Tennessee Valley Authority Retirement System

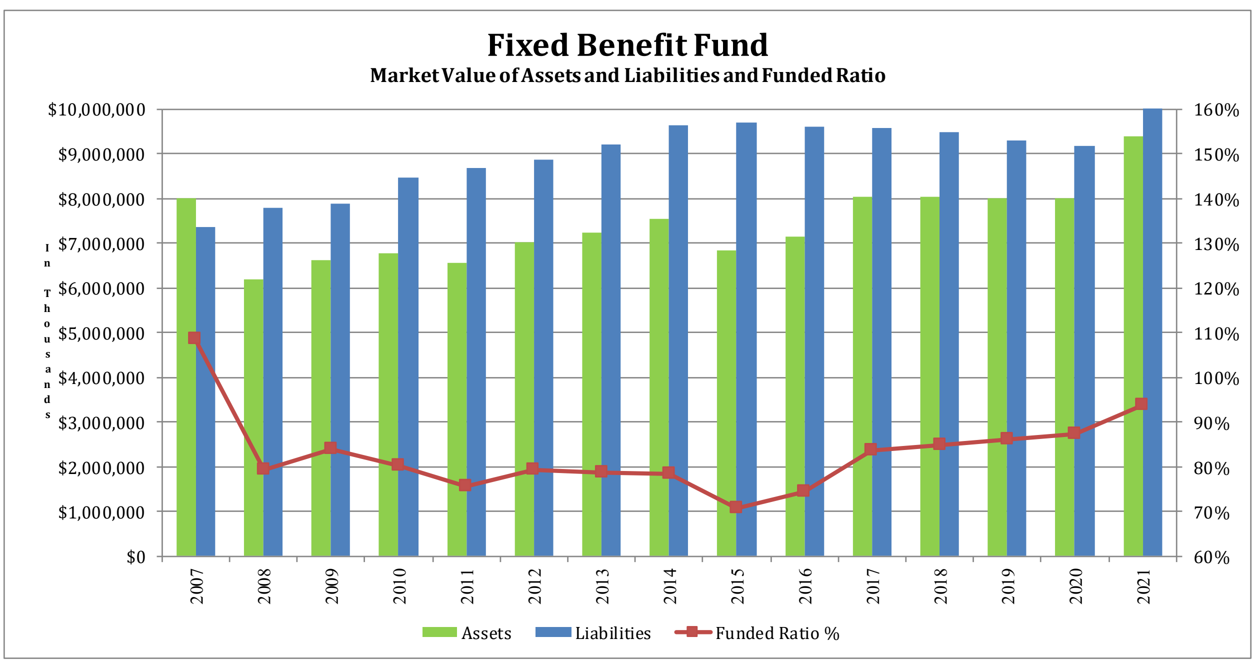
2021 Annual Report

Contents

Financial Highlights and Statistics

(Dollars in thousands)	**2021**	2020	Change	% Change
Net Assets Available for Benefits				
TVA Retirement System (Fixed Benefit Fund and Variable Fund)	**$ 9,568,856**	$ 8,146,306	$ 1,422,550	17.5%
TVA Savings & Deferral Retirement Plan [401(k) Plan]	**3,941,499**	3,252,599	688,900	21.2%
Total	**$ 13,510,355**	$ 11,398,905	$ 2,111,450	18.5%
Net Assets Available for Benefits (Fixed Benefit Fund)	**$ 9,397,908**	$ 7,998,430	$ 1,399,478	17.5%
Actuarial Present Value of Accumulated Plan Benefits (Fixed Benefit Fund)	**$ 10,021,200**	$ 9,162,700	$ 858,500	9.4%
TVA Contributions				
Defined Benefit Pension Plan	**$ 300,000**	$ 300,000	$ -	0.0%
401(k) Plan	**$ 91,823**	$ 87,267	$ 4,556	5.2%
Employee Contributions				
Fixed Benefit Fund and Variable Fund	**$ 6,239**	$ 6,751	$ (512)	-7.6%
401(k) Plan	**$ 127,361**	$ 113,384	$ 13,977	12.3%
Benefits Paid				
Fixed Benefit Fund and Variable Fund	**$ 736,643**	$ 730,878	$ 5,765	0.8%
401(k) Plan	**$ 169,821**	$ 155,854	$ 13,967	9.0%
Number of Active Members	**9,881**	9,717	164	1.7%
Number of Retirees & Beneficiaries (Defined Benefit Pension Plan)	**23,244**	23,620	(376)	-1.6%

This summary is intended for informational purposes only.



To Retirement System Members and Retirees

The Board of Directors of the TVA Retirement System (TVARS or System) is pleased to present the 2021 Annual Report for the System and the TVA Savings and Deferral Retirement Plan (401(k) Plan).

During the fiscal year, the System paid $722 million in benefits to approximately 23,000 retirees and beneficiaries and TVA contributed $300 million. As of September 30, 2021, the assets of the System reached an all-time high of $9.4 billion. When compared with liabilities of $10.0 billion, the System improved its funding status to 94% at the end of the fiscal year while delivering retirement benefits to retirees and beneficiaries. The assets of the 401(k) Plan also rose to an all-time high $3.9 billion as of September 30, 2021. Employees contributed $127 million to the 401(k) Plan during 2021, while matching and non-elective contributions from TVA totaled $92 million.

While the COVID-19 pandemic has continued to pose many challenges to TVARS, including the need for remote operations by the TVARS staff, it has also provided some unique opportunities. Over the last year as TVARS assets have reached an all-time high as a result of investment gains from equity markets following the shutdown of economies from the pandemic, TVARS has worked with TVA and our investment and actuarial consultants to model the TVARS assets and liabilities and alternative asset allocation policies in light of the current state of the markets, the forward-looking capital market assumptions, TVA's annual contribution commitment, and the goal for the pension plan to be fully funded. As a result of this work, the Board, with TVA's approval, adopted a new asset allocation policy and de-risking strategy that will provide greater stability in the System's current asset value and reduce the System's funded status volatility while working toward the goal of fully-funded liabilities.

With regard to the Board, at our September 2021 quarterly meeting, Marilyn Brown was selected for a new three-year term beginning November 1, 2021, to continue serving as the 7th Director retiree on the Board. In addition, Mike Belcher, as the sole nominee for the 2021 election cycle, was declared re-elected by the Board and will continue as a Director for a second three-year term ending October 21, 2024.

We are honored to work on the behalf of all TVA employees and retirees. Our thoughts and prayers continue to go out to those we serve who have been impacted by the pandemic.

For the Board,

Brian M. Child

Brian M. Child
Chair, Board of Directors
TVA Retirement System

TVA Retirement System Board of Directors

Elected by Members

James W. Hovious

Elected November 1, 2013

Michael L. Belcher

Elected November 1, 2018

Samuel J. Delay

Elected November 1, 2017

Appointed by TVA

Brian M. Child

Appointed September 23, 2013

Tina R. Wallace

Appointed August 19, 2019

Eric J. Davis

Appointed April 1, 2020

Selected by Other Directors (TVA Retiree)

Marilyn G. Brown

Selected November 16, 2020

Standing Committees

Audit
Tina R. Wallace, Chair
Marilyn G. Brown
Samuel J. Delay

Election
James W. Hovious, Chair
Marilyn G. Brown
Eric J. Davis

Retirement
Michael L. Belcher, Chair
Eric J. Davis
Samuel J. DeLay

Investment
Eric J. Davis, Chair
Michael L. Belcher
Marilyn G. Brown
Brian M. Child
Samuel J. Delay
James W. Hovious
Tina R. Wallace

Board Officers

Brian M. Child
Chair

Samuel J. DeLay
Vice Chair

Mark N. Meigs
Executive Secretary

William B. Jenkins, Jr.
Assistant Secretary

Sally R. Weber
Treasurer

W. Colby Carter
Assistant Treasurer

Courtney L. Hammontree
Assistant Treasurer

T. Justin Vineyard
Assistant Treasurer

Patrick B. Vananda
Assistant Treasurer

Professional Advisers and Investment Managers

Professional Advisers

Actuary
Mercer Human Resource Consulting, Atlanta

Auditors
Crowe LLP, Oak Brook, IL

Board Advisers
Michael Brakebill, Chief Investment Officer,
Tennessee Consolidated Retirement System, Nashville

Investment Consultant – Pension Plan
Wilshire Associates Incorporated, Pittsburgh

Investment Consultant – 401(k) Plan
Mercer Investments LLC, Atlanta

Legal Counsel
W. Colby Carter, Senior Counsel, TVARS, Knoxville
Bradley Arant Boult Cummings LLP, Nashville
Groom Law Group, Chartered, Washington D.C

Master Trustee
The Bank of New York Mellon, Pittsburgh

401(k) Plan Trustee
Fidelity Management Trust Company, Boston

401(k) Plan Recordkeeper
Fidelity Workplace Services LLC, Boston

Fixed and Variable Funds Recordkeeper
Fidelity Investment Institutional Operations Company, Inc., Boston

Cash Balance Pension Plan Recordkeeper
Aon Hewitt, Atlanta

Medical Board and Adviser
Advanced Medical Reviews, Los Angeles

Investment Managers

Fixed Benefit Fund
Abbott Capital Management LP
Acadian Asset Management, LLC
Adams Street Partners, LLC
AQR Capital Management, LLC
Baillie Gifford Overseas Limited
Bridgewater Associates, Inc.
Centersquare Investment Management, LLC
Dimensional Fund Advisors LP
Fidelity Asset Management, LLC
Franklin Templeton Institutional, LLC
Hancock Natural Resource Group, Inc.
HarbourVest Partners, LLC
Harvest Fund Advisors, LLC
Hermes Investment Management Limited
J.P. Morgan Investment Management, Inc.
Kennedy-Wilson Holdings, Inc.
Landmark Realty Advisors, LLC
Lazard Asset Management, LLC
Loomis, Sayles & Company, LP
Los Angeles Capital Mgmt. & Equity Research, Inc.
MacKay Shields, LLC
Mellon Investments Coproration
Neuberger Berman, LLC
Oaktree Capital Management, LP
Pacific Investment Management Company
The Prudential Insurance Company of America
Prudential Investment Management, Inc.
Siguler Guff Advisors, LLC
TCW Asset Management Company
Vedanta Capital, LLC
Wellington Management Company, LLP
Western Asset Management Company
Wilshire Associates Incorporated
WRH Partners, LLC

Variable Fund
Fidelity Investments
Mellon Investments Coproration

Certification of Financial Statements

I, Mark N. Meigs, individually certify that:

1. I have reviewed the Financial Statements of the Tennessee Valley Authority Retirement System.
2. Based on my knowledge, the information in the Financial Statements does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the periods covered by the Financial Statements.
3. Based on my knowledge, the Financial Statements and other financial information included in the Annual Report fairly present in all material respects the financial condition and results of operations of the Tennessee Valley Authority Retirement System as of, and for, the periods presented in the Financial Statements.
4. I am responsible for establishing and maintaining disclosure controls and procedures for the Tennessee Valley Authority Retirement System and have:
    a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Tennessee Valley Authority Retirement System is made known to us by others, particularly during the period in which these Financial Statements are being prepared; and
    b. evaluated the effectiveness of the Tennessee Valley Authority Retirement System's disclosure controls and procedures as of a date within 90 days prior to the date of the Financial Statements.
5. I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the Tennessee Valley Authority Retirement System's auditors:
    a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting that are reasonably likely to adversely affect the Tennessee Valley Authority Retirement System's ability to record, process, summarize and report financial information; and
    b. any fraud, whether or not material, that involves management or other employees who have a significant role in the Tennessee Valley Authority Retirement System's internal control over financial reporting.

April 15, 2022

Mark N. Meigs
Executive Secretary

Crowe LLP
Independent Member Crowe Global

INDEPENDENT AUDITOR'S REPORT

Members and Administrator of
Tennessee Valley Authority Retirement System
Knoxville, Tennessee

Report on the Financial Statements

We have audited the accompanying financial statements of Tennessee Valley Authority Retirement System (Plan or Defined Benefit Pension Plan), which comprise the statements of net assets available for benefits as of September 30, 2021 and 2020, and the related statements of changes in net assets available for benefits for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Plan's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial status of Tennessee Valley Authority Retirement System as of September 30, 2021 and 2020, and the changes in its financial status for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Crowe LLP

Crowe LLP

Oak Brook, Illinois
April 15, 2022

Tennessee Valley Authority Retirement System
Defined Benefit Pension Plan
Statements of Net Assets Available for Benefits

September 30, 2021 and 2020
(Dollars in thousands)

	2021	2020
Assets		
Investments at fair value	**$ 10,128,448**	$ 8,531,769
Receivables		
Due from broker	**111,343**	157,091
Interest and dividends	**29,165**	31,681
Foreign currency forward receivable	**1,494**	2,321
Other	**394**	417
Total receivables	**142,396**	191,510
Total assets	**10,270,844**	8,723,279
Liabilities		
Due to broker	**315,167**	263,500
Derivatives	**26,125**	9,825
Securities sold under agreements to repurchase	**108,193**	122,898
Investment fees payable	**8,252**	7,480
Other	**1,419**	2,349
Disbursements payable	**2,276**	964
Total payables	**461,432**	407,016
Foreign currency forward payable	**1,051**	2,863
Liabilities to brokers for securities lending (see Note 4)	**239,505**	167,094
Total liabilities	**701,988**	576,973
Net Assets Available for Benefits	**$ 9,568,856**	$ 8,146,306

The accompanying notes are an integral part of the financial statements.

Tennessee Valley Authority Retirement System
Defined Benefit Pension Plan
Statements of Changes in Net Assets Available for Benefits

Fiscal Years Ended September 30, 2021 and 2020 *(Dollars in thousands)*		**2021**		2020
Investment Income				
Net appreciation in fair value of investments	**$**	**1,743,323**	$	316,422
Interest		**99,404**		101,133
Dividends		**61,472**		56,182
		1,904,199		473,737
Less Investment Expenses		**(41,521)**		(35,920)
Total investment income		**1,862,678**		437,817
Contributions				
TVA		**300,000**		300,000
Members		**6,239**		6,751
Transfers from 401(k) Plan		**2,860**		4,565
Total contributions		**309,099**		311,316
Total increase		**2,171,777**		749,133
Benefits, Transfers, and Expenses				
Retirement benefits - Fixed Benefit Fund		**(722,283)**		(720,224)
Retirement benefits - Variable Fund		**(14,360)**		(10,654)
Transfers to 401(k) Plan		**(6,317)**		(7,369)
Administrative expenses		**(6,267)**		(5,376)
Total benefits, transfers, and expenses		**(749,227)**		(743,623)
Net (decrease) increase		**1,422,550**		5,510
Net Assets Available for Benefits				
Beginning of year		**8,146,306**		8,140,796
End of year	**$**	**9,568,856**	$	8,146,306

The accompanying notes are an integral part of the financial statements.

Notes to Financial Statements
September 30, 2021 and 2020

Note 1
PLAN DESCRIPTION
General
The Tennessee Valley Authority Retirement System (TVARS or System) was established by the Tennessee Valley Authority (TVA) in 1939 to provide retirement benefits for TVA employees. When TVA established the System, it also approved the Rules and Regulations of the TVA Retirement System (TVARS Rules), which constitute the legal charter under which the System operates and provide a defined benefit pension plan (Plan), which is administered by TVARS for TVA employees who are members of the System and eligible to participate in the Plan.

TVARS is a separate legal entity from TVA and is governed by an independent, seven-member Board of Directors (TVARS Board). Three of the directors are appointed by TVA, three are elected by and from the membership, and the seventh director, who is a TVA retiree, is selected by the other six. The TVARS Board appoints an Executive Secretary, who is responsible for the day-to-day functions of the System, and the System staff performs their work for the System under the supervision and direction of the TVARS Board and the System's Executive Secretary.

A brief description of the Plan is provided below for general information purposes only. Members and retirees may refer to the TVARS Rules for more information. *This description is intended to help TVARS members and stakeholders understand the System and the benefits under the Plan. The TVARS Rules, not this information, are used to determine the benefits to which a member is entitled.*

Plan Benefits
The Plan covers most full-time and part-time TVA annual employees first hired prior to July 1, 2014 (participants); however, TVA board members, and TVA employees with prior federal service who retain membership in the Civil Service or Federal Employees Retirement Systems, are excluded from participation in the Plan. As a retirement plan for employees of a federal agency, the Plan is a governmental plan under section 414(d) of the Internal Revenue Code and is not subject to the Employee Retirement Income Security Act (ERISA), which governs the retirement plans of private entities. Under the Plan, the benefits for which participants are eligible are subject to a vesting requirement of five years of service and depend on the participant's hire date, years of service, and individual elections as follows:

- Participants who were first hired prior to January 1, 1996, receive a traditional pension benefit calculated based on the participant's creditable service, the participant's average monthly salary for the highest three consecutive years of eligible compensation, and a pension factor based on the participant's age and years of service, less a Social Security offset.

- Participants who were first hired prior to January 1, 1996, and who elected to switch pension structures from the traditional to the cash balance, receive a cash balance pension benefit calculated based on pay-based credits and interest that accrue over time in the participant's account and the participant's age at the time of retirement. The monthly pay credits are equal to 6 percent of eligible compensation and monthly interest is credited at an annual interest rate equal to the change in the Consumer Price Index for All Urban Consumers (CPI-U) plus 3 percent (with a minimum of 6 percent and maximum of 10 percent).

- Participants who were first hired on or after January 1, 1996, and who had 10 or more years of service as of October 1, 2016, receive a cash balance pension benefit calculated based on pay-based credits and interest that accrue over time in the participant's account and the participant's age at the time of retirement. The monthly pay credits are equal to 3 percent of eligible compensation and monthly interest is credited at an annual interest rate equal to the change in the CPI-U plus 2 percent (with a current minimum of 4.75 percent and maximum of 6.25% based on a formula in the TVARS Rules).

- Participants who were first hired on or after January 1, 1996, and who had less than 10 years of service as of October 1, 2016, receive a cash balance pension benefit calculated based on pay-based credits and interest that accrue over time in the participant's account and the participant's age at the time of retirement. As of October 1, 2016, the cash balance accounts of these participants receive no additional pay-based credits; however, the accounts continue to receive monthly interest credits at an annual interest rate equal to the change in the CPI-U plus 2 percent (with a current minimum of 4.75 percent and maximum of 6.25% based on a formula in the TVARS Rules).

- Employees who elected to waive their cash balance pension benefit and transfer their cash balance account to the 401(k) Plan effective October 1, 2018, are no longer eligible for retirement benefits under the Plan.

- Employees who are first hired on or after July 1, 2014 (or who are rehired and were either previously not vested in the Plan or cashed out their Plan benefit) are not eligible for retirement benefits under the Plan.

Benefit Distributions

Upon retirement or termination of employment, in the event participants meet the vesting requirement of five years of service, the participants are eligible for an immediate benefit under the Plan in the form of a pension, a deferred pension, or for the cash balance benefit, a lump-sum distribution that may be rolled over to another qualified retirement account. At retirement or termination of employment, participants may elect to take the maximum monthly pension during the participant's lifetime, with nothing payable after death, or to take a reduced amount and provide an on-going pension benefit for a designated survivor beneficiary. Each of the various survivor options is the actuarial equivalent of the maximum monthly pension.

Other Benefits

Except for those participants who were first hired on or after January 1, 1996, and who have less than 10 years of service as of October 1, 2016, participants are eligible for certain benefits as set forth under the TVARS Rules in the event of death or disability during employment.

Upon retirement or termination of employment, in the event the participant is age 55 with at least 10 years of service (or age 50 with at least 10 years of service if terminated due to involuntary reduction-in-force), and the participant will receive a monthly pension benefit, the participant will be eligible for a supplemental benefit that may be used to help with the cost of retiree medical insurance, although it is not required to be used to pay for medical insurance.

Eligible retirees and beneficiaries will receive cost-of-living adjustments (COLAs) on the pension and supplemental benefits as determined in accordance with the TVARS Rules. The calculation of the COLA is based on the increase in the 12-month average of the CPI-U (when the CPI-U exceeds by as much as 1 percent the CPI-U average for the prior year for which an adjustment was made) minus 0.25 percent, with a 6.00 percent cap in any one year. Based on the above calculation, the COLA was 1.13 percent in calendar year 2021. The COLA was 1.54 percent in calendar year 2020.

Note 2
SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The financial statements are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America.

Custody Relationships

The Bank of New York Mellon (BNY Mellon) serves as the Master Trustee (Trustee) and Custodian (Custodian) of the Plan and accounts for the entire portfolio. The Plan has certain commingled fund investments where the investment adviser has contracted the custodial services to a financial institution other than BNY Mellon.

The holdings for private credit and equity funds are investments in limited partnerships and are not held at a custody bank. The private credit investments comprise 3.5 percent of Net Assets Available for Benefits in 2021 and 2.2 percent in 2020. The private equity funds comprise 16.4 percent of the Net Assets Available for Benefits in 2021 and 13.1 percent in 2020. The holdings for the private real asset investments are investments in commercial real estate, energy infrastructure, and timberland properties, and also are not held at a custody bank. The private real asset investments comprise 8.2 percent of the Net Assets Available for Benefits in 2021 and 7.7 percent in 2020.

Investment Valuation and Income Recognition

The Plan's investments and derivative instruments are reported at fair value. Purchases and sales of securities are recorded on a trade date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation (depreciation) includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Fair value is viewed as the price that would be received by the Plan for an asset or paid by the Plan to transfer a liability (an exit price) in an orderly transaction between market participants on the measurement date in the Plan's principal or most advantageous market for the asset or the liability. There is a fair value hierarchy that maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. The hierarchy places the highest priority on unadjusted quoted market prices in active markets for identical assets or liabilities (Level 1 measurements) and gives the lowest priority to unobservable inputs (Level 3 measurements). The three levels of inputs within the fair value hierarchy are defined as follows:

> Level 1 Inputs: Quoted prices (unadjusted) for identical assets in active markets that the Plan has the ability to access at the measurement date.
>
> Level 2 Inputs: Significant observable inputs other than Level 1 such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data such as matrix pricing, yield curves, and indices.
>
> Level 3 Inputs: Significant unobservable inputs that reflect the Plan's own assumptions about the assumptions that market participants would use in pricing an asset or liability.

In many cases, a valuation technique used to measure fair value includes inputs from multiple levels of fair value hierarchy. The lowest level of significant input determines the placement of the entire fair value measurement in the hierarchy.

The following descriptions of the valuation methods and assumptions used by the Plan to estimate the fair value of investments apply to investments held directly by the Plan. Third-party pricing vendors provide valuations for investments held by the Plan in most instances, except for commingled, private credit, private equity, and private real asset funds which are priced at net asset values established by the investment managers. In instances where pricing is determined to be based on unobservable inputs a Level 3 classification has been assigned.

Common stock, Registered investment companies, Master limited partnerships, and Preferred securities: Investments, including common stock, registered investment companies, master limited partnerships, and preferred securities listed on either a national or foreign securities exchange or traded in the over-the-counter National Market System, are generally valued each business day at the official closing price (typically the last reported sale price) on the exchange on which the security is primarily traded and are classified as Level 1. Preferred securities classified as Level 2 may have been priced by dealer quote or using assumptions based on observable market data.

Corporate debt securities: Corporate bonds are valued based upon recent bid prices or the average of recent bid and asked prices when available (Level 2 inputs) and, if not available, they are valued through matrix pricing models developed by sources considered by management to be reliable. Matrix pricing, which is a mathematical technique commonly used to price debt securities that are not actively traded, values debt securities without relying exclusively on quoted prices for the specific securities but rather by relying on the security's relationship to other benchmark quoted securities (Level 2 inputs).

Mortgage and asset-backed securities: Residential mortgage-backed securities consist of collateralized mortgage obligations (CMOs) and U.S. pass-through security pools related to government-sponsored enterprises (GSEs). CMO pricing is typically based on either a volatility-driven, multidimensional, single-cash-flow stream model or an option-adjusted spread model. These models incorporate available market data such as trade information, dealer quotes, market color, spreads, bids, and offers. Pricing for GSE securities, including the Federal Home Loan Mortgage Corporation, the Federal National Mortgage Association, and the Government National Mortgage Association, is typically based on quotes from the To Be Announced (TBA) market, which is highly liquid with multiple electronic platforms that facilitate the execution of trading between investors and broker/dealers. Prices from the TBA market are then compared against other live data feeds as well as input obtained directly from the dealer community. Most residential mortgage-backed securities are considered to be priced using Level 2 inputs because of the nature of their market-data-based pricing models.

Commercial mortgage-backed and asset-backed securities are typically priced based on single-cash-flow stream models, which incorporate available market data such as trade information, dealer quotes, market color, spreads, bids, and offers. Because of the market-data-based nature of such pricing models, commercial mortgage-backed and asset-backed securities are classified as Level 2.

Government debt securities: For U.S. Treasury securities, fair values reflect the closing price reported in the active market in which the security is traded (Level 1 inputs). Agency securities are typically priced using evaluated pricing applications and models incorporating U.S. Treasury yield curves. Agency securities are classified as Level 2 because of the nature of their market-data-based pricing models.

Debt securities issued by state and local governments are typically priced using market-data-based pricing models, and are therefore classified as Level 2. These pricing models incorporate market data such as quotes, trading levels, spread relationships, and yield curves, as applicable.

Foreign government bonds and foreign government inflation-linked securities are typically priced based on proprietary discounted cash flow models, incorporating option-adjusted spread features as appropriate. Debt securities issued by foreign governments are classified as Level 2 because of the nature of their market-data-based pricing models.

Commingled funds: The Plan invests in commingled funds, which are classified by general type as common-collective trusts, limited liability companies, and a limited partnership. The Plan's ownership consists of a pro rata share and not a direct ownership of an underlying investment. These funds are valued at their closing net asset values (or unit value) per share as reported by the managers of the funds and as supported by the unit prices of actual purchases and sale transactions occurring as of or close to the financial statement date. The investment strategies of these funds are summarized as follows.

The Plan is invested in equity common-collective trusts, which can be categorized as either passively managed index funds or actively managed funds. The Plan is invested in an actively managed equity limited partnership. The equity index funds seek to track the performance of a particular index by replicating its capitalization and characteristics. Passive fund benchmark indices include the Russell 1000 index, the S&P 500 index, and the Morgan Stanley Capital International All Country World Index ex-U.S. The actively managed equity funds seek to outperform certain equity benchmarks through a combination of fundamental and technical analysis. Active funds select portfolio positions based upon their research.

The Plan is invested in debt limited liability companies and debt common-collective trusts, which can be categorized as either passively managed index funds or actively managed funds. A debt index fund seeks to track the performance of a particular index by replicating its capitalization and characteristics. The passive fund benchmark is the Bloomberg Barclays Capital U.S. Treasury Inflation-Protected Securities index. The actively managed debt funds seek to outperform certain fixed-income benchmarks through fundamental research and analysis. The funds invest in a diversified portfolio of fixed income securities and derivatives of varying maturities. Varying by strategy, fund objectives include achieving a positive relative total return through active credit selection and providing risk management through desired strategic exposures.

The Plan is invested in a commodity common-collective trust and a commodity limited liability company, which can be categorized as actively managed funds. The funds seek to outperform certain commodity benchmarks through fundamental research and analysis. The funds invest in a diversified portfolio of commodity securities and derivatives of varying maturities. The objective is to achieve a positive relative return through active security selection.

The Plan is invested in a limited liability company which invests across multiple asset classes that can be categorized as blended. This fund seeks to outperform a passive benchmark through active security selection. The funds invest in securities across equity, fixed income, currency, and commodities. The portfolio employs fundamental, quantitative, and technical analysis.

The Plan's investments in equity, debt, and blended funds can generally be redeemed upon notification of the investment managers, with required notice periods varying from same-day to monthly. These investments do not have unfunded commitments.

Cash equivalents and other short-term investments and Certificates of deposit: Cash equivalents and other short-term investments are highly liquid securities with a maturity of less than three months and 12 months, respectively. These consist primarily of discount securities such as commercial paper, repurchase agreements, U.S. Treasury bills, and certain agency securities. These securities, as well as certificates of deposit, may be priced at cost, which approximates fair value due to the short-term nature of the instruments. Model based pricing which incorporates observable inputs may also be utilized. These securities are classified as Level 2. Active market pricing may be utilized for U.S. Treasury bills, which are classified as Level 1.

Private credit funds: Private credit limited partnerships are reported at net asset values provided by the fund managers.

The private credit limited partnerships invest across direct lending, opportunistic credit and distressed debt strategies. The limited partnerships generally make investments of senior secured first-lien loans, second-lien secured loans, asset-based loans, unitranche loans and distressed debt opportunities to middle market private companies. The limited partnerships generally seek to obtain financial returns through high income potential and occasional equity upside. The limited partnerships generally have a term life of five to eight years and are diversified by sector and industry.

The private credit funds have no investment withdrawal provisions prior to the termination of the partnership. The restricted investments of the private credit funds amounted to $338 million as of September 30, 2021, and $183 million as of September 30, 2020. The partnerships are also generally subject to various extension periods at the discretion of the General Partners. The contractual maturities of private credit funds held in 2021 range from January 2027 to January 2029 before any extensions are applied.

Private equity funds: Private equity limited partnerships are reported at net asset values provided by the fund managers.

The private equity limited partnerships typically make longer-term investments in private companies and seek to obtain financial returns through long-term appreciation based on corporate stewardship, improved operating processes, and financial restructuring, which may involve a merger or acquisition. Significant investment strategies include venture capital; buyout; mezzanine, or subordinated debt; restructuring, or distressed debt; and special situations. Venture capital partnerships consist of two main groupings. Early-stage venture capital partnerships invest in businesses still in the conceptual stage where products may not be fully developed and where revenues and/or profits may be several years away. Later-stage venture capital partnerships invest in more mature companies in need of growth or expansion capital. Buyout partnerships provide the equity capital for acquisition transactions either from a private seller or the public, which may represent the purchase of the entire company or a refinancing or recapitalization transaction where equity is invested. Mezzanine or subordinated debt partnerships provide the intermediate capital between equity and senior debt in a buyout or refinancing transaction and typically own a security in the company that carries current interest payments as well as a potential equity interest in the company. Restructuring or distressed debt partnerships purchase opportunities generated by overleveraged or poorly managed companies. Special situation partnerships include organizations with a specific industry focus not covered by the other private equity subclasses or unique opportunities that fall outside the regular subclasses.

The private equity funds have no investment withdrawal provisions prior to the termination of the partnership. The restricted investments of the private equity funds amounted to $1.6 billion as of September 30, 2021, and $1.1 billion as of September 30, 2020. Partnerships generally continue 10 to 14 years after the inception of the fund. The partnerships are also generally subject to various extension periods at the discretion of the General Partner. The contractual maturities of private equity funds held in 2021 range from December 2021 to March 2031 before any additional extensions are applied. Partnerships can generally be dissolved by an 80 percent vote in interest by all limited partners, with some funds requiring the occurrence of a specific event.

Private real asset investments: Private real asset investments are reported at net asset values provided by the fund managers.

Real assets capitalize inflation in their returns over time to provide a hedge against inflation. The private real asset investments include real estate, oil and gas partnerships, infrastructure, and timber. The Plan's ownership in private real asset investments consists of a pro rata share and not a direct ownership of the underlying investments.

The Plan is invested in a commingled fund that develops, renovates, and re-leases real estate properties to create value. Investments are predominantly in top tier real estate markets that offer deep liquidity. Property types include residential, office, industrial, hotel, retail, and land. Properties are diversified by geographic region within the U.S. domestic market. The Plan is invested in a second commingled fund that invests primarily in core, well-leased, operating real estate properties with a focus on income generation. Investments are diversified by property type with a focus on office, industrial, apartment, and retail. Properties are diversified within the U.S. with an overweight to major market and coastal regions.

The Plan is invested in limited partnerships that invest in real estate securities, real estate partnerships, and direct real estate properties. This includes investments in office, multifamily, industrial, and retail investment properties in the U.S. and international markets. The investment strategy focuses on distressed, opportunistic, and value-added opportunities. Partnership investments also include mortgage and/or real estate-related fixed-income instruments and related securities. Investments are diversified by property type and geographic location.

The Plan is invested in energy infrastructure partnerships which acquire essential, long-lived real assets in three main groupings. Upstream assets include oil and gas exploration, drilling, and acquisition. Midstream assets include storage, pipelines, gathering, processing, and transportation of energy commodities. Downstream assets include generation, distribution, and transmission facilities. Additionally, the Plan is invested in infrastructure partnerships that target mid-sized operating infrastructure companies and/or assets with limited development and construction risk primarily in the energy, transportation and logistics, environmental, telecommunications, and social industry.

The Plan is invested in a private real asset investment trust formed to make direct or indirect investments in commercial timberland properties.

The redemption provisions vary by fund and are detailed below:

Private Real Asset Investment Restrictions

(Dollars in thousands)		**2021 Fair Market Value**		2020 Fair Market Value
Withdrawals available quarterly	**$**	**409,004**	$	362,333
Restricted - No withdrawals until partnership termination	**$**	**362,314**	$	235,788
Sale of shares permitted under prescribed guidelines	**$**	**15,653**	$	27,578

The contractual maturities of private real asset investments held in 2021 range from July 2022 to January 2031, before any extensions are applied.

Securities lending collateral: Collateral held under securities lending arrangements is held in a separately managed account which invests in various short-term investments, such as repurchase agreements. Repurchase agreements and other short-term investments are often priced at cost, which approximates fair value due to the short-term nature of the instruments.

Derivatives: The Plan invests in a variety of derivative instruments. The valuation methodologies for these instruments are as follows:

Futures: The Plan enters into futures. The futures contracts are listed on either a national or foreign securities exchange and generally valued each business day at the official closing price (typically the last reported sales price) on the exchange on which the security is primarily traded. Since futures are priced by an exchange in an active market, they are classified as Level 1.

Options: The Plan enters into purchased and written options. Options that are listed on either a national or foreign securities exchange are generally valued each business day at the official closing price (typically the last reported sales price) on the exchange on which the security is primarily traded. These options are classified as Level 1. Options traded over the counter and not on exchanges are priced by third-party vendors and are classified as Level 2.

Swaps: The Plan enters into various types of swaps. Credit default swaps are priced at market using models that consider cash flows, credit curves, recovery rates, and other factors. The pricing is performed by third-party vendors. Interest rate swap contracts are priced at market using forward rates derived from the swap curve, and the pricing is also performed by third-party vendors. Other swaps such as total return swaps and inflation swaps are priced by third-party vendors using market inputs such as spot rates, yield curves, and volatility. The Plan's swaps are generally classified as Level 2 based on the observable nature of their pricing inputs.

Foreign currency forwards: The Plan enters into foreign currency forwards. All commitments are marked to market daily at the applicable translation rates, and any resulting unrealized gains or losses are recorded. Foreign currency forwards are priced by third-party vendors and are classified as Level 2.

See Note 3 for additional information regarding derivative financial instruments.

Securities sold under agreements to repurchase: The Plan enters into contracts to sell securities to a counterparty at a specified price with an agreement to purchase the same or substantially the same security from the same counterparty at a fixed or determinable price at a future date. Securities sold under agreements to repurchase are presented at their contract price which approximates fair value due to their short-term nature. These securities are classified as Level 2. In connection with sales of securities under agreements to repurchase, the counterparties require the Plan to maintain collateral securities with a fair value that approximates or exceeds the contract amount of the repurchase agreement. These securities are held in government inflation-linked bonds and classified as government debt securities.

The valuation methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while TVARS believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

Investments and derivative instruments measured at fair value on a recurring basis are summarized on the following tables.

Assets and Liabilities at Fair Value

Investments and derivative instruments measured at fair value on a recurring basis at September 30, 2021, are summarized below:

			Fair Value Measurements at September 30, 2021, Using		
(dollars in thousands)		Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Investments					
Common stock	$	905,892	$ 904,568	$ -	$ 1,324
Registered investment companies		908,809	908,809	-	-
Master limited partnerships		79,791	79,791	-	-
Preferred securities		9,054	1,575	6,481	998
Corporate debt securities		1,357,937		1,356,753	1,184
Mortgage and asset-backed securities		580,682		576,696	3,986
Government debt securities		985,241	744,218	241,023	-
Commingled funds measured at net asset value[a]					
Common-collective trusts		1,538,504			
Limited liability companies		105,259			
Limited partnership		1,600			
Cash equivalents and other short-term investments		717,375	322,776	394,599	-
Private credit fund measured at net asset value[a]		337,777			
Private equity funds measured at net asset value[a]		1,566,253			
Private real asset investments measured at net asset value[a]		786,971			
Securities lending collateral		239,505	-	239,505	-
Derivatives					
Futures		1,434	1,434	-	-
Options		121	121	-	-
Swaps		6,243	-	6,243	-
Investments at fair value	$	10,128,448	$ 2,963,292	$ 2,821,300	$ 7,492
Foreign currency forward receivable		1,494	-	1,494	-
Total Investments and Foreign Currency Forward Receivable at Fair Value	$	10,129,942	$ 2,963,292	$ 2,822,794	$ 7,492
Liabilities					
Derivatives					
Futures	$	3,630	$ 3,630	$ -	$ -
Options		99	79	20	-
Swaps		22,396	-	22,396	-
Foreign currency forward payable		1,051	-	1,051	-
Securities sold under agreements to repurchase		108,193	-	108,193	-
Total Liabilities at Fair Value	$	135,369	$ 3,709	$ 131,660	$ -

[a] Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statement of net assets available for benefits.

Assets and Liabilities at Fair Value

Investments and derivative instruments measured at fair value on a recurring basis at September 30, 2020, are summarized below:

(dollars in thousands)	Total	Fair Value Measurements at September 30, 2020, Using Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Investments				
Common stock	$ 1,568,776	$ 1,566,847	$ -	$ 1,929
Registered investment companies	325,773	325,773	-	-
Master limited partnerships	48,666	48,666	-	-
Preferred securities	11,079	779	10,300	-
Corporate debt securities	1,418,035	-	1,417,152	883
Mortgage and asset-backed securities	510,394	-	505,392	5,002
Government debt securities	909,075	700,651	208,424	-
Commingled funds measured at net asset value[(a)]				
Common-collective trusts	1,154,272	-	-	-
Limited liability companies	107,275	-	-	-
Limited partnership	71,094	-	-	-
Cash equivalents and other short-term investments	347,816	76,253	271,563	-
Private credit fund measured at net asset value[(a)]	183,129	-	-	-
Private equity funds measured at net asset value[(a)]	1,068,280	-	-	-
Private real asset investments measured at net asset value[(a)]	625,699	-	-	-
Securities lending collateral	167,094	-	167,094	-
Derivatives				
Futures	2,994	2,994	-	-
Options	2,234	47	2,187	-
Swaps	10,084	-	10,084	-
Investments at fair value	$ 8,531,769	$ 2,722,010	$ 2,592,196	$ 7,814
Foreign currency forward receivable	2,321	-	2,321	-
Total Investments and Foreign Currency Forward Receivable at Fair Value	$ 8,534,090	$ 2,722,010	$ 2,594,517	$ 7,814
Liabilities				
Derivatives				
Futures	$ 1,448	$ 1,448	$ -	$ -
Options	2,090	21	2,069	-
Swaps	6,287	-	6,287	-
Foreign currency forward payable	2,863	-	2,863	-
Securities sold under agreements to repurchase	122,898	-	122,898	-
Total Liabilities at Fair Value	$ 135,586	$ 1,469	$ 134,117	$ -

[(a)] Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statement of net assets available for benefits.

The table below presents a summary of transactions for Plan investments measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended September 30, 2021 and 2020.

Summary of Fair Value Measurements Using Significant Unobservable Inputs (Level 3) Transactions
The table below presents transfers in and out and purchases of System investments measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended September 30, 2021 and 2020.

	2021		2020	
(Dollars in thousands)	**Transfers in and/or out of Level 3**	**Purchases**	**Transfers in and/or out of Level 3**	**Purchases**
Mortgage and asset-backed securities	$ (1,881)	$ 3,012	$ (4,740)	$ 1,424
Corporate debt securities	-	596	-	402
Common stock	-	-	330	-
Swaps - liabilities	-	-	-	319
Options - assets	-	-	(314)	-
Options - liabilites	-	-	310	-
	$ (1,881)	$ 3,608	$ (4,414)	$ 2,145

Asset Allocation

Over the long-term, asset allocation is expected to be the single greatest contributor of risk and return to the Plan's investments. The asset allocation policy embodies the TVARS Board's decisions about what proportions of the Plan's assets will be invested in various asset classes. The policy is based on an asset-liability analysis conducted periodically by the investment consultant and the Plan's actuaries, and the return objectives, risk tolerance, and liquidity needs of the Plan.

During 2021, TVARS worked with its investment and actuarial consultants to model the Plan's assets and liabilities and alternative asset allocation policies in light of the state of the markets, the forward-looking capital market assumptions, TVA's annual contribution commitment, and the goal for the Plan to be fully funded. As a result of this work, in 2021, the TVARS Board adopted, with the approval of TVA, a new asset allocation policy and de-risking strategy designed to provide greater stability in the Plan's asset value and reduce the Plan's funded status volatility while working toward the goal of fully-funded liabilities.

The asset allocation policy is identified by strategic target weights to each of the major asset classes. In addition, minimum and maximum allocations are provided to serve as guidelines for the range of the asset classes. The asset classes may fluctuate within the bands established by the minimum and maximum allocation ranges before the System's investment staff considers reallocating from one asset class to another.

Target allocations are as follows:

Asset Category	Target Allocation
Growth assets	17.5%
Defensive growth assets	37.5%
Defensive assets	20.0%
Inflation-sensitive assets	25.0%
Total	100%

Risks and Uncertainties

The Plan invests in securities and derivative instruments which are exposed to various risks such as interest rate, market, liquidity, and credit risks. Due to the level of risk associated with certain investments and the sensitivity of certain fair value estimates to changes in valuation, it is at least reasonably possible that changes in the values of investments will occur in the near term and that such changes could materially affect the amounts reported in the Statements of Net Assets Available for Benefits and members' individual account balances.

Plan contributions are made and the actuarial present value of accumulated plan benefits is reported based on certain assumptions pertaining to interest rates, inflation rates, and employee demographics, all of which are subject to change. Due to uncertainties inherent in the estimation and assumption processes, it is at least reasonably possible that changes in these estimates and assumptions in the near term could materially affect the amounts reported and disclosed in the financial statements.

The COVID-19 pandemic continues impact the United States and the world. The TVARS staff and Board continues to actively monitor the financial markets, and remains in ongoing discussions with their investment consultants and fund managers. TVARS has constructed a diverse investment portfolio that is designed to manage through market volatility and to provide liquidity for benefit payments.

Tax Status

The Internal Revenue Service (IRS) determined and informed TVARS in August 2014 that the TVARS Rules are designed in accordance with the applicable sections of the Internal Revenue Code (IRC). Since the receipt of the latest IRS determination letter, the IRS has ended the 5-year determination letter cycle program for individually designed plans. Accordingly, beginning in 2019, TVARS has engaged the Groom Law Group (Groom) to provide plan document compliance services where Groom will review the Plan and any amendments subsequent to the previous IRS determination letter or plan document review and provide an opinion intended to confirm the Plan's continued satisfaction of the IRS document requirements applicable to the Plan. In April 2020, Groom provided TVARS a favorable opinion letter on the design of the Plan and the TVARS Rules. Based on this opinion from Groom and the opinion of TVARS legal counsel, TVARS management believes that the Plan and the TVARS Rules are currently designed and being operated in compliance with the applicable requirements of the IRC. Therefore, no provision for income taxes has been included in these financial statements.

Accounting principles generally accepted in the United States of America require TVARS management to evaluate tax positions taken by the Plan. A tax position is recognized as a benefit only if it is "more likely than not" that the tax position would be sustained in a tax examination, with a tax examination presumed to occur. The amount recognized is the largest amount of tax benefit that is greater than 50% likely of being realized upon examination. For tax positions not meeting the "more likely than not" test, no tax benefit is recorded.

TVARS management has analyzed the tax positions it has taken, and has concluded that as of September 30, 2021 and 2020, there are no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan is subject to audit by the Internal Revenue Service, Tax Exempt and Government Entities Division; however, there are currently no audits for any tax periods in progress. TVARS management believes the Plan is no longer subject to plan qualification examinations for years prior to 2015.

Management Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date(s) of the financial statements and the reported amounts of revenues and expenses during the reporting period(s). Management also uses estimates and assumptions in determining the actuarial present value of accumulated plan benefits and the changes in actuarial present value of accumulated plan benefits. Actual results could differ materially from those estimates.

Note 3
DERIVATIVE FINANCIAL INSTRUMENTS

The Plan is party to derivative financial instruments in its normal course of business. Interest rate futures, options, and swaps and inflation rate floor options may be utilized for managing duration and yield curve risk. Credit default swaps may be utilized to obtain credit default protection or as a substitute for the bond, but not to employ leverage. Foreign currency forwards, options, and futures may be utilized to hedge risks associated with short-term exchange rate fluctuations or implement active management decisions via the currency markets. Equity futures and total return swaps may be used in the implementation of various active management strategies. Derivatives are not to be used to effectively leverage the portfolio. Net exposures resulting from derivatives transactions must be covered by holdings within the portfolio. Under the investment management agreements, investment managers may not use derivative financial instruments to fundamentally change the risk/return profile of their portfolios relative to their benchmarks. Additionally, these managers cannot invest in asset classes that are inconsistent with the benchmarks of their strategies. The derivative strategies employed by the managers in their individual portfolios can expose the Plan to market and credit risk.

The Plan has counterparty exposure in the derivative instruments of certain currency forwards, options, and swaps. Such contracts and agreements have been executed with creditworthy counterparties. Thus, TVARS considers the risk of nonperformance to be remote. The credit risks associated with these instruments are controlled through the evaluation and continual monitoring of the creditworthiness of the counterparties. TVARS also reviews the credit ratings of counterparties on a regular basis. In the event that a counterparty fails to meet the terms of a contract or agreement, the Plan's exposure should be limited to the currency rate differential or contract differential.

The right of set-off generally exists in the event of default for Plan derivatives, which would be applied based on contract terms. Typically set-off would be permitted by counterparty to each investment manager. The total market value exposure will normally also be set-off against collateral exchanged to date, which would result in a net receivable/(payable) that would be due from/to the counterparty.

A summary of derivatives is presented on the following page.

	Fair Values of Derivative Instruments on Statements of Net Assets Available for Benefits				**Effect of Derivative Instruments on the Statement of Changes in Net Assets for the year ended September 30,**	
	as of September 30, 2021		**as of September 30, 2020**		**2021**	**2020**
(Dollars in thousands)	**Notional Amount**	**Fair Value**	**Notional Amount**	**Fair Value**	Net Appreciation (Depreciation)	
Futures contracts						
Assets						
Equity futures	$ -	$ -	$ 271,730	$ 2,106		
Foreign currency futures			15,462	399		
Interest rate futures	(89,579)	1,434	(20,950)	489		
Total futures contract assets	$ (89,579)	$ 1,434	$ 266,242	$ 2,994		
Liabilities						
Equity futures	$ -	$ -	$ 117,475	$ (616)		
Foreign currency futures	-	-	(58,379)	(299)		
Interest rate futures	234,019	(3,630)	(202,735)	(533)		
Total futures contract liabilities	$ 234,019	$ (3,630)	$ (143,639)	$ (1,448)		
Total Futures	$ 144,440	$ (2,196)	$ 122,603	$ 1,546	$ 100,490	$ 37,997
Option contracts						
Assets						
Interest rate options *	-	$ 117	-	$ 47		
Foreign currency options - Eurodollar *	-	4	-	-		
Interest rate swaptions	-	-	135,951	2,187		
Total purchased option assets	-	$ 121	135,951	$ 2,234		
Liabilities						
Interest rate options *	-	$ (76)	-	$ (21)		
Foreign currency options - Eurodollar *	-	(3)	-	-		
Interest rate swaptions	$ (27,900)	(20)	(35,400)	(2,069)		
Total written option liabilities	(27,900)	$ (99)	(35,400)	$ (2,090)		
Total Options	(27,900)	$ 22	100,551	$ 144	$ 1,892	$ 497
Swaps						
Assets						
Interest rate swap contracts	$ 91,736	$ 4,203	$ 58,898	$ 2,699		
Total return swap contracts	64,703	104	131,379	7,264		
Credit default swap contracts	79,508	1,936	13,319	121		
Total swap contract assets	$ 235,947	$ 6,243	$ 203,596	$ 10,084		
Liabilities						
Interest rate swap contracts	$ 293,361	$ (4,702)	$ 175,148	$ (4,752)		
Total return swap contracts	514,742	(17,438)	94,029	(1,330)		
Credit default swap contracts	9,261	(256)	14,610	(205)		
Total swap contract liabilities	$ 817,364	$ (22,396)	$ 283,787	$ (6,287)		
Total Swaps	$ 1,053,311	$ (16,153)	$ 487,383	$ 3,797	$ 78,724	$ 20,050
Forwards						
Forward foreign currency contracts - receivable**		$ 1,494		$ 2,321		
Forward foreign currency contracts - payable**		(1,051)		(2,863)		
Total Forwards		$ 443		$ (542)	$ 84	$ (3,046)

*Number of interest rate and foreign currency Eurodollar option contracts outstanding as of September 30, 2021 and September 30, 2020 were 677 and 88, respectively.

**Number of forward foreign currency contracts outstanding as of September 30, 2021 and September 30, 2020 were 236 and 749, respectively.

Note 4
SECURITIES LENDING

The Plan participates in a security lending program through a lending agent, its Trustee and Custodian, BNY Mellon. Under this program, the Plan's investment securities are loaned to approved borrowers and, in return, the Plan receives payment of a fee from the borrowers. The Plan's rights to the loaned securities are unencumbered. The Plan maintains effective control of the loaned securities through the Trustee during the term of the program arrangement, since the securities on loan may be recalled by the Plan at any time. Under the terms of the program arrangement, the borrower must return the same or substantially the same investments that were borrowed. Securities lent are secured by collateral equal to at least 102 percent of the market value of securities loaned. The Plan receives cash and investment grade securities or baskets of equity securities as collateral for securities lending. The Plan receives a portion of the income earned on the collateral. The Plan does not have the right to sell or re-pledge securities received as collateral. The cash collateral received is recorded both as an asset and a liability in the Statement of Net Assets Available for Benefits. Cash received is invested in a separately managed investment account of various short-term securities where the maximum maturity of the fund is 195 days. Each investment must meet standards defined in the investment guidelines including but not limited to investment eligibility, credit quality, and maturity and diversification requirements. The lending agent provides the Plan indemnification against losses due to borrower default. The lending agent also provides the Plan indemnification against the risk of loss in the investment repurchase transactions made with the cash collateral.

As of September 30, 2021, securities on loan are fully collateralized and the portion of the collateral that was cash was co-invested in a separately managed investment account for the Plan held by the Trustee (see Note 2) or other non-cash securities noted below. The cash collateral held by the Plan and the obligation to return the cash collateral is reflected in the accompanying Statements of Net Assets Available for Benefits. Net income from the program was $1.4 million and $1.3 million for the years ended September 30, 2021, and 2020, respectively.

SECURITIES LENDING

The following tables summarize the securities loaned and the related collateral:

(Dollars in thousands) ***September 30, 2021***	**Fair Value of Securities on Loan**	**Total Collateral**	**Collateral Percent***	**Fair Value of Collateral - Cash**	**Fair Value of Collateral - Non-Cash**
Common stocks - domestic	**$ 141,000**	**$ 152,486**	**108.1%**	**$ 52,061**	**$ 100,425**
Corporate bonds	**128,099**	**131,438**	**102.6%**	**130,060**	**1,378**
US Government	**224,539**	**239,314**	**106.6%**	**48,793**	**190,521**
Common stocks - international	**26,920**	**30,909**	**114.8%**	**2,980**	**27,929**
Sovereign fixed income	**4,917**	**5,611**	**114.1%**	**5,611**	**-**
	$ 525,475	**$ 559,758**	**106.5%**	**$ 239,505**	**$ 320,253**

(Dollars in thousands) *September 30, 2020*	Fair Value of Securities on Loan	Total Collateral	Collateral Percent*	Fair Value of Collateral - Cash	Fair Value of Collateral - Non-Cash
Common stocks - domestic	$ 190,023	$ 208,575	109.8%	$ 30,209	$ 178,366
Corporate bonds	98,650	101,215	102.6%	100,592	623
US Government	148,151	158,320	106.9%	21,034	137,286
Common stocks - international	114,066	128,734	112.9%	6,545	122,189
Sovereign fixed income	7,475	8,714	116.6%	8,714	-
	$ 558,365	$ 605,558	108.5%	$ 167,094	$ 438,464

*Calculated on unrounded amounts

Note 5
COMMITMENTS AND CONTINGENCIES

The Plan has made commitments to various private credit, equity, and real asset investments. A summary is provided below of funds held by the Plan at September 30, 2021 and 2020.

	2021			2020		
(Dollars in thousands)	**Number of Funds**	**Fair Market Value**	**Unfunded Commitments**	Number of Funds	Fair Market Value	Unfunded Commitments
Private Credit Fund	**1**	**$ 337,777**	**$ 470,674**	1	$ 183,129	$ 407,703
Private Equity Funds	**24**	**$ 1,566,253**	**$ 577,038**	23	$ 1,068,280	$ 675,547
Private Real Asset Funds	**14**	**$ 786,971**	**$ 378,652**	14	$ 625,699	$ 322,283

Note 6
PARTICIPANT CONTRIBUTIONS

Participants who were hired prior to January 1, 1996, may voluntarily make after-tax contributions to the Plan and elect to invest the funds in either the Fixed Fund, the Variable Fund, or both. Contributions to the Fixed Fund and/or the Variable Fund are limited by the TVARS Rules to the lesser of $10,000 per calendar year or 100 percent of calendar year-to-date compensation. Participants who were hired on or after January 1, 1996, were previously eligible to make contributions to the Plan. Effective as of October 1, 2016, these participants may no longer make any new contributions; however, their balances may remain in the Fixed and Variable Funds if they choose until retirement or termination of employment.

Participant contributions invested in the Fixed Fund earn monthly interest at an annual interest rate equal to the change in the CPI-U plus 2 percent (with a current minimum of 4.75 percent and maximum of 6.25% based on a formula in the TVARS Rules). The interest rate during calendar years 2021 and 2020 was 4.75. Participant contributions to the Variable Fund are invested in an S&P 500 Index Fund. As a part of the Plan, federal income tax is deferred on interest and investment earnings in the Fixed and Variable Funds until the participant's funds are distributed upon retirement or termination of employment.

Under the TVARS Rules, participants are permitted to make transfers between the Fixed Fund and the Variable Fund once per calendar month and may, at any time during employment, transfer their entire balance to the Tennessee Valley Authority Savings and Deferral Retirement Plan (401(k) Plan). Participants who were hired prior to January 1, 1996, and who transfer their balance to the 401(k) Plan on or after May 1, 2005, are no longer eligible to make additional contributions to the Plan. Upon retirement or termination of employment, participants who were hired prior to January 1, 1996, may elect either (i) a lump-sum distribution or rollover of their balances in the Fixed and Variable Funds, or (ii) a monthly fixed or variable annuity payment from the Fixed Fund, the Variable Fund, or both. In addition, these participants may elect to transfer all or any portion of their after-tax account in the 401(k) Plan to the Fixed Fund and/or Variable Fund to receive monthly annuity payments. Participants who were hired on or after January 1, 1996, and who have balances in the Fixed and Variable Funds, may only elect a lump-sum distribution or rollover of their balances in the Fixed and Variable Funds at the time of retirement or termination of employment.

Note 7
TVA CONTRIBUTIONS

The Plan's assets are used to pay Plan benefits to retirees and beneficiaries and are maintained separately from TVA in a pension trust. Under the TVARS Rules, TVA is required to make an annual minimum required contribution to the Plan equal to the greater of (i) a formula set forth in the TVARS Rules consisting of a normal contribution and accrued liability contribution, which is calculated by the Plan's actuary, or (ii) $300 million. The $300 million floor applicable to the annual minimum required contribution is in effect for a period of 20 years (from fiscal year 2017 through fiscal year 2036) or, if earlier, through the fiscal year in the which the Plan reaches and remains at a 100 percent funded status. In addition to the minimum required contribution, TVA has the option in its discretion to make additional contributions to the Plan.

In both 2021 and 2020, TVA contributed $300 million to the Plan. In August 2021, the TVA Board of Directors approved a $300 million contribution to the Plan for 2022.

Note 8
AMENDMENTS TO THE TVARS RULES AND REGULATIONS

As a part of the TVARS Board's adoption of a new asset allocation policy, in order to maintain the same level of benefits for participants, on June 8, 2021, the TVARS Board approved amendments to Section 7C3 of the TVARS Rules and the actuarial assumptions in the Appendix to the TVARS Rules adding a floor and ceiling to the calculation of the interest credit rate for cash balance accounts for participants hired on or after January 1, 1996, and for Fixed Fund accounts.

As required by the Setting Every Community Up for Retirement Enhancement Act of 2019 (SECURE Act), effective January 1, 2020, the required beginning date for minimum required distributions (RMDs) from the Plan was changed from age 70 ½ to age 72, and distribution options for non-spouse beneficiaries of Plan benefits were modified. The Plan has implemented these changes operationally as of January 1, 2020, and the TVARS Rules will be amended to memorialize these changes in accordance with IRS regulations and guidance for the SECURE Act.

On December 15, 2020, the TVARS Board notationally approved an amendment to the Appendix to the TVARS Rules clarifying the PBGC interest rates to be used for calculating eligible Original Benefit Structure cash outs under Section 6K of the TVARS Rules effective January 1, 2021.

On December 8, 2020, the TVARS Board approved amendments to the Appendix to the TVARS Rules updating the mortality improvement scale used with the base mortality table for purposes of the actuarial liability valuation and minimum contribution requirements as of September 30, 2020.

Note 9
ACTUARIAL ASSUMPTIONS

Accumulated benefits are those future periodic payments, including single-sum payments that are attributable under the Plan to participants' service and contributions. Accumulated benefits include benefits expected to be paid to (1) retired or terminated participants or to their beneficiaries, (2) beneficiaries of participants who have died, and (3) current participants or their beneficiaries.

Pension benefits for participants who were first hired prior to January 1, 1996, are based on years of creditable service (to the nearest month), highest average compensation during any three consecutive years of creditable service, and a pension factor, less a Social Security offset.

Pension benefits for participants who were first hired prior to January 1, 1996, and who elected to switch pension structures from traditional to cash balance, are based on pay credits and interest credits that accumulate over the participant's cash balance service. Pay credits accumulate at a rate equal to 6 percent of eligible compensation, and interest is credited each month at the rate established by the TVARS Board each January 1. The interest rate is determined by calculating the percentage change of the 12-month average of the CPI-U for the period ending the previous October 31 over the preceding 12-month period, plus 3 percent (with a minimum of 6 percent and maximum of 10 percent). The interest rate was 6 percent during calendar years 2021 and 2020.

Pension benefits for participants who were first hired on or after January 1, 1996, and who have 10 or more years of service as of October 1, 2016, are based on pay credits and interest credits that accumulate over the participant's cash balance service. Pay credits accumulate at a rate equal to 3 percent of eligible compensation, and interest is credited each month at the rate established by the TVARS Board each January 1. The interest rate is determined by calculating the percentage change of the 12-month average of the CPI-U for the period ending the previous October 31 over the preceding 12-month period, plus 2 percent (with a minimum of 4.75 percent and maximum of 6.25 percent). The interest rate was 4.75 percent during calendar year 2021 and 2020.

Pension benefits for participants who were first hired on or after January 1, 1996, and who have less than 10 years of service as of October 1, 2016, are based on pay and interest credits accrued through October 1, 2016, and interest credits that accumulate over the participant's cash balance service after October 1, 2016. Interest is credited each month at the rate established by the TVARS Board each January 1. The interest rate is determined by calculating the percentage change of the 12-month average of the CPI-U for the period ending the previous October 31 over the preceding 12-month period, plus 2 percent (with a minimum of 4.75 percent and maximum of 6.25 percent). The interest rate was 4.75 percent during calendar year 2021 and 2020.

The actuarial present value of accumulated benefits is determined by the Plan's actuary, Mercer Human Resource Consulting, and is the amount that results from applying actuarial assumptions to adjust the accumulated benefits to reflect the time value of money (through discounts for interest) and the probability of payment (by means of decrements such as for death, disability, withdrawals or retirement) between the valuation date and the expected date of payment. Calculations of the accumulated pension benefits for participants as described above are based on benefits payable under all circumstances – retirement, death, disability, and termination of employment – are included to the extent they are deemed attributable to participants' compensation earned and service rendered to the valuation date. The significant actuarial assumptions used in the valuations as of September 30, 2021 and 2020, were:

A. Life expectancy of participants – For 2021 and 2020, the Pri-2012 mortality table multiplied by load factors of 100% for both male and female employees, 102% for male annuitants, and 115% for female annuitants (with no collar adjustments), and with mortality improvement projection based on Mercer's MSS-2021 and MSS-2020 improvement scales for 2021 and 2020, respectively.
B. Interest rate – 5.75 percent for 2021 and 6.75 percent for 2020.
C. Retiree cost-of-living adjustment increases – The actual COLAs were 1.54 percent, 1.13 percent, and 3.50 percent annually for 2020, 2021, and 2022, respectively. The assumed COLA is 2.00 percent annually thereafter.
D. Annual rates of retirements – the assumptions for 2021 and 2020 were:

Original Benefit Structure		Cash Balance Benefit Structure	
Attained Age	Annual Rates of Retirement	Attained Age	Annual Rates of Retirement
45-50	2.0%	45-54	2.0%
51-54	4.5%	55-58	6.5%
55-57	15.0%	59-61	9.0%
58-59	21.0%	62-63	18.5%
60-61	24.5%	64	13.0%
62-65	34.0%	65-69	27.0%
66-69	37.0%	70	100.0%
70	100.0%		

The foregoing actuarial assumptions are based on the presumption that the Plan will continue. If the Plan were terminated, different actuarial assumptions and other factors might be applicable in determining the actuarial present value of accumulated benefits.

Accumulated Benefits

The estimated actuarial present value of accumulated benefits for the TVA Retirement System Defined Benefit Pension Plan is as follows:

	September 30	
(Dollars in thousands)	**2021**	2020
Vested benefits		
Participants currently receiving benefits	**$ 8,258,600**	$ 7,629,800
Active participants	**1,650,100**	1,442,200
Deferred benefit participants	**112,500**	90,700
Total	**10,021,200**	9,162,700
Nonvested benefits	**-**	-
Total estimated actuarial present value of accumulated benefits payable from the Fixed Benefit Fund	**$ 10,021,200**	$ 9,162,700

The changes in the estimated actuarial present value of accumulated benefits of the TVA Retirement System Defined Benefit Pension Plan are as follows:

	September 30	
(Dollars in thousands)	**2021**	2020
Actuarial present value of accumulated benefits payable from the Fixed Benefit Fund at beginning of year	**$ 9,162,700**	$ 9,297,800
Increase during the year attributable to:		
Additional benefits accumulated and actuarial gains and losses	**108,000**	(2,700)
Interest due to decrease in the discount period	**594,100**	603,200
Benefits paid to participants	**(725,400)**	(721,700)
Change in assumptions	**881,800**	(13,900)
Actuarial present value of accumulated benefits payable from the Fixed Benefit Fund at end of year	**$ 10,021,200**	$ 9,162,700

Note 10
ADMINISTRATIVE EXPENSES AND RELATED PARTY TRANSACTIONS

The Plan's assets are used to pay for all eligible Plan administrative expenses.

In administering the Plan, the TVARS Board has the authority to arrange for administrative, clerical, legal, and medical adviser services, and it has historically requested many of such services from TVA. The TVARS Board appoints an Executive Secretary who serves as the executive director of TVARS and is responsible for all day-to-day functions of administering the Plan and investing the Plan's assets. The TVARS staff performs their work under the supervision and direction of the TVARS Board and Executive Secretary. The Executive Secretary and the TVARS staff are TVA employees who are loaned to TVARS pursuant to a loaned employee agreement. As loaned employees, TVARS reimburses TVA for their compensation, which is paid from the Plan's assets. For its use of requested services and the reimbursement of loaned employee compensation and benefits, as described above, TVARS paid TVA $4.2 million in 2021 and $3.6 million in 2020.

Note 11
TERMINATION

Under the TVARS Rules, TVA has the right at any time in its discretion to terminate the Plan. The termination of the Plan would not affect the obligations of TVA with regard to participants' nonforfeitable rights to accrued benefits under the Plan as set out in the TVARS Rules. In the event the Plan were terminated, the net assets of the Plan would be allocated generally to provide Plan benefits in the following order: (1) Fixed and Variable Fund benefits based on participants' contributions, and (2) nonforfeitable benefits based upon TVA's contributions, including COLA benefits. The Plan benefits are not guaranteed by the Pension Benefit Guaranty Corporation; however, under the TVARS Rules, TVA is responsible in a termination situation for funding any shortfall in assets necessary to pay nonforfeitable benefits and could fund such shortfall in a single lump-sum or in installments over a reasonable period of time.

Note 12
VARIABLE FUND

A general description of the Variable Fund is found under Note 6 – Participant Contributions.

Key financial data of the Variable Fund at September 30, 2021, and 2020 are as follows:

(Dollars in thousands)		2021		2020
Assets				
Commingled funds	$	107,687	$	93,540
S&P 500 Stock Index Fund		63,261		54,327
Total investments at fair value		170,948		147,867
Other receivable		-		9
Net Assets	$	170,948	$	147,876
Investment Income				
Net appreciation in fair value of investments	$	41,360	$	19,359
Dividends		864		1,107
Total investment income		42,224		20,466
Members' Contributions		857		873
Net Transfers for:				
Retirement benefits, withdrawals, and death benefits		(14,360)		(10,654)
Net transfers to Fixed Benefit Fund		(5,312)		(3,888)
Net transfers to 401(k) Plan		(337)		(1,372)
Net transfers		(20,009)		(15,914)
Net increase (decrease)	$	23,072	$	5,425

Note 13
SUBSEQUENT EVENTS

TVARS management has evaluated subsequent events for recognition and disclosure through April 15, 2022, which is the date the financial statements were available to be issued.

Crowe
Crowe LLP
Independent Member Crowe Global

INDEPENDENT AUDITOR'S REPORT

Members and Administrator of
Tennessee Valley Authority Savings and Deferral Retirement Plan
Knoxville, Tennessee

Report on the Financial Statements

We have audited the accompanying financial statements of Tennessee Valley Authority Savings and Deferral Retirement Plan (Plan), which comprise the statements of net assets available for benefits as of September 30, 2021 and 2020, and the related statements of changes in net assets available for benefits for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Plan's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of Tennessee Valley Authority Savings and Deferral Retirement Plan as of September 30, 2021 and 2020, and the changes in net assets available for benefits for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Crowe LLP

Crowe LLP

Oak Brook, Illinois
April 15, 2022

Tennessee Valley Authority
Savings and Deferral Retirement Plan
Statements of Net Assets Available for Benefits

September 30, 2021 and 2020

(Dollars in thousands)	**2021**	2020
Assets		
Investments at fair value	$ 3,902,999	$ 3,212,626
Other receivables	4	3
Notes receivable		
Participant loans	38,740	40,183
Total Assets	$ 3,941,743	$ 3,252,812
Liabilities		
Accounts payable	244	213
Net Assets Available for Benefits	$ 3,941,499	$ 3,252,599

The accompanying notes are an integral part of the financial statements.

Tennessee Valley Authority
Savings and Deferral Retirement Plan
Statements of Changes in Net Assets Available for Benefits

Fiscal Years Ended September 30, 2021 and 2020 *(Dollars in thousands)*	**2021**	2020
Investment Income		
Net appreciation	$ 628,850	$ 395,907
Dividends and interest	7,466	10,816
Total investment income	636,316	406,723
Contributions		
Members	127,361	113,384
TVA	91,823	87,267
Transfers from annuity funds	6,317	7,369
Total contributions	225,501	208,020
Other Income		
Revenue credit	15	37
Benefits, Withdrawals, and Transfers		
Benefits and withdrawals	(169,821)	(155,854)
Transfers to annuity funds	(2,860)	(4,565)
Administrative expenses-consultant and audit fees	(251)	(196)
Total benefits, withdrawals, and transfers	(172,932)	(160,615)
Net increase	688,900	454,165
Net Assets Available for Benefits		
Beginning of year	3,252,599	2,798,434
End of year	$ 3,941,499	$ 3,252,599

The accompanying notes are an integral part of the financial statements.

Notes to Financial Statements
September 30, 2021 and 2020

Note 1
PLAN DESCRIPTION
General
The Tennessee Valley Authority Retirement System (TVARS or System) was established by the Tennessee Valley Authority (TVA) in 1939 to provide retirement benefits for TVA employees. When TVA established the System, it also approved the Rules and Regulations of the TVA Retirement System (TVARS Rules), which constitute the legal charter under which the System operates. TVARS is a separate legal entity from TVA and is governed by an independent, seven-member Board of Directors (TVARS Board). Three of the directors are appointed by TVA, three are elected by and from the membership, and the seventh director, who is a TVA retiree, is selected by the other six. The TVARS Board appoints an Executive Secretary, who is responsible for the day-to-day functions of the System, and the System staff performs their work for the System under the supervision and direction of the TVARS Board and the System's Executive Secretary.

The Tennessee Valley Authority Savings and Deferral Retirement Plan (401(k) Plan) is a defined contribution plan sponsored by TVA and administered by the TVARS Board. The 401(k) Plan is governed by the Provisions of the Tennessee Valley Authority Savings and Deferral Retirement Plan (401(k) Plan Provisions). As a retirement plan for employees of a federal agency, the 401(k) Plan is a governmental plan under section 414(d) of the Internal Revenue Code and is not subject to the Employee Retirement Income Security Act (ERISA), which governs the retirement plans of private entities. Fidelity Management Trust Company, which serves as the 401(k) Plan trustee, and Fidelity Workplace Services LLC, which serves as the provider of recordkeeping services, are collectively known as "Fidelity."

A brief description of the 401(k) Plan is provided below for general information purposes only. Participants may refer to the 401(k) Plan Provisions for more information. *This description is intended to help participants and stakeholders understand the administration of and the benefits under the 401(k) Plan. The 401(k) Plan Provisions, not this information, are used to determine the benefits to which a participant is entitled.*

Participant Contributions
Most full-time and part-time annual TVA employees are eligible to participate in the 401(k) Plan (participants); however, TVA board members, and TVA employees with prior federal service who retain membership in the Civil Service or Federal Employees Retirement Systems, are excluded from participation in the 401(k) Plan. Participants may elect to contribute to the 401(k) Plan in the form of pre-tax deferrals, designated Roth contributions, and/or after-tax contributions. In addition, participants who are age 50 or older during the plan year are eligible to make additional "catch up" contributions (either pre-tax or Roth designated).

Salary deferrals (pre-tax and/or Roth designated) are made through bi-weekly payroll deductions only into the 401(k) Plan. Eligible employees who do not elect to opt out are automatically enrolled as participants in the 401(k) Plan upon employment with pre-tax salary deferrals of six percent of eligible compensation. After-tax contributions may be made by payroll deductions or cash payment into the 401(k) Plan. A participant may increase, decrease, or stop any of these contributions at any time.

TVA Contributions
Under the 401(k) Plan, the non-elective and matching contributions TVA makes to participant accounts are based on the participant's employment hire date, years of service, and individual elections as follows:

- Participants who were first hired prior to January 1, 1996, receive matching contributions from TVA of 25 cents on every dollar contributed by the participant to the 401(k) Plan up to a maximum of 1.5 percent of eligible compensation.

- Employees who were first hired prior to January 1, 1996, and who elected to switch pension structures from the traditional to the cash balance, receive matching contributions from TVA of 75 cents on every dollar contributed by the participant to the 401(k) Plan up to a maximum of 4.5 percent of eligible compensation.

- Employees who were first hired on or after January 1, 1996, and who have 10 or more years of service as of October 1, 2016, receive (1) an automatic, non-elective contribution from TVA equal to 3 percent of eligible compensation, and (2) matching contributions from TVA of 75 cents on every dollar contributed by the participant to the 401(k) Plan up to a maximum of 4.5 percent of eligible compensation.

- Employees who were first hired on or after January 1, 1996, and who have less than 10 years of service as of October 1, 2016, receive (1) an automatic, non-elective contribution from TVA equal to 6 percent of eligible compensation, and (2) matching contributions from TVA on participant contributions to the 401(k) Plan dollar-for-dollar up to a maximum of 6 percent of eligible compensation.

- Employees who elected to waive their cash balance retirement benefit and transfer their cash balance account to the 401(k) Plan effective October 1, 2018, receive (1) an automatic, non-elective contribution from TVA equal to 6 percent of eligible compensation, and (2) matching contributions from TVA on participant contributions to the 401(k) Plan dollar-for-dollar up to a maximum of 6 percent of eligible compensation.

- Employees who are first hired on or after July 1, 2014 (or who are rehired and were either previously not vested in the pension or cashed out their pension benefit) receive (1) an automatic, non-elective contribution from TVA equal to 4.5 percent of eligible compensation, and (2) matching contributions from TVA of 75 cents on every dollar contributed by the participant to the 401(k) Plan up to a maximum of 4.5 percent of eligible compensation.

Contribution Limits

All contributions to the 401(k) Plan are subject to certain annual limits published by the Internal Revenue Service (IRS). Contributions to the 401(k) Plan, including participant contributions and TVA matching and non-elective contributions, along with participant contributions to the System's Fixed and Variable Funds, could not exceed the lesser of $58,000 and $57,000 for calendar years 2021 and 2020, respectively, or 100 percent of calendar year-to-date compensation if less. Additionally, salary deferral contributions (pre-tax and/or designated Roth) to the 401(k) Plan could not exceed $19,500 for calendar years 2021 and 2020. Participants who are age 50 or older were eligible to make additional "catch-up contributions" (on a pre-tax and/or designated Roth basis) up to $6,500 for calendar years 2021 and 2020 over and above the pre-tax/designated Roth contribution limit, which could not begin until the annual pre-tax/designated Roth contribution limit was reached. These IRS limits may increase annually according to the IRS cost-of-living adjustment rules.

Vesting, Distributions, and Rollovers

Participants who contribute to the 401(k) Plan are immediately vested in their own contributions and vest in TVA matching and non-elective contributions upon completion of three years of TVA service. Notwithstanding, participants vest in TVA matching and non-elective contributions during employment upon death, disability, or attainment of age 65.

At the time of an IRS-qualified distribution event, such as termination of employment, retirement, death, or disability, participants (or the participant's beneficiary if the participant is deceased) may elect the distribution of all or a portion of the balance of the participant's 401(k) account balance in various lump-sum or periodic payment options in accordance with the 401(k) Plan Provisions. The 401(k) Plan also provides for participant loans and several different types of in-service distribution options, such as hardship withdrawals, post age 59 ½ distributions, and distributions of after-tax balances, all subject to certain rules and restrictions as set forth under the 401(k) Plan Provisions and applicable IRS rules.

During employment, participants are permitted to rollover funds from other qualified retirement plans and individual retirement accounts (IRAs) into the 401(k) Plan. Also, participants are permitted to transfer their funds from the System's Fixed and Variable Funds to the 401(k) Plan. Beginning April 1, 2019, participants may elect in-plan Roth rollovers of any eligible pre-tax, after-tax, matching, non-elective or rollover balances within the participant's 401(k) account.

Accounts and Investments

Individual accounts are maintained for each participant. Each participant's account is adjusted to reflect the participant's contributions, TVA's contributions, any investment earnings or losses, and a flat quarterly fee for Fidelity's trustee, recordkeeping, and other services. Participants may invest their accounts in any of the investment funds offered in the 401(k) Plan within the following four-tier structure: Tier 1 – Target Date Funds; Tier 2 – Passively Managed Funds; Tier 3 – Actively Managed Funds; and Tier 4 – Self-Directed Brokerage Account.

The Target Date Funds, called Target Retirement Portfolios, are based on funds managed by BlackRock and serve as the qualified default investment alternative for participants. The Target Retirement Portfolios provide a simple and efficient way for participants to create a diversified asset allocation with prudent risk and return characteristics based on their target retirement date and managed to gradually become more conservative over time. The current Target Retirement Portfolios are as follows: Target Retirement Income Portfolio, 2025 Target Retirement Portfolio, 2030 Target Retirement Portfolio, 2035 Target Retirement Portfolio, 2040 Target Retirement Portfolio, 2045 Target Retirement Portfolio, 2050 Target Retirement Portfolio, 2055 Target Retirement Portfolio, and 2060 Target Retirement Portfolio.

The Passively Managed Funds include the following 4 broad market index funds: BlackRock US Debt Index (fixed income); BlackRock Equity Index (U.S. large cap equity); BlackRock Russell® 2500 (U.S. small/mid cap equity); and BlackRock ACWI ex-U.S. IMI Index (international equity).

The Actively Managed Funds include the following nine funds: Vanguard Cash Reserves Federal Money Market Fund Admiral Shares (money market); Fidelity Managed Income Portfolio II CI3 (stable value fund); Loomis Sayles Core Plus Fixed Income Fund (fixed income); BlackRock Strategic Completion Non-Lendable Fund M (real assets composed of REITs, TIPS and commodities); T. Rowe Price Institutional Large Cap Value Fund (U.S. large cap value equity); Fidelity Growth Company CIT (U.S. large cap growth equity); DFA U.S. Targeted Value Portfolio Institutional Class (U.S. small/mid cap value equity); William Blair Small-Mid Cap Growth Collective Investment Fund (U.S. small/mid cap growth equity); and Harding Loevner International Equity Collective Investment Fund (international equity).

Forfeitures

If a participant ceases to be an employee for any reason other than death or disability prior to completing three years of TVA service, the entire amount of that participant's matching and non-elective contributions account is forfeited as of the termination date. Forfeitures are used to reduce TVA's matching contributions to the 401(k) Plan and for eligible 401(k) Plan administrative expenses. No forfeitures were used to reduce TVA's matching contributions in 2021 and 2020. The amount of forfeitures used for administrative expenses totaled $220 thousand in 2021 and $196 thousand in 2020.

Termination

Under the 401(k) Plan Provisions, TVA has the right at any time in its discretion to terminate the 401(k) Plan. In the event the 401(k) Plan is terminated: (1) any unvested matching contributions in participant accounts will become vested, (2) the net assets will be distributed to participants in proportion to their respective accounts in the 401(k) Plan, and (3) payment of vested benefits based on contributions and gains and losses thereon to participants' accounts will be assured.

Note 2
SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting

The financial statements are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America. Benefits are recognized at the time of payment.

Investment Valuation and Income Recognition

The 401(k) Plan's investments are reported at fair value. Purchases and sales of securities are recorded on a trade date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation (depreciation) includes the 401(k) Plan's gains and losses on investments bought and sold as well as held during the year.

Fair value is viewed as the price that would be received by the 401(k) Plan for an asset or paid by the 401(k) Plan to transfer a liability (an exit price) in an orderly transaction between market participants on the measurement date in the 401(k) Plan's principal or most advantageous market for the asset or the liability. There is a fair value hierarchy which maximizes the use of observable inputs and minimizes the use of unobservable inputs when measuring fair value. The hierarchy places the highest priority on unadjusted quoted market prices in active markets for identical assets or liabilities (Level 1 inputs) and gives the lowest priority to unobservable inputs (Level 3 inputs). The three levels of inputs within the fair value hierarchy are defined as follows:

> Level 1 Inputs: Quoted prices (unadjusted) for identical assets in active markets that the 401(k) Plan has the ability to access at the measurement date.
>
> Level 2 Inputs: Significant observable inputs other than Level 1, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data such as matrix pricing, yield curves, and indices.
>
> Level 3 Inputs: Significant unobservable inputs that reflect the 401(k) Plan's own assumptions about the assumptions that market participants would use in pricing an asset or liability.

In many cases, a valuation technique used to measure fair value includes inputs from multiple levels of fair value hierarchy. The lowest level of significant input determines the placement of the entire fair value measurement in the hierarchy.

The following descriptions of the valuation methods and assumptions used by the 401(k) Plan to estimate the fair value of investments apply to investments held directly by the 401(k) Plan.

Mutual funds: A mutual fund is an investment company that pools the capital of many investors and invests it in stocks, bonds, short-term money market instruments, and other securities. The 401(k) Plan's investments in any mutual funds are valued at quoted market prices based on their closing net asset values (or unit value) per share. Since mutual fund holdings are priced by an exchange in an active market, they are classified as Level 1.

Collective trusts: The fair values of participation units held in the collective trusts are based on the net asset values per unit as reported by the fund managers. The collective trusts provide for daily redemptions by the Plan at reported net asset values per share, with no advance notice requirement.

Self-directed brokerage link (BrokerageLink): BrokerageLink allows participants who open a brokerage account with Fidelity to purchase mutual funds, exchange-traded funds, or other investment securities offered on the BrokerageLink platform. Each participant selects the specific holdings for their account. The fair value hierarchy classification is determined by the category pricing methodologies.

Mutual funds, including money market mutual funds, are priced by an exchange in an active market and are therefore classified as Level 1. Stocks are priced based on quoted bid prices in active markets for identical assets and are therefore classified as Level 1.

Bonds in BrokerageLink consist primarily of corporate bonds and U.S. Treasury securities. Corporate bonds are valued based on recent bid prices or the average of recent bid and asked prices, when available (Level 2 inputs). If not available, the bonds are valued through matrix pricing, a mathematical technique commonly used to price debt securities that are not actively traded. This method values debt securities without relying exclusively on quoted prices for a specific security but rather by relying on the security's relationship to other benchmark-quoted securities (Level 2 inputs). The fair value of U.S. Treasury securities reflects the closing price reported in the active market in which the security is traded (Level 1 inputs).

Other investments in BrokerageLink consist primarily of certificates of deposit and exchange traded options. Certificates of deposit are typically priced using evaluated pricing applications and models that incorporate observable market data such as current interest rates and relative maturities (Level 2 inputs). Exchange-traded options are generally valued each business day at the official closing price (typically the last reported sales price) on the exchange on which the security is primarily traded. These options are classified as Level 1.

Investments measured at fair value on a recurring basis are summarized as follows.

Investments at Fair Value

Investments measured at fair value on a recurring basis at September 30, 2021 and 2020, are summarized below:

	Fair Value Measurements at September 30, 2021, Using			Fair Value Measurements at September 30, 2020, Using		
(Dollars in thousands)	Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Total	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2
Mutual funds	$ 213,363	$ 213,363	$ -	$ 120,416	$ 120,416	$ -
Collective trusts[(a)]	3,008,645	-	-	2,546,123	-	-
BrokerageLink	680,991	680,267	724	546,087	542,682	3,405
Total Investments at fair value	$ 3,902,999	$ 893,630	$ 724	$ 3,212,626	$ 663,098	$ 3,405

[(a)] Certain investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the statement of net assets available for benefits.

Risks and Uncertainties

The 401(k) Plan holds various investments. Investments are exposed to various risks such as interest rate, market, liquidity, and credit risks. Due to the level of risk associated with certain investments and the sensitivity of certain fair value estimates to changes in valuation, it is at least reasonably possible that changes in the values of investments will occur in the near term and that such changes could materially affect the amounts reported in the Statements of Net Assets Available for Benefits and participants' individual account balances.

The COVID-19 pandemic continues impact the United States and the world. The TVARS staff and Board, in conjunction with their investment consultant, have developed a broad and diverse 401(k) Plan investment lineup, including Target Retirement Portfolios, across multiple asset classes and investment strategies.

TVARS and Fidelity continue to provide the resources and education to help participants with 401(k) investments, distributions, and decisions.

Tax Status

The IRS determined and informed TVARS in August 2014 that the 401(k) Plan is designed in accordance with the applicable sections of the Internal Revenue Code (IRC). Since the receipt of the latest IRS determination letter, the IRS has ended the 5-year determination letter cycle program for individually designed plans. Accordingly, beginning in 2019, TVARS has engaged the Groom Law Group (Groom) to provide plan document compliance services where Groom will review the 401(k) Plan and any amendments subsequent to the previous IRS determination letter or plan document review and provide an opinion intended to confirm the 401(k) Plan's continued satisfaction of the IRS document requirements applicable to the 401(k) Plan. In April 2020, Groom provided TVARS a favorable opinion letter on the design of the 401(k) Plan. Based on this opinion from Groom and the opinion of TVARS legal counsel, TVARS management believes that the 401(k) Plan is currently designed and being operated in compliance with the applicable requirements of the IRC. Therefore, no provision for income taxes has been included in these financial statements.

Accounting principles generally accepted in the United States of America require TVARS management to evaluate tax positions taken by the 401(k) Plan. A tax position is recognized as a benefit only if it is "more likely than not" that the tax position would be sustained in a tax examination, with a tax examination presumed to occur. The amount recognized is the largest amount of tax benefit that is greater than 50 percent likely of being realized upon examination. For tax positions not meeting the "more likely than not" test, no tax benefit is recorded.

TVARS management has analyzed the tax positions it has taken, and has concluded that as of September 30, 2021 and 2020, there are no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The 401(k) Plan is subject to routine audits by the Internal Revenue Service, Tax Exempt and Government Entities Division; however, there are currently no audits for any tax periods in progress. TVARS management believes the 401(k) Plan is no longer subject to plan qualification examinations for years prior to 2015.

Management Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date(s) of the financial statements and the reported amounts of revenues and expenses during the reporting period(s). Actual results could differ from those estimates.

Note 3
AMENDMENTS TO 401(k) PLAN PROVISIONS

As required by the Bipartisan Budget Act of 2018 (Budget Act), effective January 1, 2020, certain changes regarding hardship withdrawals have been made to the 401(k) Plan, including the elimination of the 6-month suspension of contributions to the 401(k) Plan following a hardship withdrawal, the elimination of the requirement that 401(k) participants obtain all available plan loans prior to receiving a hardship withdrawal, the expansion of the types of 401(k) contribution sources that are available for hardship withdrawals, and the addition of a new type of safe harbor expense for losses relating to a federally-declared disaster. The 401(k) Plan implemented these changes operationally as of January 1, 2020, and on December 7,2021, the TVARS Board amended the 401(k) Plan Provisions to memorialize these changes in accordance with IRS regulations and guidance for the Budget Act.

On December 7, 2021, the TVARS Board approved amendments to Articles 9.5A and 9.5B of the 401(k) Plan Provisions effective October 1,2021, to memorialize how forfeitures are being used by the 401(k) Plan for allowable administrative expenses and the time period in which the forfeitures must be used (by the end of the plan year following the year in which the forfeitures occur) pursuant to IRS rules.

As required by the Setting Every Community Up for Retirement Enhancement Act of 2019 (SECURE Act), effective January 1, 2020, the required beginning date for minimum required distributions (RMDs) from the 401(k) Plan was changed from age 70 ½ to age 72, and distribution options for non-spouse beneficiaries of 401(k) Plan benefits were modified. The 401(k) Plan implemented these changes operationally as of January 1, 2020, and the 401(k) Plan Provisions will be amended to memorialize these changes in accordance with IRS regulations and guidance for the SECURE Act.

Pursuant to the Coronavirus Aid, Relief, and Economic Security Act (CARES Act), the TVARS Board elected to provide the options of coronavirus related distributions (CRDs) and coronavirus related loan deferrals (loan deferrals) for participants in the 401(k) Plan. Under the CRD option, eligible individuals (as defined by IRS rules) could elect withdrawals from their 401(k) Plan accounts of up to $100,000 at any time from March 27, 2020 through December 30, 2020 and such distributions are not subject to the 10% early withdrawal tax and may also be recontributed back to the 401(k) Plan. Under the loan deferral option, eligible individuals (as defined by IRS rules) could elect to defer for the payments on their existing 401(k) Plan loans due between March 27, 2020 and December 31, 2020. The 401(k) Plan added these two coronavirus related options as of March 27, 2020, for the period described above, and the 401(k) Plan Provisions will be amended to memorialize these election options in accordance with IRS regulations and guidance for the CARES Act.

As required by the CARES Act, the 401(k) Plan waived RMDs due for calendar year 2020 for participants subject to RMDs unless a participant elected to receive them. The 401(k) Plan Provisions will be amended to memorialize this RMD waiver in accordance with IRS regulations and guidance for the CARES Act.

Note 4
COMMITMENTS AND CONTINGENCIES

The 401(k) Plan had no existing material commitments or contingencies at September 30, 2021 and 2020.

Note 5
REVENUE CREDITS

Only one fund in the 401(k) Plan investment lineup utilizes revenue sharing fees – the Fidelity Government Money Market Fund – which is the temporary default fund where money is invested when participants sell any securities in BrokerageLink and then move the proceeds out of BrokerageLink to invest in the core lineup of investment funds. Under the 401(k) Plan trust agreement with Fidelity, any revenue sharing fees tied to participant funds in the Fidelity Government Money Market Fund (and any other funds with revenue sharing fees that may be added to the investment lineup in the future) are credited back to the participants on a dollar-for-dollar basis. The amount credited to participants' accounts was $15 thousand and $12 thousand in 2021 and 2020, respectively. Additionally, the 401(k) Plan may receive revenue credits pertaining to net float earnings on omnibus accounts used for transactions in transit. These float credits are applied at the 401(k) Plan level. There were no float credits in 2021 and $25 thousand in 2020.

Note 6
ADMINISTRATIVE EXPENSES AND PARTICIPANT COSTS

The cost of recordkeeping and certain other financial and trust services of the 401(k) Plan, which includes the cost of two dedicated Fidelity financial consultants for participants, are paid by the 401(k) Plan participants. Participants are charged a flat, quarterly fee, which is deducted from participants' accounts. Participants also pay certain costs associated with services they elect to use such as managed accounts and loans, which are deducted from participants' accounts. Such participant costs are included within benefits and withdrawals in the 401(k) Plan's Statement of Changes in Net Assets Available for Benefits. Investment management fees for the funds in the 401(k) Plan investment lineup are charged as a reduction of investment return and included in the investment income (loss) reported by the 401(k) Plan.

Certain administrative expenses of the 401(k) Plan, such as consulting and audit fees, are paid by TVA, via an offset against the return of forfeitures. The 401(k) Plan incurred $251 thousand in administrative expenses in 2021 and $196 thousand in 2020.

Note 7
NOTES RECEIVABLE FROM PARTICIPANTS

With certain limits, the 401(k) Plan permits loans to participants from their own accounts. Participants may borrow a percentage of their vested account balance (maximum $50,000) for up to five years, or 10 years if the loan is to be used to purchase a primary residence. The loan interest rate is the prime rate as of the beginning of the quarter during which the loan was taken plus 1 percent, which was 4.25 percent at September 30, 2021 and September 30, 2020. Such interest is credited directly to the account of the participant.

Notes receivable from participants are reported at their unpaid principal balance, with no allowance for credit losses, as repayments of principal and interest are received through payroll deductions and the notes are collateralized by the participants' account balances.

Note 8
SUBSEQUENT EVENTS

TVARS management has evaluated subsequent events for recognition and disclosure through April 15, 2022 which is the date the financial statements were available to be issued.

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