Employee's designated beneficiary, or, if none, the person(s) to whom such Employee's rights under the Option are transferred by will or the laws of descent and distribution for the Applicable Option Exercise Period (as defined on Schedule A) following the date of death (but in no event beyond the term of the Option), and shall thereafter terminate;

(II) If the Employee's termination of employment is due to disability (as defined in Section 22(e)(3) of the Code, or Section 422(c)(6) of the Code if this Option is intended to be an incentive stock option), all unvested Options shall become immediately exercisable in full and shall be exercisable for the Applicable Option Exercise Period following such termination of employment (but in no event beyond the term of the Option), and shall thereafter terminate;

(III) If the Employee's termination of employment is due to Retirement (which will mean (A) if the Employee is a party to an employment agreement with the Company or an affiliate thereof immediately prior to such event, and "Retirement" is defined therein, then "Retirement" shall have the meaning set forth in such agreement, or (B) if the Employee is not party to an employment agreement with the Company or an affiliate thereof immediately prior to such event or if the Employee is party to such an agreement and such agreement does not define "Retirement" or a substantially equivalent term, then "Retirement" shall mean the Employee's termination of his or her employment with the Company and its affiliates after attainment of age 65), all unvested Options shall become immediately exercisable in full and shall be exercisable for the Applicable Option Exercise Period following such Retirement (but in no event beyond the term of the Option), and shall thereafter terminate;

(IV) If the Employee's termination of employment is for Cause, all Options, to the extent not vested, shall terminate on the date of termination and, all other Options, to the extent exercisable as of the date of termination, shall be exercisable for the Applicable Option Exercise Period, if any, following such termination of employment (but in no event beyond the term of the Option), and shall thereafter terminate; and

(V) If the Employee's termination of employment is for any reason (other than as set forth in clause in (I), (II), (III) or (IV) of this Section 7), all unvested Options shall terminate on the date of termination and, all other Options, to the extent exercisable as of the date of termination, shall be exercisable for the Applicable Option Exercise Period following such termination of employment (but in no event beyond the term of the Option), and shall thereafter terminate. An Employee's status as an employee shall not be considered terminated in the case of a leave of absence agreed to in writing by the Company (including, but not limited to, military and sick leave); provided, that, such leave is for a period of not more than one year or re-employment upon expiration of such leave is guaranteed by contract or statute.

8. RECLASSIFICATION, CONSOLIDATION OR MERGER: In the event of any change in the outstanding Common Shares by reason of any share dividend or split, recapitalization, merger, consolidation, spin-off combination or exchange of Common Shares or other corporate change, or any distributions to common shareholders other than regular dividends, the Committee shall make such substitution or adjustment, if any, as it deems to be equitable, as to the Exercise Price and the number or kind of Common Shares issued or reserved for issuance pursuant to the Plan and to outstanding awards or make such other cash or other distribution as is equitable. If the Company is reorganized or consolidated or merged with another corporation, the Employee shall be entitled to receive options covering shares of such reorganized, consolidated or merged company in the same proportion, at an equivalent price, and subject to the same conditions. For purposes of the preceding sentence the excess of the aggregate fair market value of the shares subject to the Option immediately after the reorganization, consolidation or merger over the aggregate option price of such shares shall not be more than the excess of the aggregate fair market value of all shares subject to the Option immediately before the reorganization, consolidation or merger over the aggregate option price of the shares, and the new Option or assumption of the old Option shall not give the Employee additional benefits which he did not have under the old Option.

9. APPROVAL OF COUNSEL: The issuance and delivery of Common Shares pursuant to the Option shall be subject to the reasonable approval by the Company's counsel with respect to compliance with the requirements of the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder, and the requirements of any national securities exchange upon which the Common Shares may then be listed as in compliance with any other law or regulation, including, but not limited to, Section 856 of the Code.

10. NO RIGHT TO EMPLOYMENT: Nothing herein contained shall affect the right of the Company or any affiliate to terminate the Employee's services, responsibilities and duties at any time for any reason whatsoever.

11. GOVERNING LAW: This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of Maryland, without references to principles of conflict of laws.

12. SEVERABILITY: If, for any reason, any provision of this Agreement is held invalid, such invalidity shall not affect any other provision of this Agreement not so held invalid, and each such other provision shall to the full extent consistent with law continue in full force and effect. If any provision of this Agreement shall be held invalid in part, such invalidity shall in no way affect the rest of such provision not held so invalid, and the rest of such provision, together with all other provisions of this Agreement, shall to the full extent consistent with law continue in full force and effect.

13. HEADINGS: The headings of paragraphs hereof are included solely for convenience of reference and shall not control the meaning or interpretation of any of the provisions of this Agreement.

14. COUNTERPARTS: This Agreement may be executed in multiple counterparts with the same effect as if each of the signing parties had signed the same document. All counterparts shall be construed together and constitute the same instrument.

15. BENEFITS OF AGREEMENT: This Agreement shall inure to the benefit of and be binding upon each successor of the Company. All obligations imposed upon the Employee and all rights granted to the Company under this Agreement shall be binding upon the Employee's heirs, legal representatives and successors. The Agreement shall be the sole and exclusive source of any and all rights which the Employee, his heirs, legal representatives or successors may have in respect to the Plan or any Option or Common Shares granted or issued thereunder whether to himself or any other person and may not be amended except in writing signed by the Company and the Employee.

16. CONFLICT WITH EMPLOYMENT AGREEMENT. If (and only if) the Employee and the Company or its affiliates have entered into an employment agreement, in the event of any conflict between any of the provisions of this Agreement and any such employment agreement (in particular, but without limitation, with respect to the definition of "Cause") the provisions of such employment agreement will govern. As further provided in Section 10, nothing herein shall imply that any employment agreement exists between the Employee and the Company or its affiliates.

17. TAX WITHHOLDING. The Company or its applicable affiliate has the right to withhold from other compensation payable to the Employee any and all applicable income and employment taxes due and owing with respect to the Options to the extent such amount is required to be paid by the Company or its applicable affiliate (the "Withholding Amount"), and/or to delay delivery of Common Shares until appropriate arrangements have been made for payment of such withholding. In the

alternative, the Company has the right to retain and cancel, or sell or otherwise dispose of such number of Common Shares underlying Options as have a market value (determined at date the Withholding Amount becomes payable) approximately equal to the Withholding Amount with any excess proceeds being paid to Employee.

[signature page follows]

IN WITNESS WHEREOF, this Agreement has been executed by the parties hereto as of the date and year first above written.

VORNADO REALTY TRUST

By: ______________________________

Joseph Macnow

Executive Vice President - Finance
Chief Administrative Officer
Chief Financial Officer

____

Name:

SCHEDULE A TO OPTION AGREEMENT

(Terms being defined are in quotation marks.)

Date of Option Agreement:	
Name of Employee:	
Number of Common Shares Subject to Grant:	
"Exercise Price":	
Date of Grant:	
Incentive and/or Non-Qualified Options:	Number of: Incentive Stock Options (ISO) Non-Qualified Stock Options (NQ)
Term of Option from Date of Grant:	*(Check the applicable box to indicate term of Option)*
	[ ] Ten years
	[ ] Five years
	[ ] ___________
Vesting Period:	
"Annual Option Vesting Amount" *Insert the number of Options that vest each year or other applicable vesting schedule.*	
"Annual Vesting Date" (or if such date is not a business day, on the next succeeding business day): *Insert the calendar date of each year on which Options will vest or other appropriate vesting schedule.*	
"Applicable Option Exercise Period": *Insert the period following termination for which an Option may still be exercised for each event referenced and as cross-referenced to the applicable Section of the Agreement.*	Death (Section 7(I)): 6 months Disability (Section 7(II)): 6 months Retirement (Section 7(III)): 60 days Cause (Section 7(IV)): 60 days Other Termination (Section 7(V)): 60 days

Initials of Company representative: _________

Initials of Employee: ________

EXHIBIT 21

All of the following are subsidiaries of both Vornado Realty Trust and Vornado Realty, L.P. as of December 31, 2019, except Vornado Realty, L.P. is a subsidiary of only Vornado Realty Trust.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
FORM 10-K
SUBSIDIARIES OF THE REGISTRANT
AS OF DECEMBER 31, 2019

Name of Subsidiary	State of Organization
11 East 68th Street LLC	Delaware
11 East 68th TRS LLC	Delaware
1290 Management II, LLC	Delaware
131 West 33rd Street Owner LLC	Delaware
137 West 33rd Street Owner LLC	Delaware
138-142 West 32nd EAT LLC	Delaware
144-150 West 34th Street EAT LLC	Delaware
144-150 West 34th Street Owner II LLC	Delaware
148 Spring Street, LLC	Delaware
150 East 58th Street, L.L.C.	New York
150 Spring Street LLC	Delaware
1535 Broadway Holdings II LLC	Delaware
1535 Broadway LLC	Delaware
1535 Broadway Sign LLC	Delaware
1535/1540 Broadway Holdings LLC	Delaware
1535/1540 Broadway TRS LLC	Delaware
1540 Broadway Holdings II LLC	Delaware
1540 Broadway LLC	Delaware
1540 Broadway Sign LLC	Delaware
1800 Park REIT LLC	Delaware
201 East 66th Street LLC	New York
220 CPS Tower Club Corp	New York
265 West 34th Street Owner LLC	Delaware
27 Washington Sq North Owner LLC	Delaware
280 Park Administration LLC	Delaware
280 Park Cleaning LLC	Delaware
280 Park Holdings LLC	Delaware
280 Park Junior Mezzanine LLC	Delaware
280 Park Management LLC	Delaware
280 Park REIT LLC	Delaware
280 Park Senior Mezzanine LLC	Delaware
280 Park Venture LLC	Delaware
29 West 57th Street Owner LLC	Delaware
304-306 Canal Street LLC	Delaware
31 West 57th Street Owner LLC	Delaware
330 Madison Company LLC	Delaware
330 Madison Property Owner LLC	Delaware
334 Canal Street LLC	Delaware
350 Park EAT LLC	Delaware

4 USS LLC	Delaware
40 East 14 Realty Associates, L.L.C.	New York
40 Fulton Street LLC	New York
401 Commercial L.P.	Delaware
401 Commercial Son II LLC	Delaware
401 Commercial Son LLC	Delaware
401 General Partner, L.L.C.	Delaware
401 Hotel General Partner, L.L.C.	Delaware
401 Hotel REIT, LLC	Delaware
401 Hotel TRS, Inc.	Delaware
401 Hotel, L.P.	Delaware
408 West 15th Street Owner LLC	Delaware
480-486 Broadway, LLC	Delaware
486 8th Avenue Owner LLC	Delaware
488 Eighth Avenue Owner LLC	Delaware
49 West 57th Street Owner LLC	Delaware
50 East 86th Street Owner LLC	Delaware
501 Broadway Parallel REIT LLC	Delaware
501 Broadway REIT LLC	Delaware
510 Fifth Avenue LLC	Delaware
527 West Kinzie LLC	Delaware
555 California Restaurant LLC	Delaware
555 California Restaurant Trust	Maryland
555 California Services JV LLC	Delaware
555 California TRS LLC	Delaware
58 Central Park III LLC	Delaware
58 Central Park II LLC	Delaware
58 Central Park LLC	Delaware
61 Ninth Avenue Development Holdings LLC	Delaware
61 Ninth Avenue Development LLC	Delaware
61 Ninth Avenue Development Member LLC	Delaware
61 Ninth Avenue Management LLC	Delaware
61 Ninth Retail Manager LLC	Delaware
640 Fifth Avenue Holdings II LLC	Delaware
640 Fifth Avenue Holdings LLC	Delaware
640 Fifth Avenue LLC	Delaware
640 Fifth Avenue Owner LLC	Delaware
650 Madison GP LLC	Delaware
650 Madison GP LP	Delaware
650 Madison Junior Mezz LLC	Delaware
650 Madison Office Manager LLC	Delaware
650 Madison Owner LLC	Delaware
650 Madison Retail Manager LLC	Delaware
650 Madison Senior Mezz LLC	Delaware
655 Fifth Avenue Holdings LLC	Delaware
655 Fifth Avenue LLC	Delaware
655 Fifth Avenue Owner LLC	Delaware
655 Fifth Holdings LLC	Delaware
655 Fifth II LLC	Delaware

655 Fifth III LLC	Delaware
666 Fifth Avenue Retail Holdings LLC	Delaware
666 Fifth Retail Holdings II LLC	Delaware
689 Fifth Avenue Holdings II LLC	Delaware
689 Fifth Avenue Holdings LLC	Delaware
689 Fifth Avenue L.L.C.	New York
697 Fifth/2 East 55th Street Manager LLC	Delaware
697 Fifth/2 East 55th Street TIC A Holdings LLC	Delaware
697 Fifth/2 East 55th Street TIC A Mezz LLC	Delaware
697 Fifth/2 East 55th Street TIC A Owner LLC	Delaware
697 Fifth/2 East 55th Street TIC A Titleholder LLC	Delaware
697 Fifth/2 East 55th Street TIC B Lower-Tier LLC	Delaware
697 Fifth/2 East 55th Street TIC B Mezz LLC	Delaware
697 Fifth/2 East 55th Street TIC B Upper-Tier LLC	Delaware
697 Fifth/2 East 55th TIC B Holdings LLC	Delaware
697 Fifth/2 East 55th TIC B Mortgage Borrower LLC	Delaware
6M Investor LP	Delaware
6M REIT LLC	Delaware
7 West 34th Street LLC	New York
715 Lexington Avenue LLC	New York
715 Lexington Avenue TIC II LLC	Delaware
715 Lexington Avenue TIC LLC	Delaware
770 Broadway Company LLC	New York
770 Broadway Mezzanine LLC	Delaware
770 Broadway Owner LLC	Delaware
825 Seventh Avenue Holding Corporation	New York
825 Seventh Avenue Holding L.L.C.	New York
85 Tenth Junior Mezz LLC	Delaware
888 Seventh Avenue LLC	Delaware
909 Third Avenue Assignee LLC	New York
909 Third Company, L.P.	New York
909 Third GP, LLC	Delaware
968 Third, L.L.C.	New York
Alexander's, Inc.	Delaware
Art Chicago LLC	Delaware
Art on theMart LLC	Delaware
Art Patron Holdings LLC	Delaware
Balena Funding LLC	Delaware
Balena Real Estate Development II LLC	Delaware
Balena Real Estate Development III LLC	Delaware
Balena Real Estate Development IV LLC	Delaware
Balena Real Estate Development LLC	Delaware
Broadway 280 Park Fee LLC	Delaware
Building Maintenance Service LLC	Delaware
CIF Times Square Mezz 1 LLC	Delaware
CIF Times Square Mezz 2 LLC	Delaware
CIF Times Square Mezz 3 LLC	Delaware
Circle 1 LLC	Delaware
Coastal Belmont LLC	Delaware

CPTS Domestic Owner LLC	Delaware
CPTS Hotel Lessee LLC	Delaware
CPTS Hotel Lessee Mezz 1 LLC	Delaware
CPTS Hotel Lessee Mezz 2 LLC	Delaware
CPTS Hotel Lessee Mezz 3 LLC	Delaware
CPTS Parallel Owner LLC	Delaware
CPTS TRS LLC	Delaware
CV Harlem Park LLC	Delaware
Durham Leasing II L.L.C.	New Jersey
Durham Leasing L.L.C.	New Jersey
Eleven Penn Plaza LLC	New York
Farley Building Leasing LLC	Delaware
Farley Building Master Tenant LLC	Delaware
Farley Building TRS LLC	Delaware
Farley Cleaning LLC	Delaware
Farley Developer LLC	Delaware
Farley Lease Management LLC	Delaware
Farley Property Manager LLC	Delaware
Franconia GP, L.L.C.	Delaware
Fuller Madison LLC	New York
Garfield Parcel L.L.C.	New Jersey
Geneva Associates Owner LLC	Delaware
Going Away LLC	Delaware
Green Acres 666 Fifth Retail TIC Owner LLC	Delaware
Guard Management Service Corp.	Delaware
HBR Properties Annapolis, L.L.C.	Delaware
HBR Properties, L.L.C.	Delaware
IP Mezz Borrower I LLC	Delaware
IP Mezz Borrower II LLC	Delaware
IP Mortgage Borrower LLC	Delaware
LaSalle Hubbard L.L.C.	Delaware
Leva II Holdings LLC	Delaware
Leva III Holdings LLC	Delaware
Lincoln Road II LLC	Delaware
Lincoln Road Management LLC	Delaware
Lincoln Road Parallel REIT LLC	Delaware
Lincoln Road REIT LLC	Delaware
M 330 Associates L.P.	New York
M 393 Associates LLC	New York
Madave Holdings LLC	Delaware
Madave Properties SPE LLC	Delaware
Manhattan High Street Holdings GP LLC	Delaware
Manhattan High Street Holdings LLC	Delaware
Manhattan High Street Holdings LP	Delaware
Manhattan High Street REIT Holdings LLC	Delaware
Manhattan High Street Retail Leasing LLC	Delaware
Mart Parking II, LLC	Delaware
Mart Parking LLC	Delaware
Mart Trade Show L.L.C.	Delaware

Menands Holding Corporation	New York
Merchandise Mart First Mezzanine Borrower L.L.C.	Delaware
Merchandise Mart Holdco L.L.C.	Delaware
Merchandise Mart L.L.C.	Delaware
Merchandise Mart Properties, Inc.	Delaware
Merchandise Mart Second Mezzanine Borrower L.L.C.	Delaware
MMPI Piers MTS L.L.C.	Delaware
MMPI Volta LLC	Delaware
Mortgage Owner LLC	Delaware
Moynihan Interim Tenant LLC	Delaware
Moynihan Train Hall Developer LLC	Delaware
MTS-MM L.L.C.	Delaware
New Jersey GL LLC	Delaware
Ninety Park Lender LLC	New York
Ninety Park Lender QRS, Inc.	Delaware
Ninety Park Manager LLC	New York
Ninety Park Property LLC	New York
One Park Avenue Partners LLC	Delaware
One Park Avenue Senior Mezz Partners LLC	Delaware
One Park Owner JV LP	Delaware
One Penn Plaza LLC	New York
One Penn Plaza TRS, Inc.	Delaware
Orleans Hubbard LLC	Delaware
Paris Associates Owner LLC	Delaware
PCJ I Inc.	New York
Peak Power One LLC	Delaware
Penn District Benefits Provider	Delaware
Penn District Station Developer LLC	Delaware
Penn Plaza Insurance Company, L.L.C.	Vermont
Piers 92/94 LLC	Delaware
Powerspace & Services, Inc.	Delaware
Rahway Leasing L.L.C.	New Jersey
RTR VW LLC	Delaware
RV Farley Developer LLC	Delaware
RVS Partners LLC	Delaware
Shenandoah Parent LLC	Delaware
Skyline Parent LLC	Delaware
SMB Administration LLC	Delaware
SMB Tenant Services LLC	Delaware
SO Hudson 555 Management, Inc.	Delaware
SO Hudson Westside I Corp.	Delaware
T53 Condominium, L.L.C.	New York
The Armory Show Inc.	New York
The Palisades A/V Company, L.L.C.	Delaware
The Park Laurel Condominium	Delaware
The Pennsy Holdings LLC	Delaware
Thebes I LLC	Delaware
theMart Manager LLC	Delaware
TheMart Tots LLC	Delaware

Times Square JV LLC	Delaware
TMO 1 LLC	Delaware
Trees Acquisition Subsidiary, Inc.	Delaware
Two Guys From Harrison N.Y. L.L.C.	New York
Two Penn Plaza REIT, Inc.	New York
Umbra Holdings LLC	Delaware
VBL Company, L.L.C.	New York
VCP COI One Park LP	Delaware
VCP IM L.L.C.	Delaware
VCP Lincoln Road LLC	Delaware
VCP LP L.L.C.	Delaware
VCP One Park Parallel REIT LLC	Delaware
VCP Parallel COI One Park LP	Delaware
Virgin Sign L.L.C.	Delaware
VMS Lender LLC	Delaware
VNK L.L.C.	Delaware
VNO 100 West 33rd Street LLC	Delaware
VNO 11 East 68th Street Holding Company LLC	Delaware
VNO 11 East 68th Street Mezz LLC	Delaware
VNO 155 Spring Street LLC	Delaware
VNO 1750 Pennsylvania Avenue LLC	Delaware
VNO 1800 Park LLC	Delaware
VNO 220 Development LLC	Delaware
VNO 225 West 58th Street LLC	Delaware
VNO 225 West 58th Street Mezz Owner LLC	Delaware
VNO 267 West 34th LLC	Delaware
VNO 280 Park JV Member LLC	Delaware
VNO 33 West 57th Street LLC	Delaware
VNO 33-00 Northern Blvd LLC	Delaware
VNO 3500 US Highway 9 LLC	Delaware
VNO 401 Commercial Lessee LLC	Delaware
VNO 431 Seventh Avenue LLC	Delaware
VNO 435 Seventh Avenue LLC	Delaware
VNO 443 Broadway Holdings II LLC	Delaware
VNO 443 Broadway Holdings III LLC	Delaware
VNO 443 Broadway LLC	Delaware
VNO 501 Broadway LLC	Delaware
VNO 510 Fifth LLC	Delaware
VNO 510 West 22nd JV Member LLC	Delaware
VNO 510 West 22nd Lender LLC	Delaware
VNO 535-545 5th Loan LLC	Delaware
VNO 537 West 26th Street Owner LLC	Delaware
VNO 606 Broadway LLC	Delaware
VNO 606 Broadway Manager Member LLC	Delaware
VNO 61 Ninth Avenue Member LLC	Delaware
VNO 63rd Street LLC	Delaware
VNO 650 Madison Investor LLC	Delaware
VNO 650 Madison LLC	Delaware
VNO 7 West 34th Street Owner LLC	Delaware

VNO 7 West 34th Street Sub LLC	Delaware
VNO 701 Seventh Avenue Mezz LLC	Delaware
VNO 701 Seventh Avenue TRS LLC	Delaware
VNO 757 Third Avenue LLC	Delaware
VNO 86 Lex LLC	Delaware
VNO 93rd Street LLC	Delaware
VNO 966 Third Avenue LLC	Delaware
VNO AC LLC	Delaware
VNO Building Acquisition LLC	Delaware
VNO Capital Partners REIT LLC	Delaware
VNO Capital Partners TRS LLC	Delaware
VNO CP Co-Investor LP	Delaware
VNO CP GP LLC	Delaware
VNO CP LLC	Delaware
VNO Fashion LLC	Delaware
VNO IF GP LLC	Delaware
VNO IP Loan LLC	Delaware
VNO Island Global LLC	Delaware
VNO LF 50 West 57th Street Holding LLC	Delaware
VNO LF 50 West 57th Street JV LLC	Delaware
VNO LF 50 West 57th Street LLC	Delaware
VNO LF 50 West 57th Street Management LLC	Delaware
VNO LNR Holdco, L.L.C.	Delaware
VNO Morris Avenue GL LLC	Delaware
VNO New York Office Management LLC	Delaware
VNO One Park LLC	Delaware
VNO One Park Management LLC	Delaware
VNO Pentagon City LLC	Delaware
VNO Roosevelt Hotel Mezz II LLC	Delaware
VNO Roosevelt Hotel Mezz LLC	Delaware
VNO RTR AP, LLC	Delaware
VNO SC Note LLC	Delaware
VNO/SC Sign JV LLC	Delaware
VNO Second Building Acquisition LLC	Delaware
VNO SM GP LLC	Delaware
VNO SM LLC	Delaware
VNO Surplus 2006 LLC	Delaware
VNO VE LLC	Delaware
VNO Wayne License LLC	Delaware
VNO Wayne Towne Center Holding LLC	Delaware
VNO Wayne Towne Center LLC	Delaware
VNO/Farley BL Member LLC	Delaware
VNO/Farley Developer LLC	Delaware
VNO/Farley PM Member LLC	Delaware
Vornado 1399 LLC	Delaware
Vornado 220 Central Park South II LLC	Delaware
Vornado 220 Central Park South LLC	Delaware
Vornado 25W14 LLC	Delaware
Vornado 3040 M Street LLC	Delaware

Vornado 330 W 34 Mezz LLC	Delaware
Vornado 330 West 34th Street L.L.C.	Delaware
Vornado 40 East 66th Street LLC	Delaware
Vornado 40 East 66th Street Member LLC	Delaware
Vornado 40 East 66th Street TRS LLC	Delaware
Vornado 401 Commercial LLC	Delaware
Vornado 601 Madison Avenue, L.L.C.	Delaware
Vornado 620 Sixth Avenue L.L.C.	Delaware
Vornado 677 Madison LLC	Delaware
Vornado 692 Broadway, L.L.C.	Delaware
Vornado 90 Park Avenue L.L.C.	Delaware
Vornado 90 Park Member L.L.C.	Delaware
Vornado 90 Park QRS, Inc.	Delaware
Vornado Acquisition Co. LLC	Delaware
Vornado Air Rights LLC	Delaware
Vornado Auto L.L.C.	Delaware
Vornado Capital Partners GP LLC	Delaware
Vornado Capital Partners Parallel GP LLC	Delaware
Vornado Capital Partners Parallel LP	Delaware
Vornado Capital Partners Parallel REIT LLC	Delaware
Vornado Capital Partners, L.P.	Delaware
Vornado Cogen Holdings LLC	Delaware
Vornado Communications, LLC	Delaware
Vornado Concierge LLC	Delaware
Vornado Condominium Management LLC	Delaware
Vornado Dune LLC	Delaware
Vornado Eleven Penn Plaza LLC	Delaware
Vornado Eleven Penn Plaza Owner LLC	Delaware
Vornado Farley Member LLC	Delaware
Vornado Finance GP L.L.C.	Delaware
Vornado Finance L.P.	Delaware
Vornado Fort Lee L.L.C.	Delaware
Vornado Fortress LLC	Delaware
Vornado Harlem Park LLC	Delaware
Vornado India Retail Management LLC	Delaware
Vornado Investment Corporation	Delaware
Vornado Investments L.L.C.	Delaware
Vornado Lending L.L.C.	New Jersey
Vornado Lodi L.L.C.	Delaware
Vornado M 330 L.L.C.	Delaware
Vornado M 393 L.L.C.	Delaware
Vornado Management Corp.	Delaware
Vornado Manhattan House Mortgage LLC	Delaware
Vornado Marketing LLC	Delaware
Vornado New York RR One L.L.C.	Delaware
Vornado NY TRS LLC	Delaware
Vornado Office Inc.	Delaware
Vornado Office Management LLC	Delaware
Vornado PC LLC	Delaware

Vornado Penn Plaza Master Plan Developer LLC	Delaware
Vornado Property Advisor LLC	Delaware
Vornado Realty L.L.C.	Delaware
Vornado Realty, L.P.	Delaware
Vornado Records 2006, L.L.C.	Delaware
Vornado Retail Finance Manager LLC	Delaware
Vornado Rosslyn LLC	Delaware
Vornado RTR DC LLC	Delaware
Vornado RTR Lessee JV LLC	Delaware
Vornado RTR Sub LLC	Delaware
Vornado RTR Urban Development LLC	Delaware
Vornado RTR Urban Development TMP LLC	Delaware
Vornado RTR, Inc.	Delaware
Vornado San Jose LLC	Delaware
Vornado Savanna LLC	Delaware
Vornado Savanna SM LLC	Delaware
Vornado SB LLC	Delaware
Vornado SC Properties II LLC	Delaware
Vornado SC Properties LLC	Delaware
Vornado Shenandoah Holdings II LLC	Delaware
Vornado Sign LLC	Delaware
Vornado Springfield Mall LLC	Delaware
Vornado Square Mile LLC	Delaware
Vornado Suffolk LLC	Delaware
Vornado Sun LLC	Delaware
Vornado Title L.L.C.	Delaware
Vornado Truck LLC	Delaware
Vornado TSQ LLC	Delaware
Vornado Two Penn Plaza L.L.C.	Delaware
Vornado Two Penn Property L.L.C.	Delaware
Vornado Westbury Retail II LLC	Delaware
Vornado Westbury Retail LLC	Delaware
VRT Development Rights LLC	New York
VSPS LLC	Delaware
Washington Mart SPE LLC	Delaware
Washington Office Center L.L.C.	Delaware
WDC 666 Fifth Retail TIC Owner LLC	Delaware
Wells Kinzie L.L.C.	Delaware
West 57th Street Holding LLC	Delaware
West 57th Street JV LLC	Delaware
West 57th Street Management LLC	Delaware
WOC 666 Fifth Retail TIC Owner LLC	Delaware
WREC San Pasqual LLC	Delaware

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements of Vornado Realty Trust of our reports dated February 18, 2020, relating to the financial statements of Vornado Realty Trust and subsidiaries, and the effectiveness of Vornado Realty Trust and subsidiaries' internal control over financial reporting, appearing in the Annual Report on Form 10-K of Vornado Realty Trust and Vornado Realty L.P. for the year ended December 31, 2019:

Amendment No.1 to Registration Statement No. 333-36080 on Form S-3
Amendment No.1 to Registration Statement No. 333-50095 on Form S-3
Amendment No.1 to Registration Statement No. 333-89667 on Form S-3
Amendment No.1 to Registration Statement No. 333-102215 on Form S-3
Amendment No.1 to Registration Statement No. 333-102217 on Form S-3
Registration Statement No. 333-105838 on Form S-3
Registration Statement No. 333-107024 on Form S-3
Registration Statement No. 333-114146 on Form S-3
Registration Statement No. 333-121929 on Form S-3
Amendment No.1 to Registration Statement No. 333-120384 on Form S-3
Registration Statement No. 333-126963 on Form S-3
Registration Statement No. 333-139646 on Form S-3
Registration Statement No. 333-141162 on Form S-3
Registration Statement No. 333-150592 on Form S-3
Registration Statement No. 333-166856 on Form S-3
Registration Statement No. 333-172880 on Form S-8
Registration Statement No. 333-191865 on Form S-4
Registration Statement No. 333-232056 on Form S-8

and in the following joint registration statements of Vornado Realty Trust and Vornado Realty L.P.:

Registration Statement No. 333-224104 on Form S-3

/s/ DELOITTE & TOUCHE LLP

New York, New York
February 18, 2020

EXHIBIT 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement No. 333-224104-01 on Form S-3 of Vornado Realty L.P. of our reports dated February 18, 2020, relating to the financial statements of Vornado Realty L.P., and subsidiaries, and the effectiveness of Vornado Realty L. P. and subsidiaries' internal control over financial reporting, appearing in the Annual Report on Form 10-K of Vornado Realty L.P. and subsidiaries and Vornado Realty Trust for the year ended December 31, 2019.

/s/ DELOITTE & TOUCHE LLP

New York, New York
February 18, 2020

EXHIBIT 31.1

CERTIFICATION

I, Steven Roth, certify that:

1. I have reviewed this Annual Report on Form 10-K of Vornado Realty Trust;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 18, 2020

/s/ Steven Roth

Steven Roth
Chairman of the Board and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION

I, Joseph Macnow, certify that:

1. I have reviewed this Annual Report on Form 10-K of Vornado Realty Trust;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
    a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
    b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
    d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
    a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
    b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

February 18, 2020

/s/ Joseph Macnow

Joseph Macnow

Executive Vice President – Chief Financial Officer and
Chief Administrative Officer

EXHIBIT 31.3

CERTIFICATION

I, Steven Roth, certify that:

1. I have reviewed this Annual Report on Form 10-K of Vornado Realty L.P.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 18, 2020

/s/ Steven Roth

Steven Roth

Chairman of the Board and Chief Executive Officer
of Vornado Realty Trust, sole General Partner of Vornado Realty L.P.

EXHIBIT 31.4

CERTIFICATION

I, Joseph Macnow, certify that:

1. I have reviewed this Annual Report on Form 10-K of Vornado Realty L.P.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

February 18, 2020

/s/ Joseph Macnow

Joseph Macnow

Executive Vice President – Chief Financial Officer and
Chief Administrative Officer of Vornado Realty Trust,
sole General Partner of Vornado Realty L.P.

EXHIBIT 32.1

CERTIFICATION

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsection (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code), the undersigned officer of Vornado Realty Trust (the “Company”), hereby certifies, to such officer’s knowledge, that:

The Annual Report on Form 10-K for the year ended December 31, 2019 (the “Report”) of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 18, 2020		/s/ Steven Roth
	Name:	Steven Roth
	Title:	Chairman of the Board and Chief Executive Officer

EXHIBIT 32.2

CERTIFICATION

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsection (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code), the undersigned officer of Vornado Realty Trust (the “Company”), hereby certifies, to such officer’s knowledge, that:

The Annual Report on Form 10-K for the year ended December 31, 2019 (the “Report”) of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 18, 2020		/s/ Joseph Macnow
	Name:	Joseph Macnow
	Title:	Executive Vice President – Chief Financial Officer and Chief Administrative Officer

CERTIFICATION

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsection (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code), the undersigned officer of Vornado Realty L.P. (the "Company"), hereby certifies, to such officer's knowledge, that:

The Annual Report on Form 10-K for the year ended December 31, 2019 (the "Report") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 18, 2020		/s/ Steven Roth
	Name:	Steven Roth
	Title:	Chairman of the Board and Chief Executive Officer of Vornado Realty Trust, sole General Partner of Vornado Realty L.P.

EXHIBIT 32.4

CERTIFICATION

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
(Subsection (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code)

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350 of Chapter 63 of Title 18 of the United States Code), the undersigned officer of Vornado Realty L.P. (the “Company”), hereby certifies, to such officer’s knowledge, that:

The Annual Report on Form 10-K for the year ended December 31, 2019 (the “Report”) of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 18, 2020		/s/ Joseph Macnow
	Name:	Joseph Macnow
	Title:	Executive Vice President – Chief Financial Officer and Chief Administrative Officer of Vornado Realty Trust, sole General Partner of Vornado Realty L.P.