Tennessee Valley Authority Defined Benefit Pension (Revision 2)

2019 Funded Status Summary [1]

Purpose: The following contains important information about the financial health of the Tennessee Valley Authority (TVA) pension. The objective of this summary is to provide pension financial information in an easy-to-read format to TVA's current and future pensioners.

Plan Sponsor & Plan Administrator Reporting Responsibilities. TVA is the pension "plan sponsor" and Tennessee Valley Authority Retirement System (TVARS) is the pension "plan administrator". Both TVA and TVARS are required to annually report the financial status of the pension which serves to inform (1) TVA's current and prospective bondholders and (2) TVA's current and future pensioners.

Is There a Meaningful Indicator of the Pension's Health? Pension experts routinely use "funded status" as a measure of a pension's health. A fully funded pension has a 100% funded status or higher. A fully funded pension is better able to withstand risks of market volatility and risks that could disrupt TVA's operations and its ability to fund the pension.

What is the TVA Pension's Funded Status? Funded Status is determined by dividing (1) the current $ value of pension assets by (2) the current estimated $ amount of assets needed to meet pension obligations[2]. As shown in the table below, TVA's 2019 10-K report to the Securities and Exchange Commission (SEC) revealed the funded status was 60% while TVARS' 2019 Annual Report showed the funded status was 86%.

September 30, 2019	$ Pension Assets Available	$ Estimate of Pension Assets Needed	Underfunded $ Amount	Funded Status
TVA SEC 10-K	$ 8 Billion	$ 13.3 Billion	$5.3 Billion	60%
TVARS Annual Report	$ 8 Billion	$ 9.3 Billion	$1.3 Billion	86%

Tracking the funded status for several years may provide a more meaningful indicator of the pension's health. The following table shows the pension's funded status reported by TVA and TVARS for years 2015 through 2019.

	2019	2018	2017	2016	2015
TVARS Annual Report	86%	85%	84%	75%	71%
TVA SEC 10-K Report	60%	68%	63%	55%	53%

[1] The data contained in this document was obtained by Daniel M. Pitts from TVA's 9-30-19 SEC 10-K and TVARS' 9-30-19 Annual Report solely for the purpose of briefing TVA's pension plan participants about the financial status of the pension. Mr. Pitts is a TVA retiree, a TVA ratepayer and currently serves as TVA Chapter President, National Retirees Legislative Network. The data presented here has not been independently verified.

[2] TVARS 2019 Annual Report describes this as the "actuarial present value of accumulated plan benefits" and the TVA SEC 10-K 2019 Report refers to it as "projected benefit obligation".

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Why Do TVA and TVARS Report Different Amounts for Funded Status? TVARS and TVA use different methodologies to calculate the amount of pension assets needed to meet pension obligations. TVA reported the lump sum amount that would totally settle its current pension obligation. TVARS' method assumed that monthly pension payments would continue (i.e., no lump sum payout) until the pension obligation is satisfied. Most important, discount rate assumptions used by each are significantly different.

TVA Used a 3.2% Discount Rate. In accordance with accounting and financial regulations/standards, TVA used a bond market rate (as of September 30, 2019) of 3.2% to calculate the $13.3 Billion assets needed to make a lump-sum settlement of its pension debt. As a result, TVA estimated it would need to contribute an extra $5.3 Billion to the pension to totally settle its pension obligation. TVA's full disclosure of the pension liability is required by the SEC to protect and inform TVA's current and prospective bondholders.

TVARS Used a 6.75% Discount Rate. Instead of a lump sum payout, TVARS' methodology assumes it would continue to make monthly payments to pensioners. TVARS used its forecasted long-term investment returns (6.75%) as the discount rate when it calculated the pension obligation. As a result, TVARS estimated that TVA would need to contribute only $1.3 Billion to fully meet its pension obligations.

Which Funded Status is Most Correct? Neither. Both are useful, and one is not more correct than the other. The TVA estimate is tied to published bond rates while TVARS' estimate relies on a forecast of long-term investment earnings. However, TVARS does not disclose how confident[3] it is that actual earnings will equal or exceed the forecast.

Will TVA Continue to Fund the Pension? TVA has agreed, subject to certain conditions, to provide at least $300 Million per year to the pension until the pension obligation is fulfilled. TVA's agreement is documented in TVARS' Rules & Regulations on page 69. However, TVA could experience a catastrophic event (ash spill, nuclear incident, etc.) that could impede TVA's ability to make sufficient contributions to the pension.

I**s the Pension Insured?** No. The TVA pension is not insured or guaranteed by any entity. The pension relies on investment earnings and TVA's ability to provide sufficient funding to meet the pension obligation.

Additional Information: Go to TVARS website at https://tvars.com/, click "Board" in the top banner, and then look to the right of the page where you will see "Annual Reports" – click the year you want to see. TVA's September 30, 2019 SEC 10-K can be found here: http://www.snl.com/IRW/Docs/4063363. The 2019 report has pension information starting on page126.

[3] Actuaries can assist TVARS in determining the likelihood that the actual long-term investment earnings will equal or exceed the forecast.