pennsylvania
STATE EMPLOYEES' RETIREMENT SYSTEM

2023

Financial Statements With Required Supplementary Information

With Independent Auditors' Report for
Fiscal Years Ended December 31, 2023 and 2022

DEFERRED COMPENSATION PLAN
Supplemental Benefit

KPMG LLP
Suite 1000
30 North Third Street
Harrisburg, PA 17101

Independent Auditors' Report

The Members of the Board
Pennsylvania State Employees' Retirement System
Deferred Compensation Plan

Opinion

We have audited the financial statements of the Commonwealth of Pennsylvania Deferred Compensation Plan (Deferred Compensation Plan) as of and for the years ended December 31, 2023 and 2022, and the related notes to the financial statements, which collectively comprise the Deferred Compensation Plan's basic financial statements for the years then ended as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the net position available for benefits of the Deferred Compensation Plan as of December 31, 2023 and 2022, and the changes in its net position available for benefits for the years then ended in accordance with U.S. generally accepted accounting principles.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Deferred Compensation Plan and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Deferred Compensation Plan's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Deferred Compensation Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Deferred Compensation Plan's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

Required Supplementary Information

U.S. generally accepted accounting principles require that management's discussion and analysis be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

KPMG LLP

Harrisburg, Pennsylvania
May 24, 2024

December 31, 2023 and 2022 (unaudited)

This section presents management's discussion and analysis of the Commonwealth of Pennsylvania Deferred Compensation Plan (Deferred Compensation Plan) financial statements and the significant events and conditions that affected the operations and performance of the Deferred Compensation Plan during the years ended December 31, 2023, 2022, and 2021.

Overview of the Financial Statements

(1) Financial Statements. The Deferred Compensation Plan presents Statements of Net Position Available for Benefits as of December 31, 2023 and 2022, and Statements of Changes in Net Position Available for Benefits for the years then ended. These statements reflect resources available for the payment of benefits as of year-end, and the sources and uses of those funds during the year.

(2) Notes to Financial Statements. The notes to financial statements are an integral part of the financial statements and provide additional detailed information to provide a better understanding of the financial statements. The notes discuss, among other things, the Deferred Compensation Plan's organization, contributions, investment options, and how asset values are determined.

Background

The State Employees' Retirement Board (SERS Board) is the trustee for the Deferred Compensation Plan, an Internal Revenue Code (IRC) Section 457(b) retirement plan for eligible government employees and officers. The Deferred Compensation Plan started as a voluntary tax-deferred supplemental retirement plan but also allows voluntary post-tax contributions through a Roth option. The plan began accepting initial deferrals in 1988.

The SERS Board selects the investment options offered through the Deferred Compensation Plan, and contracts with investment managers and with a third-party administrator (TPA). The TPA maintains participant accounts for the plan.

The Deferred Compensation Plan offers a wide range of investment options and participants may direct their deferrals among 17 different choices. These investment options include 10 different Target Date Funds, four core investment funds, a Stable Value Fund, a Short-Term Investment Fund, and Self-Directed Brokerage Accounts. If no active selection is made, deferrals will be defaulted into one of the Target Date Funds. These 10 funds are professionally managed by BlackRock and offer participants the ability to easily invest their savings in a diversified portfolio that is risk-adjusted to an age-based glide path to retirement. The four core investment options are index funds managed by Mellon Investments Corporation (Mellon) that include the U.S. Large Company Stock Index Fund, U.S. Small/Mid Company Stock Index Fund, Global Non-U.S. Stock Index Fund, and the U.S. Bond Index Fund.

Easing inflation, a resilient economy, and the prospect of lower interest rates helped drive positive returns across all Deferred Compensation Plan investment options in 2023. In 2022, many investment options had negative returns due to inflation rates as well as interest rates that significantly increased. In addition, there were supply chain issues and higher prices across most industry sectors.

On December 29, 2022, the SECURE 2.0 Act of 2022 was signed into law by the President of the United States of America. SECURE 2.0 contains several retirement-savings provisions intended to offer more flexibility to those saving for retirement. Certain provisions of SECURE 2.0 were effective starting January 1, 2023, while other provisions will take effect in future years. Management of the Deferred Compensation Plan will continue to analyze SECURE 2.0 to determine its impact.

Financial Highlights

Net Position Available for Benefits

The net position was $4.5 billion and $4.0 billion as of December 31, 2023 and 2022, respectively, which was an increase of approximately $489 million. In 2021, plan net position was $4.8 billion. Investments make up the largest portion of the plan's net position. 46.1% and 42.1% of the plan net position are invested in the three core equity funds (U.S. large-cap; U.S. small/mid-cap; and global non-U.S. equities) as of December 31, 2023 and 2022, respectively. The fixed income portfolios, which consist of the U.S. Bond Index Fund and the Stable Value Fund, accounted for 28.1% and 32.2% of plan net position as of December 31, 2023 and 2022, respectively. Target Date Funds accounted for 19.3% and 19.6% of the plan net position as of December 31, 2023 and 2022, respectively. The Short-Term Investment Fund accounted for 2.8% and 2.6% of the plan net position available for benefits as of December 31, 2023 and 2022, respectively.

Contributions and Investment Income

Contributions decreased to $171.7 million in 2023 from $177.7 million in 2022. Contributions were $174.3 million in 2021. Since this is a voluntary plan, changes in contributions can be due to active participation in the plan and the associated deferrals that participants elect. There were approximately 56,000, 56,800, and 57,600 participant accounts as of December 31, 2023, 2022, and 2021 respectively. Of these participant accounts, 31,500, 32,300, and 33,500 participants were actively contributing as of December 31, 2023 and 2022, and 2021 respectively.

The Deferred Compensation Plan is permitted to accept rollovers into the plan from other qualified retirement plans. Transfers into the Deferred Compensation Plan were $53.6 million, $54.1 million, and $63.8 million in 2023, 2022, and 2021 respectively.

Net investment income in 2023 was $628.3 million, compared to $728.9 million net investment loss in 2022. Net investment income was $499.5 million in 2021. The net investment income in 2023 was attributed to positive returns across all investment types. The U.S. Large Company Index Fund returns increased to a gain of 26.3% in 2023 from a loss of 18.1% in 2022. The U.S. Small/Mid Company Stock Index Fund returns increased to a gain of 25.4% in 2023 from a loss of 26.1% in 2022. The U.S. Bond Index Fund returns increased to a gain of 5.5% in 2023 from a loss of 12.9% in 2022. The decrease in net investment income in 2022 was attributed primarily to lower returns in the U.S. Small/Mid Stock Index Fund and the U.S. Bond Index Fund between 2021 and 2022. The U.S Small/Mid Company Stock Index Fund decreased to a loss of 26.1% in 2022 from a gain of 12.9% in 2021. The U.S. Bond Index Fund decreased to a loss of 12.9% in 2022 from a loss of 1.7% in 2021.

Program Benefits and Expenses

Benefits paid to participants increased to $124.0 million in 2023 from $121.9 million in 2022. Benefits paid to participants in 2021 were $117.4 million. The election to select a payment is voluntary up to age 73, or age 72 if participants reached 72 before January 1 2023, and is typically dependent upon the participant's separation from service. The Deferred Compensation Plan offers a variety of payout methods. A majority of participants select a periodic payment either annually, semiannually, quarterly, or monthly. The number of participants receiving payments increased to approximately 9,700 for 2023 from approximately 9,600 for 2022. The number of participants receiving payments in 2021 was approximately 8,900.

The Deferred Compensation Plan is permitted to process rollovers out of the plan into Individual Retirement Accounts (IRAs), 401(k) plans, or other qualified plans. Transfers out of the Deferred Compensation Plan were $233.5 million, $196.4 million and $173.5 million in 2023, 2022 and 2021 respectively.

Third party and other administrative expenses were $6.9 million in 2023 and $6.4 million in 2022. In 2021, these expenses were $6.1 million. Currently, Third party and other administrative expenses are primarily based on the number of participants in the plan.

Condensed Financial Information

($ millions)

Net Position

	2023	Increase (decrease)	2022	Increase (decrease)	2021
Assets					
Total receivables	$2	$1	$1	$—	$1
Total investments	4,488	489	3,999	(820)	4,819
Total other assets	1	(1)	2	2	—
Total assets	4,491	489	4,002	(818)	4,820
Liabilities					
Total liabilities	6	—	6	3	3
Total net position	**$4,485**	**$489**	**$3,996**	**($821)**	**$4,817**

Changes in Net Position

	2023	Increase (decrease)	2022	Increase (decrease)	2021
Additions					
Contributions	$172	($6)	$178	$4	$174
Plan transfers in	54	—	54	(10)	64
Net investment income/(loss)	628	1,357	(729)	(1,228)	499
Total additions	854	1,351	(497)	(1,234)	737
Deductions					
Benefit payments	124	2	122	5	117
Plan transfers out	234	38	196	22	174
Third party and administrative expenses	7	1	6	—	6
Total deductions	365	41	324	27	297
Increase/(decrease) in net position	**$489**	**$1,310**	**($821)**	**($1,261)**	**$440**

December 31, 2023 and 2022

Statements of Net Position Available for Benefits

December 31, 2023 and 2022
($ thousands)

	2023	2022
Assets		
Receivables:		
Contributions receivable	$148	$50
Accrued investment income receivables	1,344	468
Other receivables	56	57
Total receivables	**1,548**	**575**
Investments:		
Short-term investments	124,634	102,317
Target date funds	867,435	783,291
U.S. bond index fund	222,842	197,819
U.S. large company stock index fund	1,437,650	1,138,998
U.S. small/mid company stock index fund	431,263	371,662
Global non-U.S. stock index fund	200,320	171,082
Stable value fund	1,037,338	1,090,108
Group annuity contract	595	682
Self-directed brokerage accounts	165,582	143,181
Total investments	**4,487,659**	**3,999,140**
Other assets	1,275	1,694
Total assets	**4,490,482**	**4,001,409**
Liabilities:		
Participant payables	353	371
Investment purchases	2,550	1,901
Fees payable and accrued expenses	891	1,606
Other liabilities	1,787	1,912
Total liabilities	**5,581**	**5,790**
Net position available for benefits	**$4,484,901**	**$3,995,619**

See accompanying notes to financial statements.

Statements of Changes in Net Position Available for Benefits

Year Ended December 31, 2023 and 2022
($ thousands)

	2023	2022
Additions:		
Contributions:		
Participants	$171,746	$177,702
Plan transfers in	53,561	54,107
Total contributions	**225,307**	**231,809**
Investment income/(loss):		
Net appreciation/(depreciation) on investments	613,027	(738,160)
Interest	16,786	10,788
Gross investment income/(loss)	**629,813**	**(727,372)**
Less investment expenses	1,479	1,502
Net investment income/(loss)	**628,334**	**(728,874)**
Total additions	**853,641**	**(497,065)**
Deductions:		
Benefits and refunds of contributions	124,009	121,851
Plan transfers out	233,467	196,416
Third party and other administrative expenses	6,883	6,392
Total deductions	**364,359**	**324,659**
Increase/(decrease) in net position	**489,282**	**(821,724)**
Net position available for benefits, beginning of year	**3,995,619**	**4,817,343**
Net position available for benefits, end of year	**$4,484,901**	**$3,995,619**

See accompanying notes to financial statements.

December 31, 2023 and 2022

(1) Organization and Description of the Plan

(a) Program Summary
The following description of the Commonwealth of Pennsylvania Deferred Compensation Plan (Deferred Compensation Plan) provides only general information. Participants should refer to the Plan Document for a more complete description of the Deferred Compensation Plan provisions.

The Deferred Compensation Plan was established by the Commonwealth of Pennsylvania General Assembly on November 6, 1987, through Act 81 and in accordance with Section 457(b) of the Internal Revenue Code (IRC) of 1986, as amended. Under the Deferred Compensation Plan provisions, eligible employees of the Commonwealth of Pennsylvania (commonwealth) may voluntarily elect to contribute a portion of their compensation into the Deferred Compensation Plan through payroll deductions. The commonwealth does not make any contributions to the Deferred Compensation Plan. The State Employees' Retirement Board (SERS Board) has the authority to make amendments to the Plan Document.

(b) Contributions
Under the Deferred Compensation Plan provisions, eligible employees may contribute to the Deferred Compensation Plan through payroll deductions. In accordance with Section 457(b) of the IRC, the amount of an individual's annual contributions for 2023 was limited to an amount not to exceed the lesser of $22,500 or 100% of the individual's gross compensation. In 2022, the annual contribution limit was $20,500. Individuals age 50 or over may make an additional "catch-up" contribution. In 2023 and 2022, the additional "catch-up" contribution was $7,500 and $6,500, respectively. "Special catch-up" is allowed for previously missed contributions for participants within three years of normal retirement age. In 2023 and 2022, the deferral limit for "special catch-up" was $45,000 and $41,000, respectively. Contributions can be made to the Deferred Compensation Plan using either the before-tax method in which amounts are deferred for federal income tax purposes, or the Roth option in which contributions are made on an after-tax basis.

Contributions receivable represent amounts withheld from employees' pay and rollover contributions made into the plan that were not remitted to the investment managers at December 31. Contributions are credited by the applicable investment managers upon receipt from the commonwealth.

(c) Participant Accounts
Participants electing to contribute to the Deferred Compensation Plan have the option of investing their contributions in any of the following investments:

- **Short-Term Investment Fund**, which invests in a variety of securities including those issued by the U.S. Treasury, agency securities, short-term corporate debt instruments such as commercial paper, repurchase agreements, and certificates of deposit, is managed by the Commonwealth of Pennsylvania Treasury Department (Treasury Department).

- **Target Date Funds**, which invest in a diversified portfolio of equity and fixed income securities professionally managed to a participant's risk profile based on an age-based glide path to retirement, are managed by BlackRock.

- **U.S. Bond Index Fund**, which is a commingled investment fund that invests in investment-grade corporate and government issues, mortgage-backed securities, asset-backed securities, and commercial mortgage-backed securities, is managed by Mellon Investments Corporation (Mellon).

- **U.S. Large Company Stock Index Fund**, which is a commingled investment fund that invests in publicly traded common stocks included in the S&P 500 Index, is managed by Mellon.

- **U.S. Small/Mid Company Stock Index Fund**, which is a commingled investment fund that invests in medium and small capitalization components of the U.S. equity market (primarily the portion not covered by the S&P 500 Index), is managed by Mellon.

- **Global Non-U.S. Index Fund**, which is a commingled investment fund that invests in large and mid-cap companies across developed markets, excluding the United States, is managed by Mellon.

- **Stable Value Fund**, which is a structure that allows participants an opportunity to gain exposure to fixed income investments without the return volatility normally associated with bond funds because of an associated insurance wrap provider. Participants receive the quarterly agreed-upon crediting rates regardless of actual investment performance.

- **Self-Directed Brokerage Account**, which is a mutual fund window whereby a participant may choose to invest in a variety of mutual funds offered through the Charles Schwab Corporation.

Investment return includes the realized and unrealized gains/losses and interest for each of the investment funds. These funds do not distribute dividends to shareholders. Earnings and dividends on securities held are reinvested. Purchases and sales of securities are recorded on a trade-date basis.

(d) Payment of Benefits
Participants may withdraw the current market value of funds contributed to the Deferred Compensation Plan upon termination of employment, death, disability, retirement, or approved unforeseeable emergencies within Deferred Compensation Plan guidelines. Accounts that have no activity in a two-year period and a balance under $5,000 may also be voluntarily distributed.

Upon retirement or termination of service, participants may elect various payout options including lump-sum, equal periodic payments, or elect to defer receipt of funds until some future date. Minimum distributions as required by Internal Revenue Service guidelines must commence no later than age 73, or age 72, if participants reached 72 before January 1, 2023, including the Roth option. Rollovers to other qualified retirement plans or IRAs are permitted. All investments are for the exclusive benefit of participants and their beneficiaries.

Upon a participant’s death, with certain exceptions, any amount due under the participant’s account is paid to the beneficiary or the estate. Distributions to participants are recorded at the time withdrawals are made from participant accounts.

(2) Summary of Significant Accounting Policies

(a) Basis of Accounting in Preparing Financial Statements
The financial statements of the Deferred Compensation Plan are prepared on the accrual basis of accounting, under which deductions are recorded when the liability is incurred, additions are recorded in the accounting period in which they are earned, and investment purchases and sales are recorded as of their trade date.

(b) Use of Estimates
Management of the Deferred Compensation Plan has made certain estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these financial statements in conformity with accounting principles generally accepted in the United States of America. Actual results could differ from those estimates.

(c) Valuation of Investments
The Short-Term Investment Fund is valued at amortized cost.

The Target Date Funds, U.S. Bond Index Fund, U.S. Large Company Stock Index Fund, U.S. Small/Mid Company Stock Index Fund, Global Non-U.S. Stock Index Fund, and Self-Directed Brokerage Accounts are valued based on quoted redemption values on the last business day of the calendar year, which represents fair value.

The Stable Value Fund uses a fund manager to oversee the two main components of its investment strategy. The first component addresses building a diversified investment portfolio of high-quality fixed income securities, with the second component maintaining an insurance wrap provider. This second component provides the stability of the return stream by smoothing investment returns over time. The Deferred Compensation Plan mitigates risk by having the fund manager allocate across six different investment managers and six insurance wrap providers. Stable Value Fund is valued at net asset value (NAV). NAV for the Stable Value Fund represents the consolidated values of the multiple managers that were hired by the fund manager.

The group annuity contract, which is no longer offered to participants as an investment option, is valued at contract value. Contract value for the group annuity contract represents contributions made under the contract, plus earnings, less payments made to retirees and terminated participants.

(d) Other Post-Employment Benefits (OPEB) for Employees
SERS' employees are eligible to participate in the Retired Employees Health Program (REHP) if they meet certain criteria upon retirement. The REHP is a single employer defined benefit OPEB plan that includes commonwealth agencies and some component units. Related amounts are included in the other assets and other liabilities lines of the Statements of Net Position Available for Benefits.

More detail regarding this at the REHP plan level can be found in the commonwealth's Annual Comprehensive Financial Report (ACFR), which is an audited financial statement and is available at www.budget.pa.gov.

(3) Agreement with Third-Party Administrator

The SERS Board has engaged Great-West Life & Annuity Insurance Company (Great-West) as the Deferred Compensation Plan Third-Party Administrator (TPA). Empower is the brand name for Great-West's services division, which assesses the following:

- Third-party administration fee – $4.55 per month, or $54.60 per year, is charged to each participant in the Deferred Compensation Plan for record-keeping services. This is assessed monthly and paid to Great-West.

- Investment advice fee – Great-West, through its subsidiary Advised Assets Group LLC, provides participants with online advisory tools and services based upon the level of involvement desired in managing their accounts. Guidance is offered at no additional cost. Advice is offered for an annual fee of $25. All advice fees are assessed quarterly and paid to Great-West. Managed accounts provide ongoing professional asset management at the individual participant level. Plan participants receive a personalized and strategically designed retirement portfolio that is automatically managed quarterly. The managed account fee structure is asset based and ranges from 0.15% to 0.45%. Participants are responsible for paying this fee.

- Investment management fee – This charge is assessed monthly on the value of all accounts in the Deferred Compensation Plan. The fee varies depending on the type of investment. Manager fees ranged from 0.00% to 0.305%. This fee is assessed monthly against the account of each participant proportionately according to the value of each individual account and paid to the investment manager.

- Participant administrative fee - In addition to the TPA fee, there is an additional fee assessed on accounts with balances of more than $5,000. The fee consists of both a flat fee of $1 per month, and an annual asset-based fee of 2 basis points of the account value, withheld on a monthly basis, not to exceed $50 annually. This fee will be used to cover the administrative expenses of the plan.

- The Deferred Compensation Plan receives $275,000 annually from the TPA to assist with paying the administrative costs of the plan.

(4) Investments

(a) Program Overview

The Deferred Compensation Plan's core investments are managed primarily by three fund managers. As of December 31, 2023 and 2022, BlackRock managed the 10 Target Date Funds, which comprised approximately 19.3% and 19.6% of the Deferred Compensation Plan total investment portfolio, respectively. As of December 31, 2023 and 2022, Mellon managed approximately 51.1% and 47.0%, respectively, of the Deferred Compensation Plan total investment portfolio. There is also concentration in the fixed income type of investment. The fixed income portfolios, which consist of the U.S. Bond Index Fund, managed by Mellon, and the fixed income investments within the Stable Value Fund, managed by Invesco, made up 28.1% and 32.2% of the Deferred Compensation Plan total investment portfolio as of December 31, 2023 and 2022, respectively. These concentrations are solely determined by the participants' elections to invest in the available investment options selected by the SERS Board.

(b) Valuation of Investments

The fair value hierarchy, which contains three levels, is based on the valuation inputs used to measure an asset's fair value. Level 1 inputs are quoted prices in active markets for identical assets or liabilities. Level 2 inputs are quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, or other than quoted prices that are observable. Level 3 inputs are unobservable inputs used to measure fair value if relevant observable inputs are not available for the asset or liability at the reporting date.

The Target Date Funds, U.S. Bond Index Fund, three core equity funds (U.S. large-cap; U.S. small/mid-cap, and global non-U.S. equities), and Self-Directed Brokerage Accounts are valued using prices quoted in active markets for those securities and are categorized as Level 1 of the fair value hierarchy. The total value of the fund is apportioned to the Deferred Compensation Plan based on units of ownership. Funds are marked to market daily with changes in fair value recognized as part of investment and investment income.

The Stable Value Fund is a multi-manager and multi-insurance wrap set-up and is not valued within the fair value hierarchy. The Stable Value Fund is valued at NAV. NAV for the Stable Value Fund represents the consolidated values of the multiple managers that were hired by the fund manager.

The Deferred Compensation Plan also has investments that are valued using methods other than fair value or NAV. The Deferred Compensation Plan owns a portion of the commonwealth Treasury Department's short-term investment fund (STIF). The Deferred Compensation Plan's portion of STIF is valued at amortized cost. The group annuity contract, which is no longer offered to participants, is valued at contract value. Contract value for the group annuity contract represents contributions made under the contract, plus earnings, less payments made to retirees and terminated participants.

The Deferred Compensation Plan has the following fair value, NAV, and other measurements as of December 31, 2023 and 2022:

2023

($ thousands)

	Level 1 Fair Value	NAV	Other	Total
Short-term investments	$—	$—	$124,634	$124,634
Commingled investment funds:				
Target date funds	867,435	—	—	867,435
U.S. bond index fund	222,842	—	—	222,842
U.S. large company stock index fund	1,437,650	—	—	1,437,650
U.S. small/mid company index fund	431,263	—	—	431,263
Global non-U.S. stock index fund	200,320	—	—	200,320
Stable value fund	—	1,037,338	—	1,037,338
Group annuity contract	—	—	595	595
Self-directed brokerage accounts	165,582	—	—	165,582
Total	**$3,325,092**	**$1,037,338**	**$125,229**	**$4,487,659**

2022

($ thousands)

	Level 1 Fair Value	NAV	Other	Total
Short-term investments	$—	$—	$102,317	$102,317
Commingled investment funds:				
Target date funds	783,291	—	—	783,291
U.S. bond index fund	197,819	—	—	197,819
U.S. large company stock index fund	1,138,998	—	—	1,138,998
U.S. small/mid company index fund	371,662	—	—	371,662
Global non-U.S. stock index fund	171,082	—	—	171,082
Stable value fund	—	1,090,108	—	1,090,108
Group annuity contract	—	—	682	682
Self-directed brokerage accounts	143,181	—	—	143,181
Total	**$2,806,033**	**$1,090,108**	**$102,999**	**$3,999,140**

(c) Concentration of Credit, Custodial Credit, Credit, Interest Rate, and Foreign Currency Risk
The Deferred Compensation Plan investments are subject to various risks. Among these risks are concentration of credit risk, custodial credit risk, credit risk, interest rate risk, and foreign currency risk. Each of these risks are discussed below.

Concentration of credit risk is the risk of loss attributed to the magnitude of investment in a single issuer. As of December 31, 2023 and 2022, the Deferred Compensation Plan had no single issuer that exceeded 5% of total investments. Investments issued or explicitly guaranteed by the U.S. government and investments in mutual funds, external investment pools, and other pooled investments were excluded.

Custodial credit risk is the risk that, in the event of the failure of the counterparty to a transaction, the Deferred Compensation Plan would be unable to recover the value of investment or collateral securities that are in the possession of an outside party. In accordance with the contractual relationship between the commonwealth Treasury Department and its custodial agent, where securities are used as evidence of the investment, these securities are held by the custodian in book-entry form. These securities are defined as insured or registered investments for which the securities are held by the agent in the Deferred Compensation Plan's name, and therefore have a minimal level of custodial credit risk losses. All remaining investments do not have securities that are used as evidence of the investments.

Credit risk is the risk that an issuer or the counterparty to an investment will not fulfill its obligations. The credit risk of a debt instrument is measured by nationally recognized statistical rating agencies such as Moody's Investor Services (Moody's), S&P, and Fitch Ratings (Fitch).

The Deferred Compensation Plan is exposed to credit risk through investment in the commonwealth Treasury Department's STIF, which is not rated. The plan had $124.6 million and $102.3 million in the STIF as of December 31, 2023 and 2022, respectively. The plan also has indirect exposure to credit risk through the U.S. Bond Index Fund, which had a balance of $222.8 million and $197.8 million, and the Target Date Funds, which had a balance of $867.4 million and $783.3 million, as of December 31, 2023 and 2022, respectively. These funds hold investment grade securities.

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Option-adjusted duration is the measure of the portfolio's exposure to changes in interest rates. The following table discloses the interest rate types and durations of the fixed income investments of the Deferred Compensation Plan as of December 31, 2023 and 2022:

Debt Option-Adjusted Durations

($ thousands)

	2023		2022	
	Fair Value	**Option-adjusted duration**	**Fair Value**	**Option-adjusted duration**
Commingled investment funds	$222,842	6.3	$197,819	6.2
Short-term investments[1/]	124,634	0.1	102,317	0.1
Total[2/]	**$347,476**		**$300,136**	

[1/] Represents investments in the commonwealth Treasury Department's STIF. This comprises short-term, investment grade securities, which are mainly U.S. Treasuries, agencies, or repurchase agreements, and also includes insignificant investments in cash, receivables, and payables. The investments are pooled together by utilization of the commonwealth Treasury Department's STIF, and the Deferred Compensation Plan recognizes its respective allocation.

[2/] Total fair values of the fixed income sector comprise cash and temporary investments, the Short-Term Investment Fund, and the U.S. Bond Index Fund from the Statements of Net Position Available for Benefits.

Foreign currency risk is the risk where fluctuations in exchange rates will adversely affect the fair value of an investment. In 2023 and 2022, the Deferred Compensation Plan had indirect foreign currency exposure within commingled investments through the following investment options:

- Target Date Funds are diversified across global asset classes, with allocations changing over the funds' investment horizon. The funds include varying degrees of international equity and fixed income as part of their allocations.

- The Global Non-U.S. Stock Index Fund tracks the performance of the MSCI All Country World Index (ACWI) ex-U.S. index, which is made up of non-U.S. stocks from 22 developed markets and 24 emerging markets in 2023 and 2022, respectively.

(5) Tax Qualification Status

According to the U.S. Treasury Department, the Deferred Compensation Plan is an eligible deferred compensation plan pursuant to IRC Section 457(b). Therefore, compensation deferred under the Deferred Compensation Plan, including income attributable to the deferred compensation, will be includible in gross income for the taxable year or years in which amounts are paid or otherwise made available to a participant or a participant's beneficiary in accordance with the terms of the Deferred Compensation Plan.

(6) Risks and Uncertainties

The Deferred Compensation Plan, as directed by participants, may invest in various types of investment securities. Investment securities are exposed to various risks, such as interest rate, market, and credit risk. Due to the level of risk associated with certain investment securities, it is possible that changes in the values of investment securities may occur in the near term and that such change could materially affect the amounts reported in the Statements of Net Position Available for Benefits.

(7) Interfund Transfers and Related Parties

The Commonwealth of Pennsylvania State Employees' Retirement System provides certain management and administrative services to the Deferred Compensation Plan. Interfund transfers of assets take place on a regular basis to properly align expenses. These expenses are included in third party and other administrative expenses in the Statements of Changes in Net Position Available for Benefits.

Certain members of the SERS Board are participants in the Deferred Compensation Plan.

DEFERRED COMPENSATION PLAN

Supplemental Benefit