

ANNUAL STATEMENT
OF THE
TEACHERS INSURANCE
AND ANNUITY ASSOCIATION
OF AMERICA

OF
NEW YORK

IN THE STATE OF
NEW YORK

TO THE
INSURANCE DEPARTMENT
OF THE

STATE OF

FOR THE YEAR ENDED
DECEMBER 31, 2018

LIFE AND ACCIDENT AND HEALTH

2018



LIFE AND ACCIDENT AND HEALTH COMPANIES - ASSOCIATION EDITION

ANNUAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2018
OF THE CONDITION AND AFFAIRS OF THE

Teachers Insurance and Annuity Association of America

NAIC Group Code 1216 1216 NAIC Company Code 69345 Employer's ID Number 13-1624203
(Current) (Prior)

Organized under the Laws of New York, State of Domicile or Port of Entry NY

Country of Domicile United States of America

Incorporated/Organized 03/04/1918 Commenced Business 05/17/1918

Statutory Home Office 730 Third Avenue, New York, NY, US 10017
(Street and Number) (City or Town, State, Country and Zip Code)

Main Administrative Office 730 Third Avenue
(Street and Number)
New York, NY, US 10017 212-490-9000
(City or Town, State, Country and Zip Code) (Area Code) (Telephone Number)

Mail Address 730 Third Avenue, New York, NY, US 10017
(Street and Number or P.O. Box) (City or Town, State, Country and Zip Code)

Primary Location of Books and Records 730 Third Avenue
(Street and Number)
New York, NY, US 10017 212-490-9000
(City or Town, State, Country and Zip Code) (Area Code) (Telephone Number)

Internet Website Address tiaa.org

Statutory Statement Contact Stacy Koon Eisenhower, 704-988-4560
(Name) (Area Code) (Telephone Number)
seisenhauer@tiaa.org 704-988-4914
(E-mail Address) (FAX Number)

OFFICERS

| | | | |
|-------------------------------------|-----------------------------------|--------------------------------|-----------------------------|
| President & Chief Executive Officer | <u>Roger Walton Ferguson, Jr.</u> | SEVP & Chief Financial Officer | <u>Virginia Mary Wilson</u> |
| SMD & Corporate Secretary | <u>Mona (NMN) Bhalla</u> | SVP & Chief Actuary | <u>Sue Ann Collins</u> |

OTHER

| | | |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <u>Vijay Chandur Advani, SEVP, Chief Executive Officer, Nuveen</u> | <u>Kathie Jane Andrade, SEVP, Advisor to the CEO</u> | <u>John Lewis Douglas #, SEVP, Chief Oversight and Advocacy Officer</u> |
| <u>Lori Dickerson Fouché #, SEVP, Retail and Institutional Financial Services CEO</u> | <u>Rahul Narandas Merchant, SEVP, Head of Client Services and Tech</u> | <u>Ronald Richard Pressman, SEVP, Advisor to the CEO</u> |
| <u>Glenn Robert Richter, SEVP, Chief Administrative Officer</u> | <u>Oluseun S Salami #, SVP, Corporate Controller</u> | <u>Sean Nigel Woodroffe #, SEVP, Chief Human Resources Officer</u> |

DIRECTORS OR TRUSTEES

| | | |
|-----------------------------------|-----------------------------------|---------------------------------|
| <u>Jeffrey Robert Brown</u> | <u>Priscilla Sims Brown #</u> | <u>James Robert Chambers</u> |
| <u>Roger Walton Ferguson, Jr.</u> | <u>Tamara Simpkins Franklin #</u> | <u>Lisa Wolfson Hess</u> |
| <u>Edward Mark Hundert</u> | <u>Lawrence Howard Linden</u> | <u>Maureen Patricia O'Hara</u> |
| <u>Donald Kent Peterson</u> | <u>Sidney Allen Ribeau</u> | <u>Dorothy Kathryn Robinson</u> |
| <u>Kim Michele Sharan</u> | <u>David Lloyd Shedlarz</u> | <u>Ronald Lurie Thompson</u> |
| <u>Marta (NMN) Tienda</u> | | |

State of New York SS:
County of New York

The officers of this reporting entity being duly sworn, each depose and say that they are the described officers of said reporting entity, and that on the reporting period stated above, all of the herein described assets were the absolute property of the said reporting entity, free and clear from any liens or claims thereon, except as herein stated, and that this statement, together with related exhibits, schedules and explanations therein contained, annexed or referred to, is a full and true statement of all the assets and liabilities and of the condition and affairs of the said reporting entity as of the reporting period stated above, and of its income and deductions therefrom for the period ended, and have been completed in accordance with the NAIC Annual Statement Instructions and Accounting Practices and Procedures manual except to the extent that: (1) state law may differ; or, (2) that state rules or regulations require differences in reporting not related to accounting practices and procedures, according to the best of their information, knowledge and belief, respectively. Furthermore, the scope of this attestation by the described officers also includes the related corresponding electronic filing with the NAIC, when required, that is an exact copy (except for formatting differences due to electronic filing) of the enclosed statement. The electronic filing may be requested by various regulators in lieu of or in addition to the enclosed statement.

Roger Walton Ferguson, Jr.

Roger Walton Ferguson, Jr.
President & Chief Executive Officer

Mona Bhalla

Mona (NMN) Bhalla
SMD & Corporate Secretary

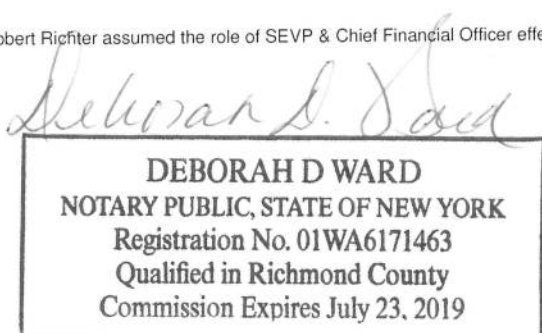
Glenn Robert Richter

Glenn Robert Richter*
SEVP & Chief Financial Officer

Subscribed and sworn to before me this 1st day of February, 2019

- a. Is this an original filing? Yes [X] No []
b. If no,
1. State the amendment number.....
2. Date filed.....
3. Number of pages attached.....

* Glenn Robert Richter assumed the role of SEVP & Chief Financial Officer effective on January 1, 2019.



ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSETS

| | Current Year | | | Prior Year |
|-----------------------------------------------------------------------------------|-----------------|-------------------------|-------------------------------------------|-----------------------------|
| | 1 Assets | 2 Nonadmitted Assets | 3 Net Admitted Assets (Cols. 1 - 2) | 4 Net Admitted Assets |
| 1. Bonds (Schedule D) | 187,351,103,332 | 25,984,546 | 187,325,118,786 | 184,895,395,903 |
| 2. Stocks (Schedule D): | | | | |
| 2.1 Preferred stocks | 245,061,072 | | 245,061,072 | 337,551,847 |
| 2.2 Common stocks | 5,916,781,368 | 17,534,805 | 5,899,246,563 | 5,680,367,565 |
| 3. Mortgage loans on real estate (Schedule B): | | | | |
| 3.1 First liens | 27,391,045,311 | | 27,391,045,311 | 24,034,031,710 |
| 3.2 Other than first liens | 2,567,530,391 | | 2,567,530,391 | 2,562,588,312 |
| 4. Real estate (Schedule A): | | | | |
| 4.1 Properties occupied by the company (less \$ | | | | |
| encumbrances) | 173,282,218 | | 173,282,218 | 177,337,259 |
| 4.2 Properties held for the production of income (less | | | | |
| \$ 44,038,300 encumbrances) | 1,966,277,308 | | 1,966,277,308 | 1,900,988,784 |
| 4.3 Properties held for sale (less \$ | | | | |
| encumbrances) | 12,323,484 | | 12,323,484 | |
| 5. Cash (\$ 117,159,565 , Schedule E - Part 1), cash equivalents | | | | |
| (\$ 480,413,504 , Schedule E - Part 2) and short-term | | | | |
| investments (\$, Schedule DA) | 597,573,069 | | 597,573,069 | 640,238,743 |
| 6. Contract loans (including \$ premium notes) | 1,889,992,714 | 9,851 | 1,889,982,863 | 1,680,316,399 |
| 7. Derivatives (Schedule DB) | 967,845,751 | | 967,845,751 | 243,999,341 |
| 8. Other invested assets (Schedule BA) | 30,440,283,099 | 123,594,203 | 30,316,688,896 | 29,784,383,150 |
| 9. Receivables for securities | 82,576,836 | | 82,576,836 | 95,046,308 |
| 10. Securities lending reinvested collateral assets (Schedule DL) | 561,635,041 | | 561,635,041 | 705,705,952 |
| 11. Aggregate write-ins for invested assets | 13,275,462 | | 13,275,462 | 285,573,884 |
| 12. Subtotals, cash and invested assets (Lines 1 to 11) | 260,176,586,456 | 167,123,405 | 260,009,463,051 | 253,023,525,157 |
| 13. Title plants less \$ charged off (for Title insurers | | | | |
| only) | | | | |
| 14. Investment income due and accrued | 1,802,318,739 | | 1,802,318,739 | 1,794,447,676 |
| 15. Premiums and considerations: | | | | |
| 15.1 Uncollected premiums and agents' balances in the course of collection | 2,677,933 | | 2,677,933 | 2,811,271 |
| 15.2 Deferred premiums and agents' balances and installments booked but | | | | |
| deferred and not yet due (including \$ | | | | |
| earned but unbilled premiums) | 48,124,396 | 98,802 | 48,025,594 | 52,300,935 |
| 15.3 Accrued retrospective premiums (\$) and | | | | |
| contracts subject to redetermination (\$) | | | | |
| 16. Reinsurance: | | | | |
| 16.1 Amounts recoverable from reinsurers | | | | |
| 16.2 Funds held by or deposited with reinsured companies | | | | |
| 16.3 Other amounts receivable under reinsurance contracts | 2,422,317 | | 2,422,317 | 2,487,514 |
| 17. Amounts receivable relating to uninsured plans | | | | |
| 18.1 Current federal and foreign income tax recoverable and interest thereon | | | | |
| 18.2 Net deferred tax asset | 5,536,905,000 | 3,134,967,000 | 2,401,938,000 | 1,963,635,000 |
| 19. Guaranty funds receivable or on deposit | 15,047,255 | | 15,047,255 | 16,782,212 |
| 20. Electronic data processing equipment and software | 404,543,587 | 377,406,934 | 27,136,653 | 32,904,765 |
| 21. Furniture and equipment, including health care delivery assets | | | | |
| (\$) | 54,027,178 | 54,027,178 | | |
| 22. Net adjustment in assets and liabilities due to foreign exchange rates | | | | |
| 23. Receivables from parent, subsidiaries and affiliates | 192,313,135 | 802 | 192,312,333 | 191,935,566 |
| 24. Health care (\$) and other amounts receivable | | | | |
| 25. Aggregate write-ins for other than invested assets | 662,789,540 | 166,473,876 | 496,315,664 | 470,547,300 |
| 26. Total assets excluding Separate Accounts, Segregated Accounts and | | | | |
| Protected Cell Accounts (Lines 12 to 25) | 268,897,755,536 | 3,900,097,997 | 264,997,657,539 | 257,551,377,396 |
| 27. From Separate Accounts, Segregated Accounts and Protected Cell | | | | |
| Accounts | 38,288,611,045 | | 38,288,611,045 | 37,595,617,800 |
| 28. Total (Lines 26 and 27) | 307,186,366,581 | 3,900,097,997 | 303,286,268,584 | 295,146,995,196 |
| DETAILS OF WRITE-INS | | | | |
| 1101. Derivative collateral - receivable | 10,830,279 | | 10,830,279 | 284,996,570 |
| 1102. Investments in process | 2,026,825 | | 2,026,825 | 67,691 |
| 1103. Receivable for securities lending | 418,358 | | 418,358 | 509,623 |
| 1198. Summary of remaining write-ins for Line 11 from overflow page | | | | |
| 1199. Totals (Lines 1101 thru 1103 plus 1198)(Line 11 above) | 13,275,462 | | 13,275,462 | 285,573,884 |
| 2501. Sundry receivables | 535,394,233 | 39,078,569 | 496,315,664 | 470,547,300 |
| 2502. Prepaid expenses | 119,787,260 | 119,787,260 | | |
| 2503. Intangible asset - AML - SERP | 7,608,047 | 7,608,047 | | |
| 2598. Summary of remaining write-ins for Line 25 from overflow page | | | | |
| 2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above) | 662,789,540 | 166,473,876 | 496,315,664 | 470,547,300 |

The failure of items to add to the totals shown throughout the statement is due to the rounding of figures to the nearest dollar.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

LIABILITIES, SURPLUS AND OTHER FUNDS

| | 1 Current Year | 2 Prior Year |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|
| 1. Aggregate reserve for life contracts \$211,345,444,121 (Exh. 5, Line 9999999) less \$ included in Line 6.3 (including \$ Modco Reserve) | 211,345,444,121 | 205,948,175,232 |
| 2. Aggregate reserve for accident and health contracts (including \$ Modco Reserve) | 8,006 | 14,431 |
| 3. Liability for deposit-type contracts (Exhibit 7, Line 14, Col. 1) (including \$ Modco Reserve) | 1,105,189,756 | 1,061,965,064 |
| 4. Contract claims: | | |
| 4.1 Life (Exhibit 8, Part 1, Line 4.4, Col. 1 less sum of Cols. 9, 10 and 11) | 687,442,069 | 653,808,065 |
| 4.2 Accident and health (Exhibit 8, Part 1, Line 4.4, sum of Cols. 9, 10 and 11) | | |
| 5. Policyholders' dividends \$2,967,781 and coupons \$ due and unpaid (Exhibit 4, Line 10) | 2,967,781 | 2,609,738 |
| 6. Provision for policyholders' dividends and coupons payable in following calendar year - estimated amounts: | | |
| 6.1 Dividends apportioned for payment (including \$ Modco) | 1,882,203,352 | 1,881,689,460 |
| 6.2 Dividends not yet apportioned (including \$ Modco) | | |
| 6.3 Coupons and similar benefits (including \$ Modco) | | |
| 7. Amount provisionally held for deferred dividend policies not included in Line 6 | | |
| 8. Premiums and annuity considerations for life and accident and health contracts received in advance less \$ discount; including \$ accident and health premiums (Exhibit 1, Part 1, Col. 1, sum of lines 4 and 14) | 677,950 | 352,376 |
| 9. Contract liabilities not included elsewhere: | | |
| 9.1 Surrender values on canceled contracts | | |
| 9.2 Provision for experience rating refunds, including the liability of \$ accident and health experience rating refunds of which \$ is for medical loss ratio rebate per the Public Health Service Act | | |
| 9.3 Other amounts payable on reinsurance, including \$ assumed and \$3,970,898 ceded | | |
| 9.4 Interest maintenance reserve (IMR, Line 6) | 3,970,898 | 4,115,304 |
| 10. Commissions to agents due or accrued-life and annuity contracts \$ accident and health \$ and deposit-type contract funds \$ | 2,148,531,201 | 2,135,605,209 |
| 11. Commissions and expense allowances payable on reinsurance assumed | | |
| 12. General expenses due or accrued (Exhibit 2, Line 12, Col. 6) | 1,027,621,007 | 999,267,752 |
| 13. Transfers to Separate Accounts due or accrued (net) (including \$ accrued for expense allowances recognized in reserves, net of reinsured allowances) | 8,377,740 | 582,453 |
| 14. Taxes, licenses and fees due or accrued, excluding federal income taxes (Exhibit 3, Line 9, Col. 5) | 32,301,859 | 23,431,201 |
| 15.1 Current federal and foreign income taxes, including \$ on realized capital gains (losses) | 45,373,848 | 16,508,007 |
| 15.2 Net deferred tax liability | | |
| 16. Unearned investment income | 1,373,608 | 722,567 |
| 17. Amounts withheld or retained by company as agent or trustee | 228,101,036 | 217,175,656 |
| 18. Amounts held for agents' account, including \$ agents' credit balances | | |
| 19. Remittances and items not allocated | 73,692,708 | 67,338,117 |
| 20. Net adjustment in assets and liabilities due to foreign exchange rates | | |
| 21. Liability for benefits for employees and agents if not included above | 167,155,026 | 191,456,637 |
| 22. Borrowed money \$ and interest thereon \$ | | |
| 23. Dividends to stockholders declared and unpaid | | |
| 24. Miscellaneous liabilities: | | |
| 24.01 Asset valuation reserve (AVR, Line 16, Col. 7) | 5,259,527,188 | 5,388,226,461 |
| 24.02 Reinsurance in unauthorized and certified (\$) companies | | |
| 24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers | | |
| 24.04 Payable to parent, subsidiaries and affiliates | 649,195,987 | 634,165,907 |
| 24.05 Drafts outstanding | | |
| 24.06 Liability for amounts held under uninsured plans | | |
| 24.07 Funds held under coinsurance | | |
| 24.08 Derivatives | 164,437,692 | 470,362,874 |
| 24.09 Payable for securities | 116,386,766 | 141,015,289 |
| 24.10 Payable for securities lending | 561,635,042 | 705,705,952 |
| 24.11 Capital notes \$ and interest thereon \$ | | |
| 25. Aggregate write-ins for liabilities | 1,403,753,172 | 701,333,912 |
| 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) | 226,915,367,813 | 221,245,627,664 |
| 27. From Separate Accounts Statement | 38,244,597,043 | 37,565,298,094 |
| 28. Total liabilities (Lines 26 and 27) | 265,159,964,856 | 258,810,925,758 |
| 29. Common capital stock | 2,500,000 | 2,500,000 |
| 30. Preferred capital stock | | |
| 31. Aggregate write-ins for other than special surplus funds | | |
| 32. Surplus notes | 5,041,067,049 | 5,040,741,540 |
| 33. Gross paid in and contributed surplus (Page 3, Line 33, Col. 2 plus Page 4, Line 51.1, Col. 1) | 550,000 | 550,000 |
| 34. Aggregate write-ins for special surplus funds | 33,082,186,679 | 31,292,277,898 |
| 35. Unassigned funds (surplus) | | |
| 36. Less treasury stock, at cost: | | |
| 36.1 shares common (value included in Line 29 \$) | | |
| 36.2 shares preferred (value included in Line 30 \$) | | |
| 37. Surplus (Total Lines 31+32+33+34+35-36) (including \$44,014,002 in Separate Accounts Statement) | 38,123,803,728 | 36,333,569,438 |
| 38. Totals of Lines 29, 30 and 37 (Page 4, Line 55) | 38,126,303,728 | 36,336,069,438 |
| 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) | 303,286,268,584 | 295,146,995,196 |
| DETAILS OF WRITE-INS | | |
| 2501. Derivative collateral – payable | 760,848,028 | 94,545,588 |
| 2502. Miscellaneous liabilities | 482,606,851 | 463,870,838 |
| 2503. Deferred gain on asset transfer with affiliate | 216,028,712 | 191,802,177 |
| 2598. Summary of remaining write-ins for Line 25 from overflow page | (55,730,419) | (48,884,691) |
| 2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above) | 1,403,753,172 | 701,333,912 |
| 3101. | | |
| 3102. | | |
| 3103. | | |
| 3198. Summary of remaining write-ins for Line 31 from overflow page | | |
| 3199. Totals (Lines 3101 thru 3103 plus 3198)(Line 31 above) | | |
| 3401. Conting. res. for invest. losses, annuity and insurance mort. and other risks ** | 33,082,186,679 | 31,292,277,898 |
| 3402. | | |
| 3403. | | |
| 3498. Summary of remaining write-ins for Line 34 from overflow page | | |
| 3499. Totals (Lines 3401 thru 3403 plus 3498)(Line 34 above) | 33,082,186,679 | 31,292,277,898 |

** The amount of the annuitant mortality fluctuation fund for the Real Estate account is \$105,927,757 and for the Access account is \$16,108,000.
Note for line 6.1: Because TIAA operates without profit to the corporation or its stockholders, excess earnings which exceeded the amount contained on line 6.1 of prior year's statements were credited to policyholders as Additional Amounts during the year. Additional Amounts are referred to as policyholder's dividends throughout this statement.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SUMMARY OF OPERATIONS

| | 1 Current Year | 2 Prior Year |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|
| 1. Premiums and annuity considerations for life and accident and health contracts (Exhibit 1, Part 1, Line 20.4, Col. 1, less Col. 11) | 15,033,997,308 | 15,386,524,717 |
| 2. Considerations for supplementary contracts with life contingencies | 84,411,295 | 68,806,217 |
| 3. Net investment income (Exhibit of Net Investment Income, Line 17) | 12,291,093,197 | 11,681,209,297 |
| 4. Amortization of Interest Maintenance Reserve (IMR, Line 5) | 259,282,495 | 193,975,230 |
| 5. Separate Accounts net gain from operations excluding unrealized gains or losses | 13,694,296 | 10,073,850 |
| 6. Commissions and expense allowances on reinsurance ceded (Exhibit 1, Part 2, Line 26.1, Col. 1) | | |
| 7. Reserve adjustments on reinsurance ceded | | |
| 8. Miscellaneous Income: | | |
| 8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts | 226,020,288 | 233,670,064 |
| 8.2 Charges and fees for deposit-type contracts | | |
| 8.3 Aggregate write-ins for miscellaneous income | 3,000,803,760 | 2,818,613,726 |
| 9. Total (Lines 1 to 8.3) | 30,909,302,639 | 30,392,873,101 |
| 10. Death benefits | 67,303,992 | 66,482,495 |
| 11. Matured endowments (excluding guaranteed annual pure endowments) | 56,563 | 89,066 |
| 12. Annuity benefits (Exhibit 8, Part 2, Line 6.4, Cols. 4 + 8) | 7,470,643,372 | 7,201,461,748 |
| 13. Disability benefits and benefits under accident and health contracts | 8,981,275 | 8,154,437 |
| 14. Coupons, guaranteed annual pure endowments and similar benefits | | |
| 15. Surrender benefits and withdrawals for life contracts | 9,868,830,600 | 8,676,271,454 |
| 16. Group conversions | | |
| 17. Interest and adjustments on contract or deposit-type contract funds | 29,929,373 | 28,885,817 |
| 18. Payments on supplementary contracts with life contingencies | 90,700,857 | 94,200,173 |
| 19. Increase in aggregate reserves for life and accident and health contracts | 5,279,306,079 | 6,114,530,850 |
| 20. Totals (Lines 10 to 19) | 22,815,752,111 | 22,190,076,040 |
| 21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only) (Exhibit 1, Part 2, Line 31, Col. 1) | | |
| 22. Commissions and expense allowances on reinsurance assumed (Exhibit 1, Part 2, Line 26.2, Col. 1) | | |
| 23. General insurance expenses (Exhibit 2, Line 10, Cols. 1, 2, 3 and 4) | 1,643,194,432 | 1,598,008,435 |
| 24. Insurance taxes, licenses and fees, excluding federal income taxes (Exhibit 3, Line 7, Cols. 1 + 2 + 3) | 69,517,909 | 51,252,630 |
| 25. Increase in loading on deferred and uncollected premiums | (1,224,073) | (1,147,507) |
| 26. Net transfers to or (from) Separate Accounts net of reinsurance | 441,636,150 | 1,122,579,807 |
| 27. Aggregate write-ins for deductions | 327,496,760 | 605,956,987 |
| 28. Totals (Lines 20 to 27) | 25,296,373,289 | 25,566,726,392 |
| 29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28) | 5,612,929,350 | 4,826,146,709 |
| 30. Dividends to policyholders | 3,526,325,026 | 3,211,866,846 |
| 31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30) | 2,086,604,324 | 1,614,279,863 |
| 32. Federal and foreign income taxes incurred (excluding tax on capital gains) | (23,054,547) | (3,690,209) |
| 33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32) | 2,109,658,871 | 1,617,970,072 |
| 34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ | (656,605,332) | (597,528,147) |
| 35. Net income (Line 33 plus Line 34) | 1,453,053,539 | 1,020,441,925 |
| CAPITAL AND SURPLUS ACCOUNT | | |
| 36. Capital and surplus, December 31, prior year (Page 3, Line 38, Col. 2) | 36,336,069,438 | 35,583,089,407 |
| 37. Net income (Line 35) | 1,453,053,539 | 1,020,441,925 |
| 38. Change in net unrealized capital gains (losses) less capital gains tax of \$ | (356,897,387) | 1,173,656,405 |
| 39. Change in net unrealized foreign exchange capital gain (loss) | (2,028,353) | (103,807,733) |
| 40. Change in net deferred income tax | (147,263,000) | (4,554,225,000) |
| 41. Change in nonadmitted assets | 707,498,982 | 3,402,967,127 |
| 42. Change in liability for reinsurance in unauthorized and certified companies | | |
| 43. Change in reserve on account of change in valuation basis, (increase) or decrease | | |
| 44. Change in asset valuation reserve | 128,699,273 | (1,221,520,675) |
| 45. Change in treasury stock (Page 3, Lines 36.1 and 36.2, Col. 2 minus Col. 1) | | |
| 46. Surplus (contributed to) withdrawn from Separate Accounts during period | | |
| 47. Other changes in surplus in Separate Accounts Statement | | |
| 48. Change in surplus notes | 325,509 | 1,040,741,540 |
| 49. Cumulative effect of changes in accounting principles | | |
| 50. Capital changes: | | |
| 50.1 Paid in | | |
| 50.2 Transferred from surplus (Stock Dividend) | | |
| 50.3 Transferred to surplus | | |
| 51. Surplus adjustment: | | |
| 51.1 Paid in | | |
| 51.2 Transferred to capital (Stock Dividend) | | |
| 51.3 Transferred from capital | | |
| 51.4 Change in surplus as a result of reinsurance | | |
| 52. Dividends to stockholders | | |
| 53. Aggregate write-ins for gains and losses in surplus | 6,845,727 | (5,273,558) |
| 54. Net change in capital and surplus for the year (Lines 37 through 53) | 1,790,234,290 | 752,980,031 |
| 55. Capital and surplus, December 31, current year (Lines 36 + 54) (Page 3, Line 38) | 38,126,303,728 | 36,336,069,438 |
| DETAILS OF WRITE-INS | | |
| 08.301. Additional amounts credited or applied to annuities | 1,761,001,602 | 1,503,266,505 |
| 08.302. Consideration on annuity product rollovers | 1,021,201,205 | 1,104,452,448 |
| 08.303. Miscellaneous income | 139,332,657 | 127,536,505 |
| 08.398. Summary of remaining write-ins for Line 8.3 from overflow page | 79,268,296 | 83,358,268 |
| 08.399. Totals (Lines 08.301 thru 08.303 plus 08.398)(Line 8.3 above) | 3,000,803,760 | 2,818,613,726 |
| 2701. Miscellaneous deductions | 327,489,529 | 233,050,724 |
| 2702. Miscellaneous fines and penalties | 7,231 | 12,263 |
| 2703. Surplus note tender premium | | 372,894,000 |
| 2798. Summary of remaining write-ins for Line 27 from overflow page | | |
| 2799. Totals (Lines 2701 thru 2703 plus 2798)(Line 27 above) | 327,496,760 | 605,956,987 |
| 5301. Post retirement benefit obligation liability | 6,845,727 | (5,273,558) |
| 5302. | | |
| 5303. | | |
| 5398. Summary of remaining write-ins for Line 53 from overflow page | | |
| 5399. Totals (Lines 5301 thru 5303 plus 5398)(Line 53 above) | 6,845,727 | (5,273,558) |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

CASH FLOW

| | 1 | 2 |
|-----------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| | Current Year | Prior Year |
| Cash from Operations | | |
| 1. Premiums collected net of reinsurance | 16,224,698,048 | 16,649,534,191 |
| 2. Net investment income | 11,756,313,367 | 11,301,381,458 |
| 3. Miscellaneous income | 365,076,185 | 360,913,173 |
| 4. Total (Lines 1 through 3) | 28,346,087,600 | 28,311,828,822 |
| 5. Benefit and loss related payments | 17,632,570,741 | 16,128,122,310 |
| 6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts | 441,865,973 | 1,126,845,024 |
| 7. Commissions, expenses paid and aggregate write-ins for deductions | 1,865,333,453 | 1,728,880,301 |
| 8. Dividends paid to policyholders | 1,764,451,489 | 1,755,915,350 |
| 9. Federal and foreign income taxes paid (recovered) net of \$ tax on capital gains (losses) | (62,731,318) | (16,010,653) |
| 10. Total (Lines 5 through 9) | 21,641,490,338 | 20,723,752,332 |
| 11. Net cash from operations (Line 4 minus Line 10) | 6,704,597,262 | 7,588,076,490 |
| Cash from Investments | | |
| 12. Proceeds from investments sold, matured or repaid: | | |
| 12.1 Bonds | 17,950,449,169 | 27,266,669,196 |
| 12.2 Stocks | 1,891,399,862 | 1,298,393,433 |
| 12.3 Mortgage loans | 2,851,949,647 | 1,287,306,528 |
| 12.4 Real estate | 27,886,044 | 176,556,319 |
| 12.5 Other invested assets | 2,368,262,256 | 2,213,166,770 |
| 12.6 Net gains or (losses) on cash, cash equivalents and short-term investments | 17,659,288 | 51,407,753 |
| 12.7 Miscellaneous proceeds | 1,163,891,315 | 130,631 |
| 12.8 Total investment proceeds (Lines 12.1 to 12.7) | 26,271,497,581 | 32,293,630,630 |
| 13. Cost of investments acquired (long-term only): | | |
| 13.1 Bonds | 19,837,907,173 | 25,621,549,286 |
| 13.2 Stocks | 1,716,050,877 | 3,488,542,514 |
| 13.3 Mortgage loans | 6,351,377,079 | 6,669,338,974 |
| 13.4 Real estate | 130,986,201 | 14,979,246 |
| 13.5 Other invested assets | 4,483,357,250 | 3,922,797,993 |
| 13.6 Miscellaneous applications | 456,428,525 | 983,165,976 |
| 13.7 Total investments acquired (Lines 13.1 to 13.6) | 32,976,107,105 | 40,700,373,989 |
| 14. Net increase (decrease) in contract loans and premium notes | 57,391,639 | 93,057,050 |
| 15. Net cash from investments (Line 12.8 minus Line 13.7 minus Line 14) | (6,762,001,163) | (8,499,800,410) |
| Cash from Financing and Miscellaneous Sources | | |
| 16. Cash provided (applied): | | |
| 16.1 Surplus notes, capital notes | 325,509 | 667,847,540 |
| 16.2 Capital and paid in surplus, less treasury stock | | |
| 16.3 Borrowed funds | | |
| 16.4 Net deposits on deposit-type contracts and other insurance liabilities | 15,350,456 | 23,954,420 |
| 16.5 Dividends to stockholders | | |
| 16.6 Other cash provided (applied) | (937,738) | 254,898,864 |
| 17. Net cash from financing and miscellaneous sources (Lines 16.1 to 16.4 minus Line 16.5 plus Line 16.6) | 14,738,227 | 946,700,824 |
| RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS | | |
| 18. Net change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17) | (42,665,674) | 34,976,905 |
| 19. Cash, cash equivalents and short-term investments: | | |
| 19.1 Beginning of year | 640,238,743 | 605,261,838 |
| 19.2 End of year (Line 18 plus Line 19.1) | 597,573,069 | 640,238,743 |

Note: Supplemental disclosures of cash flow information for non-cash transactions:

| | | |
|---------------------------------------------------------------------------------------------------------------------------|---------------|---------------|
| 20.0001. Bonds, stocks, mortgages, real estate, contract loans, OIA acquired and disposed through corporate actions | 3,403,464,324 | 5,003,107,380 |
| 20.0002. Capitalized interest on mortgages | 2,778,231 | 4,167,666 |
| 20.0003. Capitalized interest on bonds | 393,987,409 | 346,800,508 |
| 20.0004. Additional amounts credited or applied to annuities | 1,761,001,602 | 1,503,266,505 |
| 20.0005. Interest credited on deposit type contracts | 28,033,147 | 28,277,062 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ANALYSIS OF OPERATIONS BY LINES OF BUSINESS

| | 1 | 2 | Ordinary | | | 6 | Group | | Accident and Health | | | 12 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|----------------|----------------------|-------------------------|------------------------------------|--------------------|----------------|---------------------|-------------------------------|-----------|------------------------------------------|
| | | | 3 | 4 | 5 | | 7 | 8 | 9 | 10 | 11 | |
| | Total | Industrial Life | Life Insurance | Individual Annuities | Supplementary Contracts | Credit Life (Group and Individual) | Life Insurance (a) | Annuities | Group | Credit (Group and Individual) | Other | Aggregate of All Other Lines of Business |
| 1. Premiums and annuity considerations for life and accident and health contracts | 15,033,997,308 | | 236,952,783 | 6,427,178,306 | | | | 8,369,864,707 | | | 1,512 | |
| 2. Considerations for supplementary contracts with life contingencies | 84,411,295 | | | | 84,411,295 | | | | | | | |
| 3. Net investment income | 12,291,093,197 | | 49,818,849 | 10,050,439,815 | 11,425,830 | | | 2,179,408,703 | | | | |
| 4. Amortization of Interest Maintenance Reserve (IMR) | 259,282,495 | | 751,872 | 211,986,401 | 171,702 | | | 46,372,520 | | | | |
| 5. Separate Accounts net gain from operations excluding unrealized gains or losses | 13,694,296 | | | | | | | 13,694,296 | | | | |
| 6. Commissions and expense allowances on reinsurance ceded | | | | | | | | | | | | |
| 7. Reserve adjustments on reinsurance ceded | | | | | | | | | | | | |
| 8. Miscellaneous Income: | | | | | | | | | | | | |
| 8.1 Fees associated with income from investment management, administration and contract guarantees from Separate Accounts | 226,020,288 | | | 169,212,432 | 1,708,378 | | | 55,099,478 | | | | |
| 8.2 Charges and fees for deposit-type contracts | | | | | | | | | | | | |
| 8.3 Aggregate write-ins for miscellaneous income | 3,000,803,760 | | 1,895 | 2,028,751,820 | 20,638,563 | | | 950,495,900 | | | 915,582 | |
| 9. Totals (Lines 1 to 8.3) | 30,909,302,639 | | 287,525,399 | 18,887,568,774 | 118,355,768 | | | 11,614,935,604 | | | 917,094 | |
| 10. Death benefits | 67,303,992 | | 67,303,992 | | | | | | | | | |
| 11. Matured endowments (excluding guaranteed annual pure endowments) | 56,563 | | 56,563 | | | | | | | | | |
| 12. Annuity benefits | 7,470,643,372 | | | 7,190,387,823 | | | | 280,255,549 | | | | |
| 13. Disability benefits and benefits under accident and health contracts | 8,981,275 | | 8,976,312 | | | | | | | | 4,963 | |
| 14. Coupons, guaranteed annual pure endowments and similar benefits | | | | | | | | | | | | |
| 15. Surrender benefits and withdrawals for life contracts | 9,868,830,600 | | 2,931,441 | 5,262,128,396 | 341,137,746 | | | 4,262,633,017 | | | | |
| 16. Group conversions | | | | | | | | | | | | |
| 17. Interest and adjustments on contract or deposit-type contract funds | 29,929,373 | | 568,050 | 20,262,225 | 5,151,104 | | | 3,947,994 | | | | |
| 18. Payments on supplementary contracts with life contingencies | 90,700,857 | | | | 90,700,857 | | | | | | | |
| 19. Increase in aggregate reserves for life and accident and health contracts | 5,279,306,079 | | (4,959,072) | 1,616,748,680 | (198,785,869) | | | 3,866,308,765 | | | (6,425) | |
| 20. Totals (Lines 10 to 19) | 22,815,752,111 | | 74,877,286 | 14,089,527,124 | 238,203,838 | | | 8,413,145,325 | | | (1,462) | |
| 21. Commissions on premiums, annuity considerations and deposit-type contract funds (direct business only) | | | | | | | | | | | | |
| 22. Commissions and expense allowances on reinsurance assumed | | | | | | | | | | | | |
| 23. General insurance expenses | 1,643,194,432 | | 20,455,084 | 1,030,585,440 | 463,024 | | | 591,920,502 | | | (229,618) | |
| 24. Insurance taxes, licenses and fees, excluding federal income taxes | 69,517,909 | | 2,424,217 | 42,897,118 | 29,697 | | | 23,939,416 | | | 227,461 | |
| 25. Increase in loading on deferred and uncollected premiums | (1,224,073) | | (1,224,073) | | | | | | | | | |
| 26. Net transfers to or (from) Separate Accounts net of reinsurance | 441,636,150 | | | (491,063,415) | (22,132,863) | | | 954,832,428 | | | | |
| 27. Aggregate write-ins for deductions | 327,496,760 | | (579) | (849,658,422) | (4,930,503) | | | 1,182,086,264 | | | | |
| 28. Totals (Lines 20 to 27) | 25,296,373,289 | | 96,531,935 | 13,822,287,845 | 211,633,193 | | | 11,165,923,935 | | | (3,619) | |
| 29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28) | 5,612,929,350 | | 190,993,464 | 5,065,280,929 | (93,277,425) | | | 449,011,669 | | | 920,713 | |
| 30. Dividends to policyholders | 3,526,325,026 | | 146,844,939 | 2,987,187,289 | 34,334,233 | | | 357,958,565 | | | | |
| 31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30) | 2,086,604,324 | | 44,148,525 | 2,078,093,640 | (127,611,658) | | | 91,053,104 | | | 920,713 | |
| 32. Federal income taxes incurred (excluding tax on capital gains) | (23,054,547) | | (487,790) | (22,960,514) | 1,409,960 | | | (1,006,031) | | | (10,172) | |
| 33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32) | 2,109,658,871 | | 44,636,315 | 2,101,054,154 | (129,021,618) | | | 92,059,135 | | | 930,885 | |
| DETAILS OF WRITE-INS | | | | | | | | | | | | |
| 08.301. Additional amounts credited or applied to annuities | 1,761,001,602 | | | 1,400,158,939 | 19,635,103 | | | 341,207,560 | | | | |
| 08.302. Considerations on annuity product rollovers | 1,021,201,205 | | | 469,230,577 | | | | 551,970,628 | | | | |
| 08.303. Miscellaneous income | 139,332,657 | | 1,895 | 89,091,180 | 713,700 | | | 48,610,300 | | | 915,582 | |
| 08.398. Summary of remaining write-ins for Line 8.3 from overflow page | 79,268,296 | | | 70,271,124 | 289,760 | | | 8,707,412 | | | | |
| 08.399. Totals (Lines 08.301 thru 08.303 plus 08.398) (Line 8.3 above) | 3,000,803,760 | | 1,895 | 2,028,751,820 | 20,638,563 | | | 950,495,900 | | | 915,582 | |
| 2701. Miscellaneous deductions | 327,489,529 | | (579) | (849,664,207) | (4,930,648) | | | 1,182,084,963 | | | | |
| 2702. Miscellaneous fines and penalties | 7,231 | | | 5,785 | 145 | | | 1,301 | | | | |
| 2703. | | | | | | | | | | | | |
| 2798. Summary of remaining write-ins for Line 27 from overflow page | | | | | | | | | | | | |
| 2799. Totals (Lines 2701 thru 2703 plus 2798) (Line 27 above) | 327,496,760 | | (579) | (849,658,422) | (4,930,503) | | | 1,182,086,264 | | | | |

(a) Includes the following amounts for FEGLI/SGLI: Line 1 , Line 10 , Line 16 , Line 23 , Line 24

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR

| | 1 | 2 | Ordinary | | | 6 | Group | |
|------------------------------------------------------------------------------------------------|-----------------|-----------------|----------------|----------------------|-------------------------|------------------------------------|----------------|----------------|
| | | | 3 | 4 | 5 | | 7 | 8 |
| | Total | Industrial Life | Life Insurance | Individual Annuities | Supplementary Contracts | Credit Life (Group and Individual) | Life Insurance | Annuities |
| Involving Life or Disability Contingencies (Reserves) | | | | | | | | |
| (Net of Reinsurance Ceded) | | | | | | | | |
| 1. Reserve December 31, prior year | 205,948,175,230 | | 538,372,678 | 159,527,214,200 | 3,676,102,328 | | | 42,206,486,025 |
| 2. Tabular net premiums or considerations | 16,824,228,338 | | 181,772,428 | 7,827,337,246 | 104,046,397 | | | 8,711,072,267 |
| 3. Present value of disability claims incurred | 5,106,926 | | 5,106,926 | | XXX | | | |
| 4. Tabular interest | 5,877,398,197 | | 22,803,676 | 4,503,916,978 | 105,139,482 | | | 1,245,538,061 |
| 5. Tabular less actual reserve released | (210,725,593) | | 1,865,432 | (215,959,178) | 3,316,752 | | | 51,401 |
| 6. Increase in reserve on account of change in valuation basis | | | | | | | | |
| 6.1 Change in excess of VM-20 deterministic/stochastic reserve over net premium reserve | | XXX | | XXX | XXX | XXX | XXX | XXX |
| 7. Other increases (net) | 988,593,539 | | | 1,462,933,466 | (1,626,096) | | | (472,713,831) |
| 8. Totals (Lines 1 to 7) | 229,432,776,637 | | 749,921,140 | 173,105,442,712 | 3,886,978,863 | | | 51,690,433,923 |
| 9. Tabular cost | 170,807,312 | | 170,807,312 | | XXX | | | |
| 10. Reserves released by death | 15,154,600 | | 15,154,600 | XXX | XXX | | | XXX |
| 11. Reserves released by other terminations (net) | 21,569,312 | | 21,569,312 | | | | | |
| 12. Annuity, supplementary contract and disability payments involving life contingencies | 17,438,148,539 | | 8,976,311 | 12,452,537,720 | 431,795,162 | | | 4,544,839,346 |
| 13. Net transfers to or (from) Separate Accounts | 441,652,755 | | | (491,057,888) | (22,132,758) | | | 954,843,401 |
| 14. Total Deductions (Lines 9 to 13) | 18,087,332,518 | | 216,507,535 | 11,961,479,832 | 409,662,404 | | | 5,499,682,747 |
| 15. Reserve December 31, current year | 211,345,444,119 | | 533,413,605 | 161,143,962,880 | 3,477,316,459 | | | 46,190,751,176 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT OF NET INVESTMENT INCOME

| | | 1 | 2 |
|----------------------|---------------------------------------------------------------------------|------------------------|----------------------|
| | | Collected During Year | Earned During Year |
| 1. | U.S. Government bonds | (a) .....1,293,361,872 |1,287,567,863 |
| 1.1 | Bonds exempt from U.S. tax | (a) ..... | ..... |
| 1.2 | Other bonds (unaffiliated) | (a) .....7,424,931,068 |7,425,630,617 |
| 1.3 | Bonds of affiliates | (a) .....24,699,209 |24,573,589 |
| 2.1 | Preferred stocks (unaffiliated) | (b) .....13,030,271 |13,030,271 |
| 2.11 | Preferred stocks of affiliates | (b) ..... | ..... |
| 2.2 | Common stocks (unaffiliated) |37,713,471 |36,053,330 |
| 2.21 | Common stocks of affiliates |30,000,000 |30,000,000 |
| 3. | Mortgage loans | (c) .....1,252,784,450 |1,268,062,572 |
| 4. | Real estate | (d) .....236,196,707 |238,154,035 |
| 5. | Contract loans |69,413,255 |74,036,456 |
| 6. | Cash, cash equivalents and short-term investments | (e) .....8,402,585 |7,938,346 |
| 7. | Derivative instruments | (f) .....140,958,401 |160,106,157 |
| 8. | Other invested assets |2,565,830,524 |2,565,830,524 |
| 9. | Aggregate write-ins for investment income |72,251,653 |72,055,362 |
| 10. | Total gross investment income |13,169,573,466 |13,203,039,122 |
| 11. | Investment expenses | | (g) .....519,955,433 |
| 12. | Investment taxes, licenses and fees, excluding federal income taxes | | (g) .....51,130,477 |
| 13. | Interest expense | | (h) .....278,049,083 |
| 14. | Depreciation on real estate and other invested assets | | (i) .....55,732,672 |
| 15. | Aggregate write-ins for deductions from investment income | |7,078,260 |
| 16. | Total deductions (Lines 11 through 15) | |911,945,925 |
| 17. | Net investment income (Line 10 minus Line 16) | |12,291,093,197 |
| DETAILS OF WRITE-INS | | | |
| 0901. | Commitment and other fees |72,271,266 |72,074,975 |
| 0902. | Transactional gains (losses) on bonds |(19,613) |(19,613) |
| 0903. | ..... |  |  |
| 0998. | Summary of remaining write-ins for Line 9 from overflow page | | |
| 0999. | Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above) |72,251,653 |72,055,362 |
| 1501. | Securities lending payments | |4,184,257 |
| 1502. | Derivative investment expense | |1,377,619 |
| 1503. | Investment admin expense | |1,516,384 |
| 1598. | Summary of remaining write-ins for Line 15 from overflow page | | |
| 1599. | Totals (Lines 1501 thru 1503 plus 1598) (Line 15, above) | |7,078,260 |

- (a) Includes \$385,599,156 accrual of discount less \$181,618,163 amortization of premium and less \$38,167,461 paid for accrued interest on purchases.
- (b) Includes \$ accrual of discount less \$ amortization of premium and less \$ paid for accrued dividends on purchases.
- (c) Includes \$765,625 accrual of discount less \$3,583,593 amortization of premium and less \$ paid for accrued interest on purchases.
- (d) Includes \$40,118,870 for company's occupancy of its own buildings; and excludes \$662,333 interest on encumbrances.
- (e) Includes \$7,207,478 accrual of discount less \$12,012 amortization of premium and less \$ paid for accrued interest on purchases.
- (f) Includes \$2,884,675 accrual of discount less \$42,729,827 amortization of premium.
- (g) Includes \$303,729 investment expenses and \$6,396 investment taxes, licenses and fees, excluding federal income taxes, attributable to segregated and Separate Accounts.
- (h) Includes \$253,487,500 interest on surplus notes and \$ interest on capital notes.
- (i) Includes \$55,732,672 depreciation on real estate and \$ depreciation on other invested assets.

EXHIBIT OF CAPITAL GAINS (LOSSES)

| | | 1 | 2 | 3 | 4 | 5 |
|----------------------|-----------------------------------------------------------------------|----------------------------------------------|-------------------------------|----------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------|
| | | Realized Gain (Loss) On Sales or Maturity | Other Realized Adjustments | Total Realized Capital Gain (Loss) (Columns 1 + 2) | Change in Unrealized Capital Gain (Loss) | Change in Unrealized Foreign Exchange Capital Gain (Loss) |
| 1. | U.S. Government bonds | 59,635,040 | | 59,635,040 | 29,320,573 | |
| 1.1 | Bonds exempt from U.S. tax | | | | | |
| 1.2 | Other bonds (unaffiliated) | 195,176,342 | (127,663,599) | 67,512,743 | (45,405,409) | (145,901,644) |
| 1.3 | Bonds of affiliates | | 1,392,281 | 1,392,281 | | (42,017,874) |
| 2.1 | Preferred stocks (unaffiliated) | 74,937,944 | | 74,937,944 | (387,776) | |
| 2.11 | Preferred stocks of affiliates | | | | | |
| 2.2 | Common stocks (unaffiliated) | 99,363,123 | (27,730,138) | 71,632,985 | (111,204,385) | (5,798,331) |
| 2.21 | Common stocks of affiliates | | (44,241,097) | (44,241,097) | 251,847,921 | |
| 3. | Mortgage loans | 4,810 | (65,318,882) | (65,314,072) | 5,616,085 | (208,592,916) |
| 4. | Real estate | 22,286,635 | | 22,286,635 | | |
| 5. | Contract loans | | | | | |
| 6. | Cash, cash equivalents and short-term investments | (2,050) | 17,661,338 | 17,659,288 | | (161,913) |
| 7. | Derivative instruments | 1,356,602 | 56,503,403 | 57,860,005 | 107,059,942 | 543,203,521 |
| 8. | Other invested assets | 27,247,500 | (675,006,097) | (647,758,597) | (593,744,338) | (142,759,861) |
| 9. | Aggregate write-ins for capital gains (losses) | | | | | 665 |
| 10. | Total capital gains (losses) | 480,005,946 | (864,402,791) | (384,396,845) | (356,897,387) | (2,028,353) |
| DETAILS OF WRITE-INS | | | | | | |
| 0901. | Other assets | | | | | 665 |
| 0902. | ..... |  |  |  |  |  |
| 0903. | ..... |  |  |  |  |  |
| 0998. | Summary of remaining write-ins for Line 9 from overflow page | | | | | |
| 0999. | Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above) | | | | | 665 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA
EXHIBIT - 1 PART 1 - PREMIUMS AND ANNUITY CONSIDERATIONS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

| | 1 | 2 | Ordinary | | 5 | Group | | Accident and Health | | | 11 |
|------------------------------------------------------------------|----------------|-----------------|----------------|----------------------|------------------------------------|----------------|---------------|---------------------|-------------------------------|------------|------------------------------------------|
| | | | 3 | 4 | | 6 | 7 | 8 | 9 | 10 | |
| | Total | Industrial Life | Life Insurance | Individual Annuities | Credit Life (Group and Individual) | Life Insurance | Annuities | Group | Credit (Group and Individual) | Other | Aggregate of All Other Lines of Business |
| FIRST YEAR (other than single) | | | | | | | | | | | |
| 1. Uncollected | 7,303 | | 7,303 | | | | | | | | |
| 2. Deferred and accrued | 384,386 | | 384,386 | | | | | | | | |
| 3. Deferred , accrued and uncollected: | | | | | | | | | | | |
| 3.1 Direct | 391,689 | | 391,689 | | | | | | | | |
| 3.2 Reinsurance assumed | | | | | | | | | | | |
| 3.3 Reinsurance ceded | | | | | | | | | | | |
| 3.4 Net (Line 1 + Line 2) | 391,689 | | 391,689 | | | | | | | | |
| 4. Advance | 362,257 | | 362,257 | | | | | | | | |
| 5. Line 3.4 - Line 4 | 29,432 | | 29,432 | | | | | | | | |
| 6. Collected during year: | | | | | | | | | | | |
| 6.1 Direct | 2,253,851,298 | | 2,179,364 | 769,481,741 | | | 1,482,190,193 | | | | |
| 6.2 Reinsurance assumed | | | | | | | | | | | |
| 6.3 Reinsurance ceded | | | | | | | | | | | |
| 6.4 Net | 2,253,851,298 | | 2,179,364 | 769,481,741 | | | 1,482,190,193 | | | | |
| 7. Line 5 + Line 6.4 | 2,253,880,730 | | 2,208,796 | 769,481,741 | | | 1,482,190,193 | | | | |
| 8. Prior year (uncollected + deferred and accrued - advance) .. | 559,402 | | 559,402 | | | | | | | | |
| 9. First year premiums and considerations: | | | | | | | | | | | |
| 9.1 Direct | 2,253,321,327 | | 1,649,393 | 769,481,741 | | | 1,482,190,193 | | | | |
| 9.2 Reinsurance assumed | | | | | | | | | | | |
| 9.3 Reinsurance ceded | | | | | | | | | | | |
| 9.4 Net (Line 7 - Line 8) | 2,253,321,327 | | 1,649,393 | 769,481,741 | | | 1,482,190,193 | | | | |
| SINGLE | | | | | | | | | | | |
| 10. Single premiums and considerations: | | | | | | | | | | | |
| 10.1 Direct | 12,212,482 | | | 12,212,482 | | | | | | | |
| 10.2 Reinsurance assumed | | | | | | | | | | | |
| 10.3 Reinsurance ceded | | | | | | | | | | | |
| 10.4 Net | 12,212,482 | | | 12,212,482 | | | | | | | |
| RENEWAL | | | | | | | | | | | |
| 11. Uncollected | 3,491,482 | | 3,491,482 | | | | | | | | |
| 12. Deferred and accrued | 63,299,699 | | 63,299,699 | | | | | | | | |
| 13. Deferred, accrued and uncollected: | | | | | | | | | | | |
| 13.1 Direct | 66,788,798 | | 66,791,181 | | | | | (2,383) | | | |
| 13.2 Reinsurance assumed | | | | | | | | | | | |
| 13.3 Reinsurance ceded | (2,383) | | | | | | | (2,383) | | | |
| 13.4 Net (Line 11 + Line 12) | 66,791,181 | | 66,791,181 | | | | | | | | |
| 14. Advance | 315,693 | | 315,693 | | | | | | | | |
| 15. Line 13.4 - Line 14 | 66,475,488 | | 66,475,488 | | | | | | | | |
| 16. Collected during year: | | | | | | | | | | | |
| 16.1 Direct | 12,786,860,733 | | 240,923,448 | 5,645,484,083 | | | 6,887,674,514 | 294,944 | | 12,483,744 | |
| 16.2 Reinsurance assumed | | | | | | | | | | | |
| 16.3 Reinsurance ceded | 12,962,853 | | 185,677 | | | | | 294,944 | | 12,482,232 | |
| 16.4 Net | 12,773,897,880 | | 240,737,771 | 5,645,484,083 | | | 6,887,674,514 | | | 1,512 | |
| 17. Line 15 + Line 16.4 | 12,840,373,368 | | 307,213,259 | 5,645,484,083 | | | 6,887,674,514 | | | 1,512 | |
| 18. Prior year (uncollected + deferred and accrued - advance) .. | 71,909,868 | | 71,909,868 | | | | | | | | |
| 19. Renewal premiums and considerations: | | | | | | | | | | | |
| 19.1 Direct | 12,781,650,633 | | 235,489,067 | 5,645,484,083 | | | 6,887,674,514 | 291,169 | | 12,711,800 | |
| 19.2 Reinsurance assumed | | | | | | | | | | | |
| 19.3 Reinsurance ceded | 13,187,134 | | 185,677 | | | | | 291,169 | | 12,710,288 | |
| 19.4 Net (Line 17 - Line 18) | 12,768,463,499 | | 235,303,390 | 5,645,484,083 | | | 6,887,674,514 | | | 1,512 | |
| TOTAL | | | | | | | | | | | |
| 20. Total premiums and annuity considerations: | | | | | | | | | | | |
| 20.1 Direct | 15,047,184,442 | | 237,138,460 | 6,427,178,306 | | | 8,369,864,707 | 291,169 | | 12,711,800 | |
| 20.2 Reinsurance assumed | | | | | | | | | | | |
| 20.3 Reinsurance ceded | 13,187,134 | | 185,677 | | | | | 291,169 | | 12,710,288 | |
| 20.4 Net (Lines 9.4 + 10.4 + 19.4) | 15,033,997,308 | | 236,952,783 | 6,427,178,306 | | | 8,369,864,707 | | | 1,512 | |

[illegible]

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT 2 - GENERAL EXPENSES

| | Insurance | | | | 5 | 6 |
|------------------------------------------------------------------------------|---------------|---------------------|-----------------------|-----------------------------|-------------|-------------------|
| | 1 | Accident and Health | | 4 | | |
| | | Life | 2 Cost Containment |  |  |  | 3 All Other |
| | | | | All Other Lines of Business | Investment | Total |
| 1. Rent | 56,059,924 | | | 4,771,334 | 18,760,072 | 79,591,330 |
| 2. Salaries and wages | 718,577,817 | | | 68,631,432 | 308,584,147 | 1,095,793,396 |
| 3.11 Contributions for benefit plans for employees | 117,222,576 | | | 7,841,354 | 34,662,933 | 159,726,863 |
| 3.12 Contributions for benefit plans for agents | | | | | | |
| 3.21 Payments to employees under non-funded benefit plans | | | | | | |
| 3.22 Payments to agents under non-funded benefit plans | | | | | | |
| 3.31 Other employee welfare | 5,222,041 | | | 347,822 | 210,823 | 5,780,686 |
| 3.32 Other agent welfare | | | | | | |
| 4.1 Legal fees and expenses | (5,612,086) | | | 32,263,087 | (906,046) | 25,744,955 |
| 4.2 Medical examination fees | 445,842 | | | 44,808 | | 490,650 |
| 4.3 Inspection report fees | | | | | | |
| 4.4 Fees of public accountants and consulting actuaries | 3,450,753 | | | 294,759 | 2,326,750 | 6,072,262 |
| 4.5 Expense of investigation and settlement of policy claims | 41,593 | | | 23,268 | 141 | 65,002 |
| 5.1 Traveling expenses | 19,109,125 | | | 3,330,894 | 12,183,787 | 34,623,806 |
| 5.2 Advertising | 59,096,706 | | | 6,110,505 | 2,390,921 | 67,598,132 |
| 5.3 Postage, express, telegraph and telephone | 39,727,084 | | | 2,172,433 | 505,448 | 42,404,965 |
| 5.4 Printing and stationery | 15,013,508 | | | 180,644 | 158,504 | 15,352,656 |
| 5.5 Cost or depreciation of furniture and equipment | 366,089 | | | 37,080 | 4,213 | 407,382 |
| 5.6 Rental of equipment | 13,942,266 | | | 1,841,850 | 2,933,482 | 18,717,598 |
| 5.7 Cost or depreciation of EDP equipment and software | 226,374,436 | | | 21,174,836 | 12,038,410 | 259,587,682 |
| 6.1 Books and periodicals | 972,107 | | | 24,770 | 13,596 | 1,010,473 |
| 6.2 Bureau and association fees | 1,944,363 | | | 183,054 | 20,291 | 2,147,708 |
| 6.3 Insurance, except on real estate | 1,269,928 | | | 110,374 | 740,710 | 2,121,012 |
| 6.4 Miscellaneous losses | | | | | | |
| 6.5 Collection and bank service charges | 3,073,325 | | | 78,468 | 535,747 | 3,687,540 |
| 6.6 Sundry general expenses | 12,307,026 | | | 20,264,683 | 22,073,836 | 54,645,545 |
| 6.7 Group service and administration fees | | | | | | |
| 6.8 Reimbursements by uninsured plans | | | | | | |
| 7.1 Agency expense allowance | | | | | | |
| 7.2 Agents' balances charged off (less \$ recovered) | | | | | | |
| 7.3 Agency conferences other than local meetings | | | | | | |
| 9.1 Real estate expenses | 741,522 | | | 68,705 | 67,015,128 | 67,825,355 |
| 9.2 Investment expenses not included elsewhere | 15,314 | | | 9,413 | 525,452 | 550,179 |
| 9.3 Aggregate write-ins for expenses | 146,537,316 | | (229,618) | 37,719,904 | 35,177,088 | 219,204,690 |
| 10. General expenses incurred | 1,435,898,575 | | (229,618) | 207,525,477 | 519,955,433 | (a) 2,163,149,867 |
| 11. General expenses unpaid December 31, prior year | 694,492,851 | | (121,748) | 119,823,483 | 185,073,166 | 999,267,752 |
| 12. General expenses unpaid December 31, current year | 682,134,780 | | (109,082) | 98,586,591 | 247,008,718 | 1,027,621,007 |
| 13. Amounts receivable relating to uninsured plans, prior year | | | | | | |
| 14. Amounts receivable relating to uninsured plans, current year | | | | | | |
| 15. General expenses paid during year (Lines 10+11-12-13+14) | 1,448,256,646 | | (242,284) | 228,762,369 | 458,019,881 | 2,134,796,612 |
| DETAILS OF WRITE-INS | | | | | | |
| 09.301. Fees to consultants | 101,570,589 | | | 20,915,313 | 32,249,317 | 154,735,219 |
| 09.302. Temporary help | 43,230,414 | | | 9,259,535 | 1,274,917 | 53,764,866 |
| 09.303. Other service fees | 10,482,772 | | | 217,605 | 178,608 | 10,878,985 |
| 09.398. Summary of remaining write-ins for Line 9.3 from overflow page | (8,746,459) | | (229,618) | 7,327,451 | 1,474,246 | (174,380) |
| 09.399. Totals (Lines 09.301 thru 09.303 plus 09.398) (Line 9.3 above) | 146,537,316 | | (229,618) | 37,719,904 | 35,177,088 | 219,204,690 |

(a) Includes management fees of \$ 5,622,775 to affiliates and \$ 134,503 to non-affiliates.

EXHIBIT 3 - TAXES, LICENSES AND FEES (EXCLUDING FEDERAL INCOME TAXES)

| | Insurance | | | 4 Investment | 5 Total |
|-----------------------------------------------------------------------|------------|--------------------------|----------------------------------|-----------------|-------------|
| | 1 Life | 2 Accident and Health | 3 All Other Lines of Business | | |
| 1. Real estate taxes | | | | 41,227,316 | 41,227,316 |
| 2. State insurance department licenses and fees | 15,899,104 | | 1,223,594 | 8,125,512 | 25,248,210 |
| 3. State taxes on premiums | 3,586,396 | 227,416 | | | 3,823,812 |
| 4. Other state taxes, including \$ for employee benefits | 878,476 | 182 | 68,390 | 8,346 | 955,394 |
| 5. U.S. Social Security taxes | 42,457,494 | | 3,543,747 | 1,762,462 | 47,763,703 |
| 6. All other taxes | 1,622,387 | (137) | 860 | 6,841 | 1,629,951 |
| 7. Taxes, licenses and fees incurred | 64,453,857 | 227,461 | 4,836,591 | 51,130,477 | 120,648,386 |
| 8. Taxes, licenses and fees unpaid December 31, prior year | 10,336,344 | 39,084 | 1,239,813 | 11,815,960 | 23,431,201 |
| 9. Taxes, licenses and fees unpaid December 31, current year | 17,256,542 | 60,899 | 1,294,924 | 13,689,494 | 32,301,859 |
| 10. Taxes, licenses and fees paid during year (Lines 7 + 8 - 9) | 57,533,659 | 205,646 | 4,781,480 | 49,256,943 | 111,777,728 |

EXHIBIT 4 - DIVIDENDS OR REFUNDS

| | 1 Life | 2 Accident and Health |
|---------------------------------------------------------------------------------------------|---------------|--------------------------|
| 1. Applied to pay renewal premiums | 142,794,479 | |
| 2. Applied to shorten the endowment or premium-paying period | | |
| 3. Applied to provide paid-up additions | | |
| 4. Applied to provide paid-up annuities | | |
| 5. Total Lines 1 through 4 | 142,794,479 | |
| 6. Paid in cash | 1,621,801,051 | |
| 7. Left on deposit | | |
| 8. Aggregate write-ins for dividend or refund options | 1,760,857,561 | |
| 9. Total Lines 5 through 8 | 3,525,453,091 | |
| 10. Amount due and unpaid | 2,967,781 | |
| 11. Provision for dividends or refunds payable in the following calendar year | 2,037,173,594 | |
| 12. Terminal dividends | | |
| 13. Provision for deferred dividend contracts | | |
| 14. Amount provisionally held for deferred dividend contracts not included in Line 13 | | |
| 15. Total Lines 10 through 14 | 2,040,141,375 | |
| 16. Total from prior year | 2,039,269,440 | |
| 17. Total dividends or refunds (Lines 9 + 15 - 16) | 3,526,325,026 | |
| DETAILS OF WRITE-INS | | |
| 0801. Aggregate write-ins for dividend or refund options | 1,760,857,561 | |
| 0802. | | |
| 0803. | | |
| 0898. Summary of remaining write-ins for Line 8 from overflow page | | |
| 0899. Totals (Lines 0801 thru 0803 plus 0898) (Line 8 above) | 1,760,857,561 | |

Additional amounts credited or applied to annuities

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|--------------------------------------------------------------------------------------------------|----------------|------------|----------------|----------------------------------|----------------|
| Valuation Standard | Total | Industrial | Ordinary | Credit (Group and Individual) | Group |
| 0100001. AM(5) 2.5% NLP ANB IDB 1942-1947 | 14,633 | | 14,633 | | |
| 0100002. 41 CSO 2.25% NLP ANB IDB 1948-1958 | 1,457,394 | | 1,457,394 | | |
| 0100003. 41 CSO (0,3) 2.5% NLP ANB IDB 1958-1965 | 8,582,439 | | 8,582,439 | | |
| 0100004. 58 CSO (0,3) 2.5% NLP ANB IDB 1965-1976 | 22,983,938 | | 22,983,938 | | |
| 0100005. 58 CET (0,3) 2.5% NLP ANB IDB 1965-1975 | 255,280 | | 255,280 | | |
| 0100006. 58 CSO (0,6) 3.5% NLP ANB IDB 1975-1983 | 31,592,385 | | 31,592,385 | | |
| 0100007. 58 CET (0,6) 3.5% NLP ANB IDB 1975-1982 | 148,794 | | 148,794 | | |
| 0100008. 58 CET (0,6) 4.5% NLP ALB IDB 1983-1983 | 4,394 | | 4,394 | | |
| 0100009. 58 CSO (0,6) 4.5% NLP ALB IDB 1982-1984 | 3,182,116 | | 3,182,116 | | |
| 0100010. 80 CSO 4.5% NLP ALB IDB 1982-2003 | 6,561,292 | | 6,561,292 | | |
| 0100011. 58 CSO 4.5% NLP ALB IDB 1984-1985 | 2,940,978 | | 2,940,978 | | |
| 0100012. 58 CET 4.5% NLP ALB IDB 1984-1985 | 3,218 | | 3,218 | | |
| 0100013. 80 CET 5% NLP ALB IDB 1985-1989 | 184,127 | | 184,127 | | |
| 0100014. 80 CSO 5% NLP ALB IDB 1985-1994 | 36,143,108 | | 36,143,108 | | |
| 0100015. 80 CSO 5% CRVM ALB NS IDB 1990-1994 | 106,571,536 | | 106,571,536 | | |
| 0100016. 80 CSO 4.5% CRVM ALB NS IDB 1995-2005 | 127,207,652 | | 127,207,652 | | |
| 0100017. 80 CET 5% CRVM ALB IDB 1991-1994 | 4,834 | | 4,834 | | |
| 0100018. 80 CET 4% CRVM ALB NS IDB 2006-2012 | 1,382,343 | | 1,382,343 | | |
| 0100019. 80 CET 4.5% CRVM ALB SM IDB 1995-2004 | 132,181 | | 132,181 | | |
| 0100020. 80 CET 5% CRVM ALB NS IDB 1990-1994 | 450,874 | | 450,874 | | |
| 0100021. 80 CET 4.5% CRVM ALB NS IDB 1995-2004 | 1,367,774 | | 1,367,774 | | |
| 0100022. 80 CSO 5% CRVM ALB SM IDB 1990-1994 | 4,761,881 | | 4,761,881 | | |
| 0100023. 80 CSO 4.5% CRVM ALB SM IDB 1995-2005 | 11,924,099 | | 11,924,099 | | |
| 0100024. 80 CSO 5% CRVM ALB IDB 1993-1994 | 1,361 | | 1,361 | | |
| 0100025. 80 CSO 4.5% CRVM ALB IDB 1995-2003 | 5,131 | | 5,131 | | |
| 0100026. 80 CSO 5.5% CRVM ALB IDB 1987-1992 | 6,260 | | 6,260 | | |
| 0100027. 80 CSO 6% CRVM ALB IDB 1966-1984 | 12,182 | | 12,182 | | |
| 0100028. 80 CSO (80% male) 6% CRVM ALB IDB 1984-1986 | 2,381 | | 2,381 | | |
| 0100029. 58 CSO (0,6) 3.5% CRVM ANB IDB 1975-1982 | 71,784 | | 71,784 | | |
| 0100030. 80 CSO 5.5% NLP ALB IDB 1987-1992 | 2,137,355 | | 2,137,355 | | |
| 0100031. 80 CSO 4% CRVM ALB SM IDB 2006-2006 | 27,061 | | 27,061 | | |
| 0100032. 80 CSO 4% CRVM ALB NS IDB 2006-2006 | 4,557,417 | | 4,557,417 | | |
| 0100033. 2001 CSO 4% CRVM ALB NS IDB 2007-2012 | 41,124,472 | | 41,124,472 | | |
| 0100034. 2001 CSO 4% CRVM ALB SM IDB 2007-2012 | 484,326 | | 484,326 | | |
| 0100035. 2001 CSO 3.5% CRVM ALB NS IDB 2013-2018 NB | 18,771,276 | | 18,771,276 | | |
| 0100036. 2001 CSO 3.5% CRVM ALB SM IDB 2013-2018 NB | 377,098 | | 377,098 | | |
| 0100037. 80 CET 4% CRVM ALB SM IDB 2006-2010 | 6,114 | | 6,114 | | |
| 0100038. 80 CET 3.5% CRVM ALB NS IDB 2014-2015 | 816,872 | | 816,872 | | |
| 0199997. Totals (Gross) | 436,258,360 | | 436,258,360 | | |
| 0199998. Reinsurance ceded | 253,190 | | 253,190 | | |
| 0199999. Life Insurance: Totals (Net) | 436,005,170 | | 436,005,170 | | |
| 0200001. 37 SA (2,8) 2.5% ANB (DEF,NFI) 1941-1947 | 23,937 | XXX | 23,937 | XXX | |
| 0200002. 37 SA (4,10) 2.25% ANB (DEF,NFI) 1941-1958 | 335,549 | XXX | 335,549 | XXX | |
| 0200003. A-1949 proj. 15 yrs (4.5,4.5) 2.5% ANB (DEF,NFI) 1941-1969 | 22,599,438 | XXX | 22,599,438 | XXX | |
| 0200004. A-1949 proj. 25 yrs (5,6) 2.5% ANB (DEF,NFI) 1969-1977 | 214,259,361 | XXX | 214,259,361 | XXX | |
| 0200005. 71 IAM (5.5,7) 2.5% ANB (DEF,NFI) 1977-1984 | 141,888,565 | XXX | 141,888,565 | XXX | |
| 0200006. 71 IAM (5.5,7) 3%-2.5% ANB (DEF,NFI) 1977-1984 | 1,985,472,685 | XXX | 1,984,846,190 | XXX | 626,495 |
| 0200007. 1983A (9,9)(10,10) 3%-2.5% ANB (DEF,NFI)(IMM,FI) 1985-2001 | 27,300,216,973 | XXX | 24,250,565,042 | XXX | 3,049,651,931 |
| 0200008. 1983A CARVM 5.25% ANB (DEF,NFI) 1997-1997 | 2,439,830,321 | XXX | 2,200,736,377 | XXX | 239,093,944 |
| 0200009. A-2000 (9,9)(10,10)3%-2.5% ANB (DEF,NFI)(IMM,FI) 2001-2018 NB | 96,992,128,223 | XXX | 58,641,865,666 | XXX | 38,350,262,557 |
| 0200010. CURRENT GUARANTEED DA SETTLEMENT A-2000 (9,9)(10,10) 3%-2.5% ANB (DEF,NFI) 1941-2018 NB | 27,481,505,457 | XXX | 27,481,505,457 | XXX | |
| 0200011. A-2000 +SETBACK dynamic interest ANB (DEF,NFI) 2005-2018 NB | 8,715,546,614 | XXX | 4,287,548,516 | XXX | 4,427,998,098 |
| 0200012. AG43 Basic Adj Rsv: 1983A MOST RECENT DECLARATION (3.75%) (DEF,NFI) 2018-2018 NB | 1,320,895,961 | XXX | 1,320,895,961 | XXX | |
| 0200013. AG43 Basic Adj Rsv: A-2000 MOST RECENT DECLARATION (3.75%) (DEF,NFI) 2018-2018 NB | 286,220,735 | XXX | 286,220,735 | XXX | |
| 0200014. AG43 Basic Adj Rsv: 2012 IAR MOST RECENT DECLARATION (3.75%) (DEF,NFI) 2018-2018 NB | 5,635,885 | XXX | 5,635,885 | XXX | |
| 0200015. 71 GAM 6% ANB (DEF,FI) 1977-1977 | 15,440 | XXX | | XXX | 15,440 |
| 0200016. 83 GAM 6% ANB (DEF,FI) 1997-1997 | 27,348 | XXX | | XXX | 27,348 |
| 0200017. 1994 GAR 6% ANB (DEF,FI) 2002-2002 | | XXX | | XXX | |
| 0200018. 83 GAM 5.25% ANB (DEF,FI) 1997-1997 | 14,342 | XXX | | XXX | 14,342 |
| 0200019. 83 GAM 5.75% ANB (DEF,FI) 1998-1998 | 17,623 | XXX | | XXX | 17,623 |
| 0200020. 83 GAM 6.5% ANB (DEF,FI) 1997-1997 | 6,470 | XXX | | XXX | 6,470 |
| 0200021. 1994 GAR 3.75% ANB (IMM,FI) 2017-2018 NB | 7,445 | XXX | | XXX | 7,445 |
| 0200022. 71 GAM 6% ANB (IMM,FI) 1976-1984 | 54,646 | XXX | | XXX | 54,646 |
| 0200023. 83 GAM 6% ANB (IMM,FI) 1985-2000 | 1,647,792 | XXX | | XXX | 1,647,792 |
| 0200024. 1994 GAR 6% ANB (IMM,FI) 2001-2009 | 2,397,764 | XXX | | XXX | 2,397,764 |
| 0200025. 1994 GAR 5.5% ANB (IMM,FI) 2004-2008 | 75,758 | XXX | | XXX | 75,758 |
| 0200026. 1994 GAR 5.25% ANB (IMM,FI) 2005-2010 | 609,219 | XXX | | XXX | 609,219 |
| 0200027. 1994 GAR 5% ANB (IMM,FI) 2011-2011 | 37,740 | XXX | | XXX | 37,740 |
| 0200028. 1994 GAR 4.25% ANB (IMM,FI) 2012-2012 | 56,512 | XXX | | XXX | 56,512 |
| 0200029. 1994 GAR 4% ANB (IMM,FI) 2013-2016 | 31,483 | XXX | | XXX | 31,483 |
| 0200030. 1994 GAR 4.5% ANB (IMM,FI) 2014-2014 | 162,183 | XXX | | XXX | 162,183 |
| 0200031. 37 SA (2,8) 2.5% ANB (IMM,FI) 1932-1947 | 211,445 | XXX | 211,445 | XXX | |
| 0200032. 37 SA (2,8) 2.25% ANB (IMM,FI) 1932-1958 | 1,527 | XXX | 1,527 | XXX | |
| 0200033. 37 SA (3,9) 2.25% ANB (IMM,FI) 1932-1958 | 26,950 | XXX | 26,950 | XXX | |
| 0200034. 37 SA (4,10) 2.25% ANB (IMM,FI) 1932-1958 | 5,955,776 | XXX | 5,955,776 | XXX | |
| 0200035. A-1949 proj. 15 yrs (1.5,2.5) 2.5% ANB (IMM,FI) 1932-1969 | 66,032 | XXX | 66,032 | XXX | |
| 0200036. A-1949 proj. 15 yrs (4.5,4.5) 2.5% ANB (IMM,FI) 1932-1969 | 78,602,341 | XXX | 78,602,341 | XXX | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------------------------------------------------|----------------|------------|----------------|----------------------------------|-------|
| Valuation Standard | Total | Industrial | Ordinary | Credit (Group and Individual) | Group |
| 0200037. A-1949 proj. 25 yrs (2,3.5) 3% ANB (IMM,FI) 1919-1977 | 2,282,709 | XXX | 2,282,709 | XXX | |
| 0200038. A-1949 proj. 25 yrs (5,6) 2.5% ANB (IMM,FI) 1969-1977 | 320,873,272 | XXX | 320,873,272 | XXX | |
| 0200039. 71 IAM (5.5,7) 2.5% ANB (IMM,FI) 1977-1984 | 1,382,635,581 | XXX | 1,382,635,581 | XXX | |
| 0200040. 71 IAM (2,3.5) 3% ANB (IMM,FI) 1948-1984 | 86,079,169 | XXX | 86,079,169 | XXX | |
| 0200041. 71 IAM (5.5,7) 3% ANB (IMM,FI) 1977-1984 | 210,853,181 | XXX | 210,853,181 | XXX | |
| 0200042. 1983A (9,9) 2.5% ANB (IMM,FI) 1985-2001 | 3,537,617,809 | XXX | 3,537,617,809 | XXX | |
| 0200043. 1983A (9,9) 3% ANB (IMM,FI) 1985-2001 | 1,824,186,666 | XXX | 1,824,186,666 | XXX | |
| 0200044. A-2000 (9,9) 2.5% ANB (IMM,FI) 2001-2018 NB | 4,884,299,724 | XXX | 4,884,299,724 | XXX | |
| 0200045. A-2000 (9,9) 3% ANB (IMM,FI) 2001-2018 NB | 1,723,415,962 | XXX | 1,723,415,962 | XXX | |
| 0200046. 1983A (4.5,4.5) 5.75% ANB (IMM,FI) 1999-1999 | 409,787 | XXX | 409,787 | XXX | |
| 0200047. 1983A (4.5,4.5) 6.5% ANB (IMM,FI) 1995-1995 | 163,229 | XXX | 163,229 | XXX | |
| 0200048. 1983A (4.5,4.5) 6% ANB (IMM,FI) 1996-1999 | 3,415,910 | XXX | 3,415,910 | XXX | |
| 0200049. 1983A (4.5,4.5) 6.25% ANB (IMM,FI) 1997-1999 | 1,673,880 | XXX | 1,673,880 | XXX | |
| 0200050. 1983A (4.5,4.5) 5.5% ANB (IMM,FI) 1999-1999 | 70,930 | XXX | 70,930 | XXX | |
| 0200051. A-2000 (3.5,3.5) 6.5% ANB (IMM,FI) 2000-2000 | 750,894 | XXX | 750,894 | XXX | |
| 0200052. A-2000 (3.5,3.5) 6.8% ANB (IMM,FI) 2000-2000 | 2,757,485 | XXX | 2,757,485 | XXX | |
| 0200053. A-2000 (3.5,3.5) 6.35% ANB (IMM,FI) 2001-2001 | 975,620 | XXX | 975,620 | XXX | |
| 0200054. A-2000 (3.5,3.5) 5.9% ANB (IMM,FI) 2001-2001 | 659,408 | XXX | 659,408 | XXX | |
| 0200055. A-2000 (3.5,3.5) 6.2% ANB (IMM,FI) 2001-2001 | 1,051,363 | XXX | 1,051,363 | XXX | |
| 0200056. A-2000 (3.5,3.5) 5.55% ANB (IMM,FI) 2001-2001 | 236,884 | XXX | 236,884 | XXX | |
| 0200057. A-2000 (3.5,3.5) 5.75% ANB (IMM,FI) 2002-2002 | 466,546 | XXX | 466,546 | XXX | |
| 0200058. A-2000 (3.5,3.5) 6.25% ANB (IMM,FI) 2002-2002 | 367,896 | XXX | 367,896 | XXX | |
| 0200059. A-2000 (3.5,3.5) 5.8% ANB (IMM,FI) 2002-2002 | 805,754 | XXX | 805,754 | XXX | |
| 0200060. A-2000 (3.5,3.5) 4.75% ANB (IMM,FI) 2002-2002 | 159,041 | XXX | 159,041 | XXX | |
| 0200061. A-2000 (3.5,3.5) 5.25% ANB (IMM,FI) 2003-2003 | 680,042 | XXX | 680,042 | XXX | |
| 0200062. A-2000 (3,3) 4.75% ANB (IMM,FI) 2003-2003 | 79,070 | XXX | 79,070 | XXX | |
| 0200063. A-2000 (3,3) 4.25% ANB (IMM,FI) 2003-2006 | 1,032,385 | XXX | 1,032,385 | XXX | |
| 0200064. A-2000 (3,3) 3.8% ANB (IMM,FI) 2003-2003 | 212,065 | XXX | 212,065 | XXX | |
| 0200065. A-2000 (3,3) 3.5% ANB (IMM,FI) 2003-2008 | 924,999 | XXX | 924,999 | XXX | |
| 0200066. A-2000 (3,3) 3.7% ANB (IMM,FI) 2003-2004 | 258,333 | XXX | 258,333 | XXX | |
| 0200067. A-2000 (3,3) 3.55% ANB (IMM,FI) 2003-2003 | 575,069 | XXX | 575,069 | XXX | |
| 0200068. A-2000 (3,3) 3.1% ANB (IMM,FI) 2004-2004 | 239,639 | XXX | 239,639 | XXX | |
| 0200069. A-2000 (3,3) 3.9% ANB (IMM,FI) 2004-2005 | 2,059,902 | XXX | 2,059,902 | XXX | |
| 0200070. A-2000 (3,3) 4.45% ANB (IMM,FI) 2004-2004 | 354,608 | XXX | 354,608 | XXX | |
| 0200071. A-2000 (3,3) 4.05% ANB (IMM,FI) 2004-2007 | 2,807,029 | XXX | 2,807,029 | XXX | |
| 0200072. A-2000 (3,3) 3.85% ANB (IMM,FI) 2004-2005 | 516,101 | XXX | 516,101 | XXX | |
| 0200073. A-2000 (3,3) 4.2% ANB (IMM,FI) 2006-2008 | 2,216,192 | XXX | 2,216,192 | XXX | |
| 0200074. A-2000 (3,3) 4% ANB (IMM,FI) 2005-2005 | 1,020,409 | XXX | 1,020,409 | XXX | |
| 0200075. A-2000 (3,3) 4.3% ANB (IMM,FI) 2005-2007 | 2,483,305 | XXX | 2,483,305 | XXX | |
| 0200076. A-2000 (3,3) 3.45% ANB (IMM,FI) 2004-2004 | 237,099 | XXX | 237,099 | XXX | |
| 0200077. A-2000 (3,3) 4.7% ANB (IMM,FI) 2006-2006 | 1,591,512 | XXX | 1,591,512 | XXX | |
| 0200078. A-2000 (3,3) 4.5% ANB (IMM,FI) 2006-2014 | 3,654,902 | XXX | 3,654,902 | XXX | |
| 0200079. A-2000 (3,3) 4.4% ANB (IMM,FI) 2006-2006 | 984,840 | XXX | 984,840 | XXX | |
| 0200080. A-2000 (3,3) 4.55% ANB (IMM,FI) 2006-2007 | 603,853 | XXX | 603,853 | XXX | |
| 0200081. A-2000 (3,3) 4.35% ANB (IMM,FI) 2006-2007 | 1,556,888 | XXX | 1,556,888 | XXX | |
| 0200082. A-2000 (3,3) 4.80% ANB (IMM,FI) 2007-2007 | 768,198 | XXX | 768,198 | XXX | |
| 0200083. A-2000 (4,4) 2.70% ANB (IMM,FI) 2008-2014 | 1,823,780 | XXX | 1,823,780 | XXX | |
| 0200084. A-2000 (4,4) 3.40% ANB (IMM,FI) 2008-2013 | 1,891,541 | XXX | 1,891,541 | XXX | |
| 0200085. A-2000 (4,4) 3.9% ANB (IMM,FI) 2008-2008 | 359,836 | XXX | 359,836 | XXX | |
| 0200086. A-2000 (4,4) 4.35% ANB (IMM,FI) 2008-2008 | 358,856 | XXX | 358,856 | XXX | |
| 0200087. A-2000 (4,4) 4.20% ANB (IMM,FI) 2008-2008 | 1,151,481 | XXX | 1,151,481 | XXX | |
| 0200088. A-2000 (4,4) 3.55% ANB (IMM,FI) 2008-2008 | 160,417 | XXX | 160,417 | XXX | |
| 0200089. A-2000 (4,4) 3.75% ANB (IMM,FI) 2008-2008 | 1,402,975 | XXX | 1,402,975 | XXX | |
| 0200090. A-2000 (4,4) 3.15% ANB (IMM,FI) 2009-2009 | 684,384 | XXX | 684,384 | XXX | |
| 0200091. A-2000 (4,4) 3.45% ANB (IMM,FI) 2009-2009 | 67,124 | XXX | 67,124 | XXX | |
| 0200092. A-2000 (4,4) 3.65% ANB (IMM,FI) 2009-2009 | 1,711,297 | XXX | 1,711,297 | XXX | |
| 0200093. A-2000 (4,4) 3.35% ANB (IMM,FI) 2009-2009 | 320 | XXX | 320 | XXX | |
| 0200094. A-2000 (4,4) 3.20% ANB (IMM,FI) 2009-2014 | 1,588,343 | XXX | 1,588,343 | XXX | |
| 0200095. A-2000 (4,4) 2.50% ANB (IMM,FI) 1985-2018 NB | 25,056,427,306 | XXX | 25,056,427,306 | XXX | |
| 0200096. A-2000 (4,4) 2.85% ANB (IMM,FI) 2009-2014 | 1,076,693 | XXX | 1,076,693 | XXX | |
| 0200097. A-2000 (4,4) 2.55% ANB (IMM,FI) 2011-2012 | 475,929 | XXX | 475,929 | XXX | |
| 0200098. A-2000 (4,4) 3.95% ANB (IMM,FI) 2011-2011 | 47,015 | XXX | 47,015 | XXX | |
| 0200099. A-2000 (4,4) 3.10% ANB (IMM,FI) 2011-2011 | 594,523 | XXX | 594,523 | XXX | |
| 0200100. A-2000 (4,4) 3.00% ANB (IMM,FI) 2011-2014 | 484,873 | XXX | 484,873 | XXX | |
| 0200101. A-2000 (4,4) 3.50% ANB (IMM,FI) 2011-2014 | 457,876 | XXX | 457,876 | XXX | |
| 0200102. A-2000 (4,4) 2.75% ANB (IMM,FI) 2011-2014 | 488,482 | XXX | 488,482 | XXX | |
| 0200103. A-2000 (4,4) 2.80% ANB (IMM,FI) 2011-2012 | 391,229 | XXX | 391,229 | XXX | |
| 0200104. A-2000 (4,4) 2.65% ANB (IMM,FI) 2014-2015 | 470,599 | XXX | 470,599 | XXX | |
| 0200105. A-2000 (4,4) 3.05% ANB (IMM,FI) 2013-2014 | 1,531,358 | XXX | 1,531,358 | XXX | |
| 0200106. A-2000 (4,4) 2.95% ANB (IMM,FI) 2013-2014 | 1,511,513 | XXX | 1,511,513 | XXX | |
| 0200107. A-2000 (4,4) 2.60% ANB (IMM,FI) 2014-2015 | 1,794,171 | XXX | 1,794,171 | XXX | |
| 0200108. A-2000 (2,2) 3.05% ANB (IMM,FI) 2015-2018 NB | 4,084,709 | XXX | 4,084,709 | XXX | |
| 0200109. A-2000 (2,2) 3.25% ANB (IMM,FI) 2015-2018 NB | 3,835,040 | XXX | 3,835,040 | XXX | |

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EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------------------------------------------------------------------------------------------|-----------------|------------|-----------------|----------------------------------|----------------|
| Valuation Standard | Total | Industrial | Ordinary | Credit (Group and Individual) | Group |
| 0200110. A-2000 (2,2) 3.15% ANB (IMM,FI) 2015-2015 | 308,558 | XXX | 308,558 | XXX | |
| 0200111. A-2000 (2,2) 3.20% ANB (IMM,FI) 2016-2018 NB | 3,951,884 | XXX | 3,951,884 | XXX | |
| 0200112. A-2000 (2,2) 3.10% ANB (IMM,FI) 2016-2017 | 2,723,004 | XXX | 2,723,004 | XXX | |
| 0200113. A-2000 (2,2) 2.95% ANB (IMM,FI) 2016-2018 NB | 15,334,620 | XXX | 15,334,620 | XXX | |
| 0200114. A-2000 (2,2) 2.75% ANB (IMM,FI) 2016-2016 | 3,240,982 | XXX | 3,240,982 | XXX | |
| 0200115. A-2000 (2,2) 2.65% ANB (IMM,FI) 2016-2018 NB | 12,440,701 | XXX | 12,440,701 | XXX | |
| 0200116. A-2000 (2,2) 2.85% ANB (IMM,FI) 2016-2016 | 3,395,422 | XXX | 3,395,422 | XXX | |
| 0200117. A-2000 (2,2) 2.90% ANB (IMM,FI) 2016-2017 | 9,587,526 | XXX | 9,587,526 | XXX | |
| 0200118. A-2000 (2,2) 3.00% ANB (IMM,FI) 2016-2018 NB | 17,133,266 | XXX | 17,133,266 | XXX | |
| 0200119. A-2000 (2,2) 2.80% ANB (IMM,FI) 2016-2017 | 8,036,011 | XXX | 8,036,011 | XXX | |
| 0200120. A-2000 (2,2) 2.70% ANB (IMM,FI) 2018 NB | 2,301,236 | XXX | 2,301,236 | XXX | |
| 0200121. A-2000 (2,2) 2.60% ANB (IMM,FI) 2018 NB | 1,600,585 | XXX | 1,600,585 | XXX | |
| 0200122. A-2000 (2,2) 3.30% ANB (IMM,FI) 2018 NB | 1,121,739 | XXX | 1,121,739 | XXX | |
| 0200123. CARVM EXCESS ON PAYOUT CONTRACTS 1985-2018 NB | 1,160,556,538 | XXX | 1,160,556,538 | XXX | |
| 0299997. Totals (Gross) | 207,334,254,422 | XXX | 161,261,459,632 | XXX | 46,072,794,790 |
| 0299998. Reinsurance ceded | | XXX | | XXX | |
| 0299999. Annuities: Totals (Net) | 207,334,254,422 | XXX | 161,261,459,632 | XXX | 46,072,794,790 |
| 0300001. 1983A CARVM 5.25% ANB (DEF,NFI) 1997-1997 | 3,424,671 | | 3,424,671 | | |
| 0300002. CURRENT GUARANTEED DA SETTLEMENT A-2000 (9,9)(10,10) 3%-2.5% ANB (DEF,NFI) 1941-2018 NB | 3,232,602,816 | | 3,232,602,816 | | |
| 0300003. 37 SA (2,8) 2.5% ANB (IMM,FI) 1932-1947 | 6,873 | | 6,873 | | |
| 0300004. 37 SA (3,9) 2.25% ANB (IMM,FI) 1932-1958 | 103,718 | | 103,718 | | |
| 0300005. 37 SA (4,10) 2.25% ANB (IMM,FI) 1932-1958 | 5,868 | | 5,868 | | |
| 0300006. A-1949 proj. 15 yrs (1.5,2.5) 2.5% ANB (IMM,FI) 1932-1969 | 71,638 | | 71,638 | | |
| 0300007. A-1949 proj. 25 yrs (2,3.5) 3% ANB (IMM,FI) 1919-1977 | 181,218 | | 181,218 | | |
| 0300008. A-1949 proj. 25 yrs (5,6) 2.5% ANB (IMM,FI) 1969-1977 | 3,865,001 | | 3,865,001 | | |
| 0300009. 71 IAM (5.5,7) 2.5% ANB (IMM,FI) 1977-1984 | 14,400,968 | | 14,400,968 | | |
| 0300010. 71 IAM (2,3.5) 3% ANB (IMM,FI) 1948-1984 | 6,155,697 | | 6,155,697 | | |
| 0300011. 1983A (4.5,4.5) 5.75% ANB (IMM,FI) 1999-1999 | 9,066 | | 9,066 | | |
| 0300012. 1983A (4.5,4.5) 6.5% ANB (IMM,FI) 1995-1995 | 20,285 | | 20,285 | | |
| 0300013. 1983A (4.5,4.5) 6% ANB (IMM,FI) 1996-1999 | 312,510 | | 312,510 | | |
| 0300014. 1983A (4.5,4.5) 6.25% ANB (IMM,FI) 1997-1999 | 22,470 | | 22,470 | | |
| 0300015. A-2000 (3.5,3.5) 6.8% ANB (IMM,FI) 2000-2000 | 5,543 | | 5,543 | | |
| 0300016. A-2000 (3.5,3.5) 6.35% ANB (IMM,FI) 2001-2001 | 97,591 | | 97,591 | | |
| 0300017. A-2000 (3.5,3.5) 5.55% ANB (IMM,FI) 2001-2001 | 11,597 | | 11,597 | | |
| 0300018. A-1949 proj. 15 yrs (3.5,3.5) 2.5% ANB (IMM,FI) 1958-1969 | 1,213,199 | | 1,213,199 | | |
| 0300019. A-2000 (3.5,3.5) 5.75% ANB (IMM,FI) 2002-2002 | 39,289 | | 39,289 | | |
| 0300020. A-2000 (3.5,3.5) 6.25% ANB (IMM,FI) 2002-2002 | 236,156 | | 236,156 | | |
| 0300021. A-2000 (3.5,3.5) 5.8% ANB (IMM,FI) 2002-2002 | 22,317 | | 22,317 | | |
| 0300022. A-2000 (3.5,3.5) 4.75% ANB (IMM,FI) 2002-2002 | 265,130 | | 265,130 | | |
| 0300023. A-2000 (3.5,3.5) 5.25% ANB (IMM,FI) 2003-2003 | 6,665 | | 6,665 | | |
| 0300024. A-2000 (3,3) 4.25% ANB (IMM,FI) 2003-2006 | 3,984 | | 3,984 | | |
| 0300025. A-2000 (3,3) 3.8% ANB (IMM,FI) 2003-2003 | 55,581 | | 55,581 | | |
| 0300026. A-2000 (3,3) 3.5% ANB (IMM,FI) 2003-2008 | 295,413 | | 295,413 | | |
| 0300027. A-2000 (3,3) 3.7% ANB (IMM,FI) 2003-2004 | 32,363 | | 32,363 | | |
| 0300028. A-2000 (3,3) 3.1% ANB (IMM,FI) 2004-2004 | 10,378 | | 10,378 | | |
| 0300029. A-2000 (3,3) 3.9% ANB (IMM,FI) 2004-2005 | 34,925 | | 34,925 | | |
| 0300030. A-2000 (3,3) 4.05% ANB (IMM,FI) 2004-2007 | 431,454 | | 431,454 | | |
| 0300031. A-2000 (3,3) 3.85% ANB (IMM,FI) 2004-2005 | 18,863 | | 18,863 | | |
| 0300032. A-2000 (3,3) 4.2% ANB (IMM,FI) 2006-2008 | 80,202 | | 80,202 | | |
| 0300033. A-2000 (3,3) 4.3% ANB (IMM,FI) 2005-2007 | 419,526 | | 419,526 | | |
| 0300034. A-2000 (3,3) 4.7% ANB (IMM,FI) 2006-2006 | 183,938 | | 183,938 | | |
| 0300035. A-2000 (3,3) 4.5% ANB (IMM,FI) 2006-2014 | 24,636 | | 24,636 | | |
| 0300036. A-2000 (3,3) 4.4% ANB (IMM,FI) 2006-2006 | 48,853 | | 48,853 | | |
| 0300037. A-2000 (3,3) 4.55% ANB (IMM,FI) 2006-2007 | 114,868 | | 114,868 | | |
| 0300038. A-2000 (4,4) 3.40% ANB (IMM,FI) 2008-2013 | 333,048 | | 333,048 | | |
| 0300039. A-2000 (4,4) 3.9% ANB (IMM,FI) 2008-2008 | 211,657 | | 211,657 | | |
| 0300040. A-2000 (4,4) 4.35% ANB (IMM,FI) 2008-2008 | 224,413 | | 224,413 | | |
| 0300041. A-2000 (4,4) 4.20% ANB (IMM,FI) 2008-2008 | 424,931 | | 424,931 | | |
| 0300042. A-2000 (4,4) 3.55% ANB (IMM,FI) 2008-2008 | 602,223 | | 602,223 | | |
| 0300043. A-2000 (4,4) 3.15% ANB (IMM,FI) 2009-2009 | 160,674 | | 160,674 | | |
| 0300044. A-2000 (4,4) 3.45% ANB (IMM,FI) 2009-2009 | 1,088,350 | | 1,088,350 | | |
| 0300045. A-2000 (4,4) 3.65% ANB (IMM,FI) 2009-2009 | 296,014 | | 296,014 | | |
| 0300046. A-2000 (4,4) 3.35% ANB (IMM,FI) 2009-2009 | 124,559 | | 124,559 | | |
| 0300047. A-2000 (4,4) 3.20% ANB (IMM,FI) 2009-2014 | 191,953 | | 191,953 | | |
| 0300048. A-2000 (4,4) 2.50% ANB (IMM,FI) 1985-2015 | 186,909,750 | | 186,909,750 | | |
| 0300049. A-2000 (4,4) 3.85% ANB (IMM,FI) 2011-2011 | 248,653 | | 248,653 | | |
| 0300050. A-2000 (4,4) 2.55% ANB (IMM,FI) 2011-2012 | 272,717 | | 272,717 | | |
| 0300051. A-2000 (4,4) 2.75% ANB (IMM,FI) 2011-2014 | 39,916 | | 39,916 | | |
| 0300052. A-2000 (4,4) 2.80% ANB (IMM,FI) 2011-2012 | 59,674 | | 59,674 | | |
| 0300053. A-2000 (4,4) 3.05% ANB (IMM,FI) 2013-2014 | 301,002 | | 301,002 | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

| 1 | 2 | 3 | 4 | 5 | 6 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------|-----------------|----------------------------------|----------------|
| Valuation Standard | Total | Industrial | Ordinary | Credit (Group and Individual) | Group |
| 0300054. A-2000 (4,4) 2.70% ANB (IMM,FI) 2008-2014 | 144,662 | | 144,662 | | |
| 0300055. A-2000 (4,4) 3.00% ANB (IMM,FI) 2011-2014 | 251,541 | | 251,541 | | |
| 0300056. A-2000 (4,4) 2.95% ANB (IMM,FI) 2013-2014 | 60,331 | | 60,331 | | |
| 0300057. A-2000 (4,4) 2.60% ANB (IMM,FI) 2014-2015 | 351,354 | | 351,354 | | |
| 0300058. A-2000 (2,2) 3.05% ANB (IMM,FI) 2015-2018 NB | | | | | |
| | 247,385 | | 247,385 | | |
| 0300059. A-2000 (2,2) 3.25% ANB (IMM,FI) 2015-2018 NB | | | | | |
| | 1,639,066 | | 1,639,066 | | |
| 0300060. A-2000 (4,4) 2.65% ANB (IMM,FI) 2014-2015 | 1,011,444 | | 1,011,444 | | |
| 0300061. A-2000 (2,2) 3.20% ANB (IMM,FI) 2016-2018 NB | | | | | |
| | 1,122,508 | | 1,122,508 | | |
| 0300062. A-2000 (2,2) 3.10% ANB (IMM,FI) 2016-2017 | 118,693 | | 118,693 | | |
| 0300063. A-2000 (2,2) 2.95% ANB (IMM,FI) 2016-2018 NB | | | | | |
| | 2,123,939 | | 2,123,939 | | |
| 0300064. A-2000 (2,2) 2.75% ANB (IMM,FI) 2016-2016 | 514,712 | | 514,712 | | |
| 0300065. A-2000 (2,2) 2.65% ANB (IMM,FI) 2016-2018 NB | | | | | |
| | 2,816,898 | | 2,816,898 | | |
| 0300066. A-2000 (2,2) 2.85% ANB (IMM,FI) 2016-2016 | 900,723 | | 900,723 | | |
| 0300067. A-2000 (2,2) 2.90% ANB (IMM,FI) 2016-2017 | 873,922 | | 873,922 | | |
| 0300068. A-2000 (2,2) 3.00% ANB (IMM,FI) 2016-2018 NB | | | | | |
| | 1,617,331 | | 1,617,331 | | |
| 0300069. A-2000 (2,2) 2.80% ANB (IMM,FI) 2016-2017 | 598,936 | | 598,936 | | |
| 0300070. A-2000 (2,2) 2.70% ANB (IMM,FI) 2018 NB | 9,325 | | 9,325 | | |
| 0300071. A-2000 (2,2) 2.60% ANB (IMM,FI) 2018 NB | 174,156 | | 174,156 | | |
| 0300072. A-2000 (2,2) 3.30% ANB (IMM,FI) 2018 NB | 321,752 | | 321,752 | | |
| 0300073. CARVM EXCESS ON PAYOUT CONTRACTS 1985-2018 NB | | | | | |
| | 6,092,980 | | 6,092,980 | | |
| 0399997. Totals (Gross) | 3,477,316,462 | | 3,477,316,462 | | |
| 0399998. Reinsurance ceded | | | | | |
| 0399999. SCWLC: Totals (Net) | 3,477,316,462 | | 3,477,316,462 | | |
| 0499998. Reinsurance ceded | | | | | |
| 0499999. Accidental Death Benefits: Totals (Net) | | | | | |
| 0500001. 52 INTERCO DISAB 3.5% NLP ALB 1975-2018 NB | 159,010 | | 159,010 | | |
| 0500002. 52 INTERCO DISAB 5% NLP ALB 1990-1994 | 781,243 | | 781,243 | | |
| 0500003. 52 INTERCO DISAB 4.5% NLP ALB 1990-2006 | 2,722,618 | | 2,722,618 | | |
| 0500004. 52 INTERCO DISAB 4% NLP ALB 2007-2012 | 12,599 | | 12,599 | | |
| 0599997. Totals (Gross) | 3,675,470 | | 3,675,470 | | |
| 0599998. Reinsurance ceded | | | | | |
| 0599999. Disability-Active Lives: Totals (Net) | 3,675,470 | | 3,675,470 | | |
| 0600001. 52 INTERCO DISAB 2.5% NLP ALB 1960-1994 | 17,594 | | 17,594 | | |
| 0600002. 52 INTERCO DISAB 3.5% NLP ALB 1975-2018 NB | 26,351,669 | | 26,351,669 | | |
| 0600003. 52 INTERCO DISAB 5% NLP ALB 1990-1994 | 578,344 | | 578,344 | | |
| 0600004. 52 INTERCO DISAB 4.5% NLP ALB 1990-2006 | 30,728,858 | | 30,728,858 | | |
| 0600005. 52 INTERCO DISAB 4% NLP ALB 2007-2012 | 7,690,169 | | 7,690,169 | | |
| 0600006. 70 INTERCO DISAB 3.5% NLP ALB 1959-1974 | 45,211 | | | | 45,211 |
| 0600007. 70 INTERCO DISAB 4% NLP ALB 1975-1979 | 124,098 | | | | 124,098 |
| 0600008. 70 INTERCO DISAB 4.5% NLP ALB 1980-2002 | 13,950,504 | | | | 13,950,504 |
| 0600009. 70 INTERCO DISAB 5% NLP ALB 1993-1994 | 504,596 | | | | 504,596 |
| 0600010. 70 INTERCO DISAB 5.5% NLP ALB 1987-1992 | 601,984 | | | | 601,984 |
| 0600011. 70 INTERCO DISAB 6% NLP ALB 1983-1986 | 68,797 | | | | 68,797 |
| 0699997. Totals (Gross) | 80,661,824 | | 65,366,634 | | 15,295,190 |
| 0699998. Reinsurance ceded | 15,295,190 | | | | 15,295,190 |
| 0699999. Disability-Disabled Lives: Totals (Net) | 65,366,634 | | 65,366,634 | | |
| 0700001. For extra mortality under group life conversions. | 90 | | 90 | | |
| 0700002. For extra mortality under term conversions | 21,302,648 | | 21,302,648 | | |
| 0700003. For excess of valuation net premiums over corresponding gross premiums on respective policies, computed according to the standard of valuation required by this state | 816,395 | | 816,395 | | |
| 0700004. For non-deduction of deferred fractional premiums or return of premiums at the death of the insured | 5,917,579 | | 5,917,579 | | |
| 0700005. For the surrender values in excess of reserves otherwise required | 332,071 | | 332,071 | | |
| 0700006. AG43 Excess Reserves | 459,633 | | 459,633 | | |
| 0799997. Totals (Gross) | 28,828,416 | | 28,828,416 | | |
| 0799998. Reinsurance ceded | 2,451 | | 2,451 | | |
| 0799999. Miscellaneous Reserves: Totals (Net) | 28,825,965 | | 28,825,965 | | |
| 9999999. Totals (Net) - Page 3, Line 1 | 211,345,444,123 | | 165,272,649,333 | | 46,072,794,790 |

EXHIBIT 5 - INTERROGATORIES

1.1

Has the reporting entity ever issued both participating and non-participating contracts?.....

Yes [] No [X]

1.2

If not, state which kind is issued.
Non-Participating

2.1

Does the reporting entity at present issue both participating and non-participating contracts?.....

Yes [] No [X]

2.2

If not, state which kind is issued.
Non-Participating

3.

Does the reporting entity at present issue or have in force contracts that contain non-guaranteed elements?.....
If so, attach a statement that contains the determination procedures, answers to the interrogatories and an actuarial opinion as described in the instructions.

Yes [X] No []

4.

Has the reporting entity any assessment or stipulated premium contracts in force?
If so, state:
4.1 Amount of insurance?\$
4.2 Amount of reserve?\$
4.3 Basis of reserve:
4.4 Basis of regular assessments:
4.5 Basis of special assessments:
4.6 Assessments collected during the year\$

5.

If the contract loan interest rate guaranteed in any one or more of its currently issued contracts is less than 5%, not in advance, state the contract loan rate guarantees on any such contracts.
NONE

6.

Does the reporting entity hold reserves for any annuity contracts that are less than the reserves that would be held on a standard basis?
6.1 If so, state the amount of reserve on such contracts on the basis actually held:.....\$
6.2 That would have been held (on an exact or approximate basis) using the actual ages of the annuitants; the interest rate(s) used in 6.1; and the same mortality basis used by the reporting entity for the valuation of comparable annuity benefits issued to standard lives. If the reporting entity has no comparable annuity benefits for standard lives to be valued, the mortality basis shall be the table most recently approved by the state of domicile for valuing individual annuity benefits:\$
Attach statement of methods employed in their valuation.

Yes [] No [X]

7.

Does the reporting entity have any Synthetic GIC contracts or agreements in effect as of December 31 of the current year?
7.1 If yes, state the total dollar amount of assets covered by these contracts or agreements\$
7.2 Specify the basis (fair value, amortized cost, etc.) for determining the amount:
7.3 State the amount of reserves established for this business:\$
7.4 Identify where the reserves are reported in the blank:

8.

Does the reporting entity have any Contingent Deferred Annuity contracts or agreements in effect as of December 31 of the current year?
8.1 If yes, state the total dollar amount of account value covered by these contracts or agreements:\$
8.2 State the amount of reserves established for this business:\$
8.3 Identify where the reserves are reported in the blank:

Yes [] No [X]

9.

Does the reporting entity have any Guaranteed Lifetime Income Benefit contracts, agreements or riders in effect as of December 31 of the current year?
9.1 If yes, state the total dollar amount of any account value associated with these contracts, agreements or riders:\$
9.2 State the amount of reserves established for this business:\$
9.3 Identify where the reserves are reported in the blank:
.....

Yes [] No [X]

EXHIBIT 5A - CHANGES IN BASES OF VALUATION DURING THE YEAR

| 1 Description of Valuation Class | Valuation Basis | | 4 Increase in Actuarial Reserve Due to Change |
|-----------------------------------------|-------------------|-----------------|--------------------------------------------------|
| | 2 Changed From | 3 Changed To | |
| | | | |
| | | | |
| | | | |
| | | | |
| 9999999 - Total (Column 4, only) | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT 6 - AGGREGATE RESERVES FOR ACCIDENT AND HEALTH CONTRACTS

| | 1 | 2 | 3 | 4 | Other Individual Contracts | | | | |
|---------------------------------------------------------------------------|-------------|------------------------------|---------------------------------------------------------|---------------------------|----------------------------|-------------------------|------------------------------------------|---------------------|-----------|
| | | | | | 5 | 6 | 7 | 8 | 9 |
| | Total | Group Accident and Health | Credit Accident and Health (Group and Individual) | Collectively Renewable | Non-Cancelable | Guaranteed Renewable | Non-Renewable for Stated Reasons Only | Other Accident Only | All Other |
| ACTIVE LIFE RESERVE | | | | | | | | | |
| 1. Unearned premium reserves | 316 | | | | | | | | 316 |
| 2. Additional contract reserves (a) | 183,735,773 | 4,048,272 | | | | 179,680,839 | | | 6,662 |
| 3. Additional actuarial reserves-Asset/Liability analysis | | | | | | | | | |
| 4. Reserve for future contingent benefits | | | | | | | | | |
| 5. Reserve for rate credits | | | | | | | | | |
| 6. Aggregate write-ins for reserves | | | | | | | | | |
| 7. Totals (Gross) | 183,736,089 | 4,048,272 | | | | 179,680,839 | | | 6,978 |
| 8. Reinsurance ceded | 183,729,111 | 4,048,272 | | | | 179,680,839 | | | |
| 9. Totals (Net) | 6,978 | | | | | | | | 6,978 |
| CLAIM RESERVE | | | | | | | | | |
| 10. Present value of amounts not yet due on claims | 166,872,057 | 94,509,976 | | | | 72,361,052 | | | 1,029 |
| 11. Additional actuarial reserves-Asset/Liability analysis | 8,000,000 | 8,000,000 | | | | | | | |
| 12. Reserve for future contingent benefits | | | | | | | | | |
| 13. Aggregate write-ins for reserves | | | | | | | | | |
| 14. Totals (Gross) | 174,872,057 | 102,509,976 | | | | 72,361,052 | | | 1,029 |
| 15. Reinsurance ceded | 174,871,028 | 102,509,976 | | | | 72,361,052 | | | |
| 16. Totals (Net) | 1,029 | | | | | | | | 1,029 |
| 17. TOTAL (Net) | 8,007 | | | | | | | | 8,007 |
| 18. TABULAR FUND INTEREST | 304 | | | | | | | | 304 |
| DETAILS OF WRITE-INS | | | | | | | | | |
| 0601. | | | | | | | | | |
| 0602. | | | | | | | | | |
| 0603. | | | | | | | | | |
| 0698. Summary of remaining write-ins for Line 6 from overflow page | | | | | | | | | |
| 0699. TOTALS (Lines 0601 thru 0603 plus 0698) (Line 6 above) | | | | | | | | | |
| 1301. | | | | | | | | | |
| 1302. | | | | | | | | | |
| 1303. | | | | | | | | | |
| 1398. Summary of remaining write-ins for Line 13 from overflow page | | | | | | | | | |
| 1399. TOTALS (Lines 1301 thru 1303 plus 1398) (Line 13 above) | | | | | | | | | |

(a) Attach statement as to valuation standard used in calculating this reserve, specifying reserve bases, interest rates and methods.

EXHIBIT 7 - DEPOSIT TYPE CONTRACTS

| | 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------------------------------------------------------------------------|---------------|----------------------------------|-------------------|---------------------------|-----------------------------------------|---------------------------------------|
| | Total | Guaranteed Interest Contracts | Annuities Certain | Supplemental Contracts | Dividend Accumulations or Refunds | Premium and Other Deposit Funds |
| 1. Balance at the beginning of the year before reinsurance | 1,061,965,064 | | 739,441,220 | 97,038,479 | | 225,485,365 |
| 2. Deposits received during the year | 481,717,592 | | 289,634,420 | 17,481,374 | | 174,601,798 |
| 3. Investment earnings credited to the account | 28,033,147 | | 19,110,032 | 2,568,831 | | 6,354,284 |
| 4. Other net change in reserves | 227,485 | | 346,250 | (118,765) | | |
| 5. Fees and other charges assessed | | | | | | |
| 6. Surrender charges | | | | | | |
| 7. Net surrender or withdrawal payments | 466,040,612 | | 277,810,698 | 20,512,652 | | 167,717,262 |
| 8. Other net transfers to or (from) Separate Accounts | 712,920 | | (148,102) | (307,155) | | 1,168,177 |
| 9. Balance at the end of current year before reinsurance (Lines 1+2+3+4-5-6-7-8) | 1,105,189,756 | | 770,869,326 | 96,764,422 | | 237,556,008 |
| 10. Reinsurance balance at the beginning of the year | | | | | | |
| 11. Net change in reinsurance assumed | | | | | | |
| 12. Net change in reinsurance ceded | | | | | | |
| 13. Reinsurance balance at the end of the year (Lines 10+11-12) | | | | | | |
| 14. Net balance at the end of current year after reinsurance (Lines 9 + 13) | 1,105,189,756 | | 770,869,326 | 96,764,422 | | 237,556,008 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT 8 - CLAIMS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

| PART 1 - Liability End of Current Year | | | | | | | | | | | |
|----------------------------------------|-------------|-----------------|----------------|----------------------|-------------------------|------------------------------------|----------------|------------|---------------------|-------------------------------|-------|
| | 1 | 2 | Ordinary | | | 6 | Group | | Accident and Health | | |
| | | | 3 | 4 | 5 | | 7 | 8 | 9 | 10 | 11 |
| | Total | Industrial Life | Life Insurance | Individual Annuities | Supplementary Contracts | Credit Life (Group and Individual) | Life Insurance | Annuities | Group | Credit (Group and Individual) | Other |
| 1. Due and unpaid: | | | | | | | | | | | |
| 1.1 Direct | | | | | | | | | | | |
| 1.2 Reinsurance assumed | | | | | | | | | | | |
| 1.3 Reinsurance ceded | | | | | | | | | | | |
| 1.4 Net | | | | | | | | | | | |
| 2. In course of settlement: | | | | | | | | | | | |
| 2.1 Resisted | 563,164 | | | 563,164 | | | | | | | |
| 2.11 Direct | | | | | | | | | | | |
| 2.12 Reinsurance assumed | | | | | | | | | | | |
| 2.13 Reinsurance ceded | | | | | | | | | | | |
| 2.14 Net | 563,164 | | (b) | (b) 563,164 | | (b) | (b) | | | | |
| 2.2 Other | 675,389,988 | | 9,617,082 | 568,208,963 | 7,450,408 | | 17,000 | 90,096,535 | | | |
| 2.21 Direct | | | | | | | | | | | |
| 2.22 Reinsurance assumed | | | | | | | | | | | |
| 2.23 Reinsurance ceded | 17,000 | | | | | | 17,000 | | | | |
| 2.24 Net | 675,372,988 | | (b) 9,617,082 | (b) 568,208,963 | 7,450,408 | (b) | (b) | 90,096,535 | (b) | (b) | (b) |
| 3. Incurred but unreported: | | | | | | | | | | | |
| 3.1 Direct | 11,518,417 | | 11,505,917 | | | | | | 12,500 | | |
| 3.2 Reinsurance assumed | | | | | | | | | | | |
| 3.3 Reinsurance ceded | 12,500 | | | | | | | | 12,500 | | |
| 3.4 Net | 11,505,917 | | (b) 11,505,917 | (b) | | (b) | (b) | | (b) | (b) | (b) |
| 4. TOTALS | 687,471,569 | | 21,122,999 | 568,772,127 | 7,450,408 | | 17,000 | 90,096,535 | 12,500 | | |
| 4.1 Direct | | | | | | | | | | | |
| 4.2 Reinsurance assumed | | | | | | | | | | | |
| 4.3 Reinsurance ceded | 29,500 | | | | | | 17,000 | | 12,500 | | |
| 4.4 Net | 687,442,069 | (a) | (a) 21,122,999 | 568,772,127 | 7,450,408 | | (a) | 90,096,535 | | | |

(a) Including matured endowments (but not guaranteed annual pure endowments) unpaid amounting to \$ _____ in Column 2, \$ _____ in Column 3 and \$ _____ in Column 7.

(b) Include only portion of disability and accident and health claim liabilities applicable to assumed "accrued" benefits. Reserves (including reinsurance assumed and net of reinsurance ceded) for unaccrued benefits for Ordinary Life Insurance \$ _____183,774

Individual Annuities \$ _____, Credit Life (Group and Individual) \$ _____, and Group Life \$ _____, are included in Page 3, Line 1, (See Exhibit 5, Section on Disability Disabled Lives); and for Group Accident and Health \$ _____

Credit (Group and Individual) Accident and Health \$ _____, and Other Accident and Health \$ _____ are included in Page 3, Line 2 (See Exhibit 6, Claim Reserve).

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT 8 - CLAIMS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

PART 2 - Incurred During the Year

| | 1 Total | 2 Industrial Life (a) | Ordinary | | | 6 Credit Life (Group and Individual) | Group | | Accident and Health | | |
|------------------------------------------------------------------------------|-------------------|---------------------------------|----------------------------|---------------------------|---------------------------------|------------------------------------------------|----------------------------|----------------|---------------------|----------------------------------------|-------------|
| | | | 3 Life Insurance (b) | 4 Individual Annuities | 5 Supplementary Contracts | | 7 Life Insurance (c) | 8 Annuities | 9 Group | 10 Credit (Group and Individual) | 11 Other |
| 1. Settlements During the Year: | | | | | | | | | | | |
| 1.1 Direct | 7,648,114,406 | | 76,762,676 | 7,165,291,749 | 91,982,714 | | 703,178 | 270,009,954 | 20,348,842 | | 23,015,293 |
| 1.2 Reinsurance assumed | | | | | | | | | | | |
| 1.3 Reinsurance ceded | 44,062,350 | | | | | | 703,178 | | 20,348,842 | | 23,010,330 |
| 1.4 Net | (d) 7,604,052,056 | | 76,762,676 | 7,165,291,749 | 91,982,714 | | | 270,009,954 | | | 4,963 |
| 2. Liability December 31, current year from Part 1: | | | | | | | | | | | |
| 2.1 Direct | 687,471,569 | | 21,122,999 | 568,772,127 | 7,450,408 | | 17,000 | 90,096,535 | 12,500 | | |
| 2.2 Reinsurance assumed | | | | | | | | | | | |
| 2.3 Reinsurance ceded | 29,500 | | | | | | 17,000 | | 12,500 | | |
| 2.4 Net | 687,442,069 | | 21,122,999 | 568,772,127 | 7,450,408 | | | 90,096,535 | | | |
| 3. Amounts recoverable from reinsurers December 31, current year | | | | | | | | | | | |
| 4. Liability December 31, prior year: | | | | | | | | | | | |
| 4.1 Direct | 653,821,263 | | 21,548,808 | 543,676,052 | 8,732,265 | | | 79,850,940 | 13,198 | | |
| 4.2 Reinsurance assumed | | | | | | | | | | | |
| 4.3 Reinsurance ceded | 13,198 | | | | | | | | 13,198 | | |
| 4.4 Net | 653,808,065 | | 21,548,808 | 543,676,052 | 8,732,265 | | | 79,850,940 | | | |
| 5. Amounts recoverable from reinsurers December 31, prior year | | | | | | | | | | | |
| 6. Incurred Benefits | | | | | | | | | | | |
| 6.1 Direct | 7,681,764,712 | | 76,336,867 | 7,190,387,824 | 90,700,857 | | 720,178 | 280,255,549 | 20,348,144 | | 23,015,293 |
| 6.2 Reinsurance assumed | | | | | | | | | | | |
| 6.3 Reinsurance ceded | 44,078,652 | | | | | | 720,178 | | 20,348,144 | | 23,010,330 |
| 6.4 Net | 7,637,686,060 | | 76,336,867 | 7,190,387,824 | 90,700,857 | | | 280,255,549 | | | 4,963 |

(a) Including matured endowments (but not guaranteed annual pure endowments) amounting to \$ in Line 1.1, \$ in Line 1.4.
\$ in Line 6.1, and \$ in Line 6.4.

(b) Including matured endowments (but not guaranteed annual pure endowments) amounting to \$56,563 in Line 1.1, \$56,563 in Line 1.4.
\$56,563 in Line 6.1, and \$56,563 in Line 6.4.

(c) Including matured endowments (but not guaranteed annual pure endowments) amounting to \$ in Line 1.1, \$ in Line 1.4.
\$ in Line 6.1, and \$ in Line 6.4.

(d) Includes \$8,861,949 premiums waived under total and permanent disability benefits.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT OF NON-ADMITTED ASSETS

| | 1 | 2 | 3 |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------|----------------------------------------|------------------------------------------------------------|
| | Current Year Total Nonadmitted Assets | Prior Year Total Nonadmitted Assets | Change in Total Nonadmitted Assets (Col. 2 - Col. 1) |
| 1. Bonds (Schedule D) | 25,984,546 | | (25,984,546) |
| 2. Stocks (Schedule D): | | | |
| 2.1 Preferred stocks | | | |
| 2.2 Common stocks | 17,534,805 | 12,065,418 | (5,469,387) |
| 3. Mortgage loans on real estate (Schedule B): | | | |
| 3.1 First liens | | | |
| 3.2 Other than first liens | | | |
| 4. Real estate (Schedule A): | | | |
| 4.1 Properties occupied by the company | | | |
| 4.2 Properties held for the production of income | | | |
| 4.3 Properties held for sale | | | |
| 5. Cash (Schedule E - Part 1), cash equivalents (Schedule E - Part 2) and short-term investments (Schedule DA) | | | |
| 6. Contract loans | 9,851 | 13,141 | 3,290 |
| 7. Derivatives (Schedule DB) | | | |
| 8. Other invested assets (Schedule BA) | 123,594,203 | 125,754,485 | 2,160,282 |
| 9. Receivables for securities | | | |
| 10. Securities lending reinvested collateral assets (Schedule DL) | | | |
| 11. Aggregate write-ins for invested assets | | | |
| 12. Subtotals, cash and invested assets (Lines 1 to 11) | 167,123,405 | 137,833,044 | (29,290,361) |
| 13. Title plants (for Title insurers only) | | | |
| 14. Investment income due and accrued | | | |
| 15. Premiums and considerations: | | | |
| 15.1 Uncollected premiums and agents' balances in the course of collection | | | |
| 15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due .. | 98,802 | 104,826 | 6,024 |
| 15.3 Accrued retrospective premiums and contracts subject to redetermination | | | |
| 16. Reinsurance: | | | |
| 16.1 Amounts recoverable from reinsurers | | | |
| 16.2 Funds held by or deposited with reinsured companies | | | |
| 16.3 Other amounts receivable under reinsurance contracts | | | |
| 17. Amounts receivable relating to uninsured plans | | | |
| 18.1 Current federal and foreign income tax recoverable and interest thereon | | 10,810,930 | 10,810,930 |
| 18.2 Net deferred tax asset | 3,134,967,000 | 3,720,533,000 | 585,566,000 |
| 19. Guaranty funds receivable or on deposit | | | |
| 20. Electronic data processing equipment and software | 377,406,934 | 475,472,856 | 98,065,922 |
| 21. Furniture and equipment, including health care delivery assets | 54,027,178 | 56,318,764 | 2,291,586 |
| 22. Net adjustment in assets and liabilities due to foreign exchange rates | | | |
| 23. Receivables from parent, subsidiaries and affiliates | 802 | 27,017,164 | 27,016,362 |
| 24. Health care and other amounts receivable | | | |
| 25. Aggregate write-ins for other than invested assets | 166,473,875 | 179,506,394 | 13,032,519 |
| 26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25) | 3,900,097,996 | 4,607,596,978 | 707,498,982 |
| 27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts | | | |
| 28. Total (Lines 26 and 27) | 3,900,097,996 | 4,607,596,978 | 707,498,982 |
| DETAILS OF WRITE-INS | | | |
| 1101. | | | |
| 1102. | | | |
| 1103. | | | |
| 1198. Summary of remaining write-ins for Line 11 from overflow page | | | |
| 1199. Totals (Lines 1101 thru 1103 plus 1198)(Line 11 above) | | | |
| 2501. Prepaid expenses | 119,787,260 | 119,502,214 | (285,046) |
| 2502. Sundry receivables | 39,078,568 | 50,896,035 | 11,817,467 |
| 2503. Intangible asset - AML - SERP | 7,608,047 | 9,108,145 | 1,500,098 |
| 2598. Summary of remaining write-ins for Line 25 from overflow page | | | |
| 2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above) | 166,473,875 | 179,506,394 | 13,032,519 |

NOTES TO FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies and Going Concern

A. Accounting Principles

The financial statements of Teachers Insurance and Annuity Association of America (“TIAA” or the “Company”) are presented on the basis of statutory accounting principles prescribed or permitted by the New York State Department of Financial Services (“NYDFS” or the “Department”). The Department requires insurance companies domiciled in the State of New York to prepare their statutory basis financial statements in accordance with the National Association of Insurance Commissioners’ (“NAIC”) *Accounting Practices and Procedures Manual* (“NAIC SAP”), subject to any deviation prescribed or permitted by the Department (“New York SAP”).

A reconciliation of the Company’s net income and capital and contingency reserves between NAIC SAP and practices prescribed or permitted by the State of New York is shown below:

| | SSAP# | F/S Page | F/S Line | 12/31/2018 | 12/31/2017 |
|----------------------------------------------------------------------------------|----------|----------|----------|--------------------------|--------------------------|
| Net Income, New York SAP | | | | \$ 1,453,053,539 | \$ 1,020,441,925 |
| New York SAP Prescribed Practices that are an increase/(decrease) from NAIC SAP: | | | | | |
| Additional Reserves for Term Conversions | 51R | 4 | 19 | 294,552 | (619,664) |
| Net Income, NAIC SAP | | | | <u>\$ 1,452,758,987</u> | <u>\$ 1,021,061,589</u> |
| Capital and Contingency Reserves, New York SAP..... | | | | \$ 38,126,303,728 | \$ 36,336,069,438 |
| New York SAP Prescribed Practices that are an increase/(decrease) from NAIC SAP: | | | | | |
| Deferred Premium Asset Limitation | 51R, 61R | 2 | 15.2 | (64,764) | (77,262) |
| Additional Reserves for Term Conversions | 51R | 3 | 1 | (21,302,648) | (21,597,200) |
| Capital and Contingency Reserves, NAIC SAP | | | | <u>\$ 38,147,671,140</u> | <u>\$ 36,357,743,900</u> |

The additional reserve for the term conversions results from the Department requiring in Regulation No. 147 (11NYCRR 98) Valuation of Life Insurance Reserves Section 98.4 for any policy which guarantees renewal, or conversion to another policy, without evidence of insurability, additional reserves shall be held that account for excess mortality due to anti-selection with appropriate margins to cover expenses and risk of moderately adverse deviations in experience.

The deferred premium asset limitation results from the NYSDFS Circular Letter No. 11 (2010), which prescribed the calculation and clarified the accounting for deferred premium assets when reinsurance is involved.

The Company's risk based capital as of December 31, 2018 and December 31, 2017 would not have triggered a regulatory event without the use of the New York SAP prescribed practices.

B. Use of Estimates in Preparation of the Financial Statements

The preparation of the Company’s statutory financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities. It also requires disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the period. Actual results may differ from those estimates.

C. Accounting Policy

Life premiums are recognized as income over the premium paying period of the related policies. Annuity considerations are recognized as revenue when received. Deposits on deposit-type contracts are recorded directly as a liability when received. Expenses incurred in connection with acquiring new insurance business are charged to operations as incurred.

Policy and contract reserves are determined in accordance with standard valuation methods approved by the Department and are computed in accordance with standard actuarial methodology. The reserves established utilize assumptions for interest, mortality and other risks insured. Such reserves are established to provide for adequate contractual benefits guaranteed under policy and contract provisions.

NOTES TO FINANCIAL STATEMENTS

The Company has established policy reserves on deferred and payout annuity contracts issued January 1, 2001 and later that exceed the minimum amounts determined under Appendix A-820, "Minimum Life and Annuity Reserve Standards" of NAIC SAP. The excess above the minimum is as follows:

| | 12/31/2018 | 12/31/2017 |
|---------------------------------------------------------|------------------|------------------|
| Additional Reserves for: | | |
| Deferred and payout annuity contracts issued after 2000 | \$ 4,159,896,584 | \$ 4,159,273,549 |

Dividends on insurance policies and pension annuity contracts in the payout phase are generally declared by the TIAA Board of Trustees (the "Board") in December of each year, and such dividends are credited to policyholders in the following calendar year. Dividends on pension annuity contracts in the accumulation phase and on certain payout annuities are generally declared by the Board in February of each year, and such dividends on the various existing vintages of pension annuity contracts in the accumulation phase are credited to policyholders during the ensuing twelve month period beginning March 1.

In addition, the Company uses the following accounting policies:

- (1) Short-term investments (investments with remaining maturities greater than three months and less than or equal to 12 months at the time of acquisition, excluding those investments classified as cash equivalents) that are not impaired are stated at amortized cost using the straight line interest method. Short-term investments that are impaired are stated at the lower of amortized cost or fair value.
- (2) Bonds are stated at amortized cost using the constant yield method. Bonds in or near default (rated NAIC 6) are stated at the lower of amortized cost or fair value. NAIC ratings are applied to bonds and other securities. Categories 1 and 2 are considered investment grade, while Categories 3 through 6 are considered below investment grade. Bonds are recorded on a trade date basis, except for private placement bonds, which are recorded on the funding date. Bonds the Company intends to sell prior to maturity ("held for sale") are stated at the lower of amortized cost or fair value.

If it is determined that a decline in the fair value of a bond, excluding loan-backed and structured securities, is other-than-temporary, the cost basis of the bond is written down to fair value and the amount of the write down is accounted for as a realized loss. The new cost basis is not changed for subsequent recoveries in fair value. Future declines in fair value which are determined to be other-than-temporary are recorded as realized losses.

In April 2017, the NAIC adopted modifications to SSAP No. 26R, *Bonds*, which were effective December 31, 2017. These modifications remove SVO-identified instruments from the definition of a bond and provide separate statutory accounting guidance for these instruments, commonly referred to as SVO-Identified bond exchange traded funds ("ETFs"). The specific guidance for SVO-identified instruments includes a requirement for these instruments to be reported at fair value (using net asset value ("NAV") as a practical expedient) unless the investment qualifies for, and the reporting entity elects, the use of the systematic value approach.

Pursuant to the guidance in SSAP No. 26R, *Bonds*, the Company holds SVO-Identified bond ETFs reported on Schedule D-1. Each ETF is reported at fair value, and the Company has not elected systematic value.

- (3) Unaffiliated common stocks are stated at fair value, which is based on quoted market prices, where available. Changes in fair value are recorded through surplus as an unrealized gain or loss. For common stocks without quoted market prices, fair value is estimated using independent pricing services or internally developed pricing models. When it is determined that a decline in fair value of an investment is other-than-temporary, the cost basis of the investment is reduced to its fair value and the amount of the reduction is accounted for as a realized loss.
- (4) Preferred stocks are stated at amortized cost unless they have an NAIC rating designation of 4, 5, or 6 which are stated at the lower of amortized cost or fair value. The fair value of preferred stocks is determined using prices provided by independent pricing services or internally developed pricing models. When it is determined that a decline in fair value of an investment is other-than-temporary, the cost basis of the investment is reduced to its fair value and the amount of the reduction is accounted for as a realized loss.
- (5) Mortgage loans are stated at amortized cost, net of valuation allowances. Amortized cost consists of the unpaid principal balance of the loans, net of unamortized premiums, discounts and certain mortgage origination fees. Mortgage loans held for sale are stated at the lower of amortized cost or fair value. Mortgage loans are evaluated for impairment when it is probable that the receipt of contractual payments of principal and interest may not occur when scheduled. If the impairment is considered to be temporary, a valuation allowance is established for the excess of the carrying value of the mortgage over its estimated fair value. Changes in valuation allowance for mortgage loans are included in net unrealized capital gains and losses on investments. When an event occurs resulting in an impairment that is other-than-temporary, a direct

NOTES TO FINANCIAL STATEMENTS

write-down is recorded as a realized loss and a new cost basis is established. The fair value of mortgage loans is generally determined using a discounted cash flow methodology based on coupon rates, maturity provisions and credit assumptions.

- (6) Included within bonds are loan-backed and structured securities. Estimated future cash flows and expected prepayment speeds are used to determine the amortization of loan-backed and structured securities under the prospective method. Expected future cash flows and prepayment speeds are evaluated quarterly. Certain loan-backed and structured securities are reported at the lower of amortized cost or fair value as a result of the NAIC modeling process.

For loan-backed and structured securities which the Company has the intent and ability to hold for a period of time sufficient to recover the amortized cost basis, when an other-than-temporary impairment ("OTTI") has occurred because the Company does not expect to recover the entire amortized cost basis of the security, the amount of the OTTI recognized as a realized loss is the difference between the security's amortized cost basis and the present value of cash flows expected to be collected, discounted at the loan-backed or structured security's effective interest rate.

For loan-backed and structured securities, when an OTTI has occurred because the Company intends to sell the security or the Company does not have the intent and ability to retain the security for a period of time sufficient to recover the amortized cost basis, the amount of the OTTI realized is the difference between the security's amortized cost basis and fair value at the balance sheet date.

In periods subsequent to the recognition of an OTTI loss for a loan-backed or structured security, the Company accounts for the other-than-temporarily impaired security as if the security had been purchased on the measurement date of the impairment. The difference between the new amortized cost basis and the cash flows expected to be collected is accreted as interest income in future periods based on prospective changes in cash flow estimates.

- (7) Investments in wholly-owned subsidiaries are stated at the value of their underlying net assets as follows: (1) domestic insurance subsidiaries are stated at the value of their underlying statutory surplus, and (2) non-insurance subsidiaries are stated at the value of their underlying audited GAAP equity. Dividends and distributions from subsidiaries are recorded in investment income to the extent that they are not in excess of the investee's undistributed accumulated earnings and changes in the equity of subsidiaries are recorded directly to surplus as unrealized gains or losses.
- (8) Investments in joint ventures, partnerships and limited liability companies are stated at cost adjusted for the Company's percentage of the most recent available financial statements based on the underlying U.S. Generally Accepted Accounting Principles ("GAAP"), International Financial Reporting Standards, or U.S. tax basis equity as reflected on the respective entity's audited financial statements. The Company monitors the effects of current and expected market conditions and other factors on these investments to identify and quantify any impairment in value. The Company assesses the investments for potential impairment by performing analysis between the carrying value and the cost basis of the investments. The Company evaluates recoverability of the asset to determine if OTTI is warranted. When it is determined that a decline in fair value of an investment is other-than-temporary, the cost basis of the investment is reduced to its fair value and the amount of the reduction is accounted for as a realized loss.
- (9) The Company designates its derivative transactions as hedging or replication transactions. Derivatives that qualify and are designated for hedge accounting are reported as assets or liabilities on the balance sheet and accounted for in a manner consistent with the hedged item. Swap coupon cash flows and income accruals are reported as a component of net investment income. Upon termination, the gain or loss on these contracts is recognized in a manner consistent with the disposed hedged item.

Derivatives used in hedging relationships that do not qualify or are not designated for hedge accounting are carried at fair value. Changes in fair value are reported in surplus as net unrealized capital gains (losses). Swap coupon cash flows and income accruals are reported as a component of net investment income. Upon termination the gain or loss on these contracts is recognized as realized capital gains (losses) and is subject to Interest Maintenance Reserve ("IMR") or Asset Valuation Reserve ("AVR") treatment.

Derivatives used in replication transactions are accounted for in a manner consistent with the cash instrument and the replicated asset. Accordingly, these derivatives are carried at amortized cost or fair value. Amortization of derivative premiums is reported as a component of net investment income. Swap coupon cash flows and income accruals are recorded as a component of net investment income. Upon termination, the gain or loss on these contracts is recognized as realized capital gains (losses) and is subject to IMR or AVR treatment.

NOTES TO FINANCIAL STATEMENTS

The Company does not offset the carrying values recognized in the balance sheet for derivatives executed with the same counterparty under the same master netting agreement.

(10) The Company utilizes anticipated investment income as a factor in the premium deficiency calculation.

(11) Not applicable.

(12) The Company has not modified its capitalization policy from the prior period.

(13) Not applicable.

D. Going Concern

The Company does not have any doubt about its ability to continue as a going concern.

2. Accounting Changes and Corrections of Errors

Accounting Changes

Adoption of New Accounting Standards

In June 2016, the NAIC adopted substantive revisions to SSAP No. 51, Life Contracts, to incorporate references to the Valuation Manual ("VM") and to facilitate the implementation of Principles-Based Reserving ("PBR"), which was effective on January 1, 2017. The adoption of PBR will be phased-in over three years, and only applies to new policies issued after the revised Standard Valuation Law and VM are in effect. Under the current system of reserving, formulas and assumptions are used to determine reserves as prescribed by state laws and regulations. Under PBR, companies will hold the higher of (a) the reserve using prescribed methods and assumptions and (b) the PBR reserve which considers a range of future economic conditions, computed using justified company experience factors, such as mortality, policyholder behavior and expenses. The adoption of the modifications to SSAP No. 51 relating to PBR will not affect the in-force block of business issued prior to the effective date.

In August 2016, the NAIC adopted and made effective modifications to SSAP No. 51, Life Contracts. These modifications clarify that annual assumption changes from reserving methods used in PBR would not qualify as a change in valuation basis. Changes in valuation basis are recorded directly to surplus instead of through income. This modification was made to accommodate PBR when it becomes effective and subsequent implementations.

In December 2018, the Company's state of domicile, New York, issued an emergency regulation to begin the implementation of principle-based reserving (PBR) to become effective on January 1, 2020. When New York final adopts PBR it will apply to the Company. Until New York adopts PBR, the Company will continue to follow New York requirements, which are formula based reserves. The Company continues to evaluate the NAIC guidance and does not anticipate a material impact on surplus.

Corrections of Errors

The Company had no material corrections of errors during 2018 and 2017.

3. Business Combinations and Goodwill

Not applicable.

4. Discontinued Operations

Not applicable.

5. Investments

A. Mortgage Loans

(1) The maximum and minimum lending rates for mortgage loans issued during 2018 were:

| | | | | |
|------------------|---------|-------|---------|-------|
| Commercial Loans | Maximum | 5.75% | Minimum | 2.83% |
| Mezzanine Loans | Maximum | 6.71% | Minimum | 5.38% |

(2) The maximum percentage of any one loan to the value of the security at the time of the loan, exclusive of insured, guaranteed or purchase money mortgages was: 70% commercial loans and 74% mezzanine loans.

(3)

| | | 12/31/2018 | | 12/31/2017 |
|-----------------------------------------------------------------------------------------------|----|------------|----|------------|
| Taxes, assessments and any amounts advanced and not included in the mortgage loan total | \$ | — | \$ | — |

NOTES TO FINANCIAL STATEMENTS

(4) Age Analysis of Mortgage Loans and Identification of Mortgage Loans in Which the Company is a Participant or Co-lender in a Mortgage Loan Agreement (in millions):

| | | | Residential | | Residential | Commercial | | Commercial | | | |
|-----|-------------------------------------------------------|------|-------------|-----------|-------------|------------|-----------|------------|--|--|--|
| | | Farm | Insured | All Other | Insured | All Other | Mezzanine | Total | | | |
| a. | Current Year as of 12/31/2018 | | | | | | | | | | |
| 1. | Recorded Investment (All) | | | | | | | | | | |
| (a) | Current | \$ — | \$ — | \$ 1,116 | \$ — | \$ 26,363 | \$ 2,579 | \$ 30,058 | | | |
| (b) | 30-59 days past due | \$ — | \$ — | \$ 3 | \$ — | \$ — | \$ — | \$ 3 | | | |
| (c) | 60-89 Days Past Due | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| (d) | 90-179 Days Past Due..... | \$ — | \$ — | \$ 1 | \$ — | \$ — | \$ — | \$ 1 | | | |
| (e) | 180+ Days Past Due..... | \$ — | \$ — | \$ 1 | \$ — | \$ — | \$ — | \$ 1 | | | |
| 2. | Accruing Interest 90 – 179 Days Past Due | | | | | | | | | | |
| (a) | Recorded Investment | \$ — | \$ — | \$ 1 | \$ — | \$ — | \$ — | \$ 1 | | | |
| (b) | Interest Accrued..... | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| 3. | Accruing Interest 180+ Days Past Due | | | | | | | | | | |
| (a) | Recorded Investment | \$ — | \$ — | \$ 1 | \$ — | \$ — | \$ — | \$ 1 | | | |
| (b) | Interest Accrued..... | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| 4. | Interest Reduced | | | | | | | | | | |
| (a) | Recorded Investment | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| (b) | Number of Loans | — | — | — | — | — | — | — | | | |
| (c) | Percent Reduced | —% | —% | —% | —% | —% | —% | —% | | | |
| 5. | Participant or Co-lender in a Mortgage Loan Agreement | | | | | | | | | | |
| (a) | Recorded Investment | \$ — | \$ — | \$ — | \$ — | \$ 5,499 | \$ 2,579 | \$ 8,078 | | | |
| b. | Prior Year as of 12/31/2017 | | | | | | | | | | |
| 1. | Recorded Investment | | | | | | | | | | |
| (a) | Current | \$ — | \$ — | \$ 1,227 | \$ — | \$ 22,884 | \$ 2,574 | \$ 26,685 | | | |
| (b) | 30-59 Days Past Due | \$ — | \$ — | \$ 4 | \$ — | \$ — | \$ — | \$ 4 | | | |
| (c) | 60-89 Days Past Due | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| (d) | 90-179 Days Past Due..... | \$ — | \$ — | \$ 1 | \$ — | \$ — | \$ — | \$ 1 | | | |
| (e) | 180+ Days Past Due..... | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| 2. | Accruing Interest 90 – 179 Days Past Due | | | | | | | | | | |
| (a) | Recorded Investment | \$ — | \$ — | \$ 1 | \$ — | \$ — | \$ — | \$ 1 | | | |
| (b) | Interest Accrued..... | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| 3. | Accruing Interest 180+ Days Past Due | | | | | | | | | | |
| (a) | Recorded Investment | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| (b) | Interest Accrued..... | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| 4. | Interest Reduced | | | | | | | | | | |
| (a) | Recorded Investment | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | | | |
| (b) | Number of Loans | — | — | — | — | — | — | — | | | |
| (c) | Percent Reduced | —% | —% | —% | —% | —% | —% | —% | | | |
| 5. | Participant or Co-lender in a Mortgage Loan Agreement | | | | | | | | | | |
| (a) | Recorded Investment | \$ — | \$ — | \$ — | \$ — | \$ 4,235 | \$ 2,516 | \$ 6,751 | | | |

NOTES TO FINANCIAL STATEMENTS

(5) Investment in Impaired Loans With or Without allowance for Credit Losses and Impaired Loans subject to a Participant or Co-lender Mortgage Loan Agreement for which the Company is Restricted from Unilaterally Foreclosing on the Mortgage Loan (in millions):

| | | | Residential | Residential | Commercial | Commercial | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|-------------|-------------|------------|------------|--------|--|
| | Farm | Insured | All Other | Insured | All Other | Mezzanine | Total | |
| a. Current Year as of 12/31/2018 | | | | | | | | |
| 1. With Allowance for Credit Losses | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | |
| 2. No Allowance for Credit Losses | \$ — | \$ — | \$ 25 | \$ — | \$ — | \$ — | \$ 25 | |
| 3. Total (1+2) | \$ — | \$ — | \$ 25 | \$ — | \$ — | \$ — | \$ 25 | |
| 4. Subject to a participant or co-lender mortgage loan agreement for which the reporting entity is restricted from unilaterally foreclosing on the mortgage loan | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | |
| b. Prior Year as of 12/31/2017 | | | | | | | | |
| 1. With Allowance for Credit Losses | \$ — | \$ — | \$ — | \$ — | \$ 76 | \$ — | \$ 76 | |
| 2. No Allowance for Credit Losses | \$ — | \$ — | \$ 27 | \$ — | \$ — | \$ — | \$ 27 | |
| 3. Total (1+2) | \$ — | \$ — | \$ 27 | \$ — | \$ 76 | \$ — | \$ 103 | |
| 4. Subject to a participant or co-lender mortgage loan agreement for which the reporting entity is restricted from unilaterally foreclosing on the mortgage loan | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | |

(6) Investment in Impaired Loans – Average Recorded Investment, Interest Income Recognized, Recorded Investment on Non-accrual Status and Amount of Interest Income Recognized Using a Cash-Basis Method of Accounting (in millions):

| | | Residential | Residential | Commercial | Commercial | | |
|------------------------------------------------------------------------------------|------|-------------|-------------|------------|------------|-----------|-------|
| | Farm | Insured | All Other | Insured | All Other | Mezzanine | Total |
| a. Current Year as of 12/31/2018 | | | | | | | |
| 1. Average Recorded Investment | \$ — | \$ — | \$ 26 | \$ — | \$ 38 | \$ — | \$ 64 |
| 2. Interest Income Recognized | \$ — | \$ — | \$ 1 | \$ — | \$ 4 | \$ — | \$ 5 |
| Recorded Investments on Non-accrual Status | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — |
| Amount of Interest Income Recognized Using a Cash-Basis Method of Accounting | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — |
| b. Prior Year as of 12/31/2017 | | | | | | | |
| 1. Average Recorded Investment | \$ — | \$ — | \$ 29 | \$ — | \$ 38 | \$ — | \$ 67 |
| 2. Interest Income Recognized... .. | \$ — | \$ — | \$ 1 | \$ — | \$ 5 | \$ — | \$ 6 |
| Recorded Investments on Non-accrual Status | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — |
| Amount of Interest Income Recognized Using a Cash-Basis Method of Accounting | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — |

(7) Allowance for credit losses (in millions):

| | 12/31/2018 | 12/31/2017 |
|------------------------------------------------------------|------------|------------|
| a) Balance at beginning of period | \$ 6 | \$ — |
| b) Additions charged to operations | 16 | 6 |
| c) Direct write-downs charged against the allowances | (22) | — |
| d) Recoveries of amounts previously charged off | — | — |
| e) Balance at end of period | \$ — | \$ 6 |

NOTES TO FINANCIAL STATEMENTS

(8) For mortgage loans derecognized as a result of foreclosure provide the following (in millions):

| | 12/31/2018 | | 12/31/2017 | |
|---------------------------------------------------------------------------------------|------------|----|------------|---|
| a) Aggregate amount of mortgage loans derecognized as a result of foreclosure | \$ | 75 | \$ | — |
| b) Real estate collateral recognized | \$ | 20 | \$ | — |
| c) Other collateral recognized | \$ | — | \$ | — |
| d) Receivables recognized from a government guarantee of the foreclosed mortgage loan | \$ | — | \$ | — |

(9) The Company recognizes interest income on its impaired loans as earned to the extent it is deemed collectible. If deemed uncollectible, the Company recognizes interest income on its impaired loans upon receipt.

B. Debt Restructuring

At December 31, 2018, the Company did not have any restructured loans.

C. Reverse Mortgages

Not applicable

D. Loan-Backed Securities

(1) The near-term prepayment assumptions for loan-backed and structured securities are based on historical averages drawing from performance experience for a particular transaction and may vary by security type. The long-term assumptions are adjusted based on expected performance.

(2) The following table represents OTTI on securities with the intent to sell for each quarter of 2018:

| | 1 | 2 | | 3 |
|------------------------------|----------------------------------|-------------------------|-----------------|----------------------|
| | | OTTI Recognized in Loss | | |
| | Amortized Cost Basis Before OTTI | 2a Interest | 2b Non-interest | Fair Value 1-(2a+2b) |
| OTTI recognized 1st Quarter | | | | |
| a. Intent to sell | \$ 69,216,928 | \$ 481,870 | \$ 90,278 | \$ 68,644,780 |
| Total 1st Quarter | \$ 69,216,928 | \$ 481,870 | \$ 90,278 | \$ 68,644,780 |
| OTTI recognized 2nd Quarter | | | | |
| a. Intent to sell | \$ 177,133,525 | \$ 4,827,649 | \$ 1,609,276 | \$ 170,696,600 |
| Total 2nd Quarter | \$ 177,133,525 | \$ 4,827,649 | \$ 1,609,276 | \$ 170,696,600 |
| OTTI recognized 3rd Quarter | | | | |
| a. Intent to sell | \$ 133,305,171 | \$ 483,181 | \$ 201,980 | \$ 132,620,010 |
| Total 3rd Quarter | \$ 133,305,171 | \$ 483,181 | \$ 201,980 | \$ 132,620,010 |
| OTTI recognized 4th Quarter | | | | |
| a. Intent to sell | \$ 60,100,734 | \$ 5,906,811 | \$ 2,296,913 | \$ 51,897,010 |
| Total 4th Quarter | \$ 60,100,734 | \$ 5,906,811 | \$ 2,296,913 | \$ 51,897,010 |
| Annual Aggregate Total | | \$ 11,699,511 | \$ 4,198,447 | |

The Company did not recognize any OTTI on securities it lacked the ability to retain for a period of time sufficient to recover the amortized cost basis.

NOTES TO FINANCIAL STATEMENTS

(3) The following table represents loan-backed and structured securities with an other-than-temporary impairment recognized in the current reporting period by the Company where the present value of cash flows expected to be collected is less than the amortized cost basis as of December 31, 2018:

| CUSIP | Book/Adj. Carrying Value Amortized Cost Before Current Period OTTI | Present Value of Projected Cash Flows | Recognized Other-Than- Temporary Impairment | Amortized Cost After Other-Than- Temporary Impairment | Fair Value as of Impairment Date | Date of Financial Statement Where Reported |
|-----------|--------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------|--------------------------------------------------------|
| 36185NJ50 | \$ 131,453 | \$ — | \$ (131,453) | \$ — | \$ 14,820 | 03/31/2018 |
| 36185NJ43 | 707,514 | 450,188 | (257,326) | 450,188 | 464,242 | 03/31/2018 |
| 125925ER4 | 735 | — | (735) | — | — | 03/31/2018 |
| 94980KAP7 | 287,471 | — | (287,471) | — | 154,973 | 06/30/2018 |
| 17311QAE0 | 2,767,422 | 2,394,722 | (372,700) | 2,394,722 | 2,387,082 | 06/30/2018 |
| 17311QBN9 | 12,480,503 | 9,498,687 | (2,981,816) | 9,498,687 | 9,548,315 | 06/30/2018 |
| 31393YY41 | 2,336,505 | 1,821,359 | (515,146) | 1,821,359 | 1,753,030 | 09/30/2018 |
| 58550PAA4 | 71,108 | — | (71,108) | — | 3,056 | 09/30/2018 |
| 059500AF5 | 8,840,029 | 4,885,449 | (3,954,580) | 4,885,449 | 4,774,226 | 09/30/2018 |
| 161546FJ0 | 920,610 | 570,312 | (350,298) | 570,312 | 575,031 | 12/31/2018 |
| 74951PDF2 | 573,055 | 274,174 | (298,881) | 274,174 | 334,692 | 12/31/2018 |
| 03927PAF5 | 673,175 | 215,801 | (457,374) | 215,801 | 287,648 | 12/31/2018 |
| 22608SAD0 | 386,734 | — | (386,734) | — | 22,773 | 12/31/2018 |
| Total | | | <u>\$ (10,065,622)</u> | | | |

(4) All impaired securities (fair value is less than cost or amortized cost) for which an OTTI has not been recognized in earnings as a realized loss (including securities with a recognized OTTI for non-interest related declines when a non-recognized interest related impairment remains):

| | | |
|---------------------------------------------------------------------------|------------------------|-------------------|
| a. The aggregate amount of unrealized losses: | | |
| | 1. Less than 12 Months | \$ 275,552,779 |
| | 2. 12 Months or Longer | \$ 423,001,772 |
| b. The aggregate related fair value of securities with unrealized losses: | | |
| | 1. Less than 12 Months | \$ 11,646,854,658 |
| | 2. 12 Months or Longer | \$ 9,297,869,486 |

(5) The Company’s management periodically reviews the investment portfolios and identifies investments which may have deteriorated in credit quality and are candidates for impairment. The Company develops cash flows as part of its impairment review process. Where the cash flows support the recovery of the principal balance, the Company concludes that the impairment is not other-than-temporary.

E. Dollar Repurchase Agreements and/or Securities Lending Transactions

(1) The Company has a securities lending program whereby blocks of securities, which are included in invested assets, are loaned to third parties, primarily brokerage firms and commercial banks. Generally, the Company requires collateral equal to 102% (105% for foreign loaned securities) of the current estimated fair value of the loaned securities for the duration of the loan. The Company monitors the estimated fair value of the securities loaned on a daily basis with additional collateral obtained as necessary.

See note 34 for information on separate account securities lending.

(2) The Company did not have any pledged assets as collateral for securities lending transactions as of December 31, 2018.

NOTES TO FINANCIAL STATEMENTS

(3) Collateral Received:

a. Aggregate Amount Collateral Received

| | | Fair Value |
|-------------------------------|----|-------------|
| 1. Securities Lending | | |
| (a) Open | \$ | 561,635,042 |
| (b) 30 Days or Less | | — |
| (c) 31 to 60 Days | | — |
| (d) 61 to 90 Days | | — |
| (e) Greater Than 90 Days | | — |
| (f) Sub - Total | \$ | 561,635,042 |
| (g) Securities Received | | — |
| (h) Total Collateral Received | \$ | 561,635,042 |

b. The fair value of the collateral received for the securities lending program was \$561,635,042. This collateral is cash and was not sold or re-pledged as of December 31, 2018.

c. Of cash collateral received from the securities lending program, \$391,635,042 was held as cash as of December 31, 2018. The remaining \$170,000,000 of cash collateral was invested in overnight Treasury reverse repurchase investments.

(4) As of December 31, 2018, the Company has no securities lending transactions administered by an affiliated agent.

(5) Collateral Reinvestment

a. Aggregate Amount Collateral Reinvested

| | Amortized Cost | Fair Value |
|---------------------------------|----------------|----------------|
| 1. Securities Lending | | |
| (a) Open | \$ 391,635,042 | \$ 391,635,042 |
| (b) 30 Days or Less | \$ 170,000,000 | \$ 170,000,000 |
| (c) 31 to 60 Days | — | — |
| (d) 61 to 90 Days | — | — |
| (e) 91 to 120 Days | — | — |
| (f) 121 to 180 Days | — | — |
| (g) 181 to 365 Days | — | — |
| (h) 1 to 2 Years | — | — |
| (i) 2 to 3 Years | — | — |
| (j) Greater Than 3 Years | — | — |
| (k) Sub - Total | \$ 561,635,042 | \$ 561,635,042 |
| (l) Securities Received | — | — |
| (m) Total Collateral Reinvested | \$ 561,635,042 | \$ 561,635,042 |

b. The collateral received in connection with the securities lending program is held as cash and overnight Treasury reverse repurchase investments. Thus, the collateral remains liquid and could be returned in the event of a collateral call.

(6) Not applicable

(7) The contracts for the securities lending transactions as of December 31, 2018, are open ended with no termination date specified. The collateral for the open ended transactions as of December 31, 2018 was cash and overnight Treasury reverse repurchase agreements in the amount of \$561,635,042.

F. Repurchase Agreements Transactions Accounted for as Secured Borrowing

(1) The Company has a repurchase program to sell and repurchase securities for the purpose of providing additional liquidity. For repurchase agreements, the Company’s policy requires a minimum of 95% of the fair value of securities transferred under repurchase agreements to be maintained as collateral.

The Company has procedures in place to monitor the value of the collateral held and the fair value of the securities transferred under the agreements. If at any time the value of the collateral received from the counterparty falls below 95% of the fair value of securities transferred, the Company is entitled to receive additional collateral from its counterparty. The Company monitors the estimated fair value of the securities sold under the agreements on a daily basis with additional collateral sent/obtained as necessary. If the counterparty were to default on its obligation to return the securities sold under the agreement on the repurchase date, the Company has the right to retain the collateral.

NOTES TO FINANCIAL STATEMENTS

The Company had no outstanding repurchase agreements as of December 31, 2018.

(2) Type of Repo Trades Used

| | 1 FIRST QUARTER | 2 SECOND QUARTER | 3 THIRD QUARTER | 4 FOURTH QUARTER |
|-----------------------------|-----------------------|------------------------|-----------------------|------------------------|
| a. Bilateral (YES/NO) | YES | YES | NO | YES |
| b. Tri-Party (YES/NO) | NO | NO | NO | NO |

(3) Original (Flow) & Residual Maturity

| First Quarter | | | | | | | |
|-------------------------------|---------|---------|--------------------------|-------------------|--|--|---|
| | 1 | 2 | 3 | 4 | | | |
| | MINIMUM | MAXIMUM | AVERAGE DAILY BALANCE | ENDING BALANCE | | | |
| a. Open - No Maturity | \$ | — \$ | — \$ | — \$ | | | — |
| b. Overnight | \$ | — \$ | 200,001,123 \$ | 7,677,787 \$ | | | — |
| c. 2 Days to 1 Week | \$ | — \$ | — \$ | — \$ | | | — |
| d. >1 Week to 1 Month | \$ | — \$ | — \$ | — \$ | | | — |
| e. >1 Month to 3 Months | \$ | — \$ | — \$ | — \$ | | | — |
| f. >3 Months to 1 Year | \$ | — \$ | — \$ | — \$ | | | — |
| g. >1 Year | \$ | — \$ | — \$ | — \$ | | | — |

| Second Quarter | | | | | | | |
|-------------------------------|---------|---------|--------------------------|-------------------|--|--|---|
| | 1 | 2 | 3 | 4 | | | |
| | MINIMUM | MAXIMUM | AVERAGE DAILY BALANCE | ENDING BALANCE | | | |
| a. Open - No Maturity | \$ | — \$ | — \$ | — \$ | | | — |
| b. Overnight | \$ | — \$ | 300,000,000 \$ | 3,901,099 \$ | | | — |
| c. 2 Days to 1 Week | \$ | — \$ | — \$ | — \$ | | | — |
| d. >1 Week to 1 Month | \$ | — \$ | — \$ | — \$ | | | — |
| e. >1 Month to 3 Months | \$ | — \$ | — \$ | — \$ | | | — |
| f. >3 Months to 1 Year | \$ | — \$ | — \$ | — \$ | | | — |
| g. >1 Year | \$ | — \$ | — \$ | — \$ | | | — |

| Third Quarter | | | | | | | |
|-------------------------------|---------|---------|--------------------------|-------------------|--|--|---|
| | 1 | 2 | 3 | 4 | | | |
| | MINIMUM | MAXIMUM | AVERAGE DAILY BALANCE | ENDING BALANCE | | | |
| a. Open - No Maturity | \$ | — \$ | — \$ | — \$ | | | — |
| b. Overnight | \$ | — \$ | — \$ | — \$ | | | — |
| c. 2 Days to 1 Week | \$ | — \$ | — \$ | — \$ | | | — |
| d. >1 Week to 1 Month | \$ | — \$ | — \$ | — \$ | | | — |
| e. >1 Month to 3 Months | \$ | — \$ | — \$ | — \$ | | | — |
| f. >3 Months to 1 Year | \$ | — \$ | — \$ | — \$ | | | — |
| g. >1 Year | \$ | — \$ | — \$ | — \$ | | | — |

| Fourth Quarter | | | | | | | |
|-------------------------------|---------|---------|--------------------------|-------------------|--|--|---|
| | 1 | 2 | 3 | 4 | | | |
| | MINIMUM | MAXIMUM | AVERAGE DAILY BALANCE | ENDING BALANCE | | | |
| a. Open - No Maturity | \$ | — \$ | — \$ | — \$ | | | — |
| b. Overnight | \$ | — \$ | 12,762,500 \$ | 138,723 \$ | | | — |
| c. 2 Days to 1 Week | \$ | — \$ | — \$ | — \$ | | | — |
| d. >1 Week to 1 Month | \$ | — \$ | — \$ | — \$ | | | — |
| e. >1 Month to 3 Months | \$ | — \$ | — \$ | — \$ | | | — |
| f. >3 Months to 1 Year | \$ | — \$ | — \$ | — \$ | | | — |
| g. >1 Year | \$ | — \$ | — \$ | — \$ | | | — |

NOTES TO FINANCIAL STATEMENTS

(4) Counterparty, Jurisdiction and Fair Value (FV)

| | | | | | |
|------------------------------------------------------------------------------------------------------|--------------|---------------|----------------|-----------------------|----------------|
| 1 | 2 | FIRST QUARTER | | | |
| | | 3 | 4 | 5 | 6 |
| | Jurisdiction | MINIMUM | MAXIMUM | AVERAGE DAILY BALANCE | ENDING BALANCE |
| a. Default (Fair Value of Securities Sold/ Outstanding for Which the Repo Agreement Defaulted) | XXX | \$ — | \$ — | \$ — | \$ — |
| b. Counterparty | | | | | |
| TD Securities (USA) LLC | US | \$ — | \$ 195,075,046 | \$ 7,608,715 | \$ — |

| | | | | | |
|------------------------------------------------------------------------------------------------------|--------------|----------------|----------------|-----------------------|----------------|
| 1 | 2 | SECOND QUARTER | | | |
| | | 7 | 8 | 9 | 10 |
| | Jurisdiction | MINIMUM | MAXIMUM | AVERAGE DAILY BALANCE | ENDING BALANCE |
| a. Default (Fair Value of Securities Sold/ Outstanding for Which the Repo Agreement Defaulted) | XXX | \$ — | \$ — | \$ — | \$ — |
| b. Counterparty | | | | | |
| TD Securities (USA) LLC | US | \$ — | \$ 295,362,107 | \$ 3,839,273 | \$ — |

| | | | | | |
|------------------------------------------------------------------------------------------------------|--------------|---------------|---------|-----------------------|----------------|
| 1 | 2 | THIRD QUARTER | | | |
| | | 11 | 12 | 13 | 14 |
| | Jurisdiction | MINIMUM | MAXIMUM | AVERAGE DAILY BALANCE | ENDING BALANCE |
| a. Default (Fair Value of Securities Sold/ Outstanding for Which the Repo Agreement Defaulted) | XXX | \$ — | \$ — | \$ — | \$ — |
| b. Counterparty | N/A | \$ — | \$ — | \$ — | \$ — |

| | | | | | |
|------------------------------------------------------------------------------------------------------|--------------|----------------|---------------|-----------------------|----------------|
| 1 | 2 | FOURTH QUARTER | | | |
| | | 15 | 16 | 17 | 18 |
| | Jurisdiction | MINIMUM | MAXIMUM | AVERAGE DAILY BALANCE | ENDING BALANCE |
| a. Default (Fair Value of Securities Sold/ Outstanding for Which the Repo Agreement Defaulted) | XXX | \$ — | \$ — | \$ — | \$ — |
| b. Counterparty | | | | | |
| Deutsche Bank Securities Inc. | US | \$ — | \$ 12,713,700 | \$ 138,192 | \$ — |

(5) Securities "Sold" Under Repo - Secured Borrowing

| | | | | | |
|--------------------------------------|------|----------------|--------------|-----------------------|----------------|
| FIRST QUARTER | | | | | |
| 1 | | 2 | | 3 | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | ENDING BALANCE |
| a. BACV | XXX | XXX | XXX | \$ | — |
| b. Nonadmitted - Subset of BACV | XXX | XXX | XXX | \$ | — |
| c. Fair Value | \$ — | \$ 195,075,046 | \$ 7,608,715 | \$ | — |

| | | | | | |
|--------------------------------------|------|----------------|--------------|-----------------------|----------------|
| SECOND QUARTER | | | | | |
| 1 | | 2 | | 3 | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | ENDING BALANCE |
| a. BACV | XXX | XXX | XXX | \$ | — |
| b. Nonadmitted - Subset of BACV | XXX | XXX | XXX | \$ | — |
| c. Fair Value | \$ — | \$ 295,362,107 | \$ 3,839,273 | \$ | — |

| | | | | | |
|--------------------------------------|------|---------|------|-----------------------|----------------|
| THIRD QUARTER | | | | | |
| 1 | | 2 | | 3 | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | ENDING BALANCE |
| a. BACV | XXX | XXX | XXX | \$ | — |
| b. Nonadmitted - Subset of BACV | XXX | XXX | XXX | \$ | — |
| c. Fair Value | \$ — | \$ — | \$ — | \$ — | — |

| | | | | | |
|--------------------------------------|------|---------------|------------|-----------------------|----------------|
| FOURTH QUARTER | | | | | |
| 1 | | 2 | | 3 | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | ENDING BALANCE |
| a. BACV | XXX | XXX | XXX | \$ | — |
| b. Nonadmitted - Subset of BACV | XXX | XXX | XXX | \$ | — |
| c. Fair Value | \$ — | \$ 12,713,700 | \$ 138,192 | \$ | — |

NOTES TO FINANCIAL STATEMENTS

(6) Securities Sold Under Repo - Secured Borrowing by NAIC Designation

Not applicable

(7) Collateral Received - Secured Borrowing

| FIRST QUARTER | | | | | |
|--------------------------|----|---------|----|-----------------------|----------------|
| 1 | | 2 | | 3 | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | 4 |
| | | | | | ENDING BALANCE |
| a. Cash | \$ | — | \$ | 200,001,123 | \$ 7,677,787 |
| b. Securities (FV) | \$ | — | \$ | — | \$ — |

| SECOND QUARTER | | | | | |
|--------------------------|----|---------|----|-----------------------|----------------|
| 5 | | 6 | | 7 | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | 8 |
| | | | | | ENDING BALANCE |
| a. Cash | \$ | — | \$ | 300,000,000 | \$ 3,901,099 |
| b. Securities (FV) | \$ | — | \$ | — | \$ — |

| THIRD QUARTER | | | | | |
|--------------------------|----|---------|----|-----------------------|----------------|
| 9 | | 10 | | 11 | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | 12 |
| | | | | | ENDING BALANCE |
| a. Cash | \$ | — | \$ | — | \$ — |
| b. Securities (FV) | \$ | — | \$ | — | \$ — |

| FOURTH QUARTER | | | | | |
|--------------------------|----|---------|----|-----------------------|----------------|
| 13 | | 14 | | 15 | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | 16 |
| | | | | | ENDING BALANCE |
| a. Cash | \$ | — | \$ | 12,762,500 | \$ 138,723 |
| b. Securities (FV) | \$ | — | \$ | — | \$ — |

(8) Cash & Non-Cash Collateral Received - Secured Borrowing by NAIC Designation

Not applicable

(9) Allocation of Aggregate Collateral by Remaining Contractual Maturity

Not applicable

(10) Allocation of Aggregate Collateral Reinvested by Remaining Contractual Maturity

Not applicable

NOTES TO FINANCIAL STATEMENTS

(11) Liability to Return Collateral - Secured Borrowing (Total)

| FIRST QUARTER | | | | | | | | | |
|---------------|-------------------------------|---------|---|-----------------------|-------------|----------------|-----------|----|---|
| 1 | | 2 | | 3 | | 4 | | | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | | ENDING BALANCE | | | |
| a. | Cash (Collateral - All) | \$ | — | \$ | 200,025,623 | \$ | 7,678,438 | \$ | — |
| b. | Securities Collateral (FV) . | \$ | — | \$ | — | \$ | — | \$ | — |

| SECOND QUARTER | | | | | | | | | |
|----------------|-------------------------------|---------|---|-----------------------|-------------|----------------|-----------|----|---|
| 5 | | 6 | | 7 | | 8 | | | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | | ENDING BALANCE | | | |
| a. | Cash (Collateral - All) | \$ | — | \$ | 300,015,000 | \$ | 3,901,295 | \$ | — |
| b. | Securities Collateral (FV) . | \$ | — | \$ | — | \$ | — | \$ | — |

| THIRD QUARTER | | | | | | | | | |
|---------------|-------------------------------|---------|---|-----------------------|---|----------------|---|----|---|
| 9 | | 10 | | 11 | | 12 | | | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | | ENDING BALANCE | | | |
| a. | Cash (Collateral - All) | \$ | — | \$ | — | \$ | — | \$ | — |
| b. | Securities Collateral (FV) . | \$ | — | \$ | — | \$ | — | \$ | — |

| FOURTH QUARTER | | | | | | | | | |
|----------------|-------------------------------|---------|---|-----------------------|------------|----------------|---------|----|---|
| 13 | | 14 | | 15 | | 16 | | | |
| MINIMUM | | MAXIMUM | | AVERAGE DAILY BALANCE | | ENDING BALANCE | | | |
| a. | Cash (Collateral - All) | \$ | — | \$ | 12,763,315 | \$ | 138,732 | \$ | — |
| b. | Securities Collateral (FV) . | \$ | — | \$ | — | \$ | — | \$ | — |

G. Reverse Repurchase Agreements Transactions Accounted for as Secured Borrowing

Not applicable

H. Repurchase Agreements Transactions Accounted for as a Sale

Not applicable

I. Reverse Repurchase Agreements Transactions Accounted for as a Sale

Not applicable

J. Real Estate

- (1) The Company did not recognize OTTI on its directly owned real estate for the year ended December 31, 2018. The Company monitors the effects of current and expected market conditions and other factors on its real estate investments to identify and quantify any impairment in value. The Company assesses assets to determine if events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. The Company evaluates the recoverability of income producing investments based on undiscounted cash flows and then reviews the results of an independent third party appraisal to determine the fair value and if an adjustment is required.
- (2) As of December 31, 2018, the Company had \$12,323,484 of real estate investments classified as held for sale. For the year ended December 31, 2018, the Company recognized net realized gains of \$22,286,635 on real estate sold in the current year. The gains are included in net realized capital gains (losses) in the summary of operations.
- (3) There were no changes during 2018 in the Company’s plans to sell investment real estate.
- (4) The Company has no retail land sales operations.
- (5) The Company has no real estate investments with participating mortgage loan features.

K. Low Income Housing Tax Credits (“LIHTC”)

Not applicable

NOTES TO FINANCIAL STATEMENTS

L. Restricted Assets

(1) Restricted Assets (Including Pledged), (in millions)

| Gross (Admitted and Nonadmitted) Restricted | | | | | | | | | | | | |
|---------------------------------------------------------------------------------------|-----------------------------|-----------------------------------|------------------------------------------------|----------------------------------------|------------------|-----------------------|-----------------------------------|------------------------------|---------------------------------------|-----------------------------------------------------------|----------------------------------------------|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | |
| Restricted Asset Category | Total General Account (G/A) | G/A Supporting (S/A) Activity (a) | Total Separate Account (S/A) Restricted Assets | S/A Assets Supporting G/A Activity (b) | Total (1 plus 3) | Total From Prior Year | Increase / (Decrease (5 minus 6)) | Total Nonadmitted Restricted | Total Admitted Restricted (5 minus 8) | Gross (Admitted & Nonadmitted) Restricted to Total Assets | Admitted Restricted to Total Admitted Assets | |
| Subject to contractual obligation for which liability is not shown.... | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | \$ — | 0.000% | 0.000% | |
| Collateral held under security lending agreements.... | 562 | — | 74 | — | 636 | 732 | (96) | — | 636 | 0.207% | 0.210% | |
| Subject to repurchase agreements.... | — | — | — | — | — | — | — | — | — | 0.000% | 0.000% | |
| Subject to reverse repurchase agreements.... | — | — | — | — | — | — | — | — | — | 0.000% | 0.000% | |
| Subject to dollar repurchase agreements.... | — | — | — | — | — | — | — | — | — | 0.000% | 0.000% | |
| Subject to dollar reverse repurchase agreements.... | — | — | — | — | — | — | — | — | — | 0.000% | 0.000% | |
| Placed under option contracts | — | — | — | — | — | — | — | — | — | 0.000% | 0.000% | |
| Letter stock or securities restricted as to sale – excluding FHLB capital stock | — | — | — | — | — | — | — | — | — | 0.000% | 0.000% | |
| FHLB capital stock | 82 | — | — | — | 82 | 81 | 1 | — | 82 | 0.027% | 0.027% | |
| On deposit with states..... | 17 | — | — | — | 17 | 18 | (1) | — | 17 | 0.006% | 0.006% | |
| On deposit with other regulatory bodies | — | — | — | — | — | — | — | — | — | 0.000% | 0.000% | |
| Pledged as collateral to FHLB (including assets backing funding agreements)... | — | — | — | — | — | — | — | — | — | 0.000% | 0.000% | |
| Pledged as collateral not captured in other categories | 26 | — | — | — | 26 | 332 | (306) | — | 26 | 0.008% | 0.009% | |
| Other restricted assets | 70 | — | 154 | — | 224 | 42 | 182 | — | 224 | 0.073% | 0.074% | |
| Total restricted assets..... | \$ 757 | \$ — | \$ 228 | \$ — | \$ 985 | \$1,205 | \$ (220) | \$ — | \$ 985 | 0.321% | 0.325% | |

NOTES TO FINANCIAL STATEMENTS

(2) Detail of Assets Pledged as Collateral Not Captured in Other Categories (Contracts That Share Similar Characteristics, Such as Reinsurance and Derivatives, Are Reported in the Aggregate) (in millions)

| Gross (Admitted and Nonadmitted) Restricted | | | | | | | | | | | |
|---------------------------------------------|-----------------------|-------------------------------|------------------------------------------|------------------------------------|------------------|-----------------------|-----------------------------------|----------------------------------------|-------------------------------------------------------------|----------------------------------------------|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| Description of Assets | Total General Account | G/A Supporting (S/A) Activity | Total Separate Account Restricted Assets | S/A Assets Supporting G/A Activity | Total (1 plus 3) | Total From Prior Year | Increase / (Decrease (5 minus 6)) | Total Current Year Admitted Restricted | Gross (Admitted and Nonadmitted) Restricted to Total Assets | Admitted Restricted to Total Admitted Assets | |
| Derivative Collateral | \$ 16 | \$ — | \$ — | \$ — | \$ 16 | \$ 322 | \$ (306) | \$ 16 | 0.005% | 0.005% | |
| Forward Loan Purchases | 10 | — | — | — | 10 | 10 | — | 10 | 0.003% | 0.003% | |
| Total | \$ 26 | \$ — | \$ — | \$ — | \$ 26 | \$ 332 | \$ (306) | \$ 26 | 0.008% | 0.009% | |

(3) Detail of Other Restricted Assets (Contracts That Share Similar Characteristics, Such as Reinsurance and Derivatives, Are Reported in the Aggregate) (in millions)

| Gross (Admitted and Nonadmitted) Restricted | | | | | | | | | | | |
|---------------------------------------------|-----------------------|-------------------------------|------------------------------------------|------------------------------------|------------------|-----------------------|-----------------------------------|----------------------------------------|-------------------------------------------------------------|----------------------------------------------|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | |
| Description of Assets | Total General Account | G/A Supporting (S/A) Activity | Total Separate Account Restricted Assets | S/A Assets Supporting G/A Activity | Total (1 plus 3) | Total From Prior Year | Increase / (Decrease (5 minus 6)) | Total Current Year Admitted Restricted | Gross (Admitted and Nonadmitted) Restricted to Total Assets | Admitted Restricted to Total Admitted Assets | |
| CLO Warehouse Preference Shares | \$ 70 | — | — | — | \$ 70 | — | \$ 70 | \$ 70 | 0.023% | 0.023% | |
| Real estate deposits | — | — | 154 | — | 154 | 42 | 112 | 154 | 0.050% | 0.051% | |
| Total | \$ 70 | \$ — | \$ 154 | \$ — | \$ 224 | \$ 42 | \$ 182 | \$ 224 | 0.073% | 0.074% | |

(4) Collateral Received and Reflected as Assets Within the Reporting Entity’s Financial Statements (in millions)

| 2018 | | | | |
|------------------------------------------------------------|-------------------------------------|------------|------------------------------------------------------|------------------------------------|
| Collateral Assets | Book/Adjusted Carrying Value (BACV) | Fair Value | % of BACV to Total Assets (Admitted and Nonadmitted) | % of BACV to Total Admitted Assets |
| a. Cash, Cash Equivalents and Short-Term Investments | \$ 756 | \$ 756 | 0.281% | 0.285% |
| b. Schedule D, Part 1 | — | — | —% | —% |
| c. Schedule D, Part 2, Section 1 | — | — | —% | —% |
| d. Schedule D, Part 2, Section 2 | — | — | —% | —% |
| e. Schedule B | — | — | —% | —% |
| f. Schedule A | — | — | —% | —% |
| g. Schedule BA, Part 1 | — | — | —% | —% |
| h. Schedule DL, Part 1 | 562 | 562 | 0.209% | 0.212% |
| i. Other | — | — | —% | —% |
| j. Total collateral assets (a+b+c+d+e+f+g+h+i) | \$ 1,318 | \$ 1,318 | 0.490% | 0.497% |

The Company receives primarily cash collateral for derivatives. The company reinvests the cash collateral or uses the cash for general corporate purposes.

| 2018 | | |
|------------------------------------------------------------|----------|-------------------------------------|
| | Amount | % of Liability to Total Liabilities |
| k. Recognized obligation to return collateral assets | \$ 1,318 | 0.581% |

M. Working Capital Financial Investments

Not applicable

N. Offsetting and Netting of Assets and Liabilities

Not applicable

NOTES TO FINANCIAL STATEMENTS

O. Structured Notes

The following table represents structured notes held as of December 31, 2018:

| CUSIP Identification | Actual Cost | Fair Value | Book/Adjusted Carrying Value | Mortgage-Referenced Security (YES/NO) |
|-------------------------|-------------------------|-------------------------|---------------------------------|------------------------------------------|
| 912828S50 | \$ 10,074,791 | \$ 9,905,648 | \$ 10,567,978 | NO |
| 912810RW0 | 1,204,756,873 | 1,163,892,405 | 1,241,402,146 | NO |
| Total | <u>\$ 1,214,831,664</u> | <u>\$ 1,173,798,053</u> | <u>\$ 1,251,970,124</u> | |

P. 5GI Securities

| Investment | Number of 5GI Securities | | Aggregate BACV | | Aggregate Fair Value | |
|--------------------------------|--------------------------|------------|----------------|---------------|----------------------|----------------|
| | Current Year | Prior Year | Current Year | Prior Year | Current Year | Prior Year |
| (1) Bonds - AC | 66 | 24 | \$ 856,404,551 | \$399,578,274 | \$ 876,927,833 | \$ 394,460,896 |
| (2) LB&SS - AC | — | 2 | — | 74,092,898 | — | 74,117,347 |
| (3) Preferred stock - AC | 2 | 1 | 27,500,000 | 1,184,910 | 46,590,023 | 1,502,573 |
| (4) Preferred stock - FV | — | — | — | — | — | — |
| (5) Total (1+2+3+4)..... | 68 | 27 | \$ 883,904,551 | \$474,856,082 | \$ 923,517,856 | \$ 470,080,816 |

AC - Amortized Cost FV - Fair Value

Q. Short Sales

Not applicable

R. Prepayment Penalty and Acceleration Fees

| | General Account | Separate Account |
|-------------------------------------------------|----------------------|------------------|
| (1) Number of CUSIPs | 107 | 3 |
| (2) Aggregate Amount of Investment Income | <u>\$ 83,242,916</u> | <u>\$ 72,964</u> |

6. Joint Ventures, Partnerships and Limited Liability Companies

- A. The Company has no investments in joint ventures, partnerships or limited liability companies that exceed 10% of its admitted assets.
- B. As of December 31, 2018, the Company recognized \$661,189,478 of OTTI on its investments in joint ventures, partnerships and limited liability companies. These investments are stated at cost adjusted for the Company’s percentage of the changes in the underlying audited GAAP equity of the investee. For certain investments where audited US GAAP basis financial statements are not available, the Company uses audited IFRS basis equity or audited US tax basis equity. An impairment is considered to have occurred if an event or change in circumstance indicates that the cost basis of the asset may not be recoverable or if there is limited ability to recover an unrealized loss. When an OTTI has been determined to have occurred, a realized loss is recorded to write the investment down to fair value.

7. Investment Income

- A. Due and accrued income was excluded from surplus on the following basis:
- Bonds – income due and accrued that is over 90 days past due.
- Preferred stocks – dividends due and accrued that are over 90 days past due.
- Common stocks – dividends due and accrued that are over 90 days past due and dividend amounts on affiliated common stocks related to real estate with rent over 90 days past due.
- Mortgage loans – income due and accrued on mortgages in default with interest 180 days past due which has been assessed as collectible.
- Real estate – income due and accrued related to rent that is in arrears for more than 90 days.
- B. The total amount excluded from income was \$0.

NOTES TO FINANCIAL STATEMENTS

8. Derivative Instruments

- A. The basic types of risks associated with derivatives are market risk (the value of the derivative will be adversely impacted by changes in the market, primarily the change in interest rates, credit spreads, and foreign currency exchange rates) and credit risk (the counterparty will not perform according to the terms of the contract). The market risk of derivatives should generally offset the market risk associated with the hedged asset or liability. The Company is exposed to credit-related losses in the event of non-performance by counterparties to the financial instruments, but it does not expect any counterparties to fail to meet their obligations given their high credit ratings. Derivatives may be exchange-traded or contracted in the OTC market. Certain of the Company's OTC derivatives are cleared and settled through central clearing counterparties ("OTC-cleared"), while others are bilateral contracts between two counterparties ("OTC-bilateral"). The counterparty credit exposure of derivatives is limited to the value of those contracts in a net gain position. The Company mitigates credit risk by entering into master agreements with its counterparties whereby contracts in a gain position can be offset against contracts in a loss position. Additionally, the Company typically enters into bilateral cross-collateralization agreements with its counterparties. These agreements require the counterparty in a loss position to submit acceptable collateral to the other counterparty in the event the net loss position meets or exceeds an agreed upon amount. See Schedule DB Part D for details of the Company's pledged collateral and counterparty exposure.
- B. The Company uses a variety of derivatives to hedge risks that include interest rate risk, foreign currency risk, credit risk and commodity risk. Derivatives are also used to replicate the investment performance of otherwise permissible investments. Derivative instruments historically used by the Company include interest rate swaps, foreign currency swaps, foreign currency forwards, credit default swaps, asset swaps, total return swaps, and commodity forwards.

Interest Rate Swaps

The Company enters into interest rate swap contracts to economically hedge against the effect of interest rate fluctuations on certain variable interest rate bonds. The Company does not apply hedge accounting for these derivatives instruments.

Foreign Currency Swap Contracts

The Company enters into foreign currency swap contracts to exchange fixed and variable amounts of foreign currency at specified future dates and at specified rates (in U.S. dollars) as a cash flow hedge to manage currency risks on investments denominated in foreign currencies. The Company applies hedge accounting to certain of these derivatives instruments and fair value accounting to the majority of these derivatives instruments.

Foreign Currency Forward Contracts

The Company enters into foreign currency forward contracts to exchange foreign currency at specified future dates and at specified rates (in U.S. dollars) to manage currency risks on investments denominated in foreign currencies. The Company does not apply hedge accounting for these derivatives instruments.

Purchased Credit Default Swap Contracts

The Company purchases credit default swaps to hedge against unexpected credit events on selective investments held in the Company's investment portfolio. The Company pays a periodic fee in exchange for the right to put the underlying investment back to the counterparty at par upon a credit event by the underlying referenced issuer. Credit events are typically defined as bankruptcy, failure to pay, or certain types of restructuring. The Company does not apply hedge accounting for these derivatives instruments.

Written Credit Default Swaps used in Replication Transactions

Credit default swaps are used by the Company in conjunction with long-term bonds as replication synthetic asset transactions ("RSAT"). RSATs are derivative transactions (the derivative component) established concurrently with other investments (the cash component) in order to "replicate" the investment characteristics of another permissible instrument (the reference entity). The Company sells credit default swaps on single name corporate or sovereign credits, credit indices, or credit index tranches and provides credit default protection to the buyer. Events or circumstances that would require the Company to perform under a written credit default swap may include, but are not limited to, bankruptcy, failure to pay, debt moratorium, debt repudiation, debt restructuring, or default. The Company does not apply hedge accounting for these derivatives instruments.

Asset Swaps

The Company enters into asset swap contracts to hedge against inflation risk associated with its U.S. Treasury Inflation Protected Securities (TIPS). The Company also uses asset swap contracts in certain RSATs. For hedges of its TIPS, the Company pays all cash flows received from the TIPS security to the counterparty in exchange for fixed interest rate coupon payments. The Company applies hedge accounting for asset swaps used in hedging transactions, and does not apply hedge accounting for asset swaps used in RSATs.

NOTES TO FINANCIAL STATEMENTS

Total Return Swaps

The Company entered into total return swap contracts in conjunction with long-term bonds as part of its RSAT strategy. The Company does not apply hedge accounting for these derivatives instruments.

Commodity Forward Contracts

The Company entered into forward contracts to sell crude oil at a specified price on a specified future date in order to economically hedge against the effect of fluctuations in crude oil prices on certain equity investments held in its investment portfolio. The Company does not apply hedge accounting for these derivatives instruments.

- C. See Footnote 1.C.9 for further discussion of the Company’s derivatives accounting policies.
- D. The Company does not enter into derivative contracts with financing premiums.
- E. The Company had no amounts excluded from the assessment of hedge effectiveness during the current year.
- F. The Company had no unrealized gains or losses during the current year resulting from derivatives that no longer qualify for hedge accounting.
- G. The Company does not have any derivatives accounted for as cash flow hedges of forecasted transactions.
- H. Not applicable

9. Federal Income Tax

A. The components of the Net Deferred Tax Assets (“DTA”) and Deferred Tax Liabilities (“DTL”) at December 31 are as follows (in thousands):

| (1) | 2018 | | | 2017 | | | Change | | |
|----------------------------------------------------------------------------------|-----------------|----------------|---------------------------|-----------------|----------------|---------------------------|------------------------------|-----------------------------|---------------------------|
| | (1) Ordinary | (2) Capital | (3) (Col 1+2) Total | (4) Ordinary | (5) Capital | (6) (Col 4+5) Total | (7) (Col 1–4) Ordinary | (8) (Col 2–5) Capital | (9) (Col 7+8) Total |
| a) Gross Deferred Tax Assets | \$ 6,114,986 | \$ 390,919 | \$ 6,505,905 | \$ 6,586,249 | \$ 204,588 | \$ 6,790,837 | \$ (471,263) | \$ 186,331 | \$ (284,932) |
| b) Statutory Valuation Allowance Adjustments | — | — | — | — | — | — | — | — | — |
| c) Adjusted Gross Deferred Tax Assets (1a – 1b) | \$ 6,114,986 | \$ 390,919 | \$ 6,505,905 | \$ 6,586,249 | \$ 204,588 | \$ 6,790,837 | \$ (471,263) | \$ 186,331 | \$ (284,932) |
| d) Deferred Tax Assets Nonadmitted | 3,134,967 | — | 3,134,967 | 3,720,533 | — | 3,720,533 | (585,566) | — | (585,566) |
| e) Subtotal Net Admitted Deferred Tax Asset (1c-1d) ... | \$ 2,980,019 | \$ 390,919 | \$ 3,370,938 | \$ 2,865,716 | \$ 204,588 | \$ 3,070,304 | \$ 114,303 | \$ 186,331 | \$ 300,634 |
| f) Deferred Tax Liabilities | 499,408 | 469,592 | 969,000 | 412,965 | 693,704 | 1,106,669 | 86,443 | (224,112) | (137,669) |
| g) Net Admitted Deferred Tax Assets/(Net Deferred Tax Liability) (1e – 1f) | \$ 2,480,611 | \$ (78,673) | \$ 2,401,938 | \$ 2,452,751 | \$ (489,116) | \$ 1,963,635 | \$ 27,860 | \$ 410,443 | \$ 438,303 |

NOTES TO FINANCIAL STATEMENTS

| | | | | | | | | | |
|-----|----------|---------|--------------------|----------|---------|--------------------|-----------------------|----------------------|--------------------|
| (2) | 2018 | | | 2017 | | | Change | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| | Ordinary | Capital | (Col 1+2) Total | Ordinary | Capital | (Col 4+5) Total | (Col 1–4) Ordinary | (Col 2–5) Capital | (Col 7+8) Total |

Admission Calculation Components SSAP No. 101

| | | | | | | | | | | | | | | | | | | | |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------|--------------|--------------|------------|--------------|------------|------------|------------|---|----|---|----|---|----|---|----|---|
| a) | Federal Income Taxes Paid in Prior Years Recoverable Through Loss Carrybacks | \$ | — | \$ | — | \$ | — | \$ | — | \$ | — | \$ | — | \$ | — | \$ | — | \$ | — |
| b) | Adjusted Gross DTA Expected To Be Realized (Excluding The Amount of DTA From 2(a) above) After Application of the Threshold Limitation.(The Lesser of 2(b)1 and 2(b) 2 below) | 2,365,088 | 36,850 | 2,401,938 | 1,920,637 | 42,998 | 1,963,635 | 444,451 | (6,148) | 438,303 | | | | | | | | | |
| | 1. Adjusted Gross DTA Expected to be Realized Following the Balance Sheet Date .. | 2,365,088 | 36,850 | 2,401,938 | 1,920,637 | 42,998 | 1,963,635 | 444,451 | (6,148) | 438,303 | | | | | | | | | |
| | 2. Adjusted Gross DTA Allowed per Limitation Threshold..... | — | — | 5,354,584 | — | — | 5,150,929 | — | — | 203,655 | | | | | | | | | |
| c) | Adjusted Gross DTA (Excluding The Amount of DTA From 2(a) and 2(b) above) Offset by Gross DTL | 614,931 | 354,069 | 969,000 | 945,079 | 161,590 | 1,106,669 | (330,148) | 192,479 | (137,669) | | | | | | | | | |
| d) | DTA Admitted as the result of application of SSAP No. 101. Total (2(a)+2(b) +2(c)) | \$ 2,980,019 | \$ 390,919 | \$ 3,370,938 | \$ 2,865,716 | \$ 204,588 | \$ 3,070,304 | \$ 114,303 | \$ 186,331 | \$ 300,634 | | | | | | | | | |

| | | | |
|-----|------------------------------------------------------------------------------------------------------------------------|---------------|---------------|
| (3) | | 2018 | 2017 |
| (a) | Ratio Percentage Used to Determine Recovery Period and Threshold limitation Amount..... | 828% | 812% |
| (b) | Amount Of Adjusted Capital And Surplus Used To Determine Recovery Period And Threshold Limitation In 2(b)2 Above | \$ 35,697,229 | \$ 34,339,530 |

(4) Impact of Tax Planning Strategies:

| | | | | | |
|----------|---------|----------|---------|-----------------------|----------------------|
| 2018 | | 2017 | | Change | |
| (1) | (2) | (3) | (4) | (5) | (6) |
| Ordinary | Capital | Ordinary | Capital | (Col 1–3) Ordinary | (Col 2-4) Capital |

| | | | | | | | | | | |
|----|-----------------------------------------------------------------------------------------------------------------------------|--------------|------------|--------------|------------|--------------|------------|--|--|--|
| a) | Determination of adjusted gross deferred tax assets and net admitted deferred tax assets, by tax character as a percentage. | | | | | | | | | |
| 1. | Adjusted Gross DTAs Amount From Note 9A1 (c) | \$ 6,114,986 | \$ 390,919 | \$ 6,586,249 | \$ 204,588 | \$ (471,263) | \$ 186,331 | | | |
| 2. | Percentage of Adjusted Gross DTAs by Tax Character Attributable To The Impact Of Tax Planning Strategies | —% | —% | —% | —% | — % | —% | | | |
| 3. | Net Admitted Adjusted Gross DTAs Amount Fom Note 9A1 (e) | \$ 2,980,019 | \$ 390,919 | \$ 2,865,716 | \$ 204,588 | \$ 114,303 | \$ 186,331 | | | |
| 4. | Percentage of Net Admitted Adjusted Gross DTAs by Tax Character Admitted Because Of The Impact Of Tax Planning Strategies | —% | —% | 7.3% | —% | (7.3)% | —% | | | |

Do the Company's tax-planning strategies include the use of reinsurance? Yes () No (X)

NOTES TO FINANCIAL STATEMENTS

B. Regarding deferred tax liabilities that are not recognized: None

C. Current income taxes incurred consist of the following major components (in thousands):

| | 12/31/2018 | 12/31/2017 | Change |
|-------------------------------------------------------------------------|----------------------------|----------------------------|----------------------------|
| 1. Current Income Tax: | | | |
| a) Federal tax expense/(benefit) | \$ (329,910) | \$ (698,285) | \$ 368,375 |
| b) Foreign taxes | — | — | — |
| c) Subtotal | <u>\$ (329,910)</u> | <u>\$ (698,285)</u> | <u>\$ 368,375</u> |
| d) Federal income taxes expense/(benefit) on net capital gains | 431,058 | 619,104 | (188,046) |
| e) Generation/(Utilization) of loss carry-forwards | (101,148) | 79,181 | (180,329) |
| f) Other | (23,055) | (3,690) | (19,365) |
| g) Federal and foreign income taxes expense / (benefit) | <u><u>\$ (23,055)</u></u> | <u><u>\$ (3,690)</u></u> | <u><u>\$ (19,365)</u></u> |
| 2. Deferred Tax Assets: | | | |
| (a) Ordinary: | | | |
| 1) Discounting of unpaid losses | \$ — | \$ — | \$ — |
| 2) Unearned premium reserve | — | — | — |
| 3) Policyholder reserves | 571,916 | 542,626 | 29,290 |
| 4) Investments | 725,718 | 771,876 | (46,158) |
| 5) Deferred acquisition costs | 14,721 | 14,667 | 54 |
| 6) Policyholder dividends accrual | 395,338 | 395,155 | 183 |
| 7) Fixed assets | 187,866 | 256,645 | (68,779) |
| 8) Compensation and benefits accrual | 174,167 | 168,300 | 5,867 |
| 9) Pension accrual | — | — | — |
| 10) Receivables – non-admitted | 34,960 | 43,370 | (8,410) |
| 11) Net operating loss carry-forward | 661,095 | 815,991 | (154,896) |
| 12) Tax credit carry-forward | 32,320 | 21,168 | 11,152 |
| 13) Other (including items < 5% of total ordinary tax assets) | 428,348 | 480,958 | (52,610) |
| 14) Intangible Assets – Business in Force and Software | 2,888,537 | 3,075,493 | (186,956) |
| Subtotal | <u>\$ 6,114,986</u> | <u>\$ 6,586,249</u> | <u>\$ (471,263)</u> |
| (b) Statutory valuation allowance adjustment | — | — | — |
| (c) Non-admitted | 3,134,967 | 3,720,533 | (585,566) |
| (d) Admitted ordinary deferred tax assets (2a-2b-2c) | <u><u>\$ 2,980,019</u></u> | <u><u>\$ 2,865,716</u></u> | <u><u>\$ 114,303</u></u> |
| (e) Capital: | | | |
| 1) Investments | \$ 370,617 | \$ 185,539 | \$ 185,078 |
| 2) Net capital loss carry-forward | — | — | — |
| 3) Real estate | 20,302 | 19,049 | 1,253 |
| 4) Other (including items < 5% of total capital tax assets) | — | — | — |
| Subtotal | <u>\$ 390,919</u> | <u>\$ 204,588</u> | <u>\$ 186,331</u> |
| (f) Statutory valuation allowance adjustment | — | — | — |
| (g) Non-admitted | — | — | — |
| (h) Admitted capital deferred tax assets(2e-2f-2g) | 390,919 | 204,588 | 186,331 |
| (i) Admitted deferred tax assets(2d+2h) | <u><u>\$ 3,370,938</u></u> | <u><u>\$ 3,070,304</u></u> | <u><u>\$ 300,634</u></u> |
| | | | |
| | 12/31/2018 | 12/31/2017 | Change |
| 3. Deferred Tax Liabilities: | | | |
| (a) Ordinary: | | | |
| 1) Investments | \$ 138,000 | \$ — | \$ 138,000 |
| 2) Fixed assets | — | — | — |
| 3) Deferred and uncollected premium | — | — | — |
| 4) Policyholder reserves | 358,627 | 409,859 | (51,232) |
| 5) Other (including items < 5% of total ordinary tax liabilities) | 2,781 | 3,106 | (325) |
| Subtotal | <u>\$ 499,408</u> | <u>\$ 412,965</u> | <u>\$ 86,443</u> |
| (b) Capital: | | | |
| 1) Investments | \$ 469,592 | \$ 693,704 | \$ (224,112) |
| 2) Real estate | — | — | — |
| 3) Other (including items < 5% of total capital tax liabilities) | — | — | — |
| Subtotal | <u>\$ 469,592</u> | <u>\$ 693,704</u> | <u>\$ (224,112)</u> |
| (c) Deferred tax liabilities (3a+3b) | <u><u>\$ 969,000</u></u> | <u><u>\$ 1,106,669</u></u> | <u><u>\$ (137,669)</u></u> |
| 4. Net Deferred Tax: | | | |
| Assets/Liabilities (2i–3c) | <u><u>\$ 2,401,938</u></u> | <u><u>\$ 1,963,635</u></u> | <u><u>\$ 438,303</u></u> |

NOTES TO FINANCIAL STATEMENTS

D. The provision for federal and foreign income taxes incurred is different from that which would be obtained by applying the statutory federal income tax rate to income before income taxes. The significant items causing this difference at December 31, 2018 are as follows (in thousands):

| Description | Amount | Effective Tax Rate |
|--------------------------------------------------------|-------------------|--------------------|
| Provision computed at statutory rate | \$ 357,464 | 21.00 % |
| Dividends received deduction | (50,417) | (2.96)% |
| Amortization of interest maintenance reserve | (54,449) | (3.20)% |
| Statutory impairment of affiliated common stock | 9,291 | 0.55 % |
| Other permanent differences | 2,965 | 0.17 % |
| Prior year true-ups | 8,233 | 0.48 % |
| Current year deferred only adjustments | 4,288 | 0.25 % |
| Tax Effect of Change in Unrealized Capital Gains | (153,165) | (8.99)% |
| Total | <u>\$ 124,210</u> | <u>7.30 %</u> |

| Description | Amount | Effective Tax Rate |
|----------------------------------------------------------|----------------|--------------------|
| Federal and foreign income tax incurred (benefit) | \$ (23,055) | (1.35)% |
| Change in net deferred income tax charge (benefit) | 147,265 | 8.65 % |
| Total statutory income taxes | <u>124,210</u> | <u>7.30 %</u> |

E.

1. As of December 31, 2018, the Company has net operating loss carry forwards expiring through the year 2032 (in thousands):

| Year Incurred | Operating Loss | Year of Expiration |
|---------------|---------------------|--------------------|
| 2008 | \$ 634,161 | 2023 |
| 2012 | 1,268,339 | 2027 |
| 2014 | 278,605 | 2029 |
| 2015 | 806,387 | 2030 |
| 2016 | 1,408 | 2031 |
| 2017 | 159,173 | 2032 |
| Total | <u>\$ 3,148,073</u> | |

As of December 31, 2018, the Company has \$0 capital loss carry forwards.

As of December 31, 2018, the Company has \$0 foreign tax credit carry forwards.

As of December 31, 2018, the Company has General Business Credit carry forwards as follows (in thousands):

| Year Incurred | General Business Credit | Year of Expiration |
|---------------|-------------------------|--------------------|
| 2004 | \$ 1,356 | 2024 |
| 2005 | 1,992 | 2025 |
| 2006 | 5,118 | 2026 |
| 2007 | 7,146 | 2027 |
| 2008 | 8,462 | 2028 |
| 2009 | 3,858 | 2029 |
| 2010 | 94 | 2030 |
| 2011 | 307 | 2031 |
| 2012 | 19 | 2032 |
| 2013 | 94 | 2033 |
| 2014 | 142 | 2034 |
| 2015 | 2,818 | 2035 |
| 2016 | 38 | 2036 |
| 2017 | 797 | 2037 |
| Total | <u>\$ 32,241</u> | |

2. Due to the Tax Cuts and Jobs Act, carryback of NOLs generated after December 31,2017 are disallowed. Consequentially, ordinary income tax paid in year 2017 and prior may not be recouped in the event of future net losses. Tax expense for 2016 through 2018 that is available for recoupment: None

3. The aggregate amount of deposits reported as admitted assets under Section 6603: None

NOTES TO FINANCIAL STATEMENTS

F. The Company’s federal income tax return is consolidated with the following entities:

- | | |
|-------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) 730 Texas Forest Holdings, Inc. | 20) Oleum Holding Company, Inc. |
| 2) AMC Holding, Inc. | 21) T-C Europe Holdings, Inc. |
| 3) Business Property Lending, Inc. | 22) T-C SP, Inc. |
| 4) Covariance Capital Management, Inc. | 23) T-Investment Properties Corp. |
| 5) CustomerOne Financial Network, Inc. | 24) TCT Holdings, Inc. |
| 6) Elite Lender Services, Inc. | 25) Teachers Personal Investors Services, Inc. |
| 7) TIAA Commercial Finance, Inc f/k/a EverBank Commercial Finance, Inc. | 26) Terra Land Company |
| 8) EverBank Wealth Management, Inc. | 27) TIAA-CREF Life Insurance Company |
| 9) EverTrade Direct Brokerage, Inc. | 28) TIAA Board of Overseers |
| 10) Greenwood Resources, Inc. | 29) TIAA-CREF Tuition Financing, Inc. |
| 11) JWL Properties, Inc. | 30) TIAA FSB Holdings, Inc. |
| 12) MyVest Corporation | 31) TIAA, FSB fka Everbank |
| 13) ND Properties, Inc. | 32) Tygris Asset Finance, Inc. |
| 14) NIS/R&T, Inc. f/k/a Nuveen Investment Solutions, Inc.* | 33) Tygris Commercial Finance Group, Inc. |
| 15) Nuveen Holdings, Inc.* | 34) Westchester Group Asset Management, Inc. |
| 16) Nuveen Holdings I, Inc. * | 35) Westchester Group Farm Management, Inc. |
| 17) Nuveen Investments, Inc.* | 36) Westchester Group Investment Management Holding Company, Inc. |
| 18) Nuveen Investments Holdings, Inc.* | 37) Westchester Group Investment Management, Inc. |
| 19) Nuveen Securities, LLC* | 38) Westchester Group Real Estate, Inc. |

All consolidating companies, excluding those denoted with an asterisks (*) above, participate in a tax sharing agreement under the following criteria. Under the agreement, current federal income tax expense (benefit) is computed on a separate return basis and provides that members shall make payments or receive reimbursements to the extent that their income (loss) contributes to or reduces consolidated federal tax expense. The consolidating companies included in this agreement are reimbursed for net operating losses or other tax attributes they have generated when utilized in the consolidated return.

The companies denoted with an asterisk above (collectively, "Nuveen subgroup"), are subject to a separate tax sharing agreement, under which current federal income tax expense (benefit) is computed on a separate subgroup return basis. Under the Agreement, Nuveen Holdings I, Inc. ("Nuveen") makes payments to TIAA for amounts equal to the federal income payments that the Nuveen subgroup would be obliged to pay the federal government if the Nuveen subgroup had actually filed a separate consolidated tax return. Nuveen is reimbursed for the subgroup losses to the extent that the subgroup tax return reflects a tax benefit that the Nuveen subgroup could have carried back to a prior consolidated return year.

The Tax Cuts and Jobs Act (the “Act”) was signed into law by the President on December 22, 2017. The Act changes existing United States tax law and includes numerous provisions that will affect businesses. The Act reduces the U.S. corporate tax rate from 35% to 21%, includes several base broadening provisions, as well as, reform to the US international tax system. With a few exceptions, key provisions are effective for tax years beginning January 1, 2018.

The Company’s deferred tax assets and liabilities as of December 31, 2018 and December 31, 2017 reflect the enacted tax rate of 21% which is expected to apply when the deferred tax assets and liabilities will be settled or realized. The Company’s federal income tax incurred for the year ended December 31, 2018 is computed using the enacted tax rate of 21%.

In February 2018, INT 18-01: Updated Tax Estimates under the Tax Cuts and Jobs Act was issued to address the application of statutory accounting principles when a reporting entity does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Act.

As of December 31, 2017, the Company noted that the impact of the Act to DTA admissibility under SSAP 101 was under evaluation. Our net admitted DTA as of December 31, 2017 was computed based on reasonable estimates and guidance available as of the date of this filing.

Additionally, in evaluating the impact of reform to the US international tax system, the Company had estimated that no material liability would be due for the repatriation transition tax provided in the Act.

As of the close of the measurement period allowed under INT 18-01 (one year from the date of the Act), no changes in reasonable estimates reported in December 31, 2017 have occurred.

NOTES TO FINANCIAL STATEMENTS

G. The Company does not have any federal or foreign income tax loss contingencies as of December 31, 2018.

10. Information Concerning Parent, Subsidiaries and Affiliates

A-C. The Company does not have any material related party transactions or transactions with its subsidiaries that exceeded one half of 1% of the Company's total admitted assets. (See Schedule Y, Part 2)

D. As of December 31, 2018, and December 31, 2017, the net amount due to subsidiaries and affiliates was \$456,883,653 and \$442,230,341, respectively. The net amounts due are generally settled on a daily basis with the exception of several investment and operating affiliates and subsidiaries which settle on a monthly basis. During 2017, the Company created a subsidiary deposit program which allows certain subsidiaries the ability to deposit excess cash with the Company and earn daily interest. The deposits from this program are included in the net amount due to SCA entities and were \$701,907,528 as of December 31, 2018.

E. Except as disclosed in Note 14 - Liabilities, contingencies and assessments, there are no guarantees or undertakings, written or otherwise, for the benefit of an affiliate or related party that resulted in a material contingent exposure of the reporting entity's or any related party's assets or liabilities.

The Company has agreed that it will cause TIAA-CREF Life Insurance Company ("TIAA-CREF Life"), a direct wholly owned subsidiary, to be sufficiently funded at all times in order to meet all its contractual obligations on a timely basis including, but not limited to, obligations to pay policy benefits and to provide policyholder services. This agreement is not an evidence of indebtedness or an obligation or liability of the Company and does not provide any creditor of TIAA-CREF Life with recourse to or against any of the assets of the Company.

The Company has unconditionally guaranteed \$1,000 million in outstanding senior unsecured notes issued by Nuveen, LLC. The Company has agreed to cause any such payment to be made punctually when and as the same becomes due and payable, whether at maturity, upon acceleration, redemption, repayment or otherwise, and as if such payment were made by Nuveen LLC.

Additionally, the Company has the following agreements and lines of credit with subsidiaries, affiliates, and other related parties:

Related to the 2014 acquisition of Nuveen Investments, Inc., Nuveen Finance, the Acquirer and an indirectly owned subsidiary of TIAA, recorded contingent purchase related liabilities which were payable based upon contractual terms during 2017 and 2018. The Company had agreed to fund these obligations in the event required payments to Windy City Investments Holdings, L.L.C. ("WCLLC"), the seller of Nuveen Investments, are not made by Nuveen Finance. Nuveen Finance paid \$112 million and \$169 million of the liability during 2018 and 2017, resulting in no remaining liability as of December 31, 2018. The \$112 million payment was related to an earn-out which had the potential to be up to \$278 million, pursuant to the terms of the Purchase and Sale Agreement, as amended. Subsequent to the earn-out payment, WCLLC filed a complaint in the Court of Chancery of the State of Delaware that generally alleges, among other things, that Nuveen, LLC improperly calculated the earn-out amount. Nuveen, LLC intends to defend against this lawsuit vigorously, but is unable to predict the outcome of this lawsuit or reasonably estimate a range of possible loss.

The Company provides a \$100 million unsecured 364-day revolving line of credit arrangement with TIAA-CREF Life. This line has an expiration date of July 8, 2019. As of December 31, 2018, \$30 million of this facility was maintained on a committed basis, and there were no balances outstanding.

The Company also provides a \$1,000 million uncommitted line of credit to certain accounts of College Retirement Equities Funds ("CREF") and certain TIAA-CREF Funds ("Funds"). Loans under this revolving credit facility are for a maximum of 60 days and are made solely at the discretion of the Company to fund shareholder redemption requests or other temporary or emergency needs of CREF and the Funds. It is the intent of the Company, CREF and the Funds to use this facility as a supplemental liquidity facility, which would only be used after CREF and the Funds have exhausted the availability of the current \$1,250 million committed credit facility maintained with a group of banks.

The Company guarantees CREF transfers to the Company for the immediate purchase of lifetime payout annuities will produce guaranteed payments that will never be less than the amounts calculated at the stipulated interest rate and mortality defined in the applicable CREF contract.

The Company also provides a \$300 million unsecured and uncommitted 364-day revolving line of credit arrangement with TIAA, FSB. This line has an expiration date of September 11, 2019. As of December 31, 2018, there were no balances outstanding.

NOTES TO FINANCIAL STATEMENTS

The Company also provides a \$100 million committed 364-day revolving line of credit arrangement with Nuveen, LLC. This line has an expiration date of December 29, 2019. As of December 31, 2018, there were no balances outstanding.

The Company also provides a \$23 million committed line of credit to TIAA Charitable Inc. This line has an expiration date of June 28, 2047. As of December 31, 2018, there was an outstanding balance of \$15 million.

- F. Under Cash Disbursement and Reimbursement Agreements, the Company serves as the common pay-agent for certain subsidiaries and affiliates. Under management agreements, the Company provides investment advisory and administrative services for TIAA-CREF Life and administrative services to TIAA, FSB and TIAA Separate Account VA-1 ("VA-1"). Additionally, effective December 26, 2016 the Company entered into General Service and Facilities Agreements with its wholly-owned subsidiary Nuveen, for the Company to provide and receive general services at cost inclusive of charges for overhead.

The Company allocated expenses of \$2,459 million and \$2,252 million to its various subsidiaries and affiliates for the periods ended December 31, 2018 and December 31, 2017. The expense allocation process determines the portion of the total investment and operating expenses that is attributable to each legal entity and to each line of business within an entity. Every month the Company allocates incurred expenses to each line of business supported by the Company and its affiliated companies. As part of this allocation process, every department with personnel and every vendor related expense is allocated to lines of business based on defined allocation methodologies. These methodologies represent either shared or direct costs depending on the nature of the service provided. At the completion of the allocation process all expenses are assigned to a line of business and legal entity.

Activities necessary for the operation of CREF, a companion organization, are provided at-cost by the Company and two of its subsidiaries. Such services are provided in accordance with an Investment Management Services Agreement, updated and amended annually as of May 1, 2018, between CREF and TIAA-CREF Investment Management, LLC ("Investment Management"), and in accordance with a Principal Underwriting and Distribution Services Agreement for CREF, updated and amended annually as of May 1, 2018, between CREF and TIAA-CREF Individual and Institutional Services, LLC ("Services"). The Company also performs administrative services for CREF, on an at-cost basis in accordance with an Administrative Service Agreement, updated and amended annually as of May 1, 2018. The management fees collected under these agreements and the equivalent allocated expenses, which amounted to approximately \$731 million and \$808 million for the periods ended December 31, 2018 and December 31, 2017, are not included in the statement of operations and had no effect on the Company's operations.

Teachers Advisors, LLC ("Advisors") provides investment advisory services for VA-1, certain proprietary funds and other separately managed portfolios in accordance with investment management agreements. Teachers Personal Investors Services, Inc. ("TPIS") and Services distribute variable annuity contracts for VA-1, TIAA Real Estate Separate Account ("REA") and the TIAA Separate Account VA-3 as well as registered securities for certain proprietary funds and non-proprietary mutual funds.

January 1, 2018, the Company entered into Investment Management Agreements with Advisors and Nuveen Alternatives Advisors, LLC, wholly-owned subsidiaries of TIAA's wholly-owned subsidiary Nuveen, LLC, to manage, at a negotiated fee, investments held within the Company's General Account including investments owned by investment subsidiaries of the Company. The Company paid \$219 million and \$203 million to Advisors and Nuveen Alternatives Advisers, LLC, respectively, for the year ended December 31, 2018.

January 1, 2018, the Company entered into an Omnibus Service Agreement with its wholly-owned subsidiary Nuveen, LLC, pursuant to which Nuveen, LLC directly or through its subsidiaries agreed to provide services complementary to investment management to the Company at cost, inclusive of charges for overhead. The Company paid \$7 million to Nuveen, LLC for the year ended December 31, 2018.

All services necessary for the operation of REA are provided at-cost by the Company and Services. The Company provides investment management and administrative services for REA. Distribution services for REA are provided in accordance with a Distribution Agreement among Services, the Company and REA. The Company and Services receive fee payments from REA on a daily basis according to formulae established annually and adjusted periodically. The daily fee is based on an estimate of the at-cost expenses necessary to operate REA and is based on projected REA expense and asset levels, with the objective of keeping the fees as close as possible to actual expenses attributable to operating the REA. At the end of each quarter, any differences between the daily fees paid and actual expenses for the quarter are added to or deducted from REA's fee in equal daily installments over the remaining days in the immediately following quarter.

Effective February 6, 2018, the Company entered into a Service Agreement with TIAA, FSB to provide general services in support of the Company's and its subsidiaries' activities at cost inclusive of charges for overhead. The Company paid \$4 million to TIAA, FSB during the year ended December 31, 2018.

NOTES TO FINANCIAL STATEMENTS

- G. All of the outstanding common stock of the Company is collectively held by TIAA Board of Overseers, a non-profit corporation created to hold the stock of the Company.
- H. The Company does not own shares of common stock of its parent, TIAA Board of Overseers.
- I. No investment in a subsidiary or affiliate exceeds 10% of the Company's admitted assets.
- J. As of December 31, 2018, the Company recognized \$608,472,183 in OTTI for investments in subsidiary, controlled and affiliated companies. These impairments relate to a decline in the equity value for which the carrying value is not expected to recover.
- K. The Company does not have any investment in foreign insurance subsidiaries.
- L. The Company holds investments in downstream non-insurance holding companies, which are valued by the Company utilizing the look-through approach. The financial statements for the downstream non-insurance holding companies listed in the table below are not audited and TIAA has limited the value of its investment in these non-insurance holding companies to the value contained in the financial statements of the underlying investments, which will be audited. All liabilities, commitments, contingencies, guarantees or obligations of these subsidiaries, which are required to be recorded as liabilities, commitments, contingencies, guarantees or obligations under applicable accounting guidance, are reflected in TIAA's determination of the carrying value of the investment in these subsidiaries, if not already recorded in the subsidiaries' financial statements. The following table summarizes the Company's carrying value in each unaudited downstream non-insurance holding company as of December 31:

| Subsidiary | 2018 | |
|-----------------------------------------------------|----------------|---------------|
| | Carrying Value | |
| TIAA Global Ag Holdco LLC | \$ | 938,066,491 |
| TIAA Super Regional Mall Member Sub LLC | | 829,058,291 |
| TIAA Infrastructure Investments, LLC | | 557,367,468 |
| Occator Agricultural Properties, LLC | | 470,038,178 |
| T-C MV Member LLC | | 452,576,189 |
| T-C Europe, LP | | 416,008,160 |
| T-C Lux Fund Holdings LLC | | 362,679,711 |
| 730 Power Development, LLC | | 315,500,127 |
| TIAA-Stonepeak Investments I, LLC | | 236,271,634 |
| T-C Waterford Blue Lagoon LLC | | 195,450,411 |
| Infra Alpha LLC | | 180,905,891 |
| TIAA Wind Investments LLC | | 179,498,513 |
| TIAA GTR Holdco LLC | | 167,697,013 |
| TGA MKP Member LLC | | 156,973,149 |
| Actoil Colorado, LLC | | 136,690,375 |
| TGA APAC Fund Holdings, LLC | | 119,078,003 |
| 730 Data Centers, LLC | | 107,966,953 |
| Broadleaf Timberland Investments, LLC | | 102,482,032 |
| TGA MS Self Storage Investor Member LLC | | 83,706,038 |
| TEFF Holdco LLC | | 71,097,588 |
| T-C 400 Montgomery, LLC | | 58,210,314 |
| T-C JK I LLC | | 58,145,195 |
| T-C JK II LLC | | 55,870,873 |
| TIAA-Stonepeak Investments II, LLC | | 50,595,168 |
| T-C SMA 2, LLC | | 49,813,196 |
| TIAA SynGas, LLC | | 48,167,783 |
| 730 Telecom LLC | | 44,945,365 |
| T-C Permian Investor LLC | | 42,668,640 |
| TIAA Oil and Gas Investments, LLC | | 38,481,178 |
| T-C UK RE Holdings I, LLC | | 34,758,214 |
| TGA FC Investor Member LLC | | 34,004,499 |
| TIAA GBS Holding LLC | | 31,389,052 |
| TGA Montrose Residences Investor Member LLC | | 30,566,757 |
| TGA Montague Investor Member LLC | | 23,478,627 |
| TGA SP-MPC Housing Investor Member LLC | | 20,795,349 |
| TGA Connection At Athens Investor Member LLC | | 18,559,867 |
| FCP-ASC Holdings, LLC | | 11,043,305 |
| T-C Waterford Blue Lagoon General Partner LLC | | 3,909,008 |
| TIAA-CREF LPHC, LLC | | 3,644,425 |
| T-C SBMC Joint Venture LLC | | 2,994,101 |
| Total | \$ | 6,741,153,131 |

NOTES TO FINANCIAL STATEMENTS

M. All SCA Investments

(1) Balance Sheet Value (Admitted and Nonadmitted) All SCAs (Except 8bi Entities)

| SCA Entity | Percentage of SCA Ownership | Gross Amount | Admitted Amount | Nonadmitted Amount |
|----------------------------------------------------------------|-----------------------------|------------------|------------------|--------------------|
| a. SSAP No. 97 8a Entities | | | | |
| Total SSAP No. 97 8a Entities | N/A | \$ — | \$ — | \$ — |
| b. SSAP No. 97 8b(ii) Entities | | | | |
| Total SSAP No. 97 8b(ii) Entities | N/A | \$ — | \$ — | \$ — |
| c. SSAP No. 97 8b(iii) Entities | | | | |
| TIAA FSB Holdings, Inc. | 100% | \$ 3,555,207,652 | \$ 3,555,207,652 | \$ — |
| ND Properties, Inc. | 100% | \$ 658,431,808 | \$ 658,431,808 | \$ — |
| Oleum Holding Company, Inc. | 100% | \$ 228,635,420 | \$ 228,635,420 | \$ — |
| MyVest Corporation | 100% | \$ 49,777,726 | \$ 49,777,726 | \$ — |
| TIAA-CREF Tuition Financing, Inc. | 100% | \$ 13,332,703 | \$ — | \$ 13,332,703 |
| T-C Europe Holding, Inc. | 100% | \$ 4,202,103 | \$ — | \$ 4,202,103 |
| 730 Texas Forest Holdings, Inc. | 100% | \$ 547,046 | \$ 547,046 | \$ — |
| Total SSAP No. 97 8b(iii) Entities | N/A | \$ 4,510,134,458 | \$ 4,492,599,652 | \$ 17,534,806 |
| d. SSAP No. 97 8b(iv) Entities | | | | |
| Total SSAP No. 97 8b(iv) Entities | N/A | \$ — | \$ — | \$ — |
| e. Total SSAP No. 97 8b Entities (except 8bi entities) (b+c+d) | N/A | \$ 4,510,134,458 | \$ 4,492,599,652 | \$ 17,534,806 |
| f. Aggregate Total (a+e) | N/A | \$ 4,510,134,458 | \$ 4,492,599,652 | \$ 17,534,806 |

(2) NAIC Filing Response Information

| SCA Entity | Type of NAIC Filing | Date of Filing to the NAIC | NAIC Valuation Amount | NAIC Response Received Y/N | NAIC Disallowed Entities Valuation Method, Resubmission Required Y/N | Code ** |
|----------------------------------------------------------------|---------------------|----------------------------|-----------------------|----------------------------|----------------------------------------------------------------------|---------|
| a. SSAP No. 97 8a Entities | | | | | | |
| Total SSAP No. 97 8a Entities | N/A | N/A | \$ — | N/A | N/A | |
| b. SSAP No. 97 8b(ii) Entities | | | | | | |
| Total SSAP No. 97 8b(ii) Entities | N/A | N/A | \$ — | N/A | N/A | |
| c. SSAP No. 97 8b(iii) Entities | | | | | | |
| TIAA FSB Holdings, Inc. | Sub-2 | 5/22/2018 | \$ 3,330,831,000 | Y | N | I |
| ND Properties, Inc. | Sub-2 | 6/19/2018 | \$ 601,506,496 | Y | N | I |
| Oleum Holding Company, Inc. | Sub-2 | 7/24/2018 | \$ 276,869,000 | Y | N | I |
| MyVest Corporation | Sub-2 | 6/22/2018 | \$ 50,388,684 | Y | N | I |
| TIAA-CREF Tuition Financing, Inc.* | Non-admit | N/A | N/A | N/A | N/A | N/A |
| T-C Europe Holding, Inc.* | Sub-1 | 10/3/2018 | N/A | Y | N | N/A |
| 730 Texas Forest Holdings, Inc. | Sub-2 | 6/22/2018 | \$ 488,000 | Y | N | I |
| Total SSAP No. 97 8b(iii) Entities | N/A | N/A | \$ 4,260,083,180 | N/A | N/A | |
| d. SSAP No. 97 8b(iv) Entities | | | | | | |
| Total SSAP No. 97 8b(iv) Entities | N/A | N/A | \$ — | N/A | N/A | |
| e. Total SSAP No. 97 8b Entities (except 8bi entities) (b+c+d) | N/A | N/A | \$ 4,260,083,180 | N/A | N/A | |
| f. Aggregate Total (a+e) | N/A | N/A | \$ 4,260,083,180 | N/A | N/A | |

* Assets non-admitted so all values N/A
**I - immaterial difference between submitted valuation and NAIC valuation amount

N. Investment in Insurance SCAs

- (1) The Company holds an interest in TIAA-CREF Life Insurance Company, an insurance SCA entity, for which the audited statutory equity reflects departures from the NAIC statutory accounting practices and procedures as noted below.
- NYSDFS Circular Letter No. 11 (2010) prescribed the calculation and clarified the accounting for deferred premium assets when reinsurance is involved.

NOTES TO FINANCIAL STATEMENTS

The Stable Value Separate Account ("SVSA") products are accounted for at book value in accordance with New York Insurance Law ("NYIL") Section 1414. The separate account liabilities for the benefits guaranteed under the contracts are carried at contract book value in accordance with NYIL section 4217, DFS Regulation No. 151.

The Department requires in Regulation No. 147 (11NYCRR 98) Valuation of Life Insurance Reserves Section 98.4 for any policy which guarantees renewal, or conversion to another policy, without evidence of insurability, additional reserves shall be held that account for excess mortality due to anti-selection with appropriate margins to cover expenses and risk of moderately adverse deviations in experience.

- (2) The monetary effect on net income and surplus as a result of using an accounting practice that differed from NAIC Statutory Accounting Practices and Procedures (NAIC SAP), the amount of the investment in the insurance SCA per audited statutory equity and amount of the investment if the insurance SCA had completed statutory financial statements in accordance with the AP&P Manual.

| SCA Entity (Investments in Insurance SCA Entities) | Monetary Effect on NAIC SAP | | Amount of Investment | |
|----------------------------------------------------------|--------------------------------------|-----------------------------------|---------------------------------|-----------------------------------------------------------------------------|
| | Net Income Increase (Decrease) | Surplus Increase (Decrease) | Per Audited Statutory Equity | If the Insurance SCA Had Completed Statutory Financial Statements* |
| TIAA-CREF Life Insurance Company | \$ 1,140,346 | \$ 823,700 | \$ 515,466,733 | \$ 516,290,433 |

* Per AP&P Manual (without permitted or prescribed practices)

- (3) During 2018 and 2017, had TIAA-CREF Life Insurance Company not departed from the NAIC statutory accounting practices and procedures a regulatory event would not have been triggered due to risk based capital.

O. SCA Loss Tracking

| SCA Entity | Reporting entity's share of net income (loss) | Accumulated share of net income (loss) | Reporting entity's share of equity, including negative equity | Guaranteed obligation | SCA reported value |
|-------------------------------|-----------------------------------------------------|----------------------------------------------|------------------------------------------------------------------------|--------------------------|-----------------------|
| UK PPP Investments, LP | \$3,430,646 | \$(43,761,306) | \$(20,130,395) | N/A | \$3,222 |
| T-C 20 Hunter Street (US) LLC | \$458,266 | \$(407,259) | \$(4,623,862) | N/A | \$(4,623,862) |

No other investments have been impacted by losses in the SCA entities in the above table.

11. Debt

- A. Not applicable
- B. FHLBNY (Federal Home Loan Bank of New York) Agreements

- (1) The Company is a member of the Federal Home Loan Bank of New York (FHLBNY). Through its membership, the Company has the ability to conduct business activity (Advances) with the FHLBNY. It is part of the Company's strategy to utilize these funds to provide additional liquidity to supplement existing sources and can also be a source of contingent liquidity to meet other requirements. The Company is required to pledge collateral to the FHLBNY in the form of eligible securities for all advances received. The Company considers the amount of collateral pledged to the FHLBNY as the amount encumbered by advances from the FHLBNY at a point in time. The Company has determined the estimated maximum borrowing capacity as \$15,164,313,429. The Company calculated this amount using 5% of total net admitted assets at the current reporting date.

NOTES TO FINANCIAL STATEMENTS

(2) FHLB Capital Stock

a. Aggregate Total

| | 1 | | 2 | | 3 |
|------------------------------------------------------------------------|-------------------|-------------------|-------------------|------|------------------|
| | Total (2+3) | | General Account | | Separate Account |
| 1. Current Year as of 12/31/2018 | | | | | |
| a) Membership Stock - Class A | \$ — | \$ — | \$ — | \$ — | — |
| b) Membership Stock - Class B | \$ 82,262,400 | \$ 82,262,400 | \$ 82,262,400 | \$ — | — |
| c) Activity Stock | \$ — | \$ — | \$ — | \$ — | — |
| d) Excess Stock | \$ — | \$ — | \$ — | \$ — | — |
| e) Aggregate Total (a+b+c+d) | \$ 82,262,400 | \$ 82,262,400 | \$ 82,262,400 | \$ — | — |
| f) Actual or estimated Borrowing Capacity as Determined by the Insurer | \$ 15,164,313,429 | \$ 15,164,313,429 | \$ 15,164,313,429 | \$ — | — |
| 2. Prior Year-end as of 12/31/2017 | | | | | |
| a) Membership Stock - Class A | \$ — | \$ — | \$ — | \$ — | — |
| b) Membership Stock - Class B | \$ 81,067,300 | \$ 81,067,300 | \$ 81,067,300 | \$ — | — |
| c) Activity Stock | \$ — | \$ — | \$ — | \$ — | — |
| d) Excess Stock | \$ — | \$ — | \$ — | \$ — | — |
| e) Aggregate Total (a+b+c+d) | \$ 81,067,300 | \$ 81,067,300 | \$ 81,067,300 | \$ — | — |
| f) Actual or estimated Borrowing Capacity as Determined by the Insurer | \$ 14,757,349,760 | \$ 14,757,349,760 | \$ 14,757,349,760 | \$ — | — |

b. Membership Stock (Class A and B) Eligible and Not Eligible for Redemption

| | 1 | 2 | Eligible for Redemption | | | |
|------------------|--------------------------------|-----------------------------|-------------------------|------------------------------|------------------------|--------------|
| | | | 3 | 4 | 5 | 6 |
| Membership Stock | Current Year Total (2+3+4+5+6) | Not Eligible for Redemption | Less than 6 Months | 6 Months or Less Than 1 Year | 1 to Less Than 3 Years | 3 to 5 Years |
| Class A | \$ — | \$ — | \$ — | \$ — | \$ — | — |
| Class B | \$ 82,262,400 | \$ 82,262,400 | \$ — | \$ — | \$ — | — |

(3) Collateral Pledged to FHLB

a. Amount Pledged as of the Reporting Date

| | 1 | | 2 | | 3 |
|------------------------------------------------------------------------------------------|------------|------|----------------|------|---------------------------|
| | Fair Value | | Carrying Value | | Aggregate Total Borrowing |
| 1. Current Year Total General and Separate Accounts Total Collateral Pledged (Lines 2+3) | \$ — | \$ — | \$ — | \$ — | — |
| 2. Current Year General Account Total Collateral Pledged | \$ — | \$ — | \$ — | \$ — | — |
| 3. Current Year Separate Account Total Collateral Pledged | \$ — | \$ — | \$ — | \$ — | — |
| 4. Prior Year-end Total General and Separate Accounts Total Collateral Pledged | \$ — | \$ — | \$ — | \$ — | — |

b. Maximum Amount Pledged During Reporting Period

| | 1 | | 2 | | 3 |
|--------------------------------------------------------------------------------------------|------------------|------------------|------------------|--|-----------------------------------------------|
| | Fair Value | | Carrying Value | | Amount Borrowed at Time of Maximum Collateral |
| 1. Current Year Total General and Separate Accounts Maximum Collateral Pledged (Lines 2+3) | \$ 1,389,778,994 | \$ 1,359,150,193 | \$ 1,300,000,000 | | |
| 2. Current Year General Account Maximum Collateral Pledged | \$ 1,389,778,994 | \$ 1,359,150,193 | \$ 1,300,000,000 | | |
| 3. Current Year Separate Account Maximum Collateral Pledged | \$ — | \$ — | \$ — | | |
| 4. Prior Year-end Total General and Separate Accounts Maximum Collateral Pledged | \$ 670,350,000 | \$ 620,199,427 | \$ 615,000,000 | | |

STATEMENT AS OF DECEMBER 31, 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

NOTES TO FINANCIAL STATEMENTS

(4) Borrowing from FHLB

a. Amount as of the Reporting Date

| | 1 | | 2 | | 3 | | 4 |
|----------------------------|-------------|---|-----------------|---|------------------|---|--------------------------------------------|
| | Total (2+3) | | General Account | | Separate Account | | Funding Agreements Reserves Established |
| 1. Current Year | | | | | | | |
| a) Debt | \$ | — | \$ | — | \$ | — | \$ |
| b) Funding Agreements | | — | | — | | — | — |
| c) Other | | — | | — | | — | — |
| d) Aggregate Total (a+b+c) | \$ | — | \$ | — | \$ | — | \$ |
| 2. Prior Year-end | | | | | | | |
| a) Debt | \$ | — | \$ | — | \$ | — | \$ |
| b) Funding Agreements | | — | | — | | — | — |
| c) Other | | — | | — | | — | — |
| d) Aggregate Total (a+b+c) | \$ | — | \$ | — | \$ | — | \$ |

b. Maximum Amount during Reporting Period (Current Year)

| | 1 | | 2 | | 3 |
|----------------------------|-------------|---------------|-----------------|---------------|------------------|
| | Total (2+3) | | General Account | | Separate Account |
| 1. Current Year | | | | | |
| a) Debt | \$ | 1,300,000,000 | \$ | 1,300,000,000 | \$ |
| b) Funding Agreements | | — | | — | — |
| c) Other | | — | | — | — |
| d) Aggregate Total (a+b+c) | \$ | 1,300,000,000 | \$ | 1,300,000,000 | \$ |

c. FHLB - Prepayment Obligations

| | |
|-----------------------|-----|
| 1. Debt | N/A |
| 2. Funding Agreements | N/A |
| 3. Other | N/A |

12. Retirement Plans, Deferred Compensation, Postemployment Benefits and Compensated Absences and Other Post Retirement Benefit Plans

A. Defined Benefit Plan

The Company previously provided pension benefits through an unfunded Supplemental Executive Retirement Plan (“SERP”) to certain select executives and any TIAA associate deemed eligible by the Board of Trustees.

The SERP provided an annual retirement benefit payable at normal retirement calculated as 3% of the participant’s 5-year average total compensation based on an average of the highest five of the last ten years multiplied by the number of years of service not in excess of 15 years, less the annual initial benefit from Company contributions to the participant's basic defined contribution annuity contracts.

The obligations of the Company under the SERP are unfunded, unsecured promises to make future payments. As such, the plan has no assets. Contributions for a given period are equal to the benefit payments for that period. The expected rate of return on plan assets is not applicable.

The Company provides certain other post-retirement life and health insurance benefits to eligible retired employees who meet prescribed age and service requirements.

NOTES TO FINANCIAL STATEMENTS

The status of these plans for retirees and eligible active employees are summarized below:

(1) Change in benefit obligations

a. Pension benefits

| | Overfunded | | Underfunded | |
|-------------------------------------------------------|-------------|-------------|----------------------|----------------------|
| | 2018 | 2017 | 2018 | 2017 |
| 1. Benefit obligation at beginning of year | \$ — | \$ — | \$ 40,589,349 | \$ 41,594,489 |
| 2. Service cost | — | — | — | — |
| 3. Interest cost | — | — | 1,191,702 | 1,348,412 |
| 4. Contribution by plan participants | — | — | — | — |
| 5. Actuarial (gain) loss | — | — | (1,184,575) | 1,252,307 |
| 6. Foreign currency exchange rate changes | — | — | — | — |
| 7. Benefits paid | — | — | (3,605,859) | (3,605,859) |
| 8. Plan amendments | — | — | — | — |
| Business combinations, divestitures, curtailments, | | | | |
| 9. settlements and special termination benefits | — | — | — | — |
| 10 Benefit obligation at end of year | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 36,990,617</u> | <u>\$ 40,589,349</u> |

b. Postretirement benefits

| | Overfunded | | Underfunded | |
|-------------------------------------------------------|-------------|-------------|----------------------|-----------------------|
| | 2018 | 2017 | 2018 | 2017 |
| 1. Benefit obligation at beginning of year | \$ — | \$ — | \$ 101,982,597 | \$ 93,816,108 |
| 2. Service cost | — | — | — | — |
| 3. Interest cost | — | — | 2,909,261 | 3,089,351 |
| 4. Contribution by plan participants | — | — | — | — |
| 5. Actuarial (gain) loss | — | — | (7,552,535) | 3,316,339 |
| 6. Foreign currency exchange rate changes | — | — | — | — |
| 7. Benefits paid | — | — | (17,947,718) | (6,283,536) |
| 8. Plan amendments | — | — | — | — |
| Business combinations, divestitures, curtailments, | | | | |
| 9. settlements and special termination benefits | — | — | (4,957,615) | 8,044,335 |
| 10 Benefit obligation at end of year | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 74,433,990</u> | <u>\$ 101,982,597</u> |

(2) Change in plan assets

| | Pension Benefits | | Postretirement Benefits | |
|---------------------------------------------------|------------------|-------------|-------------------------|-------------|
| | 2018 | 2017 | 2018 | 2017 |
| a. Fair value of plan assets at beginning of year | \$ — | \$ — | \$ — | \$ — |
| b. Actual return on plan assets | — | — | — | — |
| c. Foreign currency exchange rate changes | — | — | — | — |
| d. TIAA contribution | 3,605,859 | 3,605,859 | 22,905,333 | 6,283,536 |
| e. Plan participants' contributions | — | — | — | — |
| f. Benefits paid | (3,605,859) | (3,605,859) | (17,947,718) | (6,283,536) |
| g. Business combinations, divestitures and | | | | |
| settlements | — | — | (4,957,615) | — |
| h. Fair value of plan assets at end of year | <u>\$ —</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ —</u> |

NOTES TO FINANCIAL STATEMENTS

(3) Funded status

| | Pension Benefits | | Postretirement Benefits | |
|-----------------------------------------|------------------|-------------|-------------------------|--------------|
| | 2018 | 2017 | 2018 | 2017 |
| a. Components | | | | |
| 1. Prepaid benefit costs | \$ — | \$ — | \$ — | \$ — |
| 2. Over-funded plan assets | — | — | — | — |
| 3. Accrued benefit costs | 29,382,570 | 31,481,204 | 131,030,782 | 150,867,288 |
| 4. Liability for pension benefits | 7,608,047 | 9,108,145 | (55,730,419) | (48,884,691) |
| b. Assets and liabilities recognized | | | | |
| 1. Assets (nonadmitted) | \$ — | \$ — | \$ — | \$ — |
| 2. Liabilities recognized | 39,990,617 | 40,589,349 | 75,300,363 | 101,982,597 |
| c. Unrecognized liabilities | <u>\$ —</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ —</u> |

The Company allocates benefit expenses to certain subsidiaries based upon salaries. The cost of post-retirement benefits reflected in the accompanying statements of operations was approximately \$934,314 and \$513,019 for 2018 and 2017, respectively.

(4) Components of net periodic benefit cost

| | Pension Benefits | | Postretirement Benefits | |
|---------------------------------------------------------------------------------|---------------------|---------------------|-------------------------|---------------------|
| | 2018 | 2017 | 2018 | 2017 |
| a. Service cost | \$ — | \$ — | \$ — | \$ — |
| b. Interest cost | 1,191,702 | 1,348,412 | 2,909,261 | 3,089,351 |
| c. Expected return on plan assets | — | — | — | — |
| d. Amortization of unrecognized transition obligation or transition asset | 14,967 | 14,967 | — | — |
| e. Amount of recognized gains and losses . | 300,556 | 219,549 | 2,564,801 | 2,314,388 |
| f. Amount of prior service cost recognized . | — | — | (4,271,608) | (4,271,608) |
| g. Amount of gain or loss recognized due to a settlement or curtailment | — | — | 1,000,000 | — |
| h. Total net periodic benefit cost | <u>\$ 1,507,225</u> | <u>\$ 1,582,928</u> | <u>\$ 2,202,454</u> | <u>\$ 1,132,131</u> |

(5) Amounts in unassigned funds (surplus) recognized as components of net periodic benefit cost

| | Pension Benefits | | Postretirement Benefits | |
|--------------------------------------------------------------------------------------|---------------------|---------------------|-------------------------|------------------------|
| | 2018 | 2017 | 2018 | 2017 |
| a. Items not yet recognized as a component of net periodic cost – prior year* | \$ 9,108,145 | \$ 8,090,354 | \$ (48,884,691) | \$ (54,158,249) |
| b. Net transition asset or obligation recognized | — | — | — | — |
| c. Net prior service cost or credit arising during the period | — | — | — | — |
| d. Net prior service cost or credit recognized | (14,967) | (14,967) | 4,271,608 | 4,271,608 |
| e. Net gain and loss arising during the period | (1,184,575) | 1,252,307 | (7,552,535) | 3,316,338 |
| f. Net gain and loss recognized | <u>(300,556)</u> | <u>(219,549)</u> | <u>(3,564,801)</u> | <u>(2,314,388)</u> |
| g. Items not yet recognized as a component of net periodic cost – current year | <u>\$ 7,608,047</u> | <u>\$ 9,108,145</u> | <u>\$ (55,730,419)</u> | <u>\$ (48,884,691)</u> |

(6) Amounts in unassigned funds (surplus) expected to be recognized in the next fiscal year as components of net periodic benefit cost

| | Pension Benefits | | Postretirement Benefits | |
|---------------------------------------------|------------------|------------|-------------------------|----------------|
| | 2018 | 2017 | 2018 | 2017 |
| a. Net transition asset or obligation | \$ — | \$ — | \$ — | \$ — |
| b. Net prior service cost or credit | \$ 14,962 | \$ 14,967 | \$ (4,271,608) | \$ (4,271,608) |
| c. Net recognized gains and losses | \$ 246,457 | \$ 300,556 | \$ 1,185,437 | \$ 2,564,801 |

NOTES TO FINANCIAL STATEMENTS

(7) Amounts in unassigned funds (surplus) that have not yet been recognized as components of net periodic benefit cost

| | Pension Benefits | | Postretirement Benefits | |
|---------------------------------------------|------------------|--------------|-------------------------|-----------------|
| | 2018 | 2017 | 2018 | 2017 |
| a. Net transition asset or obligation | \$ — | \$ — | \$ — | \$ — |
| b. Net prior service cost or credit | \$ 14,962 | \$ 29,929 | \$ (69,831,873) | \$ (74,103,481) |
| c. Net recognized gains and losses | \$ 7,593,085 | \$ 9,078,216 | \$ 14,101,454 | \$ 25,218,790 |

(8) Weighted-average assumptions used to determine net periodic benefit cost as of December 31

| | Pension Benefits | | Postretirement Benefits | |
|--------------------------------------------------------|------------------|-------|-------------------------|-------|
| | 2018 | 2017 | 2018 | 2017 |
| a. Weighted-average discount rate | 3.11% | 3.43% | 3.42% | 3.89% |
| b. Expected long-term rate of return on plan assets .. | — | — | — | — |
| c. Rate of compensation increase | 0 | N/A | N/A | N/A |

Weighted-average assumptions used to determine projected benefit obligation as of December 31

| | Pension Benefits | | Postretirement Benefits | |
|-----------------------------------------|------------------|-------|-------------------------|-------|
| | 2018 | 2017 | 2018 | 2017 |
| d. Weighted-average discount rate | 3.79% | 3.11% | 3.97% | 3.42% |
| e. Rate of compensation increase | 0 | N/A | N/A | N/A |

For measurement purposes for the post-retirement plan, a 7.06% annual rate of increase in the per capita cost of covered pre-65 health care benefits was assumed for 2019. The rate was assumed to decrease gradually to 5.00% for 2035 and remain at that level thereafter.

(9) The amount of accumulated benefit obligation for the defined benefit pension plan was \$36,990,617 and \$40,589,349 for the year ended December 31, 2018 and 2017, respectively.

(10) The Company has multiple non-pension post-retirement benefit plans. The pre-65 health care plans are contributory, with participants' contributions adjusted annually; the post-65 health care plan and the life insurance plans are noncontributory. Post-retirement life insurance is offered only to those who retired prior to 2011. Company subsidies for the post-retirement health care plans, including post-65 annual HRA amounts, are offered to any who qualify for eligibility prior to 2015, after which newly qualifying retirees will pay the full cost of the health care plans. The accounting for health care plans anticipates future cost-sharing changes to the written plan consistent with the Company's express intent to reflect general health care trend rates in the employee premiums. For post-retirement medical, this is consistent with pre-65 trend rate assumptions of 7.06% for 2019 gradually scaling down to 5.00% in 2035. Company-provided HRA amounts are assumed to remain constant, and therefore no post-65 trend rate assumption applies.

(11) Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans.

A one-percentage-point change in assumed health care cost trend rates would have the following effects:

| | 1 Percentage Point Increase | 1 Percentage Point Decrease |
|------------------------------------------------------------------|-----------------------------|-----------------------------|
| a. Effect on total of service and interest cost components | \$ 18,120 | \$ (16,888) |
| b. Effect on post-retirement benefit obligation | \$ 572,086 | \$ (535,815) |

(12) The estimated future benefit payments are based on the same assumptions as used to measure the benefit obligations at December 31, 2018. The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

| | Pension Benefits | Postretirement Benefits |
|-------------------|------------------|-------------------------|
| 2019 | \$ 3,906,000 | \$ 6,469,000 |
| 2020 | 3,492,000 | 6,406,000 |
| 2021 | 3,408,000 | 6,328,000 |
| 2022 | 3,319,000 | 6,387,000 |
| 2023 | 3,223,000 | 6,179,000 |
| 2024 through 2028 | 13,829,000 | 27,371,000 |
| Total | \$ 31,177,000 | \$ 59,140,000 |

(13) The Company does not have any regulatory contribution requirements for 2019 and does not intend to make voluntary contributions to the defined benefit pension plan during 2019.

(14)-(17) Not applicable.

NOTES TO FINANCIAL STATEMENTS

- (18) In December 2018, TIAA executed a buy-out of the inactive retiree life insurance benefits for a purchase price of \$15.6 million. The buy-out resulted in a reduction in the liability of \$15.7 million, which was measured and reflected as of December 31, 2018. Moreover, a settlement charge equal to \$1.0 million was reflected as of December 31, 2018.

(19)-(21) Not applicable.

B-D. Not applicable as the Company does not have any plan assets.

E. Defined Contribution Plans

The Company maintains a qualified, non-contributory defined contribution money purchase plan covering substantially all employees. All employee pension plan liabilities are fully funded through retirement annuity contracts. Contributions are made to each participant's contract based on a percentage of salary, with the applicable percentage varying by attained age. Contributions are fully vested upon the earlier of (a) the time when the employee completes three years of service, (b) the date the employee attains age 65, or (c) the date of the employee's death. The accompanying statements of operations include contributions to the pension plan of approximately \$53,446,438 and \$58,343,213 in 2018 and 2017, respectively. This includes supplemental contributions made to Company-owned annuity contracts under a non-qualified deferred compensation plan.

The Company sponsors a defined contribution plan established to provide all of its employees with retirement income through a program of voluntary contributions. The Company matches contributions on 100% of the first 3% of base salary that an employee contributes into the plan. Participants are eligible to contribute to the Plan immediately on their first day of employment and are vested immediately in their contributions plus actual earnings thereon. Participants are fully vested in the Employer matching contributions upon the earlier of (a) the time when the employee completes three years of service, (b) the date the employee attains age 65, or (c) the date of the employee's death. The accompanying statements of operations include contributions to this plan of approximately \$16,878,630 and \$17,630,740 in 2018 and 2017, respectively.

The Company sponsors another defined contribution plan to provide all of its employees with funds to help cover qualified medical expenses after termination of employment through a program of voluntary contributions. A participant may contribute up to 100% of their base salary to the plan. These contributions are made on an after-tax basis by the participant. The Company matches 100% of the plan's participant contribution, up to \$750 annually. Participants are eligible to contribute to the plan immediately on their first day of employment and are vested immediately in their contributions plus actual earnings thereon. Participants are fully vested in the employer matching contributions upon the earlier of (a) the time when the employee completes three years of service, (b) the date the employee attains age 65, or (c) the date of the employee's death. The accompanying statements of operations include contributions to this plan of approximately \$1,464,546 and \$1,526,012 in 2018 and 2017, respectively.

Additionally, the Company maintains a non-qualified deferred compensation plan for non-employee trustees and members of the TIAA Board of Overseers. The plan provides an award equal to 50% of the annual stipend that is invested annually in company-owned annuity contracts. Payout of accumulations is normally made in a lump sum following the trustees' or member's separation from the Board.

F. Multiemployer Plans

Not applicable.

G. Consolidated/Holding Company Plans

Not applicable.

H. Postemployment Benefits and Compensated Absences

Not applicable.

I. Impact of Medicare Modernization Act on Post-retirement Benefits

As of December 31, 2018, the Company had not been impacted by the Medicare Modernization Act.

13. Capital and Surplus, Shareholders' Dividend Restrictions and Quasi-Reorganization

- (1) The Company has 2,500 shares of \$1,000 par value Class A common stock authorized, issued and outstanding as of the balance sheet date.

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- (2) The Company has no preferred stock.
- (3) Under New York Insurance Law, the Company is permitted, without prior insurance regulatory approval, to pay dividends to shareholders as long as the aggregate amount of all such dividends in any calendar year does not exceed the lesser of (i) 10% of its surplus to policyholders as of the immediately preceding calendar year, or (ii) its statutory net gain from operations (excluding realized capital gains) for the immediately preceding calendar year.
- (4) and (5) The Company, by charter, operates without profit to the corporation or its sole shareholder, the TIAA Board of Overseers. As a result, all contingency reserves are held as special surplus funds solely to provide benefits in accordance with the Company’s charter purpose.
- (6) There are no restrictions placed on the Company's surplus.
- (7) There are no advances to surplus.
- (8) The Company does not hold any stock for special purposes.
- (9) Changes in the balance of special surplus funds for the period ended December 31, 2018 are as follows:

| | | |
|------------------------------------------|----|-----------------------|
| Balance at December 31, 2017 | \$ | 36,336,069,438 |
| Net Income | | 1,453,053,539 |
| Change in unrealized capital gains | | (358,925,740) |
| Change in net deferred income tax | | (147,263,000) |
| Change in non-admitted assets | | 707,498,982 |
| Change in asset valuation reserve | | 128,699,273 |
| Change in surplus notes | | 325,509 |
| Other, net | | 6,845,727 |
| Balance at December 31, 2018 | \$ | <u>38,126,303,728</u> |

- (10) The Company has no unassigned funds. The portion of special surplus funds represented by cumulative net unrealized gains was \$2,498,354,518, gross of deferred taxes, as of December 31, 2018.
- (11) The following table provides information related to the Company’s outstanding surplus notes as of December 31, 2018:

| Date Issued | Interest Rate | Par Value (Face Amount of Notes) | Carrying Value of Note | Interest Paid Year to Date | Total Principal and / or Interest Paid | Date of Maturity |
|-------------|---------------|----------------------------------|------------------------|----------------------------|----------------------------------------|------------------|
| 12/16/2009 | 6.850% | \$ 1,050,000,000 | \$ 1,049,050,372 | \$ 71,925,000 | \$ 647,325,000 | 12/16/2039 |
| 09/18/2014 | 4.900% | \$ 1,650,000,000 | \$ 1,648,670,091 | \$ 80,850,000 | \$ 322,726,250 | 09/15/2044 |
| 09/18/2014 | 4.375% * | \$ 350,000,000 | \$ 349,420,400 | \$ 15,312,500 | \$ 61,122,396 | 09/15/2054 |
| 05/08/2017 | 4.270% | \$ 2,000,000,000 | \$ 1,993,926,186 | \$ 85,400,000 | \$ 129,760,556 | 05/15/2047 |
| Total | | \$ 5,050,000,000 | \$ 5,041,067,049 | \$ 253,487,500 | \$ 1,160,934,202 | |

* The Company will bear interest at a fixed annual rate of 4.375% from and including September 18, 2014 to but excluding September 15, 2024 payable semi-annually in arrears on March 15 and September 15 of each year, commencing March 15, 2015, then at an annual floating rate equal to Three-Month LIBOR plus 2.661% from and including September 15, 2024 to but excluding the date on which the Fixed-to-Floating Rate Notes are paid in full, payable quarterly, in arrears on March 15, June 15, September 15 and December 15 of each year, commencing December 15, 2024.

The instruments listed in the above table, are unsecured debt obligations of the type generally referred to as “surplus notes” and are issued in accordance with Section 1307 of the New York Insurance Law. The surplus notes are subordinated in right of payment to all present and future indebtedness, policy claims and other creditor claims of the Company and rank *pari passu* with any future surplus notes of the Company and with any other similarly subordinated obligations.

The notes were issued in a transaction pursuant to Rule 144A under the Securities Act of 1933, as amended, and the notes are evidenced by one or more global notes deposited with a custodian for, and registered in the name of a nominee of, The Depository Trust Company.

No subsidiary or affiliate of the Company is an obligor or guarantor of the notes, which are solely obligations of the Company. No affiliates of the Company hold any portion of the notes.

The notes are not scheduled to repay any principal prior to maturity. Each payment of interest and principal may be made only with the prior approval of the Superintendent and only out of the Company's surplus funds, which

NOTES TO FINANCIAL STATEMENTS

the Superintendent of the Department determines to be available for such payments under New York Insurance Law. In addition, provided that approval is granted by the Superintendent of the Department, the notes may be redeemed at the option of the Company at any time at the “make-whole” redemption price equal to the greater of the principal amount of the notes to be redeemed, or the sum of the present values of the remaining scheduled interest and principal payments, excluding accrued interest as of the redemption date, discounted to the redemption date on a semi-annual basis at the adjusted Treasury rate plus a pre-defined spread, plus in each case, accrued and unpaid interest payments on the notes to be redeemed to the redemption date.

(12)-(13) The Company has no restatement of surplus due to quasi-reorganizations.

14. Liabilities, Contingencies and Assessments

A. Contingent Commitments

(1) At December 31, 2018, outstanding commitments for future real estate investments were \$41,525,000. All are scheduled for disbursement in 2019. The funding of real estate investment obligations is contingent upon the properties meeting specific requirements, including construction, leasing and occupancy.

At December 31, 2018, outstanding commitments for equity investments were \$4,776,692,312. Of this, \$1,354,264,579 is scheduled for disbursement in 2019 and \$3,422,427,733 in later years. Equity investments represent fund investments and stocks.

(2) At December 31, 2018, the Company was obligor under the following guarantees, indemnities and support obligations:

| Nature and circumstances of guarantee and key attributes, including date and duration of agreement. | Liability recognition of guarantee. (Include amount recognized at inception. If no initial recognition, document exception allowed under SSAP No. 5R.) | Ultimate financial statement impact if action under the guarantee is required. | Maximum potential amount of future payments (undiscounted) the guarantor could be required to make under the guarantee. If unable to develop an estimate, this should be specifically noted. | Current status of payment or performance risk of guarantee. Also provide additional discussion as warranted. |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The Company has unconditionally guaranteed \$1,000 million in outstanding senior unsecured notes issued by Nuveen, LLC. The Company hereby agrees to cause any such payment to be made punctually when and as the same shall become due and payable, whether at maturity, upon acceleration, redemption, repayment or otherwise, and as if such payment were made by Nuveen LLC. | Guarantee made to/or on behalf of a wholly-owned subsidiary and as such are excluded from recognition. | Investment in Subsidiary, Controlled, or Affiliated ("SCA") | \$1,401,222,222 | Based on Nuveen's financial position and operations, the Company views the risk of performance under this guarantee as remote. |
| Financial support agreement with TIAA-CREF Life Insurance Company to have (i) capital and surplus of \$250 million; (ii) the amount of capital and surplus necessary to maintain TIAA-CREF Life's capital and surplus at a level not less than 150% of the NAIC RBC model; or (iii) such other amounts as necessary to maintain TIAA-CREF Life's financial strength rating the same or better than TIAA's rating at all times. | Guarantee made to/or on behalf of a wholly-owned subsidiary and as such are excluded from recognition. | Investment in Subsidiary, Controlled, or Affiliated ("SCA") | Since this obligation is not subject to limitations, TIAA does not believe that it is possible to determine the maximum potential amount that could become due under these guarantees in the future. | At December 31, 2018, the capital and surplus of TIAA-CREF Life Insurance Company was in excess of the minimum capital and surplus amount referenced, and its total adjusted capital was in excess of the referenced RBC-based amount calculated at December 31, 2018. |
| Under the Conditional Purchase Agreements with each CLO ("Agreements"), TIAA agrees to acquire a loan subject to a trade executed for a related CLO in which TIAA is residual investor, if the loan does not meet the eligibility criteria for the CLO on the 15th calendar day following the trade date. | Exempt. | Expenses would increase | \$862,563 | Based on the CLOs past performance and the current credit quality of the loans awaiting settlement the Company views the risk of performance under this guarantee to be remote. |

NOTES TO FINANCIAL STATEMENTS

(3) At December 31, 2018, the Company's aggregate compilation of guarantee obligations was as follows (in millions):

| | | | |
|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------|
| a. | Aggregate Maximum Potential of Future Payments of All Guarantees (undiscounted) the guarantor could be required to make under guarantees. (Should equal total of Column 4 for (2) above.) | \$ | 1,402 |
| b. | Current Liability Recognized in F/S: | | |
| 1. | Noncontingent Liabilities | \$ | — |
| 2. | Contingent Liabilities | \$ | — |
| c. | Ultimate Financial Statement Impact if action under the guarantee is required. | | |
| 1. | Investments in SCA | \$ | 1,401 |
| 2. | Joint Venture | | — |
| 3. | Dividends to Stockholders (capital contributions) | | — |
| 4. | Expense | | 1 |
| 5. | Other | | — |
| 6. | Total (Should equal (3)a.) | \$ | 1,402 |

B. Assessments

(1) The company is subject to guaranty fund assessments from the states in which it is licensed and has received notification of the insolvency of various life insurers. The company establishes a liability for its proportionate share of the assessments and an offsetting asset for states that allow members to recover the assessment through full or partial credit.

The Company has established a non-recoverable guarantee fund assessments liability of \$639,594 for December 31, 2018.

(2)

| | | |
|----|----------------------------------------------------------------------|---------------|
| a. | Assets recognized from paid premium tax offsets prior year end | \$ 15,524,358 |
| b. | Decreases current year | |
| | Premium tax offset | (1,702,632) |
| c. | Increases current year | |
| | Assessments paid | 61,826 |
| d. | Assets recognized from paid premium tax offsets | \$ 13,883,552 |

(3)

- a. Discount rate applied.....0%
- b. The undiscounted and discounted amount of the guaranty assessment and related assets by insolvency.

| Name of the Insolvency | Guarantee Fund Assessment | | Related Assets | |
|------------------------------|---------------------------|------------|----------------|------------|
| | Undiscounted | Discounted | Undiscounted | Discounted |
| American Network/Penn Treaty | \$ 45,026 | \$ 45,026 | \$ 36,419 | \$ 36,419 |

c. Not applicable.

C. Gain Contingencies

Not applicable.

D. Claims Related Extra Contractual Obligation and Bad Faith Losses Stemming from Lawsuits

Not applicable.

E. Joint and Several Liabilities

Not applicable.

NOTES TO FINANCIAL STATEMENTS

F. All Other Contingencies

Contingent liabilities arising from litigation, and other matters, over and above amounts already provided for in the financial statements or disclosed elsewhere in these notes, are not considered material in relation to the Company's financial position or the results of its operations.

The Company receives and responds to subpoenas or other inquiries from state and federal regulators, including state insurance commissioners; state attorneys general and other state governmental authorities; the SEC; federal governmental authorities; and the Financial Industry Regulatory Authority ("FINRA"), seeking a broad range of information. The Company cooperates in connection with these inquiries and believes the ultimate liability that could result from litigation and proceedings would not have a material adverse effect on the Company's financial position.

15. Leases

A. (1) The Company leases office space under various non-cancelable operating lease agreements. Rental expense for office space was \$83,462,184 and \$73,204,169 for 2018 and 2017, respectively. Additionally, the Company leases data processing and other equipment under various non-cancelable lease agreements. Rental expense for equipment was \$16,787,334 and \$23,950,106 for 2018 and 2017, respectively.

(2) At January 1, 2019, the minimum aggregate rental commitments are as follows:

| Year Ending December 31, | Real Property | Equipment | Total |
|--------------------------|-----------------------|----------------------|-----------------------|
| 2019 | \$ 72,398,890 | \$ 5,732,819 | \$ 78,131,709 |
| 2020 | 61,930,818 | 2,081,752 | 64,012,570 |
| 2021 | 53,201,558 | 2,722,790 | 55,924,348 |
| 2022 | 43,575,305 | 385,224 | 43,960,529 |
| 2023 | 36,684,218 | 79,051 | 36,763,269 |
| Thereafter | 124,295,274 | — | 124,295,274 |
| Total | <u>\$ 392,086,063</u> | <u>\$ 11,001,636</u> | <u>\$ 403,087,699</u> |

(3) The Company is not involved in any sale-leaseback transactions.

B. (1) For Operating Leases

- a. The Company owns and leases real estate properties. The properties are leased to tenants in a variety of industries under various non-cancelable leases with a typical lease period of five to twenty years and some leases contain renewal options. The minimum rental amounts due under the leases are generally subject to either scheduled fixed increases or other adjustments. The leases also generally require that the tenants are billed for increases in certain operating costs and real estate taxes above the tenant's base year costs.
- b. At December 31, the cost, accumulated depreciation and carrying values of real estate directly owned by the Company are as follows:

| | 2018 | 2017 |
|--------------------------------|-------------------------|-------------------------|
| Cost | \$ 2,576,116,639 | \$ 2,456,798,492 |
| Accumulated depreciation | (424,233,629) | (378,472,449) |
| Carrying value | <u>\$ 2,151,883,010</u> | <u>\$ 2,078,326,043</u> |

At December 31, the carrying values of real estate investments are diversified by property type as follows:

| Property Type | 2018 | 2017 |
|----------------------------------------|---------------|---------------|
| Industrial buildings | 36.4% | 39.2% |
| Office buildings | 28.9 | 28.5 |
| Apartments | 21.8 | 19.7 |
| Retail | 7.7 | 7.1 |
| Mixed-use projects | 3.9 | 4.2 |
| Land held for future development | 1.3 | 1.3 |
| Total | <u>100.0%</u> | <u>100.0%</u> |

c. Future minimum lease payment receivables under non-cancelable leasing arrangements as of December 31, 2018, are as follows:

| Year Ending December 31 | Operating Leases |
|------------------------------|-----------------------|
| 2019 | \$ 106,621,999 |
| 2020 | 88,009,578 |
| 2021 | 74,621,839 |
| 2022 | 64,278,309 |
| 2023 | 50,315,417 |
| Total minimum lease receipts | <u>\$ 383,847,142</u> |

d. There were no contingent rentals included in income for the years ended December 31, 2018 and 2017.

(2) The Company does not have any leveraged leases.

16. Information About Financial Instruments With Off-Balance Sheet Risk And Financial Instruments With Concentrations of Credit Risk

(1) The table below summarizes the notional amount of the Company’s derivative financial instruments with off balance sheet risk:

| | Assets | | Liabilities | |
|----------------|--------------------------|-------------------------|-------------------------|-------------------------|
| | 12/31/2018 | 12/31/2017 | 12/31/2018 | 12/31/2017 |
| Swaps | \$ 14,988,553,098 | \$ 9,345,503,358 | \$ 2,566,150,867 | \$ 4,169,290,965 |
| Forwards | 1,675,924,801 | 129,464,292 | 520,930,840 | 2,568,138,259 |
| Total | <u>\$ 16,664,477,899</u> | <u>\$ 9,474,967,650</u> | <u>\$ 3,087,081,707</u> | <u>\$ 6,737,429,224</u> |

(2) See Note 8 for a description of the nature and terms of the Company’s derivatives, including market risks and cash requirements. See Note 1 for a description of the related accounting policies of the Company’s derivatives.

(3) The Company is exposed to credit-related losses in the event of nonperformance by counterparties to derivatives, but it does not expect any counterparties to fail to meet their obligations given their high credit ratings. See item (4) below for further discussion of the Company’s methods of mitigating credit risk with its derivatives counterparties.

See Schedule DB Part D Section 1 for details of the Company’s derivatives counterparty credit exposure.

(4) The Company currently has International Swaps and Derivatives Association (“ISDA”) master swap agreements in place with each of its OTC-bilateral derivatives counterparties. Substantially all of the Company’s ISDA Master Agreements also include Credit Support Annex provisions which require both the pledging and accepting of cash or highly liquid U.S. Government securities as collateral in connection with its OTC-bilateral derivatives positions.

The Company also transacts in OTC-cleared derivatives through central clearing counterparties. These positions are marked to market and margined on a daily basis (both initial margin and variation margin), and the Company has minimal exposure to credit-related losses in the event of nonperformance by clearing brokers or central clearing counterparties.

As of December 31, 2018, the Company held cash collateral and margin of \$759,422,544 and securities collateral of \$40,878,115 from its counterparties. As of December 31, 2018, the Company pledged cash collateral of \$10,800,000 and securities collateral and margin of \$5,876,746 to its counterparties. These cash collateral amounts are recorded as receivables or payables by the Company and reported on the balance sheet as Aggregate Write-Ins for Invested Assets and Aggregate Write-Ins for Liabilities, respectively. Securities collateral held by the Company is carried off-balance sheet.

17. Sale, Transfer and Servicing of Financial Assets and Extinguishments of Liabilities

A. Transfers of Receivables Reported as Sales

Not applicable.

B. Transfer and Servicing of Financial Assets

(1) The Company has a securities lending program whereby blocks of securities, which are included in invested assets, are loaned to third parties, primarily brokerage firms and commercial banks. Generally the Company requires collateral equal to 102% (105% for foreign loaned securities) of the current estimated fair value of the loaned securities for the duration of the loan. The company monitors the estimated fair value of the

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securities loaned on a daily basis with additional collateral obtained as necessary. As of December 31, 2018, the estimated fair value of the Company's bonds on loan under the program was \$548,428,956. The contracts for the securities lending transactions as of December 31, 2018, are open ended with no termination date specified. The collateral held by the Company had an estimated fair value of \$561,635,042 and was not restricted.

(2) The fair value of securities on loan was \$548,428,956. The fair value of cash collateral received as of December 31, 2018, was \$561,635,042. This collateral is reported in "Securities lending reinvested collateral assets" with an offsetting collateral liability of \$561,635,042 included in "Payable for securities lending".

(3)-(7) Not applicable.

C. Wash Sales

(1) In the course of the Company's asset management, securities may be sold and reacquired within 30 days of the date of sale. The securities involved in these transactions are generally invested to enhance the Company's yield on its investment portfolio and mitigate market risks or for short-term cash management purposes.

(2) There were no securities with an NAIC Designation of 3 or below, or that do not have an NAIC designation, excluding all cash equivalents, derivative instruments as well as short-term investments with credit assessments equivalent to an NAIC 1-2 designation, that were sold and reacquired within the thirty days of the sale.

18. Gain or Loss to the Reporting Entity from Uninsured Plans and the Uninsured Portion of Partially Insured Plans

Not applicable.

19. Direct Premium Written/Produced by Managing General Agents/Third Party Administrators

Not applicable.

20. Fair Value Measurements

A. Included in the Company's financial statements are certain financial instruments carried at fair value. Other financial instruments are periodically measured at fair value, such as when impaired, or for certain bonds and preferred stocks when carried at the lower of cost or fair value.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Fair values of financial instruments are based on quoted market prices when available. When quoted market prices are not available, fair values are primarily provided by a third party pricing service for identical or comparable assets, or through the use of valuation methodologies using observable market inputs. These fair values are generally estimated using discounted cash flow analysis, incorporating current market inputs for similar financial instruments with comparable terms and credit quality. In instances where there is little or no market activity for the same or similar instruments, the Company estimates fair value using methods, models and assumptions that management believes market participants would use to determine a current transaction price. These valuation techniques involve management estimation and judgment for many factors including market bid/ask spreads, and such estimations may become significant with increasingly complex instruments or pricing models.

The Company's financial assets and liabilities measured and reported at fair value have been classified, for disclosure purposes, based on a hierarchy defined by SSAP No. 100, Fair Value Measurements. The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The hierarchy gives the highest ranking to fair values determined using unadjusted quoted prices in active markets for identical assets and liabilities (Level 1) and the lowest ranking to fair values determined using methodologies and models with unobservable inputs (Level 3). An asset's or a liability's classification is based on the lowest level input that is significant to its measurement. For example, a Level 3 fair value measurement may include inputs that are both observable (Level 1 and Level 2) and unobservable (Level 3). The levels of the fair value hierarchy are as follows:

Level 1 – Inputs are unadjusted quoted prices in active markets for identical assets and liabilities that the Company has the ability to access at the measurement date.

Level 2 – Other than quoted prices within Level 1 inputs that are observable for the asset or liability, either directly or indirectly.

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Level 2 inputs include:

- Quoted prices for similar assets or liabilities in active markets,
- Quoted prices for identical or similar assets or liabilities in markets that are not active,
- Inputs other than quoted prices that are observable for the asset or liability,
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 – Inputs are unobservable inputs for the asset or liability supported by little or no market activity. Unobservable inputs reflect the Company’s own assumptions about the assumptions that market participants would use in pricing the asset or liability. The Company’s data used to develop unobservable inputs is adjusted if information is reasonably available without undue cost and effort that indicates that market participants would use different assumptions.

Considerable judgment is required to interpret market data in developing the estimates of fair value for financial instruments for which there are no available market value quotations. The estimates presented are not necessarily indicative of the amounts the Company could have realized in a market exchange. The use of different market assumptions and/or estimation methodologies may have a material effect on the estimated fair value amounts.

(1) Financial assets and liabilities measured and reported at fair value:

The following tables provide information about the Company’s financial assets and liabilities measured and reported at fair value at December 31, 2018:

| | Level 1 | Level 2 | Level 3 | Net Asset Value (NAV) | Total |
|---------------------------------------|---------------------------------|--------------------------------|---------------------------------|-----------------------------|---------------------------------|
| Assets at fair value: | | | | | |
| Bonds | | | | | |
| U.S. Government | \$ — | \$ 1,173,798,053 | \$ — | \$ — | \$ 1,173,798,053 |
| Industrial and Miscellaneous | 630,351,392 | 175,969,316 | 100,131,293 | — | 906,452,001 |
| Total Bonds | <u>\$ 630,351,392</u> | <u>\$ 1,349,767,369</u> | <u>\$ 100,131,293</u> | <u>\$ —</u> | <u>\$ 2,080,250,054</u> |
| Common Stocks | | | | | |
| Industrial and Miscellaneous | \$ 695,947,820 | \$ — | \$ 195,232,358 | \$ — | \$ 891,180,178 |
| Total Common Stocks | <u>\$ 695,947,820</u> | <u>\$ —</u> | <u>\$ 195,232,358</u> | <u>\$ —</u> | <u>\$ 891,180,178</u> |
| Total Preferred Stocks | \$ — | \$ — | \$ 4,362,224 | \$ — | \$ 4,362,224 |
| Derivatives: | | | | | |
| Interest rate contracts | \$ — | \$ 3,644,033 | \$ — | \$ — | \$ 3,644,033 |
| Foreign exchange contracts | — | 472,611,948 | — | — | 472,611,948 |
| Credit default swaps | — | 163,804 | — | — | 163,804 |
| Total Derivatives | <u>\$ —</u> | <u>\$ 476,419,785</u> | <u>\$ —</u> | <u>\$ —</u> | <u>\$ 476,419,785</u> |
| Separate Account Assets, Net | \$ 12,287,525,949 | \$ 4,088,697,047 | \$ 20,667,269,172 | \$ — | \$ 37,043,492,168 |
| Total assets at fair value | <u><u>\$ 13,613,825,161</u></u> | <u><u>\$ 5,914,884,201</u></u> | <u><u>\$ 20,966,995,047</u></u> | <u><u>\$ —</u></u> | <u><u>\$ 40,495,704,409</u></u> |
| Liabilities at fair value: | | | | | |
| Derivatives | | | | | |
| Foreign exchange contracts | \$ — | \$ 152,395,280 | \$ — | \$ — | \$ 152,395,280 |
| Commodity forwards | — | — | — | — | — |
| Credit default swaps | — | 3,185,822 | — | — | 3,185,822 |
| Total liabilities at fair value | <u><u>\$ —</u></u> | <u><u>\$ 155,581,102</u></u> | <u><u>\$ —</u></u> | <u><u>\$ —</u></u> | <u><u>\$ 155,581,102</u></u> |

Transfers between Level 1 and Level 2

Periodically, the Company has transfers between Level 1 and Level 2 due to the availability of quoted prices for identical assets in active markets at the measurement date. The Company’s policy is to recognize transfers between levels as of the actual date of the event or change in circumstances that caused the transfer.

As of December 31, 2018, the Company had no transfers between Level 1 and Level 2 of the fair value hierarchy.

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(2) Reconciliation of Level 3 assets and liabilities measured and reported at fair value:

The following is a reconciliation of the beginning and ending balances for assets and liabilities measured and reported at fair value using Level 3 inputs at December 31, 2018 (in millions):

| | Balance at 1/1/2018 | Transfers into Level 3 | Transfers out of Level 3 | Total gains & (losses) included in Net Income | Total gains & (losses) included in Surplus | Purchases | Issuances | Sales | Settlements | Ending balance at 12/31/2018 |
|---------------------------|------------------------|------------------------------|--------------------------------|--------------------------------------------------------|-----------------------------------------------------|-------------------|-------------|---------------------|------------------|------------------------------------|
| Bonds | \$ 64.7 | \$ 75.4 | \$ (37.5) | (8.0) | \$ 6.7 | \$ 0.7 | \$ — | \$ (1.1) | \$ (0.8) | \$ 100.1 |
| Common Stock | 203.5 | — | (9.2) | 32.6 | (3.3) | 1,039.4 | — | (1,067.8) | — | 195.2 |
| Preferred Stock | — | 44.1 | (40.2) | — | 0.5 | — | — | — | — | 4.4 |
| Separate Account | 20,037.7 | — | — | 55.3 | 451.3 | 2,214.4 | — | (1,994.1) | (97.3) | 20,667.3 |
| Total | <u>\$20,305.9</u> | <u>\$ 119.5</u> | <u>\$ (86.9)</u> | <u>\$ 79.9</u> | <u>\$ 455.2</u> | <u>\$ 3,254.5</u> | <u>\$ —</u> | <u>\$ (3,063.0)</u> | <u>\$ (98.1)</u> | <u>\$20,967.0</u> |

- (a) The Company transferred bonds into Level 3 that were measured and reported at fair value.
(b) The Company transferred bonds out of Level 3 that were not measured and reported at fair value.
(c) The Company transferred common stocks out of Level 3 due to the availability of observable market data used in the valuation of these securities.
(d) The Company transferred preferred stocks into Level 3 that were measured and reported at fair value.
(e) The Company transferred preferred stocks out of Level 3 that were not measured and reported at fair value.

- (3) The Company’s policy is to recognize transfers into and out of Level 3 at the actual date of the event or change in circumstances that caused the transfer.
- (4) See 20.B.
- (5) a. Derivative assets and liabilities fair value disclosures on a gross basis are included in 20.A.1 above.

b. Since there are no derivative assets or liabilities measured and reported at fair value classified in Level 3, the reconciliation disclosures required under 20.A.2 and 20.A.3 are not applicable. For disclosures required under 20.A.4 see 20.B.

- B. The estimated fair values of the financial assets and liabilities presented within this note are determined by the Company using market information available as of December 31, 2018. The following is a summary of the valuation techniques and inputs used in the fair value measurements for all financial instruments, including those assets and liabilities carried at fair value in the Company's statement of financial position.

Level 1 financial instruments

Unadjusted quoted prices for these securities are provided to the Company by independent pricing services. Common stock, preferred stock, and separate account assets in Level 1 primarily include mutual fund investments valued by the respective mutual fund companies, exchange listed equities, and public real estate investment trusts. Bonds included in level 1 represent SVO-identified exchange traded funds that qualify for bond treatment, which are valued using quoted market prices. Cash, cash equivalents and short term investments included in Level 1 represents cash on hand.

Level 2 financial instruments

Bonds included in Level 2 are valued principally by third party pricing services using market observable inputs. Because most bonds do not trade daily, independent pricing services regularly derive fair values using recent trades of securities with similar features. When recent trades are not available, pricing models are used to estimate the fair values of securities by discounting future cash flows at estimated market interest rates. Typical inputs to models used by independent pricing services include but are not limited to benchmark yields, reported trades, broker-dealer quotes, issuer spreads, benchmark securities, bids, offers, reference data, and industry and economic events. Additionally, for loan-backed and structured securities, valuation is based primarily on market inputs including benchmark yields, expected prepayment speeds, loss severity, delinquency rates, weighted average coupon, weighted average maturity and issuance specific information. Issuance specific information includes collateral type, payment terms of underlying assets, payment priority within the tranche, structure of the security, deal performance and vintage of loans.

Preferred stocks included in Level 2 include those which are traded in an inactive market for which prices for identical securities are not available. Valuations are based principally on observable inputs including quoted prices in markets that are not considered active.

Derivative assets and liabilities classified in Level 2 represent over-the-counter instruments that include, but are not limited to, fair value hedges using foreign currency swaps, foreign currency forwards, commodity forwards, interest rate swaps and credit default swaps. Fair values for these instruments are determined internally using market observable inputs that include, but are not limited to, forward currency rates, interest rates, credit default rates and published observable market indices.

NOTES TO FINANCIAL STATEMENTS

Other invested assets in level 2 are valued by a third party pricing vendor using primarily observable market inputs. Observable inputs include benchmark yields, reported trades, market dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers and reference data.

Separate account assets in Level 2 consist principally of short term government agency notes and commercial paper.

Cash, cash equivalents, and short-term investments included in Level 2 are valued principally by third party services using market observable inputs.

Level 3 financial instruments

Valuation techniques for bonds included in Level 3 are generally the same as those described in Level 2 except that the techniques utilize inputs that are not readily observable in the market, including illiquidity premiums and spread adjustments to reflect industry trends or specific credit-related issues. The Company assesses the significance of unobservable inputs for each security and classifies that security in Level 3 as a result of the significance of unobservable inputs.

Estimated fair value for privately traded equity securities are principally determined using valuation and discounted cash flow models that require a substantial level of judgment.

Mortgage loans are valued using discounted cash flow models that utilize inputs which include loan and market interest rates, credit spreads, the nature and quality of underlying collateral and the remaining term of the loans.

Contract loans are fully collateralized by the cash surrender value of underlying insurance policies and are valued based on the carrying value of the loan, which approximates fair value, and are classified as Level 3.

Separate account assets classified as Level 3 primarily include directly owned real estate properties, real estate joint ventures and real estate limited partnerships. Directly owned real estate properties are valued on a quarterly basis based on independent third party appraisals. Real estate joint venture interests are valued based on the fair value of the underlying real estate, any related mortgage loans payable and other factors such as ownership percentage, ownership rights, buy/sell agreements, distribution provisions and capital call obligations. Real estate limited partnership interests are valued based on the most recent net asset value of the partnership.

Separate account liabilities are accounted for at fair value, except the TIAA Stable Value Separate Account, which supports book value separate account agreements, in which case the assets are accounted for at amortized cost. Separate account liabilities reflect the contractual obligations of the insurer arising out of the provisions of the insurance contract.

Deposit-type contracts are valued based on the accumulated account value, which approximates fair value, and are classified as Level 3.

Derivatives assets or liabilities classified as Level 3 represent structured financial instruments that rely on inputs that are significant to the estimated fair value that are not observable in the market or cannot be corroborated by observable market data. Significant inputs that are unobservable generally include references to inputs outside the observable portion of credit curves or other relevant market measures. These unobservable inputs require significant management judgment or assumptions. Level 3 methodologies are validated through periodic comparison of the Company's fair values to external broker-dealer values.

NOTES TO FINANCIAL STATEMENTS

C. Aggregate fair value for all financial instruments

The aggregate fair value for all financial instruments and the level within the fair value hierarchy:

| Assets: | Aggregate Fair Value | Admitted Assets | Level 1 | Level 2 | Level 3 | Net Asset Value (NAV) | Not Practicable (Carrying Value) |
|---------------------------------------------------------|---------------------------|---------------------------|--------------------------|---------------------------|--------------------------|-----------------------|----------------------------------|
| Bonds | \$ 190,702,372,001 | \$ 187,325,118,786 | \$ 630,351,392 | \$ 184,668,336,068 | \$ 5,403,684,541 | \$ — | \$ — |
| Common Stock | 891,180,178 | 891,180,178 | 695,947,820 | — | 195,232,358 | — | — |
| Preferred Stock | 308,856,424 | 245,061,072 | 27,695,871 | 19,350,000 | 261,810,553 | — | — |
| Mortgage Loans | 29,275,935,575 | 29,958,575,702 | — | — | 29,275,935,575 | — | — |
| Derivatives | 930,875,390 | 967,845,751 | — | 517,639,221 | 413,236,169 | — | — |
| Other invested assets | 89,494,901 | 76,100,012 | — | 89,494,901 | — | — | — |
| Contract Loans | 1,889,982,883 | 1,889,982,863 | — | — | 1,889,982,863 | — | — |
| Separate Accounts | 38,259,927,936 | 38,288,611,045 | 12,298,054,165 | 5,294,604,599 | 20,667,269,172 | — | — |
| Cash, Cash Equivalents and Short Term Investments | 597,578,043 | 597,573,069 | 117,159,565 | 480,418,478 | — | — | — |
| Total | <u>\$ 262,946,203,331</u> | <u>\$ 260,240,048,478</u> | <u>\$ 13,769,208,813</u> | <u>\$ 191,069,843,267</u> | <u>\$ 58,107,151,231</u> | <u>\$ —</u> | <u>\$ —</u> |

| Liabilities | Aggregate Fair Value | Statement Value | Level 1 | Level 2 | Level 3 | Net Asset Value (NAV) | Not Practicable (Carrying Value) |
|------------------------------|--------------------------|--------------------------|-------------|-----------------------|--------------------------|-----------------------|----------------------------------|
| Deposit-type contracts | \$ 1,105,189,756 | \$ 1,105,189,756 | \$ — | \$ — | \$ 1,105,189,756 | \$ — | \$ — |
| Separate Accounts | 38,244,597,044 | 38,244,597,043 | — | — | 38,244,597,044 | — | — |
| Derivatives | 167,714,252 | 164,437,692 | — | 167,714,252 | — | — | — |
| Total | <u>\$ 39,517,501,052</u> | <u>\$ 39,514,224,491</u> | <u>\$ —</u> | <u>\$ 167,714,252</u> | <u>\$ 39,349,786,800</u> | <u>\$ —</u> | <u>\$ —</u> |

D. Not applicable.

21. Other Items

A. Unusual or Infrequent Items

Not applicable.

B. Troubled Debt Restructuring

Not applicable.

C. Other Disclosures

Forward Commitments

The Company has the following forward commitments:

As of December 31, 2018, outstanding forward commitments for future long-term bond investments were \$1,190,720,652. Of this, \$1,068,589,637 is scheduled for disbursement in 2019 and \$122,131,015 in later years. The funding of bond commitments is contingent upon the continued favorable financial performance of the potential borrowers.

As of December 31, 2018, outstanding forward commitments for future preferred stock investments were \$8,440,069. Of this, \$506,404 is scheduled for disbursement in 2019 and \$7,933,665 in later years. The funding of preferred stock commitments is contingent upon the continued favorable financial performance.

As of December 31, 2018, outstanding forward commitments for future mortgage loan investments were \$603,287,072. All is scheduled for disbursement in 2019. The funding of commercial mortgage loan commitments is contingent upon the underlying properties meeting specified requirements, including construction, leasing and occupancy. The funding of residential mortgage loan commitments is contingent upon the loan meeting specified guidelines including property appraisal reviews and confirmation of borrower credit.

D. Business Interruption Insurance Recoveries

Not applicable.

NOTES TO FINANCIAL STATEMENTS

E. State Transferable and Non-transferable Tax Credits

Not applicable.

F. Subprime Mortgage Related Risk Exposure

The Company’s exposure to subprime lending is limited to investments within its investment portfolio which are primarily in the form of Residential Mortgage-Backed Securities (“RMBS”) supported by subprime mortgage loans. Additionally, the Company does not underwrite nor does it hold any direct sub-prime mortgages. The Company manages its subprime risk exposure by limiting the Company’s holdings in these types of instruments, maintaining high credit quality investments, and performing ongoing analysis of cash flows, prepayment speeds, default rates and other stress variables. Loan-backed and structured securities not in default are held at amortized cost. Securities held for sale, or rated NAIC 6 are held at the lower of amortized cost or fair value. All securities are subjected to the Company’s process for identifying OTTIs. The impairment identification process utilizes various techniques and processes including a screening process based on declines in fair value and prospects for recovery. The Company writes down securities that it deems to have an OTTI in the period the securities are deemed to be impaired.

Furthermore, the Company does not have any underwriting exposure to subprime mortgage risk through Mortgage Guaranty or Financial Guaranty insurance coverage.

The following table presents the Company’s exposure to RMBS securities supported by subprime residential mortgage-backed loans as of December 31, 2018. The OTTI losses in the table below are inception-to-date.

| | Actual Cost | Book Adjusted Carrying Value (excluding interest) | Fair Value | Other Than Temporary Impairment Losses Recognized |
|------------|------------------|------------------------------------------------------|------------------|------------------------------------------------------|
| Total RMBS | \$ 1,009,809,455 | \$ 1,036,502,604 | \$ 1,159,618,852 | \$ (234,502,793) |

G. Retained Assets

(1) Retained asset accounts are structured as drafts and reported as deposit type contracts without life contingencies on the Company’s financial statements. The interest crediting rate applied to accounts opened on or prior to November 3, 2003 is guaranteed, while accounts opened after November 3, 2003 have a variable interest crediting rate and is subject to change at the Company’s discretion. The guaranteed interest rate was 3.0% in 2018 and the variable interest rate was 1.5% at December 31, 2018. There are no monthly service or maintenance fees, no fees for withdrawals and no fees for writing or ordering drafts. If a balance falls below \$1,000 during any statement period, the account will be closed as of the end of the next statement period and a check will be mailed for the remaining balance, including accrued interest. Beginning in 2015, the Company is no longer offering the retained asset option on death claims.

(2) The following table presents the Company’s retained asset accounts in force:

| | | Retained Asset Accounts In Force | | | |
|----|-------------------------------------|----------------------------------|----------------|-------------------|----------------|
| | | December 31, 2018 | | December 31, 2017 | |
| | | (a) | (b) | (c) | (d) |
| | | Number | Balance | Number | Balance |
| a. | Up to and including 12 Months | — | \$ — | — | \$ — |
| b. | 13 to 24 Months | — | — | 3 | 75,178 |
| c. | 25 to 36 Months | 3 | 76,314 | 55 | 2,413,968 |
| d. | 37 to 48 Months | 42 | 2,116,457 | 146 | 9,132,732 |
| e. | 49 to 60 Months | 120 | 7,665,886 | 162 | 7,103,837 |
| f. | Over 60 Months | 2,015 | 104,765,782 | 2,037 | 110,588,809 |
| g. | Total | 2,180 | \$ 114,624,439 | 2,403 | \$ 129,314,524 |

NOTES TO FINANCIAL STATEMENTS

(3) The following table presents the Company’s retained asset accounts segregated between individual and group contracts as of December 31, 2018:

| | Retained Asset Accounts In Force | | | |
|------------------------------------------------------------------------------------------------|----------------------------------|----------------|--------|---------------|
| | Individual | | Group | |
| | (1) | (2) | (3) | (4) |
| | Number | Balance | Number | Balance |
| a. Retained asset accounts at the beginning of the year | 1,966 | \$ 111,475,596 | 437 | \$ 17,838,928 |
| b. Retained asset accounts issued/added during the year | — | — | — | — |
| c. Investment earnings credited to retained asset accounts during the year | — | 1,950,686 | — | 513,795 |
| d. Fees and other charges assessed to retained asset accounts during the year | — | — | — | — |
| e. Retained asset accounts transferred to state unclaimed property funds during the year | — | — | — | — |
| f. Retained asset accounts closed/withdrawn during the year..... | 203 | 15,442,787 | 20 | 1,711,779 |
| g. Retained asset accounts at the end of the year | 1,763 | \$ 97,983,495 | 417 | \$ 16,640,944 |

H. Insurance- Linked Securities (ILS) Contracts

The Company did not have any insurance-linked securities contracts during 2018 where the Company may receive possible proceeds as the issuer, ceding insurer, or counterparty of insurance-linked securities.

22. Events Subsequent

Type I - Recognized subsequent events:

Subsequent events have been considered through February 22, 2019 for the statutory statement issued on February 22, 2019.

No type I subsequent events were noted.

Type II - Non-recognized subsequent events:

Subsequent events have been considered through February 22, 2019 for the statutory statement issued on February 22, 2019.

No type II subsequent events were noted.

23. Reinsurance

A. Ceded Reinsurance Report

Section 1 – General Interrogatories

(1) Are any of the reinsurers, listed in Schedule S as non-affiliated, owned in excess of 10% or controlled, either directly or indirectly, by the Company or by any representative, officer, trustee, or director of the Company?

Yes () No (X)

(2) Have any policies issued by the Company been reinsured with a company chartered in a country other than the United States (excluding U.S. Branches of such companies) that is owned in excess of 10% or controlled directly or indirectly by an insured, a beneficiary, a creditor or any other person not primarily engaged in the insurance business?

Yes () No (X)

Section 2 – Ceded Reinsurance Report – Part A

(1) Does the Company have any reinsurance agreements in effect under which the reinsurer may unilaterally cancel any reinsurance for reasons other than for non-payment of premium or other similar credits?

Yes () No (X)

(2) Does the company have any reinsurance agreements in effect such that the amount of losses paid or accrued through the statement date may result in a payment to the reinsurer of amounts that, in aggregate and allowing for offset of mutual credits from other reinsurance agreements with the same reinsurer, exceed the total direct premium collected under the reinsured policies?

Yes

()

No

(X)

Section 3 – Ceded Reinsurance Report – Part B

(1) What is the estimated amount of the aggregate reduction in surplus, (for agreements other than those under which the reinsurer may unilaterally cancel for reasons other than for nonpayment of premium or other similar credits that are reflected in Section 2 above) of termination of ALL reinsurance agreements, by either party, as of the date of this statement? Where necessary, the Company may consider the current or anticipated experience of the business reinsured in making this estimate. \$15,550,831

(2) Have any new agreements been executed or existing agreements amended, since January 1 of the year of this statement, to include policies or contracts which were in force or which had existing reserves established by the Company as of the effective date of the agreement?

Yes

()

No

(X)

B. Uncollectible Reinsurance

The Company did not write off any uncollectible reinsurance balances during the year.

C. Commutation of Ceded Reinsurance

The Company did not commute any ceded reinsurance during the year.

D. Certified Reinsurer Rating Downgraded or Status Subject to Revocation

Not applicable.

E. Reinsurance of Variable Annuity Contracts

Not applicable.

F. Reinsurance with an Affiliated Captive Reinsurer

Not applicable.

G. Ceding Entities That Utilize Captive Reinsurers to Assume Reserves Subject to the XXX/AXXX Captive Framework

Not applicable.

24. Retrospectively Rated Contracts and Contracts Subject to Redetermination

Not applicable.

25. Changes in Incurred Losses and Loss Adjustment Expenses

A. Reserves as of December 31, 2018 were \$1,029. As of December 31, 2018, no material amounts have been paid for incurred claims and claim adjustment expenses attributed to insured events of prior years. There are no reserves for prior years. See Schedule H - Part 3 and Five Year Historical Data. Original estimates are increased or decreased as additional information becomes known regarding individual claims. However, no significant trends or unanticipated events were noted in 2018. None of the Company’s accident and health contracts are subject to retrospective rating or experience refunds.

B. During 2018 there were no changes in methodologies and assumptions used in calculating the liability for unpaid losses and loss adjustment expenses.

26. Intercompany Pooling Arrangements

Not applicable.

27. Structured Settlements

Not applicable.

NOTES TO FINANCIAL STATEMENTS

28. Health Care Receivables

Not applicable.

29. Participating Policies

Not applicable.

30. Premium Deficiency Reserves

- (1) Liability carried for premium deficiency reserves for major medical block of business \$6,662
- (2) Date of the most recent evaluation of this liability 12/31/2018
- (3) Was anticipated investment income utilized in the calculation? Yes

31. Reserves for Life Contracts and Annuity Contracts

- (1) The Company waives deduction of deferred fractional premiums upon death of insured and returns any portion of the final premium beyond the date of death. As of December 31, 2018, surrender values of \$332,071 in excess of the legally computed reserves are held as an additional reserve liability on Exhibit 5, - Miscellaneous reserves section.
- (2) The Company does not have any policies issued on a substandard basis.
- (3) As of December 31, 2018, the Company had \$319,978,582 of insurance in force for which the gross premiums are less than the net premiums according to the standard valuation set by the State of New York. Deficiency reserves totaled \$816,395 (gross of reinsurance) at December 31, 2018 and are reported on Exhibit 5, - Miscellaneous reserves section.
- (4) The Tabular Interest, the Tabular Less Actual Reserve Released, and the Tabular Cost have been determined by formula as described in the instructions.
- (5) For Immediate Annuities not involving life contingencies and supplementary contracts not involving life contingencies, for each valuation rate of interest, the tabular interest has been calculated as the product of the valuation rate times the mean liability for the year. For all other funds not involving life contingencies, tabular interest has been calculated as the total interest credited to such funds. The total amount is entered on Exhibit 7, line 3 – Investment earnings credited.
- (6) The following table provides the detail for other increases (net) on Page 7, line 7:

| Item | Total | Ordinary Life Insurance | Individual Annuities | Supplementary Contracts | Group Annuities |
|----------------------------------------------------------------------------------|-----------------------|----------------------------|-------------------------|----------------------------|-------------------------|
| Reinsurance reserve deposit... | \$ — | \$ — | \$ — | \$ — | \$ — |
| Change in Reserves due to recapture of bulk reinsurance assumed | — | — | — | — | — |
| Policyholder reinvestment of annuity benefits | 1,100,182,504 | — | 539,504,465 | — | 560,678,039 |
| Net effect of maturities | (420,463,555) | — | 484,117,321 | (3,044,946) | (901,535,930) |
| Conversion & transfers between Individual & group deferred annuities | — | — | 250,113,016 | — | (250,113,016) |
| Change in excess reserve for annuities | 190,918,204 | — | 189,198,664 | 1,418,850 | 300,690 |
| Reserves attributable to prior year transactions | 117,956,386 | — | — | — | 117,956,386 |
| Total | <u>\$ 988,593,539</u> | <u>\$ —</u> | <u>\$ 1,462,933,466</u> | <u>\$ (1,626,096)</u> | <u>\$ (472,713,831)</u> |

STATEMENT AS OF DECEMBER 31, 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

NOTES TO FINANCIAL STATEMENTS

32. Analysis of Annuity Actuarial Reserves and Deposit Type Liabilities by Withdrawal Characteristics

Withdrawal Characteristics of Annuity Actuarial Reserves and Deposit-Type Contracts Funds and other Liabilities Without Life or Disability Contingencies.

| | General Account | Separate Account with Guarantees | Separate Account Nonguaranteed | Total | % of Total |
|---------------------------------------------------------------------------------|--------------------|----------------------------------------|-----------------------------------|--------------------|------------|
| A. Subject to discretionary withdrawal: | | | | | |
| (1) With market value adjustment | \$ — | \$ — | \$ — | \$ — | 0.0% |
| (2) At book value less current surrender charge of 5% or more | — | — | — | — | 0.0% |
| (3) At fair value | — | — | 36,703,185,729 | 36,703,185,729 | 14.7% |
| (4) Total with market value adjustment or at fair value . | \$ — | \$ — | \$ 36,703,185,729 | \$ 36,703,185,729 | 14.7% |
| (5) At book value without adjustment (minimal or no charge or adjustment) | 58,670,713,962 | 1,204,952,219 | 52,816 | 59,875,718,997 | 24.0% |
| B. Not subject to discretionary withdrawal | 153,246,506,311 | — | — | 153,246,506,311 | 61.3% |
| C. Total (gross) | \$ 211,917,220,273 | \$ 1,204,952,219 | \$ 36,703,238,545 | \$ 249,825,411,037 | 100.0% |
| D. Reinsurance ceded | — | — | — | — | |
| E. Total (net)* (C) – (D) | \$ 211,917,220,273 | \$ 1,204,952,219 | \$ 36,703,238,545 | \$ 249,825,411,037 | |

*Reconciliation of total annuity actuarial reserve and deposit fund liabilities:

| | |
|-------------------------------------------------------------------------------------|--------------------|
| F. Life & Accident & Health Annual Statement: | Amount |
| (1) Ex 5, Annuities Section, Total (net) | \$ 207,334,254,422 |
| (2) Ex 5, Supplementary Contracts with Life Contingencies Section, Total (net)..... | 3,477,316,462 |
| Ex 5, Miscellaneous Reserves, AG43 Excess Line | 459,633 |
| (3) Ex 7, Deposit-type Contracts, Line 14, Column 1 | 1,105,189,756 |
| (4) Subtotal | \$ 211,917,220,273 |

| | |
|------------------------------------------------------------------------------------------|--------------------|
| Separate Accounts Annual Statement: | |
| (5) Ex 3, Line 0299999, Column 2 – Annuities | \$ 37,685,866,167 |
| (6) Ex 3, Line 0399999, Column 2 - Supplementary Contracts with Life Contingencies | 204,668,777 |
| (7) Policyholder dividend and coupon accumulations | — |
| (8) Policyholder premiums | — |
| (9) Guaranteed interest contracts | — |
| (10) Ex 4, Deposit-type Contracts | 17,655,820 |
| (11) Subtotal | \$ 37,908,190,764 |
| (12) Combined Total | \$ 249,825,411,037 |

33. Premiums and Annuity Considerations Deferred and Uncollected

A. Deferred and uncollected life insurance premiums and annuity considerations as of December 31, 2018, were as follows:

| | Type | Gross | Net of Loading |
|-----|-----------------------------|----------------------|----------------------|
| (1) | Industrial | \$ — | \$ — |
| (2) | Ordinary new business | 391,689 | 179,979 |
| (3) | Ordinary renewal | 66,791,181 | 50,622,349 |
| (4) | Credit Life | — | — |
| (5) | Group Life | — | — |
| (6) | Group Annuity | — | — |
| (7) | Total | <u>\$ 67,182,870</u> | <u>\$ 50,802,328</u> |

34. Separate Accounts

A. Separate Account Activity

(1) TIAA utilizes separate accounts to record and account for assets and liabilities for particular lines of business and/or transactions. For the current reporting year, TIAA reported assets and liabilities from the Variable Annuity and Group Deferred Fixed Annuity product lines in a separate account.

In accordance with the domiciliary state procedures for approving items within the separate account, the separate account classification of the following items are supported by a specific state statute:

| Product Identification | Product Classification | State Statute Reference |
|----------------------------|------------------------------|------------------------------------------------------|
| TIAA Separate Account VA-1 | Variable Annuity | Section 4240 of the New York Insurance Law |
| TIAA Separate Account VA-2 | Variable Annuity | Section 4240 of the New York Insurance Law |
| TIAA Separate Account VA-3 | Variable Annuity | Section 4240 of the New York Insurance Law |
| TIAA Stable Value | Group Deferred Fixed Annuity | Section 4240(a)(5)(ii) of the New York Insurance Law |

(2) In accordance with the products recorded within the separate account, some assets are considered legally insulated whereas others are not legally insulated from the general account. The legal insulation of the separate account assets prevents such assets from being generally available to satisfy claims resulting from the general account.

As of December 31, 2018, the Company's separate account statements included the following assets by product:

| Product | Legally Insulated Assets | Separate Account Assets (Not Legally Insulated) |
|----------------------------------|--------------------------|----------------------------------------------------|
| TIAA Separate Account VA-1 | \$ 928,415,522 | \$ — |
| TIAA Separate Account VA-2 | 26,179,702,909 | — |
| TIAA Separate Account VA-3 | 9,935,373,737 | — |
| TIAA Stable Value | 1,245,118,877 | — |
| Total | <u>\$ 38,288,611,045</u> | <u>\$ —</u> |

(3) In accordance with the products recorded within the separate account, some separate account liabilities are guaranteed by the general account. (In accordance with the guarantees provided, if the investment proceeds are insufficient to cover the rate of return guaranteed for the product, the policy holder proceeds will be remitted by the general account.)

As of December 31, 2018, the general account of TIAA had a maximum guarantee for separate account liabilities of \$187,320. The amount paid for risk charges is not explicit, but rather embedded within the mortality and expense charge.

For the year ended December 31, 2018, the general account of TIAA paid \$1,369,509 towards separate account guarantees. The total separate account guarantees paid (received) by the general account for the preceding five years ending at December 31, are as follows:

| | |
|------|-----------|
| 2017 | 1,128,012 |
| 2016 | 2,023,146 |
| 2015 | 1,231,577 |
| 2014 | 1,023,296 |
| 2013 | 378,410 |

NOTES TO FINANCIAL STATEMENTS

The General Account provides the Real Estate Separate Account with a liquidity guarantee to ensure it has funds available to meet participant transfer or cash withdrawal requests. If the Real Estate Separate Account cannot fund participant requests, the General Account will fund them by purchasing accumulation units in the Real Estate Separate Account. Under this agreement, TIAA guarantees that participants will be able to redeem their accumulation units at their accumulation unit value next determined after the transfer or withdrawal request is received in good order. To compensate the general account for the risk taken, the separate account paid liquidity charges as follows for the past five (5) years:

| | | |
|------|----|------------|
| 2018 | \$ | 50,517,677 |
| 2017 | \$ | 47,022,033 |
| 2016 | \$ | 38,411,067 |
| 2015 | \$ | 31,723,287 |
| 2014 | \$ | 29,151,585 |

(4) The Company engages in securities lending transactions through its VA-1 and Real Estate Separate Accounts.

As of December 31, 2018, the VA-1 Separate Account has loaned securities of \$4,610,949 and collateral of \$4,765,978. The Real Estate Separate Account has loaned securities of \$63,977,932 and collateral of \$68,820,800.

The Company's Separate Accounts may lend securities to qualified institutional borrowers to earn additional income. The Separate Accounts receives collateral (in the form of cash, Treasury securities, or other collateral permitted by applicable law) against the loaned securities and maintains collateral in an amount not less than 100% of the market value of loaned securities during the period of the loan. Cash collateral received by the Separate Accounts will generally be invested in high quality short-term instruments, or in one or more funds maintained by the securities lending agent for the purpose of investing cash collateral. The Separate Accounts bear the market risk with respect to the collateral investment, securities loaned, and the risk that the counterparty may default on its obligations.

B. General Nature and Characteristics of Separate Accounts Business

Separate Accounts are established in conformity with insurance laws and are segregated from the Company's general account and are maintained for the benefit of separate account contract holders. Separate accounts are generally accounted for at fair value, except the Stable Value Separate Account ("TSV") products which are accounted for at book value.

The TIAA Separate Account VA-1 ("VA-1") is a segregated investment account and was established on February 16, 1994 under the insurance laws of the State of New York for the purpose of issuing and funding (after tax) variable annuity contract primarily for employees of non-profit institutions organized in the United States, including governmental institutions. VA-1 is registered with the Securities and Exchange Commission, (the "Commission") effective at November 1, 1994, as an open-end, diversified management investment company under the Investment Company Act of 1940. VA-1 consists of a single investment portfolio, the Stock Index Account ("SIA"). The SIA was established on October 3, 1994 and invests in a diversified portfolio of equity securities selected to track the overall market for common stocks publicly traded in the United States.

The TIAA Separate Account VA-2 ("VA-2") is a segregated investment account and was organized on February 22, 1995, under the insurance laws of the State of New York for the purpose of providing an investment option to TIAA's pension customers to direct investments to an investment vehicle that invests primarily in real estate. VA-2 was registered with the Commission under the Securities Act of 1933 effective at October 2, 1995. VA-2's target is to invest between 75% and 85% of its assets directly in real estate or in real estate-related investments, with the remainder of its assets invested in publicly-traded securities and other instruments that are easily converted to cash to maintain adequate liquidity.

The TIAA Separate Account VA-3 ("VA-3") is a segregated investment account and was established on May 17, 2006 under the laws of the State of New York for the purposes of funding individual and group variable annuities for retirement plans of employees of colleges, universities, other educational and research organizations, and other governmental and non-profit institutions. VA-3 is registered with the Commission as an investment company under the Investment Company Act of 1940, effective at September 29, 2006, and operates as a unit investment trust.

The TIAA Stable Value ("TSV") is an insulated, non-unitized separate account and was established on March 31, 2010 qualifying under New York Insurance Law 4240(a)(5)(ii). The Separate Account supports a flexible premium group deferred fixed annuity contract that is offered to employer sponsored retirement plans. The assets of this account are carried at book value as prescribed by the Department.

STATEMENT AS OF DECEMBER 31, 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

NOTES TO FINANCIAL STATEMENTS

Information regarding the separate accounts of the Company is as follows:

| | Index | Non-indexed Guarantee less than/ equal to 4% | Non-indexed Guarantee more than 4% | Non-guaranteed Separate Accounts | Total |
|----------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------|------------------------------------------|-------------------------------------|--------------------------|
| (1) Premiums, considerations or deposits for the year ended 12/31/2018 | \$ — | \$ 458,894,751 | \$ — | \$ 4,376,298,473 | \$ 4,835,193,224 |
| Reserves 12/31/2018 | | | | | |
| (2) For accounts with assets at: | | | | | |
| a. Fair value..... | \$ — | \$ — | \$ — | \$ 36,703,238,545 | \$ 36,703,238,545 |
| b. Amortized cost..... | — | 1,204,952,219 | — | — | 1,204,952,219 |
| c. Total reserves*..... | <u>\$ —</u> | <u>\$ 1,204,952,219</u> | <u>\$ —</u> | <u>\$ 36,703,238,545</u> | <u>\$ 37,908,190,764</u> |
| (3) By withdrawal characteristics: | | | | | |
| a. Subject to discretionary withdrawal: | | | | | |
| 1. With market value adjustment | \$ — | \$ — | \$ — | \$ — | \$ — |
| 2. At book value without market value adjustment and with current surrender charge of 5% or more | — | — | — | — | — |
| 3. At fair value | — | — | — | 36,703,185,729 | 36,703,185,729 |
| 4. At book value without market value adjustment and with current surrender charge of 5% or less** | — | 1,204,952,219 | — | 52,816 | 1,205,005,035 |
| 5. Subtotal | <u>\$ —</u> | <u>\$ 1,204,952,219</u> | <u>\$ —</u> | <u>\$ 36,703,238,545</u> | <u>\$ 37,908,190,764</u> |
| b. Not subject to discretionary withdrawal | — | — | — | — | — |
| c. Total | <u>\$ —</u> | <u>\$ 1,204,952,219</u> | <u>\$ —</u> | <u>\$ 36,703,238,545</u> | <u>\$ 37,908,190,764</u> |
| (4) Reserves for Asset Default Risk in Lieu of AVR:..... | \$ — | \$ — | \$ — | \$ — | \$ — |

*Line 2(c) should equal Line 3(c)
**Withdrawable at book value without adjustment or charge

C. Reconciliation of Net Transfers To or (From) Separate Accounts:

| | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|
| (1) Transfers as reported in the Summary of Operations of the Separate Accounts Statement: | Legally Insulated | Not Legally Insulated | Total |
| a. Transfers to Separate Accounts (Page 4, Line 1.4)..... | \$ 5,124,149,004 | \$ — | \$ 5,124,149,004 |
| b. Transfers from Separate Accounts (Page 4, Line 10)..... | (4,682,272,131) | — | (4,682,272,131) |
| c. Net transfers to or (from) Separate Accounts (a) - (b) | 441,876,873 | — | 441,876,873 |
| (2) Reconciling Adjustments: | | | |
| Fund transfer exchange gain (loss) | (240,723) | — | (240,723) |
| (3) Transfers as reported in the Summary of Operations of the Life, Accident & Health Annual Statement - (1c) + (2) = (Page 4, Line 26) . | <u>\$ 441,636,150</u> | <u>\$ —</u> | <u>\$ 441,636,150</u> |

35. Loss/Claims Adjustment Expense

- A. The Company has \$0 liability for unpaid accident and health claim adjustment expenses as of December 31, 2018 and 2017.
- B. The Company has not increased or decreased the provision for insured events of prior years.
- C. The Company did not incur nor pay any claim adjustment expenses in the current year which was attributable to insured and covered events of prior years.
- D. The Company took into account estimated anticipated salvage and subrogation in its determination of the liability for unpaid claims/losses and reduced such liability by \$0.

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES
GENERAL

- 1.1

Is the reporting entity a member of an Insurance Holding Company System consisting of two or more affiliated persons, one or more of which is an insurer?
If yes, complete Schedule Y, Parts 1, 1A and 2

Yes [X] No []
- 1.2

If yes, did the reporting entity register and file with its domiciliary State Insurance Commissioner, Director or Superintendent, or with such regulatory official of the state of domicile of the principal insurer in the Holding Company System, a registration statement providing disclosure substantially similar to the standards adopted by the National Association of Insurance Commissioners (NAIC) in its Model Insurance Holding Company System Regulatory Act and model regulations pertaining thereto, or is the reporting entity subject to standards and disclosure requirements substantially similar to those required by such Act and regulations?

Yes [X] No [] N/A []
- 1.3

State Regulating?

New York
- 1.4

Is the reporting entity publicly traded or a member of a publicly traded group?

Yes [] No [X]
- 1.5

If the response to 1.4 is yes, provide the CIK (Central Index Key) code issued by the SEC for the entity/group.
- 2.1

Has any change been made during the year of this statement in the charter, by-laws, articles of incorporation, or deed of settlement of the reporting entity?

Yes [] No [X]
- 2.2

If yes, date of change:
- 3.1

State as of what date the latest financial examination of the reporting entity was made or is being made.

12/31/2013
- 3.2

State the as of date that the latest financial examination report became available from either the state of domicile or the reporting entity. This date should be the date of the examined balance sheet and not the date the report was completed or released.

12/31/2013
- 3.3

State as of what date the latest financial examination report became available to other states or the public from either the state of domicile or the reporting entity. This is the release date or completion date of the examination report and not the date of the examination (balance sheet date).

06/10/2015
- 3.4

By what department or departments?
New York State Department of Financial Services
- 3.5

Have all financial statement adjustments within the latest financial examination report been accounted for in a subsequent financial statement filed with Departments?

Yes [] No [] N/A [X]
- 3.6

Have all of the recommendations within the latest financial examination report been complied with?

Yes [] No [] N/A [X]
- 4.1

During the period covered by this statement, did any agent, broker, sales representative, non-affiliated sales/service organization or any combination thereof under common control (other than salaried employees of the reporting entity), receive credit or commissions for or control a substantial part (more than 20 percent of any major line of business measured on direct premiums) of:
4.11 sales of new business?
4.12 renewals?

Yes [] No [X]
Yes [] No [X]
- 4.2

During the period covered by this statement, did any sales/service organization owned in whole or in part by the reporting entity or an affiliate, receive credit or commissions for or control a substantial part (more than 20 percent of any major line of business measured on direct premiums) of:
4.21 sales of new business?
4.22 renewals?

Yes [] No [X]
Yes [] No [X]
- 5.1

Has the reporting entity been a party to a merger or consolidation during the period covered by this statement?
If yes, complete and file the merger history data file with the NAIC.

Yes [] No [X]
- 5.2

If yes, provide the name of the entity, NAIC Company Code, and state of domicile (use two letter state abbreviation) for any entity that has ceased to exist as a result of the merger or consolidation.

| 1 Name of Entity | 2 NAIC Company Code | 3 State of Domicile |
|---------------------|------------------------|------------------------|
| | | |

- 6.1

Has the reporting entity had any Certificates of Authority, licenses or registrations (including corporate registration, if applicable) suspended or revoked by any governmental entity during the reporting period?

Yes [] No [X]
- 6.2

If yes, give full information:
- 7.1

Does any foreign (non-United States) person or entity directly or indirectly control 10% or more of the reporting entity?

Yes [] No [X]
- 7.2

If yes,
7.21 State the percentage of foreign control; %
7.22 State the nationality(s) of the foreign person(s) or entity(s) or if the entity is a mutual or reciprocal, the nationality of its manager or attorney-in-fact; and identify the type of entity(s) (e.g., individual, corporation or government, manager or attorney in fact).

| 1 Nationality | 2 Type of Entity |
|------------------|---------------------|
| | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

GENERAL INTERROGATORIES

- 8.1

Is the company a subsidiary of a bank holding company regulated by the Federal Reserve Board?

Yes [] No [X]
- 8.2

If response to 8.1 is yes, please identify the name of the bank holding company.
- 8.3

Is the company affiliated with one or more banks, thrifts or securities firms?

Yes [X] No []
- 8.4

If response to 8.3 is yes, please provide below the names and location (city and state of the main office) of any affiliates regulated by a federal regulatory services agency [i.e. the Federal Reserve Board (FRB), the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC) and the Securities Exchange Commission (SEC)] and identify the affiliate's primary federal regulator.

| 1 | 2 | 3 | 4 | 5 | 6 |
|-------------------------------------------------------|------------------------|-----|-----|------|-----|
| Affiliate Name | Location (City, State) | FRB | OCC | FDIC | SEC |
| TIAA, FSB | Jacksonville, Florida | | YES | | |
| TIAA FSB Holdings, Inc. | Jacksonville, Florida | YES | | | |
| Teachers Insurance and Annuity Association of America | New York, New York | YES | | | |
| TIAA Board of Overseers | New York, New York | YES | | | |
| TIAA-CREF Individual & Institutional Services, LLC. | New York, New York | | | | YES |
| Teachers Personal Investors Services, Inc. | New York, New York | | | | YES |
| Nuveen Securities, LLC. | Chicago, Illinois | | | | YES |

9.

What is the name and address of the independent certified public accountant or accounting firm retained to conduct the annual audit?

PricewaterhouseCoopers LLP, PricewaterhouseCoopers Center, 300 Madison Avenue, New York, NY 10017
- 10.1

Has the insurer been granted any exemptions to the prohibited non-audit services provided by the certified independent public accountant requirements as allowed in Section 7H of the Annual Financial Reporting Model Regulation (Model Audit Rule), or substantially similar state law or regulation?

Yes [] No [X]
- 10.2

If the response to 10.1 is yes, provide information related to this exemption:
- 10.3

Has the insurer been granted any exemptions related to the other requirements of the Annual Financial Reporting Model Regulation as allowed for in Section 18A of the Model Regulation, or substantially similar state law or regulation?

Yes [] No [X]
- 10.4

If the response to 10.3 is yes, provide information related to this exemption:
- 10.5

Has the reporting entity established an Audit Committee in compliance with the domiciliary state insurance laws?

Yes [X] No [] N/A []
- 10.6

If the response to 10.5 is no or n/a, please explain
11.

What is the name, address and affiliation (officer/employee of the reporting entity or actuary/consultant associated with an actuarial consulting firm) of the individual providing the statement of actuarial opinion/certification?

John Esch (Officer/Employee) 8500 Andrew Carnegie Blvd. Charlotte, NC 28262
- 12.1

Does the reporting entity own any securities of a real estate holding company or otherwise hold real estate indirectly?

Yes [X] No []
- 12.11

Name of real estate holding company

Various
- 12.12

Number of parcels involved

126
- 12.13

Total book/adjusted carrying value

\$ 6,728,917,057
- 12.2

If, yes provide explanation:

The parcels reported above are owned through affiliated LLC's and LP's entities reported in schedule BA as well as parcels owned through affiliated corporations reported in schedule D.
13.

FOR UNITED STATES BRANCHES OF ALIEN REPORTING ENTITIES ONLY:
- 13.1

What changes have been made during the year in the United States manager or the United States trustees of the reporting entity?
- 13.2

Does this statement contain all business transacted for the reporting entity through its United States Branch on risks wherever located?

Yes [] No []
- 13.3

Have there been any changes made to any of the trust indentures during the year?

Yes [] No []
- 13.4

If answer to (13.3) is yes, has the domiciliary or entry state approved the changes?

Yes [] No [] N/A []
- 14.1

Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions) of the reporting entity subject to a code of ethics, which includes the following standards?

Yes [X] No []
- (a)

Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- (b)

Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting entity;
- (c)

Compliance with applicable governmental laws, rules and regulations;
- (d)

The prompt internal reporting of violations to an appropriate person or persons identified in the code; and
- (e)

Accountability for adherence to the code.
- 14.11

If the response to 14.1 is No, please explain:
- 14.2

Has the code of ethics for senior managers been amended?

Yes [] No [X]
- 14.21

If the response to 14.2 is yes, provide information related to amendment(s).
- 14.3

Have any provisions of the code of ethics been waived for any of the specified officers?

Yes [] No [X]
- 14.31

If the response to 14.3 is yes, provide the nature of any waiver(s).

GENERAL INTERROGATORIES

- 15.1 Is the reporting entity the beneficiary of a Letter of Credit that is unrelated to reinsurance where the issuing or confirming bank is not on the SVO Bank List?
- 15.2 If the response to 15.1 is yes, indicate the American Bankers Association (ABA) Routing Number and the name of the issuing or confirming bank of the Letter of Credit and describe the circumstances in which the Letter of Credit is triggered.
- Yes [] No [X]

| 1 American Bankers Association (ABA) Routing Number | 2 Issuing or Confirming Bank Name | 3 Circumstances That Can Trigger the Letter of Credit | 4 Amount |
|--------------------------------------------------------|--------------------------------------|----------------------------------------------------------|-------------|
| | | | |

BOARD OF DIRECTORS

16. Is the purchase or sale of all investments of the reporting entity passed upon either by the board of directors or a subordinate committee thereof?
17. Does the reporting entity keep a complete permanent record of the proceedings of its board of directors and all subordinate committees thereof?
18. Has the reporting entity an established procedure for disclosure to its board of directors or trustees of any material interest or affiliation on the part of any of its officers, directors, trustees or responsible employees that is in conflict with the official duties of such person?
- Yes [X] No []
- Yes [X] No []
- Yes [X] No []

FINANCIAL

19. Has this statement been prepared using a basis of accounting other than Statutory Accounting Principles (e.g., Generally Accepted Accounting Principles)?
- 20.1 Total amount loaned during the year (inclusive of Separate Accounts, exclusive of policy loans):
- 20.11 To directors or other officers
- 20.12 To stockholders not officers
- 20.13 Trustees, supreme or grand (Fraternal Only)
- 20.2 Total amount of loans outstanding at the end of year (inclusive of Separate Accounts, exclusive of policy loans):
- 20.21 To directors or other officers
- 20.22 To stockholders not officers
- 20.23 Trustees, supreme or grand (Fraternal Only)
- 21.1 Were any assets reported in this statement subject to a contractual obligation to transfer to another party without the liability for such obligation being reported in the statement?
- 21.2 If yes, state the amount thereof at December 31 of the current year:
- 21.21 Rented from others
- 21.22 Borrowed from others
- 21.23 Leased from others
- 21.24 Other
- 22.1 Does this statement include payments for assessments as described in the Annual Statement Instructions other than guaranty fund or guaranty association assessments?
- 22.2 If answer is yes:
- 22.21 Amount paid as losses or risk adjustment
- 22.22 Amount paid as expenses
- 22.23 Other amounts paid
- 23.1 Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement?
- 23.2 If yes, indicate any amounts receivable from parent included in the Page 2 amount:
- Yes [] No [X]
- \$
- \$
- \$
- \$
- \$
- \$
- \$
- \$
- \$
- \$
- Yes [] No [X]
- Yes [X] No []
- \$
- \$
- \$
- \$
- Yes [X] No []
- \$

INVESTMENT

- 24.01 Were all the stocks, bonds and other securities owned December 31 of current year, over which the reporting entity has exclusive control, in the actual possession of the reporting entity on said date? (other than securities lending programs addressed in 24.03)
- 24.02 If no, give full and complete information relating thereto
- 24.03 For security lending programs, provide a description of the program including value for collateral and amount of loaned securities, and whether collateral is carried on or off-balance sheet. (an alternative is to reference Note 17 where this information is also provided) See Note 17
- 24.04 Does the Company's security lending program meet the requirements for a conforming program as outlined in the Risk-Based Capital Instructions?
- 24.05 If answer to 24.04 is yes, report amount of collateral for conforming programs.
- 24.06 If answer to 24.04 is no, report amount of collateral for other programs.
- 24.07 Does your securities lending program require 102% (domestic securities) and 105% (foreign securities) from the counterparty at the outset of the contract?
- 24.08 Does the reporting entity non-admit when the collateral received from the counterparty falls below 100%?
- 24.09 Does the reporting entity or the reporting entity 's securities lending agent utilize the Master Securities lending Agreement (MSLA) to conduct securities lending?
- Yes [X] No []
- N/A []
- \$
- \$
- Yes [X] No []
- N/A []
- Yes [X] No []
- N/A []
- Yes [X] No []
- N/A []

GENERAL INTERROGATORIES

24.10 For the reporting entity's security lending program state the amount of the following as December 31 of the current year:

| | | | |
|--------|------------------------------------------------------------------------------------------------------------|----|-------------|
| 24.101 | Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2. | \$ | 561,635,042 |
| 24.102 | Total book adjusted/carrying value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2. | \$ | 561,635,042 |
| 24.103 | Total payable for securities lending reported on the liability page. | \$ | 561,635,042 |

25.1 Were any of the stocks, bonds or other assets of the reporting entity owned at December 31 of the current year not exclusively under the control of the reporting entity, or has the reporting entity sold or transferred any assets subject to a put option contract that is currently in force? (Exclude securities subject to Interrogatory 21.1 and 24.03). Yes [X] No []

| | | | | |
|------|----------------------------------------------------------------------|---------------------------------------------------------------------------------------|----|------------|
| 25.2 | If yes, state the amount thereof at December 31 of the current year: | 25.21 Subject to repurchase agreements | \$ | |
| | | 25.22 Subject to reverse repurchase agreements | \$ | |
| | | 25.23 Subject to dollar repurchase agreements | \$ | |
| | | 25.24 Subject to reverse dollar repurchase agreements | \$ | |
| | | 25.25 Placed under option agreements | \$ | |
| | | 25.26 Letter stock or securities restricted as to sale - excluding FHLB Capital Stock | \$ | |
| | | 25.27 FHLB Capital Stock | \$ | 82,262,400 |
| | | 25.28 On deposit with states | \$ | 17,289,215 |
| | | 25.29 On deposit with other regulatory bodies | \$ | |
| | | 25.30 Pledged as collateral - excluding collateral pledged to an FHLB | \$ | 25,962,082 |
| | | 25.31 Pledged as collateral to FHLB - including assets backing funding agreements | \$ | |
| | | 25.32 Other | \$ | 70,200,000 |

25.3 For category (25.26) provide the following:

| 1 Nature of Restriction | 2 Description | 3 Amount |
|----------------------------|------------------|-------------|
| | | |

26.1 Does the reporting entity have any hedging transactions reported on Schedule DB? Yes [X] No []

26.2 If yes, has a comprehensive description of the hedging program been made available to the domiciliary state? Yes [X] No [] N/A []
If no, attach a description with this statement.

27.1 Were any preferred stocks or bonds owned as of December 31 of the current year mandatorily convertible into equity, or, at the option of the issuer, convertible into equity? Yes [] No [X]

27.2 If yes, state the amount thereof at December 31 of the current year. \$

28. Excluding items in Schedule E - Part 3 - Special Deposits, real estate, mortgage loans and investments held physically in the reporting entity's offices, vaults or safety deposit boxes, were all stocks, bonds and other securities, owned throughout the current year held pursuant to a custodial agreement with a qualified bank or trust company in accordance with Section 1, III - General Examination Considerations, F. Outsourcing of Critical Functions, Custodial or Safekeeping Agreements of the NAIC Financial Condition Examiners Handbook? Yes [X] No []

28.01 For agreements that comply with the requirements of the NAIC Financial Condition Examiners Handbook, complete the following:

| 1 Name of Custodian(s) | 2 Custodian's Address |
|----------------------------|----------------------------------------------------------|
| Citibank, N.A. | 388 Greenwich Street 24th Floor New York, NY 10013 |
| JP Morgan Chase Bank, N.A. | 270 Park Avenue New York, NY 10017 |

28.02 For all agreements that do not comply with the requirements of the NAIC Financial Condition Examiners Handbook, provide the name, location and a complete explanation:

| 1 Name(s) | 2 Location(s) | 3 Complete Explanation(s) |
|--------------|------------------|------------------------------|
| | | |

28.03 Have there been any changes, including name changes, in the custodian(s) identified in 28.01 during the current year? Yes [] No [X]

28.04 If yes, give full and complete information relating thereto:

| 1 Old Custodian | 2 New Custodian | 3 Date of Change | 4 Reason |
|--------------------|--------------------|---------------------|-------------|
| | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

GENERAL INTERROGATORIES

28.05 Investment management – Identify all investment advisors, investment managers, broker/dealers, including individuals that have the authority to make investment decisions on behalf of the reporting entity. For assets that are managed internally by employees of the reporting entity, note as such. ["...that have access to the investment accounts"; "...handle securities"]

| 1 Name of Firm or Individual | 2 Affiliation |
|-------------------------------------------------|------------------|
| Churchill Asset Management LLC | A..... |
| Teachers Advisors, LLC | A..... |
| Nuveen Alternatives Advisors, LLC | A..... |
| Nicholas Liolis, Chief Investment Officer | I..... |
| | |

28.0597 For those firms/individuals listed in the table for Question 28.05, do any firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") manage more than 10% of the reporting entity's assets?..... Yes [] No [X]

28.0598 For firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") listed in the table for Question 28.05, does the total assets under management aggregate to more than 50% of the reporting entity's assets?..... Yes [] No [X]

28.06 For those firms or individuals listed in the table for 28.05 with an affiliation code of "A" (affiliated) or "U" (unaffiliated), provide the information for the table below.

| 1 Central Registration Depository Number | 2 Name of Firm or Individual | 3 Legal Entity Identifier (LEI) | 4 Registered With | 5 Investment Management Agreement (IMA) Filed |
|------------------------------------------------|-----------------------------------------|------------------------------------|----------------------------------------|-----------------------------------------------------------|
| 175092 | Churchill Asset Management, LLC | 549300TE7GGVUFY19X77 | Securities and Exchange Commission ... | DS..... |
| 107157 | Teachers Advisors, LLC | Q3EVPQI7HQSIMVRL0U14 | Securities and Exchange Commission ... | DS..... |
| 160255 | Nuveen Alternatives Advisors, LLC | 549300MFBTJNNQKKJX98 | Securities and Exchange Commission ... | DS..... |
| | | | | |

29.1 Does the reporting entity have any diversified mutual funds reported in Schedule D, Part 2 (diversified according to the Securities and Exchange Commission (SEC) in the Investment Company Act of 1940 [Section 5(b)(1)])? Yes [] No [X]

29.2 If yes, complete the following schedule:

| 1 CUSIP # | 2 Name of Mutual Fund | 3 Book/Adjusted Carrying Value |
|-----------------|--------------------------|--------------------------------------|
| 29.2999 - Total | | |

29.3 For each mutual fund listed in the table above, complete the following schedule:

| 1 Name of Mutual Fund (from above table) | 2 Name of Significant Holding of the Mutual Fund | 3 Amount of Mutual Fund's Book/Adjusted Carrying Value Attributable to the Holding | 4 Date of Valuation |
|---------------------------------------------|--------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------|
| | | | |

30. Provide the following information for all short-term and long-term bonds and all preferred stocks. Do not substitute amortized value or statement value for fair value.

| | 1 Statement (Admitted) Value | 2 Fair Value | 3 Excess of Statement over Fair Value (-), or Fair Value over Statement (+) |
|-----------------------------|------------------------------------|-----------------|-----------------------------------------------------------------------------------------|
| 30.1 Bonds | 187,325,118,786 | 190,702,372,001 | 3,377,253,215 |
| 30.2 Preferred stocks | 245,061,072 | 308,856,425 | 63,795,353 |
| 30.3 Totals | 187,570,179,858 | 191,011,228,426 | 3,441,048,568 |

30.4 Describe the sources or methods utilized in determining the fair values:

Fair values, obtained primarily from third party pricing vendors, are provided for all bonds. When fair values are not available from pricing vendors, other sources used include models from third party vendors, broker quotes, or internally modeled prices.

31.1 Was the rate used to calculate fair value determined by a broker or custodian for any of the securities in Schedule D? Yes [X] No []

31.2 If the answer to 31.1 is yes, does the reporting entity have a copy of the broker's or custodian's pricing policy (hard copy or electronic copy) for all brokers or custodians used as a pricing source? Yes [] No [X]

31.3 If the answer to 31.2 is no, describe the reporting entity's process for determining a reliable pricing source for purposes of disclosure of fair value for Schedule D:
The Company typically requests broker quotes from primary market makers for the respective security. The broker providing the quote is usually the broker the Company used to execute its trade for the respective security. The Company also conducts its own independent review of the quote it receives to determine reasonableness. This review can include comparison to a secondary pricing source, comparison to similar or related securities, and period to period variance analysis relative to respective market movement.

32.1 Have all the filing requirements of the Purposes and Procedures Manual of the NAIC Investment Analysis Office been followed? Yes [] No [X]

32.2 If no, list exceptions:
At December 31, 2018, two investments did not meet the filing requirements of the Purposes and Procedures Manual of the NAIC Investment Analysis Office. The investments are a municipal state general obligation and a corporate bond. The investments did not have sufficient documentation to file with the Securities Valuation Office. The filing was completed in January 2019.

GENERAL INTERROGATORIES

33.

By self-designating 5GI securities, the reporting entity is certifying the following elements of each self-designated 5GI security:
a. Documentation necessary to permit a full credit analysis of the security does not exist or an NAIC CRP credit rating for an FE or PL security is not available.
b. Issuer or obligor is current on all contracted interest and principal payments.
c. The insurer has an actual expectation of ultimate payment of all contracted interest and principal.
Has the reporting entity self-designated 5GI securities?

Yes ☒ No ☐
34.

By self-designating PLGI securities, the reporting entity is certifying the following elements of each self-designated PLGI security:
a. The security was purchased prior to January 1, 2018.
b. The reporting entity is holding capital commensurate with the NAIC Designation reported for the security.
c. The NAIC Designation was derived from the credit rating assigned by an NAIC CRP in its legal capacity as a NRSRO which is shown on a current private letter rating held by the insurer and available for examination by state insurance regulators.
d. The reporting entity is not permitted to share this credit rating of the PL security with the SVO.
Has the reporting entity self-designated PLGI securities?

Yes ☐ No ☒

OTHER

- 35.1

Amount of payments to trade associations, service organizations and statistical or rating bureaus, if any?

\$3,333,357
- 35.2

List the name of the organization and the amount paid if any such payment represented 25% or more of the total payments to trade associations, service organizations and statistical or rating bureaus during the period covered by this statement.

| 1 Name | 2 Amount Paid |
|-----------------------------------------|------------------|
| American Council of Life Insurers | 1,367,822 |
| | |

- 36.1

Amount of payments for legal expenses, if any?

\$25,744,956
- 36.2

List the name of the firm and the amount paid if any such payment represented 25% or more of the total payments for legal expenses during the period covered by this statement.

| 1 Name | 2 Amount Paid |
|-----------------------------------------------|------------------|
| Wilmer Cutler Pickering Hale & Dorr LLP | 22,734,679 |
| | |

- 37.1

Amount of payments for expenditures in connection with matters before legislative bodies, officers or departments of government, if any?

\$804,625
- 37.2

List the name of the firm and the amount paid if any such payment represented 25% or more of the total payment expenditures in connection with matters before legislative bodies, officers or departments of government during the period covered by this statement.

| 1 Name | 2 Amount Paid |
|-----------------------------------------|------------------|
| American Council of Life Insurers | 506,094 |
| | |

GENERAL INTERROGATORIES

PART 2 - LIFE INTERROGATORIES

1.1

Does the reporting entity have any direct Medicare Supplement Insurance in force?

Yes [] No [X]

1.2

If yes, indicate premium earned on U.S. business only

\$

1.3

What portion of Item (1.2) is not reported on the Medicare Supplement Insurance Experience Exhibit?

\$

1.31

Reason for excluding:

1.4

Indicate amount of earned premium attributable to Canadian and/or Other Alien not included in Item (1.2) above.

\$

1.5

Indicate total incurred claims on all Medicare Supplement insurance.

\$

1.6

Individual policies:

Most current three years:

1.61

Total premium earned

\$

1.62

Total incurred claims

\$

1.63

Number of covered lives

All years prior to most current three years

1.64

Total premium earned

\$

1.65

Total incurred claims

\$

1.66

Number of covered lives

1.7

Group policies:

Most current three years:

1.71

Total premium earned

\$

1.72

Total incurred claims

\$

1.73

Number of covered lives

All years prior to most current three years

1.74

Total premium earned

\$

1.75

Total incurred claims

\$

1.76

Number of covered lives

2.

Health Test:

1

Current Year

2

Prior Year

2.1

Premium Numerator

1,512

2,058

2.2

Premium Denominator

15,033,997,308

15,386,524,717

2.3

Premium Ratio (2.1/2.2)

0.000

0.000

2.4

Reserve Numerator

316

316

2.5

Reserve Denominator

211,996,068,231

206,557,899,401

2.6

Reserve Ratio (2.4/2.5)

0.000

0.000

3.1

Does this reporting entity have Separate Accounts?

Yes [X] No []

3.2

If yes, has a Separate Accounts Statement been filed with this Department?

Yes [X] No [] N/A []

3.3

What portion of capital and surplus funds of the reporting entity covered by assets in the Separate Accounts statement, is not currently distributable from the Separate Accounts to the general account for use by the general account?

\$

3.4

State the authority under which Separate Accounts are maintained:
Section 4240 of the New York Insurance Law

3.5

Was any of the reporting entity's Separate Accounts business reinsured as of December 31?

Yes [] No [X]

3.6

Has the reporting entity assumed by reinsurance any Separate Accounts business as of December 31?

Yes [] No [X]

3.7

If the reporting entity has assumed Separate Accounts business, how much, if any, reinsurance assumed receivable for reinsurance of Separate Accounts reserve expense allowances is included as a negative amount in the liability for "Transfers to Separate Accounts due or accrued (net)"?

\$

4.1

Are personnel or facilities of this reporting entity used by another entity or entities or are personnel or facilities of another entity or entities used by this reporting entity (except for activities such as administration of jointly underwritten group contracts and joint mortality or morbidity studies)?

Yes [X] No []

4.2

Net reimbursement of such expenses between reporting entities:

4.21

Paid

\$

26,724,425

4.22

Received

\$

1,915,436,538

5.1

Does the reporting entity write any guaranteed interest contracts?

Yes [] No [X]

5.2

If yes, what amount pertaining to these lines is included in:

5.21

Page 3, Line 1

\$

5.22

Page 4, Line 1

\$

6.

FOR STOCK REPORTING ENTITIES ONLY:

6.1

Total amount paid in by stockholders as surplus funds since organization of the reporting entity:

\$

550,000

7.

Total dividends paid stockholders since organization of the reporting entity:

7.11

Cash

\$

550,000

7.12

Stock

\$

GENERAL INTERROGATORIES

8.1 Does the company reinsure any Workers' Compensation Carve-Out business defined as: Yes [] No [X]
Reinsurance (including retrocessional reinsurance) assumed by life and health insurers of medical, wage loss and death benefits of the occupational illness and accident exposures, but not the employers liability exposures, of business originally written as workers' compensation insurance.

8.2 If yes, has the reporting entity completed the Workers' Compensation Carve-Out Supplement to the Annual Statement? Yes [] No []

8.3 If 8.1 is yes, the amounts of earned premiums and claims incurred in this statement are:

| | 1 Reinsurance Assumed | 2 Reinsurance Ceded | 3 Net Retained |
|------------------------------------------------------------|-----------------------------|---------------------------|----------------------|
| 8.31 Earned premium | | | |
| 8.32 Paid claims | | | |
| 8.33 Claim liability and reserve (beginning of year) | | | |
| 8.34 Claim liability and reserve (end of year) | | | |
| 8.35 Incurred claims | | | |

8.4 If reinsurance assumed included amounts with attachment points below \$1,000,000, the distribution of the amounts reported in Lines 8.31 and 8.34 for Column (1) are:

| | Attachment Point | 1 Earned Premium | 2 Claim Liability and Reserve |
|------|---------------------|------------------------|-------------------------------------|
| 8.41 | <\$25,000 | ..... | ..... |
| 8.42 | \$25,000 - 99,999 | ..... | ..... |
| 8.43 | \$100,000 - 249,999 | ..... | ..... |
| 8.44 | \$250,000 - 999,999 | ..... | ..... |
| 8.45 | \$1,000,000 or more | ..... | ..... |

8.5 What portion of earned premium reported in 8.31, Column 1 was assumed from pools?\$

9. For reporting entities having sold annuities to another insurer where the insurer purchasing the annuities has obtained a release of liability from the claimant (payee) as the result of the purchase of an annuity from the reporting entity only:
9.1 Amount of loss reserves established by these annuities during the current year:\$
9.2 List the name and location of the insurance company purchasing the annuities and the statement value on the purchase date of the annuities.

| 1 | 2 Statement Value on Purchase Date of Annuities (i.e., Present Value) |
|------------------------------------|-----------------------------------------------------------------------------------|
| P&C Insurance Company And Location | |
| | |

10.1 Do you act as a custodian for health savings accounts? Yes [] No [X]

10.2 If yes, please provide the amount of custodial funds held as of the reporting date.\$

10.3 Do you act as an administrator for health savings accounts? Yes [] No [X]

10.4 If yes, please provide the balance of funds administered as of the reporting date.\$

GENERAL INTERROGATORIES

11.1 Are any of the captive affiliates reported on Schedule S, Part 3, authorized reinsurers? Yes [] No [] N/A [X]
11.2 If the answer to 11.1 is yes, please provide the following:

| 1 Company Name | 2 NAIC Company Code | 3 Domiciliary Jurisdiction | 4 Reserve Credit | Assets Supporting Reserve Credit | | |
|-----------------------|------------------------------|--------------------------------------|----------------------------|----------------------------------|------------------------------|----------------|
| | | | | 5 Letters of Credit | 6 Trust Agreements | 7 Other |
| | | | | | | |

12. Provide the following for individual ordinary life insurance* policies (U.S. business only) for the current year (prior to reinsurance assumed or ceded):

12.1 Direct Premium Written

\$234,240,863

12.2 Total Incurred Claims

\$67,185,093

12.3 Number of Covered Lives

.....57,948

| *Ordinary Life Insurance Includes |
|----------------------------------------------------------------------------------------|
| Term (whether full underwriting,limited underwriting,jet issue,"short form app") |
| Whole Life (whether full underwriting,limited underwriting,jet issue,"short form app") |
| Variable Life (with or without secondary gurarantee) |
| Universal Life (with or without secondary gurarantee) |
| Variable Universal Life (with or without secondary gurarantee) |

13. Is the reporting entity licensed or chartered, registered, qualified, eligible or writing business in at least two states? Yes [X] No []

13.1 If no, does the reporting entity assume reinsurance business that covers risks residing in at least one state other than the state of domicile of the reporting entity? Yes [] No []

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

FIVE-YEAR HISTORICAL DATA

Show amounts in whole dollars only, no cents; show percentages to one decimal place, i.e. 17.6.
\$000 omitted for amounts of life insurance

| | 1 2018 | 2 2017 | 3 2016 | 4 2015 | 5 2014 |
|----------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Life Insurance in Force (Exhibit of Life Insurance) | | | | | |
| 1. Ordinary - whole life and endowment (Line 34, Col. 4) | 958,236 | 962,481 | 963,336 | 948,517 | 939,398 |
| 2. Ordinary - term (Line 21, Col. 4, less Line 34, Col. 4) | 10,840,096 | 12,410,994 | 14,049,478 | 15,665,201 | 17,425,540 |
| 3. Credit life (Line 21, Col. 6) | | | | | |
| 4. Group, excluding FEGLI/SGLI (Line 21, Col. 9 less Lines 43 & 44, Col. 4) | 31,244 | 36,776 | 41,650 | 45,389 | 51,528 |
| 5. Industrial (Line 21, Col. 2) | | | | | |
| 6. FEGLI/SGLI (Lines 43 & 44, Col. 4) | | | | | |
| 7. Total (Line 21, Col. 10) | 11,829,576 | 13,410,251 | 15,054,464 | 16,659,107 | 18,416,466 |
| 7.1 Total in force for which VM-20 deterministic/stochastic reserves are calculated | | | XXX | XXX | XXX |
| New Business Issued (Exhibit of Life Insurance) | | | | | |
| 8. Ordinary - whole life and endowment (Line 34, Col. 2) | 48,065 | 60,575 | 39,187 | 46,388 | 38,728 |
| 9. Ordinary - term (Line 2, Col. 4, less Line 34, Col. 2) | | | (8) | | |
| 10. Credit life (Line 2, Col. 6) | | | | | |
| 11. Group (Line 2, Col. 9) | | | | | |
| 12. Industrial (Line 2, Col. 2) | | | | | |
| 13. Total (Line 2, Col. 10) | 48,065 | 60,575 | 39,179 | 46,388 | 38,728 |
| Premium Income - Lines of Business (Exhibit 1 - Part 1) | | | | | |
| 14. Industrial life (Line 20.4, Col. 2) | | | | | |
| 15.1 Ordinary-life insurance (Line 20.4, Col. 3) | 236,952,783 | 257,986,853 | 278,350,449 | 293,607,632 | 310,738,878 |
| 15.2 Ordinary-individual annuities (Line 20.4, Col. 4) | 6,427,178,306 | 7,631,106,169 | 7,563,433,662 | 5,823,124,582 | 5,651,577,469 |
| 16. Credit life (group and individual) (Line 20.4, Col. 5) | | | | | |
| 17.1 Group life insurance (Line 20.4, Col. 6) | | | | | |
| 17.2 Group annuities (Line 20.4, Col. 7) | 8,369,864,707 | 7,497,429,637 | 7,342,321,650 | 5,834,204,039 | 5,223,355,631 |
| 18.1 A & H-group (Line 20.4, Col. 8) | | | | | |
| 18.2 A & H-credit (group and individual) (Line 20.4, Col. 9) | | | | | |
| 18.3 A & H-other (Line 20.4, Col. 10) | 1,512 | 2,058 | 1,785 | 2,959 | 1,252 |
| 19. Aggregate of all other lines of business (Line 20.4,Col. 11) | | | | | |
| 20. Total | 15,033,997,308 | 15,386,524,717 | 15,184,107,546 | 11,950,939,212 | 11,185,673,230 |
| Balance Sheet (Pages 2 & 3) | | | | | |
| 21. Total admitted assets excluding Separate Accounts business (Page 2, Line 26, Col. 3) | 264,997,657,539 | 257,551,377,396 | 248,684,966,822 | 240,197,754,437 | 236,103,376,258 |
| 22. Total liabilities excluding Separate Accounts business (Page 3, Line 26) | 226,915,367,813 | 221,245,627,664 | 213,122,123,271 | 205,475,967,336 | 202,192,333,893 |
| 23. Aggregate life reserves (Page 3, Line 1) | 211,345,444,121 | 205,948,175,232 | 199,833,641,249 | 192,372,428,086 | 188,450,066,708 |
| 23.1 Excess VM-20 deterministic/stochastic reserve over NPR related to Line 7.1 | | | XXX | XXX | XXX |
| 24. Aggregate A & H reserves (Page 3, Line 2) | 8,006 | 14,431 | 17,564 | 17,066 | 16,037 |
| 25. Deposit-type contract funds (Page 3, Line 3) | 1,105,189,756 | 1,061,965,064 | 1,010,295,643 | 994,284,018 | 949,280,434 |
| 26. Asset valuation reserve (Page 3, Line 24.01) | 5,259,527,188 | 5,388,226,461 | 4,166,705,786 | 3,910,349,730 | 5,020,050,771 |
| 27. Capital (Page 3, Lines 29 and 30) | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 |
| 28. Surplus (Page 3, Line 37) | 38,123,803,728 | 36,333,569,438 | 35,580,589,407 | 34,732,997,643 | 33,917,443,977 |
| Cash Flow (Page 5) | | | | | |
| 29. Net Cash from Operations (Line 11) | 6,704,597,262 | 7,588,076,490 | 8,582,940,483 | 5,344,078,286 | 5,166,179,788 |
| Risk-Based Capital Analysis | | | | | |
| 30. Total adjusted capital | 44,328,089,642 | 42,711,604,413 | 40,755,049,372 | 39,610,876,836 | 39,912,067,587 |
| 31. Authorized control level risk - based capital | 5,063,346,170 | 4,230,837,013 | 3,793,944,680 | 3,564,600,532 | 3,517,062,193 |
| Percentage Distribution of Cash, Cash Equivalents and Invested Assets (Page 2, Col. 3) (Line No. /Page 2, Line 12, Col. 3) x 100.0 | | | | | |
| 32. Bonds (Line 1) | 72.0 | 73.1 | 76.2 | 77.2 | 78.1 |
| 33. Stocks (Lines 2.1 and 2.2) | 2.4 | 2.4 | 1.5 | 1.4 | 1.3 |
| 34. Mortgage loans on real estate(Lines 3.1 and 3.2) | 11.5 | 10.5 | 8.7 | 8.1 | 6.8 |
| 35. Real estate (Lines 4.1, 4.2 and 4.3) | 0.8 | 0.8 | 0.9 | 0.8 | 0.9 |
| 36. Cash, cash equivalents and short-term investments (Line 5) | 0.2 | 0.3 | 0.2 | 0.2 | 0.7 |
| 37. Contract loans (Line 6) | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 38. Derivatives (Page 2, Line 7) | 0.4 | 0.1 | 0.2 | 0.1 | 0.1 |
| 39. Other invested assets (Line 8) | 11.7 | 11.8 | 11.3 | 11.1 | 11.3 |
| 40. Receivables for securities (Line 9) | 0.0 | 0.0 | 0.0 | | |
| 41. Securities lending reinvested collateral assets (Line 10) | 0.2 | 0.3 | 0.3 | 0.4 | 0.3 |
| 42. Aggregate write-ins for invested assets (Line 11) | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 43. Cash, cash equivalents and invested assets (Line 12) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

FIVE-YEAR HISTORICAL DATA

(Continued)

| | 1 2018 | 2 2017 | 3 2016 | 4 2015 | 5 2014 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Investments in Parent, Subsidiaries and Affiliates | | | | | |
| 44. Affiliated bonds (Schedule D Summary, Line 12, Col. 1) | 756,659,333 | 829,814,954 | 793,474,946 | 923,187,687 | 1,894,894,660 |
| 45. Affiliated preferred stocks (Schedule D Summary, Line 18, Col. 1) | | | | | |
| 46. Affiliated common stocks (Schedule D Summary Line 24, Col. 1), | 5,025,601,191 | 4,677,029,594 | 2,095,221,751 | 1,841,772,736 | 1,558,035,041 |
| 47. Affiliated short-term investments (subtotal included in Schedule DA Verification, Col. 5, Line 10) | | | | | |
| 48. Affiliated mortgage loans on real estate | | | | | |
| 49. All other affiliated | 23,422,084,342 | 22,855,981,277 | 20,782,985,566 | 19,267,460,053 | 18,706,528,117 |
| 50. Total of above Lines 44 to 49 | 29,204,344,866 | 28,362,825,825 | 23,671,682,263 | 22,032,420,476 | 22,159,457,818 |
| 51. Total Investment in Parent included in Lines 44 to 49 above | | | | | |
| Total Nonadmitted and Admitted Assets | | | | | |
| 52. Total nonadmitted assets (Page 2, Line 28, Col. 2) | 3,900,097,997 | 4,607,596,978 | 8,010,564,106 | 8,372,832,541 | 8,416,414,940 |
| 53. Total admitted assets (Page 2, Line 28, Col. 3) | 303,286,268,584 | 295,146,995,196 | 282,442,385,515 | 270,094,422,397 | 262,634,190,313 |
| Investment Data | | | | | |
| 54. Net investment income (Exhibit of Net Investment Income) | 12,291,093,197 | 11,681,209,297 | 11,761,234,191 | 11,069,346,907 | 11,070,478,168 |
| 55. Realized capital gains (losses) (Page 4, Line 34, Column 1) | (656,605,332) | (597,528,147) | (160,734,453) | (486,815,665) | (376,569,316) |
| 56. Unrealized capital gains (losses) (Page 4, Line 38, Column 1) | (356,897,387) | 1,173,656,405 | (607,768,901) | (1,160,980,973) | 484,966,540 |
| 57. Total of above Lines 54, 55 and 56 | 11,277,590,478 | 12,257,337,555 | 10,992,730,837 | 9,421,550,269 | 11,178,875,392 |
| Benefits and Reserve Increases (Page 6) | | | | | |
| 58. Total contract benefits - life (Lines 10, 11, 12, 13, 14 and 15 Col. 1, minus Lines 10, 11,12, 13, 14 and 15 Cols. 9, 10 and 11) | 17,415,810,839 | 15,952,452,747 | 14,055,628,214 | 14,189,303,017 | 13,586,544,973 |
| 59. Total contract benefits - A & H (Lines 13 & 14, Cols. 9, 10 & 11) | 4,963 | 6,453 | 5,042 | 3,810 | 11,683 |
| 60. Increase in life reserves - other than group and annuities (Line 19, Cols. 2 and 3) | (4,959,072) | (4,508,787) | 1,491,250 | 1,241,078 | 2,931,921 |
| 61. Increase in A & H reserves (Line 19, Cols. 9, 10 & 11) | (6,425) | (3,133) | 498 | 1,029 | (70) |
| 62. Dividends to policyholders (Line 30, Col. 1) | 3,526,325,026 | 3,211,866,846 | 3,812,780,849 | 3,334,301,927 | 3,589,386,297 |
| Operating Percentages | | | | | |
| 63. Insurance expense percent (Page 6, Col. 1, Lines 21, 22 & 23, less Line 6)/(Page 6, Col. 1, Line 1 plus Exhibit 7, Col. 2, Line 2) x 100.0 | 10.9 | 10.4 | 9.7 | 11.7 | 12.7 |
| 64. Lapse percent (ordinary only) [(Exhibit of Life Insurance, Col. 4, Lines 14 & 15) / 1/2 (Exhibit of Life Insurance, Col. 4, Lines 1 & 21)] x 100.0 | 8.0 | 7.4 | 5.5 | 8.1 | 7.5 |
| 65. A & H loss percent (Schedule H, Part 1, Lines 5 and 6, Col. 2) | (96.7) | 161.3 | 306.5 | 163.6 | 1,021.1 |
| 66. A & H cost containment percent (Schedule H, Pt. 1, Line 4, Col. 2) | | | | | |
| 67. A & H expense percent excluding cost containment expenses (Schedule H, Pt. 1, Line 10, Col. 2) | (142.7) | (3,231.0) | 1,975.1 | (417.5) | (2,283.6) |
| A & H Claim Reserve Adequacy | | | | | |
| 68. Incurred losses on prior years' claims - group health (Schedule H, Part 3, Line 3.1 Col. 2) | | | | | |
| 69. Prior years' claim liability and reserve - group health (Schedule H, Part 3, Line 3.2 Col. 2) | | | | | |
| 70. Incurred losses on prior years' claims-health other than group (Schedule H, Part 3, Line 3.1 Col. 1 less Col. 2) | | | | | |
| 71. Prior years' claim liability and reserve-health other than group (Schedule H, Part 3, Line 3.2 Col. 1 less Col. 2) | 1,028 | 1,028 | 1,283 | 1,283 | 1,915 |
| Net Gains From Operations After Federal Income Taxes by Lines of Business (Page 6, Line 33) | | | | | |
| 72. Industrial life (Col. 2) | | | | | |
| 73. Ordinary - life (Col. 3) | 44,636,315 | 50,562,712 | 30,849,897 | 36,329,978 | 40,124,687 |
| 74. Ordinary - individual annuities (Col. 4) | 2,101,054,154 | 1,405,572,665 | 1,253,715,510 | 1,356,033,195 | 994,937,153 |
| 75. Ordinary-supplementary contracts (Col. 5) | (129,021,618) | (136,537,061) | (150,105,331) | (140,688,492) | (144,221,740) |
| 76. Credit life (Col. 6) | | | | | |
| 77. Group life (Col. 7) | | | | | |
| 78. Group annuities (Col. 8) | 92,059,135 | 262,230,525 | 515,592,065 | 504,695,739 | 605,206,687 |
| 79. A & H-group (Col. 9) | | | | | (4) |
| 80. A & H-credit (Col. 10) | | | | | |
| 81. A & H-other (Col. 11) | 930,885 | 762,333 | 555,920 | 587,418 | 16,736 |
| 82. Aggregate of all other lines of business (Col. 12) | | 35,378,898 | (143,122) | (16,125,465) | (135,239,849) |
| 83. Total (Col. 1) | 2,109,658,871 | 1,617,970,072 | 1,650,464,939 | 1,740,832,373 | 1,360,823,670 |

NOTE: If a party to a merger, have the two most recent years of this exhibit been restated due to a merger in compliance with the disclosure requirements of SSAP No. 3, Accounting Changes and Correction of Errors? Yes [] No []

If no, please explain:



6 9 3 4 5 2 0 1 8 4 3 0 5 9 1 0 0

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

DIRECT BUSINESS IN THE STATE OF Grand Total
NAIC Group Code 1216

DURING THE YEAR 2018
NAIC Company Code 69345

LIFE INSURANCE

| DIRECT PREMIUMS AND ANNUITY CONSIDERATIONS | 1 | 2 | 3 | 4 | 5 |
|-----------------------------------------------------------------------------------------------------|----------------|---------------------------------------|---------------|------------|----------------|
| | Ordinary | Credit Life (Group and Individual) | Group | Industrial | Total |
| 1. Life insurance | 234,240,863 | | | | 234,240,863 |
| 2. Annuity considerations | 6,350,019,412 | | 8,369,864,707 | | 14,719,884,119 |
| 3. Deposit-type contract funds | 289,634,420 | XXX | 406,104 | XXX | 290,040,524 |
| 4. Other considerations | | | | | |
| 5. Totals (Sum of Lines 1 to 4) | 6,873,894,695 | | 8,370,270,811 | | 15,244,165,506 |
| DIRECT DIVIDENDS TO POLICYHOLDERS | | | | | |
| Life insurance: | | | | | |
| 6.1 Paid in cash or left on deposit | 8,178,495 | | | | 8,178,495 |
| 6.2 Applied to pay renewal premiums | 142,794,479 | | | | 142,794,479 |
| 6.3 Applied to provide paid-up additions or shorten the endowment or premium-paying period | | | | | |
| 6.4 Other | | | | | |
| 6.5 Totals (Sum of Lines 6.1 to 6.4) | 150,972,974 | | | | 150,972,974 |
| Annuities: | | | | | |
| 7.1 Paid in cash or left on deposit | 1,613,622,556 | | | | 1,613,622,556 |
| 7.2 Applied to provide paid-up annuities | | | | | |
| 7.3 Other | 1,419,762,945 | | 341,094,617 | | 1,760,857,562 |
| 7.4 Totals (Sum of Lines 7.1 to 7.3) | 3,033,385,501 | | 341,094,617 | | 3,374,480,118 |
| 8. Grand Totals (Lines 6.5 plus 7.4) | 3,184,358,475 | | 341,094,617 | | 3,525,453,092 |
| DIRECT CLAIMS AND BENEFITS PAID | | | | | |
| 9. Death benefits | 67,844,164 | | 703,178 | | 68,547,342 |
| 10. Matured endowments | 56,563 | | | | 56,563 |
| 11. Annuity benefits | 7,165,291,750 | | 270,009,954 | | 7,435,301,703 |
| 12. Surrender values and withdrawals for life contracts | 5,606,197,583 | | 4,262,633,017 | | 9,868,830,600 |
| 13. Aggregate write-ins for miscellaneous direct claims and benefits paid | | | | | |
| 14. All other benefits, except accident and health | | | | | |
| 15. Totals | 12,839,390,059 | | 4,533,346,149 | | 17,372,736,208 |
| DETAILS OF WRITE-INS | | | | | |
| 1301. | | | | | |
| 1302. | | | | | |
| 1303. | | | | | |
| 1398. Summary of Line 13 from overflow page | | | | | |
| 1399. Totals (Lines 1301 thru 1303 plus 1398) (Line 13 above) | | | | | |

| DIRECT DEATH BENEFITS AND MATURED ENDOWMENTS INCURRED | Ordinary | | Credit Life (Group and Individual) | | Group | | Industrial | | Total | |
|-------------------------------------------------------------------|----------|-----------------|------------------------------------------|--------|--------------------|--------------------|------------|--------|---------|-----------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | No. | Amount | No. of Ind.Pols. & Gr. Certifs. | Amount | No. of Certifs. | Amount | No. | Amount | No. | Amount |
| 16. Unpaid December 31, prior year | 167 | 10,332,716 | | | | | | | 167 | 10,332,716 |
| 17. Incurred during current year Settled during current year: | 938 | 67,185,093 | | | 22 | 720,178 | | | 960 | 67,905,271 |
| 18.1 By payment in full | 936 | 67,900,727 | | | 21 | 703,178 | | | 957 | 68,603,905 |
| 18.2 By payment on compromised claims | | | | | | | | | | |
| 18.3 Totals paid | 936 | 67,900,727 | | | 21 | 703,178 | | | 957 | 68,603,905 |
| 18.4 Reduction by compromise | | | | | | | | | | |
| 18.5 Amount rejected | | | | | | | | | | |
| 18.6 Total settlements | 936 | 67,900,727 | | | 21 | 703,178 | | | 957 | 68,603,905 |
| 19. Unpaid Dec. 31, current year (16+17-18.6) | 169 | 9,617,082 | | | 1 | 17,000 | | | 170 | 9,634,082 |
| POLICY EXHIBIT | | | | | | No. of Policies | | | | |
| 20. In force December 31, prior year | 64,757 | 13,373,473,140 | (a) | | | | | | 64,757 | 13,373,473,140 |
| 21. Issued during year | 566 | 48,064,806 | | | | | | | 566 | 48,064,806 |
| 22. Other changes to in force (Net) | (7,375) | (1,623,206,437) | | | | | | | (7,375) | (1,623,206,437) |
| 23. In force December 31 of current year | 57,948 | 11,798,331,509 | (a) | | | | | | 57,948 | 11,798,331,509 |

(a) Includes Individual Credit Life Insurance prior year \$, current year \$
Includes Group Credit Life Insurance Loans less than or equal to 60 months at issue, prior year \$, current year \$
Loans greater than 60 months at issue BUT NOT GREATER THAN 120 MONTHS, prior year \$, current year \$

ACCIDENT AND HEALTH INSURANCE

| | 1 | 2 | 3 | 4 | 5 |
|-----------------------------------------------------------------------------------------|-----------------|---------------------------|-----------------------------------------------------|--------------------|---------------------------|
| | Direct Premiums | Direct Premiums Earned | Dividends Paid Or Credited On Direct Business | Direct Losses Paid | Direct Losses Incurred |
| 24. Group Policies (b) | 294,944 | 291,169 | | 20,348,843 | 5,587,077 |
| 24.1 Federal Employees Health Benefits Plan premium (b) | | | | | |
| 24.2 Credit (Group and Individual) | | | | | |
| 24.3 Collectively renewable policies (b) | | | | | |
| 24.4 Medicare Title XVIII exempt from state taxes or fees Other Individual Policies: | | | | | |
| 25.1 Non-cancelable (b) | | | | | |
| 25.2 Guaranteed renewable (b) | 12,482,232 | 12,710,288 | | 23,010,330 | 18,127,051 |
| 25.3 Non-renewable for stated reasons only (b) | | | | | |
| 25.4 Other accident only | | | | | |
| 25.5 All other (b) | 1,512 | 1,512 | | 4,963 | 4,963 |
| 25.6 Totals (sum of Lines 25.1 to 25.5) | 12,483,744 | 12,711,800 | | 23,015,293 | 18,132,014 |
| 26. Totals (Lines 24 + 24.1 + 24.2 + 24.3 + 24.4 + 25.6) | 12,778,689 | 13,002,969 | | 43,364,136 | 23,719,091 |

(b) For health business on indicated lines report: Number of persons insured under PPO managed care products 0 and number of persons
insured under indemnity only products 0

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT OF LIFE INSURANCE

(\$000 Omitted for Amounts of Life Insurance)

| | Industrial | | Ordinary | | Credit Life (Group and Individual) | | Group | | | 10 |
|---------------------------------------------------------------------------|--------------------|---------------------|--------------------|---------------------|------------------------------------------------------|---------------------|---------------|-------------------|---------------------|------------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | Number of | | 9 | Total Amount of Insurance |
| | Number of Policies | Amount of Insurance | Number of Policies | Amount of Insurance | Number of Individual Policies and Group Certificates | Amount of Insurance | 7 Policies | 8 Certificates | Amount of Insurance | |
| 1. In force end of prior year | | | 64,757 | 13,373,475 | | | | 683 | 36,776 | 13,410,251 |
| 2. Issued during year | | | 566 | 48,065 | | | | | | 48,065 |
| 3. Reinsurance assumed | | | | | | | | | | |
| 4. Revived during year | | | 44 | 10,451 | | | | | | 10,451 |
| 5. Increased during year (net) | | | | | | | | | | |
| 6. Subtotals, Lines 2 to 5 | | | 610 | 58,516 | | | | | | 58,516 |
| 7. Additions by dividends during year | XXX | | XXX | | XXX | | XXX | XXX | | |
| 8. Aggregate write-ins for increases | | | | | | | | | | |
| 9. Totals (Lines 1 and 6 to 8) | | | 65,367 | 13,431,991 | | | | 683 | 36,776 | 13,468,767 |
| Deductions during year: | | | | | | | | | | |
| 10. Death | | | 891 | 66,009 | | | XXX | 21 | 703 | 66,712 |
| 11. Maturity | | | 5 | 54 | | | XXX | | | 54 |
| 12. Disability | | | | | | | XXX | | | |
| 13. Expiry | | | 1,898 | 437,250 | | | | | | 437,250 |
| 14. Surrender | | | 390 | 33,738 | | | | | | 33,738 |
| 15. Lapse | | | 3,688 | 967,625 | | | | 75 | 4,829 | 972,454 |
| 16. Conversion | | | 547 | 92,852 | | | XXX | XXX | XXX | 92,852 |
| 17. Decreased (net) | | | | 36,131 | | | | | | 36,131 |
| 18. Reinsurance | | | | | | | | | | |
| 19. Aggregate write-ins for decreases | | | | | | | | | | |
| 20. Totals (Lines 10 to 19) | | | 7,419 | 1,633,659 | | | | 96 | 5,532 | 1,639,191 |
| 21. In force end of year (Line 9 minus Line 20) | | | 57,948 | 11,798,332 | | | | 587 | 31,244 | 11,829,576 |
| 22. Reinsurance ceded end of year | XXX | | XXX | 30,934 | XXX | | XXX | XXX | 31,244 | 62,178 |
| 23. Line 21 minus Line 22 | XXX | | XXX | 11,767,398 | XXX | (a) | XXX | XXX | | 11,767,398 |
| DETAILS OF WRITE-INS | | | | | | | | | | |
| 0801. | | | | | | | | | | |
| 0802. | | | | | | | | | | |
| 0803. | | | | | | | | | | |
| 0898. Summary of remaining write-ins for Line 8 from overflow page. | | | | | | | | | | |
| 0899. TOTALS (Lines 0801 thru 0803 plus 0898) (Line 8 above) | | | | | | | | | | |
| 1901. | | | | | | | | | | |
| 1902. | | | | | | | | | | |
| 1903. | | | | | | | | | | |
| 1998. Summary of remaining write-ins for Line 19 from overflow page. | | | | | | | | | | |
| 1999. TOTALS (Lines 1901 thru 1903 plus 1998) (Line 19 above) | | | | | | | | | | |

(a) Group \$; Individual \$

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

EXHIBIT OF LIFE INSURANCE

(\$000 Omitted for Amounts of Life Insurance) (Continued)
ADDITIONAL INFORMATION ON INSURANCE IN FORCE END OF YEAR

| | Industrial | | Ordinary | |
|------------------------------------|-------------------------|--------------------------|-------------------------|--------------------------|
| | 1 Number of Policies | 2 Amount of Insurance | 3 Number of Policies | 4 Amount of Insurance |
| 24. Additions by dividends | XXX | | XXX | |
| 25. Other paid-up insurance | | | 1,417 | 75,700 |
| 26. Debit ordinary insurance | XXX | XXX | | |

ADDITIONAL INFORMATION ON ORDINARY INSURANCE

| Term Insurance Excluding Extended Term Insurance | Issued During Year (Included in Line 2) | | In Force End of Year (Included in Line 21) | |
|--------------------------------------------------|--------------------------------------------|--------------------------|-----------------------------------------------|--------------------------|
| | 1 Number of Policies | 2 Amount of Insurance | 3 Number of Policies | 4 Amount of Insurance |
| 27. Term policies - decreasing | | | 1,651 | 50,372 |
| 28. Term policies - other | | | 40,502 | 9,203,193 |
| 29. Other term insurance - decreasing | XXX | | XXX | |
| 30. Other term insurance | XXX | | XXX | 1,579,252 |
| 31. Totals (Lines 27 to 30) | | | 42,153 | 10,832,817 |
| Reconciliation to Lines 2 and 21: | | | | |
| 32. Term additions | XXX | | XXX | |
| 33. Totals, extended term insurance | XXX | XXX | 135 | 7,279 |
| 34. Totals, whole life and endowment | 566 | 48,065 | 15,660 | 958,236 |
| 35. Totals (Lines 31 to 34) | 566 | 48,065 | 57,948 | 11,798,332 |

CLASSIFICATION OF AMOUNT OF INSURANCE BY PARTICIPATING STATUS

| | Issued During Year (Included in Line 2) | | In Force End of Year (Included in Line 21) | |
|----------------------------------------------|--------------------------------------------|--------------------|-----------------------------------------------|--------------------|
| | 1 Non-Participating | 2 Participating | 3 Non-Participating | 4 Participating |
| 36. Industrial | | | | |
| 37. Ordinary | 48,065 | | 11,798,332 | |
| 38. Credit Life (Group and Individual) | | | | |
| 39. Group | | | 31,224 | |
| 40. Totals (Lines 36 to 39) | 48,065 | | 11,829,556 | |

ADDITIONAL INFORMATION ON CREDIT LIFE AND GROUP INSURANCE

| | Credit Life | | Group | |
|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------|-----------------------------|--------------------------|
| | 1 Number of Individual Policies and Group Certificates | 2 Amount of Insurance | 3 Number of Certificates | 4 Amount of Insurance |
| 41. Amount of insurance included in Line 2 ceded to other companies | XXX | | XXX | |
| 42. Number in force end of year if the number under shared groups is counted on a pro-rata basis | | XXX | 587 | XXX |
| 43. Federal Employees' Group Life Insurance included in Line 21 | | | | |
| 44. Servicemen's Group Life Insurance included in Line 21 | | | | |
| 45. Group Permanent Insurance included in Line 21 | | | | |

ADDITIONAL ACCIDENTAL DEATH BENEFITS

| | |
|-------------------------------------------------------------------------------------------------------|--|
| 46. Amount of additional accidental death benefits in force end of year under ordinary policies | |
|-------------------------------------------------------------------------------------------------------|--|

BASIS OF CALCULATION OF ORDINARY TERM INSURANCE

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 47. State basis of calculation of (47.1) decreasing term insurance contracts on Family Income, Mortgage Endowment, etc., policies and riders and of (47.2) term insurance on wife and children under Family, Parent and Child, etc., policies and riders included above. | |
| 47.1 | |
| 47.2 | |

POLICIES WITH DISABILITY PROVISIONS

| Disability Provisions | Industrial | | Ordinary | | Credit | | Group | |
|-----------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|-------------------------------------|------------------------------|
| | 1 Number of Policies | 2 Amount of Insurance | 3 Number of Policies | 4 Amount of Insurance | 5 Number of Policies | 6 Amount of Insurance | 7 Number of Certi- ficates | 8 Amount of Ins urance |
| 48. Waiver of Premium | | | 18,293 | 5,151,568 | | | | |
| 49. Disability Income | | | | | | | | |
| 50. Extended Benefits | | | XXX | XXX | | | | |
| 51. Other | | | | | | | | |
| 52. Total | | (a) | 18,293 | (a) 5,151,568 | | (a) | | (a) |

(a) See the Annual Audited Financial Reports section of the annual statement instructions

EXHIBIT OF NUMBER OF POLICIES, CONTRACTS, CERTIFICATES, INCOME PAYABLE AND ACCOUNT VALUES IN FORCE FOR SUPPLEMENTARY CONTRACTS, ANNUITIES, ACCIDENT & HEALTH AND OTHER POLICIES

| SUPPLEMENTARY CONTRACTS | | | | |
|--------------------------------------|--------------------------------------|------------------------------------------|--------------------------------------|------------------------------------------|
| | Ordinary | | Group | |
| | 1 Involving Life Contingencies | 2 Not Involving Life Contingencies | 3 Involving Life Contingencies | 4 Not Involving Life Contingencies |
| 1. In force end of prior year | 45,702 | 1,849 | | |
| 2. Issued during year | 636 | 131 | | |
| 3. Reinsurance assumed | | | | |
| 4. Increased during year (net) | | | | |
| 5. Totals (Lines 1 to 4) | 46,338 | 1,980 | | |
| Deductions during year: | | | | |
| 6. Decreased (net) | 2,203 | 234 | | |
| 7. Reinsurance ceded | | | | |
| 8. Totals (Lines 6 and 7) | 2,203 | 234 | | |
| 9. In force end of year | 44,135 | 1,746 | | |
| 10. Amount on deposit | 3,477,316,460 | (a) 96,764,423 | | (a) |
| 11. Income now payable | 3,356 | 1,746 | | |
| 12. Amount of income payable | (a) 19,508,929 | (a) 14,946,216 | (a) | (a) |

| ANNUITIES | | | | |
|--------------------------------------|-------------------|---------------------|----------------|--------------------|
| | Ordinary | | Group | |
| | 1 Immediate | 2 Deferred | 3 Contracts | 4 Certificates |
| 1. In force end of prior year | 747,544 | 1,729,250 | 11,594 | 1,494,069 |
| 2. Issued during year | 63,827 | 54,330 | | 171,162 |
| 3. Reinsurance assumed | | | | |
| 4. Increased during year (net) | | | | |
| 5. Totals (Lines 1 to 4) | 811,371 | 1,783,580 | 11,594 | 1,665,231 |
| Deductions during year: | | | | |
| 6. Decreased (net) | 57,185 | 83,841 | 412 | 111,485 |
| 7. Reinsurance ceded | | | | |
| 8. Totals (Lines 6 and 7) | 57,185 | 83,841 | 412 | 111,485 |
| 9. In force end of year | 754,186 | 1,699,739 | 11,182 | 1,553,746 |
| Income now payable: | | | | |
| 10. Amount of income payable | (a) 4,372,987,462 | XXX | XXX | (a) 92,482,280 |
| Deferred fully paid: | | | | |
| 11. Account balance | XXX | (a) 119,631,135,667 | XXX | (a) 41,814,021,174 |
| Deferred not fully paid: | | | | |
| 12. Account balance | XXX | (a) | XXX | (a) |

| ACCIDENT AND HEALTH INSURANCE | | | | | | | |
|-------------------------------|-----------------------------------|-------------------|------------------------|---------------|------------------------|---------------|------------------------|
| | | Group | | Credit | | Other | |
| | | 1 Certificates | 2 Premiums in Force | 3 Policies | 4 Premiums in Force | 5 Policies | 6 Premiums in Force |
| 1. | In force end of prior year | | | | | 6,755 | 15,099,633 |
| 2. | Issued during year | | | | | | |
| 3. | Reinsurance assumed | | | | | | |
| 4. | Increased during year (net) | | XXX | | XXX | | XXX |
| 5. | Totals (Lines 1 to 4) | | XXX | | XXX | 6,755 | XXX |
| Deductions during year: | | | | | | | |
| 6. | Conversions | | XXX | XXX | XXX | XXX | XXX |
| 7. | Decreased (net) | | XXX | | XXX | 362 | XXX |
| 8. | Reinsurance ceded | | XXX | | XXX | | XXX |
| 9. | Totals (Lines 6 to 8) | | XXX | | XXX | 362 | XXX |
| 10. | In force end of year | | (a) | | (a) | 6,393 | (a) 14,666,071 |

| DEPOSIT FUNDS AND DIVIDEND ACCUMULATIONS | | |
|------------------------------------------|---------------------------------|---------------------------------------------|
| | 1 Deposit Funds Contracts | 2 Dividend Accumulations Contracts |
| 1. In force end of prior year | 2,403 | |
| 2. Issued during year | | |
| 3. Reinsurance assumed | | |
| 4. Increased during year (net) | | |
| 5. Totals (Lines 1 to 4) | 2,403 | |
| Deductions During Year: | | |
| 6. Decreased (net) | 223 | |
| 7. Reinsurance ceded | | |
| 8. Totals (Lines 6 and 7) | 223 | |
| 9. In force end of year | 2,180 | |
| 10. Amount of account balance | (a) 114,624,439 | (a) |

(a) See the Annual Audited Financial Reports section of the annual statement instructions.

FORM FOR CALCULATING THE INTEREST MAINTENANCE RESERVE

| INTEREST MAINTENANCE RESERVE | | 1 Amount |
|----------------------------------------------------------------------------------------------------------------------------------------|--|------------------|
| 1. Reserve as of December 31, Prior Year | | 2, 135, 605, 209 |
| 2. Current year's realized pre-tax capital gains/(losses) of \$272,208,487 transferred into the reserve net of taxes of \$ | | 272,208,487 |
| 3. Adjustment for current year's liability gains/(losses) released from the reserve | | |
| 4. Balance before reduction for amount transferred to Summary of Operations (Line 1 + Line 2 + Line 3) | | 2, 407, 813, 696 |
| 5. Current year's amortization released to Summary of Operations (Amortization, Line 1, Column 4) | | 259,282,494 |
| 6. Reserve as of December 31, current year (Line 4 minus Line 5) | | 2, 148, 531, 201 |

AMORTIZATION

| | 1 | 2 | 3 | 4 |
|---------------------------|---------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Year of Amortization | Reserve as of December 31, Prior Year | Current Year's Realized Capital Gains/(Losses) Transferred into the Reserve Net of Taxes | Adjustment for Current Year's Liability Gains/(Losses) Released From the Reserve | Balance Before Reduction for Current Year's Amortization (Cols. 1 + 2 + 3) |
| 1. 2018 | 245,592,622 | 13,689,873 | | 259,282,494 |
| 2. 2019 | 229,033,577 | 44,142,469 | | 273,176,046 |
| 3. 2020 | 195,755,371 | 42,160,322 | | 237,915,693 |
| 4. 2021 | 159,009,888 | 32,379,482 | | 191,389,370 |
| 5. 2022 | 122,147,102 | 22,308,805 | | 144,455,907 |
| 6. 2023 | 97,792,629 | 11,807,962 | | 109,600,591 |
| 7. 2024 | 89,455,693 | 6,362,696 | | 95,818,390 |
| 8. 2025 | 84,255,470 | 6,340,722 | | 90,596,192 |
| 9. 2026 | 78,865,943 | 6,259,799 | | 85,125,742 |
| 10. 2027 | 74,058,804 | 6,144,574 | | 80,203,378 |
| 11. 2028 | 71,249,287 | 6,118,605 | | 77,367,892 |
| 12. 2029 | 69,388,505 | 6,047,645 | | 75,436,150 |
| 13. 2030 | 68,843,837 | 5,716,637 | | 74,560,473 |
| 14. 2031 | 67,005,254 | 5,514,004 | | 72,519,258 |
| 15. 2032 | 66,883,624 | 5,184,468 | | 72,068,092 |
| 16. 2033 | 65,297,825 | 4,960,534 | | 70,258,359 |
| 17. 2034 | 64,445,257 | 4,699,939 | | 69,145,195 |
| 18. 2035 | 63,477,520 | 4,449,084 | | 67,926,605 |
| 19. 2036 | 59,659,999 | 4,248,416 | | 63,908,415 |
| 20. 2037 | 52,276,890 | 4,007,015 | | 56,283,905 |
| 21. 2038 | 42,849,398 | 3,729,871 | | 46,579,269 |
| 22. 2039 | 31,502,196 | 3,571,407 | | 35,073,603 |
| 23. 2040 | 19,755,084 | 3,551,055 | | 23,306,139 |
| 24. 2041 | 10,974,817 | 3,425,343 | | 14,400,160 |
| 25. 2042 | 4,632,511 | 3,438,141 | | 8,070,651 |
| 26. 2043 | 954,521 | 3,326,871 | | 4,281,392 |
| 27. 2044 | 151,472 | 3,039,674 | | 3,191,146 |
| 28. 2045 | 98,513 | 2,419,332 | | 2,517,845 |
| 29. 2046 | 120,679 | 1,736,957 | | 1,857,636 |
| 30. 2047 | 70,920 | 1,054,581 | | 1,125,501 |
| 31. 2048 and Later | | 372,205 | | 372,205 |
| 32. Total (Lines 1 to 31) | 2, 135, 605, 208 | 272,208,487 | | 2, 407, 813, 695 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE

| | Default Component | | | Equity Component | | | 7 |
|---------------------------------------------------------------------------------------------|------------------------------|----------------|------------------------|------------------|---------------------------------------------|------------------------|-------------------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | |
| | Other Than Mortgage Loans | Mortgage Loans | Total (Cols. 1 + 2) | Common Stock | Real Estate and Other Invested Assets | Total (Cols. 4 + 5) | Total Amount (Cols. 3 + 6) |
| 1. Reserve as of December 31, prior year | 1,759,488,971 | 235,832,010 | 1,995,320,981 | 679,009,300 | 2,713,896,179 | 3,392,905,479 | 5,388,226,461 |
| 2. Realized capital gains/(losses) net of taxes - General Account | (46,135,025) | (55,097,268) | (101,232,293) | 29,071,451 | (600,155,425) | (571,083,974) | (672,316,267) |
| 3. Realized capital gains/(losses) net of taxes - Separate Accounts | | | | | | | |
| 4. Unrealized capital gains/(losses) net of deferred taxes - General Account | 32,383,848 | 73,070,476 | 105,454,324 | 77,018,667 | (560,068,477) | (483,049,810) | (377,595,486) |
| 5. Unrealized capital gains/(losses) net of deferred taxes - Separate Accounts | | | | | | | |
| 6. Capital gains credited/(losses charged) to contract benefits, payments or reserves | | | | | | | |
| 7. Basic contribution | 449,992,341 | 100,965,396 | 550,957,737 | | 58,767,167 | 58,767,167 | 609,724,905 |
| 8. Accumulated balances (Lines 1 through 5 - 6 + 7) | 2,195,730,135 | 354,770,615 | 2,550,500,750 | 785,099,418 | 1,612,439,445 | 2,397,538,863 | 4,948,039,612 |
| 9. Maximum reserve | 2,015,373,602 | 400,566,763 | 2,415,940,365 | 989,172,246 | 3,852,080,326 | 4,841,252,572 | 7,257,192,937 |
| 10. Reserve objective | 1,413,637,381 | 311,015,088 | 1,724,652,469 | 988,925,458 | 3,791,899,564 | 4,780,825,022 | 6,505,477,491 |
| 11. 20% of (Line 10 - Line 8) | (156,418,551) | (8,751,105) | (165,169,656) | 40,765,208 | 435,892,024 | 476,657,232 | 311,487,576 |
| 12. Balance before transfers (Lines 8 + 11) | 2,039,311,584 | 346,019,509 | 2,385,331,093 | 825,864,626 | 2,048,331,469 | 2,874,196,095 | 5,259,527,188 |
| 13. Transfers | (23,937,982) | 23,937,982 | | | | | |
| 14. Voluntary contribution | | | | | | | |
| 15. Adjustment down to maximum/up to zero | | | | | | | |
| 16. Reserve as of December 31, current year (Lines 12 + 13 + 14 + 15) | 2,015,373,602 | 369,957,491 | 2,385,331,093 | 825,864,626 | 2,048,331,469 | 2,874,196,095 | 5,259,527,188 |

ASSET VALUATION RESERVE
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
DEFAULT COMPONENT

| Line Num- ber | NAIC Desig- nation | Description | 1 | 2 | 3 | 4 | Basic Contribution | | Reserve Objective | | Maximum Reserve | |
|------------------------|--------------------------|----------------------------------------------------------------|---------------------------------|---------------------------------------------|---------------------------------|-----------------------------------------------------------------|--------------------|------------------------|-------------------|-------------------------|-----------------|-------------------------|
| | | | Book/Adjusted Carrying Value | Reclassify Related Party Encumbrances | Add Third Party Encumbrances | Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3) | 5 | 6 | 7 | 8 | 9 | 10 |
| | | | | | | | Factor | Amount (Cols.4 x 5) | Factor | Amount (Cols. 4 x 7) | Factor | Amount (Cols. 4 x 9) |
| LONG-TERM BONDS | | | | | | | | | | | | |
| 1. | | Exempt Obligations | 31,179,304,717 | XXX | XXX | 31,179,304,717 | 0.0000 | | 0.0000 | | 0.0000 | |
| 2. | 1 | Highest Quality | 87,014,862,677 | XXX | XXX | 87,014,862,677 | 0.0004 | 34,805,945 | 0.0023 | 200,134,184 | 0.0030 | 261,044,588 |
| 3. | 2 | High Quality | 50,376,158,137 | XXX | XXX | 50,376,158,137 | 0.0019 | 95,714,700 | 0.0058 | 292,181,717 | 0.0090 | 453,385,423 |
| 4. | 3 | Medium Quality | 9,142,031,396 | XXX | XXX | 9,142,031,396 | 0.0093 | 85,020,892 | 0.0230 | 210,266,722 | 0.0340 | 310,829,067 |
| 5. | 4 | Low Quality | 6,288,631,827 | XXX | XXX | 6,288,631,827 | 0.0213 | 133,947,858 | 0.0530 | 333,297,487 | 0.0750 | 471,647,387 |
| 6. | 5 | Lower Quality | 2,094,893,960 | XXX | XXX | 2,094,893,960 | 0.0432 | 90,499,419 | 0.1100 | 230,438,336 | 0.1700 | 356,131,973 |
| 7. | 6 | In or Near Default | 472,576,738 | XXX | XXX | 472,576,738 | 0.0000 | | 0.2000 | 94,515,348 | 0.2000 | 94,515,348 |
| 8. | | Total Unrated Multi-class Securities Acquired by Conversion .. | | XXX | XXX | | XXX | | XXX | | XXX | |
| 9. | | Total Long-Term Bonds (Sum of Lines 1 through 8) | 186,568,459,453 | XXX | XXX | 186,568,459,453 | XXX | 439,988,815 | XXX | 1,360,833,794 | XXX | 1,947,553,787 |
| PREFERRED STOCK | | | | | | | | | | | | |
| 10. | 1 | Highest Quality | 29,000,000 | XXX | XXX | 29,000,000 | 0.0004 | 11,600 | 0.0023 | 66,700 | 0.0030 | 87,000 |
| 11. | 2 | High Quality | 14,770,393 | XXX | XXX | 14,770,393 | 0.0019 | 28,064 | 0.0058 | 85,668 | 0.0090 | 132,934 |
| 12. | 3 | Medium Quality | | XXX | XXX | | 0.0093 | | 0.0230 | | 0.0340 | |
| 13. | 4 | Low Quality | 61,250,000 | XXX | XXX | 61,250,000 | 0.0213 | 1,304,625 | 0.0530 | 3,246,250 | 0.0750 | 4,593,750 |
| 14. | 5 | Lower Quality | 68,166,117 | XXX | XXX | 68,166,117 | 0.0432 | 2,944,776 | 0.1100 | 7,498,273 | 0.1700 | 11,588,240 |
| 15. | 6 | In or Near Default | 71,874,563 | XXX | XXX | 71,874,563 | 0.0000 | | 0.2000 | 14,374,913 | 0.2000 | 14,374,913 |
| 16. | | Affiliated Life with AVR | | XXX | XXX | | 0.0000 | | 0.0000 | | 0.0000 | |
| 17. | | Total Preferred Stocks (Sum of Lines 10 through 16) | 245,061,072 | XXX | XXX | 245,061,072 | XXX | 4,289,065 | XXX | 25,271,804 | XXX | 30,776,836 |
| SHORT - TERM BONDS | | | | | | | | | | | | |
| 18. | | Exempt Obligations | | XXX | XXX | | 0.0000 | | 0.0000 | | 0.0000 | |
| 19. | 1 | Highest Quality | | XXX | XXX | | 0.0004 | | 0.0023 | | 0.0030 | |
| 20. | 2 | High Quality | | XXX | XXX | | 0.0019 | | 0.0058 | | 0.0090 | |
| 21. | 3 | Medium Quality | | XXX | XXX | | 0.0093 | | 0.0230 | | 0.0340 | |
| 22. | 4 | Low Quality | | XXX | XXX | | 0.0213 | | 0.0530 | | 0.0750 | |
| 23. | 5 | Lower Quality | | XXX | XXX | | 0.0432 | | 0.1100 | | 0.1700 | |
| 24. | 6 | In or Near Default | | XXX | XXX | | 0.0000 | | 0.2000 | | 0.2000 | |
| 25. | | Total Short - Term Bonds (Sum of Lines 18 through 24) | | XXX | XXX | | XXX | | XXX | | XXX | |
| DERIVATIVE INSTRUMENTS | | | | | | | | | | | | |
| 26. | | Exchange Traded | | XXX | XXX | | 0.0004 | | 0.0023 | | 0.0030 | |
| 27. | 1 | Highest Quality | 60,967,584 | XXX | XXX | 60,967,584 | 0.0004 | 24,387 | 0.0023 | 140,225 | 0.0030 | 182,903 |
| 28. | 2 | High Quality | 208,899 | XXX | XXX | 208,899 | 0.0019 | 397 | 0.0058 | 1,212 | 0.0090 | 1,880 |
| 29. | 3 | Medium Quality | | XXX | XXX | | 0.0093 | | 0.0230 | | 0.0340 | |
| 30. | 4 | Low Quality | | XXX | XXX | | 0.0213 | | 0.0530 | | 0.0750 | |
| 31. | 5 | Lower Quality | | XXX | XXX | | 0.0432 | | 0.1100 | | 0.1700 | |
| 32. | 6 | In or Near Default | | XXX | XXX | | 0.0000 | | 0.2000 | | 0.2000 | |
| 33. | | Total Derivative Instruments | 61,176,482 | XXX | XXX | 61,176,482 | XXX | 24,784 | XXX | 141,437 | XXX | 184,783 |
| 34. | | Total (Lines 9 + 17 + 25 + 33) | 186,874,697,008 | XXX | XXX | 186,874,697,008 | XXX | 444,302,663 | XXX | 1,386,247,034 | XXX | 1,978,515,405 |

ASSET VALUATION RESERVE (Continued)
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
DEFAULT COMPONENT

| Line Num- ber | NAIC Desig- nation | Description | 1 Book/Adjusted Carrying Value | 2 Reclassify Related Party Encumbrances | 3 Add Third Party Encumbrances | 4 Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3) | Basic Contribution | | Reserve Objective | | Maximum Reserve | |
|---------------------|--------------------------|----------------------------------------------------------------------|------------------------------------------|------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------------|--------------------|---------------------------------|-------------------|----------------------------------|-----------------|-----------------------------------|
| | | | | | | | 5 Factor | 6 Amount (Cols.4 x 5) | 7 Factor | 8 Amount (Cols. 4 x 7) | 9 Factor | 10 Amount (Cols. 4 x 9) |
| | | MORTGAGE LOANS | | | | | | | | | | |
| | | In Good Standing: | | | | | | | | | | |
| 35. | | Farm Mortgages - CM1 - Highest Quality | | | XXX | | 0.0010 | | 0.0050 | | 0.0065 | |
| 36. | | Farm Mortgages - CM2 - High Quality | | | XXX | | 0.0035 | | 0.0100 | | 0.0130 | |
| 37. | | Farm Mortgages - CM3 - Medium Quality | | | XXX | | 0.0060 | | 0.0175 | | 0.0225 | |
| 38. | | Farm Mortgages - CM4 - Low Medium Quality | | | XXX | | 0.0105 | | 0.0300 | | 0.0375 | |
| 39. | | Farm Mortgages - CM5 - Low Quality | | | XXX | | 0.0160 | | 0.0425 | | 0.0550 | |
| 40. | | Residential Mortgages - Insured or Guaranteed | | | XXX | | 0.0003 | | 0.0006 | | 0.0010 | |
| 41. | | Residential Mortgages - All Other | 1,116,671,067 | | XXX | 1,116,671,067 | 0.0013 | 1,451,672 | 0.0030 | 3,350,013 | 0.0040 | 4,466,684 |
| 42. | | Commercial Mortgages - Insured or Guaranteed | | | XXX | | 0.0003 | | 0.0006 | | 0.0010 | |
| 43. | | Commercial Mortgages - All Other - CM1 - Highest Quality | 10,152,753,998 | | XXX | 10,152,753,998 | 0.0010 | 10,152,754 | 0.0050 | 50,763,770 | 0.0065 | 65,992,901 |
| 44. | | Commercial Mortgages - All Other - CM2 - High Quality | 12,416,227,330 | | XXX | 12,416,227,330 | 0.0035 | 43,456,796 | 0.0100 | 124,162,273 | 0.0130 | 161,410,955 |
| 45. | | Commercial Mortgages - All Other - CM3 - Medium Quality | 4,435,892,941 | | XXX | 4,435,892,941 | 0.0060 | 26,615,358 | 0.0175 | 77,628,126 | 0.0225 | 99,807,591 |
| 46. | | Commercial Mortgages - All Other - CM4 - Low Medium Quality | 1,837,030,166 | | XXX | 1,837,030,166 | 0.0105 | 19,288,817 | 0.0300 | 55,110,905 | 0.0375 | 68,888,631 |
| 47. | | Commercial Mortgages - All Other - CM5 - Low Quality | | | XXX | | 0.0160 | | 0.0425 | | 0.0550 | |
| | | Overdue, Not in Process: | | | | | | | | | | |
| 48. | | Farm Mortgages | | | XXX | | 0.0420 | | 0.0760 | | 0.1200 | |
| 49. | | Residential Mortgages - Insured or Guaranteed | | | XXX | | 0.0005 | | 0.0012 | | 0.0020 | |
| 50. | | Residential Mortgages - All Other | | | XXX | | 0.0025 | | 0.0058 | | 0.0090 | |
| 51. | | Commercial Mortgages - Insured or Guaranteed | | | XXX | | 0.0005 | | 0.0012 | | 0.0020 | |
| 52. | | Commercial Mortgages - All Other | | | XXX | | 0.0420 | | 0.0760 | | 0.1200 | |
| | | In Process of Foreclosure: | | | | | | | | | | |
| 53. | | Farm Mortgages | | | XXX | | 0.0000 | | 0.1700 | | 0.1700 | |
| 54. | | Residential Mortgages - Insured or Guaranteed | | | XXX | | 0.0000 | | 0.0040 | | 0.0040 | |
| 55. | | Residential Mortgages - All Other | | | XXX | | 0.0000 | | 0.0130 | | 0.0130 | |
| 56. | | Commercial Mortgages - Insured or Guaranteed | | | XXX | | 0.0000 | | 0.0040 | | 0.0040 | |
| 57. | | Commercial Mortgages - All Other | | | XXX | | 0.0000 | | 0.1700 | | 0.1700 | |
| 58. | | Total Schedule B Mortgages (Sum of Lines 35 through 57) | 29,958,575,502 | | XXX | 29,958,575,502 | XXX | 100,965,396 | XXX | 311,015,088 | XXX | 400,566,763 |
| 59. | | Schedule DA Mortgages | | | XXX | | 0.0030 | | 0.0100 | | 0.0130 | |
| 60. | | Total Mortgage Loans on Real Estate (Lines 58 + 59) | 29,958,575,502 | | XXX | 29,958,575,502 | XXX | 100,965,396 | XXX | 311,015,088 | XXX | 400,566,763 |

ASSET VALUATION RESERVE
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
EQUITY AND OTHER INVESTED ASSET COMPONENT

| Line Num- ber | NAIC Desig- nation | Description | 1 | 2 | 3 | 4 | Basic Contribution | | Reserve Objective | | Maximum Reserve | |
|-------------------------------------------------------------|--------------------------|------------------------------------------------------------------------------|---------------------------------|---------------------------------------------|---------------------------------|-----------------------------------------------------------------|--------------------|------------------------|-------------------|-------------------------|-----------------|-------------------------|
| | | | Book/Adjusted Carrying Value | Reclassify Related Party Encumbrances | Add Third Party Encumbrances | Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3) | 5 | 6 | 7 | 8 | 9 | 10 |
| | | | | | | | Factor | Amount (Cols.4 x 5) | Factor | Amount (Cols. 4 x 7) | Factor | Amount (Cols. 4 x 9) |
| COMMON STOCK | | | | | | | | | | | | |
| 1. | | Unaffiliated - Public | 686,729,875 | XXX | XXX | 686,729,875 | 0.0000 | | 0.2000 (a) | 137,345,975 | 0.2000 (a) | 137,345,975 |
| 2. | | Unaffiliated - Private | 122,187,903 | XXX | XXX | 122,187,903 | 0.0000 | | 0.1600 | 19,550,064 | 0.1600 | 19,550,064 |
| 3. | | Federal Home Loan Bank | 82,262,400 | XXX | XXX | 82,262,400 | 0.0000 | | 0.0050 | 411,312 | 0.0080 | 658,099 |
| 4. | | Affiliated - Life with AVR | 515,466,733 | XXX | XXX | 515,466,733 | 0.0000 | | 0.0000 | | 0.0000 | |
| Affiliated - Investment Subsidiary: | | | | | | | | | | | | |
| 5. | | Fixed Income - Exempt Obligations | | | | | XXX | | XXX | | XXX | |
| 6. | | Fixed Income - Highest Quality | | | | | XXX | | XXX | | XXX | |
| 7. | | Fixed Income - High Quality | | | | | XXX | | XXX | | XXX | |
| 8. | | Fixed Income - Medium Quality | | | | | XXX | | XXX | | XXX | |
| 9. | | Fixed Income - Low Quality | | | | | XXX | | XXX | | XXX | |
| 10. | | Fixed Income - Lower Quality | | | | | XXX | | XXX | | XXX | |
| 11. | | Fixed Income - In/Near Default | | | | | XXX | | XXX | | XXX | |
| 12. | | Unaffiliated Common Stock - Public | | | | | 0.0000 | | 0.1300 (a) | | 0.1300 (a) | |
| 13. | | Unaffiliated Common Stock - Private | | | | | 0.0000 | | 0.1600 | | 0.1600 | |
| 14. | | Real Estate | | | | | (b) | | (b) | | (b) | |
| 15. | | Affiliated - Certain Other (See SVO Purposes and Procedures Manual) | | XXX | XXX | | 0.0000 | | 0.1300 | | 0.1300 | |
| 16. | | Affiliated - All Other | 5,197,613,168 | XXX | XXX | 5,197,613,168 | 0.0000 | | 0.1600 | 831,618,107 | 0.1600 | 831,618,107 |
| 17. | | Total Common Stock (Sum of Lines 1 through 16) | 6,604,260,079 | | | 6,604,260,079 | XXX | | XXX | 988,925,458 | XXX | 989,172,246 |
| REAL ESTATE | | | | | | | | | | | | |
| 18. | | Home Office Property (General Account only) | 173,282,218 | | | 173,282,218 | 0.0000 | | 0.0750 | 12,996,166 | 0.0750 | 12,996,166 |
| 19. | | Investment Properties | 1,959,147,302 | | 44,038,300 | 2,003,185,602 | 0.0000 | | 0.0750 | 150,238,920 | 0.0750 | 150,238,920 |
| 20. | | Properties Acquired in Satisfaction of Debt | 19,453,490 | | | 19,453,490 | 0.0000 | | 0.1100 | 2,139,884 | 0.1100 | 2,139,884 |
| 21. | | Total Real Estate (Sum of Lines 18 through 20) | 2,151,883,010 | | 44,038,300 | 2,195,921,310 | XXX | | XXX | 165,374,970 | XXX | 165,374,970 |
| OTHER INVESTED ASSETS | | | | | | | | | | | | |
| INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF BONDS | | | | | | | | | | | | |
| 22. | | Exempt Obligations | | XXX | XXX | | 0.0000 | | 0.0000 | | 0.0000 | |
| 23. | 1 | Highest Quality | | XXX | XXX | | 0.0004 | | 0.0023 | | 0.0030 | |
| 24. | 2 | High Quality | 96,935,076 | XXX | XXX | 96,935,076 | 0.0019 | 184,177 | 0.0058 | 562,223 | 0.0090 | 872,416 |
| 25. | 3 | Medium Quality | | XXX | XXX | | 0.0093 | | 0.0230 | | 0.0340 | |
| 26. | 4 | Low Quality | 2,463,981,353 | XXX | XXX | 2,463,981,353 | 0.0213 | 52,482,803 | 0.0530 | 130,591,012 | 0.0750 | 184,798,601 |
| 27. | 5 | Lower Quality | | XXX | XXX | | 0.0432 | | 0.1100 | | 0.1700 | |
| 28. | 6 | In or Near Default | 296,626,290 | XXX | XXX | 296,626,290 | 0.0000 | | 0.2000 | 59,325,258 | 0.2000 | 59,325,258 |
| 29. | | Total with Bond Characteristics (Sum of Lines 22 through 28) | 2,857,542,719 | XXX | XXX | 2,857,542,719 | XXX | 52,666,979 | XXX | 190,478,493 | XXX | 244,996,275 |

ASSET VALUATION RESERVE (Continued)
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
EQUITY AND OTHER INVESTED ASSET COMPONENT

| Line Num- ber | NAIC Desig- nation | Description | 1 | 2 | 3 | 4 | Basic Contribution | | Reserve Objective | | Maximum Reserve | |
|---------------------|--------------------------|------------------------------------------------------------------------------|---------------------------------|---------------------------------------------|---------------------------------|-----------------------------------------------------------------|--------------------|------------------------|-------------------|-------------------------|-----------------|-------------------------|
| | | | Book/Adjusted Carrying Value | Reclassify Related Party Encumbrances | Add Third Party Encumbrances | Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3) | 5 | 6 | 7 | 8 | 9 | 10 |
| | | | | | | | Factor | Amount (Cols.4 x 5) | Factor | Amount (Cols. 4 x 7) | Factor | Amount (Cols. 4 x 9) |
| | | INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF PREFERRED STOCKS | | | | | | | | | | |
| 30. | 1 | Highest Quality | 76,100,012 | XXX | XXX | 76,100,012 | 0.0004 | 30,440 | 0.0023 | 175,030 | 0.0030 | 228,300 |
| 31. | 2 | High Quality | | XXX | XXX | | 0.0019 | | 0.0058 | | 0.0090 | |
| 32. | 3 | Medium Quality | | XXX | XXX | | 0.0093 | | 0.0230 | | 0.0340 | |
| 33. | 4 | Low Quality | | XXX | XXX | | 0.0213 | | 0.0530 | | 0.0750 | |
| 34. | 5 | Lower Quality | | XXX | XXX | | 0.0432 | | 0.1100 | | 0.1700 | |
| 35. | 6 | In or Near Default | 87,076,481 | XXX | XXX | 87,076,481 | 0.0000 | | 0.2000 | 17,415,296 | 0.2000 | 17,415,296 |
| 36. | | Affiliated Life with AVR | | XXX | XXX | | 0.0000 | | 0.0000 | | 0.0000 | |
| 37. | | Total with Preferred Stock Characteristics (Sum of Lines 30 through 36) | 163,176,493 | XXX | XXX | 163,176,493 | XXX | 30,440 | XXX | 17,590,326 | XXX | 17,643,596 |
| | | INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF MORTGAGE LOANS | | | | | | | | | | |
| | | In Good Standing Affiliated: | | | | | | | | | | |
| 38. | | Mortgages - CM1 - Highest Quality | 827,380,866 | | XXX | 827,380,866 | 0.0010 | 827,381 | 0.0050 | 4,136,904 | 0.0065 | 5,377,976 |
| 39. | | Mortgages - CM2 - High Quality | | | XXX | | 0.0035 | | 0.0100 | | 0.0130 | |
| 40. | | Mortgages - CM3 - Medium Quality | 740,212,070 | | XXX | 740,212,070 | 0.0060 | 4,441,272 | 0.0175 | 12,953,711 | 0.0225 | 16,654,772 |
| 41. | | Mortgages - CM4 - Low Medium Quality | | | XXX | | 0.0105 | | 0.0300 | | 0.0375 | |
| 42. | | Mortgages - CM5 - Low Quality | | | XXX | | 0.0160 | | 0.0425 | | 0.0550 | |
| 43. | | Residential Mortgages - Insured or Guaranteed | | | XXX | | 0.0003 | | 0.0006 | | 0.0010 | |
| 44. | | Residential Mortgages - All Other | | XXX | XXX | | 0.0013 | | 0.0030 | | 0.0040 | |
| 45. | | Commercial Mortgages - Insured or Guaranteed | | | XXX | | 0.0003 | | 0.0006 | | 0.0010 | |
| | | Overdue, Not in Process Affiliated: | | | | | | | | | | |
| 46. | | Farm Mortgages | | | XXX | | 0.0420 | | 0.0760 | | 0.1200 | |
| 47. | | Residential Mortgages - Insured or Guaranteed | | | XXX | | 0.0005 | | 0.0012 | | 0.0020 | |
| 48. | | Residential Mortgages - All Other | | | XXX | | 0.0025 | | 0.0058 | | 0.0090 | |
| 49. | | Commercial Mortgages - Insured or Guaranteed | | | XXX | | 0.0005 | | 0.0012 | | 0.0020 | |
| 50. | | Commercial Mortgages - All Other | | | XXX | | 0.0420 | | 0.0760 | | 0.1200 | |
| | | In Process of Foreclosure Affiliated: | | | | | | | | | | |
| 51. | | Farm Mortgages | | | XXX | | 0.0000 | | 0.1700 | | 0.1700 | |
| 52. | | Residential Mortgages - Insured or Guaranteed | | | XXX | | 0.0000 | | 0.0040 | | 0.0040 | |
| 53. | | Residential Mortgages - All Other | | | XXX | | 0.0000 | | 0.0130 | | 0.0130 | |
| 54. | | Commercial Mortgages - Insured or Guaranteed | | | XXX | | 0.0000 | | 0.0040 | | 0.0040 | |
| 55. | | Commercial Mortgages - All Other | | | XXX | | 0.0000 | | 0.1700 | | 0.1700 | |
| 56. | | Total Affiliated (Sum of Lines 38 through 55) | 1,567,592,937 | | XXX | 1,567,592,937 | XXX | 5,268,653 | XXX | 17,090,616 | XXX | 22,032,747 |
| 57. | | Unaffiliated - In Good Standing With Covenants | | | XXX | | (c) | | (c) | | (c) | |
| 58. | | Unaffiliated - In Good Standing Defeased With Government Securities | | | XXX | | 0.0010 | | 0.0050 | | 0.0065 | |
| 59. | | Unaffiliated - In Good Standing Primarily Senior | | | XXX | | 0.0035 | | 0.0010 | | 0.0130 | |
| 60. | | Unaffiliated - In Good Standing All Other | 133,515,768 | | XXX | 133,515,768 | 0.0060 | 801,095 | 0.0175 | 2,336,526 | 0.0225 | 3,004,105 |
| 61. | | Unaffiliated - Overdue, Not in Process | | | XXX | | 0.0420 | | 0.0760 | | 0.1200 | |
| 62. | | Unaffiliated - In Process of Foreclosure | | | XXX | | 0.0000 | | 0.1700 | | 0.1700 | |
| 63. | | Total Unaffiliated (Sum of Lines 57 through 62) | 133,515,768 | | XXX | 133,515,768 | XXX | 801,095 | XXX | 2,336,526 | XXX | 3,004,105 |
| 64. | | Total with Mortgage Loan Characteristics (Lines 56 + 63) | 1,701,108,704 | | XXX | 1,701,108,704 | XXX | 6,069,748 | XXX | 19,427,141 | XXX | 25,036,852 |

ASSET VALUATION RESERVE (Continued)
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
EQUITY AND OTHER INVESTED ASSET COMPONENT

| Line Num- ber | NAIC Desig- nation | Description | 1 | 2 | 3 | 4 | Basic Contribution | | Reserve Objective | | Maximum Reserve | |
|---------------------|--------------------------|-------------------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------|---------------------------------|-----------------------------------------------------------------|--------------------|------------------------|-------------------|-------------------------|-----------------|-------------------------|
| | | | Book/Adjusted Carrying Value | Reclassify Related Party Encumbrances | Add Third Party Encumbrances | Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3) | 5 | 6 | 7 | 8 | 9 | 10 |
| | | | | | | | Factor | Amount (Cols.4 x 5) | Factor | Amount (Cols. 4 x 7) | Factor | Amount (Cols. 4 x 9) |
| | | INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF COMMON STOCK | | | | | | | | | | |
| 65. | | Unaffiliated Public | 1,337,228,675 | XXX | XXX | 1,337,228,675 | 0.0000 | | 0.1293 (a) | 172,903,668 | 0.1293 (a) | 172,903,668 |
| 66. | | Unaffiliated Private | 8,169,976,111 | XXX | XXX | 8,169,976,111 | 0.0000 | | 0.1600 | 1,307,196,178 | 0.1600 | 1,307,196,178 |
| 67. | | Affiliated Life with AVR | | XXX | XXX | | 0.0000 | | 0.0000 | | 0.0000 | |
| 68. | | Affiliated Certain Other (See SVO Purposes & Procedures Manual) | | XXX | XXX | | 0.0000 | | 0.1300 | | 0.1300 | |
| 69. | | Affiliated Other - All Other | 5,339,051,978 | XXX | XXX | 5,339,051,978 | 0.0000 | | 0.1600 | 854,248,316 | 0.1600 | 854,248,316 |
| 70. | | Total with Common Stock Characteristics (Sum of Lines 65 through 69) | 14,846,256,764 | XXX | XXX | 14,846,256,764 | XXX | | XXX | 2,334,348,162 | XXX | 2,334,348,162 |
| | | INVESTMENTS WITH THE UNDERLYING CHARACTERISTICS OF REAL ESTATE | | | | | | | | | | |
| 71. | | Home Office Property (General Account only) | | | | | 0.0000 | | 0.0750 | | 0.0750 | |
| 72. | | Investment Properties | 10,327,359,816 | | 3,048,703,617 | 13,376,063,433 | 0.0000 | | 0.0750 | 1,003,204,757 | 0.0750 | 1,003,204,757 |
| 73. | | Properties Acquired in Satisfaction of Debt | | | | | 0.0000 | | 0.1100 | | 0.1100 | |
| 74. | | Total with Real Estate Characteristics (Sum of Lines 71 through 73) | 10,327,359,816 | | 3,048,703,617 | 13,376,063,433 | XXX | | XXX | 1,003,204,757 | XXX | 1,003,204,757 |
| | | LOW INCOME HOUSING TAX CREDIT INVESTMENTS | | | | | | | | | | |
| 75. | | Guaranteed Federal Low Income Housing Tax Credit | | | | | 0.0003 | | 0.0006 | | 0.0010 | |
| 76. | | Non-guaranteed Federal Low Income Housing Tax Credit | | | | | 0.0063 | | 0.0120 | | 0.0190 | |
| 77. | | Guaranteed State Low Income Housing Tax Credit | | | | | 0.0003 | | 0.0006 | | 0.0010 | |
| 78. | | Non-guaranteed State Low Income Housing Tax Credit | | | | | 0.0063 | | 0.0120 | | 0.0190 | |
| 79. | | All Other Low Income Housing Tax Credit | | | | | 0.0273 | | 0.0600 | | 0.0975 | |
| 80. | | Total LIHTC (Sum of Lines 75 through 79) | | | | | XXX | | XXX | | XXX | |
| | | ALL OTHER INVESTMENTS | | | | | | | | | | |
| 81. | | NAIC 1 Working Capital Finance Investments | | XXX | | | 0.0000 | | 0.0037 | | 0.0037 | |
| 82. | | NAIC 2 Working Capital Finance Investments | | XXX | | | 0.0000 | | 0.0120 | | 0.0120 | |
| 83. | | Other Invested Assets - Schedule BA | 472,890,102 | XXX | | 472,890,102 | 0.0000 | | 0.1300 | 61,475,713 | 0.1300 | 61,475,713 |
| 84. | | Other Short-Term Invested Assets - Schedule DA | | XXX | | | 0.0000 | | 0.1300 | | 0.1300 | |
| 85. | | Total All Other (Sum of Lines 81, 82, 83 and 84) | 472,890,102 | XXX | | 472,890,102 | XXX | | XXX | 61,475,713 | XXX | 61,475,713 |
| 86. | | Total Other Invested Assets - Schedules BA & DA (Sum of Lines 29, 37, 64, 70, 74, 80 and 85) | 30,368,334,597 | | 3,048,703,617 | 33,417,038,214 | XXX | 58,767,167 | XXX | 3,626,524,593 | XXX | 3,686,705,356 |

(a) Times the company's weighted average portfolio beta (Minimum .10, Maximum .20).
(b) Determined using the same factors and breakdowns used for directly owned real estate.
(c) This will be the factor associated with the risk category determined in the company generated worksheet.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|-------------|----------------------------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518*HN3 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 43,089,993 | 17,236 | 99,107 | 129,270 |
| 12518*HN3 | CN | 912810-QA-9 | US TREASURY N/B UNITED STATES TREASURY NO 3.5 3.5% DUE 02/15/2039 | 1 | 43,044,711 | | | |
| 12518*HP8 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 55,188,449 | 22,075 | 126,933 | 165,565 |
| 12518*HP8 | CN | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 55,125,202 | | | |
| 12518*H06 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 48,392,208 | 19,357 | 111,302 | 145,177 |
| 12518*H06 | CN | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 39,724,876 | | | |
| 12518*H06 | CN | 912810-QA-9 | US TREASURY N/B UNITED STATES TREASURY NO 3.5 3.5% DUE 02/15/2039 | 1 | 8,599,546 | | | |
| 12518*HL7 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 49,855,663 | 19,942 | 114,668 | 149,567 |
| 12518*HL7 | CN | 912810-QU-5 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 02/15/2042 | 1 | 49,791,746 | | | |
| 12518*HM5 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 50,483,614 | 20,193 | 116,112 | 151,451 |
| 12518*HM5 | CN | 912810-QK-7 | US TREASURY N/B UNITED STATES TREASURY NO 3.87 3.875% DUE 08/15/2040 | 1 | 25,542,260 | | | |
| 12518*HM5 | CN | 912810-QK-7 | US TREASURY N/B UNITED STATES TREASURY NO 3.87 3.875% DUE 08/15/2040 | 1 | 24,873,127 | | | |
| 12518*JK7 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 49,476,982 | 19,791 | 113,797 | 148,431 |
| 12518*JK7 | CN | 912810-RE-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.62 3.625% DUE 02/15/2044 | 1 | 34,420,944 | | | |
| 12518*JK7 | CN | 912810-RE-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.62 3.625% DUE 02/15/2044 | 1 | 14,812,855 | | | |
| 12518*JF8 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 49,410,345 | 19,764 | 113,644 | 148,231 |
| 12518*JF8 | CN | 912810-RE-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.62 3.625% DUE 02/15/2044 | 1 | 34,375,976 | | | |
| 12518*JF8 | CN | 912810-RE-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.62 3.625% DUE 02/15/2044 | 1 | 14,812,855 | | | |
| 12518*JE1 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 49,671,973 | 19,869 | 114,246 | 149,016 |
| 12518*JE1 | CN | 912810-QU-5 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 02/15/2042 | 1 | 49,471,302 | | | |
| 12518*JG6 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 24,898,734 | 9,959 | 57,267 | 74,696 |
| 12518*JG6 | CN | 912810-QU-5 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 02/15/2042 | 1 | 24,812,557 | | | |
| 12518*JL5 | R | | CDX.NA.IG25 SR. TRANCHE 7-15% due 12/20/2020 | 1Z | 24,857,850 | 9,943 | 57,173 | 74,574 |
| 12518*JL5 | CN | 912810-QU-5 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 02/15/2042 | 1 | 19,841,936 | | | |
| 12518*JL5 | CN | 912810-RE-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.62 3.625% DUE 02/15/2044 | 1 | 4,926,100 | | | |
| 12518*JT8 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 25,617,262 | 10,247 | 58,920 | 76,852 |
| 12518*JT8 | CN | 3136A6-UR-3 | FNR 2012-63 ZA Z SEQ 4% DUE 06/25/2042 | 1 | 25,515,406 | | | |
| 12518*JQ4 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 25,844,565 | 10,338 | 59,443 | 77,534 |
| 12518*JQ4 | CN | 3136A6-P4-0 | FNR 2012-76 DZ Z SEQ 4% DUE 07/25/2042 | 1 | 25,733,755 | | | |
| 12518*JW1 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 51,699,236 | 20,680 | 118,908 | 155,098 |
| 12518*JW1 | CN | 3136A6-P4-0 | FNR 2012-76 DZ Z SEQ 4% DUE 07/25/2042 | 1 | 51,467,510 | | | |
| 12518*JP6 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 41,312,421 | 16,525 | 95,019 | 123,937 |
| 12518*JP6 | CN | 3136A6-P4-0 | FNR 2012-76 DZ Z SEQ 4% DUE 07/25/2042 | 1 | 9,813,349 | | | |
| 12518*JP6 | CN | 3136A6-P4-0 | FNR 2012-76 DZ Z SEQ 4% DUE 07/25/2042 | 1 | 25,231,348 | | | |
| 12518*JP6 | CN | 3136A6-UR-3 | FNR 2012-63 ZA Z SEQ 4% DUE 06/25/2042 | 1 | 6,077,304 | | | |
| 12518*JM3 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 47,459,816 | 18,984 | 109,158 | 142,379 |
| 12518*JM3 | CN | 912810-QK-7 | US TREASURY N/B UNITED STATES TREASURY NO 3.87 3.875% DUE 08/15/2040 | 1 | 47,221,790 | | | |
| 12518*JS0 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 46,878,243 | 18,751 | 107,820 | 140,635 |
| 12518*JS0 | CN | 912810-QX-9 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 08/15/2042 | 1 | 46,672,514 | | | |
| 12518*JR2 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 48,074,954 | 19,230 | 110,572 | 144,225 |
| 12518*JR2 | CN | 912810-QX-9 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 08/15/2042 | 1 | 24,532,968 | | | |
| 12518*JR2 | CN | 912810-QX-9 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 08/15/2042 | 1 | 23,336,257 | | | |
| 12518*JN1 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 58,720,852 | 23,488 | 135,058 | 176,163 |
| 12518*JN1 | CN | 912810-FP-8 | US TREASURY N/B UNITED STATES TREASURY NO 5.37 5.375% DUE 02/15/2031 | 1 | 58,438,955 | | | |
| 12518*KL3 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 49,141,553 | 19,657 | 113,026 | 147,425 |
| 12518*KL3 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 48,831,807 | | | |
| 12518*LG3 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 47,029,300 | 18,812 | 108,167 | 141,088 |
| 12518*LG3 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 46,669,479 | | | |
| 12518*MK3 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 49,113,723 | 19,645 | 112,962 | 147,341 |
| 12518*MK3 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 48,755,711 | | | |
| 12518*LM0 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 49,277,440 | 19,711 | 113,338 | 147,832 |
| 12518*LM0 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 48,916,533 | | | |
| 12518*LQ1 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 44,117,976 | 17,647 | 101,471 | 132,354 |
| 12518*LQ1 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 21,919,448 | | | |
| 12518*LQ1 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 21,825,046 | | | |
| 12518*LF5 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 43,046,957 | 17,219 | 99,008 | 129,141 |
| 12518*LF5 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 21,504,878 | | | |
| 12518*LF5 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 21,171,220 | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|-------------|----------------------------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518*LL2 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 44,643,544 | 17,857 | 102,680 | 133,931 |
| 12518*LL2 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,112,194 | | | |
| 12518*LL2 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,160,490 | | | |
| 12518*MG2 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 44,556,302 | 17,823 | 102,479 | 133,669 |
| 12518*MG2 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,112,049 | | | |
| 12518*MG2 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,073,393 | | | |
| 12518*LN8 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 45,012,181 | 18,005 | 103,528 | 135,037 |
| 12518*LN8 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 23,282,794 | | | |
| 12518*LN8 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 21,358,527 | | | |
| 12518*MH0 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 44,759,840 | 17,904 | 102,948 | 134,280 |
| 12518*MH0 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,375,358 | | | |
| 12518*MH0 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,013,622 | | | |
| 12518*LJ7 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 46,101,154 | 18,440 | 106,033 | 138,303 |
| 12518*LJ7 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 21,338,960 | | | |
| 12518*LJ7 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 24,377,855 | | | |
| 12518*LH1 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 25,720,870 | 10,288 | 59,158 | 77,163 |
| 12518*LH1 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 25,490,267 | | | |
| 12518*MJ6 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 44,682,544 | 17,873 | 102,770 | 134,048 |
| 12518*MJ6 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 35,750,170 | | | |
| 12518*MJ6 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 8,548,035 | | | |
| 12518*MF4 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 93,508,940 | 37,404 | 215,071 | 280,527 |
| 12518*MF4 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 30,997,661 | | | |
| 12518*MF4 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 48,916,533 | | | |
| 12518*MF4 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 12,824,057 | | | |
| 12518*LS7 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 112,144,261 | 44,858 | 257,932 | 336,433 |
| 12518*LS7 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 23,077,010 | | | |
| 12518*LS7 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 26,343,520 | | | |
| 12518*LS7 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 26,340,353 | | | |
| 12518*LS7 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 31,145,331 | | | |
| 12518*LS7 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 4,274,686 | | | |
| 12518*LK4 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 133,921,685 | 53,569 | 308,020 | 401,765 |
| 12518*LK4 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 26,651,343 | | | |
| 12518*LK4 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 26,403,725 | | | |
| 12518*LK4 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 27,081,174 | | | |
| 12518*LK4 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 26,458,354 | | | |
| 12518*LK4 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 26,232,182 | | | |
| 12518*LE8 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 100,880,822 | 40,352 | 232,026 | 302,642 |
| 12518*LE8 | CN | 912810-QL-5 | US TREASURY N/B UNITED STATES TREASURY NO 4.25 4.25% DUE 11/15/2040 | 1 | 24,957,598 | | | |
| 12518*LE8 | CN | 912810-QL-5 | US TREASURY N/B UNITED STATES TREASURY NO 4.25 4.25% DUE 11/15/2040 | 1 | 25,225,964 | | | |
| 12518*LE8 | CN | 912810-QL-5 | US TREASURY N/B UNITED STATES TREASURY NO 4.25 4.25% DUE 11/15/2040 | 1 | 30,016,986 | | | |
| 12518*LE8 | CN | 912810-QL-5 | US TREASURY N/B UNITED STATES TREASURY NO 4.25 4.25% DUE 11/15/2040 | 1 | 3,033,353 | | | |
| 12518*LE8 | CN | 912810-QL-5 | US TREASURY N/B UNITED STATES TREASURY NO 4.25 4.25% DUE 11/15/2040 | 1 | 16,971,167 | | | |
| 12518*LR9 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 105,349,547 | 42,140 | 242,304 | 316,049 |
| 12518*LR9 | CN | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 51,191,491 | | | |
| 12518*LR9 | CN | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 16,543,352 | | | |
| 12518*LR9 | CN | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 16,543,352 | | | |
| 12518*LR9 | CN | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 20,466,094 | | | |
| 91283#AE3 | R | 912828-S5-0 | TSY INFL IX N/B UNITED STATES TREASURY IN .125 0.125% DUE 07/15/2026 | 1 | 10,069,930 | | | |
| 91283#AE3 | CN | | 10yr U.S. Treasury Note 2.00% due 11/15/2026 | 1 | 10,069,930 | 4,028 | 23,161 | 30,210 |
| 12518*MA5 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 126,720,784 | 50,688 | 291,458 | 380,162 |
| 12518*MA5 | CN | 912810-FM-5 | US TREASURY N/B UNITED STATES TREASURY NO 6.25 6.25% DUE 05/15/2030 | 1 | 62,581,890 | | | |
| 12518*MA5 | CN | 912810-FM-5 | US TREASURY N/B UNITED STATES TREASURY NO 6.25 6.25% DUE 05/15/2030 | 1 | 63,401,843 | | | |
| 12518*MB3 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 157,624,360 | 63,050 | 362,536 | 472,873 |
| 12518*MB3 | CN | 912810-FM-5 | US TREASURY N/B UNITED STATES TREASURY NO 6.25 6.25% DUE 05/15/2030 | 1 | 62,777,686 | | | |
| 12518*MB3 | CN | 912810-FM-5 | US TREASURY N/B UNITED STATES TREASURY NO 6.25 6.25% DUE 05/15/2030 | 1 | 62,676,213 | | | |
| 12518*MB3 | CN | 912810-FM-5 | US TREASURY N/B UNITED STATES TREASURY NO 6.25 6.25% DUE 05/15/2030 | 1 | 31,285,772 | | | |
| 12518*LW8 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 95,738,523 | 38,295 | 220,199 | 287,216 |
| 12518*LW8 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 47,674,258 | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|-------------|----------------------------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518*LV8 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 47,490,422 | | | |
| 12518*LV0 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 95,786,140 | 38,314 | 220,308 | 287,358 |
| 12518*LV0 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 47,702,339 | | | |
| 12518*LV0 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 47,367,159 | | | |
| 12518*LV6 | R | | CDX.NA.IG27 SR. TRANCHE 7-15% due 12/20/2021 | 1Z | 76,420,519 | 30,568 | 175,767 | 229,262 |
| 12518*LV6 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 47,497,229 | | | |
| 12518*LV6 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 28,328,965 | | | |
| 12518*PF1 | R | | CDX.NA.HY27 SR. TRANCHE 35-100% due 12/20/2021 | 1Z | 56,778,931 | 22,712 | 130,592 | 170,337 |
| 12518*PF1 | CN | 3136A6-UR-3 | FNR 2012-63 ZA Z SEQ 4% DUE 06/25/2042 | 1 | 50,547,982 | | | |
| 12518*PG9 | R | | CDX.NA.HY27 SR. TRANCHE 35-100% due 12/20/2021 | 1Z | 56,799,751 | 22,720 | 130,639 | 170,399 |
| 12518*PG9 | CN | 3136A6-UR-3 | FNR 2012-63 ZA Z SEQ 4% DUE 06/25/2042 | 1 | 50,547,982 | | | |
| 12518*PH7 | R | | CDX.NA.HY27 SR. TRANCHE 35-100% due 12/20/2021 | 1Z | 55,059,556 | 22,024 | 126,637 | 165,179 |
| 12518*PH7 | CN | 38378D-CV-5 | GNR 2012-16 VZ Z SEQ 3.5% DUE 02/20/2042 | 1 | 48,806,790 | | | |
| 12518*PE4 | R | | CDX.NA.HY27 SR. TRANCHE 35-100% due 12/20/2021 | 1Z | 55,044,257 | 22,018 | 126,602 | 165,133 |
| 12518*PE4 | CN | 38378D-CV-5 | GNR 2012-16 VZ Z SEQ 3.5% DUE 02/20/2042 | 1 | 48,806,790 | | | |
| 12518*PK0 | R | | CDX.NA.HY27 SR. TRANCHE 35-100% due 12/20/2021 | 1Z | 57,434,353 | 22,974 | 132,099 | 172,303 |
| 12518*PK0 | CN | 3136A6-ST-7 | FNR 2012-73 ZM EXCH Z SEQ 4% DUE 07/25/2042 | 1 | 51,159,042 | | | |
| 12518*PJ3 | R | | CDX.NA.HY27 SR. TRANCHE 35-100% due 12/20/2021 | 1Z | 57,432,914 | 22,973 | 132,096 | 172,299 |
| 12518*PJ3 | CN | 3136A6-ST-7 | FNR 2012-73 ZM EXCH Z SEQ 4% DUE 07/25/2042 | 1 | 51,159,042 | | | |
| 12518*RY8 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 52,414,344 | 20,966 | 120,553 | 157,243 |
| 12518*RY8 | CN | 912810-QK-7 | US TREASURY N/B UNITED STATES TREASURY NO 3.87 3.875% DUE 08/15/2040 | 1 | 51,741,339 | | | |
| 12518*RX0 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 59,955,711 | 23,982 | 137,898 | 179,867 |
| 12518*RX0 | CN | 912810-QK-7 | US TREASURY N/B UNITED STATES TREASURY NO 3.87 3.875% DUE 08/15/2040 | 1 | 24,638,015 | | | |
| 12518*RX0 | CN | 912810-QK-7 | US TREASURY N/B UNITED STATES TREASURY NO 3.87 3.875% DUE 08/15/2040 | 1 | 34,493,221 | | | |
| 12518*SC5 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 50,674,978 | 20,270 | 116,552 | 152,025 |
| 12518*SC5 | CN | 38378C-NL-7 | GNR 2012-7 PE PAC-1-11 3.5% DUE 01/20/2042 | 1 | 49,978,309 | | | |
| 12518*SD3 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 48,750,952 | 19,500 | 112,127 | 146,253 |
| 12518*SD3 | CN | 38378M-BD-6 | GNR 2013-23 ZC Z SEQ 3% DUE 02/20/2043 | 1 | 8,350,608 | | | |
| 12518*SD3 | CN | 38378M-BD-6 | GNR 2013-23 ZC Z SEQ 3% DUE 02/20/2043 | 1 | 39,721,449 | | | |
| 12518*SB7 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 46,246,634 | 18,499 | 106,367 | 138,740 |
| 12518*SB7 | CN | 3137BG-JS-9 | FHR 4444 CZ Z SEQ 3% DUE 02/15/2045 | 1 | 45,567,739 | | | |
| 12518*SA9 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 47,918,650 | 19,167 | 110,213 | 143,756 |
| 12518*SA9 | CN | 3137BW-V5-0 | FHR 4663 ZK Z SEQ 3.5% DUE 06/15/2046 | 1 | 31,696,182 | | | |
| 12518*SA9 | CN | 3137BW-V5-0 | FHR 4663 ZK Z SEQ 3.5% DUE 06/15/2046 | 1 | 15,527,061 | | | |
| 12518*RZ5 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 49,210,026 | 19,684 | 113,183 | 147,630 |
| 12518*RZ5 | CN | 3137BW-HK-3 | FHR 4665 NZ Z SEQ 3.5% DUE 02/15/2047 | 1 | 48,514,619 | | | |
| 12518*SE1 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 46,440,771 | 18,576 | 106,814 | 139,322 |
| 12518*SE1 | CN | 3137BD-C5-3 | FHR 4377 LZ Z SEQ 3% DUE 08/15/2044 | 1 | 45,732,629 | | | |
| 12518*SM3 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 101,631,391 | 40,653 | 233,752 | 304,894 |
| 12518*SM3 | CN | 3136A9-LM-8 | FNR 2012-114 ZG Z SEQ 3.5% DUE 10/25/2042 | 1 | 43,856,036 | | | |
| 12518*SM3 | CN | 3136AW-UB-8 | FNR 2017-43 B SEQ 3.5% DUE 06/25/2047 | 1 | 56,349,472 | | | |
| 12518* SX9 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 100,820,091 | 40,328 | 231,886 | 302,460 |
| 12518* SX9 | CN | 3136AK-S5-3 | FNR 2014-53 VZ Z SEQ 3.5% DUE 09/25/2044 | 1 | 43,003,379 | | | |
| 12518* SX9 | CN | 3137BO-GG-3 | FHR 4174 Z EXCH Z SEQ 3.5% DUE 03/15/2043 | 1 | 37,675,528 | | | |
| 12518* SX9 | CN | 3137BO-GG-3 | FHR 4174 Z EXCH Z SEQ 3.5% DUE 03/15/2043 | 1 | 18,678,966 | | | |
| 12518* SY7 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 49,978,570 | 19,991 | 114,951 | 149,936 |
| 12518* SY7 | CN | 38377M-TH-9 | GNR 2010-144 DC EXCH PAC-1-11 4% DUE 11/16/2040 | 1 | 24,385,218 | | | |
| 12518* SY7 | CN | 38377M-TH-9 | GNR 2010-144 DC EXCH PAC-1-11 4% DUE 11/16/2040 | 1 | 24,873,909 | | | |
| 12518* SU5 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 50,900,098 | 20,360 | 117,070 | 152,700 |
| 12518* SU5 | CN | 3137BV-EK-8 | FHR 4655 HZ EXCH Z SEQ 3.5% DUE 02/15/2047 | 1 | 50,180,655 | | | |
| 12518* ST8 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 99,985,992 | 39,994 | 229,968 | 299,958 |
| 12518* ST8 | CN | 3136AK-6N-8 | FNR 2014-65 CB SEQ 3% DUE 10/25/2044 | 1 | 46,286,426 | | | |
| 12518* ST8 | CN | 3136A7-RT-1 | FNR 2012-90 ZE Z SEQ 3.5% DUE 08/25/2042 | 1 | 52,264,034 | | | |
| 12518* SW1 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 26,732,419 | 10,693 | 61,485 | 80,197 |
| 12518* SW1 | CN | 3136AJ-K9-6 | FNR 2014-28 ZA Z SEQ 3% DUE 05/25/2044 | 1 | 26,301,759 | | | |
| 12518* SZ4 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 46,783,596 | 18,713 | 107,602 | 140,351 |
| 12518* SZ4 | CN | 38378M-BJ-3 | GNR 2013-23 ZU SC Z SEQ 2.5% DUE 11/20/2042 | 1 | 44,256,652 | | | |
| 12518* SZ4 | CN | 3136A7-UU-4 | FNR 2012-80 AZ Z SEQ 3.5% DUE 08/25/2042 | 1 | 1,827,203 | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|--------------|----------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518* TA8 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 47,912,825 | 19,165 | 110,200 | 143,738 |
| 12518* TA8 | CN | .3136AH-3L-2 | FNR 2014-7 Z Z SEQ 3.5% DUE 02/25/2044 | 1 | 34,007,481 | | | |
| 12518* TA8 | CN | .3136AH-3L-2 | FNR 2014-7 Z Z SEQ 3.5% DUE 02/25/2044 | 1 | 11,000,933 | | | |
| 12518* TA8 | CN | .3136A7-UU-4 | FNR 2012-80 AZ Z SEQ 3.5% DUE 08/25/2042 | 1 | 2,198,141 | | | |
| 12518* SS0 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 49,763,085 | 19,905 | 114,455 | 149,289 |
| 12518* SS0 | CN | .38377W-BA-1 | GNR 2011-73 LB PAC-11 4% DUE 05/20/2041 | 1 | 46,693,227 | | | |
| 12518* SS0 | CN | .3136A7-UU-4 | FNR 2012-80 AZ Z SEQ 3.5% DUE 08/25/2042 | 1 | 2,363,589 | | | |
| 12518* SR2 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 48,963,829 | 19,586 | 112,617 | 146,891 |
| 12518* SR2 | CN | .3137BW-DZ-4 | FHR 4668 ZA Z SEQ 3.5% DUE 02/15/2047 | 1 | 25,743,252 | | | |
| 12518* SR2 | CN | .3137BW-DZ-4 | FHR 4668 ZA Z SEQ 3.5% DUE 02/15/2047 | 1 | 16,006,285 | | | |
| 12518* SR2 | CN | .3136A7-UU-4 | FNR 2012-80 AZ Z SEQ 3.5% DUE 08/25/2042 | 1 | 6,508,023 | | | |
| 12518* TB6 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 49,139,238 | 19,656 | 113,020 | 147,418 |
| 12518* TB6 | CN | .3136A9-2X-5 | FNR 2012-118 ZV Z SEQ 3% DUE 11/25/2042 | 1 | 16,532,302 | | | |
| 12518* TB6 | CN | .3136AL-NX-5 | FNR 2014-76 Z Z SEQ 3.5% DUE 11/25/2044 | 1 | 31,918,011 | | | |
| 12518* SV3 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 31,178,631 | 12,471 | 71,711 | 93,536 |
| 12518* SV3 | CN | .3136AF-ZE-7 | FNR 2013-80 ZV Z SEQ 4% DUE 08/25/2043 | 1 | 30,765,276 | | | |
| 12518*UX6 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 52,520,798 | 21,008 | 120,798 | 157,562 |
| 12518*UX6 | CN | .3136AG-TQ-5 | FNR 2013-100 CZ Z SEQ 4% DUE 10/25/2043 | 1 | 18,621,824 | | | |
| 12518*UX6 | CN | .3136A5-ST-9 | FNR 2012-51 AY EXCH PAC-11 3.5% DUE 05/25/2042 | 1 | 33,099,713 | | | |
| 12518*UIW8 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 45,845,438 | 18,338 | 105,445 | 137,536 |
| 12518*UIW8 | CN | .38378F-T6-7 | GNR 2013-18 GY PAC-1-11 2.5% DUE 02/20/2043 | 1 | 15,945,773 | | | |
| 12518*UIW8 | CN | .3136AK-VH-3 | FNR 2014-46 DZ EXCH Z SEQ 3% DUE 08/25/2044 | 1 | 29,096,559 | | | |
| 12518*UY4 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 46,880,909 | 18,752 | 107,826 | 140,643 |
| 12518*UY4 | CN | .3136AE-EX-1 | FNR 2013-53 ZC Z SEQ 3% DUE 06/25/2043 | 1 | 24,624,359 | | | |
| 12518*UY4 | CN | .38377M-E9-3 | GNR 2010-147 PB AD PAC-11 4% DUE 11/20/2040 | 1 | 21,469,777 | | | |
| 12518*VA5 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 25,443,941 | 10,178 | 58,521 | 76,332 |
| 12518*VA5 | CN | .3137B2-BB-5 | FHR 4199 VZ Z SEQ 3.5% DUE 05/15/2043 | 1 | 25,068,930 | | | |
| 12518*VF4 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 47,209,518 | 18,884 | 108,582 | 141,629 |
| 12518*VF4 | CN | .3136AL-DZ-1 | FNR 2014-60 LZ Z SEQ 3.5% DUE 10/25/2044 | 1 | 14,524,249 | | | |
| 12518*VF4 | CN | .3136AF-AQ-7 | FNR 2013-79 UZ Z SEQ 3.5% DUE 07/25/2043 | 1 | 31,996,513 | | | |
| 12518*VN7 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 25,311,887 | 10,125 | 58,217 | 75,936 |
| 12518*VN7 | CN | .3136AC-S8-5 | FNR 2013-15 MZ Z SEQ 3.5% DUE 03/25/2043 | 1 | 2,438,668 | | | |
| 12518*VN7 | CN | .3136AC-S8-5 | FNR 2013-15 MZ Z SEQ 3.5% DUE 03/25/2043 | 1 | 22,524,756 | | | |
| 12518*VS6 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 24,646,415 | 9,859 | 56,687 | 73,939 |
| 12518*VS6 | CN | .3136AW-KH-9 | FNR 2017-31 GB PAC 3% DUE 05/25/2047 | 1 | 24,282,888 | | | |
| 12518*VM9 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 24,034,843 | 9,614 | 55,280 | 72,105 |
| 12518*VM9 | CN | .3136AC-W9-8 | FNR 2013-15 LZ SC EXCH Z PAC SEQ 3% DUE 03/25/2043 | 1 | 23,677,446 | | | |
| 12518*VR8 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 26,629,268 | 10,652 | 61,247 | 79,888 |
| 12518*VR8 | CN | .3136A8-AZ-3 | FNR 2012-98 VZ Z SEQ 4% DUE 09/25/2042 | 1 | 26,275,957 | | | |
| 12518*VQ0 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 21,694,906 | 8,678 | 49,898 | 65,085 |
| 12518*VQ0 | CN | .38378U-7W-1 | GNR 2013-170 LB EXCH SEQ 2.5% DUE 11/20/2043 | 1 | 21,338,393 | | | |
| 12518*VL1 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 26,285,576 | 10,514 | 60,457 | 78,857 |
| 12518*VL1 | CN | .3136A6-XD-1 | FNR 2012-56 ZM Z SEQ 4% DUE 06/25/2042 | 1 | 25,926,249 | | | |
| 12518*VG2 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 22,095,581 | 8,838 | 50,820 | 66,287 |
| 12518*VG2 | CN | .3137BD-SR-8 | FHR 4385 HZ Z SEQ 3% DUE 09/15/2044 | 1 | 21,756,734 | | | |
| 12518*VT4 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 27,676,138 | 11,070 | 63,655 | 83,028 |
| 12518*VT4 | CN | .3136A2-CX-9 | FNR 2011-110 EW EXCH AD PAC-11 4.5% DUE 11/25/2041 | 1 | 27,339,340 | | | |
| 12518*VD9 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 22,996,757 | 9,199 | 52,893 | 68,990 |
| 12518*VD9 | CN | .3137BV-XQ-4 | FHR 4661 GZ Z SEQ 3% DUE 02/15/2047 | 1 | 22,662,008 | | | |
| 12518*VP2 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 25,312,215 | 10,125 | 58,218 | 75,937 |
| 12518*VP2 | CN | .3136AD-HQ-5 | FNR 2013-32 ZB Z SEQ 4% DUE 04/25/2043 | 1 | 25,000,000 | | | |
| 12518*VC1 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 25,672,363 | 10,269 | 59,046 | 77,017 |
| 12518*VC1 | CN | .3137AV-3V-7 | FHR 4122 ZJ Z SEQ 3.5% DUE 10/15/2042 | 1 | 25,360,148 | | | |
| 12518*VB3 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 23,776,745 | 9,511 | 54,687 | 71,330 |
| 12518*VB3 | CN | .3136AW-QN-0 | FNR 2017-30 ZG Z SEQ 3% DUE 05/25/2047 | 1 | 23,469,937 | | | |
| 12518*VK3 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 24,910,983 | 9,964 | 57,295 | 74,733 |
| 12518*VK3 | CN | .38378D-DK-8 | GNR 2012-16 ZP Z PAC-11 3.5% DUE 02/20/2042 | 1 | 24,624,677 | | | |
| 12518*VJ6 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 26,984,725 | 10,794 | 62,065 | 80,954 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|-------------|----------------------------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518*VJ6 | CN | 3137BG-FZ-7 | FHR 4440 ZX SC Z PT 4% DUE 01/15/2045 | 1 | 26,708,672 | | | |
| 12518*UZ1 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 26,239,086 | 10,496 | 60,350 | 78,717 |
| 12518*UZ1 | CN | 38377X-GA-4 | GNR 2011-93 PE PAC-1-11 4% DUE 07/20/2041 | 1 | 25,952,780 | | | |
| 12518*WD8 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 24,915,948 | 9,966 | 57,307 | 74,748 |
| 12518*WD8 | CN | 3136A6-R3-0 | FNR 2012-75 CE PAC-11 3% DUE 07/25/2042 | 1 | 24,588,604 | | | |
| 12518*WC0 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 70,181,061 | 28,072 | 161,416 | 210,543 |
| 12518*WC0 | CN | 3136AW-XM-4 | FNR 2017-41 Z Z SEQ 3% DUE 06/25/2047 | 1 | 14,057,888 | | | |
| 12518*WC0 | CN | 3136AK-V5-9 | FNR 2014-55 MZ Z SEQ 3% DUE 09/25/2044 | 1 | 26,751,929 | | | |
| 12518*WC0 | CN | 3136AV-QN-2 | FNR 2017-18 CZ Z SEQ 3% DUE 03/25/2047 | 1 | 28,389,214 | | | |
| 12518*WAA | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 69,725,541 | 27,890 | 160,369 | 209,177 |
| 12518*WAA | CN | 3137B9-FE-0 | FHR 4314 GZ Z SEQ 3% DUE 03/15/2044 | 1 | 29,090,912 | | | |
| 12518*WAA | CN | 3136AK-ZL-0 | FNR 2014-59 ZB Z SEQ 3% DUE 09/25/2044 | 1 | 27,967,660 | | | |
| 12518*WAA | CN | 3837BU-SA-6 | GNR 2013-160 BY EXCH SEQ 2.5% DUE 10/16/2043 | 1 | 11,764,501 | | | |
| 12518*WB2 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 24,067,232 | 9,627 | 55,355 | 72,202 |
| 12518*WB2 | CN | 3136AB-2N-2 | FNR 2013-11 Z Z SEQ 3% DUE 02/25/2043 | 1 | 23,776,908 | | | |
| 12518*VZ0 | R | | CDX.NA.IG29 SR. TRANCHE 7-15% due 12/20/2022 | 1Z | 69,082,056 | 27,633 | 158,889 | 207,246 |
| 12518*VZ0 | CN | 3136AW-QN-0 | FNR 2017-30 ZG Z SEQ 3% DUE 05/25/2047 | 1 | 18,681,429 | | | |
| 12518*VZ0 | CN | 38378P-KX-5 | GNR 2013-188 DZ Z SEQ 2.5% DUE 12/20/2043 | 1 | 38,036,113 | | | |
| 12518*VZ0 | CN | 3837BU-SA-6 | GNR 2013-160 BY EXCH SEQ 2.5% DUE 10/16/2043 | 1 | 11,457,150 | | | |
| 12518*YQ7 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,618,379 | 9,847 | 56,622 | 73,855 |
| 12518*YQ7 | CN | 3137BV-K7-0 | FHR 4660 LA SEQ 3% DUE 02/15/2047 | 1 | 24,224,832 | | | |
| 12518*YR5 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 48,747,375 | 19,499 | 112,119 | 146,242 |
| 12518*YR5 | CN | 3137BV-K7-0 | FHR 4660 LA SEQ 3% DUE 02/15/2047 | 1 | 47,983,727 | | | |
| 12518*YS3 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,297,452 | 10,119 | 58,184 | 75,892 |
| 12518*YS3 | CN | 912810-QK-7 | US TREASURY N/B UNITED STATES TREASURY NO 3.87 3.875% DUE 08/15/2040 | 1 | 24,916,820 | | | |
| 12518*YT1 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,646,164 | 10,258 | 58,986 | 76,938 |
| 12518*YT1 | CN | 3136AV-HM-4 | FNR 2017-4 ZA Z SEQ 3.5% DUE 02/25/2047 | 1 | 25,281,038 | | | |
| 12518*YU8 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 45,904,818 | 18,362 | 105,581 | 137,714 |
| 12518*YU8 | CN | 3136AV-SF-7 | FNR 2017-11 ZE Z SEQ 3% DUE 03/25/2047 | 1 | 45,200,442 | | | |
| 12518*ZY9 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,092,960 | 10,037 | 57,714 | 75,279 |
| 12518*ZY9 | CN | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 24,730,032 | | | |
| 12518*YV6 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 22,571,457 | 9,029 | 51,914 | 67,714 |
| 12518*YV6 | CN | 3137BW-V3-5 | FHR 4663 Z Z SEQ 3% DUE 03/15/2047 | 1 | 22,230,497 | | | |
| 12518*YW4 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 22,571,457 | 9,029 | 51,914 | 67,714 |
| 12518*YW4 | CN | 3137BW-V3-5 | FHR 4663 Z Z SEQ 3% DUE 03/15/2047 | 1 | 22,230,497 | | | |
| 12518*YX2 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,173,498 | 10,069 | 57,899 | 75,520 |
| 12518*YX2 | CN | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 24,838,344 | | | |
| 12518*YY0 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,210,663 | 10,084 | 57,985 | 75,632 |
| 12518*YY0 | CN | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 24,875,509 | | | |
| 12518*YZ7 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,511,116 | 10,204 | 58,676 | 76,533 |
| 12518*YZ7 | CN | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 25,190,320 | | | |
| 12518*ZA1 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,192,497 | 10,077 | 57,943 | 75,577 |
| 12518*ZA1 | CN | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 24,881,274 | | | |
| 12518*ZB9 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,185,476 | 10,074 | 57,927 | 75,556 |
| 12518*ZB9 | CN | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 24,881,274 | | | |
| 12518*ZC7 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,224,254 | 10,090 | 58,016 | 75,673 |
| 12518*ZC7 | CN | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 24,922,447 | | | |
| 12518*ZF0 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,354,999 | 9,342 | 53,717 | 70,065 |
| 12518*ZF0 | CN | 38378W-VN-0 | GNR 2013-124 BZ Z SEQ 3.5% DUE 08/20/2043 | 1 | 23,043,614 | | | |
| 12518*ZE3 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 22,690,176 | 9,076 | 52,187 | 68,071 |
| 12518*ZE3 | CN | 3136AV-H9-3 | FNR 2017-17 ZL Z SEQ 3% DUE 03/25/2047 | 1 | 22,378,792 | | | |
| 12518*ZG8 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,787,751 | 10,315 | 59,312 | 77,363 |
| 12518*ZG8 | CN | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 10,960,622 | | | |
| 12518*ZG8 | CN | 3137BV-K7-0 | FHR 4660 LA SEQ 3% DUE 02/15/2047 | 1 | 14,534,899 | | | |
| 12518*ZD5 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,046,223 | 9,218 | 53,006 | 69,139 |
| 12518*ZD5 | CN | 38378P-G7-7 | GNR 2014-12 AY EXCH SEQ 3% DUE 01/20/2044 | 1 | 22,734,839 | | | |
| 12518*ZH6 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,743,466 | 9,897 | 56,910 | 74,230 |
| 12518*ZH6 | CN | 38377R-KQ-7 | GNR 2010-163 DC EXCH PAC-1-11 4% DUE 12/16/2040 | 1 | 24,420,636 | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|-------------|----------------------------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518*ZJ2 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,751,864 | 9,901 | 56,929 | 74,256 |
| 12518*ZJ2 | ON | 38377R-KQ-7 | GNR 2010-163 DC EXCH PAC-1-11 4% DUE 12/16/2040 | 1 | 24,420,636 | | | |
| 12518*ZZ6 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,820,333 | 10,328 | 59,387 | 77,461 |
| 12518*ZZ6 | ON | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 25,489,105 | | | |
| 12518*ZL7 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 91,304,473 | 36,522 | 210,000 | 273,913 |
| 12518*ZL7 | ON | 3137B1-VG-4 | FHR 4209 VZ Z SEQ 4% DUE 05/15/2043 | 1 | 34,510,567 | | | |
| 12518*ZL7 | ON | 3136AF-FB-5 | FNR 2013-67 VZ Z SEQ 4% DUE 07/25/2043 | 1 | 42,273,253 | | | |
| 12518*ZM5 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 43,827,834 | 17,531 | 100,804 | 131,484 |
| 12518*ZM5 | ON | 38378P-F7-8 | GNR 2014-12 NZ Z SEQ 3% DUE 01/20/2044 | 1 | 43,145,475 | | | |
| 12518*ZK9 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 61,117,132 | 24,447 | 140,569 | 183,351 |
| 12518*ZK9 | ON | 3137AP-EN-6 | FHR 4028 ZA Z SEQ 4% DUE 04/15/2042 | 1 | 51,378,868 | | | |
| 12518*ZP8 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 27,263,398 | 10,905 | 62,706 | 81,790 |
| 12518*ZP8 | ON | 3137A3-HY-8 | FHR 3751 PE PAC-11 4.5% DUE 11/15/2040 | 1 | 26,926,847 | | | |
| 12518*ZN3 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 85,686,207 | 34,274 | 197,078 | 257,059 |
| 12518*ZN3 | ON | 38378C-LR-6 | GNR 2012-13 ZK Z SEQ 3.5% DUE 01/20/2042 | 1 | 32,597,160 | | | |
| 12518*ZN3 | ON | 38378W-VN-0 | GNR 2013-124 BZ Z SEQ 3.5% DUE 08/20/2043 | 1 | 38,538,827 | | | |
| 12518*Z06 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 27,260,995 | 10,904 | 62,700 | 81,783 |
| 12518*Z06 | ON | 3137A3-HY-8 | FHR 3751 PE PAC-11 4.5% DUE 11/15/2040 | 1 | 26,926,847 | | | |
| 12518*ZR4 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 50,674,680 | 20,270 | 116,552 | 152,024 |
| 12518*ZR4 | ON | 38376P-ZK-9 | GNR 2009-116 LN PAC-1-11 5% DUE 12/16/2039 | 1 | 50,035,221 | | | |
| 12518*ZS2 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 47,277,148 | 18,911 | 108,737 | 141,831 |
| 12518*ZS2 | ON | 3136AV-TB-5 | FNR 2017-11 B EXCH SEQ 3% DUE 03/25/2047 | 1 | 46,676,140 | | | |
| 12518*ZU7 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 53,019,531 | 21,208 | 121,945 | 159,059 |
| 12518*ZU7 | ON | 38378P-G7-7 | GNR 2014-12 AY EXCH SEQ 3% DUE 01/20/2044 | 1 | 7,031,712 | | | |
| 12518*ZU7 | ON | 3137B2-P8-7 | FHR 4212 ZX Z SEQ 4% DUE 06/15/2043 | 1 | 45,367,263 | | | |
| 12518*ZV5 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 123,776,408 | 49,511 | 284,686 | 371,329 |
| 12518*ZV5 | ON | 3137B5-YC-1 | FHR 4267 ZY Z SEQ 4.5% DUE 11/15/2043 | 1 | 48,209,390 | | | |
| 12518*ZV5 | ON | 3136A7-V9-0 | FNR 2012-89 Z Z SEQ 4% DUE 08/25/2042 | 1 | 47,491,080 | | | |
| 12518*ZV5 | ON | 3136AV-HM-4 | FNR 2017-4 ZA Z SEQ 3.5% DUE 02/25/2047 | 1 | 8,704,023 | | | |
| 12518*ZT0 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 113,541,119 | 45,416 | 261,145 | 340,623 |
| 12518*ZT0 | ON | 3136AW-F5-1 | FNR 2017-46 ZA Z SEQ 3% DUE 06/25/2047 | 1 | 43,419,900 | | | |
| 12518*ZT0 | ON | 38377J-FB-4 | GNR 2010-109 GN EXCH PAC-1-11 4% DUE 08/20/2040 | 1 | 26,307,229 | | | |
| 12518*ZT0 | ON | 38377J-FB-4 | GNR 2010-109 GN EXCH PAC-1-11 4% DUE 08/20/2040 | 1 | 14,860,165 | | | |
| 12518*ZT0 | ON | 3136AV-H9-3 | FNR 2017-17 ZL Z SEQ 3% DUE 03/25/2047 | 1 | 9,581,910 | | | |
| 12518*ZW3 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 52,501,392 | 21,001 | 120,753 | 157,504 |
| 12518*ZW3 | ON | 3137BB-CR-9 | FHR 4354 GL EXCH SEQ 3.5% DUE 06/15/2044 | 1 | 12,479,328 | | | |
| 12518*ZW3 | ON | 3137AR-WY-8 | FHR 4073 HZ EXCH Z SEQ 4% DUE 07/15/2042 | 1 | 39,366,823 | | | |
| 12518*ZX1 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,601,547 | 9,841 | 56,584 | 73,805 |
| 12518*ZX1 | ON | 3137BB-CR-9 | FHR 4354 GL EXCH SEQ 3.5% DUE 06/15/2044 | 1 | 24,285,967 | | | |
| 12518*A43 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 126,455,519 | 50,582 | 290,848 | 379,367 |
| 12518*A43 | ON | 912810-FP-8 | US TREASURY N/B UNITED STATES TREASURY NO 5.37 5.375% DUE 02/15/2031 | 1 | 58,558,028 | | | |
| 12518*A43 | ON | 912810-QL-5 | US TREASURY N/B UNITED STATES TREASURY NO 4.25 4.25% DUE 11/15/2040 | 1 | 48,490,849 | | | |
| 12518*A42 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 124,004,609 | 49,602 | 285,211 | 372,014 |
| 12518*A42 | ON | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 23,748,110 | | | |
| 12518*A42 | ON | 912810-QT-8 | US TREASURY N/B UNITED STATES TREASURY NO 3.12 3.125% DUE 11/15/2041 | 1 | 37,012,170 | | | |
| 12518*A42 | ON | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 43,842,489 | | | |
| 12518*A59 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 129,272,525 | 51,709 | 297,327 | 387,818 |
| 12518*A59 | ON | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 54,803,111 | | | |
| 12518*A59 | ON | 912810-QS-0 | US TREASURY N/B UNITED STATES TREASURY NO 3.75 3.75% DUE 08/15/2041 | 1 | 55,125,202 | | | |
| 12518*A75 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 26,015,554 | 10,406 | 59,836 | 78,047 |
| 12518*A75 | ON | 3137AP-BW-9 | FHR 4033 ZE Z SEQ 4% DUE 04/15/2042 | 1 | 25,702,382 | | | |
| 12518*A67 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 22,278,528 | 8,911 | 51,241 | 66,836 |
| 12518*A67 | ON | 3137AU-FJ-3 | FHR 4107 HY EXCH PAC-11 3% DUE 09/15/2042 | 1 | 21,965,356 | | | |
| 12518*A83 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,427,928 | 9,771 | 56,184 | 73,284 |
| 12518*A83 | ON | 3137BA-G6-3 | FHR 4323 VZ Z SEQ 4% DUE 04/15/2044 | 1 | 24,119,572 | | | |
| 12518*B41 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,032,639 | 9,213 | 52,975 | 69,098 |
| 12518*B41 | ON | 3137BW-P5-7 | FHR 4666 VZ Z SEQ 3% DUE 03/15/2047 | 1 | 22,748,218 | | | |
| 12518*B25 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 62,891,412 | 25,157 | 144,650 | 188,674 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|-------------|----------------------------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518*B25 | CN | 3136A2-CX-9 | FNR 2011-110 EW EXCH AD PAC-11 4.5% DUE 11/25/2041 | 1 | 41,300,870 | | | |
| 12518*B25 | CN | 3136AP-FS-6 | FNR 2015-44 JL SEQ 3.5% DUE 07/25/2045 | 1 | 11,990,336 | | | |
| 12518*B58 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 59,747,618 | 23,899 | 137,420 | 179,243 |
| 12518*B58 | CN | 3137AR-M2-9 | FHR 4057 ZB Z SEQ 3.5% DUE 06/15/2042 | 1 | 37,542,800 | | | |
| 12518*B58 | CN | 3137BL-2V-9 | FHR 4503 ZA Z SEQ 3.5% DUE 08/15/2045 | 1 | 12,619,028 | | | |
| 12518*B33 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 59,903,462 | 23,961 | 137,778 | 179,710 |
| 12518*B33 | CN | 3136A8-D6-4 | FNR 2012-103 ZC EXCH Z SEQ 3.5% DUE 09/25/2042 | 1 | 37,432,677 | | | |
| 12518*B33 | CN | 38377M-P9-1 | GNR 2010-149 LB AD PAC-11 4.5% DUE 11/16/2040 | 1 | 11,207,448 | | | |
| 12518*B33 | CN | 38377M-P9-1 | GNR 2010-149 LB AD PAC-11 4.5% DUE 11/16/2040 | 1 | 1,663,132 | | | |
| 12518*B66 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,808,522 | 9,923 | 57,060 | 74,426 |
| 12518*B66 | CN | 38377R-BJ-3 | GNR 2010-158 DG PAC-11 4% DUE 12/20/2040 | 1 | 24,507,076 | | | |
| 12518*B82 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 60,444,198 | 24,178 | 139,022 | 181,333 |
| 12518*B82 | CN | 3136A6-N4-2 | FNR 2012-76 ZG Z SEQ 4% DUE 07/25/2042 | 1 | 37,073,567 | | | |
| 12518*B82 | CN | 3136AV-FU-8 | FNR 2017-13 AB PAC-11 3% DUE 02/25/2047 | 1 | 13,731,825 | | | |
| 12518*B74 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 122,323,173 | 48,929 | 281,343 | 366,970 |
| 12518*B74 | CN | 38375G-QP-9 | GNR 2012-94 BZ Z SEQ 3.5% DUE 07/20/2042 | 1 | 37,908,224 | | | |
| 12518*B74 | CN | 3137FE-ZM-5 | FHR 4793 ZK EXCH Z SEQ 4.5% DUE 06/15/2048 | 1 | 38,719,038 | | | |
| 12518*B74 | CN | 3136AV-ST-2 | FNR 2017-20 BP PAC 3.5% DUE 04/25/2047 | 1 | 26,408,684 | | | |
| 12518*C24 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,148,225 | 10,059 | 57,841 | 75,445 |
| 12518*C24 | CN | 38377N-GC-2 | GNR 2010-151 DG PAC-1-11 4% DUE 11/20/2040 | 1 | 24,866,066 | | | |
| 12518*C32 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 116,953,130 | 46,781 | 268,992 | 350,859 |
| 12518*C32 | CN | 3137BT-CW-9 | FHR 4639 AZ Z SEQ 3% DUE 12/15/2046 | 1 | 25,321,961 | | | |
| 12518*C32 | CN | 3137BT-CW-9 | FHR 4639 AZ Z SEQ 3% DUE 12/15/2046 | 1 | 35,852,896 | | | |
| 12518*C32 | CN | 38378C-Z9-1 | GNR 2012-12 NY EXCH PAC-11 3.5% DUE 01/20/2042 | 1 | 36,543,932 | | | |
| 12518*C40 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 60,650,904 | 24,260 | 139,497 | 181,953 |
| 12518*C40 | CN | 3136AJ-PR-1 | FNR 2014-19 ZJ Z SEQ 4.5% DUE 04/25/2044 | 1 | 36,913,253 | | | |
| 12518*C40 | CN | 3136AX-U7-8 | FNR 2017-72 PZ Z PAC 3% DUE 09/25/2047 | 1 | 14,168,561 | | | |
| 12518*C81 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 48,966,661 | 19,587 | 112,623 | 146,900 |
| 12518*C81 | CN | 3136AB-Q2-2 | FNR 2013-6 ZM Z SEQ 3.5% DUE 02/25/2043 | 1 | 25,626,688 | | | |
| 12518*C81 | CN | 3136B0-U6-1 | FNR 2018-9 AL EXCH SC PT 3.5% DUE 12/25/2047 | 1 | 22,765,712 | | | |
| 12518*D23 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 53,319,394 | 21,328 | 122,635 | 159,958 |
| 12518*D23 | CN | 3136AL-EY-3 | FNR 2014-66 VZ Z SEQ 3% DUE 10/25/2044 | 1 | 22,548,928 | | | |
| 12518*D23 | CN | 3137BA-3W-0 | FHR 4329 KZ Z SEQ 3% DUE 04/15/2044 | 1 | 21,152,832 | | | |
| 12518*D49 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 52,205,656 | 20,882 | 120,073 | 156,617 |
| 12518*D49 | CN | 3137BG-Y7-8 | FHR 4447 ZX SC Z PT 4% DUE 01/15/2045 | 1 | 13,296,863 | | | |
| 12518*D49 | CN | 3137BG-Y7-8 | FHR 4447 ZX SC Z PT 4% DUE 01/15/2045 | 1 | 13,448,790 | | | |
| 12518*D49 | CN | 3136AC-P6-2 | FNR 2013-15 VZ Z SEQ 3.5% DUE 03/25/2043 | 1 | 24,943,364 | | | |
| 12518*D31 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 57,158,754 | 22,864 | 131,465 | 171,476 |
| 12518*D31 | CN | 38378W-CM-3 | GNR 2013-122 BM EXCH PAC-1-11 3.5% DUE 08/16/2043 | 1 | 23,913,399 | | | |
| 12518*D31 | CN | 38380C-K7-7 | GNR 2017-26 QL SC SEQ 3% DUE 02/20/2040 | 1 | 23,685,467 | | | |
| 12518*D56 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,655,102 | 9,462 | 54,407 | 70,965 |
| 12518*D56 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 23,367,371 | | | |
| 12518*D64 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 113,106,233 | 45,242 | 260,144 | 339,319 |
| 12518*D64 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 47,540,991 | | | |
| 12518*D64 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 46,314,972 | | | |
| 12518*D72 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,221,223 | 9,288 | 53,409 | 69,664 |
| 12518*D72 | CN | 3137BD-SW-2 | FHR 4378 EZ EXCH Z SEQ 3% DUE 08/15/2044 | 1 | 22,955,108 | | | |
| 12518*D80 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 58,859,179 | 23,544 | 135,376 | 176,578 |
| 12518*D80 | CN | 912810-QK-7 | US TREASURY N/B UNITED STATES TREASURY NO 3.87 3.875% DUE 08/15/2040 | 1 | 49,248,366 | | | |
| 12518*E22 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 73,003,007 | 29,201 | 167,907 | 219,009 |
| 12518*E22 | CN | 912810-FM-5 | US TREASURY N/B UNITED STATES TREASURY NO 6.25 6.25% DUE 05/15/2030 | 1 | 63,401,843 | | | |
| 12518*D98 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 63,099,610 | 25,240 | 145,129 | 189,299 |
| 12518*D98 | CN | 912810-FM-5 | US TREASURY N/B UNITED STATES TREASURY NO 6.25 6.25% DUE 05/15/2030 | 1 | 62,581,890 | | | |
| 12518*E30 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,290,154 | 9,316 | 53,567 | 69,870 |
| 12518*E30 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,972,754 | | | |
| 12518*J43 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,493,912 | 9,398 | 54,036 | 70,482 |
| 12518*J43 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 23,148,604 | | | |
| 12518*E48 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,375,629 | 9,350 | 53,764 | 70,127 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-------------|------|-------------|----------------------------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518*E48 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 23,027,890 | | | |
| 12518*J50 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,319,740 | 9,328 | 53,635 | 69,959 |
| 12518*J50 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,981,725 | | | |
| 12518*J68 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,389,970 | 9,356 | 53,797 | 70,170 |
| 12518*J68 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 23,061,679 | | | |
| 12518*J76 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,102,642 | 9,241 | 53,136 | 69,308 |
| 12518*J76 | CN | 912810-RB-6 | US TREASURY N/B UNITED STATES TREASURY NO 2.87 2.875% DUE 05/15/2043 | 1 | 22,822,386 | | | |
| 12518*J84 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 57,039,953 | 22,816 | 131,192 | 171,120 |
| 12518*J84 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 47,344,473 | | | |
| 12518*J92 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 57,055,611 | 22,822 | 131,228 | 171,167 |
| 12518*J92 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 47,403,895 | | | |
| 12518*K25 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 23,802,399 | 9,521 | 54,746 | 71,407 |
| 12518*K25 | CN | 912810-QY-7 | US TREASURY N/B UNITED STATES TREASURY NO 2.75 2.75% DUE 11/15/2042 | 1 | 23,531,888 | | | |
| 12518*K33 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,211,090 | 10,084 | 57,986 | 75,633 |
| 12518*K33 | CN | 38378G-AF-5 | GNR 2012-134 PM PAC-11 3% DUE 11/20/2042 | 1 | 24,947,750 | | | |
| 12518*K41 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,587,359 | 10,235 | 58,851 | 76,762 |
| 12518*K41 | CN | 3137A3-4Y-2 | FHR 3763 ZW Z PAC-11 4.5% DUE 11/15/2040 | 1 | 25,328,895 | | | |
| 12518*K58 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,849,154 | 9,940 | 57,153 | 74,547 |
| 12518*K58 | CN | 3136A7-FM-9 | FNR 2012-70 HB PAC-11 3% DUE 07/25/2042 | 1 | 24,591,908 | | | |
| 12518*K66 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 60,406,280 | 24,163 | 138,934 | 181,219 |
| 12518*K66 | CN | 3137AP-MM-9 | FHR 4030 PE PAC-1-11 3.5% DUE 04/15/2042 | 1 | 17,568,342 | | | |
| 12518*K66 | CN | 3137AQ-JU-3 | FHR 4050 CZ Z SEQ 4% DUE 05/15/2042 | 1 | 33,254,174 | | | |
| 12518*K74 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 26,561,538 | 10,625 | 61,092 | 79,685 |
| 12518*K74 | CN | 3136A0-DQ-7 | FNR 2011-77 PC PAC-11 4% DUE 08/25/2041 | 1 | 26,329,888 | | | |
| 12518*K82 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 20,549,542 | 8,220 | 47,264 | 61,649 |
| 12518*K82 | CN | 38378U-L2-1 | GNR 2013-144 YM EXCH SEQ 2.5% DUE 10/20/2043 | 1 | 20,359,236 | | | |
| 12518*K90 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 49,666,509 | 19,867 | 114,233 | 149,000 |
| 12518*K90 | CN | 3136AB-YK-3 | FNR 2013-1 ZV Z SEQ 3% DUE 02/25/2043 | 1 | 23,272,694 | | | |
| 12518*K90 | CN | 38377N-MK-7 | GNR 2010-151 KE AD PAC-11 4.25% DUE 11/16/2040 | 1 | 26,027,836 | | | |
| 12518*L24 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 26,479,946 | 10,592 | 60,904 | 79,440 |
| 12518*L24 | CN | 3136A4-3X-5 | FNR 2012-38 ZB Z SEQ 4% DUE 04/25/2042 | 1 | 26,311,592 | | | |
| 12518*L32 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 60,008,731 | 24,003 | 138,020 | 180,026 |
| 12518*L32 | CN | 38376Y-3N-9 | GNR 2010-53 PB PAC-1-11 5% DUE 04/20/2040 | 1 | 46,389,568 | | | |
| 12518*L32 | CN | 38377M-N4-4 | GNR 2010-149 MB AD PAC-11 4.5% DUE 11/16/2040 | 1 | 4,078,987 | | | |
| 12518*L40 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 51,044,717 | 20,418 | 117,403 | 153,134 |
| 12518*L40 | CN | 38377K-LE-8 | GNR 2010-114 NC EXCH PAC-11 4.5% DUE 09/20/2040 | 1 | 8,634,791 | | | |
| 12518*L40 | CN | 38374Y-AT-0 | GNR 2010-93 LP PAC-1-11 4.5% DUE 07/20/2040 | 1 | 35,685,583 | | | |
| 12518*L40 | CN | 3136A5-HH-2 | FNR 2012-31 MN PAC-11 3.5% DUE 04/25/2042 | 1 | 6,492,038 | | | |
| 12518*L65 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,490,057 | 10,196 | 58,627 | 76,470 |
| 12518*L65 | CN | 38377K-LE-8 | GNR 2010-114 NC EXCH PAC-11 4.5% DUE 09/20/2040 | 1 | 25,382,460 | | | |
| 12518*L57 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 60,894,930 | 24,358 | 140,058 | 182,685 |
| 12518*L57 | CN | 38376L-AH-2 | GNR 2010-91 PE PAC-1-11 4.5% DUE 07/20/2040 | 1 | 38,258,653 | | | |
| 12518*L57 | CN | 3136AV-R6-8 | FNR 2017-24 Z Z SEQ 3% DUE 04/25/2047 | 1 | 13,120,196 | | | |
| 12518*L73 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 25,162,935 | 10,065 | 57,875 | 75,489 |
| 12518*L73 | CN | 38376P-4G-2 | GNR 2009-127 PB PAC-1-11 5% DUE 12/20/2039 | 1 | 25,072,450 | | | |
| 12518*L81 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,976,792 | 9,991 | 57,447 | 74,930 |
| 12518*L81 | CN | 3136A5-MB-9 | FNR 2012-35 DB PAC-11 3.5% DUE 04/25/2042 | 1 | 24,896,084 | | | |
| 12518*L99 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 51,073,332 | 20,429 | 117,469 | 153,220 |
| 12518*L99 | CN | 3136A8-V9-8 | FNR 2012-113 EM PAC-11 3% DUE 10/25/2042 | 1 | 25,307,746 | | | |
| 12518*L99 | CN | 3136AF-6F-6 | FNR 2013-90 AZ Z SEQ 4% DUE 09/25/2043 | 1 | 25,643,221 | | | |
| 12518*M23 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,608,878 | 9,844 | 56,600 | 73,827 |
| 12518*M23 | CN | 3137B1-KL-5 | FHR 4194 ZE Z SEQ 4% DUE 04/15/2043 | 1 | 24,547,696 | | | |
| 12518*M31 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 55,997,617 | 22,399 | 128,795 | 167,993 |
| 12518*M31 | CN | 3136AV-TV-1 | FNR 2017-12 TZ Z SEQ 3% DUE 03/25/2047 | 1 | 23,099,798 | | | |
| 12518*M31 | CN | 3136A7-WY-4 | FNR 2012-87 VZ Z SEQ 3% DUE 08/25/2042 | 1 | 23,459,771 | | | |
| 12518*M49 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 74,481,892 | 29,793 | 171,308 | 223,446 |
| 12518*M49 | CN | 3137AV-4E-4 | FHR 4121 AZ Z SEQ 3% DUE 10/15/2042 | 1 | 11,816,441 | | | |
| 12518*M49 | CN | 38377R-NH-4 | GNR 2010-160 PT EXCH PAC-11 4% DUE 12/20/2040 | 1 | 12,796,251 | | | |

ASSET VALUATION RESERVE (Continued)

BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS REPLICATIONS (SYNTHETIC) ASSETS

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------------------------------------------------------|------|-------------|----------------------------------------------------------------------|---------------------------------------------------|----------------|---------------------------|--------------------------|------------------------|
| RSAT Number | Type | CUSIP | Description of Asset(s) | NAIC Designation or Other Description of Asset | Value of Asset | AVR Basic Contribution | AVR Reserve Objective | AVR Maximum Reserve |
| 12518*M49 | CN | 38377R-NH-4 | GNR 2010-160 PT EXCH PAC-11 4% DUE 12/20/2040 | 1 | 49,731,514 | | | |
| 12518*M64 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,812,286 | 9,925 | 57,068 | 74,437 |
| 12518*M64 | CN | 38376T-DV-1 | GNR 2010-2 PZ Z PAC-1 5% DUE 01/20/2040 | 1 | 24,770,544 | | | |
| 12518*M72 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 49,738,188 | 19,895 | 114,398 | 149,215 |
| 12518*M72 | CN | 3136AK-6J-7 | FNR 2014-65 DZ Z SEQ 3.5% DUE 10/25/2044 | 1 | 22,936,471 | | | |
| 12518*M72 | CN | 3137AR-MM-5 | FHR 4068 CE PAC-1-11 3% DUE 06/15/2042 | 1 | 26,718,231 | | | |
| 12518*M56 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 121,973,201 | 48,789 | 280,538 | 365,920 |
| 12518*M56 | CN | 38378E-NB-5 | GNR 2012-66 CY EXCH SEQ 3.5% DUE 05/20/2042 | 1 | 51,499,302 | | | |
| 12518*M56 | CN | 38378E-NB-5 | GNR 2012-66 CY EXCH SEQ 3.5% DUE 05/20/2042 | 1 | 51,499,302 | | | |
| 12518*M80 | R | | CDX.NA.IG31 SR. TRANCHE 7-15% due 12/20/2023 | 1Z | 24,597,801 | 9,839 | 56,575 | 73,793 |
| 12518*M80 | CN | 38376V-3Z-8 | GNR 2010-26 PZ SC Z SEQ 5% DUE 01/20/2040 | 1 | 24,585,503 | | | |
| 12518*M98 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 88,405,503 | 35,362 | 203,333 | 265,217 |
| 12518*M98 | CN | 38377R-V6-9 | GNR 2010-165 PC PAC-1-11 4% DUE 12/20/2040 | 1 | 49,607,817 | | | |
| 12518*M98 | CN | 38377R-V6-9 | GNR 2010-165 PC PAC-1-11 4% DUE 12/20/2040 | 1 | 24,684,287 | | | |
| 12518*N22 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 29,194,140 | 11,678 | 67,147 | 87,582 |
| 12518*N22 | CN | 38376X-S7-9 | GNR 2010-51 WZ Z PAC-1-11 5% DUE 04/20/2040 | 1 | 24,489,674 | | | |
| 12518*N30 | R | | CDX.NA.HY31 SR. TRANCHE 35-100% due 12/20/2023 | 1Z | 60,645,263 | 24,258 | 139,484 | 181,936 |
| 12518*N30 | CN | 38376E-TZ-8 | GNR 2009-110 KA PAC-1-11 5% DUE 11/20/2039 | 1 | 25,242,457 | | | |
| 12518*N30 | CN | 38374Y-WK-5 | GNR 2010-85 NE EXCH PAC-1-11 4.5% DUE 07/20/2040 | 1 | 25,905,555 | | | |
| 723787A*8 | CN | 912810-FP-8 | US TREASURY N/B UNITED STATES TREASURY NO 5.37 5.375% DUE 02/15/2031 | 1 | 5,978,109 | | | |
| 723787A*8 | R | | PIONEER NATURAL RESOURCES 5.875 due 07/15/2016 | 2 | 5,815,030 | 11,049 | 33,727 | 52,335 |
| 0199999. Subtotal Default Component - Other Than Mortgage | | | | | 17,845,592,239 | 3,674,900 | 21,100,872 | 27,531,220 |
| 0599999 - Total | | | | | 17,845,592,239 | 3,674,900 | 21,100,872 | 27,531,220 |

SCHEDULE F

[illegible]

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE H - ACCIDENT AND HEALTH EXHIBIT

| | Total | | Group Accident and Health | | Credit Accident and Health (Group and Individual) | | Collectively Renewable | | Other Individual Contracts | | | | | | | | | |
|------------------------------------------------------------------------------|-------------|------------|------------------------------|--------|---------------------------------------------------------|--------|------------------------|--------|----------------------------|---------|----------------------|---------|------------------------------------------|---------|---------------------|---------|--------------|-----------|
| | | | | | | | | | Non-Cancelable | | Guaranteed Renewable | | Non-Renewable for Stated Reasons Only | | Other Accident Only | | All Other | |
| | 1 Amount | 2 % | 3 Amount | 4 % | 5 Amount | 6 % | 7 Amount | 8 % | 9 Amount | 10 % | 11 Amount | 12 % | 13 Amount | 14 % | 15 Amount | 16 % | 17 Amount | 18 % |
| PART 1. - ANALYSIS OF UNDERWRITING OPERATIONS | | | | | | | | | | | | | | | | | | |
| 1. Premiums written | 1,512 | XXX | | XXX | | XXX | | XXX | | XXX | | XXX | | XXX | | XXX | 1,512 | XXX |
| 2. Premiums earned | 1,512 | XXX | | XXX | | XXX | | XXX | | XXX | | XXX | | XXX | | XXX | 1,512 | XXX |
| 3. Incurred claims | 4,963 | 328.2 | | | | | | | | | | | | | | | 4,963 | 328.2 |
| 4. Cost containment expenses | | | | | | | | | | | | | | | | | | |
| 5. Incurred claims and cost containment expenses (Lines 3 and 4) | 4,963 | 328.2 | | | | | | | | | | | | | | | 4,963 | 328.2 |
| 6. Increase in contract reserves | (6,425) | (424.9) | | | | | | | | | | | | | | | (6,425) | (424.9) |
| 7. Commissions (a) | | | | | | | | | | | | | | | | | | |
| 8. Other general insurance expenses | (229,618) | (15,186.4) | | | | | | | | | (229,618) | | | | | | | |
| 9. Taxes, licenses and fees | 227,461 | 15,043.7 | | | | | | | | | 227,461 | | | | | | | |
| 10. Total other expenses incurred | (2,157) | (142.7) | | | | | | | | | (2,157) | | | | | | | |
| 11. Aggregate write-ins for deductions | | | | | | | | | | | | | | | | | | (60,554.4 |
| | (915,582) | (60,554.4) | | | | | | | | | | | | | | | (915,582)) | |
| 12. Gain from underwriting before dividends or refunds | 920,713 | 60,893.7 | | | | | | | | | 2,157 | | | | | | 918,556 | 60,751.1 |
| 13. Dividends or refunds | | | | | | | | | | | | | | | | | | |
| 14. Gain from underwriting after dividends or refunds | 920,713 | 60,893.7 | | | | | | | | | 2,157 | | | | | | 918,556 | 60,751.1 |
| DETAILS OF WRITE-INS | | | | | | | | | | | | | | | | | | |
| 1101. Sundry receipts | | | | | | | | | | | | | | | | | | (60,554.4 |
| | (915,582) | (60,554.4) | | | | | | | | | | | | | | | (915,582)) | |
| 1102. | | | | | | | | | | | | | | | | | | |
| 1103. | | | | | | | | | | | | | | | | | | |
| 1198. Summary of remaining write-ins for Line 11 from overflow page | | | | | | | | | | | | | | | | | | |
| 1199. Totals (Lines 1101 thru 1103 plus 1198)(Line 11 above) | (915,582) | (60,554.4) | | | | | | | | | | | | | | | (915,582)) | (60,554.4 |

(a) Includes \$ reported as "Contract, membership and other fees retained by agents."

SCHEDULE H - ACCIDENT AND HEALTH EXHIBIT (Continued)

| | 1 | 2 | 3 | 4 | Other Individual Contracts | | | | |
|-------------------------------------------------|---------|------------------------------|------------------------------------------------------------|---------------------------|----------------------------|-------------------------|---------------------------------------------|------------------------|-----------|
| | | | | | 5 | 6 | 7 | 8 | 9 |
| | Total | Group Accident and Health | Credit Accident and Health (Group and Individual) | Collectively Renewable | Non-Cancelable | Guaranteed Renewable | Non-Renewable for Stated Reasons Only | Other Accident Only | All Other |
| PART 2. - RESERVES AND LIABILITIES | | | | | | | | | |
| A. Premium Reserves: | | | | | | | | | |
| 1. Unearned premiums | 316 | | | | | | | | 316 |
| 2. Advance premiums | | | | | | | | | |
| 3. Reserve for rate credits | | | | | | | | | |
| 4. Total premium reserves, current year | 316 | | | | | | | | 316 |
| 5. Total premium reserves, prior year | 316 | | | | | | | | 316 |
| 6. Increase in total premium reserves | | | | | | | | | |
| B. Contract Reserves: | | | | | | | | | |
| 1. Additional reserves (a) | 6,662 | | | | | | | | 6,662 |
| 2. Reserve for future contingent benefits | | | | | | | | | |
| 3. Total contract reserves, current year | 6,662 | | | | | | | | 6,662 |
| 4. Total contract reserves, prior year | 13,087 | | | | | | | | 13,087 |
| 5. Increase in contract reserves | (6,425) | | | | | | | | (6,425) |
| C. Claim Reserves and Liabilities: | | | | | | | | | |
| 1. Total current year | 1,028 | | | | | | | | 1,028 |
| 2. Total prior year | 1,028 | | | | | | | | 1,028 |
| 3. Increase | | | | | | | | | |

| | | | | | | | | | |
|-------------------------------------------------------------------|---------|--|--|--|--|--|--|--|---------|
| PART 3. - TEST OF PRIOR YEAR'S CLAIM RESERVES AND LIABILITIES | | | | | | | | | |
| 1. Claims paid during the year: | | | | | | | | | |
| 1.1 On claims incurred prior to current year | | | | | | | | | |
| 1.2 On claims incurred during current year | 4,963 | | | | | | | | 4,963 |
| 2. Claim reserves and liabilities, December 31, current year: | | | | | | | | | |
| 2.1 On claims incurred prior to current year | | | | | | | | | |
| 2.2 On claims incurred during current year | 1,029 | | | | | | | | 1,029 |
| 3. Test: | | | | | | | | | |
| 3.1 Lines 1.1 and 2.1 | | | | | | | | | |
| 3.2 Claim reserves and liabilities, December 31, prior year | 1,028 | | | | | | | | 1,028 |
| 3.3 Line 3.1 minus Line 3.2 | (1,028) | | | | | | | | (1,028) |

| | | | | | | | | | |
|---------------------------|------------|-------------|--|--|--|------------|--|--|--|
| PART 4. - REINSURANCE | | | | | | | | | |
| A. Reinsurance Assumed: | | | | | | | | | |
| 1. Premiums written | | | | | | | | | |
| 2. Premiums earned | | | | | | | | | |
| 3. Incurred claims | | | | | | | | | |
| 4. Commissions | | | | | | | | | |
| B. Reinsurance Ceded: | | | | | | | | | |
| 1. Premiums written | 12,777,176 | 294,944 | | | | 12,482,232 | | | |
| 2. Premiums earned | 13,001,457 | 291,169 | | | | 12,710,288 | | | |
| 3. Incurred claims | 18,590,626 | (1,424,348) | | | | 20,014,974 | | | |
| 4. Commissions | | | | | | | | | |

(a) Includes \$6,662 premium deficiency reserve.

SCHEDULE H - PART 5 - HEALTH CLAIMS

| | 1 Medical | 2 Dental | 3 Other | 4 Total |
|---------------------------------------------------------|--------------|-------------|-------------|-------------|
| A. Direct: | | | | |
| 1. Incurred Claims | | | 18,595,589 | 18,595,589 |
| 2. Beginning Claim Reserves and Liabilities | | | 199,653,103 | 199,653,103 |
| 3. Ending Claim Reserves and Liabilities | | | 174,884,557 | 174,884,557 |
| 4. Claims Paid | | | 43,364,135 | 43,364,135 |
| B. Assumed Reinsurance: | | | | |
| 5. Incurred Claims..... | | | | |
| 6. Beginning Claim Reserves and Liabilities | | | | |
| 7. Ending Claim Reserves and Liabilities | | | | |
| 8. Claims Paid | | | | |
| C. Ceded Reinsurance: | | | | |
| 9. Incurred Claims..... | | | 18,590,626 | 18,590,626 |
| 10. Beginning Claim Reserves and Liabilities | | | 199,652,074 | 199,652,074 |
| 11. Ending Claim Reserves and Liabilities | | | 174,883,528 | 174,883,528 |
| 12. Claims Paid | | | 43,359,172 | 43,359,172 |
| D. Net: | | | | |
| 13. Incurred Claims..... | | | 4,963 | 4,963 |
| 14. Beginning Claim Reserves and Liabilities | | | 1,029 | 1,029 |
| 15. Ending Claim Reserves and Liabilities | | | 1,029 | 1,029 |
| 16. Claims Paid | | | 4,963 | 4,963 |
| E. Net Incurred Claims and Cost Containment Expenses: | | | | |
| 17. Incurred Claims and Cost Containment Expenses | | | 4,963 | 4,963 |
| 18. Beginning Reserves and Liabilities | | | 1,029 | 1,029 |
| 19. Ending Reserves and Liabilities | | | 1,029 | 1,029 |
| 20. Paid Claims and Cost Containment Expenses | | | 4,963 | 4,963 |

Schedule S - Part 1 - Section 1

N O N E

Schedule S - Part 1 - Section 2

N O N E

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE S - PART 2

Reinsurance Recoverable on Paid and Unpaid Losses Listed by Reinsuring Company as of December 31, Current Year

[illegible]

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE S - PART 3 - SECTION 1

Reinsurance Ceded Life Insurance, Annuities, Deposit Funds and Other Liabilities Without Life or Disability Contingencies, and Related Benefits Listed by Reinsuring Company as of December 31, Current Year

| 1 NAIC Company Code | 2 ID Number | 3 Effective Date | 4 Name of Company | 5 Domi- ciliary Juris- diction | 6 Type of Reinsurance Ceded | 7 Type of Business Ceded | 8 Amount in Force at End of Year | Reserve Credit Taken | | 11 Premiums | Outstanding Surplus Relief | | 14 Modified Coinsurance Reserve | 15 Funds Withheld Under Coinsurance |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------|---------------------------------------------|--------------------------------------------|--------------------------------------|-----------------------------------|----------------------------------------|----------------------|----------------------|-------------------|----------------------------|------------|------------------------------------------|----------------------------------------------|
| | | | | | | | | 9 | 10 | | 12 | 13 | | |
| | | | | | | | | Current Year | Prior Year | | Current Year | Prior Year | | |
| 0399999. Total General Account - Authorized U.S. Affiliates | | | | | | | | | | | | | | |
| 0699999. Total General Account - Authorized Non-U.S. Affiliates | | | | | | | | | | | | | | |
| 0799999. Total General Account - Authorized Affiliates | | | | | | | | | | | | | | |
| ..82627 | ..06-0839705 .. | 01/01/1990 .. | Swiss Re Life and Health America, Inc | MO..... |YRT/I..... |XXXL..... |30,933,500..... |255,641..... |283,300..... |185,677..... | ..... | ..... |  |  |
| 0899999. General Account - Authorized U.S. Non-Affiliates | | | | | | | | 30,933,500 | 255,641 | 283,300 | 185,677 | | | |
| 1099999. Total General Account - Authorized Non-Affiliates | | | | | | | | 30,933,500 | 255,641 | 283,300 | 185,677 | | | |
| 1199999. Total General Account Authorized | | | | | | | | 30,933,500 | 255,641 | 283,300 | 185,677 | | | |
| 1499999. Total General Account - Unauthorized U.S. Affiliates | | | | | | | | | | | | | | |
| 1799999. Total General Account - Unauthorized Non-U.S. Affiliates | | | | | | | | | | | | | | |
| 1899999. Total General Account - Unauthorized Affiliates | | | | | | | | | | | | | | |
| ..69019 | ..93-0242990 .. | 10/01/2002 .. | Standard Insurance Company | OR..... |CO/G..... |OL..... |31,243,988..... |15,295,190..... |17,851,088..... | | | | | |
| 1999999. General Account - Unauthorized U.S. Non-Affiliates | | | | | | | | 31,243,988 | 15,295,190 | 17,851,088 | | | | |
| 2199999. Total General Account - Unauthorized Non-Affiliates | | | | | | | | 31,243,988 | 15,295,190 | 17,851,088 | | | | |
| 2299999. Total General Account Unauthorized | | | | | | | | 31,243,988 | 15,295,190 | 17,851,088 | | | | |
| 2599999. Total General Account - Certified U.S. Affiliates | | | | | | | | | | | | | | |
| 2899999. Total General Account - Certified Non-U.S. Affiliates | | | | | | | | | | | | | | |
| 2999999. Total General Account - Certified Affiliates | | | | | | | | | | | | | | |
| 3299999. Total General Account - Certified Non-Affiliates | | | | | | | | | | | | | | |
| 3399999. Total General Account Certified | | | | | | | | | | | | | | |
| 3499999. Total General Account Authorized, Unauthorized and Certified | | | | | | | | 62,177,488 | 15,550,831 | 18,134,388 | 185,677 | | | |
| 3799999. Total Separate Accounts - Authorized U.S. Affiliates | | | | | | | | | | | | | | |
| 4099999. Total Separate Accounts - Authorized Non-U.S. Affiliates | | | | | | | | | | | | | | |
| 4199999. Total Separate Accounts - Authorized Affiliates | | | | | | | | | | | | | | |
| 4499999. Total Separate Accounts - Authorized Non-Affiliates | | | | | | | | | | | | | | |
| 4599999. Total Separate Accounts Authorized | | | | | | | | | | | | | | |
| 4899999. Total Separate Accounts - Unauthorized U.S. Affiliates | | | | | | | | | | | | | | |
| 5199999. Total Separate Accounts - Unauthorized Non-U.S. Affiliates | | | | | | | | | | | | | | |
| 5299999. Total Separate Accounts - Unauthorized Affiliates | | | | | | | | | | | | | | |
| 5599999. Total Separate Accounts - Unauthorized Non-Affiliates | | | | | | | | | | | | | | |
| 5699999. Total Separate Accounts Unauthorized | | | | | | | | | | | | | | |
| 5999999. Total Separate Accounts - Certified U.S. Affiliates | | | | | | | | | | | | | | |
| 6299999. Total Separate Accounts - Certified Non-U.S. Affiliates | | | | | | | | | | | | | | |
| 6399999. Total Separate Accounts - Certified Affiliates | | | | | | | | | | | | | | |
| 6699999. Total Separate Accounts - Certified Non-Affiliates | | | | | | | | | | | | | | |
| 6799999. Total Separate Accounts Certified | | | | | | | | | | | | | | |
| 6899999. Total Separate Accounts Authorized, Unauthorized and Certified | | | | | | | | | | | | | | |
| 6999999. Total U.S. (Sum of 0399999, 0899999, 1499999, 1999999, 2599999, 3099999, 3799999, 4299999, 4899999, 5399999, 5999999 and 6499999) | | | | | | | | 62,177,488 | 15,550,831 | 18,134,388 | 185,677 | | | |
| 7099999. Total Non-U.S. (Sum of 0699999, 0999999, 1799999, 2099999, 2899999, 3199999, 4099999, 4399999, 5199999, 5499999, 6299999 and 6599999) | | | | | | | | | | | | | | |
| 9999999 - Totals | | | | | | | | 62,177,488 | 15,550,831 | 18,134,388 | 185,677 | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE S - PART 3 - SECTION 2

Reinsurance Ceded Accident and Health Insurance Listed by Reinsuring Company as of December 31, Current Year

| 1 NAIC Company Code | 2 ID Number | 3 Effective Date | 4 Name of Company | 5 Domi- ciliary Juris- diction | 6 Type of Reinsurance Ceded | 7 Type of Business Ceded | 8 Premiums | 9 Unearned Premiums (Estimated) | 10 Reserve Credit Taken Other than for Unearned Premiums | Outstanding Surplus Relief | | 13 Modified Coinsurance Reserve | 14 Funds Withheld Under Coinsurance |
|------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------|----------------------------|--------------------------------------------|--------------------------------------|-----------------------------------|---------------|------------------------------------------|----------------------------------------------------------------------|----------------------------|------------|------------------------------------------|----------------------------------------------|
| | | | | | | | | | | 11 | 12 | | |
| | | | | | | | | | | Current Year | Prior Year | | |
| 0399999. Total General Account - Authorized U.S. Affiliates | | | | | | | | | | | | | |
| 0699999. Total General Account - Authorized Non-U.S. Affiliates | | | | | | | | | | | | | |
| 0799999. Total General Account - Authorized Affiliates | | | | | | | | | | | | | |
| 65978 | 13-5581829 | 05/01/2014 | MetLife, Inc | NY | OTH/I | LTC | 12,710,288 | | 252,041,891 | | | | |
| 65978 | 13-5581829 | 05/01/2014 | MetLife, Inc | NY | OTH/G | LTC | 291,169 | | 4,890,845 | | | | |
| 0899999. General Account - Authorized U.S. Non-Affiliates | | | | | | | 13,001,457 | | 256,932,736 | | | | |
| 1099999. Total General Account - Authorized Non-Affiliates | | | | | | | 13,001,457 | | 256,932,736 | | | | |
| 1199999. Total General Account Authorized | | | | | | | 13,001,457 | | 256,932,736 | | | | |
| 1499999. Total General Account - Unauthorized U.S. Affiliates | | | | | | | | | | | | | |
| 1799999. Total General Account - Unauthorized Non-U.S. Affiliates | | | | | | | | | | | | | |
| 1899999. Total General Account - Unauthorized Affiliates | | | | | | | | | | | | | |
| 69019 | 93-0242990 | 10/01/2002 | Standard Insurance Company | OR | OTH/G | LTDI | | | 101,667,403 | | | | |
| 1999999. General Account - Unauthorized U.S. Non-Affiliates | | | | | | | | | 101,667,403 | | | | |
| 2199999. Total General Account - Unauthorized Non-Affiliates | | | | | | | | | 101,667,403 | | | | |
| 2299999. Total General Account Unauthorized | | | | | | | | | 101,667,403 | | | | |
| 2599999. Total General Account - Certified U.S. Affiliates | | | | | | | | | | | | | |
| 2899999. Total General Account - Certified Non-U.S. Affiliates | | | | | | | | | | | | | |
| 2999999. Total General Account - Certified Affiliates | | | | | | | | | | | | | |
| 3299999. Total General Account - Certified Non-Affiliates | | | | | | | | | | | | | |
| 3399999. Total General Account Certified | | | | | | | | | | | | | |
| 3499999. Total General Account Authorized, Unauthorized and Certified | | | | | | | 13,001,457 | | 358,600,139 | | | | |
| 3799999. Total Separate Accounts - Authorized U.S. Affiliates | | | | | | | | | | | | | |
| 4099999. Total Separate Accounts - Authorized Non-U.S. Affiliates | | | | | | | | | | | | | |
| 4199999. Total Separate Accounts - Authorized Affiliates | | | | | | | | | | | | | |
| 4499999. Total Separate Accounts - Authorized Non-Affiliates | | | | | | | | | | | | | |
| 4599999. Total Separate Accounts Authorized | | | | | | | | | | | | | |
| 4899999. Total Separate Accounts - Unauthorized U.S. Affiliates | | | | | | | | | | | | | |
| 5199999. Total Separate Accounts - Unauthorized Non-U.S. Affiliates | | | | | | | | | | | | | |
| 5299999. Total Separate Accounts - Unauthorized Affiliates | | | | | | | | | | | | | |
| 5599999. Total Separate Accounts - Unauthorized Non-Affiliates | | | | | | | | | | | | | |
| 5699999. Total Separate Accounts Unauthorized | | | | | | | | | | | | | |
| 5999999. Total Separate Accounts - Certified U.S. Affiliates | | | | | | | | | | | | | |
| 6299999. Total Separate Accounts - Certified Non-U.S. Affiliates | | | | | | | | | | | | | |
| 6399999. Total Separate Accounts - Certified Affiliates | | | | | | | | | | | | | |
| 6699999. Total Separate Accounts - Certified Non-Affiliates | | | | | | | | | | | | | |
| 6799999. Total Separate Accounts Certified | | | | | | | | | | | | | |
| 6899999. Total Separate Accounts Authorized, Unauthorized and Certified | | | | | | | | | | | | | |
| 6999999. Total U.S. (Sum of 0399999, 0899999, 1499999, 1999999, 2599999, 3099999, 3799999, 4299999, 4899999, 5399999, 5999999 and 6499999) | | | | | | | 13,001,457 | | 358,600,139 | | | | |
| 7099999. Total Non-U.S. (Sum of 0699999, 0999999, 1799999, 2099999, 2899999, 3199999, 4099999, 4399999, 5199999, 5499999, 6299999 and 6599999) | | | | | | | | | | | | | |
| 9999999 - Totals | | | | | | | 13,001,457 | | 358,600,139 | | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE S - PART 4

Reinsurance Ceded to Unauthorized Companies

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|------------------------------------------------------------------------------------------|--------------|-------------------|----------------------------|-------------------------|-----------------------------------------------------|--------------|-----------------------|----------------------|-------------------------------------------------------------|---------------------|-------------------------------------------------------------|-------|---------------------------------------|---------------------------------------------------------------------|
| NAIC Company Code | ID Number | Effective Date | Name of Reinsurer | Reserve Credit Taken | Paid and Unpaid Losses Recoverable (Debit) | Other Debits | Total (Cols.5+6+7) | Letters of Credit | Issuing or Confirming Bank Reference Number (a) | Trust Agreements | Funds Deposited by and Withheld from Reinsurers | Other | Miscellaneous Balances (Credit) | Sum of Cols. 9+11+12+13 +14 but not in Excess of Col. 8 |
| 0399999. Total General Account - Life and Annuity U.S. Affiliates | | | | | | | | | XXX | | | | | |
| 0699999. Total General Account - Life and Annuity Non-U.S. Affiliates | | | | | | | | | XXX | | | | | |
| 0799999. Total General Account - Life and Annuity Affiliates | | | | | | | | | XXX | | | | | |
| 69019 | 93-0242990 | 10/01/2002 | Standard Insurance Company | 15,295,190 | 17,000 | | 15,312,190 | | | 18,793,240 | | | | 15,312,190 |
| 0899999. General Account - Life and Annuity U.S. Non-Affiliates | | | | 15,295,190 | 17,000 | | 15,312,190 | | XXX | 18,793,240 | | | | 15,312,190 |
| 1099999. Total General Account - Life and Annuity Non-Affiliates | | | | 15,295,190 | 17,000 | | 15,312,190 | | XXX | 18,793,240 | | | | 15,312,190 |
| 1199999. Total General Account Life and Annuity | | | | 15,295,190 | 17,000 | | 15,312,190 | | XXX | 18,793,240 | | | | 15,312,190 |
| 1499999. Total General Account - Accident and Health U.S. Affiliates | | | | | | | | | XXX | | | | | |
| 1799999. Total General Account - Accident and Health Non-U.S. Affiliates | | | | | | | | | XXX | | | | | |
| 1899999. Total General Account - Accident and Health Affiliates | | | | | | | | | XXX | | | | | |
| 69019 | 93-0242990 | 10/01/2002 | Standard Insurance Company | 93,667,403 | 12,500 | | 93,679,903 | | | 114,976,952 | | | | 93,679,903 |
| 1999999. General Account - Accident and Health U.S. Non-Affiliates | | | | 93,667,403 | 12,500 | | 93,679,903 | | XXX | 114,976,952 | | | | 93,679,903 |
| 2199999. Total General Account - Accident and Health Non-Affiliates | | | | 93,667,403 | 12,500 | | 93,679,903 | | XXX | 114,976,952 | | | | 93,679,903 |
| 2299999. Total General Account Accident and Health | | | | 93,667,403 | 12,500 | | 93,679,903 | | XXX | 114,976,952 | | | | 93,679,903 |
| 2399999. Total General Account | | | | 108,962,593 | 29,500 | | 108,992,093 | | XXX | 133,770,192 | | | | 108,992,093 |
| 2699999. Total Separate Accounts - U.S. Affiliates | | | | | | | | | XXX | | | | | |
| 2999999. Total Separate Accounts - Non-U.S. Affiliates | | | | | | | | | XXX | | | | | |
| 3099999. Total Separate Accounts - Affiliates | | | | | | | | | XXX | | | | | |
| 3399999. Total Separate Accounts - Non-Affiliates | | | | | | | | | XXX | | | | | |
| 3499999. Total Separate Accounts | | | | | | | | | XXX | | | | | |
| 3599999. Total U.S. (Sum of 0399999, 0899999, 1499999, 1999999, 2699999 and 3199999) | | | | 108,962,593 | 29,500 | | 108,992,093 | | XXX | 133,770,192 | | | | 108,992,093 |
| 3699999. Total Non-U.S. (Sum of 0699999, 0999999, 1799999, 2099999, 2999999 and 3299999) | | | | | | | | | XXX | | | | | |
| 9999999 - Totals | | | | 108,962,593 | 29,500 | | 108,992,093 | | XXX | 133,770,192 | | | | 108,992,093 |

| | | | | | |
|-----|---------------------------------------------------------|---------------------------------|------------------------------------------------------|---------------------------------|-----------------------------|
| (a) | Issuing or Confirming Bank Reference Number | Letters of Credit Code | American Bankers Association (ABA) Routing Number | Issuing or Confirming Bank Name | Letters of Credit Amount |
| | | | | | |

Schedule S - Part 5

N O N E

Schedule S - Part 5 - Bank Footnote

N O N E

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE S - PART 6

Five Year Exhibit of Reinsurance Ceded Business
(\$000 Omitted)

| | 1 2018 | 2 2017 | 3 2016 | 4 2015 | 5 2014 |
|------------------------------------------------------------------------------------------------------------------|-----------|-----------|-----------|-----------|-----------|
| A. OPERATIONS ITEMS | | | | | |
| 1. Premiums and annuity considerations for life and accident and health contracts | 13,187 | 13,243 | 13,551 | 13,984 | 14,477 |
| 2. Commissions and reinsurance expense allowances | | | | | |
| 3. Contract claims | 44,079 | 45,211 | 45,970 | 44,964 | 49,016 |
| 4. Surrender benefits and withdrawals for life contracts | | | | | |
| 5. Dividends to policyholders | | | | | |
| 6. Reserve adjustments on reinsurance ceded | | | | | |
| 7. Increase in aggregate reserve for life and accident and health contracts | 28,366 | 7,139 | (8,157) | 443 | (11,290) |
| B. BALANCE SHEET ITEMS | | | | | |
| 8. Premiums and annuity considerations for life and accident and health contracts deferred and uncollected | (2) | | (1) | 24 | 62 |
| 9. Aggregate reserves for life and accident and health contracts | 374,151 | 402,517 | 409,656 | 417,812 | 417,370 |
| 10. Liability for deposit-type contracts | | | | | |
| 11. Contract claims unpaid | 30 | 13 | 307 | 21 | 201 |
| 12. Amounts recoverable on reinsurance | | | | | 500 |
| 13. Experience rating refunds due or unpaid | | | | | |
| 14. Policyholders' dividends (not included in Line 10) | | | | | |
| 15. Commissions and reinsurance expense allowances due | | | | | |
| 16. Unauthorized reinsurance offset | | | | | |
| 17. Offset for reinsurance with Certified Reinsurers | | | | | |
| C. UNAUTHORIZED REINSURANCE (DEPOSITS BY AND FUNDS WITHHELD FROM) | | | | | |
| 18. Funds deposited by and withheld from (F) | | | | | |
| 19. Letters of credit (L) | | | | | |
| 20. Trust agreements (T) | 133,770 | 147,045 | 161,043 | 186,830 | 201,584 |
| 21. Other (O) | | | | | |
| D. REINSURANCE WITH CERTIFIED REINSURERS (DEPOSITS BY AND FUNDS WITHHELD FROM) | | | | | |
| 22. Multiple Beneficiary Trust | | | | | |
| 23. Funds deposited by and withheld from (F) | | | | | |
| 24. Letters of credit (L) | | | | | |
| 25. Trust agreements (T) | | | | | |
| 26. Other (O) | | | | | |

SCHEDULE S - PART 7

Restatement of Balance Sheet to Identify Net Credit for Ceded Reinsurance

| | 1 As Reported (net of ceded) | 2 Restatement Adjustments | 3 Restated (gross of ceded) |
|--------------------------------------------------------------------------------------------------------------|------------------------------------|---------------------------------|-----------------------------------|
| ASSETS (Page 2, Col. 3) | | | |
| 1. Cash and invested assets (Line 12) | 260,009,463,051 | | 260,009,463,051 |
| 2. Reinsurance (Line 16) | 2,422,317 | (2,422,317) | |
| 3. Premiums and considerations (Line 15) | 50,703,527 | (2,383) | 50,701,144 |
| 4. Net credit for ceded reinsurance | XXX | 376,605,170 | 376,605,170 |
| 5. All other admitted assets (balance) | 4,935,068,644 | | 4,935,068,644 |
| 6. Total assets excluding Separate Accounts (Line 26) | 264,997,657,539 | 374,180,470 | 265,371,838,009 |
| 7. Separate Account assets (Line 27) | 38,288,611,045 | | 38,288,611,045 |
| 8. Total assets (Line 28) | 303,286,268,584 | 374,180,470 | 303,660,449,054 |
| LIABILITIES, CAPITAL AND SURPLUS (Page 3) | | | |
| 9. Contract reserves (Lines 1 and 2) | 211,345,452,127 | 374,150,970 | 211,719,603,097 |
| 10. Liability for deposit-type contracts (Line 3) | 1,105,189,756 | | 1,105,189,756 |
| 11. Claim reserves (Line 4) | 687,442,069 | 29,500 | 687,471,569 |
| 12. Policyholder dividends/reserves (Lines 5 through 7) | 1,885,171,133 | | 1,885,171,133 |
| 13. Premium & annuity considerations received in advance (Line 8) | 677,950 | | 677,950 |
| 14. Other contract liabilities (Line 9) | 2,152,502,099 | | 2,152,502,099 |
| 15. Reinsurance in unauthorized companies (Line 24.02 minus inset amount) | | | |
| 16. Funds held under reinsurance treaties with unauthorized reinsurers (Line 24.03 minus inset amount) | | | |
| 17. Reinsurance with Certified Reinsurers (Line 24.02 inset amount) | | | |
| 18. Funds held under reinsurance treaties with Certified Reinsurers (Line 24.03 inset amount) | | | |
| 19. All other liabilities (balance) | 9,738,932,679 | | 9,738,932,679 |
| 20. Total liabilities excluding Separate Accounts (Line 26) | 226,915,367,813 | 374,180,470 | 227,289,548,283 |
| 21. Separate Account liabilities (Line 27) | 38,244,597,043 | | 38,244,597,043 |
| 22. Total liabilities (Line 28) | 265,159,964,856 | 374,180,470 | 265,534,145,326 |
| 23. Capital & surplus (Line 38) | 38,126,303,728 | XXX | 38,126,303,728 |
| 24. Total liabilities, capital & surplus (Line 39) | 303,286,268,584 | 374,180,470 | 303,660,449,054 |
| NET CREDIT FOR CEDED REINSURANCE | | | |
| 25. Contract reserves | 374,150,970 | | |
| 26. Claim reserves | 29,500 | | |
| 27. Policyholder dividends/reserves | | | |
| 28. Premium & annuity considerations received in advance | | | |
| 29. Liability for deposit-type contracts | | | |
| 30. Other contract liabilities | | | |
| 31. Reinsurance ceded assets | 2,422,317 | | |
| 32. Other ceded reinsurance recoverables | | | |
| 33. Total ceded reinsurance recoverables | 376,602,787 | | |
| 34. Premiums and considerations | (2,383) | | |
| 35. Reinsurance in unauthorized companies | | | |
| 36. Funds held under reinsurance treaties with unauthorized reinsurers | | | |
| 37. Reinsurance with Certified Reinsurers | | | |
| 38. Funds held under reinsurance treaties with Certified Reinsurers | | | |
| 39. Other ceded reinsurance payables/offsets | | | |
| 40. Total ceded reinsurance payable/offsets | (2,383) | | |
| 41. Total net credit for ceded reinsurance | 376,605,170 | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS (b)

Allocated by States and Territories

| | | | 1 | Direct Business Only | | | | | |
|----------------------|----------------------------------------------------------------------------------------|-----|----------------------|----------------------------|---------------------------|------------|---|----------------|-------------|
| | | | | Life Contracts | | 4 | 5 | 6 | 7 |
| | | | Active Status (a) | 2 | 3 |  |  |  |  | Accident and Health Insurance Premiums, Including Policy, Membership and Other Fees | Other Considerations | Total Columns 2 through 5 | Deposit-Type Contracts |
| States, Etc. | | | | Life Insurance Premiums | Annuity Considerations | | | | |
| 1. | Alabama | AL | L | 2,696,491 | 122,888,469 | 179,796 | | 125,764,757 | 2,168,297 |
| 2. | Alaska | AK | L | 256,181 | 13,865,056 | 9,294 | | 14,130,531 | 916,636 |
| 3. | Arizona | AZ | L | 2,701,830 | 123,276,921 | 195,577 | | 126,174,329 | 4,552,103 |
| 4. | Arkansas | AR | L | 1,631,326 | 88,680,293 | 74,929 | | 90,386,548 | 827,793 |
| 5. | California | CA | L | 17,148,813 | 764,777,920 | 624,942 | | 782,551,675 | 36,903,158 |
| 6. | Colorado | CO | L | 3,570,572 | 257,666,691 | 53,042 | | 261,290,306 | 4,810,038 |
| 7. | Connecticut | CT | L | 5,956,688 | 285,343,257 | 226,992 | | 291,526,937 | 4,611,218 |
| 8. | Delaware | DE | L | 945,460 | 49,010,025 | 38,967 | | 49,994,452 | 732,104 |
| 9. | District of Columbia | DC | L | 1,263,927 | 193,387,751 | 151,376 | | 194,803,055 | 1,843,238 |
| 10. | Florida | FL | L | 7,882,697 | 394,510,714 | 848,780 | | 403,242,191 | 11,575,147 |
| 11. | Georgia | GA | L | 3,935,308 | 240,297,211 | 90,878 | | 244,323,397 | 6,178,201 |
| 12. | Hawaii | HI | L | 1,154,945 | 44,287,930 | 84,702 | | 45,527,577 | 1,955,356 |
| 13. | Idaho | ID | L | 597,118 | 39,947,880 | 46,652 | | 40,591,650 | 3,066,508 |
| 14. | Illinois | IL | L | 9,391,512 | 590,308,169 | 751,461 | | 600,451,142 | 7,297,184 |
| 15. | Indiana | IN | L | 4,115,997 | 207,164,413 | 228,966 | | 211,509,376 | 1,830,432 |
| 16. | Iowa | IA | L | 2,863,335 | 290,615,278 | 158,949 | | 293,637,561 | 645,879 |
| 17. | Kansas | KS | L | 1,565,937 | 130,023,410 | 118,483 | | 131,707,829 | 2,194,766 |
| 18. | Kentucky | KY | L | 2,712,499 | 118,398,212 | 142,343 | | 121,253,054 | 1,598,571 |
| 19. | Louisiana | LA | L | 1,935,028 | 53,176,600 | 63,104 | | 55,174,733 | 2,478,586 |
| 20. | Maine | ME | L | 1,575,979 | 54,550,353 | 134,670 | | 56,261,002 | 1,368,458 |
| 21. | Maryland | MD | L | 9,217,614 | 422,817,088 | 230,193 | | 432,264,895 | 9,247,720 |
| 22. | Massachusetts | MA | L | 14,013,134 | 694,243,771 | 767,908 | | 709,024,813 | 14,360,098 |
| 23. | Michigan | MI | L | 7,509,345 | 770,418,683 | 599,261 | | 778,527,289 | 5,474,643 |
| 24. | Minnesota | MN | L | 2,048,108 | 381,899,556 | 103,570 | | 384,051,234 | 3,219,580 |
| 25. | Mississippi | MS | L | 472,412 | 25,046,742 | 26,331 | | 25,545,486 | 1,041,086 |
| 26. | Missouri | MO | L | 3,111,308 | 185,695,355 | 290,282 | | 189,096,945 | 5,915,255 |
| 27. | Montana | MT | L | 596,310 | 21,847,150 | 9,199 | | 22,452,659 | 334,654 |
| 28. | Nebraska | NE | L | 1,384,632 | 83,314,049 | 45,528 | | 84,744,209 | 1,050,008 |
| 29. | Nevada | NV | L | 1,054,955 | 84,507,795 | 55,765 | | 85,618,515 | 3,830,971 |
| 30. | New Hampshire | NH | L | 2,167,733 | 95,225,182 | 107,476 | | 97,500,392 | 2,009,944 |
| 31. | New Jersey | NJ | L | 13,870,080 | 909,501,539 | 927,989 | | 924,299,608 | 15,103,757 |
| 32. | New Mexico | NM | L | 1,164,277 | 47,242,791 | 96,444 | | 48,503,512 | 3,615,524 |
| 33. | New York | NY | L | 33,598,782 | 3,034,902,664 | 1,595,636 | | 3,070,097,082 | 29,098,358 |
| 34. | North Carolina | NC | L | 7,135,658 | 334,981,473 | 170,832 | | 342,287,962 | 5,072,128 |
| 35. | North Dakota | ND | L | 506,364 | 43,737,424 | 26,819 | | 44,270,606 | 9,646 |
| 36. | Ohio | OH | L | 5,943,856 | 512,248,527 | 331,348 | | 518,523,731 | 8,255,803 |
| 37. | Oklahoma | OK | L | 1,602,038 | 63,859,245 | 110,319 | | 65,571,603 | 4,310,240 |
| 38. | Oregon | OR | L | 1,866,492 | 111,770,497 | 129,027 | | 113,766,017 | 3,793,300 |
| 39. | Pennsylvania | PA | L | 16,630,051 | 938,889,063 | 918,998 | | 956,438,112 | 21,754,618 |
| 40. | Rhode Island | RI | L | 1,752,632 | 98,462,724 | 19,510 | | 100,234,866 | 1,801,184 |
| 41. | South Carolina | SC | L | 2,319,291 | 77,616,065 | 23,751 | | 79,959,107 | 2,261,482 |
| 42. | South Dakota | SD | L | 305,423 | 9,758,452 | 11,400 | | 10,075,276 | 393,730 |
| 43. | Tennessee | TN | L | 4,109,231 | 144,005,834 | 222,108 | | 148,337,173 | 2,070,087 |
| 44. | Texas | TX | L | 7,925,934 | 373,900,359 | 246,929 | | 382,073,223 | 8,874,203 |
| 45. | Utah | UT | L | 1,513,091 | 131,603,987 | 111,337 | | 133,228,415 | 1,061,297 |
| 46. | Vermont | VT | L | 1,309,724 | 71,187,847 | 162,730 | | 72,660,302 | 2,224,687 |
| 47. | Virginia | VA | L | 8,007,598 | 390,126,385 | 594,791 | | 398,728,775 | 9,939,631 |
| 48. | Washington | WA | L | 4,260,798 | 306,204,478 | 381,955 | | 310,847,232 | 11,533,486 |
| 49. | West Virginia | WV | L | 1,304,138 | 95,665,632 | 189,657 | | 97,159,427 | 5,880,636 |
| 50. | Wisconsin | WI | L | 2,974,540 | 133,367,537 | 32,956 | | 136,375,034 | 4,650,248 |
| 51. | Wyoming | WY | L | 368,205 | 25,469,430 | 14,735 | | 25,852,369 | 457,724 |
| 52. | American Samoa | AS | N | | | | | | |
| 53. | Guam | GU | N | | 13,113 | | | 13,113 | |
| 54. | Puerto Rico | PR | L | 167,231 | 12,216,104 | | | 12,383,335 | 1,264,967 |
| 55. | U.S. Virgin Islands | VI | L | 40,562 | 1,888,744 | | | 1,929,307 | |
| 56. | Northern Mariana Islands | MP | N | | | | | | |
| 57. | Canada | CAN | N | 919 | 3,905,225 | | | 3,906,144 | 549,686 |
| 58. | Aggregate Other Alien | OT | XXX | 86,753 | 20,167,050 | | | 20,253,803 | 2,026,471 |
| 59. | Subtotal | XXX | | 234,240,863 | 14,719,884,119 | 12,778,689 | | 14,966,903,671 | 290,040,525 |
| 90. | Reporting entity contributions for employee benefits plans | XXX | | | 77,158,894 | | | 77,158,894 | |
| 91. | Dividends or refunds applied to purchase paid-up additions and annuities | XXX | | | | | | | |
| 92. | Dividends or refunds applied to shorten endowment or premium paying period | XXX | | | | | | | |
| 93. | Premium or annuity considerations waived under disability or other contract provisions | XXX | | 8,861,949 | | | | 8,861,949 | |
| 94. | Aggregate or other amounts not allocable by State | XXX | | | | | | | |
| 95. | Totals (Direct Business) | XXX | | 243,102,812 | 14,797,043,013 | 12,778,689 | | 15,052,924,513 | 290,040,525 |
| 96. | Plus reinsurance assumed | XXX | | | | | | | |
| 97. | Totals (All Business) | XXX | | 243,102,812 | 14,797,043,013 | 12,778,689 | | 15,052,924,513 | 290,040,525 |
| 98. | Less reinsurance ceded | XXX | | 185,677 | | 12,777,177 | | 12,962,854 | |
| 99. | Totals (All Business) less Reinsurance Ceded | XXX | | 242,917,134 | 14,797,043,013 | (c) 1,512 | | 15,039,961,659 | 290,040,525 |
| DETAILS OF WRITE-INS | | | | | | | | | |
| 58001. | ZZZ Other Alien | XXX | | 86,753 | 20,167,050 | | | 20,253,803 | 2,026,471 |
| 58002. | | XXX | | | | | | | |
| 58003. | | XXX | | | | | | | |
| 58998. | Summary of remaining write-ins for Line 58 from overflow page | XXX | | | | | | | |
| 58999. | Totals (Lines 58001 through 58003 plus 58998)(Line 58 above) | XXX | | 86,753 | 20,167,050 | | | 20,253,803 | 2,026,471 |
| 9401. | | XXX | | | | | | | |
| 9402. | | XXX | | | | | | | |
| 9403. | | XXX | | | | | | | |
| 9498. | Summary of remaining write-ins for Line 94 from overflow page | XXX | | | | | | | |
| 9499. | Totals (Lines 9401 through 9403 plus 9498)(Line 94 above) | XXX | | | | | | | |

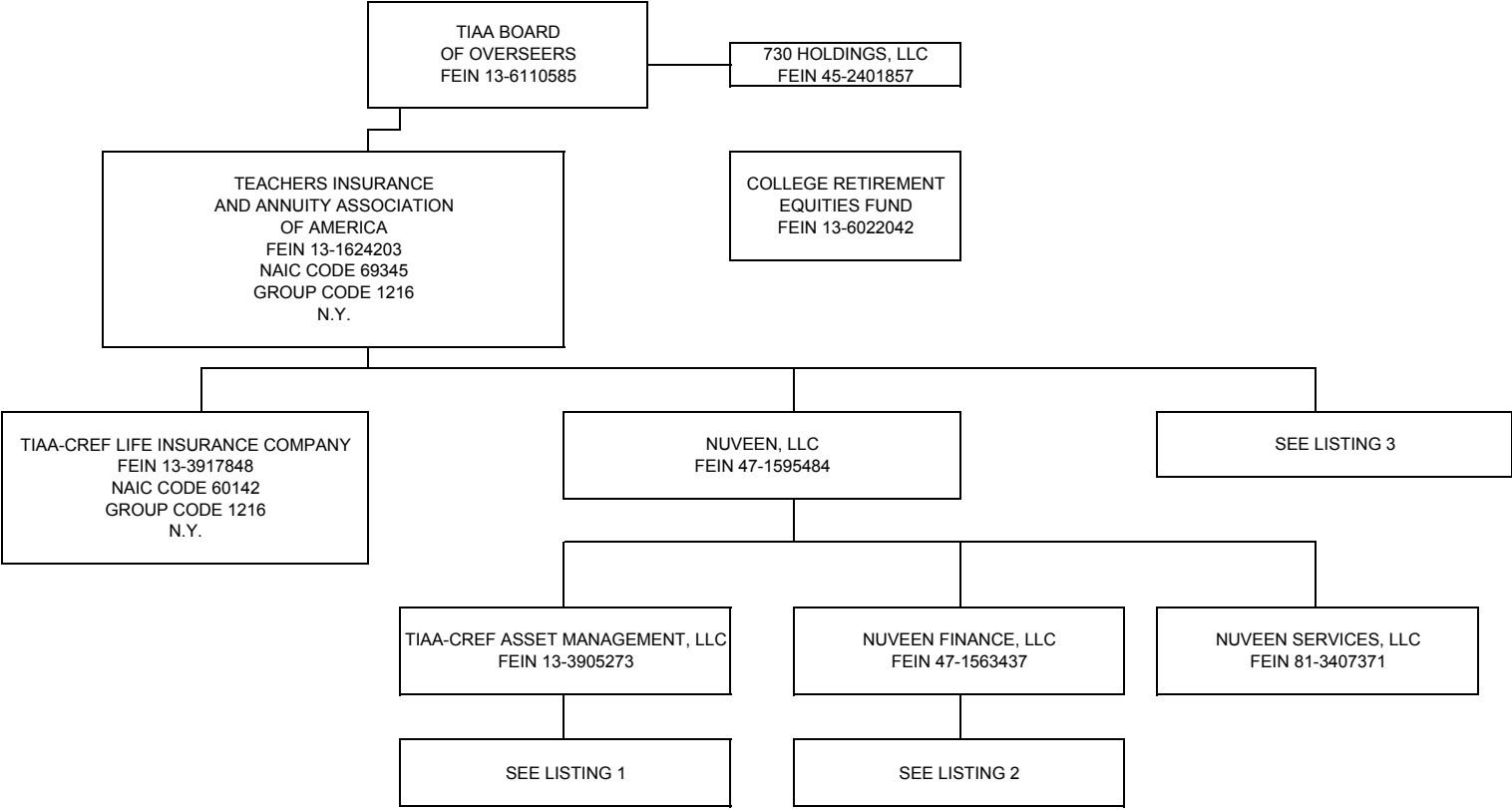
(a) Active Status Counts:
L - Licensed or Chartered - Licensed insurance carrier or domiciled RRG.....53 R - Registered - Non-domiciled RRGs.....
E - Eligible - Reporting entities eligible or approved to write surplus lines in the state..... Q - Qualified - Qualified or accredited reinsurer.....
N - None of the above - Not allowed to write business in the state.....4

(b) Explanation of basis of allocation by states, etc., of premiums and annuity considerations
Ordinary Life Insurance, Individual Accident and Health, and Individual Annuity Premiums allocated by current residence. Group Life Insurance, Group Annuity and Group
Accidental and Health allocated according to location of group contract holder.

(c) Column 4 should balance with Exhibit 1, Lines 6.4, 10.4, and 16.4, Cols. 8, 9, 10, or with Schedule H, Part 1, Line 1, indicate which: Exhibit 1, Lines 6.4, 10.4, and 16.4, Cols. 8, 9, 10.

| ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA | | | | | | | |
|-------------------------------------------------------------------------------------------------|-----|--------------------------------|-------------------------------------|------------------------------------------------|---------------------------------------------|---------------------------|----------------|
| SCHEDULE T - PART 2 | | | | | | | |
| INTERSTATE COMPACT - EXHIBIT OF PREMIUMS WRITTEN | | | | | | | |
| Allocated by States and Territories | | | | | | | |
| | | Direct Business Only | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 |
| States, Etc. | | Life (Group and Individual) | Annuities (Group and Individual) | Disability Income (Group and Individual) | Long-Term Care (Group and Individual) | Deposit-Type Contracts | Totals |
| 1. Alabama | AL | 2,696,491 | 122,888,469 | | 179,796 | 2,168,297 | 127,933,054 |
| 2. Alaska | AK | 256,181 | 13,865,056 | | 9,294 | 916,636 | 15,047,167 |
| 3. Arizona | AZ | 2,701,830 | 123,276,921 | | 195,577 | 4,552,103 | 130,726,432 |
| 4. Arkansas | AR | 1,631,326 | 88,680,293 | | 74,929 | 827,793 | 91,214,341 |
| 5. California | CA | 17,148,813 | 764,777,920 | | 624,178 | 36,903,158 | 819,454,069 |
| 6. Colorado | CO | 3,570,572 | 257,666,691 | | 53,042 | 4,810,038 | 266,100,344 |
| 7. Connecticut | CT | 5,956,688 | 285,343,257 | | 226,992 | 4,611,218 | 296,138,155 |
| 8. Delaware | DE | 945,460 | 49,010,025 | | 38,967 | 732,104 | 50,726,556 |
| 9. District of Columbia | DC | 1,263,927 | 193,387,751 | | 151,376 | 1,843,238 | 196,646,293 |
| 10. Florida | FL | 7,882,697 | 394,510,714 | | 848,780 | 11,575,147 | 414,817,338 |
| 11. Georgia | GA | 3,935,308 | 240,297,211 | | 90,878 | 6,178,201 | 250,501,598 |
| 12. Hawaii | HI | 1,154,945 | 44,287,930 | | 84,702 | 1,955,356 | 47,482,933 |
| 13. Idaho | ID | 597,118 | 39,947,880 | | 46,652 | 3,066,508 | 43,658,158 |
| 14. Illinois | IL | 9,391,512 | 590,308,169 | | 751,461 | 7,297,184 | 607,748,326 |
| 15. Indiana | IN | 4,115,997 | 207,164,413 | | 228,966 | 1,830,432 | 213,339,808 |
| 16. Iowa | IA | 2,863,335 | 290,615,278 | | 158,949 | 645,879 | 294,283,440 |
| 17. Kansas | KS | 1,565,937 | 130,023,410 | | 118,483 | 2,194,766 | 133,902,595 |
| 18. Kentucky | KY | 2,712,499 | 118,398,212 | | 142,343 | 1,598,571 | 122,851,625 |
| 19. Louisiana | LA | 1,935,028 | 53,176,600 | | 63,104 | 2,478,586 | 57,653,319 |
| 20. Maine | ME | 1,575,979 | 54,550,353 | | 134,670 | 1,368,458 | 57,629,460 |
| 21. Maryland | MD | 9,217,614 | 422,817,088 | | 230,193 | 9,247,720 | 441,512,615 |
| 22. Massachusetts | MA | 14,013,134 | 694,243,771 | | 767,908 | 14,360,098 | 723,384,911 |
| 23. Michigan | MI | 7,509,345 | 770,418,683 | | 599,261 | 5,474,643 | 784,001,932 |
| 24. Minnesota | MN | 2,048,108 | 381,899,556 | | 103,570 | 3,219,580 | 387,270,814 |
| 25. Mississippi | MS | 472,412 | 25,046,742 | | 26,331 | 1,041,086 | 26,586,572 |
| 26. Missouri | MO | 3,111,308 | 185,695,355 | | 290,282 | 5,915,255 | 195,012,200 |
| 27. Montana | MT | 596,310 | 21,847,150 | | 9,199 | 334,654 | 22,787,313 |
| 28. Nebraska | NE | 1,384,632 | 83,314,049 | | 45,528 | 1,050,008 | 85,794,217 |
| 29. Nevada | NV | 1,054,955 | 84,507,795 | | 55,765 | 3,830,971 | 89,449,486 |
| 30. New Hampshire | NH | 2,167,733 | 95,225,182 | | 107,476 | 2,009,944 | 99,510,336 |
| 31. New Jersey | NJ | 13,870,080 | 909,501,539 | | 927,989 | 15,103,757 | 939,403,365 |
| 32. New Mexico | NM | 1,164,277 | 47,242,791 | | 96,444 | 3,615,524 | 52,119,036 |
| 33. New York | NY | 33,598,782 | 3,034,902,664 | | 1,594,888 | 29,098,358 | 3,099,194,692 |
| 34. North Carolina | NC | 7,135,658 | 334,981,473 | | 170,832 | 5,072,128 | 347,360,090 |
| 35. North Dakota | ND | 506,364 | 43,737,424 | | 26,819 | 9,646 | 44,280,252 |
| 36. Ohio | OH | 5,943,856 | 512,248,527 | | 331,348 | 8,255,803 | 526,779,534 |
| 37. Oklahoma | OK | 1,602,038 | 63,859,245 | | 110,319 | 4,310,240 | 69,881,843 |
| 38. Oregon | OR | 1,866,492 | 111,770,497 | | 129,027 | 3,793,300 | 117,559,317 |
| 39. Pennsylvania | PA | 16,630,051 | 938,889,063 | | 918,998 | 21,754,618 | 978,192,730 |
| 40. Rhode Island | RI | 1,752,632 | 98,462,724 | | 19,510 | 1,801,184 | 102,036,050 |
| 41. South Carolina | SC | 2,319,291 | 77,616,065 | | 23,751 | 2,261,482 | 82,220,589 |
| 42. South Dakota | SD | 305,423 | 9,758,452 | | 11,400 | 393,730 | 10,469,006 |
| 43. Tennessee | TN | 4,109,231 | 144,005,834 | | 222,108 | 2,070,087 | 150,407,260 |
| 44. Texas | TX | 7,925,934 | 373,900,359 | | 246,929 | 8,874,203 | 390,947,426 |
| 45. Utah | UT | 1,513,091 | 131,603,987 | | 111,337 | 1,061,297 | 134,289,712 |
| 46. Vermont | VT | 1,309,724 | 71,187,847 | | 162,730 | 2,224,687 | 74,884,989 |
| 47. Virginia | VA | 8,007,598 | 390,126,385 | | 594,791 | 9,939,631 | 408,668,406 |
| 48. Washington | WA | 4,260,798 | 306,204,478 | | 381,955 | 11,533,486 | 322,380,718 |
| 49. West Virginia | WV | 1,304,138 | 95,665,632 | | 189,657 | 5,880,636 | 103,040,063 |
| 50. Wisconsin | WI | 2,974,540 | 133,367,537 | | 32,956 | 4,650,248 | 141,025,282 |
| 51. Wyoming | WY | 368,205 | 25,469,430 | | 14,735 | 457,724 | 26,310,093 |
| 52. American Samoa | AS | | | | | | |
| 53. Guam | GU | | 13,113 | | | | 13,113 |
| 54. Puerto Rico | PR | 167,231 | 12,216,104 | | | 1,264,967 | 13,648,302 |
| 55. U.S. Virgin Islands | VI | 40,562 | 1,888,744 | | | | 1,929,307 |
| 56. Northern Mariana Islands | MP | | | | | | |
| 57. Canada | CAN | 919 | 3,905,225 | | | 549,686 | 4,455,830 |
| 58. Aggregate Other Alien | OT | 86,753 | 20,167,050 | | | 2,026,471 | 22,280,274 |
| 59. Total | | 234,240,863 | 14,719,884,119 | | 12,777,177 | 290,040,525 | 15,256,942,684 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA
SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 - ORGANIZATIONAL CHART



ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 - ORGANIZATIONAL CHART

LISTING 1 (TIAA-CREF ASSET MANAGEMENT, LLC):

| COMPANY | FEIN | RELATIONSHIP |
|---------------------------------------------|------------|--------------|
| L&C Special Member Holdco, LLC | 81-1272900 | SUBSIDIARY |
| GTR Special Member Holdco LLC | 46-3889185 | SUBSIDIARY |
| Teachers Personal Investors Services, Inc. | 13-3752992 | SUBSIDIARY |
| TIAA International GP LLC | 81-4374969 | SUBSIDIARY |
| TIAA-CREF Investment Management, LLC | 13-3586142 | SUBSIDIARY |
| Nuveen Alternative Holdings, LLC | 46-3870972 | SUBSIDIARY |
| AGR Partners LLC | 81-1487545 | SUBSIDIARY |
| AGR Services LLC | 36-4853278 | SUBSIDIARY |
| TGAM Agribusiness Fund GP LLC | 81-1870559 | SUBSIDIARY |
| AGR Services LLC | 36-4853278 | SUBSIDIARY |
| Beaver Investments Holdings, LLC | 45-5558395 | SUBSIDIARY |
| GreenWood Resources, Inc. | 80-0026976 | SUBSIDIARY |
| Greenwood Resources Brasil, Ltda. | | SUBSIDIARY |
| GreenWood Resources Capital Management, LLC | 45-1875074 | SUBSIDIARY |
| GTFF GP, LLC | 20-8501127 | SUBSIDIARY |
| GWR-GTFF Investment, LLC | 20-8955976 | SUBSIDIARY |
| GWR International Ltd. | | SUBSIDIARY |
| GWR China Ltd. | 20-3188681 | SUBSIDIARY |
| GreenWood Resources China Ltd. | 98-0595429 | SUBSIDIARY |
| GreenWood Resources Beijing Forestry Co. | 98-0595436 | SUBSIDIARY |
| GWR USA Ltd. | | SUBSIDIARY |
| GreenWood Resources Chile, S.A. | | SUBSIDIARY |
| GWR Europe Ltd. | 98-1016332 | SUBSIDIARY |
| GWR Property Management International, LLC | 47-4557075 | SUBSIDIARY |
| Greenwood Resources Brasil, Ltda. | | SUBSIDIARY |
| GWR Uruguay S.A. | | SUBSIDIARY |
| Greenwood Resources Colombia SAS | | SUBSIDIARY |
| CAM HR Resources LLC | 36-4851864 | SUBSIDIARY |
| Churchill Asset Management LLC | 47-3156644 | SUBSIDIARY |
| CAM HR Resources LLC | 36-4851864 | SUBSIDIARY |
| Churchill Agency Services LLC | 98-1817734 | SUBSIDIARY |
| Churchill Feeder Fund GP II S.a.r.l. | | SUBSIDIARY |
| Churchill Fund GP II LLC | 83-1177850 | SUBSIDIARY |
| Churchill Fund GP II Sarl | 98-1449979 | SUBSIDIARY |
| Churchill Special Member LLC | 82-0735838 | SUBSIDIARY |
| Churchill Warehouse LLC | | SUBSIDIARY |
| TGAM Churchill Fund GP LLC | 81-1817732 | SUBSIDIARY |
| Global AG AIV (CN) GP, LLC | 45-5044435 | SUBSIDIARY |
| Global Agriculture AIV (CN), LP | 45-5044681 | SUBSIDIARY |
| Global Ag II AIV GP LLC | 47-1192644 | SUBSIDIARY |
| Global Agriculture II AIV, LP | 47-1192622 | SUBSIDIARY |
| Global Ag II US Corp. | 47-1208275 | SUBSIDIARY |
| Global Ag Properties II USA LLC | 47-1069783 | SUBSIDIARY |
| Oakville 38 Vineyard, LLC | 81-3394580 | SUBSIDIARY |
| Sugarloaf East Vineyard, LLC | 47-3001338 | SUBSIDIARY |
| True Oak Napa Vineyard, LLC | | SUBSIDIARY |
| GTR Investor Fund GP LLC | 47-1208361 | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|----------------------------------------------|------------|--------------|
| Nuveen Alternative Holdings, LLC (continued) | | |
| Nuveen Alternatives Advisors, LLC | 45-4288013 | SUBSIDIARY |
| TPS Investors GP, LLC | | SUBSIDIARY |
| Nuveen Alternatives Services, LLC | 45-4288091 | SUBSIDIARY |
| GAP II NZ GP Limited | | SUBSIDIARY |
| TIAA European Farmland Fund GP LP | 98-1310748 | SUBSIDIARY |
| TCAS Global Investments LLC | 47-1515836 | SUBSIDIARY |
| Nuveen International Holdings LLC | 26-2719001 | SUBSIDIARY |
| Nuveen Australia Pty Ltd | | SUBSIDIARY |
| Nuveen Investments Canada Co. | | SUBSIDIARY |
| Nuveen Japan Co., Limited | | SUBSIDIARY |
| Nuveen UK, Limited | | SUBSIDIARY |
| TGAM Subsidiary HC LLC | 81-4349631 | SUBSIDIARY |
| TGAM APAC LLC | 81-4290269 | SUBSIDIARY |
| TGAM HK HC LLC | 81-4323796 | SUBSIDIARY |
| Nuveen Hong Kong Limited | | SUBSIDIARY |
| TGAM Asia LLC | 81-4306975 | SUBSIDIARY |
| TGAM HK HC LLC | 81-4323796 | SUBSIDIARY |
| TIAA International APAC LLC | 81-4499397 | SUBSIDIARY |
| TIAA International Asia LLC | 81-4359164 | SUBSIDIARY |
| TGAM HK HC LLC | 81-4323796 | SUBSIDIARY |
| TGAM APAC LLC | 81-4290269 | SUBSIDIARY |
| TGAM Asia LLC | 81-4306975 | SUBSIDIARY |
| TIAA International APAC LLC | 81-4499397 | SUBSIDIARY |
| TIAA International Asia LLC | 81-4359164 | SUBSIDIARY |
| TGAM APAC LLC | 81-4290269 | SUBSIDIARY |
| TGAM Asia LLC | 81-4306975 | SUBSIDIARY |
| TIAA International APAC LLC | 81-4499397 | SUBSIDIARY |
| TCGA BT AIV, LLC | 46-5367344 | SUBSIDIARY |
| TCGA Investor Fund GP, LLC | 45-5139523 | SUBSIDIARY |
| TCGA II Investor Fund GP, LLC | 47-3511076 | SUBSIDIARY |
| T-C U.S. Super Regional Mall Fund GP LLC | 47-3126089 | SUBSIDIARY |
| TH Property Holdings, L.L.C. | 06-1217855 | SUBSIDIARY |
| Casa Grande Investments I, LLC | 06-1384746 | SUBSIDIARY |
| Casa Grande Investments II, LP | 01-0588041 | SUBSIDIARY |
| Casa Partners VI GP, LLC | 30-0794692 | SUBSIDIARY |
| CASA Partners VIII GP, LLC | 82-4363605 | SUBSIDIARY |
| Casa Student Housing Fund GP, LLC | 47-2134971 | SUBSIDIARY |
| Global Investors GP, L.L.C. | 36-4477806 | SUBSIDIARY |
| Global Investors GP II, L.L.C. | 20-2537749 | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|---------------------------------------------------------|------------|--------------|
| Nuveen Alternative Holdings, LLC (continued) | | |
| TH Real Estate Global, LLC | 81-4262460 | SUBSIDIARY |
| TH Real Estate Global Cities Advisors, LLC | 82-3426937 | SUBSIDIARY |
| THRE Global Investments LLC | 26-2748598 | SUBSIDIARY |
| THRE GP Holding Company LLC | 82-2986445 | SUBSIDIARY |
| THRE CRED GP Member LLC | 82-4598778 | SUBSIDIARY |
| CRED GP LLC | 82-3751720 | SUBSIDIARY |
| U.S. Cities Retail Fund GP LLC | 82-4054235 | SUBSIDIARY |
| U.S. Cities Multifamily Fund GP LLC | | SUBSIDIARY |
| Nuveen Carrii Fund LP | | SUBSIDIARY |
| U.S. Cities Multifamily Fund REIT LLC | | SUBSIDIARY |
| U.S. Cities Multifamily Fund Operating GP LLC | | SUBSIDIARY |
| U.S. Cities Multifamily Fund Operating LP | | SUBSIDIARY |
| USCMF Avion on Legacy LLC | 83-2344355 | SUBSIDIARY |
| USCMF Boulder Creek LLC | 83-2434879 | SUBSIDIARY |
| USCMF District at Washington LLC | 83-2486856 | SUBSIDIARY |
| USCMF Gramercy at Buckhead LLC | 83-2447368 | SUBSIDIARY |
| USCMF Marshall Park LLC | 83-2531960 | SUBSIDIARY |
| USCMF Metro 112 LLC | 83-2409099 | SUBSIDIARY |
| USCMF Stoneledge LLC | 83-2422984 | SUBSIDIARY |
| HK 2515243 | 83-2515243 | SUBSIDIARY |
| USCMF The Reserve at Tysons Corner LLC | 83-2459693 | SUBSIDIARY |
| THRE Permian Investor Asset Manager Member LLC | 81-5466713 | SUBSIDIARY |
| THRE Permian Investor GP Member LLC | 82-0607358 | SUBSIDIARY |
| Permian Investor GP LLC | 81-5433582 | SUBSIDIARY |
| TIAA International Holdings 1 Limited | 98-1162850 | SUBSIDIARY |
| Nuveen Real Estate Limited | 98-1125673 | SUBSIDIARY |
| TIAA International Holdings 2 Limited | 98-1163394 | SUBSIDIARY |
| TIAA International Holdings 3 Limited | 98-1163894 | SUBSIDIARY |
| Nuveen Real Estate Limited | 98-1125673 | SUBSIDIARY |
| TH RE AIFM Group Ltd | 98-1128805 | SUBSIDIARY |
| TH RE Administration Ltd | | SUBSIDIARY |
| Henderson European Retail Property Fund Management Sarl | | SUBSIDIARY |
| Nuveen Alternatives Europe S.à.r.l | | SUBSIDIARY |
| Nuveen Asset Management Europe S.à.r.l | | SUBSIDIARY |
| TGAM International GP LLC | 81-4330570 | SUBSIDIARY |
| Nuveen Fund Management (Jersey) Limited | | SUBSIDIARY |
| Nuveen Fund Management Vanquish (Jersey) Limited | | SUBSIDIARY |
| Nuveen Fund Management Vanquish II (Jersey) Limited | | SUBSIDIARY |
| Asia Pacific Cities Management S.à.r.l | | SUBSIDIARY |
| Nuveen Management AIFM Limited | 47-5190671 | SUBSIDIARY |
| Nuveen Management Company (Luxembourg) No 1 S.à.r.l | | SUBSIDIARY |
| Nuveen Property Management (Jersey) Limited | | SUBSIDIARY |
| TH RE FCACO Ltd | 98-1128787 | SUBSIDIARY |
| Nuveen Real Estate Management Ltd | | SUBSIDIARY |
| Global Investors GP IV, L.L.C. | 20-3070768 | SUBSIDIARY |
| TIAA-CREF Asset Management UK Ltd | 98-0582851 | SUBSIDIARY |

- (1) AGR Services LLC is ultimately controlled and owned entirely by TIAA, with 99% owned by AGR Partners LLC and 1% owned by Nuveen Alternative Holdings, LLC.
- (2) Greenwood Resources Brasil, Ltda. is ultimately controlled and owned entirely by TIAA, with 99% owned by GWR Property Management International, LLC and 1% owned by GreenWood Resources, Inc.
- (3) CAM HR Resources LLC is ultimately controlled and owned entirely by TIAA, with 99% owned by Churchill Asset Management LLC and 1% owned by Nuveen Alternative Holdings, LLC.
- (4) TIAA European Farmland Fund GP LP is ultimately controlled and owned entirely by TIAA, with 50% owned by Nuveen Alternative Services, LLC and 50% owned by TEFF Holdco LLC
- (5) TGAM APAC LLC is ultimately controlled and owned entirely by TIAA, with TGAM Subsidiary HC LLC, TIAA International Subsidiary HC LLC and Nuveen International Holdings LLC each owning 33.33%
- (6) TGAM HK HC LLC is ultimately controlled and owned entirely by TIAA, with TGAM APAC LLC, TGAM Asia LLC, TIAA International APAC LLC and TIAA International Asia LLC each owning 25%
- (7) TGAM Asia LLC is ultimately controlled and owned entirely by TIAA, with TGAM Subsidiary HC LLC, TIAA International Subsidiary HC LLC and Nuveen International Holdings LLC each owning 33.33%
- (8) TIAA International APAC LLC is ultimately controlled and owned entirely by TIAA, with TGAM Subsidiary HC LLC, TIAA International Subsidiary HC LLC and Nuveen International Holdings LLC each owning 33.33%
- (9) TIAA International Asia LLC is ultimately controlled and owned entirely by TIAA, with TGAM Subsidiary HC LLC, TIAA International Subsidiary HC LLC and Nuveen International Holdings LLC each owning 33.33%
- (10) Nuveen Real Estate Limited is ultimately controlled and owned entirely by TIAA, with 99% owned by TIAA International Holdings 3, Ltd. and 1% owned by TIAA International Holdings 1, Ltd.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 - ORGANIZATIONAL CHART

LISTING 1 (TIAA-CREF ASSET MANAGEMENT, LLC) (continued):

| COMPANY | FEIN | RELATIONSHIP |
|------------------------------------------------------------------|------------|--------------|
| Nuveen Alternative Holdings, LLC (continued) | | |
| TH RE Group Holdings Ltd | 98-1127632 | SUBSIDIARY |
| AREFM (BVJ) Limited | | AFFILIATE |
| CLOF II (GP) Limited | | SUBSIDIARY |
| CLOF II Vanquish Limited | | SUBSIDIARY |
| CLOF II (No 1 GP) Limited | | SUBSIDIARY |
| CLOF II (No1 Nominee) Limited | | SUBSIDIARY |
| CLOF II (No 2 GP) Limited | | SUBSIDIARY |
| CLOF II (No 3 GP) Limited | 98-1165678 | SUBSIDIARY |
| Enhanced Debt Carry (GP) S.à.r.l | | SUBSIDIARY |
| Enhanced Debt Carry SCSp | | SUBSIDIARY |
| ERES APAC II (GP) S.à.r.l | | SUBSIDIARY |
| European Cities Partnership (GP) S.à.r.l | | SUBSIDIARY |
| European Cities Partnership SCSp | | AFFILIATE |
| Henderson Joint Ventures Property Funds Management S.à.r.l | | SUBSIDIARY |
| Islazul General Partner S.à.r.l | | SUBSIDIARY |
| Matador LP General Partner Limited | | SUBSIDIARY |
| Nuveen Beteiligung Verwaltungs GmbH | | SUBSIDIARY |
| Nuveen Immobilien GmbH | | AFFILIATE |
| Anglo-Sino Henderson Investment Consultancy (Beijing) Co Limited | | SUBSIDIARY |
| Nuveen Consulting (Shanghai) Co Ltd | | SUBSIDIARY |
| Nuveen Management Austria GmbH | | SUBSIDIARY |
| Nuveen Management Finland Oy | | SUBSIDIARY |
| Nuveen Real Estate Debt Partners (GP) Sarl | | SUBSIDIARY |
| Nuveen Real Estate Debt Partners II (GP) S.à.r.l | | SUBSIDIARY |
| Global Real Estate Debt Partners – Fund II (UK) SCSp | | AFFILIATE |
| Nuveen Real Estate Nominees Limited | | SUBSIDIARY |
| Nuveen Singapore Private Limited | | SUBSIDIARY |
| OMP (GP) Limited | | SUBSIDIARY |
| T-C Lux Investments GP S.à.r.l | | SUBSIDIARY |
| TH Real Estate (Australia) Ltd. | | SUBSIDIARY |
| TH Real Estate (France) SAS | | SUBSIDIARY |
| TH Real Estate Limited | | SUBSIDIARY |
| TH Real Estate PELV GP S.à.r.l | | SUBSIDIARY |
| TH RE Corporate Secretarial Services Limited | | SUBSIDIARY |
| TH RE Italy Srl | | SUBSIDIARY |
| TH RE Operations Limited | | SUBSIDIARY |
| TIAA-CREF Luxembourg S.à.r.l | 98-1014834 | SUBSIDIARY |
| Tokyo Multifamily GP PTE Ltd | | SUBSIDIARY |
| UK OM (LP1) (GP) Limited | | SUBSIDIARY |
| UK OM (LP1) Limited | | SUBSIDIARY |
| UK OM (LP2) (GP) Limited | | SUBSIDIARY |
| UK OM (LP2) Limited | | SUBSIDIARY |
| UK OM (LP3) (GP) Limited | | SUBSIDIARY |
| UK OM (LP3) Limited | | SUBSIDIARY |

(11) European Cities Partnership SCSp is owned 29.8% by T-C Lux Investments Special Limited Partnership and 1% by European Cities Partnership (GP) S.a.r.l.

(12) Global Real Estate Debt Partners – Fund II (UK) SCSp is ultimately controlled by TIAA, with 18.75% owned by TIAA and 0.5% owned by Nuveen Real Estate Debt Partners II (GP) S.à.r.l.

(13) U.S. Cities Fund, LP is controlled by TIAA, and partially owned indirectly by ND Properties, Inc., which owns 37.37%, and U.S. Cities Fund GP, LLC, which owns less than .01%.

(14) Westchester Group SRL is controlled and owned entirely by TIAA, with 99% owned by Westchester Group of Europe Ltd. and 1% owned by Westchester Group of Poland Sp. Z.o.o.

(15) Westchester Group South America Gestao de Investimentos Ltda. is controlled and owned entirely by TIAA, with 99% owned by Westchester Group Investment Management, Inc. and 1% owned by Westchester Group Real Estate, Inc.

(16) Symphony Asset Management, LLC is ultimately controlled and owned entirely by TIAA, with 51% owned by Nuveen Investments, Inc. and 49% owned by Nuveen Investments Holdings, Inc.

LISTING 2 (NUVEEN FINANCE, LLC):

| COMPANY | FEIN | RELATIONSHIP |
|----------------------------------------------|------------|--------------|
| Nuveen Holdings 1, Inc. | | |
| Nuveen Holdings 1, Inc. | 81-3425820 | SUBSIDIARY |
| Nuveen Holdings, Inc. | 26-0373324 | SUBSIDIARY |
| Nuveen Investments, Inc. | 36-3817266 | SUBSIDIARY |
| Gresham Asset Management LLC | 26-0627593 | SUBSIDIARY |
| Gresham Investment Management LLC | 20-1930384 | SUBSIDIARY |
| Gresham Investment Management Asia Pte. Ltd. | | SUBSIDIARY |
| Nuveen Alternative Investments, LLC | 36-4839486 | SUBSIDIARY |
| Nuveen Fund Advisors, LLC | 31-0942504 | SUBSIDIARY |
| Nuveen Asset Management, LLC | 27-4357327 | SUBSIDIARY |
| NIS/R&T, Inc. | 36-3293941 | SUBSIDIARY |
| Nuveen WCM Holdings, LLC | 37-1695518 | SUBSIDIARY |
| Winslow Capital Management, LLC | 90-0860898 | SUBSIDIARY |
| Growth Capital GP I, LLC | 81-0730906 | SUBSIDIARY |
| Nuveen NWQ Holdings, LLC | 36-4709028 | SUBSIDIARY |
| NWQ Partners, LLC | 30-0892190 | SUBSIDIARY |
| NWQ Investment Management Company, LLC | 47-0875103 | SUBSIDIARY |
| Nuveen Securities, LLC | 36-2639476 | SUBSIDIARY |
| Santa Barbara Asset Management, LLC | 20-3432117 | SUBSIDIARY |
| Symphony Asset Management LLC | 94-3252504 | SUBSIDIARY |
| Nuveen Investments Holdings, Inc. | 36-7364377 | SUBSIDIARY |
| Symphony Asset Management LLC | 94-3252504 | SUBSIDIARY |
| Symphony Risk Retention Finance LLC | | SUBSIDIARY |
| SRR 1 LLC | 30-1032009 | SUBSIDIARY |
| Colinvest Member LLC | 82-1157427 | SUBSIDIARY |
| CLO Colinvest I LLC | | SUBSIDIARY |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 - ORGANIZATIONAL CHART

LISTING 3:

| COMPANY | FEIN | RELATIONSHIP |
|-----------------------------------------|------------|-----------------|
| 485 Properties, LLC | 13-3987258 | SUBSIDIARY |
| JWL Properties, Inc. | 13-3371278 | SUBSIDIARY |
| T-Investment Properties Corp. | 13-3550737 | SUBSIDIARY |
| TCPC Associates, LLC | 16-1735872 | SUBSIDIARY |
| TIAA Gemini Office, LLC | 20-6218167 | SUBSIDIARY |
| 730 Data Centers, LLC | 81-3091169 | SUBSIDIARY |
| 730 Aviator, LLC | 82-0793232 | SUBSIDIARY |
| 730 Databridge, LLC | 81-3106043 | SUBSIDIARY |
| 730 Power Development, LLC | 47-2616735 | SUBSIDIARY |
| 730 Carroll, LLC | 47-2622825 | SUBSIDIARY |
| 730 Cricket, LLC | | SUBSIDIARY |
| 730 Telecom LLC | 47-5363027 | SUBSIDIARY |
| 730 Texas Forest Holdings, Inc. | 13-4042885 | SUBSIDIARY |
| 730 Texas Timberlands II, Ltd. | 51-0494351 | SUBSIDIARY (17) |
| 730 Texas Timberlands, Ltd. | 13-4042888 | SUBSIDIARY (18) |
| 730 Texas Timberlands II, Ltd. | 51-0494351 | SUBSIDIARY (17) |
| TIAA Timberlands I, LLC | 13-4040842 | SUBSIDIARY |
| 730 Texas Timberlands, Ltd. | 13-4042888 | SUBSIDIARY (18) |
| TIAA Timberlands II, LLC | 13-4085431 | SUBSIDIARY |
| Active Extension Fund III, LLC | 26-1870966 | SUBSIDIARY |
| Actoil, LLC | 38-3847245 | SUBSIDIARY |
| Actoil Colorado, LLC | 46-3373066 | SUBSIDIARY |
| Great Western Petroleum LLC | | AFFILIATE |
| Almond Processors, LLC | 45-2285816 | SUBSIDIARY |
| ASC Holdings, LLC | | AFFILIATE |
| Broadleaf Timberland Investments, LLC | 46-1952974 | SUBSIDIARY |
| Quercus Forestland Account, LLC | 26-4647417 | SUBSIDIARY |
| Quercus Panama, LLC | | SUBSIDIARY |
| Quercus Algoma Corporation | | SUBSIDIARY |
| Quercus Algoma Land Corporation | | SUBSIDIARY |
| Quercus West Virginia, LLC | 81-2450195 | SUBSIDIARY |
| Casa Student Housing Fund, LP | 47-2130842 | SUBSIDIARY |
| Casa Student Housing Fund Holdings, LLC | 47-2167228 | SUBSIDIARY |
| Shf-33d North Apts, LLC | 47-3994280 | SUBSIDIARY |
| Shf-Millennium One Apts, LLC | 47-4155469 | SUBSIDIARY |
| Shf-The Rocks Apts, LLC | | SUBSIDIARY |
| PEP-TH CASA Student Housing, LLC | 47-4455610 | SUBSIDIARY |
| CSHF-PEP Purdue LLC | 47-4455303 | SUBSIDIARY |
| CSHF-PEP USF LLC | 30-0965548 | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|---------------------------------------------------|------------|-----------------|
| CCM Series, LLC | 13-1624203 | SUBSIDIARY |
| CCAP Fund 6 - 2015, L.P. | 47-4069196 | SUBSIDIARY |
| CCAP Fund 6 - 2016, L.P. | 81-1205888 | SUBSIDIARY |
| CCAP Fund 6 - 2017, L.P. | 81-4732595 | SUBSIDIARY |
| CCAP Fund 6 - 2018, L.P. | 82-3167398 | SUBSIDIARY |
| CCAP Fund 6 - 2019, L.P. | 83-2787412 | SUBSIDIARY |
| CCAP Fund 8 - 2015, L.P. | 47-4079472 | SUBSIDIARY |
| CCAP Fund 8 - 2016, L.P. | 81-1212188 | SUBSIDIARY |
| CCAP Fund 8 - 2017, L.P. | 81-3718876 | SUBSIDIARY |
| CCAP Fund 8 - 2018, L.P. | 82-3182368 | SUBSIDIARY |
| CCAP Fund 8 - 2019, L.P. | 83-2793857 | SUBSIDIARY |
| CCAP Fund GE, L.P. | 81-0784669 | SUBSIDIARY |
| CCAP Fund HFD, L.P. | 81-0821374 | SUBSIDIARY |
| CCAP Fund HFND, L.P. | 81-0758188 | SUBSIDIARY |
| CCAP Fund MRA, L.P. | 81-0801804 | SUBSIDIARY |
| CCAP Fund PDS, L.P. | 81-0813037 | SUBSIDIARY |
| CCM Series 2, LLC | 13-1624203 | SUBSIDIARY |
| CCAP Fund FI, L.P. | 81-0753491 | SUBSIDIARY |
| Ceres Agricultural Properties, LLC | 58-2672630 | SUBSIDIARY |
| Premiere Agricultural Properties, LLC | 37-1555322 | SUBSIDIARY |
| Loma del Rio Vineyards, LLC | 80-0843991 | SUBSIDIARY (19) |
| Premiere Columbia Properties, LLC | 36-4620107 | SUBSIDIARY |
| Premiere Farm Properties, LLC | 30-0449681 | SUBSIDIARY |
| Demeter Agricultural Properties II, LLC | 26-3481715 | SUBSIDIARY |
| International Agricultural Investors, LLC | 26-0352203 | SUBSIDIARY |
| IAI Australia Pty., Ltd. | | SUBSIDIARY |
| IAI Australia Trust | | SUBSIDIARY |
| IAI USA, LLC | 26-0460488 | SUBSIDIARY |
| International Agricultural Investors Fund II, LLC | 26-2745365 | SUBSIDIARY |
| IAI Australia Fund II, Pty., Ltd. | | SUBSIDIARY |
| IAI Australia Fund II Trust | | SUBSIDIARY |
| IAI USA Fund II, LLC | 98-2747753 | SUBSIDIARY |
| Churchill Middle Market CLO IV Ltd | 98-1402136 | AFFILIATE |
| Churchill Middle Market Senior Loan Fund, LP | 81-1810508 | SUBSIDIARY |
| Demeter Agricultural Properties, LLC | 26-3049305 | SUBSIDIARY |
| Mansilla Participacoes LTDA | | SUBSIDIARY (20) |
| Dionysus Properties, LLC | 45-2623242 | SUBSIDIARY |
| Silverado Premium Properties, LLC | 94-3306131 | SUBSIDIARY |
| Arroya Loma, LLC | 68-0436609 | SUBSIDIARY |
| Chalk Ridge Vineyard, LLC | 75-3025596 | SUBSIDIARY |
| Hobson Avenue Vineyard, LLC | 20-3964695 | SUBSIDIARY |
| Marsino Vineyard, LLC | 26-1542713 | SUBSIDIARY |
| Silverado Los Alamos Vineyards, LLC | 20-2103733 | SUBSIDIARY |
| Silverado SLO Vineyards, LLC | 20-2490906 | SUBSIDIARY |
| Silverado Sonoma Vineyard, LLC | 20-2103786 | SUBSIDIARY |
| SPP Napa Vineyards, LLC | 68-0466083 | SUBSIDIARY |
| Suscol Mountain Vineyards, LLC | 26-3774024 | SUBSIDIARY |
| Terra Ventosa Vineyards, LLC | 26-2766605 | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|------------------------------------------------------|------------|-----------------|
| Dionysus Properties, LLC (continued) | | |
| Silverado Winegrowers Holdings, LLC | 43-3997217 | SUBSIDIARY |
| Silverado Winegrowers LLC | 68-0443927 | SUBSIDIARY |
| Alta Loma Vineyard, LLC | 94-3357571 | SUBSIDIARY |
| Oak Knoll Napa Vineyards, LLC | 94-3312405 | SUBSIDIARY |
| Silverado Suscol, LLC | 91-1806950 | SUBSIDIARY |
| SWG Paso Vineyard, LLC | 45-4820104 | SUBSIDIARY |
| Distressed Opportunities Fund, L.P. | 26-3561447 | SUBSIDIARY |
| DWM Inclusive Finance Equity Fund II | | AFFILIATE |
| DWM Microfinance Fund I | 98-0580879 | AFFILIATE |
| Enterprise Homes Preservation Fund, LLC | | SUBSIDIARY |
| Envisage Information Systems, LLC | 04-3718449 | SUBSIDIARY |
| EPP LFG I, LLC | 30-0701953 | AFFILIATE |
| Global Real Estate Debt Partners – Fund I (UK) | | SUBSIDIARY (21) |
| Global Real Estate Debt Partners – Fund II (UK) SCSp | | AFFILIATE (12) |
| Gresham CMS Fund, LLC | 20-1930384 | SUBSIDIARY |
| GreshamQuant ACAR Fund LLC | 32-0509812 | SUBSIDIARY |
| Growth Capital Fund I, L.P. | 81-0737062 | SUBSIDIARY |
| Inception GP LLC | | SUBSIDIARY |
| Inception Partners IV, LP | 46-2031403 | AFFILIATE |
| Inception Partners V, LP | 46-2062147 | AFFILIATE |
| Infra Alpha, LLC | 27-4149157 | SUBSIDIARY |
| EMG Investments, LLC | 27-3900641 | AFFILIATE |
| Lewis & Clark Timberlands, LLC | 47-4169877 | SUBSIDIARY |
| L&C Log Co, LLC | 47-4187541 | SUBSIDIARY |
| L&C Tree Farms, LLC | 47-4196668 | SUBSIDIARY |
| L&C TRS LLC | 47-5300478 | SUBSIDIARY |
| Liberty M & R SPV II, LP | 27-2007833 | SUBSIDIARY |
| Mansilla Participacoes LTDA | | SUBSIDIARY (20) |
| Radar Propriedades Agricolas S.A. | | AFFILIATE |
| Nova Amaralina S.A. Propriedades Agricolas | | AFFILIATE |
| Nova Agricola Ponte Alta S.A. | | AFFILIATE |
| Nova Santa Barbara Agricola S.A. | | AFFILIATE |
| Terras da Ponte Alta S.A. | | AFFILIATE |
| Radar II Propriedades Agricolas S.A. | | AFFILIATE |
| Proud Participacoes S.A. | | AFFILIATE |
| Vale De Ponte Alta S.A. | | AFFILIATE |
| Bioinvestments Negocios e Participacoes | | AFFILIATE |
| Aguas de Ponte Alta S.A. | | AFFILIATE |
| MM Funding, LLC | 13-1624203 | SUBSIDIARY |
| MyVest Corporation | 47-0902011 | SUBSIDIARY |

(17) 730 Texas Timberlands II, Ltd. is ultimately controlled and owned entirely by TIAA, which directly owns 99.5%. 730 Texas Forest Holdings, Inc., which is owned 100% by TIAA, owns .5%.

(18) 730 Texas Timberlands, Ltd. is ultimately controlled and owned entirely by TIAA, with 99.5% owned by TIAA Timberlands I, LLC and .5% owned by 730 Texas Forest Holdings, Inc.

(19) Loma del Rio Vineyards, LLC is ultimately controlled and owned entirely by TIAA, with 45% owned by Premiere Agricultural Properties, LLC and 55% owned by Global Ag Properties USA, LLC.

(20) Mansilla Participacoes LTDA is ultimately controlled and owned entirely by TIAA, which directly owns 99.9%. Demeter Agricultural Properties, LLC, which is owned 100% by TIAA, owns 0.1%.

(21) Global Real Estate Debt Partners – Fund I (UK) is controlled by TIAA, which owns 36.3%. T-C Lux Investments Special Limited Partnership, which is 100% owned by TIAA, owns 24.3%.

(12) Global Real Estate Debt Partners – Fund II (UK) SCSp is ultimately controlled by TIAA, with 18.75% owned by TIAA and 0.5% owned by Nuveen Real Estate Debt Partners II (GP) S.à.r.l.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 - ORGANIZATIONAL CHART

LISTING 3 (CONTINUED):

| COMPANY | FEIN | RELATIONSHIP |
|--------------------------------------------|------------|--------------|
| ND Properties, Inc. | 11-3034756 | SUBSIDIARY |
| Norteshopping Retail and Leisure Centre BV | | SUBSIDIARY |
| Norteshopping - Centro Commercial, S.A | | SUBSIDIARY |
| TIAA Stafford-Harrison LLC | 11-3034756 | SUBSIDIARY |
| ND Europe S.a.r.l. | | SUBSIDIARY |
| ND Europe Office Holding S.a.r.l. | | SUBSIDIARY |
| Cityhold Nymphe S.a.r.l. | | SUBSIDIARY |
| Cityhold Propco 11 S.a.r.l. | | SUBSIDIARY |
| Cityhold Euro S.a.r.l. | | SUBSIDIARY |
| Cityhold Office Partnership S.a.r.l. | | SUBSIDIARY |
| CHOP OPCl | | SUBSIDIARY |
| Cityhold Iconic Holding SAS | 98-1435873 | SUBSIDIARY |
| Cityhold Iconic Hotel SNC | 98-1435967 | SUBSIDIARY |
| Cityhold Iconic Office SCI | 98-1433956 | SUBSIDIARY |
| Cityhold Iconic Retail SNC | 98-1433960 | SUBSIDIARY |
| Cityhold Iconic Youth Hostel SNC | 98-1433975 | SUBSIDIARY |
| Cityhold Nymphe S.a.r.l. | | SUBSIDIARY |
| Cityhold Propco 6 S.a.r.l. | | SUBSIDIARY |
| Cityhold Iconic Hotel OPCO SAS | 98-1433939 | SUBSIDIARY |
| Cityhold Iconic Investment S.a.r.l. | 98-1435880 | SUBSIDIARY |
| Cityhold Propco 9 S.a.r.l. | | SUBSIDIARY |
| 36 Rue La Fayette SAS | | SUBSIDIARY |
| SAS Roosevelt | | SUBSIDIARY |
| Roosevelt Participation S.a.r.l. | | SUBSIDIARY |
| SNC Roosevelt | | SUBSIDIARY |
| Courcelles 70 SAS | | SUBSIDIARY |
| Cityhold Euro S.a.r.l. | | SUBSIDIARY |
| Cityhold Propco 7 S.a.r.l. | | SUBSIDIARY |
| Cityhold Propco 10 S.a.r.l. | | SUBSIDIARY |
| Redevelopment Property II B.V. | 98-1436380 | SUBSIDIARY |
| Cityhold Propco 12 S.a.r.l. | | SUBSIDIARY |
| Cityhold EST Investment S.a.r.l. | | SUBSIDIARY |
| Cityhold GC Investment S.a.r.l. | | SUBSIDIARY |
| OVG Cloud S.a.r.l. | | AFFILIATE |
| Cityhold Sterling S.a.r.l. | | SUBSIDIARY |
| Cityhold UK Holding S.a.r.l. | | SUBSIDIARY |
| Cityhold UK Investment S.a.r.l. | | SUBSIDIARY |
| London Belgrave Unit Trust | | SUBSIDIARY |
| New Fetter Lane Unit Trust | | SUBSIDIARY |
| 60 Great Portland Street Unit Trust | | SUBSIDIARY |
| London Belgrave Unit Trust | | SUBSIDIARY |
| CLOF Victoria Nominee 1 Limited | | SUBSIDIARY |
| CLOF Victoria Nominee 2 Limited | | SUBSIDIARY |
| New Fetter Lane Unit Trust | | SUBSIDIARY |
| 60 Great Portland Street Unit Trust | | SUBSIDIARY |

(22) Cityhold Nymphe S.a.r.l. (Nymphe) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.a.r.l., which owns 88% of Nymphe, and 6% owned by wholly-owned ND Europe Office Holding S.a.r.l.

(23) Cityhold Euro S.a.r.l. (CES) is ultimately controlled by TIAA via a 50% ownership of Cityhold Propco 9 S.a.r.l., which owns 88% of CES, and 6% owned by wholly-owned ND Europe Office Holding S.a.r.l.

(24) SNC Roosevelt is ultimately controlled by TIAA via a 50% ownership of Cityhold Propco 9 S.a.r.l., which owns SAS Roosevelt (99.99% of SNC Roosevelt) and Roosevelt Participation S.a.r.l. (0.01%).

(25) London Belgrave Unit Trust (LBUT) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.a.r.l., which owns Cityhold UK Holding S.a.r.l. (99.8% of LBUT) and Cityhold UK Investment S.a.r.l. (0.2%).

(26) New Fetter Lane Unit Trust (NFLUT) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.a.r.l., which owns Cityhold UK Holding S.a.r.l. (99.9% of NFLUT) and Cityhold UK Investment S.a.r.l. (0.1%).

(27) 60 Great Portland Street Unit Trust (60GPS) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.a.r.l., which owns Cityhold UK Holding S.a.r.l. (99.4% of 60GPS) and Cityhold UK Investment S.a.r.l. (0.6%).

(28) 70 St. Mary Axe Unit Trust (SMAUT) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.a.r.l., which owns SMA Holding S.a.r.l. (99.9% of SMAUT) and Cityhold UK Investment S.a.r.l. (0.1%).

(29) Gropius Passagen GmbH & Co KG is controlled by TIAA, and partially owned by Gropius S.a.r.l., which owns 99.8% and TIAA Lux 11 S.a.r.l which owns 0.16%.

(30) Erlangen Arcaden GmbH & Co. KG is controlled by TIAA, and partially owned by TIAA Lux 5 S.a.r.l., which owns 94.9% and Erlangen Arcaden Verwaltungs GmbH which owns 5.1%.

(13) U.S. Cities Fund, LP is controlled by TIAA, and partially owned indirectly by ND Properties, Inc., which owns 37.37%, and U.S. Cities Fund GP, LLC, which owns less than .01%.

(31) 1608 Chestnut Partners LP is ultimately controlled by TIAA, with 99% owned by T-C 1608 Chestnut Limited Partner LLC and 1% owned by T-C 1608 Chestnut General Partner LLC.

| COMPANY | FEIN | RELATIONSHIP |
|----------------------------------------------|------------|--------------|
| ND Properties, Inc. (continued) | | |
| SMA Holding S.a.r.l. | | SUBSIDIARY |
| 70 St Mary Axe Unit Trust | | SUBSIDIARY |
| HV Properties S.a.r.l. | | SUBSIDIARY |
| HV Freehold S.a.r.l. | | SUBSIDIARY |
| TIAA Lux 9 S.a.r.l | | SUBSIDIARY |
| SAS Malachite | | SUBSIDIARY |
| SNC Garnet-TIAA | | SUBSIDIARY |
| SNC La Defense | | SUBSIDIARY |
| SNC Peridot | | SUBSIDIARY |
| T-C Neuperlach Development S.a.r.l. | | SUBSIDIARY |
| T-C Pep Holding S.a.r.l. | | SUBSIDIARY |
| T-C Pep Property S.a.r.l. | | SUBSIDIARY |
| T-C Pep Asset S.a.r.l. | | SUBSIDIARY |
| TIAA Lux 11 S.a.r.l | | SUBSIDIARY |
| Gropius Passagen Verwaltungs GmbH | | SUBSIDIARY |
| Gropius Passagen GmbH & Co KG | | SUBSIDIARY |
| Gropius S.a.r.l | | SUBSIDIARY |
| Gropius Passagen GmbH & Co KG | | SUBSIDIARY |
| TIAA Lux 5 S.a.r.l. | | SUBSIDIARY |
| Erlangen Arcaden GmbH & Co. KG | | SUBSIDIARY |
| Erlangen Arcaden Verwaltungs GmbH | | SUBSIDIARY |
| SNC Roosevelt | | SUBSIDIARY |
| U.S. Cities Fund, LP | 20-1371171 | SUBSIDIARY |
| U.S. Cities Fund REIT, LLC | 20-1371379 | SUBSIDIARY |
| T-C Coronado LLC | 61-2193218 | SUBSIDIARY |
| T-C Ocean Air, LLC | 47-4841790 | SUBSIDIARY |
| U.S. Cities Fund Operating GP, LLC | 20-1364650 | SUBSIDIARY |
| U.S. Cities Fund Operating, LP | 20-1371235 | SUBSIDIARY |
| T-C 40 Broad Street LLC | 45-3755756 | SUBSIDIARY |
| T-C Cypress Park West LLC | 29-1963113 | SUBSIDIARY |
| T-C Ellington LLC | 45-2612359 | SUBSIDIARY |
| T-C Falls Center Townhouses LLC | 46-5061808 | SUBSIDIARY |
| T-C King Street Station LLC | 26-1700245 | SUBSIDIARY |
| T-C Newbury Common LLC | 27-3768906 | SUBSIDIARY |
| T-C Park 19 LLC | 47-2474310 | SUBSIDIARY |
| T-C Xavier Street Flats LLC | 47-2532161 | SUBSIDIARY |
| T-C State House on Congress Apartments LLC | 27-4180357 | SUBSIDIARY |
| T-C Stonecrest LLC | 14-2005711 | SUBSIDIARY |
| TCPF 300 SW 27 LLC | 81-3629374 | SUBSIDIARY |
| U.S. Cities Industrial Fund LP | 81-3738136 | SUBSIDIARY |
| U.S. Cities Industrial Fund REIT LLC | 81-3681230 | SUBSIDIARY |
| U.S. Cities Industrial Fund Operating GP LLC | 81-3671343 | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|-----------------------------------------------|------------|--------------|
| ND Properties, Inc. (continued) | | |
| U.S. Cities Industrial Fund Operating LP | 81-3757117 | SUBSIDIARY |
| T-C Business Parkway LLC | 30-0977024 | SUBSIDIARY |
| T-C Gorman Road LLC | 37-1853906 | SUBSIDIARY |
| T-C Hermosa Avenue LLC | 36-4863777 | SUBSIDIARY |
| T-C Lakewood Corporate Center LLC | 35-2589556 | SUBSIDIARY |
| T-C Miraloma Avenue LLC | | SUBSIDIARY |
| U.S. Cities Multifamily CPF Fund LP | 81-3765537 | SUBSIDIARY |
| U.S. Cities Multifamily CPF Fund REIT LLC | 81-3870674 | SUBSIDIARY |
| U.S. Cities Multifamily CPF Fund Operating LP | 81-3794611 | SUBSIDIARY |
| U.S. Cities Office Fund LP | 81-3814378 | SUBSIDIARY |
| U.S. Cities Office Fund REIT LLC | 81-3911937 | SUBSIDIARY |
| U.S. Cities Office Fund Operating GP LLC | 81-3881522 | SUBSIDIARY |
| U.S. Cities Office Fund Operating LP | 81-3839479 | SUBSIDIARY |
| T-C 2500 Wilson Boulevard LLC | 38-4031444 | SUBSIDIARY |
| T-C Ridgepointe Corporate Center LLC | 30-0977037 | SUBSIDIARY |
| T-C Township 14 LLC | 38-4031398 | SUBSIDIARY |
| T-C World Trade Center North LLC | 35-2589573 | SUBSIDIARY |
| U.S. Cities Retail CPF Fund LP | 81-3437405 | SUBSIDIARY |
| U.S. Cities Retail CPF Fund REIT LLC | 81-3573421 | SUBSIDIARY |
| CPF/UIR Joint Venture TRS LLC | 81-3925904 | SUBSIDIARY |
| U.S. Cities Retail CPF Fund Operating GP LLC | 81-3578259 | SUBSIDIARY |
| CPF/UIR JV Member LLC | 81-2914954 | SUBSIDIARY |
| CPF/UIR Joint Venture LLC | 81-2928112 | SUBSIDIARY |
| CPF 636 Sixth Avenue LLC | 81-2955427 | SUBSIDIARY |
| T-C 636 Sixth Avenue Retail LLC | 47-2264739 | SUBSIDIARY |
| CPF 856 Market Street LLC | 81-2982618 | SUBSIDIARY |
| CPF 1511 Third Avenue LLC | 81-2973332 | SUBSIDIARY |
| T-C 1608 Chestnut General Partner LLC | | SUBSIDIARY |
| T-C 1608 Chestnut Limited Partner LLC | | SUBSIDIARY |
| 1608 Chestnut Partners LP | | SUBSIDIARY |
| T-C Potomac Promenade LLC | 27-4116676 | SUBSIDIARY |
| T-C Roosevelt Square LLC | 26-1963207 | SUBSIDIARY |
| TCAM Core Prop Fund REIT 2 LLC | 47-4935916 | SUBSIDIARY |
| T-C 51 Sleeper Street LLC | 47-4016470 | SUBSIDIARY |
| Occator Agricultural Properties, LLC | 26-4750562 | SUBSIDIARY |
| AGR Agricultural Investments, LLC | 46-1768969 | SUBSIDIARY |
| Ridley Corporation Limited | | AFFILIATE |
| Mandala Food Co-Investment Holdings II SPV | 45-2892182 | SUBSIDIARY |
| Materra, LLC | 45-1125143 | AFFILIATE |
| Teays River Investments, LLC | 26-4621336 | AFFILIATE |
| Oleum Holding Company, Inc. | 26-4248579 | SUBSIDIARY |
| Polar Star Canadian Oil and Gas Holding, Inc. | | SUBSIDIARY |
| Nova Star Oil and Gas Inc. | | SUBSIDIARY |
| Polar Star Canadian Oil and Gas, Inc. | | SUBSIDIARY |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 - ORGANIZATIONAL CHART

LISTING 3 (CONTINUED):

| COMPANY | FEIN | RELATIONSHIP |
|------------------------------------------------------|------------|--------------|
| Pinnacle Third Avenue, LP | 26-3821015 | AFFILIATE |
| Primary Residential Individual Mortgage Entity Trust | 61-6646836 | SUBSIDIARY |
| Renewable Timber Europe, LLC | 45-2792614 | SUBSIDIARY |
| Renewable Timber Netherlands B.V. | | SUBSIDIARY |
| Topola Lasy Spolka z o.o. | | SUBSIDIARY |
| Renewable Timber Resources, LLC | 61-1640765 | SUBSIDIARY |
| Forestal y Agrícola Silvologica Chile Limitada | | SUBSIDIARY |
| RT Tri-State LLC | 11-3564797 | AFFILIATE |
| Siguler Guff Third Avenue, L.P. | 03-0543113 | SUBSIDIARY |
| Social Infra, LLC | | SUBSIDIARY |
| T-C 20 Hunter Street (AUS) Pty Ltd | | SUBSIDIARY |
| T-C 20 Hunter Street (US), LLC | 46-3922951 | SUBSIDIARY |
| T-C 400 Montgomery, LLC | 81-2525521 | SUBSIDIARY |
| 400 Montgomery Investors, LLC | | SUBSIDIARY |
| T-C 685 Third Avenue Member, LLC | 27-4123754 | SUBSIDIARY |
| T-C 685 Third Avenue Venture, LLC | 27-3835063 | SUBSIDIARY |
| T-C 685 Third Avenue, LLC | 27-3095569 | SUBSIDIARY |
| T-C 685 Third Avenue Mezzanine LLC | 47-2986461 | SUBSIDIARY |
| T-C 685 Third Avenue Owner LLC | 61-1754745 | SUBSIDIARY |
| T-C 699 Bourke Street LLC | 46-4969690 | SUBSIDIARY |
| T-C Australia RE Holdings I, LLC | 81-2490530 | SUBSIDIARY |
| T-C Australia RE Holdings II, LLC | 81-2506975 | SUBSIDIARY |
| TIAA Australia Real Estate Trust | | SUBSIDIARY |
| T-C 20 Hunter Street (AUS) Trust | | SUBSIDIARY |
| TIAA Melbourne Retail Holding 1 Trust | | SUBSIDIARY |
| TGA Miller Street Trust | | SUBSIDIARY |
| TIAA Melbourne Retail Holding 1 Trust | | SUBSIDIARY |
| TIAA Melbourne Retail Asset 1 Trust | | SUBSIDIARY |
| T-C Europe Holding Inc. | 47-2363168 | SUBSIDIARY |
| T-C Europe LP | 47-2369576 | SUBSIDIARY |
| T-C Europe LP | 47-2369576 | SUBSIDIARY |
| T-C Europe S.à r.l. | | SUBSIDIARY |
| Nightingale LuxCo S.à r.l. | | SUBSIDIARY |
| T-C Nordics Investment AB | | SUBSIDIARY |
| Sweden Nova Lund 1 AB | | SUBSIDIARY |
| Sweden Nova Lund 2 AB | | SUBSIDIARY |
| T-C Luxembourg Neptune Holdings S.à r.l. | | SUBSIDIARY |
| T-C Neptune Holdings S. à r.l. | | SUBSIDIARY |
| Neptune Property Venture S.à r.l. | | SUBSIDIARY |
| Neptune Polish Property Venture BV | | SUBSIDIARY |
| Neptune Krakow SP. z o.o. | | SUBSIDIARY |
| Neptune Annapol SP. z o.o. | | SUBSIDIARY |
| Neptune Poznan SP. z o.o. | | SUBSIDIARY |
| Neptune Property Holding S.à r.l. | 81-2490530 | SUBSIDIARY |
| Nemab Sugar City B.V. | | SUBSIDIARY |
| Neptune Holding Spain, S.L. | | SUBSIDIARY |
| Pronciat Alternativa S.L. | | SUBSIDIARY |
| Neptune OPCl SAS | | SUBSIDIARY |
| Roppenheim Holding SAS | | SUBSIDIARY |
| Roppenheim Outlet SNC | | SUBSIDIARY |
| Neptune Polish HoldCo 2 B.V. | | SUBSIDIARY |
| Neptune Ursus SP. z o.o. | | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|------------------------------------------|------------|--------------|
| T-C Europe, LP (continued) | | |
| Neptune Roppenheim Holding S.à r.l. | | SUBSIDIARY |
| Roppenheim Outlet SNC | | SUBSIDIARY |
| Neptune Vicolungo I S.r.l. | | SUBSIDIARY |
| Castel Gueffo I SRL | | SUBSIDIARY |
| Neptune Madrid Holdco S.L. | | SUBSIDIARY |
| Nevis Getafe S.L. | | SUBSIDIARY |
| Neptune Getafe Propco S.L. | | SUBSIDIARY |
| Neptune Las Rozas Outlet S.L. | | SUBSIDIARY |
| Neptune San Sebastian Outlet S.L. | | SUBSIDIARY |
| T-C GA Real Estate Holdings, LLC | 45-2877772 | SUBSIDIARY |
| 8 Spruce Street GA Investor, LLC | 46-0959792 | SUBSIDIARY |
| FC 8 Spruce Holdings, LLC | 46-1403221 | AFFILIATE |
| FC 8 Spruce Street Residential, LLC | | AFFILIATE |
| Nuveen Global Cities REIT, Inc. | 82-1419222 | SUBSIDIARY |
| Nuveen Global Cities REIT LP, LLC | 82-1502683 | SUBSIDIARY |
| Nuveen Global Cities REIT OP, LP | 82-1507998 | SUBSIDIARY |
| NR 844 North LLC | 82-3527067 | SUBSIDIARY |
| NR APCF Investor Ltd | | SUBSIDIARY |
| NR Defoor Hills LLC | 82-5519657 | SUBSIDIARY |
| NR Denver Industrial Portfolio LLC | 82-3539243 | SUBSIDIARY |
| NR ECF Investor Ltd. | | SUBSIDIARY |
| NR Henderson 215 LLC | 83-1495411 | SUBSIDIARY |
| NR Kirkland Crossing LLC | 82-3550598 | SUBSIDIARY |
| NR Main Street at Kingwood LLC | 83-1815798 | SUBSIDIARY |
| NR Tacara at Steiner Ranch LLC | 82-5503093 | SUBSIDIARY |
| T-C 2 Herald Square Member LLC | 47-1535030 | SUBSIDIARY |
| T-C 2 Herald Square Venture LLC | 47-1650509 | SUBSIDIARY |
| T-C 2 Herald Square Owner LLC | 47-1488131 | SUBSIDIARY |
| T-C 1101 Pennsylvania Avenue LLC | 27-2952349 | SUBSIDIARY |
| T-C 1101 Pennsylvania Avenue Venture LLC | 27-2952617 | SUBSIDIARY |
| T-C 33 Arch Street Member, LLC | 46-1851206 | SUBSIDIARY |
| T-C 33 Arch Street Venture, LLC | 46-1805501 | SUBSIDIARY |
| T-C 33 Arch Street, LLC | 45-2792699 | SUBSIDIARY |
| T-C 470 Park Avenue South Member LLC | 46-1754709 | SUBSIDIARY |
| T-C 470 Park Avenue South Owner LLC | 46-1754243 | SUBSIDIARY |
| T-C 475 Fifth Avenue Member, LLC | 46-1828055 | SUBSIDIARY |
| T-C 475 Fifth Avenue Venture LLC | 46-1839003 | SUBSIDIARY |
| T-C 475 Fifth Avenue, LLC | 45-3229803 | SUBSIDIARY |
| T-C 800 17th Street NW Venture LLC | 47-2118640 | SUBSIDIARY |
| T-C 800 17th Street NW Owner LLC | 47-2069910 | SUBSIDIARY |
| T-C 888 Brannan Member LLC | 47-4665824 | SUBSIDIARY |
| T-C 888 Brannan Venture LLC | 47-4684031 | SUBSIDIARY |
| T-C 888 Brannan Over, LLC | 47-4674147 | SUBSIDIARY |
| T-C 888 Brannan TRS, LLC | 47-5605380 | SUBSIDIARY |
| T-C 2300 Broadway, LLC | 45-3479701 | SUBSIDIARY |
| T-C Aspira LLC | 46-1220681 | SUBSIDIARY |

(33)

| COMPANY | FEIN | RELATIONSHIP |
|-------------------------------------------------|------------|--------------|
| T-C GA Real Estate Holdings, LLC (continued) | | |
| T-C Franklin Square Member, LLC | 46-1791581 | SUBSIDIARY |
| T-C Franklin Square Venture LLC | 46-1794486 | SUBSIDIARY |
| TIAA Franklin Square, LLC | 26-0011770 | SUBSIDIARY |
| T-C Hall of States Member LLC | 47-2023405 | SUBSIDIARY |
| T-C Hall of States Venture LLC | 47-2043468 | SUBSIDIARY |
| T-C Hall of States Owner LLC | 47-2034237 | SUBSIDIARY |
| T-C Kings Crossing, LLC | 45-4045658 | SUBSIDIARY |
| T-C Legacy Place Member, LLC | 46-1120016 | SUBSIDIARY |
| Legacy Place Associats, LLC | 46-0876833 | SUBSIDIARY |
| Legacy Place Properties, LLC | | SUBSIDIARY |
| T-C Republic Square Member LLC | 47-2903922 | SUBSIDIARY |
| T-C Republic Square Venture LLC | 47-2867784 | SUBSIDIARY |
| T-C Republic Square REIT LLC | 47-3033681 | SUBSIDIARY |
| T-C Republic Square Mezzanine LLC | 47-3091198 | SUBSIDIARY |
| T-C Republic Square Owner LLC | 47-2793452 | SUBSIDIARY |
| The Flats Holding Company LLC | 47-1379500 | SUBSIDIARY |
| The Flats 130 DC Residential LLC | 47-1347366 | SUBSIDIARY |
| The Flats 140 DC Residential LLC | 47-1363564 | SUBSIDIARY |
| The Flats DC Grocery LLC | 47-1367530 | SUBSIDIARY |
| T-C JK I, LLC | 46-4567368 | SUBSIDIARY |
| Adeoti Empreendimentos Imobiliários Ltda | | SUBSIDIARY |
| T-C JK II, LLC | 46-4587620 | SUBSIDIARY |
| T-C JK I, LLC | | SUBSIDIARY |
| T-C Lux Fund Holdings LLC | 47-4095803 | SUBSIDIARY |
| T-C Lux Investments Special Limited Partnership | | SUBSIDIARY |
| European Cities Partnership SCSp | | AFFILIATE |
| Global Real Estate Debt Partners – Fund I (UK) | | SUBSIDIARY |
| T-C MV Member LLC | 81-4583865 | SUBSIDIARY |
| T-C M-T REIT LLC | 81-4599024 | SUBSIDIARY |
| T-C Mt. Ommaney Centre Holding Company LLC | 47-1954609 | SUBSIDIARY |
| T-C Permian Investor LLC | 82-1023309 | SUBSIDIARY |
| T-C SBMC Joint Venture LLC | 46-3007720 | SUBSIDIARY |
| T-C SMA I, LLC | 20-8309570 | SUBSIDIARY |
| CPPIB-TIAA US Real Property Fund LP | 20-8309587 | SUBSIDIARY |
| CPPIB-TIAA US Real Property Fund LP | 20-8309587 | SUBSIDIARY |
| C-T Shendoah, LLC | 20-8309622 | SUBSIDIARY |
| T-C SMA 2, LLC | 36-4620008 | SUBSIDIARY |
| PennMuni-TIAA U.S. Real Estate Fund, LLC | 36-4619998 | SUBSIDIARY |
| T-C 526 Route 46 LLC | 47-1508630 | SUBSIDIARY |
| T-C Barton Centre LLC | 46-2767592 | SUBSIDIARY |
| T-C Century Plaza LLC | 26-2719700 | SUBSIDIARY |
| T-C Copley LLC | 47-2569491 | SUBSIDIARY |
| T-C Des Peres Corners LLC | 27-4023559 | SUBSIDIARY |
| T-C Fairway Center II LLC | 81-2272411 | SUBSIDIARY |
| T-C 888 Brannan Over, LLC | 46-8878318 | SUBSIDIARY |
| T-C Scripps Ranch LLC | 45-3525878 | SUBSIDIARY |
| T-C Shoppes at Monarch Lakes LLC | 27-3415834 | SUBSIDIARY |
| T-C Uptown Apartments, LLC | 46-4977129 | SUBSIDIARY |
| T-C The Edge at Fiddlers Village, LLC | 27-1858182 | SUBSIDIARY |
| T-C SMA III, LLC | | SUBSIDIARY |
| T-C The Edge at Fiddlers Village, LLC | 81-2204918 | SUBSIDIARY |

(32) T-C Europe LP is ultimately controlled and owned entirely by TIAA, with 99% owned by TIAA and 1% owned by T-C Europe Holding, Inc.

(33) Roppenheim Outlet SNC (ROSNC) is ultimately controlled by TIAA via a 61.8% ownership of Neptune Property Venture S.à r.l., which owns Roppenheim Holding SAS (99.99% of ROSNC) Neptune Roppenheim Holding S.à r.l. (0.01%).

(34) Adeoti Empreendimentos Imobiliários Ltda is ultimately controlled and owned entirely by TIAA, with 51% of ownership with T-C JK I, LLC and 49% of ownership with T-C JK II, LLC

(11) European Cities Partnership SCSp is owned 29.8% by T-C Lux Investments Special Limited Partnership and 1% by European Cities Partnership (GP) S.a.r.l.

(21) Global Real Estate Debt Partners – Fund I (UK) is controlled by TIAA, which owns 36.3%. T-C Lux Investments Special Limited Partnership, which is 100% owned by TIAA, owns 24.3%.

(35) CPPIB-TIAA US Real Property Fund LP is controlled by TIAA, which owns 50%. T-C SMA I, LLC, which is 100% owned by TIAA, is the General Partner and owns 1%.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 - ORGANIZATIONAL CHART

LISTING 3 (CONTINUED):

| COMPANY | FEIN | RELATIONSHIP |
|------------------------------------------------|------------|--------------|
| T-C UK RE Holdings I, LLC | 81-2676934 | SUBSIDIARY |
| T-C UK RE Holdings II, LLC | 81-2691474 | SUBSIDIARY |
| Thurrock Retail Park Unit Trust | | SUBSIDIARY |
| T-C UK RE Holdings III, LLC | 81-3299073 | SUBSIDIARY |
| Thurrock Retail Park Unit Trust | | SUBSIDIARY |
| T-C U.S. Super Regional Mall Fund LP | 47-3148337 | SUBSIDIARY |
| SRMF Baybrook REIT LLC | 83-0977309 | SUBSIDIARY |
| SRMF Baybrook Investor TRS LLC | 83-0990258 | SUBSIDIARY |
| SRMF Baybrook Investor Member LLC | 83-1015425 | SUBSIDIARY |
| SRMF La Cantera REIT LLC | 83-1028560 | SUBSIDIARY |
| SRMF La Cantera Investor Member LLC | 83-1046807 | SUBSIDIARY |
| SRMF TMIC REIT LLC | 83-1059934 | SUBSIDIARY |
| SRMF TMIC Investor Member LLC | 83-1070532 | SUBSIDIARY |
| SRMF Town Square Investor Member LLC | 81-4717093 | SUBSIDIARY |
| SRMF Town Square Venture LLC | | SUBSIDIARY |
| SRMF Town Square Owner LLC | | SUBSIDIARY |
| T-C Pearl Reit 2 LLC | 47-4447657 | SUBSIDIARY |
| T-C Waterford Blue Lagoon General Partner, LLC | 47-5379777 | SUBSIDIARY |
| Waterford Blue Lagoon LP | 47-5392075 | SUBSIDIARY |
| T-C Waterford Blue Lagoon, LLC | 47-5375805 | SUBSIDIARY |
| Waterford Blue Lagoon LP | 47-5392075 | SUBSIDIARY |
| Westland At Waterford REIT General Partner LLC | 81-0779817 | SUBSIDIARY |
| Westland At Waterford REIT LP | 47-5321319 | SUBSIDIARY |
| Westland At Waterford General Partner LLC | 47-5552154 | SUBSIDIARY |
| Westland At Waterford Operating LP | 47-5580924 | SUBSIDIARY |
| Waterford Blue Lagoon REIT General Partner LLC | | SUBSIDIARY |
| Waterford Blue Lagoon REIT LP | 47-5305678 | SUBSIDIARY |
| 5201-5301 Waterford General Partner LLC | 47-5642524 | SUBSIDIARY |
| 5201-5301 Waterford Operating LP | 47-5541032 | SUBSIDIARY |
| 5200 Waterford General Partner LLC | 47-5672651 | SUBSIDIARY |
| 5200 Waterford Operating LP | 47-5498897 | SUBSIDIARY |
| 1000 Waterford General Partner LLC | 47-0722154 | SUBSIDIARY |
| 1000 Waterford Operating LP | 47-5479437 | SUBSIDIARY |
| 703 Waterford General Partner LLC | 47-5445045 | SUBSIDIARY |
| 703 Waterford Operating LP | 47-5471474 | SUBSIDIARY |
| 701 Waterford General Partner LLC | 47-5405436 | SUBSIDIARY |
| 701 Waterford Operating LP | 47-5417839 | SUBSIDIARY |
| Waterford Core General Partner LLC | 81-0733012 | SUBSIDIARY |
| Waterford Core Operating LP | 47-5587163 | SUBSIDIARY |
| Waterford Core REIT LP | 82-2646233 | SUBSIDIARY |
| Waterford Core REIT General Partner LLC | 82-2631273 | SUBSIDIARY |
| Waterford Core II Operating LP | 82-2683579 | SUBSIDIARY |
| Waterford Core II General Partner LLC | 82-2672297 | SUBSIDIARY |
| TGA 127-137 Franklin LLC | 82-1645257 | SUBSIDIARY |
| TGA 299 Franklin LLC | 81-2769108 | SUBSIDIARY |
| TGA 600 College Road LLC | 81-3988795 | SUBSIDIARY |
| TGA 730 Third Avenue Owner LLC | 82-2683579 | SUBSIDIARY |
| TGA 3401 North Ashton Blvd LLC | 83-2957526 | SUBSIDIARY |
| TGA 3851 Grandpine Way LLC | 82-4830474 | SUBSIDIARY |
| TGA APAC Fund Holdings, LLC | 82-2225812 | SUBSIDIARY |
| Asia Pacific Cities Fund, FCP | | SUBSIDIARY |
| TGA Real Estate Fund Holdings, LLC | 82-1198745 | SUBSIDIARY |
| Asia Pacific Cities Fund, FCP | | SUBSIDIARY |
| TGA Barnes Canyon Life Science LLC | 83-1851559 | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|-----------------------------------------------|------------|--------------|
| TEFF Holdco LLC | 81-2146865 | SUBSIDIARY |
| TIAA European Farmland Fund GP LP | 98-1310748 | SUBSIDIARY |
| TIAA European Farmland Fund LP | 98-1310748 | SUBSIDIARY |
| TEFF Holding S.a.r.l | | SUBSIDIARY |
| TEFF Investments B.V. | | SUBSIDIARY |
| Dangro Invest SA | | SUBSIDIARY |
| AGRA Spolka z o.o. | | SUBSIDIARY |
| AGAT Spolka z o.o. | | SUBSIDIARY |
| AGRAMAX Spolka z o.o. | | SUBSIDIARY |
| AGRO - DUBLINY SP. z o.o. | | SUBSIDIARY |
| AGROSERVICE Spolka z o.o. | | SUBSIDIARY |
| AMAL Spolka z o.o. | | SUBSIDIARY |
| CISY Spolka z o.o. | | SUBSIDIARY |
| KOLNO Spolka z o.o. | | SUBSIDIARY |
| MILKOWO Sp. Z o.o. | | SUBSIDIARY |
| SEE-AGRO SP. z o.o. | | SUBSIDIARY |
| SATOPY Spolka z o.o. | | SUBSIDIARY |
| Pszeniol SA | | SUBSIDIARY |
| AGROLAND Spolka z o.o. | | SUBSIDIARY |
| GRBOL Spolka z o.o. | | SUBSIDIARY |
| BUDUS Spolka z o.o. | | SUBSIDIARY |
| CIESZYSLAW SP z o.o. | | SUBSIDIARY |
| FARMEX Spolka z o.o. | | SUBSIDIARY |
| JASIONNO Spolka z o.o. | | SUBSIDIARY |
| ROLA Spolka z o.o. | | SUBSIDIARY |
| ROLPOL Spolka z o.o. | | SUBSIDIARY |
| ROLZBUD Spolka z o.o. | | SUBSIDIARY |
| SOBIERADZ Spolka z o.o. | | SUBSIDIARY |
| TELYN SP. z o.o. | | SUBSIDIARY |
| TOKARY Sp. z o.o. | | SUBSIDIARY |
| TURKUS SP. z o.o. | | SUBSIDIARY |
| WALICHNOWY Sp. z o.o. | | SUBSIDIARY |
| WEZINY Sp. z o.o. | | SUBSIDIARY |
| ZIEMIROL Spolka z o.o. | | SUBSIDIARY |
| LOZICE Sp. z o.o. | | SUBSIDIARY |
| AMBER SP. z o.o. | | SUBSIDIARY |
| JAROSLAWSKO I SP. z o.o. | | SUBSIDIARY |
| JAROSLAWSKO II SP. z o.o. | | SUBSIDIARY |
| OGARDY SP. z o.o. | | SUBSIDIARY |
| SZAFAR SP. z o.o. | | SUBSIDIARY |
| TGA Connections at Athens Investor Member LLC | 83-0780652 | SUBSIDIARY |
| PEP-TH Athens, LLC | 61-1892161 | SUBSIDIARY |
| PEP Athens, LLC | 83-1011298 | SUBSIDIARY |
| TGA FC Investor Member LLC | | SUBSIDIARY |
| Fenway Center Holding 1-2, LLC | 82-2708488 | SUBSIDIARY |
| Fenway Center Owner 1-2, LLC | 82-2708488 | SUBSIDIARY |
| TGA European RE Holdings I, LLC | 83-2810033 | SUBSIDIARY |
| TGA MKP Member LLC | 82-1169084 | SUBSIDIARY |
| TGA MKP REIT LLC | 82-1187131 | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|-------------------------------------------------|------------|--------------|
| TGA Japan Holdings, LLC | 81-3602072 | SUBSIDIARY |
| TGA Japan Holdings Pte Ltd | | SUBSIDIARY |
| TGA Japan GK Holdings Pte Ltd | | SUBSIDIARY |
| TGA Ginza115 GK | | SUBSIDIARY |
| TGA Ginza115 TMK | | SUBSIDIARY |
| TGA Ginza 115 Holdings Pte Ltd | | SUBSIDIARY |
| TGA Ginza115 TMK | | SUBSIDIARY |
| TGA Ginza115 ISH | | SUBSIDIARY |
| TGA Montague Investor Member, LLC | 81-4232788 | SUBSIDIARY |
| TGA Montrose Residences Investor Member, LLC | 81-3542251 | SUBSIDIARY |
| The Residences at La Colombe d'Or Investors LLC | 81-2872565 | SUBSIDIARY |
| TGA MS Self Storage Investor Member LLC | 83-1916152 | SUBSIDIARY |
| Morningstar NRE Self Storage Portfolio LLC | 83-2379583 | SUBSIDIARY |
| MSC Tallahassee, LLC | | SUBSIDIARY |
| MSC Bentonville, LLC | | SUBSIDIARY |
| MSC Carolinas, LLC | | SUBSIDIARY |
| MSC Dam Storage, LLC | | SUBSIDIARY |
| MSC Yorktown, LLC | | SUBSIDIARY |
| MSC Greenhouse, LLC | | SUBSIDIARY |
| MSC Midtown Atlanta, LLC | | SUBSIDIARY |
| MSC Kemps Landing, LLC | | SUBSIDIARY |
| MSC South End, LLC | | SUBSIDIARY |
| MSC MTP, LLC | | SUBSIDIARY |
| MSC Peachtree, LLC | | SUBSIDIARY |
| MSC Evans Rd, LLC | | SUBSIDIARY |
| MSC SW Austin, LLC | | SUBSIDIARY |
| MSC Buda, LLC | | SUBSIDIARY |
| MSC Boerne, LLC | | SUBSIDIARY |
| MSC Spring Branch, LLC | | SUBSIDIARY |
| MSC Highway 521 Storage, LLC | | SUBSIDIARY |
| TGA Oak View Mall LLC | 83-1934291 | SUBSIDIARY |
| TGA Sandy Commerce Park LLC | 83-2938932 | SUBSIDIARY |
| TGA SP-MPC Housing Investor Member LLC | 83-2063402 | SUBSIDIARY |
| TGA-SP Housing Venture I LLC | 83-2147240 | SUBSIDIARY |
| TGA SP-MPC Housing Venture I LLC | 83-2123785 | SUBSIDIARY |
| MPSP Ashwood MHC LLC | 83-1869494 | SUBSIDIARY |
| MPSP Ashwood Homes LLC | 83-1869400 | SUBSIDIARY |
| MPSP Lemon Tree MHC LLC | 83-1205616 | SUBSIDIARY |
| MPSP Lemon Tree Homes LLC | 83-1213262 | SUBSIDIARY |
| MPSP Mobile Gardens MHC LLC | 83-1230714 | SUBSIDIARY |
| MPSP Shiloh MHC LLC | 83-1230821 | SUBSIDIARY |
| MPSP Shiloh Homes LLC | 83-2700544 | SUBSIDIARY |
| MPSP Shiloh Lender LLC | 83-2700633 | SUBSIDIARY |
| MPSP Stonegate MHC LLC | 83-2725560 | SUBSIDIARY |
| MPSP Stonegate Investor Member LLC | | SUBSIDIARY |
| MPSP Stonegate Lender LLC | | SUBSIDIARY |
| TGA Yorktown Trinity Groves LLC | 83-0723201 | SUBSIDIARY |
| TGAM Agribusiness Fund LP | 81-1994278 | SUBSIDIARY |
| TGAM Agribusiness Fund Holdings LP | 82-0646994 | SUBSIDIARY |
| The TAP Commercial Fund, LLC | 27-4871720 | SUBSIDIARY |
| The Tap Fund, LLC | 20-4410108 | SUBSIDIARY |

(36) Thurrock Retail Park Unit Trust is ultimately controlled and owned entirely by TIAA with 99.5% owned by T-C UK RE Holdings III, LLC and 0.5% owned by T-C UK RE Holdings II, LLC.

(37) Waterford Blue Lagoon LP is controlled by TIAA, and partially owned indirectly by T-C Waterford Blue Lagoon LLC, which owns 50%, and T-C Waterford Blue Lagoon General Partner, LLC, which owns 1%.

(38) Asia Pacific Cities Fund, FCP is owned 38.6% by TGA APAC Fund Holdings, LLC and 38.6% by TGA Real Estate Fund Holdings, LLC

(4) TIAA European Farmland Fund GP LP is ultimately controlled and owned entirely by TIAA, with 50% owned by Nuveen Alternative Services, LLC and 50% owned by TEFF Holdco LLC

(39) TGA Ginza115 TMK is ultimately controlled and owned entirely by TIAA, with 51% owned by TGA Japan GK Holdings Pte Ltd and 49% of owned by TGA Ginza 115 Holdings Pte Ltd.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 - ORGANIZATIONAL CHART

LISTING 3 (CONTINUED):

| COMPANY | FEIN | RELATIONSHIP |
|---------------------------------------------------------------|------------|--------------|
| TH Real Estate U.S. Strategic Industrial Fund I LP | 81-2429791 | SUBSIDIARY |
| TH Real Estate U.S. Strategic Industrial Fund I Holdings, LLC | 81-2410066 | SUBSIDIARY |
| TH Real Estate U.S. Strategic Industrial Fund I Investors LP | | SUBSIDIARY |
| SIF 301 Business Center Investor Member LLC | 82-3685468 | SUBSIDIARY |
| 301 Business Centre, LLC | | SUBSIDIARY |
| Buildings 100, 200, 300 LLC | | SUBSIDIARY |
| Building 400 LLC | | SUBSIDIARY |
| SIF 60 Chapin Road LLC | 82-4088352 | SUBSIDIARY |
| SIF 4500 Dunham Street LLC | 83-1232681 | SUBSIDIARY |
| SIF FBP Member LLC | 82-3959987 | SUBSIDIARY |
| SIF-DP FBP Venture LLC | 82-3944178 | SUBSIDIARY |
| EBP Owner 1 LLC | 82-3913810 | SUBSIDIARY |
| EBP Owner 2 LLC | 30-1018623 | SUBSIDIARY |
| SIF Serrano Business Park Investor Member LLC | 82-4165273 | SUBSIDIARY |
| CRPF Bain IV, LLC | | SUBSIDIARY |
| SIF Volta Industrial Center LLC | 83-0763298 | SUBSIDIARY |
| TIAA Administrative Services LLC | 82-2826183 | SUBSIDIARY |
| TIAA CLO I Ltd | | SUBSIDIARY |
| TIAA CLO I LLC | | SUBSIDIARY |
| TIAA CLO II Ltd | | SUBSIDIARY |
| TIAA CLO II LLC | | SUBSIDIARY |
| TIAA CLO III Ltd | | SUBSIDIARY |
| TIAA CLO III LLC | | SUBSIDIARY |
| TIAA CLO IV Ltd | | SUBSIDIARY |
| TIAA CLO V Ltd | | SUBSIDIARY |
| TIAA CLO V LLC | | SUBSIDIARY |
| TIAA CMBS I, LLC | 13-4173396 | SUBSIDIARY |
| TIAA CMBS I Trust | 13-4173396 | SUBSIDIARY |
| TIAA Diamond Investor, LLC | 36-4450150 | SUBSIDIARY |
| TIAA Diversified Public Investments, LLC | 47-4570655 | SUBSIDIARY |
| TIAA FSB Holdings, Inc. | 90-0615674 | SUBSIDIARY |
| Everbank Funding, LLC | 36-1208070 | SUBSIDIARY |
| TIAA, FSB | 59-3531592 | SUBSIDIARY |
| AMC Holding, Inc. | 59-3547521 | SUBSIDIARY |
| Customerone Financial Network, Inc. | 43-1823879 | SUBSIDIARY |
| Evertrade Direct Brokerage, Inc. | 43-1832741 | SUBSIDIARY |
| Business Property Lending, Inc. | 36-1208070 | SUBSIDIARY |
| Elite Lender Services, Inc. | 11-3642567 | SUBSIDIARY |
| Everbank Wealth Management, Inc. | 27-3035172 | SUBSIDIARY |
| Tygris Commercial Financial Group, Inc. | 61-1560018 | SUBSIDIARY |
| TIAA Commercial Finance, Inc. | 20-0716627 | SUBSIDIARY |
| TIAA GBS Holding LLC | 81-1241294 | SUBSIDIARY |
| TIAA GBS Singapore Holding Company Pte. Ltd. | | SUBSIDIARY |
| TIAA Global Business Services (India) Private Limited | | SUBSIDIARY |
| TIAA Global Ag Holdco LLC | 27-5551198 | SUBSIDIARY |
| Global Agriculture AIV (US) LLC | 45-5044364 | SUBSIDIARY |
| Global Ag Properties USA LLC | 45-1531685 | SUBSIDIARY |
| Loma del Rio Vineyards, LLC | 80-0843991 | SUBSIDIARY |
| Sugarloaf Vineyard, LLC | 46-2577906 | SUBSIDIARY |
| TIAA-CREF Global Agriculture LLC | 27-5551341 | SUBSIDIARY |
| Global Ag Properties Australia Pty. Ltd | | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|---------------------------------------------|------------|-----------------|
| TIAA Global Ag Holdco LLC (continued) | | |
| Global AG Properties Australia Trust | | SUBSIDIARY |
| Nova Gaia Brasil Participaco Ltda | | SUBSIDIARY (40) |
| Tellus Brasil Participaco S.A. | | SUBSIDIARY (41) |
| Terraviva Brasil Participaco Ltda. | | SUBSIDIARY (42) |
| Tellus Brasil Participaco S.A. | | SUBSIDIARY (41) |
| Agrobio Investimentos e Participações S.A | | SUBSIDIARY |
| Cerpon Participações S.A. | | SUBSIDIARY |
| Nova Ibiajara Propriedades Agrícolas S.A. | | SUBSIDIARY |
| Nova Ibiajara Propriedades Agrícolas S.A. | | SUBSIDIARY |
| Tellus Brasil Propriedades Agrícolas Ltda. | | SUBSIDIARY |
| Jatobá Propriedades Agrícolas Ltda. | | SUBSIDIARY |
| Terra do Sol Propriedades Agrícolas S.A. | | SUBSIDIARY |
| Terrainvest Propriedades Agrícolas S.A. | | SUBSIDIARY |
| Tparone Participações S.A. | | SUBSIDIARY |
| Toperone Agrícola S.A. | | SUBSIDIARY |
| Tpartwo Participações S.A. | | SUBSIDIARY |
| Topertwo Agrícola S.A. | | SUBSIDIARY |
| TIAA-CREF Global Agriculture BR, LLC | 45-1502187 | SUBSIDIARY |
| Nova Gaia Brasil Participaco Ltda. | | SUBSIDIARY (40) |
| Terraviva Brasil Participaco Ltda. | | SUBSIDIARY (42) |
| Global Agriculture II AIV (US) LLC | 47-1083514 | SUBSIDIARY |
| Global Ag Properties II USA LLC | 47-1069783 | SUBSIDIARY |
| TIAA-CREF Global Agriculture II LLC | 47-0974399 | SUBSIDIARY |
| Agricola AG II Limitada | | SUBSIDIARY |
| Global Ag II FFI LLC | 47-3600919 | SUBSIDIARY |
| Global Ag Properties II Australia Pty. Ltd. | | SUBSIDIARY |
| Global AG Properties II Australia Trust | | SUBSIDIARY |
| Global Ag Properties II New Zealand LP | | SUBSIDIARY |
| Helios Brasil Participacoes, Ltda. | | SUBSIDIARY |
| Janus Brasil Participacoes, S.A. | | SUBSIDIARY (43) |
| Iris Brasil Participaco Ltda. | | SUBSIDIARY |
| AGW Empreendimentos e Participações S.A. | | SUBSIDIARY (43) |
| Araucaria Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Aroeira Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Buriti Propriedades Agrícolas LTDA | | SUBSIDIARY |
| Carnauba Propriedades Agrícolas LTDA | | SUBSIDIARY |
| Carvalho Propriedades Agrícolas LTDA | | SUBSIDIARY |
| Cedro Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Companhia Agrícola Botucatu | | SUBSIDIARY |
| Copaiba Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Copaiba Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Esus Brasil Participações S.A. | | SUBSIDIARY |
| Itauba Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Jacaranda Propriedades Agrícolas LTDA | | SUBSIDIARY |
| Jatoba S.A. | | SUBSIDIARY |
| Jequituba Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Mangueira Propriedades Agrícolas LTDA | | SUBSIDIARY |
| Oiti Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Samambaia Propriedades Agrícolas Ltda | | SUBSIDIARY |
| Seringueira Propriedades Agrícolas Ltda | | SUBSIDIARY |
| TIAA-CREF Global Agriculture II BR, LLC | 47-1062423 | SUBSIDIARY |

| COMPANY | FEIN | RELATIONSHIP |
|----------------------------------------------------------|------------|-----------------|
| TIAA Global Equity Income, LLC | 46-2860100 | SUBSIDIARY |
| TIAA Global Public Investments, LLC | 26-3594208 | SUBSIDIARY |
| TIAA GTR HoldCo, LLC | 46-3881813 | SUBSIDIARY |
| Global Timber Resources LLC | 46-3210500 | SUBSIDIARY |
| Global Timber SA LLC | 46-3909387 | SUBSIDIARY |
| Global Timber International LLC | 46-3899490 | SUBSIDIARY |
| Global Timber Spain, SL | | SUBSIDIARY |
| Forestal Monterrey Colombia SAS | 98-1206384 | SUBSIDIARY |
| Forestal GTR Chile Limitada | | SUBSIDIARY |
| Global Timber Resources Colombia S.A.S. | | SUBSIDIARY |
| Monte Fresnos Asociacion Agraria de Responsabilidad LTDA | | SUBSIDIARY |
| Monte Fresnos, S.A. | | SUBSIDIARY |
| Taurion Asociacion Agraria de Responsabilidad LTDA | | SUBSIDIARY |
| Taurion, S.A. | | SUBSIDIARY |
| GT Europe Cooperatief U.A. | | SUBSIDIARY |
| Global Timber NL, B.V. | | SUBSIDIARY |
| GTR Brasil Participacoes Ltda | | SUBSIDIARY |
| Brasilwood Reforestamento S.A. | | SUBSIDIARY (44) |
| Brasilwood Terras Florestais S.A. | | SUBSIDIARY |
| Khaya Woods Investimentos Florestais LTDA. | | SUBSIDIARY |
| Manoeira Agropastoril S.A. | | AFFILIATE |
| GTR Administracao De Bens Proprios LTDA | | SUBSIDIARY |
| Brasilwood Reforestamento S.A. | | SUBSIDIARY (44) |
| Jatoba Brasil Investimentos Florestais Ltda | | SUBSIDIARY |
| Paineira Investimentos Florestais S.A. | | SUBSIDIARY |
| IPOPEMA 95 Closed Investment Fund of Non-Public Assets | | SUBSIDIARY |
| EKO Topola Sp. z o.o. | | SUBSIDIARY |
| Brusno Resort Sp. z o.o. | | SUBSIDIARY |
| TIAA Infrastructure Investments, LLC | 45-3479281 | SUBSIDIARY |
| 730 Parking LLC | 81-5307354 | SUBSIDIARY |
| 730 Interpark, LLC | 81-5302296 | SUBSIDIARY |
| Atilla Sonnet LP | | AFFILIATE |
| A-30 Canadian Transport Inc. | | SUBSIDIARY |
| 1867 Infrastructure Holdings Inc. | | SUBSIDIARY |
| ACS NA30 Holding Inc. | | SUBSIDIARY |
| Iridium Nouvelle Autoroute 30 Inc. | | SUBSIDIARY |
| Nouvelle Autoroute 30, s.e.n.c. | | SUBSIDIARY |
| TORO/EPP II, LLC | 30-0701953 | AFFILIATE |
| I 595 Toll Road, LLC | 38-3857916 | SUBSIDIARY |
| I 595 Express, LLC | 26-4139252 | SUBSIDIARY |
| North American Sustainable Energy Fund, L.P. | 46-5279686 | SUBSIDIARY |
| Acteos, LLC | | AFFILIATE |
| Dallas Clean Energy, LLC | | AFFILIATE |
| Dallas Clean Energy McCommas Bluff, LLC | | AFFILIATE |
| Energy Power Investment Company, LLC | | SUBSIDIARY |
| EPP Renewable Energy, LLC | | SUBSIDIARY |
| EPP New Jersey Biogas, LLC | | SUBSIDIARY |
| EPP New Jersey Solar, LLC | | SUBSIDIARY |
| North American Sustainable Energy Fund GP, LLC | 46-5268451 | AFFILIATE |
| North American Sustainable Energy Manager, LLC | 61-1734097 | AFFILIATE |
| TIAA Oil and Gas Investments, LLC | 45-2665869 | SUBSIDIARY |
| Acteos, LLC | 45-1286237 | SUBSIDIARY |
| Actoil Bakken, LLC | 46-3410649 | SUBSIDIARY |
| Triangle Petroleum Corp | 98-0430762 | AFFILIATE |
| Actoil Utica, LLC | 46-3628993 | SUBSIDIARY |

(19) Loma del Rio Vineyards, LLC is ultimately controlled and owned entirely by TIAA, with 45% owned by Premiere Agricultural Properties, LLC and 55% owned by Global Ag Properties USA, LLC.

(40) Nova Gaia Brasil Participaco Ltda. is owned 99.99% by TIAA-CREF Global Agriculture LLC and 0.01% by TIAA-CREF Global Agriculture BR, LLC.

(41) Tellus Brasil Participaco S.A. is owned 48.9% by Terraviva Brasil Participaco Ltda. and 0.47% by Nova Gaia Brasil Participaco Ltda.

(42) Terraviva Brasil Participaco Ltda. is owned 99.99% by Nova Gaia Brasil Participaco Ltda. and 0.01% by TIAA-CREF Global Agriculture BR, LLC.

(43) Janus Brasil Participacoes, S.A. is owned 48.9% by Iris Brasil Participaco Ltda. and 0.47% by Helios Brasil Participacoes, Ltda.

(44) Brasilwood Reforestamento S.A. is owned 75% by GTR Brasil Participacoes Ltda and 25% by GAPK Investimentos Ltda.

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y - INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 - ORGANIZATIONAL CHART

LISTING 3 (CONTINUED):

| COMPANY | FEIN | RELATIONSHIP |
|----------------------------------------------------|------------|--------------|
| TIAA Park Evanston, LLC | 26-1698274 | SUBSIDIARY |
| TIAA Realty, LLC | 11-3519531 | SUBSIDIARY |
| T-C 77 Central LLC | 81-0902394 | SUBSIDIARY |
| T-C 680 Belleville LLC | 47-2249307 | SUBSIDIARY |
| T-C Port Northwest Development, LLC | 46-2678242 | SUBSIDIARY |
| TGA 70 Federal Street LLC | 81-3961919 | SUBSIDIARY |
| TIAA RFS, LLC | 82-2885306 | SUBSIDIARY |
| TIAA Advisory, LLC | 82-2335773 | SUBSIDIARY |
| TIAA-CREF Insurance Agency, LLC | 20-2904312 | SUBSIDIARY |
| TIAA SMA Strategies, LLC | 81-2755014 | SUBSIDIARY |
| TIAA-Stonepeak Investments I, LLC | 45-3029655 | SUBSIDIARY |
| Stonepeak Infrastructure Fund LP | 38-3849546 | AFFILIATE |
| TIAA-Stonepeak Investments II, LLC | 45-3030923 | SUBSIDIARY |
| Stonepeak GP Holdings LP | 30-0696099 | SUBSIDIARY |
| Stonepeak Associates, LLC | | SUBSIDIARY |
| Stonepeak Advisors Holdings LLC | 37-1645802 | AFFILIATE |
| Stonepeak Advisors LLC | | AFFILIATE |
| TIAA Super Regional Mall Member Sub, LLC | 45-3164600 | SUBSIDIARY |
| T-C Super Regional Mall Venture, LLC | 45-3164764 | SUBSIDIARY |
| T-C International Plaza REIT LLC | 46-4623585 | SUBSIDIARY |
| T-C International Plaza Investor GP LLC | 46-4653326 | SUBSIDIARY |
| T-C International Plaza Investor LP LLC | 46-4680948 | SUBSIDIARY |
| Tampa Westshore Associates Limited Partnership | 38-3173536 | AFFILIATE |
| T-C Las Vegas Retail REIT LLC | 46-2713521 | SUBSIDIARY |
| T-C Las Vegas Retail Investor LLC | 46-2726147 | SUBSIDIARY |
| Grand Canal Shoppes Holdings, LLC | | AFFILIATE |
| T-C Midwest REIT, LLC | 45-3165203 | SUBSIDIARY |
| T-C Midwest Retail, LLC | 45-2211957 | SUBSIDIARY |
| CBL/T-C, LLC | | SUBSIDIARY |
| T-C Montgomery Mall REIT, LLC | 45-3164998 | SUBSIDIARY |
| T-C Montgomery Mall, LLC | 27-4117159 | SUBSIDIARY |
| Montgomery Mall of Maryland, LLC | 95-4658637 | SUBSIDIARY |
| TIAA SynGas, LLC | 45-1286386 | SUBSIDIARY |
| 730 Catsolar, LLC | 13-1624203 | SUBSIDIARY |
| Catalina Solar Lessee Holdco, LLC | | SUBSIDIARY |
| Catalina Solar Lessee, LLC | | SUBSIDIARY |
| SG Solutions, LLC | 56-2492641 | AFFILIATE |
| AE Investor II, LLC | 27-0195010 | SUBSIDIARY |
| TIAA Wind Investments, LLC | 45-4486211 | SUBSIDIARY |
| Capistrano Wind Partners, LLC | 45-3743502 | AFFILIATE |
| TIAA-CREF LPHC, LLC | 20-8384004 | SUBSIDIARY |
| TCAM DOF GP, LLC | 26-361391 | SUBSIDIARY |
| TIAA-CREF Real Property Fund GP, LLC | 46-1191235 | SUBSIDIARY |
| TIAA-CREF Individual & Institutional Services, LLC | 55-0856733 | SUBSIDIARY |
| TIAA-CREF Redwood, LLC | 20-5591124 | SUBSIDIARY |
| TIAA Endowment & Philanthropic Services, LLC | 20-5631854 | SUBSIDIARY |
| CCAP GP, LLC | 35-2429521 | SUBSIDIARY |
| TIAA-CREF Tuition Financing, Inc. | 13-4026557 | SUBSIDIARY |
| TIAA Union Place Phase I, LLC | 20-8892977 | SUBSIDIARY |
| Union Place Phase I, LLC | 20-8281443 | SUBSIDIARY |
| UK PPP Investments, LP | | SUBSIDIARY |
| Wigg (Holdings) Limited | | SUBSIDIARY |
| Wigg Investments Limited | | SUBSIDIARY |
| Merseylink (Holdings) Limited | | AFFILIATE |
| Merseylink (Finance) Limited | | AFFILIATE |
| Merseylink Limited | | AFFILIATE |
| Merseylink (Issuer) plc | | AFFILIATE |

| COMPANY | FEIN | RELATIONSHIP |
|------------------------------------------|------------|--------------|
| U.S. Cities Retail Fund LP | | SUBSIDIARY |
| U.S. Cities Retail Fund REIT LLC | | SUBSIDIARY |
| U.S. Cities Retail Fund Operating GP LLC | | SUBSIDIARY |
| U.S. Cities Retail Fund Operating LP | | SUBSIDIARY |
| T-C 919 N. Michigan Avenue Retail, LLC | 46-0750331 | SUBSIDIARY |
| USCRF KRG JV Investor Member LLC | | SUBSIDIARY |
| KRG – USCRF Retail Portfolio LLC | | SUBSIDIARY |
| U.S. Core-Plus Real Estate Debt Fund LP | 82-3988257 | SUBSIDIARY |
| CRED REIT LLC | 82-3760575 | SUBSIDIARY |
| CRED REIT Holdco LLC | 47-1938723 | SUBSIDIARY |
| CRED REIT Holdco Seller LLC | 83-2024014 | SUBSIDIARY |
| CRED REIT Holdco TRS LLC | 81-1392434 | SUBSIDIARY |
| CRED Sawtelle LLC | 83-2267896 | SUBSIDIARY |
| WRC Properties, LLC | 51-0141732 | SUBSIDIARY |
| Stichting Bewaarder Ziemia Fund | | AFFILIATE |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|-------------------------------------------------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|-------------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| 1216 | Teachers Insurance and Annuity Association of America | 00000 | 13-6110585 | 3792687 | | | TIAA Board of Overseers | NY | UDP | | | | | N | |
| | | 69345 | 13-1624203 | 1607170 | 0000315038 | | Teachers Insurance and Annuity Association of America | NY | | TIAA Board of Overseers | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 45-2401857 | 4618298 | | | 730 Holdings, LLC | DE | NIA | TIAA Board of Overseers | Ownership | 100.000 | TIAA Board of Overseers | N | |
| 1216 | Teachers Insurance and Annuity Association of America | 00000 | 13-6022042 | | 0000777535 | | College Retirement Equities Fund | NY | NIA | CREF Board of Overseers | Board | | CREF Board of Overseers | N | |
| | | 60142 | 13-3917848 | 4314415 | 0001429401 | | TIAA-CREF Life Insurance Company | NY | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 47-1595484 | 4747826 | | | Nuveen, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 81-3407371 | 5042621 | | | Nuveen Services, LLC | DE | DS | Nuveen, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 13-3905273 | 4599865 | | | TIAA-CREF Asset Management, LLC | DE | DS | Nuveen, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 81-1272900 | 4952732 | | | L&C Special Member Holdco, LLC | DE | DS | TIAA-CREF Asset Management, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 46-3889185 | 4866932 | | | GTR Special Member Holdco LLC | DE | DS | TIAA-CREF Asset Management, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 13-3752992 | 4313230 | 0000923530 | | Teachers Personal Investors Services, Inc. | DE | DS | TIAA-CREF Asset Management, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 81-4374969 | | | | TIAA International GP LLC | DE | DS | TIAA-CREF Asset Management, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 13-3586142 | 4314303 | 0000887793 | | TIAA-CREF Investment Management, LLC | DE | DS | TIAA-CREF Asset Management, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 46-3870972 | 4716541 | | | Nuveen Alternative Holdings, LLC | DE | DS | TIAA-CREF Asset Management, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 81-1467545 | 4974190 | | | AGR Partners LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 36-4853278 | | | | AGR Services LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 1.000 | TIAA Board of Overseers | N | 0100 |
| | | 00000 | 36-4853278 | | | | AGR Services LLC | DE | DS | AGR Partners LLC | Ownership | 99.000 | TIAA Board of Overseers | N | 0100 |
| | | 00000 | 81-1870559 | 5010657 | | | TGAM Agribusiness Fund GP LLC | DE | DS | AGR Partners LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 45-5558395 | 4724096 | | | Beaver Investments Holdings, LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 80-0026976 | 4724108 | 0001392090 | | GreenWood Resources, Inc. | DE | DS | Beaver Investments Holdings, LLC | Ownership | 88.000 | TIAA Board of Overseers | N | |
| | | 00000 | | 4961006 | | | GreenWood Resources Brasil, Ltda. | BRA | DS | GreenWood Resources, Inc. | Ownership | 1.000 | TIAA Board of Overseers | N | 0200 |
| | | 00000 | 45-1875074 | 4724153 | | | GreenWood Resources Capital Management, LLC | DE | DS | GreenWood Resources, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 20-8501127 | 4868413 | | | GTFF GP, LLC | DE | DS | GreenWood Resources, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 20-8955976 | 4867863 | | | GWR-GTFF Investment, LLC | DE | DS | GreenWood Resources, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | | 4724144 | | | GWR International Ltd. | VGB | DS | GreenWood Resources, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 20-3188681 | 4724386 | | | GWR China Ltd. | VGB | DS | GWR International Ltd. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 98-0595429 | 4868338 | | | GreenWood Resources China Ltd. | HKG | DS | GWR China Ltd. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 98-0595436 | 4868347 | | | GreenWood Resources Beijing Forestry Co. | CHN | DS | GreenWood Resources China Ltd. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | | 4724377 | | | GWR SA, Ltd. | VGB | DS | GWR International Ltd. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | | 4724395 | | | GreenWood Resources Chile, S.A. | CHL | DS | GreenWood Resources SA, Ltd. | Ownership | 95.000 | TIAA Board of Overseers | N | |
| | | 00000 | 98-1016332 | 4868392 | | | GWR Europe Ltd. | GBR | DS | GWR International Ltd. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 98-1016335 | 4868404 | | | GreenWood Resources Poland sp Z.o.o. | POL | DS | GWR Europe Ltd. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 47-4557075 | 4887580 | | | GWR Property Management International, LLC | DE | DS | GreenWood Resources, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | | 4961006 | | | Greenwood Resources Brasil, Ltda. | BRA | DS | GWR Property Management International, LLC | Ownership | 99.000 | TIAA Board of Overseers | N | 0200 |
| | | 00000 | | 4796600 | | | GWR Uruguay S.A. | URY | DS | | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 47-3158644 | 4844369 | | | Greenwood Resources Colombia SAS | COL | DS | GreenWood Resources, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 36-4851864 | 5083688 | | | Churchill Asset Management LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 75.000 | TIAA Board of Overseers | N | |
| | | 00000 | 36-4851864 | 5083688 | | | CAM HR Resources LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 1.000 | TIAA Board of Overseers | N | 0300 |
| | | 00000 | 82-3187734 | | | | CAM HR Resources LLC | DE | DS | Churchill Asset Management LLC | Ownership | 99.000 | TIAA Board of Overseers | N | 0300 |
| | | 00000 | | | | | Churchill Agency Services LLC | DE | DS | Churchill Asset Management LLC | Ownership | 75.000 | TIAA Board of Overseers | N | |
| | | 00000 | | | | | Churchill Feeder Fund GP II S.a.r.l. | LUX | DS | Churchill Asset Management LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 83-1177850 | | | | Churchill Fund GP II LLC | DE | DS | Churchill Asset Management LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 98-1449979 | | | | Churchill Fund GP II Sarl | LUX | DS | Churchill Asset Management LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 82-0735838 | 5106484 | | | Churchill Special Member LLC | DE | DS | Churchill Asset Management LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 82-3784145 | | | | Churchill Warehouse LLC | DE | DS | Churchill Asset Management LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 81-1817732 | 5041615 | | | TGAM Churchill Fund GP LLC | DE | DS | Churchill Asset Management LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 45-5044435 | 4867658 | | | Global AG AIV (CN) GP, LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | 00000 | 45-5044681 | 4867667 | | | Global Agriculture AIV (CN), LP | DE | DS | Global AG AIV (CN) GP, LLC | Management | | TIAA Board of Overseers | N | |
| | | 00000 | 47-1192644 | 4753564 | | | Global Ag II AIV GP LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|---------------------------------------------|-----------------------|-----------------------------------|------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|-------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 47-1197292 | 4754776 | | | Global Agriculture II AIV, LP | .DE | .DS | Global Ag II AIV GP LLC | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1208275 | 4757030 | | | Global Ag II US Corp. | .DE | .DS | Global Agriculture II AIV, LP | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1069783 | 4755438 | | | Global Ag Properties II USA LLC | .DE | .DS | Global Ag II US Corp. | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3394580 | 5040560 | | | Oakville 38 Vineyard, LLC | .DE | .DS | Global Ag Properties II USA LLC | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 47-3001338 | 4843308 | | | Sugarloaf East Vineyard, LLC | .DE | .DS | Global Ag Properties II USA LLC | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4945982 | 4904254 | | | True Oak Napa Vineyard, LLC | .DE | .DS | Global Ag Properties II USA LLC | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1208361 | 4866969 | | | GTR Investor Fund GP LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-4288013 | 4866941 | | | Nuveen Alternatives Advisors, LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | TPS Investors GP, LLC | .DE | .DS | Nuveen Alternatives Advisors, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-4288091 | 4801858 | | | Nuveen Alternatives Services, LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5041697 | | | GAP II NZ GP Limited | .NZL | .DS | Nuveen Alternatives Services, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1310748 | 5041660 | | | TIAA European Farmland Fund GP LP | .CYM | .DS | Nuveen Alternatives Services, LLC | Ownership | 50.000 | TIAA Board of Overseers | .N | .0400 |
| | | .00000 | 47-1515836 | 4802819 | | | TCAS Global Investments LLC | .DE | .DS | Nuveen Alternatives Services, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-2719001 | 4313155 | | | Nuveen International Holdings LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4843296 | | | Nuveen Australia Pty Ltd | .AUS | .DS | Nuveen International Holdings LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Nuveen Canada Company | .CAN | .DS | Nuveen International Holdings LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4781688 | | | Nuveen Investments Canada Co. | .CAN | .DS | Nuveen International Holdings LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Nuveen Japan Co., Limited | .JPN | .DS | Nuveen International Holdings LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5040579 | | | Nuveen UK, Limited | .GBR | .DS | Nuveen International Holdings LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4349631 | 5079083 | | | TGAM Subsidiary HC LLC | .DE | .DS | Nuveen International Holdings LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4290269 | 5079104 | | | TGAM APAC LLC | .DE | .DS | TGAM Subsidiary HC LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0500 |
| | | .00000 | 81-4323796 | 5083718 | | | TGAM HK HC LLC | .DE | .DS | TGAM APAC LLC | Ownership | 25.000 | TIAA Board of Overseers | .N | .0600 |
| | | .00000 | | 4908355 | | | Nuveen Hong Kong Limited | .HKG | .DS | TGAM HK HC LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4306975 | 5079113 | | | TGAM Asia LLC | .DE | .DS | TGAM Subsidiary HC LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0700 |
| | | .00000 | 81-4323796 | 5083718 | | | TGAM HK HC LLC | .DE | .DS | TGAM Asia LLC | Ownership | 25.000 | TIAA Board of Overseers | .N | .0600 |
| | | .00000 | 81-4499397 | 5079122 | | | TIAA International APAC LLC | .DE | .DS | TGAM Subsidiary HC LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0800 |
| | | .00000 | 81-4323796 | 5083718 | | | TGAM HK HC LLC | .DE | .DS | TIAA International APAC LLC | Ownership | 25.000 | TIAA Board of Overseers | .N | .0600 |
| | | .00000 | 81-4359164 | 5079131 | | | TIAA International Asia LLC | .DE | .DS | TGAM Subsidiary HC LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0900 |
| | | .00000 | 81-4323796 | 5083718 | | | TGAM HK HC LLC | .DE | .DS | TIAA International Asia LLC | Ownership | 25.000 | TIAA Board of Overseers | .N | .0600 |
| | | .00000 | 81-4390558 | 5079092 | | | TIAA International Subsidiary HC LLC | .DE | .DS | Nuveen International Holdings LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4290269 | 5079104 | | | TGAM APAC LLC | .DE | .DS | TIAA International Subsidiary HC LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0500 |
| | | .00000 | 81-4306975 | 5079113 | | | TGAM Asia LLC | .DE | .DS | TIAA International Subsidiary HC LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0700 |
| | | .00000 | 81-4499397 | 5079122 | | | TIAA International APAC LLC | .DE | .DS | TIAA International Subsidiary HC LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0800 |
| | | .00000 | 81-4359164 | 5079131 | | | TIAA International Asia LLC | .DE | .DS | TIAA International Subsidiary HC LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0900 |
| | | .00000 | 81-4290269 | 5079104 | | | TGAM APAC LLC | .DE | .DS | Nuveen International Holdings LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0500 |
| | | .00000 | 81-4306975 | 5079113 | | | TGAM Asia LLC | .DE | .DS | Nuveen International Holdings LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0700 |
| | | .00000 | 81-4499397 | 5079122 | | | TIAA International APAC LLC | .DE | .DS | Nuveen International Holdings LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0800 |
| | | .00000 | 81-4359164 | 5079131 | | | TIAA International Asia LLC | .DE | .DS | Nuveen International Holdings LLC | Ownership | 33.300 | TIAA Board of Overseers | .N | .0900 |
| | | .00000 | 46-5367344 | 4747170 | | | TCGA BT AIV, LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-5139523 | 4867368 | | | TCGA Investor Fund GP, LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-3511076 | 4843278 | | | TCGA II Investor Fund GP, LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-3126089 | 4847388 | | | T-C U.S. Super Regional Mall Fund GP LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4330570 | | | | TGAM International GP LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 06-1217855 | 4680325 | | | TH Property Holdings, L.L.C. | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 06-1384746 | 4900359 | | | Casa Grande Investments I, LLC | .DE | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 01-0588041 | 4900386 | | | Casa Grande Investments II, LP | .IL | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 30-0794692 | 4683559 | | | Casa Partners VI GP, LLC | .DE | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5190671 | 4912772 | | | Casa Partners VII GP, LLC | .DE | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-4363605 | | | | CASA Partners VIII GP, LLC | .DE | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2134971 | 4772266 | | | Casa Student Housing Fund GP, LLC | .DE | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 36-4477806 | 4681797 | | | Global Investors GP, L.L.C. | .DE | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-2537749 | 4681809 | | | Global Investors GP II, L.L.C. | .DE | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-3070768 | 4681818 | | | Global Investors GP IV, L.L.C. | .DE | .DS | TH Property Holdings, L.L.C. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4262460 | 5079074 | | | TH Real Estate Global, LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|---------------------------------------------------------|-----------------------|-----------------------------------|------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 82-3426937 | | | | TH Real Estate Global Cities Advisors, LLC | .DE | .DS | TH Real Estate Global, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-2748598 | 4601487 | | | THRE Global Investments LLC | .DE | .DS | TH Real Estate Global, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-2986445 | | | | THRE GP Holding Company LLC | .DE | .DS | TH Real Estate Global, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-4598778 | | | | THRE CRED GP Member LLC | .DE | .DS | THRE GP Holding Company LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-3751720 | | | | CRED GP LLC | .DE | .DS | THRE CRED GP Member LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-4054235 | | | | U.S. Cities Retail Fund GP LLC | .DE | .DS | THRE GP Holding Company LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | U.S. Cities Multifamily Fund GP LLC | .DE | .DS | THRE GP Holding Company LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | U.S. Cities Multifamily Fund LP | .DE | .DS | U.S. Cities Multifamily Fund GP LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | U.S. Cities Multifamily Fund REIT LLC | .DE | .DS | U.S. Cities Multifamily Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | U.S. Cities Multifamily Fund Operating GP LLC | .DE | .DS | U.S. Cities Multifamily Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | U.S. Cities Multifamily Fund Operating LP | .DE | .DS | U.S. Cities Multifamily Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2344355 | | | | USCMF Avion on Legacy LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2434879 | | | | USCMF Boulder Creek LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2486856 | | | | USCMF District at Washington LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2447368 | | | | USCMF Gramercy at Buckhead LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2531960 | | | | USCMF Marshall Park LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2409099 | | | | USCMF Metro 112 LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2422984 | | | | USCMF Stoneledge LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2515243 | | | | USCMF The Matisse LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2459693 | | | | USCMF The Reserve at Tysons Corner LLC | .DE | .DS | U.S. Cities Multifamily Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-5466713 | 5157909 | | | THRE Permian Investor Asset Manager Member LLC | .DE | .DS | TH Real Estate Global, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-0631410 | | | | Permian Investor Asset Manager LLC | .DE | .DS | THRE Permian Investor Asset Manager Member LLC | Ownership | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-0607358 | 5137929 | | | THRE Permian Investor GP Member LLC | .DE | .DS | TH Real Estate Global, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-5433582 | 5140303 | | | Permian Investor GP LLC | .DE | .DS | THRE Permian Investor GP Member LLC | Ownership | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1162850 | 4617620 | | | TIAA International Holdings 1 Limited | .GBR | .DS | TH Real Estate Global, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1163394 | 4617639 | | | TIAA International Holdings 2 Limited | .GBR | .DS | TH Real Estate Global, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1163894 | 4618074 | | | TIAA International Holdings 3 Limited | .GBR | .DS | TIAA International Holdings 2 Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1125673 | 4617705 | | | Nuveen Real Estate Limited | .GBR | .DS | TIAA International Holdings 3 Limited | Ownership | 99.000 | TIAA Board of Overseers | .N | 1000 |
| | | .00000 | 98-1125673 | 4617705 | | | Nuveen Real Estate Limited | .GBR | .DS | TIAA International Holdings 1 Limited | Ownership | 1.000 | TIAA Board of Overseers | .N | 1000 |
| | | .00000 | 98-1127648 | 4618195 | | | TH RE Administration Ltd | .GBR | .DS | Nuveen Real Estate Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1128805 | 4618216 | | | TH RE AIFM Group Ltd | .GBR | .DS | Nuveen Real Estate Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4715955 | | | Henderson European Retail Property Fund Management Sarl | .LUX | .DS | TH RE AIFM Group Ltd | Ownership | 94.900 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Nuveen Alternatives Europe S.à.r.l | .LUX | .DS | TH RE AIFM Group Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Nuveen Asset Management Europe S.à.r.l | .LUX | .DS | TH RE AIFM Group Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4715937 | | | Nuveen Fund (Europe) Management Sarl | .LUX | .DS | TH RE AIFM Group Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4716756 | | | Nuveen Fund Management (Jersey) Limited | .JEY | .DS | TH RE AIFM Group Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Nuveen Fund Management Vanquish (Jersey) Limited | .JEY | .DS | Nuveen Fund Management (Jersey) Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4841331 | | | Nuveen Fund Management Vanquish II (Jersey) Limited | .JEY | .DS | Nuveen Fund Management (Jersey) Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4841322 | | | Asia Pacific Cities Management Sarl | .LUX | .DS | TH RE AIFM Group Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4715964 | | | Nuveen Management AIFM Limited | .GBR | .DS | TH RE AIFM Group Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4716774 | | | Nuveen Management Company (Luxembourg) No 1 Sarl | .LUX | .DS | TH RE AIFM Group Ltd | Ownership | 94.900 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4715946 | | | Nuveen Property Management (Jersey) Limited | .JEY | .DS | TH RE AIFM Group Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1128787 | 4618243 | | | TH RE FCACO Ltd | .GBR | .DS | Nuveen Real Estate Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4716783 | | | Nuveen Real Estate Management Ltd | .GBR | .DS | TH RE FCACO Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4716868 | | | Nuveen Shopping Centre Verwaltungs GmbH | .DEU | .DS | Nuveen Real Estate Management Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-0582851 | 4313182 | | | TIAA-CREF Asset Management UK Limited | .GBR | .DS | TH RE FCACO Ltd | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1127632 | 4618261 | | | TH RE Group Holdings Ltd | .GBR | .DS | Nuveen Real Estate Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|------------------------------------------------------------------|------------------------|-----------------------------------|--------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Loca-tion | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | 4715900 | | | AREFM (BVI) Limited | | DS | TH RE Group Holdings Ltd | Influence | | TIAA Board of Overseers | N | |
| | | .00000 | | 4715311 | | | CLOF II (GP) Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 5154010 | | | CLOF II Vanquish Limited | JEY | DS | CLOF II (GP) Limited | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715263 | | | CLOF II (No 1 GP) Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4841304 | | | CLOF II (No1 Nominee) Limited | GBR | DS | CLOF II (No 1 GP) Limited | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715281 | | | CLOF II (No 2 GP) Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 98-1165678 | 4715302 | | | CLOF II (No 3 GP) Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4908328 | | | Enhanced Debt Carry (GP) Sarl | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4971863 | | | Enhanced Debt Carry SCSp | LUX | DS | Enhanced Debt Carry (GP) Sarl | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 5147003 | | | ERES APAC II (GP) S.à.r.l | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4949116 | | | European Cities Partnership (GP) S.a.r.l. | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | European Cities Partnership SCSp | LUX | DS | European Cities Partnership (GP) S.a.r.l. | Influence | | TIAA Board of Overseers | N | 1100 |
| | | .00000 | | 4715227 | | | Henderson Joint Ventures Property Funds Management Sarl | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4841247 | | | Islazul General Partner Sarl | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715245 | | | Matador LP General Partner Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715366 | | | Nuveen Beteiligung Verwaltungs GmbH | DEU | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715898 | | | Nuveen Immobilien GmbH | DEU | DS | TH RE Group Holdings Ltd | Influence | | TIAA Board of Overseers | N | |
| | | .00000 | | 4844015 | | | Anglo-Sino Henderson Investment Consultancy (Beijing) Co Limited | CHN | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4912763 | | | Nuveen Consulting (Shanghai) Co Ltd | CHN | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715357 | | | Nuveen Management Austria GmbH | AUT | DS | TH RE Group Holdings Ltd | Ownership | 65.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | Nuveen Management Finland Oy | FIN | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4841256 | | | Nuveen Real Estate Debt Partners (GP) Sarl | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | Nuveen Real Estate Debt Partners II (GP) S.à.r.l | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | Global Real Estate Debt Partners – Fund II (UK) SCSp | LUX | DS | Nuveen Real Estate Debt Partners II (GP) S.à.r.l | Influence | | TIAA Board of Overseers | N | 1200 |
| | | .00000 | | 4715348 | | | Nuveen Real Estate Nominees Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715919 | | | Nuveen Singapore Private Limited | SGP | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715254 | | | OMP (GP) Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4901235 | | | T-C Lux Investments GP Sarl | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4841265 | | | TH Real Estate (Australia) Ltd. | AUS | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715236 | | | TH Real Estate (France) SAS | FRA | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | TH Real Estate Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4908337 | | | TH Real Estate PELV GP Sarl | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | TH RE Corporate Secretarial Services Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4747059 | | | TH RE Italy Srl | ITA | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4747152 | | | TH RE Operations Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 98-1014834 | 4617675 | | | TIAA-CREF Luxembourg S.à.r.l. | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | Tokyo Multifamily GP PTE Ltd | LUX | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715272 | | | UK OM (LP1) (GP) Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4841292 | | | UK OM (LP1) Limited | GBR | DS | UK OM (LP1) (GP) Limited | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715290 | | | UK OM (LP2) (GP) Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4841283 | | | UK OM (LP2) Limited | GBR | DS | UK OM (LP2) (GP) Limited | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4715320 | | | UK OM (LP3) (GP) Limited | GBR | DS | TH RE Group Holdings Ltd | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4841274 | | | UK OM (LP3) Limited | GBR | DS | UK OM (LP3) (GP) Limited | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | TH Real Estate U.S. Strategic Industrial Fund I GP, LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 81-2388576 | 5193381 | | | TIAA Global Ag Special Member LLC | DE | DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 45-1532009 | 4801867 | | | Global Agriculture AIV, LLC | DE | DS | TIAA Global Ag Special Member LLC | Management | | TIAA Board of Overseers | N | |
| | | .00000 | 45-1502502 | 4801885 | | | Global AG US Corp. | DE | DS | Global Agriculture AIV, LLC | Ownership | 56.500 | TIAA Board of Overseers | N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------|-----------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 81-1749609 | 4843287 | | | TIAA Global Ag II Special Member LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-2126174 | | | | TPS Investors Carry-Co, LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-1394681 | 4314255 | | | U.S. Cities Fund GP, LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3647870 | 5116607 | | | U.S. Cities Industrial Fund GP LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3698954 | 5116616 | | | U.S. Cities Multifamily CPF Fund GP LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3734470 | 5116625 | | | U.S. Cities Office Fund GP LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3493929 | 5057652 | | | U.S. Cities Retail CPF Fund GP LLC | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-3416812 | 4312916 | | | Westchester Group Investment Management Holding Company, Inc. | .DE | .DS | Nuveen Alternative Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-3417683 | 4312925 | | | Westchester Group Investment Management, Inc. | .DE | .DS | Westchester Group Investment Management Holding Company, Inc. | Ownership | 90.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 87-0735518 | 4746977 | | | Plata Wine Partners, LLC | .CA | .DS | Westchester Group Investment Management, Inc. | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 26-2747489 | 4634038 | | | Premiere Agricultural Management International, LLC | .DE | .DS | Westchester Group Investment Management, Inc. | Ownership | 86.700 | TIAA Board of Overseers | .N | |
| | | .00000 | 37-1261935 | 4617693 | | | Terra Land Co. | .IL | .DS | Westchester Group Investment Management, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 37-6589484 | 4747200 | | | The Plata Wine Partners Trust | .CA | .DS | Westchester Group Investment Management, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 37-1193972 | 4618122 | | | Westchester Group Asset Management, Inc. | .IL | .DS | Westchester Group Investment Management, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 37-1193973 | 4618186 | | | Westchester Group Farm Management, Inc. | .IL | .DS | Westchester Group Investment Management, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4618207 | | | Westchester Group of Australia Pty Ltd. | .AUS | .DS | Westchester Group Investment Management, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4794482 | | | Westchester Group of Europe Ltd. | .GBR | .DS | Westchester Group Investment Management, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Westchester Group SRL | .ROU | .DS | Westchester Group of Europe Ltd. | Ownership | 99.000 | TIAA Board of Overseers | .N | 1300 |
| | | .00000 | | 4914730 | | | Westchester Group of Poland Sp. Z.o.o. | .POL | .DS | Westchester Group of Europe Ltd. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Westchester Group SRL | .ROU | .DS | Westchester Group of Poland Sp. Z.o.o. | Ownership | 1.000 | TIAA Board of Overseers | .N | 1300 |
| | | .00000 | 37-1194491 | 4618225 | | | Westchester Group Real Estate, Inc. | .IL | .DS | Westchester Group Investment Management, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Westchester Group South America Gestao de Investimentos Ltda. | .BRA | .DS | Westchester Group Real Estate, Inc. | Ownership | 1.000 | TIAA Board of Overseers | .N | 1400 |
| | | .00000 | | | | | Westchester Group South America Gestao de Investimentos Ltda. | .BRA | .DS | Westchester Group Investment Management, Inc. | Ownership | 99.000 | TIAA Board of Overseers | .N | 1400 |
| | | .00000 | 47-1563437 | 4749941 | | | Nuveen Finance, LLC | .DE | .DS | Nuveen, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3425820 | 5110025 | | | Nuveen Holdings 1, Inc. | .DE | .DS | Nuveen Finance, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-0373324 | 4767758 | | | Nuveen Holdings, Inc. | .DE | .DS | Nuveen Holdings 1, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 36-3817266 | 3707551 | 0000885708 | | Nuveen Investments, Inc. | .DE | .DS | Nuveen Holdings, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-0627593 | 4774710 | | | Gresham Asset Management LLC | .DE | .DS | Nuveen Investments, Inc. | Ownership | 78.900 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-1930384 | 4349828 | | | Gresham Investment Management LLC | .DE | .DS | Nuveen Investments, Inc. | Ownership | 78.900 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4781941 | | | Gresham Investment Management Asia Pte. Ltd. | .SGP | .DS | Gresham Investment Management LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 36-4839486 | 5153992 | | | Nuveen Alternative Investments, LLC | .DE | .DS | Nuveen Investments, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 31-0942504 | 4774792 | 0001311016 | | Nuveen Fund Advisors, LLC | .DE | .DS | Nuveen Investments, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-4357327 | 4781624 | 0001521019 | | Nuveen Asset Management, LLC | .DE | .DS | Nuveen Fund Advisors, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 36-3293941 | | | | NIS/R&T, Inc. | .IL | .DS | Nuveen Investments, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 37-1695518 | 4774831 | 0001602161 | | Nuveen WCM Holdings, LLC | .DE | .DS | Nuveen Investments, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 90-0860898 | 4776527 | 0000900973 | | Winslow Capital Management, LLC | .DE | .DS | Nuveen WCM Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0730906 | 5147021 | | | Growth Capital GP I, LLC | .DE | .DS | Winslow Capital Management, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 36-4709028 | 4774868 | 0001602171 | | Nuveen NIQ Holdings, LLC | .DE | .DS | Nuveen Investments, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 30-0892190 | 4981189 | 0001661847 | | NIQ Partners, LLC | .DE | .DS | Nuveen NIQ Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-0875103 | 4776518 | 0000763848 | | NIQ Investment Management Company, LLC | .DE | .DS | NIQ Partners, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|-------------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 36-2639476 | 4775137 | 0000073387 | | Nuveen Securities, LLC | DE | DS | Nuveen Investments, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 20-3432117 | 4774822 | 0001109426 | | Santa Barbara Asset Management, LLC | DE | DS | Nuveen Investments, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 94-3252504 | 4774813 | 0001030815 | | Symphony Asset Management LLC | CA | DS | Nuveen Investments, Inc. | Ownership | 51.000 | TIAA Board of Overseers | N | 1500 |
| | | .00000 | 36-7364377 | 4774783 | | | Nuveen Investments Holdings, Inc. | DE | DS | Nuveen Investments, Inc. | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 94-3252504 | 4774813 | 0001030815 | | Symphony Asset Management LLC | CA | DS | Nuveen Investments Holdings, Inc. | Ownership | 49.000 | TIAA Board of Overseers | N | 1500 |
| | | .00000 | | | | | Symphony Risk Retention Finance LLC | DE | DS | Symphony Asset Management LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 30-1032009 | | | | SRR 1 LLC | DE | DS | Symphony Risk Retention Finance LLC | Ownership | 51.000 | TIAA Board of Overseers | N | |
| | | .00000 | 13-3760073 | 4313306 | 0000939222 | | Teachers Advisors, LLC | DE | DS | Nuveen Finance, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 82-1157427 | | | | ColInvest Member LLC | DE | DS | Teachers Advisors, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | ClO ColInvest I LLC | DE | DS | Teachers Advisors, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 13-3987258 | 4599052 | | | 485 Properties, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 13-3371278 | 4601094 | | | JWL Properties, Inc. | DE | DS | 485 Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 13-3550737 | 4601179 | | | T-Investment Properties Corp. | DE | DS | 485 Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 16-1735872 | 4601209 | | | TOPC Associates, LLC | DE | DS | 485 Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 20-8218167 | 4601339 | | | TIAA Gemini Office, LLC | DE | DS | 485 Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 81-3091169 | 5026603 | | | 730 Data Centers, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 82-0793232 | 5154029 | | | 730 Aviator, LLC | DE | DS | 730 Data Centers, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 81-3106043 | 5036303 | | | 730 Databridge, LLC | DE | DS | 730 Data Centers, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 47-2616735 | 4801719 | | | 730 Power Development, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 47-2622825 | 4810784 | | | 730 Carroll, LLC | DE | DS | 730 Power Development, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4949107 | | | 730 Cricket, LLC | DE | DS | 730 Power Development, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 47-5363027 | 4936116 | | | 730 Telecom LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 13-4042885 | 4599801 | | | 730 Texas Forest Holdings, Inc. | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | Y | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 51-0494351 | 4599838 | | | 730 Texas Timberlands II, Ltd. | TX | DS | Teachers Insurance and Annuity Association of America | Ownership | 99.500 | TIAA Board of Overseers | N | 1600 |
| | | .00000 | 51-0494351 | 4599838 | | | 730 Texas Timberlands II, Ltd. | TX | DS | 730 Texas Forest Holdings, Inc. | Ownership | 0.500 | TIAA Board of Overseers | N | 1600 |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 13-4040842 | 4601722 | | | TIAA Timberlands I, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 13-4085431 | 4601740 | | | TIAA Timberlands II, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 13-4042888 | 4601713 | | | 730 Texas Timberlands, Ltd. | TX | DS | TIAA Timberlands I, LLC | Ownership | 99.500 | TIAA Board of Overseers | N | 1700 |
| | | .00000 | 13-4042888 | 4601713 | | | 730 Texas Timberlands, Ltd. | TX | DS | 730 Texas Forest Holdings, Inc. | Ownership | 0.500 | TIAA Board of Overseers | N | 1700 |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 26-1870966 | 4314808 | | | Active Extension Fund III, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 38-3847245 | 4602840 | | | Actoil, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 46-3373066 | 4602916 | | | Actoil Colorado, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4651521 | | | Great Western Petroleum LLC | DE | DS | Actoil Colorado, LLC | Influence | | TIAA Board of Overseers | N | |
| | | | | | | | Great Western Exploration & Development, Inc. | | | | | | | | |
| | | .00000 | | | | | | DE | DS | Great Western Petroleum LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 45-2285816 | 4860501 | | | Almond Processors, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | | 4747134 | | | ASC Holdings, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | N | |
| | | | | | | | Teachers Insurance and Annuity Association of America | | | | | | | | |
| | | .00000 | 46-1952974 | 4599940 | | | Broadleaf Timberland Investments, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 26-4647417 | 4601768 | | | Quercus Forestland Account, LLC | NC | DS | Broadleaf Timberland Investments, LLC | Ownership | 99.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 4618346 | | | Quercus Panama, LLC | DE | DS | Quercus Forestland Account, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|---------------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | 4651503 | | | Quercus Algoma Corporation | .CAN | .DS | Quercus Forestland Account, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4860538 | | | Quercus Algoma Land Corporation | .CAN | .DS | Quercus Algoma Corporation | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-2916514 | 4613426 | | | Quercus West Virginia, LLC | .DE | .DS | Quercus Forestland Account, LLC | Ownership..... | 99.900 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2130842 | 4772275 | | | Casa Student Housing Fund, LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2167228 | 4776451 | | | Casa Student Housing Fund Holdings, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-3994280 | 4865047 | | | Shf-33d North Apts, LLC | .DE | .DS | Casa Student Housing Fund Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4155469 | 4865056 | | | Shf-Millennium One Apts, LLC | .DE | .DS | Casa Student Housing Fund Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2450195 | 4990958 | | | Shf-The Rocks Apts, LLC | .DE | .DS | Casa Student Housing Fund Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4455610 | 4990967 | | | PEP-TH CASA Student Housing, LLC | .DE | .DS | Casa Student Housing Fund Holdings, LLC | Ownership..... | 90.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4455303 | 5194418 | | | CSHF-PEP Purdue LLC | .DE | .DS | PEP-TH CASA Student Housing, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 30-0965548 | 5195237 | | | CSHF-PEP USF LLC | .DE | .DS | PEP-TH CASA Student Housing, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 13-1624203 | 4600015 | | | CCM Series, LLC | .DE | .DS | Casa Student Housing Fund Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4069196 | 4899604 | | | CCAP Fund 6 - 2015, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 87.500 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-1205888 | 5010648 | | | CCAP Fund 6 - 2016, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 97.800 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4732595 | 5183485 | | | CCAP Fund 6 - 2017, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 91.100 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-3167398 | | | | CCAP Fund 6 - 2018, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2787412 | | | | CCAP FUND 6 - 2019, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4079472 | 4899613 | | | CCAP Fund 8 - 2015, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 92.100 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-1212188 | 5010639 | | | CCAP Fund 8 - 2016, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 90.900 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3718876 | 5047596 | | | CCAP Fund 8 - 2017, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 91.600 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-3182368 | | | | CCAP FUND 8 - 2018, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2793857 | | | | CCAP FUND 8 - 2019, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0784669 | 4990882 | | | CCAP Fund GE, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 89.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0821374 | 4990903 | | | CCAP Fund HFD, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 98.600 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0758188 | 4990891 | | | CCAP Fund HFND, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 93.600 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0801804 | 4990921 | | | CCAP Fund MRA, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 93.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0813037 | 4990912 | | | CCAP Fund PDS, L.P. | .DE | .DS | CCM Series, LLC | Ownership..... | 89.300 | TIAA Board of Overseers | .N | |
| | | .00000 | 13-1624203 | 4600024 | | | CCM Series 2, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0753491 | 4990930 | | | CCAP Fund FI, L.P. | .DE | .DS | CCM Series 2, LLC | Ownership..... | 90.800 | TIAA Board of Overseers | .N | |
| | | .00000 | 56-2672630 | 4600033 | | | Ceres Agricultural Properties, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 37-1555322 | 4601816 | | | Premiere Agricultural Properties, LLC | .DE | .DS | Ceres Agricultural Properties, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 80-0843991 | 4628596 | | | Loma del Rio Vineyards, LLC | .DE | .DS | Premiere Agricultural Properties, LLC | Ownership..... | 45.000 | TIAA Board of Overseers | .N | 1800 |
| | | .00000 | 36-4620107 | 4601825 | | | Premiere Columbia Properties, LLC | .DE | .DS | Ceres Agricultural Properties, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 30-0449681 | 4601834 | | | Premiere Farm Properties, LLC | .DE | .DS | Ceres Agricultural Properties, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-3484719 | 4601843 | | | Demeter Agricultural Properties II, LLC | .DE | .DS | Ceres Agricultural Properties, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-0352203 | 4628372 | | | International Agricultural Investors, LLC | .DE | .DS | Ceres Agricultural Properties, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4633321 | | | IAI Australia Pty., Ltd. | .AUS | .DS | International Agricultural Investors, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4633330 | | | IAI Australia Trust | .AUS | .DS | International Agricultural Investors, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-0460488 | 4633358 | | | IAI USA, LLC | .DE | .DS | International Agricultural Investors, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-2745365 | 4628363 | | | International Agricultural Investors Fund II, LLC | .DE | .DS | Ceres Agricultural Properties, LLC | Ownership..... | 99.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4633303 | | | IAI Australia Fund II, Pty., Ltd. | .AUS | .DS | International Agricultural Investors Fund II, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4633312 | | | IAI Australia Fund II Trust | .AUS | .DS | International Agricultural Investors Fund II, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-2747755 | 4633349 | | | IAI USA Fund II, LLC | .DE | .DS | International Agricultural Investors Fund II, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1402136 | | | | Churchill Middle Market CLO IV Ltd. | .CYM | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|------------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 81-1810508 | 5041624 | | | Churchill Middle Market Senior Loan Fund, LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 26-3049305 | 4601928 | | | Demeter Agricultural Properties, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4601852 | | | Mansilla Participacoes LTDA | .BRA | .DS | Demeter Agricultural Properties, LLC | Ownership | 0.000 | TIAA Board of Overseers | .N | 1900 |
| | | .00000 | 45-2632248 | 4600770 | | | Dionysus Properties, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 94-3306131 | 4601861 | | | Silverado Premium Properties, LLC | .CA | .DS | Dionysus Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 68-0436609 | 4612764 | | | Arroya Loma, LLC | .DE | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 75-3025596 | 4612867 | | | Chalk Ridge Vineyard, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-3964695 | 4613314 | | | Hobson Avenue Vineyard, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-1542713 | 4613417 | | | Marsino Vineyard, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-2103733 | 4613864 | | | Silverado Los Alamos Vineyards, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-2490906 | 4613882 | | | Silverado SLO Vineyards, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-2103788 | 4613891 | | | Silverado Sonoma Vineyard, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 68-0466083 | 4613949 | | | SPP Napa Vineyards, LLC | .DE | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 94-3361818 | 4613967 | | | Stanly Ranch Vineyards, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-3774024 | 4613976 | | | Suscol Mountain Vineyards, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-2766605 | 4614665 | | | Terra Ventosa Vineyards, LLC | .CA | .DS | Silverado Premium Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 43-3997217 | 4601870 | | | Silverado Winegrowers Holdings, LLC | .DE | .DS | Dionysus Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 68-0443927 | 4613921 | | | Silverado Winegrowers LLC | .CA | .DS | Silverado Winegrowers Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 94-3357571 | 4614759 | | | Alta Loma Vineyard, LLC | .CA | .DS | Silverado Winegrowers LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 94-3312405 | 4615671 | | | Oak Knoll Napa Vineyards, LLC | .CA | .DS | Silverado Winegrowers LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 91-1806950 | 4615783 | | | Silverado Suscol, LLC | .CA | .DS | Silverado Winegrowers LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-4820104 | 4617077 | | | SWG Paso Vineyard, LLC | .CA | .DS | Silverado Winegrowers LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-3561447 | 4599708 | 0001454640 | | Distressed Opportunities Fund, L.P. | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4680307 | | | DWM Inclusive Finance Equity Fund II | .LUX | .DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 98-0580879 | 4633947 | | | DWM Microfinance Equity Fund I | .LUX | .DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | | 5165481 | | | Enterprise Homes Preservation Fund, LLC | .MD | .DS | Teachers Insurance and Annuity Association of America | Ownership | 70.400 | TIAA Board of Overseers | .N | |
| | | .00000 | 04-3718449 | 4643003 | | | Envisage Information Systems, LLC | .NY | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 30-0701953 | 4633974 | | | EPP LFG I, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | | 4894805 | | | Global Real Estate Debt Partners – Fund I (UK) | .LUX | .DS | Teachers Insurance and Annuity Association of America | Ownership | 36.500 | TIAA Board of Overseers | .N | 2000 |
| | | .00000 | | | | | Global Real Estate Debt Partners – Fund II (UK) SCSp | .LUX | .DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | .N | 1200 |
| | | .00000 | 20-1930384 | | 0001684621 | | Gresham CMS Fund, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 32-0509812 | | 0001699398 | | GreshamQuant ACAR Fund LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0737062 | 4952750 | | | Growth Capital Fund I, L.P. | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 94.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4860556 | | | Inception GP LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-2031403 | 4860800 | | | Inception Partners IV, LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 46-2062147 | 4860819 | | | Inception Partners V, LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|---------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 27-4149157 | 4860846 | | | Infra Alpha, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-3900641 | 4860855 | | | EMG Investments, LLC | .DE | .DS | Infra Alpha, LLC | Influence..... | | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4169877 | 4874656 | | | Lewis & Clark Timberlands, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 57.400 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4187541 | 4876436 | | | L&C Log Co, LLC | .DE | .DS | Lewis & Clark Timberlands, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4196668 | 4945967 | | | L&C Tree Farms, LLC | .DE | .DS | Lewis & Clark Timberlands, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5300478 | 4946384 | | | L&C TRS LLC | .DE | .DS | L&C Tree Farms, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-2007833 | 4635334 | | | Liberty M & R SPV II, LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4601852 | | | Mansilla Participacoes LTDA | .BRA | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | 1900 |
| | | .00000 | | 4634654 | | | Radar Propriedades Agricolas S.A. | .BRA | .DS | Mansilla Participacoes LTDA | Influence..... | | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643049 | | | Nova Amaralina S.A. Propriedades Agricolas | .BRA | .DS | Radar Propriedades Agricolas S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643320 | | | Nova Agricola Ponte Alta S.A. | .BRA | .DS | Radar Propriedades Agricolas S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643358 | | | Nova Santa Barbara Agricola S.A. | .BRA | .DS | Radar Propriedades Agricolas S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4644523 | | | Terras da Ponte Alta S.A. | .BRA | .DS | Radar Propriedades Agricolas S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4634645 | | | Radar II Propriedades Agricolas S.A. | .BRA | .DS | Mansilla Participacoes LTDA | Influence..... | | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643085 | | | Proud Participacoes S.A. | .BRA | .DS | Radar II Propriedades Agricolas S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4644336 | | | Vale De Ponte Alta S.A. | .BRA | .DS | Radar II Propriedades Agricolas S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4644318 | | | Bioinvestments Negocios e Participacoes | .BRA | .DS | Radar II Propriedades Agricolas S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4644309 | | | Aguas de Ponte Alta S.A. | .BRA | .DS | Radar II Propriedades Agricolas S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 13-1624203 | 5077137 | | | MM Funding, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-0902011 | 5043075 | | | MyVest Corporation | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .Y | |
| | | .00000 | 11-3034756 | 4600789 | | | ND Properties, Inc. | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .Y | |
| | | .00000 | | 4634917 | | | Norteshopping Retail and Leisure Centre BV | .NLD | .DS | ND Properties, Inc. | Ownership..... | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4634926 | | | Norteshopping - Centro Commercial, S.A. | .PRT | .DS | Norteshopping Retail and Leisure Centre BV | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 11-3034756 | 4611806 | | | TIAA Stafford-Harrison LLC | .DE | .DS | ND Properties, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4611824 | | | ND Europe S.a.r.l. | .LUX | .DS | ND Properties, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4912781 | | | ND Europe Office Holding S.à r.l. | .LUX | .DS | ND Europe S.a.r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4925558 | | | Cityhold Nympe S.à r.l. | .LUX | .DS | ND Europe Office Holding S.à r.l. | Ownership..... | 6.000 | TIAA Board of Overseers | .N | 2100 |
| | | .00000 | | 4925530 | | | Cityhold Propco 11 S.à r.l. | .LUX | .DS | ND Europe Office Holding S.à r.l. | Ownership..... | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4914776 | | | Cityhold Euro S.à r.l. | .LUX | .DS | ND Europe Office Holding S.à r.l. | Ownership..... | 6.000 | TIAA Board of Overseers | .N | 2200 |
| | | .00000 | | 4913416 | | | Cityhold Office Partnership S.à r.l. | .LUX | .DS | ND Europe Office Holding S.à r.l. | Ownership..... | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | CHOP OPCl | .FRA | .DS | Cityhold Office Partnership S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1435873 | | | | Cityhold Iconic Holding SAS | .FRA | .DS | CHOP OPCl | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1433967 | | | | Cityhold Iconic Hotel SNC | .FRA | .DS | Cityhold Iconic Holding SAS | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1433956 | | | | Cityhold Iconic Office SCI | .FRA | .DS | Cityhold Iconic Holding SAS | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1433960 | | | | Cityhold Iconic Retail SNC | .FRA | .DS | Cityhold Iconic Holding SAS | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1433975 | | | | Cityhold Iconic Youth Hostel SNC | .FRA | .DS | Cityhold Iconic Holding SAS | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4925558 | | | Cityhold Nympe S.à r.l. | .LUX | .DS | Citythold Office Partnership S.à r.l. | Ownership..... | 88.000 | TIAA Board of Overseers | .N | 2100 |
| | | .00000 | | 4920094 | | | Cityhold Propco 6 S.à r.l. | .LUX | .DS | Citythold Office Partnership S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1433939 | | | | Cityhold Iconic Hotel OPCO SAS | .FRA | .DS | Citythold Propco 6 S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1435880 | | | | Citythold Iconic Investment S.à r.l. | .LUX | .DS | Citythold Propco 6 S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4925521 | | | Citythold Propco 9 S.à r.l. | .LUX | .DS | Citythold Office Partnership S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4612746 | | | 36 Rue La Fayette SAS | .FRA | .DS | Citythold Propco 9 S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4613828 | | | SAS Roosevelt | .FRA | .DS | Citythold Propco 9 S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4914767 | | | Roosevelt Participation S.à r.l. | .LUX | .DS | Citythold Propco 9 S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4615578 | | | SNC Roosevelt | .FRA | .DS | SAS Roosevelt | Ownership..... | 100.000 | TIAA Board of Overseers | .N | 2300 |
| | | .00000 | | 4615578 | | | SNC Roosevelt | .FRA | .DS | Roosevelt Participation S.à r.l. | Ownership..... | 0.000 | TIAA Board of Overseers | .N | 2300 |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|---------------------------------------------|-----------------------|-----------------------------------|------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | 4612876 | | | Courcelles 70 SAS | .FRA | .DS | Cityhold Propco 9 S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4914776 | | | Cityhold Euro S.à r.l. | .LUX | .DS | Cityhold Propco 9 S.à r.l. | Ownership | 88.000 | TIAA Board of Overseers | .N | 2200 |
| | | .00000 | | 4925549 | | | Cityhold Propco 7 S.à r.l. | .LUX | .DS | Cityhold Euro S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4925615 | | | Cityhold Propco 10 S.à r.l. | .LUX | .DS | Cityhold Euro S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1438380 | | | | Redevelopment Property II B.V. | .LUX | .DS | Cityhold Propco 9 S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4925633 | | | Cityhold Propco 12 S.à r.l. | .LUX | .DS | Cityhold Office Partnership S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Cityhold EST Investment S.à r.l. | .LUX | .DS | Cityhold Propco 12 S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Cityhold GC Investment S.à r.l. | .LUX | .DS | Cityhold Propco 12 S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | OVG Cloud S.à r.l. | .LUX | .DS | Cityhold GC Investment S.à r.l. | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | | 4914785 | | | Cityhold Sterling S.à r.l. | .LUX | .DS | Cityhold Office Partnership S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4914758 | | | Cityhold UK Holding S.à r.l. | .LUX | .DS | Cityhold Sterling S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4919753 | | | Cityhold UK Investment S.à r.l. | .LUX | .DS | Cityhold UK Holding S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4651343 | | | London Belgrave Unit Trust | .JEY | .DS | Cityhold UK Holding S.à r.l. | Ownership | 99.800 | TIAA Board of Overseers | .N | 2400 |
| | | .00000 | | 4651343 | | | London Belgrave Unit Trust | .JEY | .DS | Cityhold UK Investment S.à r.l. | Ownership | 0.200 | TIAA Board of Overseers | .N | 2400 |
| | | .00000 | | 4949198 | | | CLOF Victoria Nominee 1 Limited | .GBR | .DS | London Belgrave Unit Trust | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4949228 | | | CLOF Victoria Nominee 2 Limited | .GBR | .DS | London Belgrave Unit Trust | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4844341 | | | New Fetter Lane Unit Trust | .JEY | .DS | Cityhold UK Holding S.à r.l. | Ownership | 99.900 | TIAA Board of Overseers | .N | 2500 |
| | | .00000 | | 4844341 | | | New Fetter Lane Unit Trust | .JEY | .DS | Cityhold UK Investment S.à r.l. | Ownership | 0.100 | TIAA Board of Overseers | .N | 2500 |
| | | .00000 | | 4919744 | | | 60 Great Portland Street Unit Trust | .JEY | .DS | Cityhold UK Holding S.à r.l. | Ownership | 99.400 | TIAA Board of Overseers | .N | 2600 |
| | | .00000 | | 4919744 | | | 60 Great Portland Street Unit Trust | .JEY | .DS | Cityhold UK Investment S.à r.l. | Ownership | 0.600 | TIAA Board of Overseers | .N | 2600 |
| | | .00000 | | 4920076 | | | SMA Holding S.à r.l. | .LUX | .DS | Cityhold UK Investment S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4919744 | | | 70 St Mary Axe Unit Trust | .JEY | .DS | SMA Holding S.à r.l. | Ownership | 99.900 | TIAA Board of Overseers | .N | 2700 |
| | | .00000 | | 4919744 | | | 70 St Mary Axe Unit Trust | .JEY | .DS | Cityhold UK Investment S.à r.l. | Ownership | 0.100 | TIAA Board of Overseers | .N | 2700 |
| | | .00000 | | 4920067 | | | HV Properties S.à r.l. | .LUX | .DS | Cityhold UK Holding S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4925763 | | | HV Freehold S.à r.l. | .LUX | .DS | HV Properties S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4614704 | | | TIAA Lux 9 S.à r.l. | .LUX | .DS | Cityhold Office Partnership S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4615738 | | | SAS Malachite | .FRA | .DS | TIAA Lux 9 S.à r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4616847 | | | SNC Garnet-TIAA | .FRA | .DS | SAS Malachite | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4616856 | | | SNC La Defense | .FRA | .DS | SAS Malachite | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4616865 | | | SNC Lazuli | .FRA | .DS | SAS Malachite | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4616874 | | | SNC Peridot | .FRA | .DS | SAS Malachite | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4612997 | | | T-C Neuperlach Development S.a.r.l. | .LUX | .DS | ND Europe S.a.r.l. | Ownership | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4613015 | | | T-C Pep Holding S.a.r.l. | .LUX | .DS | ND Europe S.a.r.l. | Ownership | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4617497 | | | T-C Pep Property S.a.r.l. | .LUX | .DS | T-C Pep Holding S.a.r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4617488 | | | T-C Pep Asset S.a.r.l. | .LUX | .DS | T-C Pep Holding S.a.r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4614674 | | | TIAA Lux 11 S.a.r.l. | .LUX | .DS | ND Europe S.a.r.l. | Ownership | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4615635 | | | Gropius Passagen Verwaltungs GmbH | .DEU | .DS | TIAA Lux 11 S.a.r.l. | Ownership | 80.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4615644 | | | Gropius S.a.r.l. | .LUX | .DS | TIAA Lux 11 S.a.r.l. | Ownership | 80.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4615626 | | | Gropius Passagen GmbH & Co KG | .DEU | .DS | Gropius S.a.r.l. | Ownership | 99.800 | TIAA Board of Overseers | .N | 2800 |
| | | .00000 | | 4615626 | | | Gropius Passagen GmbH & Co KG | .DEU | .DS | TIAA Lux 11 S.a.r.l. | Ownership | 0.200 | TIAA Board of Overseers | .N | 2800 |
| | | .00000 | | 4611842 | | | TIAA Lux 5 S.a.r.l. | .LUX | .DS | ND Properties, Inc. | Ownership | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4612906 | | | Erlangen Arcaden Verwaltungs GmbH | .DEU | .DS | TIAA Lux 5 S.a.r.l. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4612885 | | | Erlangen Arcaden GmbH & Co. KG | .DEU | .DS | TIAA Lux 5 S.a.r.l. | Ownership | 94.900 | TIAA Board of Overseers | .N | 2900 |
| | | .00000 | | 4612885 | | | Erlangen Arcaden GmbH & Co. KG | .DEU | .DS | Erlangen Arcaden Verwaltungs GmbH | Ownership | 5.100 | TIAA Board of Overseers | .N | 2900 |
| | | .00000 | 20-1371171 | 4611851 | 0001378575 | | U.S. Cities Fund, LP | .DE | .DS | ND Properties, Inc. | Management | | TIAA Board of Overseers | .N | 3000 |
| | | .00000 | 20-1371171 | 4611851 | 0001378575 | | U.S. Cities Fund, LP | .DE | .DS | U.S. Cities Fund GP, LLC | Management | | TIAA Board of Overseers | .N | 3000 |
| | | .00000 | 20-1371379 | 4614638 | | | U.S. Cities Fund REIT, LLC | .DE | .DS | U.S. Cities Fund, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2193218 | 4952639 | | | T-C Coronado LLC | .DE | .DS | U.S. Cities Fund REIT, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4841790 | 4914721 | | | T-C Ocean Air, LLC | .DE | .DS | U.S. Cities Fund REIT, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-1364650 | 4617590 | | | U.S. Cities Fund Operating GP, LLC | .DE | .DS | U.S. Cities Fund REIT, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-1371235 | 4617602 | | | U.S. Cities Fund Operating, LP | .DE | .DS | U.S. Cities Fund REIT, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-3755756 | 4863463 | | | T-C 40 Broad Street LLC | .DE | .DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-4768909 | 4618289 | | | T-C 3333 Wisconsin Avenue, LLC | .DE | .DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 29-1963113 | | | | T-C Cypress Park West LLC | .DE | .DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|---------------------------------------------------|-----------------------|-----------------------------------|------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 45-2612359 | 4617723 | | | T-C Ellington LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-5061808 | 4702928 | | | T-C Falls Center Townhouses LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-1700245 | 4617853 | | | T-C King Street Station LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-3760906 | 4617947 | | | T-C Newbury Common LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2474310 | 4793038 | | | T-C Park 19 LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2532161 | 4793047 | | | T-C Savier Street Flats LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-4180357 | 4618113 | | | T-C State House on Congress Apartments LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 14-2005711 | 4618131 | | | T-C Stonecrest LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-2892182 | 4618177 | | | T-C Trio Apartments LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3629374 | 5057670 | | | TQPF 300 SW 27 LLC | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3738136 | 5115495 | | | U.S. Cities Industrial Fund LP | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3681230 | 5115972 | | | U.S. Cities Industrial Fund REIT LLC | DE | DS | U.S. Cities Industrial Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3671343 | 5116755 | | | U.S. Cities Industrial Fund Operating GP LLC | DE | DS | U.S. Cities Industrial Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3757117 | 5116250 | | | U.S. Cities Industrial Fund Operating LP | DE | DS | U.S. Cities Industrial Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 30-0977024 | 5116803 | | | T-C Business Parkway LLC | DE | DS | U.S. Cities Industrial Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 37-1853906 | 5116728 | | | T-C Gorman Road LLC | DE | DS | U.S. Cities Industrial Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 36-4863777 | 5116737 | | | T-C Hermosa Avenue LLC | DE | DS | U.S. Cities Industrial Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 35-2589556 | 5116746 | | | T-C Lakewood Corporate Center LLC | DE | DS | U.S. Cities Industrial Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5116764 | | | T-C Miraloma Avenue LLC | DE | DS | U.S. Cities Industrial Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3765537 | 5115507 | | | U.S. Cities Multifamily CPF Fund LP | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3870674 | 5115963 | | | U.S. Cities Multifamily CPF Fund REIT LLC | DE | DS | U.S. Cities Multifamily Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3716920 | 5116782 | | | U.S. Cities Multifamily CPF Fund Operating GP LLC | DE | DS | U.S. Cities Multifamily Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3794611 | 5116773 | | | U.S. Cities Multifamily CPF Fund Operating LP | DE | DS | U.S. Cities Multifamily Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3814378 | 5115516 | | | U.S. Cities Office Fund LP | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3911937 | 5115945 | | | U.S. Cities Office Fund REIT LLC | DE | DS | U.S. Cities Office Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3881522 | 5116595 | | | U.S. Cities Office Fund Operating GP LLC | DE | DS | U.S. Cities Office Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3839479 | 5116791 | | | U.S. Cities Office Fund Operating LP | DE | DS | U.S. Cities Office Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 38-4031444 | 5117604 | | | T-C 2500 Wilson Boulevard LLC | DE | DS | U.S. Cities Office Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 30-0977037 | 5117613 | | | T-C Ridgepointe Corporate Center LLC | DE | DS | U.S. Cities Office Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 38-4031398 | 5117622 | | | T-C Township 14 LLC | DE | DS | U.S. Cities Office Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 35-2589573 | 5117631 | | | T-C World Trade Center North LLC | DE | DS | U.S. Cities Office Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3437405 | 5057689 | | | U.S. Cities Retail CPF Fund LP | DE | DS | U.S. Cities Fund Operating, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3573421 | 5066403 | | | U.S. Cities Retail CPF Fund REIT LLC | DE | DS | U.S. Cities Retail Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3925904 | 5087958 | | | CPF/UIR Joint Venture TRS LLC | DE | DS | U.S. Cities Retail Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3578259 | 5086924 | | | U.S. Cities Retail CPF Fund Operating GP LLC | DE | DS | U.S. Cities Retail Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3473773 | 5075713 | | | U.S. Cities Retail CPF Fund Operating LP | DE | DS | U.S. Cities Retail Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2914954 | 5106457 | | | CPF/UIR JV Member LLC | DE | DS | U.S. Cities Retail Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2928112 | 5110034 | | | CPF/UIR Joint Venture LLC | DE | DS | CPF/UIR JV Member LLC | Ownership | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2955427 | 5110490 | | | CPF 636 Sixth Avenue LLC | DE | DS | CPF/UIR Joint Venture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2264739 | 4785949 | | | CPF 636 Sixth Avenue Retail LLC | DE | DS | CPF 636 Sixth Avenue LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2982618 | 5110511 | | | CPF 856 Market Street LLC | DE | DS | CPF/UIR Joint Venture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2973332 | 5110502 | | | CPF 1511 Third Avenue LLC | DE | DS | CPF/UIR Joint Venture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4785930 | | | CPF 1608 Chestnut General Partner LLC | DE | DS | CPF/UIR Joint Venture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4843371 | | | 1608 Chestnut Partners LP | DE | DS | T-C 1608 Chestnut General Partner LLC | Ownership | 1.000 | TIAA Board of Overseers | .N | 3100 |
| | | .00000 | | 4785958 | | | T-C 1608 Chestnut Limited Partner LLC | DE | DS | CPF/UIR Joint Venture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4843371 | | | 1608 Chestnut Partners LP | DE | DS | T-C 1608 Chestnut Limited Partner LLC | Ownership | 99.000 | TIAA Board of Overseers | .N | 3100 |
| | | .00000 | 27-4116676 | 4618092 | | | T-C Potomac Promenade LLC | DE | DS | U.S. Cities Retail Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-1963207 | 4618104 | | | T-C Roosevelt Square LLC | DE | DS | U.S. Cities Retail Fund Operating LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4935916 | 4952611 | | | TCAM Core Prop Fund REIT 2 LLC | DE | DS | U.S. Cities Fund, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4016470 | 4865159 | | | T-C 51 Sleeper Street LLC | DE | DS | TCAM Core Prop Fund REIT 2 LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |

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|------------|------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|------------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 26-4750562 | 4600846 | | | Occator Agricultural Properties, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1768969 | 4611860 | | | AGR Agricultural Investments, LLC | .DE | .DS | Occator Agricultural Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643861 | | | Ridley Corporation Limited | .AUS | .DS | AGR Agricultural Investments | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | | 5106475 | | | Mandala Food Co-Investment Holdings II SPV | .MUS | .DS | Occator Agricultural Properties, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-1125143 | 4628608 | | | Matera, LLC | .CA | .DS | Occator Agricultural Properties, LLC | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 26-4621336 | 4644475 | | | Teays River Investments, LLC | .DE | .DS | Occator Agricultural Properties, LLC | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 26-4248579 | 4313025 | | | Oleum Holding Company, Inc. | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .Y | |
| | | .00000 | | 4313100 | | | Polar Star Canadian Oil and Gas Holding, Inc | .CAN | .DS | Oleum Holding Company, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4612755 | | | Adastra Management, Inc. | .CAN | .DS | Polar Star Canadian Oil and Gas Holding, Inc | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | | 4936095 | | | Nova Star Oil and Gas Inc. | .CAN | .DS | Polar Star Canadian Oil and Gas Holding, Inc | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4313128 | | | Polar Star Canadian Oil and Gas, Inc. | .CAN | .DS | Polar Star Canadian Oil and Gas Holding, Inc | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-3821015 | 4630133 | | | Pinnacle Third Avenue, LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 81-6646838 | 5018644 | | | Primary Residential Individual Mortgage Entity Trust | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-2792614 | 4601142 | | | Renewable Timber Europe, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4990994 | | | Renewable Timber Netherlands B.V. | .POL | .DS | Renewable Timber Europe, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4614713 | | | Topola Lasy Spolka z.o.o. | .POL | .DS | Renewable Timber Netherlands B.V. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 61-1640765 | 4601759 | | | Renewable Timber Resources, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4611927 | | | Forestal y Agrícola Silvoligna Chile Limitada | .CHL | .DS | Renewable Timber Resources, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 11-3564797 | 4643898 | | | RT Tri-State LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 03-0543113 | 4868637 | | | Siguler Guff Third Avenue, L.P. | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4858629 | | | Social Infra, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4599977 | | | T-C 20 Hunter Street (AUS) Pty Ltd | .AUS | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-3922951 | 4599968 | | | T-C 20 Hunter Street (US), LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2525521 | 4998468 | | | T-C 400 Montgomery, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5077128 | | | 400 Montgomery Investors, LLC | .DE | .DS | T-C 400 Montgomery, LLC | Ownership | 97.500 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-4123754 | 4601777 | | | T-C 685 Third Avenue Member, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-3835063 | 4643982 | | | T-C 685 Third Avenue Venture, LLC | .DE | .DS | T-C 685 Third Avenue Member, LLC | Ownership | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-3095569 | 4644000 | 0001510620 | | T-C 685 Third Avenue, LLC | .DE | .DS | T-C 685 Third Avenue Venture, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2986461 | 4843380 | | | T-C 685 Third Avenue Mezzanine LLC | .DE | .DS | T-C 685 Third Avenue, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 61-1754745 | 4843915 | | | T-C 685 Third Avenue Owner LLC | .DE | .DS | T-C 685 Third Avenue Mezzanine LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-4969690 | 4653972 | | | T-C 699 Bourke Street LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2490530 | 4998431 | | | T-C Australia RE Holdings I, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2506975 | 5003426 | | | T-C Australia RE Holdings II, LLC | .DE | .DS | T-C Australia RE Holdings I, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5084966 | | | TIAA Australia Real Estate Trust | .AUS | .DS | T-C Australia RE Holdings II, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |

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|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|-----------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|-------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | 4868477 | | | T-C 20 Hunter Street (AUS) Trust | .AUS | .DS | TIAA Australia Real Estate Trust | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5195255 | | | TGA Miller Holding Trust | .AUS | .DS | TIAA Australia Real Estate Trust | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5201820 | | | TGA Miller Street Trust | .AUS | .DS | TGA Miller Holding Trust | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5085749 | | | TIAA Melbourne Retail Holding 1 Trust | .AUS | .DS | TIAA Australia Real Estate Trust | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5087891 | | | TIAA Melbourne Retail Asset 1 Trust | .AUS | .DS | TIAA Melbourne Retail Holding 1 Trust | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2363168 | 4794503 | | | T-C Europe Holding Inc. | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2369576 | 4794473 | | | T-C Europe LP | .DE | .DS | T-C Europe Holding Inc. | Ownership..... | 1.000 | TIAA Board of Overseers | .N | .3200 |
| | | .00000 | 47-2369576 | 4794473 | | | T-C Europe LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 99.000 | TIAA Board of Overseers | .N | .3200 |
| | | .00000 | | 4843410 | | | T-C Europe S.à r.l. | .LUX | .DS | T-C Europe LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4873501 | | | Nightingale LuxCo S.à r.l. | .LUX | .DS | T-C Europe S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4874665 | | | T-C Nordics Investment AB | .SWE | .DS | Nightingale LuxCo S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4908391 | | | Sweden Nova Lund 1 AB | .SWE | .DS | T-C Nordics Investment AB | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4908403 | | | Sweden Nova Lund 2 AB | .SWE | .DS | T-C Nordics Investment AB | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4841443 | | | T-C Luxembourg Neptune Holdings S.à r.l. | .LUX | .DS | T-C Europe S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4841993 | | | T-C Neptune Holdings S. à r.l. | .LUX | .DS | T-C Luxembourg Neptune Holdings S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4843401 | | | Neptune Property Venture S.à r.l. | .LUX | .DS | T-C Neptune Holdings S. à r.l. | Ownership..... | 61.800 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4908373 | | | Neptune Polish Property Venture BV | .NLD | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4912736 | | | Neptune Krakow SP. z.o.o. | .POL | .DS | Neptune Polish Property Venture BV | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4912745 | | | Neptune Annpol SP. z.o.o. | .POL | .DS | Neptune Polish Property Venture BV | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5083633 | | | Neptune Poznan SP. z.o.o. | .POL | .DS | Neptune Polish Property Venture BV | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Neptune Property Holding S.à r.l. | .LUX | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Nemab Sugar City B.V. | .NLD | .DS | Neptune Property Holding S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4908364 | | | Neptune Holding Spain, S.L. | .ESP | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4912709 | | | Promcat Alternativa, S.L. | .ESP | .DS | Neptune Holding Spain, S.L. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4948687 | | | Neptune OPCI SAS | .FRA | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4952648 | | | Roppenheim Holding SAS | .FRA | .DS | Neptune OPCI SAS | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4901383 | | | Roppenheim Outlet SNC | .FRA | .DS | Roppenheim Holding SAS | Ownership..... | 100.000 | TIAA Board of Overseers | .N | .3300 |
| | | .00000 | | 5195291 | | | Neptune Polish HoldCo 2 B.V. | .NLD | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5198779 | | | Neptune Ursus SP. z.o.o. | .POL | .DS | Neptune Polish HoldCo 2 B.V. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4949095 | | | Neptune Roppenheim Holding S.à r.l. | .FRA | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4901383 | | | Roppenheim Outlet SNC | .FRA | .DS | Neptune Roppenheim Holding S.à r.l. | Ownership..... | 0.000 | TIAA Board of Overseers | .N | .3300 |
| | | .00000 | | 5083642 | | | Neptune Vicolungo I S.r.l. | .ITA | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Castel Guelfo I SRL | .ITA | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5083651 | | | Neptune Madrid Holdco S.L. | .ESP | .DS | Neptune Property Venture S.à r.l. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5085691 | | | Nevis Getafe S.L. | .ESP | .DS | Neptune Madrid Holdco S.L. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5085703 | | | Neptune Getafe Propco S.L. | .ESP | .DS | Neptune Madrid Holdco S.L. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5084920 | | | Neptune Las Rozas Outlet S.L. | .ESP | .DS | Neptune Madrid Holdco S.L. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5084939 | | | Neptune San Sebastian Outlet S.L. | .ESP | .DS | Neptune Madrid Holdco S.L. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-2877772 | 4601786 | | | T-C GA Real Estate Holdings, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-0959792 | 4611936 | | | 8 Spruce Street GA Investor, LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1403221 | 4619567 | | | FC 8 Spruce Holdings, LLC | .DE | .DS | 8 Spruce Street GA Investor, LLC | Influence..... | | TIAA Board of Overseers | .N | |
| | | .00000 | | 4511867 | | | FC 8 Spruce Street Residential, LLC | .NY | .DS | FC 8 Spruce Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-1419222 | 5194360 | | | Nuveen Global Cities REIT, Inc. | .MD | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 99.300 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-1502883 | 5198788 | | | Nuveen Global Cities REIT LP, LLC | .DE | .DS | Nuveen Global Cities REIT, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-1507998 | 5198797 | | | Nuveen Global Cities REIT OP, LP | .DE | .DS | Nuveen Global Cities REIT, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-3527067 | 5205060 | | | NR 844 North LLC | .DE | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | NR APCF Investor Ltd. | .CYM | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-5519657 | | | | NR Defoor Hills LLC | .DE | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-3539243 | 5205088 | | | NR Denver Industrial Portfolio LLC | .DE | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | NR ECF Investor Ltd. | .DE | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-1495411 | | | | NR Henderson 215 LLC | .DE | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |

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| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 82-3556058 | 5205079 | | | NR Kirkland Crossing LLC | .DE | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-1815798 | | | | NR Main Street at Kingwood LLC | .DE | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-5503093 | | | | NR Tacara at Steiner Ranch LLC | .DE | .DS | Nuveen Global Cities REIT OP, LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1535030 | 4750022 | | | T-C 2 Herald Square Member LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1650509 | 4751711 | | | T-C 2 Herald Square Venture LLC | .DE | .DS | T-C 2 Herald Square Member LLC | Ownership..... | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1488131 | 4753573 | 0001629144 | | T-C 2 Herald Square Owner LLC | .DE | .DS | T-C 2 Herald Square Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-2952349 | 4612045 | | | T-C 1101 Pennsylvania Avenue LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-2952617 | 4651398 | | | T-C 1101 Pennsylvania Avenue Venture LLC | .DE | .DS | T-C 1101 Pennsylvania Avenue LLC | Ownership..... | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-2952860 | 4863472 | 0001577584 | | T-C 1101 Pennsylvania Avenue Owner LLC | .DE | .DS | T-C 1101 Pennsylvania Avenue Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1851206 | 4611954 | | | T-C 33 Arch Street Member, LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1805501 | 4613985 | | | T-C 33 Arch Street Venture, LLC | .DE | .DS | T-C 33 Arch Street Member, LLC | Ownership..... | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-2792699 | 4617198 | 0001577586 | | T-C 33 Arch Street, LLC | .DE | .DS | T-C 33 Arch Street Venture, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1754709 | 4612018 | | | T-C 470 Park Avenue South Member LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1744112 | 4613994 | | | T-C 470 Park Avenue South Venture LLC | .DE | .DS | T-C 470 Park Avenue South Member LLC | Ownership..... | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1754243 | 4617321 | 0001577563 | | T-C 470 Park Avenue South Owner LLC | .DE | .DS | T-C 470 Park Avenue South Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1828055 | 4612036 | | | T-C 475 Fifth Avenue Member, LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1839003 | 4614889 | | | T-C 475 Fifth Avenue Venture LLC | .DE | .DS | T-C 475 Fifth Avenue Member, LLC | Ownership..... | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-3229803 | 4617330 | 0001577564 | | T-C 475 Fifth Avenue, LLC | .DE | .DS | T-C 475 Fifth Avenue Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2189075 | 4763312 | | | T-C 800 17th Street NW Member LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2118640 | 4763787 | | | T-C 800 17th Street NW Venture LLC | .DE | .DS | T-C 800 17th Street NW Member LLC | Ownership..... | 50.100 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2069910 | 4767730 | 0001629146 | | T-C 800 17th Street NW Owner LLC | .DE | .DS | T-C 800 17th Street NW Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4665824 | 4904366 | | | T-C 888 Brannan Member LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4684031 | 4904955 | | | T-C 888 Brannan Venture LLC | .DE | .DS | T-C 888 Brannan Member LLC | Ownership..... | 50.100 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4674147 | 4908319 | | | T-C 888 Brannan Owner LLC | .DE | .DS | T-C 888 Brannan Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5605380 | 4971845 | | | T-C 888 Brannan TRS, LLC | .DE | .DS | T-C 888 Brannan Owner LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-3479701 | 4612081 | | | T-C 2300 Broadway, LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1220681 | 4612139 | | | T-C Aspira LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1791581 | 4612054 | | | T-C Franklin Square Member, LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1794486 | 4615569 | | | T-C Franklin Square Venture LLC | .DE | .DS | T-C Franklin Square Member, LLC | Ownership..... | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-0011770 | 4617611 | 0001577581 | | TIAA Franklin Square, LLC | .DE | .DS | T-C Franklin Square Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2023405 | 4763303 | | | T-C Hall of States Member LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2043468 | 4763796 | | | T-C Hall of States Venture LLC | .DE | .DS | T-C Hall of States Member LLC | Ownership..... | 50.100 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2034237 | 4767749 | 0001629145 | | T-C Hall of States Owner LLC | .DE | .DS | T-C Hall of States Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-4045658 | 4612148 | | | T-C Kings Crossing, LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1120016 | 4601973 | | | T-C Legacy Place Member, LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-0876833 | 4628550 | | | Legacy Place Associates, LLC | .MA | .DS | T-C Legacy Place Member, LLC | Ownership..... | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Legacy Place Properties, LLC | .MA | .DS | Legacy Place Associates, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2903922 | 4843326 | | | T-C Republic Square Member LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2867784 | 4843979 | | | T-C Republic Square Venture LLC | .DE | .DS | T-C Republic Square Member LLC | Ownership..... | 50.100 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-3033681 | 4844659 | | | T-C Republic Square REIT LLC | .DE | .DS | T-C Republic Square Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-3091198 | 4844798 | | | T-C Republic Square Mezzanine LLC | .DE | .DS | T-C Republic Square REIT LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2793452 | 4847735 | | | T-C Republic Square Owner LLC | .DE | .DS | T-C Republic Square Mezzanine LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1379500 | 4749969 | | | The Flats Holding Company LLC | .DE | .DS | T-C GA Real Estate Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1347366 | 4752503 | | | The Flats 130 DC Residential LLC | .DE | .DS | The Flats Holding Company LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1363564 | 4752512 | | | The Flats 140 DC Residential LLC | .DE | .DS | The Flats Holding Company LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1367530 | 4751766 | | | The Flats DC Grocery LLC | .DE | .DS | The Flats Holding Company LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-4567368 | 4651473 | | | T-C JK I, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4680316 | | | Adeoti Empreendimentos Imobiliários Ltda | .BRA | .DS | T-C JK I, LLC | Ownership..... | 51.000 | TIAA Board of Overseers | .N | 3400 |
| | | .00000 | 46-4587620 | 4651482 | | | T-C JK II, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4680316 | | | Adeoti Empreendimentos Imobiliários Ltda | .BRA | .DS | T-C JK II, LLC | Ownership..... | 49.000 | TIAA Board of Overseers | .N | 3400 |
| | | .00000 | 47-4095803 | 4864022 | | | T-C Lux Fund Holdings LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|-------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | 4896256 | | | T-C Lux Investments Special Limited Partnership | .LUX | .DS | T-C Lux Fund Holdings LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | European Cities Partnership SCSp | .LUX | .DS | T-C Lux Investments Special Limited Partnership | Influence | | TIAA Board of Overseers | .N | 1100 |
| | | .00000 | | 4894805 | | | Global Real Estate Debt Partners – Fund I (UK) | .LUX | .DS | T-C Lux Investments Special Limited Partnership | Ownership | 24.300 | TIAA Board of Overseers | .N | 2000 |
| | | .00000 | 81-4583865 | 5137956 | | | T-C MV Member LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4599024 | 5147049 | | | T-C M-T REIT LLC | .DE | .DS | T-C M-T Venture LLC | Ownership | 99.900 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1954609 | 4759605 | | | T-C Mt. Ommaney Centre Holding Company LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1828871 | 4749905 | | | T-C Mt. Ommaney Centre LLC | .DE | .DS | T-C Mt. Ommaney Centre Holding Company LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-1023309 | 5117800 | | | T-C Permian Investor LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-3007720 | 4599874 | | | T-C SBMC Joint Venture LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-8309570 | 4601795 | | | T-C SMA I, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-8309587 | 4619790 | | | CPPIB-TIAA US Real Property Fund LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 50.000 | TIAA Board of Overseers | .N | 3500 |
| | | .00000 | 20-8309587 | 4619790 | | | CPPIB-TIAA US Real Property Fund LP | .DE | .DS | T-C SMA I, LLC | Ownership | 1.000 | TIAA Board of Overseers | .N | 3500 |
| | | .00000 | 20-8309622 | 4644019 | | | C-T Shenandoah, LLC | .DE | .DS | CPPIB-TIAA US Real Property Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 36-4620008 | 4599128 | | | T-C SMA 2, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 36-4619998 | 4634029 | | | PennMuni-TIAA U.S. Real Estate Fund, LLC | .DE | .DS | T-C SMA 2, LLC | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1508630 | 4746968 | | | T-C 526 Route 46 LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-2762767 | 4644028 | | | T-C Barton Springs LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-2719700 | 4644037 | | | T-C Century Plaza LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-2569491 | 4843317 | | | T-C Copley LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-4023559 | 4644046 | | | T-C Des Peres Corners LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2272411 | 5010666 | | | T-C Fairway Center II LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-3678318 | 4644103 | | | T-C RDC, LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-3525878 | 4644112 | | | T-C Scripps Ranch LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-3415834 | 4644130 | | | T-C Shoppes at Monarch Lakes LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-4977129 | 4653909 | | | T-C Uptown Apartments, LLC | .DE | .DS | PennMuni-TIAA U.S. Real Estate Fund, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-1858182 | 4599137 | | | T-C SMA III, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2204918 | 4990976 | | | T-C The Edge at Flagler Village, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2676934 | 5012370 | | | T-C UK RE Holdings I, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2691474 | 5014299 | | | T-C UK RE Holdings II, LLC | .DE | .DS | T-C UK RE Holdings I, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-3299073 | 5018635 | | | T-C UK RE Holdings III, LLC | .DE | .DS | T-C UK RE Holdings II, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5044586 | | | Thurrock Retail Park Unit Trust | .JEY | .DS | T-C UK RE Holdings III, LLC | Ownership | 99.500 | TIAA Board of Overseers | .N | 3600 |
| | | .00000 | | 5044586 | | | Thurrock Retail Park Unit Trust | .JEY | .DS | T-C UK RE Holdings II, LLC | Ownership | 0.500 | TIAA Board of Overseers | .N | 3600 |
| | | .00000 | 47-3148337 | 4894869 | | | T-C U.S. Super Regional Mall Fund LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 83-0977309 | | | | SRMF Baybrook REIT LLC | .DE | .DS | T-C U.S. Super Regional Mall Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-0990258 | | | | SRMF Baybrook Investor TRS LLC | .DE | .DS | SRMF Baybrook REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-1015425 | | | | SRMF Baybrook Investor Member LLC | .DE | .DS | SRMF Baybrook REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-1028560 | | | | SRMF La Cantera REIT LLC | .DE | .DS | T-C U.S. Super Regional Mall Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-1046807 | | | | SRMF La Cantera Investor Member LLC | .DE | .DS | SRMF La Cantera REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-1059934 | | | | SRMF TMIC REIT LLC | .DE | .DS | T-C U.S. Super Regional Mall Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Per-centage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 83-1070532 | | | | SRMF TMIC Investor Member LLC | .DE | .DS | SRMF TMIC REIT LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-4717093 | 5098459 | | | SRMF Town Square Investor Member LLC | .DE | .DS | T-C U.S. Super Regional Mall Fund LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5104547 | | | SRMF Town Square Venture LLC | .DE | .DS | SRMF Town Square Investor Member LLC | Ownership..... | 85.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | SRMF Town Square Owner LLC | .DE | .DS | SRMF Town Square Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-4447657 | 4896322 | | | T-C Pearl Reit 2 LLC | .DE | .DS | T-C U.S. Super Regional Mall Fund LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | | | | | | T-C Waterford Blue Lagoon General Partner, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5379777 | 4925512 | | | | | | T-C Waterford Blue Lagoon General Partner, LLC | Ownership..... | 1.000 | TIAA Board of Overseers | .N | 3700 |
| | | .00000 | 47-5392075 | 4927785 | | | Waterford Blue Lagoon LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5375805 | 4925503 | | | T-C Waterford Blue Lagoon, LLC | .DE | .DS | T-C Waterford Blue Lagoon, LLC | Ownership..... | 50.000 | TIAA Board of Overseers | .N | 3700 |
| | | .00000 | 47-5392075 | 4927785 | | | Waterford Blue Lagoon LP | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | | 81-0779817 | 4930226 | | | Westland At Waterford REIT General Partner LLC | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5321319 | 4930196 | | | Westland At Waterford REIT LP | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5635267 | 4933003 | | | Westland At Waterford General Partner LLC | .DE | .DS | Westland At Waterford REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5580924 | 4932994 | | | Westland At Waterford Operating LP | .DE | .DS | Westland At Waterford REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | | | | | | Waterford Blue Lagoon REIT General Partner LLC | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5305678 | 4930208 | | | Waterford Blue Lagoon REIT LP | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5642524 | 4933067 | | | 5201-5301 Waterford General Partner LLC | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5541032 | 4933012 | | | 5201-5301 Waterford Operating LP | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5672651 | 4933076 | | | 5200 Waterford General Partner LLC | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5498897 | 4933021 | | | 5200 Waterford Operating LP | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0722154 | 4933085 | | | 1000 Waterford General Partner LLC | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5479437 | 4933030 | | | 1000 Waterford Operating LP | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5445045 | 4933115 | | | 703 Waterford General Partner LLC | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5471474 | 4933049 | | | 703 Waterford Operating LP | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5405436 | 4933124 | | | 701 Waterford General Partner LLC | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5417563 | 4933058 | | | 701 Waterford Operating LP | .DE | .DS | Waterford Blue Lagoon REIT LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-0733012 | 4930217 | | | Waterford Core General Partner LLC | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-5587163 | 4928661 | | | Waterford Core Operating LP | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-2631273 | 5165557 | | | Waterford Core REIT General Partner LLC | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-2646233 | 5165566 | | | Waterford Core REIT LP | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-2663579 | 5165548 | | | Waterford Core II Operating LP | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-2672297 | 5165539 | | | Waterford Core II General Partner LLC | .DE | .DS | Waterford Blue Lagoon LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-2146865 | 5041688 | | | TEFF Holdco LLC | .DE | .DS | TEFF Holdco LLC | Ownership..... | 50.000 | TIAA Board of Overseers | .N | 0400 |
| | | .00000 | 98-1310748 | 5041660 | | | TIAA European Farmland Fund GP LP | .CYM | .DS | TEFF Holding S.a.r.l | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1310748 | 5042658 | | | TIAA European Farmland Fund LP | .CYM | .DS | TEFF Investments B.V. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5043066 | | | TEFF Holding S.a.r.l | .LUX | .DS | TEFF Investments B.V. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5044607 | | | TEFF Investments B.V. | .NLD | .DS | TEFF Investments B.V. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5093856 | | | Dangro Invest SA | .DNK | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5117408 | | | AGRA Spolka z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5116456 | | | AGAT Spolka z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5116447 | | | AGRAMAX Spolka z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5116429 | | | AGRIFARM Spolka z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5117332 | | | AGRO - DUBLINY SP. z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5117341 | | | AGROSERVICE Spolka z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5117350 | | | AMAL Spolka z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | CISY Spolka z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | KOLNO Spolka z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | MILKOWO Sp. Z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | SEE-AGRO SP. z o.o. | .POL | .DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | 13 If Control is Owner- ship Provide Percen- tage | 14 Ultimate Controlling Entity(ies)/Person(s) | 15 Is an SCA Filing Re- quired? (Y/N) | 16 * |
|---------------|------------|-------------------------|--------------|-----------------|-----|------------------------------------------------------------------------------------|---------------------------------------------------|-----------------------------------|------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------|---------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi- ciliary Loca- tion | Relation- ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | | | | | |
| | | .00000 | | 5117396 | | | SATOPY Spolka z o.o. | .POL | DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5104556 | | | Pszenrol SA | .POL | DS | Dangro Invest SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117417 | | | AGROLAND Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117426 | | | AGROPOL Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117435 | | | BUDUS Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117444 | | | CIESZYSZLAW SP z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117453 | | | FARMEX Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117462 | | | JASIONNO Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117640 | | | ROLA Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117659 | | | ROLPOL Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117668 | | | ROLZBUD Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117695 | | | SOBIERADZ Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117677 | | | TELYN SP. z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117686 | | | TOKARY Sp. z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117707 | | | TURKUS SP. z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117761 | | | WALICHNOWY Sp. z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117770 | | | WEZINY SP. z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117789 | | | ZIEMROL Spolka z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5117798 | | | LOZIOE Sp. z o.o. | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5098486 | | | Adamas SA | .POL | DS | Pszenrol SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5116586 | | | AMBER SP. z o.o. | .POL | DS | Adamas SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5116522 | | | JAROSLAWSKO I SP. z o.o. | .POL | DS | Adamas SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5116513 | | | JAROSLAWSKO II SP. z o.o. | .POL | DS | Adamas SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5116492 | | | OGARDY SP. z o.o. | .POL | DS | Adamas SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5116483 | | | OPAL SP z o.o. | .POL | DS | Adamas SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5116465 | | | SZAFIR SP. z o.o. | .POL | DS | Adamas SA | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-1645257 | 5183412 | | | TGA 127-137 Franklin LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 81-2769108 | 5012389 | | | TGA 299 Franklin LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 81-3988795 | 5049479 | | | TGA 600 College Road LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 83-2548459 | | | | TGA 730 Third Avenue Owner LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 83-2957526 | | | | TGA 3401 North Ashton Blvd LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-4830474 | | | | TGA 3851 Grandpine Way LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-2225812 | | | | TGA APAC Fund Holdings, LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-2311300 | | | | Asia Pacific Cities Fund, FCP | .LUX | DS | TGA APAC Fund Holdings, LLC | Ownership..... | 38.600 | TIAA Board of Overseers | ..N | 3800 |
| | | .00000 | | | | | TGA Real Estate Fund Holdings, LLC | .DE | DS | TGA APAC Fund Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | Asia Pacific Cities Fund, FCP | .LUX | DS | TGA Real Estate Fund Holdings, LLC | Ownership..... | 38.600 | TIAA Board of Overseers | ..N | 3800 |
| | | .00000 | 83-1851559 | | | | TGA Barnes Canyon Life Science LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 83-0780652 | | | | TGA Connections at Athens Investor Member LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 61-1892161 | | | | PEP-TH Athens, LLC | .DE | DS | TGA Connections at Athens Investor Member LLC | Ownership..... | 98.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 83-1011298 | | | | PEP Athens, LLC | .DE | DS | PEP-TH Athens, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5049497 | | | TGA FC Investor Member LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-2708488 | | | | Fenway Center Holding 1-2, LLC | .DE | DS | TGA FC Investor Member LLC | Ownership..... | 50.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-2708488 | | | | Fenway Center Owner 1-2, LLC | .DE | DS | Fenway Center Holding 1-2, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|-------------------------------------------------|------------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|--------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Loca-tion | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 83-2810033 | | | | TGA European RE Holdings I, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 81-3602072 | 5040551 | | | TGA Japan Holdings, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5047710 | | | TGA Japan Holdings Pte Ltd | .SGP | .DS | TGA Japan Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5048771 | | | TGA Japan GK Holdings Pte Ltd | .SGP | .DS | TGA Japan Holdings Pte Ltd | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5049929 | | | TGA Ginza115 GK | .JPN | .DS | TGA Japan GK Holdings Pte Ltd | Ownership..... | 99.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5049938 | | | TGA Ginza115 TMK | .JPN | .DS | TGA Japan GK Holdings Pte Ltd | Ownership..... | 51.000 | TIAA Board of Overseers | ..N | ..3900 |
| | | .00000 | | 5048762 | | | TGA Ginza 115 Holdings Pte Ltd | .SGP | .DS | TGA Japan Holdings Pte Ltd | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5049938 | | | TGA Ginza115 TMK | .JPN | .DS | TGA Ginza 115 Holdings Pte Ltd | Ownership..... | 49.000 | TIAA Board of Overseers | ..N | ..3900 |
| | | .00000 | | 5050064 | | | TGA Ginza115 ISH | .JPN | .DS | TGA Ginza 115 Holdings Pte Ltd | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-1169084 | | | | TGA MKP Member LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-1198745 | | | | TGA MKP Venture LLC | .DE | .DS | TGA MKP Member LLC | Ownership..... | 60.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-1187131 | | | | TGA MKP REIT LLC | .DE | .DS | TGA MKP Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 81-4232788 | 5075722 | | | TGA Montague Investor Member, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5093780 | | | RCD TGA Pierrepont Partners LLC | .DE | .DS | TGA Montague Investor Member, LLC | Ownership..... | 51.600 | TIAA Board of Overseers | ..N | |
| | | .00000 | 81-3542251 | 5040542 | | | TGA Montrose Residences Investor Member, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 81-2872565 | 5047635 | | | The Residences at La Colombe d'Or Investors LLC | .DE | .DS | TGA Montrose Residences Investor Member, LLC | Ownership..... | 90.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 83-1916152 | | | | TGA MS Self Storage Investor Member LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 83-2379583 | | | | Morningstar NRE Self Storage Portfolio LLC | .DE | .DS | TGA MS Self Storage Investor Member LLC | Ownership..... | 90.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Tallahassee, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Bentonville, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Carolinas, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Dam Storage, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Yorktown, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Greenhouse, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Midtown Atlanta, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Kemps Landing, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC South End, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC MTP, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Peachtree, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Evans Rd, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC SW Austin, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | MSC Buda, LLC | .DE | .DS | Morningstar NRE Self Storage Portfolio LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | 13 If Control is Owner- ship Provide Percent- age | 14 Ultimate Controlling Entity(ies)/Person(s) | 15 Is an SCA Filing Re- quired? (Y/N) | 16 * |
|---------------|------------|-------------------------|--------------|-----------------|-----|------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------|------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------|---------------------------------------------------------|---------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi- ciliary Loca- tion | Relation- ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | | | | | |
| | | .00000 | | | | | MSC Boerne, LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | MSC Spring Branch, LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | MSC Highway 521 Storage, LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-1934291 | | | | TGA Oak View Mall LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-2938932 | | | | TGA Sandy Commerce Park LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-2063402 | | | | TGA SP-MPC Housing Investor Member LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-2147240 | | | | TGA-SP Housing Venture I LLC | DE | DS | TGA SP-MPC Housing Investor Member LLC | Ownership | 87.500 | TIAA Board of Overseers | N | |
| | | .00000 | 83-2123785 | | | | TGA SP-MPC Housing Venture I LLC | DE | DS | TGA-SP Housing Venture I LLC | Ownership | 97.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-1869494 | | | | MPSP Ashwood MHC LLC | DE | DS | TGA SP-MPC Housing Venture I LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-1869400 | | | | MPSP Ashwood Homes LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-1205616 | | | | MPSP Lemon Tree MHC LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-1213262 | | | | MPSP Lemon Tree Homes LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-1230714 | | | | MPSP Mobile Gardens MHC LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-1230821 | | | | MPSP Mobile Gardens Homes LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-2700544 | | | | MPSP Shiloh MHC LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-2700633 | | | | MPSP Shiloh Homes LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-2725391 | | | | MPSP Shiloh Lender LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-2725560 | | | | MPSP Stonegate MHC LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | MPSP Stonegate Homes LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | | | | MPSP Stonegate Lender LLC | DE | DS | Morningstar NRE Self Storage Portfolio LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 83-0723201 | | | | TGA Yorktown Trinity Groves LLC | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 81-1994278 | 5018626 | | | TGAM Agribusiness Fund LP | DE | DS | Teachers Insurance and Annuity Association of America | Ownership | 97.400 | TIAA Board of Overseers | N | |
| | | .00000 | 82-0646994 | 5077164 | | | TGAM Agribusiness Fund Holdings LP | DE | DS | TGAM Agribusiness Fund LP | Ownership | 86.800 | TIAA Board of Overseers | N | |
| | | .00000 | 27-4871720 | | | | The TAP CommodityBuilder Fund, L.L.C. | DE | DS | Teachers Insurance and Annuity Association of America | Management | | TIAA Board of Overseers | N | |
| | | .00000 | 20-4410108 | | | | The Tap Fund, LLC | DE | DS | Teachers Insurance and Annuity Association of America | Management | | TIAA Board of Overseers | N | |
| | | .00000 | 81-2429791 | 5194061 | | | TH Real Estate U.S. Strategic Industrial Fund I LP | DE | DS | Teachers Insurance and Annuity Association of America | Management | | TIAA Board of Overseers | N | |
| | | .00000 | 81-2410066 | 5205097 | | | TH Real Estate U.S. Strategic Industrial Fund I Holdings, LLC | DE | DS | TIAA U.S. Strategic Industrial Fund I, LP | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | | 5194070 | | | TH Real Estate U.S. Strategic Industrial Fund I Investors LP | DE | DS | TH Real Estate U.S. Strategic Industrial Fund I Holdings, LLC | Ownership | 100.000 | TIAA Board of Overseers | N | |
| | | .00000 | 82-3685468 | | | | SIF 301 Business Center Investor Member LLC | DE | DS | TH Real Estate U.S. Strategic Industrial Fund I OP, LP | Ownership | 100.000 | TIAA Board of Overseers | N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|-----------------------------------------------|-----------------------|-----------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | | | | 301 Business Centre, LLC | .DE | .DS | SIF 301 Business Center Investor Member LLC | Ownership..... | 95.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | Buildings 100, 200, 300 LLC | .DE | .DS | 301 Business Centre, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | Building 400 LLC | .DE | .DS | 301 Business Centre, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-4088352 | | | | SIF 60 Chapin Road LLC | .DE | .DS | TH Real Estate U.S. Strategic Industrial Fund I Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 83-1232681 | | | | SIF 4500 Dunham Street LLC | .DE | .DS | TH Real Estate U.S. Strategic Industrial Fund I Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-3959987 | | | | SIF EBP Member LLC | .DE | .DS | TH Real Estate U.S. Strategic Industrial Fund I Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-3944178 | | | | SIF-DP EBP Venture LLC | .DE | .DS | SIF EBP Member LLC | Ownership..... | 95.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-3913810 | | | | EBP Owner 1 LLC | .DE | .DS | SIF-DP EBP Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 30-1018623 | | | | EBP Owner 2 LLC | .DE | .DS | SIF-DP EBP Venture LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-4165273 | | | | SIF Serrano Business Park Investor Member LLC | .DE | .DS | TH Real Estate U.S. Strategic Industrial Fund I Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | CRPF Bain IV, LLC | .DE | .DS | SIF Serrano Business Park Investor Member LLC | Ownership..... | 90.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 83-0763298 | | | | SIF Volta Industrial Center LLC | .DE | .DS | TH Real Estate U.S. Strategic Industrial Fund I Holdings, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-2826183 | | | | TIAA Administrative Services LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4900500 | | | TIAA CLO I Ltd | .CYM | .DS | Teachers Insurance and Annuity Association of America | Management..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5049965 | | | TIAA CLO I LLC | .DE | .DS | TIAA CLO I Ltd | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | TIAA CLO II Ltd | .CYM | .DS | Teachers Insurance and Annuity Association of America | Management..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | TIAA CLO II LLC | .DE | .DS | TIAA CLO II Ltd | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 5157860 | | | TIAA CLO III Ltd. | .CYM | .DS | Teachers Insurance and Annuity Association of America | Management..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | TIAA CLO III LLC | .DE | .DS | TIAA CLO III Ltd. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | TIAA CLO IV Ltd. | .CYM | .DS | Teachers Insurance and Annuity Association of America | Management..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | TIAA CLO V Ltd | .CYM | .DS | Teachers Insurance and Annuity Association of America | Management..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | TIAA CLO V LLC | .DE | .DS | TIAA CLO III Ltd. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 13-4173396 | 4599203 | | | TIAA CMBS I, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 13-4173396 | 4602774 | | | TIAA CMBS I Trust | .DE | .DS | TIAA CMBS I, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 36-4450150 | 4599221 | | | TIAA Diamond Investor, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 47-4570655 | 4900498 | | | TIAA Diversified Public Investments, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 90-0615674 | 3838857 | 0001502749 | | TIAA FSB Holdings, Inc. | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | ..Y | |
| | | .00000 | 59-3531592 | 2735146 | | | Everbank Funding, LLC | .DE | .DS | TIAA FSB Holdings, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 59-3547521 | 4318057 | | | TIAA, FSB | .US | .DS | TIAA FSB Holdings, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 43-1823879 | 4318066 | | | AMC Holding, Inc. | .FL | .DS | TIAA, FSB | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 43-1832741 | 4318093 | 0001085802 | | Customerone Financial Network, Inc. | .DE | .DS | AMC Holding, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 36-1208070 | 4460817 | | | Evertrade Direct Brokerage, Inc. | .MO | .DS | Customerone Financial Network, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 11-3642567 | 4318178 | | | Business Property Lending, Inc. | .DE | .DS | TIAA, FSB | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 27-3035172 | 4317939 | | | Elite Lender Services, Inc. | .FL | .DS | TIAA, FSB | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 61-1560018 | 4318217 | 0001436613 | | Everbank Wealth Management, Inc. | .DE | .DS | TIAA, FSB | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 20-0716627 | 4318226 | | | Tygris Commercial Financial Group, Inc. | .DE | .DS | TIAA, FSB | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | TIAA Commercial Finance, Inc. | .DE | .DS | Tygris Commercial Financial Group, Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|-------------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 26-2483829 | 3867400 | | | Tygris Asset Finance, Inc. | .DE | .DS | Tygris Commercial Financial Group, Inc. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-1241294 | 4979391 | | | TIAA GBS Holding LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5003789 | | | TIAA GBS Singapore Holding Company Pte. Ltd. | .SGP | .DS | TIAA GBS Holding LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5006838 | | | TIAA Global Business Services (India) Private Limited | .IND | .DS | TIAA GBS Singapore Holding Company Pte. Ltd. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-5551198 | 4599267 | | | TIAA Global Ag Holdco LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-5044364 | 4627124 | | | Global Agriculture AIV (US), LLC | .DE | .DS | TIAA Global Ag Holdco LLC | Ownership | 98.100 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-1531685 | 4643580 | | | Global Ag Properties USA LLC | .DE | .DS | Global Agriculture AIV (US), LLC | Management | .N | TIAA Board of Overseers | .N | |
| | | .00000 | 80-0843991 | 4644877 | | | Loma del Rio Vineyards, LLC | .DE | .DS | Global Ag Properties USA LLC | Ownership | 55.000 | TIAA Board of Overseers | .N | 1800 |
| | | .00000 | 46-2577906 | 4643973 | | | Sugarloaf Vineyard, LLC | .DE | .DS | Global Ag Properties USA LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-5551341 | 4639994 | | | TIAA-CREF Global Agriculture LLC | .DE | .DS | TIAA Global Ag Holdco LLC | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643357 | | | Global AG Properties Australia Pty, Ltd | .AUS | .DS | TIAA-CREF Global Agriculture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643571 | | | Global AG Properties Australia Trust | .AUS | .DS | TIAA-CREF Global Agriculture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643094 | | | Nova Gaia Brasil Participaco Ltda. | .BRA | .DS | TIAA-CREF Global Agriculture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | 4000 |
| | | .00000 | | 4644493 | | | Tellus Brasil Participaco S.A. | .BRA | .DS | Nova Gaia Brasil Participaco Ltda. | Management | | TIAA Board of Overseers | .N | 4100 |
| | | .00000 | | 4644484 | | | Terraviva Brasil Participaco Ltda. | .BRA | .DS | Nova Gaia Brasil Participaco Ltda. | Ownership | 100.000 | TIAA Board of Overseers | .N | 4200 |
| | | .00000 | | 4644493 | | | Tellus Brasil Participaco S.A. | .BRA | .DS | Terraviva Brasil Participaco Ltda. | Management | | TIAA Board of Overseers | .N | 4100 |
| | | .00000 | | 4863490 | | | Agrobio Investimentos e Participações S.A. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4646321 | | | Cerpon Participações S.A. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4725758 | | | Nova Ibiajara Propriedades Agrícolas S.A. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4653954 | | | Tellus Bahia Propriedades Agrícolas Ltda. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4653981 | | | Jatobá Propriedades Agrícolas Ltda. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4644505 | | | Terra do Sol Propriedades Agrícolas S.A. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4644514 | | | Terrainvest Propriedades Agrícolas S.A. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4646282 | | | Tparone Participações S.A. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4646303 | | | Toperone Agrícola S.A. | .BRA | .DS | Tparone Participações S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4646291 | | | Tpartwo Participações S.A. | .BRA | .DS | Tellus Brasil Participaco S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4646312 | | | Tpartwo Agrícola S.A. | .BRA | .DS | Tpartwo Participações S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-1502187 | 4640011 | | | TIAA-CREF Global Agriculture BR, LLC | .DE | .DS | TIAA-CREF Global Agriculture LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4643094 | | | Nova Gaia Brasil Participaco Ltda. | .BRA | .DS | TIAA-CREF Global Agriculture BR, LLC | Ownership | 0.000 | TIAA Board of Overseers | .N | 4000 |
| | | .00000 | | 4644484 | | | Terraviva Brasil Participaco Ltda. | .BRA | .DS | TIAA-CREF Global Agriculture BR, LLC | Ownership | 0.000 | TIAA Board of Overseers | .N | 4200 |
| | | .00000 | 47-1083514 | 4753582 | | | Global Agriculture II AIV (US) LLC | .DE | .DS | TIAA Global Ag Holdco LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1069783 | 4755438 | | | Global Ag Properties II USA LLC | .DE | .DS | Global Agriculture II AIV (US) LLC | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | 47-0974399 | 4753591 | 0001616610 | | TIAA-CREF Global Agriculture II LLC | .DE | .DS | TIAA Global Ag Holdco LLC | Management | | TIAA Board of Overseers | .N | |
| | | .00000 | | 4900519 | | | Agrícola Ag II Limitada | .CHL | .DS | TIAA-CREF Global Agriculture II LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-3600919 | 4845704 | | | Global Ag II FFI LLC | .DE | .DS | TIAA-CREF Global Agriculture II LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4894823 | | | Global Ag Properties II Australia Pty, Ltd. | .AUS | .DS | TIAA-CREF Global Agriculture II LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4794286 | | | Global Ag Properties II Australia Trust | .AUS | .DS | TIAA-CREF Global Agriculture II LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5040524 | | | Global Ag Properties II New Zealand LP | .NZL | .DS | TIAA-CREF Global Agriculture II LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4755456 | | | Helios Brasil Participacoes, Ltda. | .BRA | .DS | TIAA-CREF Global Agriculture II LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4794295 | | | Janus Brasil Participacoes, S.A. | .BRA | .DS | Helios Brasil Participacoes, Ltda. | Management | | TIAA Board of Overseers | .N | 4300 |
| | | .00000 | | 4757012 | | | Iris Brasil Participaco Ltda. | .BRA | .DS | Helios Brasil Participacoes, Ltda. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4794295 | | | Janus Brasil Participacoes, S.A. | .BRA | .DS | Iris Brasil Participaco Ltda. | Management | | TIAA Board of Overseers | .N | 4300 |
| | | .00000 | | 4801782 | | | AGW Empreendimentos e Participações S.A. | .BRA | .DS | Janus Brasil Participacoes, S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5147030 | | | Araucaria Propriedades Agrícolas Ltda | .BRA | .DS | Janus Brasil Participacoes, S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4901459 | | | Aroeira Propriedades Agrícolas Ltda | .BRA | .DS | Janus Brasil Participacoes, S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Buriti Propriedades Agrícolas LTDA | .BRA | .DS | Janus Brasil Participacoes, S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Carnauba Propriedades Agrícolas LTDA | .BRA | .DS | Janus Brasil Participacoes, S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Carvalho Propriedades Agrícolas LTDA | .BRA | .DS | Janus Brasil Participacoes, S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Cedro Propriedades Agrícolas Ltda | .BRA | .DS | Janus Brasil Participacoes, S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4801700 | | | Companhia Agrícola Botucatu | .BRA | .DS | Janus Brasil Participacoes, S.A. | Ownership | 100.000 | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|----------------------------------------------------------------|-----------------------|-----------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | | | | Copaiba Propriedades Agricolas Ltda | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Embauba Propriedades Agricolas Ltda | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4802145 | | | | Esus Brasil Participações S.A. | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 5087855 | | | | Itauba Propriedades Agricolas Ltda | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Jacaranda Propriedades Agricolas LTDA | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4801773 | | | | Jatoba S.A. | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4894832 | | | | Jequitibá Propriedades Agrícolas Ltda | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Mangueira Propriedades Agricolas LTDA | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Oiti Propriedades Agricolas Ltda | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4901468 | | | | Samambaia Propriedades Agrícolas Ltda | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4901477 | | | | Seringueira Propriedades Agricolas Ltda | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Tapia Propriedades Agricolas Ltda | .BRA | DS | Janus Brasil Participacoes, S.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1062423 | 4755447 | | | TIAA-CREF Global Agriculture II BR, LLC | .DE | DS | TIAA-CREF Global Agriculture II LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-2860100 | 4599276 | | | TIAA Global Equity Income, LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-3594208 | 4863502 | | | TIAA Global Public Investments, LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-3881813 | 4599892 | | | TIAA GTR HoldCo, LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-3210500 | 4724023 | | | Global Timber Resources LLC | .DE | DS | TIAA GTR HoldCo, LLC | Ownership..... | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-3909387 | 4868431 | | | Global Timber SA LLC | .DE | DS | Global Timber Resources LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-3899490 | 4801906 | | | Global Timber International LLC | .DE | DS | Global Timber Resources LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4802789 | | | Global Timber Spain, SL | .ESP | DS | Global Timber International LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4868440 | | | Forestal GTR Chile Limitada | .CHL | DS | Global Timber Spain, SL | Ownership..... | 99.900 | TIAA Board of Overseers | .N | |
| | | .00000 | 98-1206384 | 4803151 | | | Forestal Monterrey Colombia SAS | .COL | DS | Global Timber Spain, SL | Ownership..... | 82.400 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5165454 | | | Global Timber Resources Colombia, S.A.S. | .COL | DS | Global Timber Spain, SL | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5183458 | | | Monte Fresnos Asociacion Agraria de Responsabilidad LTDA | .URY | DS | Global Timber Spain, SL | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5183421 | | | Monte Fresnos, S.A. | .URY | DS | Global Timber Spain, SL | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5183430 | | | Taurion Asociacion Agraria de Responsabilidad LTDA | .URY | DS | Global Timber Spain, SL | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 5183449 | | | Taurion, S.A. | .URY | DS | Global Timber Spain, SL | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4866905 | | | | GT Europe Cooperatief U.A. | .NLD | DS | Global Timber International LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4900425 | | | | Global Timber NL, B.V. | .NLD | DS | GT Europe Cooperatief U.A. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4901543 | | | | GTR Brasil Participacoes Ltda | .BRA | DS | Global Timber NL, B.V. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4902380 | | | | Brasilwood Reflorestamento S.A. | .BRA | DS | GTR Brasil Participacoes Ltda | Ownership..... | 75.000 | TIAA Board of Overseers | .N | 4400 |
| | | .00000 | | | | | Brasilwood Terras Florestais S.A. | .BRA | DS | GTR Brasil Participacoes Ltda | Ownership..... | 96.300 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Khaya Woods Investimentos Florestais LTDA | .BRA | DS | GTR Brasil Participacoes Ltda | Ownership..... | 80.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Manoneira Agropastoril S.A. | .BRA | DS | GTR Brasil Participacoes Ltda | Influence..... | | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | GTR Administracao De Bens Proprios LTDA | .BRA | DS | GTR Brasil Participacoes Ltda | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | Brasilwood Reflorestamento S.A. | .BRA | DS | GAPK Investimentos Ltda. | Ownership..... | 25.000 | TIAA Board of Overseers | .N | 4400 |
| | | .00000 | 5198809 | | | | Jatoba Brasil Investimentos Florestais Ltda | .BRA | DS | GTR Brasil Participacoes Ltda | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 5198818 | | | | Paineira Investimentos Florestais S.A. | .BRA | DS | GTR Brasil Participacoes Ltda | Ownership..... | 97.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4801915 | | | IPOPEMA 95 Closed Investment Fund of Non-Public Assets | .POL | DS | Global Timber NL, B.V. | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4868422 | | | EKO Topola Sp. z.o.o. | .POL | DS | IPOPEMA 95 Closed Investment Fund of Non-Public Assets | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4802800 | | | Brusno Resort Sp. z.o.o. | .POL | DS | IPOPEMA 95 Closed Investment Fund of Non-Public Assets | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-3479281 | 4599306 | | | TIAA Infrastructure Investments, LLC | .DE | DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-5307354 | 51539833 | | | 730 Parking LLC | .DE | DS | TIAA Infrastructure Investments, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-5302296 | 5157879 | | | 730 Interpark, LLC | .DE | DS | 730 Parking LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4626109 | | | Aquilla Sonnet LP | .CAN | DS | TIAA Infrastructure Investments, LLC | Influence..... | | TIAA Board of Overseers | .N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|------------------------------------------------------|------------------------|-----------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Loca-tion | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | 4936107 | | | A-30 Canadian Transport Inc. | .CAN | .DS | TIAA Infrastructure Investments, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4887571 | | | 1867 Infrastructure Holdings Inc. | .CAN | .DS | A-30 Canadian Transport Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4946843 | | | ACS NA30 Holding Inc. | .CAN | .DS | 1867 Infrastructure Holdings Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4947327 | | | Iridium Nouvelle Autoroute 30 Inc. | .CAN | .DS | ACS NA30 Holding Inc. | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4645847 | | | Nouvelle Autoroute 30, s.e.n.c. | .CAN | .DS | Iridium Nouvelle Autoroute 30 Inc. | Ownership..... | 50.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 30-0701953 | 4619530 | | | TORO/EPP II, LLC | .DE | .DS | TIAA Infrastructure Investments, LLC | Influence..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | 38-3857916 | 4602813 | | | I 595 Toll Road, LLC | .DE | .DS | TIAA Infrastructure Investments, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 26-4139252 | 4643339 | | | I 595 Express, LLC | .DE | .DS | I 595 Toll Road, LLC | Ownership..... | 50.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | North American Sustainable Energy Fund, L.P. | | | | | | | | |
| | | .00000 | 46-5279686 | 4810775 | | | | .DE | .DS | TIAA Infrastructure Investments, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | North American Sustainable Energy Fund, L.P. | Influence..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4895660 | | | McCommas Bluff Holdings LLC | .DE | .DS | | | | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4896331 | | | Dallas Clean Energy, LLC | .DE | .DS | McCommas Bluff Holdings LLC | Ownership..... | 51.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4900407 | | | Dallas Clean Energy McCommas Bluff, LLC | .DE | .DS | Dallas Clean Energy, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | North American Sustainable Energy Fund, L.P. | | | | | |
| | | .00000 | | 4946852 | | | Energy Power Investment Company, LLC | .DE | .DS | | Ownership..... | 90.500 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4947318 | | | EPP Renewable Energy, LLC | .DE | .DS | Energy Power Investment Company, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | EPP New Jersey Biogas, LLC | .DE | .DS | EPP Renewable Energy, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | | | | EPP New Jersey Solar, LLC | .DE | .DS | EPP Renewable Energy, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | North American Sustainable Energy Fund GP, LLC | | | | | | | | |
| | | .00000 | 46-5268451 | 4810597 | | | | .DE | .DS | TIAA Infrastructure Investments, LLC | Influence..... | | TIAA Board of Overseers | ..N | |
| | | | | | | | North American Sustainable Energy Manager, LLC | | | | | | | | |
| | | .00000 | 61-1734097 | 4810551 | | | | .DE | .DS | TIAA Infrastructure Investments, LLC | Influence..... | | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | | | | | |
| | | .00000 | 45-2665869 | 4601115 | | | TIAA Oil and Gas Investments, LLC | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 45-1286237 | 4602877 | | | Actgas, LLC | .DE | .DS | TIAA Oil and Gas Investments, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 46-3410649 | 4602925 | | | Actoil Bakken, LLC | .DE | .DS | TIAA Oil and Gas Investments, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 98-0430762 | 4651530 | | | Triangle Petroleum Corp | .CO | .DS | Actoil Bakken, LLC | Influence..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | 46-3628993 | 4602934 | | | Actoil Utica, LLC | .DE | .DS | TIAA Oil and Gas Investments, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | | | | | |
| | | .00000 | 26-1698274 | 4599173 | | | TIAA Park Evanston, LLC | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | | | | | |
| | | .00000 | 11-3519531 | 4601133 | | | TIAA Realty, LLC | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 81-0902394 | 4949125 | | | T-C 77 Central LLC | .DE | .DS | TIAA Realty, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 47-2249307 | 4763161 | | | T-C 680 Belleville LLC | .DE | .DS | TIAA Realty, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 46-2678242 | 4611721 | | | T-C Port Northwest Development, LLC | .DE | .DS | TIAA Realty, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 81-3961919 | 5047626 | | | TGA 70 Federal Street LLC | .DE | .DS | TIAA Realty, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | | | | | |
| | | .00000 | 82-2885306 | | | | TIAA RFS, LLC | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 82-2335773 | | | | TIAA Advisory, LLC | .DE | .DS | TIAA RFS, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 20-2904312 | 4314479 | | | TIAA-CREF Insurance Agency, LLC | .DE | .DS | TIAA RFS, LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | | | | | |
| | | .00000 | 81-2755014 | 5011346 | | | TIAA SMA Strategies, LLC | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | | | | | |
| | | .00000 | 45-3029655 | 4601197 | | | TIAA-Stonepeak Investments I, LLC | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 38-3849546 | 4603155 | | | Stonepeak Infrastructure Fund LP | .DE | .DS | TIAA-Stonepeak Investments I, LLC | Influence..... | | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | | | | | |
| | | .00000 | 45-3030923 | 4601245 | | | TIAA-Stonepeak Investments II, LLC | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 30-0696099 | 4643955 | | | Stonepeak GP Holdings LP | .DE | .DS | TIAA-Stonepeak Investments II, LLC | Ownership..... | 50.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4643964 | | | Stonepeak Associates, LLC | .DE | .DS | Stonepeak GP Holdings LP | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | .00000 | 37-1645802 | 4643919 | | | Stonepeak Advisors Holdings LLC | .DE | .DS | TIAA-Stonepeak Investments II, LLC | Influence..... | | TIAA Board of Overseers | ..N | |
| | | .00000 | | 4643946 | | | Stonepeak Advisors LLC | .DE | .DS | Stonepeak Advisors Holdings LLC | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |
| | | | | | | | | | | Teachers Insurance and Annuity Association of America | | | | | |
| | | .00000 | 45-3164600 | 4601348 | | | TIAA Super Regional Mall Member Sub, LLC | .DE | .DS | | Ownership..... | 100.000 | TIAA Board of Overseers | ..N | |

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|------------|------------------------------------------------------------------------|----------------------------------------------------|-----------------------|-----------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | 45-3164764 | 4644055 | | | T-C Super Regional Mall Venture, LLC | .DE | .DS | TIAA Super Regional Mall Member Sub, LLC | Ownership | 51.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-4623585 | 4801821 | 0001614181 | | T-C International Plaza REIT LLC | .DE | .DS | T-C Super Regional Mall Venture, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-4653326 | 4801830 | | | T-C International Plaza Investor GP LLC | .DE | .DS | T-C International Plaza REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-4680948 | 4801849 | | | T-C International Plaza Investor LP LLC | .DE | .DS | T-C International Plaza REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 38-3173536 | 2884259 | | | Tampa Westshore Associates Limited Partnership | .DE | .DS | T-C International Plaza Investor LP LLC | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 46-2713521 | 4604116 | 0001595474 | | T-C Las Vegas Retail REIT LLC | .DE | .DS | T-C Super Regional Mall Venture, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-2726147 | 4612979 | | | T-C Las Vegas Retail Investor LLC | .DE | .DS | T-C Las Vegas Retail REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4615617 | 4615617 | | | Grand Canal Shoppes Holdings, LLC | .DE | .DS | T-C Las Vegas Retail Investor LLC | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 45-3165203 | 4644064 | 0001544129 | | T-C Midwest REIT, LLC | .DE | .DS | T-C Super Regional Mall Venture, LLC | Ownership | 99.800 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-2211957 | 4644073 | | | T-C Midwest REIT, LLC | .DE | .DS | T-C Midwest REIT, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4644288 | 4644288 | | | CBL/T-C, LLC | .DE | .DS | T-C Midwest Retail, LLC | Ownership | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-3164998 | 4644082 | 0001544127 | | T-C Montgomery Mall REIT, LLC | .DE | .DS | T-C Super Regional Mall Venture, LLC | Ownership | 99.800 | TIAA Board of Overseers | .N | |
| | | .00000 | 27-4117159 | 4644091 | | | T-C Montgomery Mall, LLC | .DE | .DS | T-C Montgomery Mall REIT, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 95-4658637 | 4644886 | | | Montgomery Mall of Maryland, LLC | .MD | .DS | T-C Montgomery Mall, LLC | Ownership | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-1286386 | 4601526 | | | TIAA SynGas, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 13-1624203 | 4741758 | | | 730 Catsolar, LLC | .DE | .DS | TIAA SynGas, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4747835 | 4747835 | | | Catalina Solar Lessee Holdco, LLC | .CA | .DS | 730 Catsolar, LLC | Ownership | 50.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4749866 | 4749866 | | | Catalina Solar Lessee, LLC | .CA | .DS | Catalina Solar Lessee Holdco, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 56-2492641 | 4643900 | | | SG Solutions, LLC | .DE | .DS | TIAA SynGas, LLC | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 27-0195010 | 4626088 | | | AE Investor II, LLC | .DE | .DS | TIAA SynGas, LLC | Ownership | 57.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-4486211 | 4602886 | | | TIAA Wind Investments, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 45-3743502 | 4626136 | | | Capistrano Wind Partners, LLC | .DE | .DS | TIAA Wind Investments, LLC | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 20-8384004 | 4599490 | | | TIAA-CREF LPHC, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 26-3561391 | 4863539 | | | TCAM DOF GP, LLC | .DE | .DS | TIAA-CREF LPHC, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-1191235 | 5018671 | 0001611288 | | TIAA-CREF Real Property Fund GP, LLC | .DE | .DS | TCAM DOF GP, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 55-0856733 | 4314349 | 0000882928 | | TIAA-CREF Individual & Institutional Services, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-5591124 | 4314273 | | | TIAA-CREF Redwood, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-5631854 | 4314282 | | | TIAA Endowment & Philanthropic Services, LLC | .DE | .DS | TIAA-CREF Redwood, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 35-2429521 | 4612858 | | | CCAP GP, LLC | .DE | .DS | TIAA Endowment & Philantropic Servives, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 13-4026557 | 4314116 | 0001627236 | | TIAA-CREF Tuition Financing, Inc. | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-8892977 | 4599810 | | | TIAA Union Place Phase I, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 20-8281443 | 4640066 | | | Union Place Phase I, LLC | .DE | .DS | TIAA Union Place Phase I, LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4844163 | 4844163 | | | UK PPP Investments, LP | .GBR | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4848590 | 4848590 | | | Wigg (Holdings) Limited | .GBR | .DS | UK PPP Investments, LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4848983 | 4848983 | | | Wigg Investments Limited | .GBR | .DS | Wigg (Holdings) Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4849739 | 4849739 | | | Merseylink (Holdings) Limited | .GBR | .DS | Wigg Investments Limited | Influence | | TIAA Board of Overseers | .N | |
| | | .00000 | 4852298 | 4852298 | | | Merseylink (Finance) Limited | .GBR | .DS | Merseylink (Holdings) Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4860239 | 4860239 | | | Merseylink Limited | .GBR | .DS | Merseylink (Finance) Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 4858638 | 4858638 | | | Merseylink (Issuer) plc | .GBR | .DS | Merseylink (Finance) Limited | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | U.S. Cities Retail Fund LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | U.S. Cities Retail Fund REIT LLC | .DE | .DS | U.S. Cities Retail Fund LP | Ownership | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | U.S. Cities Retail Fund Operating GP LLC | .DE | .DS | U.S. Cities Retail Fund REIT LLC | Ownership | 100.000 | TIAA Board of Overseers | .N | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|------------------------------------------------------------------------|-----------------------------------------------|------------------------|-----------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Loca-tion | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Y/N) | * |
| | | .00000 | | | | | U.S. Cities Retail Fund Operating LP | .DE | .DS | U.S. Cities Retail Fund REIT LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 46-0750331 | 4612111 | | | T-C 919 N. Michigan Avenue Retail, LLC | .DE | .DS | U.S. Cities Retail Fund Operating LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | USCRF KRG JV Investor Member LLC | .DE | .DS | U.S. Cities Retail Fund Operating LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | | | | KRG – USCRF Retail Portfolio LLC | .DE | .DS | USCRF KRG JV Investor Member LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 82-3988257 | | | | U.S. Core-Plus Real Estate Debt Fund LP | .DE | .DS | Teachers Insurance and Annuity Association of America | Management..... | | TIAA Board of Overseers | .N | |
| | | .00000 | 82-3760575 | | | | CRED REIT LLC | .DE | .DS | U.S. Core+ Real Estate Debt Fund LP | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 47-1938723 | | | | CRED REIT Holdco LLC | .DE | .DS | CRED REIT LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2024014 | | | | CRED REIT Holdco Seller LLC | .DE | .DS | CRED REIT Holdco LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 81-1392434 | | | | CRED REIT Holdco TRS LLC | .DE | .DS | CRED REIT Holdco LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 83-2267896 | | | | CRED Sawtelle LLC | .DE | .DS | CRED REIT Holdco LLC | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | 51-0141732 | 4599829 | | | WRC Properties, LLC | .DE | .DS | Teachers Insurance and Annuity Association of America | Ownership..... | 100.000 | TIAA Board of Overseers | .N | |
| | | .00000 | | 4630601 | | | Stichting Bewaarder Ziemia Fund | .NLD | .DS | Teachers Insurance and Annuity Association of America | Influence..... | | TIAA Board of Overseers | .N | |

| Asterisk | Explanation |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0100 | AGR Services LLC is ultimately controlled and owned entirely by TIAA, with 99% owned by AGR Partners LLC and 1% owned by Nuveen Alternative Holdings, LLC. |
| 0200 | Greenwood Resources Brasil, Ltda. is ultimately controlled and owned entirely by TIAA, with 99% owned by GWR Property Management International, LLC and 1% owned by Greenwood Resources, Inc. |
| 0300 | CAM HR Resources LLC is ultimately controlled and owned entirely by TIAA, with 99% owned by Churchill Asset Management LLC and 1% owned by Nuveen Alternative Holdings, LLC. |
| 0400 | TIAA European Farmland Fund GP LP is ultimately controlled and owned entirely by TIAA, with 50% owned by Nuveen Alternative Services, LLC and 50% owned by TEFF Holdco LLC |
| 0500 | TGAM APAC LLC is ultimately controlled and owned entirely by TIAA, with TGAM Subsidiary HC LLC, TIAA International Subsidiary HC LLC and Nuveen International Holdings LLC each owning 33.33% |
| 0600 | TGAM HK HC LLC is ultimately controlled and owned entirely by TIAA, with TGAM APAC LLC, TGAM Asia LLC, TIAA International APAC LLC and TIAA International Asia LLC each owning 25% |
| 0700 | TGAM Asia LLC is ultimately controlled and owned entirely by TIAA, with TGAM Subsidiary HC LLC, TIAA International Subsidiary HC LLC and Nuveen International Holdings LLC each owning 33.33% |
| 0800 | TIAA International APAC LLC is ultimately controlled and owned entirely by TIAA, with TGAM Subsidiary HC LLC, TIAA International Subsidiary HC LLC and Nuveen International Holdings LLC each owning 33.33% |
| 0900 | TIAA International Asia LLC is ultimately controlled and owned entirely by TIAA, with TGAM Subsidiary HC LLC, TIAA International Subsidiary HC LLC and Nuveen International Holdings LLC each owning 33.33% |
| 1000 | Nuveen Real Estate Limited is ultimately controlled and owned entirely by TIAA, with 99% owned by TIAA International Holdings 3, Ltd. and 1% owned by TIAA International Holdings 1, Ltd. |
| 1100 | European Cities Partnership SCSp is owned 29.8% by T-C Lux Investments Special Limited Partnership and 1% by European Cities Partnership (GP) S.à.r.l. |
| 1200 | Global Real Estate Debt Partners – Fund II (UK) SCSp is ultimately controlled by TIAA, with 18.75% owned by TIAA and 0.5% owned by Nuveen Real Estate Debt Partners II (GP) S.à.r.l. |
| 1300 | Westchester Group SRL is controlled and owned entirely by TIAA, with 99% owned by Westchester Group of Europe Ltd. and 1% owned by Westchester Group of Poland Sp. Z.o.o. |
| 1400 | Westchester Group South America Gestao de Investimentos Ltda. is controlled and owned entirely by TIAA, with 99% owned by Westchester Group Investment Management, Inc. and 1% owned by Westchester Group Real Estate, Inc. |
| 1500 | Symphony Asset Management, LLC is ultimately controlled and owned entirely by TIAA, with 51% owned by Nuveen Investments, Inc. and 49% owned by Nuveen Investments Holdings, Inc. |
| 1600 | 730 Texas Timberlands II, Ltd. is ultimately controlled and owned entirely by TIAA, which directly owns 99.5%. 730 Texas Forest Holdings, Inc., which is owned 100% by TIAA, owns .5%. |
| 1700 | 730 Texas Timberlands, Ltd. is ultimately controlled and owned entirely by TIAA, with 99.5% owned by TIAA Timberlands I, LLC and .5% owned by 730 Texas Forest Holdings, Inc. |
| 1800 | Loma del Rio Vineyards, LLC is ultimately controlled and owned entirely by TIAA, with 45% owned by Premiere Agricultural Properties, LLC and 55% owned by Global Ag Properties USA, LLC. |
| 1900 | Mansilla Participacoes LTDA is ultimately controlled and owned entirely by TIAA, which directly owns 99.99%. Demeter Agricultural Properties, LLC, which is owned 100% by TIAA, owns 0.01%. |
| 2000 | Global Real Estate Debt Partners – Fund I (UK) is controlled by TIAA, which owns 36.3%. T-C Lux Investments Special Limited Partnership, which is 100% owned by TIAA, owns 24.3%. |
| 2100 | Cityhold Nymphe S.à r.l. (Nymphe) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.à r.l., which owns 88% of Nymphe, and 6% owned by wholly-owned ND Europe Office Holding S.à r.l. |
| 2200 | Cityhold Euro S.à r.l. (CES) is ultimately controlled by TIAA via a 50% ownership of Cityhold Propco 9 S.à r.l., which owns 88% of CES, and 6% owned by wholly-owned ND Europe Office Holding S.à r.l. |
| 2300 | SNC Roosevelt is ultimately controlled by TIAA via a 50% ownership of Cityhold Propco 9 S.à r.l., which owns SAS Roosevelt (99.99% of SNC Roosevelt) and Roosevelt Participation S.à r.l. (0.01%). |
| 2400 | London Belgrave Unit Trust (LBUT) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.à r.l., which owns Cityhold UK Holding S.à r.l. (99.8% of LBUT) and Cityhold UK Investment S.à r.l. (0.2%). |
| 2500 | New Fetter Lane Unit Trust (NFLUT) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.à r.l., which owns Cityhold UK Holding S.à r.l. (99.9% of NFLUT) and Cityhold UK Investment S.à r.l. (0.1%). |
| 2600 | 60 Great Portland Street Unit Trust (60GPS) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.à r.l., which owns Cityhold UK Holding S.à r.l. (99.4% of 60GPS) and Cityhold UK Investment S.à r.l. (0.6%). |
| 2700 | 70 St. Mary Axe Unit Trust (SMAUT) is ultimately controlled by TIAA via a 50% ownership of Cityhold Office Partnership S.à r.l., which owns SMA Holding S.à r.l. (99.9% of SMAUT) and Cityhold UK Investment S.à r.l. (0.1%). |
| 2800 | Gropius Passagen GmbH & Co KG is controlled by TIAA, and partially owned by Gropius S.à r.l., which owns 99.8% and TIAA Lux 11 S.à.r.l. which owns 0.16%. |
| 2900 | Erlangen Arcaden GmbH & Co. KG is controlled by TIAA, and partially owned by TIAA Lux 5 S.à r.l., which owns 94.9% and Erlangen Arcaden Verwaltungs GmbH which owns 5.1%. |
| 3000 | U.S. Cities Fund, LP is controlled by TIAA, and partially owned indirectly by ND Properties, Inc., which owns 37.37%, and U.S. Cities Fund GP, LLC, which owns less than .01%. |
| 3100 | 1608 Chestnut Partners LP is ultimately controlled by TIAA, with 99% owned by T-C 1608 Chestnut Limited Partner LLC and 1% owned by T-C 1608 Chestnut General Partner LLC. |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

| Asterisk | Explanation |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 3200 | T-C Europe LP is ultimately controlled and owned entirely by TIAA, with 99% owned by TIAA and 1% owned by T-C Europe Holding, Inc. |
| 3300 | Roppenheim Outlet SNC (ROSNC) is ultimately controlled by TIAA via a 61.8% ownership of Neptune Property Venture S.à r.l., which owns Roppenheim Holding SAS (99.99% of ROSNC) Neptune Roppenheim Holding S.à r.l. (0.01%). |
| 3400 | Adeoti Empreendimentos Imobiliários Ltda is ultimately controlled and owned entirely by TIAA, with 51% of ownership with T-C JK I, LLC and 49% of ownership with T-C JK II, LLC |
| 3500 | CPPIB-TIAA US Real Property Fund LP is controlled by TIAA, which owns 50%. T-C SMA I, LLC, which is 100% owned by TIAA, is the General Partner and owns 1%. |
| 3600 | Thurrock Retail Park Unit Trust is ultimately controlled and owned entirely by TIAA with 99.5% owned by T-C UK RE Holdings III, LLC and 0.5% owned by T-C UK RE Holdings II, LLC. |
| 3700 | Waterford Blue Lagoon LP is controlled by TIAA, and partially owned indirectly by T-C Waterford Blue Lagoon LLC, which owns 50%, and T-C Waterford Blue Lagoon General Partner, LLC, which owns 1%. |
| 3800 | Asia Pacific Cities Fund, FCP is owned 38.6% by TGA APAC Fund Holdings, LLC and 38.6% by TGA Real Estate Fund Holdings, LLC |
| 3900 | TGA Ginza115 TMK is ultimately controlled and owned entirely by TIAA, with 51% owned by TGA Japan GK Holdings Pte Ltd and 49% of owned by TGA Ginza 115 Holdings Pte Ltd. |
| 4000 | Nova Gaia Brasil Participaco Ltda. is owned 99.99% by TIAA-CREF Global Agriculture LLC and 0.01% by TIAA-CREF Global Agriculture BR, LLC. |
| 4100 | Tellus Brasil Participaco S.A. is owned 48.9% by Terraviva Brasil Participaco Ltda. and 0.47% by Nova Gaia Brasil Participaco Ltda. |
| 4200 | Terraviva Brasil Participaco Ltda. is owned 99.99% by Nova Gaia Brasil Participaco Ltda. and 0.01% by TIAA-CREF Global Agriculture BR, LLC. |
| 4300 | Janus Brasil Participacoes, S.A. is owned 48.9% by Iris Brasil Participaco Ltda. and 0.47% by Helios Brasil Participacoes, Ltda. |
| 4400 | Brasilwood Reflorestamento S.A. is owned 75% by GTR Brasil Participacoes Ltda and 25% by GAPK Investimentos Ltda. |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE Y

PART 2 - SUMMARY OF INSURER’S TRANSACTIONS WITH ANY AFFILIATES

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|-------------------------|--------------|-------------------------------------------------------------|--------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------|----|----------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------|
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| | 13-1624203 | Teachers Insurance and Annuity Association of America | 1,354,908,117 | (1,911,133,417) | 187,924,073 | | 2,137,187,804 | | | | 1,768,886,577 | |
| | 13-3987258 | 485 Properties LLC | (946,424) | 4,792,646 | | | (134,219) | | | | 3,712,004 | |
| | 81-3106043 | 730 Data Centers LLC | | 13,931,537 | | | (567,869) | | | | 13,363,668 | |
| | 47-2616735 | 730 Power Development LLC | | 68,361,312 | | | (1,534,340) | | | | 66,826,972 | |
| | 47-5363027 | 730 Telecom, LLC | (118,585) | 5,896,051 | | | (182,524) | | | | 5,594,942 | |
| | 51-0494351 | 730 Texas Timberlands II, Ltd. | | (2,800,000) | | | (8,927) | | | | (2,808,927) | |
| | 13-4042885 | 730 TX Forest Holdings, Inc. | | | | | (7,774) | | | | (7,774) | |
| | 26-1870966 | Active Extension Fund III, LLC | (1,133,525) | (10,102,869) | | | | | | | (11,236,393) | |
| | 38-3847245 | ActOil LLC | (88,985,217) | (27,904,457) | | | (60,348) | | | | (116,950,022) | |
| | 81-1467545 | AGR Partners LLC | | | | | (863,920) | | | | (863,920) | |
| | 45-2285816 | Almond Processors, LLC | (11,130,980) | (16,305,355) | | | (125,156) | | | | (27,561,491) | |
| | 45-5558395 | Beaver Investment Holdings LLC | | (710,854) | | | | | | | (710,854) | |
| | 46-1952974 | Broadleaf Timberland Investments, LLC | | | | | (515,752) | | | | (515,752) | |
| | 20-8309587 | Canadian Pension Plan (TIAA GA) | | (349,871) | | | | | | | (349,871) | |
| | 47-2167228 | Casa Student Housing Fund Holdings, LLC | (5,787,251) | 1,358,537 | | | (173,487) | | | | (4,602,200) | |
| | 13-1624203 | CCM Series 2, LLC | | 4,530,718 | | | | | | | 4,530,718 | |
| | 13-1624203 | CCM Series, LLC | (52,870,501) | (4,530,718) | | | | | | | (57,401,219) | |
| | 56-2672630 | Ceres Agricultural Properties, LLC | (41,696,634) | (25,653,175) | | | (164,629) | | | | (67,514,438) | |
| | 47-3156644 | Churchill Asset Management LLC | | (14,500,000) | | | (2,957,828) | | | | (17,457,828) | |
| | 00-0000000 | Churchill Middle Market Senior Loan Fund, LP | (3,482,666) | 26,983,496 | | | | | | | 23,500,830 | |
| | 27-2846152 | Covariance Capital Management, Inc. | | | | | 1,561,216 | | | | 1,561,216 | |
| | 45-2632248 | Dionysus Properties, LLC | | (15,000,000) | | | (14,328) | | | | (15,014,328) | |
| | 98-0580879 | DWM Inclusive Finance Equity Fund II | | 1,609,004 | | | | | | | 1,609,004 | |
| | 98-0580879 | DWM MICROFINANCE EQUITY FUND I | (16,289,757) | (1,657,878) | | | | | | | (17,947,635) | |
| | 30-0701953 | EPP LFG I, LLC | | 424,363 | | | | | | | 424,363 | |
| | 00-0000000 | Global Real Estate Debt Partners – Fund I | | | | | | | | | | |
| | 00-0000000 | Global Real Estate Debt Partners – Fund II | (3,343,917) | 18,068,997 | | | | | | | 14,725,080 | |
| | | | | 7,457,330 | | | | | | | 7,457,330 | |
| | 80-0026976 | GreenWood Resources, Inc. | | | | | (2,977,653) | | | | (2,977,653) | |
| | 00-0000000 | Growth Capital Fund I, LP | (61,784,936) | 34,877,330 | | | | | | | (26,907,605) | |
| | 47-1208361 | GTR Investor Fund GP | (3,500) | | | | | | | | (3,500) | |
| | 27-4149157 | Infra Alpha, LLC | (10,682,561) | | | | (1,049,909) | | | | (11,732,470) | |
| | 47-4169877 | Lewis & Clark Timberlands, LP | (6,891,037) | 27,241,066 | | | (55,675) | | | | 20,294,354 | |
| | 27-2007833 | Liberty M & R SPV II, LP | (5,779,502) | (476,770) | | | | | | | (6,256,272) | |
| | 00-0000000 | Mansilla Participacoes LTDA | (9,980,569) | 19,473 | | | (128,248) | | | | (10,089,344) | |
| | 00-0000000 | MM Funding, LLC | | 505 | | | | | | | 505 | |
| | 47-0902011 | MyVest Corporation | | 4,989,274 | | | 2,201,373 | | | | 7,190,647 | |
| | 11-3034756 | ND Properties, Inc. | (30,000,000) | (12,235,559) | | | (32,527,318) | | | | (74,762,877) | |
| | 46-2031403 | NRFC Inception IV, LP | | (3,663,677) | | | | | | | (3,663,677) | |
| | 46-2062147 | NRFC Inception V, LP | | 85 | | | | | | | 85 | |
| | 45-4288013 | Nuveen Alternatives Advisors, LLC | (110,000,000) | | | | | | | | (110,000,000) | |

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SCHEDULE Y

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| | 47-1563437 | Nuveen Finance Company, LLC | | 1,000,011,458 | | | | | | | 1,000,011,458 | |
| | 81-3425820 | Nuveen Holdings 1, Inc. | | | | | 28,608,678 | | | | 28,608,678 | |
| | | Nuveen Investments Canada Co. | | 304,808 | | | (1,258,099) | | | | (953,290) | |
| | 36-3817266 | Nuveen Investments, Inc. | (73,000,000) | 112,283,414 | | | | | | | 39,283,414 | |
| | | Nuveen Japan Co. Ltd. | | 444,523 | | | | | | | 444,523 | |
| | 81-3407371 | Nuveen Services, LLC | | (25,000) | | | | | | | (25,000) | |
| | 47-1595484 | Nuveen, LLC | 100,650,000 | (990,402,101) | | | (114,847,054) | | | | (1,004,599,155) | |
| | 26-4750562 | Occator Agricultural Properties, LLC | (21,920,282) | (27,378,074) | | | (2,374,575) | | | | (51,672,931) | |
| | 26-4248579 | Oleum Holding Company, Inc. | | (2,589,452) | | | (399,681) | | | | (2,989,133) | |
| | 82-0631410 | Permian Investor Asset Manager LLC | | 75,000 | | | (67,336) | | | | 7,664 | |
| | 26-3821015 | Pinnacle Third Avenue, LP | (15,907) | (3,632,487) | | | | | | | (3,648,394) | |
| | 00-0000000 | Primary Residential Individual Mortgage Entity Trust | (17,731,268) | 716,680,811 | | | | | | | 698,949,543 | |
| | 45-2792614 | Renewable Timber Europe, LLC | | 1,200,000 | | | (440) | | | | 1,199,560 | |
| | 61-1640765 | Renewable Timber Resources LLC | | | | | (440) | | | | (440) | |
| | 11-3564797 | RT Tri State LLC | (164,765) | | | | | | | | (164,765) | |
| | 03-0543113 | Siguler Guff Third Avenue, L.P. | (30,960) | (227,039) | | | | | | | (257,999) | |
| | 47-2092098 | T-C 101 Miller Street Holding Company LLC | | (4,936,712) | | | | | | | (4,936,712) | |
| | 46-3922951 | T-C 20 Hunter Street (US) LLC | | 8,046 | | | | | | | 8,046 | |
| | 81-2525521 | T-C 400 Montgomery LLC | | 8,220,624 | | | (62,448) | | | | 8,158,175 | |
| | 27-4123754 | T-C 685 Third Avenue Member LLC | | (2,750,550) | | | | | | | (2,750,550) | |
| | 46-4969690 | T-C 699 Bourke Street LLC | (6,970,813) | (32,196,916) | | | | | | | (39,167,729) | |
| | 81-2490530 | T-C Australia RE Holdings I, LLC | (5,780,731) | 10,040,956 | | | | | | | 4,260,225 | |
| | 47-2363168 | T-C Europe Holding, Inc. | | 46,861 | | | | | | | 46,861 | |
| | 47-2369576 | T-C Europe LP | | 4,558,345 | | | | | | | 4,558,345 | |
| | 45-2877772 | T-C GA Real Estate Holdings LLC | (117,899,898) | 117,158,574 | (92,899,138) | | (1,552,322) | | | | (95,192,785) | |
| | 47-1886721 | T-C HV Member LLC | (5,769,104) | (45,748,255) | (203,497,534) | | | | | | (255,014,893) | |
| | 46-4567368 | T-C JK I LLC | (1,917,990) | (381,123) | | | (91,022) | | | | (2,390,135) | |
| | 46-4587620 | T-C JK II LLC | (1,842,769) | (366,172) | | | (87,453) | | | | (2,296,394) | |
| | 47-4095803 | T-C Lux Fund Holdings LLC | (11,284,380) | 9,375,685 | | | | | | | (1,908,695) | |
| | 47-1954609 | T-C Mt. Ommaney Centre Holding Company LLC | | (2,739,885) | | | | | | | (2,739,885) | |
| | 81-4583865 | T-C MV Member LLC | (17,424,808) | 274,963,810 | | | | | | | 257,539,002 | |
| | 82-1023309 | T-C Permian Investor LLC | | 5,896 | | | | | | | 5,896 | |
| | 46-3007720 | T-C SBMC Joint Venture LLC | (3,367,163) | (6,684,798) | | | | | | | (10,051,961) | |
| | 20-8309570 | T-C SMA I LLC | | (7,139) | | | | | | | (7,139) | |
| | 36-4620008 | T-C SMA II | (1,930,383) | | | | | | | | (1,930,383) | |
| | 81-2676934 | T-C UK RE Holdings I LLC | | 8,899 | | | | | | | 8,899 | |
| | 47-3148337 | T-C US Super Regional Mall Fund LP | (3,280,001) | 159,314,447 | | | | | | | 156,034,446 | |
| | 47-5379777 | T-C Waterford Blue Lagoon GP LLC | (42,661) | (47,499) | | | | | | | (90,159) | |
| | 47-5375805 | T-C Waterford Blue Lagoon LLC | (2,133,035) | (2,374,926) | | | | | | | (4,507,961) | |
| | | TCAM Global Australia Pty Ltd. | | | | | (2,870,149) | | | | (2,870,149) | |
| | | TCAM Global UK Limited | | | | | (7,603,766) | | | | (7,603,766) | |

SCHEDULE Y

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| | 27-1858182 | T-CSMA III, LLC | (194) | 65 | | | | | | | (129) | |
| | 13-3760073 | Teachers Advisors, Inc. | (343,000,000) | | | | (209,417,763) | | | | (552,417,763) | |
| | 13-3752992 | Teachers Personal Investors Services, Inc. | | | | | | | | | | |
| | 81-2146865 | TEFF Holdco LLC | | 4,795,478 | | | (49,526,178) | | | | (49,526,178) | |
| | 82-2225812 | TGA APAC Fund Holdings LLC | | 82,218,826 | | | (8,402) | | | | 4,787,076 | |
| | 83-0780652 | TGA Connection at Athens Investor Member LLC | | | | | | | | | 82,218,826 | |
| | | TGA FC Investor Member LLC | | 18,801,466 | | | (29,209) | | | | 18,772,257 | |
| | 81-3602072 | TGA Japan Holdings, LLC | | 14,532,651 | | | (29,459) | | | | 14,503,192 | |
| | 82-1169084 | TGA MKP Member LLC | (678,669) | (939,422) | | | | | | | (939,422) | |
| | 81-4232788 | TGA Montague Investor Member LLC | | 155,677,436 | | | | | | | 154,998,767 | |
| | 81-3542251 | TGA Montrose Residences Member LLC | | 4,797,323 | | | (39,339) | | | | 4,757,984 | |
| | 83-1916152 | TGA MS Self Storage Investor Member, LLC | | 28,041,007 | | | (17,142) | | | | 28,023,864 | |
| | 83-2063402 | TGA SP-MPC Housing Investor Member LLC | | 83,904,071 | | | (22,292) | | | | 83,881,779 | |
| | 81-1467545 | TGAM Agribusiness Fund LP | (242,963) | 20,763,930 | | | (516) | | | | 20,763,414 | |
| | 20-4410108 | The TAP CommodityBuilder Fund, LLC | (905,564) | 82,772,011 | | | (7,845) | | | | 82,521,203 | |
| | 27-4871720 | The TAP Fund LLC | (2,525,996) | (35,000,000) | | | | | | | (35,905,564) | |
| | | THRE Global Cities Advisors, LLC | | (41,170,917) | | | | | | | (43,696,913) | |
| | 81-2429791 | THRE US Strategic Industrial Fund | (872,643) | (5,512,863) | | | (1,697,243) | | | | (1,697,243) | |
| | 13-4173396 | TIAA CMBS I, LLC | (3,569,168) | (7,417,622) | | | (11,892) | | | | (6,385,506) | |
| | 47-4570655 | TIAA Diversified Public Investments LLC | (4,900,000) | | | | (144,149) | | | | (10,998,682) | |
| | | TIAA Endowment & Philanthropic Serv (TEPS) | | | | | | | | | (5,044,149) | |
| | 90-0615674 | TIAA FSB Holdings, Inc. | | | | | (64,341,252) | | | | (64,341,252) | |
| | 81-1241294 | TIAA GBS Holdings, LLC | | | | | (234,199,429) | | | | (234,199,429) | |
| | 27-5551198 | TIAA Global Ag Holdco, LLC | (34,761,800) | (14,086,642) | | | (65,899) | | | | (65,899) | |
| | 46-2860100 | TIAA Global Equity Income, LLC | (58,117,923) | (363,087,470) | | | (170,000) | | | | (49,018,442) | |
| | 26-3594208 | TIAA Global Public Investments, LLC | (40,000,000) | 120,000,000 | | | (1,871,300) | | | | (421,205,394) | |
| | 46-2881813 | TIAA GTR HoldCo LLC | | 44,625,000 | | | (13,744) | | | | 78,128,700 | |
| | 45-3479281 | TIAA Infrastructure Investments, LLC | (67,594,457) | (10,515,166) | | | (1,958,283) | | | | 44,611,256 | |
| | 45-2665869 | TIAA Oil & Gas Investments, LLC | | (14,452,794) | | | (2,099,488) | | | | (80,067,906) | |
| | 11-3519531 | TIAA Realty LLC | | (907,367) | | | (231,113) | | | | (16,552,282) | |
| | 13-1624203 | TIAA SMA Strategies, LLC | (19,525,866) | 24,542,389 | | | | | | | (1,138,480) | |
| | 45-3030923 | TIAA Stonepeak Fund I, LLC | (59,213,527) | (60,682,279) | | | (1,560,879) | | | | 5,016,523 | |
| | 45-3029655 | TIAA Stonepeak Investments II, LLC | (21,403,651) | | | | (203,938) | | | | (121,456,685) | |
| | 45-3164600 | TIAA Super Regional Mall Member Sub LLC | (24,211,770) | 8,319,967 | | | | | | | (21,607,589) | |
| | 45-1286386 | TIAA Syngas, LLC | (3,146,084) | (3,485,760) | | | (239,875) | | | | (15,891,803) | |
| | 13-4040842 | TIAA Timberlands I, LLC | (3,511,056) | (2,988,944) | | | (570) | | | | (6,871,719) | |
| | 13-4085431 | TIAA Timberlands II, LLC | (3,957,865) | (1,442,135) | | | (807) | | | | (6,500,570) | |
| | 20-8892977 | TIAA Union Place Phase I LLC | (1,418,185) | (1,446,841) | | | (92,401) | | | | (5,400,807) | |
| | 45-4486211 | TIAA Wind Investments LLC | | (4,875,785) | | | (73,274) | | | | (2,957,427) | |
| | 27-1870080 | TIAA-CPPIB Commercial Mortgage Company, L.P. | (9,711) | | | | | | | | (4,949,059) | |
| | | | | | | | | | | | (9,711) | |

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PART 2 - SUMMARY OF INSURER’S TRANSACTIONS WITH ANY AFFILIATES

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| | 45-4288013 | TIAA-CREF Alternatives Advisors, LLC | | | | | (185,271,626) | | | | (185,271,626) | |
| | 26-3561447 | TIAA-CREF Asset Management Distressed Opportunities Fund, LP | (1,844,810) | (8,257,037) | | | | | | | (10,101,847) | |
| | 13-3905273 | TIAA-CREF Asset Management LLC | 3,500 | | | | | | | | 3,500 | |
| | 55-0856733 | TIAA-CREF Individual & Institutional Services, LLC | | 225,000,000 | | | (858,708,627) | | | | (633,708,627) | |
| | | TIAA-CREF International Holdings, LLC | | | | | (5,888,801) | | | | (5,888,801) | |
| | 13-3586142 | TIAA-CREF Investment Management, LLC | | | | | (171,613,957) | | | | (171,613,957) | |
| | 13-3917848 | TIAA-CREF Life Insurance Company | | 100,000,000 | | | (120,625,517) | | | | (20,625,517) | |
| | 20-8384004 | TIAA-CREF LPHC, LLC (TCAM DOF GP, LLC) | | | | | (355) | | | | (355) | |
| | 20-5591124 | TIAA-CREF Redwood, LLC | | 15,000,000 | | | | | | | 15,000,000 | |
| | 13-4026557 | TIAA-CREF Tuition Financing, Inc. | | 50,000,000 | | | (73,366,842) | | | | (23,366,842) | |
| | 13-3550737 | T-Investment Properties Corp. | | | | | (3,486,691) | | | | (3,486,691) | |
| | | U.S. Cities Retail Fund LP | | (12,155,759) | 108,472,599 | | | | | | 96,316,840 | |
| | | U.S. Core-Plus Real Estate Debt Fund LP | | 44,670,000 | | | | | | | 44,670,000 | |
| | 00-0000000 | UK PPP Investments LP | | (3,356,845) | | | (451) | | | | (3,357,296) | |
| | 27-3416812 | Westchester Group Investment Management Holding Company, Inc. | | 19,815,794 | | | | | | | 19,815,794 | |
| | 37-1193972 | Westchester Group Investment Management Operating Company, Inc. | (6,650,000) | (18,007,897) | | | | | | | (24,657,897) | |
| | 27-3417683 | Westchester Group Investment Management, Inc. | | | | | (7,257,837) | | | | (7,257,837) | |
| | 51-0141732 | WRC Properties LLC | (85,236) | 85,236 | | | | | | | | |
| | 00-0000000 | Ziemia Fund | | (4,304,260) | | | | | | | (4,304,260) | |
| 9999999 | Control Totals | | | | | | | | XXX | | | |

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

The following supplemental reports are required to be filed as part of your statement filing unless specifically waived by the domiciliary state. However, in the event that your domiciliary state waives the filing requirement, your response of WAIVED to the specific interrogatory will be accepted in lieu of filing a “NONE” report and a bar code will be printed below. If the supplement is required of your company but is not being filed for whatever reason enter SEE EXPLANATION and provide an explanation following the interrogatory questions.

| | Responses |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| MARCH FILING | |
| 1. Will the Supplemental Compensation Exhibit be filed with the state of domicile by March 1? | YES |
| 2. Will the confidential Risk-based Capital Report be filed with the NAIC by March 1? | YES |
| 3. Will the confidential Risk-based Capital Report be filed with the state of domicile, if required, by March 1? | YES |
| 4. Will an actuarial opinion be filed by March 1? | YES |
| APRIL FILING | |
| 5. Will Management’s Discussion and Analysis be filed by April 1? | YES |
| 6. Will the Life, Health & Annuity Guaranty Association Model Act Assessment Base Reconciliation Exhibit be filed with the state of domicile and the NAIC by April 1? | YES |
| 7. Will the Adjustments to the Life, Health & Annuity Guaranty Association Model Act Assessment Base Reconciliation Exhibit (if required) be filed with the state of domicile and the NAIC by April 1? | YES |
| 8. Will the Supplemental Investment Risks Interrogatories be filed by April 1? | YES |
| JUNE FILING | |
| 9. Will an audited financial report be filed by June 1? | YES |
| 10. Will Accountant’s Letter of Qualifications be filed with the state of domicile and electronically with the NAIC by June 1? | YES |
| AUGUST FILING | |
| 11. Will the regulator-only (non-public) Communication of Internal Control Related Matters Noted in Audit be filed with the state of domicile and electronically with the NAIC (as a regulator-only non-public document) by August 1? | YES |

The following supplemental reports are required to be filed as part of your annual statement filing **if your company is engaged in the type of business covered by the supplement. However, in the event that your company does not transact the type of business for which the special report must be filed, your response of NO to the specific interrogatory will be accepted in lieu of filing a “NONE” report and a bar code will be printed below.** If the supplement is required of your company but is not being filed for whatever reason enter SEE EXPLANATION and provide an explanation following the interrogatory questions.

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| MARCH FILING | |
| 12. Will Schedule SIS (Stockholder Information Supplement) be filed with the state of domicile by March 1? | NO |
| 13. Will the Medicare Supplement Insurance Experience Exhibit be filed with the state of domicile and the NAIC by March 1? | NO |
| 14. Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC by March 1? | SEE EXPLANATION |
| 15. Will the actuarial opinion on participating and non-participating policies as required in Interrogatories 1 and 2 to Exhibit 5 be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 16. Will the actuarial opinion on non-guaranteed elements as required in interrogatory #3 to Exhibit 5 be filed with the state of domicile and electronically with the NAIC by March 1? | YES |
| 17. Will the actuarial opinion on X-Factors be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 18. Will the actuarial opinion on Separate Accounts Funding Guaranteed Minimum Benefit be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 19. Will the actuarial opinion on Synthetic Guaranteed Investment Contracts be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 20. Will the Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 21. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 22. Will the Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 23. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Average Market Value) be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 24. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 25. Will the C-3 RBC Certifications required under C-3 Phase I be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 26. Will the C-3 RBC Certifications required under C-3 Phase II be filed with the state of domicile and electronically with the NAIC by March 1? | YES |

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

| | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 27. | Will the Actuarial Certifications Related to Annuity Nonforfeiture Ongoing Compliance for Equity Indexed Annuities be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 28. | Will the actuarial opinion required by the Modified Guaranteed Annuity Model Regulation be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 29. | Will the Actuarial Certifications Related to Hedging required by Actuarial Guideline XLIII be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 30. | Will the Financial Officer Certification Related to Clearly Defined Hedging Strategy required by Actuarial Guideline XLIII be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 31. | Will the Management Certification That the Valuation Reflects Management's Intent required by Actuarial Guideline XLIII be filed with the state of domicile and electronically with the NAIC by March 1? | YES |
| 32. | Will the Actuarial Certification Related to the Reserves required by Actuarial Guideline XLIII be filed with the state of domicile and electronically with the NAIC by March 1? | YES |
| 33. | Will the Actuarial Certification regarding the use of 2001 Preferred Class Tables required by the Model Regulation Permitting the Recognition of Preferred Mortality Tables for Use in Determining Minimum Reserve Liabilities be filed with the state of domicile and electronically with the NAIC by March 1? | NO |
| 34. | Will the Worker's Compensation Carve-Out Supplement be filed by March 1? | NO |
| 35. | Will Supplemental Schedule O be filed with the state of domicile and the NAIC by March 1? | YES |
| 36. | Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC by March 1? | NO |
| 37. | Will an approval from the reporting entity's state of domicile for relief related to the five-year rotation requirement for lead audit partner be filed electronically with the NAIC by March 1? | NO |
| 38. | Will an approval from the reporting entity's state of domicile for relief related to the one-year cooling off period for independent CPA be filed electronically with the NAIC by March 1? | NO |
| 39. | Will an approval from the reporting entity's state of domicile for relief related to the Requirements for Audit Committees be filed electronically with the NAIC by March 1?..... | NO |
| 40. | Will the VM-20 Reserves Supplement be filed with the state of domicile and the NAIC by March 1? | YES |

APRIL FILING

| | | |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|
| 41. | Will the confidential Regulatory Asset Adequacy Issues Summary (RAAIS) required by the Valuation Manual be filed with the state of domicile by April 1? | YES |
| 42. | Will the Long-Term Care Experience Reporting Forms be filed with the state of domicile and the NAIC by April 1? | YES |
| 43. | Will the Interest-Sensitive Life Insurance Products Report Forms be filed with the state of domicile and the NAIC by April 1? | NO |
| 44. | Will the Credit Insurance Experience Exhibit be filed with the state of domicile and the NAIC by April 1? | NO |
| 45. | Will the Accident and Health Policy Experience Exhibit be filed by April 1? | YES |
| 46. | Will the Analysis of Annuity Operations by Lines of Business be filed with the state of domicile and the NAIC by April 1? | YES |
| 47. | Will the Analysis of Increase in Annuity Reserves During the Year be filed with the state of domicile and the NAIC by April 1? | YES |
| 48. | Will the Supplemental Health Care Exhibit (Parts 1, 2 and 3) be filed with the state of domicile and the NAIC by April 1? | NO |
| 49. | Will the regulator only (non-public) Supplemental Health Care Exhibit's Expense Allocation Report be filed with the state of domicile and the NAIC by April 1? | NO |
| 50. | Will the confidential Actuarial Memorandum required by Actuarial Guideline XXXVIII 8D be filed with the state of domicile by April 30? | NO |
| 51. | Will the Supplemental Term and Universal Life Insurance Reinsurance Exhibit be filed with the state of domicile and the NAIC by April 1? | YES |
| 52. | Will the Variable Annuities Supplement be filed with the state of domicile and the NAIC by April 1? | YES |

AUGUST FILING

| | | |
|-----|------------------------------------------------------------------------------------------------------------------------------|-----|
| 53. | Will Management's Report of Internal Control Over Financial Reporting be filed with the state of domicile by August 1? | YES |
|-----|------------------------------------------------------------------------------------------------------------------------------|-----|

- Explanations:
12.

13.

14. The Company is not a U.S. branch of a Non-U.S. Insurer.

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- Bar Codes:
12.

SIS Stockholder Information Supplement [Document Identifier 420]
13.

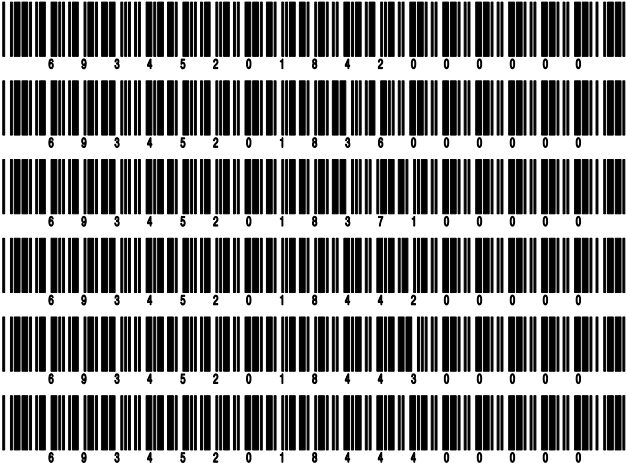
Medicare Supplement Insurance Experience Exhibit [Document Identifier 360]
15.

Participating Opinion for Exhibit 5 [Document Identifier 371]
17.






















Actuarial Opinion on X-Factors [Document Identifier 442]
18.

Actuarial Opinion on Separate Accounts Funding Guaranteed Minimum Benefit [Document Identifier 443]
19.

Actuarial Opinion on Synthetic Guaranteed Investment Contracts [Document Identifier 444]



SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

| | | |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 20. | Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 445] |  6 9 3 4 5 2 0 1 8 4 4 5 0 0 0 0 0 |
| 21. | Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 446] |  6 9 3 4 5 2 0 1 8 4 4 6 0 0 0 0 0 |
| 22. | Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI [Document Identifier 447] |  6 9 3 4 5 2 0 1 8 4 4 7 0 0 0 0 0 |
| 23. | Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI [Document Identifier 448] |  6 9 3 4 5 2 0 1 8 4 4 8 0 0 0 0 0 |
| 24. | Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) [Document Identifier 449] |  6 9 3 4 5 2 0 1 8 4 4 9 0 0 0 0 0 |
| 25. | C-3 RBC Certifications Required Under C-3 Phase I [Document Identifier 450] |  6 9 3 4 5 2 0 1 8 4 5 0 0 0 0 0 0 |
| 27. | Actuarial Certifications Related to Annuity Nonforfeiture Ongoing Compliance for Equity Indexed Annuities [Document Identifier 452] |  6 9 3 4 5 2 0 1 8 4 5 2 0 0 0 0 0 |
| 28. | Modified Guaranteed Annuity Model Regulation [Document Identifier 453] |  6 9 3 4 5 2 0 1 8 4 5 3 0 0 0 0 0 |
| 29. | Actuarial Certifications Related to Hedging required by Actuarial Guideline XLIII [Document Identifier 436] |  6 9 3 4 5 2 0 1 8 4 3 6 0 0 0 0 0 |
| 30. | Financial Officer Certification Related to Clearly Defined Hedging Strategy required by Actuarial Guideline XLIII [Document Identifier 437] |  6 9 3 4 5 2 0 1 8 4 3 7 0 0 0 0 0 |
| 33. | Actuarial Certification regarding the use of 2001 Preferred Class Tables required by the Model Regulation Permitting the Recognition of Preferred Mortality Tables for Use in Determining Minimum Reserve Liabilities [Document Identifier 454] |  6 9 3 4 5 2 0 1 8 4 5 4 0 0 0 0 0 |
| 34. | Workers' Compensation Carve-Out Supplement [Document Identifier 495] |  6 9 3 4 5 2 0 1 8 4 9 5 0 0 0 0 0 |
| 36. | Medicare Part D Coverage Supplement [Document Identifier 365] |  6 9 3 4 5 2 0 1 8 3 6 5 0 0 0 0 0 |
| 37. | Relief from the five-year rotation requirement for lead audit partner [Document Identifier 224] |  6 9 3 4 5 2 0 1 8 2 2 4 0 0 0 0 0 |
| 38. | Relief from the one-year cooling off period for independent CPA [Document Identifier 225] |  6 9 3 4 5 2 0 1 8 2 2 5 0 0 0 0 0 |
| 39. | Relief from the Requirements for Audit Committees [Document Identifier 226] |  6 9 3 4 5 2 0 1 8 2 2 6 0 0 0 0 0 |
| 43. | Interest-Sensitive Life Insurance Products Report Forms [Document Identifier 280] |  6 9 3 4 5 2 0 1 8 2 8 0 0 0 0 0 0 |
| 44. | Credit Insurance Experience Exhibit [Document Identifier 230] |  6 9 3 4 5 2 0 1 8 2 3 0 0 0 0 0 0 |
| 48. | Supplemental Health Care Exhibit (Parts 1, 2 and 3) [Document Identifier 216] |  6 9 3 4 5 2 0 1 8 2 1 6 0 0 0 0 0 |
| 49. | Supplemental Health Care Exhibit's Expense Allocation Report [Document Identifier 217] |  6 9 3 4 5 2 0 1 8 2 1 7 0 0 0 0 0 |
| 50. | Actuarial Memorandum Required by Actuarial Guideline XXXVIII 8D [Document Identifier 435] |  6 9 3 4 5 2 0 1 8 4 3 5 0 0 0 0 0 |

OVERFLOW PAGE FOR WRITE-INS

Additional Write-ins for Liabilities Line 25

| | 1 Current Year | 2 Prior Year |
|---------------------------------------------------------------------|-------------------|-----------------|
| 2504. Post retirement benefit obligation liability | (55,730,419) | (48,884,691) |
| 2597. Summary of remaining write-ins for Line 25 from overflow page | (55,730,419) | (48,884,691) |

Additional Write-ins for Summary of Operations Line 8.3

| | 1 Current Year | 2 Prior Year |
|------------------------------------------------------------------------|-------------------|-----------------|
| 08.304. Policyholder reinvestment of annuity benefits | 79,268,296 | 83,358,268 |
| 08.397. Summary of remaining write-ins for Line 8.3 from overflow page | 79,268,296 | 83,358,268 |

Additional Write-ins for Exhibit 2 Line 9.3

| | | Insurance | | | 5 | 6 | |
|---------|-------------------------------------------------------------------|--------------|---------------------|-----------|-----------------------------|------------|-------------|
| | | 1 | Accident and Health | | | | 4 |
| | | | 2 | 3 | | | |
| | | Life | Cost Containment | All Other | All Other Lines of Business | Investment | Total |
| 09.304. | Equip Maintenance | 6,161,440 | | | 365,815 | 87,489 | 6,614,744 |
| 09.305. | Managed Recoveries | (15,411,668) | | | 6,759,123 | 1,387,496 | (7,265,049) |
| 09.306. | Tpis prem fees | 5,622,775 | | | | | 5,622,775 |
| 09.307. | Agency fees | 139,640 | | | 538,624 | 30 | 678,294 |
| 09.308. | Standard reimbursements | (5,258,646) | | (229,618) | (336,111) | (769) | (5,825,144) |
| 09.397. | Summary of remaining write-ins for Line 9.3 from overflow page | (8,746,459) | | (229,618) | 7,327,451 | 1,474,246 | (174,380) |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

OVERFLOW PAGE FOR WRITE-INS

Additional Write-ins for Analysis of Operations Line 8.3

| | 1 | 2 | Ordinary | | | 6 | Group | | Accident and Health | | | 12 |
|------------------------------------------------------------------------|------------|-----------------|----------------|----------------------|-------------------------|------------------------------------|--------------------|-----------|---------------------|-------------------------------|-------|------------------------------------------|
| | | | 3 | 4 | 5 | | 7 | 8 | 9 | 10 | 11 | |
| | Total | Industrial Life | Life Insurance | Individual Annuities | Supplementary Contracts | Credit Life (Group and Individual) | Life Insurance (a) | Annuities | Group | Credit (Group and Individual) | Other | Aggregate of All Other Lines of Business |
| 08.304. Policyholder reinvestment of annuity benefits | 79,268,296 | | | 70,271,124 | 289,760 | | | 8,707,412 | | | | |
| 08.397. Summary of remaining write-ins for Line 8.3 from overflow page | 79,268,296 | | | 70,271,124 | 289,760 | | | 8,707,412 | | | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SUMMARY INVESTMENT SCHEDULE

| Investment Categories | Gross Investment Holdings | | Admitted Assets as Reported in the Annual Statement | | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------|-----------------------------------------------------|-------------------------------------------------|---------------------------|------------|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| | Amount | Percentage | Amount | Securities Lending Reinvested Collateral Amount | Total (Col. 3 + 4) Amount | Percentage |
| 1. Bonds: | | | | | | |
| 1.1 U.S. treasury securities | 15,156,030,048 | 5.832 | 15,156,030,048 | | 15,156,030,048 | 5.829 |
| 1.2 U.S. government agency obligations (excluding mortgage-backed securities): | | | | | | |
| 1.21 Issued by U.S. government agencies | 2,577,846,743 | 0.992 | 2,577,846,743 | | 2,577,846,743 | 0.991 |
| 1.22 Issued by U.S. government sponsored agencies | | 0.000 | | | | 0.000 |
| 1.3 Non-U.S. government (including Canada, excluding mortgaged-backed securities) | 5,318,958,302 | 2.047 | 5,318,958,302 | | 5,318,958,302 | 2.046 |
| 1.4 Securities issued by states, territories, and possessions and political subdivisions in the U.S. : | | | | | | |
| 1.41 States, territories and possessions general obligations | 672,272,764 | 0.259 | 672,272,764 | | 672,272,764 | 0.259 |
| 1.42 Political subdivisions of states, territories and possessions and political subdivisions general obligations | 966,985,170 | 0.372 | 966,985,170 | | 966,985,170 | 0.372 |
| 1.43 Revenue and assessment obligations | 5,813,942,996 | 2.237 | 5,813,942,996 | | 5,813,942,996 | 2.236 |
| 1.44 Industrial development and similar obligations | | 0.000 | | | | 0.000 |
| 1.5 Mortgage-backed securities (includes residential and commercial MBS): | | | | | | |
| 1.51 Pass-through securities: | | | | | | |
| 1.511 Issued or guaranteed by GNMA | 46,773,994 | 0.018 | 46,773,994 | | 46,773,994 | 0.018 |
| 1.512 Issued or guaranteed by FNMA and FHLMC | 713,250,984 | 0.274 | 713,250,984 | | 713,250,984 | 0.274 |
| 1.513 All other | 79,919 | 0.000 | 79,919 | | 79,919 | 0.000 |
| 1.52 CMOs and REMICs: | | | | | | |
| 1.521 Issued or guaranteed by GNMA, FNMA, FHLMC or VA | 25,426,674,797 | 9.784 | 25,426,674,797 | | 25,426,674,797 | 9.779 |
| 1.522 Issued by non-U.S. Government issuers and collateralized by mortgage-backed securities issued or guaranteed by agencies shown in Line 1.521 | | 0.000 | | | | 0.000 |
| 1.523 All other | 13,448,305,034 | 5.175 | 13,448,305,034 | | 13,448,305,034 | 5.172 |
| 2. Other debt and other fixed income securities (excluding short-term): | | | | | | |
| 2.1 Unaffiliated domestic securities (includes credit tenant loans and hybrid securities) | 92,767,241,379 | 35.694 | 92,767,241,379 | | 92,767,241,379 | 35.678 |
| 2.2 Unaffiliated non-U.S. securities (including Canada) | 23,660,097,323 | 9.104 | 23,660,097,323 | | 23,660,097,323 | 9.100 |
| 2.3 Affiliated securities | 756,659,332 | 0.291 | 756,659,332 | | 756,659,332 | 0.291 |
| 3. Equity interests: | | | | | | |
| 3.1 Investments in mutual funds | 555,086,590 | 0.214 | 555,086,590 | | 555,086,590 | 0.213 |
| 3.2 Preferred stocks: | | | | | | |
| 3.21 Affiliated | | 0.000 | | | | 0.000 |
| 3.22 Unaffiliated | 245,061,072 | 0.094 | 245,061,072 | | 245,061,072 | 0.094 |
| 3.3 Publicly traded equity securities (excluding preferred stocks): | | | | | | |
| 3.31 Affiliated | | 0.000 | | | | 0.000 |
| 3.32 Unaffiliated | 213,905,685 | 0.082 | 213,905,685 | | 213,905,685 | 0.082 |
| 3.4 Other equity securities: | | | | | | |
| 3.41 Affiliated | 4,349,634,577 | 1.674 | 4,349,634,577 | | 4,349,634,577 | 1.673 |
| 3.42 Unaffiliated | 122,187,903 | 0.047 | 122,187,903 | | 122,187,903 | 0.047 |
| 3.5 Other equity interests including tangible personal property under lease: | | | | | | |
| 3.51 Affiliated | 658,431,808 | 0.253 | 658,431,808 | | 658,431,808 | 0.253 |
| 3.52 Unaffiliated | | 0.000 | | | | 0.000 |
| 4. Mortgage loans: | | | | | | |
| 4.1 Construction and land development | 52,084,649 | 0.020 | 52,084,649 | | 52,084,649 | 0.020 |
| 4.2 Agricultural | | 0.000 | | | | 0.000 |
| 4.3 Single family residential properties | 1,105,403,148 | 0.425 | 1,105,403,148 | | 1,105,403,148 | 0.425 |
| 4.4 Multifamily residential properties | 11,268,120 | 0.004 | 11,268,120 | | 11,268,120 | 0.004 |
| 4.5 Commercial loans | 26,222,289,394 | 10.090 | 26,222,289,394 | | 26,222,289,394 | 10.085 |
| 4.6 Mezzanine real estate loans | 2,567,530,391 | 0.988 | 2,567,530,391 | | 2,567,530,391 | 0.987 |
| 5. Real estate investments: | | | | | | |
| 5.1 Property occupied by company | 173,282,218 | 0.067 | 173,282,218 | | 173,282,218 | 0.067 |
| 5.2 Property held for production of income (including \$0 of property acquired in satisfaction of debt) | 1,966,277,308 | 0.757 | 1,966,277,308 | | 1,966,277,308 | 0.756 |
| 5.3 Property held for sale (including \$0 property acquired in satisfaction of debt) | 12,323,484 | 0.005 | 12,323,484 | | 12,323,484 | 0.005 |
| 6. Contract loans | 1,889,982,863 | 0.727 | 1,889,982,863 | | 1,889,982,863 | 0.727 |
| 7. Derivatives | 967,845,751 | 0.372 | 967,845,751 | | 967,845,751 | 0.372 |
| 8. Receivables for securities | 82,576,836 | 0.032 | 82,576,836 | | 82,576,836 | 0.032 |
| 9. Securities Lending (Line 10, Asset Page reinvested collateral) | 561,635,042 | 0.216 | 561,635,042 | XXX | XXX | XXX |
| 10. Cash, cash equivalents and short-term investments | 480,413,504 | 0.185 | 597,573,068 | 561,635,042 | 1,159,208,110 | 0.446 |
| 11. Other invested assets | 30,329,964,358 | 11.670 | 30,329,964,358 | | 30,329,964,358 | 11.665 |
| 12. Total invested assets | 259,892,303,486 | 100.000 | 260,009,463,050 | 561,635,042 | 260,009,463,050 | 100.000 |

SCHEDULE A - VERIFICATION BETWEEN YEARS

Real Estate

| | | | |
|-----|-----------------------------------------------------------------------------------------|---------------|---------------|
| 1. | Book/adjusted carrying value, December 31 of prior year | 2,078,326,041 | |
| 2. | Cost of acquired: | | |
| 2.1 | Actual cost at time of acquisition (Part 2, Column 6) | 264,784,998 | |
| 2.2 | Additional investment made after acquisition (Part 2, Column 9) | 17,615,949 | 282,400,947 |
| 3. | Current year change in encumbrances: | | |
| 3.1 | Totals, Part 1, Column 13 | (39,039,300) | |
| 3.2 | Totals, Part 3, Column 11 | | (39,039,300) |
| 4. | Total gain (loss) on disposals, Part 3, Column 18 | | 22,286,635 |
| 5. | Deduct amounts received on disposals, Part 3, Column 15 | | 136,358,643 |
| 6. | Total foreign exchange change in book/adjusted carrying value: | | |
| 6.1 | Totals, Part 1, Column 15 | | |
| 6.2 | Totals, Part 3, Column 13 | | |
| 7. | Deduct current year's other than temporary impairment recognized: | | |
| 7.1 | Totals, Part 1, Column 12 | | |
| 7.2 | Totals, Part 3, Column 10 | | |
| 8. | Deduct current year's depreciation: | | |
| 8.1 | Totals, Part 1, Column 11 | 55,375,986 | |
| 8.2 | Totals, Part 3, Column 9 | 356,686 | 55,732,672 |
| 9. | Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) | | 2,151,883,008 |
| 10. | Deduct total nonadmitted amounts | | |
| 11. | Statement value at end of current period (Line 9 minus Line 10) | | 2,151,883,008 |

SCHEDULE B - VERIFICATION BETWEEN YEARS

Mortgage Loans

| | | | |
|------|-----------------------------------------------------------------------------------------------------------------------|----------------|----------------|
| 1. | Book value/recorded investment excluding accrued interest, December 31 of prior year | 26,602,236,111 | |
| 2. | Cost of acquired: | | |
| 2.1 | Actual cost at time of acquisition (Part 2, Column 7) | 6,173,633,984 | |
| 2.2 | Additional investment made after acquisition (Part 2, Column 8) | 328,078,284 | 6,501,712,268 |
| 3. | Capitalized deferred interest and other: | | |
| 3.1 | Totals, Part 1, Column 12 | 2,778,231 | |
| 3.2 | Totals, Part 3, Column 11 | | 2,778,231 |
| 4. | Accrual of discount | | 765,625 |
| 5. | Unrealized valuation increase (decrease): | | |
| 5.1 | Totals, Part 1, Column 9 | | |
| 5.2 | Totals, Part 3, Column 8 | | |
| 6. | Total gain (loss) on disposals, Part 3, Column 18 | | (10,216,804) |
| 7. | Deduct amounts received on disposals, Part 3, Column 15 | | 2,871,425,955 |
| 8. | Deduct amortization of premium and mortgage interest points and commitment fees | | 3,583,593 |
| 9. | Total foreign exchange change in book value/recorded investment excluding accrued interest: | | |
| 9.1 | Totals, Part 1, Column 13 | (207,006,671) | |
| 9.2 | Totals, Part 3, Column 13 | (1,586,247) | (208,592,918) |
| 10. | Deduct current year's other than temporary impairment recognized: | | |
| 10.1 | Totals, Part 1, Column 11 | | |
| 10.2 | Totals, Part 3, Column 10 | 55,097,268 | 55,097,268 |
| 11. | Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) | | 29,958,575,697 |
| 12. | Total valuation allowance | | |
| 13. | Subtotal (Line 11 plus 12) | | 29,958,575,697 |
| 14. | Deduct total nonadmitted amounts | | |
| 15. | Statement value of mortgages owned at end of current period (Line 13 minus Line 14) | | 29,958,575,697 |

SCHEDULE BA - VERIFICATION BETWEEN YEARS
Other Long-Term Invested Assets

| | | | |
|-----|------------------------------------------------------------------------------------------|----------------|----------------|
| 1. | Book/adjusted carrying value, December 31 of prior year | 29,910,137,558 | |
| 2. | Cost of acquired: | | |
| | 2.1 Actual cost at time of acquisition (Part 2, Column 8) | 891,046,244 | |
| | 2.2 Additional investment made after acquisition (Part 2, Column 9) | 3,703,151,308 | 4,594,197,552 |
| 3. | Capitalized deferred interest and other: | | |
| | 3.1 Totals, Part 1, Column 16 | | |
| | 3.2 Totals, Part 3, Column 12 | | |
| 4. | Accrual of discount | | 21,634 |
| 5. | Unrealized valuation increase (decrease): | | |
| | 5.1 Totals, Part 1, Column 13 | (470,368,262) | |
| | 5.2 Totals, Part 3, Column 9 | (123,376,083) | (593,744,345) |
| 6. | Total gain (loss) on disposals, Part 3, Column 19 | | 13,430,882 |
| 7. | Deduct amounts received on disposals, Part 3, Column 16 | | 2,679,658,928 |
| 8. | Deduct amortization of premium and depreciation | | 151,993 |
| 9. | Total foreign exchange change in book/adjusted carrying value: | | |
| | 9.1 Totals, Part 1, Column 17 | (156,555,027) | |
| | 9.2 Totals, Part 3, Column 14 | 13,795,161 | (142,759,866) |
| 10. | Deduct current year's other than temporary impairment recognized: | | |
| | 10.1 Totals, Part 1, Column 15 | 657,151,750 | |
| | 10.2 Totals, Part 3, Column 11 | 4,037,729 | 661,189,479 |
| 11. | Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) | | 30,440,283,015 |
| 12. | Deduct total nonadmitted amounts | | 123,594,203 |
| 13. | Statement value at end of current period (Line 11 minus Line 12) | | 30,316,688,812 |

SCHEDULE D - VERIFICATION BETWEEN YEARS
Bonds and Stocks

| | | | |
|-----|-----------------------------------------------------------------------------------------------------------------------------|-----------------|-----------------|
| 1. | Book/adjusted carrying value, December 31 of prior year | 190,925,380,722 | |
| 2. | Cost of bonds and stocks acquired, Part 3, Column 7 | | 24,859,902,461 |
| 3. | Accrual of discount | | 385,599,156 |
| 4. | Unrealized valuation increase (decrease): | | |
| | 4.1. Part 1, Column 12 | (22,448,186) | |
| | 4.2. Part 2, Section 1, Column 15 | (387,776) | |
| | 4.3. Part 2, Section 2, Column 13 | 217,597,650 | |
| | 4.4. Part 4, Column 11 | (70,590,764) | 124,170,924 |
| 5. | Total gain (loss) on disposals, Part 4, Column 19 | | 428,743,920 |
| 6. | Deduction consideration for bonds and stocks disposed of, Part 4, Column 7 | | 22,720,884,302 |
| 7. | Deduct amortization of premium | | 181,618,163 |
| 8. | Total foreign exchange change in book/adjusted carrying value: | | |
| | 8.1. Part 1, Column 15 | (182,881,763) | |
| | 8.2. Part 2, Section 1, Column 19 | | |
| | 8.3. Part 2, Section 2, Column 16 | (5,858,099) | |
| | 8.4. Part 4, Column 15 | (4,977,988) | (193,717,850) |
| 9. | Deduct current year's other than temporary impairment recognized: | | |
| | 9.1. Part 1, Column 14 | 113,000,447 | |
| | 9.2. Part 2, Section 1, Column 17 | | |
| | 9.3. Part 2, Section 2, Column 14 | 70,645,364 | |
| | 9.4. Part 4, Column 13 | 14,228,202 | 197,874,013 |
| 10. | Total investment income recognized as a result of prepayment penalties and/or acceleration fees, Notes 5R, Line 5R(2) | | 83,242,916 |
| 11. | Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10) | | 193,512,945,771 |
| 12. | Deduct total nonadmitted amounts | | 43,519,351 |
| 13. | Statement value at end of current period (Line 11 minus Line 12) | | 193,469,426,420 |

SCHEDULE D - SUMMARY BY COUNTRY

Long-Term Bonds and Stocks OWNED December 31 of Current Year

| Description | | 1 Book/Adjusted Carrying Value | 2 Fair Value | 3 Actual Cost | 4 Par Value of Bonds |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------------------------|-----------------|------------------|-------------------------|
| BONDS | | | | | |
| Governments (Including all obligations guaranteed by governments) | 1. United States | 31,179,304,733 | 33,255,681,533 | 31,352,772,771 | 31,019,102,123 |
| | 2. Canada | 939,297,922 | 1,029,092,560 | 944,327,174 | 936,915,000 |
| | 3. Other Countries | 4,402,402,895 | 4,433,814,676 | 4,388,240,086 | 4,426,891,214 |
| | 4. Totals | 36,521,005,550 | 38,718,588,769 | 36,685,340,031 | 36,382,908,337 |
| U.S. States, Territories and Possessions (Direct and guaranteed) | | | | | |
| | 5. Totals | 654,372,122 | 700,371,226 | 655,798,691 | 649,190,000 |
| U.S. Political Subdivisions of States, Territories and Possessions (Direct and guaranteed) | | | | | |
| | 6. Totals | 1,053,918,913 | 1,094,030,984 | 1,049,321,879 | 1,057,418,298 |
| U.S. Special Revenue and Special Assessment Obligations and all Non-Guaranteed Obligations of Agencies and Authorities of Governments and their Political Subdivisions | | | | | |
| | 7. Totals | 18,477,846,347 | 19,109,992,841 | 18,426,857,613 | 18,965,965,989 |
| Industrial and Miscellaneous, SVO Identified Funds, Bank Loans and Hybrid Securities (unaffiliated) | 8. United States | 106,413,437,767 | 106,823,197,904 | 106,385,914,454 | 107,597,681,332 |
| | 9. Canada | 3,187,922,398 | 3,260,170,669 | 3,186,331,550 | 3,191,945,399 |
| | 10. Other Countries | 20,285,941,004 | 20,268,165,963 | 20,391,619,793 | 20,684,127,648 |
| | 11. Totals | 129,887,301,169 | 130,351,534,536 | 129,963,865,797 | 131,473,754,379 |
| Parent, Subsidiaries and Affiliates | 12. Totals | 756,659,333 | 727,853,779 | 839,119,280 | 756,659,333 |
| | 13. Total Bonds | 187,351,103,434 | 190,702,372,135 | 187,620,303,291 | 189,285,896,336 |
| PREFERRED STOCKS | | | | | |
| Industrial and Miscellaneous (unaffiliated) | 14. United States | 245,061,072 | 308,856,425 | 245,448,848 | |
| | 15. Canada | | | | |
| | 16. Other Countries | | | | |
| | 17. Totals | 245,061,072 | 308,856,425 | 245,448,848 | |
| Parent, Subsidiaries and Affiliates | 18. Totals | | | | |
| | 19. Total Preferred Stocks | 245,061,072 | 308,856,425 | 245,448,848 | |
| COMMON STOCKS | | | | | |
| Industrial and Miscellaneous (unaffiliated) | 20. United States | 796,603,769 | 796,603,769 | 770,901,741 | |
| | 21. Canada | 4,669,407 | 4,669,407 | 5,415,861 | |
| | 22. Other Countries | 89,907,014 | 89,907,014 | 78,645,908 | |
| | 23. Totals | 891,180,190 | 891,180,190 | 854,963,510 | |
| Parent, Subsidiaries and Affiliates | 24. Totals | 5,025,601,191 | 5,190,624,830 | 4,869,220,193 | |
| | 25. Total Common Stocks | 5,916,781,381 | 6,081,805,020 | 5,724,183,703 | |
| | 26. Total Stocks | 6,161,842,453 | 6,390,661,445 | 5,969,632,551 | |
| | 27. Total Bonds and Stocks | 193,512,945,887 | 197,093,033,580 | 193,589,935,842 | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA
SCHEDULE D - PART 1A - SECTION 1

Quality and Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Types of Issues and NAIC Designations

| NAIC Designation | 1 1 Year or Less | 2 Over 1 Year Through 5 Years | 3 Over 5 Years Through 10 Years | 4 Over 10 Years Through 20 Years | 5 Over 20 Years | 6 No Maturity Date | 7 Total Current Year | 8 Col. 7 as a % of Line 11.7 | 9 Total from Col. 7 Prior Year | 10 % From Col. 8 Prior Year | 11 Total Publicly Traded | 12 Total Privately Placed (a) |
|---------------------------------------------------------------------------------------|---------------------|-------------------------------------|---------------------------------------|----------------------------------------|--------------------|--------------------------|-------------------------|------------------------------------|--------------------------------------|-----------------------------------|--------------------------------|-------------------------------------|
| 1. U.S. Governments | | | | | | | | | | | | |
| 1.1 NAIC 1 | 1,053,931,749 | 5,130,531,429 | 6,013,318,264 | 9,026,361,779 | 10,196,088,971 | XXX | 31,420,232,192 | 16.7 | 32,424,003,977 | 17.5 | 31,420,232,192 | |
| 1.2 NAIC 2 | | | | | | XXX | | | | | | |
| 1.3 NAIC 3 | | | | | | XXX | | | | | | |
| 1.4 NAIC 4 | | | | | | XXX | | | | | | |
| 1.5 NAIC 5 | | | | | | XXX | | | | | | |
| 1.6 NAIC 6 | | | | | | XXX | | | | | | |
| 1.7 Totals | 1,053,931,749 | 5,130,531,429 | 6,013,318,264 | 9,026,361,779 | 10,196,088,971 | XXX | 31,420,232,192 | 16.7 | 32,424,003,977 | 17.5 | 31,420,232,192 | |
| 2. All Other Governments | | | | | | | | | | | | |
| 2.1 NAIC 1 | 94,095,029 | 1,368,702,213 | 552,751,282 | 133,648,186 | 312,094,680 | XXX | 2,461,291,390 | 1.3 | 2,378,264,385 | 1.3 | 1,630,039,430 | 831,251,960 |
| 2.2 NAIC 2 | 10,139,350 | 506,087,943 | 380,752,157 | 206,566,515 | 450,010,524 | XXX | 1,553,556,489 | 0.8 | 1,388,759,799 | 0.7 | 960,877,411 | 592,679,078 |
| 2.3 NAIC 3 | 66,874,061 | 181,847,959 | 449,258,770 | 59,890,590 | 132,525,564 | XXX | 890,396,944 | 0.5 | 981,637,391 | 0.5 | 537,032,941 | 353,364,003 |
| 2.4 NAIC 4 | 21,602,430 | 133,580,026 | 166,984,192 | 8,246,220 | 35,397,017 | XXX | 365,809,885 | 0.2 | 322,886,926 | 0.2 | 81,757,468 | 284,052,417 |
| 2.5 NAIC 5 | | 29,380,408 | 28,918,816 | | | XXX | 58,299,224 | 0.0 | 24,010,232 | 0.0 | | 58,299,224 |
| 2.6 NAIC 6 | | | | | 12,346,875 | XXX | 12,346,875 | 0.0 | | | | 12,346,875 |
| 2.7 Totals | 192,710,870 | 2,219,598,549 | 1,578,665,217 | 408,351,511 | 942,374,660 | XXX | 5,341,700,807 | 2.8 | 5,095,558,733 | 2.8 | 3,209,707,250 | 2,131,993,557 |
| 3. U.S. States, Territories and Possessions etc., Guaranteed | | | | | | | | | | | | |
| 3.1 NAIC 1 | | 23,054,423 | 50,278,571 | 343,614,342 | 126,593,677 | XXX | 543,541,013 | 0.3 | 521,326,064 | 0.3 | 543,541,013 | |
| 3.2 NAIC 2 | | | | 110,831,106 | | XXX | 110,831,106 | 0.1 | 110,821,792 | 0.1 | 110,831,106 | |
| 3.3 NAIC 3 | | | | | | XXX | | | | | | |
| 3.4 NAIC 4 | | | | | | XXX | | | | | | |
| 3.5 NAIC 5 | | | | | | XXX | | | | | | |
| 3.6 NAIC 6 | | | | | | XXX | | | | | | |
| 3.7 Totals | | 23,054,423 | 50,278,571 | 454,445,448 | 126,593,677 | XXX | 654,372,119 | 0.3 | 632,147,856 | 0.3 | 654,372,119 | |
| 4. U.S. Political Subdivisions of States, Territories and Possessions , Guaranteed | | | | | | | | | | | | |
| 4.1 NAIC 1 | 2,290,000 | 31,182,306 | 94,640,514 | 512,380,477 | 313,458,585 | XXX | 953,951,882 | 0.5 | 967,320,969 | 0.5 | 951,406,660 | 2,545,222 |
| 4.2 NAIC 2 | | 8,871,331 | | 9,042,594 | | XXX | 17,913,925 | 0.0 | 9,991,236 | 0.0 | 9,042,594 | 8,871,331 |
| 4.3 NAIC 3 | | | | | | XXX | | | | | | |
| 4.4 NAIC 4 | | | 49,484,826 | | 32,568,277 | XXX | 82,053,103 | 0.0 | 80,781,629 | 0.0 | 82,053,103 | |
| 4.5 NAIC 5 | | | | | | XXX | | | | | | |
| 4.6 NAIC 6 | | | | | | XXX | | | | | | |
| 4.7 Totals | 2,290,000 | 40,053,637 | 144,125,340 | 521,423,071 | 346,026,862 | XXX | 1,053,918,910 | 0.6 | 1,058,093,834 | 0.6 | 1,042,502,357 | 11,416,553 |
| 5. U.S. Special Revenue & Special Assessment Obligations, etc., Non-Guaranteed | | | | | | | | | | | | |
| 5.1 NAIC 1 | 682,233,039 | 1,266,645,135 | 4,505,747,281 | 7,607,075,945 | 4,310,285,029 | XXX | 18,371,986,429 | 9.8 | 18,555,098,290 | 10.0 | 18,323,301,698 | 48,684,731 |
| 5.2 NAIC 2 | | 28,091,267 | 38,559,954 | 278,694,720 | | XXX | 345,345,941 | 0.2 | 87,294,692 | 0.0 | 304,813,779 | 40,532,162 |
| 5.3 NAIC 3 | | | | | | XXX | | | | | | |
| 5.4 NAIC 4 | | | | | | XXX | | | 11,153,124 | 0.0 | | |
| 5.5 NAIC 5 | | | | | | XXX | | | | | | |
| 5.6 NAIC 6 | | | | | | XXX | | | 8,273 | 0.0 | | |
| 5.7 Totals | 682,233,039 | 1,294,736,402 | 4,544,307,235 | 7,885,770,665 | 4,310,285,029 | XXX | 18,717,332,370 | 10.0 | 18,653,554,379 | 10.1 | 18,628,115,477 | 89,216,893 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA
SCHEDULE D - PART 1A - SECTION 1 (Continued)

Quality and Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Types of Issues and NAIC Designations

| NAIC Designation | 1 1 Year or Less | 2 Over 1 Year Through 5 Years | 3 Over 5 Years Through 10 Years | 4 Over 10 Years Through 20 Years | 5 Over 20 Years | 6 No Maturity Date | 7 Total Current Year | 8 Col. 7 as a % of Line 11.7 | 9 Total from Col. 7 Prior Year | 10 % From Col. 8 Prior Year | 11 Total Publicly Traded | 12 Total Privately Placed (a) |
|----------------------------------------------|---------------------|-------------------------------------|---------------------------------------|----------------------------------------|--------------------|--------------------------|-------------------------|------------------------------------|--------------------------------------|-----------------------------------|--------------------------------|-------------------------------------|
| 6. Industrial & Miscellaneous (Unaffiliated) | | | | | | | | | | | | |
| 6.1 NAIC 1 | 2,619,332,668 | 14,694,537,299 | 18,026,014,979 | 12,559,277,836 | 16,987,887,736 | XXX | 64,887,050,518 | 34.5 | 65,280,802,712 | 35.2 | 38,138,312,551 | 26,748,737,967 |
| 6.2 NAIC 2 | 1,300,710,302 | 12,603,187,368 | 19,838,259,799 | 7,730,136,263 | 6,090,848,119 | XXX | 47,563,141,851 | 25.3 | 45,039,331,966 | 24.3 | 24,754,562,549 | 22,808,579,302 |
| 6.3 NAIC 3 | 205,851,214 | 2,440,888,350 | 3,352,293,919 | 553,428,792 | 339,015,340 | XXX | 6,891,477,615 | 3.7 | 8,493,395,154 | 4.6 | 3,603,883,774 | 3,287,593,841 |
| 6.4 NAIC 4 | 44,445,242 | 1,180,235,098 | 1,093,337,861 | 36,131,367 | 30,646,942 | XXX | 2,384,796,510 | 1.3 | 5,340,408,345 | 2.9 | 806,643,741 | 1,578,152,769 |
| 6.5 NAIC 5 | 36,902,872 | 582,075,979 | 529,279,308 | 11,682,016 | 3,843,889 | XXX | 1,163,784,064 | 0.6 | 1,710,609,353 | 0.9 | 127,193,576 | 1,036,590,488 |
| 6.6 NAIC 6 | 28,756,851 | 125,817,752 | 49,937,823 | 32,230,720 | 223,057,903 | XXX | 459,801,049 | 0.2 | 297,655,174 | 0.2 | 12,179,769 | 447,621,280 |
| 6.7 Totals | 4,235,999,149 | 31,626,741,846 | 42,889,123,689 | 20,922,886,994 | 23,675,299,929 | XXX | 123,350,051,607 | 65.7 | 126,162,202,704 | 68.1 | 67,442,775,960 | 55,907,275,647 |
| 7. Hybrid Securities | | | | | | | | | | | | |
| 7.1 NAIC 1 | | | | | 8,051,580 | XXX | 8,051,580 | 0.0 | 19,999,200 | 0.0 | | 8,051,580 |
| 7.2 NAIC 2 | | | 10,000,000 | 37,799,746 | 79,432,981 | XXX | 127,232,727 | 0.1 | 151,253,376 | 0.1 | 59,756,327 | 67,476,400 |
| 7.3 NAIC 3 | | | | 50,038,835 | 15,000,000 | XXX | 65,038,835 | 0.0 | 65,040,486 | 0.0 | 65,038,835 | |
| 7.4 NAIC 4 | | | | 106,004,603 | | XXX | 106,004,603 | 0.1 | 106,393,055 | 0.1 | 106,004,603 | |
| 7.5 NAIC 5 | | | | | | XXX | | | | | | |
| 7.6 NAIC 6 | | | | | | XXX | | | | | | |
| 7.7 Totals | | | 10,000,000 | 193,843,184 | 102,484,561 | XXX | 306,327,745 | 0.2 | 342,686,117 | 0.2 | 230,799,765 | 75,527,980 |
| 8. Parent, Subsidiaries and Affiliates | | | | | | | | | | | | |
| 8.1 NAIC 1 | | | | | | XXX | | | | | | |
| 8.2 NAIC 2 | | | | | | XXX | | | 741,373,692 | 0.4 | | |
| 8.3 NAIC 3 | | 705,013,516 | | | | XXX | 705,013,516 | 0.4 | | | | 705,013,516 |
| 8.4 NAIC 4 | | | | | | XXX | | | 32,668,105 | 0.0 | | |
| 8.5 NAIC 5 | | 29,656,910 | 21,988,907 | | | XXX | 51,645,817 | 0.0 | 73,715,490 | 0.0 | | 51,645,817 |
| 8.6 NAIC 6 | | | | | | XXX | | | | | | |
| 8.7 Totals | | 734,670,426 | 21,988,907 | | | XXX | 756,659,333 | 0.4 | 847,757,287 | 0.5 | | 756,659,333 |
| 9. SVO Identified Funds | | | | | | | | | | | | |
| 9.1 NAIC 1 | XXX | XXX | XXX | XXX | XXX | | | | | | | |
| 9.2 NAIC 2 | XXX | XXX | XXX | XXX | XXX | 414,838,036 | 414,838,036 | 0.2 | 39,186,610 | 0.0 | 414,838,036 | |
| 9.3 NAIC 3 | XXX | XXX | XXX | XXX | XXX | | | | | | | |
| 9.4 NAIC 4 | XXX | XXX | XXX | XXX | XXX | 215,513,356 | 215,513,356 | 0.1 | | | 215,513,356 | |
| 9.5 NAIC 5 | XXX | XXX | XXX | XXX | XXX | | | | | | | |
| 9.6 NAIC 6 | XXX | XXX | XXX | XXX | XXX | | | | | | | |
| 9.7 Totals | XXX | XXX | XXX | XXX | XXX | 630,351,392 | 630,351,392 | 0.3 | 39,186,610 | 0.0 | 630,351,392 | |
| 10. Bank Loans | | | | | | | | | | | | |
| 10.1 NAIC 1 | | 28,475,894 | | | | XXX | 28,475,894 | 0.0 | XXX | XXX | | 28,475,894 |
| 10.2 NAIC 2 | 2,257,509 | 85,683,619 | 155,356,935 | | | XXX | 243,298,063 | 0.1 | XXX | XXX | 223,310,537 | 19,987,526 |
| 10.3 NAIC 3 | 10,284,777 | 546,497,239 | 738,335,986 | | | XXX | 1,295,118,002 | 0.7 | XXX | XXX | 1,221,619,516 | 73,498,486 |
| 10.4 NAIC 4 | 32,415,181 | 1,264,270,490 | 1,858,027,414 | | | XXX | 3,154,713,085 | 1.7 | XXX | XXX | 2,266,675,082 | 888,038,003 |
| 10.5 NAIC 5 | 41,793,264 | 524,570,120 | 312,173,122 | | | XXX | 878,536,506 | 0.5 | XXX | XXX | 88,064,937 | 790,471,569 |
| 10.6 NAIC 6 | | 428,815 | | | | XXX | 428,815 | 0.0 | XXX | XXX | | 428,815 |
| 10.7 Totals | 86,750,731 | 2,449,926,177 | 3,063,893,457 | | | XXX | 5,600,570,365 | 3.0 | XXX | XXX | 3,799,670,072 | 1,800,900,293 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA
SCHEDULE D - PART 1A - SECTION 1 (Continued)

Quality and Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Types of Issues and NAIC Designations

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------------------------------------------|-------------------|--------------------------------|----------------------------------|-----------------------------------|----------------|---------------------|--------------------|-------------------------------|---------------------------------|-----------------------------|--------------------------|-------------------------------|
| NAIC Designation | 1 Year or Less | Over 1 Year Through 5 Years | Over 5 Years Through 10 Years | Over 10 Years Through 20 Years | Over 20 Years | No Maturity Date | Total Current Year | Col. 7 as a % of Line 11.7 | Total from Col. 7 Prior Year | % From Col. 8 Prior Year | Total Publicly Traded | Total Privately Placed (a) |
| 11. Total Bonds Current Year | | | | | | | | | | | | |
| 11.1 NAIC 1 | (d) 4,451,882,485 | 22,543,128,699 | 29,242,750,891 | 30,182,358,565 | 32,254,460,258 | | 118,674,580,898 | 63.2 | XXX | XXX | 91,006,833,544 | 27,667,747,354 |
| 11.2 NAIC 2 | (d) 1,313,107,161 | 13,231,921,528 | 20,422,928,845 | 8,373,070,944 | 6,620,291,624 | 414,838,036 | 50,376,158,138 | 26.8 | XXX | XXX | 26,838,032,339 | 23,538,125,799 |
| 11.3 NAIC 3 | (d) 283,010,052 | 3,874,247,064 | 4,539,888,675 | 663,358,217 | 486,540,904 | | 9,847,044,912 | 5.2 | XXX | XXX | 5,427,575,066 | 4,419,469,846 |
| 11.4 NAIC 4 | (d) 98,462,853 | 2,578,085,614 | 3,167,834,293 | 150,382,190 | 98,612,236 | 215,513,356 | 6,308,890,542 | 3.4 | XXX | XXX | 3,558,647,353 | 2,750,243,189 |
| 11.5 NAIC 5 | (d) 78,696,136 | 1,165,683,417 | 892,360,153 | 11,682,016 | 3,843,889 | | (c) 2,152,265,611 | 1.1 | XXX | XXX | 215,258,513 | 1,937,007,098 |
| 11.6 NAIC 6 | (d) 28,756,851 | 126,246,567 | 49,937,823 | 32,230,720 | 235,404,778 | | (c) 472,576,739 | 0.3 | XXX | XXX | 12,179,769 | 460,396,970 |
| 11.7 Totals | 6,253,915,538 | 43,519,312,889 | 58,315,700,680 | 39,413,082,652 | 39,699,153,689 | 630,351,392 | 187,831,516,84 | 100.0 | | | 127,058,526,584 | 60,772,990,256 |
| | | | | | | | (b) 0 | | XXX | XXX | | |
| 11.8 Line 11.7 as a % of Col. 7 | 3.3 | 23.2 | 31.0 | 21.0 | 21.1 | 0.3 | 100.0 | XXX | XXX | XXX | 67.6 | 32.4 |
| 12. Total Bonds Prior Year | | | | | | | | | | | | |
| 12.1 NAIC 1 | 6,813,597,755 | 22,315,969,987 | 32,074,843,095 | 27,562,622,034 | 31,379,782,726 | | XXX | XXX | 120,146,815,597 | 64.9 | 95,417,865,222 | 24,728,950,375 |
| 12.2 NAIC 2 | 1,892,692,663 | 11,532,773,336 | 20,689,866,641 | 7,822,114,041 | 5,591,379,872 | 39,186,610 | XXX | XXX | 47,568,013,163 | 25.7 | 25,812,578,286 | 21,755,434,877 |
| 12.3 NAIC 3 | 236,235,559 | 3,312,962,672 | 4,979,316,032 | 668,155,720 | 343,403,048 | | XXX | XXX | 9,540,073,031 | 5.1 | 5,606,146,351 | 3,933,926,680 |
| 12.4 NAIC 4 | 72,066,760 | 2,333,376,964 | 3,218,346,934 | 204,715,354 | 65,785,172 | | XXX | XXX | 5,894,291,184 | 3.2 | 3,368,838,489 | 2,525,452,695 |
| 12.5 NAIC 5 | 79,208,746 | 1,135,550,395 | 413,904,414 | 23,503,784 | 156,167,736 | | XXX | XXX | (c) 1,808,335,075 | 1.0 | 250,895,348 | 1,557,439,727 |
| 12.6 NAIC 6 | 17,827,697 | 60,417,498 | 41,065,949 | 38,580,439 | 139,771,864 | | XXX | XXX | (c) 297,663,447 | 0.2 | 48,350,654 | 249,312,793 |
| 12.7 Totals | 9,111,629,180 | 40,691,050,852 | 61,417,343,065 | 36,319,691,372 | 37,676,290,418 | 39,186,610 | | | 185,255,191,49 | 100.0 | 130,504,674,350 | 54,750,517,147 |
| | | | | | | | XXX | XXX | (b) 7 | | | |
| 12.8 Line 12.7 as a % of Col. 9 | 4.9 | 22.0 | 33.2 | 19.6 | 20.3 | 0.0 | XXX | XXX | 100.0 | XXX | 70.4 | 29.6 |
| 13. Total Publicly Traded Bonds | | | | | | | | | | | | |
| 13.1 NAIC 1 | 3,346,183,463 | 16,371,732,142 | 22,021,000,042 | 23,295,659,008 | 25,972,258,890 | | 91,006,833,545 | 48.5 | 95,417,865,222 | 51.5 | 91,006,833,545 | XXX |
| 13.2 NAIC 2 | 727,448,392 | 7,253,303,712 | 9,954,423,328 | 3,706,793,458 | 4,781,225,411 | 414,838,036 | 26,838,032,337 | 14.3 | 25,812,578,286 | 13.9 | 26,838,032,337 | XXX |
| 13.3 NAIC 3 | 223,048,660 | 2,017,319,761 | 2,648,118,983 | 323,276,258 | 215,811,404 | | 5,427,575,066 | 2.9 | 5,606,146,351 | 3.0 | 5,427,575,066 | XXX |
| 13.4 NAIC 4 | 33,728,553 | 1,329,945,099 | 1,828,570,501 | 110,359,736 | 40,530,106 | 215,513,356 | 3,558,647,351 | 1.9 | 3,368,838,489 | 1.8 | 3,558,647,351 | XXX |
| 13.5 NAIC 5 | 2,376,333 | 145,751,946 | 55,752,806 | 11,377,429 | | | 215,258,514 | 0.1 | 250,895,348 | 0.1 | 215,258,514 | XXX |
| 13.6 NAIC 6 | 3,022,259 | 6,131,024 | 1,355,044 | 1,481,441 | 190,000 | | 12,179,768 | 0.0 | 48,350,654 | 0.0 | 12,179,768 | XXX |
| 13.7 Totals | 4,335,807,660 | 27,124,183,684 | 36,509,220,704 | 27,448,947,330 | 31,010,015,811 | 630,351,392 | 127,058,526,581 | 67.6 | 130,504,674,350 | 70.4 | 127,058,526,581 | XXX |
| 13.8 Line 13.7 as a % of Col. 7 | 3.4 | 21.3 | 28.7 | 21.6 | 24.4 | 0.5 | 100.0 | XXX | XXX | XXX | 100.0 | XXX |
| 13.9 Line 13.7 as a % of Line 11.7, Col. 7, Section 11 | 2.3 | 14.4 | 19.4 | 14.6 | 16.5 | 0.3 | 67.6 | XXX | XXX | XXX | 67.6 | XXX |
| 14. Total Privately Placed Bonds | | | | | | | | | | | | |
| 14.1 NAIC 1 | 1,105,699,022 | 6,171,396,557 | 7,221,750,849 | 6,886,699,557 | 6,282,201,368 | | 27,667,747,353 | 14.7 | 24,728,950,375 | 13.3 | XXX | 27,667,747,353 |
| 14.2 NAIC 2 | 585,658,769 | 5,978,617,816 | 10,468,505,517 | 4,666,277,486 | 1,839,066,213 | | 23,538,125,801 | 12.5 | 21,755,434,877 | 11.7 | XXX | 23,538,125,801 |
| 14.3 NAIC 3 | 59,961,392 | 1,856,927,303 | 1,891,769,692 | 340,081,959 | 270,729,500 | | 4,419,469,846 | 2.4 | 3,933,926,680 | 2.1 | XXX | 4,419,469,846 |
| 14.4 NAIC 4 | 64,734,300 | 1,248,140,515 | 1,339,263,792 | 40,022,454 | 58,082,130 | | 2,750,243,191 | 1.5 | 2,525,452,695 | 1.4 | XXX | 2,750,243,191 |
| 14.5 NAIC 5 | 76,319,803 | 1,019,931,471 | 836,607,347 | 304,587 | 3,843,889 | | 1,937,007,097 | 1.0 | 1,557,439,727 | 0.8 | XXX | 1,937,007,097 |
| 14.6 NAIC 6 | 25,734,592 | 120,115,543 | 48,582,779 | 30,749,279 | 235,214,778 | | 460,396,971 | 0.2 | 249,312,793 | 0.1 | XXX | 460,396,971 |
| 14.7 Totals | 1,918,107,878 | 16,395,129,205 | 21,806,479,976 | 11,964,135,322 | 8,689,137,878 | | 60,772,990,259 | 32.4 | 54,750,517,147 | 29.6 | XXX | 60,772,990,259 |
| 14.8 Line 14.7 as a % of Col. 7 | 3.2 | 27.0 | 35.9 | 19.7 | 14.3 | | 100.0 | XXX | XXX | XXX | XXX | 100.0 |
| 14.9 Line 14.7 as a % of Line 11.7, Col. 7, Section 11 | 1.0 | 8.7 | 11.6 | 6.4 | 4.6 | | 32.4 | XXX | XXX | XXX | XXX | 32.4 |

(a) Includes \$ 20,609,730,843 freely tradable under SEC Rule 144 or qualified for resale under SEC Rule 144A.

(b) Includes \$ 2,704,832,391 current year of bonds with Z designations, \$ 2,875,421,561 prior year of bonds with Z designations and \$ prior year of bonds with Z* designations. The letter "Z" means the NAIC designation was not assigned by the Securities Valuation Office (SVO) at the date of the statement. "Z*" means the SVO could not evaluate the obligation because valuation procedures for the security class are under regulatory review.

(c) Includes \$ 856,404,552 current year of bonds with 5GI designations, \$ 491,613,505 prior year of bonds with 5* or 5GI designations and \$ 305,626,116 current year, \$ 169,837,605 prior year of bonds with 6* designations. "5GI" means the NAIC designation was assigned by the (SVO) in reliance on the insurer's certification that the issuer is current in all principal and interest payments. "6*" means the NAIC designation was assigned by the SVO due to inadequate certification of principal and interest payments.

(d) Includes the following amount of short-term and cash equivalent bonds by NAIC designation: NAIC 1 \$ 480,413,504 ; NAIC 2 \$; NAIC 3 \$; NAIC 4 \$; NAIC 5 \$; NAIC 6 \$

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE D - PART 1A - SECTION 2

Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Type and Subtype of Issues

| Distribution by Type | 1 1 Year or Less | 2 Over 1 Year Through 5 Years | 3 Over 5 Years Through 10 Years | 4 Over 10 Years Through 20 Years | 5 Over 20 Years | 6 No Maturity Date | 7 Total Current Year | 8 Col. 7 as a % of Line 11.7 | 9 Total from Col. 7 Prior Year | 10 % From Col. 8 Prior Year | 11 Total Publicly Traded | 12 Total Privately Placed |
|-----------------------------------------------------------------------------------|---------------------|-------------------------------------|---------------------------------------|----------------------------------------|--------------------|--------------------------|-------------------------|------------------------------------|--------------------------------------|-----------------------------------|--------------------------------|---------------------------------|
| 1. U.S. Governments | | | | | | | | | | | | |
| 1.1 Issuer Obligations | 266,453,675 | 32,908,025 | 571,365,836 | 4,685,727,509 | 9,905,017,316 | XXX | 15,461,472,361 | 8.2 | 15,034,033,098 | 8.1 | 15,461,472,361 | |
| 1.2 Residential Mortgage-Backed Securities | 690,712,463 | 4,680,152,570 | 4,830,181,840 | 3,082,535,607 | 161,845,447 | XXX | 13,445,427,927 | 7.2 | 14,616,162,200 | 7.9 | 13,445,427,927 | |
| 1.3 Commercial Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 1.4 Other Loan-Backed and Structured Securities | 96,765,610 | 417,470,834 | 611,770,589 | 1,258,098,663 | 129,226,208 | XXX | 2,513,331,904 | 1.3 | 2,773,808,683 | 1.5 | 2,513,331,904 | |
| 1.5 Totals | 1,053,931,748 | 5,130,531,429 | 6,013,318,265 | 9,026,361,779 | 10,196,088,971 | XXX | 31,420,232,192 | 16.7 | 32,424,003,981 | 17.5 | 31,420,232,192 | |
| 2. All Other Governments | | | | | | | | | | | | |
| 2.1 Issuer Obligations | 192,710,869 | 2,219,598,549 | 1,578,665,218 | 408,351,511 | 942,374,660 | XXX | 5,341,700,807 | 2.8 | 5,095,558,732 | 2.8 | 3,209,707,249 | 2,131,993,558 |
| 2.2 Residential Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 2.3 Commercial Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 2.4 Other Loan-Backed and Structured Securities | | | | | | XXX | | | | | | |
| 2.5 Totals | 192,710,869 | 2,219,598,549 | 1,578,665,218 | 408,351,511 | 942,374,660 | XXX | 5,341,700,807 | 2.8 | 5,095,558,732 | 2.8 | 3,209,707,249 | 2,131,993,558 |
| 3. U.S. States, Territories and Possessions, Guaranteed | | | | | | | | | | | | |
| 3.1 Issuer Obligations | | 23,054,423 | 50,278,571 | 454,445,448 | 126,593,677 | XXX | 654,372,119 | 0.3 | 632,147,856 | 0.3 | 654,372,119 | |
| 3.2 Residential Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 3.3 Commercial Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 3.4 Other Loan-Backed and Structured Securities | | | | | | XXX | | | | | | |
| 3.5 Totals | | 23,054,423 | 50,278,571 | 454,445,448 | 126,593,677 | XXX | 654,372,119 | 0.3 | 632,147,856 | 0.3 | 654,372,119 | |
| 4. U.S. Political Subdivisions of States, Territories and Possessions, Guaranteed | | | | | | | | | | | | |
| 4.1 Issuer Obligations | 2,290,000 | 31,182,306 | 144,125,339 | 419,911,842 | 346,026,862 | XXX | 943,536,349 | 0.5 | 945,658,082 | 0.5 | 940,991,127 | 2,545,222 |
| 4.2 Residential Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 4.3 Commercial Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 4.4 Other Loan-Backed and Structured Securities | | 8,871,331 | | 101,511,229 | | XXX | 110,382,560 | 0.1 | 112,435,752 | 0.1 | 101,511,229 | 8,871,331 |
| 4.5 Totals | 2,290,000 | 40,053,637 | 144,125,339 | 521,423,071 | 346,026,862 | XXX | 1,053,918,909 | 0.6 | 1,058,093,834 | 0.6 | 1,042,502,356 | 11,416,553 |
| 5. U.S. Special Revenue & Special Assessment Obligations etc., Non-Guaranteed | | | | | | | | | | | | |
| 5.1 Issuer Obligations | 239,486,028 | 124,436,526 | 318,375,255 | 1,763,611,973 | 3,270,627,083 | XXX | 5,716,536,865 | 3.0 | 5,355,898,517 | 2.9 | 5,627,319,972 | 89,216,893 |
| 5.2 Residential Mortgage-Backed Securities | 442,747,010 | 1,156,768,609 | 4,205,679,747 | 6,068,568,692 | 859,172,381 | XXX | 12,732,936,439 | 6.8 | 13,041,307,002 | 7.0 | 12,732,936,439 | |
| 5.3 Commercial Mortgage-Backed Securities | | | | 22,190,000 | 173,485,565 | XXX | 195,675,565 | 0.1 | 199,693,750 | 0.1 | 195,675,565 | |
| 5.4 Other Loan-Backed and Structured Securities | | 13,531,267 | 20,252,233 | 31,400,000 | 7,000,000 | XXX | 72,183,500 | 0.0 | 56,655,108 | 0.0 | 72,183,500 | |
| 5.5 Totals | 682,233,038 | 1,294,736,402 | 4,544,307,235 | 7,885,770,665 | 4,310,285,029 | XXX | 18,717,332,369 | 10.0 | 18,653,554,377 | 10.1 | 18,628,115,476 | 89,216,893 |
| 6. Industrial and Miscellaneous | | | | | | | | | | | | |
| 6.1 Issuer Obligations | 2,722,619,828 | 23,826,999,415 | 31,425,976,260 | 15,260,324,524 | 21,011,828,945 | XXX | 94,247,748,972 | 50.2 | 97,087,219,175 | 52.4 | 55,168,612,075 | 39,079,136,897 |
| 6.2 Residential Mortgage-Backed Securities | 477,079,072 | 1,292,588,223 | 918,479,384 | 523,069,660 | 78,556,607 | XXX | 3,289,772,946 | 1.8 | 4,102,917,180 | 2.2 | 2,965,900,121 | 323,872,825 |
| 6.3 Commercial Mortgage-Backed Securities | 273,616,105 | 2,825,191,607 | 6,964,866,576 | 129,097,480 | 18,349,465 | XXX | 10,211,121,233 | 5.4 | 10,157,291,575 | 5.5 | 8,064,677,216 | 2,146,444,017 |
| 6.4 Other Loan-Backed and Structured Securities | 762,684,144 | 3,681,962,601 | 3,579,801,468 | 5,010,395,331 | 2,566,564,911 | XXX | 15,601,408,455 | 8.3 | 14,814,774,773 | 8.0 | 1,243,586,546 | 14,357,821,909 |
| 6.5 Totals | 4,235,999,149 | 31,626,741,847 | 42,889,123,688 | 20,922,886,994 | 23,675,299,928 | XXX | 123,350,051,606 | 65.7 | 126,162,202,703 | 68.1 | 67,442,775,958 | 55,907,275,648 |
| 7. Hybrid Securities | | | | | | | | | | | | |
| 7.1 Issuer Obligations | | | | 3,013,770 | 59,433,781 | XXX | 62,447,551 | 0.0 | 106,473,886 | 0.1 | 14,970,351 | 47,477,200 |
| 7.2 Residential Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 7.3 Commercial Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 7.4 Other Loan-Backed and Structured Securities | | | 10,000,000 | 190,829,414 | 43,050,780 | XXX | 243,880,194 | 0.1 | 236,212,231 | 0.1 | 215,829,414 | 28,050,780 |
| 7.5 Totals | | | 10,000,000 | 193,843,184 | 102,484,561 | XXX | 306,327,745 | 0.2 | 342,686,117 | 0.2 | 230,799,765 | 75,527,980 |
| 8. Parent, Subsidiaries and Affiliates | | | | | | | | | | | | |
| 8.1 Issuer Obligations | | 734,670,426 | 21,988,907 | | | XXX | 756,659,333 | 0.4 | 847,757,287 | 0.5 | | 756,659,333 |
| 8.2 Residential Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 8.3 Commercial Mortgage-Backed Securities | | | | | | XXX | | | | | | |
| 8.4 Other Loan-Backed and Structured Securities | | | | | | XXX | | | | | | |
| 8.5 Totals | | 734,670,426 | 21,988,907 | | | XXX | 756,659,333 | 0.4 | 847,757,287 | 0.5 | | 756,659,333 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE D - PART 1A - SECTION 2 (Continued)

Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Type and Subtype of Issues

| Distribution by Type | 1 1 Year or Less | 2 Over 1 Year Through 5 Years | 3 Over 5 Years Through 10 Years | 4 Over 10 Years Through 20 Years | 5 Over 20 Years | 6 No Maturity Date | 7 Total Current Year | 8 Col. 7 as a % of Line 11.7 | 9 Total from Col. 7 Prior Year | 10 % From Col. 8 Prior Year | 11 Total Publicly Traded | 12 Total Privately Placed |
|--------------------------------------------------------|---------------------|-------------------------------------|---------------------------------------|----------------------------------------|--------------------|--------------------------|-------------------------|------------------------------------|--------------------------------------|-----------------------------------|--------------------------------|---------------------------------|
| 9. SVO Identified Funds | | | | | | | | | | | | |
| 9.1 Exchange Traded Funds Identified by the SVO | XXX | XXX | XXX | XXX | XXX | 630,351,392 | 630,351,392 | 0.3 | 39,186,610 | 0.0 | 630,351,392 | |
| 9.2 Bond Mutual Funds Identified by the SVO | XXX | XXX | XXX | XXX | XXX | | | | | | | |
| 9.3 Totals | XXX | XXX | XXX | XXX | XXX | 630,351,392 | 630,351,392 | 0.3 | 39,186,610 | 0.0 | 630,351,392 | |
| 10. Bank Loans | | | | | | | | | | | | |
| 10.1 Bank Loans - Issued | | | | | | XXX | | | XXX | XXX | | |
| 10.2 Bank Loans - Acquired | 86,750,731 | 2,449,926,176 | 3,063,893,457 | | | XXX | 5,600,570,364 | 3.0 | XXX | XXX | 3,799,670,072 | 1,800,900,292 |
| 10.3 Totals | 86,750,731 | 2,449,926,176 | 3,063,893,457 | | | XXX | 5,600,570,364 | 3.0 | XXX | XXX | 3,799,670,072 | 1,800,900,292 |
| 11. Total Bonds Current Year | | | | | | | | | | | | |
| 11.1 Issuer Obligations | 3,423,560,400 | 26,992,849,670 | 34,110,775,386 | 22,995,386,577 | 35,661,902,324 | XXX | 123,184,474,357 | 65.6 | XXX | XXX | 81,077,445,254 | 42,107,029,103 |
| 11.2 Residential Mortgage-Backed Securities | 1,610,538,545 | 7,129,509,402 | 9,954,340,971 | 9,674,173,959 | 1,099,574,435 | XXX | 29,468,137,312 | 15.7 | XXX | XXX | 29,144,264,487 | 323,872,825 |
| 11.3 Commercial Mortgage-Backed Securities | 273,616,105 | 2,825,191,607 | 6,964,866,576 | 151,287,480 | 191,835,030 | XXX | 10,406,796,798 | 5.5 | XXX | XXX | 8,260,352,781 | 2,146,444,017 |
| 11.4 Other Loan-Backed and Structured Securities | 859,449,754 | 4,121,836,033 | 4,221,824,290 | 6,592,234,637 | 2,745,841,899 | XXX | 18,541,186,613 | 9.9 | XXX | XXX | 4,146,442,593 | 14,394,744,020 |
| 11.5 SVO Identified Funds | XXX | XXX | XXX | XXX | XXX | 630,351,392 | 630,351,392 | 0.3 | XXX | XXX | 630,351,392 | |
| 11.6 Bank Loans | 86,750,731 | 2,449,926,176 | 3,063,893,457 | | | XXX | 5,600,570,364 | 3.0 | XXX | XXX | 3,799,670,072 | 1,800,900,292 |
| 11.7 Totals | 6,253,915,534 | 43,519,312,889 | 58,315,700,681 | 39,413,082,652 | 39,699,153,688 | 630,351,392 | 187,831,516,836 | 100.0 | XXX | XXX | 127,058,526,579 | 60,772,990,257 |
| 11.8 Line 11.7 as a % of Col. 7 | 3.3 | 23.2 | 31.0 | 21.0 | 21.1 | 0.3 | 100.0 | XXX | XXX | XXX | 67.6 | 32.4 |
| 12. Total Bonds Prior Year | | | | | | | | | | | | |
| 12.1 Issuer Obligations | 3,764,020,502 | 26,195,736,583 | 38,640,339,431 | 22,069,933,138 | 34,434,716,979 | XXX | XXX | XXX | 125,104,746,633 | 67.5 | 85,758,928,372 | 39,345,818,261 |
| 12.2 Residential Mortgage-Backed Securities | 3,577,390,852 | 8,836,759,294 | 10,614,765,621 | 7,956,523,940 | 774,946,675 | XXX | XXX | XXX | 31,760,386,382 | 17.1 | 31,595,108,639 | 165,277,743 |
| 12.3 Commercial Mortgage-Backed Securities | 613,822,275 | 1,308,948,243 | 8,070,902,084 | 165,723,579 | 197,589,144 | XXX | XXX | XXX | 10,356,985,325 | 5.6 | 8,263,477,192 | 2,093,508,133 |
| 12.4 Other Loan-Backed and Structured Securities | 1,156,395,550 | 4,349,606,733 | 4,091,335,929 | 6,127,510,714 | 2,269,037,621 | XXX | XXX | XXX | 17,993,886,547 | 9.7 | 4,847,973,536 | 13,145,913,011 |
| 12.5 SVO Identified Funds | XXX | XXX | XXX | XXX | XXX | 39,186,610 | XXX | XXX | 39,186,610 | 0.0 | 39,186,610 | |
| 12.6 Bank Loans | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX |
| 12.7 Totals | 9,111,629,179 | 40,691,050,853 | 61,417,343,065 | 36,319,691,371 | 37,676,290,419 | 39,186,610 | XXX | XXX | 185,255,191,497 | 100.0 | 130,504,674,349 | 54,750,517,148 |
| 12.8 Line 12.7 as a % of Col. 9 | 4.9 | 22.0 | 33.2 | 19.6 | 20.3 | 0.0 | XXX | XXX | 100.0 | XXX | 70.4 | 29.6 |
| 13. Total Publicly Traded Bonds | | | | | | | | | | | | |
| 13.1 Issuer Obligations | 2,374,539,913 | 15,721,776,895 | 17,551,919,467 | 15,940,884,953 | 29,488,324,027 | XXX | 81,077,445,255 | 43.2 | 85,758,928,372 | 46.3 | 81,077,445,255 | XXX |
| 13.2 Residential Mortgage-Backed Securities | 1,586,984,581 | 7,026,705,834 | 9,820,303,411 | 9,618,301,804 | 1,091,968,857 | XXX | 29,144,264,487 | 15.5 | 31,595,108,639 | 17.1 | 29,144,264,487 | XXX |
| 13.3 Commercial Mortgage-Backed Securities | 181,677,146 | 1,982,015,909 | 5,900,984,161 | 22,190,000 | 173,485,565 | XXX | 8,263,477,192 | 4.4 | 8,263,477,192 | 4.5 | 8,260,352,781 | XXX |
| 13.4 Other Loan-Backed and Structured Securities | 158,221,019 | 895,142,682 | 969,270,958 | 1,867,570,573 | 256,237,362 | XXX | 4,146,442,594 | 2.2 | 4,847,973,536 | 2.6 | 4,146,442,594 | XXX |
| 13.5 SVO Identified Funds | XXX | XXX | XXX | XXX | XXX | 630,351,392 | 630,351,392 | 0.3 | 39,186,610 | 0.0 | 630,351,392 | XXX |
| 13.6 Bank Loans | 34,385,001 | 1,498,542,363 | 2,266,742,708 | | | XXX | 3,799,670,072 | 2.0 | XXX | XXX | 3,799,670,072 | XXX |
| 13.7 Totals | 4,335,807,660 | 27,124,183,683 | 36,509,220,705 | 27,448,947,330 | 31,010,015,811 | 630,351,392 | 127,058,526,581 | 67.6 | 130,504,674,349 | 70.4 | 127,058,526,581 | XXX |
| 13.8 Line 13.7 as a % of Col. 7 | 3.4 | 21.3 | 28.7 | 21.6 | 24.4 | 0.5 | 100.0 | XXX | XXX | XXX | 100.0 | XXX |
| 13.9 Line 13.7 as a % of Line 11.7, Col. 7, Section 11 | 2.3 | 14.4 | 19.4 | 14.6 | 16.5 | 0.3 | 67.6 | XXX | XXX | XXX | 67.6 | XXX |
| 14. Total Privately Placed Bonds | | | | | | | | | | | | |
| 14.1 Issuer Obligations | 1,049,020,487 | 11,271,072,775 | 16,558,855,919 | 7,054,501,624 | 6,173,578,297 | XXX | 42,107,029,102 | 22.4 | 39,345,818,261 | 21.2 | XXX | 42,107,029,102 |
| 14.2 Residential Mortgage-Backed Securities | 23,553,964 | 102,803,568 | 134,037,560 | 55,872,155 | 7,605,578 | XXX | 323,872,825 | 0.2 | 165,277,743 | 0.1 | XXX | 323,872,825 |
| 14.3 Commercial Mortgage-Backed Securities | 91,938,959 | 843,175,698 | 1,063,882,415 | 129,097,480 | 18,349,465 | XXX | 2,146,444,017 | 1.1 | 2,093,508,133 | 1.1 | XXX | 2,146,444,017 |
| 14.4 Other Loan-Backed and Structured Securities | 701,228,735 | 3,226,693,351 | 3,252,553,332 | 4,724,664,064 | 2,489,604,537 | XXX | 14,394,744,019 | 7.7 | 13,145,913,011 | 7.1 | XXX | 14,394,744,019 |
| 14.5 SVO Identified Funds | XXX | XXX | XXX | XXX | XXX | | | | | | XXX | |
| 14.6 Bank Loans | 52,365,730 | 951,383,813 | 797,150,749 | | | XXX | 1,800,900,292 | 1.0 | XXX | XXX | XXX | 1,800,900,292 |
| 14.7 Totals | 1,918,107,874 | 16,395,129,206 | 21,806,479,976 | 11,964,135,322 | 8,689,137,877 | | 60,772,990,255 | 32.4 | 54,750,517,148 | 29.6 | XXX | 60,772,990,255 |
| 14.8 Line 14.7 as a % of Col. 7 | 3.2 | 27.0 | 35.9 | 19.7 | 14.3 | | 100.0 | XXX | XXX | XXX | XXX | 100.0 |
| 14.9 Line 14.7 as a % of Line 11.7, Col. 7, Section 11 | 1.0 | 8.7 | 11.6 | 6.4 | 4.6 | | 32.4 | XXX | XXX | XXX | XXX | 32.4 |

SCHEDULE DA - VERIFICATION BETWEEN YEARS

Short-Term Investments

| | 1 | 2 | 3 | 4 | 5 |
|-------------------------------------------------------------------------------------------|------------|------------|----------------|-------------------------------------------|-------------------------------------------------------|
| | Total | Bonds | Mortgage Loans | Other Short-term Investment Assets (a) | Investments in Parent, Subsidiaries and Affiliates |
| 1. Book/adjusted carrying value, December 31 of prior year | 42,804,493 | 42,804,493 | | | |
| 2. Cost of short-term investments acquired | | | | | |
| 3. Accrual of discount | | | | | |
| 4. Unrealized valuation increase (decrease) | | | | | |
| 5. Total gain (loss) on disposals | 1,948,375 | 1,948,375 | | | |
| 6. Deduct consideration received on disposals | 44,578,943 | 44,578,943 | | | |
| 7. Deduct amortization of premium | 12,012 | 12,012 | | | |
| 8. Total foreign exchange change in book/adjusted carrying value | (161,913) | (161,913) | | | |
| 9. Deduct current year's other than temporary impairment recognized | | | | | |
| 10. Book adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) | | | | | |
| 11. Deduct total nonadmitted amounts | | | | | |
| 12. Statement value at end of current period (Line 10 minus Line 11) | | | | | |

(a) Indicate the category of such assets, for example, joint ventures, transportation equipment:

SCHEDULE DB - PART A - VERIFICATION BETWEEN YEARS

Options, Caps, Floors, Collars, Swaps and Forwards

| | | | |
|-----|---------------------------------------------------------------------------------------------------------|--------------|---------------|
| 1. | Book/adjusted carrying value, December 31, prior year (Line 9, prior year) | | (226,363,523) |
| 2. | Cost paid/(consideration received) on additions: | | |
| | 2.1 Current year paid/(consideration received) at time of acquisition, still open, Section 1, Column 12 | 432,284,527 | |
| | 2.2 Current year paid/(consideration received) at time of acquisition, terminated, Section 2, Column 14 | (2,351,729) | 429,932,798 |
| 3. | Unrealized valuation increase/(decrease): | | |
| | 3.1 Section 1, Column 17 | 92,155,263 | |
| | 3.2 Section 2, Column 19 | 14,904,679 | 107,059,942 |
| 4. | Total gain (loss) on termination recognized, Section 2, Column 22 | | 57,860,003 |
| 5. | Considerations received/(paid) on terminations, Section 2, Column 15 | | 68,439,530 |
| 6. | Amortization: | | |
| | 6.1 Section 1, Column 19 | (36,824,540) | |
| | 6.2 Section 2, Column 21 | (3,020,612) | (39,845,152) |
| 7. | Adjustment to the book/adjusted carrying value of hedged item: | | |
| | 7.1 Section 1, Column 20 | | |
| | 7.2 Section 2, Column 23 | | |
| 8. | Total foreign exchange change in book/adjusted carrying value: | | |
| | 8.1 Section 1, Column 18 | 461,854,500 | |
| | 8.2 Section 2, Column 20 | 81,349,021 | 543,203,521 |
| 9. | Book/adjusted carrying value at end of current period (Lines 1+2+3+4-5+6+7+8) | | 803,408,059 |
| 10. | Deduct nonadmitted assets | | |
| 11. | Statement value at end of current period (Line 9 minus Line 10) | | 803,408,059 |

SCHEDULE DB - PART B - VERIFICATION

Futures Contracts

| | | |
|-----|------------------------------------------------------------------------------------------------------------|--|
| 1. | Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year) | |
| 2. | Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote - Cumulative Cash Change Column) | |
| 3.1 | Add: | |
| | Change in variation margin on open contracts - Highly effective hedges | |
| | 3.11 Section 1, Column 15, current year minus | |
| | 3.12 Section 1, Column 15, prior year | |
| | Change in variation margin on open contracts - All other | |
| | 3.13 Section 1, Column 18, current year minus | |
| | 3.14 Section 1, Column 18, prior year | |
| 3.2 | Add: | |
| | Change in adjustment to basis of hedged item | |
| | 3.21 Section 1, Column 17, current year to date minus | |
| | 3.22 Section 1, Column 17, prior year | |
| | Change in amount recognized | |
| | 3.23 Section 1, Column 19, current year to date minus | |
| | 3.24 Section 1, Column 19, prior year | |
| 3.3 | Subtotal (Line 3.1 minus Line 3.2) | |
| 4.1 | Cumulative variation margin on terminated contracts during the year (Section 2, Column 15) | |
| 4.2 | Less: | |
| | 4.21 Amount used to adjust basis of hedged item (Section 2, Column 17) | |
| | 4.22 Amount recognized (Section 2, Column 16) | |
| 4.3 | Subtotal (Line 4.1 minus Line 4.2) | |
| 5. | Dispositions gains (losses) on contracts terminated in prior year: | |
| | 5.1 Total gain (loss) recognized for terminations in prior year | |
| | 5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year | |
| 6. | Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2) | |
| 7. | Deduct total nonadmitted amounts | |
| 8. | Statement value at end of current period (Line 6 minus Line 7) | |

NONE

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|---------------------------|---------------------------------------|-----------------|------------------------------|------------|----------------|---------------|---------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|------------------------------------------------------------------|---------------------------------------|------------------------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 723787A*8 | PIONEER NATURAL RESOURCES | 2 | 5,000,000 | 5,804,375 | 6,420,654 | 07/26/2011 | 09/20/2021 | CREDIT DEFAULT SWAP ON PIONEER NATURAL RESOURCES, TERMINATION DATE: 09/20/2021, (5,000,000 NOTIONAL, 1% FIXED RATE) | (163,079) | 65,304 | 912810-FP-8 | US TREASURY N/B United States Treasury Nt, 5.375% due 02/15/2031 | 1 | 5,967,454 | 6,355,350 |
| 12518*HN3 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 43,089,993 | 55,512,650 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 45,282 | 748,621 | 912810-QA-9 | US TREASURY N/B United States Treasury Nt, 3.5% due 02/15/2039 | 1 | 43,044,711 | 54,764,029 |
| 12518*HP8 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 55,188,450 | 57,245,600 | 07/29/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 63,248 | 748,621 | 912810-QS-0 | US TREASURY N/B United States Treasury Nt, 3.75% due 08/15/2041 | 1 | 55,125,202 | 56,496,979 |
| 12518*HQ6 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 48,392,208 | 52,725,120 | 07/29/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 67,786 | 748,621 | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 48,324,422 | 51,976,499 |
| 12518*HL7 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 49,855,663 | 52,019,349 | 07/30/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 63,917 | 748,621 | 912810-QA-9 | US TREASURY N/B United States Treasury Nt, 3.5% due 02/15/2039 | 1 | | |
| 12518*HL7 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 49,855,663 | 52,019,349 | 07/30/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 63,917 | 748,621 | 912810-QU-5 | US TREASURY N/B United States Treasury Nt, 3.125% due 02/15/2042 | 1 | 49,791,746 | 51,270,728 |
| 12518*HM5 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 50,483,613 | 58,251,460 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 68,226 | 748,621 | 912810-QU-5 | US TREASURY N/B United States Treasury Nt, 3.875% due 08/15/2040 | 1 | 50,415,387 | 57,502,839 |
| 12518*JF8 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 49,410,344 | 56,231,621 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 221,513 | 748,621 | 912810-QK-7 | US TREASURY N/B United States Treasury Nt, 3.625% due 08/15/2044 | 1 | 50,415,387 | 57,502,839 |
| 12518*JF8 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 49,410,344 | 56,231,621 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 221,513 | 748,621 | 912810-RE-0 | US TREASURY N/B United States Treasury Nt, 3.625% due 02/15/2044 | 1 | 49,188,831 | 55,483,000 |
| 12518*JK7 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 49,476,982 | 56,231,621 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 243,183 | 748,621 | 912810-RE-0 | US TREASURY N/B United States Treasury Nt, 3.625% due 02/15/2044 | 1 | 49,188,831 | 55,483,000 |
| 12518*JE1 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 49,671,973 | 52,019,349 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 200,671 | 748,621 | 912810-RE-0 | US TREASURY N/B United States Treasury Nt, 3.125% due 02/15/2042 | 1 | 49,233,799 | 55,483,000 |
| 12518*JE1 | CDX.NA.IG25 SR. TRANCHE | 1 | 50,000,000 | 49,671,973 | 52,019,349 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (50,000,000 NOTIONAL, 1% FIXED RATE) | 200,671 | 748,621 | 912810-QU-5 | US TREASURY N/B United States Treasury Nt, 3.125% due 02/15/2042 | 1 | 49,471,302 | 51,270,728 |
| 12518*JL5 | CDX.NA.IG25 SR. TRANCHE | 1 | 25,000,000 | 24,857,850 | 26,430,901 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (25,000,000 NOTIONAL, 1% FIXED RATE) | 89,814 | 374,310 | 912810-QU-5 | US TREASURY N/B United States Treasury Nt, 3.125% due 02/15/2042 | 1 | 24,768,036 | 26,056,591 |
| 12518*JL5 | CDX.NA.IG25 SR. TRANCHE | 1 | 25,000,000 | 24,857,850 | 26,430,901 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (25,000,000 NOTIONAL, 1% FIXED RATE) | 89,814 | 374,310 | 912810-RE-0 | US TREASURY N/B United States Treasury Nt, 3.625% due 02/15/2044 | 1 | | |
| 12518*JG6 | CDX.NA.IG25 SR. TRANCHE | 1 | 25,000,000 | 24,898,734 | 26,009,674 | 06/20/2016 | 12/20/2020 | CREDIT DEFAULT SWAP ON CDX.NA.IG25 SR. TRANCHE, TERMINATION DATE: 12/20/2020, (25,000,000 NOTIONAL, 1% FIXED RATE) | 86,177 | 374,310 | 912810-QU-5 | US TREASURY N/B United States Treasury Nt, 3.125% due 02/15/2042 | 1 | 24,812,557 | 25,635,364 |
| 12518*JT8 | CDX.NA.IG27 SR. TRANCHE | 1 | 25,000,000 | 25,617,262 | 25,767,256 | 09/28/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (25,000,000 NOTIONAL, 1% FIXED RATE) | 101,856 | 325,403 | 3136A6-UR-3 | FNR 2012-63 ZA Z SEQ 4% due 06/25/2042 | 1 | 25,515,406 | 25,441,853 |
| 12518*JT8 | CDX.NA.IG27 SR. TRANCHE | 1 | 25,000,000 | 25,617,262 | 25,767,256 | 09/28/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (25,000,000 NOTIONAL, 1% FIXED RATE) | 101,856 | 325,403 | 3136A6-UR-3 | FNR 2012-63 ZA Z SEQ 4% due 06/25/2042 | 1 | 25,515,406 | 25,441,853 |
| 12518*JQ4 | CDX.NA.IG27 SR. TRANCHE | 1 | 25,000,000 | 25,844,565 | 26,661,243 | 09/28/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (25,000,000 NOTIONAL, 1% FIXED RATE) | 110,810 | 325,403 | 3136A6-P4-0 | FNR 2012-76 DZ Z SEQ 4% due 07/25/2042 | 1 | 25,733,755 | 26,335,840 |
| 12518*JQ4 | CDX.NA.IG27 SR. TRANCHE | 1 | 25,000,000 | 25,844,565 | 26,661,243 | 09/28/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (25,000,000 NOTIONAL, 1% FIXED RATE) | 110,810 | 325,403 | 3136A6-P4-0 | FNR 2012-76 DZ Z SEQ 4% due 07/25/2042 | 1 | 25,733,755 | 26,335,840 |
| 12518*JI1 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 51,699,237 | 53,322,485 | 09/29/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 231,727 | 650,805 | 3136A6-P4-0 | FNR 2012-76 DZ Z SEQ 4% due 07/25/2042 | 1 | 51,467,510 | 52,671,680 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------------|---------------------------------------|-----------------|------------------------------|------------|------------------|------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|------------------------------------------------------------------|---------------------------------------|------------------------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | | | | | | | | | | | | |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*JM3 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 47,459,815 | 58,153,644 | 09/20/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 238,025 | 650,805 | 912810-QK-7 .. | US TREASURY N/B United States Treasury Nt, 3.875% due 08/15/2040 | 1 | 47,221,790 | 57,502,839 |
| 12518*JS0 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 46,878,244 | 48,598,902 | 09/20/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 205,730 | 650,805 | 912810-QX-9 .. | US TREASURY N/B United States Treasury Nt, 2.75% due 08/15/2042 | 1 | 46,672,514 | 47,948,097 |
| 12518*JR2 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 48,074,955 | 48,598,902 | 09/20/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 205,730 | 650,805 | 912810-QX-9 .. | US TREASURY N/B United States Treasury Nt, 2.75% due 08/15/2042 | 1 | 47,869,225 | 47,948,097 |
| 12518*JP6 | CDX.NA.IG27 SR. TRANCHE | 1 | 40,000,000 | 41,312,421 | 42,445,056 | 09/30/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (40,000,000 NOTIONAL, 1% FIXED RATE) | 190,420 | 520,644 | 3136A6-P4-0 .. | FNR 2012-76 DZ Z SEQ 4% due 07/25/2042 | 1 | 41,122,001 | 41,924,412 |
| | | | | | | | | | | | 3136A6-UR-3 .. | FNR 2012-63 ZA Z SEQ 4% due 06/25/2042 | 1 | | |
| 12518*JN1 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 58,720,852 | 64,204,305 | 10/05/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 281,897 | 650,805 | 912810-FP-8 .. | US TREASURY N/B United States Treasury Nt, 5.375% due 02/15/2031 | 1 | 58,438,955 | 63,553,500 |
| 12518*KL3 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 49,141,553 | 49,548,832 | 10/15/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 309,746 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 48,831,807 | 48,898,027 |
| 12518*LG3 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 47,029,300 | 49,548,832 | 10/20/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 359,821 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 46,669,479 | 48,898,027 |
| 12518*MK3 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 49,113,723 | 49,548,832 | 09/20/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 358,012 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 48,755,711 | 48,898,027 |
| 12518*LMO | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 49,277,440 | 49,548,832 | 10/20/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 360,907 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 48,916,533 | 48,898,027 |
| 12518*L01 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 44,117,977 | 49,548,832 | 10/21/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 373,483 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 43,744,494 | 48,898,027 |
| 12518*LF5 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 43,046,957 | 49,548,832 | 10/22/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 370,860 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 42,676,097 | 48,898,027 |
| 12518*LL2 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 44,643,544 | 49,548,832 | 10/22/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 370,860 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 44,272,684 | 48,898,027 |
| 12518*MG2 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 44,556,301 | 49,548,832 | 10/22/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 370,860 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 44,185,441 | 48,898,027 |
| 12518*LN8 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 45,012,181 | 49,548,832 | 10/22/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 370,860 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 44,641,321 | 48,898,027 |
| 12518*MHO | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 44,759,840 | 49,548,832 | 10/22/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 370,860 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 44,388,980 | 48,898,027 |

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Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------------|---------------------------------------|-----------------|------------------------------|-------------|------------------|------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|------------------------------------------------------------------|---------------------------------------|------------------------------|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | | | | | | | | | | | | |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*LJ7 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 46,101,154 | 49,548,832 | 10/25/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 384,339 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 45,716,815 | 48,898,027 |
| 12518*LH1 | CDX.NA.IG27 SR. TRANCHE | 1 | 30,000,000 | 25,720,870 | 29,729,299 | 10/25/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (30,000,000 NOTIONAL, 1% FIXED RATE) | 230,603 | 390,483 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 25,490,267 | 29,338,816 |
| 12518*MJ6 | CDX.NA.IG27 SR. TRANCHE | 1 | 50,000,000 | 44,682,545 | 49,548,832 | 10/25/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (50,000,000 NOTIONAL, 1% FIXED RATE) | 384,339 | 650,805 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 44,298,206 | 48,898,027 |
| 12518*MF4 | CDX.NA.IG27 SR. TRANCHE | 1 | 100,000,000 | 93,508,941 | 99,097,664 | 10/26/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (100,000,000 NOTIONAL, 1% FIXED RATE) | 770,689 | 1,301,610 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 92,738,252 | 97,796,054 |
| 12518*LS7 | CDX.NA.IG27 SR. TRANCHE | 1 | 125,000,000 | 112,144,261 | 123,872,081 | 10/26/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (125,000,000 NOTIONAL, 1% FIXED RATE) | 963,361 | 1,627,013 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 111,180,900 | 122,245,068 |
| 12518*LK4 | CDX.NA.IG27 SR. TRANCHE | 1 | 150,000,000 | 133,921,685 | 148,646,497 | 10/27/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (150,000,000 NOTIONAL, 1% FIXED RATE) | 1,094,906 | 1,952,416 | 912810-RB-6 .. | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 132,826,779 | 146,694,081 |
| 12518*LE8 | CDX.NA.IG27 SR. TRANCHE | 1 | 100,000,000 | 100,880,823 | 122,327,930 | 10/29/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (100,000,000 NOTIONAL, 1% FIXED RATE) | 675,755 | 1,301,610 | 912810-QL-5 .. | US TREASURY N/B United States Treasury Nt, 4.25% due 11/15/2040 | 1 | 100,205,068 | 121,026,320 |
| 12518*LR9 | CDX.NA.IG27 SR. TRANCHE | 1 | 100,000,000 | 105,349,548 | 114,295,568 | 11/01/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (100,000,000 NOTIONAL, 1% FIXED RATE) | 605,258 | 1,301,610 | 912810-QS-0 .. | US TREASURY N/B United States Treasury Nt, 3.75% due 08/15/2041 | 1 | 104,744,290 | 112,993,958 |
| 12518*LV0 | CDX.NA.IG27 SR. TRANCHE | 1 | 100,000,000 | 95,786,139 | 97,085,610 | 11/16/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (100,000,000 NOTIONAL, 1% FIXED RATE) | 716,642 | 1,301,610 | 912810-QY-7 .. | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 | 95,069,497 | 95,784,000 |
| 12518*LX6 | CDX.NA.IG27 SR. TRANCHE | 1 | 80,000,000 | 76,420,519 | 77,668,488 | 11/17/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (80,000,000 NOTIONAL, 1% FIXED RATE) | 594,325 | 1,041,288 | 912810-QY-7 .. | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 | 75,826,194 | 76,627,200 |
| 12518*MA5 | CDX.NA.IG27 SR. TRANCHE | 1 | 100,000,000 | 126,720,785 | 135,481,610 | 11/11/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (100,000,000 NOTIONAL, 1% FIXED RATE) | 737,051 | 1,301,610 | 912810-FM-5 .. | US TREASURY N/B United States Treasury Nt, 6.25% due 05/15/2030 | 1 | 125,983,734 | 134,180,000 |
| 12518*MB3 | CDX.NA.IG27 SR. TRANCHE | 1 | 125,000,000 | 157,624,360 | 169,352,013 | 11/11/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (125,000,000 NOTIONAL, 1% FIXED RATE) | 884,688 | 1,627,013 | 912810-FM-5 .. | US TREASURY N/B United States Treasury Nt, 6.25% due 05/15/2030 | 1 | 156,739,672 | 167,725,000 |
| 12518*LI8 | CDX.NA.IG27 SR. TRANCHE | 1 | 100,000,000 | 95,738,523 | 97,085,610 | 11/15/2016 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.IG27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (100,000,000 NOTIONAL, 1% FIXED RATE) | 573,843 | 1,301,610 | 912810-QY-7 .. | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 | 95,164,680 | 95,784,000 |
| 12518*PF1 | CDX.NA.HY27 SR. TRANCHE | 1 | 49,526,923 | 56,778,931 | 56,915,143 | 04/07/2017 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.HY27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (49,526,923 NOTIONAL, 5% FIXED RATE) | 6,230,949 | 6,512,876 | 3136A6-UR-3 .. | FNR 2012-63 ZA Z SEQ 4% due 06/25/2042 | 1 | 50,547,982 | 50,402,267 |
| 12518*PG9 | CDX.NA.HY27 SR. TRANCHE | 1 | 49,526,923 | 56,799,751 | 56,915,143 | 04/11/2017 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.HY27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (49,526,923 NOTIONAL, 5% FIXED RATE) | 6,251,769 | 6,512,876 | 3136A6-UR-3 .. | FNR 2012-63 ZA Z SEQ 4% due 06/25/2042 | 1 | 50,547,982 | 50,402,267 |

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------|---------------------------------------|-----------------|------------------------------|-------------|----------------|---------------|---------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|------------------------------------------------------------------|---------------------------------------|------------------------------|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*PH7 | CDX.NA.HY27 SR. TRANCHE | 1 | 49,526,923 | 55,059,556 | 56,351,621 | 04/13/2017 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.HY27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (49,526,923 NOTIONAL, 5% FIXED RATE) | 6,252,766 | 6,512,876 | 38378D-CV-5 | GNR 2012-16 VZ Z SEQ 3.5% due 02/20/2042 | 1 | 48,806,790 | 49,838,745 |
| 12518*PE4 | CDX.NA.HY27 SR. TRANCHE | 1 | 49,526,923 | 55,044,256 | 56,351,621 | 04/13/2017 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.HY27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (49,526,923 NOTIONAL, 5% FIXED RATE) | 6,237,466 | 6,512,876 | 38378D-CV-5 | GNR 2012-16 VZ Z SEQ 3.5% due 02/20/2042 | 1 | 48,806,790 | 49,838,745 |
| 12518*PK0 | CDX.NA.HY27 SR. TRANCHE | 1 | 49,526,923 | 57,434,353 | 58,698,588 | 04/18/2017 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.HY27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (49,526,923 NOTIONAL, 5% FIXED RATE) | 6,275,311 | 6,512,876 | 3136A6-ST-7 | FNR 2012-73 ZM EXCH Z SEQ 4% due 07/25/2042 | 1 | 51,159,042 | 52,185,712 |
| 12518*PJ3 | CDX.NA.HY27 SR. TRANCHE | 1 | 49,526,923 | 57,432,913 | 58,698,588 | 04/19/2017 | 12/20/2021 | CREDIT DEFAULT SWAP ON CDX.NA.HY27 SR. TRANCHE, TERMINATION DATE: 12/20/2021, (49,526,923 NOTIONAL, 5% FIXED RATE) | 6,273,871 | 6,512,876 | 3136A6-ST-7 | FNR 2012-73 ZM EXCH Z SEQ 4% due 07/25/2042 | 1 | 51,159,042 | 52,185,712 |
| 12518*RY8 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 52,414,344 | 57,579,499 | 09/20/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 673,005 | 76,660 | 912810-QK-7 | US TREASURY N/B United States Treasury Nt, 3.875% due 08/15/2040 | 1 | 51,741,339 | 57,502,839 |
| 12518*RX0 | CDX.NA.IG29 SR. TRANCHE | 1 | 60,000,000 | 59,955,711 | 69,095,399 | 09/20/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (60,000,000 NOTIONAL, 1% FIXED RATE) | 824,475 | 91,992 | 912810-QK-7 | US TREASURY N/B United States Treasury Nt, 3.875% due 08/15/2040 | 1 | 59,131,236 | 69,003,407 |
| 12518*SC5 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 50,674,978 | 50,259,045 | 09/20/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 696,669 | 76,660 | 38378C-NL-7 | GNR 2012-7 PE PAC-1-11 3.5% due 01/20/2042 | 1 | 49,978,309 | 50,182,385 |
| 12518*SD3 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 48,750,952 | 47,341,615 | 09/20/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 678,895 | 76,660 | 38378M-BD-6 | GNR 2013-23 ZC Z SEQ 3% due 02/20/2043 | 1 | 48,072,057 | 47,264,955 |
| 12518*SB7 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 46,246,634 | 45,664,495 | 09/20/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 678,895 | 76,660 | 3137BG-JS-9 | FHR 4444 CZ Z SEQ 3% due 02/15/2045 | 1 | 45,567,739 | 45,587,835 |
| 12518*SA9 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 47,918,650 | 50,044,425 | 09/20/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 695,407 | 76,660 | 3137BW-VS-0 | FHR 4663 ZK Z SEQ 3.5% due 06/15/2046 | 1 | 47,223,243 | 49,967,765 |
| 12518*RZ5 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 49,210,026 | 50,348,215 | 09/20/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 695,407 | 76,660 | 3137BW-HK-3 | FHR 4665 NZ Z SEQ 3.5% due 02/15/2047 | 1 | 48,514,619 | 50,271,555 |
| 12518*SE1 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 46,440,770 | 46,344,395 | 09/20/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 708,141 | 76,660 | 3137BD-CS-3 | FHR 4377 LZ Z SEQ 3% due 08/15/2044 | 1 | 45,732,629 | 46,267,735 |
| 12518*SM3 | CDX.NA.IG29 SR. TRANCHE | 1 | 100,000,000 | 101,631,391 | 99,554,255 | 10/26/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (100,000,000 NOTIONAL, 1% FIXED RATE) | 1,425,883 | 153,320 | 3136A9-LM-8 | FNR 2012-114 ZG Z SEQ 3.5% due 10/25/2042 | 1 | 100,205,508 | 99,400,935 |
| | | | | | | | | | | | 3136AW-U8-8 | FNR 2017-43 B SEQ 3.5% due 06/25/2047 | 1 | | |
| 12518* SX9 | CDX.NA.IG29 SR. TRANCHE | 1 | 100,000,000 | 100,820,091 | 100,849,200 | 11/08/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (100,000,000 NOTIONAL, 1% FIXED RATE) | 1,462,217 | 153,320 | 3136AK-S5-3 | FNR 2014-53 VZ Z SEQ 3.5% due 09/25/2044 | 1 | 99,357,874 | 100,695,880 |
| | | | | | | | | | | | 3137BD-GG-3 | FHR 4174 Z EXCH Z SEQ 3.5% due 03/15/2043 | 1 | | |

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------------|------------------------------------------------|--------------------|------------------------------------|------------|-------------------|------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------|-------------------------|-------------------------------------------------------|------------------------------------------------------|------------------------------------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | 9 | 10 | 11 | 12 | 13 | 14 NAIC Designation or Other Description | 15 Book/Adjusted Carrying Value | 16 |
| Number | Description | | | | | | | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | | | Fair Value |
| 12518* SY7 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 49,978,570 | 53,641,880 | 11/08/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 719,443 | 76,660 | 38377M-TH-9 .. | GNR 2010-144 DC EXCH PAC-1-11 4% due 11/16/2040 | 1 | 49,259,127 | 53,565,220 |
| 12518* SU5 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 50,900,098 | 50,479,585 | 10/26/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 719,443 | 76,660 | 3137BV-EK-8 .. | FHR 4655 HZ EXCH Z SEQ 3.5% due 02/15/2047 | 1 | 50,180,655 | 50,402,925 |
| 12518* ST8 | CDX.NA.IG29 SR. TRANCHE | 1 | 100,000,000 | 99,985,992 | 97,899,548 | 10/26/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (100,000,000 NOTIONAL, 1% FIXED RATE) | 1,435,532 | 153,320 | 3136AK-6N-8 .. | FNR 2014-65 CB SEQ 3% due 10/25/2044 | 1 | 98,550,460 | 97,746,228 |
| | | | | | | | | | | | 3136A7-RT-1 .. | FNR 2012-90 ZE Z SEQ 3.5% due 08/25/2042 | 1 | | |
| 12518* SW1 | CDX.NA.IG29 SR. TRANCHE | 1 | 30,000,000 | 26,732,419 | 27,941,517 | 10/26/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (30,000,000 NOTIONAL, 1% FIXED RATE) | 430,660 | 45,996 | 3136AJ-K9-6 .. | FNR 2014-28 ZA Z SEQ 3% due 05/25/2044 | 1 | 26,301,759 | 27,895,521 |
| 12518* SZ4 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 46,783,595 | 44,138,802 | 11/10/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 699,740 | 76,660 | 38378M-BJ-3 .. | GNR 2013-23 ZU SC Z SEQ 2.5% due 11/20/2042 | 1 | 46,083,855 | 44,062,142 |
| | | | | | | | | | | | 3136A7-UU-4 .. | FNR 2012-80 AZ Z SEQ 3.5% due 08/25/2042 | 1 | | |
| 12518* TA8 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 47,912,825 | 50,474,144 | 11/15/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 706,269 | 76,660 | 3136AH-3L-2 .. | FNR 2014-7 Z Z SEQ 3.5% due 02/25/2044 | 1 | 47,206,556 | 50,397,484 |
| | | | | | | | | | | | 3136A7-UU-4 .. | FNR 2012-80 AZ Z SEQ 3.5% due 08/25/2042 | 1 | | |
| 12518* SS0 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 49,763,085 | 51,257,354 | 11/15/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 706,269 | 76,660 | 38377W-BA-1 .. | GNR 2011-73 LB PAC-11 4% due 05/20/2041 | 1 | 49,056,816 | 51,180,694 |
| | | | | | | | | | | | 3136A7-UU-4 .. | FNR 2012-80 AZ Z SEQ 3.5% due 08/25/2042 | 1 | | |
| 12518* SR2 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 48,963,829 | 50,616,518 | 11/15/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 706,269 | 76,660 | 3137BW-DZ-4 .. | FHR 4668 ZA Z SEQ 3.5% due 02/15/2047 | 1 | 48,257,560 | 50,539,858 |
| | | | | | | | | | | | 3136A7-UU-4 .. | FNR 2012-80 AZ Z SEQ 3.5% due 08/25/2042 | 1 | | |
| 12518* TB6 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 49,139,238 | 49,321,616 | 11/16/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 688,924 | 76,660 | 3136A9-2X-5 .. | FNR 2012-118 ZV Z SEQ 3% due 11/25/2042 | 1 | 48,450,314 | 49,244,956 |
| | | | | | | | | | | | 3136AL-NX-5 .. | FNR 2014-76 Z Z SEQ 3.5% due 11/25/2044 | 1 | | |
| 12518* SV3 | CDX.NA.IG29 SR. TRANCHE | 1 | 30,000,000 | 31,178,631 | 30,741,693 | 11/16/2017 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (30,000,000 NOTIONAL, 1% FIXED RATE) | 413,355 | 45,996 | 3136AF-ZE-7 .. | FNR 2013-80 ZV Z SEQ 4% due 08/25/2043 | 1 | 30,765,276 | 30,695,697 |
| 12518*UX6 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 52,520,798 | 52,065,397 | 02/03/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 799,261 | 76,660 | 3136AG-TQ-5 .. | FNR 2013-100 CZ Z SEQ 4% due 10/25/2043 | 1 | 51,721,537 | 51,988,737 |
| | | | | | | | | | | | 3136A5-5T-9 .. | FNR 2012-51 AY EXCH PAC-11 3.5% due 05/25/2042 | 1 | | |
| 12518*UII8 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 45,845,438 | 46,107,337 | 02/06/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 803,106 | 76,660 | 38378F-T6-7 .. | GNR 2013-18 GY PAC-1-11 2.5% due 02/20/2043 | 1 | 45,042,332 | 46,030,677 |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------|---------------------------------------|-----------------|------------------------------|------------|----------------|---------------|--------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|----------------------------------------------------|---------------------------------------|------------------------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*UY4 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 46,880,910 | 49,086,826 | 02/06/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 786,774 | 76,660 | 3136AK-VH-3 | FNR 2014-46 DZ EXCH Z SEQ 3% due 08/25/2044 | 1 | | |
| | | | | | | | | | | | 3136AE-EX-1 | FNR 2013-53 ZC Z SEQ 3% due 06/25/2043 | 1 | 46,094,136 | 49,010,166 |
| | | | | | | | | | | | 38377M-E9-3 | GNR 2010-147 PB AD PAC-11 4% due 11/20/2040 | 1 | | |
| 12518*VA5 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 25,443,941 | 24,973,505 | 02/06/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 375,011 | 38,330 | 3137B2-BB-5 | FHR 4199 VZ Z SEQ 3.5% due 05/15/2043 | 1 | 25,068,930 | 24,935,175 |
| 12518*VF4 | CDX.NA.IG29 SR. TRANCHE | 1 | 50,000,000 | 47,209,518 | 50,116,642 | 02/06/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (50,000,000 NOTIONAL, 1% FIXED RATE) | 688,756 | 76,660 | 3136AL-DZ-1 | FNR 2014-60 LZ Z SEQ 3.5% due 10/25/2044 | 1 | 46,520,762 | 50,039,982 |
| | | | | | | | | | | | 3136AF-AQ-7 | FNR 2013-79 UZ Z SEQ 3.5% due 07/25/2043 | 1 | | |
| 12518*VN7 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 25,311,887 | 25,155,670 | 02/06/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 348,463 | 38,330 | 3136AC-S8-5 | FNR 2013-15 MZ Z SEQ 3.5% due 03/25/2043 | 1 | 24,963,424 | 25,117,340 |
| 12518*VS6 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 24,646,415 | 23,531,478 | 02/07/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 363,527 | 38,330 | 3136AW-KH-9 | FNR 2017-31 GB PAC 3% due 05/25/2047 | 1 | 24,282,888 | 23,493,148 |
| 12518*VM9 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 24,034,843 | 23,774,723 | 02/07/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 357,397 | 38,330 | 3136AC-W9-8 | FNR 2013-15 LZ SC EXCH Z PAC SEQ 3% due 03/25/2043 | 1 | 23,677,446 | 23,736,393 |
| 12518*VR8 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 26,629,267 | 26,392,055 | 02/07/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 353,310 | 38,330 | 3136A8-AZ-3 | FNR 2012-98 VZ Z SEQ 4% due 09/25/2042 | 1 | 26,275,957 | 26,353,725 |
| 12518*VQ0 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 21,694,906 | 22,182,103 | 02/08/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 356,513 | 38,330 | 38378U-7W-1 | GNR 2013-170 LB EXCH SEQ 2.5% due 11/20/2043 | 1 | 21,338,393 | 22,143,773 |
| 12518*VG2 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 22,095,580 | 23,036,113 | 02/09/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 338,846 | 38,330 | 3137BD-SR-8 | FHR 4385 HZ Z SEQ 3% due 09/15/2044 | 1 | 21,756,734 | 22,997,783 |
| 12518*VL1 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 26,285,577 | 26,574,637 | 02/09/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 359,328 | 38,330 | 3136A6-XD-1 | FNR 2012-56 ZM Z SEQ 4% due 06/25/2042 | 1 | 25,926,249 | 26,536,307 |
| 12518*VT4 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 27,676,138 | 26,796,283 | 02/09/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 336,798 | 38,330 | 3136A2-CX-9 | FNR 2011-110 EW EXCH AD PAC-11 4.5% due 11/25/2041 | 1 | 27,339,340 | 26,757,953 |
| 12518*VP2 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 25,312,215 | 26,556,515 | 02/09/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 312,215 | 38,330 | 3136AD-HQ-5 | FNR 2013-32 ZB Z SEQ 4% due 04/25/2043 | 1 | 25,000,000 | 26,518,185 |
| 12518*VD9 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 22,996,758 | 22,679,707 | 02/09/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 334,750 | 38,330 | 3137BV-XQ-4 | FHR 4661 GZ Z SEQ 3% due 02/15/2047 | 1 | 22,662,008 | 22,641,377 |
| 12518*VC1 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 25,672,363 | 25,192,337 | 02/09/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 312,215 | 38,330 | 3137AV-3V-7 | FHR 4122 ZJ Z SEQ 3.5% due 10/15/2042 | 1 | 25,360,148 | 25,154,007 |

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Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------------|---------------------------------------|------------------|------------------------------|------------------|------------------|------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------|-------------------------|------------------------------------------------------------------------|---------------------------------------|------------------------------|------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*VK3 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 24,910,983 | 25,202,822 | 02/10/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 286,306 | 38,330 | 38378D-DK-8 | GNR 2012-16 ZP Z PAC-11 3.5% due 02/20/2042 | 1 | 24,624,677 | 25,164,492 |
| 12518*VJ6 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 26,984,725 | 26,690,688 | 02/10/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 276,053 | 38,330 | 3137BG-FZ-7 | FHR 4440 ZX SC Z PT 4% due 01/15/2045 | 1 | 26,708,672 | 26,652,358 |
| 12518*UZ1 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 26,239,086 | 25,595,985 | 02/10/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 286,306 | 38,330 | 38377X-GA-4 | GNR 2011-93 PE PAC-1-11 4% due 07/20/2041 | 1 | 25,952,780 | 25,557,655 |
| 12518*VB3 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 23,776,745 | 23,573,588 | 02/10/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 306,808 | 38,330 | 3136AW-QN-0 | FNR 2017-30 ZG Z SEQ 3% due 05/25/2047 | 1 | 23,469,937 | 23,535,258 |
| 12518*WCO | CDX.NA.IG29 SR. TRANCHE | 1 | 75,000,000 | 70,181,061 | 69,130,743 | 03/23/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (75,000,000 NOTIONAL, 1% FIXED RATE) | 982,030 | 114,990 | 3136AW-XM-4 | FNR 2017-41 Z Z SEQ 3% due 06/25/2047 | 1 | 69,199,031 | 69,015,753 |
| | | | | | | | | | | | 3136AK-V5-9 | FNR 2014-55 MZ Z SEQ 3% due 09/25/2044 | 1 | | |
| | | | | | | | | | | | 3136AV-QN-2 | FNR 2017-18 CZ Z SEQ 3% due 03/25/2047 | 1 | | |
| 12518*WDB | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 24,915,947 | 23,216,470 | 03/23/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 327,343 | 38,330 | 3136A6-R3-0 | FNR 2012-75 CE PAC-11 3% due 07/25/2042 | 1 | 24,588,604 | 23,178,140 |
| 12518*W4 | CDX.NA.IG29 SR. TRANCHE | 1 | 75,000,000 | 69,725,541 | 69,742,057 | 03/24/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (75,000,000 NOTIONAL, 1% FIXED RATE) | 902,467 | 114,990 | 3137B9-FE-0 | FHR 4314 GZ Z SEQ 3% due 03/15/2044 | 1 | 68,823,074 | 69,627,067 |
| | | | | | | | | | | | 3136AK-ZL-0 | FNR 2014-59 ZB Z SEQ 3% due 09/25/2044 | 1 | | |
| | | | | | | | | | | | 38378U-SA-6 | GNR 2013-160 BY EXCH SEQ2.5% due 10/16/2043 | 1 | | |
| 12518*WB2 | CDX.NA.IG29 SR. TRANCHE | 1 | 25,000,000 | 24,067,232 | 23,592,608 | 03/24/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (25,000,000 NOTIONAL, 1% FIXED RATE) | 290,324 | 38,330 | 3136AB-2N-2 | FNR 2013-11 Z Z SEQ 3% due 02/25/2043 | 1 | 23,776,908 | 23,554,278 |
| 12518*VZ0 | CDX.NA.IG29 SR. TRANCHE | 1 | 80,000,000 | 69,082,055 | 73,287,185 | 03/29/2018 | 12/20/2022 | CREDIT DEFAULT SWAP ON CDX.NA.IG29 SR. TRANCHE, TERMINATION DATE: 12/20/2022, (80,000,000 NOTIONAL, 1% FIXED RATE) | 907,363 | 122,656 | 3136AW-QN-0 | FNR 2017-30 ZG Z SEQ 3% due 05/25/2047 | 1 | 68,174,692 | 73,164,529 |
| | | | | | | | | | | | 38378P-KX-5 | GNR 2013-188 DZ Z SEQ 2.5% due 12/20/2043 | 1 | | |
| | | | | | | | | | | | 38378U-SA-6 | GNR 2013-160 BY EXCH SEQ 2.5% due 10/16/2043 | 1 | | |
| 12518*VQ7 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 24,618,379 | 23,019,075 | 10/04/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 393,547 | (243,650) | 3137BV-K7-0 | FHR 4660 LA SEQ 3% due 02/15/2047 | 1 | 24,224,832 | 23,262,725 |
| 12518*YR5 | CDX.NA.IG31 SR. TRANCHE | 1 | 50,000,000 | 48,747,375 | 46,038,151 | 10/05/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 763,648 | (487,299) | 3137BV-K7-0 | FHR 4660 LA SEQ 3% due 02/15/2047 | 1 | 47,983,727 | 46,525,450 |
| 12518*YS3 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,297,451 | 28,507,770 | 10/05/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 380,631 | (243,650) | 912810-QK-7 | US TREASURY N/B United States Treasury Nt, 3.875% due 08/15/2040 | 1 | 24,916,820 | 28,751,420 |

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------------|---------------------------------------|-----------------|------------------------------|------------|------------------|------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|------------------------------------------------------------------------|---------------------------------------|------------------------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | | | | | | | | | | | | |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*YT1 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,646,164 | 24,985,180 | 10/05/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 365,126 | (243,650) | 3136AV-HM-4 | FNR 2017-4 ZA Z SEQ 3.5% due 02/25/2047 | 1 | 25,281,038 | 25,228,830 |
| 12518*YU8 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 45,904,818 | 45,268,961 | 10/06/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 704,376 | (487,299) | 3136AV-SF-7 | FNR 2017-11 ZE Z SEQ 3% due 03/25/2047 | 1 | 45,200,442 | 45,756,260 |
| 12518*ZY9 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,092,960 | 25,396,158 | 10/06/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 362,928 | (243,650) | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 24,730,032 | 25,639,808 |
| 12518*YV6 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 22,571,457 | 23,172,453 | 10/10/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 340,960 | (243,650) | 3137BW-V3-5 | FHR 4663 Z Z SEQ 3% due 03/15/2047 | 1 | 22,230,497 | 23,416,103 |
| 12518*YI4 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 22,571,457 | 23,172,453 | 10/10/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 340,960 | (243,650) | 3137BW-V3-5 | FHR 4663 Z Z SEQ 3% due 03/15/2047 | 1 | 22,230,497 | 23,416,103 |
| 12518*YX2 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,173,498 | 25,396,158 | 10/11/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 335,154 | (243,650) | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 24,838,344 | 25,639,808 |
| 12518*YY0 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,210,663 | 25,396,158 | 10/11/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 335,154 | (243,650) | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 24,875,509 | 25,639,808 |
| 12518*YZ7 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,511,116 | 25,396,158 | 10/11/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 320,796 | (243,650) | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 25,190,320 | 25,639,808 |
| 12518*ZA1 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,192,497 | 25,396,158 | 10/11/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 311,223 | (243,650) | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 24,881,274 | 25,639,808 |
| 12518*ZB9 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,185,476 | 25,396,158 | 10/12/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 304,202 | (243,650) | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 24,881,274 | 25,639,808 |
| 12518*ZC7 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,224,254 | 25,396,158 | 10/12/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 301,807 | (243,650) | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 24,922,447 | 25,639,808 |
| 12518*ZF0 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 23,354,999 | 24,909,060 | 10/12/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 311,385 | (243,650) | 38378W-VN-0 | GNR 2013-124 BZ Z SEQ 3.5% due 08/20/2043 | 1 | 23,043,614 | 25,152,710 |
| 12518*ZE3 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 22,690,177 | 22,471,865 | 10/12/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 311,385 | (243,650) | 3136AV-H9-3 | FNR 2017-17 ZL Z SEQ 3% due 03/25/2047 | 1 | 22,378,792 | 22,715,515 |
| 12518*ZG8 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,787,750 | 25,013,381 | 10/12/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 292,229 | (243,650) | 912810-QS-0 | US TREASURY N/B United States Treasury Nt, 3.75% due 08/15/2041 | 1 | 25,495,521 | 25,257,031 |
| 12518*ZD5 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 23,046,224 | 24,060,340 | 10/12/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 311,385 | (243,650) | 3137BV-K7-0 | FHR 4660 LA SEQ 3% due 02/15/2047 | 1 | | |
| | | | | | | | | | | | 38378P-G7-7 | GNR 2014-12 AY EXCH SEQ 3% due 01/20/2044 | 1 | 22,734,839 | 24,303,990 |

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Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------------|---------------------------------------|-----------------|------------------------------|-------------|------------------|------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|------------------------------------------------------------------|---------------------------------------|------------------------------|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | | | | | | | | | | | | |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*ZH6 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 24,743,466 | 25,663,810 | 10/16/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 322,830 | (243,650) | 38377R-KQ-7 .. | GNR 2010-163 DC EXCH PAC-1-11 4% due 12/16/2040 | 1 | 24,420,636 | 25,907,460 |
| 12518*ZJ2 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 24,751,863 | 25,663,810 | 10/16/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 331,227 | (243,650) | 38377R-KQ-7 .. | GNR 2010-163 DC EXCH PAC-1-11 4% due 12/16/2040 | 1 | 24,420,636 | 25,907,460 |
| 12518*ZZ6 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,820,332 | 25,396,158 | 10/16/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 331,227 | (243,650) | 912810-QT-8 .. | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 25,489,105 | 25,639,808 |
| 12518*ZL7 | CDX.NA.HY31 SR. TRANCHE | 1Z | 75,000,000 | 91,304,473 | 92,836,683 | 10/16/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (75,000,000 NOTIONAL, 5% FIXED RATE) | 14,520,652 | 13,393,645 | 3137B1-VG-4 .. | FHR 4209 VZ Z SEQ 4% due 05/15/2043 | 1 | 76,783,821 | 79,443,038 |
| | | | | | | | | | | | 3136AF-FB-5 .. | FNR 2013-67 VZ Z SEQ 4% due 07/25/2043 | 1 | | |
| 12518*ZM5 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 43,827,834 | 47,154,881 | 10/18/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 682,359 | (487,299) | 38378P-F7-8 .. | GNR 2014-12 NZ Z SEQ 3% due 01/20/2044 | 1 | 43,145,475 | 47,642,180 |
| 12518*ZK9 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 61,117,132 | 61,650,707 | 10/18/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,738,264 | 8,929,097 | 3137AP-EN-6 .. | FHR 4028 ZA Z SEQ 4% due 04/15/2042 | 1 | 51,378,868 | 52,721,610 |
| 12518*ZP8 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 27,263,398 | 26,243,398 | 10/19/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 336,551 | (243,650) | 3137A3-HY-8 .. | FHR 3751 PE PAC-11 4.5% due 11/15/2040 | 1 | 26,926,847 | 26,487,048 |
| 12518*ZN3 | CDX.NA.HY31 SR. TRANCHE | 1Z | 75,000,000 | 85,686,207 | 88,618,710 | 10/19/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (75,000,000 NOTIONAL, 5% FIXED RATE) | 14,550,221 | 13,393,645 | 38378C-LR-6 .. | GNR 2012-13 ZK Z SEQ 3.5% due 01/20/2042 | 1 | 71,135,986 | 75,225,065 |
| | | | | | | | | | | | 38378W-VN-0 .. | GNR 2013-124 BZ Z SEQ 3.5% due 08/20/2043 | 1 | | |
| 12518*Z06 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 27,260,995 | 26,243,398 | 10/19/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 334,148 | (243,650) | 3137A3-HY-8 .. | FHR 3751 PE PAC-11 4.5% due 11/15/2040 | 1 | 26,926,847 | 26,487,048 |
| 12518*ZR4 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 50,674,680 | 53,548,961 | 10/19/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 639,459 | (487,299) | 38376P-ZK-9 .. | GNR 2009-116 LN PAC-1-11 5% due 12/16/2039 | 1 | 50,035,221 | 54,036,260 |
| 12518*ZS2 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 47,277,148 | 45,742,466 | 10/19/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 601,008 | (487,299) | 3136AV-TB-5 .. | FNR 2017-11 B EXCH SEQ 3% due 03/25/2047 | 1 | 46,676,140 | 46,229,765 |
| 12518*ZU7 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 53,019,531 | 51,806,580 | 10/20/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 620,556 | (487,299) | 38378P-G7-7 .. | GNR 2014-12 AY EXCH SEQ 3% due 01/20/2044 | 1 | 52,398,975 | 52,293,879 |
| | | 1Z | | | | | | | | | 3137B2-P8-7 .. | FHR 4212 ZX Z SEQ 4% due 06/15/2043 | 1 | | |
| 12518*ZV5 | CDX.NA.HY31 SR. TRANCHE | 1Z | 100,000,000 | 123,776,407 | 124,099,733 | 10/20/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 19,371,915 | 17,858,194 | 3137B5-YC-1 .. | FHR 4267 ZY Z SEQ 4.5% due 11/15/2043 | 1 | 104,404,492 | 106,241,539 |
| | | | | | | | | | | | 3136A7-V9-0 .. | FNR 2012-89 Z Z SEQ 4% due 08/25/2042 | 1 | | |
| | | | | | | | | | | | 3136AV-HM-4 .. | FNR 2017-4 ZA Z SEQ 3.5% due 02/25/2047 | 1 | | |

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Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------|---------------------------------------|-----------------|------------------------------|-------------|----------------|---------------|---------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|--------------------------------------------------------------------|---------------------------------------|------------------------------|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*ZT0 | CDX.NA.HY31 SR. TRANCHE | 1Z | 100,000,000 | 113,541,119 | 113,766,022 | 10/20/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 19,371,915 | 17,858,194 | 3136AW-F5-1 | FNR 2017-46 ZA Z SEQ 3% due 06/25/2047 | 1 | 94,169,204 | 95,907,828 |
| | | | | | | | | | | | 38377J-FB-4 | GNR 2010-109 GN EXCH PAC-1-11 4% due 08/20/2040 | 1 | | |
| | | | | | | | | | | | 38377J-FB-4 | GNR 2010-109 GN EXCH PAC-1-11 4% due 08/20/2040 | 1 | | |
| | | | | | | | | | | | 3136AV-H9-3 | FNR 2017-17 ZL Z SEQ3% due 03/25/2047 | 1 | | |
| 12518*ZW3 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 52,501,392 | 51,694,110 | 10/23/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 655,241 | (487,299) | 3137BB-CR-9 | FHR 4354 GL EXCH SEQ 3.5% due 06/15/2044 | 1 | 51,846,151 | 52,181,409 |
| | | | | | | | | | | | 3137AR-WY-8 | FHR 4073 HZ EXCH Z SEQ4% due 07/15/2042 | 1 | | |
| 12518*ZX1 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 24,601,547 | 24,221,785 | 10/23/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 315,580 | (243,650) | 3137BB-CR-9 | FHR 4354 GL EXCH SEQ 3.5% due 06/15/2044 | 1 | 24,285,967 | 24,465,435 |
| 12518*A34 | CDX.NA.HY31 SR. TRANCHE | 1Z | 100,000,000 | 126,455,519 | 141,924,854 | 10/23/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 19,406,642 | 17,858,194 | 912810-FP-8 | US TREASURY N/B United States Treasury Nt, 5.375% due 02/15/2031 | 1 | 107,048,877 | 124,066,660 |
| | | | | | | | | | | | 912810-QL-5 | US TREASURY N/B United States Treasury No 4.254.25% due 11/15/2040 | 1 | | |
| 12518*A42 | CDX.NA.HY31 SR. TRANCHE | 1Z | 100,000,000 | 124,004,609 | 124,591,316 | 10/23/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 19,401,840 | 17,858,194 | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | 104,602,769 | 106,733,122 |
| | | | | | | | | | | | 912810-QT-8 | US TREASURY N/B United States Treasury Nt, 3.125% due 11/15/2041 | 1 | | |
| | | | | | | | | | | | 912810-QS-0 | US TREASURY N/B United States Treasury Nt, 3.75% due 08/15/2041 | 1 | | |
| 12518*A59 | CDX.NA.HY31 SR. TRANCHE | 1Z | 100,000,000 | 129,272,524 | 130,852,152 | 10/23/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 19,344,212 | 17,858,194 | 912810-QS-0 | US TREASURY N/B United States Treasury Nt, 3.75% due 08/15/2041 | 1 | 109,928,312 | 112,993,958 |
| | | | | | | | | | | | 912810-QS-0 | US TREASURY N/B United States Treasury Nt, 3.75% due 08/15/2041 | 1 | | |
| 12518*A75 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 26,015,554 | 26,047,565 | 10/23/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 313,172 | (243,650) | 3137AP-BW-9 | FHR 4033 ZE Z SEQ 4% due 04/15/2042 | 1 | 25,702,382 | 26,291,215 |
| 12518*A67 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 22,278,528 | 22,787,250 | 10/23/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 313,172 | (243,650) | 3137AU-FJ-3 | FHR 4107 HY EXCH PAC-11 3% due 09/15/2042 | 1 | 21,965,356 | 23,030,900 |
| 12518*A83 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 24,427,928 | 26,195,743 | 10/23/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 308,356 | (243,650) | 3137BA-G6-3 | FHR 4323 VZ Z SEQ 4% due 04/15/2044 | 1 | 24,119,572 | 26,439,393 |
| 12518*B41 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 23,032,639 | 22,549,280 | 10/24/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 284,421 | (243,650) | 3137BW-P5-7 | FHR 4666 VZ Z SEQ 3% due 03/15/2047 | 1 | 22,748,218 | 22,792,930 |
| 12518*B25 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 62,891,412 | 61,629,280 | 10/24/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,600,206 | 8,929,097 | 3136A2-CX-9 | FNR 2011-110 EW EXCH AD PAC-11 4.5% due 11/25/2041 | 1 | 53,291,206 | 52,700,183 |

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Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------|---------------------------------------|-----------------|------------------------------|-------------|----------------|---------------|---------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|------------------------------------------------|---------------------------------------|------------------------------|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | | | | | | | | | | | | |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*B58 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 59,747,619 | 59,066,400 | 10/24/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,585,790 | 8,929,097 | 3137AR-M2-9 | FHR 4057 ZB Z SEQ 3.5% due 06/15/2042 | 1 | 50,161,829 | 50,137,303 |
| | | | | | | | | | | | 3137BL-2V-9 | FHR 4503 ZA Z SEQ3.5% due 08/15/2045 | 1 | | |
| 12518*B33 | CDX.NA.HY31 SR. TRANCHE | 1 | 50,000,000 | 59,903,463 | 59,779,598 | 10/24/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,600,206 | 8,929,097 | 3136A8-D6-4 | FNR 2012-103 ZC EXCH Z SEQ 3.5% due 09/25/2042 | 1 | 50,303,257 | 50,850,501 |
| | | | | | | | | | | | 38377M-P9-1 | GNR 2010-149 LB AD PAC-11 4.5% due 11/16/2040 | 1 | | |
| | | | | | | | | | | | 38377M-P9-1 | GNR 2010-149 LB AD PAC-11 4.5% due 11/16/2040 | 1 | | |
| 12518*B66 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 24,808,521 | 25,362,853 | 10/25/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 301,445 | (243,650) | 38377R-BJ-3 | GNR 2010-158 DG PAC-11 4% due 12/20/2040 | 1 | 24,507,076 | 25,606,503 |
| 12518*B82 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 60,444,198 | 59,925,875 | 10/25/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,638,806 | 8,929,097 | 3136A6-N4-2 | FNR 2012-76 ZG Z SEQ 4% due 07/25/2042 | 1 | 50,805,392 | 50,996,778 |
| | | | | | | | | | | | 3136AV-FU-8 | FNR 2017-13 AB PAC-113% due 02/25/2047 | 1 | | |
| 12518*B74 | CDX.NA.HY31 SR. TRANCHE | 1Z | 100,000,000 | 122,323,173 | 121,732,382 | 10/25/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 19,287,228 | 17,858,194 | 38375G-QP-9 | GNR 2012-94 BZ Z SEQ 3.5% due 07/20/2042 | 1 | 103,035,945 | 103,874,188 |
| | | | | | | | | | | | 3137FE-ZM-5 | FHR 4793 ZK EXCH Z SEQ 4.5% due 06/15/2048 | 1 | | |
| | | | | | | | | | | | 3136AV-ST-2 | FNR 2017-20 BP PAC 3.5% due 04/25/2047 | 1 | | |
| 12518*C24 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,148,225 | 25,566,085 | 10/25/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 282,159 | (243,650) | 38377N-GC-2 | GNR 2010-151 DG PAC-1-11 4% due 11/20/2040 | 1 | 24,866,066 | 25,809,735 |
| 12518*C32 | CDX.NA.HY31 SR. TRANCHE | 1Z | 100,000,000 | 116,953,130 | 113,242,717 | 10/25/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 19,234,341 | 17,858,194 | 3137BT-CW-9 | FHR 4639 AZ Z SEQ 3% due 12/15/2046 | 1 | 97,718,789 | 95,384,523 |
| | | | | | | | | | | | 3137BT-CW-9 | FHR 4639 AZ Z SEQ 3% due 12/15/2046 | 1 | | |
| | | | | | | | | | | | 38378C-Z9-1 | GNR 2012-12 NY EXCH PAC-113.5% due 01/20/2042 | 1 | | |
| 12518*C40 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 60,650,905 | 60,841,056 | 10/25/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,569,091 | 8,929,097 | 3136AJ-PR-1 | FNR 2014-19 ZJ Z SEQ 4.5% due 04/25/2044 | 1 | 51,081,814 | 51,911,959 |
| | | | | | | | | | | | 3136AX-U7-8 | FNR 2017-72 PZ Z PAC3% due 09/25/2047 | 1 | | |
| 12518*C81 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 48,966,660 | 49,498,720 | 10/26/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 574,260 | (487,299) | 3136AB-Q2-2 | FNR 2013-6 ZM Z SEQ 3.5% due 02/25/2043 | 1 | 48,392,400 | 49,986,019 |
| | | | | | | | | | | | 313680-U6-1 | FNR 2018-9 AL EXCH SC PT3.5% due 12/25/2047 | 1 | | |
| 12518*D23 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 53,319,394 | 55,198,665 | 10/26/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,617,635 | 8,929,097 | 3136AL-EY-3 | FNR 2014-66 VZ Z SEQ 3% due 10/25/2044 | 1 | 43,701,759 | 46,269,568 |
| | | | | | | | | | | | 3137BA-3W-0 | FHR 4329 KZ Z SEQ3% due 04/15/2044 | 1 | | |

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Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------------|---------------------------------------|-------------------|------------------------------|-------------------|------------------|------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------|-------------------------|------------------------------------------------------------------------|---------------------------------------|------------------------------|------------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*D49 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 52,205,656 | 51,252,063 | 10/27/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 516,639 | (487,299) | 3137BG-Y7-8 | FHR 4447 ZX SC Z PT 4% due 01/15/2045 | 1 | 51,689,017 | 51,739,362 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3137BG-Y7-8 | FHR 4447 ZX SC Z PT4% due 01/15/2045 | 1 ..... | ..... | ..... |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 3136AC-P6-2 | FNR 2013-15 VZ Z SEQ3.5% due 03/25/2043 | 1 ..... | ..... | ..... |
| 12518*D31 | CDX.NA.HY31 SR. TRANCHE | 1 | 50,000,000 | 57,158,753 | 57,971,163 | 10/27/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,559,888 | 8,929,097 | 3837BW-CN-3 | GNR 2013-122 BM EXCH PAC-1-11 3.5% due 08/16/2043 | 1 | 47,598,865 | 49,042,066 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 38380C-K7-7 | GNR 2017-26 QL SC SEQ3% due 02/20/2040 | 1 ..... | ..... | ..... |
| 12518*D56 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 23,655,102 | 23,702,350 | 10/30/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 287,731 | (243,650) | 912810-QY-7 | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 | 23,367,371 | 23,946,000 |
| 12518*D64 | CDX.NA.HY31 SR. TRANCHE | 1Z | 100,000,000 | 113,106,233 | 113,642,194 | 10/30/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 19,250,270 | 17,858,194 | 912810-QY-7 | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 | 93,855,963 | 95,784,000 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 912810-QY-7 | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 ..... | ..... | ..... |
| 12518*D72 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 23,221,223 | 23,168,733 | 10/31/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 266,115 | (243,650) | 3137BD-SW-2 | FHR 4378 EZ EXCH Z SEQ 3% due 08/15/2044 | 1 | 22,955,108 | 23,412,383 |
| 12518*D80 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 58,859,178 | 66,431,936 | 10/31/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,610,812 | 8,929,097 | 912810-QK-7 | US TREASURY N/B United States Treasury Nt, 3.875% due 08/15/2040 | 1 | 49,248,366 | 57,502,839 |
| 12518*E22 | CDX.NA.HY31 SR. TRANCHE | 1 | 50,000,000 | 73,003,007 | 76,019,097 | 10/31/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,601,164 | 8,929,097 | 912810-FM-5 | US TREASURY N/B United States Treasury Nt, 6.25% due 05/15/2030 | 1 | 63,401,843 | 67,090,000 |
| 12518*D98 | CDX.NA.IG31 SR. TRANCHE | 1 | 50,000,000 | 63,099,610 | 66,602,701 | 10/31/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 517,720 | (487,299) | 912810-FM-5 | US TREASURY N/B United States Treasury Nt, 6.25% due 05/15/2030 | 1 | 62,581,890 | 67,090,000 |
| 12518*E30 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 23,290,153 | 24,205,364 | 11/03/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 317,399 | (243,650) | 912810-RB-6 | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 22,972,754 | 24,449,014 |
| 12518*J43 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 23,493,912 | 24,205,364 | 11/10/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 345,308 | (243,650) | 912810-RB-6 | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 23,148,604 | 24,449,014 |
| 12518*E48 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 23,375,629 | 24,205,364 | 11/10/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 347,739 | (243,650) | 912810-RB-6 | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 23,027,890 | 24,449,014 |
| 12518*J50 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 23,319,740 | 24,205,364 | 11/10/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 338,015 | (243,650) | 912810-RB-6 | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 22,981,725 | 24,449,014 |
| 12518*J68 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 23,389,970 | 24,205,364 | 11/10/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 328,291 | (243,650) | 912810-RB-6 | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 23,061,679 | 24,449,014 |

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Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------|---------------------------------------|-----------------|------------------------------|------------|----------------|---------------|--------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|------------------------------------------------------------------|---------------------------------------|------------------------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| | | | | | | | | | | | | | | | |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*J76 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 23,102,642 | 24,205,364 | 11/14/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 280,256 | (243,650) | 912810-RB-6 | US TREASURY N/B United States Treasury Nt, 2.875% due 05/15/2043 | 1 | 22,822,386 | 24,449,014 |
| 12518*J84 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 57,039,953 | 56,821,097 | 11/14/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,695,480 | 8,929,097 | 912810-QY-7 | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 | 47,344,473 | 47,892,000 |
| 12518*J92 | CDX.NA.HY31 SR. TRANCHE | 1 | 50,000,000 | 57,055,611 | 56,821,097 | 11/14/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,651,716 | 8,929,097 | 912810-QY-7 | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 | 47,403,895 | 47,892,000 |
| 12518*K25 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 23,802,399 | 23,702,350 | 11/14/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 270,511 | (243,650) | 912810-QY-7 | US TREASURY N/B United States Treasury Nt, 2.75% due 11/15/2042 | 1 | 23,531,888 | 23,946,000 |
| 12518*K33 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,211,090 | 23,992,328 | 11/15/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 263,340 | (243,650) | 38378G-AF-5 | GNR 2012-134 PM PAC-11 3% due 11/20/2042 | 1 | 24,947,750 | 24,235,978 |
| 12518*K41 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,587,359 | 27,098,128 | 11/15/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 258,464 | (243,650) | 3137A3-4Y-2 | FHR 3763 ZW Z PAC-11 4.5% due 11/15/2040 | 1 | 25,328,895 | 27,341,778 |
| 12518*K58 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 24,849,154 | 23,045,405 | 11/15/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 257,246 | (243,650) | 3136A7-FM-9 | FNR 2012-70 HB PAC-11 3% due 07/25/2042 | 1 | 24,591,908 | 23,289,055 |
| 12518*K66 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 60,406,280 | 60,709,882 | 11/15/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,583,764 | 8,929,097 | 3137AP-MM-9 | FHR 4030 PE PAC-1-11 3.5% due 04/15/2042 | 1 | 50,822,516 | 51,780,785 |
| | | | | | | | | | | | 3137AQ-JU-3 | FHR 4050 CZ Z SEQ 4% due 05/15/2042 | 1 | | |
| 12518*K74 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 26,561,538 | 25,946,628 | 11/15/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 231,650 | (243,650) | 3136A0-DQ-7 | FNR 2011-77 PC PAC-11 4% due 08/25/2041 | 1 | 26,329,888 | 26,190,278 |
| 12518*K82 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 20,549,543 | 22,124,553 | 11/16/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 190,307 | (243,650) | 38378U-L2-1 | GNR 2013-144 YM EXCH SEQ 2.5% due 10/20/2043 | 1 | 20,359,236 | 22,368,203 |
| 12518*K90 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 49,666,509 | 48,852,346 | 11/16/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 365,979 | (487,299) | 3136AB-YK-3 | FNR 2013-1 ZV Z SEQ 3% due 02/25/2043 | 1 | 49,300,530 | 49,339,645 |
| | | | | | | | | | | | 38377N-MK-7 | GNR 2010-151 KE AD PAC-11 4.25% due 11/16/2040 | 1 | | |
| 12518*L24 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 26,479,946 | 26,190,618 | 11/16/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 168,354 | (243,650) | 3136A4-3X-5 | FNR 2012-38 ZB Z SEQ 4% due 04/25/2042 | 1 | 26,311,592 | 26,434,268 |
| 12518*L32 | CDX.NA.HY31 SR. TRANCHE | 1Z | 50,000,000 | 60,008,730 | 62,965,957 | 11/17/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,540,175 | 8,929,097 | 38376Y-3N-9 | GNR 2010-53 PB PAC-1-11 5% due 04/20/2040 | 1 | 50,468,555 | 54,036,860 |
| | | | | | | | | | | | 38377M-N4-4 | GNR 2010-149 MB AD PAC-11 4.5% due 11/16/2040 | 1 | | |
| 12518*L40 | CDX.NA.IG31 SR. TRANCHE | 1Z | 50,000,000 | 51,044,717 | 51,234,964 | 11/20/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 232,305 | (487,299) | 38377K-LE-8 | GNR 2010-114 NC EXCH PAC-11 4.5% due 09/20/2040 | 1 | 50,812,412 | 51,722,263 |

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Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------|---------------------------------------|-----------------|------------------------------|-------------|----------------|---------------|---------------------------------------------------------------------------------------------------------------------|------------------------------|------------|-------------------------|-------------------------------------------------|---------------------------------------|------------------------------|-------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| | | | | | | | | | | | 38374Y-AT-0 | GNR 2010-93 LP PAC-1-11 4.5% due 07/20/2040 | 1 | | |
| | | | | | | | | | | | 3136A5-HH-2 | FNR 2012-31 MN PAC-11 3.5% due 04/25/2042 | 1 | | |
| 12518*L65 | CDX.NA.IG31 SR. TRANCHE | 1Z | 25,000,000 | 25,490,057 | 25,833,033 | 11/20/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 107,597 | (243,650) | 38377K-LE-8 | GNR 2010-114 NC EXCH PAC-11 4.5% due 09/20/2040 | 1 | 25,382,460 | 26,076,683 |
| 12518*L57 | CDX.NA.HY31 SR. TRANCHE | 1 | 50,000,000 | 60,894,930 | 61,126,341 | 11/20/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,516,082 | 8,929,097 | 38376L-AH-2 | GNR 2010-91 PE PAC-1-11 4.5% due 07/20/2040 | 1 | 51,378,848 | 52,197,244 |
| | | | | | | | | | | | 3136AV-R6-8 | FNR 2017-24 Z Z SEQ 3% due 04/25/2047 | 1 | | |
| 12518*L73 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 25,162,935 | 27,868,145 | 11/20/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 90,485 | (243,650) | 38376P-4G-2 | GNR 2009-127 PB PAC-1-11 5% due 12/20/2039 | 1 | 25,072,450 | 28,111,795 |
| 12518*L81 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 24,976,791 | 24,281,655 | 11/20/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 80,707 | (243,650) | 3136A5-MB-9 | FNR 2012-35 DB PAC-11 3.5% due 04/25/2042 | 1 | 24,896,084 | 24,525,305 |
| 12518*L99 | CDX.NA.IG31 SR. TRANCHE | 1 | 50,000,000 | 51,073,332 | 49,636,346 | 11/21/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 122,365 | (487,299) | 3136A8-V9-8 | FNR 2012-113 EM PAC-11 3% due 10/25/2042 | 1 | 50,950,967 | 50,123,645 |
| | | | | | | | | | | | 3136AF-6F-6 | FNR 2013-90 AZ Z SEQ4% due 09/25/2043 | 1 | | |
| 12518*M23 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 24,608,878 | 26,298,505 | 11/21/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 61,182 | (243,650) | 3137B1-KL-5 | FHR 4194 ZE Z SEQ 4% due 04/15/2043 | 1 | 24,547,696 | 26,542,155 |
| 12518*M31 | CDX.NA.HY31 SR. TRANCHE | 1 | 50,000,000 | 55,997,617 | 55,732,558 | 11/21/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,438,048 | 8,929,097 | 3136AV-TV-1 | FNR 2017-12 TZ Z SEQ 3% due 03/25/2047 | 1 | 46,559,569 | 46,803,461 |
| | | | | | | | | | | | 3136A7-WY-4 | FNR 2012-87 VZ Z SEQ3% due 08/25/2042 | 1 | | |
| 12518*M49 | CDX.NA.IG31 SR. TRANCHE | 1 | 75,000,000 | 74,481,893 | 73,463,410 | 11/21/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (75,000,000 NOTIONAL, 1% FIXED RATE) | 137,687 | (730,949) | 3137AV-4E-4 | FHR 4121 AZ Z SEQ 3% due 10/15/2042 | 1 | 74,344,206 | 74,194,359 |
| | | | | | | | | | | | 38377R-NH-4 | GNR 2010-160 PT EXCH PAC-11 4% due 12/20/2040 | 1 | | |
| | | | | | | | | | | | 38377R-NH-4 | GNR 2010-160 PT EXCH PAC-11 4% due 12/20/2040 | 1 | | |
| 12518*M64 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 24,812,287 | 27,395,935 | 11/27/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 41,743 | (243,650) | 38376T-DV-1 | GNR 2010-2 PZ Z PAC-1 5% due 01/20/2040 | 1 | 24,770,544 | 27,639,585 |
| 12518*M72 | CDX.NA.IG31 SR. TRANCHE | 1 | 50,000,000 | 49,738,188 | 48,248,898 | 11/27/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 1% FIXED RATE) | 83,485 | (487,299) | 3136AK-6J-7 | FNR 2014-65 DZ Z SEQ 3.5% due 10/25/2044 | 1 | 49,654,703 | 48,736,197 |
| | | | | | | | | | | | 3137AR-MM-5 | FHR 4068 CE PAC-1-113% due 06/15/2042 | 1 | | |
| 12518*M56 | CDX.NA.HY31 SR. TRANCHE | 1 | 100,000,000 | 121,973,201 | 118,452,144 | 11/27/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (100,000,000 NOTIONAL, 5% FIXED RATE) | 18,974,598 | 17,858,194 | 38378E-NB-5 | GNR 2012-66 CY EXCH SEQ 3.5% due 05/20/2042 | 1 | 102,998,603 | 100,593,950 |
| | | | | | | | | | | | 38378E-NB-5 | GNR 2012-66 CY EXCH SEQ 3.5% due 05/20/2042 | 1 | | |

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE TEACHERS INSURANCE and ANNUITY ASSOCIATION of AMERICA

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--------------------------------------------|-------------------------------|---------------------------------------|-----------------|------------------------------|---------------|------------------|------------------|-----------------------------------------------------------------------------------------------------------------------------|------------------------------|-------------|-------------------------|----------------------------------------------------------------------------|---------------------------------------|------------------------------|---------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| | | | | | | | | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Effective Date | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| 12518*M80 | CDX.NA.IG31 SR. TRANCHE | 1 | 25,000,000 | 24,587,801 | 27,106,837 | 11/27/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.IG31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 1% FIXED RATE) | 12,298 | (243,650) | 38376V-32-8 .. | GNR 2010-26 PZ SC Z SEQ 5% due 01/20/2040 | 1 | 24,585,503 | 27,350,487 |
| 12518*M98 | CDX.NA.HY31 SR. TRANCHE | 1 | 75,000,000 | 88,405,503 | 89,357,095 | 11/28/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (75,000,000 NOTIONAL, 5% FIXED RATE) | 14,113,399 | 13,393,645 | 38377R-V6-9 .. | GNR 2010-165 PC PAC-1-11 4% due 12/20/2040 | 1 | 74,292,104 | 75,963,450 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 38377R-V6-9 .. | GNR 2010-165 PC PAC-1-11 4% due 12/20/2040 | 1 ..... | ..... | ..... |
| 12518*N22 | CDX.NA.HY31 SR. TRANCHE | 1 | 25,000,000 | 29,194,140 | 31,653,312 | 11/28/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (25,000,000 NOTIONAL, 5% FIXED RATE) | 4,704,466 | 4,464,548 | 38376X-S7-9 .. | GNR 2010-51 WZ Z PAC-1-11 5% due 04/20/2040 | 1 | 24,489,674 | 27,188,764 |
| 12518*N30 | CDX.NA.HY31 SR. TRANCHE | 1 | 50,000,000 | 60,645,263 | 62,272,690 | 11/29/2018 | 12/20/2023 | CREDIT DEFAULT SWAP ON CDX.NA.HY31 SR. TRANCHE, TERMINATION DATE: 12/20/2023, (50,000,000 NOTIONAL, 5% FIXED RATE) | 9,497,251 | 8,929,097 | 38376E-TZ-8 .. | GNR 2009-110 KA PAC-1-11 5% due 11/20/2039 | 1 | 51,148,012 | 53,343,593 |
| ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | 38374Y-WK-5 .. | GNR 2010-85 NE EXCH PAC-1-11 4.5% due 07/20/2040 | 1 ..... | ..... | ..... |
| 91283*AD5 | 10yr U.S. Treasury Note | 1 | 10,000,000 | 10,069,930 | 9,047,867 | 07/15/2016 | 07/15/2026 | INTEREST RATE SWAP ON 10yr U.S. Treasury Note, TERMINATION DATE: 07/15/2026, (10,000,000 NOTIONAL, 0.125% FIXED RATE) ..... | ..... | (341,372) | 912828-S5-0 .. | TSY INFL IX N/B United States Treasury In .125 0.125% due 07/15/2026 | 1 | 10,069,930 | 9,389,239 |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| 9999999999 - Totals | | | | 9,165,432,646 | 9,448,692,867 | XXX | XXX | XXX | 485,294,363 | 412,960,077 | XXX | XXX | XXX | 8,680,138,283 | 9,035,732,790 |

SCHEDULE DB - PART C - SECTION 2

Replication (Synthetic Asset) Transactions Open

| | First Quarter | | Second Quarter | | Third Quarter | | Fourth Quarter | | Year To Date | |
|-----------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------|--------------------------------|---------------------------------------------------------------------------------|
| | 1 Number of Positions | 2 Total Replication (Synthetic Asset) Transactions Statement Value | 3 Number of Positions | 4 Total Replication (Synthetic Asset) Transactions Statement Value | 5 Number of Positions | 6 Total Replication (Synthetic Asset) Transactions Statement Value | 7 Number of Positions | 8 Total Replication (Synthetic Asset) Transactions Statement Value | 9 Number of Positions | 10 Total Replication (Synthetic Asset) Transactions Statement Value |
| 1. Beginning Inventory | 95 | 6,484,450,797 | 120 | 7,317,854,299 | 117 | 7,357,636,583 | 113 | 7,332,199,629 | 95 | 6,484,450,797 |
| 2. Add: Opened or Acquired Transactions..... | 25 | 850,491,349 | | | | | 94 | 4,389,234,694 | 119 | 5,239,726,043 |
| 3. Add: Increases in Replication (Synthetic Asset) Transactions Statement Value..... | XXX | 725,921 | XXX | 66,754,775 | XXX | 1,055,059 | XXX | 1,097,125 | XXX | 69,632,880 |
| 4. Less: Closed or Disposed of Transactions..... | | | 3 | 13,424,878 | 4 | 17,600,801 | 19 | 2,550,795,119 | 26 | 2,581,820,798 |
| 5. Less: Positions Disposed of for Failing Effectiveness Criteria..... | | | | | | | | | | |
| 6. Less: Decreases in Replication (Synthetic Asset) Transactions Statement Value | XXX | 17,813,768 | XXX | 13,547,613 | XXX | 8,891,212 | XXX | 6,303,684 | XXX | 46,556,277 |
| 7. Ending Inventory | 120 | 7,317,854,299 | 117 | 7,357,636,583 | 113 | 7,332,199,629 | 188 | 9,165,432,645 | 188 | 9,165,432,645 |

SCHEDULE DB - VERIFICATION

Verification of Book/Adjusted Carrying Value, Fair Value and Potential Exposure of all Open Derivative Contracts

| | | |
|-----|------------------------------------------------------------------------------------------------|------------------------------------|
| | | Book/Adjusted Carrying Value Check |
| 1. | Part A, Section 1, Column 14..... | 803,408,059 |
| 2. | Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance | |
| 3. | Total (Line 1 plus Line 2) | 803,408,059 |
| 4. | Part D, Section 1, Column 5 | 967,845,753 |
| 5. | Part D, Section 1, Column 6 | (164,437,694) |
| 6. | Total (Line 3 minus Line 4 minus Line 5) | |
| | | Fair Value Check |
| 7. | Part A, Section 1, Column 16 | 763,161,138 |
| 8. | Part B, Section 1, Column 13 | |
| 9. | Total (Line 7 plus Line 8) | 763,161,138 |
| 10. | Part D, Section 1, Column 8 | 956,630,913 |
| 11. | Part D, Section 1, Column 9 | (193,469,775) |
| 12. | Total (Line 9 minus Line 10 minus Line 11) | |
| | | Potential Exposure Check |
| 13. | Part A, Section 1, Column 21 | 8,932,412,824 |
| 14. | Part B, Section 1, Column 20 | |
| 15. | Part D, Section 1, Column 11 | 8,932,412,824 |
| 16. | Total (Line 13 plus Line 14 minus Line 15) | |

SCHEDULE E - PART 2 - VERIFICATION BETWEEN YEARS

(Cash Equivalents)

| | 1 | 2 | 3 | 4 |
|-------------------------------------------------------------------------------------------|----------------|----------------|------------------------------|-----------|
| | Total | Bonds | Money Market Mutual funds | Other (a) |
| 1. Book/adjusted carrying value, December 31 of prior year | 316,991,099 | 316,991,099 | | |
| 2. Cost of cash equivalents acquired | 35,531,452,968 | 35,531,452,968 | | |
| 3. Accrual of discount | 7,207,478 | 7,207,478 | | |
| 4. Unrealized valuation increase (decrease) | | | | |
| 5. Total gain (loss) on disposals | (2,050) | (2,050) | | |
| 6. Deduct consideration received on disposals | 35,375,235,991 | 35,375,235,991 | | |
| 7. Deduct amortization of premium | | | | |
| 8. Total foreign exchange change in book/adjusted carrying value | | | | |
| 9. Deduct current year's other than temporary impairment recognized | | | | |
| 10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) | 480,413,504 | 480,413,504 | | |
| 11. Deduct total nonadmitted amounts | | | | |
| 12. Statement value at end of current period (Line 10 minus Line 11) | 480,413,504 | 480,413,504 | | |

(a) Indicate the category of such investments, for example, joint ventures, transportation equipment:

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