

Pension Funded Status Tracker

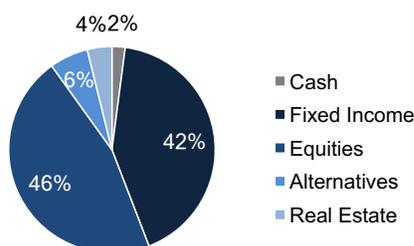
May 2019

ASSET MANAGEMENT | REPORT

Over May 2019, the average corporate defined benefit pension plan's funded status fell 4% to 88% funded.

- » The asset portfolio saw mixed performance among the various asset classes, but overall ended up in negative territory as compared with last month:
 - Equities across the globe fell sharply and alternatives also saw declines.
 - With the exception of high yield, fixed income assets increased in value as yields fell markedly, while corporate spreads widened.
- » Liabilities witnessed a sizable increase, primarily as a function of the decrease in rates:
 - The large decrease in rates was offset by some high quality spread widening, resulting in a less pronounced overall discount rate impact.
 - As a result, the effective discount rate decreased by 23 basis points in May.

Asset Allocation



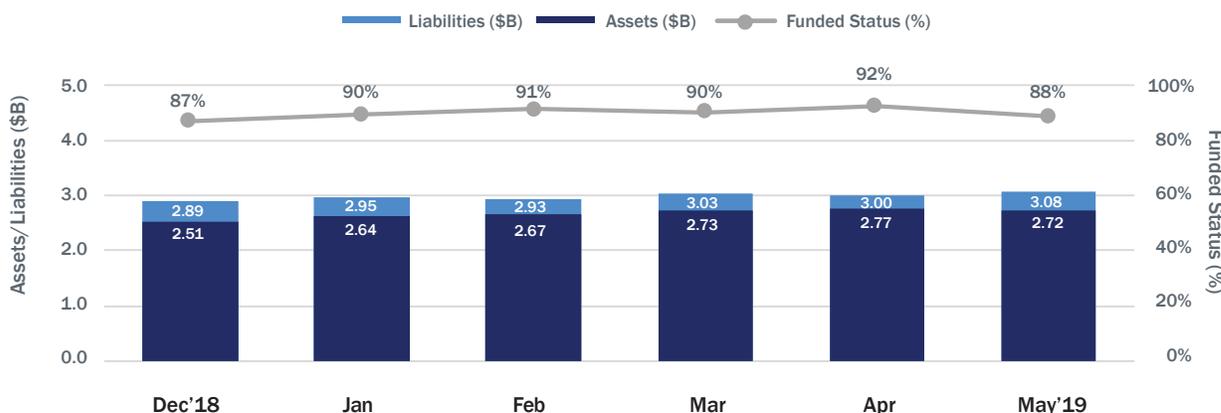
Prepared by Conning, Inc. Source: ©2019 Bloomberg, L.P. As of May 31, 2019

Key Metrics

Pension Plan	Assets	Liabilities†	Funded Status†
Valuation (\$B)	2.72	3.08	88%
Duration (Yr)	4.8	11.2	Interest Rate Hedge Ratio
Dollar Duration (\$mm)	1.3	3.5	
Yield* / Discount Rate	3.8%	3.4%	37%

Prepared by Conning, Inc. Source: ©2019 Bloomberg L.P. May 31, 2019. *Yield quoted is duration-weighted yield † Funded Status is hypothetical and calculated according to the Data and Methodology section outlined on Page 3. Refer to the Hypothetical Model Disclosures (page 3) for more important information.

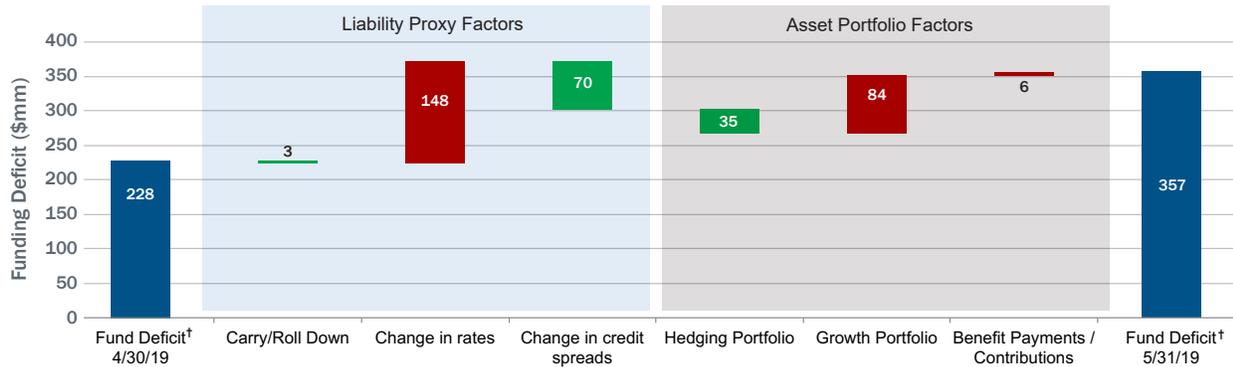
Pension Plan Tracker (May 31, 2019)†



Funded Status (%)	87%	90%	91%	90%	92%	88%
Assets (\$B)	2.51	2.64	2.67	2.73	2.77	2.72
Liabilities (\$B)	2.89	2.95	2.93	3.03	3.00	3.08
Discount Rate (U.S. GAAP)	3.8%	3.8%	3.8%	3.5%	3.6%	3.4%

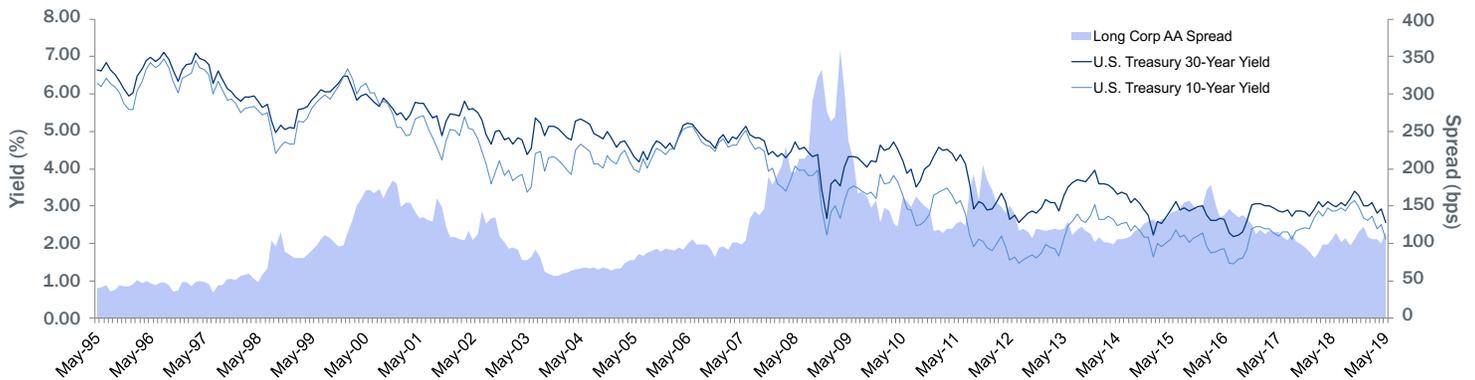
† Pension Plan Tracker results presented do not reflect actual performance. The results are hypothetical, and are generated according to the Data and Methodology section outlined on Page 3. Refer to the Hypothetical Model Disclosures (page 3) for more important information. Prepared by Conning, Inc. for illustrative purposes only. Source: ©2018-2019 Bloomberg, L.P.

Funded Status Attribution (April 30, 2019 – May 31, 2019)



† Funded Status Attribution presented does not reflect actual performance. The results are hypothetical, and are generated according to the Data and Methodology section outlined on Page 3. Refer to the Hypothetical Model Disclosures (page 3) for more important information. Chart shows the liability proxy and asset portfolio factors that contributed to the change in funded status over the month. Prepared by Conning, Inc., for illustrative purposes only. Source: ©2019 Bloomberg, L.P.

Yields and Corporate Spreads



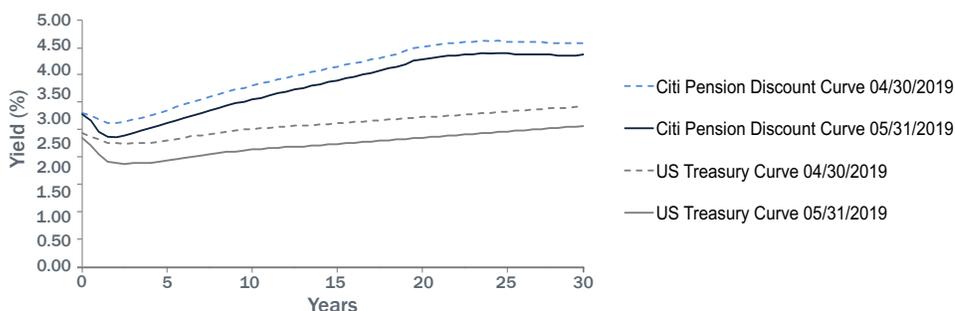
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Market Performance (May 31, 2019)

	MTD	QTD	YTD	
Equities	S&P 500	-6.4%	-2.6%	10.7%
	Russell 2000	-7.8%	-4.6%	9.2%
	MSCI World ACWI	-5.9%	-2.6%	9.4%
	EAFE	-4.7%	-1.9%	8.1%
	MSCI Emerging Markets	-7.2%	-5.3%	4.2%
Alternatives	Private Equity	-3.7%	2.2%	19.1%
	Hedge Funds	-1.5%	-0.2%	5.3%
	Real Estate	0.0%	0.0%	17.0%
Fixed Income	High Yield	-1.2%	0.2%	7.5%
	US Aggregate	1.8%	1.8%	4.8%
	US Long Gov/Credit	4.1%	3.7%	10.4%
	US Long Credit	2.4%	3.0%	11.1%
	US Long Corporate AA	3.3%	2.7%	9.8%
	US Treasury 10 Yrs	3.5%	2.8%	6.2%
	US Treasury 30 Yrs	7.9%	5.5%	10.9%

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Liability Discount Curve



Prepared by Conning, Inc. Source: ©2018-2019 Bloomberg L.P. and ©2018-2019 Analytics provided by "The Yield Book"® Software and Services/London Stock Exchange Group plc

Conning's LDI Team

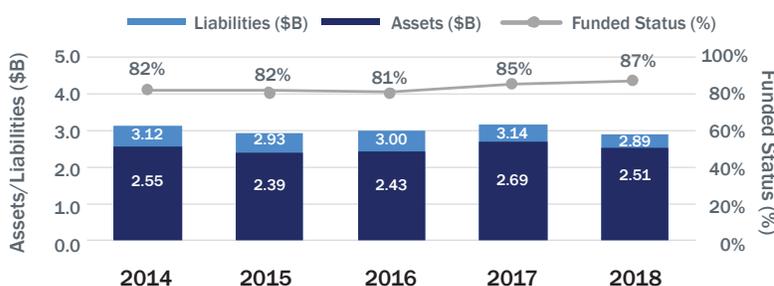
Sean Kurian, FSA, CAIA
Head of Institutional Solutions

Lynn Ryan, CFA
Portfolio Manager

Hamdan Malik, CFA
LDI & Derivatives Strategist

Frank Shi
Quantitative Analyst

Pension Plan Tracker (Annual 2014 - 2018)



	2014	2015	2016	2017	2018
Funded Status (%)	82%	82%	81%	85%	87%
Assets (\$B)	2.55	2.39	2.43	2.69	2.51
Liabilities (\$B)	3.12	2.93	3.00	3.14	2.89
Discount Rate (GAAP)	4.2%	4.1%	3.9%	3.6%	3.8%

Prepared by Conning, Inc. Source: ©2014-2018 Bloomberg, L.P.

Conning Pension Risk Analyzer®

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Contact us at LDI@conning.com

About Conning®

ABOUT CONNING®

Conning (www.conning.com) is a leading investment management firm with approximately \$141 billion in global assets under management as of March 31, 2019.* With a long history of serving the insurance industry, Conning supports institutional investors, including pension plans, with investment solutions and asset management offerings, risk modeling software, and industry research. Founded in 1912, Conning has investment centers in Asia, Europe and North America.

*As of March 31, 2019, represents the combined global assets under management for the affiliated firms under Conning Holdings Limited, Cathay Securities Investment Trust Co., Ltd. ("SITE") and Global Evolution Fondsmæglerelskab A/S and its group of companies (the "Global Evolution Companies"). The Global Evolution Companies are affiliates of Conning. SITE reports internally into Conning Asia Pacific Limited, but is a separate legal entity under Cathay Financial Holding Co., Ltd. which is the ultimate controlling parent of all Conning controlled entities.

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Data and Methodology

Conning's Funded Status Tracker is a monthly publication that tracks the performance of the average defined benefit pension plan (the "Plan") of select corporate sponsors comprising a subset of the Russell 3000 Index. The data in this monthly review was reported in the 10-Ks of 658 publicly traded companies from the Russell 3000 index for the 2018 year-end.† Further, the Funded Status Tracker was updated retroactively to reflect published 10-K data for the 2018 year-end. All months of 2019 have been restated to account for the, now known, 2018 year-end position. In addition, the annual tracking of the 10-K data for the years 2014-2017 have been restated to reflect the change of the underlying universe of 496 plans to the current universe of 658 plans. The monitoring of 2019 months will continue until 2018 10-Ks become available, at which point, the same methodology will be applied to include 2018 year-end position with the subsequent 2019 months retroactively updated. Note: these assets may include non-U.S. pension plans. In aggregate, these 658 entities reported \$1.8 trillion in plan assets and \$2.2 trillion in plan liabilities at year end 2018. For 2019, an annual contribution amounting to \$83.8m are being factored in on a monthly basis. The annual contribution amount of \$83.8m was assumed by taking the average 5 year contributions made in aggregate by the 658 plans in our study universe.

The average plan size of the subset of the Russell 3000 index universe outlined above is approximately \$2.51 billion in assets and \$2.89 billion in liabilities, as of December 31, 2018. The Plan's liability is a hypothetical cash flow generated from our proprietary model to reflect a 13-year duration and valuation equivalent to the Plan's PBO on a US GAAP valuation basis as at the end of 2018, but allowed to drift with market conditions during the following year.

It is important to note that asset definitions are not uniform. Conning's analysis of companies' financial statements has found that some firms only report individual stocks as equities, while other firms include stock mutual funds. A similar mixing of types occurs in fixed income. In this analysis, Conning has used the allocations as reported by the companies and not adjusted them. Funded status is the percentage of liabilities that are covered by assets. Interest rate hedge ratio is the dollar duration of assets as a percentage of liability dollar duration.

†For the periods 2014-2018, data from 658 publicly traded companies were used. These companies were selected because they had consistently filed pension data every year for the period from 2014 through to 2018. However, for the year 2018: an aggregate of 658 publicly traded companies were used since by this time more companies reported on a consistent basis.

LDI Hypothetical Model Disclosures

The proprietary model analysis presented herein is for illustrative purposes only. The model relies on a number of assumptions that are generally stated in the Data and Methodology and within the illustrations. The assumptions can be subject to significant uncertainties and contingencies, and such illustrations may change materially in response to small changes in one or more of such assumptions. The data used for this model was obtained from sources deemed reliable, and then organized by Conning, Inc. and was not audited by any third party. Errors could have occurred in the data, in the calculations, or in the preparation of this analysis. Therefore, information contained in this analysis may not be precise. C:8677807