VORNADO REALTY TRUST
Form 10-K
February 11, 2019

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

FORM 10-K
ý ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the Fiscal Year Ended: December 31, 2018

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	Name of Exchange on Which Registered
Vornado Realty Trust	Common Shares of beneficial interest, $.04 par value per share	New York Stock Exchange
	Cumulative Redeemable Preferred Shares of beneficial interest, no par value:	
Vornado Realty Trust	5.70% Series K	New York Stock Exchange
Vornado Realty Trust	5.40% Series L	New York Stock Exchange
Vornado Realty Trust	5.25% Series M	New York Stock Exchange

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

Registrant	Title of Each Class
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 ý NO ¨ Vornado Realty L.P.: YES ¨ NO ý

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 ý Vornado Realty L.P.: YES ¨ NO ý

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 ý NO ¨ Vornado Realty L.P.: YES ý 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 ý NO ¨ Vornado Realty L.P.: YES ý NO ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S K (229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10 K or any amendment to this Form 10 K. ý

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:
ý Large Accelerated Filer ¨ Accelerated Filer
¨ Non-Accelerated Filer ¨ Smaller Reporting Company
¨ Emerging Growth Company

Vornado Realty L.P.:
¨ Large Accelerated Filer ¨ Accelerated Filer
ý 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 ý Vornado Realty L.P.: YES ¨ NO ý

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 $12,877,203,000 at June 30, 2018.

As of December 31, 2018, there were 190,535,499 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, 2018 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 $707,001,000 at June 30, 2018.

Documents Incorporated by Reference

Part III: Portions of Proxy Statement for Annual Meeting of Vornado Realty Trust's Shareholders to be held on May 16, 2019.

EXPLANATORY NOTE

This report combines the Annual Reports on Form 10-K for the fiscal year ended December 31, 2018 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 entities/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 93.4% 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 other 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, the net proceeds of 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 capital 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 12. Redeemable Noncontrolling Interests/Redeemable Partnership Units
  - Note 13. Shareholders' Equity/Partners' Capital
  - Note 16. 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, 2018, 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,” “inte “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 is 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 93.4% of the common limited partnership interest in the Operating Partnership as of December 31, 2018.

We currently own all or portions of:

New York:

- 19.9 million square feet of Manhattan office in 36 properties;
- 2.6 million square feet of Manhattan street retail in 71 properties;
- 1,999 units in eleven 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 Related 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, known as the Bank of America Center;
- 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 other 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;
- investing in retail properties in select under-stored locations such as the New York City metropolitan area;
- 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.

ACQUISITIONS

We completed the following acquisitions during 2018:

- $442 million acquisition of the retail condominium at 1535 Broadway;
- $44 million acquisition of 537 West 26th Street and 55,000 square feet of additional zoning air rights; and
- $42 million purchase price to increase our ownership interest in the joint venture that is developing the Farley Office and Retail Building to 95.0% from 50.1%.

DISPOSITIONS

We completed the following sale transactions during 2018:

- $120 million sale of our 49.5% interests in the 666 Fifth Office Condominium. Concurrently with the sale of our interests, the existing mortgage loan on the property was repaid and we received net proceeds of $55.2 million for the participation we held in the mortgage loan;
- $82 million sale of the retail condominium at 11 East 68th Street by the Fund (25% interest); and
- $45 million sale of 27 Washington Square North.

220 CENTRAL PARK SOUTH

We completed the following sale transactions during 2018:

- $215 million net proceeds from the sale of 11 condominium units.

FINANCINGS

We completed the following financing transactions during 2018:

- $750 million unsecured term loan extended to February 2024, lowering the interest rate from LIBOR plus 1.15% to LIBOR plus 1.00%;
- $675 million refinancing of Independence Plaza ($338 million at our 50.1% interest);
- $470 million redemption of all of the outstanding 6.625% Series G and Series I cumulative redeemable preferred shares/units;
- $255 million refinancing of the Crowne Plaza Times Square Hotel ($84 million at our 32.9% interest);
- $205 million refinancing of 150 West 34th Street and $105 million investment in a participation in the refinanced loan;
- $120 million refinancing of 4 Union Square South; and
- $100 million refinancing of 33-00 Northern Boulevard (Center Building).

DEVELOPMENT AND REDEVELOPMENT EXPENDITURES

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 $1.4 billion, of which $1.2 billion has been expended as of December 31, 2018.

We are developing a 173,000 square foot Class A office building, located along the western edge of the High Line at 512 West 22nd Street in the West Chelsea submarket of Manhattan (55.0% interest). The development cost of this project is estimated to be approximately $130,000,000, of which our share is $72,000,000. As of December 31, 2018, $95,464,000 has been expended, of which our share is $52,505,000.

We are developing a 34,000 square foot office and retail building at 606 Broadway, located on the northeast corner of Broadway and Houston Street in Manhattan (50.0% interest). The development cost of this project is estimated to be approximately $60,000,000, of which our share is $30,000,000. As of December 31, 2018, $51,202,000 has been expended, of which our share is $25,601,000.

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 $46,000,000, of which our share is $32,000,000. As of December 31, 2018, $21,834,000 has been expended, of which our share is $15,284,000.

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, 2018, $8,967,000 has been expended, of which our share is $4,484,000.

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 over $200,000,000, of which $9,725,000 has been expended as of December 31, 2018.

We are in the planning phase to redevelop PENN2, a 1,634,000 square foot office building located on the west side of 7th Avenue between 31st and 33rd Street.

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

DEVELOPMENT AND REDEVELOPMENT EXPENDITURES - continued

Farley Office and Retail Building and Moynihan Train Hall

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 850,000 rentable square feet of commercial space, comprised of approximately 730,000 square feet of office space and approximately 120,000 square feet of retail space. The total development cost of the Project is estimated to be approximately $800,000,000 (exclusive of a $230,000,000 upfront contribution and net of anticipated historic tax credits). As of December 31, 2018, $144,491,000 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. Pursuant to Accounting Standards Codification 840-40-55, 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, 2018 of $445,693,000 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.

There can be no assurance that any of our development or redevelopment projects will commence, or if commenced, be completed, or completed on schedule or within budget.

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, 2018, 2017 and 2016 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, 2018, 2017 and 2016.

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 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, 2018, we have approximately 3,928 employees, of which 275 are corporate staff. The New York segment has 3,476 employees, including 2,838 employees of Building Maintenance Services LLC, a wholly owned subsidiary, which provides cleaning, security and engineering services primarily to our New York properties and 460 employees at the Hotel Pennsylvania. theMART has 177 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 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 are located in the New York City Metropolitan area and are affected by the economic cycles and risks inherent to this area.

In 2018, approximately 89% 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 and development 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 assess the future effects 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 street 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, change in relative strengths of world currencies, the threat of terrorism, increasing competition from retailers, outlet malls, retail websites and catalog companies 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.

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

We have significant investments in large metropolitan areas, including principally 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 impact our properties in these and other areas in which we operate. Potentially adverse consequences of "global warming," including rising sea levels, could similarly have an impact on our properties. 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.

The value of real estate 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;
- 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;
- 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;
- consequences of any armed conflict involving, or terrorist attacks against, the United States or individual acts of violence in public spaces including retail centers;
- 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 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 may decline 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.

We compete with a large number of real estate 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.

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 by causing us the inability to acquire a desired property or cause an increase in the purchase price for such acquisition property.

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. During periods of economic adversity, there may be an increase in the number of tenants that cannot pay their rent, become insolvent or file for bankruptcy, all of which can result in an increase in vacancy rates and lower income and funds available to pay indebtedness and for distribution to our equity investors.

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

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, taking into account 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 revenue, net income and funds available to pay our indebtedness or make distributions to equity holders.

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 also 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.

Our business and operations would suffer in the event of system failures.

Despite system redundancy, the implementation of security measures and the existence of a disaster recovery plan for our internal information technology systems, our systems are vulnerable to damages from any number of sources, including computer viruses, unauthorized access, energy blackouts, natural disasters, terrorism, war and telecommunication failures. Any system failure or accident that causes interruptions in our operations could result in a material disruption to our business. We may also incur additional costs to remedy damages caused by such disruptions.

The occurrence of cyber incidents, or a deficiency in our cyber security, 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 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.

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 $260,000,000 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 terrorism acts with limits of $4.0 billion per occurrence and in the aggregate, and $2.0 billion per occurrence and in the aggregate for terrorism involving nuclear, biological, chemical and radiological (“NBCR”) terrorism events, as defined by Terrorism Risk Insurance Program Reauthorization Act of 2015, which expires in December 2020.

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 $1,453,000 and 19% 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.

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.

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

The chief executive of the United Kingdom Financial Conduct Authority ("FCA"), which regulates LIBOR, has recently announced that the FCA intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. It is not possible to predict the effect of these changes, other reforms or the establishment of alternative reference rates in the United Kingdom or elsewhere. Furthermore, in the United States, efforts to identify a set of alternative U.S. dollar reference interest rates include proposals by the Alternative Reference Rates Committee of the Federal Reserve Board and the Federal Reserve Bank of New York. On August 24, 2017, the Federal Reserve Board requested public comment on a proposal by the Federal Reserve Bank of New York, in cooperation with the Office of Financial Research, to produce three new reference rates intended to serve as alternatives to LIBOR. These alternative rates are based on overnight repurchase agreement transactions secured by U.S. Treasury Securities.

Any changes announced by the FCA, other regulators or any other successor governance or oversight body, or future changes adopted by such body, in the method pursuant to which the LIBOR rates are determined may result in a sudden or prolonged increase or decrease in the reported LIBOR rates. If that were to occur, 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 if LIBOR is not reported, which include requesting certain rates from major reference banks in London or New York, or alternatively using LIBOR for the immediately preceding interest period or using the initial interest rate, as applicable, 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 rate was available in its current form.

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 may acquire, develop or redevelop real estate and acquire related companies and this may create risks.

We may acquire, develop or redevelop properties or acquire real estate related companies when we believe doing so is consistent with our business strategy. We may not succeed in (i) developing, redeveloping or acquiring real estate and real estate related companies; (ii) completing these activities on time or within budget; or (iii) leasing or selling developed, redeveloped or acquired properties at amounts sufficient to cover our costs. Competition in these activities could also significantly increase our costs. Difficulties in integrating acquisitions may prove costly or time-consuming and could divert management’s attention. Acquisitions or developments in new markets or industries where we do not have the same level of market knowledge may result in weaker than anticipated performance. We may also abandon acquisition or development opportunities that we have begun pursuing and consequently fail to recover expenses already incurred. Furthermore, 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.

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 buy and sell real estate quickly, which may limit our flexibility.

Real estate investments are relatively difficult to buy and sell quickly. Consequently, we may have limited ability to vary our portfolio promptly in response to changes in economic or other conditions.

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, Urban Edge Properties ("UE"), Pennsylvania Real Estate Investment Trust ("PREIT"), 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 have in the past and may in the future acquire or own properties in joint ventures and private equity real estate funds with other persons or entities 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 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 does 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 decision to dispose of real estate assets would change the holding period assumption in our valuation analyses, which could result in material impairment losses and adversely affect our financial results.

We evaluate real estate assets for impairment based on the projected cash flow of the asset over our anticipated holding period. If we change our intended holding period, due to our intention to sell or otherwise dispose of an asset, then under accounting principles generally accepted in the United States of America, we must reevaluate whether that

asset is impaired. Depending on the carrying value of the property at the time we change our intention and the amount that we estimate we would receive on disposal, we may record an impairment loss that would adversely affect our financial results. This loss could be material to our results of operations in the period that it is recognized.

We invest in marketable equity securities. The value of these investments may decline as a result of operating performance or economic or market conditions.

We invest in marketable equity securities of publicly-traded companies, such as Lexington Realty Trust. As of December 31, 2018, our marketable securities have an aggregate carrying amount of $152,198,000, at market. Significant declines in the value of these investments due to, among other reasons, operating performance or economic or market conditions, would result in recognized GAAP losses which could be material.

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, 2018, there were four series of preferred units of the Operating Partnership not held by Vornado with a total liquidation value of $55,921,000.

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, 2018, our consolidated mortgages and unsecured indebtedness, excluding related premium, discount and deferred financing costs, net, totaled $9.9 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 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 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 face possible adverse changes in tax laws, which may result in an increase in our tax liability.

From time to time changes in tax laws or regulations are enacted, which may result in an increase in our tax liability. The shortfall in tax revenues for states and municipalities in recent years 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 payment of dividends and distributions.

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. 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.

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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, 2018, 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 26.2% 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 also 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, 2018, 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 26.2% of the outstanding common stock of Alexander's as of December 31, 2018. 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 also 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 and development agreements and leasing agreements under which we receive annual fees from Alexander's. See Note 23 – Related Party Transactions to our consolidated financial statements in this Annual Report on Form 10-K for additional information.

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 a number of 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, 2018, Vornado had authorized but unissued, 59,464,501 common shares of beneficial interest, $.04 par value and 72,116,023 preferred shares of beneficial interest, no par value; of which 18,882,197 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, 2018.

NEW YORK SEGMENT Property	% Ownership	Type	% Occupancy	Square Feet In Service	Square Feet Under Development or Not Available for Lease	Square Feet Total Property
PENN1 (ground leased through 2098)	100.0 %	Office / Retail	93.1 %	2,376,000	169,000	2,545,000
1290 Avenue of the Americas	70.0 %	Office / Retail	100.0 %	2,113,000	—	2,113,000
PENN2	100.0 %	Office / Retail	100.0 %	1,398,000	236,000	1,634,000
909 Third Avenue (ground leased through 2063)	100.0 %	Office	98.6 %	1,352,000	—	1,352,000
Independence Plaza, Tribeca (1,327 units)[1]	50.1 %	Retail / Residential	100.0 % [2]	1,245,000	12,000	1,257,000
280 Park Avenue[1]	50.0 %	Office / Retail	93.5 %	1,260,000	—	1,260,000
770 Broadway	100.0 %	Office / Retail	100.0 %	1,183,000	—	1,183,000
PENN11	100.0 %	Office / Retail	99.7 %	1,151,000	—	1,151,000
90 Park Avenue	100.0 %	Office / Retail	94.9 %	962,000	—	962,000
One Park Avenue[1]	55.0 %	Office / Retail	100.0 %	943,000	—	943,000
888 Seventh Avenue (ground leased through 2067)	100.0 %	Office / Retail	96.7 %	886,000	—	886,000
100 West 33rd Street	100.0 %	Office	100.0 %	859,000	—	859,000
Farley Office and Retail Building (ground leased through 2116)	95.0 %	Office / Retail	n/a	—	850,000	850,000
330 Madison Avenue[1]	25.0 %	Office / Retail	97.0 %	846,000	—	846,000
330 West 34th Street (ground leased through 2149 - 34.8% ownership interest in the land)	100.0 %	Office / Retail	98.5 %	722,000	—	722,000
85 Tenth Avenue[1]	49.9 %	Office / Retail	99.5 %	629,000	—	629,000
650 Madison Avenue[1]	20.1 %	Office / Retail	96.0 %	604,000	—	604,000
350 Park Avenue	100.0 %	Office / Retail	97.8 %	571,000	—	571,000
150 East 58th Street (ground leased through 2118)	100.0 %	Office / Retail	96.5 %	543,000	—	543,000
7 West 34th Street [1]	53.0 %	Office / Retail	99.6 %	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	91.1 %	330,000	—	330,000
640 Fifth Avenue	100.0 %	Office / Retail	100.0 %	315,000	—	315,000
50-70 W 93rd Street (325 units)[1]	49.9 %	Residential	96.0 %	283,000	—	283,000
Manhattan Mall	100.0 %	Retail	94.9 %	256,000	—	256,000
40 Fulton Street	100.0 %	Office / Retail	77.5 %	251,000	—	251,000
4 Union Square South	100.0 %	Retail	100.0 %	206,000	—	206,000
260 Eleventh Avenue (ground leased through 2114)	100.0 %	Office	100.0 %	184,000	—	184,000
512 W 22nd Street[1]	55.0 %	Office	n/a	—	173,000	173,000
	45.1 %	Office / Retail	100.0 %	23,000	147,000	170,000

61 Ninth Avenue (ground leased through 2115)[1]								
825 Seventh Avenue	51.2	%	Office [1] / Retail	n/a		—	169,000	169,000
1540 Broadway	100.0	%	Retail	100.0	%	161,000	—	161,000
608 Fifth Avenue (ground leased through 2033)	100.0	%	Office / Retail	99.9	%	137,000	—	137,000
Paramus	100.0	%	Office	87.2	%	129,000	—	129,000
666 Fifth Avenue Retail Condominium	100.0	%	Retail	100.0	%	114,000	—	114,000
1535 Broadway	100.0	%	Retail / Theatre	98.0	%	107,000	—	107,000
57th Street (2 buildings)[1]	50.0	%	Office / Retail	87.9	%	103,000	—	103,000
689 Fifth Avenue	100.0	%	Office / Retail	100.0	%	98,000	—	98,000
478-486 Broadway (2 buildings) (10 units)	100.0	%	Retail / Residential	100.0	% [2]	85,000	—	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	92.5	%	Retail	100.0	%	57,000	—	57,000
155 Spring Street	100.0	%	Retail	93.6	%	50,000	—	50,000
3040 M Street	100.0	%	Retail	100.0	%	44,000	—	44,000
435 Seventh Avenue	100.0	%	Retail	100.0	%	43,000	—	43,000

See notes on page 28.

ITEM 2. PROPERTIES – CONTINUED

NEW YORK SEGMENT – CONTINUED Property	% Ownership	Type	% Occupancy	Square Feet In Service	Square Feet Under Development or Not Available for Lease	Square Feet Total Property
692 Broadway	100.0 %	Retail	100.0 %	36,000	—	36,000
606 Broadway	50.0 %	Office / Retail	100.0 %	3,000	31,000	34,000
697-703 Fifth Avenue	74.3 %	Retail	100.0 %	26,000	—	26,000
715 Lexington Avenue	100.0 %	Retail	92.5 %	23,000	—	23,000
1131 Third Avenue	100.0 %	Retail	100.0 %	23,000	—	23,000
40 East 66th Street (5 units)	100.0 %	Retail / Residential	66.7 % (2)	23,000	—	23,000
131-135 West 33rd Street	100.0 %	Retail	100.0 %	23,000	—	23,000
828-850 Madison Avenue	100.0 %	Retail	94.8 %	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	100.0 % (2)	15,000	—	15,000
537 West 26th Street	100.0 %	Retail	n/a	14,000	—	14,000
304 Canal Street (4 units)	100.0 %	Retail / Residential	n/a	13,000	—	13,000
677-679 Madison Avenue (8 units)	100.0 %	Retail / Residential	100.0 % (2)	13,000	—	13,000
431 Seventh Avenue	100.0 %	Retail	100.0 %	10,000	—	10,000
138-142 West 32nd Street	100.0 %	Retail	67.3 %	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	63.2 % (2)	7,000	—	7,000
966 Third Avenue	100.0 %	Retail	100.0 %	7,000	—	7,000
968 Third Avenue (1)	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
Other (8 units)	100.0 %	Retail / Residential	100.0 % (2)	22,000	—	22,000
Hotel Pennsylvania	100.0 %	Hotel	n/a	1,400,000	—	1,400,000
Alexander's, Inc.:						
731 Lexington Avenue(1)	32.4 %	Office / Retail	99.9 %	1,063,000	—	1,063,000
Rego Park II, Queens(1)	32.4 %	Retail	99.9 %	609,000	—	609,000
Rego Park I, Queens(1)	32.4 %	Retail	43.1 %	343,000	—	343,000
The Alexander Apartment Tower, Queens (312 units)(1)	32.4 %	Residential	95.5 %	255,000	—	255,000
Flushing, Queens(1) (1.0 acre ground leased through 2037)	32.4 %	Retail	100.0 %	167,000	—	167,000
Paramus, New Jersey (30.3 acres	32.4 %	Retail	100.0 %	—	—	—

ground leased through 2041)[1]					
Total New York Segment	96.7	%	27,876,000	1,791,000	29,667,000
Our Ownership Interest	97.0	%	22,041,000	1,486,000	23,527,000

See notes on page 28.

ITEM 2. PROPERTIES – CONTINUED

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	94.8 %	3,675,000	—	3,675,000
Other (2 properties)(1)	50.0 %	Retail	89.5 %	19,000	—	19,000
Total theMART			94.7 %	3,694,000	—	3,694,000
Our Ownership Interest			94.7 %	3,685,000	—	3,685,000
555 California Street:						
555 California Street	70.0 %	Office	99.3 %	1,508,000	—	1,508,000
315 Montgomery Street	70.0 %	Office / Retail	100.0 %	235,000	—	235,000
345 Montgomery Street	70.0 %	Office / Retail	n/a	—	78,000	78,000
Total 555 California Street			99.4 %	1,743,000	78,000	1,821,000
Our Ownership Interest			99.4 %	1,220,000	55,000	1,275,000
Vornado Capital Partners Real Estate Fund ("Fund")(3) :						
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) (4)	75.3 %	Office / Retail/Hotel	97.6 %	243,000	—	243,000
Lucida, 86th Street and Lexington Avenue, NY (ground leased through 2082) (39 units)	100 %	Retail / Residential	100.0 %(2)	155,000	—	155,000
501 Broadway, NY	100 %	Retail	100.0 %	9,000	—	9,000
1100 Lincoln Road, Miami, FL	100 %	Retail / Theatre	86.9 %	130,000	—	130,000
Total Real Estate Fund			94.1 %	537,000	—	537,000
Our Ownership Interest			94.5 %	154,000	—	154,000
Other:						
Rosslyn Plaza (197 units)(1)	46.2 %	Office / Residential	61.6 %(2)	685,000	304,000	989,000
Wayne Towne Center, Wayne (ground leased through 2064)	100 %	Retail	100.0 %	671,000	6,000	677,000
Annapolis (ground leased through 2042)	100 %	Retail	100.0 %	128,000	—	128,000
Fashion Centre Mall(1)	7.5 %	Retail	99.6 %	868,000	—	868,000
Washington Tower(1)	7.5 %	Office	100.0 %	170,000	—	170,000
Total Other			92.5 %	2,522,000	310,000	2,832,000
Our Ownership Interest			92.8 %	1,187,000	146,000	1,333,000

(1) Denotes property not consolidated in the accompanying consolidated financial statements and related financial data included in the Annual Report on Form 10-K.

(2) Excludes residential occupancy statistics.

(3) We own a 25% interest in the Fund. The ownership percentage in this section represents the Fund's ownership in the underlying assets.

(4) We own a 32.9% economic interest through the Fund and the Crowne Plaza Joint Venture.

NEW YORK

As of December 31, 2018, our New York segment consisted of 27.9 million square feet in 87 properties. The 27.9 million square feet is comprised of 19.9 million square feet of office in 36 properties, 2.6 million square feet of retail in 71 properties, 1,999 units in eleven 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, 2018, the occupancy rate for our New York segment was 97.0%.

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 Rent Per Square Foot
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
2014	18,785,000	15,730,925	97.7 %	65.31

Retail:

		Vornado's Ownership Interest		
As of December 31,	Total Property Square Feet	Square Feet	Occupancy Rate	Weighted Average Annual Rent Per Square Foot
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
2014	2,436,000	2,176,000	96.4 %	173.55

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

As of December 31,	Number of Units	Vornado's Ownership Interest			Average Monthly Rent Per Unit
		Number of Units	Occupancy Rate		
2018	1,999	963	96.6	%	$ 3,803
2017	2,009	981	96.7	%	3,722
2016 (1)	2,004	977	95.7	%	3,576
2015	1,711	886	95.0	%	3,495
2014	1,678	855	95.2	%	3,146

(1) 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	2018 Revenues	Percentage of New York Total Revenues	Percentage of Total Revenues
Swatch Group USA	32,000	$62,636,000	3.4 %	2.9 %
IPG and affiliates	924,000	59,712,000	3.3 %	2.8 %
Macy's	646,000	42,402,000	2.3 %	2.0 %
AXA Equitable Life Insurance	481,000	41,752,000	2.3 %	1.9 %

2018 rental revenue by tenants' industry:

Industry	Percentage
Office:	
Financial Services	14 %
Advertising/Marketing	8 %
Communications	7 %
Family Apparel	5 %
Technology	5 %
Legal Services	4 %
Insurance	4 %
Real Estate	3 %
Publishing	3 %
Home Entertainment & Electronics	3 %
Government	2 %
Banking	2 %
Engineering, Architect & Surveying	2 %
Health Services	1 %
Pharmaceutical	1 %
Other	7 %
	71 %
Retail:	
Women's Apparel	7 %
Family Apparel	7 %
Luxury Retail	6 %
Restaurants	2 %
Banking	1 %
Department Stores	1 %
Discount Stores	1 %
Other	4 %
	29 %
Total	100 %

NEW YORK – CONTINUED

Lease expirations as of December 31, 2018, 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	12	47,000	0.3%	$5,010,000	$106.60
2019	69	627,000	3.9%	41,116,000	65.58 [2]
2020	110	1,240,000	7.8%	86,369,000	69.65
2021	133	1,188,000	7.5%	92,419,000	77.79
2022	82	709,000	4.5%	47,069,000	66.39
2023	87	1,971,000[3]	12.4%	159,774,000	81.06
2024	98	1,391,000	8.8%	109,744,000	78.90
2025	54	804,000	5.1%	60,228,000	74.91
2026	76	1,236,000	7.8%	93,992,000	76.05
2027	69	1,118,000	7.0%	81,535,000	72.93
2028	54	1,022,000	6.4%	72,762,000	71.20
Retail:					
Month to month	20	71,000	3.7%	$9,355,000	$131.76
2019	27	103,000	5.4%	26,474,000	257.03 [4]
2020	23	82,000	4.3%	16,051,000	195.74
2021	15	58,000	3.0%	9,589,000	165.33
2022	9	29,000	1.5%	7,207,000	248.52
2023	18	110,000	5.8%	44,107,000	400.97
2024	22	298,000	15.6%	84,487,000	283.51
2025	11	42,000	2.2%	19,220,000	457.62
2026	17	134,000	7.0%	44,523,000	332.26
2027	11	32,000	1.7%	22,719,000	709.97
2028	16	45,000	2.4%	18,457,000	410.16

(1) Excludes storage, vacancy and other.

(2) Based on current market conditions, we expect to re-lease this space at rents between $68 to $78 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 $12.99 per square foot.

(4) Based on current market conditions, we expect to re-lease this space at rents between $250 to $275 per square foot.

Alexander's

As of December 31, 2018, 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 $1.16 billion of outstanding debt, net, at December 31, 2018, of which our pro rata share was $376.2 million, 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.

	Year Ended December 31,				
	2018	2017	2016	2015	2014
Hotel Pennsylvania:					
Average occupancy rate	86.4 %	87.3 %	84.7 %	90.7 %	92.0 %
Average daily rate	$138.35	$139.09	$134.38	$147.46	$162.01
Revenue per available room	119.47	121.46	113.84	133.69	149.04

OTHER INVESTMENTS

theMART

As of December 31, 2018, 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, 2018, theMART had an occupancy rate of 94.7% and a weighted average annual rent per square foot of $48.16.

555 California Street

As of December 31, 2018, we own a 70% controlling interest in a three-building office complex containing 1.8 million square feet, known as the Bank of America Center, located at California and Montgomery Streets in San Francisco's financial district ("555 California Street"). 555 California Street is encumbered by a $558,914,000 mortgage loan that bears interest at a fixed rate of 5.10% and matures in September 2021. As of December 31, 2018, 555 California Street had an occupancy rate of 99.4% and a weighted average annual rent per square foot of $75.60.

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, 2018, we own a 25.0% interest in the Fund, which 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, 2018, these four investments are carried on our consolidated balance sheet at an aggregate fair value of $318,758,000, including the Crowne Plaza Joint Venture. As of December 31, 2018, our share of unfunded commitments was $16,119,000.

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, 2019, there were 935 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 unitholder is equal to the quarterly dividend paid to a Vornado common shareholder.

As of February 1, 2019, there were 984 Class A unitholders of record.

Recent Sales of Unregistered Securities

During 2018, the Operating Partnership issued 915,834 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 $19,078,596 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, 2013 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.

	2013	2014	2015	2016	2017	2018
Vornado Realty Trust	$100	$136	$131	$141	$135	$111
S&P 500 Index	100	114	115	129	157	150
The NAREIT All Equity Index	100	128	132	143	155	149

ITEM 6. SELECTED FINANCIAL DATA

Vornado Realty Trust (Amounts in thousands, except per share amounts)	Year Ended December 31,				
	2018	2017	2016	2015	2014
Operating Data:					
REVENUES:					
Property rentals	$1,760,205	$1,714,952	$1,662,093	$1,626,866	$1,460,391
Tenant expense reimbursements	247,128	233,424	221,563	218,739	203,120
Fee and other income	156,387	135,750	120,086	139,890	128,657
Total revenues	2,163,720	2,084,126	2,003,742	1,985,495	1,792,168
EXPENSES:					
Operating	963,478	886,596	844,566	824,511	768,341
Depreciation and amortization	446,570	429,389	421,023	379,803	351,583
General and administrative	141,871	150,782	143,643	148,982	130,256
(Benefit) expense from deferred compensation plan liability	(2,480)	6,932	5,213	111	11,557
Transaction related costs, impairment loss and other	31,320	1,776	9,451	12,511	18,435
Total expenses	1,580,759	1,475,475	1,423,896	1,365,918	1,280,172
Operating income	582,961	608,651	579,846	619,577	511,996
Income (loss) from partially owned entities	9,149	15,200	168,948	(9,947)	(58,484)
(Loss) income from real estate fund investments	(89,231)	3,240	(23,602)	74,081	163,034
Interest and other investment income, net	17,057	30,861	24,335	27,129	27,012
(Loss) income from deferred compensation plan assets	(2,480)	6,932	5,213	111	11,557
Interest and debt expense	(347,949)	(345,654)	(330,240)	(309,298)	(337,360)
Purchase price fair value adjustment	44,060	—	—	—	—
Net gains on disposition of wholly owned and partially owned assets	246,031	501	160,433	149,417	13,568
Income before income taxes	459,598	319,731	584,933	551,070	331,323
Income tax (expense) benefit	(37,633)	(42,375)	(7,923)	84,849	(9,157)
Income from continuing operations	421,965	277,356	577,010	635,919	322,166
Income (loss) from discontinued operations	638	(13,228)	404,912	223,511	686,860
Net income	422,603	264,128	981,922	859,430	1,009,026
Less net loss (income) attributable to noncontrolling interests in:					
Consolidated subsidiaries	53,023	(25,802)	(21,351)	(55,765)	(96,561)
Operating Partnership	(25,672)	(10,910)	(53,654)	(43,231)	(47,613)
Net income attributable to Vornado	449,954	227,416	906,917	760,434	864,852
Preferred share dividends	(50,636)	(65,399)	(75,903)	(80,578)	(81,464)
Preferred share issuance costs	(14,486)	—	(7,408)	—	—
NET INCOME attributable to common shareholders	$384,832	$162,017	$823,606	$679,856	$783,388

Per Share Data:					
Income from continuing operations, net - basic	$2.02	$0.92	$2.35	$2.49	$0.73
Income from continuing operations, net - diluted	2.01	0.91	2.34	2.48	0.72
Net income per common share - basic	2.02	0.85	4.36	3.61	4.18
Net income per common share - diluted	2.01	0.85	4.34	3.59	4.15
Dividends per common share	2.52	2.62 (1)	2.52	2.52	2.92 (2)
Balance Sheet Data:					
Total assets	$17,180,794	$17,397,934	$20,814,847	$21,143,293	$21,157,980
Real estate, at cost	16,237,883	14,756,295	14,187,820	13,545,295	12,438,940
Accumulated depreciation and amortization	(3,180,175)	(2,885,283)	(2,581,514)	(2,356,728)	(2,209,778)
Debt, net	9,836,621	9,729,487	9,446,670	9,095,670	7,557,877
Total equity	5,107,883	5,007,701	7,618,496	7,476,078	7,489,382

(1) Post spin-off of JBG SMITH Properties (NYSE: JBGS) on July 17, 2017.
(2) 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)	Year Ended December 31, 2018	2017	2016	2015	2014
Other Data:					
Funds From Operations ("FFO")[1]:					
Net income attributable to common shareholders	$384,832	$162,017	$823,606	$679,856	$783,388
FFO adjustments:					
Depreciation and amortization of real property	413,091	467,966	531,620	514,085	517,493
Net gains on sale of real estate	(158,138)	(3,797)	(177,023)	(289,117)	(507,192)
Real estate impairment losses	12,000	—	160,700	256	26,518
Decrease in fair value of marketable securities	26,453	—	—	—	—
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	101,591	137,000	154,795	143,960	117,766
Net gains on sale of real estate	(3,998)	(17,777)	(2,853)	(4,513)	(11,580)
Real estate impairment losses	—	7,692	6,328	16,758	—
Decrease in fair value of marketable securities	3,882	—	—	—	—
Income tax effect of above adjustments	—	—	—	—	(7,287)
	367,592	591,084	673,567	381,429	135,718
Noncontrolling interests' share of above adjustments	(22,746)	(36,420)	(41,267)	(22,342)	(8,073)
FFO adjustments, net	344,846	554,664	632,300	359,087	127,645
FFO attributable to common shareholders	729,678	716,681	1,455,906	1,038,943	911,033
Convertible preferred share dividends	62	77	86	92	97
Earnings allocated to Out-Performance Plan units	—	1,047	1,591	—	—
FFO attributable to common shareholders plus assumed conversions[1]	$729,740	$717,805	$1,457,583	$1,039,035	$911,130

(1) 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 our 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.

ITEM 6. SELECTED FINANCIAL DATA – CONTINUED

Vornado Realty L.P.

(Amounts in thousands, except per unit amounts)	Year Ended December 31,				
	2018	2017	2016	2015	2014
Operating Data:					
REVENUES:					
Property rentals	$1,760,205	$1,714,952	$1,662,093	$1,626,866	$1,460,391
Tenant expense reimbursements	247,128	233,424	221,563	218,739	203,120
Fee and other income	156,387	135,750	120,086	139,890	128,657
Total revenues	2,163,720	2,084,126	2,003,742	1,985,495	1,792,168
EXPENSES:					
Operating	963,478	886,596	844,566	824,511	768,341
Depreciation and amortization	446,570	429,389	421,023	379,803	351,583
General and administrative	141,871	150,782	143,643	148,982	130,256
(Benefit) expense from deferred compensation plan liability	(2,480)	6,932	5,213	111	11,557
Transaction related costs, impairment loss and other	31,320	1,776	9,451	12,511	18,435
Total expenses	1,580,759	1,475,475	1,423,896	1,365,918	1,280,172
Operating income	582,961	608,651	579,846	619,577	511,996
Income (loss) from partially owned entities	9,149	15,200	168,948	(9,947)	(58,484)
(Loss) income from real estate fund investments	(89,231)	3,240	(23,602)	74,081	163,034
Interest and other investment income, net	17,057	30,861	24,335	27,129	27,012
(Loss) income from deferred compensation plan assets	(2,480)	6,932	5,213	111	11,557
Interest and debt expense	(347,949)	(345,654)	(330,240)	(309,298)	(337,360)
Purchase price fair value adjustment	44,060	—	—	—	—
Net gains on disposition of wholly owned and partially owned assets	246,031	501	160,433	149,417	13,568
Income before income taxes	459,598	319,731	584,933	551,070	331,323
Income tax (expense) benefit	(37,633)	(42,375)	(7,923)	84,849	(9,157)
Income from continuing operations	421,965	277,356	577,010	635,919	322,166
Income (loss) from discontinued operations	638	(13,228)	404,912	223,511	686,860
Net income	422,603	264,128	981,922	859,430	1,009,026
Less net loss (income) attributable to noncontrolling interests in consolidated subsidiaries	53,023	(25,802)	(21,351)	(55,765)	(96,561)
Net income attributable to Vornado Realty L.P.	475,626	238,326	960,571	803,665	912,465
Preferred unit distributions	(50,830)	(65,593)	(76,097)	(80,736)	(81,514)
Preferred share issuance costs	(14,486)	—	(7,408)	—	—
NET INCOME attributable to Class A unitholders	$410,310	$172,733	$877,066	$722,929	$830,951

Per Unit Data:					
Income from continuing operations, net - basic	$2.01	$0.91	$2.34	$2.49	$0.71
Income from continuing operations, net - diluted	2.00	0.90	2.32	2.46	0.70
Net income per Class A unit - basic	2.02	0.84	4.36	3.61	4.17
Net income per Class A unit - diluted	2.00	0.83	4.32	3.57	4.14
Distributions per Class A unit	2.52	2.62 (1)	2.52	2.52	(2) 2.92
Balance Sheet Data:					
Total assets	$17,180,794	$17,397,934	$20,814,847	$21,143,293	$21,157,980
Real estate, at cost	16,237,883	14,756,295	14,187,820	13,545,295	12,438,940
Accumulated depreciation and amortization	(3,180,175)	(2,885,283)	(2,581,514)	(2,356,728)	(2,209,778)
Debt, net	9,836,621	9,729,487	9,446,670	9,095,670	7,557,877
Total equity	5,107,883	5,007,701	7,618,496	7,476,078	7,489,382

(1) Post spin-off of JBG SMITH (NYSE: JBGS) on July 17, 2017.
(2) 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

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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 is 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 93.4% of the common limited partnership interest in the Operating Partnership as of December 31, 2018. All references to the "Company," "we," "us" and "our" mean collectively Vornado, the Operating Partnership and those entities/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 related 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, 2018:

	Total Return[1]		
	Vornado	Office REIT	MSCI
Three-month	(14.2)%	(11.9)%	(6.7)%
One-year	(17.8)%	(14.5)%	(4.6)%
Three-year	(15.6)%	1.8 %	8.9 %
Five-year	10.6 %	28.5 %	45.6 %
Ten-year	101.8 %	146.7 %	215.5 %

(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;
- investing in retail properties in select under-stored locations such as the New York City metropolitan area;
- 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 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

Vornado Realty Trust

Quarter Ended December 31, 2018 Financial Results Summary

Net income attributable to common shareholders for the quarter ended December 31, 2018 was $100,494,000, or $0.53 per diluted share, compared to $27,319,000, or $0.14 per diluted share, for the prior year's quarter. The quarters ended December 31, 2018 and 2017 include certain items that impact net income attributable to common shareholders, which are listed in the table on page 41. The aggregate of these items, net of amounts attributable to noncontrolling interests, increased net income attributable to common shareholders for the quarter ended December 31, 2018 by $49,504,000, or $0.26 per diluted share, and decreased net income attributable to common shareholders for the quarter ended December 31, 2017 by $38,471,000, or $0.20 per diluted share.

Funds From Operations ("FFO") attributable to common shareholders plus assumed conversions for the quarter ended December 31, 2018 was $210,100,000, or $1.10 per diluted share, compared to $153,151,000, or $0.80 per diluted share, for the prior year's quarter. The quarters ended December 31, 2018 and 2017 include certain items that impact FFO, which are listed in the table on page 42. The aggregate of these items, net of amounts attributable to noncontrolling interests, increased FFO for the quarter ended December 31, 2018 by $38,673,000, or $0.20 per diluted share and decreased FFO for the quarter ended December 31, 2017 by $33,974,000, or $0.18 per diluted share.

Year Ended December 31, 2018 Financial Results Summary

Net income attributable to common shareholders for the year ended December 31, 2018 was $384,832,000, or $2.01 per diluted share, compared to $162,017,000, or $0.85 per diluted share, for the year ended December 31, 2017. The years ended December 31, 2018 and 2017 include certain items that impact net income attributable to common shareholders, which are listed in the table on page 41. The aggregate of these items, net of amounts attributable to noncontrolling interests, increased net income attributable to common shareholders for the year ended December 31, 2018 by $140,938,000, or $0.74 per diluted share, and decreased net income attributable to common shareholders for the year ended December 31, 2017 by $90,847,000, or $0.47 per diluted share.

FFO attributable to common shareholders plus assumed conversions for the year ended December 31, 2018 was $729,740,000, or $3.82 per diluted share, compared to $717,805,000, or $3.75 per diluted share, for the year ended December 31, 2017. The years ended December 31, 2018 and 2017 include certain items that impact FFO, which are listed in the table on page 42. The aggregate of these items, net of amounts attributable to noncontrolling interests, increased FFO by $10,980,000 and $4,782,000, or $0.06 and $0.02 per diluted share, for the years ended December 31, 2018 and 2017, respectively.

Overview - continued

Vornado Realty Trust - 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,	
	2018	2017	2018	2017
Certain (income) expense items that impact net income attributable to common shareholders:				
After-tax net gain on sale of 220 Central Park South condominium units	$(67,336)	$—	$(67,336)	$—
After-tax purchase price fair value adjustment related to the increase in ownership of the Farley joint venture	(27,289)	—	(27,289)	—
Our share of loss (income) from real estate fund investments (excluding our $4,252 share of One Park Avenue potential additional transfer taxes)	24,366	(529)	23,749	10,804
Real estate impairment losses (including our share of partially owned entities)	12,000	145	12,000	7,692
Decrease in fair value of marketable securities resulting from a new GAAP accounting standard effective January 1, 2018 (including our share of partially owned entities)	3,733	—	30,335	—
(Income) loss from discontinued operations and sold properties (primarily related to JBG SMITH Properties operating results and transaction costs through July 17, 2017 spin-off and 666 Fifth Avenue Office Condominium operations through August 3, 2018 sale)	(242)	1,664	5,727	43,615
Tax expense related to the reduction of our taxable REIT subsidiaries deferred tax assets	—	34,800	—	34,800
Net gains on sale of real estate (including our share of partially owned entities)	—	(585)	(28,104)	(21,574)
Net gain on sale of our ownership interests in 666 Fifth Avenue Office Condominium	—	—	(134,032)	—
Net gain on the repayment of our loan investment in 666 Fifth Avenue Office Condominium	—	—	(7,308)	—
Our share of potential additional New York City transfer taxes based on a Tax Tribunal interpretation which Vornado is appealing	—	—	23,503	—
Preferred share issuance costs	—	—	14,486	—
Impairment loss on investment in Pennsylvania Real Estate Investment Trust ("PREIT")	—	—	—	44,465
Net gain resulting from Urban Edge Properties ("UE") operating partnership unit issuances	—	—	—	(21,100)
Net gain on repayment of our Suffolk Downs JV debt investments	—	—	—	(11,373)
Other	1,996	5,515	4,046	9,900
	(52,772)	41,010	(150,223)	97,229
Noncontrolling interests' share of above adjustments	3,268	(2,539)	9,285	(6,382)
Total of certain (income) expense items that impact net income attributable to common shareholders	$(49,504)	$38,471	$(140,938)	$90,847

Overview - continued

Vornado Realty Trust - continued

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,	
	2018	2017	2018	2017
Certain (income) expense items that impact FFO attributable to common shareholders plus assumed conversions:				
After-tax net gain on sale of 220 Central Park South condominium units	$(67,336)	$—	$(67,336)	$—
Our share of FFO from real estate fund investments (excluding our $4,252 share of One Park Avenue potential additional transfer taxes)	24,366	(529)	23,749	10,804
FFO from discontinued operations and sold properties (primarily related to JBG SMITH Properties operating results and transaction costs through July 17, 2017 spin-off and 666 Fifth Avenue Office Condominium operations through August 3, 2018 sale)	(242)	(4,006)	(2,834)	(73,240)
Tax expense related to the reduction of our taxable REIT subsidiaries deferred tax assets	—	34,800	—	34,800
Our share of potential additional New York City transfer taxes based on a Tax Tribunal interpretation which Vornado is appealing	—	—	23,503	—
Preferred share issuance costs	—	—	14,486	—
Net gain on the repayment of our loan investment in 666 Fifth Avenue Office Condominium	—	—	(7,308)	—
Impairment loss on investment in PREIT	—	—	—	44,465
Net gain resulting from UE operating partnership unit issuances	—	—	—	(21,100)
Net gain on repayment of our Suffolk Downs JV debt investments	—	—	—	(11,373)
Other	1,987	5,951	4,033	10,328
	(41,225)	36,216	(11,707)	(5,316)
Noncontrolling interests' share of above adjustments	2,552	(2,242)	727	534
Total of certain (income) expense items that impact FFO attributable to common shareholders plus assumed conversions, net	$(38,673)	$33,974	$(10,980)	$(4,782)

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, 2018 compared to December 31, 2017	0.8 %	1.4 %	(12.2)% [2]	14.9 %
Year ended December 31, 2017 compared to December 31, 2016	2.7 %	2.7 %	4.2 % [3]	1.9 %
Three months ended December 31, 2018 compared to December 31, 2017	(6.3)%	(3.1)%	(56.6)% [2]	16.8 %
Three months ended December 31, 2018 compared to September 30, 2018	(5.3)%	(1.1)%	(58.0)% [2]	3.8 %
Same store NOI at share - cash basis % increase (decrease):				
Year ended December 31, 2018 compared to December 31, 2017	3.9 %	4.3 %	(6.5)% [2]	18.1 %
Year ended December 31, 2017 compared to December 31, 2016	11.8 %	11.3 %	7.6 % [3]	36.0 %
Three months ended December 31, 2018 compared to December 31, 2017	(1.7)%	1.9 %	(49.8)% [2]	15.8 %
Three months ended December 31, 2018 compared to September 30, 2018	(4.2)%	— %	(52.9)% [2]	5.7 %

	Increase (Decrease)
(1) Excluding Hotel Pennsylvania, same store NOI at share % increase (decrease):	
Year ended December 31, 2018 compared to December 31, 2017	1.5 %
Year ended December 31, 2017 compared to December 31, 2016	2.3 %
Three months ended December 31, 2018 compared to December 31, 2017	(3.0)%
Three months ended December 31, 2018 compared to September 30, 2018	(1.7)%
Excluding Hotel Pennsylvania, same store NOI at share - cash basis % increase (decrease):	
Year ended December 31, 2018 compared to December 31, 2017	4.5 %
Year ended December 31, 2017 compared to December 31, 2016	11.0 %
Three months ended December 31, 2018 compared to December 31, 2017	2.1 %
Three months ended December 31, 2018 compared to September 30, 2018	(0.6)%

(2) Includes additional real estate tax expense accruals of $15,148,000 and $12,124,000 for the year and three months ended December 31, 2018, respectively, due to an increase in the tax-assessed value of theMART.

(3) The year ended December 31, 2016 includes a $2,000,000 reversal of an expense accrued in 2015. Excluding this amount, same store NOI at share increased by 6.4% and same store NOI at share - cash basis increased by 10.0%.

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.

Overview - continued

Acquisitions

537 West 26th Street

On February 9, 2018, we acquired 537 West 26th Street, a 14,000 square foot commercial property adjacent to our 260 Eleventh Avenue office property, and 55,000 square feet of additional zoning air rights for $44,000,000.

1535 Broadway

On July 30, 2012, we entered into a lease with Host Hotels & Resorts, Inc. (NYSE: HST) (“Host”), under which we redeveloped the retail and signage components of the Marriott Times Square Hotel. We accounted for this lease as a “capital lease” and recorded a $240,000,000 capital lease asset and liability. On September 21, 2018, we acquired the retail condominium from Host for $442,000,000 (inclusive of the $240,000,000 capital lease liability). The original lease transaction provided that we would become the 100% owner through a put/call arrangement, based on a pre-negotiated formula. This transaction satisfies the put/call arrangement. Our 100% fee interest includes 45,000 square feet of retail, the 1,611 seat Marquis Theater and the largest digital sign in New York with a 330 linear foot, 25,000 square foot display.

Farley Office and Retail Building

On October 30, 2018, we increased our ownership interest in the joint venture that is developing the Farley Office and Retail Building to 95.0% from 50.1% by acquiring a 44.9% additional ownership interest from the Related Companies ("Related"). The purchase price was $41,500,000 plus the reimbursement of $33,026,000 of costs funded by Related through October 30, 2018. We consolidate the accounts of the joint venture as of October 30, 2018. In connection therewith, we recorded a net gain of $44,060,000, which is included in "purchase price fair value adjustment" on our consolidated statements of income. As a result of this gain, because we hold our investment in the joint venture through a taxable REIT subsidiary, $16,771,000 of income tax expense was recognized on our consolidated statements of income.

Dispositions

On January 17, 2018, Vornado Capital Partners Real Estate Fund (the "Fund") completed the sale of the retail condominium at 11 East 68th Street, a property located on Madison Avenue and 68th Street, for $82,000,000. From the inception of this investment through its disposition, the Fund realized a $46,259,000 net gain.

On June 21, 2018 we completed the $45,000,000 sale of 27 Washington Square North, which resulted in a net gain of $23,559,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income.

On August 3, 2018, we completed the sale of our 49.5% interests in the 666 Fifth Avenue Office Condominium. We received net proceeds of $120,000,000 and recognized a financial statement gain of $134,032,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income. The gain for tax purposes was approximately $254,000,000. We continue to own all of the 666 Fifth Avenue Retail Condominium encompassing the Uniqlo, Tissot and Hollister stores with 125 linear feet of frontage on Fifth Avenue between 52nd and 53rd Street. Concurrently with the sale of our interests, the existing mortgage loan on the property was repaid and we received net proceeds of $55,244,000 for the participation we held in the mortgage loan. We recognized a financial statement gain of $7,308,000, which is included in "net gains on disposition of wholly owned

and partially owned assets" on our consolidated statements of income.

Financings

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.

Overview - continued

Financings - continued

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% (3.52% as of December 31, 2018). 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.

Other Financings

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% (6.00% at December 31, 2018) 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 residential complex in the Tribeca submarket of Manhattan 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% (3.75% as of December 31, 2018) 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% (4.26% as of December 31, 2018) 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% (4.38% as of December 31, 2018) 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.

Other Activities

220 Central Park South ("220 CPS")

During the fourth quarter of 2018, we completed the sale of 11 condominium units at 220 CPS for net proceeds aggregating $214,776,000 and resulting in a financial statement net gain of $81,224,000 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, $13,888,000 of income tax expense was recognized in our consolidated statements of income and $213,000,000 of the $950,000,000 220 CPS loan was repaid.

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, 2018:				
Total square feet leased	479	26	46	—
Our share of square feet leased	415	17	46	—
Initial rent[1]	$72.97	$211.34	$60.73	$ —
Weighted average lease term (years)	7.7	8.2	5.6	—
Second generation relet space:				
Square feet	357	7	46	—
GAAP basis:				
Straight-line rent[2]	$67.56	$228.99	$61.28	$ —
Prior straight-line rent	$63.17	$222.39	$56.40	$ —
Percentage increase	6.9 %	3.0 %	8.7 %	— %
Cash basis:				
Initial rent[1]	$67.22	$219.50	$60.73	$ —
Prior escalated rent	$66.41	$217.08	$58.87	$ —
Percentage increase	1.2 %	1.1 %	3.2 %	— %
Tenant improvements and leasing commissions:				
Per square foot	$78.71	$144.50	$9.03	$ —
Per square foot per annum:	$10.22	$17.62	$1.61	$ —
Percentage of initial rent	14.0 %	8.3 %	2.7 %	— %
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 %

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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, 2017:				
Total square feet leased	1,867	126	345	285
Our share of square feet leased:	1,469	97	345	200
Initial rent[1]	$78.72	$318.67	$47.60	$88.42
Weighted average lease term (years)	8.1	7.6	6.6	7.2
Second generation relet space:				
Square feet	1,018	61	319	152
GAAP basis:				
Straight-line rent[2]	$74.28	$171.74	$47.93	$99.53
Prior straight-line rent	$65.85	$135.81	$38.04	$80.15
Percentage increase	12.8 %	26.5 %	26.0 %	24.2 %
Cash basis:				
Initial rent[1]	$76.03	$159.53	$47.55	$94.14
Prior escalated rent	$69.19	$127.18	$40.77	$84.76
Percentage increase	9.9 %	25.4 %	16.6 %	11.1 %
Tenant improvements and leasing commissions:				
Per square foot	$73.97	$209.76	$33.86	$74.38
Per square foot per annum:	$9.13	$27.60	$5.13	$10.33
Percentage of initial rent	11.6 %	8.7 %	10.8 %	11.7 %

(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, 2018:

(Square feet in thousands)	Number of properties	Square Feet (in service) Total Portfolio	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		

Square footage (in service) and Occupancy as of December 31, 2017:

(Square feet in thousands)	Number of properties	Square Feet (in service) Total Portfolio	Our Share	Occupancy %	
New York:					
Office	36	20,256	16,982	97.1	%
Retail (includes retail properties that are in the base of our office properties)	71	2,720	2,471	96.9	%
Residential - 1,697 units	11	1,568	835	96.7	%
Alexander's, including 312 residential units	7	2,437	790	99.3	%
Hotel Pennsylvania	1	1,400	1,400		
		28,381	22,478	97.2	%
Other:					
theMART	3	3,689	3,680	98.6	%
555 California Street	3	1,741	1,219	94.2	%
Other	11	2,525	1,188	93.6	%
		7,955	6,087		
Total square feet at December 31, 2017		36,336	28,565		

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 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, 2018 and 2017, the carrying amounts of real estate, net of accumulated depreciation and amortization, were $13.1 billion and $11.9 billion, respectively. As of December 31, 2018 and 2017, the carrying amounts of identified intangible assets (including acquired above-market leases, tenant relationships and acquired in-place leases) were $136,781,000 and $159,260,000, respectively, and the carrying amounts of identified intangible liabilities, a component of “deferred revenue” on our consolidated balance sheets, were $161,594,000 and $205,600,000, respectively.

Our properties, including any related 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, anticipated holding periods, 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 assumptions regarding future occupancy, rental rates and capital requirements that could differ materially from actual results. Plans to hold properties over longer periods decrease the

likelihood of recording impairment losses.

Critical Accounting Policies - continued

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 whether the entity is a variable interest entity ("VIE") and whether we are the primary beneficiary, or hold 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.

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 assumptions regarding future occupancy, rental rates and capital requirements that could differ materially from actual results.

As of December 31, 2018 and 2017, the carrying amounts of investments in partially owned entities were $0.9 billion and $1.1 billion, respectively.

Revenue Recognition

We have the following revenue sources and revenue recognition policies:

- Base rent is revenue arising from tenant leases. These rents are recognized over the non-cancelable term of the related leases on a straight-line basis which includes the effects of rent steps and rent abatements. We commence rental revenue recognition when the tenant takes possession of the leased space and the leased space is substantially ready for its intended use. In addition, in circumstances where we provide a tenant improvement allowance for improvements that are owned by the tenant, we recognize the allowance as a reduction of rental revenue on a straight-line basis over the term of the lease.

- 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 rooms are occupied. Food and beverage and banquet revenue are recognized when the services have been transferred.

- 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.

- Operating expense reimbursements is revenue arising from tenant leases which provide for the recovery of all or a portion of the operating expenses and real estate taxes of the common areas of our properties. Revenue is generally recognized in the same period as the related expenses are incurred.

- Tenant services is revenue arising 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.

Critical Accounting Policies - continued

Revenue Recognition - continued

- 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 Service ("BMS") cleaning, engineering and security services. This revenue is recognized as the services are transferred. Fee and other income also includes lease termination fee income which is recognized immediately if a tenant vacates or is recognized on a straight-line basis over the shortened remaining lease term.

Before we recognize revenue, we assess, among other things, its collectability. 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 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.

Net Operating Income At Share by Segment for the Years Ended December 31, 2018, 2017 and 2016
NOI represents total revenues less operating expenses. We consider NOI 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, we utilize this measure to make investment decisions as well as to compare the performance of our assets to that of our peers. NOI should not be considered a substitute for net income. NOI 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, 2018, 2017 and 2016.

(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: Our share of 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

(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

(Amounts in thousands)	For the Year Ended December 31, 2016		
	Total	New York	Other
Total revenues	$2,003,742	$1,713,374	$290,368
Operating expenses	844,566	716,754	127,812
NOI - consolidated	1,159,176	996,620	162,556
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(66,182)	(47,480)	(18,702)
Add: Our share of NOI from partially owned entities	271,114	159,386	111,728
NOI at share	1,364,108	1,108,526	255,582
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(170,477)	(143,239)	(27,238)
NOI at share - cash basis	$1,193,631	$965,287	$228,344

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Net Operating Income At Share by Segment for the Years Ended December 31, 2018, 2017 and 2016 - continued

The elements of our New York and Other NOI at share for the years ended December 31, 2018, 2017 and 2016 are summarized below.

(Amounts in thousands)	For the Year Ended December 31,		
	2018	2017	2016
New York:			
Office	$743,001	$721,183	$662,221
Retail	353,425	359,944	364,953
Residential	23,515	24,370	25,060
Alexander's	45,133	47,302	47,295
Hotel Pennsylvania	11,916	13,266	8,997
Total New York	1,176,990	1,166,065	1,108,526
Other:			
theMART[(1)]	90,929	102,339	98,498
555 California Street	54,691	47,588	45,848
Other investments[(2)]	60,010	85,391	111,236
Total Other	205,630	235,318	255,582
NOI at share	$1,382,620	$1,401,383	$1,364,108

(1) The year ended December 31, 2018 includes an additional $15,148 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

(2) The years ended December 31, 2018, 2017 and 2016 include $12,145, $20,636 and $25,004, respectively from 666 Fifth Avenue Office Condominium (sold on August 3, 2018). The years ended December 31, 2017 and 2016 include $6,960 and $5,621, respectively from India real estate ventures which were sold in 2017.

The elements of our New York and Other NOI at share - cash basis for the years ended December 31, 2018, 2017 and 2016 are summarized below.

(Amounts in thousands)	For the Year Ended December 31,		
	2018	2017	2016
New York:			
Office	$726,108	$678,839	$593,785
Retail	324,219	324,318	292,019
Residential	22,076	21,626	22,285
Alexander's	47,040	48,683	48,070
Hotel Pennsylvania	12,120	13,397	9,128
Total New York	1,131,563	1,086,863	965,287
Other:			
theMART[(1)]	94,070	99,242	92,571
555 California Street	53,488	45,281	32,601
Other investments[(2)]	58,795	83,155	103,172
Total Other	206,353	227,678	228,344

NOI at share - cash basis	$1,337,916	$1,314,541	$1,193,631

(1) The year ended December 31, 2018 includes an additional $15,148 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

(2) The years ended December 31, 2018, 2017 and 2016 include $12,025, $20,853 and $22,388, respectively from 666 Fifth Avenue Office Condominium (sold on August 3, 2018). The years ended December 31, 2017 and 2016 include $6,960 and $5,621, respectively from India real estate ventures which were sold in 2017.

Reconciliation of Net Income to Net Operating Income At Share and Net Operating Income At Share - Cash Basis for the Years Ended December 31, 2018, 2017 and 2016

Below is a reconciliation of net income to NOI at share and NOI at share - cash basis for the years ended December 31, 2018, 2017 and 2016.

(Amounts in thousands)	For the Year Ended December 31,		
	2018	2017	2016
Net income	$422,603	$264,128	$981,922
Deduct:			
Income from partially owned entities	(9,149)	(15,200)	(168,948)
Loss (income) from real estate fund investments	89,231	(3,240)	23,602
Interest and other investment income, net	(17,057)	(30,861)	(24,335)
Net gains on disposition of wholly owned and partially owned assets	(246,031)	(501)	(160,433)
Purchase price fair value adjustment	(44,060)	—	—
(Income) loss from discontinued operations	(638)	13,228	(404,912)
NOI attributable to noncontrolling interests in consolidated subsidiaries	(71,186)	(65,311)	(66,182)
Add:			
Depreciation and amortization expense	446,570	429,389	421,023
General and administrative expense	141,871	150,782	143,643
Transaction related costs, impairment loss and other	31,320	1,776	9,451
Our share of NOI from partially owned entities	253,564	269,164	271,114
Interest and debt expense	347,949	345,654	330,240
Income tax expense	37,633	42,375	7,923
NOI at share	1,382,620	1,401,383	1,364,108
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(44,704)	(86,842)	(170,477)
NOI at share - cash basis	$1,337,916	$1,314,541	$1,193,631

Net Operating Income At Share by Region

Below is a summary of the percentages of NOI at share by geographic region for the year ended December 31, 2018, 2017 and 2016 .

	For the Year Ended December 31,		
	2018	2017	2016
Region:			
New York City metropolitan area	89%	89%	89%
Chicago, IL	7%	8%	8%
San Francisco, CA	4%	3%	3%
	100%	100%	100%

Results of Operations – Year Ended December 31, 2018 Compared to December 31, 2017

Revenues

Our revenues, which consist of property rentals, tenant expense reimbursements, and fee and other income, were $2,163,720,000 in the year ended December 31, 2018 compared to $2,084,126,000 in the prior year, an increase of $79,594,000. Below are the details of the increase by segment:

(Amounts in thousands)

Increase (decrease) due to:	Total	New York	Other
Property rentals:			
Acquisitions, dispositions and other	$362	$362	$—
Development and redevelopment	(4,930)	(5,298)	368
Hotel Pennsylvania	4,542	4,542	—
Trade shows	522	—	522
Same store operations	44,757	29,403	15,354
	45,253	29,009	16,244
Tenant expense reimbursements:			
Acquisitions, dispositions and other	97	97	—
Development and redevelopment	379	(24)	403
Same store operations	13,228	10,702	2,526
	13,704	10,775	2,929
Fee and other income:			
BMS cleaning fees	16,214	18,102 [(1)]	(1,888)
Management and leasing fees	3,237	3,604	(367)
Lease termination fees	(6,027)	(7,097)	1,070
Other income	7,213	2,336	4,877
	20,637	16,945	3,692
Total increase in revenues	$79,594	$56,729	$22,865

(1) Primarily due to an increase in third party cleaning fees for services provided to JBGS, Skyline Properties and tenants at theMART.

Results of Operations – Year Ended December 31, 2018 Compared to December 31, 2017 - continued

Expenses

Our expenses, which consist primarily of operating, depreciation and amortization, general and administrative, (benefit) expense from deferred compensation plan liability, and transaction related costs, impairment loss and other, were $1,580,759,000 in the year ended December 31, 2018 compared to $1,475,475,000 in the prior year, an increase of $105,284,000. 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	$671	$671	$—
Development and redevelopment	(98)	(1,312)	1,214
Non-reimbursable expenses, including bad debt reserves	1,269	790	479
Hotel Pennsylvania	5,816	5,816	—
Trade shows	(73)	—	(73)
BMS expenses	13,439	15,327 [1]	(1,888)
Same store operations	55,858	28,502	27,356 [2]
	76,882	49,794	27,088
Depreciation and amortization:			
Acquisitions, dispositions and other	(1,876)	(1,876)	—
Development and redevelopment	4,381	4,376	5
Same store operations	14,676	11,944	2,732
	17,181	14,444	2,737
General and administrative	(8,911) [3]	95	(9,006)
Benefit from deferred compensation plan liability	(9,412)	—	(9,412)
Transaction related costs, impairment loss and other	29,544	25,103 [4]	4,441
Total increase in expenses	$105,284	$89,436	$15,848

(1) Primarily due to an increase in third party cleaning fees for services provided to JBGS, Skyline Properties and tenants at theMART.

(2) Primarily due to additional real estate tax expense accrual of $15,148 due to an increase in the tax-assessed value of theMART in December 2018.

(3) Primarily due to higher capitalized development payroll in 2018.

(4) Due to a $13,103 potential additional New York City real property transfer tax payment (“Transfer Tax”), which we are contesting, related to the December 2012 acquisition of Independence Plaza and a $12,000 non-cash impairment loss.

Results of Operations – Year Ended December 31, 2018 Compared to December 31, 2017 - continued

Income from Partially Owned Entities

Below are the components of income from partially owned entities for the years ended December 31, 2018 and 2017.

(Amounts in thousands)	Percentage Ownership at December 31, 2018	For the Year Ended December 31, 2018	2017
Our share of net income (loss):			
Alexander's[1]	32.4%	$15,045	$31,853
UE[2]	4.5%	4,460	27,328
Partially owned office buildings[3]	Various	(3,085)	2,109
PREIT[4]	7.9%	(3,015)	(53,325)
Other investments[5]	Various	(4,256)	7,235
		$9,149	$15,200

(1) 2018 includes (i) our $7,708 share of Alexander's potential additional Transfer Tax, (ii) our $3,882 share of expense related to the decrease in fair value of marketable securities held by Alexander's and (iii) our $1,085 share of a non-cash straight-line rent write-off adjustment related to Sears Roebuck and Co. which filed for Chapter 11 bankruptcy relief and (iv) our $518 share of Alexander's litigation expense due to a settlement.

(2) 2017 includes $21,100 of net gains resulting from UE operating partnership unit issuances.

(3) Includes interests in 280 Park Avenue, 650 Madison Avenue, One Park Avenue, 7 West 34th Street, 330 Madison Avenue, 512 West 22nd Street, 85 Tenth Avenue and others. 2018 includes our $4,978 share of potential additional Transfer Tax related to the March 2011 acquisition of One Park Avenue.

(4) 2017 includes a $44,465 non-cash impairment loss.

(5) 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) and others. In 2017, we recognized $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. 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.

(Loss) Income from Real Estate Fund Investments

Below are the components of the loss from our real estate fund investments for the years ended December 31, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31, 2018	2017
Net investment income	$6,105	$18,507
Net unrealized loss on held investments	(83,794)	(25,807)
Net realized (loss) gain on exited investments	(912)	36,078
Previously recorded unrealized gain on exited investment	—	(25,538)
Transfer Tax	(10,630)	—
(Loss) income from real estate fund investments	(89,231)	3,240
Less loss (income) attributable to noncontrolling interests in consolidated subsidiaries	61,230	(14,044)
Loss from real estate fund investments attributable to the Operating Partnership (includes $4,252 of loss related to One Park Avenue potential additional transfer taxes and reduction in carried interest for the year ended December 31, 2018)	(28,001)	(10,804)

Less loss attributable to noncontrolling interests in the Operating Partnership	1,732	673
Loss from real estate fund investments attributable to Vornado	$(26,269)	$(10,131)

Results of Operations – Year Ended December 31, 2018 Compared to December 31, 2017 - continued

Interest and Other Investment Income, net

Below are the components of interest and other investment, net for the years ended December 31, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31,	
	2018	2017
Decrease in fair value of marketable securities[1]	$(26,453)	$—
Interest on cash and cash equivalents and restricted cash	15,827	8,171
Dividends on marketable securities	13,339	13,276
Interest on loans receivable[2]	10,298	4,352
Other, net	4,046	5,062
	$17,057	$30,861

(1) On January 1, 2018, we adopted ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities, which requires changes in the fair value of our marketable securities to be recorded in current period earnings. Previously, changes in the fair value of marketable securities were recognized in "accumulated other comprehensive income" on our consolidated balance sheets.

(2) Includes $6,707 of profit participation in connection with an investment in a mezzanine loan which was previously repaid to us for the year ended December 31, 2018.

Interest and Debt Expense

Interest and debt expense was $347,949,000 in the year ended December 31, 2018, compared to $345,654,000 in the prior year, an increase of $2,295,000. This increase was primarily due to (i) $25,036,000 of higher interest expense resulting from higher average interest rates on our variable rate loans, and (ii) $9,753,000 of higher interest expense on our $750,000,000 delayed draw term loan which was fully drawn in October 2017, partially offset by (iii) $24,935,000 higher capitalized interest and debt expense and (iv) $6,475,000 lower capital lease interest, resulting from our acquisition of the retail at 1535 Broadway and termination of the existing capital lease structure.

Purchase Price Fair Value Adjustment

The purchase price fair value adjustment of $44,060,000 in 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

The net gains of $246,031,000 in the year ended December 31, 2018, resulted primarily from the (i) $134,032,000 net gain on sale of our 49.5% interests in 666 Fifth Avenue Office Condominium, (ii) $81,224,000 net gain on sales 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

In the year ended December 31, 2018, we had an income tax expense of $37,633,000, compared to $42,375,000 in the prior year, a decrease of $4,742,000. This decrease resulted primarily from (i) $34,800,000 of expense in the year ended December 31, 2017 due to the reduction of our taxable REIT subsidiaries' deferred tax assets based on the decrease in corporate tax rates under the December 22, 2017 Tax Cuts and Jobs Act, partially offset by (ii) $16,771,000 of income tax 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 joint venture that is developing the Farley Office and Retail Building, and (iii) $13,888,000 of income tax expense in the year ended December 31, 2018 on the sale of 220 CPS condominium units.

Results of Operations – Year Ended December 31, 2018 Compared to December 31, 2017 - continued

Income (Loss) from Discontinued Operations

We have reclassified the revenues and expenses of our former Washington, DC segment, which was spun off on July 17, 2017, and other related retail assets that were sold to "income (loss) from discontinued operations" and the related assets and liabilities to "other assets" and "other liabilities" for all the periods presented in the accompanying financial statements. The table below sets forth the combined results of assets related to discontinued operations for the years ended December 31, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31,	
	2018	2017
Total revenues	$1,114	$261,290
Total expenses	1,094	212,169
	20	49,121
Net gains on sale of real estate, a lease position and other	618	6,605
JBGS spin-off transaction costs	—	(68,662)
Income from partially-owned entities	—	435
Pretax income (loss) from discontinued operations	638	(12,501)
Income tax expense	—	(727)
Income (loss) from discontinued operations	$638	$(13,228)

Net Loss (Income) Attributable to Noncontrolling Interests in Consolidated Subsidiaries

Net loss attributable to noncontrolling interests in consolidated subsidiaries was $53,023,000 in the year ended December 31, 2018, compared to net income of $25,802,000 in the prior year, a decrease in net income of $78,825,000. This decrease resulted primarily from lower net income 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 $25,672,000 in the year ended December 31, 2018, compared to $10,910,000 in the prior year, an increase of $14,762,000. This increase resulted primarily from higher net income subject to allocation to unitholders.

Preferred Share Dividends of Vornado Realty Trust

Preferred share dividends were $50,636,000 in the year ended December 31, 2018, compared to $65,399,000 in the prior year, a decrease of $14,763,000. The decrease is comprised of $30,651,000 of savings from the redemption of all of the outstanding 6.625% Series G and Series I cumulative redeemable preferred shares in January 2018, partially offset by a $15,888,000 increase due to the issuance of 5.25% Series M cumulative redeemable preferred shares in December 2017.

Preferred Unit Distributions of Vornado Realty L.P.

Preferred unit distributions were $50,830,000 in the year ended December 31, 2018, compared to $65,593,000 in the prior year, a decrease of $14,763,000. The decrease is comprised of $30,651,000 of savings from the redemption of all the outstanding 6.625% Series G and Series I cumulative redeemable preferred units in January 2018, partially offset

by a $15,888,000 increase due to the issuance of 5.25% Series M cumulative redeemable preferred units in December 2017.

Preferred Share/Unit Issuance Costs

In 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 6.625% Series G and Series I cumulative redeemable preferred shares/units in January 2018.

Results of Operations – Year Ended December 31, 2018 Compared to December 31, 2017 - continued

Same Store Net Operating Income At Share

Same store NOI at share represents NOI at share from operations which are owned by us and in service in both the current and prior year reporting periods. Same store NOI at share - cash basis is NOI at share from operations before straight-line rental income and expense, amortization of acquired below and above market leases, net and other non-cash adjustments which are owned by us and in service in both the current and prior year reporting periods. 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 as an alternative 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, 2018 compared to December 31, 2017.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
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	(1,534)	(1,385)	(149)	—	—
Dispositions	(351)	(351)	—	—	—
Development properties	(38,477)	(38,477)	—	—	—
Lease termination income, net of write-offs of straight-line receivables and acquired below-market leases, net	2,301	3,025	(724)	—	—
Other non-operating income, net	(62,732)	(2,722)	—	—	(60,010)
Same store NOI at share for the year ended December 31, 2018	$1,281,827	$1,137,080	$90,056	$54,691	$—
NOI at share for the year ended December 31, 2017	$1,401,383	$1,166,065	$102,339	$47,588	$85,391
Less NOI at share from:					
Acquisitions	36	(164)	200	—	—
Dispositions	(1,532)	(1,532)	—	—	—
Development properties	(37,307)	(37,307)	—	—	—
Lease termination income, net of write-offs of straight-line receivables and acquired below-market leases, net	(2,976)	(2,957)	(19)	—	—
Other non-operating income, net	(88,017)	(2,626)	—	—	(85,391)
Same store NOI at share for the year ended December 31, 2017	$1,271,587	$1,121,479	$102,520	$47,588	$—
Increase (decrease) in same store NOI at share for the year ended December 31, 2018 compared to December 31, 2017	$10,240	$15,601	$(12,464)	$7,103	$—
	0.8 %	1.4 %[1]	(12.2)%[2]	14.9 %	— %

% increase (decrease) in same store NOI at share

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(1) Excluding Hotel Pennsylvania, same store NOI at share increased by 1.5%.

(2) The year ended December 31, 2018 includes an additional $15,148 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

Results of Operations – Year Ended December 31, 2018 Compared to December 31, 2017 - 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, 2018 compared to December 31, 2017.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
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	(1,235)	(1,086)	(149)	—	—
Dispositions	(287)	(287)	—	—	—
Development properties	(42,264)	(42,264)	—	—	—
Lease termination income	(2,105)	(1,163)	(942)	—	—
Other non-operating income, net	(61,515)	(2,720)	—	—	(58,795)
Same store NOI at share - cash basis for the year ended December 31, 2018	$1,230,510	$1,084,043	$92,979	$53,488	$—
NOI at share - cash basis for the year ended December 31, 2017	$1,314,541	$1,086,863	$99,242	$45,281	$83,155
Less NOI at share - cash basis from:					
Acquisitions	137	(63)	200	—	—
Dispositions	(1,078)	(1,078)	—	—	—
Development properties	(38,211)	(38,211)	—	—	—
Lease termination income	(4,958)	(4,927)	(31)	—	—
Other non-operating income, net	(86,501)	(3,346)	—	—	(83,155)
Same store NOI at share - cash basis for the year ended December 31, 2017	$1,183,930	$1,039,238	$99,411	$45,281	$—
Increase (decrease) in same store NOI at share - cash basis for the year ended December 31, 2018 compared to December 31, 2017	$46,580	$44,805	$(6,432)	$8,207	$—
% increase (decrease) in same store NOI at share - cash basis	3.9 %	4.3 %(1)	(6.5)%(2)	18.1 %	— %

(1) Excluding Hotel Pennsylvania, same store NOI at share - cash basis increased by 4.5%.

(2) The year ended December 31, 2018 includes an additional $15,148 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

Results of Operations – Year Ended December 31, 2017 Compared to December 31, 2016

Revenues

Our revenues, which consist of property rentals, tenant expense reimbursements, and fee and other income, were $2,084,126,000 in the year ended December 31, 2017 compared to $2,003,742,000 in the prior year, an increase of $80,384,000. Below are the details of the increase by segment:

(Amounts in thousands)

Increase (decrease) due to:	Total	New York		Other
Property rentals:				
Acquisitions, dispositions and other	$9,455	$9,229	(1)	$226
Development and redevelopment	824	(93)		917
Hotel Pennsylvania	7,974	7,974	(2)	—
Trade shows	(634)	—		(634)
Same store operations	35,240	25,066		10,174
	52,859	42,176		10,683
Tenant expense reimbursements:				
Acquisitions, dispositions and other	(2,663)	(2,663)		—
Development and redevelopment	705	(75)		780
Same store operations	13,819	11,320		2,499
	11,861	8,582		3,279
Fee and other income:				
BMS cleaning fees	10,718	13,374	(3)	(2,656)
Management and leasing fees	1,843	1,068		775
Lease termination fees	(599)	250		(849)
Other income	3,702	483		3,219
	15,664	15,175		489
Total increase in revenues	$80,384	$65,933		$14,451

(1) Primarily due to (i) $20,515 from the write-off of straight-line rents recorded in 2016, partially offset by (ii) $5,050 from the partial sale of 7 West 34th Street in May 2016 and (iii) $7,834 from the write-off of straight-line receivables and acquired below-market leases, net, recorded in 2017.

(2) Average occupancy and revenue per available room were 87.3% and $121.46, respectively, for 2017 as compared to 84.7% and $113.84, respectively, for 2016.

(3) Primarily due to an increase in third party cleaning agreements for services provided to JBGS, Skyline Properties and tenants at theMART.

Results of Operations – Year Ended December 31, 2017 Compared to December 31, 2016 - 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 and other, were $1,475,475,000 in the year ended December 31, 2017 compared to $1,423,896,000 in the prior year, an increase of $51,579,000. 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	$(2,978)	$(2,978)	$—
Development and redevelopment	69	119	(50)
Non-reimbursable expenses, including bad debt reserves	(3,940)	(4,109)	169
Hotel Pennsylvania	3,721	3,721	—
Trade shows	(1,222)	—	(1,222)
BMS expenses	15,368	12,835 (1)	2,533
Same store operations	31,012	30,328	684
	42,030	39,916	2,114
Depreciation and amortization:			
Acquisitions, dispositions and other	2,227	2,227	—
Development and redevelopment	2,752	3,182	(430)
Same store operations	3,387	(1,503)	4,890
	8,366	3,906	4,460
General and administrative	7,139 (2)	4,333	2,806
Expense on deferred compensation plan liability	1,719	—	1,719
Transaction related costs and other	(7,675)	—	(7,675)
Total increase in expenses	$51,579	$48,155	$3,424

(1) Primarily due to an increase in third party cleaning agreements for services provided to JBGS, Skyline Properties and tenants at theMART.

(2) Primarily due to lower capitalized leasing and development payroll for consolidated projects in 2017 and higher franchise tax in 2017.

Results of Operations – Year Ended December 31, 2017 Compared to December 31, 2016 - continued

Income from Partially Owned Entities

Below are the components of income from partially owned entities for the years ended December 31, 2017 and 2016.

(Amounts in thousands)	Percentage Ownership at December 31, 2017	Year Ended December 31, 2017	2016
Our share of net (loss) income:			
PREIT[1]	8.0%	$(53,325)	$(5,213)
Alexander's	32.4%	31,853	34,240
UE[2]	4.5%	27,328	5,839
Partially owned office buildings[3]	Various	2,109	5,773
Other investments[4]	Various	7,235	128,309
		$15,200	$168,948

(1) 2017 includes a $44,465 non-cash impairment loss.

(2) 2017 includes $21,100 of net gains resulting from UE operating partnership unit issuances.

(3) Includes interests in 280 Park Avenue, 650 Madison Avenue, One Park Avenue, 7 West 34th Street, 330 Madison Avenue, 512 West 22nd Street, 85 Tenth Avenue (in 2017 only) and others.

(4) Includes interests in Independence Plaza, Fashion Centre Mall/Washington Tower, Rosslyn Plaza, 50-70 West 93rd Street, 85 Tenth Avenue (in 2016 only), 666 Fifth Avenue Office Condominium and others. In 2017, we recognized $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. In 2017 and 2016, we recognized net losses of $25,414 and $41,532, respectively, from our 666 Fifth Avenue Office Condominium joint venture as a result of our share of depreciation expense. In 2016, the owner of 85 Tenth Avenue completed a 10-year, 4.55% $625,000 refinancing of the property and we received net proceeds of $191,779 in repayment of our existing loans and preferred equity investments. We recognized $160,843 of income as a result of this transaction.

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, 2017 and 2016.

(Amounts in thousands)	For the Year Ended December 31, 2017	2016
Net investment income	$18,507	$17,053
Net realized gain on exited investments	36,078	14,761
Net unrealized loss on held investments	(25,807)	(41,162)
Previously recorded unrealized gain on exited investment	(25,538)	(14,254)
Income (loss) from real estate fund investments	3,240	(23,602)
Less (income) loss attributable to noncontrolling interests in consolidated subsidiaries	(14,044)	2,560
Loss from real estate fund investments attributable to the Operating Partnership	(10,804)	(21,042)
Less loss attributable to noncontrolling interests in the Operating Partnership	673	1,270
Loss from real estate fund investments attributable to Vornado	$(10,131)	$(19,772)

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Results of Operations – Year Ended December 31, 2017 Compared to December 31, 2016 - continued

Interest and Other Investment Income, net

Below are the components of interest and other investment, net for the years ended December 31, 2017 and 2016.

(Amounts in thousands)	For the Year Ended December 31,	
	2017	2016
Dividends on marketable securities	$13,276	$13,135
Interest on cash and cash equivalents and restricted cash	8,171	3,622
Interest on loans receivable	4,352	3,890
Other, net	5,062	3,688
	$30,861	$24,335

Interest and Debt Expense

Interest and debt expense was $345,654,000 in the year ended December 31, 2017, compared to $330,240,000 in the prior year, an increase of $15,414,000. This increase was primarily due to (i) $19,887,000 of higher interest expense relating to our variable rate loans, (ii) $9,409,000 of higher interest expense from the refinancing of 350 Park Avenue and the $750,000,000 drawn on our $750,000,000 delayed draw term loan, (iii) $7,052,000 of higher interest expense from the 1535 Broadway capital lease obligation, (iv) $4,836,000 of interest expense relating to the December 27, 2017 prepayment of our $450,000,000 aggregate principal amount of 2.50% senior unsecured notes due 2019, partially offset by (v) $17,888,000 of higher capitalized interest and debt expense, and (vi) $8,626,000 of interest savings from the refinancing of theMART.

Net Gains on Disposition of Wholly Owned and Partially Owned Assets

The net gain of $501,000 in the year ended December 31, 2017, resulted from the sale of residential condominiums. The net gain of $160,433,000 in the prior year primarily consists of a $159,511,000 net gain on sale of our 47% ownership interest in 7 West 34th Street and $714,000 from the sale of residential condominiums.

Income Tax Expense

In the year ended December 31, 2017, we had an income tax expense of $42,375,000, compared to $7,923,000 in the prior year, an increase of $34,452,000. This increase resulted primarily from the $34,800,000 of expense due to the reduction of our taxable REIT subsidiaries' deferred tax assets based on the decrease in corporate tax rates under the December 22, 2017 Tax Cuts and Jobs Act.

Results of Operations – Year Ended December 31, 2017 Compared to December 31, 2016 - continued

(Loss) Income from Discontinued Operations

We have reclassified the revenues and expenses of our former Washington, DC segment which was spun off on July 17, 2017, and other related retail assets that were sold to "income (loss) from discontinued operations" and the related assets and liabilities to "other assets" and "other liabilities" for all the periods presented in the accompanying financial statements. The table below sets forth the combined results of assets related to discontinued operations for the years ended December 31, 2017 and 2016.

(Amounts in thousands)	For the Year Ended December 31,	
	2017	2016
Total revenues	$261,290	$521,084
Total expenses	212,169	442,032
	49,121	79,052
JBGS spin-off transaction costs	(68,662)	(16,586)
Net gains on sale of real estate, a lease position and other	6,605	20,376
Income (loss) from partially-owned entities	435	(3,559)
Net gain on early extinguishment of debt	—	487,877
Impairment losses	—	(161,165)
Pretax (loss) income from discontinued operations	(12,501)	405,995
Income tax expense	(727)	(1,083)
(Loss) income from discontinued operations	$(13,228)	$404,912

Net Income Attributable to Noncontrolling Interests in Consolidated Subsidiaries

Net income attributable to noncontrolling interests in consolidated subsidiaries was $25,802,000 in the year ended December 31, 2017, compared to $21,351,000 in the prior year, an increase of $4,451,000. This increase resulted primarily from higher net income 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 $10,910,000 in the year ended December 31, 2017, compared to $53,654,000 in the prior year, a decrease of $42,744,000. This decrease resulted primarily from lower net income subject to allocation to unitholders.

Preferred Share Dividends of Vornado Realty Trust

Preferred share dividends were $65,399,000 in the year ended December 31, 2017, compared to $75,903,000 in the prior year, a decrease of $10,504,000. This decrease resulted primarily from the redemption of the 6.875% Series J cumulative redeemable preferred shares on September 1, 2016.

Preferred Unit Distributions of Vornado Realty L.P.

Preferred unit distributions were $65,593,000 in the year ended December 31, 2017, compared to $76,097,000 in the prior year, a decrease of $10,504,000. This decrease resulted primarily from the redemption of the 6.875% Series J cumulative redeemable preferred units on September 1, 2016.

Preferred Share/Unit Issuance Costs

In the year ended December 31, 2016, we recognized a $7,408,000 expense in connection with the write-off of issuance costs upon redeeming all of the outstanding 6.875% Series J cumulative redeemable preferred shares/units on September 1, 2016.

Results of Operations – Year Ended December 31, 2017 Compared to December 31, 2016 - continued

Same Store Net Operating Income At Share

Same store NOI at share represents NOI at share from operations which are owned by us and in service in both the current and prior year reporting periods. Same store NOI at share - cash basis is NOI at share from operations before straight-line rental income and expense, amortization of acquired below and above market leases, net and other non-cash adjustments which are owned by us and in service in both the current and prior year reporting periods. 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 as an alternative 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, 2017 compared to December 31, 2016.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
NOI at share for the year ended December 31, 2017	$1,401,383	$1,166,065	$102,339	$47,588	$85,391
Less NOI at share from:					
Acquisitions	(19,863)	(20,027)	164	—	—
Dispositions	(698)	(698)	—	—	—
Development properties	816	816	—	—	—
Lease termination income, net of write-offs of straight-line receivables and acquired below-market leases, net	(1,993)	(1,973)	(20)	—	—
Other non-operating income, net	(87,694)	(2,303)	—	—	(85,391)
Same store NOI at share for the year ended December 31, 2017	$1,291,951	$1,141,880	$102,483	$47,588	$—
NOI at share for the year ended December 31, 2016	$1,364,108	$1,108,526	$98,498	$45,848	$111,236
Less NOI at share from:					
Acquisitions	(60)	(60)	—	—	—
Dispositions	(3,107)	(3,107)	—	—	—
Development properties	1,161	82	—	1,079	—
Lease termination income, net of write-offs of straight-line receivables and acquired below-market leases, net	10,164	10,559	(157)	(238)	—
Other non-operating income, net	(114,846)	(3,610)	—	—	(111,236)
Same store NOI at share for the year ended December 31, 2016	$1,257,420	$1,112,390	$98,341	$46,689	$—
Increase in same store NOI at share for the year ended December 31, 2017 compared to December 31, 2016	$34,531	$29,490	$4,142	$899	$—
% increase in same store NOI at share	2.7 %	2.7 %(1)	4.2 %(2)	1.9 %	— %

(1) Excluding Hotel Pennsylvania, same store NOI at share increased by 2.3%.

(2) The year ended December 31, 2016 includes a $2,000 reversal of an expense accrued in 2015. Excluding this amount, same store NOI at share increased by 6.4%.

Results of Operations – Year Ended December 31, 2017 Compared to December 31, 2016 - 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, 2017 compared to December 31, 2016.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
NOI at share - cash basis for the year ended December 31, 2017	$1,314,541	$1,086,863	$99,242	$45,281	$83,155
Less NOI at share - cash basis from:					
Acquisitions	(17,053)	(17,217)	164	—	—
Dispositions	(698)	(698)	—	—	—
Development properties	814	814	—	—	—
Lease termination income	(4,958)	(4,927)	(31)	—	—
Other non-operating income, net	(86,176)	(3,021)	—	—	(83,155)
Same store NOI at share - cash basis for the year ended December 31, 2017	$1,206,470	$1,061,814	$99,375	$45,281	$—
NOI at share - cash basis for the year ended December 31, 2016	$1,193,631	$965,287	$92,571	$32,601	$103,172
Less NOI at share - cash basis from:					
Acquisitions	(13)	(13)	—	—	—
Dispositions	(2,219)	(2,219)	—	—	—
Development properties	1,368	289	—	1,079	—
Lease termination income	(7,917)	(7,272)	(248)	(397)	—
Other non-operating income, net	(105,534)	(2,362)	—	—	(103,172)
Same store NOI at share - cash basis for the year ended December 31, 2016	$1,079,316	$953,710	$92,323	$33,283	$—
Increase in same store NOI - cash basis for the year ended December 31, 2017 compared to December 31, 2016	$127,154	$108,104	$7,052	$11,998	$—
% increase in same store NOI at share - cash basis	11.8 %	11.3 %(1)	7.6 %(2)	36.0 %	— %

(1) Excluding Hotel Pennsylvania, same store NOI at share - cash basis increased by 11.0%.

(2) The year ended December 31, 2016 includes a $2,000 reversal of an expense accrued in 2015. Excluding this amount, same store NOI at share - cash basis increased by 10.0%.

Supplemental Information

Net Operating Income At Share by Segment for the Three Months Ended December 31, 2018 and 2017
NOI represents total revenues less operating expenses. We consider NOI 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, we utilize this measure to make investment decisions as well as to compare the performance of our assets to that of our peers. NOI should not be considered a substitute for net income. NOI may not be comparable to similarly titled measures employed by other companies.

Below is a summary of NOI at share by segment for the three months ended December 31, 2018 and 2017.

(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: Our share of 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

(Amounts in thousands)	For the Three Months Ended December 31, 2017		
	Total	New York	Other
Total revenues	$536,226	$462,597	$73,629
Operating expenses	225,011	195,421	29,590
NOI - consolidated	311,215	267,176	44,039
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(16,533)	(11,648)	(4,885)
Add: Our share of NOI from partially owned entities	69,175	48,700	20,475
NOI at share	363,857	304,228	59,629
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(21,579)	(21,441)	(138)
NOI at share - cash basis	$342,278	$282,787	$59,491

Supplemental Information - continued

Net Operating Income At Share by Segment for the Three Months Ended December 31, 2018 and 2017 - continued
The elements of our New York and Other NOI at share for the three months ended December 31, 2018 and 2017 are summarized below.

(Amounts in thousands)	For the Three Months Ended December 31,	
	2018	2017
New York:		
Office	$186,832	$189,481
Retail	85,549	90,853
Residential	5,834	5,920
Alexander's	11,023	11,656
Hotel Pennsylvania	5,961	6,318
Total New York	295,199	304,228
Other:		
theMART[(1)]	10,981	24,249
555 California Street	14,005	12,003
Other investments[(2)]	9,346	23,377
Total Other	34,332	59,629
NOI at share	$329,531	$363,857

(1) 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.

(2) The three months ended December 31, 2017 includes $5,433 from 666 Fifth Avenue Office Condominium (sold on August 3, 2018) and $2,958 from our India real estate ventures which were sold in 2017.

The elements of our New York and Other NOI at share - cash basis for the three months ended December 31, 2018 and 2017 are summarized below.

(Amounts in thousands)	For the Three Months Ended December 31,	
	2018	2017
New York:		
Office	$185,624	$175,787
Retail	80,515	83,320
Residential	5,656	5,325
Alexander's	11,129	12,004
Hotel Pennsylvania	6,009	6,351
Total New York	288,933	282,787
Other:		
theMART[(1)]	12,758	24,396
555 California Street	13,784	11,916

Other investments[2]	8,524	23,179
Total Other	35,066	59,491
NOI at share - cash basis	$323,999	$342,278

(1) 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.

(2) The three months ended December 31, 2017 include $5,359 from 666 Fifth Avenue Office Condominium (sold on August 3, 2018) and $2,958 from our India real estate ventures which were sold in 2017.

Supplemental Information - continued

Reconciliation of Net Income to Net Operating Income At Share and Net Operating Income At Share - Cash Basis for the Three Months Ended December 31, 2018 and 2017

(Amounts in thousands)	For the Three Months Ended December 31,	
	2018	2017
Net income	$97,821	$53,551
Deduct:		
Income from partially owned entities	(3,090)	(9,622)
Loss (income) from real estate fund investments	51,258	(4,889)
Interest and other investment income, net	(7,656)	(8,294)
Net gains on disposition of wholly owned and partially owned assets	(81,203)	—
Purchase price fair value adjustment	(44,060)	—
Income from discontinued operations	(257)	(1,273)
NOI attributable to noncontrolling interests in consolidated subsidiaries	(19,771)	(16,533)
Add:		
Depreciation and amortization expense	112,869	114,166
General and administrative expense	32,934	34,916
Transaction related costs, impairment loss and other	14,637	703
Our share of NOI from partially owned entities	60,205	69,175
Interest and debt expense	83,175	93,073
Income tax expense	32,669	38,884
NOI at share	329,531	363,857
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(5,532)	(21,579)
NOI at share - cash basis	$323,999	$342,278

Net Operating Income At Share by Region

Below is a summary of the percentages of NOI at share by geographic region for the three months ended December 31, 2018 and 2017.

	For the Three Months Ended December 31,	
	2018	2017
Region:		
New York City metropolitan area	92%	89%
Chicago, IL	3%	7%
San Francisco, CA	5%	4%
	100%	100%

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Supplemental Information - continued

Three Months Ended December 31, 2018 Compared to December 31, 2017

Same Store Net Operating Income At Share

Same store NOI at share represents NOI at share from operations which are owned by us and in service in both the current and prior year reporting periods. Same store NOI at share - cash basis is NOI at share from operations before straight-line rental income and expense, amortization of acquired below and above market leases, net and other non-cash adjustments which are owned by us and in service in both the current and prior year reporting periods. 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 as an alternative 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 three months ended December 31, 2018 compared to December 31, 2017.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
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:					
Acquisitions	(337)	(337)	—	—	—
Dispositions	19	19	—	—	—
Development properties	(12,623)	(12,637)	—	14	—
Lease termination income, net of write-offs of straight-line receivables and acquired below-market leases, net	(96)	368	(464)	—	—
Other non-operating income, net	(10,412)	(1,066)	—	—	(9,346)
Same store NOI at share for the three months ended December 31, 2018	$306,082	$281,546	$10,517	$14,019	$—
NOI at share for the three months ended December 31, 2017	$363,857	$304,228	$24,249	$12,003	$23,377
Less NOI at share from:					
Acquisitions	2	2	—	—	—
Dispositions	(23)	(23)	—	—	—
Development properties	(12,789)	(12,789)	—	—	—
Lease termination income, net of write-offs of straight-line receivables and acquired below-market leases, net	(984)	(984)	—	—	—
Other non-operating income, net	(23,377)	—	—	—	(23,377)
Same store NOI at share for the three months ended December 31, 2017	$326,686	$290,434	$24,249	$12,003	$—
	$(20,604)	$(8,888)	$(13,732)	$2,016	$—

(Decrease) increase in same store NOI at share for the three months ended December 31, 2018 compared to December 31, 2017									
% (decrease) increase in same store NOI at share	(6.3	)%	(3.1	)%[1]	(56.6	)%[2]	16.8	%	— %

(1) Excluding Hotel Pennsylvania, same store NOI at share decreased by 3.0%.

(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

Three Months Ended December 31, 2018 Compared to December 31, 2017 - 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, 2018 compared to December 31, 2017.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
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:					
Acquisitions	(336)	(336)	—	—	—
Dispositions	19	19	—	—	—
Development properties	(14,628)	(14,642)	—	14	—
Lease termination income	(563)	(43)	(520)	—	—
Other non-operating income, net	(9,590)	(1,066)	—	—	(8,524)
Same store NOI at share - cash basis for the three months ended December 31, 2018	$298,901	$272,865	$12,238	$13,798	$—
NOI at share - cash basis for the three months ended December 31, 2017	$342,278	$282,787	$24,396	$11,916	$23,179
Less NOI at share - cash basis from:					
Acquisitions	2	2	—	—	—
Dispositions	76	76	—	—	—
Development properties	(13,677)	(13,677)	—	—	—
Lease termination income	(1,393)	(1,393)	—	—	—
Other non-operating income, net	(23,180)	(1)	—	—	(23,179)
Same store NOI at share - cash basis for the three months ended December 31, 2017	$304,106	$267,794	$24,396	$11,916	$—
(Decrease) increase in same store NOI at share - cash basis for the three months ended December 31, 2018 compared to December 31, 2017	$(5,205)	$5,071	$(12,158)	$1,882	$—
% (decrease) increase in same store NOI at share - cash basis	(1.7)%	1.9 %(1)	(49.8)%(2)	15.8 %	— %

(1) Excluding Hotel Pennsylvania, same store NOI at share - cash basis increased by 2.1%.

(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.

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Supplemental Information - continued

Net Operating Income At Share by Segment for the Three Months Ended December 31, 2018 and September 30, 2018
NOI represents total revenues less operating expenses. We consider NOI 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, we utilize this measure to make investment decisions as well as to compare the performance of our assets to that of our peers. NOI should not be considered a substitute for net income. NOI 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 three months ended December 31, 2018 and September 30, 2018.

(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: Our share of 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

(Amounts in thousands)	For the Three Months Ended September 30, 2018		
	Total	New York	Other
Total revenues	$542,048	$462,446	$79,602
Operating expenses	235,575	200,949	34,626
NOI - consolidated	306,473	261,497	44,976
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(16,943)	(11,348)	(5,595)
Add: Our share of NOI from partially owned entities	60,094	47,179	12,915
NOI at share	349,624	297,328	52,296
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(8,743)	(9,125)	382
NOI at share - cash basis	$340,881	$288,203	$52,678

Supplemental Information - continued

Net Operating Income At Share by Segment for the Three Months Ended December 31, 2018 and September 30, 2018 - continued

The elements of our New York and Other NOI at share for the three months ended December 31, 2018 and September 30, 2018 are summarized below.

(Amounts in thousands)	For the Three Months Ended	
	December 31, 2018	September 30, 2018
New York:		
Office	$186,832	$184,146
Retail	85,549	92,858
Residential	5,834	5,202
Alexander's	11,023	10,626
Hotel Pennsylvania	5,961	4,496
Total New York	295,199	297,328
Other:		
theMART[(1)]	10,981	25,257
555 California Street	14,005	13,515
Other investments[(2)]	9,346	13,524
Total Other	34,332	52,296
NOI at share	$329,531	$349,624

(1) The three months ended December 31, 2018 includes an additional $12,124 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

(2) The three months ended September 30, 2018 includes $1,737 from 666 Fifth Avenue Office Condominium (sold on August 3, 2018).

The elements of our New York and Other NOI at share - cash basis for the three months ended December 31, 2018 and September 30, 2018 are summarized below.

(Amounts in thousands)	For the Three Months Ended	
	December 31, 2018	September 30, 2018
New York:		
Office	$185,624	$181,575
Retail	80,515	84,976
Residential	5,656	5,358
Alexander's	11,129	11,774
Hotel Pennsylvania	6,009	4,520
Total New York	288,933	288,203
Other:		
theMART[(1)]	12,758	26,234
555 California Street	13,784	13,070

Other investments[(2)]	8,524	13,374
Total Other	35,066	52,678
NOI at share - cash basis	$323,999	$340,881

(1) The three months ended December 31, 2018 includes an additional $12,124 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

(2) The three months ended September 30, 2018 includes $1,704 from 666 Fifth Avenue Office Condominium (sold on August 3, 2018).

Supplemental Information - continued

Reconciliation of Net Income to Net Operating Income At Share and Net Operating Income At Share - Cash Basis for the Three Months Ended December 31, 2018 and September 30, 2018

(Amounts in thousands)	For the Three Months Ended	
	December 31, 2018	September 30, 2018
Net income	$97,821	$219,162
Deduct:		
Income from partially owned entities	(3,090)	(7,206)
Loss from real estate fund investments	51,258	190
Interest and other investment income, net	(7,656)	(2,893)
Net gains on disposition of wholly owned and partially owned assets	(81,203)	(141,269)
Purchase price fair value adjustment	(44,060)	—
Income from discontinued operations	(257)	(61)
NOI attributable to noncontrolling interests in consolidated subsidiaries	(19,771)	(16,943)
Add:		
Depreciation and amortization expense	112,869	113,169
General and administrative expense	32,934	31,977
Transaction related costs, impairment loss and other	14,637	2,510
Our share of NOI from partially owned entities	60,205	60,094
Interest and debt expense	83,175	88,951
Income tax expense	32,669	1,943
NOI at share	329,531	349,624
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(5,532)	(8,743)
NOI at share - cash basis	$323,999	$340,881

Supplemental Information - continued

Three Months Ended December 31, 2018 Compared to September 30, 2018

Same Store Net Operating Income At Share

Same store NOI at share represents NOI at share from operations which are owned by us and in service in both the current and prior year reporting periods. Same store NOI at share - cash basis is NOI at share from operations before straight-line rental income and expense, amortization of acquired below and above market leases, net and other non-cash adjustments which are owned by us and in service in both the current and prior year reporting periods. 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 and same store NOI - cash basis should not be considered as an alternative 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 three months ended December 31, 2018 compared to September 30, 2018.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
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:					
Dispositions	19	19	—	—	—
Development properties	(12,623)	(12,637)	—	14	—
Lease termination income, net of write-offs of straight-line receivables and acquired below-market leases, net	(96)	368	(464)	—	—
Other non-operating income, net	(10,412)	(1,066)	—	—	(9,346)
Same store NOI at share for the three months ended December 31, 2018	$306,419	$281,883	$10,517	$14,019	$—
NOI at share for the three months ended September 30, 2018	$349,624	$297,328	$25,257	$13,515	$13,524
Less NOI at share from:					
Development properties	(13,488)	(13,474)	—	(14)	—
Lease termination income, net of write-offs of straight-line receivables and acquired below-market leases, net	1,581	1,800	(219)	—	—
Other non-operating income, net	(14,103)	(579)	—	—	(13,524)
Same store NOI at share for the three months ended September 30, 2018	$323,614	$285,075	$25,038	$13,501	$—
(Decrease) increase in same store NOI at share for the three months ended December 31, 2018 compared to September 30, 2018	$(17,195)	$(3,192)	$(14,521)	$518	$—

% (decrease) increase in same store NOI at share	(5.3	)%	(1.1	)%[1]	(58.0	)%[2]	3.8	%	— %

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

(2) The three months ended December 31, 2018 includes an additional $12,124 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

Supplemental Information - continued

Three Months Ended December 31, 2018 Compared to September 30, 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, 2018 compared to September 30, 2018.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
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:					
Dispositions	19	19	—	—	—
Development properties	(14,628)	(14,642)	—	14	—
Lease termination income	(563)	(43)	(520)	—	—
Other non-operating income, net	(9,590)	(1,066)	—	—	(8,524)
Same store NOI at share - cash basis for the three months ended December 31, 2018	$299,237	$273,201	$12,238	$13,798	$—
NOI at share - cash basis for the three months ended September 30, 2018	$340,881	$288,203	$26,234	$13,070	$13,374
Less NOI at share - cash basis from:					
Development properties	(14,342)	(14,328)	—	(14)	—
Lease termination income	(318)	(58)	(260)	—	—
Other non-operating income, net	(13,954)	(580)	—	—	(13,374)
Same store NOI at share - cash basis for the three months ended September 30, 2018	$312,267	$273,237	$25,974	$13,056	$—
(Decrease) increase in same store NOI at share - cash basis for the three months ended December 31, 2018 compared to September 30, 2018	$(13,030)	$(36)	$(13,736)	$742	$—
% (decrease) increase in same store NOI at share - cash basis	(4.2)%	—%(1)	(52.9)%(2)	5.7%	—%

(1) Excluding Hotel Pennsylvania, same store NOI at share - cash basis decreased by 0.6%.

(2) The three months ended December 31, 2018 includes an additional $12,124 real estate tax expense accrual due to an increase in the tax-assessed value of theMART.

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 7 - Investments in Partially Owned Entities to our consolidated financial statements in this Annual Report on Form 10-K.

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, 2018, Interstate and its partners beneficially owned an aggregate of approximately 7.1% of the common shares of beneficial interest of Vornado and 26.2% 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 $453,000, $501,000, and $521,000 of management fees under the agreement for the years ended December 31, 2018, 2017 and 2016, respectively.

Urban Edge Properties

We own 4.5% of UE. In 2018, 2017 and 2016, we provided UE with information technology support. UE is providing us with leasing and property management services for (i) certain small retail properties that we plan to sell 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.

Liquidity and Capital Resources

Property rental income 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 loan and unsecured revolving credit facilities; proceeds from the issuance of common and preferred equity securities; 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 approximately $1 billion of after tax net income from the sales of 100% of the 220 CPS residential condominium units. As of December 31, 2018, 83% 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 January 16, 2019, Vornado declared a quarterly common dividend of $0.66 per share (an indicated annual rate of $2.64 per common share). This dividend, if and when declared by the Board of Trustees for all of 2019, will require Vornado to pay out approximately $503,000,000 of cash for common share dividends. In addition, during 2019, Vornado expects to pay approximately $50,000,000 of cash dividends on outstanding preferred shares and approximately $33,000,000 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, 2018, 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, 2018, we had $570,916,000 of cash and cash equivalents and $2,406,663,000 of borrowing capacity under our unsecured revolving credit facilities, net of letters of credit of $13,337,000. A summary of our consolidated debt as of December 31, 2018 and 2017 is presented below.

(Amounts in thousands)	2018		2017	
Consolidated debt:	December 31, Balance	Weighted Average Interest Rate	December 31, Balance	Weighted Average Interest Rate
Variable rate	$3,292,382	4.31%	$3,492,133	3.19%
Fixed rate	6,603,465	3.65%	6,311,706	3.72%
Total	9,895,847	3.87%	9,803,839	3.53%
Deferred financing costs, net and other	(59,226)		(74,352)	
Total, net	$9,836,621		$9,729,487	

Our consolidated outstanding debt, net of deferred financing costs and other, was $9,836,621,000 at December 31, 2018, a $107,134,000 increase from the balance at December 31, 2017. During 2019 and 2020, $95,782,000 and $2,142,369,000, 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, 2018.

(Amounts in thousands)		Less than			
Contractual cash obligations (principal and interest[(1)]):	Total	1 Year	1 – 3 Years	3 – 5 Years	Thereafter
Notes and mortgages payable	$8,937,508	$2,850,760	$4,110,306	$1,426,256	$550,186
Operating leases	1,835,219	46,147	87,858	88,587	1,612,627
Purchase obligations, primarily construction commitments	487,406	487,406	—	—	—
Senior unsecured notes due 2025	545,156	15,750	31,500	31,500	466,406
Senior unsecured notes due 2022	460,833	20,000	40,000	400,833	—
Unsecured term loan	897,146	29,038	58,076	57,639	752,393
Revolving credit facilities	85,858	2,840	83,018	—	—
Total contractual cash obligations	$13,249,126	$3,451,941	$4,410,758	$2,004,815	$3,381,612
Commitments:					
Capital commitments to partially owned entities	$18,227	$18,227	$—	$—	$—

Standby letters of credit	13,337	13,337	—	—	—
Total commitments	$31,564	$31,564	$—	$—	$—

(1) Interest on variable rate debt is computed using rates in effect at December 31, 2018.

Liquidity and Capital Resources – continued

Financing Activities and Contractual Obligations – continued

Details of 2018 financing activities are provided in the “Overview” of Management’s Discussion and Analysis of Financial Conditions and Results of Operations. Details of 2017 financing activities are discussed below.

Unsecured Revolving Credit Facility

On October 17, 2017, we extended one of our two $1.25 billion unsecured revolving credit facilities from November 2018 to January 2022 with two six-month extension options. The interest rate on the extended facility was lowered from LIBOR plus 1.05% to LIBOR plus 1.00%. The interest rate and facility fees are the same as our other $1.25 billion unsecured revolving credit facility, which matures in February 2021 with two six-month extension options.

Secured Debt

On December 27, 2017, we completed a public offering of $450,000,000 3.50% senior unsecured notes due January 15, 2025. The interest rate on the senior unsecured notes will be payable semi-annually on January 15 and July 15, commencing July 15, 2018. The notes were sold at 99.596% of their face amount to yield 3.565%.

On December 27, 2017, we redeemed all of the $450,000,000 principal amount of our outstanding 2.50% senior unsecured notes which were scheduled to mature on June 30, 2019, at a redemption price of approximately 100.71% of the principal amount plus accrued interest through the date of redemption. In connection therewith, we expensed $4,836,000 of debt prepayment costs and wrote-off unamortized deferred financing costs which are included in "interest and debt expense" on our consolidated statements of income.

Preferred Securities

In December 2017, we sold 12,780,000 5.25% Series M cumulative redeemable preferred shares at a price of $25.00 per share in an underwritten public offering pursuant to an effective registration statement. We received aggregate net proceeds of $309,609,000, after underwriters’ discounts and issuance costs and contributed the net proceeds to the Operating Partnership in exchange for 12,780,000 5.25% Series M preferred units (with economic terms that mirror those of the Series M preferred shares). Dividends on the Series M preferred shares/units are cumulative and payable quarterly in arrears. The Series M preferred shares/units are not convertible into, or exchangeable for, any of our properties or securities. On or after five years from the date of issuance (or sooner under limited circumstances), we may redeem the Series M preferred shares/units at a redemption price of $25.00 per share, plus accrued and unpaid dividends through the date of redemption. The Series M preferred shares/units have no maturity date and will remain outstanding indefinitely unless redeemed by us.

In December 2017, we called for redemption of all of the outstanding 6.625% Series G and 6.625% Series I cumulative redeemable preferred shares/units. As a result, as of December 31, 2017, we reclassed the 6.625% Series G and 6.625% Series I cumulative redeemable preferred shares/units from shareholder's equity/partner's capital to liabilities on our consolidated balance sheets. In January 2018, we completed the redemption of all of the outstanding Series G and Series I cumulative redeemable preferred shares/units.

Liquidity and Capital Resources – continued

Certain Future Cash Requirements

Capital Expenditures

The following table summarizes anticipated 2019 capital expenditures.

(Amounts in millions, except per square foot data)	Total	New York	theMART	555 California Street
Expenditures to maintain assets	$110.0	$95.0	$ 10.0	$ 5.0
Tenant improvements	77.0	64.0	13.0	—
Leasing commissions	26.0	24.0	2.0	—
Total recurring tenant improvements, leasing commissions and other capital expenditures	$213.0	$183.0	$ 25.0	$ 5.0
Square feet budgeted to be leased (in thousands)		1,100	250	—
Weighted average lease term (years)		10	8	—
Tenant improvements and leasing commissions:				
Per square foot		$80.00	$ 60.00	$ —
Per square foot per annum		8.00	7.50	—

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

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 $1.4 billion, of which $1.2 billion has been expended as of December 31, 2018.

We are developing a 173,000 square foot Class A office building, located along the western edge of the High Line at 512 West 22nd Street in the West Chelsea submarket of Manhattan (55.0% interest). The development cost of this project is estimated to be approximately $130,000,000, of which our share is $72,000,000. As of December 31, 2018, $95,464,000 has been expended, of which our share is $52,505,000.

We are developing a 34,000 square foot office and retail building at 606 Broadway, located on the northeast corner of Broadway and Houston Street in Manhattan (50.0% interest). The development cost of this project is estimated to be approximately $60,000,000, of which our share is $30,000,000. As of December 31, 2018, $51,202,000 has been expended, of which our share is $25,601,000.

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 $46,000,000, of which our share is $32,000,000. As of December 31, 2018, $21,834,000 has been expended, of which our share is $15,284,000.

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, 2018, $8,967,000 has been expended, of which our share is $4,484,000.

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 over $200,000,000, of which $9,725,000 has been expended as of December 31, 2018.

Liquidity and Capital Resources – continued

Development and Redevelopment Expenditures - continued

We are in the planning phase to redevelop PENN2, a 1,634,000 square foot office building located on the west side of 7th Avenue between 31st and 33rd Street.

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

Farley Office and Retail Building and Moynihan Train Hall

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 850,000 rentable square feet of commercial space, comprised of approximately 730,000 square feet of office space and approximately 120,000 square feet of retail space. The total development cost of the Project is estimated to be approximately $800,000,000 (exclusive of a $230,000,000 upfront contribution and net of anticipated historic tax credits). As of December 31, 2018, $144,491,000 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. Pursuant to Accounting Standards Codification 840-40-55, 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, 2018 of $445,693,000 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.

There can be no assurance that any of our development or redevelopment projects will commence, or if commenced, be completed, or completed on schedule or within budget.

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Liquidity and Capital Resources – continued

Insurance

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 $260,000,000 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 terrorism acts with limits of $4.0 billion per occurrence and in the aggregate, and $2.0 billion per occurrence and in the aggregate for terrorism involving nuclear, biological, chemical and radiological ("NBCR") terrorism events, as defined by Terrorism Risk Insurance Program Reauthorization Act of 2015, which expires in December 2020.

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 $1,453,000 and 19% 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.

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 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.

Our mortgage loans are non-recourse to us, except for the mortgage loan secured by 7 West 34th Street, which we guaranteed and therefore is 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. As of December 31, 2018, the aggregate dollar amount of these guarantees and master leases is approximately $660,000,000.

As of December 31, 2018, $13,337,000 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.

A joint venture in which we own a 95.0% ownership interest was designated by ESD, an entity of New York State, 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, 2018, we expect to fund additional capital to certain of our partially owned entities aggregating approximately $18,000,000.

As of December 31, 2018, we have construction commitments aggregating approximately $404,000,000.

Liquidity and Capital Resources – continued

Cash Flows for the Year Ended December 31, 2018 Compared to December 31, 2017

Our cash flow activities for the years ended December 31, 2018 and 2017 are summarized as follows:

(Amounts in thousands)	For the Year Ended December 31,		Decrease in Cash Flow
	2018	2017	
Net cash provided by operating activities	$802,641	$860,142	$(57,501)
Net cash used in investing activities	(877,722)	(206,317)	(671,405)
Net cash used in financing activities	(1,122,826)	(338,344)	(784,482)

Cash and cash equivalents and restricted cash was $716,905,000 at December 31, 2018, a $1,197,907,000 decrease from the balance at December 31, 2017.

Net cash provided by operating activities of $802,641,000 for the year ended December 31, 2018 was comprised of $824,306,000 of cash from operations, including distributions of income from partially owned entities of $78,831,000 and return of capital from real estate fund investments of $20,290,000, and a net decrease of $21,665,000 in cash due to the timing of cash receipts and payments related to changes in operating assets and liabilities.

The following table details the cash used in investing activities for the years ended December 31, 2018 and 2017:

(Amounts in thousands)	For the Year Ended December 31,		(Decrease) Increase in Cash Flow
	2018	2017	
Acquisitions of real estate and other	$(574,812)	$(30,607)	$(544,205)
Development costs and construction in progress	(418,186)	(355,852)	(62,334)
Additions to real estate	(234,602)	(271,308)	36,706
Proceeds from sales of real estate and related investments	219,731	9,543	210,188
Proceeds from sale of condominium units at 220 Central Park South	214,776	—	214,776
Investments in loans receivable	(105,000)	—	(105,000)
Distributions of capital from partially owned entities	100,178	366,155	(265,977)
Moynihan Train Hall expenditures	(74,609)	—	(74,609)
Investments in partially owned entities	(37,131)	(40,537)	3,406
Proceeds from repayments of loans receivable	25,757	659	25,098
Proceeds from sale of marketable securities	4,101	—	4,101
Net consolidation of Farley Office and Retail Building	2,075	—	2,075
Proceeds from the repayment of JBG SMITH Properties loan receivable	—	115,630	(115,630)
Net cash used in investing activities	$(877,722)	$(206,317)	$(671,405)

Liquidity and Capital Resources – continued

Cash Flows for the Year Ended December 31, 2018 Compared to December 31, 2017 - continued

The following table details the cash used in financing activities for the years ended December 31, 2018 and 2017:

(Amounts in thousands)	For the Year Ended December 31,		(Decrease) Increase in Cash Flow
	2018	2017	
Repayments of borrowings	$(685,265)	$(631,681)	$(53,584)
Proceeds from borrowings	526,766	1,055,872	(529,106)
Dividends paid on common shares/Distributions to Vornado	(479,348)	(496,490)	17,142
Redemption of preferred shares/units	(470,000)	—	(470,000)
Distributions to redeemable security holders and noncontrolling interests in consolidated subsidiaries	(76,149)	(109,697)	33,548
Moynihan Train Hall reimbursement from Empire State Development	74,609	—	74,609
Contributions from noncontrolling interests in consolidated subsidiaries	61,062	1,044	60,018
Dividends paid on preferred shares/Distributions to preferred unitholders	(55,115)	(64,516)	9,401
Repurchase of shares/Class A units related to stock compensation agreements and related tax withholdings and other	(12,969)	(418)	(12,551)
Debt issuance costs	(12,908)	(12,325)	(583)
Proceeds received from exercise of Vornado stock options and other	7,309	29,712	(22,403)
Debt prepayment and extinguishment costs	(818)	(3,217)	2,399
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)	416,237
Proceeds from issuance of preferred shares/units	—	309,609	(309,609)
Net cash used in financing activities	$(1,122,826)	$(338,344)	$(784,482)

Liquidity and Capital Resources – continued

Capital Expenditures for the Year Ended December 31, 2018

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, 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

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, 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 Central Park South	$295,827	$—	$ —	$ —	$295,827
Farley Office and Retail Building	18,995	18,995	—	—	—
345 Montgomery Street	18,187	—	—	18,187	—
606 Broadway	15,959	15,959	—	—	—
PENN1	8,856	8,856	—	—	—
1535 Broadway	8,645	8,645	—	—	—
Other	51,717	36,660	10,790	445	3,822
	$418,186	$89,115	$ 10,790	$ 18,632	$299,649

Liquidity and Capital Resources – continued

Capital Expenditures for the Year Ended December 31, 2017

Below is a summary of amounts paid for capital expenditures and leasing commissions for the year ended December 31, 2017.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
Expenditures to maintain assets	$111,629	$79,567	$ 12,772	$ 9,689	$9,601
Tenant improvements	128,287	83,639	8,730	19,327	16,591
Leasing commissions	36,447	26,114	1,701	1,330	7,302
Recurring tenant improvements, leasing commissions and other capital expenditures	276,363	189,320	23,203	30,346	33,494
Non-recurring capital expenditures	35,149	27,762	—	7,159	228
Total capital expenditures and leasing commissions	$311,512	$217,082	$ 23,203	$ 37,505	$33,722[(1)]

(1) Effective July 17, 2017, the date of the spin-off of our Washington, DC segment, capital expenditures and leasing commissions of our former Washington, DC segment have been reclassified to the Other segment.

Development and Redevelopment Expenditures for the Year Ended December 31, 2017

Below is a summary of amounts paid for development and redevelopment expenditures in the year ended December 31, 2017. These expenditures include interest and debt expense of $48,230,000, payroll of $6,044,000, and other soft costs (primarily architectural and engineering fees, permits, real estate taxes and professional fees) aggregating $28,197,000, 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 Central Park South	$265,791	$—	$ —	$ —	$265,791
606 Broadway	15,997	15,997	—	—	—
90 Park Avenue	7,523	7,523	—	—	—
345 Montgomery Street	5,950	—	—	5,950	—
theMART	5,342	—	5,342	—	—
PENN1	1,462	1,462	—	—	—
Other	53,787	18,392	799	6,465	28,131
	$355,852	$43,374	$ 6,141	$ 12,415	$293,922

Liquidity and Capital Resources – continued

Capital Expenditures for the Year Ended December 31, 2016

Below is a summary of amounts paid for capital expenditures and leasing commissions for the year ended December 31, 2016.

(Amounts in thousands)	Total	New York	theMART	555 California Street	Other
Expenditures to maintain assets	$119,076	$65,561	$ 20,098	$ 9,954	$23,463
Tenant improvements	219,751	112,687	29,738	9,904	67,422
Leasing commissions	47,906	38,134	2,070	1,486	6,216
Recurring tenant improvements, leasing commissions and other capital expenditures	386,733	216,382	51,906	21,344	97,101
Non-recurring capital expenditures	58,693	47,642	—	2,154	8,897
Total capital expenditures and leasing commissions	$445,426	$264,024	$ 51,906	$ 23,498	$105,998 (1)

(1) Effective July 17, 2017, the date of the spin-off of our Washington, DC segment, capital expenditures and leasing commissions of our former Washington, DC segment have been reclassified to the Other segment.

Development and Redevelopment Expenditures for the Year Ended December 31, 2016

Below is a summary of amounts paid for development and redevelopment expenditures in the year ended December 31, 2016. These expenditures include interest and debt expense of $34,097,000, payroll of $12,516,000, and other soft costs (primarily architectural and engineering fees, permits, real estate taxes and professional fees) aggregating $46,995,000, 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 Central Park South	$303,974	$—	$ —	$ —	$303,974
640 Fifth Avenue	46,282	46,282	—	—	—
90 Park Avenue	33,308	33,308	—	—	—
theMART	24,788	—	24,788	—	—
Wayne Towne Center	8,461	—	—	—	8,461
330 West 34th Street	5,492	5,492	—	—	—
Other	184,260	33,121	1,384	9,150	140,605 (1)
	$606,565	$118,203	$ 26,172	$ 9,150	$453,040

(1) Primarily relates to our former Washington, DC segment which was spun-off on July 17, 2017.

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 our 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 150 of this Annual Report on Form 10-K.

In accordance with the NAREIT December 2018 restated definition of FFO, we have elected to exclude the mark-to-market adjustments of marketable equity securities from the calculation of FFO. Our FFO for the nine months ended September 30, 2018 has been adjusted to exclude the $26,602,000, or $0.13 per share, decrease in fair value of marketable equity securities previously reported.

FFO attributable to common shareholders plus assumed conversions was $210,100,000, or $1.10 per diluted share, for the three months ended December 31, 2018, compared to $153,151,000, or $0.80 per diluted share, for the prior year's three months. FFO attributable to common shareholders plus assumed conversions was $729,740,000, or $3.82 per diluted share, for the year ended December 31, 2018, compared to $717,805,000, or $3.75 per diluted share, for the prior year. Details of certain items that impact FFO are discussed in the financial results summary of our "Overview."

FFO - continued
Vornado Realty Trust - continued

(Amounts in thousands, except per share amounts)	For the Three Months Ended December 31,		For the Year Ended December 31,	
	2018	2017	2018	2017
Reconciliation of our net income attributable to common shareholders to FFO attributable to common shareholders plus assumed conversions:				
Net income attributable to common shareholders	$100,494	$27,319	$384,832	$162,017
Per diluted share	$0.53	$0.14	$2.01	$0.85
FFO adjustments:				
Depreciation and amortization of real property	$104,067	$106,017	$413,091	$467,966
Net gains on sale of real estate	—	—	(158,138)	(3,797)
Real estate impairment losses	12,000	—	12,000	—
Decrease in fair value of marketable securities	1,652	—	26,453	—
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	24,309	28,247	101,591	137,000
Net gains on sale of real estate	—	(585)	(3,998)	(17,777)
Real estate impairment losses	—	145	—	7,692
Decrease in fair value of marketable securities	2,081	—	3,882	—
	116,820	133,824	367,592	591,084
Noncontrolling interests' share of above adjustments	(7,229)	(8,010)	(22,746)	(36,420)
FFO adjustments, net	$109,591	$125,814	$344,846	$554,664
FFO attributable to common shareholders	$210,085	$153,133	$729,678	$716,681
Convertible preferred share dividends	15	18	62	77
Earnings allocated to Out-Performance Plan units	—	—	—	1,047
FFO attributable to common shareholders plus assumed conversions	$210,100	$153,151	$729,740	$717,805
Per diluted share	$1.10	$0.80	$3.82	$3.75
Reconciliation of Weighted Average Shares				
Weighted average common shares outstanding	190,348	189,898	190,219	189,526
Effect of dilutive securities:				
Employee stock options and restricted share awards	814	1,122	933	1,448
Convertible preferred shares	37	43	37	46
Out-Performance Plan units	—	—	—	284
Denominator for FFO per diluted share	191,199	191,063	191,189	191,304

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:

	2018			2017	
(Amounts in thousands, except per share and unit amounts)	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	$3,292,382	4.31%	$32,924	$3,492,133	3.19%
Fixed rate	6,603,465	3.65%	—	6,311,706	3.72%
	$9,895,847	3.87%	32,924	$9,803,839	3.53%
Pro rata share of debt of non-consolidated entities[(1)]:					
Variable rate	$1,300,797	4.05%	13,008	$1,395,001	3.24%
Fixed rate	1,382,068	4.19%	—	2,035,888	4.89%
	$2,682,865	4.12%	13,008	$3,430,889	4.22%
Noncontrolling interests' share of consolidated subsidiaries			(1,649)		
Total change in annual net income attributable to the Operating Partnership			44,283		
Noncontrolling interests' share of the Operating Partnership			(2,741)		
Total change in annual net income attributable to Vornado			$41,542		
Total change in annual net income attributable to the Operating Partnership per diluted Class A unit			$0.22		
Total change in annual net income attributable to Vornado per diluted share			$0.22		

(1) As a result of Toys "R" Us ("Toys") filing a voluntary petition under chapter 11 of the United States Bankruptcy Code, we determined the Company no longer has the ability to exercise significant influence over Toys. Accordingly, we have excluded our share of Toys debt.

We may 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. As of December 31, 2018, we have an interest rate swap on a $375,000,000 mortgage loan on 888 Seventh Avenue that swapped the rate from LIBOR plus 1.60% (3.99% as of December 31, 2018) to a fixed rate of 3.15% through December 2020; an interest rate swap on a $700,000,000 mortgage loan on 770 Broadway that swapped the rate from LIBOR plus 1.75% (4.13% as of December 31, 2018) to a fixed rate of 2.56% through September 2020; and an interest rate swap on a $100,000,000 mortgage loan on 33-00 Northern Boulevard that swapped the rate from LIBOR plus 1.80% (4.19% as of December 31, 2018) to a fixed rate of 4.14% through January 2025.

In connection with the extension of our $750,000,000 unsecured term loan, we entered into an interest rate swap agreement that swapped the rate from LIBOR plus 1.00% (3.52% as of December 31, 2018) to a fixed rate of 3.87% through October 2023.

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, 2018, the estimated fair value of our consolidated debt was $9,856,000,000.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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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, 2018 and 2017, 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, 2018, and the related notes and the schedules 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, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, 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, 2018, 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 11, 2019, 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 U.S. 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.

/s/ DELOITTE & TOUCHE LLP

Parsippany, New Jersey
February 11, 2019

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

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VORNADO REALTY TRUST
CONSOLIDATED BALANCE SHEETS

(Amounts in thousands, except unit, share and per share amounts)	December 31, 2018	December 31, 2017
ASSETS		
Real estate, at cost:		
Land	$3,306,280	$3,143,648
Buildings and improvements	10,110,992	9,898,605
Development costs and construction in progress	2,266,491	1,615,101
Moynihan Train Hall development expenditures	445,693	—
Leasehold improvements and equipment	108,427	98,941
Total	16,237,883	14,756,295
Less accumulated depreciation and amortization	(3,180,175)	(2,885,283)
Real estate, net	13,057,708	11,871,012
Cash and cash equivalents	570,916	1,817,655
Restricted cash	145,989	97,157
Marketable securities	152,198	182,752
Tenant and other receivables, net of allowance for doubtful accounts of $4,154 and $5,526	73,322	58,700
Investments in partially owned entities	858,113	1,056,829
Real estate fund investments	318,758	354,804
220 Central Park South condominium units ready for sale	99,627	—
Receivable arising from the straight-lining of rents, net of allowance of $1,644 and $954	935,131	926,711
Deferred leasing costs, net of accumulated amortization of $207,529 and $191,827	400,313	403,492
Identified intangible assets, net of accumulated amortization of $172,114 and $150,837	136,781	159,260
Other assets	431,938	469,562
	$17,180,794	$17,397,934
LIABILITIES, REDEEMABLE NONCONTROLLING INTERESTS AND EQUITY		
Mortgages payable, net	$8,167,798	$8,137,139
Senior unsecured notes, net	844,002	843,614
Unsecured term loan, net	744,821	748,734
Unsecured revolving credit facilities	80,000	—
Moynihan Train Hall obligation	445,693	—
Accounts payable and accrued expenses	430,976	415,794
Deferred revenue	167,730	227,069
Deferred compensation plan	96,523	109,177
Preferred shares redeemed on January 4 and 11, 2018	—	455,514
Other liabilities	311,806	468,255
Total liabilities	11,289,349	11,405,296
Commitments and contingencies		
Redeemable noncontrolling interests:		
Class A units - 12,544,477 and 12,528,899 units outstanding	778,134	979,509
Series D cumulative redeemable preferred units - 177,101 units outstanding	5,428	5,428
Total redeemable noncontrolling interests	783,562	984,937
Vornado's shareholders' equity:		
Preferred shares of beneficial interest: no par value per share; authorized 110,000,000 shares; issued and outstanding 36,798,580 and 36,799,573 shares	891,294	891,988
Common shares of beneficial interest: $0.04 par value per share; authorized 250,000,000 shares; issued and outstanding 190,535,499 and 189,983,858 shares	7,600	7,577

Additional capital	7,725,857	7,492,658
Earnings less than distributions	(4,167,184)	(4,183,253)
Accumulated other comprehensive income	7,664	128,682
Total Vornado shareholders' equity	4,465,231	4,337,652
Noncontrolling interests in consolidated subsidiaries	642,652	670,049
Total equity	5,107,883	5,007,701
	$17,180,794	$17,397,934

See notes to the consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF INCOME

(Amounts in thousands, except per share amounts)	Year Ended December 31, 2018	2017	2016
REVENUES:			
Property rentals	$1,760,205	$1,714,952	$1,662,093
Tenant expense reimbursements	247,128	233,424	221,563
Fee and other income	156,387	135,750	120,086
Total revenues	2,163,720	2,084,126	2,003,742
EXPENSES:			
Operating	963,478	886,596	844,566
Depreciation and amortization	446,570	429,389	421,023
General and administrative	141,871	150,782	143,643
(Benefit) expense from deferred compensation plan liability	(2,480)	6,932	5,213
Transaction related costs, impairment loss and other	31,320	1,776	9,451
Total expenses	1,580,759	1,475,475	1,423,896
Operating income	582,961	608,651	579,846
Income from partially owned entities	9,149	15,200	168,948
(Loss) income from real estate fund investments	(89,231)	3,240	(23,602)
Interest and other investment income, net	17,057	30,861	24,335
(Loss) income from deferred compensation plan assets	(2,480)	6,932	5,213
Interest and debt expense	(347,949)	(345,654)	(330,240)
Purchase price fair value adjustment	44,060	—	—
Net gains on disposition of wholly owned and partially owned assets	246,031	501	160,433
Income before income taxes	459,598	319,731	584,933
Income tax expense	(37,633)	(42,375)	(7,923)
Income from continuing operations	421,965	277,356	577,010
Income (loss) from discontinued operations	638	(13,228)	404,912
Net income	422,603	264,128	981,922
Less net loss (income) attributable to noncontrolling interests in:			
Consolidated subsidiaries	53,023	(25,802)	(21,351)
Operating Partnership	(25,672)	(10,910)	(53,654)
Net income attributable to Vornado	449,954	227,416	906,917
Preferred share dividends	(50,636)	(65,399)	(75,903)
Preferred share issuance costs	(14,486)	—	(7,408)
NET INCOME attributable to common shareholders	$384,832	$162,017	$823,606
INCOME PER COMMON SHARE – BASIC:			
Income from continuing operations, net	$2.02	$0.92	$2.35
Income (loss) from discontinued operations, net	—	(0.07)	2.01
Net income per common share	$2.02	$0.85	$4.36
Weighted average shares outstanding	190,219	189,526	188,837
INCOME PER COMMON SHARE – DILUTED:			
Income from continuing operations, net	$2.01	$0.91	$2.34
Income (loss) from discontinued operations, net	—	(0.06)	2.00
Net income per common share	$2.01	$0.85	$4.34
Weighted average shares outstanding	191,290	191,258	190,173

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Amounts in thousands)	Year Ended December 31,		
	2018	2017	2016
Net income	$422,603	$264,128	$981,922
Other comprehensive income (loss):			
(Reduction) increase in value of interest rate swaps and other	(14,635)	15,477	27,432
Pro rata share of other comprehensive income (loss) of nonconsolidated subsidiaries	1,155	1,425	(2,739)
(Reduction) increase in unrealized net gain on available-for-sale securities	—	(20,951)	52,057
Pro rata share of amounts reclassified from accumulated other comprehensive income of a nonconsolidated subsidiary	—	14,402	—
Comprehensive income	409,123	274,481	1,058,672
Less comprehensive loss (income) attributable to noncontrolling interests	28,187	(37,356)	(79,704)
Comprehensive income attributable to Vornado	$437,310	$237,125	$978,968

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(Amounts in thousands)	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 (see Note 2)	—	—	—	—	—	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	—	—	—	—	—	(479,348)	—	—	(479,348)
Dividends on preferred shares	—	—	—	—	—	(50,636)	—	—	(50,636)
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	—	—	—	—	—	—	—	62,657	62,657
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	—	—	6	—	1,157	(121)	—	—	1,036

shares and options									
Pro rata share of 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
Preferred shares issuance	—	(663)	—	—	—	(14,486)	—	—	(15,149)
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)	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, 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	—	—	—	—	—	(496,490)	—	—	(496,490)
Dividends on preferred shares	—	—	—	—	—	(65,399)	—	—	(65,399)
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	—	—	—	—	2,246	(418)	—	—	1,828

options									
Reduction in unrealized net gain on available-for-sale securities	—	—	—	—	—	—	(20,951)	—	(20,951)
Pro rata share of amounts reclassified related to a nonconsolidated subsidiary	—	—	—	—	—	—	14,402	—	14,402
Pro rata share of other comprehensive income of nonconsolidated subsidiaries	—	—	—	—	—	—	1,425	—	1,425
Increase in value of interest rate swaps	—	—	—	—	—	—	15,476	—	15,476
Adjustments to carry redeemable Class A units at redemption value	—	—	—	—	268,494	—	—	—	268,494
Preferred shares issuance	12,780	309,609	—	—	—	—	—	—	309,609
Cumulative redeemable preferred shares called for redemption	(18,800)	(455,514)	—	—	—	—	—	—	(455,514)
Redeemable noncontrolling interests' share of above adjustments	—	—	—	—	—	—	(642)	—	(642)
Other	—	—	4	—	—	(635)	—	(306)	(941)
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 CHANGES IN EQUITY - CONTINUED

(Amounts in thousands)	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, 2015	52,677	$1,276,954	188,577	$7,521	$7,132,979	$(1,766,780)	$46,921	$778,483	$7,476,078
Net income attributable to Vornado	—	—	—	—	—	906,917	—	—	906,917
Net income attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	—	21,351	21,351
Dividends on common shares	—	—	—	—	—	(475,961)	—	—	(475,961)
Dividends on preferred shares	—	—	—	—	—	(75,903)	—	—	(75,903)
Redemption of Series J preferred shares	(9,850)	(238,842)	—	—	—	(7,408)	—	—	(246,250)
Common shares issued:									
Upon redemption of Class A units, at redemption value	—	—	376	15	36,495	—	—	—	36,510
Under employees' share option plan	—	—	123	5	6,820	—	—	—	6,825
Under dividend reinvestment plan	—	—	16	1	1,443	—	—	—	1,444
Contributions	—	—	—	—	—	—	—	19,749	19,749
Distributions:									
Real estate fund investments	—	—	—	—	—	—	—	(62,444)	(62,444)
Other	—	—	—	—	—	—	—	(36,804)	(36,804)
Conversion of Series A preferred shares to common shares	(2)	(56)	3	—	56	—	—	—	—
Deferred compensation	—	—	7	—	1,788	(186)	—	—	1,602

shares and options									
Increase in unrealized net gain on available-for-sale securities	—	—	—	—	—	—	52,057	—	52,057
Pro rata share of other comprehensive loss of nonconsolidated subsidiaries	—	—	—	—	—	—	(2,739)	—	(2,739)
Increase in value of interest rate swap	—	—	—	—	—	—	27,434	—	27,434
Adjustments to carry redeemable Class A units at redemption value	—	—	—	—	(26,251)	—	—	—	(26,251)
Redeemable noncontrolling interests' share of above adjustments	—	—	—	—	—	—	(4,699)	—	(4,699)
Other	—	(1)	(1)	—	2	(61)	(2)	(358)	(420)
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

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in thousands)	Year Ended December 31,		
	2018	2017	2016
Cash Flows from Operating Activities:			
Net income	$422,603	$264,128	$981,922
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization (including amortization of deferred financing costs)	472,785	529,826	595,270
Net gains on disposition of wholly owned and partially owned assets	(246,031)	(501)	(175,735)
Net realized and unrealized losses on real estate fund investments	84,706	15,267	40,655
Distributions of income from partially owned entities	78,831	82,095	214,800
Purchase price fair value adjustment	(44,060)	—	—
Amortization of below-market leases, net	(38,573)	(46,790)	(53,202)
Decrease in fair value of marketable securities	26,453	—	—
Return of capital from real estate fund investments	20,290	91,606	71,888
Change in valuation of deferred tax assets and liabilities	12,835	34,800	—
Real estate impairment losses	12,000	—	161,165
Equity in net income of partially owned entities	(9,149)	(15,635)	(165,389)
Straight-lining of rents	(7,605)	(45,792)	(146,787)
Net gains on sale of real estate and other	—	(3,489)	(5,074)
Net gain on extinguishment of Skyline properties debt	—	—	(487,877)
Other non-cash adjustments	39,221	56,480	39,406
Changes in operating assets and liabilities:			
Real estate fund investments	(68,950)	—	—
Tenant and other receivables, net	(14,532)	1,183	(4,271)
Prepaid assets	151,533	(12,292)	(7,893)
Other assets	(84,222)	(79,199)	(76,357)
Accounts payable and accrued expenses	5,869	3,760	13,278
Other liabilities	(11,363)	(15,305)	(719)
Net cash provided by operating activities	802,641	860,142	995,080
Cash Flows from Investing Activities:			
Acquisitions of real estate and other	(574,812)	(30,607)	(91,103)
Development costs and construction in progress	(418,186)	(355,852)	(606,565)
Additions to real estate	(234,602)	(271,308)	(387,545)
Proceeds from sales of real estate and related investments	219,731	9,543	183,173
Proceeds from sale of condominium units at 220 Central Park South	214,776	—	—
Investments in loans receivable	(105,000)	—	(11,700)
Distributions of capital from partially owned entities	100,178	366,155	196,635
Moynihan Train Hall expenditures	(74,609)	—	—
Investments in partially owned entities	(37,131)	(40,537)	(127,608)
Proceeds from repayments of loans receivable	25,757	659	45
Proceeds from sale of marketable securities	4,101	—	3,937
Net consolidation of Farley Office and Retail Building	2,075	—	—
Proceeds from the repayment of JBG SMITH Properties loan receivable	—	115,630	—
Net deconsolidation of 7 West 34th Street	—	—	(48,000)
Purchases of marketable securities	—	—	(4,379)
Net cash used in investing activities	(877,722)	(206,317)	(893,110)

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CASH FLOWS – CONTINUED

(Amounts in thousands)	Year Ended December 31,		
	2018	2017	2016
Cash Flows from Financing Activities:			
Repayments of borrowings	$(685,265)	$(631,681)	$(1,894,990)
Proceeds from borrowings	526,766	1,055,872	2,403,898
Dividends paid on common shares	(479,348)	(496,490)	(475,961)
Redemption of preferred shares	(470,000)	—	(246,250)
Distributions to noncontrolling interests	(76,149)	(109,697)	(130,590)
Moynihan Train Hall reimbursement from Empire State Development	74,609	—	—
Contributions from noncontrolling interests	61,062	1,044	11,950
Dividends paid on preferred shares	(55,115)	(64,516)	(80,137)
Repurchase of shares related to stock compensation agreements and related tax withholdings and other	(12,969)	(418)	(186)
Debt issuance costs	(12,908)	(12,325)	(42,157)
Proceeds received from exercise of employee share options and other	7,309	29,712	8,269
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 shares	—	309,609	—
Net cash used in financing activities	(1,122,826)	(338,344)	(446,154)
Net (decrease) increase in cash and cash equivalents and restricted cash	(1,197,907)	315,481	(344,184)
Cash and cash equivalents and restricted cash at beginning of period	1,914,812	1,599,331	1,943,515
Cash and cash equivalents and restricted cash at end of period	$716,905	$1,914,812	$1,599,331
Reconciliation of Cash and Cash Equivalents and Restricted Cash:			
Cash and cash equivalents at beginning of period	$1,817,655	$1,501,027	$1,835,707
Restricted cash at beginning of period	97,157	95,032	99,943
Restricted cash included in discontinued operations at beginning of period	—	3,272	7,865
Cash and cash equivalents and restricted cash at beginning of period	$1,914,812	$1,599,331	$1,943,515
Cash and cash equivalents at end of period	$570,916	$1,817,655	$1,501,027
Restricted cash at end of period	145,989	97,157	95,032
Restricted cash included in discontinued operations at end of period	—	—	3,272
Cash and cash equivalents and restricted cash at end of period	$716,905	$1,914,812	$1,599,331

See notes to consolidated financial statements.

VORNADO REALTY TRUST
CONSOLIDATED STATEMENTS OF CASH FLOWS – CONTINUED

(Amounts in thousands)	Year Ended December 31,		
	2018	2017	2016
Supplemental Disclosure of Cash Flow Information:			
Cash payments for interest, excluding capitalized interest of $67,402, $43,071 and $29,584	$311,835	$338,983	$368,762
Cash payments for income taxes	$62,225	$6,727	$9,716
Non-Cash Investing and Financing Activities:			
Reclassification of condominium units from "development costs and construction in progress" to "220 Central Park South condominium units ready for sale"	$233,179	$—	$—
Adjustments to carry redeemable Class A units at redemption value	198,064	268,494	(26,251)
Accrued capital expenditures included in accounts payable and accrued expenses	88,115	102,976	120,564
Write-off of fully depreciated assets	(86,064)	(58,810)	(305,679)
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) increase in unrealized net gain on available-for-sale securities	—	(20,951)	52,057
Decrease in assets and liabilities resulting from the disposition of Skyline properties:			—
Real estate, net	—	—	(189,284)
Mortgage payable, net	—	—	(690,263)
Decrease in assets and liabilities resulting from the deconsolidation of investments that were previously consolidated:			
Real estate, net	—	—	(122,047)
Mortgage payable, net	—	—	(290,418)

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, 2018 and 2017, 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, 2018, and the related notes and the schedules 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, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, 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, 2018, 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 11, 2019, 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 U.S. 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.

/s/ DELOITTE & TOUCHE LLP

Parsippany, New Jersey
February 11, 2019

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

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VORNADO REALTY L.P.
CONSOLIDATED BALANCE SHEETS

(Amounts in thousands, except unit amounts)	December 31, 2018	December 31, 2017
ASSETS		
Real estate, at cost:		
Land	$3,306,280	$3,143,648
Buildings and improvements	10,110,992	9,898,605
Development costs and construction in progress	2,266,491	1,615,101
Moynihan Train Hall development expenditures	445,693	—
Leasehold improvements and equipment	108,427	98,941
Total	16,237,883	14,756,295
Less accumulated depreciation and amortization	(3,180,175)	(2,885,283)
Real estate, net	13,057,708	11,871,012
Cash and cash equivalents	570,916	1,817,655
Restricted cash	145,989	97,157
Marketable securities	152,198	182,752
Tenant and other receivables, net of allowance for doubtful accounts of $4,154 and $5,526	73,322	58,700
Investments in partially owned entities	858,113	1,056,829
Real estate fund investments	318,758	354,804
220 Central Park South condominium units ready for sale	99,627	—
Receivable arising from the straight-lining of rents, net of allowance of $1,644 and $954	935,131	926,711
Deferred leasing costs, net of accumulated amortization of $207,529 and $191,827	400,313	403,492
Identified intangible assets, net of accumulated amortization of $172,114 and $150,837	136,781	159,260
Other assets	431,938	469,562
	$17,180,794	$17,397,934
LIABILITIES, REDEEMABLE PARTNERSHIP UNITS AND EQUITY		
Mortgages payable, net	$8,167,798	$8,137,139
Senior unsecured notes, net	844,002	843,614
Unsecured term loan, net	744,821	748,734
Unsecured revolving credit facilities	80,000	—
Moynihan Train Hall obligation	445,693	—
Accounts payable and accrued expenses	430,976	415,794
Deferred revenue	167,730	227,069
Deferred compensation plan	96,523	109,177
Preferred units redeemed on January 4 and 11, 2018	—	455,514
Other liabilities	311,806	468,255
Total liabilities	11,289,349	11,405,296
Commitments and contingencies		
Redeemable partnership units:		
Class A units - 12,544,477 and 12,528,899 units outstanding	778,134	979,509
Series D cumulative redeemable preferred units - 177,101 units outstanding	5,428	5,428
Total redeemable partnership units	783,562	984,937
Equity:		
Partners' capital	8,624,751	8,392,223
Earnings less than distributions	(4,167,184)	(4,183,253)
Accumulated other comprehensive income	7,664	128,682

Total Vornado Realty L.P. equity	4,465,231	4,337,652
Noncontrolling interests in consolidated subsidiaries	642,652	670,049
Total equity	5,107,883	5,007,701
	$17,180,794	$17,397,934

See notes to the consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF INCOME

(Amounts in thousands, except per unit amounts)	Year Ended December 31,		
	2018	2017	2016
REVENUES:			
Property rentals	$1,760,205	$1,714,952	$1,662,093
Tenant expense reimbursements	247,128	233,424	221,563
Fee and other income	156,387	135,750	120,086
Total revenues	2,163,720	2,084,126	2,003,742
EXPENSES:			
Operating	963,478	886,596	844,566
Depreciation and amortization	446,570	429,389	421,023
General and administrative	141,871	150,782	143,643
(Benefit) expense from deferred compensation plan liability	(2,480)	6,932	5,213
Transaction related costs, impairment loss and other	31,320	1,776	9,451
Total expenses	1,580,759	1,475,475	1,423,896
Operating income	582,961	608,651	579,846
Income from partially owned entities	9,149	15,200	168,948
(Loss) income from real estate fund investments	(89,231)	3,240	(23,602)
Interest and other investment income, net	17,057	30,861	24,335
(Loss) income from deferred compensation plan assets	(2,480)	6,932	5,213
Interest and debt expense	(347,949)	(345,654)	(330,240)
Purchase price fair value adjustment	44,060	—	—
Net gains on disposition of wholly owned and partially owned assets	246,031	501	160,433
Income before income taxes	459,598	319,731	584,933
Income tax expense	(37,633)	(42,375)	(7,923)
Income from continuing operations	421,965	277,356	577,010
Income (loss) from discontinued operations	638	(13,228)	404,912
Net income	422,603	264,128	981,922
Less net loss (income) attributable to noncontrolling interests in consolidated subsidiaries	53,023	(25,802)	(21,351)
Net income attributable to Vornado Realty L.P.	475,626	238,326	960,571
Preferred unit distributions	(50,830)	(65,593)	(76,097)
Preferred unit issuance costs	(14,486)	—	(7,408)
NET INCOME attributable to Class A unitholders	$410,310	$172,733	$877,066
INCOME PER CLASS A UNIT – BASIC:			
Income from continuing operations, net	$2.01	$0.91	$2.34
Income (loss) from discontinued operations, net	0.01	(0.07)	2.02
Net income per Class A unit	$2.02	$0.84	$4.36
Weighted average units outstanding	202,068	201,214	200,350
INCOME PER CLASS A UNIT – DILUTED:			
Income from continuing operations, net	$2.00	$0.90	$2.32
Income (loss) from discontinued operations, net	—	(0.07)	2.00
Net income per Class A unit	$2.00	$0.83	$4.32
Weighted average units outstanding	203,412	203,300	202,017

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Amounts in thousands)	Year Ended December 31,		
	2018	2017	2016
Net income	$422,603	$264,128	$981,922
Other comprehensive income (loss):			
(Reduction) increase in value of interest rate swaps and other	(14,635)	15,477	27,432
Pro rata share of other comprehensive income (loss) of nonconsolidated subsidiaries	1,155	1,425	(2,739)
(Reduction) increase in unrealized net gain on available-for-sale securities	—	(20,951)	52,057
Pro rata share of amounts reclassified from accumulated other comprehensive income of a nonconsolidated subsidiary	—	14,402	—
Comprehensive income	409,123	274,481	1,058,672
Less comprehensive loss (income) attributable to noncontrolling interests in consolidated subsidiaries	53,023	(25,802)	(21,351)
Comprehensive income attributable to Vornado	$462,146	$248,679	$1,037,321

See notes to consolidated financial statements.

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

(Amounts in thousands)	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 (see Note 2)	—	—	—	—	122,893	(108,374)	—	14,519
Net loss attributable to Vornado Realty L.P.	—	—	—	—	475,626	—	—	475,626
Net income attributable to redeemable partnership units	—	—	—	—	(25,672)	—	—	(25,672)
Net income attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	(53,023)	(53,023)
Distributions to Vornado	—	—	—	—	(479,348)	—	—	(479,348)
Distributions to preferred unitholders	—	—	—	—	(50,636)	—	—	(50,636)
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	—	—	—	—	—	—	62,657	62,657
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
Pro rata share of 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
Preferred units issuance	—	(663)	—		(14,486)	—	—	(15,149)
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)	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	—	—	—	—	(496,490)	—	—	(496,490)
Distributions to preferred unitholders	—	—	—	—	(65,399)	—	—	(65,399)
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)
Pro rata share of amounts reclassified related to a nonconsolidated subsidiary	—	—	—	—	—	14,402	—	14,402
Pro rata share of other comprehensive income of nonconsolidated subsidiaries	—	—	—	—	—	1,425	—	1,425
Increase in value of interest rate swaps	—	—	—	—	—	15,476	—	15,476
Adjustments to carry redeemable Class A units at redemption value	—	—	—	268,494	—	—	—	268,494
Preferred units issuance	12,780	309,609	—	—	—	—	—	309,609
Cumulative redeemable preferred units called for redemption	(18,800)	(455,514)	—	—	—	—		(455,514)
Redeemable partnership units' share of above adjustments	—	—	—	—	—	(642)	—	(642)
Other	—	—	4	—	(635)	—	(306)	(941)
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 CHANGES IN EQUITY – CONTINUED

(Amounts in thousands)	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, 2015	52,677	$1,276,954	188,577	$7,140,500	$(1,766,780)	$46,921	$778,483	$7,476,078
Net income attributable to Vornado Realty L.P.	—	—	—	—	960,571	—	—	960,571
Net income attributable to redeemable partnership units	—	—	—	—	(53,654)	—	—	(53,654)
Net income attributable to noncontrolling interests in consolidated subsidiaries	—	—	—	—	—	—	21,351	21,351
Distributions to Vornado	—	—	—	—	(475,961)	—	—	(475,961)
Distributions to preferred unitholders	—	—	—	—	(75,903)	—	—	(75,903)
Redemption of Series J preferred units	(9,850)	(238,842)	—	—	(7,408)	—	—	(246,250)
Class A Units issued to Vornado:								
Upon redemption of redeemable Class A units, at redemption value	—	—	376	36,510	—	—	—	36,510
Under Vornado's employees' share option plan	—	—	123	6,825	—	—	—	6,825
Under Vornado's dividend reinvestment plan	—	—	16	1,444	—	—	—	1,444
Contributions	—	—	—	—	—	—	19,749	19,749
Distributions:								
Real estate fund investments	—	—	—	—	—	—	(62,444)	(62,444)

Other	—	—	—	—	—	—	(36,804)	(36,804)
Conversion of Series A preferred units to Class A units	(2)	(56)	3	56	—	—	—	—
Deferred compensation units and options	—	—	7	1,788	(186)	—	—	1,602
Increase in unrealized net gain on available-for-sale securities	—	—	—	—	—	52,057	—	52,057
Pro rata share of other comprehensive loss of nonconsolidated subsidiaries	—	—	—	—	—	(2,739)	—	(2,739)
Increase in value of interest rate swap	—	—	—	—	—	27,434	—	27,434
Adjustments to carry redeemable Class A units at redemption value	—	—	—	(26,251)	—	—	—	(26,251)
Redeemable partnership units' share of above adjustments	—	—	—	—	—	(4,699)	—	(4,699)
Other	—	(1)	(1)	2	(61)	(2)	(358)	(420)
Balance, December 31, 2016	42,825	$1,038,055	189,101	$7,160,874	$(1,419,382)	$118,972	$719,977	$7,618,496

See notes to consolidated financial statements.

VORNADO REALTY L.P.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in thousands)	Year Ended December 31,		
	2018	2017	2016
Cash Flows from Operating Activities:			
Net income	$422,603	$264,128	$981,922
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization (including amortization of deferred financing costs)	472,785	529,826	595,270
Net gains on disposition of wholly owned and partially owned assets	(246,031)	(501)	(175,735)
Net realized and unrealized losses on real estate fund investments	84,706	15,267	40,655
Distributions of income from partially owned entities	78,831	82,095	214,800
Purchase price fair value adjustment	(44,060)	—	—
Amortization of below-market leases, net	(38,573)	(46,790)	(53,202)
Decrease in fair value of marketable securities	26,453	—	—
Return of capital from real estate fund investments	20,290	91,606	71,888
Change in valuation of deferred tax assets and liabilities	12,835	34,800	—
Real estate impairment losses	12,000	—	161,165
Equity in net income of partially owned entities	(9,149)	(15,635)	(165,389)
Straight-lining of rents	(7,605)	(45,792)	(146,787)
Net gains on sale of real estate and other	—	(3,489)	(5,074)
Net gain on extinguishment of Skyline properties debt	—	—	(487,877)
Other non-cash adjustments	39,221	56,480	39,406
Changes in operating assets and liabilities:			
Real estate fund investments	(68,950)	—	—
Tenant and other receivables, net	(14,532)	1,183	(4,271)
Prepaid assets	151,533	(12,292)	(7,893)
Other assets	(84,222)	(79,199)	(76,357)
Accounts payable and accrued expenses	5,869	3,760	13,278
Other liabilities	(11,363)	(15,305)	(719)
Net cash provided by operating activities	802,641	860,142	995,080
Cash Flows from Investing Activities:			
Acquisitions of real estate and other	(574,812)	(30,607)	(91,103)
Development costs and construction in progress	(418,186)	(355,852)	(606,565)
Additions to real estate	(234,602)	(271,308)	(387,545)
Proceeds from sales of real estate and related investments	219,731	9,543	183,173
Proceeds from sale of condominium units at 220 Central Park South	214,776	—	—
Investments in loans receivable	(105,000)	—	(11,700)
Distributions of capital from partially owned entities	100,178	366,155	196,635
Moynihan Train Hall expenditures	(74,609)	—	—
Investments in partially owned entities	(37,131)	(40,537)	(127,608)
Proceeds from repayments of loans receivable	25,757	659	45
Proceeds from sale of marketable securities	4,101	—	3,937
Net consolidation of Farley Office and Retail Building	2,075	—	—
Proceeds from the repayment of JBG SMITH Properties loan receivable	—	115,630	—
Net deconsolidation of 7 West 34th Street	—	—	(48,000)
Purchases of marketable securities	—	—	(4,379)
Net cash used in investing activities	(877,722)	(206,317)	(893,110)

See notes to consolidated financial statements.

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

(Amounts in thousands)	Year Ended December 31,		
	2018	2017	2016
Cash Flows from Financing Activities:			
Repayments of borrowings	$(685,265)	$(631,681)	$(1,894,990)
Proceeds from borrowings	526,766	1,055,872	2,403,898
Distributions to Vornado	(479,348)	(496,490)	(475,961)
Redemption of preferred units	(470,000)	—	(246,250)
Distributions to redeemable security holders and noncontrolling interests in consolidated subsidiaries	(76,149)	(109,697)	(130,590)
Moynihan Train Hall reimbursement from Empire State Development	74,609	—	—
Contributions from noncontrolling interests in consolidated subsidiaries	61,062	1,044	11,950
Distributions to preferred unitholders	(55,115)	(64,516)	(80,137)
Repurchase of Class A units related to stock compensation agreements and related tax withholdings and other	(12,969)	(418)	(186)
Debt issuance costs	(12,908)	(12,325)	(42,157)
Proceeds received from exercise of Vornado stock options and other	7,309	29,712	8,269
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	(1,122,826)	(338,344)	(446,154)
Net (decrease) increase in cash and cash equivalents and restricted cash	(1,197,907)	315,481	(344,184)
Cash and cash equivalents and restricted cash at beginning of period	1,914,812	1,599,331	1,943,515
Cash and cash equivalents and restricted cash at end of period	$716,905	$1,914,812	$1,599,331
Reconciliation of Cash and Cash Equivalents and Restricted Cash:			
Cash and cash equivalents at beginning of period	$1,817,655	$1,501,027	$1,835,707
Restricted cash at beginning of period	97,157	95,032	99,943
Restricted cash included in discontinued operations at beginning of period	—	3,272	7,865
Cash and cash equivalents and restricted cash at beginning of period	$1,914,812	$1,599,331	$1,943,515
Cash and cash equivalents at end of period	$570,916	$1,817,655	$1,501,027
Restricted cash at end of period	145,989	97,157	95,032
Restricted cash included in discontinued operations at end of period	—	—	3,272
Cash and cash equivalents and restricted cash at end of period	$716,905	$1,914,812	$1,599,331

See notes to consolidated financial statements.

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

(Amounts in thousands)	Year Ended December 31,		
	2018	2017	2016
Supplemental Disclosure of Cash Flow Information:			
Cash payments for interest, excluding capitalized interest of $67,402, $43,071 and $29,584	$311,835	$338,983	$368,762
Cash payments for income taxes	$62,225	$6,727	$9,716
Non-Cash Investing and Financing Activities:			
Reclassification of condominium units from "development costs and construction in progress" to "220 Central Park South condominium units ready for sale"	$233,179	$—	$—
Adjustments to carry redeemable Class A units at redemption value	198,064	268,494	(26,251)
Accrued capital expenditures included in accounts payable and accrued expenses	88,115	102,976	120,564
Write-off of fully depreciated assets	(86,064)	(58,810)	(305,679)
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 units to liabilities upon call for redemption	—	455,514	—
Loan receivable established upon the spin-off of JBG SMITH Properties	—	115,630	—
(Reduction) increase in unrealized net gain on available-for-sale securities	—	(20,951)	52,057
Decrease in assets and liabilities resulting from the disposition of Skyline properties:			
Real estate, net	—	—	(189,284)
Mortgage payable, net	—	—	(690,263)
Decrease in assets and liabilities resulting from the deconsolidation of investments that were previously consolidated:			
Real estate, net	—	—	(122,047)
Mortgage payable, net	—	—	(290,418)

See notes to consolidated financial statements.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
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 is 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 93.4% of the common limited partnership interest in the Operating Partnership as of December 31, 2018. All references to the "Company," "we," "us" and "our" mean, collectively, Vornado, the Operating Partnership and those entities/subsidiaries consolidated by Vornado.

We currently own all or portions of:

New York:

- 19.9 million square feet of Manhattan office in 36 properties;
- 2.6 million square feet of Manhattan street retail in 71 properties;
- 1,999 units in eleven 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 Related 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, known as the Bank of America Center;
- A 25.0% interest in Vornado Capital Partners, our real estate fund. We are the general partner and investment manager of the fund;
- Other real estate and other investments.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

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, 2017 and 2016, expense of $6,932,000 and $5,213,000, respectively, related to the mark-to-market of our deferred compensation plan liability was reclassified from "general and administrative" expenses to "expense from deferred compensation plan liability" and income of $6,932,000 and $5,213,000, respectively, related to the mark-to-market of our deferred compensation plan assets was reclassified from "interest and other investment income, net" to "income from deferred compensation plan assets" on our consolidated statements of income. In addition, for the years ended December 31, 2017 and 2016, expense of $1,285,000 and $694,000, respectively, related to New York City Unincorporated Business Tax was reclassified from "general and administrative" expenses to "income tax expense" on our consolidated statements of income. Assets and liabilities related to discontinued operations as of December 31, 2017 were reclassified to “other assets” and “other liabilities”, respectively, on our consolidated balance sheets.

Recently Issued Accounting Literature

In May 2014, the Financial Accounting Standards Board (“FASB”) issued an update (“ASU 2014-09”) establishing Accounting Standards Codification (“ASC”) Topic 606, Revenue from Contracts with Customers (“ASC 606”). ASU 2014-09, as amended by subsequent ASUs on the topic, establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most of the existing revenue recognition guidance. This standard, which was effective for interim and annual reporting periods in fiscal years that begin after December 15, 2017, requires an entity to recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services and also requires certain additional disclosures. We adopted this standard effective January 1, 2018 using the modified retrospective method applied to all existing contracts not yet completed as of January 1, 2018 and recorded a $14,519,000 cumulative-effect adjustment to beginning accumulated deficit. The adoption of ASC 606 did not have a material impact on our financial statements (see Note 3 - Revenue Recognition).

In January 2016, the FASB issued an update (“ASU 2016-01”) Recognition and Measurement of Financial Assets and Financial Liabilities to ASC Topic 825, Financial Instruments. ASU 2016-01 amends certain aspects of recognition, measurement, presentation and disclosure of financial instruments. ASU 2016-01 was effective for interim and annual reporting periods in fiscal years beginning after December 15, 2017. We adopted this update effective January 1, 2018 using the modified retrospective approach. While the adoption of this update requires us to continue to measure “marketable securities” at fair value on each reporting date, the changes in fair value will be recognized in current period earnings as opposed to “other comprehensive income (loss).” As a result, on January 1, 2018 we recorded a decrease to beginning accumulated deficit of $111,225,000 to recognize the unrealized gains previously recorded in “accumulated other comprehensive income” on our consolidated balance sheets. Subsequent changes in the fair value of our

marketable securities will be recorded to “interest and other investment income, net” on our consolidated statements of income. For the year ended December 31, 2018, we recorded a decrease of $26,453,000 in the fair value of our marketable securities which is included in “interest and other investment income, net” on our consolidated statements of income.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

2. Basis of Presentation and Significant Accounting Policies – continued

Recently Issued Accounting Literature - continued

In February 2016, the 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 asset and a lease liability for all leases with a term of greater than 12 months. Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases. Lessees will recognize an expense 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 the existing lease standard. We adopted this standard effective January 1, 2019. We have completed our evaluation of the overall impact of the adoption of ASU 2016-02 on our consolidated financial statements and accounting policies. In transitioning to ASC 842, we elected to use the practical expedient package available to us and did not elect to use hindsight. We have a number of ground leases, which are classified as operating leases, for which we are required to record a right-of-use asset and a lease liability equal to the present value of the remaining minimum lease payments, and will continue to recognize expense on a straight-line basis for these leases. On January 1, 2019, we recorded an aggregate of approximately $527,000,000 of right-of-use assets and corresponding $527,000,000 of lease liabilities as a result of the adoption of this standard.

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, we will no longer capitalize internal leasing costs and instead will expense these costs as incurred. During the years ended December 31, 2018, 2017 and 2016, we capitalized internal leasing costs of $5,538,000, $5,243,000, and $7,352,000 respectively, excluding the internal leasing costs of our former Washington, DC segment which was spun-off on July 17, 2017.

In February 2017, the FASB issued an update (“ASU 2017-05”) Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets to ASC Subtopic 610-20, Other Income-Gains and Losses from the Derecognition of Nonfinancial Assets. ASU 2017-05 clarifies the scope of recently established guidance on nonfinancial asset derecognition, as well as the accounting for partial sales of nonfinancial assets. This update conforms the derecognition guidance on nonfinancial assets with the model for transactions in ASC 606. ASU 2017-05 is effective for interim and annual reporting periods in fiscal years beginning after December 15, 2017. We adopted this update on January 1, 2018 using the modified retrospective approach applied to all contracts not yet completed. The adoption of this update did not have a material impact on our consolidated financial statements.

In May 2017, the FASB issued an update (“ASU 2017-09”) Scope of Modification Accounting to ASC Topic 718, Compensation - Stock Compensation (“ASC 718”). ASU 2017-09 provides guidance about which changes to the terms and conditions of a share-based payment award require an entity to apply modification accounting in ASC 718. ASU 2017-09 is effective for interim and annual reporting periods in fiscal years beginning after December 15, 2017. The adoption of this update on January 1, 2018 did not have a material impact on our consolidated financial statements.

In August 2017, the FASB issued an update (“ASU 2017-12”) Targeted Improvements to Accounting for Hedging Activities to ASC Topic 815, Derivatives and Hedging (“ASC 815”). ASU 2017-12 amends the hedge accounting recognition and presentation requirements in ASC 815. The update is intended to more closely align hedge accounting

with companies' risk management strategies, simplify the application of hedge accounting and increase transparency as to the scope and results of hedge programs. ASU 2017-12 requires subsequent changes in fair value of a hedging instrument that has been designated and qualifies as a cash flow hedge to be recognized as a component of "other comprehensive income (loss)." ASU 2017-12 is effective for interim and annual reporting periods in fiscal years beginning after December 15, 2018, with early adoption permitted. We early adopted ASU 2017-12 on January 1, 2018 using the modified retrospective approach. The adoption of this update did not have a material impact on our consolidated financial statements.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

2. Basis of Presentation and Significant Accounting Policies – continued

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. An entity is permitted to early adopt by modifying existing disclosures and delay adoption of the additional disclosures until the effective date. We are currently evaluating the impact of the adoption of this update 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 815. 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, with early adoption permitted. We adopted this update effective January 1, 2019. The adoption of this update did not have a material impact on our consolidated financial statements.

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 $73,166,000 and $48,231,000 for the years ended December 31, 2018 and 2017, 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 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, anticipated holding periods, 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 assumptions regarding future occupancy, rental rates and capital requirements 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 $12,000,000 and $160,700,000 for the years ended December 31, 2018 and 2016, respectively. There were no impairment losses in the year ended December 31, 2017.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

2. Basis of Presentation and Significant Accounting Policies – continued

Significant Accounting Policies - continued

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 whether the entity is a variable interest entity ("VIE") and whether we are the primary beneficiary, or 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.

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 values 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 years ended December 31, 2017 and 2016, we recognized non-cash impairment losses on investments in partially owned entities aggregating $44,465,000 and $20,290,000, respectively. There were no non-cash impairment losses on investments in partially owned entities in the year ended December 31, 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. As of December 31, 2018, none of the 220 CPS condominium units ready for sale have a carrying value that exceeds 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 ("CDARS").

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 for debt service, real estate taxes, property insurance and capital improvements.

Allowance for Doubtful Accounts: We periodically evaluate the collectability of amounts due from tenants and maintain an allowance for doubtful accounts for estimated losses resulting from the inability of tenants to make required payments under the lease agreements. We also maintain an allowance for receivables arising from the straight-lining of rents. These receivables arise from earnings recognized in excess of amounts currently due under the lease agreements. Management exercises judgment in establishing these allowances and considers payment history and current credit status in developing these estimates. As of December 31, 2018 and 2017, we had $4,154,000 and $5,526,000, respectively, in allowances for doubtful accounts. In addition, as of December 31, 2018 and 2017, we had $1,644,000 and $954,000, respectively, in allowances for receivables arising from the straight-lining of rents.

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.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

2. Basis of Presentation and Significant Accounting Policies – continued

Significant Accounting Policies - continued
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, 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. Dividends distributed for the year ended December 31, 2016, were characterized, for federal income tax purposes, as 83.5% ordinary income and 16.5% long-term capital gain.

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.

On December 22, 2017, the Tax Cuts and Jobs Act (the "Act") was signed into law. The Act includes numerous changes in existing tax law, including a permanent reduction in the federal corporate income tax rate from 35% to 21% effective January 1, 2018. As a result of the reduction of federal corporate income tax rates, we decreased the value of our taxable REIT subsidiaries' deferred tax assets which resulted in additional income tax expense of $34,800,000 in the year ended December 31, 2017.

At December 31, 2018 and 2017, our taxable REIT subsidiaries had deferred tax assets, net of valuation allowances, of $109,949,000 and $69,209,000, respectively, and are included in “other assets” on our consolidated balance sheets. At December 31, 2018 and 2017, our taxable REIT subsidiaries had deferred tax liabilities of $28,676,000 and $13,697,000, respectively, which are included in "other liabilities" on our consolidated balance sheets. The deferred tax assets and liabilities relate to net operating loss carryforwards and temporary differences between the book and tax basis of asset and liabilities. During 2018, we utilized $42,035,000 of deferred tax assets related to net operating loss carryforwards associated with our 220 CPS project.

For the years ended December 31, 2018, 2017 and 2016, we recognized $37,633,000, $42,375,000 and $7,923,000 of income tax expense, respectively, based on effective tax rates of approximately 8.2%, 13.3% and 1.4%, 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, 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 Central Park South condominium units. Income tax expense for the year ended December 31, 2017 included $34,800,000 of additional tax expense resulting from the reduction in the federal corporate tax rate, as discussed above. The Company has no uncertain tax positions recognized as of December 31, 2018 and 2017.
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, 2018, 2017 and 2016.

(Amounts in thousands)	For the Year Ended December 31,		
	2018	2017	2016
Net income attributable to Vornado common shareholders	$384,832	$162,017	$823,606
Book to tax differences (unaudited):			
Depreciation and amortization	234,325	213,083	302,092
Tangible property regulations	(86,040)	—	—
Sale of real estate and other capital transactions	31,527	11,991	(39,109)
Vornado stock options	(22,992)	(6,383)	(3,593)
Earnings of partially owned entities	15,711	(3,054)	(149,094)
Impairment losses	11,260	49,062	170,332
Straight-line rent adjustments	(7,133)	(36,696)	(137,941)
Tax expense related to the reduction of our taxable REIT subsidiaries' deferred tax assets	—	32,663	—
Net gain on extinguishment of Skyline properties debt	—	—	(457,970)
Other, net	18,956	25,057	9,121
Estimated taxable income (unaudited)	$580,446	$447,740	$517,444

The net basis of Vornado’s assets and liabilities for tax reporting purposes is approximately $1.9 billion lower than the amounts reported in Vornado’s consolidated balance sheet at December 31, 2018.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

3. Revenue Recognition

On January 1, 2018, we adopted ASC 606 which establishes a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most of the existing revenue recognition guidance. This standard requires us to recognize for certain of our revenue sources the transfer of promised goods or services to customers in an amount that reflects the consideration we are entitled to in exchange for those goods or services. We adopted this standard effective January 1, 2018 using the modified retrospective method applied to all existing contracts not yet completed as of January 1, 2018 and recorded a $14,519,000 cumulative-effect adjustment to beginning accumulated deficit. The adoption of ASC 606 did not have a material impact on our consolidated financial statements.

Our revenues primarily consist of property rentals, tenant expense reimbursements, 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:

- Base rent is revenue arising from tenant leases. These rents are recognized over the non-cancelable term of the related leases on a straight-line basis which includes the effects of rent steps and rent abatements. We commence rental revenue recognition when the tenant takes possession of the leased space and the leased space is substantially ready for its intended use. In addition, in circumstances where we provide a tenant improvement allowance for improvements that are owned by the tenant, we recognize the allowance as a reduction of rental revenue on a straight-line basis over the term of the lease.

- 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 rooms are occupied. Food and beverage and banquet revenue are recognized when the services have been transferred.

- 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.

- Operating expense reimbursements is revenue arising from tenant leases which provide for the recovery of all or a portion of the operating expenses and real estate taxes of the common areas of our properties. Revenue is generally recognized in the same period as the related expenses are incurred.

- Tenant services is revenue arising 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 Service (“BMS”) cleaning, engineering and security services. This revenue is recognized as the services are transferred. Fee and other income also includes lease termination fee income which is recognized immediately if a tenant vacates or is recognized on a straight-line basis over the shortened remaining lease term.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

3. Revenue Recognition - continued

Below is a summary of our revenues by segment. Base rent, operating expense reimbursements and lease terminations represent revenues from leases and are recognized in accordance with ASC Topic 840, Leases. Revenues from Hotel Pennsylvania, trade shows, tenant services, BMS cleaning fees, management and leasing fees and other income represent revenues recognized in accordance with ASC 606. Additional financial information related to these reportable segments for the years ended December 31, 2018, 2017 and 2016 is set forth in Note 25 - Segment Information.

(Amounts in thousands)	For the Year Ended December 31, 2018		
	Total	New York	Other
Base rent	$1,623,122	$1,371,182	$251,940
Hotel Pennsylvania	94,399	94,399	—
Trade shows	42,684	—	42,684
Property rentals	1,760,205	1,465,581	294,624
Operating expense reimbursements	193,207	177,044	16,163
Tenant services	53,921	41,351	12,570
Tenant expense reimbursements	247,128	218,395	28,733
BMS cleaning fees	120,357	129,088	(8,731)[1]
Management and leasing fees	13,324	12,203	1,121
Lease termination fees	2,144	858	1,286
Other income	20,562	9,911	10,651
Fee and other income	156,387	152,060	4,327
Total revenues	$2,163,720	$1,836,036	$327,684

(Amounts in thousands)	For the Year Ended December 31, 2017		
	Total	New York	Other
Base rent	$1,583,443	$1,347,270	$236,173
Hotel Pennsylvania	89,302	89,302	—
Trade shows	42,207	—	42,207
Property rentals	1,714,952	1,436,572	278,380
Operating expense reimbursements	179,381	165,347	14,034
Tenant services	54,043	42,273	11,770
Tenant expense reimbursements	233,424	207,620	25,804
BMS cleaning fees	104,143	110,986	(6,843)[1]
Management and leasing fees	10,087	8,599	1,488
Lease termination fees	8,171	7,955	216
Other income	13,349	7,575	5,774
Fee and other income	135,750	135,115	635
Total revenues	$2,084,126	$1,779,307	$304,819

See notes on the following page.

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VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

3. Revenue Recognition - continued

(Amounts in thousands)	For the Year Ended December 31, 2016		
	Total	New York	Other
Base rent	$1,538,605	$1,313,611	$224,994
Hotel Pennsylvania	80,785	80,785	—
Trade shows	42,703	—	42,703
Property rentals	1,662,093	1,394,396	267,697
Operating expense reimbursements	166,103	154,734	11,369
Tenant services	55,460	44,304	11,156
Tenant expense reimbursements	221,563	199,038	22,525
BMS cleaning fees	93,425	97,612	(4,187)[1]
Management and leasing fees	8,243	7,531	712
Lease termination fees	8,770	7,705	1,065
Other income	9,648	7,092	2,556
Fee and other income	120,086	119,940	146
Total revenues	$2,003,742	$1,713,374	$290,368

(1) Represents the elimination of intercompany fees from the New York segment upon consolidation.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

4. Acquisitions

537 West 26th Street

On February 9, 2018, we acquired 537 West 26th Street, a 14,000 square foot commercial property adjacent to our 260 Eleventh Avenue office property, and 55,000 square feet of additional zoning air rights for $44,000,000.

1535 Broadway

On July 30, 2012, we entered into a lease with Host Hotels & Resorts, Inc. (NYSE: HST) (“Host”), under which we redeveloped the retail and signage components of the Marriott Times Square Hotel. We accounted for this lease as a “capital lease” and recorded a $240,000,000 capital lease asset and liability. On September 21, 2018, we acquired the retail condominium from Host for $442,000,000 (inclusive of the $240,000,000 capital lease liability). The original lease transaction provided that we would become the 100% owner through a put/call arrangement, based on a pre-negotiated formula. This transaction satisfies the put/call arrangement. Our 100% fee interest includes 45,000 square feet of retail, the 1,611 seat Marquis Theater and the largest digital sign in New York with a 330 linear foot, 25,000 square foot display.

Farley Office and Retail Building and Moynihan Train Hall

In September 2016, our joint venture with the Related Companies (“Related”) was designated by Empire State Development (“ESD”), an entity of New York State, to develop the Farley Office and Retail Building (the "Project"). The Project will include a new Moynihan Train Hall and approximately 850,000 rentable square feet of commercial space, comprised of approximately 730,000 square feet of office space and approximately 120,000 square feet of retail space. On June 15, 2017, the joint venture closed a 99-year, triple-net lease with ESD for the commercial space at the Project and made a $230,000,000 upfront contribution towards the construction of the train hall. At that time, we accounted for our investment in the joint venture under the equity method of accounting. The lease calls for annual rent payments of $5,000,000 plus payments in lieu of real estate taxes. Simultaneously, the joint venture completed a $271,000,000 loan facility, of which $257,941,000 is outstanding at December 31, 2018. The interest-only loan is at LIBOR plus 3.25% (4.64% at December 31, 2018) and matures in June 2019 with two one-year extension options.

On October 30, 2018, we increased our ownership interest in the joint venture to 95.0% from 50.1% by acquiring a 44.9% additional ownership interest from Related. The purchase price was $41,500,000 plus the reimbursement of $33,026,000 of costs funded by Related through October 30, 2018. We consolidate the accounts of the joint venture from the date of acquisition as it is a variable interest entity and we are deemed to be the primary beneficiary. In connection therewith, we recorded a net gain of $44,060,000, which is included in "purchase price fair value adjustment" on our consolidated statements of income. As a result of this gain, because we hold our investment in the joint venture through a taxable REIT subsidiary, $16,771,000 of income tax expense was recognized in our consolidated statements of income.

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. Pursuant to ASC 840-40-55, 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, 2018 of $445,693,000 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.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5. 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 January 17, 2018, the Fund completed the sale of the retail condominium at 11 East 68th Street, a property located on Madison Avenue and 68th Street, for $82,000,000. From the inception of this investment through its disposition, the Fund realized a $46,259,000 net gain.

In March 2011, a joint venture (the "Joint Venture") owned 64.7% by the Fund, 30.3% by Vornado and 5.0% by a third party, acquired One Park Avenue for $394,000,000. In connection with the acquisition, the Joint Venture paid $3,000,000 of New York City real property transfer tax (the "Transfer Tax") and filed a Real Property Tax Return ("RPTR") with the New York City Department of Finance (the "Department of Finance"). The RPTR was audited by the Department of Finance in 2014 and an increased Transfer Tax was assessed. The Joint Venture appealed the increased Transfer Tax assessment and the Joint Venture's appeal was upheld by a New York City Administrative Law Judge ("ALJ") in January 2017. The Department of Finance appealed the ALJ's decision and on February 16, 2018 the New York City Tax Appeals Tribunal (the "Tax Tribunal") reversed the ALJ's decision and assessed $9,491,000 of additional Transfer Tax and $6,764,000 of interest. As a result of the Tax Tribunal's decision, we recorded an expense of $15,608,000, before noncontrolling interests, during the first quarter of 2018, which was subsequently paid on April 5, 2018, in order to permit us to appeal the Tax Tribunal's decision and stop the accrual of interest, of which $10,630,000 is included in "loss (income) from real estate fund investments" and $4,978,000 is included in "income from partially owned entities" (see Note 7 - Investments in Partially Owned Entities) on our consolidated statements of income for the twelve months ended December 31, 2018. We are appealing the Tax Tribunal's decision. Our appeal of the Tax Tribunal's decision is scheduled to be heard by the appellate court in the first half of 2019.

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% (6.00% at December 31, 2018) 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.

As of December 31, 2018, we had four real estate fund investments through the Fund and the Crowne Plaza Joint Venture with an aggregate fair value of $318,758,000, or $6,806,000 below our cost, and had remaining unfunded commitments of $50,494,000, of which our share was $16,119,000. At December 31, 2017, we had five real estate fund investments with an aggregate fair value of $354,804,000.

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VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

5. Real Estate Fund Investments - continued

Below is a summary of (loss) income from the Fund and the Crowne Plaza Joint Venture for the years ended December 31, 2018, 2017 and 2016.

(Amounts in thousands)	For the Year Ended December 31,		
	2018	2017	2016
Net investment income	$6,105	$18,507	$17,053
Net unrealized loss on held investments	(83,794)	(25,807)	(41,162)
Net realized (loss) gain on exited investments	(912)	36,078	14,761
Previously recorded unrealized gain on exited investment	—	(25,538)	(14,254)
Transfer Tax	(10,630)	—	—
(Loss) income from real estate fund investments	(89,231)	3,240	(23,602)
Less loss (income) attributable to noncontrolling interests in consolidated subsidiaries	61,230	(14,044)	2,560
Loss from real estate fund investments attributable to the Operating Partnership (includes $4,252 of loss related to One Park Avenue potential additional transfer taxes and reduction in carried interest for the year ended December 31, 2018)	(28,001)	(10,804)	(21,042)
Less loss attributable to noncontrolling interests in the Operating Partnership	1,732	673	1,270
Loss from real estate fund investments attributable to Vornado	$(26,269)	$(10,131)	$(19,772)

6. Marketable Securities

Our portfolio of marketable securities is comprised of equity securities that are presented on our consolidated balance sheets at fair value. On January 1, 2018, we adopted ASU 2016-01, which requires changes in the fair value of our marketable securities to be recorded in current period earnings. Previously, changes in the fair value of marketable securities were recognized in "accumulated other comprehensive income" on our consolidated balance sheets. As a result, on January 1, 2018 we recorded a decrease to beginning accumulated deficit of $111,225,000 to recognize the unrealized gains previously recorded in “accumulated other comprehensive income” on our consolidated balance sheets. Subsequent changes in the fair value of our marketable securities are recorded to “interest and other investment income, net” on our consolidated statements of income.

We evaluate our portfolio of marketable securities for impairment each reporting period. For each of the securities in our portfolio with unrealized losses, we review the underlying cause of the decline in value and the estimated recovery period, as well as the severity and duration of the decline. In our evaluation, we consider our ability and intent to hold these investments for a reasonable period of time sufficient for us to recover our cost basis. We also evaluate the near-term prospects for each of these investments in relation to the severity and duration of the decline.

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

(Amounts in thousands)	For the Year Ended December 31, 2018		
	Total	Lexington Realty	Other

		Trust	
Beginning balance	$182,752	$178,226	$4,526
(Decrease) increase in fair value of marketable securities[1]	(26,453)	(26,596)	143
Sale of marketable securities	(4,101)	—	(4,101)
Ending balance	$152,198	$151,630	$568

(1) Included in "interest and other investment income, net" on our consolidated statements of income (see Note 17 - Interest and Other Investment Income, Net).

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

7. Investments in Partially Owned Entities

Alexander’s

As of December 31, 2018, 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, 2018 and 2017, Alexander’s owed us an aggregate of $708,000 and $2,490,000, respectively, pursuant to such agreements.

As of December 31, 2018 the market value (“fair value” pursuant to ASC 820) of our investment in Alexander’s, based on Alexander’s December 31, 2018 closing share price of $304.74, was $504,061,000, or $396,078,000 in excess of the carrying amount on our consolidated balance sheet. As of December 31, 2018, 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 $39,046,000. 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.

Alexander's paid $3,971,000 of Transfer Tax upon the November 2012 sale of its Kings Plaza Regional Shopping Center located in Brooklyn, New York. Alexander's accrued $23,797,000 of potential additional Transfer Tax and related interest based on the precedent established by the Tax Tribunal's decision regarding One Park Avenue (see Note 5 - Real Estate Fund Investments for details) during the first quarter of 2018 which was subsequently paid on April 5, 2018 in order to preserve Alexander's rights to continue litigation and stop accrual of interest, of which our 32.4% share is $7,708,000 and is included in “income from partially owned entities” on our consolidated statements of income for the year ended December 31, 2018.

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) $315,000, 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.

Building Maintenance Services (“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, 2018, 2017 and 2016, we recognized $2,705,000, $2,678,000 and $2,583,000 of income, respectively, for these services.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

7. Investments in Partially Owned Entities – continued

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

As of December 31, 2018, we own 5,717,184 UE operating partnership units, representing a 4.5% ownership interest in UE. We account for our investment in UE under the equity method and record our share of UE’s net income or loss on a one-quarter lag basis. In 2018, 2017 and 2016, we provided UE with information technology support. UE is providing us with leasing and property management services for (i) certain small retail properties that we plan to sell, (ii) our affiliate, Alexander’s, Rego Park retail assets and (iii) Interstate Properties ("Interstate") retail assets. As of December 31, 2018, the fair value of our investment in UE, based on UE’s December 31, 2018 closing share price of $16.62, was $95,020,000, or $49,676,000 in excess of the carrying amount on our consolidated balance sheet.

Pennsylvania Real Estate Investment Trust (“PREIT”) (NYSE: PEI)

As of December 31, 2018, we own 6,250,000 PREIT operating partnership units, representing a 7.9% interest in PREIT. We account for our investment in PREIT under the equity method and record our share of PREIT’s net income or loss on a one-quarter lag basis.

As of December 31, 2018, the fair value of our investment in PREIT, based on PREIT’s December 31, 2018 closing share price of $5.94, was $37,125,000, or $22,366,000 below the carrying amount on our consolidated balance sheet. As of December 31, 2018, the carrying amount of our investment in PREIT exceeds our share of the equity in the net assets of PREIT by approximately $35,744,000. The majority of this basis difference resulted from the excess of the fair value of the PREIT operating units received over our share of the book value of PREIT’s net assets. Substantially all of this basis difference was allocated, based on our estimates of the fair values of PREIT’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 PREIT’s net loss. The basis difference related to the land will be recognized upon disposition of our investment.

Independence Plaza

We have a 50.1% economic interest in a joint venture that owns Independence Plaza, a three-building 1,327 unit residential complex in the Tribeca submarket of Manhattan. The joint venture paid $1,730,000 of Transfer Tax upon its acquisition of the property in December 2012. The joint venture accrued $13,103,000 of potential additional Transfer Tax and related interest based on the precedent established by the Tax Tribunal's decision regarding One Park Avenue (see Note 5 - Real Estate Fund Investments for details) during the first quarter of 2018, which was subsequently paid on April 5, 2018, in order to preserve the joint venture's rights to continue litigation and stop accrual of interest. Because we consolidate the entity that incurred the potential additional Transfer Tax, $13,103,000 of expense is included in “transaction related costs, impairment loss and other” and $6,538,000 is allocated to “noncontrolling interests in consolidated subsidiaries” on our consolidated statements of income.

On June 11, 2018, the joint venture 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.

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 "R" Us, Inc., in which we owned a 32.5% interest, was declared effective, and our stock in Toys was canceled. At December 31, 2018 and 2017, we carried our Toys investment at zero. The canceling of our stock in Toys will result in approximately a $420,000,000 capital loss deduction for tax purposes in 2019 (which if not offset by capital gains will result in a capital loss carry over available for five years).

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

7. Investments in Partially Owned Entities – continued

666 Fifth Avenue Office Condominium

On August 3, 2018, we completed the sale of our 49.5% interests in the 666 Fifth Avenue Office Condominium. We received net proceeds of $120,000,000 and recognized a financial statement gain of $134,032,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income. The gain for tax purposes was approximately $254,000,000. We continue to own all of the 666 Fifth Avenue Retail Condominium encompassing the Uniqlo, Tissot and Hollister stores with 125 linear feet of frontage on Fifth Avenue between 52nd and 53rd Street.

Concurrently with the sale of our interests, the existing mortgage loan on the property was repaid and we received net proceeds of $55,244,000 for the participation we held in the mortgage loan. We recognized a financial statement gain of $7,308,000, which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income.

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

(Amounts in thousands)	Percentage Ownership at December 31, 2018	As of December 31, 2018	2017
Investments:			
Partially owned office buildings/land[1]	Various	$499,005	$504,393
Alexander's	32.4%	107,983	126,400
PREIT	7.9%	59,491	66,572
UE	4.5%	45,344	46,152
Other investments[2]	Various	146,290	313,312
		$858,113	$1,056,829
330 Madison Avenue[3]	25.0%	$(58,117)	$(53,999)
7 West 34th Street[4]	53.0%	(51,579)	(47,369)
		$(109,696)	$(101,368)

(1) Includes interests in 280 Park Avenue, 650 Madison Avenue, One Park Avenue, 512 West 22nd Street, 85 Tenth Avenue, 61 Ninth Avenue and others.

(2) Includes interests in Independence Plaza, Fashion Centre Mall/Washington Tower, Rosslyn Plaza, 50-70 West 93rd Street, Farley Office and Retail Building (in 2017 only) and others. On October 30, 2018, we increased our ownership interest in the joint venture which owns the Farley Office and Retail Building to 95.0% when we acquired a 44.9% additional ownership interest. Accordingly, beginning October 30, 2018 we consolidated the accounts of the joint venture (see page 124 for details).

(3) Our negative basis resulted from a refinancing distribution and is included in "other liabilities" on our consolidated balance sheets.

(4) Our negative basis results from a deferred gain from the sale of a 47.0% ownership interest in the property on May 27, 2016 and is included in "other liabilities" on our consolidated balance sheets.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

7. Investments in Partially Owned Entities – continued

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

(Amounts in thousands)	Percentage Ownership at December 31, 2018	As of December 31, 2018	2017	2016
Our share of net income (loss):				
Alexander's (see page 127 for details):				
Equity in net income[1]	32.4%	$10,485	$25,820	$27,470
Management, leasing and development fees		4,560	6,033	6,770
		15,045	31,853	34,240
UE (see page 128 for details):				
Equity in net income[2]	4.5%	4,227	26,658	5,003
Management fees		233	670	836
		4,460	27,328	5,839
Partially owned office buildings[3]	Various	(3,085)	2,109	5,773
PREIT (see page 128 for details)[4]	7.9%	(3,015)	(53,325)	(5,213)
Other investments[5]	Various	(4,256)	7,235	128,309
		$9,149	$15,200	$168,948

(1) 2018 includes (i) our $7,708 share of Alexander's potential additional Transfer Tax, (ii) our $3,882 share of expense related to the decrease in fair value of marketable securities held by Alexander's, (iii) our $1,085 share of a non-cash straight-line rent write-off adjustment related to Sears Roebuck and Co. which filed for Chapter 11 bankruptcy relief and (iv) our $518 share of Alexander's litigation expense due to a settlement.

(2) 2017 includes $21,100 of net gains resulting from UE operating partnership unit issuances.

(3) Includes interests in 280 Park Avenue, 650 Madison Avenue, One Park Avenue, 7 West 34th Street, 330 Madison Avenue, 512 West 22nd Street, 85 Tenth Avenue and others. 2018 includes our $4,978 share of potential additional Transfer Tax related to the March 2011 acquisition of One Park Avenue (see Note 5 - Real Estate Fund Investments).

(4) 2017 includes a $44,465 non-cash impairment loss.

(5) 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) and others. In 2017, we recognized $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. In 2018, 2017 and 2016, we recognized net losses of $4,873, $25,414, and $41,532, respectively, from our 666 Fifth Avenue Office Condominium joint venture as a result of our share of depreciation expense. In 2016, the owner of 85 Tenth Avenue completed a 10-year, 4.55% $625,000 refinancing of the property and we received net proceeds of $191,779 in repayment of our existing loans and preferred equity investments. We recognized $160,843 of income and no tax gain as a result of this transaction.

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VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

7. Investments in Partially Owned Entities – continued

Below is a summary of the debt of our partially owned entities as of December 31, 2018 and 2017.

(Amounts in thousands)	Percentage Ownership at December 31, 2018	Maturity	Interest Rate at December 31, 2018	100% Partially Owned Entities' Debt at December 31,[1]	
				2018	2017
Partially owned office buildings[2]:					
Mortgages payable	Various	2019-2026	4.18%	$3,985,855	$3,934,894
PREIT:					
Mortgages payable	7.9%	2020-2025	3.81%	1,642,408	1,586,045
UE:					
Mortgages payable	4.5%	2021-2034	4.09%	1,563,375	1,415,806
Alexander's:					
Mortgages payable	32.4%	2021-2025	3.67%	1,170,544	1,252,440
Other[3]:					
Mortgages payable and other	Various	2019-2025	4.57%	1,358,706	8,601,383

(1) All amounts are non-recourse to us except 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, 650 Madison Avenue, One Park Avenue, 7 West 34th Street, 330 Madison Avenue, 512 West 22nd Street, 85 Tenth Avenue and others.

(3) Includes Independence Plaza, Rosslyn Plaza, Fashion Centre Mall/Washington Tower, 50-70 West 93rd Street, Toys, 666 Fifth Avenue Office Condominium (sold on August 3, 2018), Farley Office and Retail Building (in 2017 only) and others. On October 30, 2018, we increased our ownership interest in the joint venture which owns the Farley Office and Retail Building to 95.0% when we acquired a 44.9% additional ownership interest. Accordingly, beginning October 30, 2018 we consolidated the accounts of the joint venture (see page 124 for details).

Based on our ownership interest in the partially owned entities above, our pro rata share of the debt of these partially owned entities was $2,682,865,000 and $5,288,276,000 as of December 31, 2018 and 2017, respectively.

Summary of Condensed Combined Financial Information

The following is a summary of condensed combined financial information for all of our partially owned entities, including Alexander's, as of December 31, 2018 and 2017 and for the years ended December 31, 2018, 2017 and 2016.

(Amounts in thousands)	Balance as of December 31,	
	2018	2017
Balance Sheet:		
Assets	$13,258,000	$24,812,000
Liabilities	10,456,000	22,739,000

Noncontrolling interests	139,000	140,000
Equity	2,663,000	1,933,000

(Amounts in thousands)	For the Year Ended December 31,		
	2018	2017	2016
Income Statement:			
Total revenue	$1,798,000	$12,991,000	$13,600,000
Net loss	52,000	(542,000)	(65,000)

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

8. 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 $1.4 billion, of which $1.2 billion has been expended as of December 31, 2018.

GAAP income from our 220 CPS project is recognized when legal title transfers upon closing of the condominium unit sales. During the fourth quarter of 2018, we completed the sale of 11 condominium units at 220 CPS for net proceeds aggregating $214,776,000 and resulting in a financial statement net gain of $81,224,000 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, $13,888,000 of income tax expense was recognized in our consolidated statements of income and $213,000,000 of the $950,000,000 220 CPS loan was repaid.

For income tax purposes, we recognize revenue associated with our 220 CPS project using the percentage of completion method. On May 25, 2018, the 220 CPS condominium offering plan was declared effective by the Attorney General of the State of New York. We paid $52,200,000 for estimated Federal, state and local income taxes due, which is included in "other assets" on our consolidated balance sheet as of December 31, 2018.

As of December 31, 2018, 83% of the condominium units are sold or under sales contracts, with closings scheduled through 2020.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

9. Dispositions

New York

On June 21, 2018 we completed the $45,000,000 sale of 27 Washington Square North, which resulted in a net gain of $23,559,000 which is included in "net gains on disposition of wholly owned and partially owned assets" on our consolidated statements of income.

Discontinued Operations

Washington, DC

On June 20, 2017, we completed a $220,000,000 financing of The Bartlett residential building. The five-year interest-only loan is at LIBOR plus 1.70% and matures in June 2022. On July 17, 2017, the property, the loan and the $217,000,000 of net proceeds were transferred to JBG SMITH Properties ("JBGS") in connection with the tax-free spin-off of our Washington, DC segment.

On July 17, 2017, prior to completion of the tax-free spin-off of our Washington, DC segment, we repaid the $43,581,000 LIBOR plus 1.25% mortgage encumbering 1700 and 1730 M Street which was scheduled to mature in August 2017. The unencumbered property was then transferred to JBGS in connection with the tax-free spin-off of our Washington, DC segment.

On July 17, 2017, we completed the spin-off of our Washington, DC segment comprised of (i) 37 office properties totaling over 11.1 million square feet, five multifamily properties with 3,133 units and five other assets totaling approximately 406,000 square feet and (ii) 18 future development assets totaling over 10.4 million square feet of estimated potential development density, and (iii) $412.5 million of cash ($275.0 million plus The Bartlett financing proceeds less transaction costs and other mortgage items) to JBGS. On July 18, 2017, JBGS was combined with the management business and certain Washington, DC assets of The JBG Companies (“JBG”), a Washington, DC real estate company. Steven Roth, the Chairman of the Board of Trustees and Chief Executive Officer of Vornado, is the Chairman of the Board of Trustees of JBGS. Mitchell Schear, former President of our Washington, DC business, is a member of the Board of Trustees of JBGS. We are providing transition services to JBGS initially including information technology, financial reporting and payroll services. The spin-off was effected through a tax-free distribution by Vornado to the holders of Vornado common shares of all of the common shares of JBGS at the rate of one JBGS common share for every two common shares of Vornado and the distribution by the Operating Partnership to the holders of its common units of all of the outstanding common units of JBG SMITH Properties LP (“JBGSLP”) at the rate of one JBGSLP common unit for every two common units of VRLP held of record. See JBGS’ Amendment No. 3 on Form 10 (File No. 1-37994) filed with the Securities and Exchange Commission on June 9, 2017 for additional information. Beginning in the third quarter of 2017, the historical financial results of our Washington, DC segment are reflected in our consolidated financial statements as discontinued operations for all periods presented.

On March 15, 2016, we notified the servicer of the $678,000,000 non-recourse mortgage loan on the Skyline properties located in Fairfax, Virginia, that cash flow would be insufficient to service the debt and pay other property related costs and expenses and that we were not willing to fund additional cash shortfalls. Accordingly, at our request, the loan was transferred to the special servicer. Consequently, based on the shortened holding period for the underlying assets, we concluded that the excess of carrying amount over our estimate of fair value was not recoverable and recognized a $160,700,000 non-cash impairment loss in the first quarter of 2016. The Company’s estimate of fair

value was derived from a discounted cash flow model based upon market conditions and expectations of growth and utilized unobservable quantitative inputs including a capitalization rate of 8.0% and a discount rate of 8.2%. In the second quarter of 2016, cash flow became insufficient to service the debt and we ceased making debt service payments. Pursuant to the loan agreement, the loan was in default, and was subject to incremental default interest which increased the weighted average interest rate from 2.97% to 4.51% while the outstanding balance remains unpaid. For the year ended December 31, 2016, we recognized $7,823,000 of default interest expense. On August 24, 2016, the Skyline properties were placed in receivership. On December 21, 2016, the disposition of the Skyline properties was completed by the receiver. In connection therewith, the Skyline properties' assets (approximately $236,535,000) and liabilities (approximately aggregating $724,412,000), were removed from our consolidated balance sheet which resulted in a net gain of $487,877,000. There was no taxable income related to this transaction.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

9. Dispositions – continued

Discontinued Operations - continued

We have reclassified the revenues and expenses of our former Washington, DC segment, which was spun off on July 17, 2017, and other related retail assets that were sold to "income (loss) from discontinued operations" and the related assets and liabilities to "other assets" and "other liabilities" for all of the periods presented in the accompanying financial statements. The tables below set forth the assets and liabilities related to discontinued operations as of December 31, 2018 and 2017, and their combined results of operations and cash flows for the years ended December 31, 2018, 2017 and 2016.

(Amounts in thousands)	Balance as of December 31,	
	2018	2017
Assets related to discontinued operations (included in other assets)	$113	$1,357
Liabilities related to discontinued operations (included in other liabilities)	$55	$3,620

(Amounts in thousands)	For the Year Ended December 31,		
	2018	2017	2016
Income (loss) from discontinued operations:			
Total revenues	$1,114	$261,290	$521,084
Total expenses	1,094	212,169	442,032
	20	49,121	79,052
Net gains on sale of real estate, a lease position and other	618	6,605	20,376
JBGS spin-off transaction costs	—	(68,662)	(16,586)
Income (loss) from partially-owned entities	—	435	(3,559)
Net gain on early extinguishment of debt	—	—	487,877
Impairment losses	—	—	(161,165)
Pretax income (loss) from discontinued operations	638	(12,501)	405,995
Income tax expense	—	(727)	(1,083)
Income (loss) from discontinued operations	$638	$(13,228)	$404,912
Cash flows related to discontinued operations:			
Cash flows from operating activities	$(1,683)	$42,578	$157,484
Cash flows from investing activities	—	(48,377)	(216,125)

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

10. 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, 2018 and 2017.

(Amounts in thousands)	Balance as of December 31,	
	2018	2017
Identified intangible assets:		
Gross amount	$308,895	$310,097
Accumulated amortization	(172,114)	(150,837)
Total, net	$136,781	$159,260
Identified intangible liabilities (included in deferred revenue):		
Gross amount	$503,373	$530,497
Accumulated amortization	(341,779)	(324,897)
Total, net	$161,594	$205,600

Amortization of acquired below-market leases, net of acquired above-market leases, resulted in an increase to rental income of $38,573,000, $46,103,000 and $51,849,000 for the years ended December 31, 2018, 2017 and 2016, 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, 2019 is as follows:

(Amounts in thousands)	
2019	$24,661
2020	23,591
2021	18,857
2022	15,746
2023	13,215

Amortization of all other identified intangible assets (a component of depreciation and amortization expense) was $18,018,000, $25,057,000 and $28,897,000 for the years ended December 31, 2018, 2017 and 2016, respectively. Estimated annual amortization of all other identified intangible assets including acquired in-place leases, customer relationships, and third party contracts for each of the five succeeding years commencing January 1, 2019 is as follows:

(Amounts in thousands)	
2019	$13,726
2020	13,513
2021	11,974
2022	10,244
2023	10,157

We are a tenant under ground leases at certain properties. Amortization of these acquired below-market leases, net of above-market leases, resulted in an increase to rent expense (a component of operating expense) of $1,747,000 for each of the years ended December 31, 2018, 2017 and 2016, respectively. Estimated annual amortization of these below-market leases, net of above-market leases, for each of the five succeeding years commencing January 1, 2019 is as follows:

(Amounts in thousands)

2019	$1,747
2020	1,747
2021	1,747
2022	1,747
2023	1,747

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

11. Debt

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 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% (3.75% as of December 31, 2018) 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% (4.26% as of December 31, 2018) 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% (4.38% as of December 31, 2018) 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.

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% (3.52% as of December 31, 2018). 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.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

11. Debt – continued

The following is a summary of our debt:

(Amounts in thousands)	Weighted Average Interest Rate at December 31, 2018	Balance at December 31,	
		2018	2017
Mortgages Payable:			
Fixed rate	3.53%	$5,003,465	$5,461,706
Variable rate	4.33%	3,212,382	2,742,133
Total	3.84%	8,215,847	8,203,839
Deferred financing costs, net and other		(48,049)	(66,700)
Total, net		$8,167,798	$8,137,139
Unsecured Debt:			
Senior unsecured notes	4.21%	$850,000	$850,000
Deferred financing costs, net and other		(5,998)	(6,386)
Senior unsecured notes, net		844,002	843,614
Unsecured term loan	3.87%	750,000	750,000
Deferred financing costs, net and other		(5,179)	(1,266)
Unsecured term loan, net		744,821	748,734
Unsecured revolving credit facilities	3.46%	80,000	—
Total, net		$1,668,823	$1,592,348

The net carrying amount of properties collateralizing the mortgages payable amounted to $9.1 billion at December 31, 2018.

As of December 31, 2018, the principal repayments required for the next five years and thereafter are as follows:

(Amounts in thousands)	Mortgages Payable	Senior Unsecured Debt and Unsecured Resolving Credit Unsecured Facilities
Year Ended December 31,		
2019	$2,569,332	$ —
2020	2,192,567	—
2021	1,613,948	80,000

2022	950,000	400,000
2023	391,800	—
Thereafter	498,200	1,200,000

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

12. 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, 2018 and 2017.

(Amounts in thousands, except units and per unit amounts)	Balance as of December 31,		Units Outstanding at December 31,		Per Unit Liquidation Preference	Preferred or Annual Distribution Rate
Unit Series	2018	2017	2018	2017		
Common:						
Class A units held by third parties	$778,134	$979,509	12,544,477	12,528,899	n/a	$2.52
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	$4,428	$4,428	177,100	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)	
Balance, December 31, 2016	$1,278,446
Net income	10,910
Other comprehensive income	643
Distributions	(33,229)
Redemption of Class A units for Vornado common shares, at redemption value	(38,747)
Adjustments to carry redeemable Class A units at redemption value (including $224,069 attributable to the spin-off of JBGS)	(268,494)
Other, net	35,408
Balance, December 31, 2017	984,937
Net income	25,672
Other comprehensive loss	(836)
Distributions	(31,828)

Redemption of Class A units for Vornado common shares, at redemption value	(17,068)
Adjustments to carry redeemable Class A units at redemption value	(198,064)
Other, net	20,749
Balance, December 31, 2018	$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 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, 2018 and 2017. Changes in the value from period to period, if any, are charged to "interest and debt expense" on our consolidated statements of income.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

13. Shareholders' Equity/Partners' Capital

Common Shares (Vornado Realty Trust)

As of December 31, 2018, there were 190,535,499 common shares outstanding. During 2018, we paid an aggregate of $479,348,000 of common dividends comprised of quarterly common dividends of $0.63 per share.

Class A Units (Vornado Realty L.P.)

As of December 31, 2018, there were 190,535,499 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, 2018, there were 12,544,477 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 12 – Redeemable Noncontrolling Interests/Redeemable Partnership Units). During 2018, the Operating Partnership paid an aggregate of $479,348,000 of distributions to Vornado comprised of quarterly common distributions of $0.63 per unit.

Preferred Share/Preferred Units

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.

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, 2018 and 2017.

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

	Balance as of December 31,		Shares/Units Outstanding at December 31,		Per Share/Unit	
Preferred Shares/Units	2018	2017	2018	2017	Liquidation Preference	Annual Dividend/ Distribution[1]
Convertible Preferred:						
6.5% Series A: authorized 83,977 shares/units[2]	$1,071	$1,102	18,580	19,573	$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 12,000,000 shares/units[3]	290,306	290,306	12,000,000	12,000,000	25.00	1.35
5.25% Series M: authorized 12,780,000 shares/units[3]	308,946	309,609	12,780,000	12,780,000	25.00	1.3125
	$891,294	$891,988	36,798,580	36,799,573		

(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 2018, we paid an aggregate of $55,115,000 of preferred dividends.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

13. Shareholders' Equity/Partners' Capital - continued

Accumulated Other Comprehensive Income (Loss)

The following table sets forth the changes in accumulated other comprehensive income (loss) by component.

(Amounts in thousands)	For the Year Ended December 31, 2018				
	Total	Securities available-for-sale	Pro rata share of nonconsolidated subsidiaries' OCI	Interest rate swap	Other
Balance as of December 31, 2017	$128,682	$109,554	$ 3,769	$23,542	$(8,183)
Cumulative effect of accounting change (see Note 2)	(108,374)	(109,554)	(1,671)	2,851	—
Net current period other comprehensive income	(12,644)	—	1,155	(14,634)	835
Balance as of December 31, 2018	$7,664	$—	$ 3,253	$11,759	$(7,348)

14. Variable Interest Entities ("VIEs")

Unconsolidated VIEs

As of December 31, 2018 and 2017, 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 7 – Investments in Partially Owned Entities). As of December 31, 2018 and 2017, the net carrying amount of our investments in these entities was $257,882,000 and $352,925,000, 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, 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. As of December 31, 2017, the total assets and liabilities of our consolidated VIEs, excluding the Operating Partnership, were $3,561,062,000 and $1,753,798,000, respectively.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

15. 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.

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, and 6.625% Series G and Series I cumulative redeemable preferred shares/units which were redeemed on January 4 and 11, 2018 (See Note 13 - Shareholders' Equity/Partners' Capital)). 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, 2018 and 2017, respectively.

(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	$—

(Amounts in thousands)	As of December 31, 2017			
	Total	Level 1	Level 2	Level 3
Marketable securities	$182,752	$182,752	$—	$—
Real estate fund investments	354,804	—	—	354,804
Deferred compensation plan assets ($11,545 included in restricted cash and $97,632 in other assets)	109,177	69,049	—	40,128
Interest rate swaps (included in other assets)	27,472	—	27,472	—

Total assets	$674,205	$251,801	$27,472	$394,932
Mandatorily redeemable instruments ($50,561 included in other liabilities)	$520,561	$520,561	$—	$—
Interest rate swaps (included in other liabilities)	1,052	—	1,052	—
Total liabilities	$521,613	$520,561	$1,052	$—

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

15. Fair Value Measurements – continued

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

Real Estate Fund Investments

As of December 31, 2018, we had four real estate fund investments through the Fund and the Crowne Plaza Joint Venture with an aggregate fair value of $318,758,000, or $6,806,000 below our cost. These investments are classified as Level 3. We use a discounted cash flow valuation technique to estimate the fair value of each of these investments, which is updated quarterly by personnel responsible for the management of each investment and reviewed by senior management at each reporting period. The discounted cash flow valuation technique requires us to estimate cash flows for each investment over the anticipated holding period, which currently ranges from 0.3 years to 4.0 years. Cash flows are derived from property rental revenue (base rents plus reimbursements) less operating expenses, real estate taxes and capital and other costs, plus projected sales proceeds in the year of exit. Property rental revenue is based on leases currently in place and our estimates for future leasing activity, which are based on current market rents for similar space plus a projected growth factor. Similarly, estimated operating expenses and real estate taxes are based on amounts incurred in the current period plus a projected growth factor for future periods. Anticipated sales proceeds at the end of an investment's expected holding period are determined based on the net cash flow of the investment in the year of exit, divided by a terminal capitalization rate, less estimated selling costs.

The fair value of each property is calculated by discounting the future cash flows (including the projected sales proceeds), using an appropriate discount rate and then reduced by the property's outstanding debt, if any, to determine the fair value of the equity in each investment. 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, and 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, 2018 and 2017.

	Range		Weighted Average (based on fair value of investments)	
Unobservable Quantitative Input	December 31, 2018	December 31, 2017	December 31, 2018	December 31, 2017
Discount rates	10.0% to 15.0%	2.0% to 14.9%	13.4%	11.9%
Terminal capitalization rates	5.4% to 7.7%	4.7% to 6.7%	5.7%	5.5%

The above inputs 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, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31,	
	2018	2017
Beginning balance	$354,804	$462,132
Net unrealized loss on held investments	(83,794)	(25,807)
Purchases/additional fundings	68,950	—
Dispositions	(20,290)	(91,606)
Net realized (loss) gain on exited investments	(912)	36,078
Previously recorded unrealized gain on exited investment	—	(25,538)
Other, net	—	(455)
Ending balance	$318,758	$354,804

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

15. Fair Value Measurements – continued

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

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 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, 2018 and 2017.

(Amounts in thousands)	For the Year Ended December 31,	
	2018	2017
Beginning balance	$40,128	$57,444
Sales	(12,621)	(27,715)
Purchases	9,183	5,786
Realized and unrealized (losses) gains	(274)	2,519
Other, net	1,392	2,094
Ending balance	$37,808	$40,128

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. There were no assets measured at fair value on a nonrecurring basis on our consolidated balance sheets at December 31, 2017. The fair values of real estate assets required to be measured for impairment were determined using comparable sales activity.

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

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

15. 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, 2018 and 2017.

(Amounts in thousands)	As of December 31, 2018		As of December 31, 2017	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Cash equivalents	$261,981	$262,000	$1,500,227	$1,500,000
Debt:				
Mortgages payable	$8,215,847	$8,179,000	$8,203,839	$8,194,000
Senior unsecured notes	850,000	847,000	850,000	878,000
Unsecured term loan	750,000	750,000	750,000	750,000
Unsecured revolving credit facilities	80,000	80,000	—	—
Total	$9,895,847(1)	$9,856,000	$9,803,839(1)	$9,822,000

(1) Excludes $59,226 and $74,352 of deferred financing costs, net and other as of December 31, 2018 and 2017 respectively.

16. Stock-based Compensation

Vornado's 2010 Omnibus Share Plan (the "Plan") provides the Compensation Committee of Vornado's Board of Trustees (the "Committee") the ability to grant incentive and non-qualified Vornado stock options, restricted stock, Appreciation-Only Long-Term Incentive Plan Units ("AO LTIP Units"), restricted Operating Partnership units (the "OP Units") and out-performance plan awards (the "OPPs" to certain of our employees and officers. Under the Plan, awards may be granted up to a maximum of 6,000,000 Vornado shares, if all awards granted are Full Value Awards, as defined, and up to 12,000,000 Vornado shares, if all of the awards granted are Not Full Value Awards, as defined, plus shares in respect of awards forfeited after May 2010 that were issued pursuant to Vornado's 2002 Omnibus Share Plan. Full Value Awards are awards of securities, such as Vornado 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 Vornado stock options, that do require the payment of an exercise price or strike price. This means, for example, if the Committee were to award only Vornado restricted shares, it could award up to 6,000,000 Vornado restricted shares. On the other hand, if the Committee were to award only Vornado stock options, it could award options to purchase up to 12,000,000 Vornado common shares (at the applicable exercise price). The Committee may also issue any combination of awards under the Plan, with reductions in availability of future awards made in accordance with the above limitations. As of December 31, 2018, Vornado has approximately

1,848,000 shares available for future grants under the Plan, if all awards granted are Full Value Awards, as defined.

On February 8, 2019, the Committee approved an amendment to our previously issued OP Units and Vornado restricted stock agreements which provides that the time-based vesting requirement no longer applies to participants who have reached 65 years of age. However, the right to convert such OP units and to sell such Vornado restricted stock are still subject to time-based vesting.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

16. Stock-based Compensation - continued

We account for all equity-based compensation in accordance with ASC 718. Below is a summary of our stock-based based compensation expense, a component of "general and administrative" expenses on our consolidated statements of income, during the years ended December 31, 2018, 2017 and 2016.

(Amounts in thousands)	December 31,		
	2018	2017	2016
OP Units	$17,763	$20,630	$21,136
OPPs	10,689	10,723	11,055
AO LTIP Units	2,113	—	—
Vornado stock options	587	747	937
Vornado restricted stock	570	729	851
	$31,722	$32,829	$33,979

Below is a summary of unrecognized compensation expense for the year ended December 31, 2018.

(Amounts in thousands)	December 31, 2018	Weighted-Average Remaining Contractual Term
OP Units	$ 17,930	1.6
OPPs	3,798	1.8
AO LTIP Units	1,371	1.6
Vornado stock options	902	1.7
Vornado restricted stock	913	1.7
	$ 24,914	1.6

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 2017 OPP may be earned if Vornado (i) achieves a TSR level greater than 21% over the Performance Period (the “2017 Absolute Component”) and/or (ii) achieves a TSR above that of the SNL US Equity REIT Index over the three-year performance period (the “2017 Relative Component”).
Awards under the 2018 OPP may be earned if Vornado (i) achieves a TSR level greater than 21% over the Performance Period (the “2018 Absolute Component”, collectively with the 2017 Absolute Component, the “Absolute Components”) 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 “2018 Relative Component”, collectively with the 2017 Relative Component, the “Relative Components”).
The value of awards under the Relative Components and Absolute Components 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 Components, 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 Components will be reduced (and potentially fully negated)

based on the degree by which the index exceeds Vornado's TSR. In the event 2017 awards are earned under the 2017 Relative Component, but Vornado fails to achieve a TSR of at least 3% per annum, award earned under the 2017 Relative Component will be reduced on a ratable sliding scale based on Vornado's absolute TSR performance, with no awards being earned in the event Vornado's TSR during the applicable measurement period is 0% or negative. In the event 2018 awards are earned under the 2018 Relative Component, but Vornado fails to achieve a TSR of at least 3% per annum, awards earned under the 2018 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.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

16. Stock-based Compensation - continued

OPPs - continued

If the designated performance objectives are achieved, awards under the 2017 and 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 6, 2018) are required to hold any earned and vested awards for one year following each such vesting date. Dividends on awards granted under the 2017 and 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	To be determined in 2020
2016	40,000,000	86.7 %	11,800,000	Not earned

(1) During the years ended December 31, 2018, 2017 and 2016, $8,040,000, $7,558,000, and $7,250,000, 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). The remaining $10,052,000, in aggregate, is being amortized into expense over a 5-year period from the date of each grant, using a graded vesting attribution model.

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, 2018.

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2018	2,823,900	$ 46.62		
Granted	33,897	72.40		
Exercised	(620,157)	28.52		
Cancelled or expired	(7,347)	75.25		
Outstanding at December 31, 2018	2,230,293	$ 51.95	1.6	$26,464,877
Options vested and expected to vest at December 31, 2018	2,240,526	$ 52.13	1.6	$26,472,765

Options exercisable at December 31, 2018	2,162,843	$ 51.15	1.4	$26,464,877

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, 2018, 2017 and 2016.

	December 31,		
	2018	2017	2016
Expected volatility	35%	35%	35%
Expected life	5.0 years	5.0 years	5.0 years
Risk free interest rate	2.25%	1.95%	1.76%
Expected dividend yield	2.9%	3.0%	3.2%

The weighted average grant date fair value of options granted during the years ended December 31, 2018, 2017 and 2016 was $18.42, $25.84 and $22.14 , respectively. Cash received from option exercises for the years ended December 31, 2018, 2017 and 2016 was $5,927,000, $28,253,000 and $6,825,000, respectively. The total intrinsic value of options exercised during the years ended December 31, 2018, 2017 and 2016 was $25,820,000, $9,178,000 and $5,519,000, respectively.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

16. Stock-based Compensation – continued

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, 2018.

	Units	Weighted-Average Grant-Date Fair Value
Granted at January 12, 2018	185,046	$ 72.40
Cancelled or expired	(6,200)	72.40
Outstanding at December 31, 2018	178,846	72.40

AO LTIP Units granted during the year ended December 31, 2018 had a fair value of $3,484,000. 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, 2018.

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

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

16. Stock-based Compensation – continued

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 $2,559,000, $2,310,000 and $1,968,000 in the years ended December 31, 2018, 2017 and 2016, respectively.

Below is a summary of restricted OP unit activity for the year ended December 31, 2018.

Unvested Units	Units	Weighted-Average Grant-Date Fair Value
Unvested at January 1, 2018	628,962	$ 76.13
Granted	267,203	65.36
Vested	(246,670)	73.12
Cancelled or expired	(7,651)	76.62
Unvested at December 31, 2018	641,844	72.79

OP Units granted in 2018, 2017 and 2016 had a fair value of $17,463,000, $24,927,000 and $18,492,000, respectively. The fair value of OP Units that vested during the years ended December 31, 2018, 2017 and 2016 was $18,037,000, $20,903,000 and $22,701,000, 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 $44,000, $46,000 and $56,000 for the years ended December 31, 2018, 2017 and 2016, respectively.

Below is a summary of Vornado's restricted stock activity for the year ended December 31, 2018.

Unvested Shares	Shares	Weighted-Average Grant-Date Fair Value
Unvested at January 1, 2018	14,845	$ 81.05
Granted	8,602	72.40
Vested	(6,247)	78.75
Cancelled or expired	(514)	78.38
Unvested at December 31, 2018	16,686	77.54

Vornado restricted stock awards granted in 2018, 2017 and 2016 had a fair value of $623,000, $601,000 and $927,000, respectively. The fair value of restricted stock that vested during the years ended December 31, 2018, 2017 and 2016 was $492,000, $645,000 and $641,000, respectively.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

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,		
	2018	2017	2016
(Decrease) increase in fair value of marketable securities:			
Lexington Realty Trust	$(26,596)	$—	$—
Other	143	—	—
	(26,453)	—	—
Interest on cash and cash equivalents and restricted cash	15,827	8,171	3,622
Dividends on marketable securities	13,339	13,276	13,135
Interest on loans receivable[1]	10,298	4,352	3,890
Other, net	4,046	5,062	3,688
	$17,057	$30,861	$24,335

(1) Includes $6,707 of profit participation in connection with an investment in a mezzanine loan which was previously repaid to us for the year ended December 31, 2018.

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,		
	2018	2017	2016
Interest expense	$389,136	$359,819	$328,398
Amortization of deferred financing costs	31,979	34,066	32,185
Capitalized interest and debt expense	(73,166)	(48,231)	(30,343)
	$347,949	$345,654	$330,240

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

19. Income Per Share/Income Per Class A Unit

Vornado Realty Trust

The following table provides a reconciliation of both net income attributable to Vornado and the number of common shares used in the computation 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. Dilutive share equivalents may include our Series A convertible preferred shares, employee stock options, restricted stock awards, OP Units, AO LTIP Units and OPPs.

(Amounts in thousands, except per share amounts)	Year Ended December 31,		
	2018	2017	2016
Numerator:			
Income from continuing operations, net of income attributable to noncontrolling interests	$449,356	$239,824	$526,686
Income (loss) from discontinued operations, net of income attributable to noncontrolling interests	598	(12,408)	380,231
Net income attributable to Vornado	449,954	227,416	906,917
Preferred share dividends	(50,636)	(65,399)	(75,903)
Preferred share issuance costs	(14,486)	—	(7,408)
Net income attributable to common shareholders	384,832	162,017	823,606
Earnings allocated to unvested participating securities	(44)	(46)	(96)
Numerator for basic income per share	384,788	161,971	823,510
Impact of assumed conversions:			
Earnings allocated to Out-Performance Plan units	174	230	806
Convertible preferred share dividends	62	—	86
Numerator for diluted income per share	$385,024	$162,201	$824,402
Denominator:			
Denominator for basic income per share – weighted average shares	190,219	189,526	188,837
Effect of dilutive securities [1]:			
Employee stock options and restricted share awards	933	1,448	1,064
Out-Performance Plan units	101	284	230
Convertible preferred shares	37	—	42
Denominator for diluted income per share – weighted average shares and assumed conversions	191,290	191,258	190,173
INCOME PER COMMON SHARE – BASIC:			
Income from continuing operations, net	$2.02	$0.92	$2.35
Income (loss) from discontinued operations, net	—	(0.07)	2.01
Net income per common share	$2.02	$0.85	$4.36
INCOME PER COMMON SHARE – DILUTED:			
Income from continuing operations, net	$2.01	$0.91	$2.34
Income (loss) from discontinued operations, net	—	(0.06)	2.00
Net income per common share	$2.01	$0.85	$4.34

(1) The effect of dilutive securities in the years ended December 31, 2018, 2017 and 2016 excludes an aggregate of 12,232, 12,165 and 12,022 weighted average common share equivalents, respectively, as their effect was anti-dilutive.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

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

Vornado Realty L.P.

The following table provides a reconciliation of both net income attributable to Vornado Realty L.P. and the number of Class A units used in the computation 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 units and dilutive unit equivalents. Dilutive unit equivalents may include our Series A convertible preferred units, Vornado stock options, Vornado restricted stock awards, OP Units, AO LTIP Units and OPPs.

(Amounts in thousands, except per unit amounts)	Year Ended December 31,		
	2018	2017	2016
Numerator:			
Income from continuing operations, net of income attributable to noncontrolling interests	$474,988	$251,554	$555,659
Income (loss) from discontinued operations	638	(13,228)	404,912
Net income attributable to Vornado Realty L.P.	475,626	238,326	960,571
Preferred unit distributions	(50,830)	(65,593)	(76,097)
Preferred unit issuance costs	(14,486)	—	(7,408)
Net income attributable to Class A unitholders	410,310	172,733	877,066
Earnings allocated to unvested participating securities	(2,973)	(3,232)	(4,177)
Numerator for basic income per Class A unit	407,337	169,501	872,889
Impact of assumed conversions:			
Convertible preferred unit distributions	62	—	86
Numerator for diluted income per Class A unit	$407,399	$169,501	$872,975
Denominator:			
Denominator for basic income per Class A unit – weighted average units	202,068	201,214	200,350
Effect of dilutive securities [(1)]:			
Vornado stock options and restricted unit awards	1,307	2,086	1,625
Convertible preferred units	37	—	42
Denominator for diluted income per Class A unit – weighted average units and assumed conversions	203,412	203,300	202,017
INCOME PER CLASS A UNIT – BASIC:			
Income from continuing operations, net	$2.01	$0.91	$2.34
Income (loss) from discontinued operations, net	0.01	(0.07)	2.02
Net income per Class A unit	2.02	0.84	4.36
INCOME PER CLASS A UNIT – DILUTED:			
Income from continuing operations, net	$2.00	$0.90	$2.32
Income (loss) from discontinued operations, net	—	(0.07)	2.00
Net income per Class A unit	$2.00	$0.83	$4.32

(1) The effect of dilutive securities in the years ended December 31, 2018, 2017 and 2016 excludes an aggregate of 110, 124 and 178 weighted average Class A unit equivalents, respectively, as their effect was anti-dilutive.

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VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

20. Leases

As lessor:

We lease space to tenants under operating leases. Most of the leases provide for the payment of fixed base rentals payable monthly in advance. Office building leases generally require the 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 the tenant's share of real estate taxes, insurance and maintenance. Certain leases also provide for the payment by the lessee of additional rent based on a percentage of the tenants' sales. As of December 31, 2018, future base rental revenue under non-cancelable operating leases, excluding rents for leases with an original term of less than one year and rents resulting from the exercise of renewal options, are as follows:

(Amounts in thousands)	
Year Ending 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

These amounts do not include percentage rentals based on tenants' sales. These percentage rents approximated $4,746,000, $4,062,000 and $3,590,000, for the years ended December 31, 2018, 2017 and 2016, respectively.

None of our tenants accounted for more than 10% of total revenues in any of the years ended December 31, 2018, 2017 and 2016.

As lessee:
We are a tenant under operating leases for certain properties. These leases have terms that expire during the next ninety-nine years. Future minimum lease payments under operating leases at December 31, 2018 are as follows:

(Amounts in thousands)	
Year Ending December 31:	
2019	$ 46,147
2020	45,258
2021	42,600
2022	43,840
2023	44,747
Thereafter	1,612,627

Rent expense, a component of "operating" expenses on our consolidated statements of income, was $41,063,000, $40,219,000 and $40,170,000 for the years ended December 31, 2018, 2017 and 2016, respectively.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

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, 2018, our subsidiaries' participation in these plans was not significant to our consolidated financial statements.

In the years ended December 31, 2018, 2017 and 2016, we contributed $10,377,000, $10,113,000 and $9,479,000, 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, 2018, 2017 and 2016.

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, 2018, 2017 and 2016, our subsidiaries contributed $30,354,000, $29,549,000 and $32,998,000, respectively, towards these plans, which is included as a component of "operating" expenses on our consolidated statements of income.

22. Commitments and Contingencies

Insurance

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 $260,000,000 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 terrorism acts with limits of $4.0 billion per occurrence and in the aggregate, and $2.0 billion per occurrence and in the aggregate for terrorism involving nuclear, biological, chemical and radiological ("NBCR") terrorism events, as defined by Terrorism Risk Insurance Program Reauthorization Act of 2015, which expires in December 2020.

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 $1,453,000 and 19% 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.

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.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

22. Commitments and Contingencies – continued

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.

Our mortgage loans are non-recourse to us, except for the mortgage loan secured by 7 West 34th Street, which we guaranteed and therefore is 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. As of December 31, 2018, the aggregate dollar amount of these guarantees and master leases is approximately $660,000,000.

As of December 31, 2018, $13,337,000 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.

A joint venture in which we own a 95.0% ownership interest was designated by ESD, an entity of New York State, to develop the Farley Office and Retail Building (see Note 4 - Acquisitions). 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, 2018, we expect to fund additional capital to certain of our partially owned entities aggregating approximately $18,000,000.

As of December 31, 2018, we have construction commitments aggregating approximately $404,000,000.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

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 7 - 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, 2018, Interstate and its partners beneficially owned an aggregate of approximately 7.1% of the common shares of beneficial interest of Vornado and 26.2% 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 $453,000, $501,000, and $521,000 of management fees under the agreement for the years ended December 31, 2018, 2017 and 2016, respectively.

Urban Edge Properties

We own 4.5% of UE. In 2018, 2017 and 2016, we provided UE with information technology support. UE is providing us with leasing and property management services for (i) certain small retail properties that we plan to sell 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.

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

24. Summary of Quarterly Results (Unaudited)

Vornado Realty Trust

The following summary represents the results of operations for each quarter in 2018 and 2017:

(Amounts in thousands, except per share amounts)	Revenues	Net Income (Loss) Attributable to Common Shareholders [1]	Net Income (Loss) Per Common Share [2] Basic	Diluted
2018				
December 31	$543,417	$ 100,494	$0.53	$0.53
September 30	542,048	190,645	1.00	1.00
June 30	541,818	111,534	0.59	0.58
March 31	536,437	(17,841)	(0.09)	(0.09)
2017				
December 31	$536,226	$ 27,319	$0.14	$0.14
September 30	528,755	(29,026)	(0.15)	(0.15)
June 30	511,087	115,972	0.61	0.61
March 31	508,058	47,752	0.25	0.25

(1) Fluctuations among quarters resulted primarily from non-cash impairment losses, net gains on extinguishment of debt, 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 2018 and 2017:

(Amounts in thousands, except per unit amounts)	Revenues	Net Income (Loss) Attributable to Class A Unitholders [1]	Net Income (Loss) Per Class A Unit [2] Basic	Diluted
2018				
December 31	$543,417	$ 107,125	$0.53	$0.52
September 30	542,048	203,268	1.00	0.99
June 30	541,818	118,931	0.58	0.58
March 31	536,437	(19,014)	(0.10)	(0.10)
2017				
December 31	$536,226	$ 29,123	$0.14	$0.14

September 30	528,755	(30,952)	(0.16)	(0.16)
June 30	511,087	123,630	0.61	0.61
March 31	508,058	50,932	0.25	0.25

(1) Fluctuations among quarters resulted primarily from non-cash impairment losses, net gains on extinguishment of debt, 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 TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

25. Segment Information

Net Operating Income ("NOI") represents total revenues less operating expenses. We consider NOI 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, we utilize this measure to make investment decisions as well as to compare the performance of our assets to that of our peers. NOI should not be considered a substitute for net income. NOI 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, 2018, 2017 and 2016.

(Amounts in thousands)	For the Year Ended December 31,		
	2018	2017	2016
Net income	$422,603	$264,128	$981,922
Deduct:			
Income from partially owned entities	(9,149)	(15,200)	(168,948)
Loss (income) from real estate fund investments	89,231	(3,240)	23,602
Interest and other investment income, net	(17,057)	(30,861)	(24,335)
Net gains on disposition of wholly owned and partially owned assets	(246,031)	(501)	(160,433)
Purchase price fair value adjustment	(44,060)	—	—
(Income) loss from discontinued operations	(638)	13,228	(404,912)
NOI attributable to noncontrolling interests in consolidated subsidiaries	(71,186)	(65,311)	(66,182)
Add:			
Depreciation and amortization expense	446,570	429,389	421,023
General and administrative expense	141,871	150,782	143,643
Transaction related costs, impairment loss and other	31,320	1,776	9,451
NOI from partially owned entities	253,564	269,164	271,114
Interest and debt expense	347,949	345,654	330,240
Income tax expense	37,633	42,375	7,923
NOI at share	1,382,620	1,401,383	1,364,108
Non cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(44,704)	(86,842)	(170,477)
NOI at share - cash basis	$1,337,916	$1,314,541	$1,193,631

VORNADO REALTY TRUST AND VORNADO REALTY L.P.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (CONTINUED)

25. Segment Information - continued

Below is a summary of NOI at share and selected balance sheet data by segment for the years ended December 31, 2018, 2017 and 2016.

(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: Our share of 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
Balance Sheet Data:			
Real estate, at cost	$14,756,295	$11,025,092	$3,731,203
Investments in partially owned entities	1,056,829	861,430	195,399
Total assets	17,397,934	13,780,817	3,617,117

(Amounts in thousands)	For the Year Ended December 31, 2016		
	Total	New York	Other
Total revenues	$2,003,742	$1,713,374	$290,368
Operating expenses	844,566	716,754	127,812

NOI - consolidated	1,159,176	996,620	162,556
Deduct: NOI attributable to noncontrolling interests in consolidated subsidiaries	(66,182)	(47,480)	(18,702)
Add: Our share of NOI from partially owned entities	271,114	159,386	111,728
NOI at share	1,364,108	1,108,526	255,582
Non-cash adjustments for straight-line rents, amortization of acquired below-market leases, net and other	(170,477)	(143,239)	(27,238)
NOI at share - cash basis	$1,193,631	$965,287	$228,344

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, 2018, 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, 2018 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, 2018 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, 2018.

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, 2018, 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, 2018, 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, 2018, of the Company and our report dated February 11, 2019, 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

Parsippany, New Jersey
February 11, 2019

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ITEM 9A. - CONTINUED

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 and 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, 2018, 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, 2018 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, 2018 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, 2018.

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, 2018, 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, 2018, 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, 2018, of the Partnership and our report dated February 11, 2019, 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

Parsippany, New Jersey
February 11, 2019

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, 2018, 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.

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	77	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 since May 2004.
David R. Greenbaum	67	President of the New York Division since April 1997 (date of our acquisition); President of Mendik Realty (the predecessor to the New York Office division) from 1990 until April 1997.
Michael J. Franco	50	Executive Vice President - Chief Investment Officer since April 2015; Executive Vice President - Head of Acquisitions and Capital Markets since November 2010; Managing Director (2003-2010) and Executive Director (2001-2003) of the Real Estate Investing Group of Morgan Stanley.
Joseph Macnow	73	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.

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, 48 years of age, has been the Executive Vice President - Chief Accounting Officer of Vornado since May 2015 and Chief Financial Officer of Alexanders, 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, 2018 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	4,567,784	(1)	$ 51.95	1,847,679	(2)
Equity compensation awards not approved by security holders	—		—	—	
Total	4,567,784		$ 51.95	1,847,679	

(1) Includes an aggregate of 2,337,491 shares/units, comprised of (i) 16,686 restricted Vornado common shares, (ii) 641,844 restricted Operating Partnership units, (iii) 178,846 Appreciation-Only Long-Term Incentive Plan units and (iv) 1,500,115 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 3,695,358.

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.

	Pages in this Annual Report on Form 10-K
II--Valuation and Qualifying Accounts--years ended December 31, 2018, 2017 and 2016	166
III--Real Estate and Accumulated Depreciation as of December 31, 2018, 2017 and 2016	167

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 II
VALUATION AND QUALIFYING ACCOUNTS
December 31, 2018
(Amounts in Thousands)

Column A	Column B	Column C	Column D	Column E
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
Year Ended December 31, 2016				
Allowance for doubtful accounts	$ 10,075	$ 1,827	$ (3,281)	$ 8,621

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	COL
		Initial cost to company (1)		Costs capitalized subsequent to acquisition	Gross amount at which carried at close of period						
	Encumbrances (2)	Land	Buildings and improvements		Land	Buildings and improvements	Total (3)	Accumulated depreciation and amortization	Date of construction (4)	Date acquired	Life whic depr in la inco state is co
New York											
Manhattan											
1290 Avenue of the Americas	$950,000	$515,539	$923,653	$231,245	$515,539	$1,154,898	$1,670,437	$336,807	1963	2007	(5)
697-703 Fifth Avenue	450,000	152,825	584,230	566	152,825	584,796	737,621	61,014		2014	(5)
350 Park Avenue	400,000	265,889	363,381	50,265	265,889	413,646	679,535	130,828	1960	2006	(5)
666 Fifth Avenue (Retail Condo)	390,000	189,005	471,072	—	189,005	471,072	660,077	73,059		2012	(5)
PENN1	—	—	412,169	257,803	—	669,972	669,972	300,399	1972	1998	(5)
100 West 33rd Street	398,402	242,776	247,970	35,200	242,776	283,170	525,946	88,054	1911	2007	(5)
1535 Broadway	—	130,433	322,581	161,766	130,439	484,341	614,780	36,439		2012	(5)
150 West 34th Street	205,000	119,657	268,509	—	119,657	268,509	388,166	24,054	1900	2015	(5)
1540 Broadway	—	105,914	214,208	28,868	105,914	243,076	348,990	61,252		2006	(5)
655 Fifth Avenue	140,000	102,594	231,903	—	102,594	231,903	334,497	30,681		2013	(5)
PENN2	575,000	53,615	164,903	119,920	52,689	285,749	338,438	161,909	1968	1997	(5)
90 Park Avenue	—	8,000	175,890	183,882	8,000	359,772	367,772	128,983	1964	1997	(5)
Manhattan Mall	181,598	88,595	113,473	71,596	88,595	185,069	273,664	65,646	2009	2007	(5)
770 Broadway	700,000	52,898	95,686	135,290	52,898	230,976	283,874	93,238	1907	1998	(5)
888 Seventh Avenue	375,000	—	117,269	142,980	—	260,249	260,249	122,204	1980	1998	(5)
PENN11	450,000	40,333	85,259	110,281	40,333	195,540	235,873	79,373	1923	1997	(5)

640 Fifth Avenue	—	38,224	25,992	160,092	38,224	186,084	224,308	61,374	1950	1997	(5)
909 Third Avenue	350,000	—	120,723	107,457	—	228,180	228,180	98,992	1969	1999	(5)
150 East 58th Street	—	39,303	80,216	47,732	39,303	127,948	167,251	60,078	1969	1998	(5)
595 Madison Avenue	—	62,731	62,888	40,335	62,731	103,223	165,954	41,920	1968	1999	(5)
330 West 34th Street	—	—	8,599	145,486	—	154,085	154,085	30,432	1925	1998	(5)
828-850 Madison Avenue	—	107,937	28,261	2,115	107,937	30,376	138,313	9,658		2005	(5)
33-00 Northern Boulevard	100,000	46,505	86,226	7,518	46,505	93,744	140,249	9,831	1915	2015	(5)
715 Lexington Avenue	—	—	26,903	63,249	63,000	27,152	90,152	9,346	1923	2001	(5)
478-486 Broadway	—	30,000	20,063	36,107	30,000	56,170	86,170	13,790	2009	2007	(5)
4 Union Square South	120,000	24,079	55,220	3,037	24,079	58,257	82,336	21,022	1965/2004	1993	(5)
Farley Office and Retail Building	257,941	—	476,235	33,988	—	510,223	510,223	—	1912	2018	(5)
Moynihan Train Hall	—	—	346,926	98,767	—	445,693	445,693	—	1912	2018	(5)
260 Eleventh Avenue	—	—	80,482	1,966	—	82,448	82,448	7,734	1911	2015	(5)
510 Fifth Avenue	—	34,602	18,728	35,545	48,403	40,472	88,875	9,616		2010	(5)
606 Broadway	51,290	45,406	8,993	39,821	—	94,220	94,220	—		2016	(5)
40 Fulton Street	—	15,732	26,388	23,527	15,732	49,915	65,647	22,146	1987	1998	(5)
689 Fifth Avenue	—	19,721	13,446	25,575	19,721	39,021	58,742	13,986	1925	1998	(5)
443 Broadway	—	11,187	41,186	—	11,187	41,186	52,373	5,821		2013	(5)

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 (1)		Costs capitalized subsequent to acquisition	Gross amount at which carried at close of period						
	Encumbrances (2)	Land	Buildings and improvements		Land	Buildings and improvements	Total (3)	Accumulated depreciation and amortization	Date of construction (4)	Date acquired	Life on which depreciation in latest income statement is computed
New York - continued											
Manhattan - continued											
40 East 66th Street	$ —	$13,616	$34,635	$248	$13,616	$34,883	$48,499	$11,415		2005	(5)
155 Spring Street	—	13,700	30,544	4,872	13,700	35,416	49,116	9,910		2007	(5)
435 Seventh Avenue	95,782	19,893	19,091	40	19,893	19,131	39,024	7,903	2002	1997	(5)
3040 M Street	—	7,830	27,490	3,583	7,830	31,073	38,903	10,940		2006	(5)
608 Fifth Avenue	—	—	—	39,608	—	39,608	39,608	11,836	1932	2012	(5)
692 Broadway	—	6,053	22,908	3,690	6,053	26,598	32,651	9,185		2005	(5)
131-135 West 33rd Street	—	8,315	21,312	24	8,315	21,336	29,651	1,424		2016	(5)
265 West 34th Street	—	28,500	—	295	28,500	295	28,795	—	1920	2015	(5)
304 Canal Street	—	3,511	12,905	(731)	3,511	12,174	15,685	714	1910	2014	(5)
677-679 Madison Avenue	—	13,070	9,640	541	13,070	10,181	23,251	3,169		2006	(5)
1135 Third Avenue	—	7,844	7,844	5,708	7,844	13,552	21,396	1,901		1997	(5)
486 Eighth Avenue	—	20,000	71	244	20,000	315	20,315	—	1928	2016	(5)
431 Seventh Avenue	—	16,700	2,751	—	16,700	2,751	19,451	808		2007	(5)
138-142 West 32nd Street	—	9,252	9,936	37	9,252	9,973	19,225	973	1920	2015	(5)
334 Canal Street	—	1,693	6,507	7,603	1,693	14,110	15,803	1,300		2011	(5)
267 West 34th Street	—	5,099	10,037	(9,760)	5,099	277	5,376	—		2013	(5)

1540 Broadway Garage	—	4,086	8,914	—	4,086	8,914	13,000	2,815	1990	2006	(5)
966 Third Avenue	—	8,869	3,631	—	8,869	3,631	12,500	484		2013	(5)
148 Spring Street	—	3,200	8,112	406	3,200	8,518	11,718	2,277		2008	(5)
150 Spring Street	—	3,200	5,822	300	3,200	6,122	9,322	1,664		2008	(5)
137 West 33rd Street	—	6,398	1,550	—	6,398	1,550	7,948	145	1932	2015	(5)
488 Eighth Avenue	—	10,650	1,767	(4,653)	6,859	905	7,764	245		2007	(5)
484 Eighth Avenue	—	3,856	762	758	3,856	1,520	5,376	—		1997	(5)
825 Seventh Avenue	—	1,483	697	159	1,483	856	2,339	400		1997	(5)
537 West 26th Street	—	10,370	17,632	16,263	26,632	17,633	44,265	414		2018	(5)
339 Greenwich	—	2,622	12,333	—	2,622	12,333	14,955	572		2017	(5)
Other (Including Signage)	—	86,299	506	115,778	86,299	116,284	202,583	35,135			
Total Manhattan	6,19	2,85	6,59	2,58	2,90	9,14	12,04	2,32			
Other Properties											
Hotel Pennsylvania	—	29,903	121,712	111,168	29,903	232,880	262,783	118,994	1919	1997	(5)
Paramus	—	—	—	24,935	1,036	23,899	24,935	16,849	1967	1987	(5)
Total Other Properties	—	29,903	121,712	136,10	30,93	256,77	287,71	135,84			
Total New York	6,19	2,88	6,71	2,72	2,93	9,39	12,33	2,46			

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
		Initial cost to company (1)		Costs capitalized subsequent to acquisition	Gross amount at which carried at close of period				
	Encumbrances (2)	Land	Buildings and improvements		Land	Buildings and improvements	Total (3)	Accumulated depreciation and amortization	Date of construct (4)
Other									
theMART									
Illinois									
theMART, Chicago	$675,000	$64,528	$319,146	$414,820	$64,535	$733,959	$798,494	$311,470	1930
527 West Kinzie, Chicago	—	5,166	—	32	5,166	32	5,198	—	
Total Illinois	675,000	69,694	319,146	414,852	69,701	733,991	803,692	311,470	
New York									
MMPI Piers	—	—	—	16,412	—	16,412	16,412	3,003	
Total theMART	675,000	69,694	319,146	431,264	69,701	750,403	820,104	314,473	
555 California Street	558,914	221,903	893,324	186,321	209,916	1,091,632	1,301,548	294,139	1922,196 -1970
220 Central Park South	737,369	115,720	16,445	1,339,283	—	1,471,448	1,471,448	—	
Borgata Land, Atlantic City, NJ	54,551	83,089	—	—	83,089	—	83,089	—	
40 East 66th Residential	—	29,199	85,798	(93,222)	8,454	13,321	21,775	3,923	
677-679 Madison	—	1,462	1,058	284	1,626	1,178	2,804	478	
Annapolis	—	—	9,652	—	—	9,652	9,652	3,960	
Wayne Towne Center	—	—	26,137	56,955	—	83,092	83,092	20,474	
Other	—	—	—	4,597	—	4,597	4,597	1,350	
Total Other	2,025,834	521,067	1,351,560	1,925,482	372,786	3,425,323	3,798,109	638,797	
Leasehold improvements equipment and other	—	—	—	108,427	—	108,427	108,427	80,220	

December 31, 2018	$8,215,847	$3,410,579	$8,070,300	$4,757,004	$3,306,280	$12,931,603	$16,237,883	$3,180,175

(1) Initial cost is cost as of January 30, 1982 (the date on which we commenced real estate operations) unless acquired subsequent to that date see Column H.

(2) Represents the contractual debt obligations.

(3) The net basis of Vornado's assets and liabilities for tax reporting purposes is approximately $1.9 billion lower than the amounts reported for financial statement purposes.

(4) Date of original construction — many properties have had substantial renovation or additional construction — see Column D.

(5) Depreciation of the buildings and improvements are calculated over lives ranging from the life of the lease to forty years.

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,		
	2018	2017	2016
Real Estate			
Balance at beginning of period	$14,756,295	$14,187,820	$13,545,295
Additions during the period:			
Land	170,065	21,298	30,805
Buildings & improvements	1,665,684	598,820	854,194
	16,592,044	14,807,938	14,430,294
Less: Assets sold, written-off and deconsolidated	354,161	51,643	242,474
Balance at end of period	$16,237,883	$14,756,295	$14,187,820
Accumulated Depreciation			
Balance at beginning of period	$2,885,283	$2,581,514	$2,356,728
Additions charged to operating expenses	381,500	360,391	346,755
	3,266,783	2,941,905	2,703,483
Less: Accumulated depreciation on assets sold, written-off and deconsolidated	86,608	56,622	121,969
Balance at end of period	$3,180,175	$2,885,283	$2,581,514

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES - continued

(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	*

* Incorporated by reference

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	*
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	*

* Incorporated by reference

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	*
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	*

* Incorporated by reference

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	*
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

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* Incorporated by reference

** Management contract or compensatory agreement

3.56	Amended and Restated Bylaws of Vornado Related 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	*
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	*
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**	Form of Vornado Realty Trust's 2002 Omnibus Share Plan - Incorporated by reference to Exhibit 4.2 to Vornado Realty Trust's Registration Statement on Form S-8 (File No. 333-102216), filed on December 26, 2002.	*
10.9**	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

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* Incorporated by reference

** Management contract or compensatory agreement

10.10** – 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 *

10.11** – 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 *

10.12** – Employment Agreement between Vornado Realty Trust and Mitchell Schear, as of April 19, 2007 – Incorporated by reference to Exhibit 10.46 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2007 (File No. 001-11954), filed on May 1, 2007 *

10.13** – 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 *

10.14** – 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 *

10.15** – 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 *

10.16** – Amendment to Employment Agreement between Vornado Realty Trust and Mitchell N. Schear, dated December 29, 2008 - Incorporated by reference to Exhibit 10.51 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 *

10.17** – 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 *

10.18** – 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 *

10.19** – 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 *

10.20** – 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

10.21** 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

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* Incorporated by reference
** Management contract or compensatory agreement

10.22**	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	*
10.23**	Employment agreement between Vornado Realty Trust and Stephen W. Theriot dated June 1, 2013 - Incorporated by reference to Exhibit 10.51 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013 (File No. 001-11954), filed on August 5, 2013	*
10.24**	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	*
10.25**	Form of Vornado Realty Trust 2014 Outperformance Plan Award Agreement. Incorporated by reference to Exhibit 10.53 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	*
10.26	Amended and Restated Revolving Credit Agreement dated as of September 30, 2014, by and 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 10.54 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended September 30, 2014 (File No. 001-11954), filed on November 3, 2014	*
10.27**	Form of Vornado Realty Trust 2016 Outperformance Plan Award 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 January 21, 2016	*
10.28	Term Loan Agreement dated as of October 30, 2015, by and 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 10.32 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2015 (File No. 001-11954), filed on February 16, 2016	*
10.29	Amended and Restated Revolving Credit Agreement dated as of November 7, 2016, 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 10.29 to Vornado Realty Trust's Annual Report on Form 10-K for the year ended December 31, 2016 (File No. 001-11954), filed on February 13, 2017	*
10.30**	Amendment to Employment Agreement, dated March 10, 2017, between Vornado Realty Trust and Mitchell Schear. Incorporated by reference to Exhibit 10.30 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (File No. 001-11954), filed on May 1, 2017	*
10.31**	Consulting Agreement, dated March 10, 2017, between JBG SMITH Properties and Mitchell	*

Schear. Incorporated by reference to Exhibit 10.31 to Vornado Realty Trust's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (File No. 001-11954), filed on May 1, 2017

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* Incorporated by reference

** Management contract or compensatory agreement

10.32**	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	*
10.33	Amended and Restated Revolving Credit Agreement dated as of October 17, 2017, 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 10.33 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	*
10.34**	Form of Vornado Realty Trust 2010 Omnibus Share Plan AO LTIP Unit Award Agreement Incorporated by reference to Exhibit 10.33 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	*
10.35**	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	*
10.36**	Form of Performance Conditioned AO LTIP Award Agreement	***
10.37**	Form of 2019 Amendment to Restricted LTIP Unit and Restricted Stock Agreements	***
10.38**	Form of Vornado Realty Trust 2010 Omnibus Share Plan Restricted LTIP Unit Agreement	***
10.39**	Form of Vornado Realty Trust 2010 Omnibus Share Plan Restricted Stock Agreement	***

* 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.INS	—	XBRL Instance Document of Vornado Realty Trust and Vornado Realty L.P.	***
101.SCH	—	XBRL Taxonomy Extension Schema of Vornado Realty Trust and Vornado Realty L.P.	***
101.CAL	—	XBRL Taxonomy Extension Calculation Linkbase of Vornado Realty Trust and Vornado Realty L.P.	***
101.DEF	—	XBRL Taxonomy Extension Definition Linkbase of Vornado Realty Trust and Vornado Realty L.P.	***
101.LAB	—	XBRL Taxonomy Extension Label Linkbase of Vornado Realty Trust and Vornado Realty L.P.	***
101.PRE	—	XBRL Taxonomy Extension Presentation Linkbase of Vornado Realty Trust and Vornado Realty L.P.	***

*** 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 11, 2019 By: /s/ Matthew Iocco
Matthew Iocco, Chief Accounting Officer
(duly authorized officer and principal accounting officer)

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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 11, 2019
By: /s/Candace K. Beinecke (Candace K. Beinecke)	Trustee	February 11, 2019
By: /s/Michael D. Fascitelli (Michael D. Fascitelli)	Trustee	February 11, 2019
By: /s/Robert P. Kogod (Robert P. Kogod)	Trustee	February 11, 2019
By: /s/Michael Lynne (Michael Lynne)	Trustee	February 11, 2019
By: /s/David Mandelbaum (David Mandelbaum)	Trustee	February 11, 2019
By: /s/Mandakini Puri (Mandakini Puri)	Trustee	February 11, 2019
By: /s/Daniel R. Tisch (Daniel R. Tisch)	Trustee	February 11, 2019
By: /s/Richard R. West (Richard R. West)	Trustee	February 11, 2019
By: /s/Russell B. Wight, Jr. (Russell B. Wight, Jr.)	Trustee	February 11, 2019
By: /s/Joseph Macnow (Joseph Macnow)	Chief Financial Officer (Principal Financial Officer)	February 11, 2019
By: /s/Matthew Iocco (Matthew Iocco)	Chief Accounting Officer (Principal Accounting Officer)	February 11, 2019

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 11, 2019

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)

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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 11, 2019
By: /s/Candace K. Beinecke (Candace K. Beinecke)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/Michael D. Fascitelli (Michael D. Fascitelli)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/Robert P. Kogod (Robert P. Kogod)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/Michael Lynne (Michael Lynne)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/David Mandelbaum (David Mandelbaum)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/Mandakini Puri (Mandakini Puri)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/Daniel R. Tisch (Daniel R. Tisch)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/Richard R. West (Richard R. West)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/Russell B. Wight, Jr. (Russell B. Wight, Jr.)	Trustee of Vornado Realty Trust	February 11, 2019
By: /s/Joseph Macnow (Joseph Macnow)	Chief Financial Officer of Vornado Realty Trust (Principal Financial Officer)	February 11, 2019
By: /s/Matthew Iocco (Matthew Iocco)	Chief Accounting Officer of Vornado Realty Trust (Principal Accounting Officer)	February 11, 2019