

Retirement Board Agenda THURSDAY, SEPTEMBER 15, 2022

Click Link to Join Zoom Meeting:

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Meeting ID: 960 9922 3143 **Password:** 963357

To join by phone, dial: (929) 205-6099 and enter the meeting ID: **960 9922 3143** and password: **963357** when prompted.

PLEDGE OF ALLEGIANCE

- 1. Roll Call
- 2. Approval of Out-Of-State Board Travel (R)

CONSENT AGENDA (R)

- 3. Approval of the July 21, 2022 Retirement Board Meeting Minutes
- 4. Summary of Investment Transactions
 - June 1, 2022 to June 30, 2022
- 5. Retirement Report
 - Superannuation and Survivor Benefits
- 6. Disability Report
 - Approval of Disability Benefits
 - Disapproval of Disability Benefits
 - Disapproval of Appeal for Disability Benefits
 - Termination of Disability Benefits
 - Termination of Disability Benefits Any Occupation

- July 1, 2022 to July 31, 2022
- Special Cases
- Approval of Appeal of Termination Any Occupation
- Disapproval of Appeal of Termination
- Disapproval of Appeal of Termination Any Occupation
- Disapproval of Appeal of Termination on Personal Appearance – Any Occupation

INVESTMENT REPORT

- 7. Wilshire Associates Quarterly Performance Report (June 30, 2022)
- 8. Ten-Year Investment Review
- 9. Quarterly Investment Report and Monthly Investment Report Periods Ending:
 - June 30, 2022

- July 31, 2022
- 10. Statement of Investment Policy Global Equities Benchmark Revisions Amendment (R)

EXECUTIVE DIRECTOR'S REPORT

- 11. Executive Director's Update
- 12. COLA (Cost of Living Adjustment) Discussion (R)
- 13. Actuarial Valuation Report Allocation of Employer Contributions Health Care Fund (R)
- 14. Year End Parameters Report
- 15. Review of Administrative Expenses
- 16. FY2023 OSERS Budget Capital Budget Modification (R)
- 17. Filing of Proposed Amended Administrative Rule (R)

RETIREMENT REPORT

- 18. Executive Session pursuant to R.C. 121.22 (G)(5) to review applications for Disability Retirement Benefits (R)
 - Personal Appearance 10:30am

EXECUTIVE DIRECTOR'S REPORT (cont.)

19. Member Appeal – **11:00 a.m.**

AUDIT COMMITTEE REPORT

20. Audit Committee Update

COMPENSATION COMMITTEE REPORT

21. Compensation Committee Update

EXECUTIVE DIRECTOR'S REPORT (cont.)

- 22. Executive Session pursuant to R.C. 121.22 (G)(3) to discuss imminent court action (R)
- 23. Executive Session pursuant to R.C. 121.22(G)(6) to discuss security matters (R)

BOARD COMMUNICATION AND POLICY ISSUES

- 24. Calendar Dates for Future Board Meetings
- 25. Continued or New Business Board Information Requests and Follow-up Items

ADJOURNMENT (R)

FY2023 SERS Board Roll Call

Jeffrey DeLeone	
Frank Weglarz	
Hugh Garside	
James Haller	
Matthew King	
Catherine Moss	
Barbra Phillips	
James Rossler	
Daniel Wilson	

APPROVAL OF OUT-OF-STATE BOARD TRAVEL

moved and	seconded the motion that the travel request by a
Board Member to travel and receive reimbursement for	the following out-of-state conferences and
meetings be approved.	

Conference	Attendee	Conference Date(s)	Conference Location	Estimate of Expenses
IFEBP 68 th Annual Employee Benefits Conference	James Rossler	October 23 – 26, 2022	Las Vegas, NV	\$3,755

Upon roll call, the vote was as follows:

ROLL CALL:	<u>YEA</u>	<u>NAY</u>	<u>ABSTAIN</u>
Jeffrey DeLeone James Haller Matthew King Catherine Moss James Rossler Frank Weglarz Daniel Wilson Hugh Garside Barbra Phillips			

BOARD: Travel R.C. 3309.04

CONSENT AGENDA

- 1. Minutes of the July 22, 2022 Retirement Board meeting
- 2. Summary of Investment Transactions June 1 to June 30, 2022 and July 1, 2022 to July 31, 2022
- 3. Retirement Report
 - a. Superannuation and Survivor Benefits
 - b. Special Cases
- 4. Disability Report
 - a. Approval of Disability Benefits
 - b. Disapproval of Disability Benefits
 - c. Disapproval of Appeal for Disability Benefits
 - d. Termination of Disability Benefits
 - e. Termination of Disability Benefits Any Occupation
 - f. Approval of Appeal of Termination Any Occupation
 - g. Disapproval of Appeal of Termination
 - h. Disapproval of Appeal of Termination Any Occupation
 - i. Disapproval of Appeal of Termination on Personal Appearance Any Occupation

APPROVAL OF CONSENT AGENDA

moved and	seconded the motion to approve the Consent
Agenda, which includes the following items:	

- 5. Minutes of the July 22, 2022, Retirement Board meeting
- 6. Summary of Investment Transactions June 1, 2022 to June 30, 2022 and July 1, 2022 to July 31, 2022
- 7. Retirement Report
 - a. Superannuation and Survivor Benefits
 - b. Special Cases
- 8. Disability Report
 - a. Approval of Disability Benefits
 - b. Disapproval of Disability Benefits
 - c. Disapproval of Appeal for Disability Benefits
 - d. Termination of Disability Benefits
 - e. Termination of Disability Benefits Any Occupation
 - f. Approval of Appeal of Termination Any Occupation
 - g. Disapproval of Appeal of Termination
 - h. Disapproval of Appeal of Termination Any Occupation
 - i. Disapproval of Appeal of Termination on Personal Appearance Any Occupation

Upon roll call, the vote was as follows:

ROLL CALL:	<u>YEA</u>	<u>NAY</u>	<u>ABSTAIN</u>
Frank Weglarz Hugh Garside James Haller Matthew King Catherine Moss Barbra Phillips James Rossler Daniel Wilson			
Jeffrey DeLeone			

July 22, 2022

The nine hundredth and fifty-first meeting of the Retirement Board of the School Employees Retirement System was held in the boardroom at 300 E. Broad Street, Columbus, Ohio, and streamed via Zoom videoconferencing on Friday, July 22, 2022.

Pledge of Allegiance

The SERS Retirement Board meeting convened at 8:30 a.m. with the Pledge of Allegiance.

Roll Call

Following the Pledge of Allegiance, the roll call was as follows: Jeffrey DeLeone, Frank Weglarz, Hugh Garside, James Haller, Matthew King, Catherine Moss, James Rossler, and Daniel Wilson. Absent: Barbra Phillips. Also attending in person was Lisa Reid, representative of the Ohio Attorney General's Office and various members of the SERS staff. Attending virtually was several SERS staff members and members of the public.

Consent Agenda

The consent agenda for July 22, 2022, included:

- Minutes from the June 16, 2022, Board Meeting
 - Summary of Investment Transactions for the period of May 1, 2022, through May 31, 2022.
 - Retirement Report Superannuation and Survivor Benefits and Special Cases
 - Disability Report Approval of Disability Benefits, Disapproval of Disability Benefits, Disapproval of Appeal for Disability Benefits, Termination of Disability Benefits, Termination of Disability Benefits Any Occupation, Approval of Appeal of Termination Any Occupation, Disapproval of Appeal of Termination Any Occupation on Personal Appearance

Catherine Moss moved and James Rossler seconded the motion to approve the Consent Agenda of the Retirement Board meeting held on Friday, July 22, 2022. Upon roll call, the vote was as follows: Yea: Frank Weglarz, Hugh Garside (abstained from vote on minutes), James Haller, Matthew King, Catherine Moss, James Rossler, Daniel Wilson, and Jeffrey DeLeone. Absent: Barbra Phillips. The motion carried.

Investment Report

Monthly Investment Report

Mr. Majeed provided an economic and financial market outlook update as of May 31, 2022. US growth rate was (1.6%) for Q1 2022 amid high inflation and supply chain disruptions. The contraction was mostly due to decline in private inventory investment, exports, and government spending. (*Source: Bureau of Economic Analysis*)

Mr. Majeed continued stating the US labor market continued to be strong, adding 390,000 jobs in May. The unemployment rate was unchanged at 3.6%. The labor force participation rate was little changed at 62.3%, remaining below the pre-pandemic level 63.3%, indicating a tight labor market. (Sources: Bureau of Labor Statistics and Department of Labor)

Mr. Majeed also stated the Fed hiked the interest rate by 0.75% in June, the third hike during 2022 to contain the historically high inflation. It was also reported as home prices and mortgage rates are rising, housing affordability declines, the demand is cooling down. However, if the house supply continues to be constrained, prices are expected to stay elevated.

June Consumer Sentiment Index released by Thomson Reuters and University of Michigan dropped drastically to 50, not only far below the historical average level, but also lower than the 2008 Financial Crisis level amid broad based discontent with persistently high inflation and sluggish economic growth. The US

July 22, 2022

Economic Surprise index dropped to (71.6), the lowest level since April 2020. The Leading Economic Index (LEI) issued by the Conference Board continued edging down from 118.7 in April to 113.3 in May.

The US manufacturing PMI declined to 53 in June, the lowest level since June 2020, indicating a soft expansion. The Global Manufacturing PMI reading also weakened to a 22-month low level of 52.2 in June. Worldwide supply disruptions, high inflation especially in energy and food prices, and labor shortages continue to be largest challenges to the global economy. (Source: Institute for Supply Management, S&P Global).

Equity market volatility intensified since January and remained elevated. Equity markets worldwide were down significantly in June, led by non-US developed markets (MSCI World ex-USA) at (9.41%), followed by US market (Russell 3000) at (8.37%), and emerging markets at (6.5%).

The US fixed income market, Bloomberg Barclay's US Aggregate Bond Index, was also down 1.57% in June. After several questions, the board thanked Mr. Majeed for his presentation.

Executive Director's Report

ORSC

Richard Stensrud, SERS Executive Director, reported the ORSC cancelled its July meeting. The next meeting is subject to the call of the chair. The tentative next meeting date is scheduled for August.

Advocacy Groups

Mr. Stensrud continued, reporting on CBBC outreach. SERS staff continue to seek letters of support from stakeholders for SERS benefit inflation control proposal: Ohio Senate Bill 347. This legislation has been introduced as a stand-alone bill. SERS staff is working to get stakeholders to support the bill and its passage.

Ohio General Assembly

Mr. Stensrud reported the Ohio General Assembly has recessed for the foreseeable future. Indications are they will return to Columbus after the fall election.

Mr. Stensrud also reported on HB601 that is designed to mandate employer contribution rate increase. SERS has been added to this bill. SERS does not want or need the employer contribution rate increased and SERS is against this bill. Mr. Stensrud will keep the board updated on this bill as it moves through the Ohio General Assembly.

Mr. Stensrud also reported on Senate Bill 348. SERS staff are analyzing this recently introduced legislation that would add a five-year statute of limitations, an OASDI set-off, as well as a cap on interest and penalties for SERS membership determinations.

Federal Legislation

Mr. Stensrud continued, reporting there are no new developments on the WEP reform front. Full repeal legislation for both WEP and the Government Pension Offset remain stalled and there has been no movement by either Ways and Means chairman Richard Neal (D-MA) or Ranking Member Kevin Brady (R-TX) to resolve the differences between their two WEP reform bills.

SERS continues to press and support that effort. Board members Barbra Phillips and Catherine Moss, while attending a pension Confrence in Washington DC, spoke to legislative staffers advocating for this reform. Catherine Moss passed along information provided by SERS staff in the hopes the legislation will move forward.

July 22, 2022

Mandatory Direct Deposit

Mr. Stensrud continued his presentation reporting as of now, 86 people have not transitioned to direct deposit. Because they did not comply by the deadline, those members will not receive their payments. Mr. Stensrud stated the primary reason for non-compliance is procrastination. Other reasons could be the person is incapacitated or in a care setting where the direct deposit mandate has yet to reach the decision makers. SERS staff will continue to reach out to those members who are still not getting their benefit payments via direct deposit.

Mandatory Medicare Part B Enrollment update

Mr. Stensrud reported the SERS mandate requiring members to enroll in Medicare Part B as a condition to participate in SERS Healthcare. 78 people who are eligible for Medicare Part B have not complied with this enrollment requirement and their healthcare coverage has been terminated by SERS. Those members will now have difficulty enrolling in Medicare Part B as the process will take time. We are actively working to get information to the 78 affected members to get them enrolled if income qualified. SERS staff have worked for over six months to help members enroll, however some people may have personal reasons for non-compliance. SERS will continue to engage with members and will keep the board updated on progress.

SERS staff also informed the board that there is no overlap between the direct deposit holdouts and the people who did not enroll in Medicare Part B.

COLA Decision Schedule

Mr. Stensrud continued, advising that the board will be making decision on the Cost-of-Living Adjustment (COLA) for 2023 at the September board meeting. The board will also be deciding whether to use a portion of the employer contributions for the health care fund.

Mr. Stensrud stated the June-to-June Consumer Price Index (CPI) number is 9.8% which is a big number compared to other years. It's anticipated there will be a great discussion next month as the board decided where to land with the COLA. SERS staff will prepare documents and other materials to facilitate the discussion at the September board meeting.

Counseling Data

Mr. Stensrud also reported 52% of SERS member counseling is being done virtually. When members are asked why they prefer a virtual counseling session, they say gas prices are the motivation. SERS continues to work to develop as many tools as possible to allow for flexible counseling session and this effort seems to be well received by the members. SERS has Zoom sessions and schedules phone calls for those who do not have Zoom access.

Employer Engagement

Mr. Stensrud continued and reported three in-person employer education sessions are planned and more are being scheduled. The goal of these education sessions is to ensure new staff understand the reporting requirements. The sessions are also a refresher course for those employers who want to know about current best practices. SERS staff strives to continue to engage with employers to provide the best possible experience for members.

Joint Trustee Training

Mr. Stensrud reported the next Joint Trustee Training is scheduled for November 9th at OPERS and plans are being finalized. The training is currently scheduled from 9am until 3pm. More details will be provided once the training has been finalized.

July 22, 2022

Operation Feed update

Mr. Stensrud reported on the annual staff charitable event that was held last month. Donations were accepted for MidOhio Foodbank from June 6 through June 17. This year, staff donated \$1,803, far exceeding the 2021 amount of \$1,044. In addition to cash donations, over 100 pounds of food and basic need items were collected on the 7th floor. All cash donations and donated items will go to support the MidOhio food bank and the work they do in our community.

Mr. Stensrud also stated on August 1, Operation Backpack will start. Operation Backpack is another annual charitable event that will allow SERS staff to donate school supplies and cash to benefit local school children. The board will be updated once the school supply drive is over.

Actuarial Audit

Mr. Stensrud provided an update on the actuarial audit. The actuarial audit will review and validate the assumptions, methodology, and calculations provided by Cavanaugh Macdonald. Following issuance of an RFP earlier this year, SERS received qualified proposals from three firms. After careful review, SERS staff recommended engaging with Milliman to conduct an independent audit of SERS' actuary. Milliman's fee for performing the Actuarial Audit would be \$83,250. The proposed engagement would commence in August with the presentation of the final report at the December Board meeting.

Frank Weglarz moved and Catherine Moss seconded that following discussion at the July 22, 2022, Board meeting, and as recommended by staff, SERS retain Milliman to conduct a Level 2 actuarial audit of SERS' current actuary, Cavanaugh Macdonald. Be it further provided that the Executive Director is authorized to sign the contract following review by SERS' legal counsel. Upon roll call, the vote was as follows: Yea: Frank Weglarz, Hugh Garside, James Haller, Matthew King, Catherine Moss, James Rossler, Daniel Wilson, and Jeffrey DeLeone. Absent: Barbra Phillips. The motion carried.

Election of Employee Member to the Retirement Board

The board announced that board member Hugh Garside would be resigning from the SERS Retirement Board at the end of his term, leaving an open seat that would require the election of an employee member.

Hugh Garside moved and Frank Weglarz seconded that the following resolution be adopted:

BE IT RESOLVED by the Retirement Board of the School Employees Retirement System that the election of one employee member of the Retirement Board for the term beginning July 1, 2023 and ending June 30, 2027, shall be as provided herewith:

Any member of the Retirement System, other than a disability recipient, shall be eligible for election and the name of any member who is nominated by a petition, meeting the following requirements, shall be placed upon the ballot as a regular candidate. The petitions shall be signed by at least five hundred (500) members of the Retirement System of which there shall be not less than twenty (20) signers each from at least ten (10) counties wherein such members are employed; shall indicate the employer and county of employment of each signing member; shall be signed on or after August 1, 2022; and the original petitions, along with the originals of any other completed required forms, must be received in the office of the Retirement System no later than 4:30 p.m., EST, December 2, 2022.

All ballots, to be considered valid, must be received in the office of the Retirement System no later than 4:30 p.m. EST, March 6, 2023.

All ballots delivered to the office of the Retirement System shall be delivered unopened to judges appointed by the Retirement Board. The judges shall meet, make final determination of the validity of the ballots within the intent of this resolution, count the valid ballots on March 7, 2023, and announce the results of the election.

July 22, 2022

The election shall be conducted in accordance with the Retirement Board's election laws as well as its election rule, policy, and procedure. Upon roll call, the vote was as follows: Yea: Frank Weglarz, Hugh Garside, James Haller, Matthew King, Catherine Moss, James Rossler, Daniel Wilson, and Jeffrey DeLeone. Absent: Barbra Phillips. The motion carried.

New Employer Request – Heartland Council of Governments/North Central Ohio Computer Cooperative

SERS staff discussed with the Retirement Board the request from Heartland Council of Governments/North Central Ohio Computer Cooperative, a council of governments organized under Chapter 167 of the Ohio Revised Code, to accept it as a new employer unit under Chapter 3309 of the Ohio Revised Code effective July 1, 2022. Heartland Council of Governments/North Central Ohio Computer Cooperative has passed an appropriate resolution agreeing to accept all requirements and obligations imposed by Chapter 3309 of the Ohio Revised Code.

It was moved by Matthew King and seconded by James Haller that the Board accept Heartland Council of Governments/North Central Ohio Computer Cooperative as an employer in accordance with Chapter 3309 of the Ohio Revised Code, effective July 1, 2022. Upon roll call, the vote was as follows: Yea: Frank Weglarz, Hugh Garside, James Haller, Matthew King, Catherine Moss, James Rossler, Daniel Wilson, and Jeffrey DeLeone. Absent: Barbra Phillips. The motion carried.

New Employer Request - Northeast Ohio Management Information Network/Council of Governments

SERS staff discussed with the Retirement Board the request from Northeast Ohio Management Information Network/Council of Governments, a council of governments organized under Chapter 167 of the Ohio Revised Code, to accept it as a new employer unit under Chapter 3309 of the Ohio Revised Code effective July 1, 2022. Northeast Ohio Management Information Network/Council of Governments has passed an appropriate resolution agreeing to accept all requirements and obligations imposed by Chapter 3309 of the Ohio Revised Code.

It was moved by Hugh Garside and seconded by Frank Weglarz that the Board accept Northeast Ohio Management Information Network/Council of Governments as an employer in accordance with Chapter 3309 of the Ohio Revised Code, effective July 1, 2022. Upon roll call, the vote was as follows: Yea: Frank Weglarz, Hugh Garside, James Haller, Matthew King, Catherine Moss, James Rossler, Daniel Wilson, and Jeffrey DeLeone. Absent: Barbra Phillips. The motion carried.

Technology Committee Report

Matthew King, SERS Technology Committee Chair, provided an update on the work being done in the Technology Committee. Some items being working on in the Technology Committee are the new 5-year budget and other technology projects such as the wi-fi upgrades at SERS and the continuing work to move SERS to a cloud-based data storage environment. Mr. King reported the SERS Technology Committee will meet on Thursday, September 15 at 12:30 p.m. The board thanked Mr. King for the update.

Compensation Committee Report

Daniel Wilson, SERS Compensation Committee Chair, provided an update on the special Compensation Committee meeting that took place earlier this morning. Mr. Wilson reporter the special meeting was held to discuss and approve the Executive Director's goals for FY2023. Minor changes were made to the proposed goals and there will be special focus on differentiating SERS from other pension systems. The FY2023 goals were approved and once updated, they will be provided to the full board. The board thanks Mr. Wilson for his update.

Board Communication and Policy Issues

CALENDAR DATES FOR SERS BOARD MEETINGS FOR 2022 **

AUDIT COMMITTEE MEETINGS

September 14, 2022 - 2:30 p.m. (Weds.) December 14, 2022 - 2:30 p.m. (Weds.)

COMPENSATION COMMITTEE MEETINGS

September 15, 2022 - 7:30 a.m. (Thurs.) December 15, 2022 - 7:30 a.m. (Thurs.)

TECHNOLOGY COMMITTEE MEETINGS

September 15, 2022 - 12:30 p.m. (Thurs.) December 15, 2022 - 12:30 p.m. (Thurs.)

BOARD MEETINGS

September 15-16, 2022 – 8:30 a.m. (Thurs. and Fri.) October 20-21, 2022 – 8:30 a.m. (Thurs. and Fri.) November 17-18, 2022 – 8:30 a.m. (Thurs. and Fri.) December 15-16, 2022 – 8:30 a.m. (Thurs. and Fri.)

Continued or New Business

The Board continued with the review of continued or new business.

<u>Adjournment</u>

Jeffrey DeLeone moved to adjourn to meet on Thursday, September 15, 2022, at 8:30 a.m. for the SERS regularly scheduled Retirement Board meeting.

The SERS board meeting adjourned at 10:04 a.m.

	Jeffrey DeLeone, Board Chair
Richard Stensrud, Secretary	

^{**}NOTE: The above dates are tentative.

SCHOOL EMPLOYEES RETIREMENT BOARD OF OHIO

Summary of Investment Transactions to be Reported to the Retirement Board for Ratification in September

The following is a summary of the investment transactions made during the period of **June 1**, **2022 through June 30**, **2022**. A detailed list of these transactions can be found in the Board Agenda mailed prior to the Retirement Board Meeting.

A. PURCHASES

Asset Class	Approximate Cost (in millions)
Global Equities	\$ 881.8
Fixed Income	293.3
Private Equity Capital Calls	70.7
Real Asset Capital Calls	29.9
Opportunistic & Tactical	21.4
Global Private Credit	40.8
Cash Equivalents	713.1

B. SALES

Asset Class	Approximate Net Proceeds (in millions)	Approximate Gain/(Loss) (in millions)				
Global Equities	\$ 678.5	\$ (37.6)				
Fixed Income	305.3	(7.0)				
Private Equity distributions	54.8	n/a				
Real Asset distributions	9.7	n/a				
Opportunistic & Tactical	43.5	26.3				
Global Private Credit	n/a	n/a				
Cash Equivalents	903.3	n/a				

SCHOOL EMPLOYEES RETIREMENT BOARD OF OHIO

Summary of Investment Transactions to be Reported to the Retirement Board for Ratification in September

The following is a summary of the investment transactions made during the period of **July 1, 2022 through July 31, 2022**. A detailed list of these transactions can be found in the Board Agenda mailed prior to the Retirement Board Meeting.

A. PURCHASES

Asset Class	Approximate Cost (in millions)
Global Equities	\$ 133.3
Fixed Income	358.4
Private Equity Capital Calls	28.2
Real Asset Capital Calls	79.1
Opportunistic & Tactical	83.8
Global Private Credit	40.5
Cash Equivalents	581.6

B. SALES

Asset Class	Approximate Net Proceeds (in millions)	Approximate Gain/(Loss) (in millions)				
Global Equities	\$ 292.2	\$ 30.0				
Fixed Income	339.0	(4.6)				
Private Equity distributions	26.5	n/a				
Real Asset distributions	33.6	n/a				
Opportunistic & Tactical	113.8	(11.0)				
Global Private Credit	n/a	n/a				
Cash Equivalents	522.6	n/a				



Executive Summary of Investment Performance

As of June 30, 2022

Market Commentary

U.S. Equity

The U.S. stock market down -16.8% for the second quarter, the largest quarterly drop since the global COVID shutdown in early 2020. Every sector was in negative territory, with Consumer Discretionary (-26.3%), Information Technology (-21.1%) and Communication Services (-21.0%) representing the worst performing sectors. Large and small-cap performed similarly while growth stocks underperformed value.

Rising inflation, which began in late 2020-early 2021, continues to accelerate this year, reaching levels not seen in four decades. While energy is far and away the leading expenditure category in terms of price increases (up 35% for the 12-months ending May), surging prices can be found in nearly every segment of the overall CPI. The largest component of the index, shelter, is up 5.5% with the next largest segment, food, up 10% during the past year. Finally, transportation costs have accelerated with new and used vehicles up in the double-digits and transportation services up 8%. With such widespread inflationary pressures, the ability for the Federal Reserve to achieve a "soft landing" is quickly dissipating.

Non-U.S. Equity

High inflation has become a global issue with rates in Europe approaching U.S. levels. In Germany, economic growth is slowing on both inflation and falling exports. While economic indicators in the U.K. are still in the expansion range, measures of new orders have fallen while business confidence levels have slumped. In China, new COVID controls were imposed in some areas but have since been lifted – although early economic indicators are not yet registering a strong return of growth.

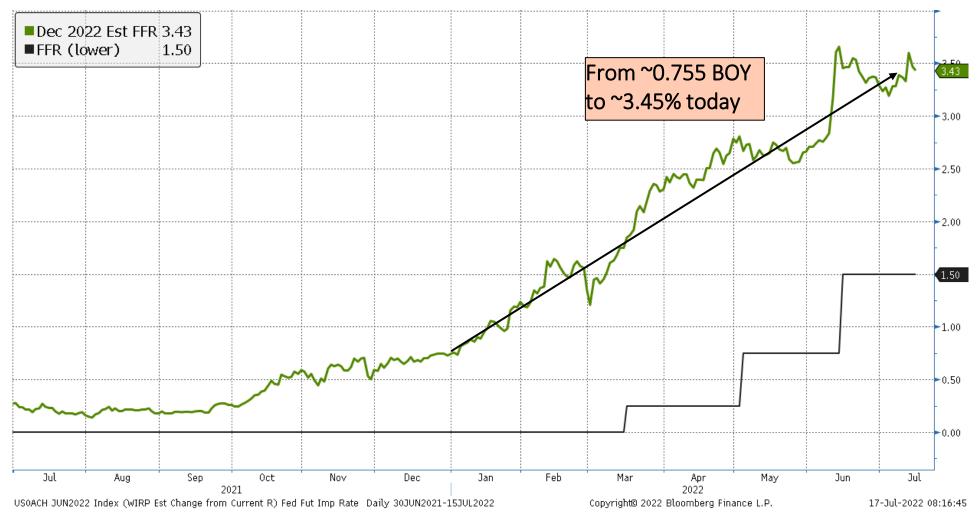
Fixed Income

The U.S. Treasury yield curve was up across all maturities with the 10-year at 3.02%, up 68 basis points from March. The FOMC increased their overnight rate by 0.50% in May and 0.75% in June; targeting a range of 1.50% to 1.75%. Public statements from the Federal Reserve grew more pessimistic during the quarter as Fed chair Jerome Powell stated after the June meeting that controlling inflation at their 2% target, in exchange for a higher unemployment rate, would be a "successful outcome."

June 2022 Asset Class Assumptions

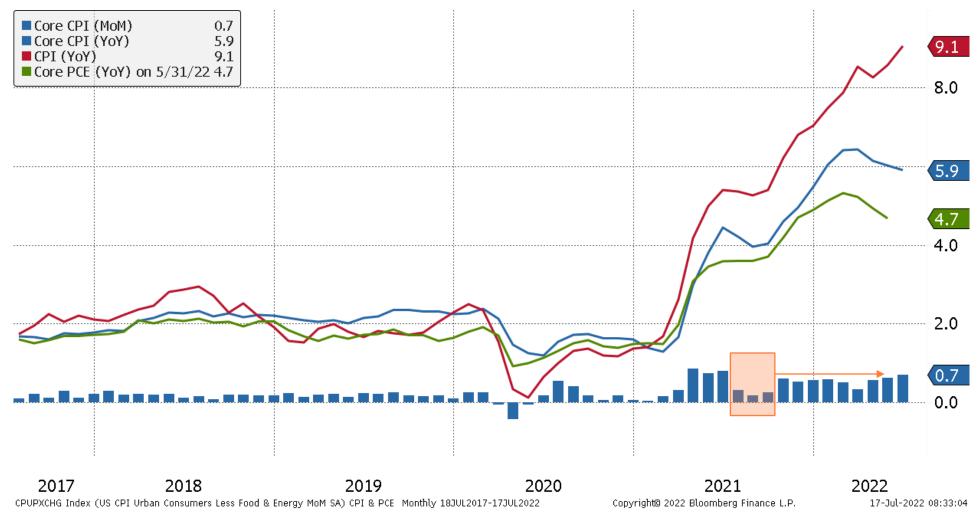
			Equ	uity					Fixed II	ncome					Real Asset	s		
		Dev		Global					LT			Dev ex-		Real Estate	е			
	US	ex-US	Emg	ex-US	Global	Private		Core	Core		High	US Bond	US	Global	Private		Real	US
	Stock	Stock	Stock	Stock	Stock	Equity	Cash	Bond	Bond	TIPS	Yield	(Hdg)	RES	RES	RE	Cmdty	Assets	CPI
Compound Return (%)	6.00	7.00	7.00	7.25	6.60	10.05	3.15	4.05	4.30	3.15	6.25	2.20	5.20	5.35	6.50	5.50	6.75	2.35
Expected Risk (%)	17.00	18.00	26.00	19.10	17.10	28.00	0.75	4.25	8.90	6.00	10.00	4.25	17.50	16.45	14.00	16.00	10.35	1.75
Cash Yield (%)	1.65	3.30	2.60	3.10	2.20	0.00	3.15	4.55	4.60	3.80	9.10	2.95	3.45	3.45	2.30	3.15	2.50	0.00
Growth Exposure	8.00	8.00	8.00	8.00	8.00	13.50	0.00	-0.85	-2.25	-3.00	4.00	-1.00	6.00	6.00	3.50	0.00	1.80	0.00
Inflation Exposure	-3.00	0.00	5.00	1.50	-1.25	-3.80	0.00	-2.50	-6.70	2.50	-1.00	-3.00	1.00	1.80	1.00	12.00	4.85	1.00
Correlations																		
US Stock	1.00																	
Dev ex-US Stock (USD)	0.81	1.00																
Emerging Mkt Stock	0.74	0.74	1.00															
Global ex-US Stock	0.83	0.96	0.87	1.00														
Global Stock	0.95	0.92	0.83	0.94	1.00													
Private Equity	0.74	0.64	0.62	0.67	0.74	1.00												
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00											
Core Bond	0.28	0.13	0.00	0.09	0.20	0.31	0.19	1.00										
LT Core Bond	0.31	0.16	0.01	0.12	0.23	0.32	0.11	0.92	1.00									
TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.59	0.47	1.00								
High Yield Bond	0.54	0.39	0.49	0.45	0.51	0.34	-0.10	0.25	0.32	0.05	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.17	0.18	0.26	0.10	0.66	0.65	0.39	0.26	1.00						
US RE Securities	0.58	0.47	0.44	0.49	0.56	0.50	-0.05	0.17	0.23	0.10	0.56	0.05	1.00					
Global RE Securities	0.64	0.58	0.56	0.61	0.65	0.58	-0.05	0.17	0.22	0.11	0.61	0.03	0.96	1.00				
Private Real Estate	0.54	0.44	0.44	0.47	0.52	0.51	-0.05	0.19	0.25	0.09	0.57	0.05	0.77	0.75	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.27	0.00	-0.02	-0.02	0.25	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.48	0.51	0.58	0.57	0.54	0.47	-0.02	0.23	0.25	0.39	0.56	0.05	0.70	0.75	0.70	0.65	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	-0.08	0.05	0.03	0.05	0.44	0.26	1.00

How Quickly Discounting Can Change...



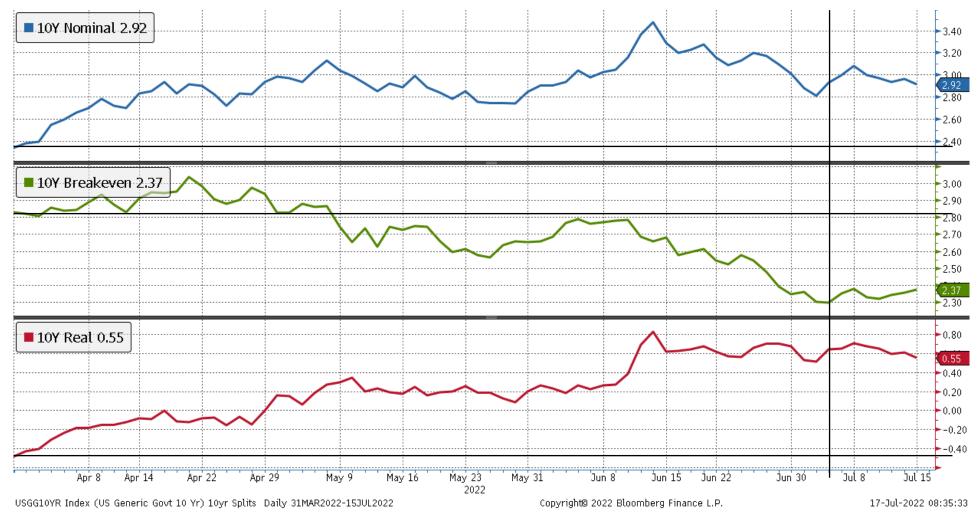
Data Source: Bloomberg

Any Signs of Inflation Slowing?



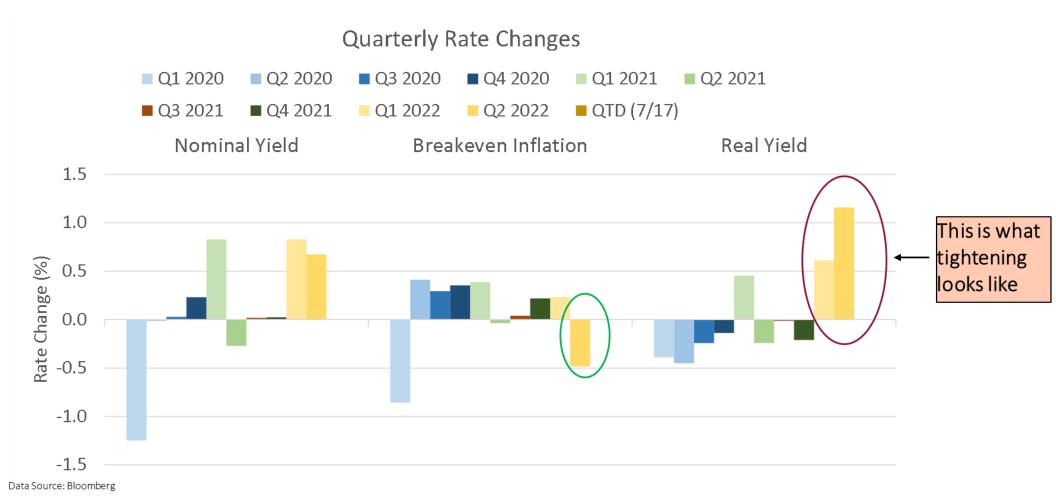
Data Source: Bloomberg

Quarterly Rate Moves (10Y Nominal, Real & BEI)

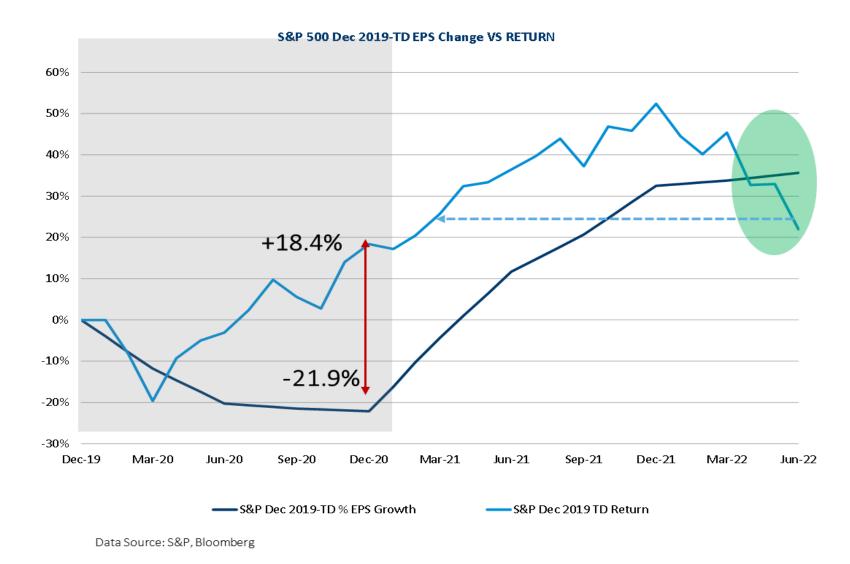


Data Source: Bloomberg

Rate Changes (2020 – YTD 2022)



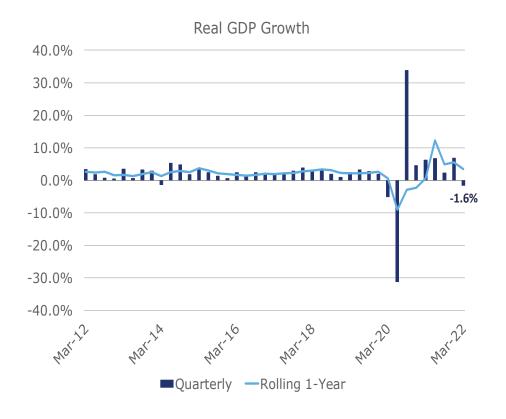
Another call back (this time from Jan 2021): EPS say...

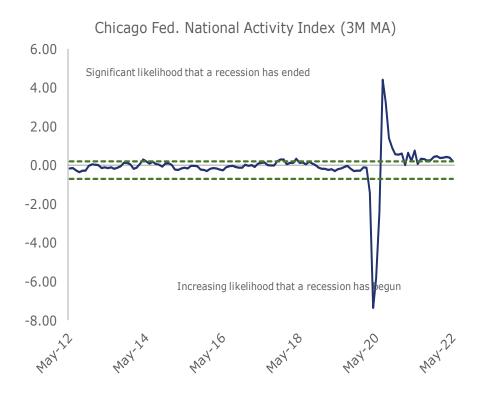


Wilshire

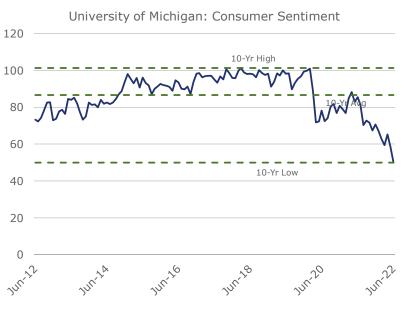
Economic/Market Activity

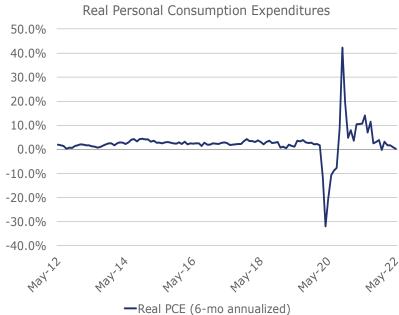
Economic Growth





Consumer Activity

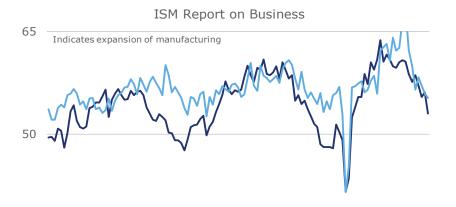




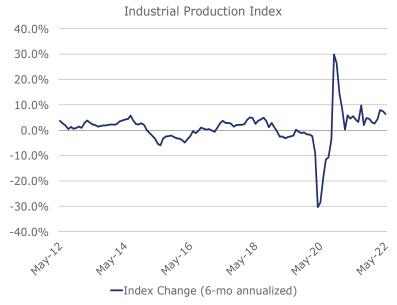


Data Sources: Bloomberg

Business Activity



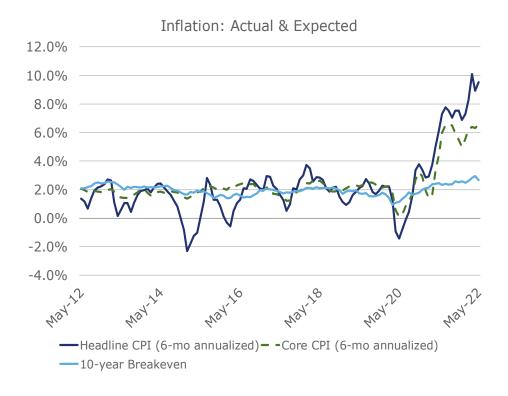


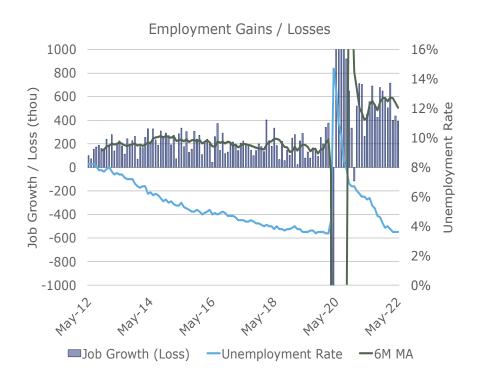




Data Sources: Bloomberg

Inflation and Employment





U.S. Equity Market

As of 6/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
FT Wilshire 5000	-16.8	-20.9	-13.2	10.2	10.8	12.7
Wilshire U.S. Large Cap	-16.8	-20.8	-12.3	10.7	11.3	13.0
Wilshire U.S. Small Cap	-16.8	-21.8	-21.7	5.4	6.1	10.1
Wilshire U.S. Large Growth	-21.4	-27.7	-18.3	12.2	13.2	14.5
Wilshire U.S. Large Value	-11.2	-11.8	-4.8	8.9	9.3	11.5
Wilshire U.S. Small Growth	-18.2	-26.7	-28.2	3.9	6.3	10.1
Wilshire U.S. Small Value	-15.5	-17.0	-14.6	6.8	5.7	10.0
Wilshire REIT Index	-18.5	-21.6	-6.7	4.0	5.3	7.3
MSCI USA Min. Vol. Index	-9.1	-12.6	-3.2	6.3	9.6	11.7
FTSE RAFI U.S. 1000 Index	-12.7	-12.7	-5.6	11.0	10.1	12.4





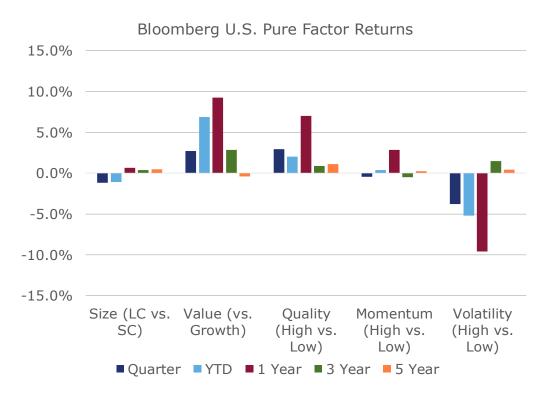


Data Sources: Bloomberg, Wilshire Atlas

U.S. Factor Returns

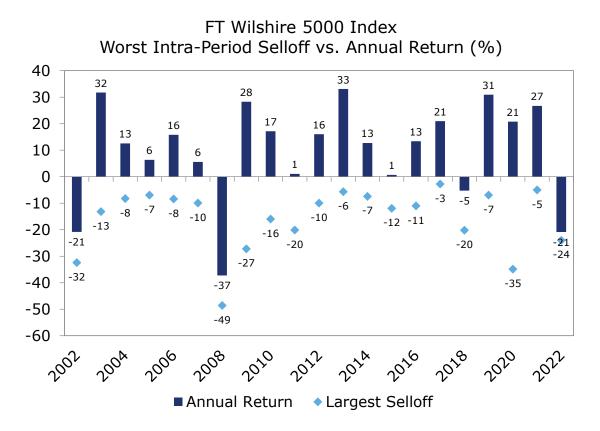
Factor returns represent the contribution from large cap, value, etc. stocks within Bloomberg's Portfolio & Risk Analytics module

Value stocks have rebounded during the past year



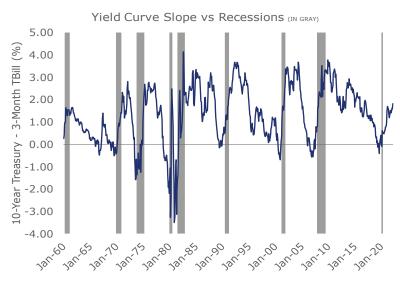
Annual Equity Market Selloffs

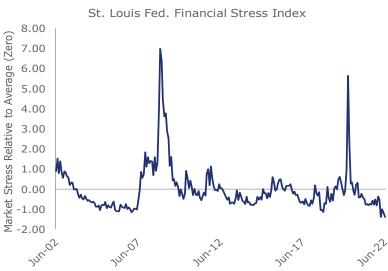
U.S. equity has been selling-off all year, hitting its last market high on January 3rd

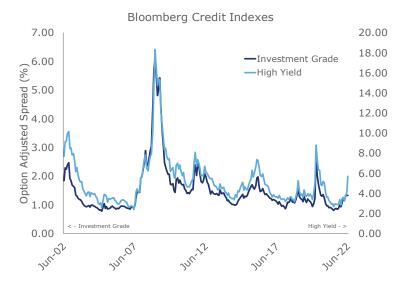


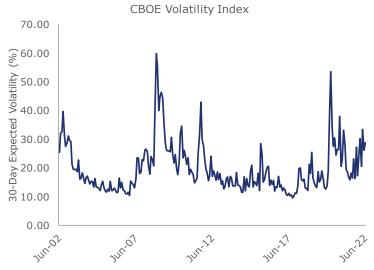
Data Sources: Wilshire Web, Bloomberg

Risk Monitor



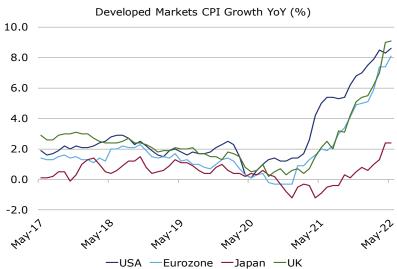


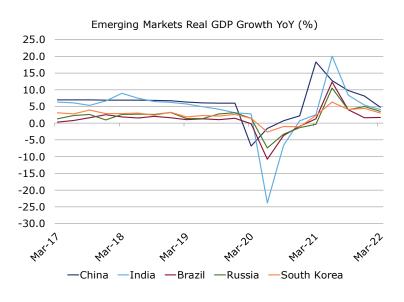


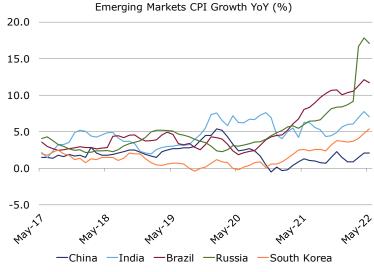


Non-U.S. Growth and Inflation





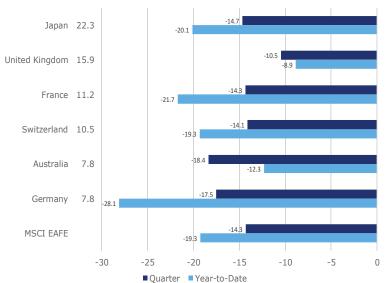




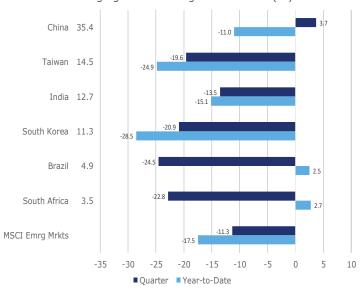
Non-U.S. Equity Market

As of 6/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
MSCI ACWI ex-US (\$G)	-13.5	-18.2	-19.0	1.8	3.0	5.3
MSCI EAFE (\$G)	-14.3	-19.3	-17.3	1.5	2.7	5.9
MSCI Emerging Markets (\$G)	-11.3	-17.5	-25.0	0.9	2.5	3.4
MSCI Frontier Markets (\$G)	-18.2	-17.7	-14.7	-5.7	-1.7	1.3
MSCI ACWI ex-US Growth (\$G)	-15.6	-24.6	-25.6	1.9	3.8	6.1
MSCI ACWI ex-US Value (\$G)	-12.2	-12.3	-12.9	1.4	1.9	4.6
MSCI ACWI ex-US Small (\$G)	-17.4	-22.7	-22.1	3.4	3.0	6.6
MSCI ACWI Minimum Volatility	-9.1	-11.8	-5.9	3.5	6.3	8.6
MSCI EAFE Minimum Volatility	-11.6	-16.3	-14.0	-1.5	1.4	5.7
FTSE RAFI Developed ex-US	-13.4	-14.5	-13.2	2.8	2.6	5.8
MSCI EAFE LC (G)	-7.6	-10.9	-6.1	4.9	4.8	8.8
MSCI Emerging Markets LC (G)	-8.0	-13.5	-19.9	3.6	4.7	6.3





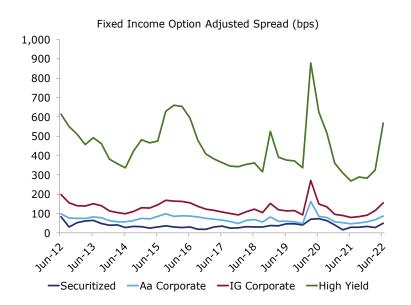
Emerging Markets Weight and Return (%)

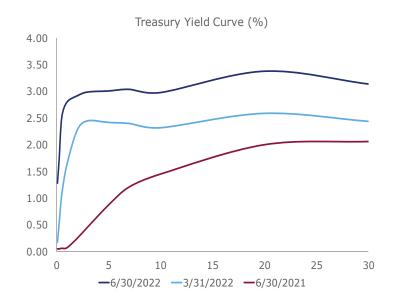


U.S. Fixed Income

As of 6/30/2022	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Aggregate	3.7	6.4	-4.7	-10.3	-10.3	-0.9	0.9	1.5
Bloomberg Treasury	3.1	6.4	-3.8	-9.1	-8.9	-0.9	0.7	1.0
Bloomberg Gov't-Rel.	3.7	5.4	-4.0	-9.2	-9.3	-0.8	1.0	1.6
Bloomberg Securitized	3.8	5.8	-3.9	-8.7	-9.0	-1.3	0.5	1.3
Bloomberg Corporate	4.7	7.6	-7.3	-14.4	-14.2	-1.0	1.3	2.6
Bloomberg LT Gov't/Credit	4.3	15.1	-12.3	-21.9	-20.1	-2.3	1.0	2.6
Bloomberg LT Treasury	3.3	17.2	-11.9	-21.3	-18.5	-2.9	0.5	1.6
Bloomberg LT Gov't-Rel.	4.8	12.2	-10.7	-19.4	-18.3	-2.8	1.0	2.6
Bloomberg LT Corporate	5.1	13.5	-12.8	-22.7	-21.7	-2.3	1.1	3.3
Bloomberg U.S. TIPS *	3.0	8.0	-6.1	-8.9	-5.1	3.0	3.2	1.7
Bloomberg High Yield	8.9	4.3	-9.8	-14.2	-12.8	0.2	2.1	4.5
S&P/LSTA Leveraged Loan	6.9	0.3	-4.5	-4.6	-2.8	2.1	2.9	3.7
Treasury Bills	1.8	0.3	0.1	0.0	0.0	0.6	1.1	0.6

^{*} Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index





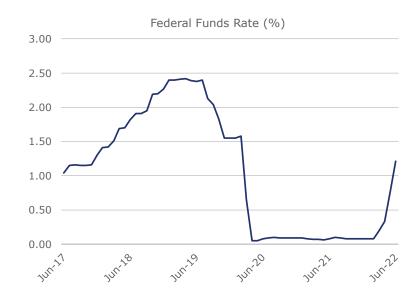
Federal Reserve

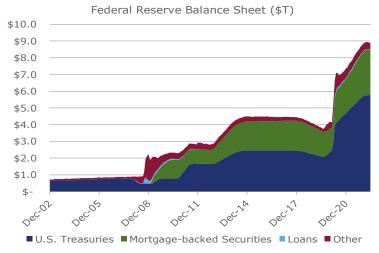
After 150 basis point increase in the Fed-funds rate since the start of the year, current FOMC expectation is for another 175 basis point increase by the end of 2022

Federal Reserve has added more than \$4.5 trillion in assets to their balance sheet during the past two years

QE4 is now larger than the 3 phases of quantitative easing – combined – following the global financial crisis

	Announced	Closed	Amount (bil)
QE1	11/25/2008	3/31/2010	\$1,403
QE2	11/3/2010	6/29/2012	\$568
QE3	9/13/2012	10/29/2014	\$1,674
QE4	3/23/2020	3/15/2022	\$4,779

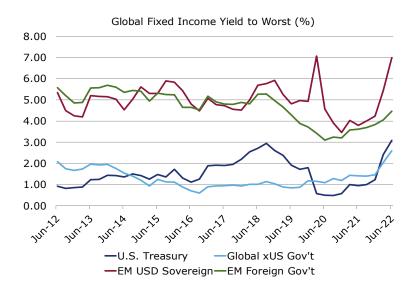


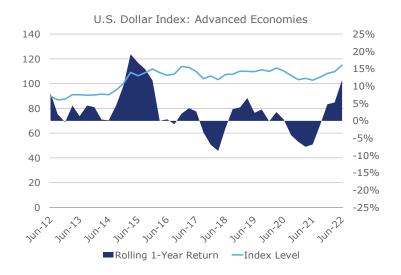


Non-U.S. Fixed Income

As of 6/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Developed Markets						
Bloomberg Global Aggregate xUS	-11.0	-16.5	-18.8	-5.1	-1.8	-1.1
Bloomberg Global Aggregate xUS *	-4.0	-7.9	-7.7	-1.4	1.3	2.7
Bloomberg Global Inflation Linked xUS	-18.9	-23.2	-21.0	-3.8	-0.9	0.8
Bloomberg Global Inflation Linked xUS *	-12.2	-14.7	-9.6	-0.8	1.9	4.0
Emerging Markets (Hard Currency)						
Bloomberg EM USD Aggregate	-8.7	-17.1	-18.0	-3.5	-0.3	2.5
Emerging Markets (Foreign Currency)						
Bloomberg EM Local Currency Gov't	-7.0	-9.0	-9.6	-0.8	0.9	1.0
Bloomberg EM Local Currency Gov't *	-1.6	-5.1	-5.2	-0.1	1.7	2.0
Euro vs. Dollar	-5.3	-7.8	-11.6	-2.7	-1.7	-1.9
Yen vs. Dollar	-10.3	-15.2	-18.1	-7.4	-3.7	-5.2
Pound vs. Dollar	-7.3	-10.0	-12.0	-1.4	-1.3	-2.5

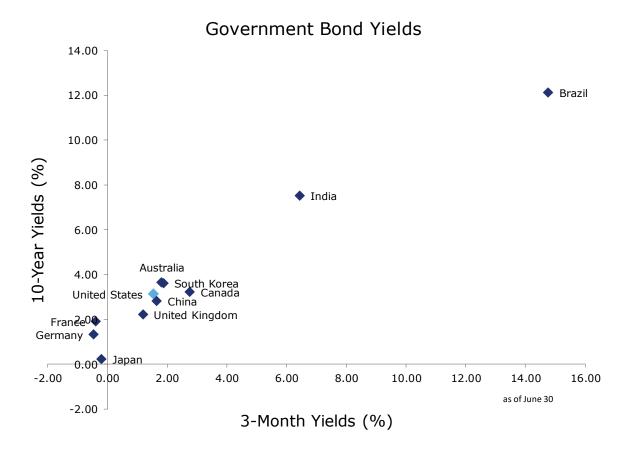
^{*} Returns are reported in terms of local market investors, which removes currency effects.





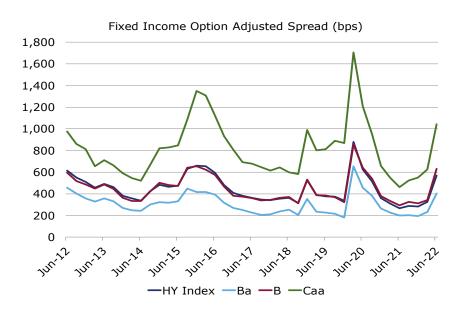
Global Interest Rates

Negative rates found in Germany and France; higher rates, and at similar levels, in the U.S., Australia and in the U.K.



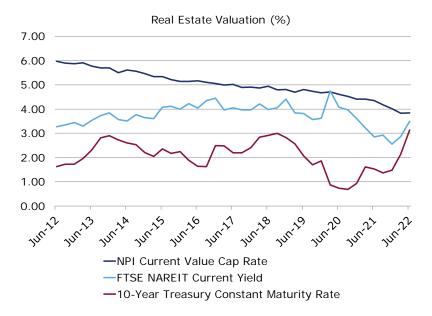
High Yield Bond Market

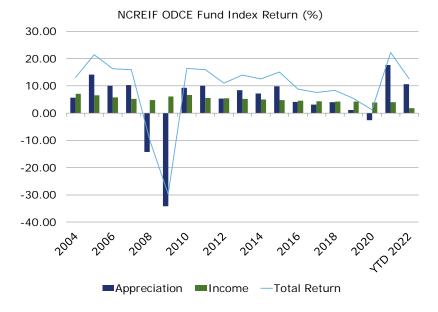
As of 6/30/2022		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg High Yield		8.9	-9.8	-14.2	-12.8	0.2	2.1	4.5
S&P LSTA Leveraged Loan		4.4	-5.3	-5.5	-4.2	1.4	2.4	3.3
High Yield Quality Distribution	Weight							
Ba U.S. High Yield	52.3%	7.2	-8.4	-13.9	-12.3	1.2	2.8	4.8
B U.S. High Yield	36.1%	9.5	-10.8	-13.9	-12.7	-0.5	1.8	4.0
Caa U.S. High Yield	11.4%	13.6	-13.0	-16.4	-15.3	-1.8	0.3	4.3
Ca to D U.S. High Yield	0.3%	42.3	-15.7	-18.9	-29.2	-6.8	-1.2	-4.5



Real Assets

As of 6/30/2022	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg U.S. TIPS	-6.1	-8.9	-5.1	3.0	3.2	1.7
Bloomberg Commodity Index	-5.7	18.4	24.3	14.3	8.4	-0.8
Bloomberg Gold Index	-7.6	-1.5	1.3	6.9	6.6	0.3
Wilshire Global RESI Index	-18.0	-20.5	-9.7	1.3	3.7	6.3
NCREIF ODCE Fund Index	4.8	12.5	29.5	12.7	10.5	11.2
NCREIF Timberland Index	1.9	5.1	12.0	5.0	4.3	5.7
FTSE Global Core Infrastructure 50/50	-7.3	-3.7	3.7	4.7	6.7	8.7
Alerian Midstream Energy	-8.6	13.2	11.4	6.4	5.2	n.a.
Bitcoin	-59.1	-59.6	-45.8	18.0	49.6	121.3





Data Sources: Bloomberg, National Council of Real Estate Investment Fiduciaries

Asset Class Performance

Asset Class Returns - Best to Worst

2017	2018	2019	2020	2021	2022 YTD
Emrg Mrkts	T-Bills	U.S. Equity	U.S. Equity	REITs	Commodities
37.7%	1.9%	31.0%	20.8%	46.2%	18.4%
Developed	Core Bond	REITs	Emrg Mrkts	Commodities	T-Bills
25.6%	0.0%	25.8%	18.7%	27.1%	0.0%
U.S. Equity	U.S. TIPS	Developed	U.S. TIPS	U.S. Equity	U.S. TIPS
21.0%	-1.3%	22.7%	11.0%	26.7%	-8.9%
High Yield	High Yield	Emrg Mrkts	Developed	Developed	Core Bond
7.5%		18.9%	8.3%	11.8%	-10.3%
REITs	REITs	High Yield	Core Bond	U.S. TIPS	High Yield
4.2%	-4.8%	14.3%	7.5%	6.0%	-14.2%
Core Bond	U.S. Equity	Core Bond	High Yield	High Yield	Emrg Mrkts
3.6%	-5.3%	8.7%	7.1%	5.3%	-17.5%
U.S. TIPS	Commodities	U.S. TIPS	T-Bills	T-Bills	Developed
3.0%	-11.2%	8.4%	0.7%	0.0%	-19.3%
Commodities	Developed	Commodities	Commodities	Core Bond	U.S. Equity
1.7%	-13.4%	7.7%	-3.1%	-1.5%	-20.9%
T-Bills	Emrg Mrkts	T-Bills	REITs	Emrg Mrkts	REITs
0.8%	-14.2%	2.3%	-7.9%	-2.2%	-21.6%

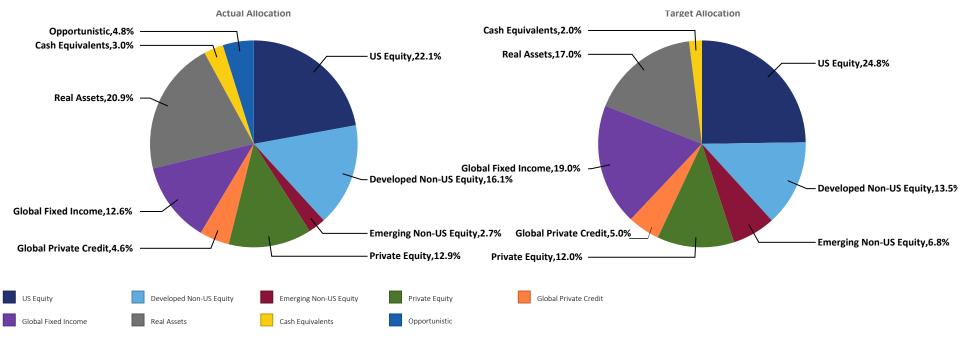
Annualized
5-Year
as of 6/22
U.S. Equity
10.8%
Commodities
8.4%
REITs
5.3%
U.S. TIPS
3.2%
Developed
2.7%
Emrg Mrkts
2.5%
High Yield
T-Bills
1.1%
Core Bond
0.9%

Wilshire

Total Fund

Asset Allocation Compliance

Total Fund Periods Ended As of June 30, 2022

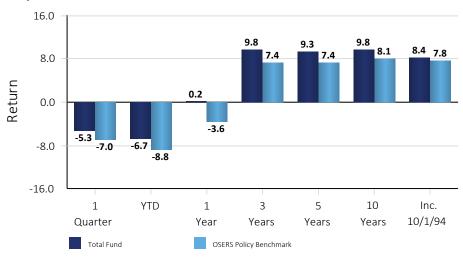


	Asset Asset Target		Differences	
	Allocation	Allocation	Allocation	Differences
	\$	(%)	(%)	(%)
Total Fund	17,120,399,717	<u>100.0</u>	<u>100.0</u>	<u>0.0</u>
US Equity	3,783,899,683	22.1	24.8	-2.6
Developed Non-US Equity	2,761,647,156	16.1	13.5	2.6
Emerging Non-US Equity	465,516,792	2.7	6.8	-4.0
Private Equity	2,215,420,053	12.9	12.0	0.9
Global Private Credit	795,616,273	4.6	5.0	-0.4
Global Fixed Income	2,162,685,546	12.6	19.0	-6.4
■ Real Assets	3,585,187,374	20.9	17.0	3.9
Cash Equivalents	521,668,837	3.0	2.0	1.0
Opportunistic	828,758,003	4.8	0.0	4.8

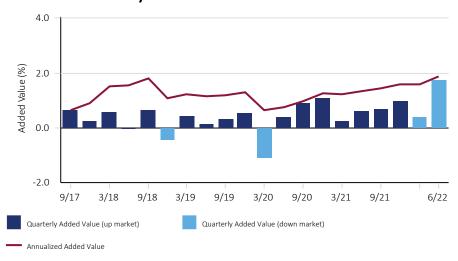
Composite Performance Summary

Total Fund *Periods Ended June 30, 2022*

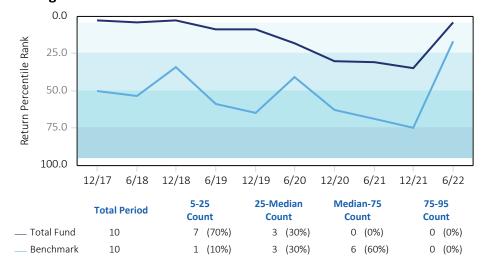
Comparative Performance



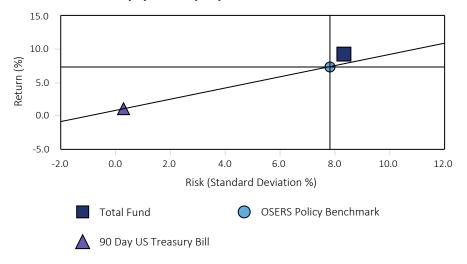
Added Value History



Rolling Percentile Rank: All Public Plans-Total Fund



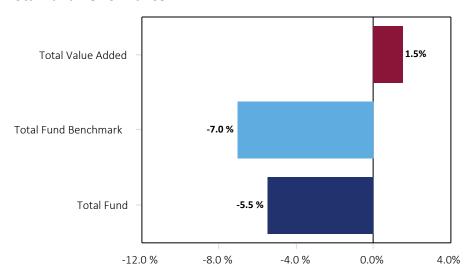
Risk and Return 07/1/17 - 06/30/22



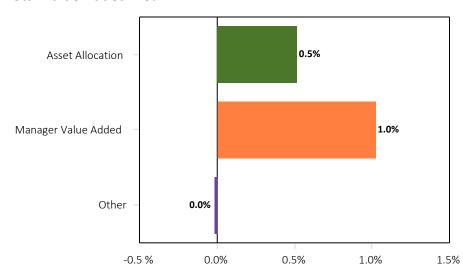
Total Fund Attribution

Total Fund Periods Ended 1 Quarter Ending June 30, 2022

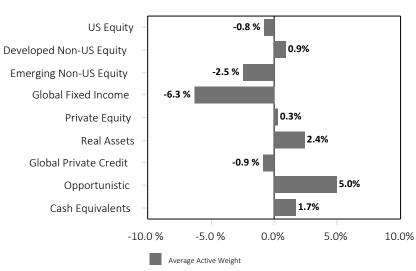
Total Fund Performance



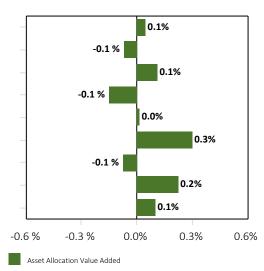
Total Value Added:1.5%



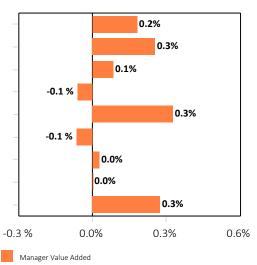
Total Asset Allocation:0.5%



Asset Allocation Value Added:0.5%



Total Manager Value Added:1.0%



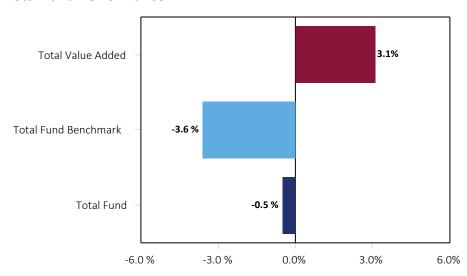
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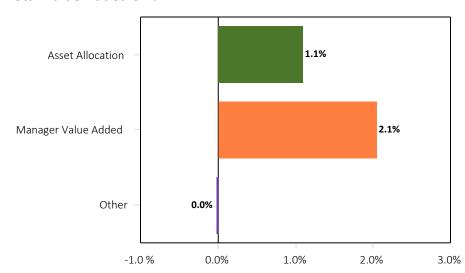
Total Fund Attribution

Total Fund Periods Ended 1 Year Ending June 30, 2022

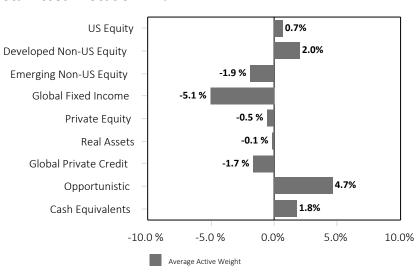
Total Fund Performance



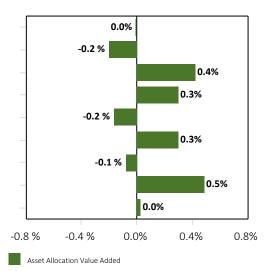
Total Value Added:3.1%



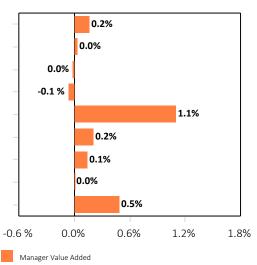
Total Asset Allocation:1.1%



Asset Allocation Value Added: 1.1%



Total Manager Value Added:2.1%

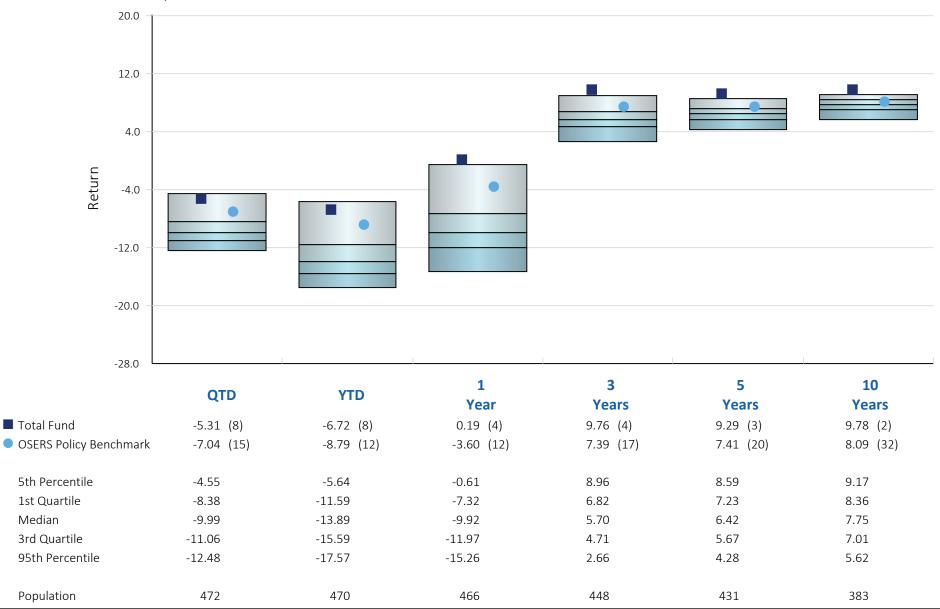


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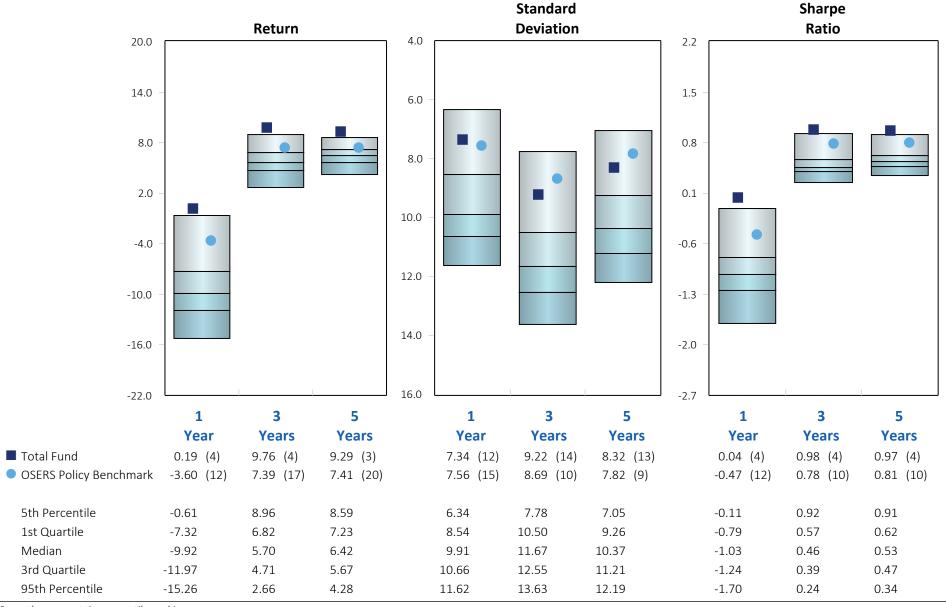
Plan Sponsor Peer Group Analysis

Total Fund vs All Public Plans-Total Fund Periods Ended June 30, 2022



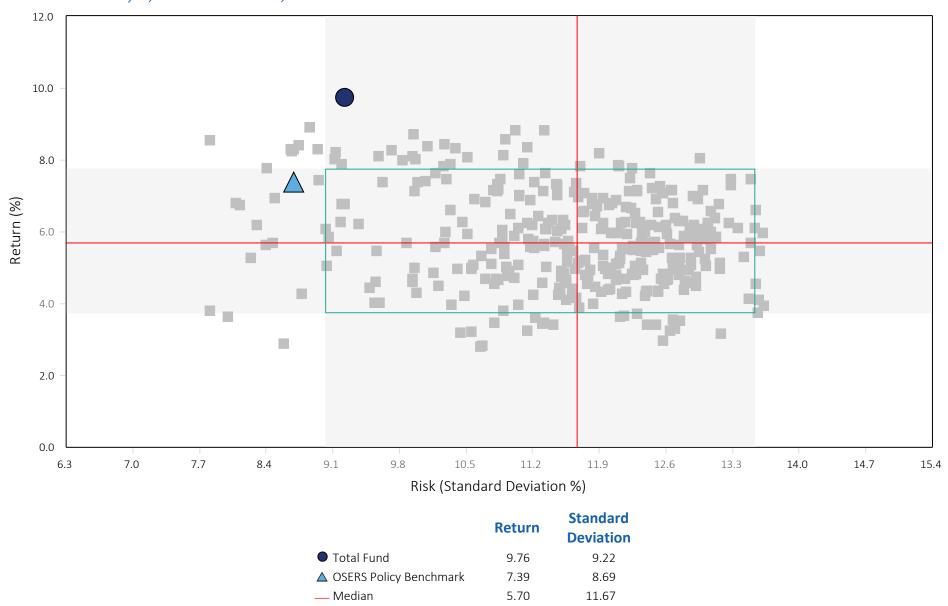
Plan Sponsor Peer Group Analysis - Multi Statistics

Total Fund vs All Public Plans-Total Fund Periods Ended June 30, 2022



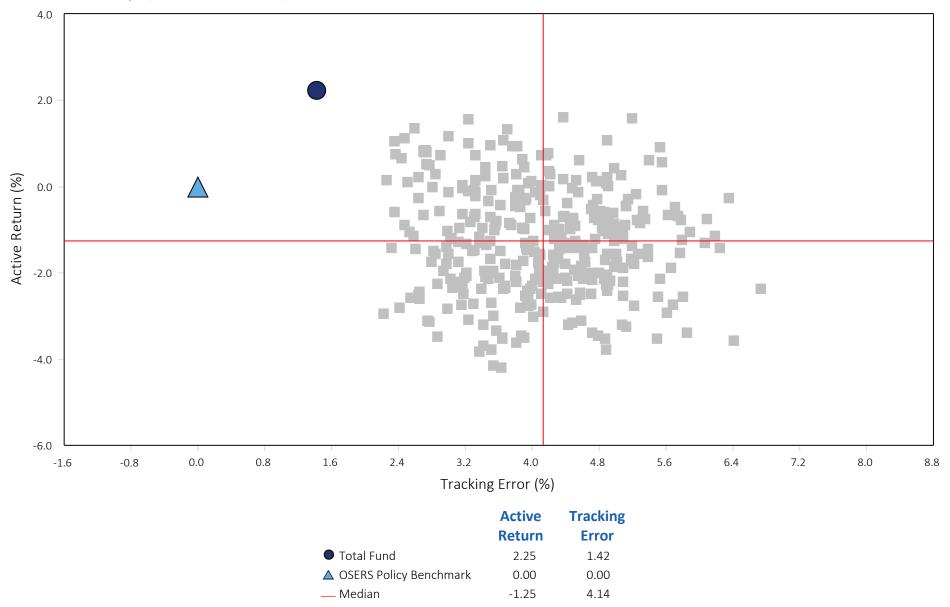
Plan Sponsor Scattergram

Total Fund vs All Public Plans-Total Fund Periods Ended July 1, 2019 To June 30, 2022



Plan Sponsor Scattergram

Total Fund vs All Public Plans-Total Fund Periods Ended July 1, 2019 To June 30, 2022



Asset Allocation & Performance

Total Fund
Periods Ended June 30, 2022

	Allocat	ion				Pe	rforma	nce (%) net of	fees		
	Market Value \$000	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date
Total Fund	17,120,400	100.00	-5.51	-7.05	-0.49	-0.49	9.11	8.63	9.09	7.26	7.83	10/1/1994
OSERS Policy Benchmark			-7.04	-8.79	-3.60	-3.60	7.39	7.41	8.09	7.09	7.79	
Value Added			1.53	1.74	3.11	3.11	1.72	1.22	1.00	0.17	0.04	
Global Equity	7,011,064	40.95	-14.47	-19.87	-15.91	-15.91	6.91	7.24	9.36	7.30	7.30	7/1/2002
Global Equity Benchmark			-15.31	-19.85	-16.43	-16.43	5.72	6.65	8.83	6.95	6.95	
Value Added			0.84	-0.02	0.52	0.52	1.19	0.59	0.53	0.35	0.35	
US Equity	3,783,900	22.10	-16.00	-20.81	-13.26	-13.26	9.72	10.29	12.47	8.78	9.51	10/1/1994
Russell 3000 Index			-16.70	-21.10	-13.87	-13.87	9.77	10.60	12.57	9.14	9.85	
Value Added			0.70	0.29	0.61	0.61	-0.05	-0.31	-0.10	-0.36	-0.34	
Developed Non-US Equity	2,761,647	16.13	-12.96	-18.09	-16.45	-16.45	3.89	4.08	6.91	5.99	5.99	7/1/2002
MSCI World ex-US (Net)			-14.66	-18.76	-16.76	-16.76	1.70	2.66	5.37	5.47	5.47	
Value Added			1.70	0.67	0.31	0.31	2.19	1.42	1.54	0.52	0.52	
Emerging Non-US Equity	465,517	2.72	-9.46	-19.30	-25.58	-25.58	4.33	4.50	4.00	9.90	6.30	7/1/1997
MSCI Emerging Markets (Net)			-11.45	-17.63	-25.28	-25.28	0.57	2.18	3.06	8.43	4.82	
Value Added			1.99	-1.67	-0.30	-0.30	3.76	2.32	0.94	1.47	1.48	
Global Private Equity	2,215,420	12.94	2.33	9.48	34.35	34.35	26.19	22.81	19.56	11.71	13.82	10/1/1994
Global PE Benchmark			-0.52	4.53	22.28	22.28	22.89	19.35	16.35	11.69	13.49	
Value Added			2.85	4.95	12.07	12.07	3.30	3.46	3.21	0.02	0.33	

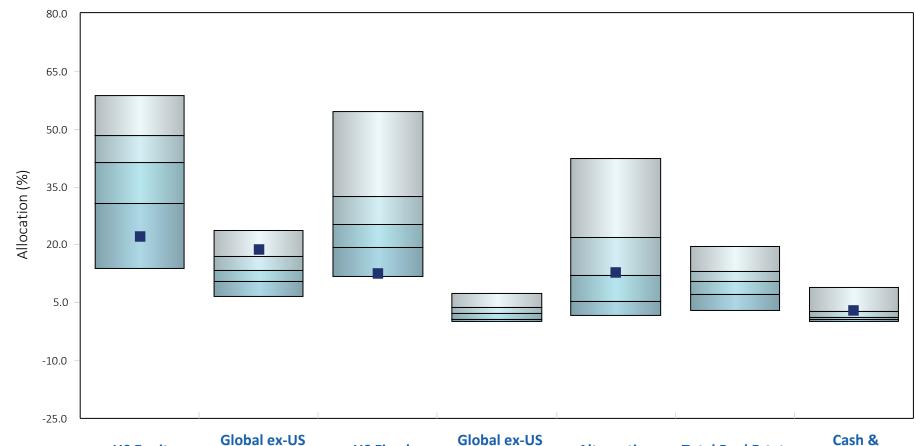
Asset Allocation & Performance

Total Fund
Periods Ended June 30, 2022

·	Allocat	ion				Pe	rforma	nce (%) net of	fees		
	Market Value \$000	%	1 Quarter	YTD	FYTD	1 Year	3 Years	5 Years	10 Years	20 Years	Since Inception	Inception Date
Global Private Credit	795,616	4.65	2.01	4.34	9.33	9.33					13.37	7/1/2020
Global Private Credit Benchmark	, , , , , , ,	1.05	1.21	2.40	4.76	4.76					4.74	,,1,2020
Value Added			0.80	1.94	4.57	4.57					8.63	
Global Fixed Income	2,162,686	12.63	-5.18	-10.56	-10.68	-10.68	0.16	1.65	2.46	4.41	5.42	10/1/1994
Blmbg. U.S. Aggregate			-4.69	-10.35	-10.29	-10.29	-0.94	0.88	1.54	3.57	4.82	
Value Added			-0.49	-0.21	-0.39	-0.39	1.10	0.77	0.92	0.84	0.60	
Cash Equivalents	521,669	3.05	8.61	10.51	14.74	14.74	4.95	4.14	2.40	2.32	2.32	7/1/2002
90 Day US Treasury Bill			0.11	0.15	0.17	0.17	0.63	1.11	0.63	1.21	1.21	
Value Added			8.50	10.36	14.57	14.57	4.32	3.03	1.77	1.11	1.11	
Global Real Assets	3,585,187	20.94	5.37	11.62	24.45	24.45	11.88	10.94	11.08	7.52	7.99	10/1/1994
Real Assets Benchmark	-,,		5.33	11.80	21.87	21.87	9.60	8.54	9.61	9.15	9.60	,_,
Value Added			0.04	-0.18	2.58	2.58	2.28	2.40	1.47	-1.63	-1.61	
Opportunistic & Tactical	828,758	4.84	-2.40	-0.04	6.72	6.72	7.43	7.82			7.41	6/1/2013
Opportunistic Benchmark			-4.22	-9.46	-8.50	-8.50	-1.23	2.15			4.50	
Value Added			1.82	9.42	15.22	15.22	8.66	5.67			2.91	

Plan Sponsor TF Asset Allocation

Total Fund vs All Public Plans-Total Fund Periods Ended June 30, 2022



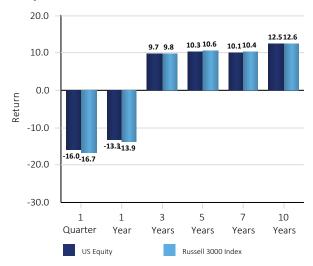
	US Equity	Global ex-US Equity	US Fixed	Global ex-US Fixed	Alternatives	Total Real Estate	Cash & Equivalents
■ Total Fund	22.10	18.85	12.63		12.94		3.05
5th Percentile	58.84	23.80	54.53	7.38	42.38	19.67	9.06
1st Quartile	48.43	16.97	32.61	3.79	22.05	13.12	2.66
Median	41.48	13.48	25.24	2.24	11.99	10.39	1.27
3rd Quartile	30.76	10.56	19.26	0.71	5.31	7.14	0.59
95th Percentile	13.88	6.64	11.81	0.04	1.62	2.99	0.07

Wilshire

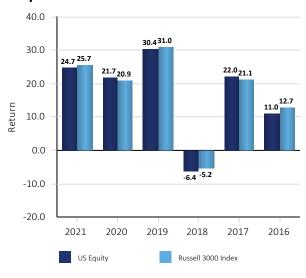
U.S. Equity

US Equity Periods Ended June 30, 2022

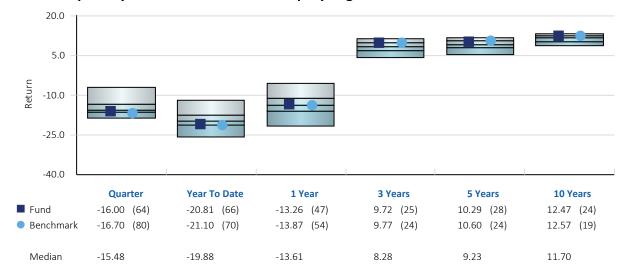
Comparative Performance



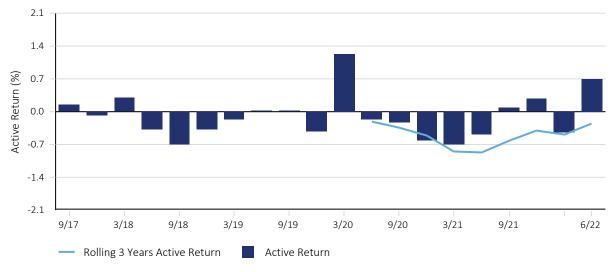
Comparative Performance



Peer Group Analysis: All Master Trust-US Equity Segment



Rolling 3 Years Performance

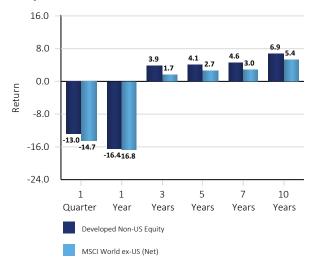




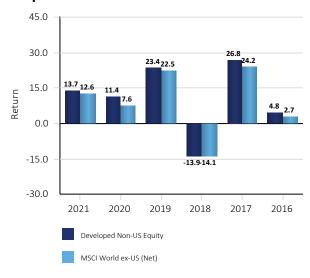
Developed Non-U.S. Equity

Developed Non-US Equity Periods Ended June 30, 2022

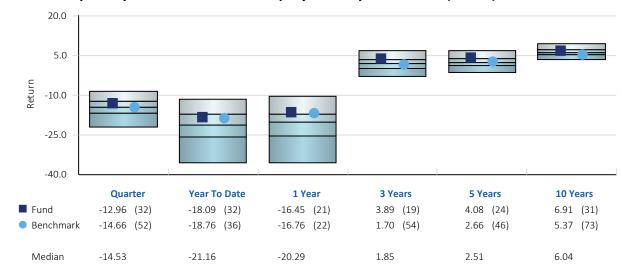
Comparative Performance



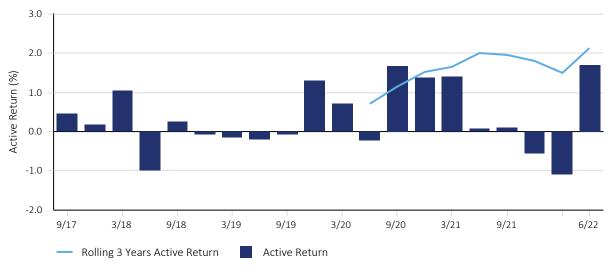
Comparative Performance



Peer Group Analysis: IM International Equity Developed Markets (SA+CF)



Rolling 3 Years Performance

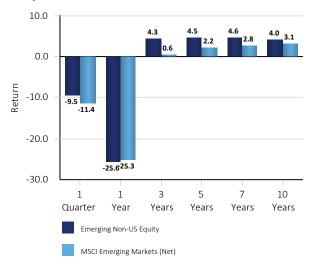




Emerging Markets Equity

Emerging Non-US Equity Periods Ended June 30, 2022

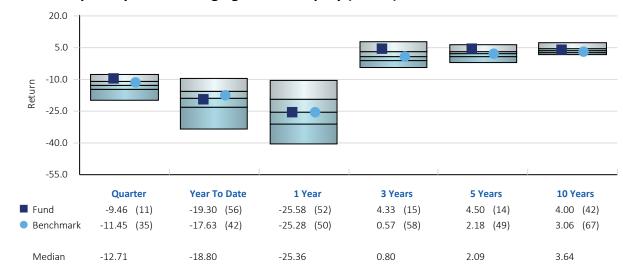
Comparative Performance



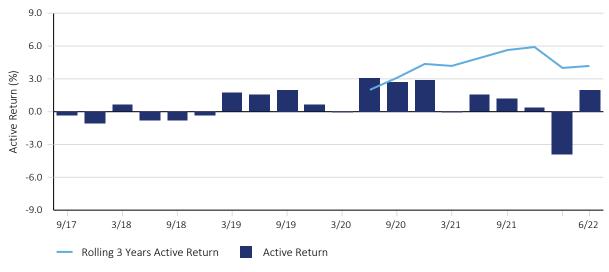
Comparative Performance



Peer Group Analysis: IM Emerging Markets Equity (SA+CF)



Rolling 3 Years Performance

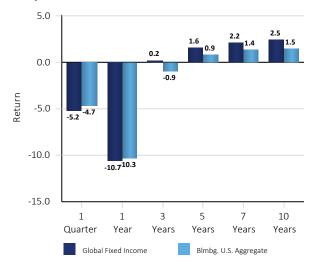




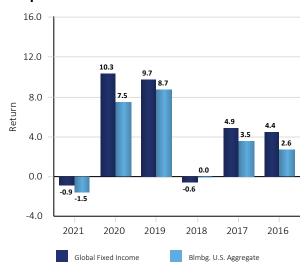
Global Fixed Income

Global Fixed Income *Periods Ended June 30, 2022*

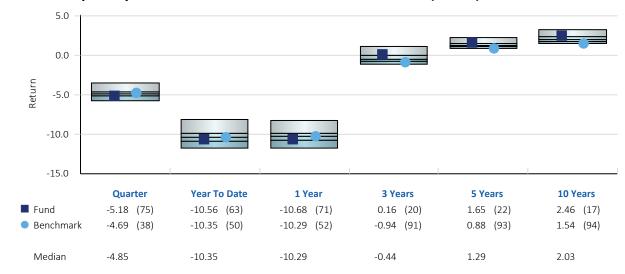
Comparative Performance



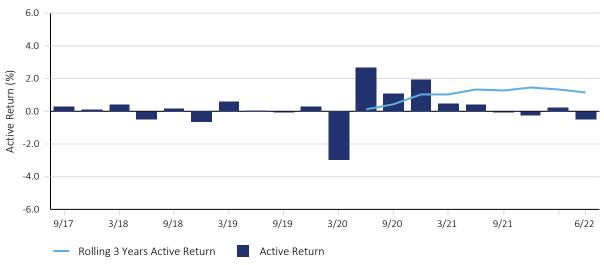
Comparative Performance



Peer Group Analysis: IM U.S. Broad Market Core Fixed Income (SA+CF)



Rolling 3 Years Performance

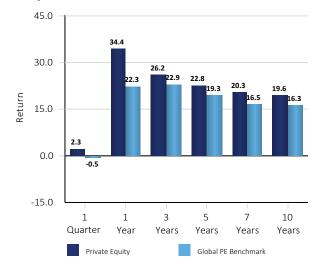




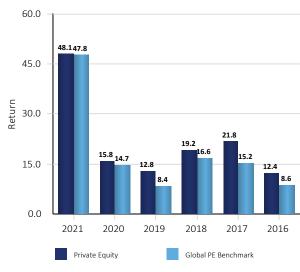
Global Private Equity

Global Private Equity Periods Ended June 30, 2022

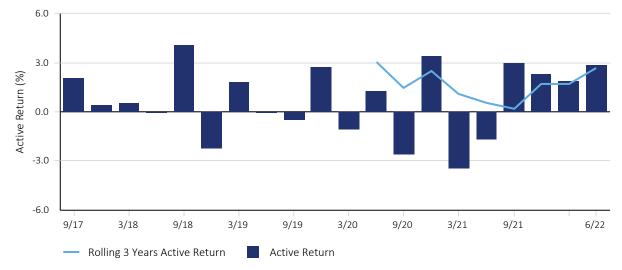
Comparative Performance



Comparative Performance



Rolling 3 Years Performance



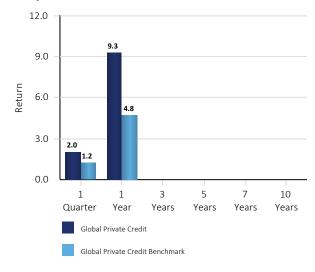


Global Private Credit

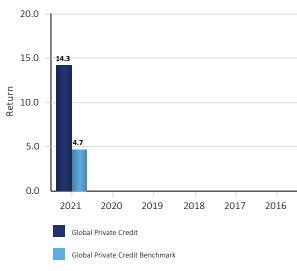
Global Private Credit

Periods Ended June 30, 2022

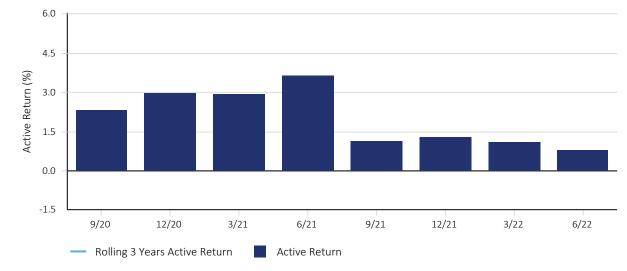
Comparative Performance

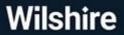


Comparative Performance



Rolling 3 Years Performance

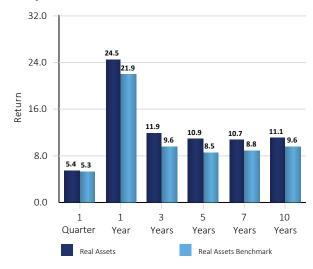




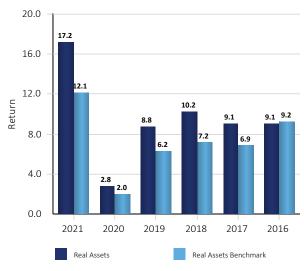
Global Real Assets

Global Real Assets
Periods Ended June 30, 2022

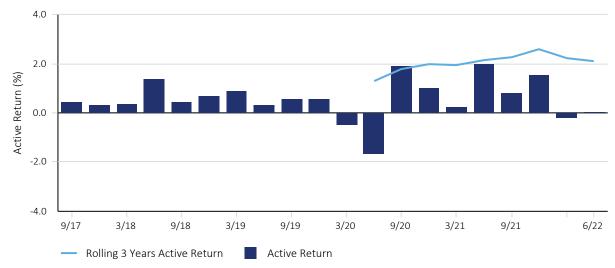
Comparative Performance



Comparative Performance



Rolling 3 Years Performance

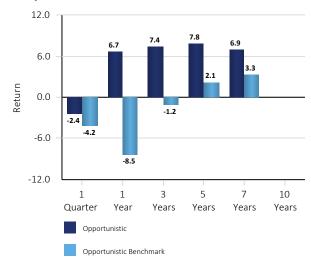




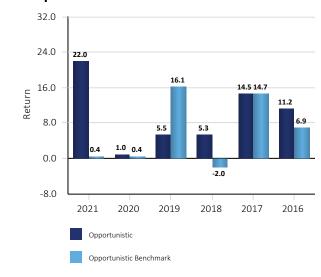
Opportunistic & Tactical

Opportunistic & Tactical *Periods Ended June 30, 2022*

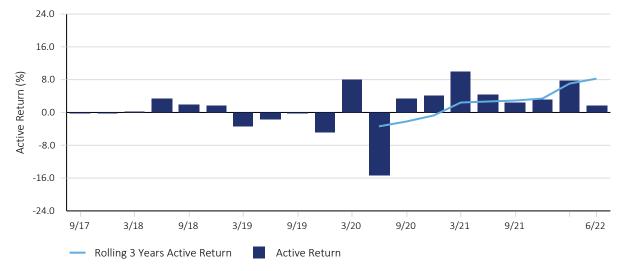
Comparative Performance



Comparative Performance



Rolling 3 Years Performance





SERS Strategic Investment Plan – September 2012 **Investment Objectives**



Value – adding investment performance

- Well designed value creation model portfolio construction
- Strong risk management framework
- Cost effectiveness
- Strong and consistent investment culture

SERS Strategic Investment Plan – September 2012

Investment Goals



FROM	ТО
	10

Total fund returns (NOF) below benchmark over 3, 5 and 10 year periods – subtracts value (performance)

Total Fund returns (NOF) to exceed benchmark over 3 years – add value

Investment beliefs...(philosophy)

Adopt clear set of investment beliefs that inform the investment decision process

Risk Management framework...(process)

Active risks explicitly allocated to areas of targeted outperformance and managed – risk budget framework

Portfolio design and construction...(process)

More efficient and risk aware portfolio construction targeting alpha, beta segregation and optimal manager structures

Cost effectiveness...(process)

Effective cost management with cost-to-value emphasis and scale economies

Investment culture...(people)

Integrated approach and common culture that is adaptive to change and is innovative



Policy Asset Allocation Changes

	2012	2013	2016	2020
US Equities	22.5%	22.5%	22.5%	22.5%
Non-US Equities	22.5%	22.5%	22.5%	22.5%
Private Equity	10.0%	10.0%	10.0%	12.0%
Fixed Income	19.0%	19.0%	19.0%	19.0%
Real Assets	10.0%	12.0%	15.0%	17.0%
Hedge Funds	15.0%	13.0%	10.0%	0.0%
Private Credit	n/a	n/a	n/a	5.0%
Cash	1.0%	1.0%	1.0%	2.0%
TOTAL	100.0%	100.0%	100.0%	100.0%

Hedge Funds reduced from 15% to 0%
Real Assets increased from 10% to 17%
Private Credit increased from 0% to 5%
Private Equity increased from 10% to 12%
Cash increased from 1% to 2%

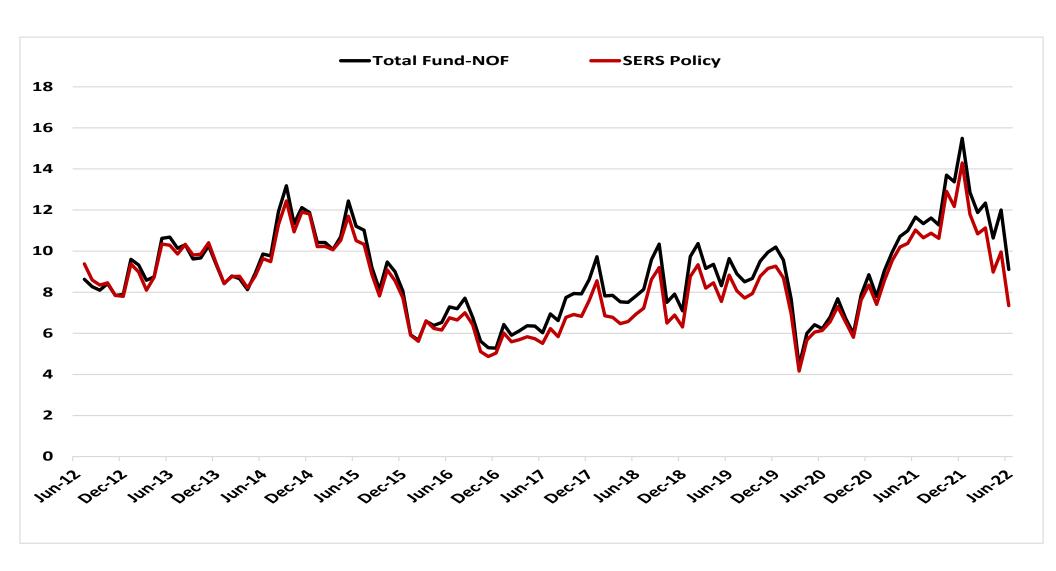
Portfolio Changes / Innovations



- Infrastructure added to Real Assets 2013. Currently Infrastructure is 26% of the Real Assets portfolio.
- Restructured Real Assets portfolio to increase core assets, reduce leverage and increase income.
 - Real Assets returns were above the benchmark for 3, 5 and 10 years as of 06/30/22 and previously below the benchmark in 2012.
- Co-Investments (no fee) in Private Equity 2014. Currently represents 5% of the Private Equity portfolio.
- Co-Investments (no fee) in Private Credit 2021
- Increased passive in US Equity from 40% to 74% as of 06/30/2022
- Enhanced Asset Allocation Overlay implemented in 2014 has added value to TF return.
- Currency Overlay implemented in 2016 has added value to TF return.
- Asset Allocation changes (slide 4) has added value and improved TF returns.
- BARRA Risk system implemented in 2016

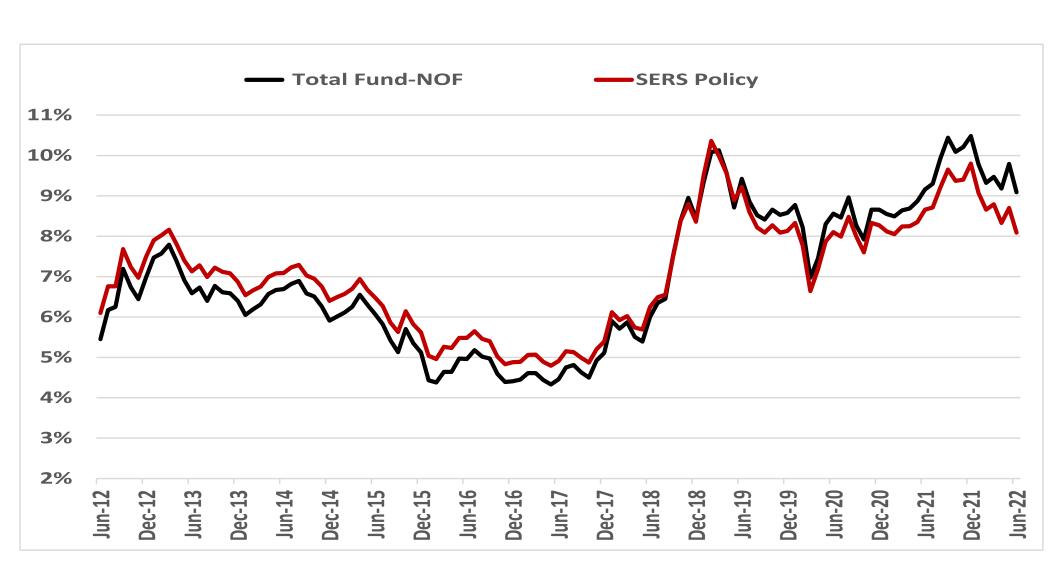
















As of June 2012	1-Year	Rank	3-Year	Rank	5-Year	Rank	10-Year	Rank
Total Fund - NOF	0.13	58	10.21	79	(0.40)	93	5.45	73
SERS Policy	1.64		11.17		1.19		6.1	
Excess Return	(1.51)		(0.96)		(1.59)		(0.65)	

As of June 2022	1-Year	Rank	3-Year	Rank	5-Year	Rank	10-Year	Rank
Total Fund - NOF	(0.49)	4	9.11	4	8.62	3	9.09	2
SERS Policy	(3.60)		7.39		7.41		8.09	
Excess Return	3.11		1.72		1.21		1.00	

Note: Universe ranking based on GOF return

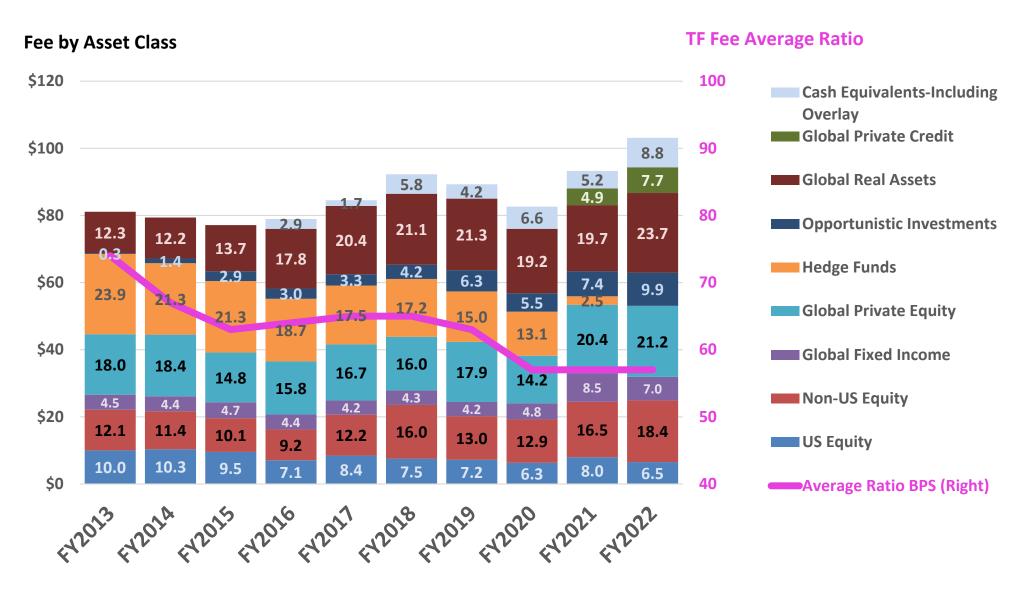




	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Begining Market Value (\$MM)	\$10,331	\$11,311	\$12,747	\$12,824	\$12,460	\$13,581	\$14,294	\$14,644	\$14,543	\$17,766
NOF Total Retun (%)	12.9	17.28	3.87	1.38	13.2	9.17	6.62	2.96	26.76	(0.49)
Policy Benchmark (%)	12.06	15.57	3.86	0.93	11.54	8.25	6.48	3.73	23.58	(3.60)
Excess Return (%)	0.84	1.71	0.01	0.45	1.66	0.92	0.14	(0.77)	3.18	3.11
Excess Return (\$MM)	\$87	\$193	\$1	\$58	\$207	\$125	\$20	(\$113)	\$462	\$553
Total 10 Years Value Add (\$MM)										\$1,593







Total fees declined from 74 bps In FY2013 to 57 bps In FY22





Prepared by Investment and IAD Staff

Farouki Majeed, Chief Investment Officer

Meeting Date: September 2022



Investment Agenda

- Wilshire Quarterly Performance Report (June 30, 2022)
- Ten-Year Investment Review
- Investment Report (June 30 & July 31, 2022)
- Statement of Investment Policy (possible vote)

SERV

Economic and Financial Market Outlook

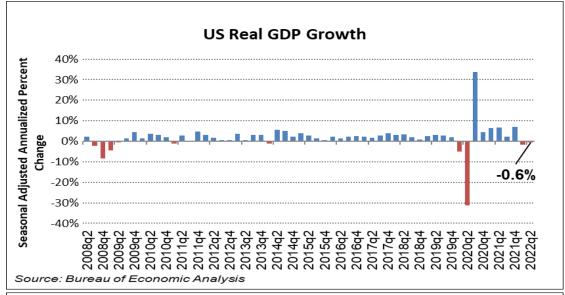
- US growth rate was -0.6% for Q2 2022, following Q1 at -1.6%. The contraction was mainly due to declines in private inventory investment, net exports and government spending. Nevertheless, Personal Consumption Expenditures (PEC), one of the key drivers of economic growth, maintained its positive growth of 1.5%. The National Bureau of Economic Research has not declared a recession. (Source: Bureau of Economic Analysis)
- US labor market continued to be solid, adding 315,000 jobs in August. The unemployment rate inched up to 3.7%. The labor force participation rate improved to 62.4%, but remained below the pre-pandemic level 63.3%, indicating a tight labor market. (Sources: Bureau of Labor Statistics and Department of Labor)
- US inflation cooled in July as the one-month rate was 0%, significantly down from 1.3% in June. The annual headline inflation was down to 8.5%; the core rate was down to 5.9%. The energy index and the food index increased 32.9% and 10.9% for the last 12 months, respectively. Blue Chip Consensus projected the headline rate to stay at 8.5% in Q3, then decrease to 7.5% in Q4 2022. (Source: Bureau of Labor Statistics and Blue Chip Economic Indicators)
- The 10-year Treasury nominal yield was 3.15 % in August, increased from 2.67% in July. The current 10-year real yield, estimated by the gap between the 10-year Treasury nominal yield and the current headline inflation, stayed negative at (5.83%) in July. The Fed increased the interest rate by 0.75% in July. It was the Fed's fourth interest rate hike during 2022 to curb inflation.
- The S&P Case-Shiller 20-City home price index rose 0.4% for the month and 18.6% for the last 12 months as of June. Monthly and annual figures are
 lower than the previous month by noticeable margins, indicating housing prices started cooling down. However, as long as the housing supply continues
 to be constrained, pricing is not expected to drastically decline.
- Consumer Sentiment Index released by Thomson Reuters and University of Michigan improved to 58.5 in August. The US Economic Surprise index improved to a less negative level of -27.6 in August. The Leading Economic Index (LEI) issued by the Conference Board was down from 117.0 in June to 116.6 in July. The LEI index has trended down for the last six months.
- The US manufacturing PMI was 52.8 in August, unchanged from July. The Global Manufacturing PMI reading was weakened to a 26-month low level of 50.3 in August, indicating a very soft expansion. Worldwide supply disruptions, high inflation especially in energy and food price, and labor shortages continue to be largest challenges to the global economy. (Source: Institute for Supply Management, S&P Global).
- Equity market volatility intensified since January and remained elevated. Equity markets were mixed in August. Emerging markets were up 0.42% while US market (Russell 3000) was down 3.73% and non-US developed markets (MSCI World ex-USA) were down 4.67%.
- The US fixed income market, Bloomberg Barclay's US Aggregate Bond Index, was down 3.95% in August.

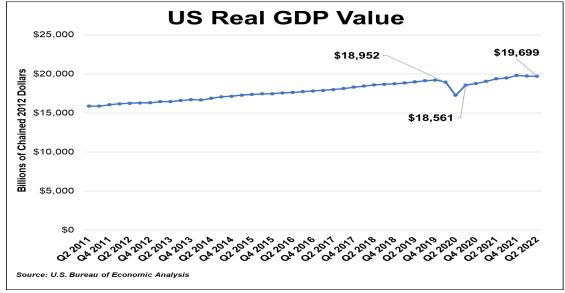
3



US Real Gross Domestic Product



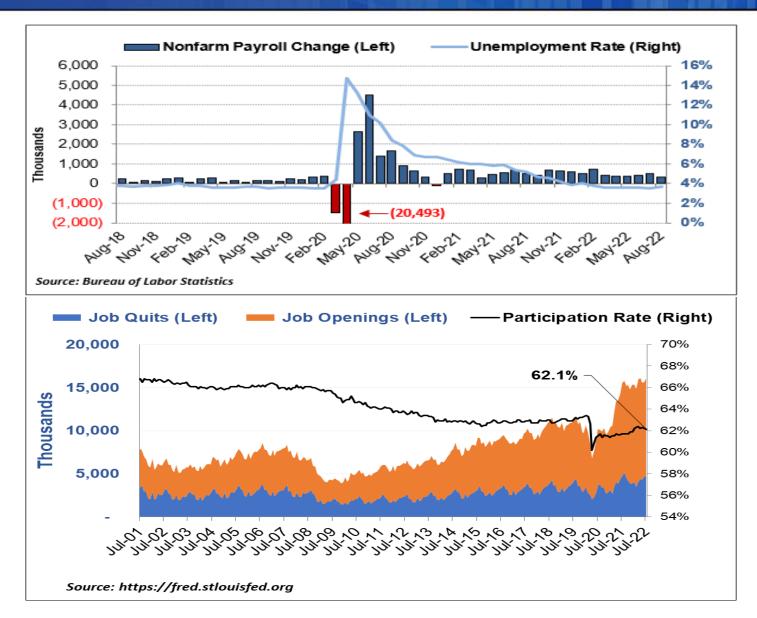




ECONOMY

US Labor Market

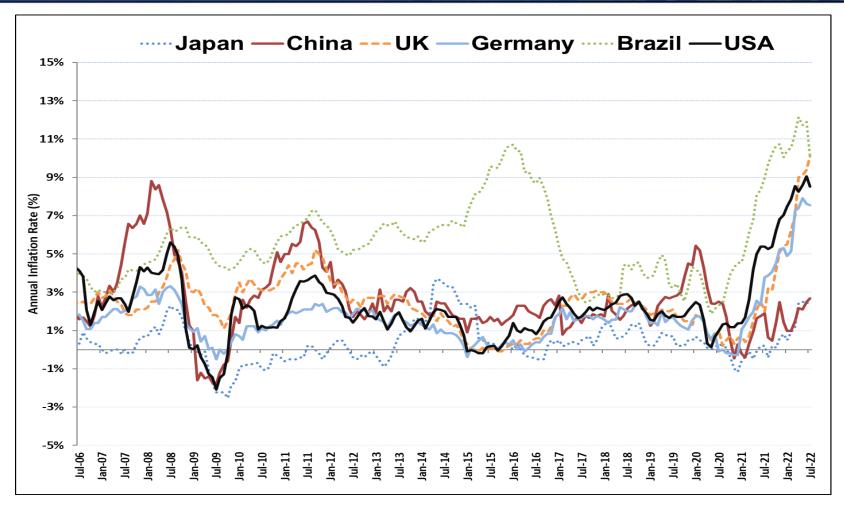






Headline Inflation





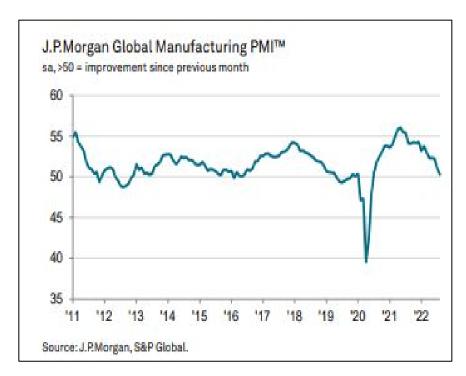
	Japan	China	UK	Germany	Brazil	USA
Jul-22	2.6	2.7	10.1	7.5	10.1	8.5



US & Global Manufacturing Activities



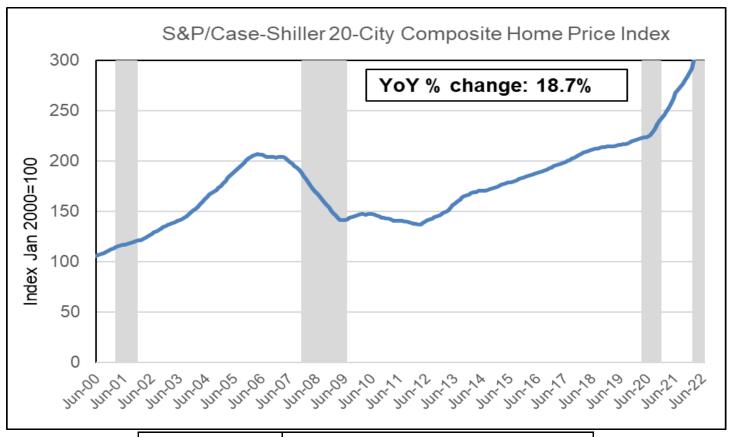




ECONOMY

US Housing Market





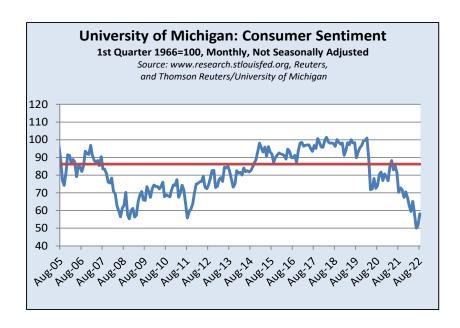
Date	S&P Case-Shiller 20-City Home Price Index January 2000 = 100, Seasonally Adjusted
Jul-17	199.99
Jul-18	211.90
Jul-19	216.09
Jul-20	225.40
Jul-21	270.55
Jun-22	316.91

Source: www.research.stlouisfed.org

ECONOMY

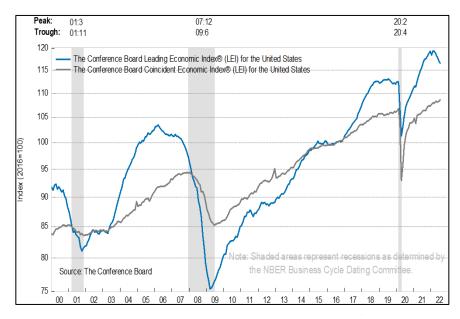


Consumer Sentiment



	Index	of Consumer	Sentiment	
Jul-22	Aug-22	Aug-21	M-M Change	Y-Y Change
51.5	58.2	70.3	13.0%	-17.2%

The Leading Economic Index (LEI) and Coincident Economic Index (CEI) for the United States

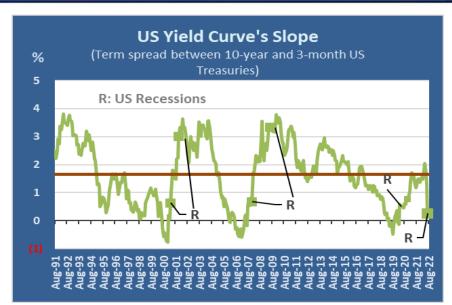


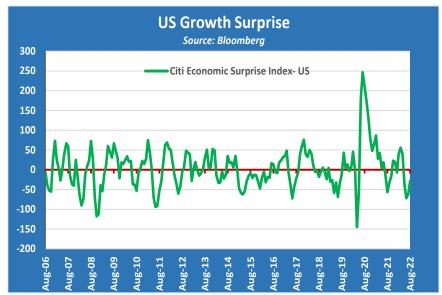
Shaded areas represent US recessions

Index	Jun-22	Jul-22	Month -Month Percent Change	6-Month Percent Change (Jan-July)
LEI	117.0 r	116.6 p	-0.4	-1.6
CEI	108.3 r	108.6 p	0.3	0.8

p Preliminary; r Revised; Indexes equal 100 in 2016

ECONOMY

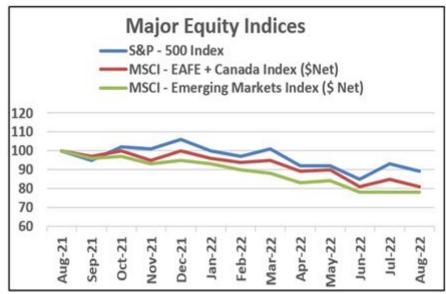






Equity MARKETS





(X) ∑ 100 -	S&P 500 Daily Implied Volatility VIX Index
	9
d Volati	8/31/2022 25.87
lizec	2 3
Annua 6	5 7 8 4 6
scasted o	Average: 20.23
Fore	
- Augus	rideria brideria brideria brideria brideria brideria brideria brideria.
	orecasted Annualized Volatility (VIX

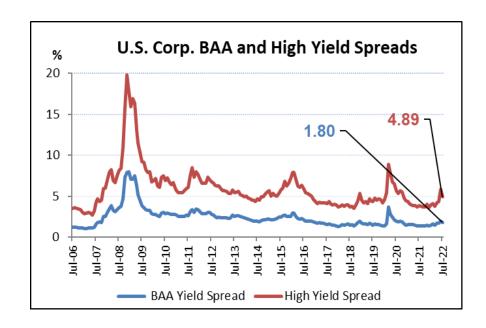
	Return as c	of 8/31/2022	
	1 Year	FYTD	
S&P 500	(11.23)	4.77	
MSCI - EAFE + Canada Index (\$Net)	(18.56)	0.07	
MSCI - Emerging Markets Index (\$Net)	(21.81)	0.17	

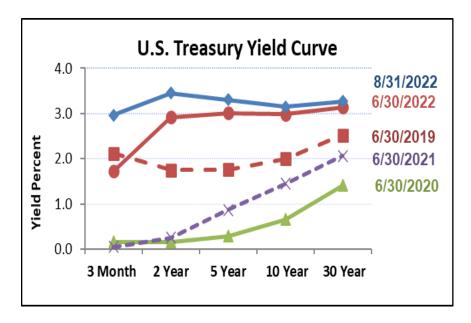
1	2008 (Nov.)	Financial Crisis S&P 500: - 48.8%	
2	2010 (May)	Flash crash; Europe/ Greece debt S&P 500: -16%	
3	2011 (Aug.)	US downgrade, Europe periphery S&P 500: -19.4%	
4	2012 (June)	Eurozone double dip S&P 500: -9.9%	
5	2015 (Aug.)	Global slowdown, China, Fed S&P 500: -12.4%	
6	2016 (Feb.)	Oil crash, US recession fear, China S&P 500: -10.5%	
7	2018 (Feb.)	Inflation, trade, tech S&P 500 : -10.2%	
8	2018 (Dec.)	Interest rate hike, trade tension, global slowdown S&P 500: -10.5%	
9	2020 (Mar.)	Coronavirus, S&P 500 : -23.7%	



Fixed Income

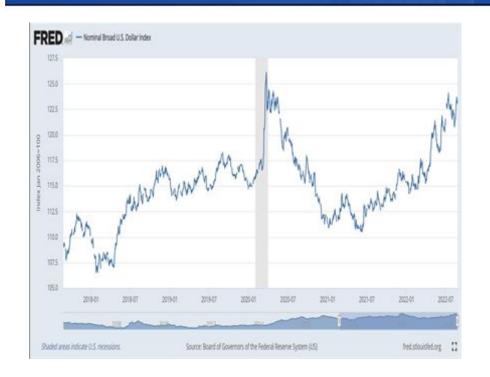






SERS

MARKETS Foreign Exchange



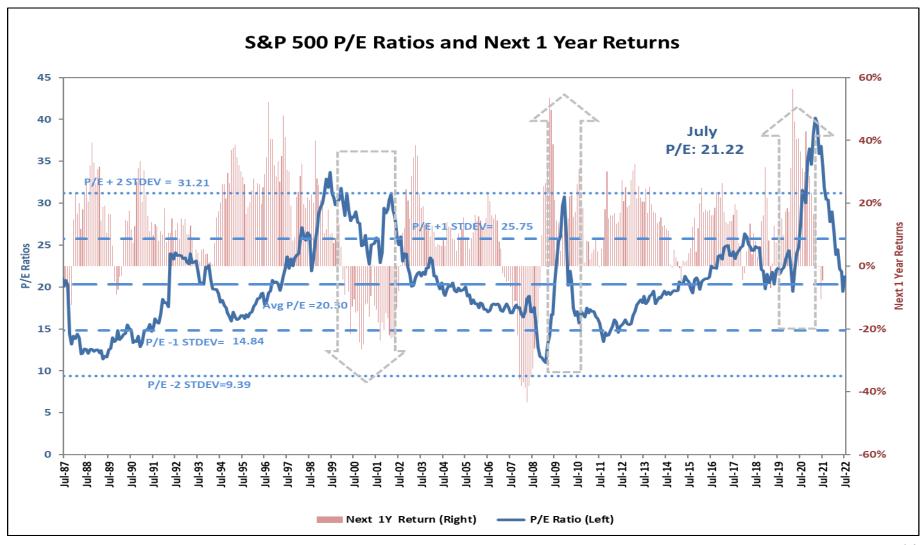
120		**					MM	M		
1.15	MA	Yhmy	4w/12	1		1.	Mr 1	"MV	vig backli	
1.10				MANA	M	W			M	
					'					4/1
1.05										
1.05										V

	Nominal Broad U.S. Dollar Index
Date	January 2006=100
June-19	114.56
June-20	120.86
June-21	112.85
June-22	121.05
August-22	123.20

	U.S. / Euro Foreign Exchange Rate							
Date	U.S. Dollars to One Euro							
June-19	1.14							
June-20	1.12							
June-21	1.18							
June-22	1.05							
August-22	1.00							

VALUATION US Equity

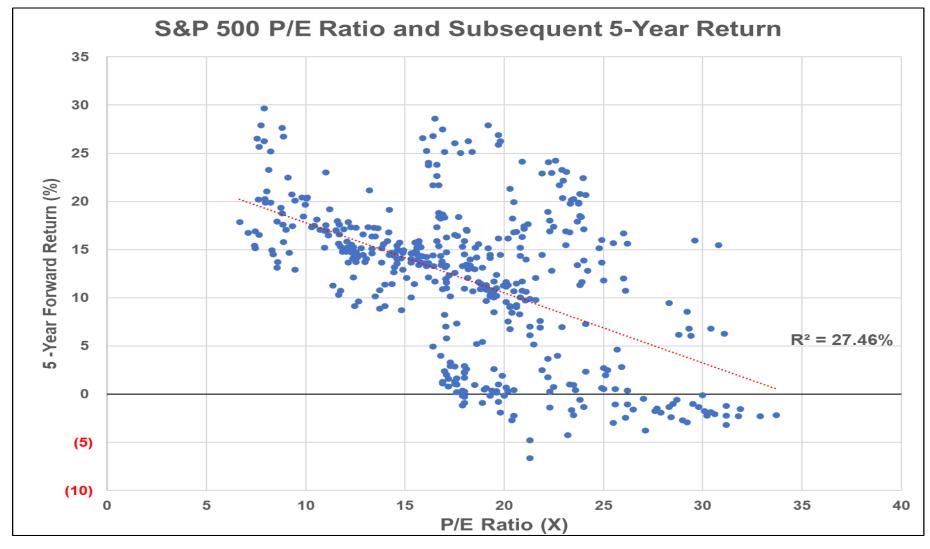




VALUATION

US Equity

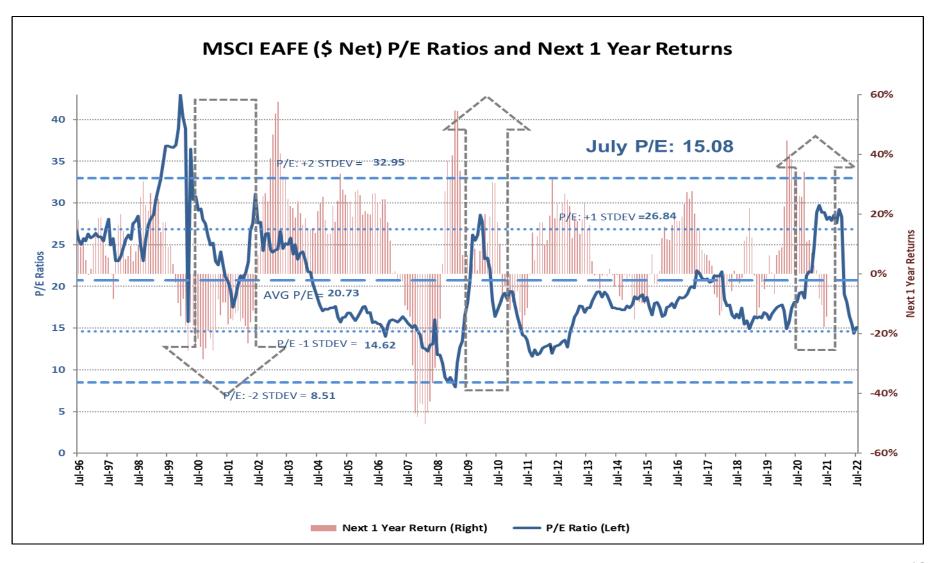




VALUATION

Non US Developed Market Equity

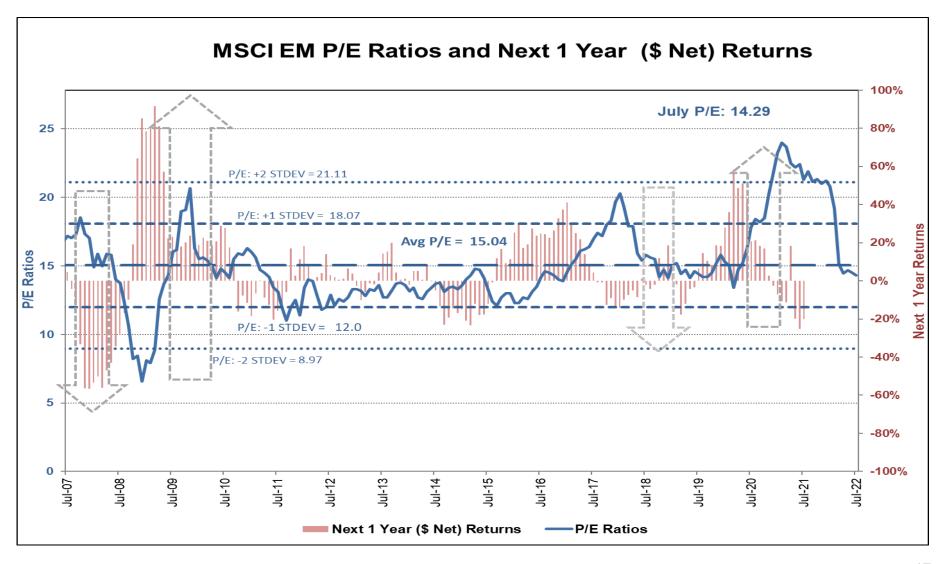




VALUATION

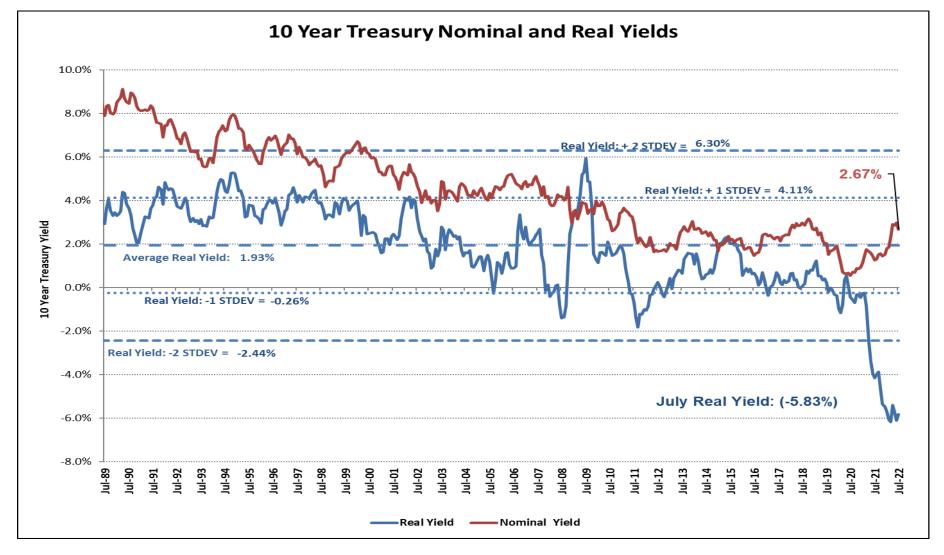
Emerging Market Equity





VALUATION US Treasury Bonds



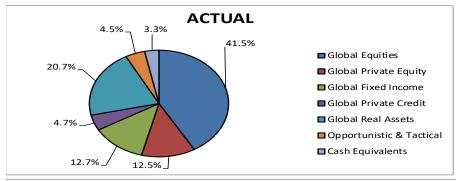


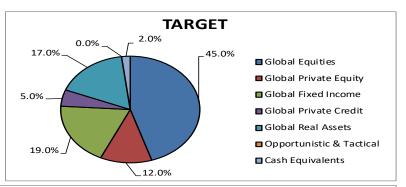




Total Fund Asset Allocation

Asset Class	Market Value \$	Actual	Target	Range
Global Equities	7,304,070,941	41.5%	45.0%	35% - 55%
Global Equity - Global Composite	1,169,958,669	6.7%		
US Equity	4,118,061,415	23.4%		
Non-US Equity	2,016,050,857	11.5%		
Global Private Equity	2,197,352,030	12.5%	12.0%	8% - 16%
Global Fixed Income	2,236,138,563	12.7%	19.0%	12% - 26%
Global Private Credit	832,966,123	4.7%	5.0%	3% -7%
Global Real Assets	3,632,231,806	20.7%	17.0%	14% - 22%
Opportunistic & Tactical	799,054,850	4.5%	0.0%	0% - 7%
Cash Equivalents	582,616,792	3.3%	2.0%	0% - 5%
Short-Term	536,562,072	3.1%	2.0%	
Russell EA Overlay	-3,040,493	0.0%	0.0%	
Aegis - Alpha Overlay	8,659,867	0.0%	0.0%	
Direct Rebalance Overlay	0	0.0%	0.0%	
Transition / Operational Account	1,940,056	0.0%	0.0%	
Currency Overlay	38,495,291	0.2%	0.0%	
Total Fund	17,584,431,105	100.0%	100.0%	





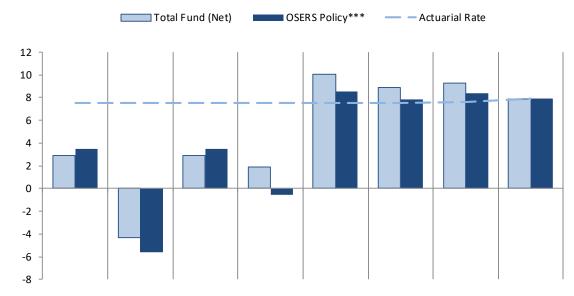




Total Fund Performance

Current Benchmark:

24.75% Russell 3000 **
13.50 MSCI World Ex US Index
(Net Dividends) **
6.75% MSCI Emerging Markets Index
(Net Dividends) **
12.00% Burgiss All Private Equity
benchmark (1q lag) (BAPE)
19.00% Bloomberg Aggregate Bond
17.00% NCREIF Property (1q lag)
5.00% 90 Day T-Bill + 4.5%
2.00% Citigroup 30 Day US T-Bill



Actuarial Rate

(7.0% effective 7/1/21, adopted 4/15/21)

	1 Month	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year	ITD*
Total Fund (Gross)	2.97	(3.95)	2.97	2.64	10.74	9.58	9.99	8.45
Total Fund (Net)	2.94	(4.32)	2.94	1.92	10.08	8.91	9.30	7.92
OSERS Policy***	3.47	(5.63)	3.47	(0.54)	8.57	7.83	8.35	7.90
Value Added (Net of Fee)	(0.52)	1.31	(0.52)	2.46	1.52	1.08	0.94	0.02

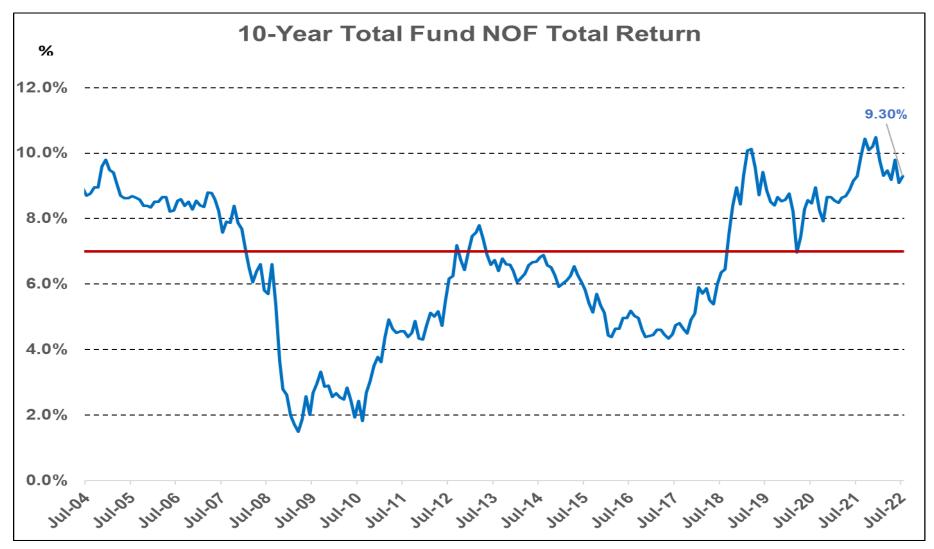
^{*}ITD is Inception date 10/1/1994 (27 years and 9 months)

^{**}Proposed benchmark is 45% MSCI ACWI (Net Dividends)

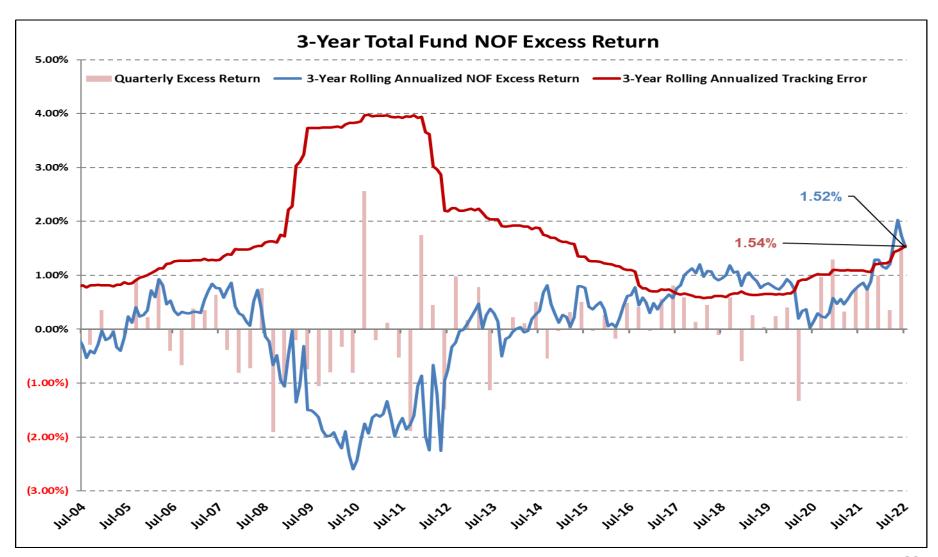
^{***}Total Fund Policy Benchmark for the month of July is 3.47%. Taking into consideration the proposed Global Equity benchmark, the estimated Total Fund Policy Benchmark for the month of July is 3.63%.

Total Fund relative performance for the month of July is estimated to decrease from (0.52%) to (0.69%).

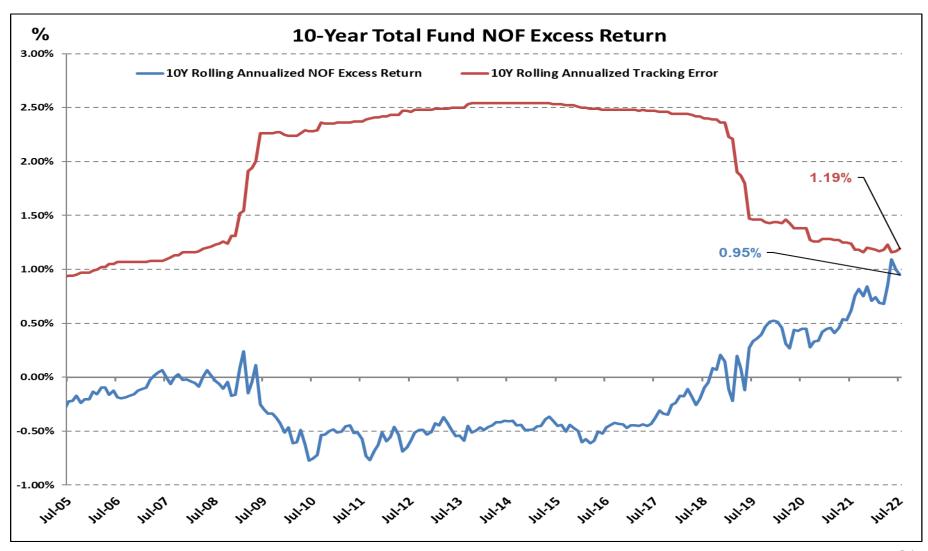
Total Fund Performance



Total Fund Performance



Total Fund Performance





Total Fund and Asset Class Performance (Net)

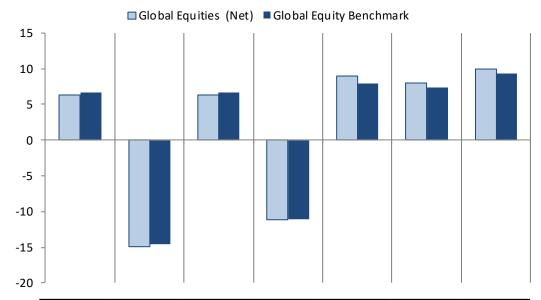




Global Equities Performance



55% Russell 3000 **
30% MSCI World Ex United States
Index (Net Dividends) **
15% MSCI Emerging Markets Index
(Net Dividends) **

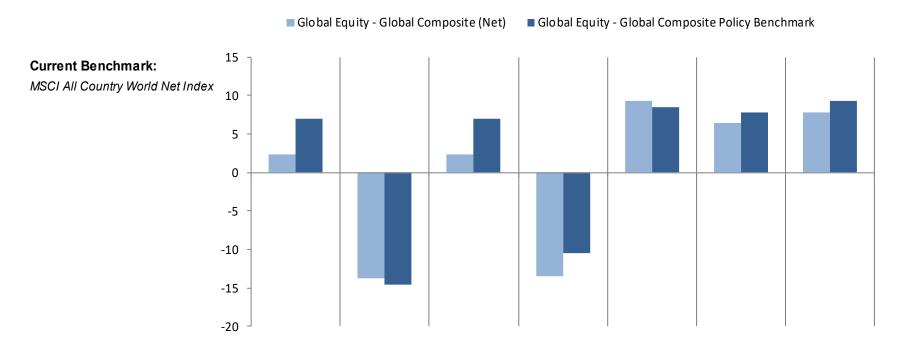


	1 Month	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Global Equities (Gross)	6.26	(14.67)	6.26	(10.88)	9.31	8.30	10.26
Global Equities (Net)	6.25	(14.86)	6.25	(11.18)	8.98	7.97	9.91
Global Equity Benchmark	6.61	(14.55)	6.61	(11.01)	7.96	7.43	9.39
Value Added (Net of Fee)	(0.36)	(0.31)	(0.36)	(0.17)	1.02	0.53	0.52
MSCI ACWI (Proposed Benchmark)	7.02	(14.35)	7.02	(10.07)	9.03	8.40	9.91
Value Added (Net of Fee)	(0.77)	(0.50)	(0.77)	(1.10)	(0.05)	(0.43)	(0.01)

^{**}Proposed benchmark is 45% MSCI ACWI (Net Dividends)

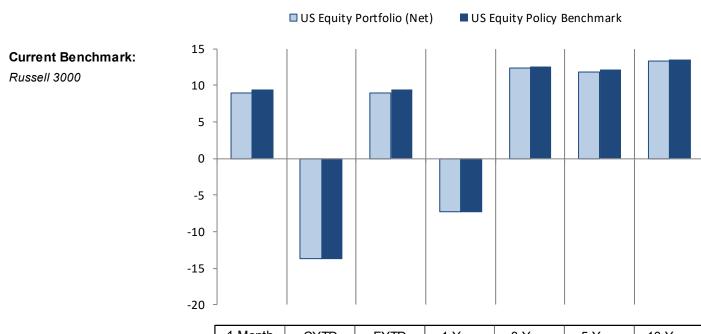


Global Equity – Global Composite Performance



	1 Month	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Global Equity - Global Composite Portfolio (Gross)	2.39	(13.25)	2.39	(12.81)	9.93	6.89	8.23
Global Equity - Global Composite Portfolio (Net)	2.36	(13.76)	2.36	(13.47)	9.36	6.38	7.74
Global Equity - Global Composite Portfolio Policy Benchmark	6.98	(14.61)	6.98	(10.48)	8.52	7.86	9.35
Value Added (Net of Fee)	(4.62)	0.84	(4.62)	(2.99)	0.84	(1.48)	(1.60)

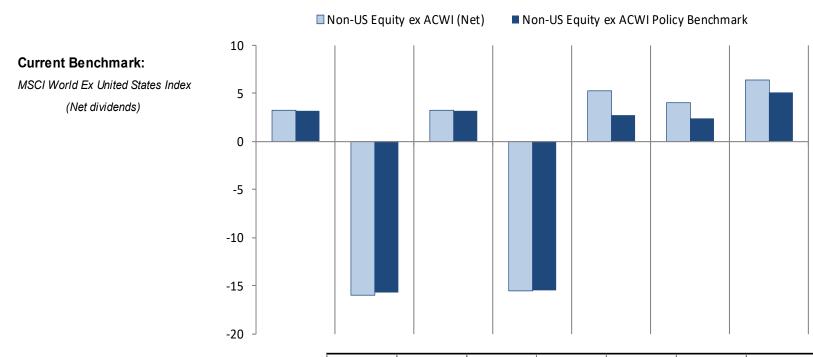
US Equity Performance



	1 Month	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
US Equity Portfolio (Gross)	9.00	(13.59)	9.00	(7.05)	12.54	12.00	13.64
US Equity Portfolio (Net)	9.01	(13.67)	9.01	(7.20)	12.35	11.79	13.36
US Equity Policy Benchmark	9.38	(13.70)	9.38	(7.35)	12.55	12.18	13.48
Value Added (Net of Fee)	(0.37)	0.02	(0.37)	0.16	(0.20)	(0.39)	(0.12)

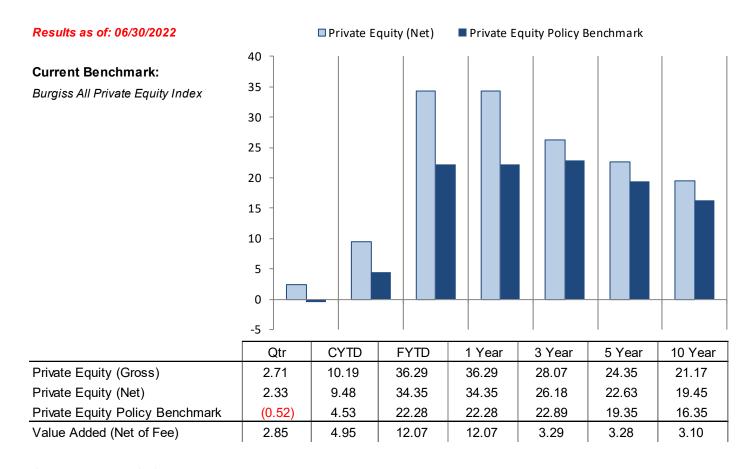


Non-US Equity ex ACWI Performance



	1 Month	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Non-US Equity ex ACWI (Gross)	3.30	(15.65)	3.30	(15.10)	5.76	4.44	6.82
Non-US Equity ex ACWI (Net)	3.27	(15.97)	3.27	(15.57)	5.27	3.98	6.38
Non-US Equity ex ACWI Policy Benchmark	3.23	(15.72)	3.23	(15.49)	2.76	2.35	5.11
Value Added (Net of Fee)	0.04	(0.26)	0.04	(80.0)	2.51	1.63	1.28

Global Private Equity Performance

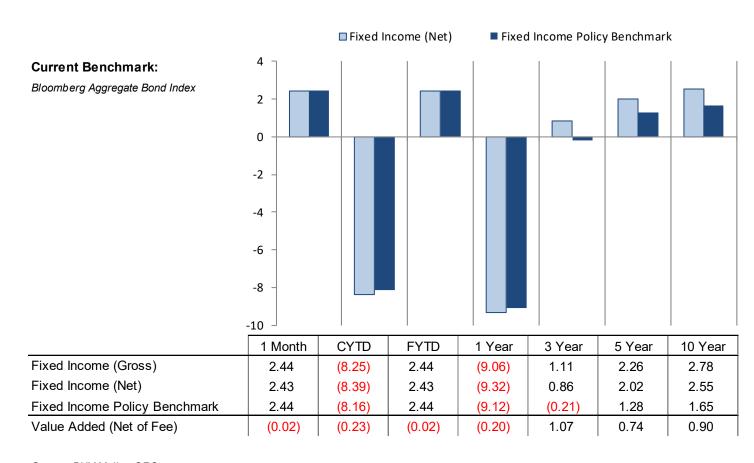


Source: BNY Mellon GRS

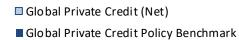
The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.

Global Private Equity performance is reported one quarter in arrears.

Global Fixed Income Performance

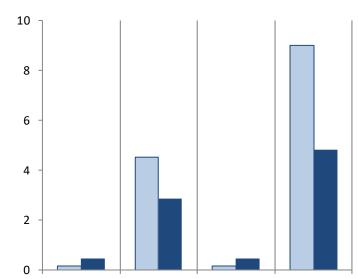


Global Private Credit Performance



Current Benchmark:

90 Day T-Bill + 4.5%



	1 Month	CYTD	FYTD	1 Year
Global Private Credit (Gross)	0.15	5.01	0.15	10.21
Global Private Credit (Net)	0.16	4.51	0.16	9.01
Global Private Credit Policy Benchmark	0.47	2.87	0.47	4.82
Value Added (Net of Fee)	(0.31)	1.64	(0.31)	4.19

Source: BNY Mellon GRS

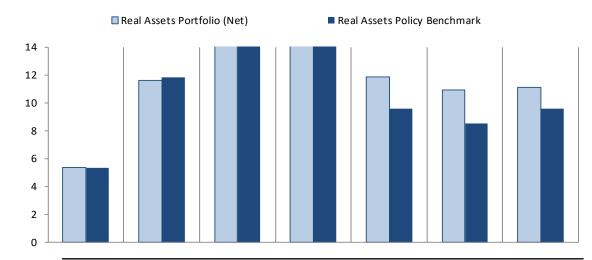
The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.



Global Real Assets Performance

Results as of: 06/30/2022

Current Benchmark: NCREIF Property Index (1q lag)



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Real Assets Portfolio (Gross)	5.59	12.08	25.67	25.67	12.79	11.95	12.17
Real Assets Portfolio (Net)	5.37	11.62	24.45	24.45	11.88	10.93	11.09
Real Assets Policy Benchmark	5.33	11.80	21.87	21.87	9.60	8.54	9.61
Real Assets Value Added (NOF)	0.05	(0.18)	2.58	2.58	2.28	2.39	1.48
Real Assets Core (Net)	8.05	18.02	34.48	34.48	14.62	12.55	12.29
Real Assets Policy Benchmark	5.33	11.80	21.87	21.87	9.60	8.54	9.61
Real Assets Core Value Added (NOF)	2.72	6.22	12.61	12.61	5.02	4.01	2.68
Real Assets Non-Core (Net)	4.66	8.91	22.56	22.56	9.99	9.53	10.76
Real Assets Policy Benchmark	5.33	11.80	21.87	21.87	9.60	8.54	9.61
Real Assets Non-Core Value Added (NOF)	(0.67)	(2.89)	0.69	0.69	0.39	0.99	1.15
Real Assets Infrastructure (Net)	2.25	3.86	10.18	10.18	9.75	11.73	n/a
Real Assets Policy Benchmark	5.33	11.80	21.87	21.87	9.60	8.54	n/a
Real Assets Infrastructure Value Added (NOF)	(3.08)	(7.94)	(11.69)	(11.69)	0.15	3.19	n/a

Source: BNY Mellon GRS

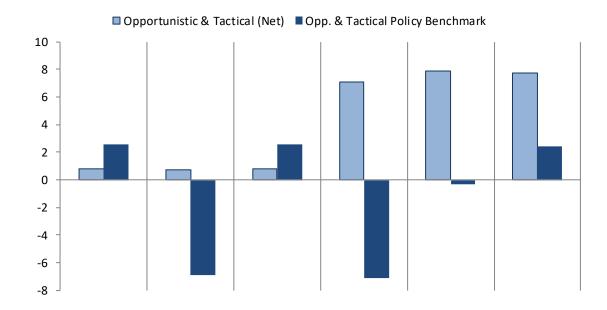
The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.

Global Real Assets performance is reported one quarter in arrears.



Opportunistic & Tactical Performance

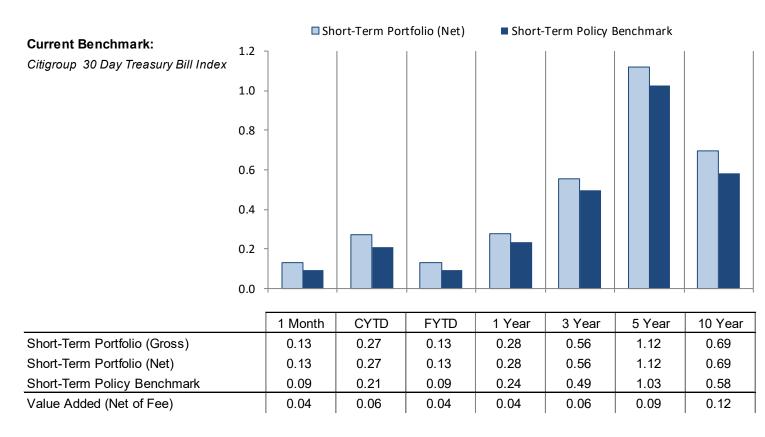
Current Benchmark: Bloomberg Aggregate Bond Index + 2%



	1 Month	CYTD	FYTD	1 Year	3 Year	5 Year
Opportunistic & Tactical (Gross)	0.79	1.26	0.79	8.28	9.26	9.18
Opportunistic & Tactical (Net)	0.79	0.75	0.79	7.07	7.86	7.70
Opp. & Tactical Policy Benchmark	2.59	(6.91)	2.59	(7.12)	(0.35)	2.43
	(1.80)	7.66	(1.80)	14.19	8.21	5.27

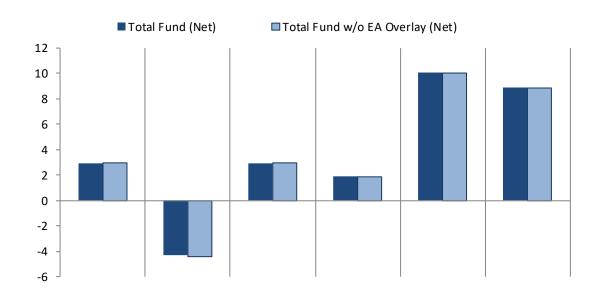
SEIS

Short-Term Performance





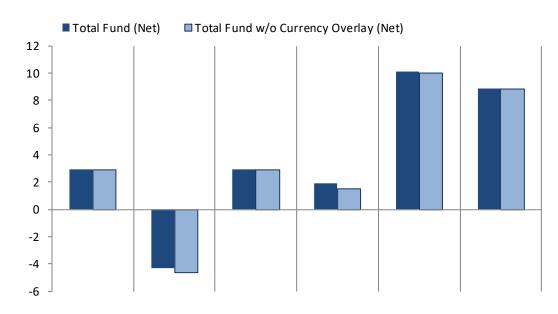
Enhanced Asset Overlay Performance



	1 Month	CYTD	FYTD	1 Year	3 Year	5 Year
Total Fund (Gross)	2.97	(3.95)	2.97	2.64	10.74	9.58
Total Fund w/o EA Overlay (Gross)	2.98	(4.04)	2.98	2.53	10.65	9.50
Total Fund (Net)	2.94	(4.32)	2.94	1.92	10.08	8.91
Total Fund w/o EA Overlay (Net)	2.95	(4.39)	2.95	1.84	10.01	8.85
EA Overlay Impact (Net of Fee)	(0.01)	0.07	(0.01)	0.08	0.07	0.06

SEIS

Currency Overlay Performance



	1 Month	CYTD	FYTD	1 Year	3 Year	5 Year
Total Fund (Gross)	2.97	(3.95)	2.97	2.64	10.74	9.58
Total Fund w/o Currency Overlay (Gross)	2.94	(4.30)	2.94	2.18	10.66	9.52
Total Fund (Net)	2.94	(4.32)	2.94	1.92	10.08	8.91
Total Fund w/o Currency Overlay (Net)	2.92	(4.63)	2.92	1.49	10.03	8.87
Currency Overlay Impact (Net of Fee)	0.03	0.32	0.03	0.43	0.05	0.04



Ohio SERS Investment Report | Month Ending: 06/30/2022

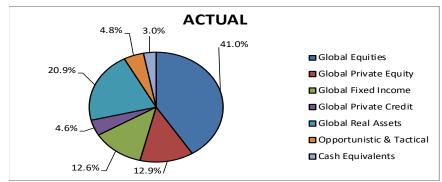


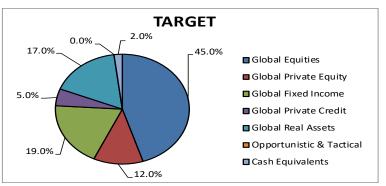
Total Fund Asset Allocation

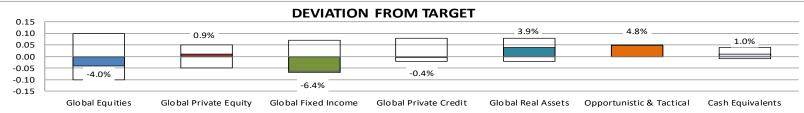
Asset Class	Market Value \$	Actual	Target	Range
Global Equities	7,011,063,631	41.0%	45.0%	35% - 55%
US Equity	3,783,899,683	22.1%	24.8%	19.25% - 30.25%
Non-US Equity Developed Market	2,761,647,156	16.1%	13.5%	10.50% - 16.50%
Non-US Equity Emerging Market	465,516,792	2.7%	6.8%	5.25% - 8.25%
Global Private Equity	2,215,420,053	12.9%	12.0%	8% - 16%
Global Fixed Income	2,162,685,546	12.6%	19.0%	12% - 26%
Global Private Credit	795,616,273	4.6%	5.0%	1% -7% *
Global Real Assets	3,585,187,374	20.9%	17.0%	14% - 20%
Opportunistic & Tactical	828,758,003	4.8%	0.0%	0% - 5%
Cash Equivalents	521,668,837	3.0%	2.0%	0% - 5%
Short-Term	485,142,868	2.8%	2.0%	
Russell EA Overlay	-3,040,493	0.0%	0.0%	
Aegis - Alpha Overlay	5,086,128	0.0%	0.0%	
Direct Rebalance Overlay	0	0.0%	0.0%	
Transition / Operational Account	1,939,793	0.0%	0.0%	
Currency Overlay	32,540,541	0.2%	0.0%	
Total Fund	17,120,399,717	100.0%	100.0%	

Source: BNY Mellon GRS

* FY22 Interim range







Total Fund Change in Net Assets

CHANGE IN NET ASSETS

Beginning Market Value

Gain/Loss
Expenses
Net Transfer
End of Period Market
Value

vs. One Year Ago, since 04/01/2021

17,766,522,455 27,101,295 (93,224,034) (580,000,000)

17,120,399,717

vs. Three Years Ago, since 04/01/2019

14,213,215,315 4,414,661,400 (234,872,273) (1,272,604,725)

17,120,399,717

*Sources of Net Transfer

Dividends/Interest
Net Distributions
Cash on Hand

189,097,063 390,902,937 Not Required

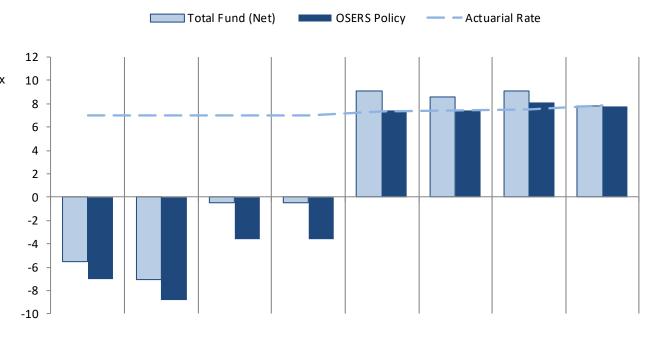
Total Fund Fees by Quarter



Total Fund Performance

Current Benchmark:





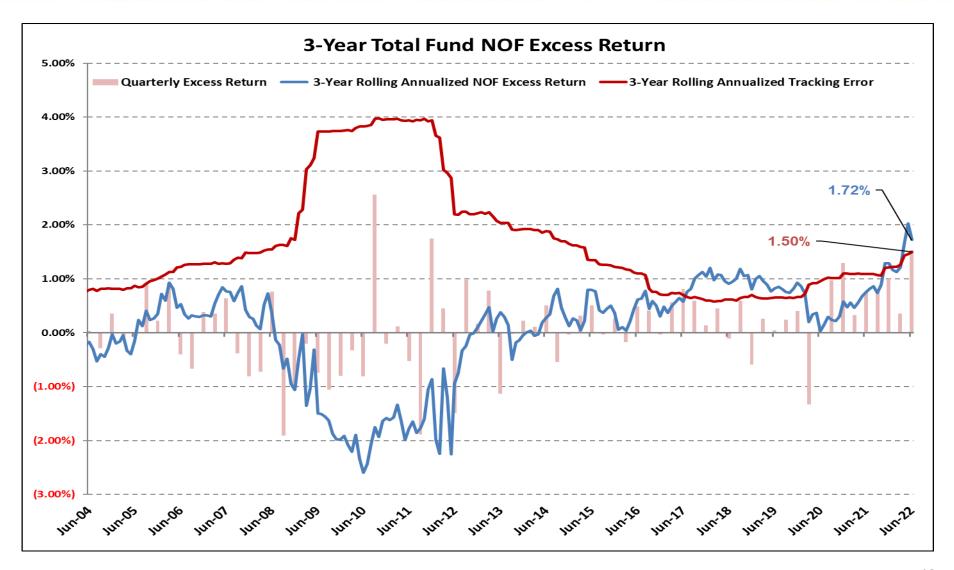
Actuarial Rate

(7.0% effective 7/1/21, adopted 4/15/21)

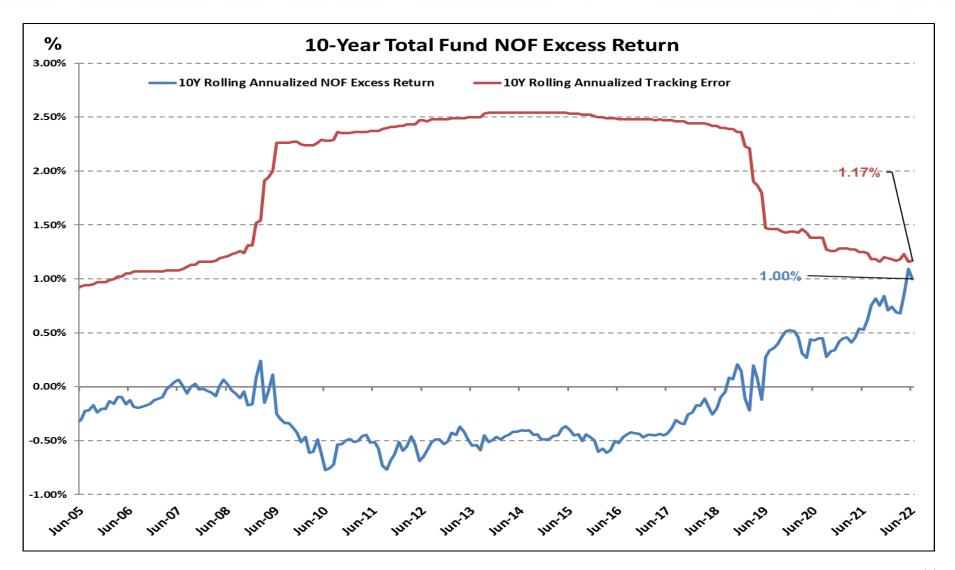
	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year	ITD*
Total Fund (Gross)	(5.31)	(6.72)	0.20	0.20	9.77	9.29	9.78	8.36
Total Fund (Net)	(5.51)	(7.05)	(0.49)	(0.49)	9.11	8.62	9.09	7.83
OSERS Policy	(7.04)	(8.79)	(3.60)	(3.60)	7.39	7.41	8.09	7.79
Value Added (Net of Fee)	1.53	1.74	3.11	3.11	1.72	1.21	1.00	0.04

^{*}ITD is Inception date 10/1/1994 (27 years and 8 months)

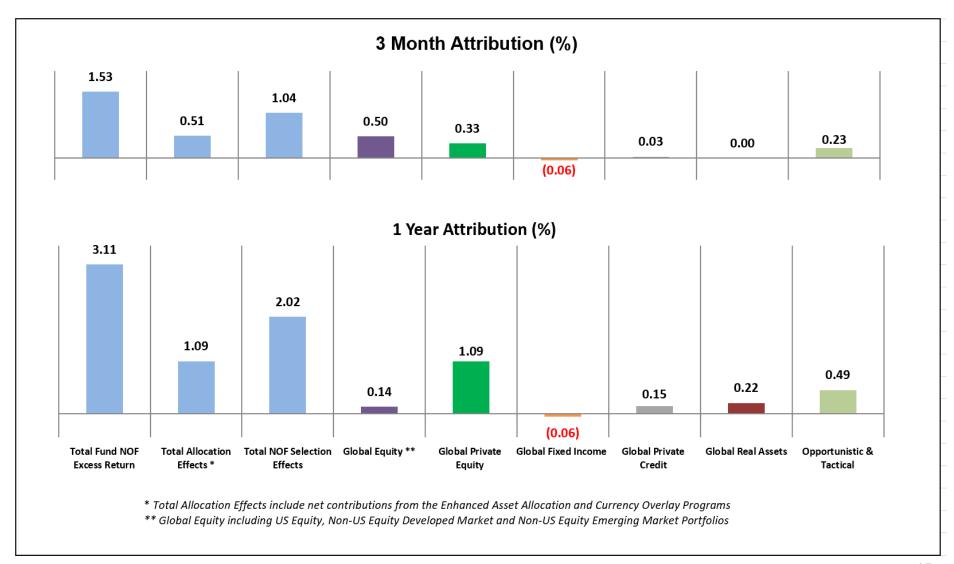
Total Fund Performance



Total Fund Performance

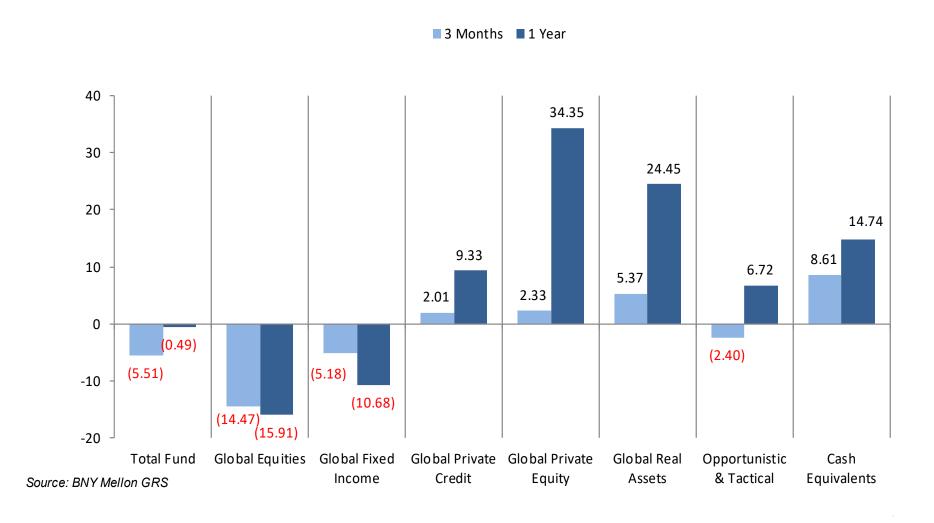


Total Fund Attribution





Total Fund and Asset Class Performance (Net)



SERS

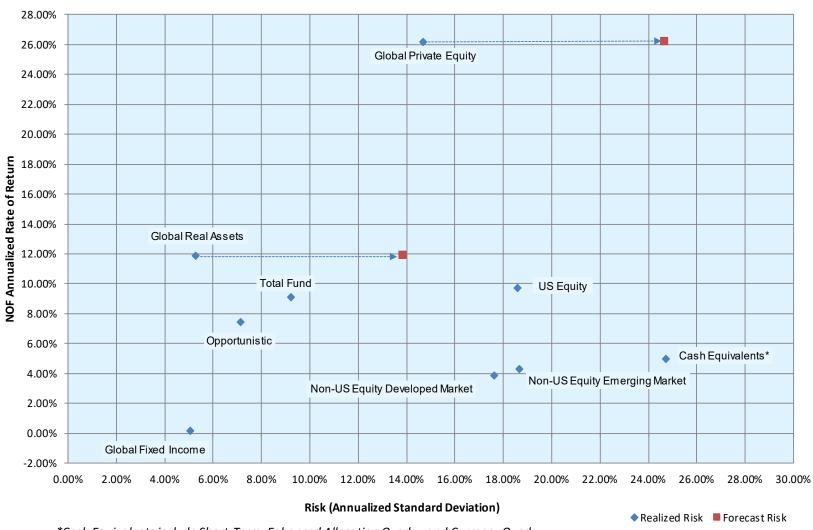
5 Year Risk and Return



*Cash Equivalents include Short-Term, Enhanced Allocation Overlay and Currency Overlay

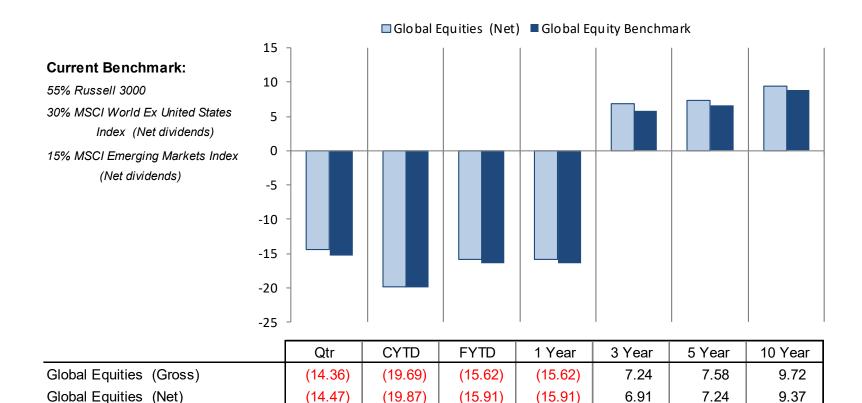
SERS

3 Year Risk and Return



*Cash Equivalents include Short-Term, Enhanced Allocation Overlay and Currency Overlay

Global Equities Performance



(19.85)

(19.97)

(0.02)

(16.43)

(15.37)

0.52

(16.43)

(15.37)

0.52

(15.31)

(15.53)

0.84

5.72

6.71

1.18

6.65

7.54

0.59

8.83

9.32

0.54

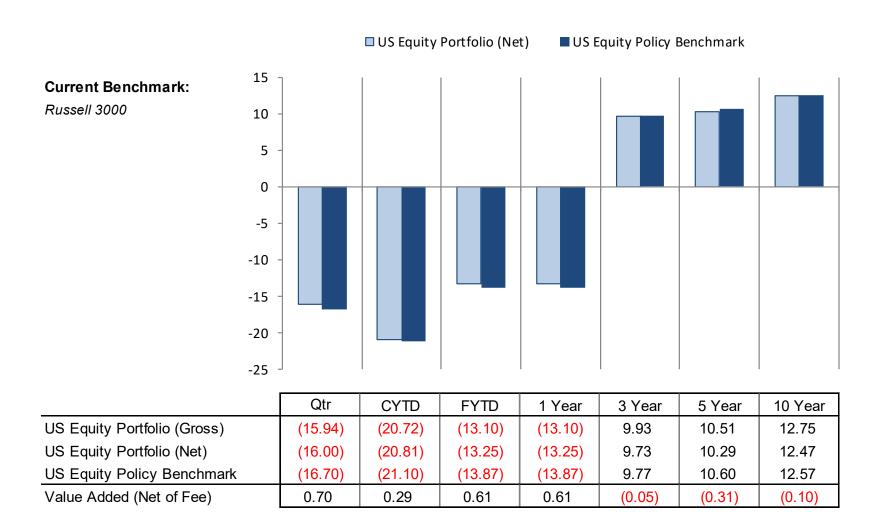
Source: BNY Mellon GRS

MSCI ACWI

Global Equity Benchmark

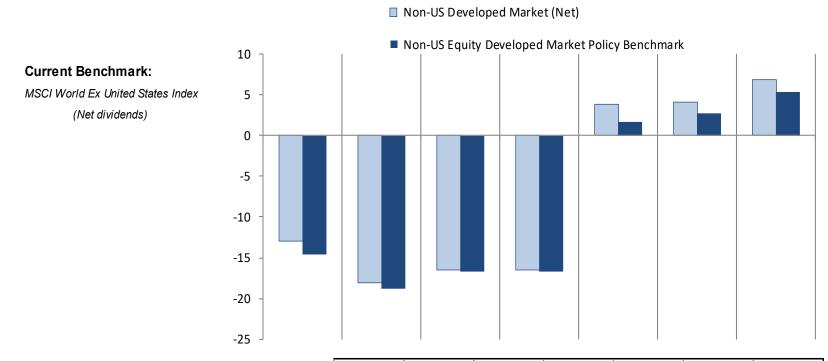
Value Added (Net of Fee)

US Equity Performance





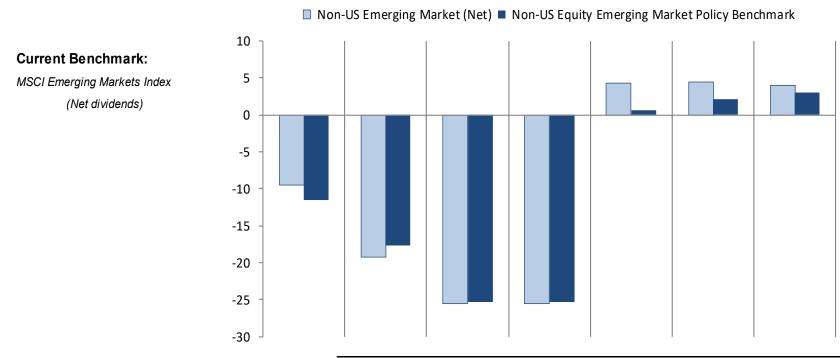
Non-US Equity Developed Market Performance



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Non-US Developed Market (Gross)	(12.81)	(17.82)	(16.04)	(16.04)	4.26	4.43	7.25
Non-US Developed Market (Net)	(12.96)	(18.09)	(16.45)	(16.45)	3.88	4.07	6.91
Non-US Equity Developed Market Policy Benchmark	(14.66)	(18.76)	(16.76)	(16.76)	1.70	2.66	5.37
Value Added (Net of Fee)	1.69	0.67	0.31	0.31	2.18	1.41	1.54



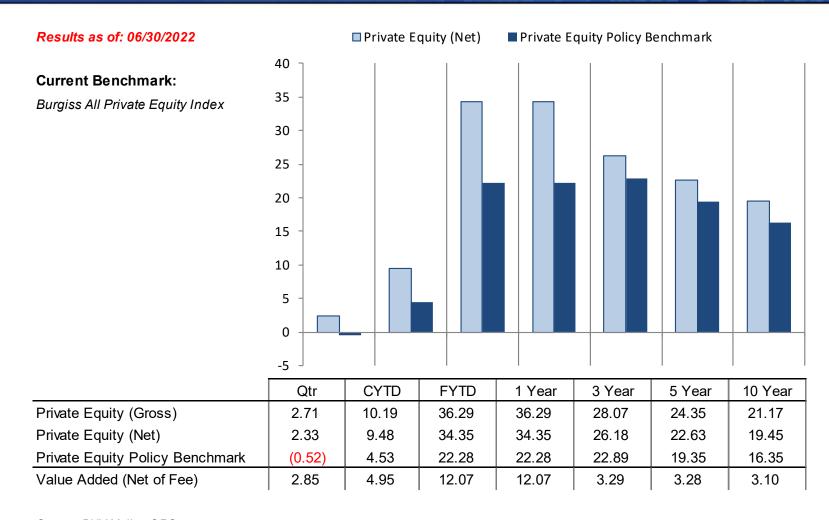
Non-US Equity Emerging Market Performance



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Non-US Emerging Market (Gross)	(9.27)	(18.97)	(24.97)	(24.97)	5.14	5.32	4.78
Non-US Emerging Market (Net)	(9.46)	(19.30)	(25.57)	(25.57)	4.33	4.50	4.00
Non-US Equity Emerging Market Policy Benchmark	(11.45)	(17.63)	(25.28)	(25.28)	0.57	2.18	3.06
Value Added (Net of Fee)	1.99	(1.68)	(0.29)	(0.29)	3.76	2.32	0.94



Global Private Equity Performance



Source: BNY Mellon GRS

The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return. Global Private Equity performance is reported one quarter in arrears.



Public vs Private Equity Performance (Net)

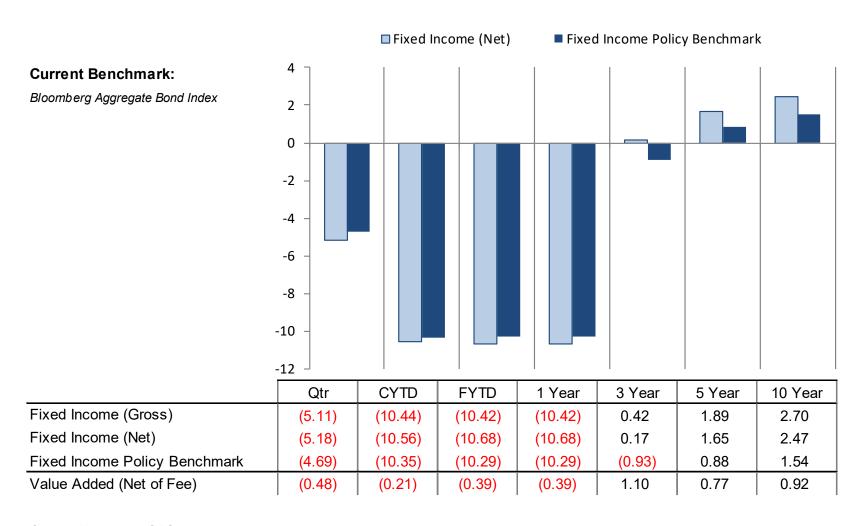
Public vs Private Equity - Performance (Net)

	3 Year	5 Year	10 Year
US Equity	9.73	10.29	12.47
Global Equity	6.91	7.24	9.37
Private Equity	26.18	22.63	19.45

^{*} Private Equity returns are lagged one quarter



Global Fixed Income Performance





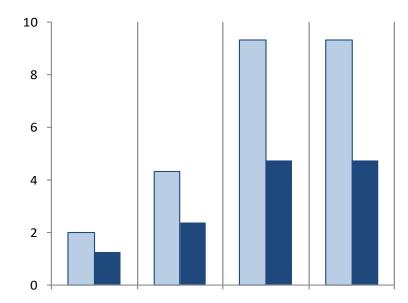
Global Private Credit Performance

☐ Global Private Credit (Net)

■ Global Private Credit Policy Benchmark

Current Benchmark:

90 Day T-Bill + 4.5%



	Qtr	CYTD	FYTD	1 Year
Global Private Credit (Gross)	2.30	4.86	10.57	10.57
Global Private Credit (Net)	2.01	4.34	9.33	9.33
Global Private Credit Policy Benchmark	1.25	2.39	4.73	4.73
Value Added (Net of Fee)	0.76	1.95	4.60	4.60

Source: BNY Mellon GRS

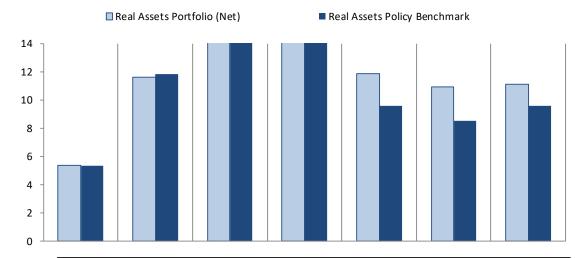
The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.

SERS

Global Real Assets Performance

Results as of: 06/30/2022

Current Benchmark: NCREIF Property Index (1q lag)



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year	10 Year
Real Assets Portfolio (Gross)	5.59	12.08	25.67	25.67	12.79	11.95	12.17
Real Assets Portfolio (Net)	5.37	11.62	24.45	24.45	11.88	10.93	11.09
Real Assets Policy Benchmark	5.33	11.80	21.87	21.87	9.60	8.54	9.61
Real Assets Value Added (NOF)	0.05	(0.18)	2.58	2.58	2.28	2.39	1.48
Real Assets Core (Net)	8.05	18.02	34.48	34.48	14.62	12.55	12.29
Real Assets Policy Benchmark	5.33	11.80	21.87	21.87	9.60	8.54	9.61
Real Assets Core Value Added (NOF)	2.72	6.22	12.61	12.61	5.02	4.01	2.68
Real Assets Non-Core (Net)	4.66	8.91	22.56	22.56	9.99	9.53	10.76
Real Assets Policy Benchmark	5.33	11.80	21.87	21.87	9.60	8.54	9.61
Real Assets Non-Core Value Added (NOF)	(0.67)	(2.89)	0.69	0.69	0.39	0.99	1.15
Real Assets Infrastructure (Net)	2.25	3.86	10.18	10.18	9.75	11.73	n/a
Real Assets Policy Benchmark	5.33	11.80	21.87	21.87	9.60	8.54	n/a
Real Assets Infrastructure Value Added (NOF)	(3.08)	(7.94)	(11.69)	(11.69)	0.15	3.19	n/a

Source: BNY Mellon GRS

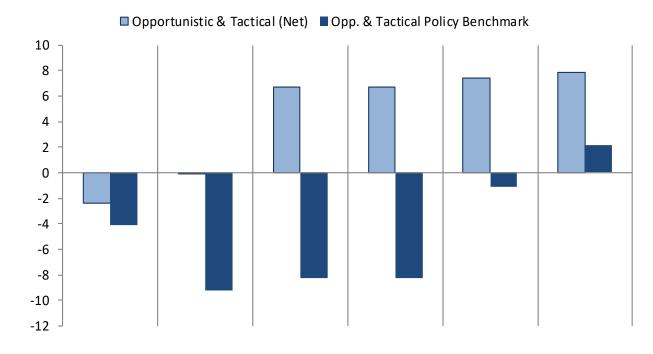
The difference between Gross and Net is management fee only. Performance based fees are captured in the Gross return.

Global Real Assets performance is reported one quarter in arrears.



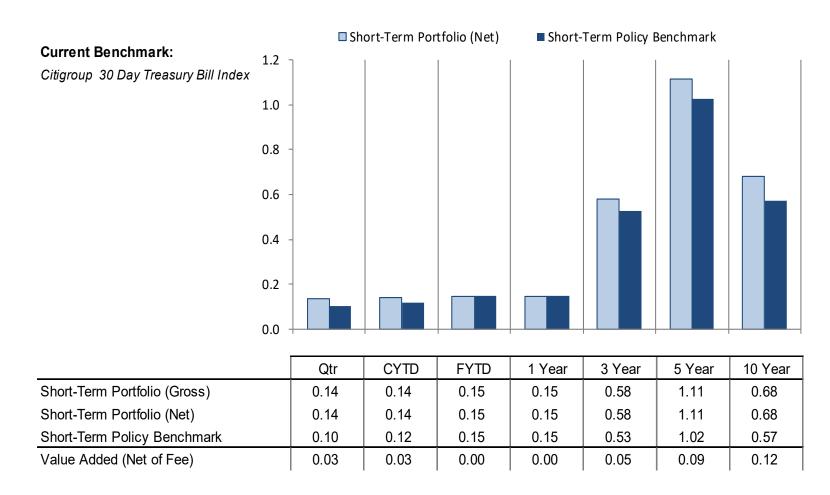
Opportunistic & Tactical Performance

Current Benchmark:
Bloomberg Aggregate
Bond Index + 2%



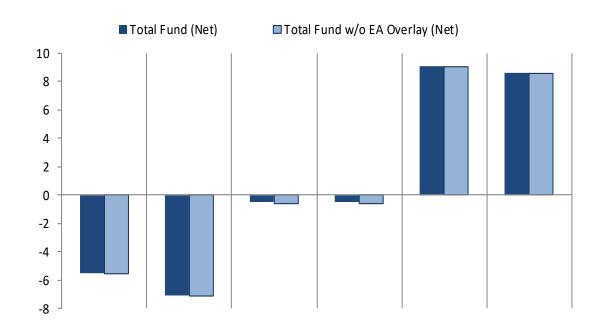
	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year
Opportunistic & Tactical (Gross)	(2.17)	0.47	7.93	7.93	8.86	9.32
Opportunistic & Tactical (Net)	(2.40)	(0.04)	6.72	6.72	7.42	7.83
Opp. & Tactical Policy Benchmark	(4.11)	(9.26)	(8.29)	(8.29)	(1.15)	2.20
	1.71	9.22	15.01	15.01	8.57	5.63

Short-Term Performance





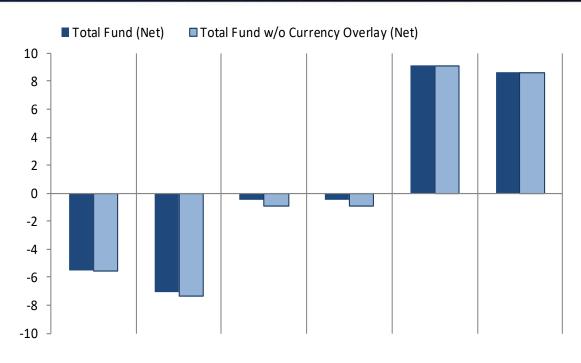
Enhanced Asset Overlay Performance



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year
Total Fund (Gross)	(5.31)	(6.72)	0.20	0.20	9.77	9.29
Total Fund w/o EA Overlay (Gross)	(5.34)	(6.82)	0.07	0.07	9.68	9.21
Total Fund (Net)	(5.51)	(7.05)	(0.49)	(0.49)	9.11	8.62
Total Fund w/o EA Overlay (Net)	(5.52)	(7.13)	(0.58)	(0.58)	9.03	8.55
EA Overlay Impact (Net of Fee)	0.01	0.08	0.09	0.09	0.07	0.06

SERS

Currency Overlay Performance



	Qtr	CYTD	FYTD	1 Year	3 Year	5 Year
Total Fund (Gross)	(5.31)	(6.72)	0.20	0.20	9.77	9.29
Total Fund w/o Currency Overlay (Gross)	(5.34)	(7.03)	(0.26)	(0.26)	9.70	9.23
Total Fund (Net)	(5.51)	(7.05)	(0.49)	(0.49)	9.11	8.62
Total Fund w/o Currency Overlay (Net)	(5.52)	(7.34)	(0.91)	(0.91)	9.05	8.58
Currency Overlay Impact (Net of Fee)	0.01	0.28	0.42	0.42	0.05	0.04



Proposed Investment Agenda – Next Meeting

- Annual Portfolio Review Private Equity
- Monthly Investment Report (August 31, 2022)

SERS INV1-001	Statement of Investment Policy						
Effective Date:	08/02/1985	Revision Date:	07/01/2022	Audience:	Investments		
Owner:	Investments	Certifier:	Richard Stensrud	Co-Owner (s):	Board		
Document Links:	Purpose, Policy, Procedure, Definitions, Related Documents, Policy History						

I. Purpose of Statement of Investment Policy

The purpose of this Statement of Investment Policy (SIP) is to set forth the investment philosophy and objectives of the Retirement Board (Board) for the School Employees Retirement System of Ohio (SERS).

This SIP:

- A. incorporates and is subject to all restrictions and obligations set forth in Chapter 3309 of the Ohio Revised Code:
- B. establishes investment policies and describes the organization and division of responsibilities necessary to implement the Board's philosophy and objectives prudently; and
- C. establishes a framework for making investment decisions, and monitoring investment activity, and promotes effective communication between the Board, Staff, and other involved parties.

This SIP is subject to change at any time by the Board. The Board will review the SIP and revise it periodically to assure it continues to reflect the investment philosophy, objectives and strategies of the Board.

II. Investment Philosophy

The Board recognizes the need to manage SERS assets prudently (the Total Fund) to meet its statutory and fiduciary obligations and to achieve or exceed its objectives. The Board's investment philosophy is grounded in fundamental, prudent investment principles, incorporating modern portfolio theory, risk management and portfolio management practices. These principles are incorporated in the "Investment Beliefs" below. The Board believes it can provide consistent, long-term performance at appropriate levels of risk. By delineating responsibilities and defining policy objectives, this SIP reflects the Board's investment philosophy and governance.

SERS Investment Beliefs:

Financial Markets

- A. Capital markets are not perfectly efficient. Inefficiencies create opportunities that skilled investors could exploit to generate excess returns. Investment Staff will prudently attempt to add value by exploiting such inefficiencies across different assets selectively, although it is not easily achieved.
- B. Markets generally afford higher prospective returns for riskier assets, such as equity or credit risk premiums over the long term. Anomalies could occur in intermittent periods on account of shifting valuations. When valuations are elevated returns tend to be lower.

Investment Process

C. Strategic asset allocation is the key determinant of risk and return and represents the Board's tolerance for risk in achieving funding goals. It is important to diversify across risk factors and return sources and to be explicit about the role of asset classes.

- D. Risk is the likelihood of loss or less than expected outcomes and is not fully captured by a single metric such as volatility. Risk has many dimensions, subjective and objective, which must be comprehensively assessed and managed in the investment process.
- E. Long-term horizon is an advantage as it enables SERS to tolerate volatility, capture illiquidity and other risk premia, and take advantage of trends and opportunities.
- F. Costs matter. Managing fees and transaction costs adds value to the Fund. Costs must be judged relative to expected value added.

Organizational Skills and Design

- G. Investment success is dependent on good governance, decision process, skill and judgment. Having an experienced and talented staff with appropriate decision authority is an advantage. SERS' Board will delegate authority as appropriate to staff to facilitate execution of the investment process, but retain policy and oversight powers.
- H. Explicit investment objectives, guidelines and collaborative teamwork among staff as well as external partners is essential for success.

Sustainability and Corporate Governance

- Good governance of markets and entities comprising the markets improves outcomes for investors. SERS Board and Staff will exercise corporate ownership responsibly and with the best fiduciary interest of members and stakeholders.
- J. SERS Board and Staff must be attentive to important environmental, social and governance issues that affect markets and promote its interests in a responsible manner in the best fiduciary interest of members and stakeholders.

III. Investment Objectives

The Investment Objectives of SERS are:

- A. to assure that SERS provides statutorily-mandated retirement benefits;
- B. to earn a net-of-fees total return that equals or exceeds over the long term the Actuarial Assumed Rate approved by the Board; and
- C. to enhance risk-adjusted investment returns of the Total Fund in a prudent and cost-effective manner.

IV. Risk Management

- A. The Board evaluates risk in terms of the probability of not earning the actuarial assumed rate over the long-term. Diversification across asset classes, within asset classes and across investment styles, sectors and securities is employed to manage overall portfolio risk and volatility.
- B. SERS utilizes a risk budgeting approach in management of volatility risk of investment portfolios. Active risk of the Total Fund, asset class and individual portfolios and their respective risk contribution to total risk are important factors in the management of the capital allocations to individual asset classes and portfolios. The Total Fund shall be managed within a forecast active risk (tracking error) range of 0% to 3.0% relative to the policy benchmark and within the asset allocation range specified elsewhere in this SIP. Active risk is determined by asset allocation deviations and active security selection decisions as well as underlying market volatility. Furthermore, active risk (tracking error) shall be inclusive of any applied leverage. In times of high market volatility, the active risk may exceed 3%. In any event, if the active risk exceeds 3% staff will discuss this with the Board and present appropriate recommendations. The realized tracking error is also expected to be below 3% over rolling three-year periods. Individual asset classes will be managed within the tracking error range specified in the respective asset class implementation guideline. Private asset classes (Private Equity, Private Credit and Real Assets) are excluded at this point from tracking error guidelines.
- C. Other risks, including but not limited to those such as interest rate risk, credit risk, and liquidity risk, will be managed and carefully monitored by Investment Managers and Investment Staff.

V. Implementation Approach

- A. The Board reserves certain responsibilities for itself, while delegating other responsibilities to the Executive Director, the Chief Investment Officer, the Investment Committee, Investment Staff, Investment Managers, Investment Consultants, the Investment Compliance Department and other Investment Service Providers. These responsibilities are described in this SIP.
- B. In fulfilling its fiduciary duties, the Board utilizes a competent and qualified Staff to implement the investment program and to manage daily operations.
- C. The Board utilizes Investment Managers or Funds selected by Staff to invest most assets of the Total Fund. The Board recognizes that costs associated with external Investment Managers and Funds are typically higher than costs associated with internal management. However, the Board believes external Investment Managers that act as fiduciaries possess specialized investment expertise and economies of scale, and can generate higher returns on a net-of-fee basis.
- D. The Board requires regular reporting on the Total Fund's investment program to ensure compliance with its SIP.

VI. Investment Organization and Responsibilities

A. Responsibilities of the Board

The Board as a fiduciary is responsible for ensuring that Total Fund assets are managed prudently and effectively, in compliance with applicable laws and with this SIP, for the exclusive benefit of participants and beneficiaries.

Responsibilities of the Board include:

- establishing controls and systems to ensure that Total Fund fiduciaries comply with applicable laws;
- 2. establishing asset allocation and investment policies for SERS assets;
- 3. appointing and discharging the Executive Director and Board Investment Consultants;
- 4. confirming or rejecting the Executive Director's proposed appointment of a Chief Investment Officer for SERS:
- 5. designating the individual as Chief Investment Officer of SERS for purposes of R.C. 3309.043, and then notifying the Ohio Department of Commerce, Division of Securities in writing of the designation as required by the Ohio Revised Code;
- 6. monitoring and reviewing investment performance and policy compliance;
- 7. requesting, receiving and reviewing reports from Investment Staff, Board Consultants and other entities, if applicable;
- 8. approving an Annual Investment Plan;
- 9. approving Statement of Investment Policy and changes thereto; and
- 10. conducting an annual evaluation of the performance of the Board's Investment Consultant.

B. Responsibilities of *Staff*

Staff will administer Total Fund assets as fiduciaries in accordance with applicable federal and state laws and regulations, and in accordance with this SIP, ethics laws, codes of professional conduct (in particular, the CFA Code of Ethics and Standards of Professional Conduct), and other applicable codes and/or regulations. Staff will establish plans, policies and procedures to carry out these duties.

- 1. The *Executive Director* is responsible for:
 - ensuring that reports of the Total Fund's investment performance are presented on a timely basis;

- b. retaining vendors, consultants and advisors as necessary to assist Staff, and assist the Board in the retention of Investment Consultants;
- c. appointing, discharging and retaining the Chief Investment Officer and Investment Staff;
- d. overseeing the investment function,
- e. executing investment documents when necessary,
- f. conducting a fiduciary audit of investment operations at least on a seven- to ten-year cycle unless circumstances require an audit to be conducted sooner.

2. The *Chief Investment Officer* is responsible for:

- a. overseeing the investment program and keeping the Executive Director advised;
- b. conducting periodic asset liability studies with the assistance of Investment Consultants and recommending asset allocation targets and ranges;
- c. reviewing the SIP on an annual basis and recommending changes as needed for approval by the Board;
- d. preparing and presenting the Annual Investment Plan to the Board for approval;
- e. implementing the Annual Investment Plan;
- f. investigating, researching and recommending new and emerging investment concepts and strategies, and implementing appropriate strategies in accordance with approved policies and procedures;
- g. informing Investment Managers, Investment Consultants, and others providing investment services to SERS about the requirements of applicable laws and Board policies, and monitoring their compliance with said laws and policies;
- h. adjusting allocations to Asset Classes, Investment Managers and Funds as needed, subject to any approved allocation ranges;
- approving implementation guidelines for each asset class to establish allocation ranges for sub-strategies, risk parameters and risk limits, and providing such guidelines to the Board;
- j. appointing and discharging Investment Managers and approving investments in or redemptions from Funds subject to conditions and guidelines in Section VII.;
- k. executing investment documents;
- I. approving Investment Manager guidelines, changes and additions;
- m. hiring and supervising Investment Staff;
- n. monitoring and evaluating the effectiveness of executed securities transactions and reporting annually to the Board regarding the performance of agents who execute securities transactions on behalf of SERS; and
- o. regularly reporting to the Board on market conditions, the status of the Total Fund, and its multi-period performance relative to benchmarks. Performance will be calculated on a gross-of-fees and net-of-fees basis.

3. The *Investment Committee* is responsible for:

- a. ensuring that a policy and procedure are in place defining the Committee's structure and establishing rules for reviewing and approving investments;
- b. reviewing Investment Manager and Fund due diligence; and
- c. approving Investment Managers or Funds.

4. The *Investment Staff* is responsible for:

- a. regularly reporting the status of the respective asset classes and Total Fund and its multiperiod performance to the Chief Investment Officer;
- b. periodically meeting and speaking with existing or potential Investment Managers to review and assess the quality of their investments and management of assets;
- c. performing ongoing due diligence to evaluate and monitor Investment Manager capabilities relative to managing Total Fund assets;
- d. recommending to the Chief Investment Officer implementation guidelines for the respective asset classes to establish allocation ranges for sub-strategies, risk parameters and risk limits, and managing the portfolio to the approved implementation guidelines;
- e. recommending to the Chief Investment Officer any additions or withdrawals from Investment Manager accounts or Funds, or rebalancing of asset class allocations;
- f. recommending to the Chief Investment Officer and the Investment Committee the appointment or discharge of Investment Managers and investments in or redemptions from Funds:
- g. investing assets of the cash equivalents portfolio;
- h. investigating and researching new and emerging investment concepts and strategies, and recommending those strategies to the Chief Investment Officer;
- i. preparing periodic reports for the Chief Investment Officer on the performance of agents who execute securities transactions on behalf of SERS; and
- j. maintaining a list of Ohio-qualified Investment Managers and their investment products.

C. Responsibilities of Investment Service Providers

Investment Service Providers who do business or seek to do business with SERS will act in the best interest of SERS when providing services to SERS or the Total Fund. Investment Service Providers will:

- 1. comply with all applicable federal and state laws and regulations, with this SIP, and with all applicable professional codes and regulations;
- 2. have established ethics and conflict of interest policies and procedures, and proper internal compliance controls in place as needed;
- 3. at the earliest opportunity disclose to Investment Staff any actual or potential conflict of interest;
- 4. as permitted by law, disclose any investigation of, or litigation involving, its operations to Investment Staff; and
- 5. provide annual or other periodic disclosures as required.

D. Responsibilities of *Investment Managers*

Investment Managers and Investment Staff managing assets internally are responsible as fiduciaries for investing prudently the Total Fund assets. In addition to those applicable responsibilities described in VI.B., Investment Managers and internal Investment Staff members will:

- manage assets within their control in compliance with all applicable federal and state laws and regulations, including but not limited to applicable ethics requirements, this SIP, contractual obligations, and applicable professional codes of conduct;
- 2. inform the Chief Investment Officer and Investment Staff of any substantial changes in investment strategy, portfolio structure, asset value, and of any organizational changes,

- including that of ownership, affiliation, organizational structure, financial condition, or changes in professional personnel staffing in the investment management organization;
- 3. present in-depth reports to Investment Staff;
- 4. recommend to Investment Staff changes to investment guidelines the Investment Manager believes would enhance investment performance on a risk adjusted basis; and
- 5. select such agents for the execution of transactions, at such prices, and at such commission rates as in the good faith judgment of the Investment Manager will be in the best interest of the Total Fund, taking into consideration in the selection of such agents not only the available prices and rates of brokerage commissions, but also other factors relevant to the transaction.

E. Responsibilities of *Investment Consultants*

Investment Consultants will:

- provide services as fiduciaries and in accordance with all applicable federal and state laws and regulations, including but not limited to applicable ethics requirements; in accordance with this SIP and its written Agreement with SERS; and with all applicable professional codes and/or regulations;
- 2. provide independent and unbiased research, information and advice to the Board and Staff;
- 3. assist in the development and amendment of this SIP;
- 4. assist in the development of investment guidelines as may be requested by Staff;
- 5. assist in the development of strategic asset allocation targets and ranges;
- 6. assist in the development of performance measurement standards;
- 7. monitor and evaluate Investment Manager and Fund performance as appropriate on an ongoing basis;
- 8. recommend to Staff the retention or discharge of Investment Managers and investment in or redemption from Funds;
- 9. collaborate with Investment Staff on the due diligence of potential Investment Managers and Funds, and existing Investment Managers and Funds, as requested by Staff;
- 10. assist in the development of criteria for and procedures to be utilized in the selection of Investment Managers and Funds;
- 11. provide research, information and advice on investment topics and strategies considered relevant by the Investment Consultant, or when requested by the Board or Investment Staff;
- 12. provide those services delineated in the Advisory or Consultant Agreement;
- 13. provide any other advice or services that the Board, Executive Director or Chief Investment Officer determines are necessary, useful or appropriate to fulfill the objectives of this SIP; and
- 14. regularly report the status of the Total Fund and its multi-period performance to the Board. Performance will be calculated on a net-of-fee basis.

F. Responsibilities of the Investment Compliance Department

The Investment Compliance Department is responsible for:

- 1. monitoring and reporting compliance with this SIP and Board Resolutions;
- 2. ensuring that investment management agreements and related contracts comply with the SIP;
- 3. ensuring that Investment Service Providers and Investment Managers comply with Section VI., herein; and
- 4. identifying and, in concert with Investment Staff, resolving compliance violations by Investment Managers and Investment Staff relative to their respective investment guidelines.

Staff will ensure that those accounts with guideline violations are efficiently and effectively brought back into compliance;

G. Responsibilities of the Government Relations Officer

The Government Relations Officer is responsible for:

- promptly voting proxies and related actions in accordance with Board approved procedures, and maintaining detailed records of proxy votes and related actions for the Proxy Review Committee; and
- 2. reporting proxy voting activity to the Board on a quarterly basis and highlighting any emerging issues related to this activity.

H. Responsibilities of the *Investment Accounting Department*

Responsibilities of the Investment Accounting Department related to the Investments Department are defined in Policy FIN4-004 Investment Valuation.

VII. Conditions and Guidelines for Making Investments

A. Conditions

- 1. In cooperation with legal counsel, Staff will endeavor to ensure that the legal structure of each investment limits potential losses to no more than the amount invested;
- 2. Investments will be of institutional quality;
- 3. Investments will require the approval of the Chief Investment Officer and the Investment Committee:
- 4. Investment documents must be approved by SERS' Legal Department and the Investment Compliance Department;
- 5. The Investment Committee will develop and implement definitive procedures for approving investments in accordance with this SIP; and
- 6. The Chief Investment Officer or the Executive Director must sign the necessary investment documents when making investments.

B. Guidelines

- 1. Selected Investment Managers and Funds will have proven track records in the strategy;
- 2. Monthly reporting by the Fund or Investment Manager is preferred, but there shall be quarterly reporting at a minimum;
- 3. The liquidity of an investment will be prudent, both for the strategy and for the Total Fund;
- The amount invested with an Investment Manager or in a Fund will be prudent for the strategy;
 and
- 5. Investment limits established by Board resolution remain in effect until modified or eliminated by the Board.

VIII.Implementation Strategies

A. Asset Allocation

The Board will conduct an asset and liability study every three- to five-years or sooner, if necessary, in order to establish allocation targets and ranges for asset classes within distinct capital markets. Staff, with the assistance of consultants, will review annually the market outlook and expected returns for asset classes with the Board. If there are significant changes in return assumptions, Staff will conduct an interim review of the Asset Allocation Policy.

In order to identify the investment horizon of SERS and its cash flow requirements, liability considerations will include but not be limited to current and expected future values of the benefits, contributions and total assets.

After giving due consideration to an asset and liability study conducted by the Investment Consultant, which study meets the requirements of this SIP, the Board hereby recognizes and reaffirms the following asset allocation for SERS:

ASSET CLASS	<u>TARGET</u>	RANGE	
<u>Equity</u>	57%	47% - 67%	
Global Equities	45%	35% - 55%	
Global Private Equity	12%	8% - 16%	
Income	43%	38% - 48%	
Global Bonds	19%	12% - 26%	
Global Private Credit	5%	3% - 7%	
Global Real Assets	17%	14% - 22%	
Cash Equivalents	2%	0% - 5%	
<u>STRATEGY</u>			
Opportunistic and Tactical Investments	0%	0 – 7%	
Total	100%		
Leverage	0%	0% - 10%	
Total Notional Exposure (Including Leverage)	100%	100% - 110%	

B. Derivatives

The Board authorizes the use of derivatives in the Total Fund and authorizes the Chief Investment Officer, with the advice and assistance of the Investment Consultant, to develop and implement derivatives strategies as needed. The Chief Investment Officer will follow the derivatives policy setting forth general guidelines for the use of derivatives.

C. Leverage

The Board authorizes the use of leverage in the Total Fund and authorizes the Chief Investment Officer, with the advice and assistance of the Investment Consultant, to develop and implement certain leverage strategies. The Chief Investment Officer will follow the leverage policy setting forth general guidelines for the use of leverage. Leverage at the total fund level may be used to gain higher level of exposure than 100% of the above asset allocation targets subject to a limit of 10% of total fund. Economic leverage is obtained by the use of derivatives (equities, bond or other liquid assets) and may be employed to balance risk contribution and/or potentially enhance total fund return. Any active risk introduced by the total fund leverage shall be governed by the limits specified in Section IV (Risk Management) above.

D. Rebalancing

The Total Fund rebalancing is conducted by the Chief Investment Officer within the active risk limit specified in Section IV. (Risk Management) as well as asset class portfolio ranges specified in Section VIII. Within individual asset classes, rebalancing is conducted based on the specific targets and ranges of the sub-strategies specified in the implementation guidelines subject to the overall tracking error limit of each asset class.

E. Currency Hedging

The Board authorizes currency hedging in the Total Fund and authorizes the Chief Investment Officer to develop and implement currency hedging strategies as needed. Currency hedging programs and managers shall be approved by the Investment Committee.

F. Transition Management

The Board authorizes the Executive Director and the Chief Investment Officer to hire Transition Managers as needed.

G. Proxy Voting

The Board authorizes the Proxy Review Committee, which consists of staff members from Executive and Investments, to vote proxies of common stock owned by SERS and to hire proxy services as required to implement this strategy. The Proxy Review Committee will follow a process for voting proxies as described in the Proxy Voting Procedures document.

H. Securities Lending

The Board authorizes Investment Staff to develop and implement a securities lending program which may involve the appointment or discharge of third party securities lending agents by the Executive Director or the Chief Investment Officer. The Board recognizes that while the practice of securities lending can generate meaningful income for the Total Fund, it is not without investment risk. To mitigate investment risk the securities lending program will focus on intrinsic value lending and use conservative collateral reinvestment guidelines as outlined in the securities lending policy. If Staff determines the risk/reward relationship of the program is no longer advantageous for the Total Fund, the program will be discontinued.

I. Opportunistic and Tactical Investments

The Board authorizes Investment Staff to invest up to 5% of Total Assets in Opportunistic and Tactical Investment Strategies. These investments will comply with the Opportunistic and Tactical Investment Policy approved by the Chief Investment Officer.

J. Overlay Program

The Board authorizes Investment Staff to invest in an overlay program which includes tactical asset allocation and active currency strategies. The overlay program trades derivatives of the Total Fund's underlying assets and foreign currency exposures to enhance Total Fund's risk adjusted return. The net notional exposures of the tactical asset allocation should be zero and the gross notional exposure of the currency program is limited to 50% of the Non-US Equity portfolio value. The active risk (tracking error) of the overlay positions are governed by the overall tracking error limit for the Total Fund as stated in Section IV. (Risk Management).

K. Investment Managers and Funds

The Board authorizes the Chief Investment Officer and the Investment Committee to approve Investment Managers and Funds based upon recommendations of Investment Staff or Investment Consultants, as may be appropriate, and discussions with Managers. The Chief Investment Officer is authorized to discharge Investment Managers or Funds and report such actions to the Investment Committee or to present the discharge action to the Investment Committee for approval on a discretionary basis. Allocations to approved Investment Managers and Funds will be determined or adjusted by the Chief Investment Officer in accordance Section VI. Allocations and adjustments are subject to any maximum allocation amounts established by the Board.

Investment Managers will adhere to investment guidelines established by Investment Staff, as well as all applicable laws and policies. The Chief Investment Officer is authorized to establish and amend investment guidelines as needed.

It is a goal of the Board to increase the utilization of Ohio-qualified Investment Managers when an Ohio-qualified Investment Manager offers quality, services and safety comparable to other Investment

Managers available to the Board, and the use of such Investment Manager is consistent with the Board's fiduciary duties.

The Board will require that a list of Ohio-qualified Investment Managers and their investment products be maintained, and that public notice be given to Ohio-qualified Investment Managers of Investment Manager searches and search criteria.

SERS will give equal consideration to minority owned and controlled firms, and firms owned and controlled by women.

L. Co-investments

The Board authorizes the Chief Investment Officer to approve co-investments in a single investment within a Fund investment previously approved by the Investment Committee. A single co-investment is limited to \$25 million. Such approvals shall be reported to the Investment Committee with supporting investment memoranda. The Chief Investment Officer may present the co-investment to the Investment Committee for approval (on a discretionary basis) if time permits.

M. Collective Investment Funds

To the extent SERS' assets are invested in a group trust described in IRS Revenue Ruling 81-100, the instruments governing such trusts, as they may be amended from time to time, are hereby incorporated by reference and made part of the SIP as if fully set forth herein.

N. Approved Brokers

Brokers (or broker/dealers) who may provide execution of securities transactions for SERS will be evaluated on the basis of financial soundness, underwriting capabilities, research services, execution costs, and any other capabilities necessary in the execution of such transactions. Investment Managers who use such brokers will use their good faith judgment to ensure that said brokers will perform in the best interest of the Total Fund.

It is a goal of the Board to increase its utilization of Ohio-qualified brokers for the execution of domestic equity and domestic fixed income trades when an Ohio-qualified broker offers quality, services, and safety comparable to other brokers available to the Board or its Investment Managers, and the use of such broker is consistent with the Board's fiduciary duties.

SERS will give equal consideration to minority owned and controlled firms, and firms owned and controlled by women.

O. Soft Dollars

SERS allows investment managers to enter into limited soft dollar trading arrangements as governed by the "safe harbor" provision of Section 28(e) of the Securities and Exchange Act of 1934, and guided by the CFA Institute Soft Dollar Standards. SERS does not support any new soft dollar arrangements outside of these noted provisions.

P. Securities Litigation

SERS will follow the securities litigation policy and procedures as approved by the Board in setting out a course of action that best represents the interests of SERS' participants and beneficiaries.

Q. Other

The strategies listed herein are not meant to constrain the Chief Investment Officer from managing the investment program in a prudent manner. The Chief Investment Officer may develop additional investment strategies as needed and will discuss such additional strategies with the Board prior to implementation.

IX. Performance

A. Performance Measurement Standard

Performance evaluation for the Total Fund will focus on total return, on an accrual accounting basis, including realized and unrealized capital gains and losses, and income. Valuations are to be made at

least on a quarterly basis, and period returns are to be geometrically linked. Private market asset returns may be reported one quarter in arrears. Cash and cash equivalents will be included in the portfolio's return. Performance will be calculated on a gross-of-fee and net-of-fee basis.

B. Performance Benchmark - Total Fund

Performance of the Total Fund relative to benchmarks will be examined monthly, and will be reported for multiple time periods as needed. The Board's Investment Consultant will report performance net-of-fees on a quarterly basis.

The performance benchmark for the Total Fund will be the target-weighted average of the performance benchmark for each asset class and strategy grouping as stated in Section VIII, excluding leverage. Performance for the Total Fund shall be reported including total fund leverage.

In the event of a significant change in policy targets, the Board may approve interim targets for a period to move progressively toward the final target; interim targets may be used for the purpose of calculating the Total Fund policy benchmark in the interim period.

C. Performance Benchmarks – Asset Classes and Strategies

The long-term performance benchmark for each asset class is shown below. Performance benchmarks are determined as appropriate for SERS in cooperation with SERS' Investment Consultant. For purposes of this section, long-term refers to rolling three- to five-year periods. Performance in each asset class should meet or exceed the Benchmark measure.

ASSET CLASS	BENCHMARK MEASURE
Global Equities	MSCI All Country World Net Total Return Index (USD) US Equity: 55% Russell 3000; NUSE Developed Market: 30% MSCI World ex-USA Net Total Return Index (USD); NUSE Emerging Market: 15% MSCI Emerging Markets Net Total Return Index (USD)
Global Private Equity	Burgiss All Private Equity benchmark (BAPE) (one quarter in arrears)
Global Fixed Income	Bloomberg US Aggregate Bond Index
Global Private Credit	90 day Treasury bill rate+4.5%
Global Real Assets	NCREIF Property Index (one quarter in arrears)
Cash Equivalents	Citigroup 30-day T-Bill Index
STRATEGY	BENCHMARK MEASURE
Opportunistic and Tactical Investments	Bloomberg US Aggregate Bond Index + 2%

D. Performance Benchmarks - Individual Investment Managers

Investment Staff will establish performance benchmarks for each Investment Manager based on its respective style.

X. Review and Evaluation

The Board will review and evaluate periodic reports on the investment performance of Total Fund assets. Greater emphasis will be placed on three- to five-year results. The intended frequency for review and evaluation, subject to change by the Board, is as follows:

- A. Monthly Investment Report including Total Fund market value, asset allocation, performance of the Total Fund and each asset class, and the Total Fund's compliance with this SIP.
- B. Quarterly Summary Investment Report presented by the Investment Consultant, including highlights and commentary about market conditions, investment performance, asset composition and characteristics for each asset class, and relevant manager level information.

XI. Related Policies and Procedures

A list of related policies and procedures that govern the investment program is attached as Appendix I.

Appendix I - Related Policies

SIP	Number	Document
	INV1-001	Statement of Investment Policy
VIII	INV1-002	Derivatives Policy
VIII	INV1-003	Leverage Policy
VIII	INV1-004	Opportunistic and Tactical Investment Policy
IV	INV1-006	Investment Risk Management Policy
VIII	INV1-007	Securities Lending Policy
VI	INV1-012	Cash Equivalents Portfolio Investment Guidelines Policy
VIII	INV1-014	Cash Equitization Policy
VI	INV1-024	Investment Committee and Investment Approval Policy
VIII	INV1-025	Private Market Co-Investment Policy
VI	INV3-001	Investment Oversight Policy
VIII	BD3-008	Securities Litigation Policy
VIII	EXE6-002	Proxy Voting Policy

Appendix II - Glossary of Terms

Active Risk – also known as Tracking Error, describes how a portfolio's performance is different from its benchmark and is measured by the standard deviation of the differences in returns of the actual portfolio and the benchmark portfolio.

Active Share – the Active Share of a fund represents the percent of portfolio holdings that differ from the (declared) benchmark index holdings.

Actuarial Assumed Rate – also referred to as the actuarial discount rate. This rate is used to value a pension fund's liabilities and is also used as a long-term investment return objective.

Asset and Liability Study – a study to determine the appropriate level of overall investment risk for a pension plan, based on future liabilities and funding resources. The study helps maximize the probability that the return on plan assets exceeds the growth of plan liabilities.

Benchmark – a gauge in the securities market by which investment performance can be measured, such as the Standard & Poor's 500 Index.

Bloomberg US Aggregate Bond Index – a market capitalization weighted US bond index published by Bloomberg. Most US traded investment grade bonds are represented in the index. SERS' global fixed income policy benchmark.

Broker – an individual or firm authorized to act on behalf of another, such as executing a transaction. The broker does not assume any financial risk in the transaction, as a dealer would.

Brokerage Commission – fee paid to a broker for the purchase and sale of securities.

Broker/dealer – any individual or firm in the business of buying and selling securities for itself and others. Broker/dealers must register with the SEC. When acting as a broker, a broker/dealer executes orders on behalf of a client. When acting as a dealer, a broker/dealer executes trades for the firm's own account. Securities bought for the firm's own account may be sold to clients or other firms or become a part of the firm's holdings.

Burgiss All Private Equity (BAPE) – The BAPE is comprised of data from more than 5,000 private equity funds contributed by limited partners that are Burgiss clients and use Burgiss' web-based institutional portfolio management platform Private i. The benchmark data is sourced from Burgiss' limited partner clients and includes complete transactional and valuation history between the limited partner and their fund investments. Burgiss publishes a detailed breakdown of the dataset every quarter allowing for increased transparency.

Cash Securitization – Cash securitization is a method used to obtain asset-like returns on short-term cash investments in equity, fixed income or other accounts by overlaying the short-term cash investments with relevant futures. Securitization of equity cash is referred to as cash equitization.

Cash Equivalents – highly liquid, safe investments with maturities of 397 days or less, which can be easily converted into cash. Examples include Treasury Bills, money market funds, and quality commercial paper. The cash equivalents asset class serves as a liquidity pool for SERS.

Chapter 3309, Ohio Revised Code – the Ohio statute governing the School Employees Retirement Board and School Employees Retirement System of Ohio.

Citigroup 30-day T-Bill Index – an index that measures the rate of return for 30-day US Treasury Bills, which are considered representative of the performance of short-term money market instruments. The Citigroup 30-day T-Bill index is the policy benchmark for Cash Equivalents.

Co-investment – a direct investment in a single asset of a private market Fund, made alongside the Fund's investment in the asset; typically involves more attractive terms and shorter time frames than those of the Fund.

Collective Investment Fund – A fund that is operated by a trust or bank and holds commingled (pooled) assets.

Conflict of Interest – a direct or indirect pecuniary interest or a relationship (without regard to whether the relationship is personal, private, commercial, or business) and the interest or relationship could diminish the Investment Service Provider's independence of judgment in the performance of its responsibilities to SERS; or bias the Investment Service Provider's evaluation of, or advice with respect to, a transaction or assignment on behalf of SERS.

Credit Risk – the possibility that a bond issuer will default by failing to repay principal and interest in a timely manner.

Currency Hedging – also known as Currency Management. A technique or strategy used to address foreign exchange fluctuations which affect investment returns on international investments. Currency hedging can be active, passive, or a combination of active and passive. Passive hedging is a strategy to neutralize fluctuations between US and Non-US currencies to a predetermined level. Active hedging is a strategy to manage currency fluctuations in an effort to generate returns.

Default Risk - see Credit Risk.

Derivatives (Derivative Instruments) – financial instruments (securities or contracts) whose values are derived from underlying financial assets, indices or other instruments. Derivative performance is based on the performance of assets, interest rates, currency exchange rates, and various domestic and foreign indices underlying the instruments. The common forms of derivatives are forward, futures, swap and options contracts.

Diversification – spreading a portfolio over many investments to avoid excessive exposure to any one source of risk.

Due Diligence – an investigation or audit of a potential or existing investment.

Equity Investment – claims held by the residual owners of a firm. May also be referred to as common stock. Investments in real estate and certain private markets classifications may also be considered equity.

External Management – the management or investment of fund assets by Investment Managers.

Fiduciary – a person, company or association holding assets in trust for a beneficiary. One who can exercise discretionary authority or can control important aspects of a pension plan's management.

Firm Level – as used in this SIP, Firm Level refers to an Investment Management Firm and includes all investment products, strategies or styles offered by the firm.

Fixed Income Investment – a security issued by a borrower that obligates the issuer to make specified payments to the holder over a specific period. May also be referred to as "debt" or "bonds."

Foreign Currency Risk – incurred by investing in foreign countries. Fluctuations in exchange rates between domestic and foreign currencies impact total returns. Impacts may be positive or negative.

Fund – Fund means a limited partnership, trust or commingled investment vehicle in which SERS invests or may invest (e.g., hedge fund, private equity fund, or real estate fund).

Global Equities – reflects the consolidation of what had been treated by SERS as US equity and Non-US equity asset classes; includes equities of US and non-US origin, equities of various capitalizations (e.g., large cap, small cap, mid cap, etc.), equities from developed, emerging and frontier markets, growth and value equities, and passive and active strategies. Investments in global equities strategies are made in accordance with investment allocation guidelines established and amended as necessary, by mutual agreement between the Chief Investment Officer and the Investment Consultant.

Global Private Credit - broadly defined as strategies that provide loans and financing to middle market companies in lieu of bank financing. Strategies can have objectives of either preserving capital, with return coming primarily from current pay coupon and fees or maximizing appreciation of more subordinated loans.

Guidelines – refers to an Investment Manager's "Investment Guidelines," established between the Investment Manager and Staff as part of an investment management agreement. Guidelines may be general or specific.

Hedge Fund – a private investment partnership or an offshore investment corporation in which the general partner has made a substantial personal investment, and whose offering memorandum allows for the Fund to take both long and short positions, using leverage and derivatives, and invest in many markets. Hedge funds often use strategies involving program trading, selling short, swaps and arbitrage.

Indexing – the weighting of investments that are in line with one of the major market indices, such as the Standard & Poor's 500 Index. Also referred to as passive investing.

Interest Rate Risk – the risk that an investment's value will change due to a change in the absolute level of interest rates.

Internal Management – the management or investment of fund assets by Investment Staff.

Intrinsic Value Lending – lending that produces returns based upon the securities loan itself, with little incremental benefit from collateral reinvestments.

Investment Committee – a committee comprised of the Chief Investment Officer and Investment Officers from SERS' Investment Department who possess the State Retirement System Investment Officer (SRSIO) license, with clearly defined structure, rules and procedures for reviewing and approving investments in a timely and prudent fashion.

Investment Consultant – any consultant hired by the Board or by Staff to advise or assist with the investment program in accordance with this SIP. Board Investment Consultants must be approved by the Board. Staff Investment Consultants shall be approved by the Executive Director.

Investment Manager – a manager or potential manager of SERS assets, both public market and private market. Includes, but is not limited to managers of equity, fixed income, private equity, real estate, hedge funds, commodities and cash.

Investment Program – the implementation of SERS' investment responsibilities and the Board's SIP by fund fiduciaries.

Investment Service Provider – an entity or person, other than a Retirement Board member or SERS employee, who provides investment advice to SERS intended to affect or form a basis for investment or fund management decisions by SERS, including but not limited to (a) Investment Consultants, (b) Investment Managers, (c) agents, (d) broker/dealers, (e) master record keepers, and (f) custodian.

Investment Staff – members of the Investment Department of SERS, including the Chief Investment Officer, State Retirement System Investment Officers, and other department personnel.

Leverage – in investments, this is the control of a large amount of money by a smaller amount of money, such as buying on margin. In finance, this is the relationship of debt to equity on a company's balance sheet in the form of the debt/equity ratio.

Liquidity Risk – the risk that a given security or asset cannot be traded quickly enough in the market to prevent a loss or to make the required profit.

Long-term – in the context of SERS' liability and investment horizons, long-term is assumed to be at least 10 years.

Mandate – mandate is the macro or high-level strategy employed by a manager. Examples of macro strategies include US versus Non-US; large cap versus small cap; real estate versus private equity; etc.

Master Record Keeper – the master accountant used by SERS.

Modern Portfolio Theory – a theory about how rational investors can construct portfolios in order to optimize market risk for expected returns, emphasizing that risk is an inherent part of higher reward. According to the theory, it is possible to construct an "efficient frontier" of optimal portfolios offering the maximum possible expected return for a given level of risk. This theory was pioneered by Harry Markowitz in his paper "Portfolio Selection," published in 1952 by the *Journal of Finance*.

Morgan Stanley Capital International – All Country World Free ex-USA Index (\$Net) – an equity index representing 44 developed and emerging countries. "Free" indicates the index reflects actual investable opportunities for global investors by taking into account local market restrictions on share ownership by foreigners. "Net" indicates that dividends are reinvested after the deduction of withholding taxes applicable to non-resident institutional investors. The MSCI-ACWI ex-USA Index, net of dividends reinvested is SERS' policy benchmark for Non-US Equities.

NCREIF Property Index (NPI) – a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only. The NCREIF Property Index is a component of SERS' global real estate policy benchmark.

Opportunistic and Tactical Investments – Global opportunistic investments are tactical or non-traditional investment opportunities that may be short-term or may not fit within the generally accepted risk/return parameters of specific asset classes or strategy groupings. Such opportunities may involve capitalizing on short-term market dislocations or other such unique situations. Tactical investments may include strategies with dynamic allocations to single assets or across multiple asset types or other innovative approaches.

Portfolio – a collection of investments owned, managed, or overseen by an individual or Investment Manager, a board or an organization. Portfolio can mean a manager account or subset thereof (e.g.,

Goldman Sachs Core Plus account), an asset class (e.g., US equity), or the entire fund (e.g., SERS' Total Fund).

Private Market Assets – broadly defined as those assets of alternative mandates utilizing either publicly-or privately-traded securities or other investment instruments. These include, but are not limited to, real assets, private equity, private credit and hedge funds.

Proxy – an agent legally authorized to act on behalf of another party. Shareholders not attending a company's annual meeting may choose to vote their shares by proxy by allowing someone else to cast votes on their behalf. Management often encourages shareholders to vote by proxy so that ownership interests are fully represented even if shareholders are unable to attend the company's annual meetings in person.

Prudent (Prudent Person) – this phrase generally refers to the prudent person rule which is a legal maxim restricting the discretion in a client's <u>account</u> to <u>investments</u> only in those <u>securities</u> that a prudent person seeking reasonable income and preservation of capital might buy for his or her own investment.

Rebalancing – the action of adjusting allocations relative to their targets or ranges to adjust for actual or anticipated market movements.

Risk – the chance that an investment's actual return will be different than expected. This includes the possibility of losing some or all of the original investment. It is usually measured by calculating the standard deviation of the historical returns or average returns of a specific investment.

Risk-Adjusted Return – a measure of how much risk a Fund or portfolio takes on to earn its returns, usually expressed as a ratio. Usually expressed by a Sharpe Ratio or Information Ratio calculation.

Russell 3000 Index – a market-value weighted equity index published by the Frank Russell Company. The index measures the performance of the 3,000 largest US companies in terms of market capitalization. The Russell 3000 Index is SERS' Domestic Equity Policy Benchmark.

Securities Lending – the temporary loan of a security from an institutional investor's portfolio to a broker/dealer or dealer bank to support that firm's trading activities. These trading activities include short selling, selling on margin or the satisfaction of some other type of transaction. Loaned securities are generally collateralized, reducing the lender's credit exposure to the borrower. Except for the right to vote proxies, the lender retains entitlement to all the benefits of owning the original securities, including the receipt of dividends and interest.

Securities Litigation – refer to SERS' Securities Litigation Policy.

Soft Dollars – Soft dollar trading arrangements refer to agreements whereby an investment manager directs transactions to a broker in exchange for brokerage and research services. The research services provided to the investment manager may be either proprietary or originate with a third-party.

Style – Style refers to an investment product, strategy or style offered by an Investment Management Firm and reflects how the assets are invested. For example, value versus growth; core versus value added; quantitative versus fundamental; etc.

Total Fund – Total Fund refers to SERS' total investment assets.

Total Return – the return on an investment, including income from dividends and interest, as well as appreciation or depreciation in the price of the security, over a given time period.

Tracking Error – a divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark. Calculated as the standard deviation of the difference in returns between a portfolio and its benchmark.

Transition Management – management of the transition of assets from one portfolio to another by a transition manager.

Related Documents and Information

Statutes: R.C. 3309, Ohio Revised Code

Rules: N/A

Document Links: Purpose, Policy, Procedure, Definitions, Related Documents, Policy History

Forms:

Policy History

This policy supersedes the policy adopted August 2, 1985 and all revised policies dated: 2/17/22; 2/18/21; 7/1/20; 9/17/15; 6/18/15; 12/18/14; 5/01/14; 1/01/14; 7/01/13; 1/19/12; 7/21/11; 7/01/10; 2/01/09; 8/01/08; 2/21/08; 10/01/07; 10/20/05; 9/15/00; 10/23/98; 6/19/98; 12/12/97; 7/25/97; 3/21/97; 12/20/96; 11/22/96; 6/21/96; 4/25/96; 9/15/95; 7/28/95; 6/16/95; 3/17/95; 1/20/95; 10/21/94; 5/20/94; 3/06/92; 4/07/89; 9/04/87; 1/09/87.

STATEMENT OF INVESTMENT POLICY AMENDMENTS

As discussed during the September 15, 2022 Board meeting,	moved and
seconded the motion to approve a correction to the Global Equities	Portfolio Benchmark in the Statement
of Investment Policy (SIP) originally approved June 16, 2022 and e	ffective July 1, 2022.

ASSET CLASS	BENCHMARK MEASURE
	MSCI All Country World Net Total Return Index (USD) US Equity: 55% Russell 3000;
Global Equities	NUSE Developed Market: 30% MSCI World ex-USA Net Total Return Index (USD);
	NUSE Emerging Market: 15% MSCI Emerging Markets Net Total Return Index (USD)
Global Private Equity	Burgiss All Private Equity benchmark (BAPE) (one quarter in arrears)
Global Fixed Income	Bloomberg US Aggregate Bond Index
Global Private Credit	90 day Treasury bill rate+4.5%
Global Real Assets	NCREIF Property Index (one quarter in arrears)
Cash Equivalents	Citigroup 30-day T-Bill Index
STRATEGY	BENCHMARK MEASURE
Opportunistic and Tactical Investments	Bloomberg US Aggregate Bond Index + 2%

Upon roll call, the vote was as follows:

ROLL CALL:	<u>YEA</u>	<u>NAY</u>	ABSTAIN
Frank Weglarz		<u></u> .	
Hugh Garside		<u></u> .	
James Haller		<u></u> .	
Matthew King			
Catherine Moss			
Barbra Phillips			
James Rossler		<u></u> .	
Daniel Wilson		<u></u> .	
Jeffrey DeLeone			

School Employees Retirement System

Memo

To: Retirement Board

From: Chris Collins

cc: Richard Stensrud, Karen Roggenkamp

Date: September 2, 2022

Re: Federal Legislative Report

OVERVIEW

Student Loan Forgiveness

President Joe Biden announced August 24th a plan to forgive \$10,000 in student loan debt for borrowers earning less than \$125,000, and \$20,000 for people who went to college with a Pell Grant. Biden also extended the pause on student loan repayments through Saturday, Dec. 31, 2022. The pause had been set to expire on Wednesday, Aug. 31.

Inflation Reduction Act

A massive budget reconciliation package was signed by President Joe Biden August 16th after earning narrow approval in the U.S. House approval Friday, August 12th. The chamber returned from its summer recess to vote 220-207 to pass the \$430 billion proposal containing key Democratic energy, health care and tax policies. The legislation cleared the Senate the prior Sunday after Vice President Kamala Harris broke a 50-50 tie. The federal legislation aims to tackle a number of pressing issues, from cutting prescription drug costs, reducing the deficit, lowering energy costs and promoting more environmentally friendly energy, and increasing taxes on large corporations.

CHIPS Act

Also signed in August, the CHIPS and Science Act, which will invest in U.S. semiconductor manufacturing. President Joe Biden delivered remarks at the Intel facility's groundbreaking in Licking County on Friday, September 9th. The legislation allocates \$52.7 billion in subsidies for companies to research, design and manufacture semiconductors and to help with workforce development. Intel supported passage of the legislation and CEO Pat Gelsinger indicated that the extent of their investment in Ohio was dependent on the aid package.

Mar-a-Lago Search

The FBI executed a search warrant at former President Donald Trump's Mar-a-Lago estate August 8th, reportedly related to an ongoing investigation over the removal of documents from the White House. Many accused the Biden administration of politicizing the justice department, though the White House said it had not been informed of the search before it occurred. Republican members of Ohio's congressional delegation issued statements saying the FBI and Attorney General Merrick Garland must appear before Congress to explain the reason behind the search warrant. U.S. Rep. Mike Turner (R-Centerville) sent a letter to FBI Director Christopher Wray demanding an explanation.

FEDERAL APPROPRIATIONS

The House Appropriations Committee continued their work on FY23 federal appropriations bills over the summer. Six of the 12 appropriations bills were passed by the House as "minibus" legislation on July 20th. The remaining six appropriations bills have been approved by the full House Appropriations Committee and are awaiting House floor action.

Senate Appropriations Committee Chairman Patrick Leahy (D-VT) released the Chairman's mark of the 12 senate appropriations bills on July 28th. The nearly \$1.7 trillion fiscal year 2023 appropriations package includes \$653 billion in non-defense discretionary spending, a 10.1 percent increase over fiscal year 2022; \$850 billion in defense discretionary spending, an 8.7 percent increase over fiscal year 2022 and consistent with the bipartisan National Defense Authorization Act (NDAA) passed by the House; and \$118.7 billion for VA medical care, a 22 percent increase over fiscal year 2022. The package also includes \$21 billion in emergency supplemental funding to provide the necessary resources to prepare for the next phase of the COVID-19 pandemic and to address other emerging diseases that pose a significant threat to public health.

As the Senate Appropriations committee begins its work Chairman Leahy warned that a long-term continuing resolution, which continues prior fiscal year funding levels, would result in devastating cuts to programs that the American people rely on. The new fiscal year starts on October 1st and in an election year it will be difficult to get agreement by that date, making a continuing resolution of some sort a likely possibility.

RETIREMENT SECURITY

A final SECURE 2.0 package will be ready sometime in the early fall. This spring the House overwhelming approved a bi-partisan Securing a Strong Retirement Act on a vote of 414-5. The Senate Health, Education, Labor and Pensions committee approved a similar bill called RISE & SHINE in June, with the Senate Finance Committee approving their own EARN Act the same month.

Those three bills include similar provisions to permit an employer to make matching contributions to a 401(k) plan, 403(b) plan or SIMPLE IRA based on qualified student loan payments; reduce the service requirement for part-time workers to participate in an employer's retirement plan to two years from three; and enhance the startup tax credit for small businesses launching a retirement plan, among others, and will form the basis of a SECURE 2.0 package.

Senator Portman (R-OH) who is retiring at the end of this year has been very involved in the discussions to get a final package that he feels will be benefit all Americans.

The main differences between the bills involve automatic enrollment and automatic escalation provisions included in the House bill, but not part of the Senate packages. Also, the amount of a tax credit for retirement savers based on income. There are also different rates by which required minimum distributions, or RMDs would be increased from the current age of 72 up to age 75. But those differences are expected to be overcome. It is likely once a final package as been agreed to the legislation will be attached to a must-pass bill such as an appropriations measure.

WINDFALL ELIMINATION PROVISION (WEP) AND GOVERNMENT PENSION OFFSET (GPO)

The "Social Security Fairness Act" (H.R. 82), which would repeal both GPO and WEP, has now obtained more than 290 cosponsors. This means, under the rules of the House of Representatives, it can therefore be placed on what is referred to as the "Consensus Calendar" even if it has not been reported by the committee of primary jurisdiction over the legislation. On July 15, H.R. 82's sponsor, Congressman Rodney Davis (R-IL), filed a motion to get the bill onto the Consensus Calendar,

which could make the measure available for consideration by the full House this fall. Getting H.R. 82 to a floor vote in the House will be a challenge, and assuming the bill passes, the question of whether such legislation has a chance of approval in the Senate remains. The Social Security Administration's Chief Actuary estimates the bill would cost nearly \$150 billion through 2031 and worsen Social Security's 75-year shortfall by 0.12 percent of taxable payroll. This would advance Social Security's insolvency by over a year, to early 2034 based on the Trustees' 2022 projections.

A companion Senate bill (S. 1302) introduced by Senator Sherrod Brown (D-OH) has 40 cosponsors, including four Republicans. There are seven Democrats and one Republican among the cosponsors who belong to the 27-member Senate Finance Committee, to which S. 1302 has been referred. It is therefore far from certain that a House-passed repeal of GPO and WEP would receive action in the Senate, which has very limited time left for floor action on legislation for the remainder of this year.

Separately there are also legislative attempts at WEP reform, which has been championed by both the Democratic and Republican leaders of the House Ways and Means Committee, Congressmen Richard Neal (D-MA) and Kevin Brady (R-TX). Both have similar legislative proposals to repeal the existing WEP and replace it with a fairer proportional formula for future retirees and provide a rebate of between \$100 and \$150 a month for current retirees subject to the WEP.

SERS sent a letter on August 23rd to Congressmen Neal and Brady as well as the rest of the Ohio delegation and the House Ways and Means committee urging them to find a compromise solution between their two proposals before the end of this year.

SECURITIES AND EXCHANGE COMMISSION

The SEC August 24th released a draft five-year strategic plan naming three specific areas where it hopes to increase corporate disclosure to investors: climate risks, cybersecurity hygiene policies and workforce information. Also of note, the draft asserts that the SEC "must enhance transparency in private markets and modify rules to ensure that core regulatory principles apply in all appropriate contexts." A third key takeaway from the draft is the commission's desire to ramp up resources devoted to markets beyond equity—specifically crypto assets, derivatives, and fixed income.

States push back on ESG focused investments

Texas has joined West Virginia in blacklisting companies it deems as energy company "boycotters," and the Florida State Board of Administration (FSBA) passed a resolution stating that investment decisions will not include ESG considerations.

Texas Comptroller Glenn Hegar August 24th unveiled a list of 10 financial companies that he said boycott energy companies. In a statement, Hegar said BlackRock, BNP Paribas, Credit Suisse Group, Danske Bank, Jupiter Fund Management, Nordea Bank, Schroders, Svenska Handelsbanken, Swedbank and UBS Group are subject to the divestment provisions in a 2021 Texas law that restricts the state's pension funds and other state entities from investing in companies that divest from fossil fuels.

On June 10th, West Virginia State Treasurer Riley Moore sent messages to six financial institutions threatening to place them on the state's restricted financial institution list if they continue to "boycott fossil fuel companies."

In a related move, the trustees of the FSBA resolution passed on August 23rd specifies that all decisions related to investments made by the Florida retirement system will not factor in ESG considerations.

While similar state legislation has yet to appear on Ohio, it is something we are monitoring closely.

INTERNAL REVENUE SERVICE

National organizations representing retirement plans and service providers, including NASRA and NCTR, jointly wrote the IRS on August 22nd requesting a delay in the implementation of newly redesigned Form W-4P, Withholding Certificate for Periodic Pension or Annuity Payments, and Form W-4R, Withholding Certificate for Nonperiodic Payments and Eligible Rollover Distributions.

Among other things, the organizations stated more time was needed to implement substantial systems changes and educate participants. The letter also requests the opportunity for the associations to meet with IRS officials to discuss the numerous concerns and questions that have yet to receive guidance from the IRS.

HEALTH CARE

<u>Inflation Reduction Act Health Provisions</u>

The Inflation Reduction Act's (IRA) health policy provisions would allow the U.S. secretary of Health and Human Services to negotiate some Medicare drug prices with pharmaceutical firms, cap out-of-pocket costs for Medicare recipients at \$2,000 per year and extend enhanced Affordable Care Act insurance subsidies through 2025. Language was included in the legislation providing some consideration for Employer Group Waiver Plans (EGWPs) like the one SERS has.

Specifically, the IRA's drug provisions:

- Authorize the Secretary of Health and Human Services to negotiate Medicare drug prices
 for certain high-priced, single-source drugs that have been on the market for a number of
 years. Negotiated prices will initially be published for 10 drugs in 2024 and will go into effect
 in 2026, with a cumulative number of drugs added annually thereafter
- Require drug manufacturers to pay inflationary rebates to Medicare when they raise drug prices faster than the rate of inflation
- Provide a \$35 a month out-of-pocket (OOP) cap for insulin for Medicare beneficiaries.

Despite Congressional efforts to extend certain drug pricing provisions to the commercial market, federal budget reconciliation rules ultimately limited IRA prescription drug pricing provisions to Medicare only.

Request for Information on Medicare Advantage Plans submitted to HHS

On August 30th, SERS submitted comments to the Department of Health and Human Services in response to a Request for Information posting asking for feedback on the various aspects of the Medicare Advantage (MA) program.

SERS' comments provided background information on the SERS retiree health care coverage for Medicare eligible retirees through a MA plan. The comments describe the strategies employed to reduce out-of-pocket costs for members. SERS did recommend several areas for improvement including stronger marketing rules for MA plans to avoid member confusion and ways to improve enrollment in MA plans.

FEDERAL LEGISLATION BOARD REPORT

117th United States Congress

(Prepared by Chris Collins as of September 2, 2022)

H.R.82

SPONSOR: Rep. Rodney Davis (R-IL)

LAST ACTIONS: House - 07/15/2022 Motion to place bill on Consensus Calendar filed by Mr. Davis, Rodney. .

CAPTION: Social Security Fairness Act of 2021

COMMENT: Repeals the GPO and WEP. 296 co-sponsors; ten Ohioans

H.R.328

SPONSOR: Rep. Peter DeFazio (D-OR)

LAST ACTION: House - 01/15/2021 Referred to the House Committee on Ways and Means.

CAPTION: To amend the Internal Revenue Code of 1986 to impose a tax on certain trading transactions.

COMMENT: 28 co-sponsors; one Ohioan

H.R.1319

SPONSOR: Rep. John Yarmuth (D-KY)

LAST ACTIONS: 03/11/2021 Became Public Law No: 117-2.

CAPTION: American Rescue Plan Act of 2021

COMMENT: Provides additional relief to address the continued impact of COVID-19 on the economy,

public health, state and local governments, individuals, and businesses.

H.R.2337

SPONSOR: Rep. Richard Neal (D-MA)

LAST ACTIONS: House - 04/01/2021 Referred to the House Committee on Ways and Means.

CAPTION: To amend title II of the Social Security Act to provide an equitable Social Security formula for individuals with noncovered employment and to provide relief for individuals currently affected by the Windfall Elimination Provision.

COMMENT: 189 cosponsors; three Ohioans

S.1302

SPONSOR: Sen. Sherrod Brown (D-OH)

LAST ACTIONS: Senate - 04/22/2021 Read twice and referred to the Committee on Finance.

CAPTION: A bill to amend title II of the Social Security Act to repeal the Government pension offset and

windfall elimination provisions.

COMMENT: 40 cosponsors

H.R.3

SPONSOR: Rep. Frank Pallone (D-NJ)

LAST ACTIONS: House - 04/27/2021 Referred to the Subcommittee on Oversight and Investigations

CAPTION: Elijah E. Cummings Lower Drug Costs Now Act

COMMENT: 91 cosponsors; three Ohioans

H.R.5376

SPONSOR: Rep. John Yarmuth (D-KY)

LAST ACTIONS: 08/16/2022 Became Public Law No: 117-169. (All Actions)

CAPTION: Inflation Reduction Act of 2022

COMMENT: This bill provides funding, establishes programs, and otherwise modifies provisions relating to a broad array of areas, including education, labor, child care, health care, taxes, immigration, and the environment.

H.R.5834

SPONSOR: Rep. Kevin Brady (R-TX)

LAST ACTIONS: House - 11/03/2021 Referred to the House Committee on Ways and Means

CAPTION: Equal Treatment of Public Servants Act of 2021

COMMENT: 53 cosponsors; four Ohioans

H.R.5723

SPONSOR: Rep. Larson, John B. [D-CT-1]

LAST ACTIONS: House - 10/26/2021 Referred to the Committee on Ways and Means, and in addition to the Committees on Education and Labor, and Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

CAPTION: Social Security 2100: A Sacred Trust

COMMENT: 202 cosponsors; four Ohioans

STATE LEGISLATION BOARD REPORT (Prepared by Chris Collins as of September 2, 2022)

134th General Assembly

HB110 OPERATING BUDGET Scott Oelslager (R- North Canton) To make operating appropriations for the biennium beginning July 1, 2021, and ending June 30, 2023, to levy taxes, and to provide authorization and conditions for the operation of state programs.

Current Status: 07/01/2021 SIGNED BY GOVERNOR; effective 7/1/21

HB14 REGARDS STATE RETIREMENT SYSTEM Diane Grendell (R – Chesterland) Regarding state retirement system fiduciary duties, Public Employees Retirement System management fees and employee pay, and creating the Committee on Pension Salaries and Fees.

Current Status: 02/04/2021 Referred to Financial Institutions Committee

SB233 SCHOOL NURSE LICENSURE, RETIREMENT Louis Blessing III (R - Cincinnati) Regarding licensure and state retirement system membership for school nurses.

Current Status: 02/15/2022 Senate Primary and Secondary Education, (Second Hearing)

HB416 AUTO-ENROLLMENT RETIREMENT PROGRAM FOR PRIVATE EMPLOYEES Juanita Brent, (D – Cleveland) Stephanie Howse (D – Cleveland) To establish an auto-enrollment retirement savings program for private sector employees.

Current Status: 10/27/2021 House Insurance, (First Hearing)

HB499 ALLOW ELECTED OPERS/SERS RECIPIENTS TO RECEIVE BENEFITS (Miller, A) - To allow a Public Employees Retirement System or School Employees Retirement System disability benefit recipient elected to certain offices to continue receiving a disability benefit during the term of office.

Current Status: 6/1/2022 Third Hearing, All Testimony, SUBSTITUTE BILL

HB512 POLICE, FIRE PENSION FUND (Abrams, C; Baldridge, B) - To increase employer contributions to the Ohio Police and Fire Pension Fund.

Current Status: 03/30/2022 House Insurance, (Second Hearing)

HB539 STATE RETIREMENT SYSTEMS - PUBLIC BROADCAST (Kelly, B; Ghanbari, H) - To require the state retirement systems to publicly broadcast board meetings.

Current Status: 02/15/2022 Referred to Insurance Committee

HB540 STATE RETIREMENT SYSTEMS – FINANCIAL INFORMATION (Kelly, B; Ghanbari, H) - To require the state retirement system boards to disclose certain financial information regarding alternative investments.

Current Status: 5/25/2022 - House Insurance, (First Hearing)

HB541 STATE RETIREMENT SYSTEMS – FORMER EMPLOYEES (Kelly, B; Ghanbari, H) - Regarding the prohibition against the state retirement systems doing business with a former state retirement system employee, officer, or board member.

Current Status: 5/25/2022 - House Insurance, (First Hearing)

HB601 STRS COST-OF-LIVING ADJUSTMENTS (Lightbody, M; Miller, A) - Regarding increasing contributions for employers to the State Teachers Retirement System and School Employees Retirement System, establishing minimum amounts for certain STRS cost-of-living adjustments, and eliminating an age-related eligibility criterion for retirement in STRS.

Current Status: 04/06/2022 House Insurance, (First Hearing)

SB308 DIVESTMENT, RESTRICTIONS-RUSSIA (Antani, N) - To prohibit state and local governments from investing in, granting incentives to, or contracting with Russia or companies based in Russia, to require Ohio's pension and other investment funds to divest from any such holdings, and to declare an emergency.

Current Status: 03/16/2022 Referred to General Government Budget Committee

SB347 SERS CONTRIBUTION BENEFIT CAP (Schuring, K; Hottinger, J) - To establish a contribution based benefit cap in calculating a School Employees Retirement System member's retirement benefit.

Current Status: 05/31/2022 Referred to Insurance Committee

SB348 SERS MEMBERSHIP DETERMINATION PROCEDURE (Reineke, W) To establish a School Employees Retirement System membership determination procedure and to limit the amount that the retirement system can charge for late contributions.

Current Status: 06/01/2022 Referred to Senate Insurance

School Employees Retirement System

Memo

To: Retirement Board

From: Richard Stensrud

cc: Karen Roggenkamp

Date: September 8, 2022

Re: September COLA Discussion

This memorandum and the attached spreadsheets provide information for your consideration with respect to a possible decision at the September Board Meeting regarding the retiree cost-of-living adjustment (COLA) for 2023.

As you know, under the COLA statute the SERS Board has wide discretion with respect to setting the COLA. The Consumer Price Index (CPI) for the previous year is a consideration, but it does not control or determine what the COLA will be. Instead, the Board has the ability to provide a COLA that is <u>below</u> the CPI if the actuary attests that doing so is advisable to protect the fiscal integrity of the pension fund, and the Board has the ability to provide a COLA that is <u>above</u> the CPI if the actuary attests that doing so will not materially impair the fiscal integrity of the pension fund. As discussed in more detail below, with the necessary attestation from the actuary regarding fiscal impact, the Board also has the authority to provide a COLA in excess of the 2.5% 'ceiling' noted in the statute.

Given the importance of fiscal impact on your COLA decision, SERS' actuary, Cavanaugh MacDonald, has provided information on the projected impact on the pension fund of different possible COLAs combined with different possible investment returns. That information, which is similar to what was prepared for last year's COLA decision, is contained in the attached Excel spreadsheets.

The first spreadsheet shows how the projected funded ratio, total benefit payment level, and cash flow on June 30, 2023 would be impacted by a COLA in 2023 ranging from 0% to 3% combined with investment returns for the year ranging from 0% to 7% (the investment return assumption). In other words, this data shows the projected short-term impact of different possible COLAs.

The second spreadsheet shows the projected longer-term impact of several possible COLAs on the funded ratio. It assumes that the 7% investment return assumption will be met over the period.

Both spreadsheets incorporate the -0.49% investment return for the 21-22 fiscal year, as well as the 2.5% COLA that was provided in 2022. As a starting point, the estimated funded ratio as of June 30, 2022 is approximately 77%, which represents an increase from the 74.46% funded ratio as of June 30, 2021.

The first spreadsheet shows the following with respect to funded ratio:

The highest projected funded ratio – 79.89% -- would be reached with a 0% COLA and a 7% investment return.

- The lowest projected funded ratio 77.77% -- would occur with a 3% COLA and a 0% investment return.
- For each increase in the COLA of 0.25%, the funded ratio declines by approximately 0.06% to 0.07%.
- The projected funded ratio with a 2.5% COLA will be approximately 0.14% higher than with a 3% COLA.
- The projected funded ratio will go up by 0.18% to 0.19% for each 1% of investment return above 7%.
- The projected funded ratio will decrease by 0.18% to 0.19% for each 1% of investment return below 0%.

A similar pattern and level of change is seen with respect to total benefit payments and cash flow impact:

- For each 0.25% increase in the COLA, the benefit payments increase by approximately \$362,251, meaning that the benefit payments will increase by \$724,502 with a 3% COLA compared to a 2.5% COLA.
- A 2.5% COLA will increase benefit payments by \$3,622,513. A 3% COLA will increase benefit payments by \$4,347,015. The base benefit payroll (i.e., before any COLA) is approximately \$1.435 billion.
- The negative cash flow increases as benefit payments increase but the negative cash flow percentage (the percentage of cash flow relative to the market value of assets) only increases by 0% to 0.01% for each 0.25% increase in the COLA.
 - The lowest negative cash flow percentage (-3.18%) would be under the 0% COLA/7% return combination.
 - The highest negative cash flow percentage (-3.43%) would be under the 3% COLA/0% return combination.
 - The actuary generally considers a negative cash flow percentage greater than -4% as warranting attention.

The second spreadsheet shows that over the longer time period:

- The funded ratio decreases by approximately 0.10% for each 0.25% increase in the COLA above 2.5%.
- The amortization period is projected to remain at 22 years (100% funded in 2044) if a COLA between 2.5% and 3% is provided in 2023.

The relatively small impact of providing a COLA greater than 2.5% in 2023 is a product of unique circumstances: Specifically, the extraordinary investment return of 26% in FY 20-21 provides a strong tailwind for mitigating the short-term impact of the -0.49% investment return in FY 21-22. However, there are some considerations and caveats the Board may want to keep in mind:

- The past year's investment return of approximately -0.49%, is approximately 7.5% below the investment return assumption.
 - o The shortfall will be phased in via smoothing over 4 years (current year plus next 3).
- The 26% investment return for FY 20-21 was 19% above the investment return assumption.
 - The deferred gains are being phased in over 4 years (last year, year just ended plus next 2)
- The deferred gains will exceed the deferred losses in the valuation as of June 30, 2022 and for the next 2 years. However, the funded ratio is likely to decrease in the following year.
- Investment experience in the current year plus in the next 3 years will impact the funded ratio.
 - Market projections are bearish, with lower returns expected over the next 10 years and the possibility of recession or stagflation.

 Any year where the investment return is below 7% will put downward pressure on funded status, starting with that year.

While the cushioning effect of the substantial return in FY 20-21 enables consideration of a COLA higher than 2.5% in 2023, it does not mean that every year there is strong investment performance a higher COLA will be warranted. Rather, the Board will need to consider multiple factors in order to maintain the long-term sustainability of the pension fund. Accordingly, to support that objective, I am recommending that after the Board determines what the COLA will be for 2023, that the Board consider adopting a policy that outlines the going forward circumstances and parameters under which the Board will entertain providing a COLA greater than 2.5%. Factors that might be considered in such a policy could include:

- That the pension fund is at or above a given funded ratio and will not drop below that ratio with a COLA above 2.5%.
- That the investment return for the year just ended, and/or for the four-year smoothing period, is at or above the investment return assumption.
- That the investment return for the year just ended is above 0%.
- That the amortization period is at or below a given level and will not increase.
- That the negative cash flow is and will remain at or below a given level.
- That the CPI is at or above a given level.

Such a policy would not only provide a structure and parameters for when the Board would consider granting a COLA greater than 2.5%, it would also provide transparency for stakeholders into whether a COLA greater than 2.5% would be considered. If the Board determines that adopting such a policy is advisable, I would also recommend that the Board consider establishing the policy through an administrative rule, which will help assure that the parameters are followed. If the Board wants to move forward on this, I would propose that it be addressed in the October to December timeframe.

Finally, there is another factor that could impact the Board's determination of the COLA for 2023: At the September Board Meeting the Board will also be called up to determine if you wish to allocate up to 0.50% of the employer pension contribution to the Health Care Fund. Factors the Board may want to consider in that regard include:

- Unlike the Pension Fund, the Health Care Fund does not smooth investment returns over a four-year period. Rather, the return for each year is immediately recognized. Accordingly, the -0.49% return for the past year will be fully integrated into the Health Care Fund valuation as of June 30, 2022. However, the 26% return for the previous year has also been fully integrated.
- The funded ratio of the Health Care Fund is projected to decrease from 46.56% to 42.7%.
- The solvency period for the Health Care Fund is projected to decrease from 36 years (2058) to 33 years (2055).
- Notwithstanding the small decreases noted above, the Health Care Fund remains strong relative to historic levels.
- Any funding that moves from the Pension Fund to the Health Care Fund will impact the long-term sustainability of the Pension Fund, including the ability to provide COLAs in the future.

The following are some additional data points and/or observations the Board may want to consider in weighing and processing the information above:

- The June-to-June CPI increase was 9.8%. This is on the heels of an approximately 5% increase last year.
- While the COLA statute references a 2.5% ceiling, the actuary uses a COLA assumption of 2%, which means any COLA above 2% will result in an actuarial loss which will push downward on funded status.

- With respect to awarding a COLA greater than the 2.5% noted in the statute:
 - o The statutory language can be interpreted as permitting it or not permitting it.
 - While the Board could choose to interpret the language as imposing a 'hard' cap, when the legislation was being considered the ORSC staff believed the language permitted it, which prompted them to recommended that some constraints/parameters be added.
 - In addition, when the legislation was being discussed with stakeholders there was some discussion that the ceiling could be exceeded as a way to 'make up' in good years for lower than CPI COLAs in earlier years.
 - The Attorney General's Office has recently opined that the ceiling can be exceeded if the actuary makes the necessary attestation.
 - Specifically, the actuary must attest that a COLA above the ceiling will not have a material negative impact on the fund: "(G) Before granting an increase under division (B) of this section, the retirement board may adjust the percentage of any increase if the board's actuary, in its annual actuarial valuation required by section 3309.21 of the Revised Code, or in other evaluations conducted under that section, determines that an adjustment does not materially impair the fiscal integrity of the retirement system or is necessary to preserve the fiscal integrity of the retirement system."
 - Impairment to the fiscal integrity of the retirement system could mean impact on any or all of funded status, amortization period, and cash flow.
 - Cavanaugh MacDonald has indicated that based on the projected impact reflected by the spreadsheets it is willing to provide the attestation of no material negative impact in the current circumstances.
- STRS will be providing a one-time COLA of 3% in 2023. Most OPERS retirees will receive a 3% COLA in 2023.

I hope this information is helpful. Please let me know if you have any questions.

Ohio School Employees' Retirement System COLA Scenario Impact on June 30, 2023 Valuation

- Reflects -.49% Rate of Return on Market Value of Assets for Year Ended June 30, 2022 and 2.5% COLA for 2022 Calendar Year
- Estimated Funded Ratio as of June 30, 2022 is 77%

2022/2023	Projected Results							2023 COLA						
Market Value Return	June 30, 2023	0%	0.25%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.00%	2.25%	2.50%	2.75%	3.00%
	Funded Ratio	78.56%	78.49%	78.43%	78.36%	78.30%	78.23%	78.16%	78.10%	78.03%	77.97%	77.90%	77.84%	77.77%
	Benefit Payments	\$1,435,125,031	\$1,435,487,282	\$1,435,849,534	\$1,436,211,785	\$1,436,574,036	\$1,436,936,288	\$1,437,298,539	\$1,437,660,790	\$1,438,023,041	\$1,438,385,293	\$1,438,747,544	\$1,439,109,795	\$1,439,472,046
0%	Contributions	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905
	Cash Flow	(\$567,709,126)	(\$568,071,377)	(\$568,433,629)	(\$568,795,880)	(\$569,158,131)	(\$569,520,383)	(\$569,882,634)	(\$570,244,885)	(\$570,607,136)	(\$570,969,388)	(\$571,331,639)	(\$571,693,890)	(\$572,056,141)
	Negitive CF %	-3.41%	-3.41%	-3.41%	-3.41%	-3.42%	-3.42%	-3.42%	-3.42%	-3.42%	-3.43%	-3.43%	-3.43%	-3.43%
	Funded Ratio	78.75%	78.68%	78.62%	78.55%	78.49%	78.42%	78.35%	78.29%	78.22%	78.16%	78.09%	78.03%	77.96%
	Benefit Payments	\$1,435,125,031	\$1,435,487,282	\$1,435,849,534	\$1,436,211,785	\$1,436,574,036	\$1,436,936,288	\$1,437,298,539	\$1,437,660,790	\$1,438,023,041	\$1,438,385,293	\$1,438,747,544	\$1,439,109,795	\$1,439,472,046
1%	Contributions	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905
	Cash Flow	(\$567,709,126)	(\$568,071,377)	(\$568,433,629)	(\$568,795,880)	(\$569,158,131)	(\$569,520,383)	(\$569,882,634)	(\$570,244,885)	(\$570,607,136)	(\$570,969,388)	(\$571,331,639)	(\$571,693,890)	(\$572,056,141)
	Negitive CF %	-3.37%	-3.37%	-3.38%	-3.38%	-3.38%	-3.38%	-3.39%	-3.39%	-3.39%	-3.39%	-3.39%	-3.40%	-3.40%
	Funded Ratio	78.94%	78.88%	78.81%	78.74%	78.68%	78.61%	78.54%	78.48%	78.41%	78.35%	78.28%	78.22%	78.15%
	Benefit Payments	\$1,435,125,031	\$1,435,487,282	\$1,435,849,534	\$1,436,211,785	\$1,436,574,036	\$1,436,936,288	\$1,437,298,539	\$1,437,660,790	\$1,438,023,041	\$1,438,385,293	\$1,438,747,544	\$1,439,109,795	\$1,439,472,046
2%	Contributions	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905
	Cash Flow	(\$567,709,126)	(\$568,071,377)	(\$568,433,629)	(\$568,795,880)	(\$569,158,131)	(\$569,520,383)	(\$569,882,634)	(\$570,244,885)	(\$570,607,136)	(\$570,969,388)	(\$571,331,639)	(\$571,693,890)	(\$572,056,141)
	Negitive CF %	-3.34%	-3.34%	-3.34%	-3.35%	-3.35%	-3.35%	-3.35%	-3.35%	-3.36%	-3.36%	-3.36%	-3.36%	-3.37%
	Funded Ratio	79.13%	79.07%	79.00%	78.93%	78.87%	78.80%	78.73%	78.67%	78.60%	78.54%	78.47%	78.40%	78.34%
	Benefit Payments	\$1,435,125,031	\$1,435,487,282	\$1,435,849,534	\$1,436,211,785	\$1,436,574,036	\$1,436,936,288	\$1,437,298,539	\$1,437,660,790	\$1,438,023,041	\$1,438,385,293	\$1,438,747,544		\$1,439,472,046
3%	Contributions	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905
	Cash Flow	(\$567,709,126)	(\$568,071,377)	(\$568,433,629)	(\$568,795,880)	(\$569,158,131)	(\$569,520,383)	(\$569,882,634)	(\$570,244,885)	(\$570,607,136)	(\$570,969,388)	(\$571,331,639)	(\$571,693,890)	(\$572,056,141)
	Negitive CF %	-3.31%	-3.31%	-3.31%	-3.31%	-3.31%	-3.32%	-3.32%	-3.32%	-3.32%	-3.33%	-3.33%	-3.33%	-3.33%
	Funded Ratio	79.32%	79.26%	79.19%	79.12%	79.06%	78.99%	78.92%	78.86%	78.79%	78.73%	78.66%	78.59%	78.53%
	Benefit Payments	\$1,435,125,031	\$1,435,487,282	\$1,435,849,534	\$1,436,211,785	\$1,436,574,036	\$1,436,936,288	\$1,437,298,539	\$1,437,660,790	\$1,438,023,041	\$1,438,385,293	\$1,438,747,544	\$1,439,109,795	\$1,439,472,046
4%	Contributions	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905
	Cash Flow	(\$567,709,126)	(\$568,071,377)	(\$568,433,629)	(\$568,795,880)	(\$569,158,131)	(\$569,520,383)	(\$569,882,634)	(\$570,244,885)	(\$570,607,136)	(\$570,969,388)	(\$571,331,639)	(\$571,693,890)	(\$572,056,141)
	Negitive CF %	-3.27%	-3.28%	-3.28%	-3.28%	-3.28%	-3.28%	-3.29%	-3.29%	-3.29%	-3.29%	-3.30%	-3.30%	-3.30%
	Funded Ratio	79.51%	79.45%	79.38%	79.31%	79.25%	79.18%	79.11%	79.05%	78.98%	78.91%	78.85%	78.78%	78.72%
	Benefit Payments	\$1,435,125,031	\$1,435,487,282	\$1,435,849,534	\$1,436,211,785	\$1,436,574,036	\$1,436,936,288	\$1,437,298,539	\$1,437,660,790	\$1,438,023,041	\$1,438,385,293	\$1,438,747,544		\$1,439,472,046
5%	Contributions	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905
	Cash Flow	(\$567,709,126)	(\$568,071,377)	(\$568,433,629)	(\$568,795,880)	(\$569,158,131)	(\$569,520,383)	(\$569,882,634)	(\$570,244,885)	(\$570,607,136)	(\$570,969,388)	(\$571,331,639)	(\$571,693,890)	(\$572,056,141)
	Negitive CF %	-3.24% 79.70%	-3.24% 79.64%	-3.25% 79.57%	-3.25% 79.50%	-3.25% 79.44%	-3.25% 79.37%	-3.25% 79.30%	-3.26% 79.24%	-3.26% 79.17%	-3.26% 79.10%	-3.26% 79.04%	-3.27% 78.97%	-3.27% 78.91%
	Funded Ratio	79.70% \$1,435,125,031	/9.64% \$1,435,487,282	/9.5/% \$1,435,849,534	/9.50% \$1,436,211,785	79.44% \$1,436,574,036	/9.3/% \$1,436,936,288	79.30% \$1,437,298,539	\$1,437,660,790	/9.1/% \$1.438.023.041	79.10% \$1,438,385,293	79.04% \$1,438,747,544	78.97% \$1,439,109,795	78.91% \$1,439,472,046
60/	Benefit Payments Contributions	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905
6%		. , ,	. , ,	. , ,	. , ,	. , ,	. , ,	. , ,		. , ,		. , ,		. , ,
	Cash Flow	(\$567,709,126) -3.21%	(\$568,071,377)	(\$568,433,629) -3.21%	(\$568,795,880)	(\$569,158,131) -3.22%	(\$569,520,383) -3,22%	(\$569,882,634) -3.22%	(\$570,244,885) -3.23%	(\$570,607,136)	(\$570,969,388) -3.23%	(\$571,331,639) -3.23%	(\$571,693,890)	(\$572,056,141) -3.24%
	Negitive CF % Funded Ratio	-3.21% 79.89%	-3.21% 79.83%	-3.21% 79.76%	-3.22% 79.69%	-3.22% 79.63%	-3.22% 79.56%	-3.22% 79.49%	-3.23% 79.43%	-3.23% 79.36%	-3.23% 79.29%	-3.23% 79.23%	-3.23% 79.16%	79.09%
	Benefit Payments	\$1,435,125,031	\$1,435,487,282		\$1,436,211,785	\$1,436,574,036	\$1,436,936,288	\$1,437,298,539	\$1,437,660,790	\$1,438,023,041	\$1,438,385,293	\$1,438,747,544		\$1,439,472,046
7%	Contributions	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905	\$867,415,905
7 70	Cash Flow	(\$567,709,126)	(\$568,071,377)	(\$568,433,629)	(\$568,795,880)	(\$569,158,131)	(\$569,520,383)	(\$569,882,634)	(\$570,244,885)	(\$570,607,136)	(\$570,969,388)	(\$571,331,639)	(\$571,693,890)	(\$572,056,141)
	Negitive CF %	-3.18%	-3.18%	-3.18%	-3.19%	-3.19%	-3.19%	-3.19%	-3.19%	-3.20%	-3.20%	-3.20%	-3.20%	-3.21%
	Negitive CF 70	-5.18%	-5.18%	-5.18%	-5.19%	-5.19%	-5.19%	-5.19%	-5.19%	-5.20%	-3.20%	-3.20%	-3.20%	-3.21%

Ohio School Employees' Retirement System COLA Scenario Impact on Projected Funded Ratio

Reflects .49% Rate of Return on Market Value of Assets for Year Ended June 30, 2022 and 2.5% COLA for 2022 Calendar Year Estimated Funded Ratio as of June 30, 2022 is 77%

June 30,	2.00%	2.25%	2.50%	2.75%	3.00%
2021	74.46%	74.46%	74.46%	74.46%	74.46%
2022	77.17%	77.11%	77.05%	76.99%	76.93%
2023	79.36%	79.29%	79.23%	79.16%	79.09%
2024	82.30%	82.23%	82.16%	82.08%	82.01%
2025	81.97%	81.89%	81.81%	81.74%	81.66%
2026	83.11%	83.02%	82.94%	82.85%	82.77%
2027	84.27%	84.18%	84.08%	83.99%	83.90%
2028	85.46%	85.36%	85.26%	85.17%	85.07%
2029	86.69%	86.58%	86.48%	86.38%	86.27%
2030	87.96%	87.85%	87.74%	87.63%	87.52%
2031	89.28%	89.16%	89.04%	88.92%	88.80%
2032	90.48%	90.44%	90.40%	90.28%	90.15%
2033	91.08%	91.04%	91.01%	90.89%	90.77%
2034	91.71%	91.67%	91.64%	91.53%	91.42%
2035	92.37%	92.33%	92.30%	92.20%	92.10%
2036	93.05%	93.03%	93.00%	92.90%	92.81%
2037	93.78%	93.75%	93.73%	93.64%	93.56%
2038	94.54%	94.52%	94.50%	94.42%	94.35%
2039	95.35%	95.33%	95.31%	95.25%	95.18%
2040	96.20%	96.19%	96.17%	96.12%	96.06%
2041	97.10%	97.09%	97.07%	97.03%	96.99%
2042	98.04%	98.03%	98.02%	97.99%	97.97%
2043	99.02%	99.02%	99.01%	99.00%	98.98%
2044	100.03%	100.03%	100.03%	100.03%	100.03%
2045	100.04%	100.04%	100.04%	100.04%	100.04%
2046	100.06%	100.06%	100.06%	100.06%	100.05%
2047	100.07%	100.07%	100.07%	100.07%	100.07%
2048	100.08%	100.08%	100.08%	100.08%	100.08%
2049	100.09%	100.09%	100.09%	100.09%	100.09%
2050	100.10%	100.10%	100.10%	100.10%	100.10%
2051	100.11%	100.11%	100.11%	100.11%	100.11%

Memorandum

Cavanaugh Macdonald Consulting, LLC

To: Board of Trustees, School Employee Retirement System of Ohio

From: Todd Green, John Garrett

Date: 9/9/2022

Re: Board Consideration of 2023 Annual COLA Rate

Under Ohio Revised Code 3309.374(G), the Board may grant an annual COLA in excess of 2.5%, provided the board's actuary determines "the adjustment does not materially impair the fiscal integrity of the retirement system." We have considered various rates of increase in eligible retirement benefit amounts effective above 2.5% and find that, in our opinion, an increase in the year 2023 annual payments of up to 3.25% would not result in a material impairment of the actuarial soundness, nor the fiscal integrity, of the System.

From a longer-term, actuarial perspective, our concern is with establishing a pattern of annual COLA rates in excess of 2.5% under a scenario that higher rates of inflation are more persistent than currently forecasted. We are in support of the Board establishing a policy which sets clear actuarial and/or economic constraints to be met prior to the Board exercising its discretion in establishing future annual rates of COLA. With such a policy in place, the board's actuary will be better able to anticipate the future rates of annual COLAs utilized in the annual valuations of the System.

We look forward to addressing any questions which the Board may pose.

It was moved by and seconded by that eligible SERS allowances, pensions and benefits shall receive a 2.50% cost-of-living adjustment (COLA) in calendar year 2023, which is the amount as set forth in R.C. 3309.374(B).								
Upon roll call, the vote was as	s follows:							
ROLL CALL:	<u>YEA</u>	NAY	<u>ABSTAIN</u>					
Frank Weglarz Hugh Garside James Haller Matthew King Catherine Moss Barbara Phillips James Rossler Daniel Wilson Jeffrey DeLeone								

allowances, pensions and be in calendar year 2023 as	nefits shall rece SERS' actuar G) that a 2.75%	eive a 2.75% co y, Cavanaugh	that eligible SERS ost-of-living adjustment (COLA) Macdonald, has determined not materially impair the fiscal				
Upon roll call, the vote was as follows: ROLL CALL: YEA NAY ABSTAIN							
Frank Weglarz Hugh Garside James Haller							
Matthew King Catherine Moss							

Barbara Phillips James Rossler Daniel Wilson Jeffrey DeLeone

It was moved by				
allowances, pensions a	nd benefits shall	receive a 3.00%	cost-of-living ad	justment (COLA)
in calendar year 202	3 as SERS' act	tuary, Cavanau	igh Macdonald,	has determined
pursuant to R.C. 3309	.374(G) that a 3.	00% COLA doe	es not materially	impair the fiscal
integrity of the retireme	nt system.			
Upon roll call, the vote	was as follows:			
ROLL CALL:	<u>YEA</u>	<u>NAY</u>	<u>ABSTAIN</u>	
Frank Weglarz				
Hugh Garside				

James Haller Matthew King Catherine Moss Barbara Phillips James Rossler Daniel Wilson Jeffrey DeLeone

School Employees Retirement System

Memo

To: Retirement Board

From: Richard Stensrud, Executive Director

Date: September 1, 2022

Re: Actuarial Discussion - June 30, 2022, funding level

Todd Green from Cavanaugh Macdonald Consulting will be present at the September 15 Board meeting to discuss the anticipated funding levels for the June 30, 2022, actuarial valuation based on the work completed thus far. The purpose of this presentation is to assist the Board in determining what portion of the employer contribution, if any, should be allocated to health care in Fiscal Year 2023 provided SERS' funded ratio is at least 70%. Per SERS' Funding Policy, if the funded ratio is 70% but less than 80%, at least 13.50% of the employer contribution shall be allocated to SERS' basic benefits, with the remainder (if any) allocated to the Health Care Fund.

Based on a -0.49% investment return, the actuary has provided a preliminary June 30, 2022, that projects that the Pension funded ratio will be in the 78.1% range and the Health Care funded ratio of 42.7% as compared to 46.6% in the prior year. In addition, the actuary projects solvency through 2055, a reduction of three years. Final numbers may change in the final June 30, 2022, Health Care valuation based on new healthcare premiums and census data.

Another factor impacting the Health Care funding level is the annual Employer surcharge calculation. The annual surcharge billed to the employers on August 15th was approximately \$53.8 million.

The preliminary Health Care fund balance on June 30, 2022, is \$593.9 million, which is pending final investment valuation adjustments for alternative investments.

ACTUARIAL VALUATION REPORT

ALLOCATION OF EMPLOYER CONTRIBUTIONS – HEALTH CARE FUND

moved and seconded that after discussion with Cavanaugh Macdonald regarding the preliminary results of the annual basic benefits valuation (to be prepared as of June 30, 2022) at the September 2022 Board meeting, the Board elects to allocate of the 14% employer contribution to the Health Care Fund for fiscal year 2023 in accordance with the funding policy approved by the Board on June 18, 2015.			
Upon roll call, the vote was as follows:			
ROLL CALL:	<u>YEA</u>	NAY	<u>ABSTAIN</u>
Frank Weglarz Hugh Garside James Haller Matthew King Catherine Moss Barbara Phillips James Rossler Daniel Wilson			

Jeffrey DeLeone

Year-to-Date Through June 30, 2022 (Final)						Budgeted	
Major Category/Sub-Major Category	Line Item	Vendor	FY2022 Budget Revised		ear to Date Expense	Y/N?	Additional Information
PROFESSIONAL SERVICES			\$ 6,829,361				
ACTUARIAL ADVISORS	Antonostal	Causanus Mandauald	\$ 344,725		278,053.50	V	A storagist Composite at
AUDITING	Actuarial	Cavanaugh Macdonald	344,725		278,053.50	Υ	Actuarial Consultant
AUDITING	A aliation —	DCNA	\$ 224,984		205,718.30 179,606.00	Υ	France Araditan
BANKING FEES	Auditing	RSM	174,984 \$ 1,303,620			Y	External Auditor
BANKING FEES	Custodial Panking				1,285,191.77	Y	
	Custodial Banking	Huntington/Fifth Third	1,105,200		1,094,585.68	Υ	Domestic Custodian
		Huntington/Fifth Third	405,600		311,115.22	Ϋ́	
	A desiminatore Desiling	BNYM	699,600		783,470.46		International Custodian
INVESTMENT RELATED	Administrative Banking	Huntington National Bank/ TOS	198,420		190,606.09	Υ	Banking Services
INVESTMENT RELATED	Mantau Danaudhaanan		\$ 2,554,217		2,541,224.95	V	
	Master Recordkeeper		1,010,400		1,016,714.45	Υ	
	Investment Consulting & Advisory Services	Alieia	700,000		650,000.00	Υ	Investment Consulting
		Aksia	250,000		200,000.00		Investment Consulting
	De Comment And Place	Wilshire	450,000		450,000.00	Y	Investment Consulting
	Performance Analytics Services		704,800		705,635.68		
		Barra-One Risk Mgmt Sys	254,000		238,445.00	Y	Investment Risk Analytics
		BNY Mellon GRS	412,800		425,180.72	Y	Investment Performance Analyst
TECHNICAL			\$ 2,356,815		1,979,505.93		
	Special Counsel		235,000		283,100.74	Υ	
	Technical		1,595,500		1,263,120.31		
		IBM	118,000		118,000.00	Υ	Data Warehouse
		Sagitec	550,200		567,168.97	Υ	SMART Development Resource
		Buck Global	300,000		151,775.67	Υ	Medical and Presciption Consulti
	Other Professional Services		526,315		433,284.88		
THER OPERATING EXPENSE			\$ 3,167,979		3,034,667.27		
COMPUTER SUPPORT SERVICES			\$ 2,028,407	.50 \$	2,196,691.41		
	Software Maintenance		1,035,825	.00	1,064,584.63		
		Hyland	111,500	.00	110,529.96	Υ	ImageNow
		Dell	271,000		332,083.39	Υ	Microsoft Enterprise Agreemer
		Sagitec	420,000		420,000.00	Υ	SMART Silver Support
	Software Subscriptions		803,282		910,372.20	Υ	
	•	OarNet	115,000		96,266.67	Υ	Vmware License
		Dynamo	60,000		130,250.00	Υ	Dynamo Software, INC
		Carahsoft	94,000		109,716.00	Υ	ServiceNow System
		PROJECT ITEMS					
ajor Category/Sub-Major Category	Line Item	Project	FY2022 Budget		YTD Expense	Budgeted Y/N?	Additional Information
ROFESSIONAL SERVICES							
TECHNICAL	Technical						
	recriffed	Improve SMART Self Service Capabilities	175,000	.00	-	Υ	Consulting Services
RS							
		UNBUDGETED PROJECT ITEMS					
						Budgeted	<u> </u>
ajor Category/Sub-Major Category	Line Item	Project	FY2022 Budget	,	YTD Expense	Y/N?	Expense Reallocation
	Technical	Resource need caused by vacancy- IT Consultant		\$	71,127.50	N	Technical
		Employee Engagement Survey- HR Consultant CPS					
	Technical	Consulting		\$	17,800.00	N	Other Professional Services
	Computer Support Services	Dell Laptops		\$	13,540.00	N	Other Operating Expense
	Computer Support Services	Metallic Office 365 Backup		\$	11,845.00	N	Other Operating Expense
	Computer Support Services	Dell Laptops		\$	67,700.00	N	Other Operating Expense
	Technical	Direct Pay Invoicing Project		\$	41,580.00	N	Technical
	Technical	CFO Search		\$	66,294.21	N	Technical
SERS BROAD STREET, LLC		HANDLINGSTED DDG FOT ITTE					
		UNBUDGETED PROJECT ITEMS				Budgeted	
ajor Category	Line Item	Project	FY2022 Budget		YTD Expense	Y/N?	
ajo. satebolj	Enic Item	Hoject	LOZZ Duuget		I ID Expense	1/14:	

FY2023 Administrative Budget Board Expense to Budget Reporting Year-to-Date Through July 31, 2022

ajor Category/Sub-Major Category	Line Item	Vendor	FY2023 E	udget	Year to Date Expense	Budgeted Y/N?	Additional Information
OFESSIONAL SERVICES			\$	6,502,883.00	\$ 300,762.50		
ACTUARIAL ADVISORS			\$	421,008.00	\$ 12,000.00		
	Actuarial	Cavanaugh Macdonald		272,508.00	12,000.00	Υ	Actuarial Consultant
AUDITING			\$	244,000.00	\$ -		
	Auditing	RSM		184,000.00	-	Υ	External Auditor
BANKING FEES			\$	1,268,466.00	\$ 350.42	Υ	
	Custodial Banking			1,073,544.00	-		
		Huntington/Fifth Third		302,004.00	-	Υ	Domestic Custodian
		BNYM		765,000.00	-	Υ	International Custodian
	Administrative Banking	Huntington National Bank/ TOS		194,922.00	350.42	Υ	Banking Services
INVESTMENT RELATED			\$	2,664,622.00	\$ 59,611.25		
	Master Recordkeeper			1,116,000.00	-	Υ	
	Investment Consulting & Advisory Services			650,000.00	-		
		Aksia		200,000.00	-	Υ	Investment Consulting
		Wilshire		450,000.00	-	Υ	Investment Consulting
	Performance Analytics Services			690,263.00	59,611.25		
		Barra-One Risk Mgmt Sys		238,445.00	59,611.25	Υ	Investment Risk Analytics
		BNY Mellon GRS		412,800.00	-	Υ	Investment Performance Analys
TECHNICAL			\$	1,859,787.00	\$ 225,050.83		
	Special Counsel			235,020.00	-	Υ	
	Technical			1,202,316.00	47,349.00		
		IBM		118,000.00	-	Υ	Data Warehouse
		Sagitec		550,000.00	47,124.00	Υ	SMART Development Resource
	Other Professional Services			422,451.00	177,701.83		
HER OPERATING EXPENSE			\$	3,607,379.00	\$ 529,604.64		
COMPUTER SUPPORT SERVICES			\$	2,343,770.00	\$ 476,371.08		
	Software Maintenance			1,004,851.00	203,511.47		
		Hyland		110,529.00	114,482.38	Υ	ImageNow
		Dell		240,000.00		Υ	Microsoft Enterprise Agreeme
		Sagitec		420,000.00	35,000.00	Υ	SMART Silver Support
	Software Subscriptions			1,183,234.00	247,644.21	Υ	
		DRaaS		158,000.00	-	Υ	Expedient
		Dynamo		128,000.00	128,000.00	Υ	Dynamo Software, INC
		Carahsoft		124,688.00	109,855.20	Υ	ServiceNow System
ROPERTY MANAGEMENT LIABILITY INSURANCE							
	Management Liability Insurance			518,000.00	-		
		Cyber Liability Insurance		118,000.00	-	Υ	ARC Excess & Surplus, LLC
		Crime Fiduciary D&O Insurance		400,000.00	-	Υ	ARC Excess & Surplus, LLC

		PROJECT TEMS				
					Budgeted	
Major Category/Sub-Major Category	Line Item	Project	FY2023 Budget	YTD Expense	Y/N?	Additional Information
PROFESSIONAL SERVICES						
TECHNICAL						
		CBBC Programming	150,000.00	-	Υ	CBBC programming

SERS

		UNBUDGETED PROJECT ITEMS				
					Budgeted	
Major Category/Sub-Major Category	Line Item	Project	FY2023 Budget	YTD Expense	Y/N?	Expense Reallocation

OSERS BROAD STREET, LLC

	UNBUD	GETED PROJECT ITEMS			
					Budgeted
Major Category	Line Item	Project	FY2023 Budget	YTD Expense	Y/N?

RACTUARIA ADVISORS	Major Category/Sub-Major Category	Line Item	Vendor	FY2023 I	Budget	Year to Date Expense	Budgeted Y/N?	Additional Information
ACTUARIAL ADVISORS								
Actuarial Carrial Ca	ACTUARIAL ADVISORS							
MODITING		Actuarial	Cavanaugh Macdonald	•	•		Υ	Actuarial Consultant
Marking FEES	AUDITING			Ś	,			
S		Auditing	RSM	·	184,000.00	-	Υ	External Auditor
Custodial Banking	BANKING FEES	Ü		\$	1,268,466.00	\$ 212,787.86	Υ	
Huntingon/fith Third 30,000 51,000 70 Domestic Custor 50,000 17,000 70 Nortestic Custor 75,0000 17,000 70 Nortestic Custor 75,0000 17,000 70 Nortestic Custor 75,0000 75,0000 17,075 70 Nortestic Custor 75,0000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,000 75,0		Custodial Banking			1,073,544.00	198,000.00		
Marington National Bankiry Munington National Bankiry Marington National Bankiry Marington National Bankiry S. 2666,522 \$3,266,672 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,278.78 \$1,27		_	Huntington/Fifth Third		302,004.00	51,000.00	Υ	Domestic Custodian
NVESTMENT RELATED S 2,654.62.20 S 432,465.70 Nuestment Consulting & Advisory Services Aksia 20,000.00 97.91.67 Nuestment Consulting & Advisory Services Aksia 20,000.00 07.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.00 7.90.			BNYM		765,000.00	147,000.00	Υ	International Custodian
Master Recordikenger		Administrative Banking	Huntington National Bank/ TOS		194,922.00	14,787.86	Υ	Banking Services
Investment Consulting & Advisory Services	INVESTMENT RELATED	Ţ.	·	\$	2,664,622.00			- J
Missis		Master Recordkeeper					Υ	
Mishire		Investment Consulting & Advisory Services						
Mishire		,	Aksia				Υ	Investment Consulting
Performance Analytics Services Barra-One Risk Mgmt Sys 238,445.00 59,611.25 Y Investment Risk A 12,000.00 58,803.32 Y Investment Risk A 12,000.00 58,803.32 Y Investment Performance Analytics Services Y 12,000.00 12,300.00 12,300.00 Y 12,000.00							Υ	Investment Consulting
Barra One Risk Mgmt Sys 238,445,00 59,611,25 7 Investment Risk Agent Sys 68,803,32 7 Investment Risk Agent Sys 68,803,32 7 Investment Performant Sys 7 1 1 1 1 1 1 1 1 1		Performance Analytics Services						
NY Mellon GRS		,,	Barra-One Risk Mgmt Svs				Υ	Investment Risk Analytics
Second Counse Seco			- ·					Investment Performance Analystic
Special Counse	TECHNICAL			Ś		,		, , , , , , , , , , , , , , , , , , , ,
Technical 1,202,316,00		Special Counsel		•			Υ	
BM		•				,	•	
Sagitec S50,000.00		. commedi	IRM			•	Υ	Data Warehouse
Computer Support Services \$2,451.00 \$18,574.94 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$18,574.95 \$1					,	47 124 00		SMART Development Resources
S S S S S S S S S S		Other Professional Services	345.100		,	,	•	Similar Development nesources
COMPUTER SUPPORT SERVICES \$ 2,343,770.0 \$ 538,230.6	THER OPERATING EXPENSE	Garage Froncessional Services		Ś	<u> </u>			
Software Maintenance								
Hyland		Software Maintenance		•		•		
Dell 240,000.00 35,000.00 7 Microsoft Enterprise Sagitec 420,000.00 35,000.00 7 SMART Silver Su 50 50 50 50 50 50 50 5		Software Maintenance	Hyland				Υ	ImageNow
Sagitec 420,000.00 35,000.00 Y SMART Silver Sulver Sulv			-					Microsoft Enterprise Agreement
Name					,	35 000 00		SMART Silver Support
DRaaS 158,000.00 - Y Expedient		Software Subscriptions	345.000					Sitter Support
Dynamo 128,000.00 128,000.00 128,000.00 Y Dynamo Softwar		Software Subscriptions	DRaaS					Expedient
Carahsoft 124,688.00 109,855.20 Y ServiceNow Sy PROPERTY MANAGEMENT LIABILITY INSURANCE Management Liability Insurance Cyber Liability Insurance FROJECT ITEMS Budgeted Apior Category/Sub-Major Category Line Item Project FY2023 Budget YTD Expense Y/N? Additional Information Concessional Co						128 000 00		•
PROPERTY MANAGEMENT LIABILITY INSURANCE Management Liability Insurance Cyber Liability Insurance Cyber Liability Insurance Crime Fiduciary D&O Insurance 400,000.00 97,172.00 Y ARC Excess & Surgency PROJECT ITEMS Budgeted ajor Category/Sub-Major Category Line Item Project FY2023 Budget YTD Expense Y/N? Additional Information of Company Additional Information of Company PROJECT ITEMS Budgeted YTD Expense Y/N? Additional Information of Company PROJECT ITEMS COPESSIONAL SERVICES			-				· ·	•
Management Liability Insurance Cyber Liability Insurance Cyber Liability Insurance Cyber Liability Insurance 118,000.00 22,582.00 Y ARC Excess & Surgance FROJECT ITEMS PROJECT ITEMS Budgeted ajor Category/Sub-Major Category Line Item Project FY2023 Budget TECHNICAL	PROPERTY MANAGEMENT LIABILITY INSURANCE				124,000.00	103,033.20		Service Now System
Cyber Liability Insurance 118,000.00 22,582.00 Y ARC Excess & Surp. Crime Fiduciary D&O Insurance 400,000.00 97,172.00 Y ARC Excess & Surp. PROJECT ITEMS Budgeted ajor Category/Sub-Major Category Line Item Project FY2023 Budget YTD Expense Y/N? Additional Information Services TECHNICAL	THO ENTERNATION OF THE PROPERTY OF THE PROPERT	Management Liability Insurance			518 000 00	119 754 00		
Crime Fiduciary D&O Insurance 400,000.00 97,172.00 Y ARC Excess & Surgestion of the Company of t			Cyber Liability Insurance		,	,	٧	ARC Excess & Surplus, LLC
PROJECT ITEMS Budgeted lajor Category/Sub-Major Category Line Item Project FY2023 Budget YTD Expense Y/N? Additional Information Company ROFESSIONAL SERVICES TECHNICAL					,	,		ARC Excess & Surplus, LLC
Budgeted ajor Category/Sub-Major Category Line Item Project FY2023 Budget YTD Expense Y/N? Additional Information COPESSIONAL SERVICES TECHNICAL			•		400,000.00	37,172.00	<u> </u>	And Execus & Surpius, EEC
lajor Category/Sub-Major Category Line Item Project FY2023 Budget YTD Expense Y/N? Additional Information Project FY2023 Budget YTD Expense Y/N?			FAOJECT HEIVIS				Rudgeted	
ROFESSIONAL SERVICES TECHNICAL	aior Category/Sub-Maior Category	Line Item	Project	E	/2023 Rudget	VTD Evnense		Additional Information
TECHNICAL		Line item	Fioject		LOLD DUUGEL	110 Expense	1/14:	Additional information
Code programming 150,000.00 - 1 Code programm	TECHNICAL		CRRC Programming		150 000 00		٧	CRRC programming
			COSC Ogranining		150,000.00		•	CDDC programming

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		UNBUDGETED PROJECT ITEMS				
					Budgeted	
Major Category/Sub-Major Category	Line Item	Project	FY2023 Budget	YTD Expense	Y/N?	Expense Reallocation

OSERS BROAD STREET, LLC

		UNBUDGETED PROJECT ITEMS			
					Budgeted
Major Category	Line Item	Project	FY2023 Budget	YTD Expense	Y/N?

School Employees Retirement System of Ohio

Summary of administrative operation expenses during the period July 1, 2022-July 31, 2022.

Actuals Jul-2022

July Administrative Expense Report 53100 - Salaries & Wages	Account Salaries & Wages	Amount 1,638,261.28
53110 - Salaries & Wages - Overtime	Salaries & Wages- Overtime	7,140.51
53111 - Vacation Leave Expense	Vacation Leave Expense	244,965.05
53112 - Sick Leave Expense	Sick Leave Expense	218,792.51
53200 - Employer Contributions - PERS	Employer Contributions- PERS	270,909.18
53300 - Group Life	Group Life	9,378.79
53310 - Long Term Disability	Long Term Disability	3,288.63
53315 - Short Term Disability	Short Term Disability	3,910.14
53320 - Group Health Claims	Group Health Claims	184,868.39
53321 - Group Health - Admin Fees	Group Health- Admin Fees	7,390.11
53322 - Prescription Claims	Prescription Claims	73,362.77
53324 - Group Health - Stop Loss Admin	Group Health- Stop Loss Admin	16,012.88
53326 - Vision Claims	Vision Claims	2,973.90
53327 - Vision Admin Fees	Vision Admin Fees	123.84
53330 - Group Health - Employee Cost	Group Health- Employee Cost	(45,881.89)
53331 - Group Health - Wellness Incentive	Group Health- Wellness Incentive	3,800.00
53332 - Group Health - Tobacco Premiums	Group Health- Tobacco Premiums	(1,200.00)
53335 - Federal HC Admin. Fees	Federal HC Admin. Fees	1,196.91
53340 - Medicare Premium - Employer	Medicare Premium- Employer	29,747.56
53380 - Deferred Compensation Match	Deferred Compensation Match	7,305.00
54100 - Actuarial Services	Actuarial Services	12,000.00
54320 - Custodial Banking	Custodial Banking	350.42
54430 - Performance/Analytics Fee	Performance/ Analytics Fee	59,611.25
54520 - Medical Consultant	Medical Consultant	3,750.00
54620 - Technical	Technical	47,349.00
54630 - Other Professional Services	Other Professional Services	177,701.83
55100 - Postage	Postage	2,660.54
55200 - Telecommunications Services	Telecommunications Services	67,579.12
55300 - Member/Employer Education	Member/Employer Education	(426.75)
56020 - Hardware Maintenance	Hardware Maintenance	24,750.00
56030 - Software Maintenance	Software Maintenance	203,511.47
56035 - Software Subscriptions	Software Subscriptions	247,644.21
56110 - Equipment Repairs & Maintenance	Equipment Repairs & Maintenance	11,039.24
56160 - Records Storage	Records Storage	2,761.00

July Administrative Expense Report 56210 - Seminars & Conferences	Account Seminars & Conferences	Amount (300.00)
53370 - Tuition	Tuition	6,336.51
56310 - Travel & Transportation	Travel & Transportation	1,655.20
56410 - Subscriptions	Subscriptions	8,778.05
56420 - Memberships	Memberships	16,106.00
56610 - Operations Maintenance	Operations Maintenance	2,933.47
56630 - Interior Landscaping	Interior Landscaping	1,356.37
56620 - Staff Support	Staff Support	11,617.19
56621 - Recruiting Expense	Recruiting Expense	80.50
56820 - Ohio Retirement Study Council	Ohio Retirement Study Council	12,096.53
56900 - Reimbursement of Leased Svcs	Reimbursement of Leased Svcs.	(25,416.67)
	Total Administrative Expenses	3,571,870.04

School Employees Retirement System of Ohio REVIEW OF ADMINISTRATIVE EXPENSES 22-Jul

Expense Account	<u>Vendor</u>	Amount	į
53100 - Salaries & Wages	ADP, LLC	Subtotal	1,638,261.28 1,638,261.28
53110 - Salaries & Wages - Overtime	ADP, LLC	Subtotal	7,140.51 7,140.51
53111 - Vacation Leave Expense	ADP, LLC	Subtotal	244,965.05 244,965.05
53112 - Sick Leave Expense	ADP, LLC	Subtotal	218,792.51 218,792.51
53200 - Employer Contributions - PERS	Ohio Public Emp. Retirement System	Subtotal	270,909.18 270,909.18
53300 - Group Life	American United Life Insurance Company	Subtotal	9,378.79 9,378.79
53310 - Long Term Disability	American United Life Insurance Company	Subtotal	3,288.63 3,288.63
53315 - Short Term Disability	American United Life Insurance Company	Subtotal	3,910.14 3,910.14
53320 - Group Health Claims	Aetna Daily Wires - ESERS	Subtotal	184,868.39
53321 - Group Health - Admin Fees	Aetna Admin - ESERS		7,390.11
53322 - Prescription Claims	SaveonSP, LLC	Subtotal	7,390.11 (2,500.00)
	Express Scripts - ESERS SaveonSP, LLC	Subtotal	75,591.09 271.68 73,362.77
53324 - Group Health - Stop Loss Admin	Aetna Admin - ESERS	Subtotal	16,012.88 16,012.88
53326 - Vision Claims	VSP - (OH)	Subtotal	2,973.90 2,973.90
53327 - Vision Admin Fees	VSP - (OH)	Subtotal	123.84 123.84
53330 - Group Health - Employee Cost	Employee Premiums Aetna Daily Wires - ESERS	Subtotal	(44,214.63) (1,667.26) (45,881.89)
53331 - Group Health - Wellness Incentive	ADP, LLC	Subtotal	3,800.00 3,800.00
53332 - Group Health - Tobacco Premiums	ADP, LLC	Subtotal	(1,200.00) (1,200.00)
53335 - Federal HC Admin. Fees	ADP, LLC	Subtotal	1,196.91 1,196.91
53340 - Medicare Premium - Employer	ADP, LLC ADP, LLC	Subtotal	29,747.55 0.01
		Subtotal	29,747.56
53380 - Deferred Compensation Match	ADP, LLC	Subtotal	7,305.00 7,305.00
54100 - Actuarial Services	Cavanaugh MacDonald Consulting, LLC	Subtotal	12,000.00 12,000.00
54320 - Custodial Banking	Treasurer of State - Warrants	Subtotal	350.42 350.42
54430 - Performance/Analytics Fee	Barra LLC	Subtotal	59,611.25 59,611.25
54520 - Medical Consultant	Borchers, M.D., Glen G.	Subtotal	3,750.00 3,750.00
54620 - Technical	Sagitec Solutions, LLC Velosio	Subtotal	47,124.00 225.00 47,349.00
54630 - Other Professional Services	Wickert, Kimberly Gartner, Inc Vorys Advisors LLC Columbus Parks & Recreation CDW-Government, Inc.	Subtotal	297.00 94,300.00 3,333.33 250.00 79,521.50 177,701.83

Expense Account	Vendor	<u>Amount</u>

55100 - Postage	Notifii LLC Pitney Bowes Inc. Columbus Courier & Freight LLC Unishippers Association Quadient		237.00 1,287.21 193.40 481.23 461.70
55200 - Telecommunications Services	Verizon Wireless Black Box Network Services XO Communications Nextel Communications AT&T LUMEN Spectrum Spectrum AWS Everstream	Subtotal	2,660.54 162.82 51,656.00 1,813.94 55.79 40.10 3,893.83 6,452.25 1,807.32 1,697.07 67,579.12
55300 - Member/Employer Education	Employer training fees Holman, Carlisa	Subtotal	(433.50) 6.75 (426.75)
56020 - Hardware Maintenance	Radiant Technology	Subtotal	24,750.00 24,750.00
56030 - Software Maintenance	Shi International Corp. Sagitec Solutions, LLC Hyland LLC Embarcadero Technologies, Inc EnTrust, Inc. Quadient Shi International Corp.	Subtotal	1,171.06 35,000.00 114,482.38 1,200.00 30,405.39 10,518.00 10,734.64 203,511.47
56035 - Software Subscriptions	Canto, Inc. CarahSoft Technology Corp ADP, LLC Wellable LLC Dynamo Software, Inc. Amazon Web Services	Subtotal	4,712.40 109,855.20 3,563.42 468.00 128,800.00 245.19 247,644.21
56110 - Equipment Repairs & Maintenance	Ricoh USA, Inc Digital Print Solutions Canon Financial Services, Inc LD Products Inc. Quadient Woodhull US Bank Equipment Finance	Subtotal	438.89 1,869.83 2,191.27 73.47 4,149.00 573.98 1,742.80 11,039.24
56160 - Records Storage	Vital Records Holdings, LLC	Subtotal	2,761.00 2,761.00
56210 - Seminars & Conferences	Employer outreach meeting fees	Subtotal	(300.00) (300.00)
53370 - Tuition	Maynard, Chris Metsker, McKenna	Subtotal	1,293.51 5,043.00 6,336.51
56310 - Travel & Transportation	Haller, James Moss, Catherine Wilson, Daniel L. King, Matt Weglarz, Frank	Subtotal	242.88 470.94 301.68 272.00 367.70 1,655.20
56410 - Subscriptions	Wall Street Journal Money-Media, Inc Dow Jones & Company, Inc.	Subtotal	2,998.05 3,710.00 2,070.00 8,778.05
56420 - Memberships	Employers Resource Association Treasurer, State of Ohio Le, Hai Yen Beamer, George CFA Institute Masri, Judi CAIA Association Coalition to Preserve Retirement Security Cheng, Paul Berger, Mike	Subtotal	1,476.00 500.00 435.00 125.00 1,740.00 435.00 350.00 10,600.00 170.00 275.00 16,106.00
56610 - Operations Maintenance	AT&T Amtrec, LLC South Central Power Company Northeast Ohio Natural Gas Corp.	Subtotal	263.13 1,666.00 832.00 172.34 2,933.47

Expense Account	Vendor	Amoun	<u>t</u>
56630 - Interior Landscaping	Ambius Inc. (05)	Subtotal	1,356.37 1,356.37
56620 - Staff Support	Franklin Services ADP, LLC Premier ProduceOne Valentino, Tracy PayFlex Systems USA, Inc. Unisan, LLC Matrix Integrated Psychological Services Grainger Scotsman Mid Ohio	Subtotal	751.71 5,085.00 244.05 232.00 339.50 100.79 594.00 270.14 4,000.00 11,617.19
56621 - Recruiting Expense	ADP Screening & Selection Services	Subtotal	80.50 80.50
56820 - Ohio Retirement Study Council	Ohio Retirement Study Council	Subtotal	12,096.53 12,096.53
56900 - Reimbursement of Leased Svcs	Reimbursement of Leased Services	Subtotal	(25,416.67) (25,416.67)
	Total SERS Administrative Expense		3,571,870.04

School Employees Retirement System of Ohio

Summary of administrative operation expenses during the period **August 1, 2022-August 31, 2022.**Actuals

Aug-2022

Administrative Expense Report_Office Connect 53100 - Salaries & Wages	Account Salaries & Wages	Amount 1,105,590.01
53110 - Salaries & Wages - Overtime	Salaries & Wages- Overtime	3,344.07
53111 - Vacation Leave Expense	Vacation Leave Expense	106,318.73
53112 - Sick Leave Expense	Sick Leave Expense	37,474.22
53200 - Employer Contributions - PERS	Employer Contributions- PERS	170,038.05
53300 - Group Life	Group Life	9,388.31
53310 - Long Term Disability	Long Term Disability	3,276.17
53315 - Short Term Disability	Short Term Disability	2,567.71
53320 - Group Health Claims	Group Health Claims	129,414.57
53321 - Group Health - Admin Fees	Group Health- Admin Fees	15,078.41
53322 - Prescription Claims	Prescription Claims	95,405.08
53324 - Group Health - Stop Loss Admin	Group Health- Stop Loss Admin	31,299.36
53325 - Group Health - Stop Loss Claims	Group Health- Stop Loss Claims	(46,584.19)
53326 - Vision Claims	Vision Claims	2,928.67
53327 - Vision Admin Fees	Vision Admin Fees	122.40
53330 - Group Health - Employee Cost	Group Health- Employee Cost	(31,182.83)
53331 - Group Health - Wellness Incentive	Group Health- Wellness Incentive	3,820.00
53332 - Group Health - Tobacco Premiums	Group Health- Tobacco Premiums	(760.00)
53340 - Medicare Premium - Employer	Medicare Premium- Employer	17,098.79
53380 - Deferred Compensation Match	Deferred Compensation Match	4,815.00
54100 - Actuarial Services	Actuarial Services	12,000.00
54310 - Custodial Fees	Custodial Fees	97,000.00
54320 - Custodial Banking	Custodial Banking	14,437.44
54410 - Master Recordkeeper Fees	Master Recordkeeper Fees	88,333.33
54420 - Investment Advisory Fees	Investment Advisory Fees	43,750.00
54430 - Performance/Analytics Fee	Performance/ Analytics Fee	40,651.66
54450 - Other Prof. Inv. Related Consulting	Other Prof. Inv. Related Consulting	1,333.43
54460 - Bloomberg Terminal Rentals	Bloomberg Terminal Rentals	13,605.00
54520 - Medical Consultant	Medical Consultant	3,750.00
54610 - Special Counsel	Special Counsel	17,392.50
54620 - Technical	Technical	1,728.75
54630 - Other Professional Services	Other Professional Services	8,873.11

Administrative Expense Report_Office Connect	Account	Amount
55100 - Postage	Postage	107,137.90
55200 - Telecommunications Services	Telecommunications Services	16,717.40
55300 - Member/Employer Education	Member/Employer Education	4,359.34
55420 - Communications & Publications	Communications & Publications	73.04
56020 - Hardware Maintenance	Hardware Maintenance	32,415.87
56035 - Software Subscriptions	Software Subscriptions	29,443.71
56110 - Equipment Repairs & Maintenance	Equipment Repairs & Maintenance	10,020.22
56130 - Office Supplies & Expenses	Office Supplies & Expenses	55.74
56160 - Records Storage	Records Storage	2,407.34
56210 - Seminars & Conferences	Seminars & Conferences	3,469.25
53370 - Tuition	Tuition	11,124.01
56310 - Travel & Transportation	Travel & Transportation	8,734.86
56410 - Subscriptions	Subscriptions	1,090.99
56420 - Memberships	Memberships	15,439.68
56510 - Management Liability Insurance	Management and Liability Insurance	119,754.00
56610 - Operations Maintenance	Operations Maintenance	2,825.72
56630 - Interior Landscaping	Interior Landscaping	1,356.37
56640 - Vehicle Expense	Vehicle Expense	6,606.31
56620 - Staff Support	Staff Support	5,351.58
56621 - Recruiting Expense	Recruiting Expense	4,832.15
56710 - Board Member - School Board Reimb.	Board Member- School Board Reimb.	1,356.96
56900 - Reimbursement of Leased Svcs	Reimbursement of Leased Svcs.	(25,416.67)
	Total Administrative Expenses	2,361,463.52

School Employees Retirement System of Ohio REVIEW OF ADMINISTRATIVE EXPENSES 22-Aug

Expense Account	<u>Vendor</u>	<u>Amount</u>	
53100 - Salaries & Wages	ADP, LLC	Subtotal	1,105,590.01 1,105,590.01
53110 - Salaries & Wages - Overtime	ADP, LLC	Subtotal	3,344.07 3,344.07
53111 - Vacation Leave Expense	ADP, LLC	Subtotal	106,318.73 106,318.73
53112 - Sick Leave Expense	ADP, LLC	Subtotal	37,474.22 37,474.22
53200 - Employer Contributions - PERS	Ohio Public Emp. Retirement System Ohio Public Emp. Retirement System		170,038.61 (0.56)
53300 - Group Life	American United Life Insurance Company	Subtotal	170,038.05 9,388.31
53310 - Long Term Disability	American United Life Insurance Company	Subtotal	9,388.31
53315 - Short Term Disability	American United Life Insurance Company	Subtotal	3,276.17 2,567.71
53320 - Group Health Claims	Aetna Daily Wires - ESERS	Subtotal	2,567.71 129,414.57
53321 - Group Health - Admin Fees	Aetna Admin - ESERS	Subtotal	15,078.41
53322 - Prescription Claims	Express Scripts - ESERS	Subtotal	15,078.41 93,398.70
	SaveonSP, LLC	Subtotal	2,006.38 95,405.08
53324 - Group Health - Stop Loss Admin	Aetna Admin - ESERS	Subtotal	31,299.36 31,299.36
53325 - Group Health - Stop Loss Claims	Aetna Admin - ESERS stop loss credit	Subtotal	(46,584.19) (46,584.19)
53326 - Vision Claims	VSP - (OH)	Subtotal	2,928.67 2,928.67
53327 - Vision Admin Fees	VSP - (OH)	Subtotal	122.40 122.40
53330 - Group Health - Employee Cost	Employee Premiums Aetna Daily Wires - ESERS	Subtotal	(29,515.57) (1,667.26) (31,182.83)
53331 - Group Health - Wellness Incentive	ADP, LLC	Subtotal	3,820.00 3,820.00
53332 - Group Health - Tobacco Premiums	ADP, LLC	Subtotal	(760.00) (760.00)
53340 - Medicare Premium - Employer	ADP, LLC	Subtotal	17,098.79 17,098.79
53380 - Deferred Compensation Match	ADP, LLC	Subtotal	4,815.00 4,815.00
54100 - Actuarial Services	Cavanaugh MacDonald Consulting, LLC	Subtotal	12,000.00 12,000.00
54310 - Custodial Fees	BNY Mellon Asset Servicing/ Fifth Third Bank	Subtotal	97,000.00 97,000.00
54320 - Custodial Banking	Treasurer of State - Warrants Huntington National Bank	Subtotal	249.48 14,187.96 14,437.44
54410 - Master Recordkeeper Fees	BNY Mellon Asset Servicing	Subtotal	88,333.33 88,333.33
54420 - Investment Advisory Fees	Wilshire/Aksia	Subtotal	43,750.00 43,750.00
54430 - Performance/Analytics Fee	BNY Mellon Asset Servicing Frank Russell Company Wilshire Advisors, LLC	Subtotal	34,401.66 250.00 6,000.00 40,651.66
54450 - Other Prof. Inv. Related Consulting	Gmei Utility Pension Fund Data Exchange, Ltd	Subtotal	83.43 1,250.00 1,333.43
54460 - Bloomberg Terminal Rentals	Bloomberg Finance LP	Subtotal	13,605.00 13,605.00

Expense Account	<u>Vendor</u>	<u>Amount</u>

Expense Account	<u>Vendor</u>	<u>Amount</u>	
54520 - Medical Consultant	Borchers, M.D., Glen G.	Subtotal	3,750.00 3,750.00
54610 - Special Counsel	Ice Miller LLP Seyfarth Shaw LLP Calfee Halter & Griswold LLP	Subtotal	1,170.00 6,300.00 9,922.50 17,392.50
54620 - Technical	Velosio CGI, Inc.	Subtotal	1,068.75 660.00 1,728.75
54630 - Other Professional Services	Wickert, Kimberly Vorys Advisors LLC Amazon.com CDW-Government, Inc. Contoural, Inc. Sedgwick Board Smart LLC Wright Graphic Design	Subtotal	405.00 3,333.33 8.99 1,850.00 277.00 1,225.00 1,500.00 273.79 8,873.11
55100 - Postage	Pitney Bowes Inc. United States Postal Service Columbus Courier & Freight LLC Unishippers Association	Subtotal	6,548.86 100,000.00 222.41 366.63 107,137.90
55200 - Telecommunications Services	Verizon Wireless XO Communications Nextel Communications AT&T LUMEN Spectrum Spectrum AWS Everstream	Subtotal	417.02 1,813.94 55.79 40.10 3,907.44 6,452.25 2,654.86 1,376.00 16,717.40
55300 - Member/Employer Education	Employer training fees Holman, Carlisa Talbert, Katie Embassy Suites - Beachwood Hilton Garden Inn Richards, Michelle	Subtotal	(804.96) 564.43 483.11 2,218.31 1,477.61 420.84 4,359.34
55420 - Communications & Publications	Amazon.com	Subtotal	73.04 73.04
56020 - Hardware Maintenance	Ahead, LLC	Subtotal	32,415.87 32,415.87
56035 - Software Subscriptions	ADP, LLC Liquid Web Inc CDW-Government, Inc. Zoom Mailgun Technologies, Inc Wellable LLC Amazon Web Services	Subtotal	3,649.19 321.59 21,300.00 536.42 2,925.59 465.40 245.52 29,443.71
56110 - Equipment Repairs & Maintenance	Ricoh USA, Inc Digital Print Solutions Canon Financial Services, Inc LD Products Inc. Quadient Woodhull US Bank Equipment Finance	Subtotal	1,634.89 1,182.60 4,382.54 311.96 731.50 573.98 1,202.75 10,020.22
56130 - Office Supplies & Expenses	Amazon.com	Subtotal	55.74 55.74
56160 - Records Storage	Vital Records Holdings, LLC	Subtotal	2,407.34 2,407.34
56210 - Seminars & Conferences	Employers Resource Association NASRA Ohio Conference for Payroll Professionals Cheng, Paul	Subtotal	94.25 2,950.00 225.00 200.00 3,469.25
53370 - Tuition	Maynard, Chris Viggiano, Dawn Metsker, McKenna	Subtotal	1,293.51 4,787.50 5,043.00 11,124.01
56310 - Travel & Transportation	Roggenkamp, Karen Stensrud, Richard Kroger Rossler, James Sisson, Phil Majeed, Farouki Messerschmitt, Adam Cheng, Paul Marotta, Joe	Subtotal	2,382.65 616.96 37.74 295.76 777.67 3,053.80 1,069.65 422.39 78.24 8,734.86

Expense Account	<u>Vendor</u>	<u>Amount</u>	
56410 - Subscriptions	Wall Street Journal Constant Contact Financial Times Bloomberg Business Week	Subtotal	46.99 125.00 629.00 290.00 1,090.99
56420 - Memberships	International Facility Management Association Public Pension Financial Forum Public Relations Society of America American Marketing Association FS-ISAC Inc Beamer, George CFA Institute	Subtotal	622.00 400.00 260.00 149.00 13,000.00 138.68 870.00 15,439.68
56510 - Management Liability Insurance	ARC Excess & Surplus, LLC.	Subtotal	119,754.00 119,754.00
56610 - Operations Maintenance	AT&T Amtrec, LLC South Central Power Company Northeast Ohio Natural Gas Corp.	Subtotal	258.01 1,666.00 721.00 180.71 2,825.72
56630 - Interior Landscaping	Ambius Inc. (05)	Subtotal	1,356.37 1,356.37
56640 - Vehicle Expense	Moo Moo Car Wash Sheetz CNA Insurance	Subtotal	14.00 71.51 6,520.80 6,606.31
56620 - Staff Support	Cintas Corporation Fifth Third Bank - new card overnight fee refund ADP, LLC Premier ProduceOne Hills Market Amazon.com PayFlex Systems USA, Inc. Miller, Michelle Culligan Bottled Water of Columbus BP Oil Company Flanagan, Michael Aetna Behavioral Health, LLC	Subtotal	347.98 (50.00) 3,409.29 505.70 22.90 345.00 336.00 51.88 50.93 9.16 40.14 282.60 5,351.58
56621 - Recruiting Expense	LinkedIn Corporation ADP Screening & Selection Services Indeed	Subtotal	935.00 182.80 3,714.35 4,832.15
56710 - Board Member - School Board Reimb.	Ashland City School District	Subtotal	1,356.96 1,356.96
56900 - Reimbursement of Leased Svcs	Reimbursement of Leased Services	Subtotal	(25,416.67) (25,416.67)
	Total SERS Administrative Expense		2,361,463.52

OSERS Broad Street, LLC

Memo

To: Retirement Board

From: Mike McManaway, Assistant Director Building Services

cc: Richard Stensrud, Karen Roggenkamp, Marni Hall,

Date: September 8, 2022

Re: OSERS Budget – Administrative Transfer to Capital Request

In preparation for fiscal year 2023 budget, OSERS obtained pricing for a capital project to upgrade our SERS building's security hardware and software system. The system has been in place since 2008, with only minor changes/investment over subsequent years. Non-binding price information was obtained during fiscal year 2022 for a total cost estimate of \$200,000. This amount was approved as part of the FY23 budget.

In preparation to begin the project, we received the final sole source provider quote in late August which is now \$250,000 - a \$50,000 increase over the original price quote. Prices have increased since the original proposal due to several factors including supply chain issues, inflation, and labor shortages. These factors have complicated the process of sustaining earlier pricing quotations. The current proposal will expire September 30, 2022.

OSERS is requesting a transfer of \$50,000 from the operating expense budget (remodeling expense) to capital. The transfer will result in a net zero change to OSERS' fiscal year 2023 budget. If approved, the change will allow securing the current price quote avoiding any further pricing complications for this project.

We appreciate your consideration in this request. If you have any questions, please do not hesitate to contact me.

Regards,

Mike McManaway

FY2023 OSERS CAPITAL BUDGET MODIFICATION

September 15, 202	2. The modificat	023 OSERS Capital Budget be modified as ion reallocates \$50,000 within the OSERS is to OSERS Capital Budget for Building
s as follows:		
YEA	NAY	ABSTAIN
	September 15, 202 ked for tenant rem ftware upgrades.	September 15, 2022. The modificat ked for tenant remodeling expense ftware upgrades.

Daniel Wilson Jeffrey DeLeone

SERS

Memo

To: Retirement Board

From: SERS Legal Department

CC: Richard StensrudDate: September 2, 2022Re: Administrative Rules

One category of resolutions on Administrative Rules is on the September Board Agenda.

- I. Approval to file with JCARR the following proposed amended rule:
 - 3309-1-26 Determination of statutory beneficiary

There has been a push in recent years for states to standardize certain aspects of survivorship law. One common requirement, adopted in Ohio, is that an heir must outlive the decedent for 120 hours before he or she becomes eligible to inherit and/or claim survivorship rights. Under the Uniform Simultaneous Death Act, if a spouse or other beneficiary also dies within 120 hours of the decedent, the law presumes that they died first, and any inheritance or survivorship benefit that would have been due to that individual under a will or statutory succession would go to the next individual in line. This allows for greater adherence to the decedent's intentions, as the inheritance would go to the next person named by the decedent rather than go to the heirs of another individual.

SERS is proposing amendments to this rule in order to adopt this standardized aspect of Ohio law to SERS' beneficiary determinations. If any designated or statutory beneficiary dies within 120 hours – five days – of the member or retiree, SERS will move on to the next beneficiary in the line of succession rather than pay benefits to the deceased beneficiary's estate.

These amendments will bring SERS in line with the general rule adopted in Ohio, and it will also ease administrative burdens by reducing the need for probate court orders and other estate documents, allowing SERS to pay out benefits sooner.

Please call Todd Nist at (614) 340-1287 if you have any questions before the meeting.

FILING OF PROPOSED AMENDED ADMINISTRATIVE RULE

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Legal Counsel discusse amended rule: 3309-1-2			g with JCARR the following proposed eficiary.
rule 3309-1-26 be filed	moved and with JCARR as dis	cussed.	seconded that proposed amended
3309-1-26 Determi	nation of statuto	r y beneficiar	y.
(A) This rule amplit the Revised Co		(C) and (D) of	section 3309.44 and section 3309.50 of
(B) An individual w	ho does not surviv	ve a member	or retiree by one hundred twenty hours will or retiree.
beneficiary dies	more than one h	undred twenty	of the Revised Code, when a designated hours after the member, but before to the estate of the designated
			n 3309.44 and section 3309.50 of the ated" and ceases to qualify as beneficiary
(1) No valid ma	ailing address can	reasonably b	e determined for the person; or
	ate the school em		nyment within one hundred eighty days ement system first notifies the person of
HISTORY: 7/27/15			
Upon roll call, the vote	was as follows:		
ROLL CALL:	<u>YEA</u>	<u>NAY</u>	<u>ABSTAIN</u>
Frank Weglarz Hugh Garside James Haller Matthew King Catherine Moss Barb Phillips			

James Rossler		
Daniel Wilson Jeff DeLeone		

Only If Needed

EXECUTIVE SESSION

moved	d ands	econded the m	otion that the Board go int	o Executive
Session pursuant to Benefits.	R.C. 121.22 (G)(5) to review app	lications for Disability Reti	ement
IN EXECUTIVE SESS	SION AT	A	.M. / P.M.	
ROLL CALL:	<u>YEA</u>	NAY	<u>ABSTAIN</u>	
Frank Weglarz Hugh Garside James Haller Matthew King Catherine Moss Barbra Phillips James Rossler Daniel Wilson Jeffrey DeLeone				
RETURNED TO OPE	N SESSION AT _		A.M. / P.M.	

SERS AUDIT COMMITTEE REPORT

SERS COMPENSATION COMMITTEE REPORT

EXECUTIVE SESSION

			notion that the Board convene ir cuss imminent court action.	1			
IN EXECUTIVE SESSIO	N AT	A.M./P	A.M./P.M.				
Upon roll call, the vote	was as follow	s:					
ROLL CALL: Jeffrey DeLeone Hugh Garside James Haller Matthew King Catherine Moss James Rossler Frank Weglarz Daniel Wilson Barbra Phillips	YEA	<u>NAY</u>	<u>ABSTAIN</u>				

CALENDAR DATES FOR SERS BOARD MEETINGS FOR 2022

AUDIT COMMITTEE MEETINGS

December 14, 2022 - 2:30 p.m. (Weds.)

COMPENSATION COMMITTEE MEETINGS

December 15, 2022 - 7:30 a.m. (Thurs.)

TECHNOLOGY COMMITTEE MEETINGS

December 15, 2022 – 12:30 p.m. (Thurs.)

BOARD MEETINGS

October 20-21, 2022 – 8:30 a.m. (Thurs. and Fri.) November 17-18, 2022 – 8:30 a.m. (Thurs. and Fri.) December 15-16, 2022 – 8:30 a.m. (Thurs. and Fri.)

^{**}NOTE: The above dates are tentative.

CALENDAR DATES FOR SERS BOARD MEETINGS FOR 2023

AUDIT COMMITTEE MEETINGS

March 15, 2023 – 2:30 p.m. (Weds.) June 14, 2023 – 2:30 p.m. (Weds.) September 20, 2023 - 2:30 p.m. (Weds.) December 20, 2023 – 2:30 p.m. (Weds.)

COMPENSATION COMMITTEE MEETINGS

March 16, 2023 – 7:30 a.m. (Thurs.) June 15, 2023 – 7:30 a.m. (Thurs.) July 20, 2023 – 7:30 a.m. (Thurs.) * **Special Meeting** * September 21, 2023 – 7:30 a.m. (Thurs.) December 21, 2023 – 7:30 a.m. (Thurs.)

TECHNOLOGY COMMITTEE MEETINGS

March 16, 2023 – 12:30 p.m. (Thurs.) June 15, 2023 – 12:30 p.m. (Thurs.) September 21, 2023 – 12:30 p.m. (Thurs.) December 21, 2023 – 12:30 p.m. (Thurs.)

BOARD MEETINGS

February 16 – 17, 2023 - 8:30 a.m. (Thurs. and Fri.) March 16 – 17, 2023 - 8:30 a.m. (Thurs. and Fri.) April 20 – 21, 2023 - 8:30 a.m. (Thurs. and Fri.) May 18 – 19, 2023 - 8:30 a.m. (Thurs. and Fri.) June 15 – 16, 2023 - 8:30 a.m. (Thurs. and Fri.) July 20 – 21, 2023 - 8:30 a.m. (Thurs. and Fri.) September 21 – 22, 2023 - 8:30 a.m. (Thurs. and Fri.) October 19 – 20, 2023 - 8:30 a.m. (Thurs. and Fri.) November 16 – 17, 2023 - 8:30 a.m. (Thurs. and Fri.) December 21 – 22, 2023 - 8:30 a.m. (Thurs. and Fri.)

^{**}NOTE: The above dates are tentative.

CONTINUED OR NEW BUSINESS

Board Information Requested

BOARD INFORMATION REQUESTS AND FOLLOW-UP ITEMS

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ADJOURNMENT(R)

moved that the SERS Retirement board adjourn to meet on for their next regularly
heduled meeting.
ne meeting adjourned at p.m.
Jeffrey DeLeone - Chair
chard Stensrud, Secretary