Teachers Insurance and Annuity Association of America

And Subsidiaries
Full Rating Report

Ratings

Long-Term Issuer Default Rating	AA+
Insurer Financial Strength	AAA
Surplus Notes	AA

TIAA-CREF Life Insurance Co.

Insurer Financial Strength	AAA

Nuveen Finance, LLC

Long-Term Issuer Default Rating	AA–
Senior Unsecured Notes	AA–

Rating Outlook

Stable

Statutory Financial Data

Teachers Insurance and Annuity Association of America

($ Mil.)	12/31/15	9/30/16
Net Income	1,214	1,236
Net Operating Gain	1,706	1,331
TAC	39,611	40,469
RBC Ratio (%)	556	542[a]

[a]Estimated. TAC – Total adjusted capital.
Source: SNL Financial.

Related Research

2017 Outlook: U.S. Life Insurance (Macroeconomic Headwinds Persist) (November 2016)

Fitch: Sector Outlook on U.S. Life Insurers Revised to Negative (September 2016)

U.S. Life Insurers' Investment Portfolios (Results of Fitch's Year-End 2015 Survey) (September 2016)

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Key Rating Drivers

Extremely Strong Risk-Adjusted Capitalization: Fitch Ratings considers Teachers Insurance and Annuity Association of America's (TIAA) statutory capitalization to be extremely strong and well within the range of peers rated 'AAA'. TIAA's total adjusted capital (TAC) as of Sept. 30, 2016 was $40.4 billion, a 2% increase from year-end 2015 driven by retained earnings but partially offset by realized and unrealized investment losses. RBC was extremely strong and estimated to be 542% as of Sept. 30, 2016, and TIAA's Prism capital model score was 'Extremely Strong'.

Relatively High Leverage from Acquisition: Fitch considers TIAA's statutory financial leverage to be on the high end of rating expectations at 15% as of Sept. 30, 2016, which is relatively flat from 2015 levels. Fitch's statutory financial leverage includes TIAA surplus notes and senior unsecured notes issued out of Nuveen Finance, LLC (Nuveen Finance) to fund the acquisition of Nuveen Investments, Inc. (Nuveen).

Expected Everbank Acquisition: In third-quarter 2016, TIAA announced its intention to acquire Everbank Financial Corp for $2.5 billion purchase price, which is expected to close in the first half of 2017. The scale of the transaction is relatively small and represents less than 1% of TIAA's general account assets and approximately 6% of total adjusted capital. Fitch believes the acquisition brings TIAA's banking business to scale and allows TIAA opportunities to cross sell existing products to both customers of TIAA and Everbank.

Significant Financial Flexibility: Fitch believes that TIAA's very stable long-duration liability profile (approximately 26% of its liabilities are subject to policyholder discretionary withdrawal) and considerable room to lower crediting rates provide the company with significant financial flexibility during periods of disruption in the financial markets.

Improved Investment Performance: Credit-related impairments were favorable and generally improved over the last five years as a decline in impairments from commercial mortgage backed securities (CMBS) were partially offset by higher investment losses in corporates. Fitch expects credit impairments to increase somewhat in 2017 but remain manageable.

Macroeconomic Headwinds: Ongoing low interest rates and geopolitical uncertainty pose risks to Fitch's outlook for life insurers and could have a material negative effect on TIAA's earnings and capital in a severe, albeit unexpected, scenario. Fitch considers TIAA to have above-average exposure to further declines in interest rates due to the company's concentration in spread-based products.

Rating Sensitivities

Downgrade Triggers: Key rating triggers that could result in a downgrade to TIAA include failure to achieve ongoing positive surplus growth; investment losses significantly higher than expected; a regulatory change that would have a negative impact on TIAA's core pension market; a change in TIAA's ownership structure; TIAA's reported RBC below 450%; or statutory financial leverage exceeding 16%. Finally, deterioration in Nuveen's stand-alone credit profile would cause Fitch to downgrade Nuveen Finance.

Corporate Governance and Management

All of the outstanding common stock of TIAA is held by the TIAA board of overseers, a Type-B New York not-for-profit corporation incorporated for the purpose of holding the stock of TIAA. The board of overseers elects the members of the TIAA board of trustees, which oversees the management of TIAA. College Retirement Equities Fund (CREF) and is registered with the SEC as an open-end diversified investment management company under the Investment Company Act of 1940.

TIAA's auditor is PricewaterhouseCoopers LLP, which issued a clean opinion of the company's 2015 statutory filings.

Related Criteria

Insurance Rating Methodology (September 2016)

Global Non-bank Financial Institutions Rating Criteria (July 2016)

Business Profile

Dominant Position in Higher Education Market

- Leading position, significant scale and business concentration in core pension market.
- Rebranding asset management segment to Nuveen and growing third-party assets.
- Acquisition of Everbank will bring bank to scale and allow for growth in retail business segment.

Leading Position, Significant Scale and Business Concentration in Core Pension Market

TIAA's primary business is providing individually owned retirement annuities to fund defined contribution pension plans at participating institutions. Its core market is the 403(b) market, particularly institutions of higher education, where it is the dominant player and has significant scale. TIAA is also a leading record keeper of defined contribution plans. Approximately 99% of TIAA's general account policy and contract reserves are attributable to pension and other retirement annuities. As of Sept. 30, 2016, total consolidated assets (including assets under management and assets under administration) within the TIAA organization were approximately $985 billion.

TIAA's core pension segment still accounts for a vast majority of the overall operating earnings. This concentration exposes the company to potential regulatory, tax or other changes that could negatively affect this market in the future. Fitch believes the company is closely monitoring and managing this risk.

Rebranding Asset Management Segment to Nuveen and Growing Third-Party Assets

TIAA acquired Nuveen in October 2014 that allowed TIAA to strengthen its third-party distribution capabilities, broaden its product capabilities, including tax-exempt municipals, specialty funds and closed-end funds, and enhance the company's market-leading position in the retirement market. The purchase of Nuveen, along with the formation of TIAA Henderson Real Estate (TH Real Estate), significantly increased third-party assets under management (AUM) for TIAA, which as of year-end 2015 comprised approximately 33% of total AUM.

Since the acquisition, TIAA successfully and methodically integrated Nuveen with the existing TIAA asset management business. Shortly after close of the Nuveen acquisition, TIAA reorganized its corporate structure to consolidate all of its existing asset management entities into an asset management holding company, Nuveen, LLC (formerly TIAA Asset Management, LLC). Under Nuveen, LLC, TIAA-CREF Asset Management (TCAM) is an intermediate holding company containing certain TIAA asset management entities other than Nuveen and is a sister company to Nuveen Finance (formerly TIAA-CREF Asset Management Finance Company, LLC), issuer of senior unsecured notes and holding company to Nuveen.

In 2016, TIAA integrated its senior management reporting, distribution capabilities, and operational capabilities of Nuveen and the other TIAA asset management subsidiaries, which were previously running parallel, into a singular structure. TIAA's asset management capabilities also began to be marketed under one brand, which the company deemed to be Nuveen in January 2017, with a goal to increase third party managed AUM over the next few years.

Fitch views these changes to be consistent with a Strategically Important view of Nuveen to TIAA as the company's asset management segment is viewed as important, but not core, to the company to diversify earnings. The steps taken by TIAA to integrate its existing asset management operations with Nuveen including branding, strategy, distribution and senior management reporting lines all increase the importance of Nuveen to the overall asset management strategy of TIAA.

Acquisition of Everbank Will Bring Bank to Scale and Allow for Growth in Retail Business Segment

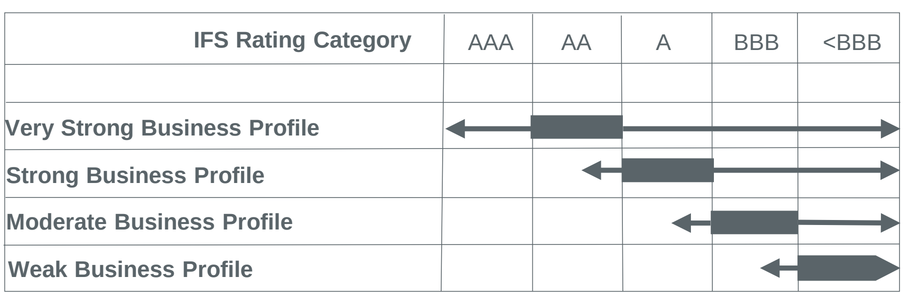
In third quarter of 2016, TIAA announced it will acquire Everbank for $2.5 billion and is expected to close the transaction in the first half of 2017. Fitch believes a successful integration of Everbank could provide positive diversification of TIAA's revenue and earnings, allow TIAA to offer a larger suite of retail products, and also provide TIAA cross-sell opportunities to both TIAA and Everbank customers.

The scale of the transaction is relatively small and execution risk appears manageable in relationship to TIAA's credit and business profile. The $2.5 billion purchase price of Everbank represents less than 1% of general account assets and approximately 6% of TAC as of Sept. 30, 2016.

Fitch believes the acquisition will bring TIAA’s existing banking business to scale and allows TIAA to grow its retail business segment through cross-sell opportunities. Everbank bolsters TIAA's retail services offering by adding direct product capabilities such as residential mortgages to retail customers. Fitch notes that Everbank’s residential mortgage origination capabilities also allow TIAA direct access to add residential mortgages to its general account.

Everbank is a midtier bank with approximately $27.8 billion in assets as of year-end 2016 with primarily an online banking presence, full-service branches in Florida, and a nationwide network of retail lending branch offices. Fitch expects that Everbank will merge with TIAA's existing federal savings bank and will be held by a bank holding company as a direct subsidiary of TIAA.

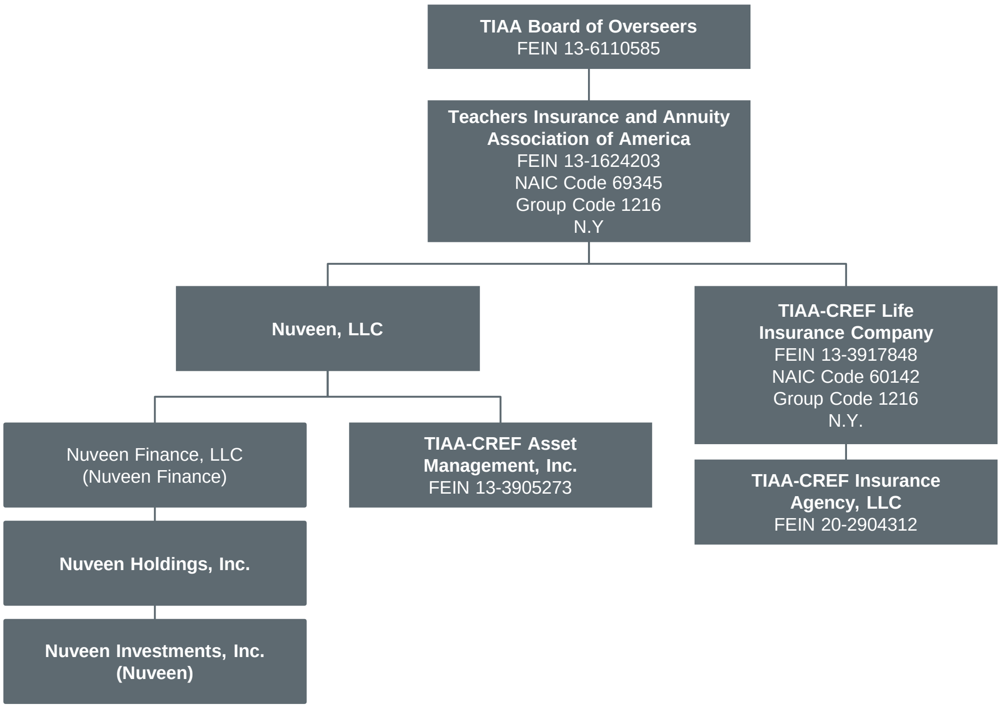
Ratings Range Based on Business Profile



Ownership Is Positive to Rating

TIAA’s ownership structure is positive from a rating perspective. Fitch believes that TIAA’s nonprofit charter generally allowed management to hold more conservative levels of capital and pursue a more conservative operating strategy. During the 2008–2009 financial crisis, TIAA and other strongly capitalized mutual companies clearly benefited from having stronger capital buffers than many publicly owned peers that were more focused on growth and return targets.

Simplified Organizational Structure



Source: SNL Financial.

Sovereign- and Country-Related Constraints

Fitch rates the sovereign obligations of the United States of America at 'AAA' with a Stable Outlook, and the Country Ceiling is similarly 'AAA'.

The local currency sovereign rating expresses the maximum limit for local currency ratings of most, but not all, issuers in a given country. At current levels, the ratings of U.S. insurance organizations and other corporate issuers are not likely to be constrained by sovereign or macroeconomic risks. Therefore, the ratings of U.S. insurance organizations and other corporate issuers are not constrained by sovereign or macroeconomic risks.

Industry Profile and Operating Environment

Strong Balance Sheet Characteristics Mitigate Low Rate Impact

A majority of U.S. life insurers in Fitch's rated universe have Insurer Financial Strength (IFS) ratings in the 'AA' and 'A' categories and Stable Outlooks. This reflects very strong balance sheet fundamentals and generally stable operating performance. Balance sheets reflect very strong capital and liquidity, reasonable financial leverage and high-quality investment portfolios. The industry's profitability benefited in recent years from improved asset-based fee income associated with higher asset levels, partially offset by lower interest margins and one-time reserve charges due to continued low interest rates.

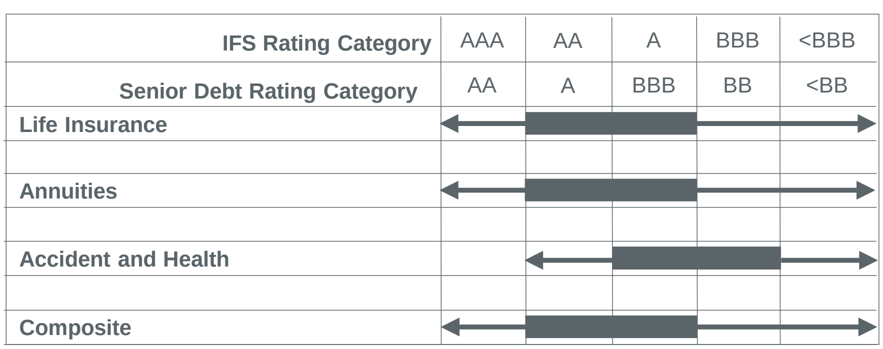
Our negative sector outlook on the U.S. life insurance industry is based on concern over macroeconomic challenges and uncertainties, which are expected to negatively affect underlying fundamental trends in the industry.

Key risk factors include persistent low interest rates, asset risk tied to investment leverage, exposure to variable annuity (VA) living benefit guarantees and uncertainty tied to macroeconomic conditions and regulatory environment. The low interest rate scenario is a negative across all life insurers due to industry exposure to interest-sensitive products and investment concentration in fixed-income securities. While new business repricing, product redesign and enhanced hedging strategies reduced the risk associated with the industry's large VA exposure, industry earnings and capital remain exposed to financial market volatility and uncertain policyholder behavior.

Cyclical improvement in the U.S. economy, strong recovery in the equity markets and a benign credit environment combined to mitigate the impact of prolonged low interest rates in recent years. Under Fitch's base case scenario, the U.S. macroeconomic environment is expected to modestly improve in 2017, which should allow life insurers to maintain balance sheet fundamentals and financial performance consistent with 2016. Credit-related investment losses are expected to increase somewhat in 2017, but remain below long-term averages.

Uncertainty over aspects of U.S. policy in light of the new administration is expected to persist for some period. President Trump appears inclined to ease regulation, including the Dodd-Frank Act, which could be positive for the industry.

Ratings Range Based on Industry Profile/Operating Environment



Peer Analysis

TIAA Compares Well with Other Peers Rated 'AAA'

TIAA is unique among its mutual peers in that its business is predominantly pension annuities rather than participating life insurance. It is within range of peers with respect to capitalization and has significant financial flexibility through its ability to lower its crediting rate to increase earnings and capital if required. TIAA's strength and financial flexibility comes from the company's very stable liability profile and very strong cash flows. Fitch views the company's investment risk as measured by the risky assets-to-TAC ratio as within range of peers. If we adjust the risky asset ratio to exclude the equity ownership interests of Nuveen, LLC, TIAA's risky asset ratio is approximately 95%, which is slightly favorable relative to peers and appropriate given its conservative liability profile.

Peer Comparison

($ Mil., As of Dec. 31, 2015)	IFS Rating	Total Admitted Assets	TAC	Reported RBC (%)	Net Income	FLR (%)	Risky Assets Ratio/TAC (%)	ROA (%)
TIAA	AAA	280,506	39,611	556	1,214	15	107	0.6
Northwestern Mutual	AAA	238,630	26,028	648	804	7	113	0.3
New York Life	AAA	301,842	22,750	549	784	9	106	0.5
MassMutual	AA+	222,235	17,341	500	550	13	99	0.2
Guardian Life	AA+	67,486	7,358	568	398	12	56	0.9

IFS – Insurer Financial Strength. FLR – Financial leverage ratio. Note: FLR is financial leverage ratio or surplus notes in relation to total adjusted capital (TAC).
Source: Statutory data, SNL Financial, Fitch Ratings.

Capitalization and Leverage

	2012	2013	2014	2015	9/30/16	Fitch's Expectation
Total Adjusted Capital (TAC, $ Mil.)	33,671	36,397	39,912	39,611	40,469	Fitch expects capitalization to remain extremely strong. Leverage is expected to remain high in the intermediate term due to acquisition-related debt, and it may decline incrementally due to growth in statutory capital.
RBC (%)	589	606	567	556	542[a]	
Operating Leverage (x)	5.6	5.4	5.1	5.2	5.3	
Asset Leverage (x)	7.2	7.1	6.8	7.1	7.2	
Fitch statutory FLR (%)	6.0	5.5	15.0	15.1	14.8	

[a]Estimated. Note: Statutory accounting principles. The financial leverage ratio (FLR) reflects surplus notes and senior unsecured notes of Nuveen in relation to TAC. Operating leverage is general account liabilities in relation to TAC.
Source: SNL Financial, Fitch Ratings.

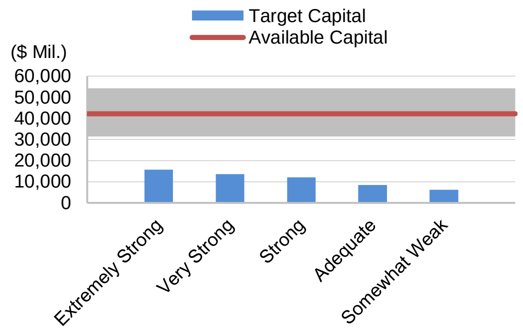
The total financing and commitments (TFC) ratio is a nonrisk-based leverage measure that expands on the traditional measures of financial leverage to include other forms of debt, including match-funded and other operational debt, as well as debt supporting long-term capital needs and liquidity and working capital needs. During periods of market disruptions, and lost access to capital market funding, such operational and off-balance sheet commitments can become a direct source of vulnerability to an organization.

Extremely Strong Balance Sheet

- Extremely strong risk-adjusted capitalization.
- Relatively higher financial leverage due to Nuveen acquisition.
- Minimal exposure to equity market volatility.

Extremely Strong Risk-Adjusted Capitalization

2015 Prism Score — TIAA



Note: Red line is available capital base; shaded area represents the high and low of available capital due primarily to the asset valuation reserve and unrealized bond gains/(losses).
Source: Fitch Ratings, S&P Global.

Fitch considers TIAA's statutory capital position to be extremely strong and well in excess of 'AAA' expectations for RBC and operating leverage. TIAA also has a Prism capital model score of 'Extremely Strong'. The company reported an increase of 2% in TAC for the first three quarters of 2016 primarily due to retained earnings, while TAC remained relatively flat in 2015 as unrealized losses from Schedule BA assets primarily offset gains from retained earnings. TIAA's reported RBC ratio is somewhat understated as the New York regulator-based capital and surplus calculation reflects more conservative reserving practices relative to a NAIC basis. Therefore, Fitch adjusts the RBC ratio on an equivalent NAIC basis, which would be 614% for year-end 2015.

Relatively Higher Financial Leverage Due to Nuveen Acquisition

Fitch statutory financial leverage, which includes senior unsecured debt plus surplus notes in relation to TAC, was 15% as of Sept. 30, 2016. Fitch believes the quality of TIAA's statutory capital is very high based on the company's limited use of reinsurance and conservative reserving practices. As noted earlier, TIAA's reserves are currently higher than NAIC reserving requirements. If we adjust reserves and capital to an NAIC basis, adjusted statutory financial leverage is 13%.

Although much of the financing for TIAA's acquisition of Everbank is expected to be sourced from TIAA's general account, TIAA could issue surplus notes as part of the financing. As a result, TIAA's adjusted statutory financial leverage could increase to slightly above 15% on a pro forma basis. In the event that TIAA does issue additional surplus notes, Fitch expects adjusted statutory financial leverage to be reduced below 15% within 12–18 months due to growth in statutory capital from retained earnings.

TIAA's total financing and commitments ratio, which also includes TIAA's securities lending program, remains low at 0.2x as of Sept. 30, 2016 and well within rating expectations.

Minimal Exposure to Equity Market Volatility

TIAA, in conjunction with College Retirement Equities Fund (CREF), wrote the first VA in 1952. However, unlike much of the industry, the company stuck to the original premise of a VA, which passed the equity market risk to the contract holder. TIAA does not guarantee the performance of CREF funds, and its VA contracts do not contain any living benefit guarantees. Therefore, Fitch views TIAA as having minimal exposure to the equity markets through VA guarantees, which have created significant volatility in the earnings and capital of many VA writers.

Debt Service Capabilities and Financial Flexibility

	2012	2013	2014	2015	9/30/16	Fitch's Expectation
Adjusted Interest Expense ($ Mil.)	137	137	177	304	228	Interest expense will incrementally increase from the Everbank acquisition.
Statutory Earnings Interest Coverage (x)	19	17	8	6	7	Fitch expects interest coverage to remain between 5.5x–7x in the medium term.

Note: For TIAA, statutory earnings interest coverage is pretax gain on operations plus interest expense divided by interest expense. Interim coverage is annualized.
Source: SNL Financial, Fitch Ratings.

Very Strong Debt-Servicing Capabilities and Financial Flexibility

- Strong statutory earnings interest coverage.
- Demonstrated access to capital markets.
- Significant financial flexibility through crediting rate.

Strong Statutory Earnings Interest Coverage

Statutory earnings-based interest coverage provides strong coverage of total interest expense, which is comprised of debt expense from the senior unsecured notes of Nuveen Finance and TIAA surplus notes. TIAA's statutory earnings interest coverage is comparable with other highly rated mutual peers. Fitch expects statutory interest coverage to remain in the 5.5x–7.0x range in the medium term given an incremental increase in interest expense from the Everbank acquisition and improved operating earnings over the longer term. Fitch's view of TIAA's debt-servicing capabilities also considers the company's extremely strong capital position and liquidity of the entire general account.

Demonstrated Access to Capital Markets

TIAA demonstrated substantial access to capital markets, having raised approximately $4.0 billion in proceeds through new surplus notes from TIAA and senior unsecured debt in Nuveen Finance in fourth-quarter 2014. Based on TIAA's current financial leverage, Fitch believes TIAA has the ability to issue a moderate amount of additional debt without exceeding rating guidelines.

Significant Financial Flexibility Through Crediting Rate

Fitch views TIAA as having significant financial flexibility through its ability to lower its crediting rate to increase earnings and capital when needed. In 2016, TIAA increased its crediting rates, as investment performance continued to support margins. Given the 3% minimum guaranteed rate on much of the in-force block, this flexibility will be constrained the longer interest rates stay low. Fitch does not view this as a near-term issue, although it is a longer term concern. The group's strong operating cash flows and stable liability structure further enhance its flexibility.

Financial Performance and Earnings

($ Mil.)	2012	2013	2014	2015	9/30/16	Fitch's Expectation
Pretax Net Gain from Operations	2,468	2,118	1,310	1,627	1,359	Interest margins in the pension segment continue to drive TIAA earnings in the intermediate term. Fitch expects earnings contributions from asset management to grow over time.
Net Income	2,060	1,722	967	1,214	1,236	
Pretax ROA (%)	1.1	0.9	0.5	0.6	0.6	
After-Tax ROC (%)	7.7	6.1	3.5	4.3	4.4	

ROC – Return on capital. Note: Statutory accounting principles. Pretax gain on operations is post-dividend. ROA is a pretax operating gain in relation to total average assets.
Source: SNL Financial, Fitch Ratings.

Good Operating Profitability

- Operating profitability remains within expectations.
- Earnings from pensions a key driver of profitability.
- Exposure to low rates is manageable in near term.

Operating Profitability Remains Within Expectations

Fitch considers TIAA's earnings to be moderate on an absolute basis, but favorable on a risk-adjusted basis. Pretax statutory operating earnings improved approximately 40% as of the first three quarters of 2016 over the same period in 2015 due to higher premium income and strong investment performance, which was partially offset by an increase in crediting rates. TIAA's pretax statutory operating earnings improved approximately 24% in 2015 due to a decline in crediting rates, which was partially offset by a lower earned rate on the investment portfolio.

Earnings from Pensions a Key Driver of Profitability

TIAA's ability to retain and grow its core pension liabilities is a key driver of profitability since interest margins in the pension segment account for over 70% of operating earnings. That concentration is expected to continue over the medium term, although earnings from outside the core pension segment are expected to grow over time with execution of strategies in asset management and banking. Client net flows in the core pension segment for the first three quarter of 2016 were lower than in 2015, but were favorable to expectations as cash withdrawals and transfers to competitors were lower than expected. Overall net flows were up for the first three quarter of 2016 over the same period in 2015 due to higher than expected net client inflows at Nuveen.

Exposure to Low Rates Is Manageable in Near Term

TIAA's investment yield increased to 5.0% as of Sept. 30, 2016 from 4.8% as of Dec. 31, 2015 despite low interest rates due to strong performance in private equity. TIAA benefits from earnings flexibility in its ability to lower crediting rates to support earnings and capital should the need arise. However, TIAA increased its crediting rates to its pension annuities over 2016 as strong investment performance was able to support margins.

Investment and Asset Risk

	2012	2013	2014	2015	9/30/16	Fitch's Expectation
Cash and Invested Assets ($ Mil.)	216,557	226,722	235,124	239,793	248,447	Fitch expects credit impairments to increase somewhat in 2017, but remain manageable and within long-term expectations.
BIG Bonds/TAC (%)	39	34	31	35	42	
Risky Assets Ratio (%)	91	87	97	107	N.A.	
Investment Yield (%)	5.3	5.2	5.0	4.8	5.0	

BIG – Below investment grade. N.A. – Not available. Note: Statutory accounting principles. Risky assets ratio is the sum of BIG bonds + unaffiliated common stock + troubled real estate + Schedule BA divided by total adjusted capital (TAC).
Source: SNL Financial, Fitch Ratings.

Good Investment Performance Results

- Improved credit-related investment losses.
- Risky asset exposure in line with peers.
- Strong private equity gains.
- Shift in commercial real estate exposure from CMBS to commercial mortgage loans.

Improved Credit-Related Investment Losses

TIAA's total impairments as of Sept. 30, 2016 were lower relative to the same period in 2015 primarily due to lower operating losses from affiliate subsidiaries. In addition, credit-related investment losses were favorable and generally improved over the last five years as a decline in impairments from CMBS were partially offset by higher investment losses in corporates, particularly in the energy sector. Fitch expects credit impairments to increase somewhat in 2017, but remain manageable and consistent with long-term expectations.

Risky Asset Exposure in Line With Peers

TIAA's risky asset ratio (measured by below investment-grade bonds, common stocks, troubled real estate and Schedule BA invested assets over TAC) for 2015 was 107%. The increase in the risky assets ratio in 2015 was primarily a result of the higher below investment-grade bonds as well as an increase in lower quality commercial mortgages in the ratio (defined as NAIC-rated CM3 and below). However, if we adjust the risky asset ratio to exclude the equity ownership interests of Nuveen, LLC, TIAA's risky asset ratio is approximately 95%. TIAA's adjusted risky asset ratio is slightly favorable to that of other highly rated mutual peers.

Strong Private Equity Gains

Investment income related to private equity and limited partnerships was a significant boost to TIAA's net income over the last several years, providing an additional source for strong crediting rates for policyholders. Net investment yields on the portfolio continued to perform relatively well as of third-quarter 2016, remaining at approximately 5% as strong private equity performance bolstered investment income despite continued low interest rates. Alternative invested assets (Schedule BA) accounted for approximately 9% of invested assets at Sept. 30, 2016 (excludes equity ownership of Nuveen, LLC).

Shift in CRE Exposure from CMBS to Commercial Mortgage Loans

Total commercial real estate exposure, including whole loans, CMBS and CRE collateralized debt obligations (CDOs), as a percentage of invested assets steadily increased over the last five years, and was primarily driven by an increase in commercial mortgage loan exposure. The increase in commercial mortgage loan exposure as of percentage of invested assets over the last two years is consistent with that other life insurers as companies seek to trade liquidity for spread to combat low interest rates.

TIAA Commercial Real Estate Exposure

($ Bil.)	2012	2013	2014	2015	9/30/16
CRE CDO	0.5	0.2	0.2	0.1	0.1
Commercial Mortgage Loans	13.0	14.2	15.3	18.2	18.7
CMBS	9.1	10.6	10.6	10.7	10.5
Total CRE-Related Investments	22.5	25.0	26.1	29.0	29.3
% of Total Invested Assets	10	11	11	12	12

CDO – Collateralized debt obligation. CMBS – Commercial mortgage-backed securities.
Source: TIAA.

Asset/Liability and Liquidity Management

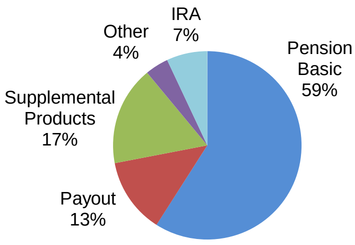
(%)	2012	2013	2014	2015	9/30/16	Fitch's Expectation
Public Bonds/Total Bonds	77.7	76.9	75.8	74.7	N.A.	Fitch expects TIAA to maintain below-average exposure to disintermediation risk and strong net operating cash flows over the medium term.
Liquidity Ratio	248.3	240.8	227.4	214.6	N.A.	
Operating Cash Flow Coverage (x)	1.5	1.4	1.3	1.3	1.5	
Total Adjusted Liabilities and Deposits ($ Mil.)	209,534	222,679	233,115	241,827	253,237	

N.A. – Not Available. Note: Statutory accounting principles.
Source: SNL Financial, Fitch Ratings.

Strong Liquidity Profile Mitigates Asset/Liability Management (ALM) Risk

- Stable, long-duration liabilities with limited disintermediation risk.
- Strong operating cash flows.
- Liability profile allows for less liquid investments.

Reserves by Product
(As of Dec. 31, 2015)

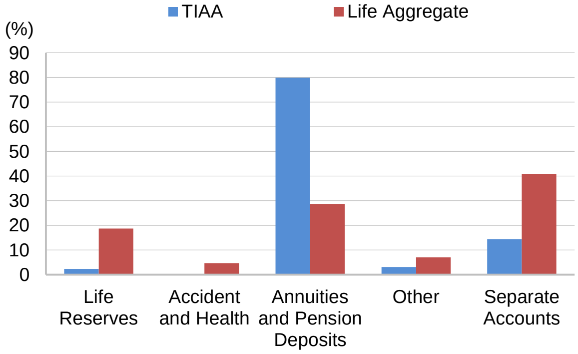


Source: TIAA.

Stable, Long-Duration Liabilities with Limited Disintermediation Risk

Fitch views TIAA as having a very strong liquidity profile with very stable, long-duration liabilities. Approximately 74% of TIAA's general account policy and contract reserves were not subject to discretionary withdrawal at the option of the policyholder as of year-end 2015. Most of the remaining 26% of cashable account values are held by individual TIAA policyholders, which would reduce the likelihood that substantial amounts are withdrawn all at once as policyholders would have to independently do so at the same time. Additionally, tax implications for the policyholders act as a disincentive for withdrawals as most of the premiums are remitted on a before-tax basis. Therefore, withdrawals of the cashable values would result in the taxation of the entire accumulation amount. As a result, TIAA experienced relatively stable and modest surrender activity.

Adjusted Liabilites and Separate Accounts
(Year-End 2015)



Source: Fitch Ratings, TIAA.

TIAA generally does not offer lump sum payouts on its core pension annuities. TIAA's core pension products are designed to convert to payout annuities, which pay out over a lifetime when the participant retires. A transferability feature was introduced in 1991 to provide more flexibility to the contract holder, but even that requires payouts over a 10-year period to protect TIAA from large-scale withdrawals.

Strong Operating Cash Flows

Given TIAA's core pension business, most of the company's premium cash flows come from defined contribution retirement systems where the contributions are predominantly a fixed percentage of participant's salaries and are remitted on a monthly or bimonthly basis. Therefore, TIAA benefits from a steady predictable cash flow. Its operating cash flow is strong, with approximately $17 billion annually of net premium income and about $11 billion of net investment income as of 2016. TIAA also maintains significant levels of cash and liquid assets, with a large, publicly traded, investment-grade bond portfolio.

Liability Profile Allows for Less Liquid Investments

Fitch views TIAA's investments in less liquid assets, such as structured finance, private equity and commercial mortgage loans, as appropriate given its long-duration liability structure and low level of disintermediation risk. TIAA also has one of the highest liquidity ratios in the Fitch universe based on liquid assets in relation to demand liabilities.

Key Non-Insurance Operations

	2013	2014	2015	9/30/16	Fitch's Expectation
Total AUM and Administration[a] ($ Bil.)	599	897	913	985	Fitch expects total AUM and administration will continue to grow as total client net inflows stay strong.
Total AUM ($ Bil.)	564	851	854	915	
Third-Party AUM as a % of Total AUM (%)	3	34	33	33	

[a]Includes TIAA, separate account and third-party assets. AUM – Assets under management.
Source: TIAA.

Growth in Assets Under Management

- Pension business remains the primary driver of earnings; asset management-based fee income higher going forward.
- Increasing third party AUM is part of asset growth strategy.

Pension Business Remains Primary Driver of Earnings; Asset Management-Based Fee Income Higher Going Forward

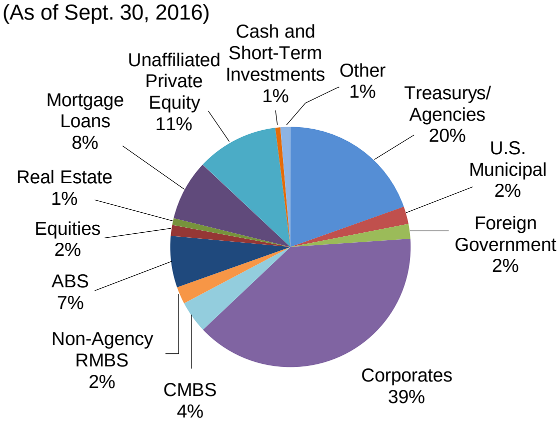
TIAA's core pension business still continues to be the primary driver of earnings as a reliable long-term source of earnings stability for the company. Nuveen diversifies earnings and increases fee income for TIAA, driven by revenues earned as a percentage of AUM, but also increases potential volatility of the asset management earnings stream as the fee income may fluctuate depending on market performance and the asset manager's ability to attract and retain AUM. TIAA's AUM is diversified by product type, which includes real estate, mutual fund and retail accounts, structured/closed-end fund products, and institutional, and it is also diversified by strategy, including credit-based strategies, equity-based strategies and alternatives.

Increasing Third-Party AUM Is Part of Asset Growth Strategy

Nuveen is a well-established brand name in the asset management space with more than 115 years of history. Third-party AUM, which significantly increased from the acquisition of Nuveen and the formation of the TH Real Estate joint venture in 2014, currently comprise roughly one-third of total AUM for all of TIAA's asset management entities. The Nuveen acquisition strengthened TIAA's distributional capabilities, as Nuveen distributed its products through retail and institutional channels including wirehouses, independent broker/dealers and institutional relationships, and complemented TIAA's distribution capabilities. The company is targeting to increase third-party AUM to about 45% by 2020.

Appendix A

Investment Portfolio
(As of Sept. 30, 2016)



ABS – Asset-backed securities.
CMBS – Commercial mortgage-backed securities.
RMBS – Residential mortgage-backed securities.
Source: TIAA.

Appendix B: Other Rating Considerations

Below is a summary of additional rating considerations of a "technical" nature that are also part of Fitch's rating criteria.

Group Rating Approach

TIAA is considered the lead operating entity of the group. TIAA's wholly owned subsidiary, TIAA-CREF Life Insurance Co., is viewed as Core and has a capital support agreement from TIAA.

Nuveen Finance is a subsidiary holding company of TIAA created to hold its investment in Nuveen Investments, Inc. Nuveen Finance is rated per the *Global Non-Bank Financial Institutions Rating Criteria* with TIAA as the parent entity.

Fitch views Nuveen as a Strategically Important subsidiary of TIAA. A subsidiary viewed as Strategically Important will typically have ratings one notch and, in some cases, two lower than the parent. In the case of Nuveen Finance, a two-notch differential was used as the additional notch differentiates the ratings of the senior unsecured notes of Nuveen Finance from that of the surplus notes of TIAA, which would have a higher priority.

Fitch's view of Nuveen's strategic importance considers TIAA's full ownership and potential synergies providing products and services in markets that are strategically important to TIAA, including the mutual fund, asset management and retirement services markets.

Notching

For notching purposes for the operating company surplus notes, the regulatory environment of U.S. is assessed by Fitch as being Effective and classified as following a Ring-Fencing approach.

Notching Summary

IFS Ratings

A baseline recovery assumption of Good applies to the IFS rating, and standard notching was used from the IFS "anchor" rating to the operating company IDR.

Hybrids — Operating Company

For the surplus notes issued by TIAA, a baseline recovery assumption of Below Average and a nonperformance risk assessment of Minimal were used. Notching of one notch was applied relative to the operating company IDR, which was based on Below Average for recovery and Minimal for nonperformance risk.

IDR of Nuveen Finance, LLC

The IDR ratings on Nuveen Finance reflect two notches from TIAA's IDR based on Fitch's view that Nuveen is a "strategically important" subsidiary of TIAA per the *Global Non-Bank Financial Institutions Rating Criteria*, as stated above.

Senior Unsecured Notes of Nuveen Finance, LLC

As per the *Global Non-Bank Financial Institutions Rating Criteria*, the rating of the senior unsecured notes of Nuveen Finance are in line with the IDR of Nuveen Finance to reflect the view that a default on the senior unsecured obligations, the only class of debt at Nuveen Finance, would be treated as a default of the entity, with average recovery prospects.

IFS – Insurer Financial Strength. IDR – Issuer Default Rating.

Hybrids — Equity/Debt Treatment

Hybrids Treatment

Hybrid	Amount ($ Mil.)	CAR Fitch (%)	CAR Regulatory Override (%)	FLR Debt (%)
6.850% Surplus Notes due 2039	2,000	N.A.	100	100
4.900% Surplus Notes due 2044	1,650	N.A.	100	100
4.375% Surplus Notes due 2054	350	N.A.	100	100

CAR – Capitalization ratio. FLR – Financial leverage ratio. N.A. – Not applicable. Note: For CAR, % shows portion of hybrid value included as available capital, both before (Fitch %) and the regulatory override. For FLR, % tells portion of hybrid value included as debt in numerator of leverage ratio.
Source: Fitch Ratings.

Short-Term Ratings

Not applicable.

Exceptions to Criteria/Ratings Limitations

None.

The ratings above were solicited by, or on behalf of, the issuer, and therefore, Fitch has been compensated for the provision of the ratings.