

## C O N T E N T S

Financial Highlights and Statistics ..... 1
Letter from the Chair and Vice Chair ..... 2
Board of Directors ..... 3
Professional Advisors and Investment Managers ..... 4
Plan Summary ..... 5
Certification of Financial Statements ..... 9
Report of Independent Auditors - TVA Retirement System ..... 10
TVA Retirement System ..... 11
Report of Independent Auditors - TVA Savings and Deferral Retirement Plan [401(k) Plan] ..... 38
TVA Savings and Deferral Retirement Plan [401(k) Plan] ..... 39
Contact Information ..... 45

| (Dollars in thousands) | 2011 | 2010 | Change | \% Change |
| :---: | :---: | :---: | :---: | :---: |
| Net Assets Available for Benefits |  |  |  |  |
| TVA Retirement System (Fixed Benefit Fund and Variable Fund) | \$ 6,676,693 | \$ 6,923,275 | \$ 246,582$)$ | -3.6\% |
| TVA Savings \& Deferral Retirement Plan [401 (k) Plan] | 1,370,152 | 1,370,927 | (775) | -0.1\% |
| Total | \$8,046,845 | \$8,294,202 | \$(247,357) | -3.0\% |
| Net Assets Available for Benefits (Fixed Benefit Fund) | \$ 6,552,833 | \$ 6,785,566 | \$ 232,733$)$ | -3.4\% |
| Accumulated Benefit Obligation (Fixed Benefit Fund) | \$ 8,667,000 | \$ 8,451,900 | \$215,100 | 2.5\% |
| Contributions |  |  |  |  |
| Employer (all funds) | \$ 300,780 | \$ 26,765 | \$274,015 | 1023.8\% |
| Employee (all funds) | \$ 115,456 | \$ 103,062 | \$12,394 | 12.0\% |
| Benefits Paid (all funds) | \$ 698,663 | \$ 687,915 | \$10,748 | 1.6\% |
| Number of Active Members | 12,765 | 12,327 | 438 | 3.6\% |
| Number of Retirees | 23,833 | 23,834 | (1) | 0.0\% |

This summary is intended for informational purposes only.

FIXED BENEFIT FUND
Market Value of Assets and Liabilities, and Funded Ratio (in thousands)


401(K) PLAN CONTRIBUTIONS (in thousands)


## T O R E T I R E M E N T S Y S T E M M E M B E R S

The TVA Retirement System (System) Board of Directors is pleased to present the 2011 Annual Report for the year ended September 30, 2011. For the year, the net assets of the Fixed Benefit Fund totaled $\$ 6.6$ billion while the System's liabilities totaled $\$ 8.7$ billion, resulting in an asset to liability ratio of 76 percent.

The first nine months of fiscal year 2011 saw the System's assets return over 10 percent. However, increased market volatility, driven by investor concerns over the downgrade of U.S. debt from AAA to AA+ and the European sovereign debt and banking crisis, led to a steep equity market decline in the final three months of the fiscal year. For the full fiscal year, investments returned 1.6 percent, or approximately $\$ 107$ million, with approximately $\$ 596$ million paid in benefits to 22,919 retirees and beneficiaries.

In 2011 the Board focused on strengthening investment and risk management processes by approving a new asset-allocation policy and investment strategy. As part of this policy, the Board adopted a "de-risking" strategy focused on the volatility of the System's funded status. The objective of the de-risking strategy is to reduce the volatility of the funded status of the System over time as the funded status improves.

Another initiative for the Board in 2011 was to strengthen Board governance and organizational performance. The Board approved and implemented eight governance policies that, along with the System's Rules and Regulations, will strengthen the framework by which the Board operates, allowing the Board to carry out its responsibilities.

Other items of interest in fiscal year 2011 include the following:

- In September 2011, TVA contributed $\$ 270$ million to the System.
- The TVARS Board engaged Bradley Arant Boult Cummings LLP to serve as outside legal counsel regarding administration, operation and maintenance of the System.
- Tony Troyani was re-elected to the TVARS Board of Directors.
- Allen Stokes was selected as the seventh Director

While 2011 was not a particularly good year for absolute investment performance, relative performance to the policy benchmark and other pension plans was very good during a period of extreme market volatility. The TVARS Board made excellent progress in the areas of investment strategy and Board governance and plans to continue that progress in 2012.

Thank you for the trust and confidence you have placed in the System Board over the years. We are honored to continue to work on your behalf and are pleased to report on the status of the System.

For the Board,


Leslie P. Bays
Chair, Board of Directors
TVA Retirement System

## 

Janet C. Herrin Vice Chair, Board of Directors
TVA Retirement System
B O A R D
O F
D I R E C T O R S

ELECTED BY MEMBERS
Leslie P. Bays
Elected June 13, 2008
Leonard J. Muzyn
Elected November 1, 2003
Anthony L. Troyani, Jr.
Elected November 1, 2008

APPOINTED BY TVA
Janet C. Herrin
Appointed May 16, 2005
John M. Hoskins
Appointed July 28, 2003
Tammy W. Wilson
Appointed May 10, 2010

## SELECTED BY OTHER

 DIRECTORSAllen E. Stokes
Selected March 8, 2011


Leslie P. Bays


Janet C. Herrin


Leonard J. Muzyn


John M. Hoskins

Anthony L. Troyani, Jr.



Tammy W. Wilson


Allen E. Stokes

## STANDING COMMITTEES

AUDIT
John M. Hoskins, Chair Leslie P. Bays Leonard J. Muzyn Allen E. Stokes

## ELECTION

Janet C. Herrin, Chair Leslie P. Bays
Leonard J. Muzyn

## RETIREMENT

Anthony L. Troyani, Jr., Chair Janet C. Herrin
Tammy W. Wilson

INVESTMENT
Leonard J. Muzyn, Chair John M. Hoskins, Vice Chair Leslie P. Bays
Michael Brakebill, Nonvoting Janet C. Herrin Allen E. Stokes
Anthony L. Troyani, Jr. Tammy W. Wilson

BOARD OFFICERS
Leslie P. Bays Chair

Janet C. Herrin
Vice Chair
Patrick D. Brackett
Executive Secretary
Pamela K. Ramsey
Assistant Secretary and
Assistant Treasurer
Sally R. Weber
Treasurer
Courtney L. Hammontree
Assistant Treasurer
Judy Stephens
Assistant Treasurer

## PROFESSIONAL ADVISORS

ACTUARY
Mercer Human Resource Consulting, Atlanta

## AUDITORS

Crowe Horwath LLP, South Bend, Indiana E.H. Johnson \& Company, P.C., Knoxville

INVESTMENT ADVISOR
Michael Brakebill, Chief Investment Officer, Tennessee Consolidated Retirement System

## INVESTMENT CONSULTANT

Wilshire Associates Incorporated, Pittsburgh

LEGAL COUNSEL
W. Colby Carter, Senior Attorney, TVA, Knoxville Bradley Arant Boult Cummings LLP, Nashville

MASTER TRUSTEE
The Bank of New York Mellon, Pittsburgh

TRUSTEE - 401(k) PLAN
Fidelity Management Trust Company, Boston
MEDICAL ADVISOR
Anne S. Roberts, M.D., Knoxville
MEDICAL BOARD
Advanced Medical Reviews, Los Angeles

CASH BALANCE PENSION PLAN RECORDKEEPING

Aon Hewitt

INVESTMENT MANAGERS

FIXED BENEFIT FUND
Abbott Capital Management LP Adams Street Partners, LLC
AQR Capital Management, LLC
Baillie Gifford Overseas Limited Bridgewater Associates, Inc. Dimensional Fund Advisors LP Fisher Investments
Franklin Templeton Institutional, LLC
Guggenheim Partners Asset Management HarbourVest Partners, LLC
Hancock Natural Resource Group, Inc.
J.P. Morgan Investment Management, Inc.

Kennedy-Wilson Holdings, Inc.
Landmark Realty Advisors, LLC
MacKay Shields, LLC
Mellon Capital Management
Neuberger Berman, LLC
Oaktree Capital Management, LP
Pacific Investment Management Company
The Prudential Insurance Company of America
Prudential Investment Management, Inc.
Pyramis Global Advisors, LLC
Siguler Guff Advisors, LLC
Standish Mellon Asset Management, LLC
Stone Harbor Investment Partners, LP
Taplin, Canida \& Habacht Vedanta Capital, LLC
Wellington Management Company, LLP
Western Asset Management Company
Wilshire Associates Incorporated WRH Partners, LLC

VARIABLE FUND
Fidelity Investments
Mellon Capital Management

## P L A N S U M M A R Y

Established in 1939, the TVA Retirement System (System) is a defined benefit plan (Plan) covering most full-time and part-time annual employees. The System is a separate legal entity from TVA and is administered by an independent, seven-member Board of Directors. Three of the directors are appointed by TVA, and three are elected by and from the membership. A seventh director is selected by the other six. The System Board also has responsibility for administration of a defined contribution plan, the TVA Savings and Deferral Retirement Plan [401(k) Plan].

TVA contributes to the System such amounts as are necessary on an actuarial basis to provide the System with assets sufficient to meet TVA-funded benefit obligations to be paid to members. In consideration of TVA's $\$ 1$ billion contribution to the System in September 2009, the System's Rules and Regulations were amended to temporarily suspend the minimum annual contribution requirements for a four-year period from fiscal year 2010 through fiscal year 2013; however, TVA may still make additional discretionary contributions to the System, as it determines, during this period of time. In September 2011, TVA made a discretionary contribution of $\$ 270$ million to the System. While members are not required to make contributions to the System, members are eligible to make voluntary contributions to the System's Fixed and/or Variable Funds unless they have transferred their funds to the $401(\mathrm{k})$ Plan after May 1, 2005. Members can also contribute to the $401(\mathrm{k})$ Plan, and TVA makes matching contributions to that plan.

## RETIREMENT BENEFITS

A member's retirement benefit consists of a pension benefit derived from TVA's contributions and earnings on Plan assets. A member's retirement benefit may also include an annuity and/or a lump-sum benefit derived from the member's contributions to the Fixed and/or Variable Funds and the 401 (k) Plan. The pension plus the annuity, if applicable, compose the System's retirement allowance. In addition, the System provides a supplemental benefit to eligible retirees that may be used to help with the cost of medical insurance.

## ORIGINAL BENEFIT STRUCTURE

The pension from the Original Benefit Structure is based on the member's years (to the nearest month) of creditable service, highest average base pay during any three consecutive years of creditable service, and a pension factor, less a Social Security offset.

Creditable service is the length of time spent as a member of the System. It also includes any annual leave forfeited
after January 1, 1980, and, at the member's election, the total balance of any unused sick leave. Leave is counted hour for hour for the first 1,000 hours and two hours for each hour in excess of 1,000 hours ( 2,080 hours equates to one year of creditable service). Forfeited annual leave and unused sick leave may be used in determining both the eligibility for retirement and the amount of the benefit. Creditable service may also include previous periods of membership in the System, certain military service, and some periods of leave without pay.

Members with at least five years of creditable service who are at least attained age 55 are always eligible to receive an immediate benefit. Vested members less than attained age 55 may also receive an immediate benefit unless they are terminated for cause. Members who are at least actual age 45 at retirement and whose age plus creditable service equals 80 or more receive the maximum pension factor of 1.3. Vested members who are at least attained age 60 at the time they begin to receive their pension also receive the maximum pension factor even if their age plus creditable service does not equal 80 .

## CASH BALANCE BENEFIT STRUCTURE

The System implemented the Cash Balance Benefit Structure for employees who became members on or after January 1, 1996, with no prior System membership. Employees rehired by TVA after a break in service of 180 or more consecutive days and who were participants in the Original Benefit Structure when they were last employed are given an opportunity to participate in the Cash Balance Benefit Structure when they are rehired or at the time they become eligible for System membership.

The Cash Balance Benefit Structure provides a TVAfunded pension benefit based on the balance of the cash balance account established for each member and a conversion factor based on the member's age (to the nearest month). This cash balance account receives pay credits each month equal to 6 percent of compensation, as well as monthly interest credits at the rate established by the System Board each January 1. The interest rate is determined by calculating the percentage change of the 12-month average of the Consumer Price Index (CPI) for the period ending the previous October 31 over the preceding 12 -month period, plus 3 percent. The System has established a minimum annual interest rate of 6 percent and a maximum annual interest rate of 10 percent for interest credits. The annual interest rate was 6 percent for calendar years 2011 and 2010. Cash balance service is the length of time spent as a member of the System. It does not include credit for unused sick leave, forfeited annual

## P L A N S U M M A R Y

leave, or pre-TVA employment military service. Cash balance service may include previous periods of membership in the System and some periods of leave without pay. Members with at least five years of cash balance service who are at least age 55 are always eligible to receive an immediate benefit upon termination. Vested members who are less than age 55 may also receive an immediate benefit unless they are terminated for cause.

## SUPPLEMENTAL BENEFIT

If upon retirement a member meets the eligibility criteria, the member will receive a supplemental benefit regardless of the member's benefit structure. This benefit is provided to eligible retirees and eligible surviving spouses to assist with the cost of their medical insurance, although it is not required to be used to pay for medical insurance.

## LEVEL INCOME PLAN

The Level Income Plan (LIP) is an optional plan intended to provide retirees with approximately the same amount of monthly retirement income before and after Social Security benefits are payable, assuming the retiree begins receiving Social Security benefits at age 62 . To be eligible for the optional LIP at retirement, a member must be eligible for a future Social Security benefit and be younger than age 62 .

Regardless of the member's benefit structure, members may choose the optional LIP at retirement to temporarily increase their TVA pension benefit until age 62 when they are first eligible to begin receiving Social Security benefits. Then at age 62 , the TVA pension benefit is permanently reduced for life. The reduction normally begins the month after the retiree turns age 62 , regardless of whether the retiree chooses to begin receiving Social Security benefits at that time. The exact date Social Security benefits begin is based on a schedule set by the Social Security Administration, which may differ by several weeks from the date the TVA LIP reduction begins.

The LIP increase and reduction amounts are set at retirement based on an estimate of the member's age 62 Social Security benefit and actual age at retirement. The estimate is based on the assumption that the member does not work after retirement and does not make additional contributions to Social Security. If the member does work and receives a higher Social Security benefit at age 62 as a result, the higher Social Security benefit does not affect the amount of the reduction in the TVA pension benefit when the retiree turns age 62 .

Any cost-of-living adjustments and survivor benefits are
calculated using the retiree's base pension amount, without any LIP increase or reduction.

## FIXED AND VARIABLE FUNDS AND 401(K) PLAN

## During Employment

The Fixed and Variable Funds provide two after-tax investment options to members. These funds are available to members unless they have transferred their funds to the $401(\mathrm{k})$ Plan after May 1, 2005. The Fixed Fund earns a specified rate of interest set by the System's Board of Directors. The Variable Fund is invested in the Fidelity Spartan 500 Index Fund. Employees participating in the Variable Fund purchase shares in the Fidelity Spartan 500 Index Fund, which is invested in the stocks of companies included in the S\&P 500 Composite Stock Price Index.

Members are also permitted to transfer their contributions 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 $401(\mathrm{k})$ Plan. Members who transfer their funds to the $401(\mathrm{k})$ Plan after May 1, 2005, are no longer eligible to contribute to the Fixed and Variable Funds. Prior to retirement, those who first became members before January 1, 1996, may transfer all or any portion of their after-tax balance(s) in the $401(\mathrm{k})$ Plan to the System to receive monthly annuity payments.

In addition, members may elect to participate in the 401(k) Plan on a before-tax, after-tax, and/or Roth basis. TVA provides $401(\mathrm{k})$ Plan employer matching contributions for participating members. The amount of this match for Cash Balance Benefit Structure participants is 75 cents on every dollar contributed up to a maximum of 4.5 percent of fiscal year-to-date earnable compensation. The amount of this match for Original Benefit Structure participants is 25 cents on every dollar contributed up to a maximum of 1.5 percent of fiscal year-to-date earnable compensation. Members are vested in the TVA matching contributions after three years of actual System service. During employment, members are also permitted to roll over funds from certain other retirement plans and IRAs into the $401(\mathrm{k})$ Plan.

Investment options available through the $401(\mathrm{k})$ Plan have varying degrees of risk and potential return.

For calendar year 2011, contributions to the Fixed Fund, Variable Fund, and $401(\mathrm{k})$ Plan, including TVA matching contributions, could not exceed the lesser of $\$ 49,000$ or 100 percent of calendar year-to-date compensation. Additionally, before-tax and/or designated Roth contri-

## P L A N S U M M A R Y

butions could not exceed the annually published IRS maximum ( $\$ 16,500$ for 2011). Employees who were age 50 or older were allowed to make additional before-tax and/or designated Roth contributions, allowing them to "catch up" on their retirement savings. For 2011, the catch-up amount was $\$ 5,500$ over and above contribution limits and could not begin until the before-tax and/or designated Roth contribution limit was reached. These IRS limits may increase annually according to the IRS cost-ofliving adjustment rules. Contributions to the Fixed Fund and/or the Variable Fund are limited by the Rules and Regulations of the Retirement System (Rules) to the lesser of $\$ 10,000$ per calendar year or 100 percent of calendar year-to-date compensation.

## After Retirement

Those who first became members before January 1, 1996, may receive a monthly annuity payment from the Fixed Fund, the Variable Fund, or both. Annuity payments from the Fixed Fund are based on a specified rate of interest set by the System's Board of Directors. Members who elect to receive an annuity payment from the Variable Fund will have their shares in the Fidelity Spartan U.S. Equity Index Fund redeemed and the proceeds used to purchase units in the Variable Fund. The monthly annuity payments will vary based on the value of these units. The investment strategy of the Variable Fund is the same as the Fidelity Spartan U.S. Equity Index Fund. Retired members may elect to transfer their entire fund balance(s) between the Fixed Fund and the Variable Fund once every 12 months.

Those who first became members on or after January 1, 1996, may not receive a monthly annuity payment from the Fixed and/or Variable Funds when their employment ends.

## SOCIAL SECURITY

A retired member may be eligible to receive Social Security benefits at age 62 , or earlier for disability. The Social Security Administration determines eligibility for Social Security benefits.

## SURVIVOR OPTIONS

## At Retirement

A member decides whether to take the maximum monthly retirement allowance during the member's lifetime, with nothing payable after death, or to take a reduced amount and provide benefits for a survivor.

Each of the various survivor options is the actuarial equivalent of the maximum retirement allowance. Married members who first become members of the System after

January 1, 1990, must designate their spouse as beneficiary to receive a survivor benefit as specified by the Rules governing the defined benefit plan, or receive their spouse's written consent to select a different survivor option at retirement.

## After Retirement

Retirees who marry or remarry after commencement of their retirement allowance may elect to designate their new spouse for either a 50 percent or 100 percent survivor benefit.

Retirees have 90 days from the date of such marriage or remarriage to elect this second survivor benefit. This election and actuarial reduction to the retirement benefit would be effective the first day of the month following the first anniversary of the marriage or remarriage. Previous survivor benefit elections remain in effect for any designated beneficiary whose life expectancy has been used as a factor in determining the amount of the retiree's benefit.

## DISABILITY BENEFITS

A vested member may be retired on disability retirement if it is determined that the member cannot continue to work in the member's present position because of a physical or mental disability that is likely to be permanent and there is no other TVA position available for which the member is qualified and can perform with the member's medical restrictions.

## DEATH BENEFITS

## During Employment

The designated beneficiary or the estate of a member who dies during employment will receive the member's accumulated contributions, if applicable, and a benefit funded by TVA's contributions.

## After Retirement

Upon the death of a member after retirement, the benefits payable (if any) depend upon the survivor option selected.

## COST-OF-LIVING ADJUSTMENTS

Eligible retirees may receive cost-of-living adjustments (COLAs) on the pension benefit portion of the monthly retirement (exclusive of level income plan) as determined in accordance with the System's Rules and Regulations. The COLA was 1.15 percent in calendar year 2011 and zero in calendar year 2010. Please see Note 8 on Amendments to the Rules and Regulations for changes related to the COLA provisions.

## P L A N S U M M A R Y

As described in Note 8, the COLA is subject to caps from calendar year 2010 through calendar 2013. Beginning in calendar year 2014, the COLA will be based on the increase in the 12-month average of the Consumer Price Index (CPI) when the CPI exceeds by as much as 1 percent the CPI average for the prior year for which an adjustment was made. The amount of the adjustment is capped at 5 percent in any one year. The System Board may, with the approval of the TVA Board, apply an increase greater than 5 percent.

Eligible retirees and beneficiaries on the retirement payroll on or before January 1 receive the COLA. If an Original Benefit Structure member retires after January 1, that member's pension will be at least as much as it would have been on January 1 with the COLA if the member was eligible to retire on January 1.

Eligible participants will receive COLAs on the supplemental benefit until they reach the maximum as specified in the Rules.

## ADMINISTRATIVE EXPENSES

The System's Fixed Benefit Fund assets are used to pay for all eligible administrative expenses.

## DOMESTIC RELATIONS ORDER

The System honors a Domestic Relations Order (DRO) that assigns a portion of the member's benefits to a former spouse if the DRO complies with the System's DRO procedures. DROs otherwise in compliance with those procedures are only effective if they are the result of a marriage that was terminated by a final order of divorce or annulment dated on or after January 1, 2003.

The DRO procedures allow a lump-sum distribution to a former spouse from a member's existing Fixed Fund, Variable Fund, and/or $401(\mathrm{k})$ Plan accounts. A DRO can also provide a recurring monthly benefit to a former spouse that begins upon the member's retirement and receipt of monthly retirement benefits. The payments continue only until the death of the retiree or former spouse. Survivor benefits are determined solely in accordance with System Rules and the member's beneficiary designations, and they cannot be affected in any way by a DRO.

## TAX STATUS

The Internal Revenue Service (IRS) determined and informed the System in March 2003 that the Plan and the $401(\mathrm{k})$ Plan are designed in accordance with the
applicable sections of the Internal Revenue Code (IRC). The Plan and the $401(\mathrm{k})$ Plan have been amended subsequent to the receipt of the latest IRS determination letter. However, the Plan administrator and the Plan's tax counsel believe that the Plan and the $401(\mathrm{k})$ Plan 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. In accordance with the IRS review cycle, the System submitted an application for new determination letters to the IRS during fiscal year 2009. As of September 30, 2011, the Plan and the 401 (k) Plan have not received new determination letters from the IRS. The System has responded to all requests for information from the Plans' assigned IRS reviewer, and System staff have been informed by the IRS reviewer that the issuance of new determination letters is being held until the IRS releases updated regulations regarding normal retirement age for governmental plans.

As plans maintained for employees of an agency of the federal government, the Plan and the $401(\mathrm{k})$ Plan are governmental plans within the meaning of Section 3(32) of the Employee Retirement Income Security Act (ERISA). For the most part, governmental plans are excluded from ERISA, which governs private employer pension plans. The Plan and the $401(\mathrm{k})$ Plan are also governmental plans within the meaning of Section $414(\mathrm{~d})$ of the IRC and, as a result, are exempt from the requirements of the IRC that parallel those contained in ERISA.

## PLAN TERMINATION

In the event the Plan is terminated, the net assets of the Plan will be allocated generally to provide benefits in the following order: (1) Fixed and Variable Fund benefits based upon members' contributions, (2) nonforfeitable benefits based upon TVA's contributions (defined benefit portion of the Plan), and (3) to the extent feasible, cost-of-living increases thereto. The Plan benefits are not guaranteed by the Pension Benefit Guaranty Corporation.

> This summary is intended to help members understand the System and its benefits under the Plan and the 401(k) Plan. The rules governing these plans, not this summary, are used to determine the benefits to which a member is entitled. For additional information about your Retirement System benefits, please contact the Retirement System at the location or numbers listed at the end of this report.

Patrick D. Brackett and Pamela K. Ramsey 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, results of operations and cash flows of the Tennessee Valley Authority Retirement System as of, and for, the periods presented in the Financial Statements.
4. The other officer of the Tennessee Valley Authority Retirement System listed below and I are 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 and the other officer of the Tennessee Valley Authority Retirement System listed below have disclosed, based on our 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 finncal 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.

Date: May 23, 2012


Patrick D. Brackett
Executive Secretary


Pamela K. Ramsey Assistant Secretary

R E P O R T O F I N D E P E N D E N T A U D I T O R S

## A Crowe Horwath.

Crowe Horwath LLP
Independent Member Crowe Horwath International

## REPORT OF INDEPENDENT AUDITORS

Participants and Administrator of<br>Tennessee Valley Authority Retirement System<br>Knoxville, Tennessee

We have audited the accompanying statements of net assets available for benefits of the Tennessee Valley Authority Retirement System as of September 30, 2011 and 2010, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. 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 of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing 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 over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial status of the Plan as of September 30, 2011 and 2010, and the changes in its financial status for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Cowe Anwath XyP<br>Crowe Horwath LLP

South Bend, Indiana
May 23, 2012

## TVAR R T I R E M E N T S Y S T E M

## STATEMENTS OF NET ASSETS AVAILABLE FOR BENEFITS

| (Dollars in thousands) | 2011 | 2010 |
| :---: | :---: | :---: |
| Assets |  |  |
| Investments at fair value |  |  |
| Commingled funds | \$2,118,277 | \$ 2,895,980 |
| Corporate bonds | 1,299,763 | 1,200,131 |
| Equity securities | 1,119,240 | 766,311 |
| Private equity funds | 497,322 | 474,217 |
| Private real estate investments | 324,143 | 179,930 |
| Mortgage and asset-backed securities | 713,023 | 612,711 |
| Government bonds | 527,652 | 628,741 |
| Cash equivalents and other short-term investments | 489,041 | 319,028 |
| Treasury bills, U.S. government notes and securities held as futures and other derivative collateral | 57,265 | 46,683 |
| Fair value of derivative assets | 3,931 | 19,904 |
| Securities lending commingled funds | 2,978 | 6,576 |
| Total investments | 7,152,635 | 7,150,212 |
| Receivables |  |  |
| Foreign currency forward receivable | 599,189 | 736,648 |
| Due from broker | 64,287 | 64,447 |
| Interest and dividends | 30,681 | 25,909 |
| Other | 2,213 | 1,092 |
| Total receivables | 696,370 | 828,096 |
| Total assets | \$7,849,005 | \$7,978,308 |
| Liabilities |  |  |
| Due to broker | 523,099 | 283,699 |
| Fair value of derivative liabilities | 26,218 | 5,529 |
| Investment fees payable | 10,971 | 9,752 |
| Disbursements payable | 3,458 | 3,326 |
| Other | 4,917 | 4,143 |
| Total payable | 568,663 | 306,449 |
| Foreign currency forward payable | 600,671 | 742,008 |
| Liabilities to brokers for securities lending (see Notes 4 and 15) | 2,978 | 6,576 |
| Total liabilities | 1,172,312 | 1,055,033 |
| Net Assets Available for Benefits | \$6,676,693 | \$ 6,923,275 |

[^0]FIXED BENEFIT FUND
Net Assets Available For Benefits (in thousands)


This chart is unaudited and intended for informational purposes only.

FIXED BENEFIT FUND
Annualized Rate of Return


## STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

| (Dollars in thousands) | 2011 | 2010 |
| :---: | :---: | :---: |
| Investment Income (Loss) |  |  |
| Net appreciation (depreciation) in fair value of stocks, bonds, and other investments | \$ $(46,680)$ | \$ 496,844 |
| Net appreciation (depreciation) in fair value of derivative investments | $(38,382)$ | 83,406 |
| Net appreciation (depreciation) in fair value of investments | $(85,062)$ | 580,250 |
| Dividends | 97,672 | 62,973 |
| Interest | 97,588 | 135,979 |
|  | 110,198 | 779,202 |
| Less investment expenses | 46,136 | 47,848 |
|  | 64,062 | 731,354 |
| Contributions |  |  |
| TVA | 270,036 | 117 |
| Members | 32,334 | 31,806 |
| Transfers from 401(k) Plan | 6,640 | 8,976 |
|  | 309,010 | 40,899 |
| Total increase | 373,072 | 772,253 |
| Benefits, Transfers, and Expenses |  |  |
| Retirement benefits - Fixed Benefit Fund | 595,905 | 585,526 |
| Retirement benefits - Variable Fund | 9,670 | 9,206 |
| Transfers to 401(k) Plan | 8,408 | 11,794 |
| Administrative expenses | 5,671 | 4,735 |
| Total benefits, transfers, and expenses | 619,654 | 611,261 |
| Net increase (decrease) | $(246,582)$ | 160,992 |
| Net Assets Available for Benefits |  |  |
| Beginning of year | 6,923,275 | 6,762,283 |
| End of year | \$6,676,693 | \$ 6,923,275 |

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

TVA R E T I R E M E N T S Y S T E M

## NOTES TO FINANCIAL STATEMENTS

## Note 1 <br> GENERAL PLAN DESCRIPTION

The TVA Retirement System (System) is a defined benefit plan (Plan) covering most full-time and part-time annual employees. The System is administered by an independent, seven-member Board of Directors that also administers a defined contribution plan, the TVA Savings and Deferral Retirement Plan [401(k) Plan]. The System provides retirement, disability and death benefits. There are two benefit structures within the Plan: the Original Benefit Structure and the Cash Balance Benefit Structure. New members hired on or after January 1, 1996, with no prior System membership, must participate in the Cash Balance Benefit Structure. Employees who were members of the System as of December 31, 1995, were given the opportunity to either participate in the Cash Balance Benefit Structure or to remain in the Original Benefit Structure.

There are two investment funds within the Plan: the Fixed Benefit Fund and the Variable Fund. TVA contributes to the Fixed Benefit Fund such amounts as are necessary on an actuarial basis to provide the System with assets sufficient to meet TVA-funded benefit obligations to be paid to members. In consideration of TVA's $\$ 1$ billion contribution to the System in September 2009, the System's Rules and Regulations were amended to temporarily suspend the minimum annual contribution requirements for a four-year period from fiscal year 2010 through fiscal year 2013; however, TVA may still make additional discretionary contributions to the System, as it determines, during this period of time. In September 2011, TVA made a discretionary contribution of $\$ 270$ million to the System. Members have a choice of making contributions to the Fixed Fund within the Fixed Benefit Fund, the Variable Fund, or both, unless these funds were transferred to the 401(k) Plan on or after May 1, 2005. Members who have elected to make this transfer on or after May 1, 2005, are not eligible to make contributions to the Fixed Fund or the Variable Fund.

TVA's contributions are deposited in the Fixed Benefit Fund. Effective January 1, 2010, the Plan was amended to pay the lesser of 6 percent interest rate or the actuarial assumed rate of return less 0.5 percent, to employees in the Fixed Fund regardless of when they first became a System member. Members' contributions in the Fixed Fund for those who first became members before January 1, 1996, were credited an annual rate of interest of 6 percent for calendar year 2011 and 2010. Members' contributions in the Fixed Fund for those who first became members on or after January 1, 1996, or for members who transferred their Fixed and/or Variable Fund balance
to the $401(\mathrm{k})$ Plan prior to May 1,2005 , were credited an annual rate of interest of 6 percent for calendar year 2011 and 2010. Members' contributions to the Variable Fund are invested in an S\&P 500 Stock Index Fund.

For participants in the Cash Balance Benefit Structure, TVA provided matching contributions of 75 cents on every dollar contributed to the $401(\mathrm{k})$ Plan on a before- and/ or after-tax basis, with maximum matching contributions of 4.5 percent of fiscal year-to-date earnable compensation. Participants in the Original Benefit Structure received employer matching contributions of 25 cents on every dollar contributed to the $401(\mathrm{k})$ Plan on a before- and/or after-tax basis, with maximum matching contributions of 1.5 percent of fiscal year-to-date earnable compensation.

Benefits are provided in the form of a pension funded by TVA contributions and, if eligible, an annuity derived from the members' contributions. The Fixed Benefit Fund contains assets for funding both the pension and fixed annuity with the Net Assets Available for Benefits being allocated between members' and TVA's contributions (see Note 7 on Net Assets Available for Benefits). The Variable Fund is discussed in Note 20.

A more detailed description of contributions, benefits, vesting and funding is available from the TVA Retirement System.

## Note 2

SIGNIFICANT ACCOUNTING POLICIES

## Basis of Accounting

The financial statements are prepared on the accrual basis of accounting.

## Adoption of New Accounting Standards

 In January 2010, the Financial Accounting Standards Board (FASB) issued guidance regarding improving disclosures about fair value measurements. This guidance required new disclosures of significant transfers between Levels 1 and 2 of the fair value hierarchy and clarified existing disclosure requirements regarding disclosures of classes of assets and liabilities and inputs and valuation techniques. These requirements became effective for the Plan on October 1, 2010. This guidance also required new disclosures of information about purchases, sales, issuances, and settlements in Level 3 on a gross basis. This requirement will become effective for the Plan on October 1, 2011. The adoption of this guidance has and will change certain financial statement disclosures, but has not and will not materially impact the Plan's Net Assets Available for Benefits.
## TVA RETIREMENTSYSTEM

In May 2011, the FASB issued guidance designed to achieve common fair value measurement and disclosure requirements in U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). This guidance explains how to measure fair value, but does not require additional fair value measurements and is not intended to establish valuation standards or affect valuation practices outside of financial reporting. This guidance states that certain disclosures are not required for nonpublic entities such as the Plan. Disclosures not required for nonpublic entities include (1) information about transfers between Level 1 and Level 2 of the fair value hierarchy, (2) information about the sensitivity of a fair value measurement categorized within Level 3 of the fair value hierarchy to changes in unobservable inputs and any interrelationships between those unobservable inputs, and (3) the categorization by level of the fair value hierarchy for items that are not measured at fair value in the statement of financial position, but for which the fair value of such items is required to be disclosed. This guidance will become effective for the Plan on October 1, 2012. The adoption of this guidance will change certain financial statement disclosures, but will not materially impact the Plan's Net Assets Available for Benefits.

## Custody Relationships

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

The holdings for private equity funds are investments in general partnerships and not held at a custody bank. The private equity funds comprise 7.4 percent of the Net Assets Available for Benefits in fiscal year 2011 and 6.8 percent in fiscal year 2010. The holdings for the private real estate investments are investments in commercial real estate and also are not held at a custody bank. The private real estate investments comprise 4.9 percent of the Net Assets Available for Benefits in fiscal year 2011 and 2.6 percent in fiscal year 2010.

## 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.

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.

Vendor-provided prices for the Plan's investments are subjected to automated tolerance checks by the Trustee to identify and avoid, where possible, the use of inaccurate prices. Any questionable prices identified are reported to the vendor that provided the price. If the prices are validated, the primary pricing source is used. If not, a secondary source price that has passed the applicable tolerance check is used (or queried with the vendor if it is out of tolerance), resulting in either the use of a secondary price, where validated, or the last reported default price, as in the case of a missing price. For monthly valued accounts, where secondary price sources are available, an automated inter-source tolerance report identifies prices with an inter-vendor pricing variance of over 2 percent at an asset class level. For daily valued accounts, each security

## TVA R E T I R E M E N T S Y S T E M

is assigned, where possible, an indicative major market index, against which daily price movements are automatically compared. Tolerance thresholds are established by asset class. Prices found to be outside of the applicable tolerance threshold are reported and queried with vendors as described above.

Equities: Investment securities, including common stock and mutual funds, 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. If there are no current day sales, the securities are valued at their last quoted bid price. Equities priced by an exchange in an active market are classified as Level 1. Equities priced using unobservable inputs are classified as Level 3.

Preferred securities: Preferred securities are valued at their quoted market price (Level 1 inputs). Certain preferred securities priced using unobservable inputs have been classified as Level 3.

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 securities' relationship to other benchmark quoted securities (Level 2 inputs). Certain corporate debt securities priced using unobservable inputs have been classified as Level 3.

Residential mortgage-backed securities: Residential mort-gage-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. A tolerance check, adjusted dynamically in response to market conditions, is applied to check for consistency across the trading platforms and dealer quotes. If discrepancies are identified, the data is reviewed to resolve the differences and determine an appropriate evaluation. Residential mortgage-backed securities are considered to be priced using Level 2 inputs because of the nature of their market-data-based pricing models, with the exception of certain securities priced using unobservable inputs, which are classified as Level 3.
U.S. Treasury and agency 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 foreign governments: These include foreign government bonds and foreign government inflation-linked securities. They 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.

Asset-backed securities: Asset-backed securities are typically priced based on a single cash-flow stream model, which incorporates 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, asset-backed securities are classified as Level 2. Asset-backed securities priced using unobservable inputs are classified as Level 3.

Debt securities issued by state and local governments: 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. Debt securities issued by state and local governments priced using unobservable inputs are classified as Level 3.

Commercial mortgage-backed securities: Commercial mortgage-backed securities are typically priced based on a single-cash-flow stream model, which incorporates 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,

## TVA R E T I R E M E N T S Y S T E M

commercial mortgage-backed securities are classified as Level 2.

Private equity funds: Private equity limited partnerships and other similar alternative investments are reported at fair value, which is derived by independent appraisals or investment management judgment. The inputs used by the General Partners in estimating the fair value of the limited partnerships include the original transaction prices, recent transactions in the same or similar instruments, completed or pending third-party transactions in the underlying investments or comparable issues, subsequent rounds of financing, recapitalizations and other transactions across the capital structure, offerings in the equity or debt capital markets, and changes in financial ratios or cash flows. These investments may also be adjusted to reflect illiquidity and/or non-transferability, with the amount of such discounts estimated by the General Partners in the absence of market information. Due to the lack of observable inputs, the determination of the fair value by the General Partners may differ materially from the value ultimately realized by the Partnership.

The private equity managers recognize realized gains or losses when they receive income or dispose of an investment. The net realized capital gains or losses, which include management fees and fund expenses, are allocated to the partners in proportion to their commitments. The fair values of the private equity funds are estimated utilizing the net asset values provided by the fund managers and are classified as Level 3.

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 $\$ 497.3$ million as of September 30, 2011, and $\$ 474.2$ million as of September 30, 2010. Partnerships generally continue 10 to 12 years after the inception of the fund. The partnerships are subject to three to four oneyear extensions at the discretion of the General Partner. The contractual maturities of private equity funds held in 2011 range from July 2012 to December 2023 before the 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 estate investments: The Plan's ownership in private real estate investments consists of a pro rata share and not a direct ownership of the underlying investments. The fair values of the Plan's private real estate investments are estimated utilizing net asset values provided by the investment managers. The methodologies utilized by the investment managers to calculate their net asset values are summarized as follows:

The Plan is invested in limited partnerships that invest in real estate securities, real estate partnerships, and in 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 valueadded 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 a commingled fund that develops, renovates, and re-leases real estate properties to create value. Investments are predominately 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,

## TVA RETIREMENTSYSTEM

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.

Fair value estimates of the underlying investments in these limited partnerships and commingled fund investments are primarily based upon property appraisal reports prepared by independent real estate appraisers within a reasonable amount of time following acquisition of the real estate and no less frequently than annually thereafter. The appraisals are based on one or a combination of three methodologies: cost of reproduction analysis, discounted cash flow analysis and sales comparison analysis. Pricing for certain investments in mortgage-backed and assetbacked securities is typically based on models that incorporate observable inputs.

The Plan is invested in a private real estate investment trust formed to make direct or indirect investments in commercial timberland properties. Pricing for these types of investments is based on comprehensive appraisals that are conducted shortly after initial purchase of properties and at three-year intervals thereafter. All appraisals are conducted by third-party timberland appraisal firms. Appraisals are based on either a sales comparison analysis or a discounted cash flow analysis.

The fair value hierarchy level classifications for the Plan's real estate investments are determined based on redemption terms. Investments which cannot be redeemed at the measurement date, but which can be redeemed at a future date, are evaluated based on the length of time until the investment will become redeemable in determining whether the investment should be reported in either Level 2 or Level 3 of the fair value hierarchy. The redemption provisions vary by fund and are detailed below:

## PRIVATE REAL ESTATE INVESTMENT RESTRICTIONS

| (Dollars in thousands) | $\mathbf{2 0 1 1}$ <br> Fair Market Value | 2010 <br> Fair Market Value |
| :--- | :---: | :---: |
| Withdrawals available quarterly | $\mathbf{\$ 2 4 5 , 1 3 8}$ | $\$ 125,286$ |
| Restricted - No withdrawals until <br> Partnership termination | $\mathbf{\$ 5 3 , 7 9 3}$ | $\$ 28,587$ |
| Sale of shares permitted under <br> prescribed guidelines | $\mathbf{\$ 2 5 , 2 1 2}$ | $\$ 26,057$ |

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

Futures: The Plan enters into equity futures, foreign currency futures and interest rate 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. The pricing is performed by third-party vendors. Since futures are priced by an exchange in an active market, they are classified as Level 1. A detailed summary of futures contracts is provided in Note 10.

Net due to broker on futures: These transactions represent cash reconciliations of margin balances that are classified as Level 2.

Options: The Plan enters into interest rate options, foreign currency options and fixed income 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 and include both written and purchased options on Treasury note futures and Eurodollar futures. Options traded over the counter and not in exchanges are priced by third-party vendors and are classified as Level 2. This includes both written and purchased options on interest rate swaps. Certain options priced using unobservable inputs have been classified as Level 3. A detailed summary of options is provided in Note 10.

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 currency swaps and total return swaps are priced by third-party vendors using market inputs such as spot rates and yield curves. All swaps are classified as Level 2. A detailed summary of swaps is provided in Notes 11 through 13.

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 clas-

## TVA RETIREMENTSYSTEM

sified as Level 2. A detailed summary of foreign currency forwards is provided in Note 14.

Commingled Funds: The Plan invests in commingled funds, which include collective trusts, unit investment trusts, and similar investment funds that predominantly hold debt and/or equity securities as underlying assets. The Plan's ownership consists of a pro rata share and not a direct ownership of an underlying investment. These commingled funds are valued at their closing net asset values (or unit value) per share as reported by the managers of the commingled funds and as supported by the unit prices of actual purchases and sale transactions occurring as of or close to the financial statement date (Level 2 inputs).

The Plan is invested in equity commingled funds, which can be categorized as either passively managed index funds or actively managed funds. 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 commingled funds, which can be categorized as either passively managed index funds or actively managed funds. The plan's debt index fund invests in a diversified portfolio of fixed-income securities and derivatives of varying maturities to replicate the characteristics of the Barclays Capital U.S. Aggregate Bond index. The fund seeks to track the total return of the Barclays Capital U.S. Aggregate Bond 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. The objective is to achieve a positive relative total return through active credit selection.

The Plan is invested in commingled funds, which invest across multiple asset classes that can be categorized as blended. These funds seek to outperform a passive benchmark through active security selection. The funds invest in securities across equity, fixed income, currency and commodities. The portfolios employ fundamental,
quantitative and technical analysis.
The Plan's investments in equity, debt and blended commingled funds can generally be redeemed at any time upon notification of the investment managers, with required notice periods varying from same-day to monthly. These investments do not have unfunded commitments.

Institutional mutual funds: Participation units of institutional mutual funds are stated at their quoted redemption values as reported by the investment managers based on their net asset values, which reflect the fair values of the underlying investments. These funds are traded at published net asset values in an active market (Level 1 inputs).

Cash collateral held under securities lending arrangements: Fair value has been determined to approximate the deposit account balances held in cash collateral pools (Level 2 inputs), as no discounts for credit quality or liquidity were determined to be applicable.

Cash equivalents and other short-term investments: 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 U.S. Treasury securities, residential mortgage-backed securities, commercial paper, corporate bonds, asset-backed securities and certificates of deposit. U.S. Treasury securities are priced based on Level 1 inputs as described above. The other types of cash equivalent securities and other short-term investments, as described above, are priced using models that incorporate market-based inputs and are therefore classified as Level 2. Certain cash equivalents and other short-term investments are priced using unobservable inputs, and have been classified as Level 3.

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 the Plan 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 pages.

## TVAR R T I R E M E N T S Y S T E M

ASSETS AND LIABILITIES AT FAIR VALUE
Investments and derivative instruments measured at fair value on a recurring basis at September 30, 2011, are summarized below:


## TVAR R T I R E M E N T S Y S T E M

ASSETS AND LIABILITIES AT FAIR VALUE
Investments and derivative instruments measured at fair value on a recurring basis at September 30, 2010, are summarized below:
Fair Value Measurements at September 30, 2010, Using


## TVA R E T I R E M E N T S Y S T E M

The table below presents a reconciliation of Plan investments measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the years ended September 30, 2011 and 2010, including the reporting classifications for the applicable gains and losses included in the Statements of Changes in Net Assets Available for Benefits.

In June 2009, the System Board adopted the following asset allocation policy:

- 60 percent equities, of which $22 \frac{1}{2}$ percent may be international (non-United States) equities (measured as a percentage of the total fund), and 15 percent may
be alternative investments (measured as a percentage of the total fund), including private equity, distressed debt, timberland and private real estate, but not to include holding title to real property, and
- 40 percent fixed income, of which 15 percent may be investment grade corporate credit (measured as a percentage of the total fund) and 9 percent may be high yield (measured as a percentage of the total fund).

The System Board adopted this asset allocation policy with a permissible 3 percent deviation, either plus or minus, from these target allocations. The System Board also approved a transition plan to the revised asset alloca-

SUMMARY OF FAIR VALUE MEASUREMENTS USING SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3) TRANSACTIONS
The table below presents a reconciliation of Plan investments measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the year ended September 30, 2011.

| (Dollars in thousands) | $\begin{gathered} \text { October } 1, \\ 2010 \end{gathered}$ | Transfers in and/or out of Level 3 | Purchases, sales, issuances and settlements (net) | Net realized/ unrealized appreciation (depreciation) | $\begin{gathered} \text { September } 30, \\ 2011 \end{gathered}$ | Net change in unrealized appreciation (depreciation) relating to investments still held at September 30, 2011 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Private equity funds | \$474,217 | \$ | \$ (6,605) | \$ 29,710 | \$497,322 | \$ $(1,449)$ |
| Private real estate investments | 54,644 | - | 21,337 | 3,024 | 79,005 | 105 |
| Residential mortgage-backed securities | 2,779 | (889) | 11,554 | (109) | 13,335 | (110) |
| Asset-backed securities | - | 3,451 | 6,249 | (155) | 9,545 | (228) |
| Debt securities issued by state/local governments | 1,600 | 2,903 | 3,058 | (230) | 7,331 | (265) |
| Preferred securities | 4,962 | - | - | (117) | 4,845 | (117) |
| Corporate debt securities | 605 | 788 | $(3,716)$ | 3,509 | 1,186 | 10 |
| Equity securities - Other | 690 | (690) | - | - | - | - |
| Equity securities - Health Care | - | 72 | - | - | 72 | - |
| Equity securities - Financial Services | - | 1 | - | - | 1 | - |
| Purchased options | 142 | - | - | (142) | - | - |
| Cash equivalents and short-term investments | 15 | - | (36) | 21 | - | - |
| Written options | (17) | 17 | - | - | - | - |
| Totals | \$ 539,637 | \$ 5,653 | \$ 31,841 | \$ 35,511 | \$612,642 | \$(2,054) |

The table below presents a reconciliation of Plan investments measured at fair value on a recurring basis using significant unobservable inputs (Level 3) for the year ended September 30, 2010.

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

| (Dollars in thousands) | October 1, <br> 2009 | Transfers in and/or out of Level 3 | Purchases, sales, issuances and settlements (net) | Net realized/ unrealized appreciation (depreciation) | $\begin{gathered} \text { September 30, } \\ 2010 \end{gathered}$ | Net change in unrealized appreciation (depreciation) relating to investments still held at September 30, 2010 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Private equity funds | \$383,529 | \$ - | \$ 23,361 | \$ 67,327 | \$474,217 | \$ 59,667 |
| Private real estate investments | 47,872 | - | 5,051 | 1,721 | 54,644 | 1,384 |
| Preferred securities | - | 5,474 | - | (512) | 4,962 | (512) |
| Residential mortgage-backed securities | - | 331 | 2,430 | 18 | 2,779 | 18 |
| Debt securities issued by state/local governments | - | - | 1,436 | 164 | 1,600 | 164 |
| Equity securities | - | - | - | 690 | 690 | - |
| Corporate debt securities | 19 | - | 600 | (14) | 605 | (14) |
| Purchased options | - | - | 135 | 7 | 142 | 7 |
| Cash equivalents and short-term investments | - | - | 9 | 6 | 15 | 6 |
| Written options | - | - | (11) | (6) | (17) | (6) |
| Totals | \$ 431,420 | \$5,805 | \$ 33,011 | \$69,401 | \$ 539,637 | \$ 60,714 |

## TVA R E T I R E M E N T S Y S T E M

tion policy and the executive secretary's authority to take action, as appropriate, to rebalance the System's assets consistent with the revised asset allocation policy over a flexible period of time.

On September 15, 2011 the System Board reviewed and approved a new long-term asset-allocation policy and investment strategy for fund assets. In reaching this decision, the System Board analyzed various asset-allocation and investment strategies over a six-month period with the assistance of System staff; Wilshire Associates; Michael Brakebill, a nonvoting member and advisor to the Investment Committee; and other experts.

The asset-allocation determination process involved the review of long-term expected returns, risks and correlations of various asset classes. As a part of this new assetallocation policy and investment strategy, the System Board adopted a "de-risking" strategy focused on the volatility of the System's funded status. The objective of the de-risking strategy is to reduce the volatility of the funded status of the System over time.

The implementation of this new policy will occur over a 12 - to 18 -month period.

Over the long-term, asset allocation is expected to be the single greatest contributor of risk and return to the System's investments. The Asset Allocation Policy embodies the System Board's decisions about what proportions of the Retirement System's assets will be invested in various asset classes.

Based on an asset-liability analysis conducted periodically by the investment consultant and the System's actuaries, and the return objectives, risk tolerance, and liquidity needs of the System, the following asset allocation policy has been established. The recommended long-term 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 Investment Staff must consider reallocating from one asset class to another.

The asset allocation policy is designed to be dynamic in nature and responsive to changes in the funded status of the System consistent with the de-risking objective to reduce the volatility of the funded status over time. This asset allocation policy may be reviewed when there is a meaningful change in the financial condition of the System; the return objectives, risk tolerance, and liquidity needs of the System; or a change in capital market conditions.

The dynamic policy predetermines changes to the strategic target asset class weights in response to changes in the funded status of the System, either through improvement in the asset value, reduction in liability value, or a combination of the two. The objective of the dynamic policy is to reduce the volatility of the funded status of the System as the funded status improves. As the funded status of the System improves, the target asset allocation will follow a glide path on a forward moving basis. If market conditions cause the funded ratio to fall below the most recently adopted policy from the glide path, the policy will not shift backward along the glide path to previous policies, but rather will maintain the newest adopted policy until the funded status exceeds the newest adopted policy targets.

Initial target allocations for a funded ratio below 75 percent will be as follows:

| Asset Class | Target <br> Allocation | Minimum | Maximum |
| :--- | :---: | :---: | :---: |
| Global Equity | $44.5 \%$ | $40.1 \%$ | $49.0 \%$ |
| Private Equity | $6.0 \%$ | $4.8 \%$ | $7.2 \%$ |
| Core Fixed Income | $5.0 \%$ | $4.0 \%$ | $6.0 \%$ |
| Long-Term Core Fixed Income | $10.0 \%$ | $9.0 \%$ | $11.0 \%$ |
| Investment Grade Credit | $10.0 \%$ | $9.0 \%$ | $11.0 \%$ |
| High-Yield Fixed Income | $5.0 \%$ | $4.0 \%$ | $6.0 \%$ |
| Global TIPS | $8.0 \%$ | $6.4 \%$ | $9.6 \%$ |
| Global Real Estate Securities | $5.5 \%$ | $4.4 \%$ | $6.6 \%$ |
| Private Real Estate | $3.0 \%$ | $2.4 \%$ | $3.6 \%$ |
| Timber | $3.0 \%$ | $2.4 \%$ | $3.6 \%$ |

## Risks and Uncertainties

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, liquidity and credit risks. Due to the level of risk associated with certain investment securities and the sensitivity of certain fair value estimates to changes in valuation, it is at least reasonably possible that changes in the values of investment securities 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.

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.

## TVA R E T I R E M E N T S Y S T E M

## Tax Status

The Internal Revenue Service (IRS) determined and informed the System in March 2003 that the Plan is designed in accordance with the applicable sections of the Internal Revenue Code (IRC). The Plan has been amended subsequent to the receipt of the latest IRS determination letter. However, the Plan administrator and the Plan's tax counsel believe that the 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. In accordance with the IRS review cycle, the System submitted an application for a new determination letter to the IRS during fiscal year 2009. As of September 30, 2011, management had not received a new determination letter from the IRS. The System has responded to all requests for information from the Plan's assigned IRS reviewer. The IRS reviewer has informed System staff that the issuance of new determination letters is being held until the IRS releases updated regulations regarding normal retirement age for governmental plans.

As plans maintained for employees of an agency of the federal government, the Plan is a governmental plan within the meaning of Section 3(32) of ERISA. For the most part, governmental plans are excluded from ERISA, which governs private employer pension plans. The Plan is also a governmental plan within the meaning of Section 414(d) of the IRC and, as a result, is exempt from the requirements of the IRC that parallel those contained in ERISA.

## 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.

## Reclassification

Certain amounts included in the prior year financial statements have been reclassified to conform to the current year's presentation.

## Note 3

DERIVATIVE FINANCIAL INSTRUMENTS
The Plan is party to derivative financial instruments, including futures contracts, in its normal course of busi-
ness. Interest rate futures, options, and swaps are utilized for managing duration and yield curve risk, and not for speculative purposes. Credit default swaps are utilized to obtain credit default protection or as a substitute for the bond, but not to employ leverage. Forward currency contracts 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 options and total return swaps are used in the implementation of various active management strategies. Derivatives are not used to effectively leverage the portfolio. Net exposures resulting from derivatives transactions must be covered by holdings within the portfolio. Under the derivative policy, 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. Derivative strategies are comparable to strategies employed by the managers in their individual portfolios. To some extent they expose the Plan to market and credit risk.

The Plan has counterparty exposure in the derivative instruments of currency forwards, options and swaps. Such contracts and agreements have been executed with creditworthy counterparties. Thus, the Plan 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. The Plan 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. A summary of derivatives is presented in Notes 10 through 14.

## Note 4

SECURITIES LENDING
The Plan may lend portfolio securities to qualified institutions. Loans are secured by collateral at least equal to 102 percent of the fair value of the securities loaned for securities of United States issuers denominated in United States dollars. The required collateral percentage is also 102 percent for loans of securities of non-United States issuers for which the collateral is denominated in the same currency as the loaned securities. The required collateral percentage is 105 percent for the loan of securities of non-United States issuers for which the collateral is not denominated in the same currency as the loaned securities. The Plan generally receives cash as collateral for securities lending, but it may also receive investment grade securities or interest in tri-party accounts containing

## TVA R E T I R E M E N T S Y S T E M

investment grade securities. The cash collateral received for securities lending is recorded both as an asset and a liability in the Statement of Net Assets Available for Benefits. Cash received is invested in commingled funds of various short-term investments where the maximum weighted average maturity of the fund is 90 days and is organized and managed by Mellon Global Securities Services (MGSS), which is limited to investment activities incidental to, or in support of, the securities lending program organized and managed by MGSS. The Plan does not have the right to sell or repledge securities or interest in tri-party accounts received as collateral. The Plan receives a portion of the income earned on the collateral and also continues to earn income on the loaned securities. Any gain or loss in the market price of the securities loaned that may occur during the term of the loan will be for the account of the Plan. The lending agent provides the Plan with indemnification against losses due to borrower default. The Plan bears the risk of loss only with respect to the investment of any cash collateral. In fiscal year 2009, the System Board moved to discontinue the Securities Lending program as collateral securities mature. A summary of securities currently out on loan and the related collateral is provided in Note 15.

## Note 5

COMMITMENTS AND CONTINGENCIES
The Plan has made commitments to various limited partnerships and private real estate investments. A summary is provided below.

## Note 6

MEMBER CONTRIBUTIONS
Eligible members may voluntarily contribute to either the Fixed Fund, the Variable Fund, or both. Federal income tax is deferred on earnings until annuity payments start or withdrawals are made. Members are also permitted to transfer their contributions 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 $401(\mathrm{k})$ Plan. Members who transfer their balance to the $401(\mathrm{k})$ Plan on or after May 1, 2005, are no longer eligible to contribute to the Fixed Fund or the Variable Fund. Upon retirement, those who first became members before January 1, 1996, may transfer all or any portion of their after-tax balance in the $401(\mathrm{k})$ Plan to the Fixed Fund and/or Variable Fund to receive monthly payments.

## Note 7

## EMPLOYER CONTRIBUTIONS

TVA made a $\$ 1$ billion contribution to the System in September 2009. As disclosed below and in Note 8, there will be no further contributions required by TVA until fiscal year 2014. TVA may still make additional discretionary contributions to the System, as it determines, during this period of time. In September 2011, TVA made a discretionary contribution of $\$ 270$ million to the System.

The funding method for the Plan is established solely under the System's Rules and Regulations (Rules). The minimum required funding method calls for TVA's rate of contribution in a fiscal year to be not less than the sum of the normal contribution (the long-term annual weighted average cost of benefits excluding cost-of-living adjustments (COLAs), the accrued liability contribution (an amortized portion of the Plan's deficit or surplus based on the value of benefits excluding COLA), and a cost-of-living contribution (an amount to fund COLA paid during the year).

Under the Rules, TVA may utilize a portion of a reserve account, which consists of contributions made by TVA for past years in excess of the minimum required under the Rules, to offset the cost-of-living contribution component of the minimum required funding method. In addition, TVA's contribution rate for a fiscal year may be reduced or eliminated, upon the System Board's recommendation, if the market value of the Plan's assets exceeds the present value of accrued Plan benefits on the Plan's last valuation date.

COMMITMENTS \& CONTINGENCIES
The following summarizes the Plan's commitments and contingencies with respect to the private equity and private real estate investments beld by the Plan at September 30, 2011, and 2010.

|  |  |  |  | 2010 |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) | Number <br> of Funds | Fair Market <br> Value | Unfunded <br> Commitments | Number of <br> Funds | Fair Market <br> Value | Unfunded <br> Commitments |  |
| Private equity funds | $\mathbf{2 2}$ | $\mathbf{\$ 4 9 7 , 3 2 2}$ | $\mathbf{\$ 1 5 6 , 9 0 3}$ | 22 | $\$ 474,217$ | $\$ 206,389$ |  |
| Private real estate investments | $\mathbf{9}$ | $\mathbf{\$ 3 2 4 , 1 4 3}$ | $\mathbf{\$ 5 7 , 8 9 4}$ | 5 | $\$ 179,930$ | $\$$ | 8,328 |

## TVAR R T I R E M E N T S Y S T E M

## Note 8

## AMENDMENTS TO THE RULES AND REGULATIONS

Effective September 1, 2011, the System Board changed the cash balance pay credit to be equal to 6 percent of the participant's earnable compensation for that month. Previously, the cash balance pay credit was based on the participant's biweekly earnings. Also, upon retirement or termination of employment, the participant's account shall receive as a final pay-based credit an amount equal to 6 percent of the participant's earnable compensation for the period of time from the beginning of the month in which retirement of termination of employment occurs, to the actual date of retirement or termination.

Members of the System are required to file for retirement benefits no later than 60 days after they cease to be employees of TVA. However, a number of members with a vested System benefit continue to fail to apply for their benefits following retirement or termination of employment. In order to address this issue, the System Board adopted changes to the Rules stating that any member who fails to file for a retirement allowance within the 60 -day period will be defaulted to a deferred retirement allowance with payments scheduled to begin at age 65 .

In December 2010, the System Board amended the Rules to clarify how the COLA is calculated following years of deflation or years when inflation is less than 1 percent. This included language that referred to the year since the last adjustment (language that was in the Rules before the August 2009 Rules amendments explained below), which is necessary to appropriately calculate the COLA following years of deflation or years when inflation is less than 1 percent.

The following amendments to the Rules were made in August 2009 in exchange for TVA's contribution of $\$ 1$ billion to the System for fiscal year 2010 to fund the vested benefits of the System and as a contribution through fiscal year 2013:

- Change in the eligibility for COLAs from age 55 to actual age 60 for those retiring on or after January 1, 2010.
- Change in the COLA calculation for retirees over the next four years from the change in CPI over the previous year, capped at 5 percent, to the following:
- For CY 2010, there was no COLA payment.
- For CY 2011, the COLA was 1.15 percent.
- For CY 2012, the COLA will be 0 percent.
- For CY 2013, the COLA will be the change in CPI capped at 2.5 percent.
- Change in the interest crediting rate on members' contributions to the System's Fixed Fund from 7.25
percent to the lesser of 6 percent or the actuarial rate of return minus 0.5 percent for all members effective January 1, 2010. In calendar years 2011 and 2010, the interest rate was 6 percent.
- Addition of a provision for the System Board to select one or more investment professionals or financial experts as nonvoting members of and advisors to the System Board's Investment Committee. In fiscal year 2010, Michael Brakebill, Chief Investment Officer of the Tennessee Consolidated Retirement System, was selected as an investment advisor to the System Board.
- In consideration of a contribution of $\$ 1$ billion by TVA to the System for fiscal year 2010, the minimum required funding method for determining TVA contributions is suspended for a four-year period from fiscal year 2010 through fiscal year 2013.

Wages and salaries, in determining pension benefits at retirement, now include certain lump-sum payments made in lieu of base wage or salary increases for fiscal years 1998 through 2012. Wages and salaries also include lump-sum payments for certain TVA performance incentive plans beginning in fiscal year 2000.

## Note 9

## ACTUARIAL ASSUMPTIONS

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

Pension benefits under the Plan's Original Benefit Structure are based on members' years (to the nearest month) of creditable service, highest average base pay during any three consecutive years of creditable service, and a pension factor, less a Social Security offset. Calculations of the accumulated pension benefits for active employees are based on their average compensation during the last three years ending on the valuation date.

Pension benefits under the Plan's Cash Balance Benefit Structure are based on pay credits and interest credits that accumulate over the members' cash balance service. Pay credits accumulate at a rate equal to 6 percent of members' compensation, and interest is credited each month at the rate established by the System Board each January 1. The interest rate is determined by calculating the percentage change of the 12 -month average of the Consumer Price Index for the period ending the previous October 31 over the preceding 12 -month period, plus 3 percent. The

## TVAR R T I R E M E N T S Y S T E M

System has established a minimum annual interest rate of 6 percent and a maximum annual interest rate of 10 percent for interest credits. The interest rate was 6 percent for calendar year 2011 and 2010. Benefits payable under all circumstances - retirement, death, disability and termination of employment - are included to the extent they are deemed attributable to members' service rendered to the valuation date.

The actuarial present value of accumulated benefits is determined by the System'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. The significant actuarial assumptions used in the valuations as of September 30, 2011 and 2010, were:
A. Life expectancy of participants - the Combined Healthy RP-2000 Mortality table projected to 2013 for 2011 and 2010.
B. Interest rate -7.25 percent for 2011 and 7.5 percent for 2010
C. Retiree cost-of-living increases -2.5 percent annually for 2011 and 2010
D. Annual rates of retirements - the assumptions for fiscal years 2011 and 2010 were:

| Attained Age | Annual Rates of Retirement |
| :---: | :---: |
| $45-50$ | $2 \%$ |
| $51-54$ | $3 \%$ |
| 55 | $5 \%$ |
| 56 | $6 \%$ |
| 57 | $7 \%$ |
| 58 | $8 \%$ |
| $59-60$ | $10 \%$ |
| 61 | $25 \%$ |
| 62 | $35 \%$ |
| $63-64$ | $25 \%$ |
| 65 | $100 \%$ |

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 System payable from the Fixed Benefit Fund is as follows:

| September 30, 2011 and 2010 |  |  |  |
| :--- | ---: | ---: | ---: |
| (Dollars in thousands) | $\mathbf{2 0 1 1}$ | 2010 |  |
| Vested benefits |  |  |  |
| Participants currently receiving benefits | $\mathbf{\$ 6 , 2 2 0 , 5 0 0}$ | $\$ 6,074,800$ |  |
| Active participants | $\mathbf{2 , 2 9 0 , 8 0 0}$ | $2,233,100$ |  |
| Deferred benefit participants | $\mathbf{9 7 , 0 0 0}$ | 96,800 |  |
| Total | $\mathbf{8 , 6 0 8 , 3 0 0}$ | $8,404,700$ |  |
| Nonvested benefits | $\mathbf{5 8 , 7 0 0}$ | 47,200 |  |
| Total estimated actuarial present <br> value of accumulated benefits <br> payable from the Fixed Benefit Fund | $\mathbf{\$ 8 , 6 6 7 , 0 0 0}$ |  |  |

The calculations presented in this section are solely for purposes of fulfilling Plan accounting and reporting requirements in accordance with the Plan Accounting - Defined Benefit Plans topic of the FASB codification.

The changes in the estimated actuarial present value of accumulated benefits for the System payable from the Fixed Benefit Fund are as follows:

| September 30, 2011 and 2010 |  |  |
| :--- | :---: | :---: |
| (Dollars in thousands) | $\mathbf{2 0 1 1}$ | 2010 |
| Actuarial present value of accumulated <br> benefits payable from the Fixed Benefit <br> Fund at beginning of year | $\mathbf{\$ 8 , \mathbf { 4 5 1 , 9 0 0 }}$ | $\$ 7,890,000$ |
| Increase during the year attributable to: <br> Additional benefits accumulated and <br> actuarial gains and losses | $\mathbf{1 0 , 8 0 0}$ | 173,600 |
| Interest due to decrease in the <br> discount period | $\mathbf{6 1 1 , 5 0 0}$ | 588,700 |
| Benefits paid to participants | $\mathbf{( 5 9 6 , 5 0 0 )}$ | $(587,500)$ |
| Change in interest rate and mortality table <br> assumptions | $\mathbf{2 1 0 , 8 0 0}$ | 387,100 |
| Other | $\mathbf{( 2 1 , 5 0 0 )}$ |  |
| Actuarial present value of <br> accumulated benefits payable <br> from the Fixed Benefit Fund at <br> end of year | $\mathbf{\$ 8 , \mathbf { 6 6 7 , 0 0 0 }}$ | $\$ 8,451,900$ |

## TVAR R T I R E M E N T S Y S T E M

Note 10
FUTURES AND OPTIONS CONTRACTS
The following summarizes the futures and options contracts of the Fixed Benefit Fund at September 30, 2011 and 2010.

|  | 2011 |  |  | 2010 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) | $\begin{aligned} & \hline \text { Contracts } \\ & \text { Long } \\ & \text { (Short) } \end{aligned}$ | Market Value | Unrealized Appreciation/ (Depreciation) | $\begin{aligned} & \hline \text { Contracts } \\ & \text { Long } \\ & \text { (Short) } \end{aligned}$ | Market <br> Value | Unrealized Appreciation/ (Depreciation) |
| Futures Contracts |  |  |  |  |  |  |
| Equity Futures |  |  |  |  |  |  |
| S \& P 500 Index Futures | 3,030 | \$(10,753) | \$(10,753) | 2,812 | \$ 8,857 | \$ 8,857 |
| Russell 2000 Index Futures | 2,591 | $(8,886)$ | $(8,886)$ | 2,623 | 10,594 | 10,594 |
| International Index Futures | 105 | 620 | 620 | 377 | (548) | (548) |
| Commodity Futures | - | - | - | 154 | 1,091 | 1,091 |
| Subtotal Equity Futures | 5,726 | $(19,019)$ | $(19,019)$ | 5,966 | 19,994 | 19,994 |
| Foreign Currency Futures |  |  |  |  |  |  |
| 90 Day Eurodollar Futures | 1,760 | 1,677 | 1,677 | 658 | 786 | 786 |
| 90 Day Euro Interbank Offer Rate Futures | - | - | - | 250 | (95) | (95) |
| Other Foreign Currency Futures | - | - | - | 163 | (634) | (634) |
| 90 Day Sterling London Interbank Offer Rate Futures | - | - | - | 36 | 8 | 8 |
| 90 Day Australian Bank Bill Futures | - | - | - | 36 | (9) | (9) |
| 90 Day Bank Acceptance Futures | - | - | - | 12 | (2) | (2) |
| 90 Day Euro Yen Futures | - | - | - | (48) | (6) | (6) |
| Subtotal Foreign Currency Futures | 1,760 | 1,677 | 1,677 | 1,107 | 48 | 48 |
| Interest Rate Futures |  |  |  |  |  |  |
| U.S. Treasury Notes Futures - 10 year | (693) | (776) | (776) | (581) | (582) | (582) |
| U.S. Treasury Notes Futures - 5 year | (578) | - | - | (235) | (247) | (247) |
| International Bond Futures | - | - | - | 2 | (48) | (48) |
| U.S. Treasury Notes Futures - 2 year | (172) | 43 | 43 | (79) | (25) | (25) |
| U.S. Treasury Long Bonds Futures | (73) | 619 | 619 | (137) | (444) | (444) |
| Subtotal Interest Rate Futures | $(1,516)$ | (114) | (114) | $(1,030)$ | $(1,346)$ | $(1,346)$ |
| Total Futures Contracts | 5,970 | \$(17,456) | \$(17,456) | 6,043 | \$18,696 | \$18,696 |
| Option Contracts |  |  |  |  |  |  |
| Written Options |  |  |  |  |  |  |
| Interest Rate Options |  |  |  |  |  |  |
| Interest Rate Swap Options |  | \$ $(1,805)$ | \$ 1,020 |  | \$ $(2,135)$ | \$ 108 |
| U.S. Treasury Long Bond Options |  | (18) | (7) |  | (103) |  |
| U.S. Treasury Notes Options - 10 year |  | - | - |  | (95) | (6) |
| U.S. Treasury Notes Options - 5 year |  | (5) | 8 |  | (14) | 14 |
| Subtotal Interest Rate Options |  | $(1,828)$ | 1,021 |  | $(2,347)$ | 116 |
| Credit Default Swap Options |  | (459) | (196) |  | (73) | 16 |
| Forward Volatility Options |  | (203) | 22 |  | - | - |
| Foreign Currency Options |  |  |  |  |  |  |
| 90 Day Eurodollar Futures Options |  | (167) | 53 |  | (223) | 152 |
| Inflation Rate Floor Options |  | (44) | 80 |  | (173) | (49) |
| Total Written Options |  | \$ (2,701) | \$ 980 |  | \$ $(2,816)$ | \$ 235 |
| Purchased Options |  |  |  |  |  |  |
| Interest Rate Options |  |  |  |  |  |  |
| Interest Rate Swap Options |  | \$ 520 | \$ 52 |  | \$ 99 | \$ (228) |
| U.S. Treasury Notes Options - 10 year |  | - | - |  | 56 | 10 |
| Subtotal Interest Rate Options |  | 520 | 52 |  | 155 | (218) |
| Credit Default Swap Options |  | 121 | (82) |  | 66 | (17) |
| Foreign Currency Options |  |  |  |  |  |  |
| Foreign Exchange Spot Options |  | - | - |  | 313 | 22 |
| 90 Day Eurodollar Futures Options |  | - | - |  | 19 | (65) |
| Subtotal Foreign Currency Options |  | - | - |  | 332 | (43) |
| Total Purchased 0ptions |  | \$ 641 | \$ (30) |  | \$ 553 | \$ (278) |

## TVAR R T I R E M E N T S Y S T E M

Note 11
INTEREST RATE SWAP CONTRACTS
The following summarizes the interest rate swap contracts of the Fixed Benefit Fund at September 30, 2011.

| (Dollars and notionals in thousands) |  |  |  | 2011 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counterparties | Notional Amount | Pay/ Receive | Floating Rate Index |  | Fixed Rate | Maturity Date | Market Value | Unrealized Appreciation/ (Depreciation) |
| Bank of America | \$ 4,094 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.9\% | 2013 | \$ 116 | \$ 104 |
|  | 800 | Pay | 3 Month LIBOR | Receive | 2.0\% to 3.0\% | 2021 | 7 | - |
|  | 134 | Pay | 6 Month EURIBOR | Receive | 3.5\% | 2021 | 12 | 13 |
| Barclays Bank | 431 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.91\% | 2013 | 12 | 12 |
|  | 108 | Pay | Brazilian Interbank Deposit Rate | Receive | 10.83\% | 2014 | - | - |
|  | 1,453 | Pay | Mexican Interbank Deposit Rate | Receive | 7.34\% | 2015 | 95 | 95 |
|  | 4,500 | Pay | 3 Month LIBOR | Receive | 3.00\% | 2021 | 367 | 74 |
|  | 3,623 | Pay | 6 Month EURIBOR | Receive | 3.5\% | 2021 | 321 | 306 |
| BNP Paribas | 862 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.88\% to 12.80\% | 2013 | 30 | 30 |
|  | 108 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.11\% | 2014 | 4 | 4 |
|  | 1,900 | Pay | Federal Funds Effective Rate | Receive | 1.0\% | 2014 | 23 | 24 |
| Citibank | 145 | Pay | Mexican Interbank Deposit Rate | Receive | 7.33\% | 2015 | 9 | 9 |
|  | 537 | Pay | 6 Month EURIBOR | Receive | 3.65\% | 2021 | 55 | 54 |
| Credit Suisse | 3,623 | Pay | 6 Month EURIBOR | Receive | 1.75\% | 2014 | - | 1 |
|  | 671 | Pay | 6 Month EURIBOR | Receive | 3.5\% | 2021 | 59 | 60 |
| Goldman Sachs | 754 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.89\% | 2013 | 22 | 21 |
|  | 215 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.65\% | 2014 | 11 | 8 |
|  | 36,100 | Pay | Federal Funds Effective Rate | Receive | 0.5\% | 2014 | 436 | 568 |
|  | $600$ | Pay | 3 Month LIBOR | Receive | 2.0\% | 2021 | (9) | (7) |
|  | 13,685 | Pay | 6 Month EURIBOR | Receive | 3.50\% | 2021 | 1,211 | 1,253 |
|  | 935 | Pay | 6 Month BP Sterling LIBOR | Receive | 3.0\% | 2022 | 22 | 18 |
| HSBC Bank | 754 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.89\% to 12.83\% | 2013 | 28 | 28 |
|  | 1,023 | Pay | Brazilian Interbank Deposit Rate | Receive | 10.53\% to 12.54\% | 2014 | (2) | 6 |
|  | 1,342 | Pay | 6 Month EURIBOR | Receive | 3.5\% | 2021 | 119 | 114 |
|  | 1,713 | Pay | 6 Month BP Sterling LIBOR | Receive | 3.0\% | 2022 | 41 | 32 |
| JP Morgan | 539 | Pay | Brazilian Interbank Deposit Rate | Receive | 10.87\% to 12.20\% | 2014 | 6 | 7 |
|  | 600 | Pay | 3 Month LIBOR | Receive | 2.0\% to 3.0\% | 2021 | 10 | 1 |
|  | 2,740 | Receive | 3 Month LIBOR | Pay | $0 \%$ | 2041 | (391) | (375) |
| Morgan Stanley | 4,800 | Pay | Federal Funds Effective Rate | Receive | 0.5\% | 2013 | 15 | 22 |
|  | 1,401 | Pay | Brazilian Interbank Deposit Rate | Receive | 10.58\% | 2014 | (6) | 1 |
|  | $5,400$ | Pay | 3 Month LIBOR | Receive | 2.0\% to 3.0\% | 2021 | 392 | 82 |
|  | 2,683 | Pay | 6 Month EURIBOR | Receive | 3.5\% to 3.65\% | 2021 | 254 | 252 |
| UBS | 916 | Pay | Brazilian Interbank Deposit Rate | Receive | 10.61\% | 2013 | 2 | 2 |
|  | $431$ | Pay | Brazilian Interbank Deposit Rate | Receive | 10.77\% to 12.25\% | $2014$ | 4 | $4$ |
|  | 623 | Pay | 6 Month BP Sterling LIBOR | Receive | $3.0 \%$ | 2022 | 15 | 10 |
| Totals | \$100,243 |  |  |  |  |  | \$ 3,290 | \$ 2,833 |

## TVAR R T I R E M E N T S Y S T E M

## Note 11

INTEREST RATE SWAP CONTRACTS (continued)
The following summarizes the interest rate swap contracts of the Fixed Benefit Fund at September 30, 2010.

| (Dollars and notionals in thousands) |  |  |  | 2010 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counterparties | Notional Amount | Pay/ Receive | Floating Rate Index |  | Fixed Rate | Maturity Date | Market Value | Unrealized Appreciation/ (Depreciation) |
| Bank of America | \$ 4,232 | Pay | 6 Month EURIBOR | Receive | 2.0\% | 2015 | \$ 8 | \$ 30 |
| Barclays Global Investors | 956 | Pay | France CPI Index | Receive | 2.1\% | 2010 | 32 | 32 |
|  | 354 | Pay | Brazilian Interbank Deposit Rate | Receive | 10.8\% | 2012 | 5 | 4 |
|  | 472 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.9\% | 2013 | 6 | 6 |
|  | 1,911 | Pay | 6 Month EURIBOR | Receive | 2.0\% | 2015 | 4 | 16 |
|  | 1,604 | Pay | Mexican Interbank Deposit Rate | Receive | 7.3\% | 2015 | 101 | 101 |
| BNP Paribas | 1,365 | Pay | France CPI Index | Receive | 2.1\% | 2010 | 45 | 45 |
|  | 472 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.4\% | 2012 | 4 | 4 |
|  | 1,063 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.88\% to 12.8\% | 2013 | 19 | 19 |
|  | 118 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.1\% | 2014 | 3 | 3 |
|  | 2,048 | Pay | 6 Month EURIBOR | Receive | 2.0\% | 2015 | 4 | 15 |
| Citibank | 64,000 | Receive | Constant Maturity Mortgage Index | Pay | $3.3 \%$ to 3.36\% | 2010 | 37 | 37 |
|  | 160 | Pay | Mexican Interbank Deposit Rate | Receive | 7.3\% | 2015 | 10 | 10 |
| Credit Suisse | 59 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.8\% | 2012 | 1 | 1 |
|  | 819 | Pay | 6 Month EURIBOR | Receive | 2.0\% | 2015 | 2 | 7 |
|  | 14,640 | Receive | 3 Month LIBOR | Pay | 4.2\% | 2039 | $(2,476)$ | $(2,475)$ |
| Deutsche Bank | 291 | Pay | 3 Month Australian Rate Index | Receive | 4.5\% | 2011 | (1) | (2) |
| Goldman Sachs | 826 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.9\% | 2013 | 12 | 11 |
|  | 236 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.7\% | 2014 | 11 | 7 |
| HSBC Bank | 7,024 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.4\% | 2012 | 140 | 86 |
|  | 826 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.9\% to 12.83\% | 2013 | 19 | 19 |
|  | 59 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.5\% | 2014 | 2 | 2 |
| JP Morgan | 590 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.2\% | 2013 | 13 | 9 |
|  | 177 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.2\% | 2014 | 5 | 5 |
|  | 1,255 | Receive | 3 Month LIBOR | Pay | 4.8\% | 2018 | (234) | (234) |
| Merrill Lynch | 1,712 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.0\% to 11.1\% | 2012 | 29 | 26 |
|  | 4,486 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.9\% | 2013 | 56 | 45 |
| Morgan Stanley | 3,246 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.6\% | 2012 | 32 | 34 |
|  | 410 | Pay | 6 Month EURIBOR | Receive | 2.0\% | 2015 | 1 | 3 |
| Royal Bank of Scotland | 1,063 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.1\% | 2012 | 16 | 13 |
|  | 1,090 | Receive | 3 Month LIBOR | Pay | 4.3\% | 2018 | (170) | (170) |
| UBS | 290 | Pay | 3 Month Australian Rate Index | Receive | 4.5\% | 2011 | (1) | (1) |
|  | 3,098 | Pay | 6 Month Australian Rate Index | Receive | 6.0\% | 2012 | 44 | 44 |
|  | 295 | Pay | Brazilian Interbank Deposit Rate | Receive | 11.4\% | 2012 | 3 | 3 |
|  | 59 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.1\% | 2013 | 1 | 1 |
|  | 118 | Pay | Brazilian Interbank Deposit Rate | Receive | 12.3\% | 2014 | 3 | 3 |
| Totals | \$ 121,424 |  |  |  |  |  | \$ $(2,214)$ | \$ $(2,241)$ |

## T V A R E T I R E M E N T S Y S T E M

Note 12
CREDIT DEFAULT SWAP CONTRACTS
The following summarizes the credit default swap contracts of the Fixed Benefit Fund at September 30, 2011.

| (Dollars and notionals in thousands) | 2011 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Notional Amount | BUY/SELL <br> Protection | Fixed Rate | Maturity Date | Market Value | Unrealized Appreciation/ <br> (Depreciation) |
| Bank of America | \$ 1,600 | SELL | 0.25\% | 2015 | \$ (94) | \$ (57) |
|  | 17,300 | SELL | .25\% to 1.00\% | 2016 | $(1,250)$ | (866) |
|  | 200 | SELL | 2.60\% to 2.80\% | 2017 | (28) | (28) |
|  | 100 | SELL | 1.00\% | 2021 | (10) | (6) |
| Barclays Bank | 2,854 | SELL | .64\% to .76\% | 2012 | (26) | (373) |
|  | 300 | SELL | 1.67\% | 2013 | (4) | (4) |
|  | 8,550 | BUY | 5.00\% | 2015 | 545 | 899 |
|  | 2,300 | SELL | 1.00\% to 5.00\% | 2015 | 24 | (113) |
|  | 2,700 | SELL | 1.00\% | 2016 | (365) | (273) |
| BNP Paribas | 4,100 | SELL | 1.00\% | 2015 | (313) | (143) |
|  | 7,337 | SELL | . $25 \%$ to $1.00 \%$ | 2016 | (113) | (144) |
| Citibank | 1,500 | SELL | 0.25\% | 2015 | (88) | (37) |
|  | 5,900 | SELL | .25\% to 1.00\% | 2016 | (438) | (125) |
|  | 2,590 | SELL | 0.07\% | 2049 | (260) | (109) |
|  | 470 | BUY | 0.96\% | 2051 | 238 | 89 |
|  | 4,550 | SELL | .35\% to .50\% | 2051 | (918) | (512) |
| Credit Suisse | 261 | SELL | 5.00\% | 2013 | (1) | 21 |
|  | 4,380 | BUY | 5.00\% | 2016 | 394 | 98 |
|  | 4,803 | SELL | 1.00\% to 3.00\% | 2016 | (107) | (141) |
|  | 375 | BUY | 0.07\% | 2049 | 38 | 22 |
|  | 470 | SELL | 1.47\% | 2049 | (219) | (93) |
|  | 1,200 | BUY | 0.50\% | 2051 | 379 | 265 |
|  | 474 | BUY | 0.10\% | 2052 | 33 | 14 |
|  | 1,861 | SELL | 0.50\% | 2052 | (301) | (186) |
| Deutsche Bank | 2,268 | SELL | .71\% to 5.00\% | 2012 | (4) | (14) |
|  | 3,500 | SELL | 0.88\% | 2013 | (41) | (41) |
|  | 7,400 | SELL | .25\% to 5.00\% | 2015 | (296) | (280) |
|  | 6,903 | SELL | 1.00\% to 3.00\% | 2016 | (452) | (376) |
|  | 60 | SELL | 4.28\% | 2017 | 1 | 1 |
|  | 300 | SELL | 0.50\% | 2049 | (68) | (51) |
|  | 210 | BUY | 0.50\% | 2051 | 66 | 23 |
| Goldman Sachs | 1,957 | SELL | 1.12\% to 3.24\% | 2012 | (10) | (10) |
|  | 200 | BUY | 5.00\% | 2013 | 2 | 5 |
|  | 310 | BUY | 5.00\% | 2015 | 12 | 11 |
|  | 3,300 | SELL | 1.00\% | 2015 | (24) | (32) |
|  | 5,600 | SELL | .25\% to 1.00\% | 2016 | (573) | (434) |
|  | 196 | SELL | .55\% to 3.77\% | 2017 | (1) | (1) |
|  | 300 | BUY | 5.00\% | 2020 | 8 | 3 |
|  | 639 | BUY | .35\% to .50\% | 2051 | 161 | 71 |
|  | 1,648 | BUY | 0.10\% | 2052 | 115 | 33 |
|  | - 349 | SELL | 0.50\% | 2052 | (57) | (26) |
| HSBC Bank | 400 | SELL | .25\% to 1.00\% | 2016 | (27) | (16) |
|  | 100 | SELL | 1.00\% | 2021 | (10) | (6) |
| JP Morgan | 3,897 | SELL | 1.00\% to 2.75\% | 2012 | (65) | (32) |
|  | 4,900 | SELL | 1.00\% | 2014 | (261) | (99) |
|  | 2,800 | BUY | 5.00\% | 2015 | 178 | 258 |
|  | 400 | SELL | 1.00\% | 2015 | 4 | 1 |
|  | 3,300 | SELL | 1.00\% | 2016 | (50) | (72) |
|  | 70 | SELL | 3.95\% | 2017 | - | - |
|  | 1,200 | SELL | 0.50\% | 2049 | (302) | (220) |
|  | 439 | BUY | 0.35\% | 2051 | 60 | 32 |
|  | 430 | SELL | 0.50\% | 2052 | (70) | (26) |
| Morgan Stanley | 400 | SELL | 0.96\% | 2012 | 4 | 4 |
|  | 4,600 | SELL | 1.00\% to 5.00\% | 2015 | (52) | (177) |
|  | 6,000 | SELL | 1.00\% | 2016 | (399) | (339) |
|  | 1,700 | SELL | 2.25\% | 2021 | (31) | (31) |
|  | 220 | SELL | 4.42\% | 2036 | 6 | - |
|  | 183 | SELL | 0.50\% | 2049 | (51) | (27) |
|  | 1,132 | BUY | 0.10\% | 2052 | 79 | 21 |
| Royal Bank of Scotland | 11,684 | SELL | .66\% to 2.75\% | 2012 | (85) | (85) |
|  | 261 | BUY | 5.00\% | 2013 | 1 | (45) |
|  | 4,800 | SELL | 0.25\% | 2015 | (281) | (172) |
|  | 4,900 | SELL | .25\% to 1.55\% | 2016 | (401) | (304) |
|  | 425 | SELL | 0.10\% | 2052 | (30) | (14) |
| UBS | 2,400 | SELL | 1.00\% | 2012 | (43) | (8) |
|  | 500 | SELL | .25\% to 1.00\% | 2016 | (5) | (9) |
| Totals | \$ 168,456 |  |  |  | \$ $(5,876)$ | \$ (4,286) |

## T V A R E T I R E M E N T S Y S T E M

Note 12
CREDIT DEFAULT SWAP CONTRACTS (continued)
The following summarizes the credit default swap contracts of the Fixed Benefit Fund at September 30, 2010.

| (Dollars and notionals in thousands) |  |  | 2010 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Counterparties | Notional Amount | BUY/SELL <br> Protection | Fixed Rate | Maturity Date | Market Value | Unrealized Appreciation/ (Depreciation) |
| Bank of America | \$ 12,003 | SELL | 0.60\% | 2012 | \$ (126) | \$ (9) |
|  | 16,364 | BUY | . $70 \%$ to 5.00\% | 2014 | 87 | (82) |
|  | 2,200 | SELL | 1.00\% | 2015 | - | 7 |
| Barclays Global Investors | 1,700 | SELL | 0.62\% | 2011 | (4) | (4) |
|  | 2,854 | SELL | . $64 \%$ to $.76 \%$ | 2012 | (15) | (361) |
|  | 300 | SELL | 1.67\% | 2013 | 1 | 1 |
|  | 1,829 | BUY | 1.00\% | 2015 | 36 | 5 |
|  | 3,600 | SELL | 1.00\% to 5.00\% | 2015 | 65 | (4) |
| BNP Paribas | 700 | SELL | 1.00\% | 2011 | (1) | (1) |
|  | 4,100 | SELL | 1.00\% | 2015 | (163) | 7 |
| Citibank | 400 | SELL | 5.00\% | 2010 | 4 | 3 |
|  | 700 | SELL | 1.00\% to 5.00\% | 2015 | (9) | - |
|  | 2,400 | SELL | 1.63\% | 2016 | (227) | (227) |
|  | 500 | SELL | 0.35\% | 2051 | (47) | 55 |
| Credit Suisse | 1,742 | SELL | 0.60\% | 2012 | (18) | (1) |
|  | 187 | BUY | 3.50\% | 2013 | (3) | 7 |
|  | 2,128 | SELL | 3.50\% to 5.00\% | 2013 | 41 | 45 |
|  | 1,535 | BUY | . $70 \%$ to 5.00\% | 2014 | 14 | (23) |
|  | 2,500 | SELL | 1.00\% | 2015 | (8) | 1 |
| Deutsche Bank | 868 | SELL | 0.71\% | 2012 | 11 | 10 |
|  | 3,600 | SELL | . $88 \%$ to $1.52 \%$ | 2013 | (29) | (29) |
|  | 300 | SELL | 1.00\% | 2014 | 5 | 3 |
|  | 4,500 | SELL | 1.00\% to 5.00\% | 2015 | 107 | (12) |
|  | 100 | SELL | 2.21\% | 2016 | (13) | (13) |
|  | 60 | SELL | 4.28\% | 2017 | 3 | 3 |
| Goldman Sachs | 200 | SELL | 5.00\% | 2010 | 1 | 8 |
|  | 100 | BUY | 5.00\% | 2011 | (2) | - |
|  | 1,000 | SELL | 1.58\% | 2011 | 1 | 1 |
|  | 2,177 | SELL | 1.12\% to 3.24\% | 2012 | 13 | 13 |
|  | 890 | BUY | 1.80\% | 2012 | (6) | (6) |
|  | 670 | BUY | 5.00\% | 2013 | 18 | 20 |
|  | 4,293 | SELL | $3.50 \%$ to $5.00 \%$ | 2013 | 67 | 67 |
|  | 310 | BUY | 5.00\% | 2015 | - | (1) |
|  | 900 | SELL | 1.00\% | 2015 | (4) | 5 |
|  | 196 | SELL | . $55 \%$ to 3.77\% | 2017 | 3 | 3 |
|  | 40 | BUY | 5.00\% | 2020 | (6) | (7) |
| HSBC Bank | 100 | SELL | 5.00\% | 2015 | 13 | - |
| JP Morgan | 2,697 | SELL | 2.75\% | 2012 | 25 | 25 |
|  | 1,680 | BUY | 3.50\% | 2013 | (26) | 57 |
|  | 8,554 | BUY | 5.00\% | 2014 | (191) | (222) |
|  | 1,600 | SELL | 1.00\% | 2015 | 31 | 17 |
|  | 70 | SELL | 3.95\% | 2017 | 2 | 2 |
| Merrill Lynch | 2,160 | SELL | . $82 \%$ to $2.30 \%$ | 2012 | (9) | (9) |
|  | 200 | SELL | 2.60\% to $2.80 \%$ | 2017 | (21) | (21) |
| Morgan Stanley | 400 | SELL | 0.96\% | 2012 | 7 | 7 |
|  | 9,400 | BUY | 5.00\% | 2014 | (210) | $(1,059)$ |
|  | 2,200 | SELL | 5.00\% | 2015 | 7 | 57 |
|  | 270 | SELL | 4.42\% | 2036 | 14 | 7 |
| Royal Bank of Scotland | 12,384 | SELL | . $66 \%$ to $2.75 \%$ | 2012 | 84 | 84 |
|  | 261 | BUY | 5.00\% | 2013 | (12) | (58) |
|  | 400 | SELL | 1.96\% | 2013 | 3 | 3 |
|  | 100 | SELL | 1.55\% | 2016 | (12) | (12) |
| Totals | \$ 120,422 |  |  |  | \$ (499) | \$ $(1,638)$ |

## T V A R E T I R E M E N T S Y S T E M

Note 13
TOTAL RETURN SWAP CONTRACTS
The following summarizes the interest rate swap contracts of the Fixed Benefit Fund at September 30, 2011 and 2010.
(Dollars and notionals in thousands)

## 2011

| Counterparties | Notional Amount | Pay | Receive | Maturity Date | Market <br> Value | Unrealized Appreciation/ (Depreciation) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| JP Morgan | \$ (4,994) | Gains on Swiss Market Index | Losses on Swiss Market Index | December 2011 | \$ (185) | \$ (185) |
|  | 180 | Gains on TRX CMBS Index | Losses on TRX CMBS Index | January 2012 | - | - |
| Morgan Stanley | 570 | Gains on TRX CMBS Index | Losses on TRX CMBS Index | January 2012 | - | - |
| Totals | \$ (4,244) |  |  |  | \$ (185) | \$ (185) |
| 2010 |  |  |  |  |  |  |
| Credit Suisse | \$ 15,310 | 3 Month LIBOR | Treasury Bond Index | December 2010 | \$ 455 | \$ 455 |
| JP Morgan | $(8,636)$ | Gains on Swiss Market Index | Losses on Swiss Market Index | December 2010 | 200 | 200 |
| Totals | \$ 6,674 |  |  |  | \$ 655 | \$ 655 |

## T V A R E T I R E M E N T S Y S T E M

Note 14
FORWARD FOREIGN CURRENCY CONTRACTS - RECEIVABLES
The following summarizes the forward foreign currency contracts of the Fixed Fund at September 30, 2011 and 2010.

|  | 2011 |  |  | 2010 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) | Settlement Date | Fair Market Value | Unrealized Appreciation/ (Depreciation) | Settlement Date | Fair Market Value | Unrealized Appreciation/ (Depreciation) |
| Currency Sold |  |  |  |  |  |  |
| Argentina Peso |  |  |  | December 2010 | \$507 | \$ 2 |
| Australian Dollar | October 2011 | \$ 308 | \$ (3) | October 2010 | 125 | 1 |
|  | December 2011 | 29,891 | (921) | December 2010 | 44,816 | 2,100 |
| Brazil Real | November 2011 | 1,226 | (185) | October 2010 | 5,269 | 151 |
|  |  |  |  | November 2010 | 1,994 | 20 |
|  |  |  |  | December 2010 | 1,240 | 55 |
| British Pound Sterling | October 2011 | 206 | - | October 2010 | 473 | (2) |
|  | December 2011 | 45,468 | (516) | December 2010 | 9,076 | 104 |
| Canadian Dollar | October 2011 | 1,646 | (7) | November 2010 | 159 | - |
|  | December 2011 | 39,559 | $(1,828)$ | December 2010 | 14,411 | 119 |
| Chinese Yuan Renminbi | November 2011 | 376 | 3 | November 2010 | 828 | 10 |
|  | February 2012 | 484 | (1) | December 2010 | 13,295 | 48 |
|  |  |  |  | March 2011 | 10,095 | 39 |
|  |  |  |  | June 2011 | 9,395 | 177 |
|  |  |  |  | September 2011 | 2,461 | 12 |
| Czech Koruna |  |  |  | December 2010 | 1,016 | 75 |
| Danish Krone | October 2011 | 179 | (2) | December 2010 | 62 | 4 |
|  | December 2011 | 230 | (4) |  |  |  |
| Euro Monetary Unit | October 2011 | 11,573 | (595) | November 2010 | 2,377 | 146 |
|  | December 2011 | 24,731 | (517) | December 2010 | 43,459 | 1,099 |
| Hong Kong Dollar | October 2011 | 54 | - | December 2010 | 537 | , |
|  | December 2011 | 313 | - |  |  |  |
|  |  |  |  | December 2010 | 1,243 | 96 |
| Indian Rupee | July 2012 | 179 | (17) | November 2010 | 100 |  |
|  |  |  |  | December 2010 | 1,899 | 37 |
| Indonesian Rupian | July 2012 | 325 | (23) | October 2010 | 181 | 21 |
|  |  |  |  | November 2010 | 171 | 6 |
|  |  |  |  | December 2010 | 1,071 | 17 |
|  |  |  |  | July 2011 | 175 | 1 |
| Israeli Shekel | December 2011 | 1,015 | (10) | December 2010 | 1,608 | 63 |
| Japanese Yen | October 2011 | 4,263 | (9) | December 2010 | 29,263 | 182 |
|  | December 2011 | 40,889 | (185) |  |  |  |
| Malaysian Ringgit | April 2012 | 238 | (16) | November 2010 | 250 | 21 |
|  |  |  |  | December 2010 | 1,317 | 31 |
|  |  |  |  | February 2011 | 35 |  |
| Mexican New Peso | November 2011 | 3,708 | (484) | December 2010 | 2,696 | 103 |
|  |  |  |  | February 2011 | 169 | 2 |
| New Taiwan Dollar | January 2012 | 115 | (8) | October 2010 | 67 | - |
|  |  |  |  | December 2010 | 1,965 | 48 |
|  |  |  |  | January 2011 | 46 | 1 |
| New Turkish Lira |  |  |  | December 2010 | 806 | 42 |
| New Zealand Dollar | December 2011 | 11,700 | (819) | December 2010 | 10,364 | 215 |
| Norwegian Krone | October 2011 | 56 | (1) | December 2010 | 21,506 | 1,126 |
|  | December 2011 | 15,708 | (844) |  |  |  |
| Philippines Peso | March 2012 | 198 | (2) | November 2010 | 100 | - |
|  |  |  |  | December 2010 | 930 | 34 |
| Polish Zloty |  |  |  | December 2010 | 2,774 | 180 |
| Russian Rubel (New) |  |  |  | December 2010 | 3,897 | 36 |
| Singapore Dollar | October 2011 | 108 | - | December 2010 | 3,217 | 91 |
|  | December 2011 | 834 | (57) | March 2011 | 100 | - |
| South African Rand |  |  |  | December 2010 | 1,262 | 61 |
| South Korean Won | November 2011 | 1,030 | (122) | November 2010 | 486 | 11 |
|  |  |  |  | December 2010 | 2,686 | 114 |
|  |  |  |  | January 2011 | , 301 | 1 |
| Swedish Krona | October 2011 | 85 | (1) | December 2010 | 45,561 | 3,435 |
|  | December 2011 | 40,998 | $(1,379)$ |  |  |  |
| Swiss Franc | October 2011 <br> December 2011 | 181 | (2) | December 2010 | 41,642 | 1,465 |
|  |  | 11,215 | (233) |  |  |  |
| Thailand Baht US Dollar |  |  |  | December 2010 | 428 | 12 |
|  | October 2011 <br> November 2011 <br> December 2011 | 32,379 | - | October 2010 | 14,875 | - |
|  |  | 12,723 | - | November 2010 | 12,860 | - |
|  |  | 264,998 | - | December 2010 | 368,566 | - |
|  |  |  |  | March 2011 | 182 | - |
|  |  |  |  | June 2011 | 254 | - |
| Totals |  | \$ 599,189 | \$ (8,788) |  | \$ 736,648 | \$ 11,612 |

## T V A R E T I R E M E N T S Y S T E M

Note 14 (continued)
FORWARD FOREIGN CURRENCY CONTRACTS - PAYABLES
The following summarizes the forward foreign currency contracts of the Fixed Fund at September 30, 2011 and 2010.

|  | 2011 |  |  | 2010 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Dollars in thousands) | Settlement Date | Fair Market Value | Unrealized Appreciation/ (Depreciation) | Settlement Date | Fair Market Value | Unrealized Appreciation/ (Depreciation) |
| Currency Sold |  |  |  |  |  |  |
| Australian Dollar | October 2011 | \$ 242 |  | October 2010 | \$ 283 | \$ (3) |
|  | December 2011 | 26,674 | 1,541 | December 2010 | 231 | (8) |
| Brazil Real |  |  |  | October 2010 | 5,268 | (75) |
| British Pound Sterling | October 2011 | 142 | - | October 2010 | 930 | (3) |
|  | December 2011 | 37,792 | 202 | December 2010 | 81,926 | $(1,283)$ |
| Canadian Dollar | October 2011 | 776 | 7 | November 2010 | 671 | (4) |
|  | November 2011 | 4,305 | 192 | December 2010 | 51,600 | $(1,150)$ |
|  | December 2011 | 33,467 | 521 |  |  |  |
| Chinese Yuan Renminbi |  |  |  | December 2010 | 3,501 | (10) |
|  |  |  |  | March 2011 | 183 |  |
|  |  |  |  | June 2011 | 257 | (2) |
| Danish Krone | December 2011 | 884 | 19 | December 2010 | 1,563 | (94) |
| Euro Monetary Unit | October 2011 | 26,582 | 948 | October 2010 | 8,719 | (460) |
|  | November 2011 | 3,940 | 211 | November 2010 | 6,998 | (221) |
|  | December 2011 | 74,733 | 1,419 | December 2010 | 176,689 | $(11,186)$ |
| Hong Kong Dollar | December 2011 | 76 | - | December 2010 | 19 |  |
| Indian Rupee |  |  |  | December 2010 | 309 | (15) |
| Indonesian Rupian |  |  |  | October 2010 | 181 | (1) |
| Israeli Shekel | December 2011 | 157 | 2 | December 2010 | 24 | (1) |
| Japanese Yen | October 2011 | 3,719 | (111) | November 2010 | 5,260 | (124) |
|  | November 2011 | 3,687 | (13) | December 2010 | 23,222 | (379) |
|  | December 2011 | 25,986 | 207 |  |  |  |
| Malaysian Ringgit | November 2011 | 98 | 2 | October 2010 | 36 |  |
| Mexican New Peso |  |  |  | December 2010 | 262 | (1) |
| New Zealand Dollar | December 2011 | 19,867 | 1,012 | December 2010 | 10,451 | (166) |
| Norwegian Krone | December 2011 | 21,886 | 691 | December 2010 | 10,365 | (213) |
| Singapore Dollar | December 2011 | 150 | 9 | December 2010 | 287 | (4) |
| South Korean Won | November 2011 | 299 | 1 | November 2010 | 304 | (24) |
| Swedish Krona | October 2011 | 73 | 1 | December 2010 | 17,636 | $(1,238)$ |
|  | December 2011 | 10,138 | 167 |  |  |  |
| Swiss Franc | December 2011 | 7,121 | 278 | December 2010 | 18,199 | (307) |
| US Dollar | October 2011 | 19,280 | - | October 2010 | 6,172 | - |
|  | November 2011 | 7,129 | - | November 2010 | 6,022 | - |
|  | December 2011 | 269,862 | - | December 2010 | 281,895 | - |
|  | January 2012 | 123 | - | January 2011 | 346 | - |
|  | February 2012 | 485 | - | February 2011 | 202 | - |
|  | March 2012 | 200 | - | March 2011 | 10,156 | - |
|  | April 2012 | 254 | - | June 2011 | 9,218 | - |
|  | July 2012 | 544 | - | July 2011 | 174 | - |
|  |  |  |  | September 2011 | 2,449 | - |
| Totals |  | \$600,671 | \$7,306 |  | \$742,008 | \$(16,972) |

## TVAR ETIREMENTSYSTEM

## Note 15

SECURITIES LENDING
As of September 30, 2011 and 2010, the Plan loaned securities having a fair value of approximately $\$ 2.9$ million and $\$ 6.4$ million, respectively, and received $\$ 3.0$ million and $\$ 6.6$ million, respectively, of collateral in the form of cash and interests in tri-party accounts. The following tables summarize the securities loaned and the related collateral:

| (Dollars in thousands) September 30, 2011 | Fair Value <br> Securities on Loan | Total Collateral | Collateral Percent | Fair Value of Collateral |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Cash |  | Party |
| Common stocks - domestic | \$ 1,088 | \$ 1,118 | 102.8\% | \$ 1,118 | \$ | - |
| Common stocks - international | 651 | 673 | 103.4\% | 663 |  | 10 |
| Corporate bonds | 360 | 368 | 102.2\% | 368 |  | - |
| U.S. government | 812 | 829 | 102.1\% | 829 |  | - |
| Total | \$ 2,911 | \$2,988 | 102.6\% | \$2,978 | \$ | 10 |
| September 30, 2010 |  |  |  |  |  |  |
| Common stocks - domestic | \$ 1,786 | \$ 1,832 | 102.6\% | \$ 1,832 | \$ | - |
| Common stocks - international | 2,807 | 2,928 | 104.3\% | 2,916 |  | 12 |
| Corporate bonds | 1,775 | 1,821 | 102.6\% | 1,821 |  | - |
| U.S. government | 7 | 7 | 102.1\% | 7 |  | - |
| Total | \$ 6,375 | \$ 6,588 | 103.3\% | \$ 6,576 | \$ | 12 |

Note 16
NET APPRECIATION (DEPRECIATION) OF INVESTMENTS
During 2011 and 2010, the Plan's investments (including investments bought, sold, as well as held during the year) appreciated (or depreciated) in value as follows:

September 30, 2011 and 2010

| (Dollars in thousands) | $\mathbf{2 0 1 1}$ | 2010 |
| :--- | ---: | ---: |
| Commingled funds | $\mathbf{3 1 , 7 6 1}$ | $\$ 218,965$ |
| Private equity, private real estate \& other | $\mathbf{7 2 , 7 9 8}$ | 65,878 |
| Equity securities | $\mathbf{( 1 4 3 , 0 9 1 )}$ | 61,883 |
| Derivatives | $\mathbf{( 3 8 , 3 8 2 )}$ | 83,406 |
| Corporate bonds | $\mathbf{( 8 , 1 4 8 )}$ | 150,118 |
| Net appreciation (depreciation) | $\underline{\mathbf{\$ ( 8 5 , 0 6 2 )}}$ | $\mathbf{\$ 5 8 0 , 2 5 0}$ |

## INVESTMENT HOLDINGS OF 5 PERCENT OR MORE

During 2011 and 2010, the Plan's investments representing 5 percent or more of the Net Assets Available for Benefits were as follows:
September 30, 2011 and 2010

| (Dollars in thousands) | 2011 | 2010 |
| :---: | :---: | :---: |
| Bridgewater TVARS, LLC | \$ 500,028 | \$ 148,458** |
| Bank of New York Mellon EB Daily Valued, All Country World Index excluding the United States | 396,575 | 586,754 |
| Bank of New York Mellon EB Daily Valued Large Capital Fund | 295,860* | 456,909 |
| Barclays Global Investors, All Country World Index excluding the United States Active International Equity Fund | -* | 563,425 |
| Total | \$ 1,192,463 | \$ 1,755,546 |

[^1]
## TVA RETIREMENTSYSTEM

## Note 17 <br> INVESTMENT EXPENSES AND RELATED PARTY TRANSACTIONS

The Plan paid investment managers $\$ 46.1$ million in fiscal year 2011 and $\$ 47.8$ million in fiscal year 2010 for fees related to the management of plan investments. The decrease in investment managers' fees was primarily due to market performance. In the Statements of Changes in Net Assets Available for Benefits, the investment expenses are netted against the investment income.

BNY Mellon is the Trustee of the Plan, and therefore plan investments that are managed by BNY Mellon and its subsidiaries and affiliates qualify as related party transactions. The investment management fees paid to BNY Mellon were $\$ 2.1$ million in fiscal year 2011 and $\$ 2.0$ million in fiscal year 2010.

Barclays Global Investors is an agent of BNY Mellon, Trustee of the Plan, and therefore Plan investments with Barclays Global Investors qualify as related party transactions. The investment management fees paid to Barclays Global Investors were $\$ 2.3$ million in fiscal year 2011 and $\$ 2.9$ million in fiscal year 2010 .

## Note 18 <br> ADMINISTRATIVE EXPENSES AND RELATED PARTY TRANSACTIONS

The Plan incurred administrative expenses of $\$ 5.7$ million in fiscal year 2011 and $\$ 4.7$ million in fiscal year 2010. The administrative expenses include the System staff operations, actuarial services, investment consulting services, and other administrative services.

The System staff are TVA employees, and the System utilizes other TVA resources in the administration of the Plan. The System reimburses TVA for expenses incurred on behalf of the Plan. The System paid TVA $\$ 4.0$ million in fiscal year 2011 and $\$ 3.6$ million in fiscal year 2010.

## Note 19

## TERMINATION

The Plan document indicates the Plan can be terminated at any time. In the event the Plan is terminated, the net assets of the Plan will be allocated generally to provide benefits in the following order: (1) Fixed and Variable Fund benefits based upon members' contributions, (2) nonforfeitable benefits based upon TVA's contributions (defined benefit portion of the Plan), and (3) to the extent feasible, cost-of-living increases thereto. The Plan benefits are not guaranteed by the Pension Benefit Guaranty Corporation.

## Note 20

## VARIABLE FUND

The Variable Fund is an investment option for eligible members of the Plan. The Employee Account was transferred to the Fidelity Spartan 500 Index Fund held by Fidelity Investments on August 1, 2006. The Employee Account had been previously invested in the Dreyfus Basic S\&P 500 Stock Index Fund. Members' contributions purchase shares at the net asset value of the fund on the date of contribution. If members, upon retirement or termination from employment, elect to withdraw the balance in their accounts, the shares in the mutual fund will be redeemed and the proceeds will be paid. Eligible retired members who elect to receive a monthly annuity benefit redeem shares in the Fidelity Spartan 500 Index Advantage Fund, and the proceeds are used to purchase units in the Retiree Account. This account is invested in a commingled trust fund with the underlying investment in stocks included in the S\&P 500 Stock Index. The value of the members' units fluctuates with the value of the net assets in the Retiree Account. The value of the retiree units is also updated annually by an actuarial valuation.

Members can transfer their Variable Fund balance to the Fixed Benefit Fund at various times to provide members with the ability to choose a fixed benefit structure. The Variable Fund benefits are paid entirely from the Variable Fund assets, and the Fixed Benefit Fund assets are not legally available to the Variable Fund. The Variable Fund assets are restricted entirely to the Variable Fund benefits and are not legally available for the funding of Fixed Fund annuity benefits or pension benefits.

Key financial data of the Variable Fund at September 30, 2011 and 2010, are as follows:

## TVAR R T I R E M E N T S Y S T E M

| (Dollars in thousands) | 2011 | 2010 |
| :---: | :---: | :---: |
| Assets |  |  |
| Commingled funds | \$ 70,855 | \$77,619 |
| S\&P 500 Stock Index Fund | 53,847 | 60,581 |
| Total investments at fair value | 124,702 | 138,200 |
| Liabilities |  |  |
| Net payable from the Fixed Benefit Fund | (842) | (491) |
| Net Assets | \$123,860 | \$137,709 |
| Investment Income (Loss) |  |  |
| Net appreciation (depreciation) in fair value of investments | \$2,100 | \$ 12,611 |
| Dividends | 1,259 | 1,143 |
| Total investment income (loss) | 3,359 | 13,754 |
| Members' Contributions | 2,387 | 2,438 |
| Net Transfers |  |  |
| To Fixed Benefit Fund | 8,779 | 5,320 |
| For retirement benefits, withdrawals and death benefits | 9,670 | 9,206 |
| To 401(k) Plan | 1,146 | 865 |
| Net transfers | 19,595 | 15,391 |
| Net Increase (Decrease) | \$(13,849) | \$ 801 |

## Note 21

## PENDING LITIGATION

In March 2010, a group of eight current and former participants in and beneficiaries of the System filed a complaint asserting a purported class-action lawsuit against the six then-current members of the System Board of Directors concerning the amendments to the System Rules that became effective January 1, 2010. In September 2010, the Federal District Court dismissed the complaint, after which the plaintiffs filed an amended complaint against the System and TVA. The amended complaint (Duncan et. al. v. TVA and TVARS) challenges the actions by the System and TVA to (1) reduce the calculation for cost of living adjustment (COLA) benefits for calendar years 2010 through 2013, (2) reduce the interest crediting rate for the System's Fixed Fund accounts, (3) increase the eligibility age to receive COLAs to age 60, and (4) suspend the TVA contribution requirements for fiscal years 2010 through 2013. In the amended complaint, the plaintiffs allege that the January 1, 2010, amendments (1) breached the System's Rules and Regulations, (2) violated the Administrative Procedures Act, (3) violated the Sunshine Act, (4) violated the plaintiffs' constitutional rights, (5) breached the System Board's fiduciary duty to the plaintiffs, and (6) breached TVA's duty to make contributions to the System. The plaintiffs are seeking injunctive relief to rescind the amendments and money damages.

Pursuant to the court's order in the Duncan lawsuit, the
parties filed a joint mediation report providing the court with a brief summary of the parties' efforts to resolve the dispute. The parties filed the joint mediation report on April 20, 2012. A copy of the joint mediation report may be accessed at www.tvars.com.

As discussed in the joint mediation report, the parties have engaged in active settlement negotiations since spring 2011. The parties decided that mediation facilitated by a private mediator should provide a more effective and efficient means to resolve the complex issues arising out of the Duncan lawsuit. Mediation removes the case from the court's active docket until either all the parties agree to settle the case or one or more of the parties wish to return the case to the court's active docket.

The System has retained Bradley Arant Boult Cummings LLP to represent it in the lawsuit. Loss contingencies, including claims and legal actions, are recorded as liabilities when the likelihood of loss is probable and an amount or range of probable loss can be reasonably estimated. Plan management has not concluded that any loss is probable as of September 30, 2011.

## Note 22

## SUBSEQUENT EVENTS

Plan management has evaluated subsequent events for recognition and disclosure through May 23, 2012, which is the date the financial statements were available to be issued.

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Crowe Horwath LLP
Independent Member Crowe Horwath International

## REPORT OF INDEPENDENT AUDITORS

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

We have audited the accompanying statements of net assets available for benefits of the Tennessee Valley Authority Savings and Deferral Retirement Plan as of September 30, 2011 and 2010, and the related statements of changes in net assets available for benefits for the years then ended. These financial statements are the responsibility of the Plan's management. 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 of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing 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 over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of September 30, 2011 and 2010, and the changes in net assets available for benefits for the years then ended in conformity with accounting principles generally accepted in the United States of America.


Crow Horwath LLP

[^2]May 23, 2012

> TVA S A VINGS A ND D E F E R R A L RETIREMENT PLAN $\quad[401(\mathrm{k}) \quad$ P L A N $]$

| September 30, 2011 and 2010 |  |  |  |
| :---: | :---: | :---: | :---: |
| (Dollars in thousands) | 2011 |  | 2010 |
| Assets |  |  |  |
| Investments at fair value |  |  |  |
| Domestic equity funds | \$ 467,489 | \$ | 592,127 |
| Life cycle/Blended funds | 375,181 |  | 237,066 |
| Stable value funds | 170,938 |  | 171,583 |
| Bond funds | 148,548 |  | 156,596 |
| International equity funds | 101,261 |  | 121,922 |
| BrokerageLink funds | 80,301 |  | 67,705 |
| Total Investments at Fair Value | 1,343,718 |  | 1,346,999 |
| Notes receivable |  |  |  |
| Notes receivable from participants | 30,554 |  | 27,659 |
| Adjustment from fair value to contract value for fully benefit-responsive contracts | $(4,120)$ |  | $(3,731)$ |
| Net Assets Available for Benefits | \$1,370,152 |  | 1,370,927 |

## STATEMENTS OF CHANGES IN NET ASSETS

 AVAILABLE FOR BENEFITSFiscal Years Ended September 30, 2011 and 2010

| (Dollars in thousands) | 2011 | 2010 |
| :---: | :---: | :---: |
| Investment Income |  |  |
| Net appreciation (depreciation) | \$ (54,082) | \$ 86,464 |
| Dividends and interest | 30,761 | 20,564 |
| Total investment income | $(23,321)$ | 107,028 |
| Contributions |  |  |
| Members | 83,122 | 71,256 |
| TVA | 30,744 | 26,648 |
| Transfers from annuity funds | 8,408 | 11,794 |
| Total contributions | 122,274 | 109,698 |
| Total increase | 98,953 | 216,726 |
| Benefits, Withdrawals, and Transfers |  |  |
| Benefits and withdrawals | 93,088 | 93,183 |
| Transfers to annuity funds | 6,640 | 8,976 |
| Total benefits, withdrawals, and transfers | 99,728 | 102,159 |
| Net increase | (775) | 114,567 |
| Net Assets Available for Benefits |  |  |
| Beginning of year | 1,370,927 | 1,256,360 |
| End of year | \$ 1,370,152 | \$1,370,927 |

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

401(k) PLAN
Net Assets Available For Benefits (in billions)


401(k) PLAN ASSET
ALLOCATION
(September 30, 2011)


| Domestic Equity Funds | $35 \%$ |  |
| :--- | :--- | ---: |
| Life Cycle/Blended Funds | $28 \%$ |  |
| Stable Value Fund | $12 \%$ |  |
| Bond \& Fixed Income Funds | $11 \%$ |  |
|  | International Equity Funds | $6 \%$ |
| Brokerage Account | $8 \%$ |  |

These charts are unaudited and intended for informational purposes only.

# TVASAVINGSAND DERRRAL R E TIREMENT PLAN $[401(\mathrm{k}) \quad \mathrm{P}$ L A N $]$ 

## NOTES TO FINANCIAL STATEMENTS Note 1 <br> GENERAL PLAN DESCRIPTION

The TVA Savings and Deferral Retirement Plan [401(k) Plan] is a defined contribution plan for members of the System funded by participants' after-tax contributions and before-tax salary deferrals. Additionally, participants receive employer matching contributions provided by TVA. Investment options for the after-tax, before-tax, Roth, and matching contributions consist of approximately 75 eligible funds. A detailed description of the $401(\mathrm{k})$ Plan and the various investment options offered is available from the TVA Retirement System.

## Vesting

Participants who contribute to the $401(\mathrm{k})$ Plan are immediately vested in their own contributions and become vested in TVA matching contributions upon completion of three years of actual service. Actual service is defined as the length of time spent as a member of the TVA Retirement System, not including credit for unused sick leave, forfeited annual leave, or pre-TVA employment military service. Upon completion of this service requirement, a member may withdraw matching contributions only upon retirement, disability or termination of TVA employment. Upon death, matching contributions may be withdrawn without regard to the vesting requirement.

## Forfeitures

If a participant ceases to be an employee for any reason other than death prior to completing three years of actual service, the entire amount of that participant's matching contributions account is forfeited as of the termination date. Forfeitures are used to reduce TVA's matching contributions to the $401(\mathrm{k})$ Plan. The amount of forfeitures used to reduce TVA's matching contributions totaled $\$ 537$ thousand in fiscal year 2011 and $\$ 376$ thousand in fiscal year 2010.

## Termination

In the event the $401(\mathrm{k})$ Plan is terminated, the net assets will be distributed to participants in proportion to their respective accounts in the $401(\mathrm{k})$ Plan, and payment of nonforfeitable 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. Benefits are recognized at the time of payment.

## Adoption of New Accounting Standards

In January 2010, the FASB issued guidance on improving disclosures about fair value measurements. This guidance required new disclosures of significant transfers between Levels 1 and 2 of the fair value hierarchy and clarified existing disclosure requirements regarding disclosures of classes of assets and liabilities and inputs and valuation techniques. These requirements became effective for the Plan on October 1, 2010. This guidance also required new disclosures of information about purchases, sales, issuances and settlements in Level 3 on a gross basis. This requirement will become effective for the Plan on October 1, 2011. The adoption of this guidance has and will change certain financial statement disclosures, but has not and will not materially impact the Plan's Net Assets Available for Benefits.

In May 2011, the FASB issued guidance designed to achieve common fair value measurement and disclosure requirements in U.S. GAAP and IFRS. This guidance explains how to measure fair value, but does not require additional fair value measurements and is not intended to establish valuation standards or affect valuation practices outside of financial reporting. This guidance states that certain disclosures are not required for nonpublic entities such as the Plan. Disclosures not required for nonpublic entities include (1) information about transfers between Level 1 and Level 2 of the fair value hierarchy, (2) information about the sensitivity of a fair value measurement categorized within Level 3 of the fair value hierarchy to changes in unobservable inputs and any interrelationships between those unobservable inputs, and (3) the categorization by level of the fair value hierarchy for items that are not measured at fair value in the statement of financial position, but for which the fair value of such items is required to be disclosed. This guidance will become effective for the Plan on October 1, 2012. The adoption of this guidance will change certain financial statement disclosures, but will not materially impact the Plan's Net Assets Available for Benefits.

Investment Valuation and Income Recognition The $401(\mathrm{k})$ 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.

Fair value is viewed as the price that would be received by the $401(\mathrm{k})$ Plan for an asset or paid by the $401(\mathrm{k})$ Plan to transfer a liability (an exit price) in an orderly transaction between market participants on the measurement date in the $401(\mathrm{k})$ Plan's principal or most advantageous market for the asset or the liability. There is a fair value hierarchy which

$$
\begin{gathered}
\text { TVA S A VINGS A ND D E F E R R A L } \\
\text { R E T I R E M N T P L A N } \quad[401(\mathrm{k})
\end{gathered}
$$

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 $401(\mathrm{k})$ 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 $401(\mathrm{k})$ 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 $401(\mathrm{k})$ Plan to estimate the fair value of investments apply to investments held directly by the $401(\mathrm{k})$ 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 $401(\mathrm{k})$ Plan offers members mutual funds managed by Fidelity and other investment companies. The $401(\mathrm{k})$ 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.

Self-directed brokerage link (BrokerageLink): BrokerageLink allows participants to purchase Fidelity funds, other mutual funds not offered by Fidelity, or other investment securities. Participating members open a brokerage account with Fidelity. Each member selects the
specific holdings for their account. The System reviews and categorizes the holdings of the BrokerageLink. The BrokerageLink comprises primarily stocks, mutual funds, bonds, certificates of deposit, and exchange-traded options. 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). Exchangetraded 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.

Stable value fund: The fair values of interests in stable value funds are based upon the net asset values of such funds reflecting all investments at fair value, including direct and indirect interests in fully benefit-responsive contracts, as reported by the fund managers (Level 2 inputs).

The stable value fund's investment objective is to seek the preservation of capital and to provide a competitive level of income over time that is consistent with the preservation of capital. There are currently no redemption restrictions on this fund. The fund provides for daily redemptions at reported net asset values per share with no advance notification.

# TVASAVINGSANDEERRAL R E T I R E MENT P L A N $\quad[401(\mathrm{k}) \quad$ P L A N $]$ 

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

## Fully Benefit-Responsive Investment Contracts

While the $401(\mathrm{k})$ Plan investments are presented at fair value in the Statements of Net Assets Available for Benefits, any material difference between the fair value of the 401(k) Plan's direct and indirect interests in fully benefitresponsive investment contracts and their contract value is presented as an adjustment line in the Statements of Net Assets Available for Benefits, because contract value is the relevant measurement attribute for that portion of the 401(k) Plan's Net Assets Available for Benefits. Contract value represents contributions made to a contract, plus earnings, less participant withdrawals and administrative expenses. Participants in fully benefit-responsive contracts may ordinarily direct the withdrawal or transfer of all or a portion of their investment at contract value. The $401(\mathrm{k})$ Plan holds an indirect interest in such contracts through its investment in a stable value fund.

## Risks and Uncertainties

The $401(\mathrm{k})$ Plan invests in various investment securities.

Investment securities are exposed to various risks such as interest rate, market, liquidity and credit risks. Due to the level of risk associated with certain investment securities and the sensitivity of certain fair value estimates to changes in valuation, it is at least reasonably possible that changes in the values of investment securities 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.

## Tax Status

The Internal Revenue Service (IRS) determined and informed the System in March 2003 that the 401(k) Plan is designed in accordance with the applicable sections of the Internal Revenue Code (IRC). The 401 (k) Plan has been amended subsequent to the receipt of the latest IRS determination letter. However, the $401(\mathrm{k})$ Plan administrator and the $401(\mathrm{k})$ Plan's tax counsel believe that the $401(\mathrm{k})$ 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. In accordance with the IRS review cycle, the System submitted an application for a new determination letter to the IRS during fiscal

INVESTMENTS AT FAIR VALUE
Investments measured at fair value on a recurring basis at September 30, 2011 and 2010, are summarized below:

| (Dollars in thousands) | Fair Value Measurements at September 30, 2011, Using |  |  | Fair Value Measurements at September 30, 2010, Using |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 |  |  |  |  |  |  |
| Domestic Equity Funds |  |  |  |  |  |  |
| Large Cap | \$ 371,326 | \$ 371,326 |  | \$ 482,806 | \$ 482,806 |  |
| Mid Cap | 62,875 | 62,875 |  | 78,959 | 78,959 |  |
| Small Cap | 33,288 | 33,288 |  | 30,362 | 30,362 |  |
| Life Cycle/Blended Funds |  |  |  |  |  |  |
| Life Cycle 5-24 year horizon | 184,845 | 184,845 |  | 106,283 | 106,283 |  |
| Life Cycle short term horizon | 87,875 | 87,875 |  | 37,136 | 37,136 |  |
| Life Cycle 25-40 year horizon | 53,991 | 53,991 |  | 43,197 | 43,197 |  |
| Blended | 48,470 | 48,470 |  | 50,450 | 50,450 |  |
| Bond \& Fixed Income Funds | 90,673 | 90,673 |  | 89,698 | 89,698 |  |
| International Equity Funds | 80,301 | 80,301 |  | 121,922 | 121,922 |  |
| Money Market Mutual Funds | 57,875 | 57,875 |  | 66,898 | 66,898 |  |
| Brokerage Link Fund |  |  |  |  |  |  |
| Stocks | 40,152 | 40,152 |  | 35,923 | 35,923 |  |
| Mutual Funds | 36,727 | 36,727 |  | 13,272 | 13,272 |  |
| Money Market Mutual Funds | 23,288 | 23,288 |  | 17,296 | 17,296 |  |
| Bonds | 480 | 53 | 427 | 298 | 29 | 269 |
| Other | 614 | 181 | 433 | 916 | 25 | 891 |
| Stable Value Fund | 170,938 |  | 170,938 | 171,583 |  | 171,583 |
| Total Investments | \$1,343,718 | \$1,171,920 | \$171,798 | \$ 1,346,999 | \$ 1,174,256 | \$ 172,743 |

# TVASAVINGSAND DERRRAL R E T I R E MENT P LA N $\quad[401(\mathrm{k}) \quad$ P L A N $]$ 

year 2009. As of September 30, 2011, management had not received a new determination letter from the IRS. The System has responded to all requests for information from the $401(\mathrm{k})$ Plan's assigned IRS reviewer. The IRS reviewer has informed System staff that the issuance of new determination letters is being held until the IRS releases updated regulations regarding normal retirement age for governmental plans.

As plans maintained for employees of an agency of the federal government, the $401(\mathrm{k})$ Plan is a governmental plan within the meaning of Section 3(32) of ERISA. For the most part, governmental plans are excluded from ERISA, which governs private employer pension plans. The $401(\mathrm{k})$ Plan is also a governmental plan within the meaning of Section $414(\mathrm{~d})$ of the IRC and, as a result, is exempt from the requirements of the IRC that parallel those contained in ERISA.

## 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 <br> AMENDMENTS TO THE PROVISIONS OF THE 401(K) PLAN

The System Board moved to reduce the $401(\mathrm{k})$ investment choices from approximately 290 funds to 75 funds effective October 2010. The reduction of funds was designed to eliminate underutilized funds and simplify investment choices while retaining flexibility.

Beginning in January 2012, a 401(k) Plan managed account service was made available to members. This fee-based service gives participants the opportunity to have their workplace savings managed by Fidelity professionals.

The System Board voted to add Class K shares with lower expense ratios in 29 Fidelity mutual funds to the $401(\mathrm{k})$ Plan and map all non-Class K shares in the 29 Fidelity mutual funds to the Class K shares. The Class K shares were expanded to other funds in October 2010.

The $401(\mathrm{k})$ Plan provisions were also amended to change the definition of wages and salaries in calculating 401(k) Plan matching contributions. TVA matching contributions
are made on certain lump-sum payments made in lieu of base wage or salary increases for fiscal years 1998 through 2012. Matching contributions are also made on lump-sum payments for certain TVA performance incentive plans beginning in fiscal year 2000.

## Note 4

COMMITMENTS AND CONTINGENCIES
The $401(\mathrm{k})$ Plan had no existing material commitments or contingencies at September 30, 2011 and 2010.

## Note 5

CONTRIBUTIONS

## After-tax

Contributions, subject to certain limitations, may be made by payroll deductions or cash payment into the $401(\mathrm{k})$ Plan. Also, participants are permitted to transfer their Fixed Fund and Variable Fund from the Pension Plan into the $401(\mathrm{k})$ Plan, which are classified as Transfers from Annuity Funds on the Statement of Changes in Net Assets Available for Benefits. A member may increase, decrease, transfer or stop contributions at any time.

## Before-tax and Roth

Salary deferrals are made through payroll deductions only. A member may increase, decrease, transfer or stop contributions at any time.

## Matching

Cash Balance Benefit Structure participants who contributed to the $401(\mathrm{k})$ Plan received employer matching contributions from TVA equal to 75 cents on every dollar contributed to the $401(\mathrm{k})$ Plan, with maximum matching contributions of 4.5 percent of fiscal year-to-date earnable compensation. Participants in the Original Benefit Structure received employer matching contributions from TVA of 25 cents on every dollar contributed, with maximum matching contributions of 1.5 percent of fiscal year-to-date earnable compensation.

For calendar years 2011 and 2010, total contributions to the Fixed Fund and Variable Fund from the Pension Plan and $401(\mathrm{k})$ Plan, including TVA matching contributions, could not exceed the lesser of $\$ 49,000$ or 100 percent of calendar year-to-date compensation.

## Note 6

WITHDRAWALS

## After-tax contributions

Members are permitted to withdraw from any or all of the

# TVASAVINGSAND DERRRAL R E TIREMENT PLAN $[401(\mathrm{k}) \quad$ P L A N $]$ 

funds in the $401(\mathrm{k})$ Plan at any time. Upon retirement, participants in the $401(\mathrm{k})$ Plan who first became members of the System prior to January 1, 1996, are also permitted to transfer their after-tax $401(\mathrm{k})$ funds to the System to receive monthly annuity payments, which are classified as Transfers to Annuity Funds on the Statement of Changes in Net Assets Available for Benefits.

## Before-tax and Roth contributions

Federal income tax rules restrict withdrawals from the 401(k) Plan while the member is still employed except for the following situations:

- If the member is over age $59^{1 / 2}$, salary deferral contributions may be withdrawn at any time.
- If the member is under age $591 / 2$, salary deferral contributions may be withdrawn only upon the System Board's approval and only upon a showing of financial hardship. Generally, the only financial needs considered to meet the definition of hardship are (1) certain deductible medical expenses, (2) purchase of a principal residence, (3) post-secondary tuition and related educational fees, (4) payments necessary to prevent eviction from or foreclosure on the participant's principal residence, (5) payments for funeral or burial expenses for the participant's deceased family members, or (6) expenses to repair damage to the participant's principal residence resulting from casualty loss.

Members may receive the full balance of their funds upon retirement, disability, death or termination, except that a retiree may defer distribution until no later than April 1 of the calendar year after the year in which he or she reaches age $701 / 2$. In addition, members may choose, after termination, to receive periodic installment payments from their balance.

## Note 7

## ADMINISTRATIVE EXPENSES

There were no recordkeeping expenses paid to the Trustee, Fidelity Management Trust Company, in fiscal years 2011 and 2010.

## Note 8

RELATED PARTY TRANSACTION S
Fidelity Management Trust Company is the Trustee of the $401(\mathrm{k})$ Plan, and therefore $401(\mathrm{k})$ Plan investments in shares of funds managed by subsidiaries and affiliates of the Trustee qualify as related party transactions. Investment management fees are paid from the participants' accounts to Fidelity Investments Institutional Services Company, Inc., for their investments in Fidelity Funds under the 401(k) Plan.

## Note 9

NOTES RECEIVABLE FROM PARTICIPANTS With certain limits, the $401(\mathrm{k})$ Plan permits loans to participants. Members 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 plus 1 percent at the beginning of the quarter, which was 4.25 percent at September 30, 2011. Such interest is credited directly to the account of the member.

## Note 10

INVESTMENT INCOME
During 2011 and 2010, the 401(k) Plan's investments (including investments bought, sold and held during the year) appreciated (depreciated) in value as follows:

September 30, 2011

| (Dollars in thousands) | $\mathbf{2 0 1 1}$ | 2010 |
| :--- | :---: | :---: |
| Mutual Funds | $\mathbf{\$ ( 5 4 , 0 8 2 )}$ | $\$ 86,464$ |

The $401(\mathrm{k})$ Plan's investments also earned dividends and interest income of $\$ 30.8$ million and $\$ 20.6$ million for the years ending September 30, 2011 and 2010, respectively.

## Note 11

INVESTMENT HOLDINGS OF 5 PERCENT OR MORE As of September 30, 2011 and 2010, the Plan's investments representing 5 percent or more of the Net Assets Available for Benefits are as follows:

| (Dollars in thousands) | 2011 | 2010 |
| :--- | :---: | :---: |
| Fidelity Managed Income Pool II | $\mathbf{\$ 1 7 0 , 9 3 8}$ | $\$ 171,583$ |
| Mutual funds of Fidelity Investments |  |  |
| Fidelity Magellan | $\mathbf{1 1 3 , 9 2 1}$ | 134,696 |
| Fidelity Growth Company | $\mathbf{7 6 , 8 5 3}$ | 73,707 |
| Fidelity Freedom K 2020 | $\mathbf{7 0 , 8 4 7}$ | $40,553^{*}$ |

* Sbown for comparison purposes only as these funds are not greater than 5 percent of Net Asset Available for Benefits at September 30, 2010.


## Note 12

SUBSEQUENT EVENTS
Plan management has evaluated subsequent events for recognition and disclosure through May 23, 2012, which is the date the financial statements were available to be issued.

# C O N T A C T I N F O R M A T I O N 

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[^0]:    The accompanying notes are an integral part of the financial statements.

[^1]:    * Shown for comparative purposes only as these funds are not greater than 5 percent of Net Assets Available for Benefits at September 30, 2011.
    ** Shown for comparative purposes only as these funds are not greater than 5 percent of Net Assets Available for Benefits at September 30, 2010.

[^2]:    South Bend, Indiana

