ARKANSAS TEACHER RETIREMENT SYSTEM

Annual Financial Report

June 30, 2020

LEGISLATIVE JOINT AUDITING COMMITTEE

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LEGISLATIVE JOINT AUDITING COMMITTEE
ARKANSAS LEGISLATIVE AUDIT

INDEPENDENT AUDITOR'S REPORT

Arkansas Teacher Retirement System
Legislative Joint Auditing Committee

Report on the Financial Statements

We have audited the accompanying financial statements of the Fiduciary Pension Trust Fund of the Arkansas Teacher Retirement System, an office of Arkansas state government, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Arkansas Teacher Retirement System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

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

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

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

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Fiduciary Pension Trust Fund of the Arkansas Teacher Retirement System as of June 30, 2020, and the changes in financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As indicated above, the financial statements of the Arkansas Teacher Retirement System are intended to present the financial position and the changes in financial position of only that portion of the Fiduciary Pension Trust Fund of the State that is attributable to the transactions of the Arkansas Teacher Retirement System. They do not purport to, and do not, present fairly the financial position of the State as of June 30, 2020, or the changes in its financial position for the year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the required supplementary information, listed in the accompanying table of contents, be presented to supplement the basic financial statements. Such information, 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 auditing standards generally accepted in the United States of America, 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 audit 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.

The Governmental Accounting Standards Board requires that a Management's Discussion and Analysis be presented to supplement government-wide financial statements. However, as discussed in the "Emphasis of Matter" paragraph above, the financial statements of the Arkansas Teacher Retirement System are only for the specific transactions and activity of the Agency and not for the State as a whole. Therefore, the Management's Discussion and Analysis is not required to be presented for the Arkansas Teacher Retirement System individually. Our opinion on the basic financial statements is not affected by the omission of this information.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Arkansas Teacher Retirement System's basic financial statements. The Schedule of Selected Information is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The Schedule of Selected Information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on this information.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 7, 2021, on our consideration of the Arkansas Teacher Retirement System's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the effectiveness of the Arkansas Teacher Retirement System's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Arkansas Teacher Retirement System's internal control over financial reporting and compliance.

ARKANSAS LEGISLATIVE AUDIT

Roger A. Norman, JD, CPA, CFE, CFF
Legislative Auditor

Little Rock, Arkansas
January 7, 2021
SA1037520

REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH *GOVERNMENT AUDITING STANDARDS*

INDEPENDENT AUDITOR'S REPORT

Arkansas Teacher Retirement System
Legislative Joint Auditing Committee

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Fiduciary Pension Trust Fund of the Arkansas Teacher Retirement System (the "Agency"), an office of Arkansas state government, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the Arkansas Teacher Retirement System's basic financial statements, and have issued our report thereon dated January 7, 2021.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Agency's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements but not for the purpose of expressing an opinion on the effectiveness of the Agency's internal control. Accordingly, we do not express an opinion on the effectiveness of the Agency's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We did identify certain deficiencies in internal control, described in the Schedule of Findings and Responses below as items 2020-1 that we consider to be significant deficiencies.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Agency's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

SCHEDULE OF FINDINGS AND RESPONSES

2020-1 The Agency's investment policy indicates the Board is responsible for prudently investing funds and maintaining proper allocation of the Agency's investment assets. For assets that will not be managed by an investment manager, the policy does not permit the Agency to make an investment without a review and recommendation from the investment consultant. In May 2019, the Agency invested $58,000,000, in conjunction with multiple other parties, to execute a promissory note to Big River Steel totaling $290,000,000. The Agency did not obtain a review and recommendation from the investment consultant or Board approval for this investment. Additionally, in June 2020, loans of $48,000,000 to Highland Pellets were recapitalized to purchase 45,000 Class B units. The newly converted Highland Pellet Class B units were combined with the existing 155,000 Class B units and recharacterized as Class A units. The Agency did not receive a review and recommendation from the investment consultant or Board approval for the conversion of the loans to equity.

We recommend the Agency ensure all significant changes in investments are properly reviewed by the investment consultants, with a recommendation presented to and approved by the Board.

Management personnel responded as follows:

ATRS Policy 4 states in part "The System shall manage those assets not specifically allocated to investment managers. No investment shall be made without an investment consultant's recommendation." The ATRS Board addressed the processes in question at its regular meeting on February 1, 2021 and passed Resolution 2021-13, Clarification and Reaffirmation of Investment Management Process under ATRS Policy 4. Board involvement through notice to the Board Chair is also addressed in Resolution 2021-02. This Resolution is also attached and is a long standing Resolution that the Board reviews and renews on an annual basis.

As outlined in the attached Resolutions and the Board's discussion, the Board has historically approved initial investments only after receiving and reviewing the recommendation of an investment consultant. Further, the Board distinguishes between approval of initial investments, which requires the recommendation of an investment advisor, and the management by ATRS staff of an ongoing investment, which does not require the recommendation of an investment advisor.

The Board continues to monitor the management of any particular investment through affirmative advice of the Board Chair. These are ongoing established processes that have been in place for several years, and are consistent with Board policy. These processes parallel other investments in the ATRS portfolio where assigned investment managers may invest in equity, debt, a combination of both debt and equity, or other opportunities. These investment managers also have the ability to manage the investments in their portfolios by converting debt to equity, changing terms of investments and deciding when to unwind or liquidate investments they manage. Many of these investments also allow for the use of recallable distributions to be called by the specified investment manager and in most cases do not require an additional recommendation from an investment consultant. Some investments including Franklin Park, US Agriculture, and BTG Pactual are assigned to a specific manger and have similar processes that allow ATRS input in the use of recallable distributions. ATRS input for investments assigned to a specific manager varies based on recognized Board authority, the legal documents for each investment assigned to the specific manager, and the level of confidentiality required at the time.

In other words, similar types of ATRS investments are assigned a specific investment manager that typically performs these functions. In the case of direct investments or investments not assigned to an investment manager, ATRS staff has managed these ongoing investments according to Policy 4 and followed the established processes mentioned in the Resolutions to monitor and adjust to changing conditions that may arise from the direct investments.

Agency's Response to Findings

The Agency's response to the finding identified in our audit is described above. The Agency's response was not subjected to the auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on it.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose. However, pursuant to Ark. Code Ann § 10-4-417, all reports presented to the Legislative Joint Auditing Committee are matters of public record, and distribution is not limited.

ARKANSAS LEGISLATIVE AUDIT

Tom Bullington, CPA
Deputy Legislative Auditor

Little Rock, Arkansas
January 7, 2021

ARKANSAS TEACHER RETIREMENT SYSTEM
STATEMENT OF FIDUCIARY NET POSITION
JUNE 30, 2020

Exhibit A

	Totals
ASSETS	
Cash and cash equivalents	$ 348,739,106
Receivables:	
Member contributions	9,378,658
Employer contributions	24,093,069
Investment trades pending	21,871,383
Accrued investment income	12,922,708
Due from other funds	3,555,563
Other receivables	1,083,234
Total Receivables	72,904,615
Investments, at fair value:	
Domestic equities	2,071,795,588
International equities	961,079,504
Pooled equity funds	1,052,044,721
U.S. Government obligations	28,245,622
Corporate obligations	925,233,362
Asset- and mortgage-backed securities	23,104,762
Pooled fixed income funds	1,607,759,109
Promissory notes	257,463,572
Limited partnerships	28,276,070
Real estate	52,674,001
Alternative investments	9,351,605,145
State recycling tax credits	176,000,000
Investment derivatives	(13,433)
Total Investments	16,535,268,023
Securities lending collateral	315,801,222
Capital assets, net of accumulated depreciation	113,544
Other assets	74,552
TOTAL ASSETS	17,272,901,062
DEFERRED OUTFLOWS OF RESOURCES	
Deferred outflows related to OPEB	1,310,404
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	17,274,211,466
LIABILITIES	
Accrued expenses and other liabilities	889,241
Compensated absences	530,170
Post-employment benefit liability	6,585,411
Investment trades pending payable	35,049,671
Accrued investment expenses	10,225,884
Securities lending liability	315,851,510
Due to other funds	2,284,259
TOTAL LIABILITIES	371,416,146
DEFERRED INFLOWS OF RESOURCES	
Deferred inflows of resources related to OPEB	719,096
TOTAL LIABILITIES AND DEFERRED INFLOWS OF RESOURCES	372,135,242
NET POSITION RESTRICTED FOR PENSION BENEFITS	$ 16,902,076,224

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

ARKANSAS TEACHER RETIREMENT SYSTEM
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
JUNE 30, 2020

Exhibit B

		Totals
ADDITIONS		
Contributions:		
Member	$	153,105,134
Employer		446,228,128
Total contributions		599,333,262
Investment income		
From investing activities:		
Net appreciation (depreciation) in fair value of investments		(267,694,438)
Interest and dividends		130,592,889
Real estate operating income		7,545,561
Total investment income (loss)		(129,555,988)
Less investment expense		39,381,324
Net investment income (loss)		(168,937,312)
From securities lending activities:		
Securities lending gross income		8,224,492
Less: securities lending expense		5,151,614
Net securities lending income (loss)		3,072,878
Other income		101,370
TOTAL ADDITIONS (LOSSES)		433,570,198
DEDUCTIONS		
Benefits		1,255,065,794
Refunds of contributions		9,592,091
Administrative expenses		8,457,862
TOTAL DEDUCTIONS		1,273,115,747
NET CHANGE IN NET POSITION		(839,545,549)
NET POSITION - BEGINNING OF YEAR		17,741,621,773
NET POSITION - END OF YEAR	$	16,902,076,224

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

NOTE 1: Summary of Significant Accounting Policies

A. Reporting Entity/History

Act 266 of 1937, as amended, established the Arkansas Teacher Retirement System (ATRS) as an office of Arkansas state government for the purpose of providing retirement benefits for employees of any school or other educational agency participating in ATRS. Act 427 of 1973, as amended, provided that the general administration of ATRS, responsibility for its proper operation, and responsibility for making effective the provisions of the Teacher Retirement law are vested in a 15-member Board of Trustees. The State Bank Commissioner, Treasurer of State, Auditor of State, and Commissioner of Education are ex-officio trustees. The remaining 11 trustees are elected and consist of seven active members of ATRS with at least five years of actual service, three retired members receiving an annuity from ATRS, and one active or retired member from a minority racial ethnic group. The seven active trustees consist of one member from each of the four congressional districts; two employed in positions requiring an administrator's license, of which one must be an administrator; and one member employed in a position that does not require state licensure. The trustees are elected in accordance with rules adopted by the Board. Board members serve as trustees without compensation but are reimbursed for any necessary expenses incurred to attend Board meetings or perform other duties authorized by the Board.

B. Plan Description

ATRS is a cost-sharing, multiple-employer defined benefit pension plan that covers employees of schools and education-related agencies, including Arkansas School for the Blind, Arkansas School for the Deaf, Arkansas Activities Association, State Board of Education, regional education service cooperatives, ATRS, Arkansas Educational Television Commission, area vocational-technical schools, Arkansas Rehabilitation Services, enterprises privatized by a public school district, and educational nonprofit organizations licensed and regulated by Division of Developmental Disabilities Services of the Department of Human Services..

On June 30, 2020, the number of participating employers was as follows:

Public schools	262
State colleges and universities	39
State agencies	17
Other/privatized	28
Total	346

On June 30, 2020, ATRS's membership consisted of the following:

Retirees or beneficiaries currently receiving benefits	50,133
T-DROP participants	3,639
Inactive plan members (not receiving benefits)	13,338
Active members	
Fully vested	45,209
Non-vested	21,691
Total	134,010

NOTE 1: Summary of Significant Accounting Policies (Continued)

B. Plan Description (Continued)

Members are eligible for full retirement benefits at age 60 with five or more years of actual or reciprocal service or at any age with 28 or more years of credited service. Members with 25 years of actual or reciprocal service who have not attained age 60 may receive an annuity reduced by 10/12 of 1% multiplied by the number of months by which the early retirement precedes the earlier of (1) completion of 28 years of credited service or (2) attainment of age 60. The normal retirement benefit, paid monthly, is determined based on (1) the member's final average salary (FAS; effective July 1, 2018, computed using the average of the annual salaries paid during the period of five years of credited service producing the highest annual average) and (2) the number of years of service. For active members as of June 30, 2018, a benchmark three-year FAS was established as a minimum FAS.

ATRS has contributory and noncontributory plans. The contributory plan has been in effect since the beginning of ATRS. The noncontributory plan became available July 1, 1986. Acts 81 and 907 of 1999, effective July 1, 1999, require all new members under contract for 181 or more days to be contributory. Act 93 of 2007 allows an active noncontributory member to make an irrevocable election to become contributory on July 1 of each fiscal year.

A cost of living adjustment (COLA) is payable on July 1 of each year to retirees, certain survivors, and annuity beneficiaries who received monthly benefits for the previous 12 months. The COLA is calculated by multiplying 100% of the member's base retirement annuity plus 3%. Act 780 of 2017 allows the Board of Trustees to evaluate any future COLA adjustments on an annual basis to determine if a simple or compound COLA increase will be given based on the financial condition of the system.

Act 1096 of 1995 created a teacher deferred retirement option plan (T-DROP) for members with 30 or more years of service credit. Effective September 1, 2003, Act 992 of 2003 requires employers to make contributions on behalf of all members participating in T-DROP at rates established by the Board of Trustees. Member contributions and accumulation of service credit will cease once a member enters T-DROP. During participation in T-DROP, ATRS will credit the member account with plan deposits and interest. The plan deposits will be calculated beginning with the member's plan benefit reduced by 1% for each year of credited service. The Board of Trustees may authorize early participation in T-DROP for members with at least 28 years but less than 30 years of credited service. The plan deposit for early participation will be calculated the same as the regular T-DROP deposit with a further reduction of at least .5% but not more than 1% for each month of credited service under 30 years. The T-DROP account accrues interest at a variable rate that is set annually by the ATRS Board of Trustees. T-DROP deposits into member accounts cease at the completion of 10 years of participation in the program; however, a member may continue employment and will continue to receive interest on the account balance at the 10-year plus interest rate that is also set annually by the Board of Trustees. When T-DROP participation ceases, the member may receive the T-DROP distribution as a lump-sum cash payment or an annuity or may roll it over into another tax-deferred account. A member may also elect to defer all or part of the distribution into a T-DROP cash balance account held by ATRS.

Disability retirement benefits are payable to members who are vested and demonstrate total and permanent incapacity to perform the duties of their position while in active employment. The disability annuity is computed in the same manner as the age and service annuity.

Survivor benefits are payable to qualified survivors upon the death of an active, vested member. Eligible spouse survivors receive a survivor annuity that is based on the member's years of service credit prior to their death, and minor child survivors receive a percentage of the member's highest salary earned. ATRS also provides a lump sum death benefit for active and retired members with 10 or more years of credited service. The amount for contributory members will be up to $10,000 and up to $6,667 for noncontributory members. The amount will be prorated for members who have both contributory and non-contributory service; however, members with 15 or more years of contributory service will receive the full $10,000.

NOTE 1: Summary of Significant Accounting Policies (Continued)

C. Basis of Presentation – Fund Accounting

The accounting system is organized and operated on a fund basis. A fund is defined as a fiscal and accounting entity with a self-balancing set of accounts recording cash and other financial resources, together with all related liabilities and residual equities or balances and changes therein, which are segregated for purposes of carrying on specific activities or attaining certain objectives in accordance with special regulations, restrictions, or limitations. The following types of funds, if applicable to this Agency, are recognized in the accompanying financial statements.

Fiduciary Funds

Trust and Agency Funds – Trust and Agency Funds are used to report resources held by the Agency in a trustee capacity or as an agent for individuals, other governmental units, and other funds. These include Pension Trust Funds, Employee Health Trust Funds, Investment Trust Funds, Private-Purpose Trust Funds, and Agency Funds. The specific activity accounted for at this Agency includes the following:

Arkansas Teacher Retirement System Fiduciary Pension Trust Fund

D. Basis of Accounting

Basis of accounting refers to when revenues and expenditures or expenses are recognized and reported in the financial statements. The economic resources measurement focus and accrual basis of accounting are used in the Fiduciary Fund financial statements. Under the accrual basis, contributions and other revenues are recognized when earned, and benefits, refunds, and other expenses are recorded when incurred.

E. Federal Income Tax Status

During the year ended June 30, 2020, ATRS was a qualified plan under 26 USC § 401(a) and was exempt from federal income taxes under 26 USC § 501(a).

F. Cash and Cash Equivalents

Cash and cash equivalents include demand accounts, imprest accounts, cash on hand, cash in State Treasury, all short-term investments with maturities at purchase of 90 days or less, and all deposits in the Short-Term Investment Fund (STIF). The STIF is created through daily sweeps of excess cash by the custodial bank into bank–sponsored commingled funds that are invested in U.S. Government and agency securities and other short-term investments.

G. Deposits and Investments

Deposits

Deposits are carried at cost and consist of cash in bank, cash in State Treasury, cash on deposit with investment managers, and cash in Short-Term Investment Funds. At June 30, 2020, these totals were $24,922,043, $853,111, $105,877,308, and $217,086,569, respectively. State Treasury Management Law governs the management of funds held in the State Treasury, and the Treasurer of State is responsible for ensuring these funds are adequately insured and collateralized.

Custodial Credit Risk – Custodial credit risk for deposits is the risk that, in the event of the failure of a depository institution, the Agency will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The Agency has adopted the State Board of Finance Policy requiring the use of depository insurance and collateralization procedures to manage the risk that deposits may not be returned. As of June 30, 2020, none of the Agency's bank balance of $24,932,035 was exposed to custodial credit risk as it was fully insured by the FDIC.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Deposits (Continued)

As of June 30, 2020, none of the cash in the Short-Term Investment Fund was exposed to custodial credit risk as it was collateralized with securities held by the custodial agent in the name of ATRS. As of June 30, 2020, $1,002,127 of $106,080,937 in cash held by investment managers was exposed to custodial credit risk as it was uninsured and uncollateralized.

Investments

Ark. Code Ann. §§ 24-2-601 — 24-2-619 authorizes the ATRS Board of Trustees to have full power to invest and reinvest monies of ATRS and to hold, purchase, sell, assign, transfer or dispose of any of the investments, or investment proceeds in accordance with the prudent investor rule.

Each investment manager is required to invest within the specific guidelines and parameters set by the Board of Trustees. Asset allocation guidelines have been established as follows:

Asset Allocation	Minimum	Target	Maximum
Total equity	48.0%	53.0%	58.0%
Fixed income	13.0%	15.0%	17.0%
Alternatives	N/A*	5.0%	N/A*
Real assets***	N/A*	15.0%	N/A*
Private equity	N/A*	12.0%	N/A*
Cash equivalents	0.0%	0.0%	5.0%

*Due to the illiquid nature of alternatives, real assets, and private equity, it is not prudent to set rebalancing ranges for these asset classes.

**Additional allocations to total equity may be made beyond the maximum range to serve as a placeholder for unfunded and uncommitted alternatives, real assets, and private equity.

***Real assets include real estate, timber, agriculture, and infrastructure.

The fair value measurement of investments is categorized within the hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset and gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. In instances where inputs used to measure fair value fall into different levels, fair value measurements in their entirety are categorized based on the lowest level input that is significant to the valuation.

The hierarchy of inputs is defined as follows:

Level 1: Unadjusted quoted prices for identical instruments in active markets.

Level 2: Quoted prices for similar instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable.

Level 3: Valuations derived from valuation techniques in which significant inputs are unobservable.

For investments that do not have a readily determinable fair value and fall outside of the fair value hierarchy, the system establishes the value by utilizing the Net Asset Value (NAV) or its equivalent as a practical expedient.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

The fair value measurement of plan investments and securities lending collateral as of June 30, 2020, was as follows:

Investments measured at fair value	Total	Level 1	Level 2	Level 3
Equity investments:				
Domestic equities	$ 2,071,795,588	$ 2,071,795,588		
International equities	961,079,504	961,079,504		
Pooled equity investments	1,052,044,721	1,052,044,721		
Fixed income investments:				
U.S. Government obligations	28,245,622		$ 28,245,622	
Corporate obligations	925,233,362		925,233,362	
Asset- and mortgage-backed securities	23,104,762		23,104,762	
Pooled fixed income funds	1,607,759,109		1,607,759,109	
Promissory notes	257,463,572			$ 257,463,572
Real estate investments:				
Limited partnerships	28,276,070			28,276,070
Real estate	52,674,001			52,674,001
State recycling tax credits:	176,000,000		176,000,000	
Derivative investments:				
Forward contracts	(13,433)		(13,433)	
Total plan investments at fair value	7,183,662,878	$ 4,084,919,813	$ 2,760,329,422	$ 338,413,643
Investments measured at net asset value (NAV)				
Alternative investments:				
Commingled funds	3,221,564,400			
Private equity funds	2,418,195,701			
Real estate funds	1,233,979,683			
Timberland funds	292,958,655			
Farmland funds	204,544,403			
Infrastructure funds	279,610,477			
Re-insurance funds	265,564,463			
Hedge funds	1,397,222,277			
Opportunistic funds	37,965,086			
Total plan investments at net asset value	9,351,605,145			
Total plan investments	$ 16,535,268,023			
Securities Lending Collateral:				
Quality D short term investment pool*	$ 315,801,222			

*Cash collateral received totaled $315,851,510. The amount reported in the GASB 40 footnote above is the market value of the collateral received at June 30, 2020.

Cash equivalents invested in the Short-Term Investment Fund are valued at amortized cost, which approximates fair value. The fund may issue and redeem shares at any time.

Equity investments are classified as Level 1 are exchange-traded securities whose values are based on published market prices and quotations from either national security exchanges or active markets for those securities.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Fixed income investments are classified as Level 2 and include publicly traded securities in inactive markets. Investments in this category are sourced from reputable pricing vendors using price matrix models and techniques. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Fair value is defined as the quoted market value on the last trading day of the period.

Real estate and partnerships are classified as Level 3 and are comprised mostly of owned properties leased to commercial enterprises. These investments are valued using professional property valuations or appraisals, net of debt borrowed against the related assets. Appraisals and valuations are updated every 3 years.

Derivative investments include forward contracts and rights and are classified as Level 2 and valued using observable exchange, dealer or broker market pricing.

Alternative Investments generally do not have readily obtainable market values and are valued using the net asset value (NAV) per share (or its equivalent). These values are based on the capital account balance of the general partner reports at the end of each reporting period, adjusted by subsequent contributions, distributions, management fees, and changes in values of foreign currency. There are inherent uncertainties in estimating fair values for these types of investments, and it is possible that the estimates will change in the near-term or the subsequent sale of assets will be different from the reported net asset value. Generally, the investments cannot be redeemed or have certain redemption restrictions and distributions are from the liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

The unfunded commitments and redemption terms for investments measured at the net asset value (NAV) per share (or its equivalent) is presented in the following table:

Investments measured at net asset value (NAV)	Total	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Alternative investments:				
Commingled funds	$ 3,221,564,400		Daily - Quarterly	1-30 days
Private equity funds	2,418,195,701	$ 1,190,898,503	N/A	N/A
Real estate funds	1,233,979,683	396,836,280	Quarterly	45-90 days
Timberland funds	292,958,655		Quarterly	90 days
Farmland funds	204,544,403	15,463,892	Daily - Quarterly	30-60 days
Infrastructure funds	279,610,477	46,114,685	Quarterly	90 days
Re-insurance funds	265,564,463		Semiannually - Annually	60-90 days
Hedge funds	1,397,222,277	18,287,776	Weekly - Annually	3-90 days
Opportunistic funds	37,965,086	73,800,000	Quarterly	60 days
Total plan investments at net asset value	$ 9,351,605,145	$ 1,741,401,136		

Commingled Funds – Commingled funds consist of assets from several accounts that are blended together to lower trading costs per dollar of investment. The System has funds invested in domestic and international equities. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed with proper notification to the fund manager. Distributions are received through liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Private equity funds – Private equity includes 54 buyout funds, 3 distressed debt funds, 2 growth equity funds, 13 hard asset funds, 4 mezzanine funds, 5 multi-strategy funds, 8 turnaround funds, 13 venture capital funds and 3 structured capital funds that invest mostly in private companies across a variety of industries. The value of the investments in this type have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. The nature of private equity investments is that distributions are received through the liquidation of the underlying assets of the fund. The expected holding period of a private equity portfolio company is 2 to 10 years.

Real estate funds – Real estate funds include 6 core funds, 18 value added funds, and 20 opportunistic funds that invest primarily in the United States, Europe, and Asia. Fund investments can be made in the debt, equity, or a combination of both in real estate property ventures. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed with proper notification to the fund manager. Distributions from each fund may be received as cash flows from operations or return of capital from sales of assets. The expected holding period of underlying assets in the real estate funds is 2 to 10 years.

Timberland funds – The System has 2 timberland funds that invest in acquisition, growth, and disposition of timber and associated properties. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. Distributions from the fund may be received as cash flows from operations or return of capital from sales of assets. The holding period for these assets is at the discretion of the fund manager based on the fund's purchase or sale of the underlying assets.

Farmland funds – The System has 2 farmland funds. One fund is an open-ended fund comprised of units that represent the System's ownership of underlying agricultural related assets. This fund may be redeemed quarterly with proper notification to the fund manager. The other fund holds the System's direct investments in farmland and related assets. These investments cannot be easily redeemed. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. Distributions from the fund may be received in cash flows from operations or return of capital from sales of assets. The holding period is at the discretion of the fund manager based on the fund's purchase or sale of the underlying assets in the portfolio.

Infrastructure funds – Infrastructure funds include 7 funds that primarily invest in physical, operational systems and in monopolistic opportunities such as governmental functions (transmission lines and toll roads). The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments cannot be easily redeemed. Distributions from each fund may be received as cash flows from operations or return of capital from sales of assets. The expected holding period of underlying assets in the real estate funds is 2 to 10 years.

Re-insurance funds – Re-insurance funds invest in insurance products designed to collect premiums from an insurance company for taking a specific type and level of risk associated with natural disasters. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed annually. Distributions from each fund may be received as cash flows from operations or return of capital from sales of assets. The expected holding period of underlying assets is 6 months to 1 year.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Hedge funds – Hedge funds consist of 3 risk premia funds that target absolute returns through long-short positions across various factors and classes, 2 long/short equity funds that seek to profit from securities identified as both undervalued and overvalued, 2 global macro funds that profit from broad market swings caused by political or economic events, 2 credit funds that invest primarily in debt instruments of other companies, and 1 event-driven fund and 1 co-investment fund that acquire enough shares of a company to gain a controlling interest in order to make corrections to potentially increase a stock's value. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. Redemption ranges from monthly to annually depending on the manager (with the exception of one fund that currently has a 1 year hold). Distributions are received through liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

Opportunistic funds – Opportunistic funds utilize operational experience of the fund managers in the fields of information technology, telecommunications, and business services industries to seek quality returns. The value of the investments in this asset class have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partners' capital. These investments can be redeemed quarterly with proper notification to the fund manager. Distributions are received through liquidation of the underlying assets. The expected holding period is dependent on the discretion of the fund manager.

Securities lending collateral - Cash collateral received from borrowers in the securities lending program is invested in a Quality D short-term investment fund that consists of a liquidating account with a liquidity pool and a duration pool. The value of this fund has been determined by the fund administrator using the NAV per share (or its equivalent).

Rate of Return – The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested. For the year ended June 30, 2020, the annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was -.96%.

Interest Rate Risk – Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Agency does not have a formal investment policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. The summary shown below indicates that 87% of the Agency's investment maturities are one year or longer.

		Investment Maturities (In Years)			
Investment Type	Fair Value	Less than 1	1 - 5	6 - 10	More than 10
U.S. Government obligations	$ 28,245,622		$ 14,504,761		$ 13,740,861
Corporate obligations	925,233,362	$ 21,291,768	433,509,823	$ 363,003,387	107,428,384
Asset- and mortgage-backed securities	23,104,762		7,095,419	1,227,164	14,782,179
Pooled fixed income funds	1,607,759,109	347,511,514	30,526,705	1,229,720,890	
Promissory notes	257,463,572		102,298,022		155,165,550
State recycling tax credits	176,000,000	16,000,000	64,000,000	80,000,000	16,000,000
Total	$ 3,017,806,427	$ 384,803,282	$ 651,934,730	$ 1,673,951,441	$ 307,116,974
Securities Lending Collateral					
Quality D short term investment pool	$ 315,801,222	$ 314,876,043		$ 925,179	

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Asset-Backed Securities – As of June 30, 2020, ATRS held asset-backed securities with a fair value of $18,217,762. These securities represent interests in various trusts consisting of pooled financial assets other than mortgage loans conveyed by the issuing parties. ATRS's ability to recover the amount of principal invested in these securities depends on the performance and quality of the trust assets.

Mortgage-Backed Securities – As of June 30, 2020, mortgage-backed securities had a fair value of $1,232,391. The yields and maturities of mortgage-backed securities generally depend on when the underlying mortgage loan principal and interest are repaid. Although the full amount of principal will be received if prepaid, the interest income that would have been collected during the remaining period to maturity, net of any market adjustment, is lost.

Corporate Bonds – As of June 30, 2020, ATRS held corporate bonds with a fair value of $325,664,164. Corporate bonds are debt instruments that are issued by private corporations. These bonds have a term maturity and can have either a fixed or variable interest rate. Variable interest rate bonds have adjustments that are made periodically and vary directly with movements in interest rates.

Convertible Corporate Bonds – As of June 30, 2020, ATRS held convertible bonds with a fair value of $599,569,199. Convertible bonds convey an option to the bondholder to exchange each bond for a specified number of shares of common stock of the corporation. Convertible bonds generally offer lower coupon rates and promised yields to maturity in exchange for the value of the option to trade the bond into stock.

Promissory Notes – ATRS also held 4 promissory notes with a fair value of $257,463,572 at June 30, 2020. Promissory notes are form of debt that companies use to raise money in exchange for payment of a fixed amount of periodic income at a specified date or on demand. Three unsecured promissory notes were issued to Big River Steel Holdings, LLC, and one secured note was issued to Highland Pellets, LLC.

Credit Risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The risk is measured by the credit quality of investments in debt securities as described by nationally-recognized statistical rating organizations. A formal investment policy that limits investment in debt based on their statistical rating as a means of managing exposure to credit risk has not been adopted by the Agency.

As of June 30, 2020, the Agency's exposure to credit risk as rated by Standard and Poor's and Moody's Investors Service is as follows:

Standard and Poor's		Moody's Investors Service	
Rating	Fair Value	Rating	Fair Value
AAA	$ 4,414,675	Aaa	$ 27,906,261
AA	30,870,068	Aa	207,024
A	18,229,377	A	24,639,866
BBB	231,729,951	Baa	196,209,728
BB	89,402,445	Ba	81,455,122
B	69,618,539	B	37,436,921
CCC or below	17,780,446	Caa or below	3,382,874
Unrated	2,555,760,926	Unrated	2,646,568,631
Total	$ 3,017,806,427	Total	$ 3,017,806,427
Securities Lending Collateral			
Unrated	$ 315,801,222	Unrated	$ 315,801,222

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Custodial Credit Risk – Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, the Agency will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the Agency, and are held by either the counterparty or the counterparty's trust department or agent but not in the Agency's name. The Agency has adopted the State Board of Finance Policy requiring the use of depository insurance and collateralization procedures to manage custodial credit risk for all investments other than loaned securities. As of June 30, 2020, none of the Agency's investments were exposed to custodial credit risk.

Concentration of Credit Risk – Concentration of credit risk is the risk of loss attributed to the magnitude of the Agency's investment in a single issuer (not including investments issued or explicitly guaranteed by the U.S. Government, investments in mutual funds, external investment pools, or other pooled investments). The Agency has not adopted a formal investment policy to limit the amount it may invest in any one issuer to manage the concentration of credit risk. As of June 30, 2020, none of the Agency's investments in any one issuer represent more than 5% of total investments.

Foreign Currency Risk – Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. The Agency does not have an investment policy that limits investment in foreign currency.

The Agency's exposure to foreign currency risk in U.S. dollars for investments and deposits at June 30, 2020, was as follows:

			Investments			
Currency		Fair Value	Fixed Income	Equities	Forward Contracts	Cash Deposits
Argentine Peso	ARS	$ 985,858	$ 609,284		$ (9,897)	$ 386,471
Australian Dollar	AUD	2,284,572		$ 2,284,572		
Brazilian Real	BRL	22,134,760		22,134,759		1
British Pound Sterling	GBP	323,323,814		321,935,813	1,376,404	11,597
Canadian Dollar	CAD	12,025,276		12,025,193		83
Chinese Yuan Renminbi	CNH	26,082,132		26,082,184	(57,490)	57,438
Danish Krone	DKK	388				388
Euro	EUR	293,299,451		292,738,193	569,390	(8,132)
Hong Kong Dollar	HKD	37,206,465		36,234,390	972,073	2
Indian Rupee	INR	430,924				430,924
Indonesian Rupiah	IDR	17,097,376		17,097,359		17
Japanese Yen	JPY	156,341,019		156,383,342	(165,149)	122,826
Mexican Peso	MXN	2,244,163		2,244,163		
New Taiwan Dollar	TWD	22,271,689		22,271,687		2
New Zealand Dollar	NZD	3,767,789		3,767,789		
South African Rand	ZAR	44,390,039		44,390,039		
South Korean Won	KRW	57,546,379		57,546,379		
Swedish Krona	SEK	73,503,772		73,492,263	11,483	26
Swiss Franc	CHF	65,421,341		72,539,929	(7,119,071)	483
Thailand Baht	THB	2,031,662		2,031,662		
Totals		$ 1,162,388,869	$ 609,284	$ 1,165,199,716	$ (4,422,257)	$ 1,002,126

For Forward Currency Contracts in the schedule above, a positive number represents the market value of contracts to purchase that currency in excess of the market value of contracts to sell that currency. A negative number, therefore, represents the market value of contracts to sell foreign currency in excess of contracts to purchase that currency.

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Derivatives – Derivative instruments are financial contracts or agreements whose values depend on the values of one or more underlying assets, reference rates, and/or financial indexes. Derivative instruments include futures contracts, forward contracts, swap contracts, options contracts, forward foreign currency exchange and rights. ATRS investment guidelines state that derivatives may be used to reduce the risk in a portfolio but should not be used to create a position of leverage or substantially increase the risk of the overall portfolio. Futures and options should be matched by cash or cash equivalent securities, and all short futures positions should be matched by equivalent long security positions. Each investment manager's derivative usage is specified in the investment management agreement or specific guidelines.

At June 30, 2020, the fair value balance of derivative instruments and the changes in fair value for the year then ended, were as follows:

	Changes in Fair Value		Fair Value at June 30, 2020	
Type	Classification	Amount	Classification	Amount
Foreign currency forwards	Investment income	$ 81,640	Investments	$ (13,434)

Foreign Currency Forwards – ATRS enters into various currency contracts to manage exposure of foreign portfolio holdings to changes in foreign currency exchange rates. A forward exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. Risks associated with such contracts include movement in the value of the foreign currency relative to the U.S. dollar and the ability of the counterparty to perform. The contracts are valued at forward exchange rates, and the changes in value of open contracts are recognized as unrealized appreciation (depreciation) in fair value of investments, a component of investment income, in the statement of changes in plan net position. The realized gain or loss on closed forward currency contracts represents the difference between the value of the original contracts and the closing value of such contracts and is included in net appreciation (depreciation) in fair value of investments, a component of investment income, in the statement of changes in plan net position. At June 30, 2020, ATRS had outstanding forward exchange currency contracts to purchase foreign currencies with contract amounts of $3,681,897 and market values of $3,684,353, resulting in a net gain of $2,456. Outstanding forward exchange currency contracts to sell foreign currencies with contract amounts of $8,090,720 had market values of $8,106,610, resulting in a net loss of $15,890.

The net fair value and net notional amounts of foreign currency forwards as of June 30, 2020, were as follows:

Foreign Currency Forward	Fair Value	Net Notional	
Argentine Peso	$ 394	ARS	697,253
British Pound Sterling	7	GBP	9,062
Chinese Yuan Renminbi	(70)	CNH	406,323
Japanese Yen	1,210	JPY	17,817,065
Swedish Krona	440	SEK	5,895,026
Swiss Franc	(17,871)	CHF	6,710,986
United States Dollar	2,456	USD	3,681,897
Totals	$ (13,434)		

NOTE 1: Summary of Significant Accounting Policies (Continued)

G. Deposits and Investments (Continued)

Investments (Continued)

Securities Lending Transactions – Arkansas Code Annotated and Board policy permit ATRS to participate in a securities lending program administrated by State Street Bank (the "Custodian"). The Custodian enters into agreements with broker-dealers or other entities to loan securities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. There were no restrictions on the dollar amount of securities loaned by ATRS. Securities on loan to participating brokers at year-end include U.S. Government securities, corporate securities, and international securities. Brokers who borrow the securities provide cash or other collateral, including securities issued or guaranteed by the U.S. Government. Collateral must be provided in the amount of at least 100% of the market value of the loaned securities. ATRS cannot pledge or sell collateral securities received unless the borrower defaults. The cash collateral received on each loan is invested in a collective investment fund comprised of a liquidity pool and a duration pool.

As of June 30, 2020, the liquidity pool had an average duration of 26.81 days and an average weighted final maturity of 70.20 days for USD collateral. The duration pool had an average duration of 18.22 days and an average weighted final maturity of 1,602.55 days for USD collateral. Because the loans are terminable at will, their duration generally will not match the duration of the investments made with cash collateral.

At year-end, ATRS had no credit risk exposure to borrowers due to the custodian's indemnification agreement to purchase replacement securities, or return cash collateral in the event a borrower fails to return a loaned security or fails to pay the Agency for income of the securities while on loan. No borrowers failed to return loaned securities or pay distributions during the year. Investments made with cash collateral appear as an asset on the Statement of Plan Net Position. Corresponding liabilities are recorded, as ATRS must return the cash collateral to the borrower upon expiration of the loan.

ATRS is exposed to investment risk, including the possible loss of principal value in the cash collateral pool, due to fluctuation in the market value of the assets held by the cash collateral pool. As of June 30, 2020, the fair value of the securities lending liabilities exceeded the securities lending assets by $50,288.

H. Capital Assets

Capital assets purchased and in the custody of this Agency were recorded as expenditures at the time of purchase. Assets with costs exceeding $5,000 and an estimated useful life exceeding one year are reported at historical cost, including ancillary costs (such as professional fees and costs, freight costs, preparation or setup costs, and installation costs). Gifts or contributions are generally recorded in the accounts at acquisition value at the time received. Acquisition value is the market value if the Agency would have purchased the item. Depreciation is reported based on a straight-line method, with no salvage value. Estimated useful lives generally assigned are as follows:

Assets:	Years
Equipment	5-20

Capital assets activity for the year ended June 30, 2020, was as follows:

	Beginning Balance	Additions	Retirements	Ending Balance
Fiduciary activities:				
Equipment	$ 1,064,259	$ 244,439	$ 332,766	$ 975,932
Less: Accumulated depreciation	914,489	148,050	200,151	862,388
Fiduciary activities, net	$ 149,770	$ 96,389	$ 132,615	$ 113,544

NOTE 1: Summary of Significant Accounting Policies (Continued)

I. Compensated Absences – Employee Leave

Annual leave is earned by all full-time employees. Upon termination, employees are entitled to receive compensation for their unused accrued annual leave up to 30 days. Liabilities for compensated absences are determined at the end of the year based on current salary rates.

Sick leave is earned by all full-time employees and may be accrued up to 120 days. Compensation up to a maximum of $7,500 for unused sick leave is payable to employees upon retirement.

Compensated absences are reported in the State's "Government-Wide" financial statements but are not reported as liabilities or expenditures in the governmental funds. However, the compensated absences payable attributable to this Agency's employee annual and sick leave as of June 30, 2020 and 2019, amounted to $530,170 and $445,890, respectively. The net changes to compensated absences payable during the year ended June 30, 2020, amounted to $84,280.

J. Post-Employment Benefits Other Than Pensions

Arkansas State Employee Health Insurance Plan (Plan)
Plan Description – The Department of Finance and Administration – Employee Benefits Division (DFA-EBD) provides medical and prescription drug benefits for eligible state employees and retirees. Policies for DFA-EBD related to medical and prescription drug plans are established by the State and Public School Life and Health Insurance Board (Board) and may include ad hoc benefit changes or annual cost redeterminations. For the current year, no ad hoc or cost redetermination changes occurred. The Constitution of Arkansas, Article 5, vests the General Assembly with legislative power to enact and amend duties of and benefit provisions of the Board and DFA-EBD, respectively, as published in Subchapter 4, Chapter 5 of Title 21 of the Arkansas Code Annotated. DFA-EBD is included in the State of Arkansas's Comprehensive Annual Financial Report (CAFR), which includes all applicable financial information, notes, and required supplementary information. That report may be obtained by writing to Department of Finance and Administration, 1509 West Seventh Street, Suite 403, Little Rock, Arkansas 72201 or by calling 501-682-1675.

The Agency contributes to the Plan, to a single employer defined benefit OPEB plan administered by the DFA-EBD, on a monthly basis. The Board establishes medical and prescription drug benefits for three classes of individuals covered as follows: active employees, terminated employees with accumulated benefits, and retires and beneficiaries. The Plan is established on the basis of a pay-as-you-go financing requirement and no assets are accumulated in a trust as defined by Governmental Accounting Standards Board (GASB) Statement No. 75. The State's annual OPEB cost for the Plan is based on an actuarially determine calculated amount made in accordance with GASB Statement No. 75.

Funding Policy – Employer contribution for the Plan are established by Ark. Code Ann. § 21-5-414 not to exceed $450 per budgeted position. Employees, retirees, and beneficiaries contribute varying amounts based on the type of coverage and inclusion of family members. Benefits for Medicare-eligible retirees are coordinated with Medicare Part A and B and the Plan is the secondary payer. The portion of the State's annual OPEB liability attributable to ATRS as of June 30, 2020, is $6,585,411.

K. Deferred Inflows and Outflows of Resources

Deferred outflows of resources represent a decrease of net position that applies to future periods. Thus, these items will not be recognized as an outflow of resources (an expense or expenditure) until a future period.

Deferred inflows of resources represent an increase of net position that applies to future periods. These items will not be recognized as an inflow of resources (revenue) until a future period.

NOTE 1: Summary of Significant Accounting Policies (Continued)

L. Contributions

The Agency's funding policy provides for periodic employer contributions at statutorily-established rates based on annual actuarial valuations. The employer contribution rate was 14.25% for the fiscal year ending June 30, 2020. Contributory members are required to contribute 6.25% of gross wages to ATRS. Employee contributions are refundable if ATRS-covered employment terminates before a monthly benefit is payable. Employee contributions remaining on deposit with ATRS for a period of one or more years earn interest credits, which are included in the refund.

M. Reserves

In accordance with the provisions of Ark. Code Ann. § 24-7-405, ATRS must maintain reserve accounts showing net assets available for benefits. At June 30, 2020, the reserve accounts were funded at a level that complied with the Code provisions.

	Total
Members' deposit account reserve	$ 10,195,620,369
Employers' accumulation account reserve	(6,237,129,203)
Retirement reserve	12,389,040,912
Teacher deferred retirement option plan account reserve	442,391,622
Survivor benefit account reserve	102,904,404
Income - expense account reserve	9,248,120
Total	$ 16,902,076,224

The Code provisions define each of the reserve accounts as follows:

Members' Deposit Account Reserve – The account in which members' contributions shall be accumulated with regular interest and from which shall be made transfers and refunds of contributions.

Employers' Accumulation Account Reserve – The account in which shall be accumulated the employer's contributions to ATRS and from which shall be made transfers as provided in the code.

Retirement Reserve – The account from which shall be paid all annuities and benefits in lieu of annuities payable as provided in this act to retirants who retired on account of superannuation or disability and to beneficiaries of such retirants.

Teacher Deferred Retirement Option Plan Account Reserve – The account in which shall be accumulated plan deposits made on behalf of the member with plan interest.

Survivor Benefit Account Reserve – The account from which shall be paid survivor benefits payable as provided in this act.

Income - Expense Account Reserve – The account to which shall be credited all investment income from invested assets of ATRS. It shall also be the account in which shall be accumulated the contributions made by employers for the administrative expenses of ATRS, from which shall be made annual transfers of interest credits and excess amounts to the other accounts of ATRS, and from which shall be paid all the expenses of the Board necessary for the administration and operation of ATRS.

NOTE 2: Net Pension Liability

The components of the net pension liability of the participating employers at June 30, 2020, were as follows:

Total pension liability	$	22,562,958,162
Plan net position		(16,902,076,224)
Net pension liability	$	5,660,881,938
Plan net position as a percentage of the total pension liability		74.91%

Actuarial Assumptions – The total liability was determined by an actuarial valuation as of June 30, 2020, using the following actuarial assumptions, applied to all prior periods included in the measurement:

Wage inflation rate	2.75%
Salary increases	2.75 - 7.75%
Investment rate of return	7.50%

Mortality rates were based on the RP-2014 Healthy Annuitant, Disabled Annuitant, and Employee Mortality headcount weighted tables for males and females adjusted for future mortality improvements using projection scale MP-2017 Table from 2006.

The actuarial assumptions used in the June 30, 2020, valuation were based on the results of an actuarial experience study for the period July 1, 2010 through June 30, 2015.

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of geometric real rates of return were adopted by the plan's trustees after considering input from the plan's investment consultant and actuary.

For each major asset class that is included in the pension plan's target asset allocation as of June 30, 2020, these best estimates are summarized in the following table:

Asset Allocation	Target	Long-Term Expected Real Rate of Return
Total equity	53.0%	5.2%
Fixed income	15.0%	-0.1%
Alternatives	5.0%	3.5%
Real assets	15.0%	5.1%
Private equity	12.0%	7.2%
Cash equivalents	0.0%	-1.0%
	100.0%	

NOTE 2: Net Pension Liability (Continued)

Single Discount Rate - A single discount rate of 7.50% was used to measure the total pension liability based on the expected rate of return on pension plan investments. The current member and employer contribution rates are 6.25% and 14.25% of active member payroll, respectively. Although not all members contribute, the member and employer rates are scheduled to increase by 0.25% increments ending in Fiscal Year 2023. The ultimate member and employer rates will be 7% and 15%, respectively. The projection of cash flows used to determine this single discount rate assumed that member and employer contributions will be made in accordance with this schedule. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Regarding the sensitivity of the net pension liability to changes in the single discount rate, the following presents the plan's net pension liability, calculated using a single discount rate of 7.50%, as well as what the plan's net pension liability would be if it were calculated using a single discount rate that is 1% lower or 1% higher:

	Sensitivity of the Net Pension Liability to the Single Discount		
	1% Decrease 6.50%	Current Rate 7.50%	1% Increase 8.50%
Net pension liability	$ 8,423,120,901	$ 5,660,881,938	$ 3,370,051,058

NOTE 3: Required Supplementary Schedules

Detailed historical information about the pension liabilities for which the pension plan's assets are being held and managed and the significant assumptions used to measure these liabilities are required supplementary information. This required supplementary information, prepared in accordance with the parameters of GASB Statement No. 67, is included immediately following the notes to the financial statements.

Schedule 1

ARKANSAS TEACHER RETIREMENT SYSTEM
SCHEDULE OF CHANGES IN NET PENSION LIABILITY AND RELATED RATIOS
FOR THE TEN-YEAR PERIOD ENDED JUNE 30, 2020

	2020	2019	2018	2017	2016	2015	2014	2013*	2012*	2011*
TOTAL PENSION LIABILITY										
Service cost	$ 331,035,218	$ 325,464,537	$ 315,864,318	$ 307,786,503	$ 305,086,337	$ 298,134,477	$ 326,999,276			
Interest	1,608,463,162	1,551,511,422	1,504,613,059	1,485,759,965	1,433,768,167	1,371,168,271	1,326,709,192			
Changes in benefit terms				(469,205,711)			(27,405,705)			
Difference between actual and expected experience	(24,869,157)	119,427,343	(7,365,993)	(76,812,667)	(15,341,738)	123,519,055	(103,017,525)			
Changes in assumptions				1,374,950,899						
Benefit payments	(1,255,065,793)	(1,205,326,555)	(1,160,738,238)	(1,092,952,357)	(1,035,958,950)	(970,719,484)	(914,250,015)			
Refunds	(9,592,091)	(9,679,783)	(9,455,405)	(10,874,003)	(10,145,471)	(10,774,122)	(10,485,103)			
NET CHANGE IN TOTAL PENSION LIABILITY	649,971,339	781,396,964	642,917,741	1,518,652,629	677,408,345	811,328,197	598,550,120			
TOTAL PENSION LIABILITY - BEGINNING OF YEAR	21,912,986,823	21,131,589,859	20,488,672,118	18,970,019,489	18,292,611,144	17,481,282,947	16,882,732,827			
TOTAL PENSION LIABILITY - END OF YEAR (A)	$ 22,562,958,162	$ 21,912,986,823	$ 21,131,589,859	$ 20,488,672,118	$ 18,970,019,489	$ 18,292,611,144	$ 17,481,282,947			
PLAN NET POSITION										
Contributions - employer	$ 446,228,128	$ 430,864,656	$ 424,488,126	$ 414,954,939	$ 410,358,229	$ 408,230,472	$ 404,920,440			
Contributions - member	153,105,134	141,885,632	138,766,747	133,109,939	131,100,983	128,555,684	125,225,906			
Net investment income	(165,766,491)	898,384,867	1,824,094,695	2,289,818,591	35,579,657	632,166,951	2,429,334,097			
Benefit payments	(1,255,065,793)	(1,205,326,555)	(1,160,738,237)	(1,092,952,357)	(1,035,958,950)	(970,719,484)	(914,250,015)			
Refunds	(9,592,091)	(9,679,783)	(9,455,405)	(10,874,003)	(10,145,471)	(10,774,122)	(10,485,103)			
Administrative expense	(8,454,436)	(7,134,784)	(9,336,430)	(7,825,595)	(8,059,030)	(8,034,857)	(8,034,236)			
NET CHANGE IN PLAN NET POSITION	(839,545,549)	248,994,033	1,207,819,496	1,726,231,514	(477,124,582)	179,424,644	2,026,711,089			
PLAN NET POSITION - BEGINNING OF YEAR	17,741,621,773	17,492,627,740	16,284,808,244	14,558,576,730	15,035,701,312	14,856,276,668	12,829,565,579			
PLAN NET POSITION - END OF YEAR (B)	$ 16,902,076,224	$ 17,741,621,773	$ 17,492,627,740	$ 16,284,808,244	$ 14,558,576,730	$ 15,035,701,312	$ 14,856,276,668			
NET PENSION LIABILITY - END OF YEAR (A) - (B)	$ 5,660,881,938	$ 4,171,365,050	$ 3,638,962,119	$ 4,203,863,874	$ 4,411,442,759	$ 3,256,909,832	$ 2,625,006,279			
Plan net position as a percentage of total pension liability	74.91%	80.96%	82.78%	79.48%	76.75%	82.20%	84.98%			
Covered employee payroll	$ 3,077,558,814	$ 3,027,154,131	$ 2,986,026,715	$ 2,921,965,125	$ 2,888,392,668	$ 2,873,988,053	$ 2,850,860,174			
Net pension liability as a percentage of covered employee payroll	183.94%	137.80%	121.87%	143.87%	152.73%	113.32%	92.08%			

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

Schedule 2

ARKANSAS TEACHER RETIREMENT SYSTEM
SCHEDULE OF CONTRIBUTIONS
FOR THE TEN-YEAR PERIOD ENDED JUNE 30, 2020

	2020	2019	2018	2017	2016	2015	2014	2013*	2012*	2011*
Actuarially-determined contribution	$ 450,612,124	$ 447,791,482	$ 422,365,685	$ 423,846,831	$ 437,434,470	$ 474,773,530	$ 485,904,529			
Actual contribution	446,228,128	430,864,656	424,488,126	414,954,939	410,358,229	408,230,472	404,920,440			
Contribution deficiency (excess)	$ 4,383,996	$ 16,926,826	$ (2,122,441)	$ 8,891,892	$ 27,076,241	$ 66,543,058	$ 80,984,089			
Covered employee payroll	$ 3,077,558,814	$ 3,027,154,131	$ 2,986,026,715	$ 2,921,965,125	$ 2,888,392,668	$ 2,873,988,053	$ 2,850,860,174			
Actual contribution as a percentage of covered employee payroll	14.50%	14.23%	14.22%	14.20%	14.21%	14.20%	14.20%			

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

Schedule 3

ARKANSAS TEACHER RETIREMENT SYSTEM
SCHEDULE OF INVESTMENT RETURNS
FOR THE TEN-YEAR PERIOD ENDED JUNE 30, 2020

	2020	2019	2018	2017	2016	2015	2014	2013*	2012*	2011*
Annual money-weighted rate of return	-0.96%	5.25%	11.46%	16.09%	0.24%	4.34%	19.27%			

* ATRS is only required to present those years for which information is available until the full 10-year trend is completed.

NOTE 1: Summary of Significant Information Related to Required Supplementary Schedules

A. Changes in Benefit Terms

There were no significant changes in benefit terms for the year ended June 30, 2020.

B. Changes in Assumptions

There were no significant changes in assumptions for the year ended June 30, 2020.

C. Methods and Assumptions Used in Calculations of Actuarially-Determined Contributions

Valuation date:	June 30, 2018 Actuarially determined contribution rates are calculated as of June 30 in the year which is one year prior to the beginning of the fiscal year in which contributions are reported.

The following actuarial methods and assumptions were used to determine contribution rates reported in the schedule of contributions:

Actuarial cost method	Entry age normal
Amortization method	Level percentage of payroll
Amortization period	30 years
Asset valuation method	4-year smoothed market for funding purposes ; 20% corridor
Payroll growth	2.75%
Salary increases	2.75 to 7.75% including inflation
Investment rate of return	7.50%
Mortality table	RP-2014 Healthy Annuitant, Disabled Annuitant, and Employee Mortality headcount weighted tables were used for males and females. Mortality rates were adjusted for future mortality improvements using projection scale MP-2017 from 2006.

	Scaling Factor	
Table	Males	Females
Healthy Annuitant	101%	91%
Disabled Annuitant	99%	107%
Employee Mortality	94%	84%

Schedule 4

ARKANSAS TEACHER RETIREMENT SYSTEM
SCHEDULE OF SELECTED INFORMATION
FOR THE FIVE-YEAR PERIOD ENDED JUNE 30, 2020
(UNAUDITED)

	For the Year Ended June 30,				
	2020	2019	2018	2017	2016
Total Assets	$ 17,272,901,062	$ 18,281,516,802	$ 18,088,381,003	$ 16,792,590,856	$ 15,236,170,821
Total Deferred Outflows of Resources	1,310,404				
Total Liabilities	371,416,146	539,895,029	595,753,263	507,782,612	677,591,091
Total Deferred Inflows of Resources	719,096				
Net Position Restricted for Pension Benefits	16,902,076,224	17,741,621,773	17,492,627,740	16,284,808,244	14,558,576,730
Total Additions (Losses)	433,570,198	1,471,135,154	2,387,349,568	2,837,883,469	577,038,869
Total Deductions	1,273,115,747	1,222,141,121	1,179,530,072	1,111,651,955	1,054,163,451