

Meeting No. 501

MINUTES OF MEETING
THE BOARD OF DIRECTORS OF
THE TENNESSEE VALLEY AUTHORITY RETIREMENT SYSTEM

September 21, 2023

The regular quarterly meeting of the Board of Directors (Board) of the TVA Retirement System (TVARS or System) was held virtually on Thursday, September 21, 2023, at 12:42 p.m., EDT, via WebEx videoconferencing.

* * *

The following directors were present: Brian M. Child, Chair; Samuel J. DeLay, Vice-Chair; Michael L. Belcher; Michael A. Blakely; Marilyn G. Brown; Eric J. Davis; and Tina R. Wallace. Also present were Mark N. Meigs, Executive Secretary; William B. Jenkins, Jr., Assistant Secretary; Sally R. Weber, Manager, Retirement Operations; Brent B. Roberts, Manager, Financial Reporting; Veenita Bisaria, Manager, Investment & Risk Management; Michael B. Barnes, Sr. Analyst, Investment & Risk Management; and W. Colby Carter, Managing Counsel.

* * *

501-1 Each director was notified in a memorandum dated September 6, 2023, of the regular quarterly meeting to be held on September 21, 2023. A copy of the notice from the Executive Secretary is filed as Exhibit 501-1.

* * *

501-2 (A-6991). The Chair recognized Sam DeLay for his service and contributions as a Director over the last six years. Following this recognition, Director DeLay shared his thoughts with the Board on his time serving as a Director of the TVARS Board.

* * *

501-3 (A-6992). The Executive Secretary's report included the following:

- The Executive Secretary also recognized Director DeLay for his service on the Board.
- The December Board meeting is scheduled for Friday, December 8 in-person in Knoxville with the Investment Committee meeting scheduled for Thursday, December 7.
- Following the meeting, the Board will be meeting with Chuck Cochenour of Mercer to perform the annual Executive Secretary and Board Self Evaluations.

* * *

501-4 (A-6993). The Legal Update included the following:

- Managing Counsel informed the Board that the TVA Board at its August 24, 2023, meeting approved a \$300 million contribution to TVARS for FY 2024.
- Managing Counsel informed the Board that the updated TVARS governance documents and policies will be presented by Mercer to the Board in January or February 2024 in conjunction with the annual fiduciary training.

A copy of the Legal Update is filed as Exhibit 501-4.

* * *

501-5. As a part of the Consent Agenda, the Board approved the minutes for the meeting reported below in A-6994, and accepted the reports as of June 30, 2023, listed below in A-6995, A-6996, A-6997, and A-6998.

- A-6994 Meeting No. 500 held June 29, 2023
- A-6995 Treasurer's Report (filed as Exhibit 501-5(a))

- A-6996 Investment Performance Report prepared by Wilshire Advisors LLC (Wilshire) (filed as Exhibit 501-5(b))
- A-6997 Report of retirements approved (filed as Exhibit 501-5(c))
- A-6998 Quarterly review for the TVA Savings and Deferral Retirement Plan (401(k) Plan) prepared by Fidelity Investments Institutional Services Company (Fidelity) (filed as Exhibit 501-5(d))

* * *

501-6 (A-6999). The Retirement Committee report consisted of the items reported below at A-7000 and A-7001, and of the following item:

- At the June meeting, Director Blakely on behalf of the Retirement Committee requested information on the TVARS pension plan sick leave benefits (see Minute Entry 500-10). Prior to the meeting, the Executive Secretary shared information on the difference between the Original and Cash Balance Benefit structures with the use of sick leave in the calculation of benefits and whether the use of sick leave in the Original Benefit could be translated to the Cash Balance Benefit. A copy of this information is filed as Exhibit 501-6.

* * *

501-7 (A-7000). At the June meeting, the Board accepted the experience study report from Mercer Human Resources Consulting, the System's actuary, with the results of the actuarial study analyzing the System's experience over the 5-year period from October 1, 2017, to September 30, 2022 (see Minute Entry 500-11). Prior to the meeting, Mercer discussed with the Board the proposed factor adjustments for benefits calculations as a result of assumption changes from the experience study. At the meeting, the Retirement Committee presented to the Board for consideration Mercer's recommended changes in valuation assumptions and retirement calculation factor changes on pages 8 and 36, respectively, of Mercer's experience study report. After discussion, and prior to a vote, Director Belcher made a motion to amend the proposal to use head-count mortality adjustments instead of benefits-weighted mortality adjustments for the

factors on page 36 of experience study report. The motion to amend the proposal received a second from Director DeLay. After a discussion regarding the impacts from the change in the proposal, the Board took a roll call vote, and the motion to amend the proposal failed by a vote of 5 to 2. Directors Belcher and DeLay voted for the motion to amend, and Directors Blakely, Brown, Child, Davis, and Wallace voted against the motion.

The Board then considered the original proposal and approved the valuation assumptions and retirement calculation factor changes recommended by Mercer by a roll call vote of 6 to 1. Directors Blakely, Brown, Child, Davis, DeLay, and Wallace voted for the proposal, and Director Belcher voted against the proposal. A copy of Mercer's Experience Analysis: 10/1/2017 – 9/30/2022 for TVARS, Proposed Changes in Assumptions, dated September 2023, is filed as Exhibit 501-17.

At the end of the meeting, the Board discussed with the TVARS staff the communication and education for potentially impacted employees around the retirement calculation factor changes, which will become effective April 1, 2024, and as a part of the discussion, the Board requested some initial communication to employees before the end of the calendar year.

* * *

501-8 (A-7001). Prior to the meeting, the Board discussed the System's actuarial valuation assumptions with Mercer, which included the assumed rate of return on investments of the System's assets and the assumed rate of inflation. After discussion, upon the recommendation of the Retirement Committee and Mercer, the Board voted to approve the actuarial assumptions to be used in the valuation of the System's liability valuation and minimum contribution calculation as of September 30, 2023. The actuarial assumptions approved by the Board include the following: (a) maintaining the assumed rate of return on

investments of the System's assets at 6.5% based on the System's new asset allocation policy and Mercer's updated capital market assumptions; (b) actual rate of inflation experience for 2024 with assumed rates of inflation of 2.25% for future years; (c) cash balance benefit cash out election rate of 20% based on actual participant experience, consistent with the previous year; (d) for the base mortality table, a revised adjusted "benefits-weighted" top-quartile Pri-2012 mortality table based on the System's experience; and (e) for the mortality improvement scale, the updated MSS-2023 scale developed by Mercer based on Social Security data and Mercer research. A copy of Mercer's actuarial assumptions review presentation dated September 15, 2023, is filed as Exhibit 501-8.

* * *

501-9 (A-7002). The Audit Committee report consisted of the following items:

- Prior to the meeting, Bill Jenkins, Assistant Secretary and Manager, Retirement Applications, reviewed and discussed with the Board the annual Cybersecurity Review of TVARS and the retirement plans. A copy of the TVARS Cybersecurity Review dated September 21, 2023, is filed as Exhibit 501-9.
- Prior to the meeting, the TVARS financial reporting staff updated the Board on the status of the current Service Organization Control (SOC1) audit being performed by Crowe LLP.

* * *

501-10 (A-7003). The Election Committee reported the following to the Board: (i) nominations for the current election are closed; (ii) Mike Clement and Scott Haulsee are the two candidates in the election; (iii) the election period began September 5, 2023, and will run through September 21, 2023; and (iv) the results of the election will be provided to the Board following the close of the election period.

* * *

501-11 (A-7004). The Investment Committee report consisted of the items reported below at A-7005 and A-7006, and of the following items:

- The Board was provided and took note of information regarding asset allocation transfers and rebalancing during the second quarter of 2023. A copy of the information is filed as Exhibit 501-11(a).
- The Board was provided and took note of information on due diligence meetings between TVARS staff and investment managers and service providers for the period June 2023 through September 2023. A copy of the information is filed as Exhibit 501-11(b).
- On September 15, 2023, as a part of its Asset Liability Study for TVARS, Wilshire presented to the Investment Committee Wilshire's new forward-looking capital markets assumptions as of June 30, 2023, which includes the assumptions for return, risk, and correlation for the major asset classes, and the impact on the TVARS portfolio assumptions based on the System's asset allocation policy. A copy of Wilshire's Capital Markets Assumptions on page 19 of the Asset Liability Study for TVARS as of June 30, 2022, is filed as Exhibit 501-11(c).
- On September 15, 2023, Wilshire presented to the Investment Committee the risk reporting dashboard for the total investment portfolio through June 2023 and the various changes in investment risk as a result of certain factors over the past 1-year period. A copy of Wilshire's Risk Analysis report for TVARS dated June 2023 is filed as Exhibit 501-11(d).
- On September 15, 2023, HarbourVest Partners reviewed with the Investment Committee the following: (i) the overall strategic plan and tactical plans for the Summit Hill private equity program, (ii) investment highlights within the Summit Hill private equity program, (iii) an overview of the HarbourVest Global Fund program and strategy and investment updates for the 2021 and 2022 Global Funds, and (iv) information on the infrastructure market and investment opportunities and an update on the TVARS infrastructure portfolio. For 2024, TVARS will not make new commitments to these programs managed by HarbourVest, because the current allocation percentages are above the target policy percentages for the TVARS investment portfolio. A copy of the HarbourVest presentation dated September 2023 is filed as Exhibit 501-11(e).
- On September 15, 2023, Wilshire presented information to the Investment Committee on the Summit Hill private credit and real assets funds, including performance, the strategic and tactical plans, portfolio compositions, pacing of the commitments, and investment highlights. For 2024, TVARS will not make new commitments to the Summit Hill Credit Fund and Summit Hill Real Assets Fund, because the current allocation percentages are above the target policy percentages for the TVARS

investment portfolio. A copy of the Wilshire Summit Hill Portfolio Update dated September 2023 is filed as Exhibit 501-11(f).

- On September 15, 2023, Mercer Investments LLC, the System's defined contribution plan consultant, provided to the Investment Committee the 401(k) Plan quarterly review covering the following: the forward-looking committee calendar through June 2024; 401(k) Plan asset allocation as of June 30, 2023; investment performance and expense ratios of the 401(k) Plan fund line-up, absolute and compared to benchmarks and peer funds, as of June 30, 2023; an update on the implementation of the BlackRock Paycheck funds on the Fidelity platform; and a governance review that included current 401(k) Plan statistics, Fidelity annual fees as the provider of recordkeeping and trustee services, judicial update, and regulatory and legislative updates, including projected retirement plan limits for 2024 and information on SECURE Act 2.0 retirement provisions and agency guidance. As a follow-up to the preliminary review at the June meeting, Mercer also provided and discussed with the Investment Committee a comprehensive review of Fidelity's managed account service available to 401(k) Plan participants, Fidelity Personalized Planning & Advice (PP&A) with Strategic Advisers, including participant utilization, model portfolio structure and performance, service fees, and overall observations. A copy of Mercer's Q2 2023 DC Quarterly Review dated September 15, 2023, is filed as Exhibit 501-11(g).

* * *

501-12 (A-7005). At the June meeting, Wilshire presented to the Investment Committee new asset allocation modeling for the System's portfolio taking into account recent changes to Wilshire's 10-year forward-looking capital market return assumptions in the current economic environment (such as higher fixed income yields, lower equity risk premium, and inflation considerations) and opportunities to reduce risk and increase liquidity (see Minute Entry 500-15). Since June, Wilshire expanded the asset-only analysis to incorporate updated actuarial information from Mercer, the System's actuary, (such as projected liabilities, funded status, future contributions, and funding cost. As a part of this, Wilshire worked with the TVARS investment staff to model new asset allocation policies of similar return and risk with higher levels of efficiency.

On September 15, 2023, Wilshire and the TVARS investment staff discussed with the Investment Committee Wilshire's Asset Liability Study and the following new asset allocation policy – Alternative 1 Policy from the Study – that would increase long duration fixed income, slightly increase expected returns, slightly reduce overall expected volatility, improve downside risk, and move the fund slightly further in the direction of long-term de-risking:

Asset Class	Current Target Allocation	New Target Allocation (Alternative 1 Policy)
Growth Assets	17.5%	17.0%
Defensive Growth Assets	37.5%	30.0%
Defensive Assets	20.0%	33.0%
Inflation Sensitive Assets	25.0%	20.0%

At the meeting, upon the recommendation of Wilshire, the Board approved the adoption of this new Alternative 1 asset allocation policy for the investment of the System's assets. As a part of this approval, the Board also approved (i) allowing the Executive Secretary and investment staff time to prudently implement the new asset allocation policy, (ii) expanding the range for the Growth Bucket to +/- 7.5%, and (iii) updating the Investment Policy Statement (IPS) to reflect the new asset allocation policy and Growth Bucket range. A copy of Wilshire's Asset Liability Study with asset allocation policy recommendation dated September 2023 is filed as Exhibit 501-12.

* * *

501-13 (A-7006). Under the System's previous asset allocation policy, within the Defensive-Growth Bucket, there was a 5% target to emerging markets debt with a current allocation of 1.9% in a single portfolio managed by TCW Asset Management (TCW). As a result of the new asset allocation policy that reduces the emerging markets debt target from 5% to 0% within the Defensive-Growth Bucket, upon the recommendation of Wilshire and the Investment

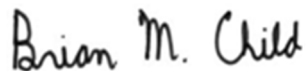
Committee, the Board voted to terminate and reallocate the emerging market debt strategy portfolio managed by TCW. A copy of Wilshire's memo on TCW's emerging markets debt portfolio dated September 6, 2023, is filed as Exhibit 501-13.

* * *

The meeting was adjourned at 1:08 p.m., EDT.



Executive Secretary



Chair