

Public Agenda Item #13

Reconvene the Meeting of the ERS Board of Trustees

August 23, 2023

Public Agenda Item #14

Call Meeting of the Investment Advisory Committee to Order

August 23, 2023

Public Agenda Item #15

*Consideration of the Texa\$averSM Product Review
Committee Updates (Action - Board Only)*

August 23, 2023

David Veal, Chief Investment Officer

Lauren Honza, Managing Director of Public Equity

Angelica Harborth, Manager, Deferred Compensation Plans

Texa\$averSM 401(k) / 457 Program



Program Overview

TEXA\$AVER
401(k) Program

- Established in 1985
- Available to employees of state agencies
- Procure plan administrator and investment advisory service providers through competitive bid process
- Automatic enrollment for new hires since 1/1/2008
- Offers traditional and Roth contributions



TEXA\$AVER
457 Program

- Established in 1974
- Available to employees of eligible higher education and state agencies
- Procures plan administrator and investment advisory service providers through competitive bid process
- Offers traditional and Roth contributions

Texa\$aver program

Executive Summary



- Plan data as of 6/30/2023

401(k) Plan	
Assets under Management (AUM)	\$3,337 million
Traditional balances	\$3,218 million
Roth balances	\$118 million
Number of Participant Accounts	235,2377
Contributing	105,635
Non-contributing	129,602

457 Plan	
Assets under Management (AUM)	\$1,291 million
Traditional balances	\$1,184 million
Roth balances	\$106 million
Number of Participant Accounts	33,642
Contributing	17,090
Non-contributing	16,5526

Texa\$aver Program



Investment Products

Lineup offers a range of investment offerings to help a wide range of participants reach their individual retirement savings goals. The offerings are the same between the plan types.

Target Date Funds	Core Funds	Self Directed Brokerage Account
<ul style="list-style-type: none">• Manager reduces investment risk over time by steadily lowering equity exposure	<ul style="list-style-type: none">• Participants (or managed account platform) create portfolios from asset class building blocks	<ul style="list-style-type: none">• Participants create their own investment portfolios using tradeable securities
<ul style="list-style-type: none">• Requires the lowest level of participant engagement to build and maintain portfolio	<ul style="list-style-type: none">• Requires a higher level of participant engagement to build and maintain portfolio	<ul style="list-style-type: none">• Requires the highest level of participant engagement to build and maintain portfolio
<ul style="list-style-type: none">• Represents 25% of Texa\$aver program assets	<ul style="list-style-type: none">• Represents 70% of Texa\$aver program assets	<ul style="list-style-type: none">• Represents 5% of Texa\$aver program assets

Texa\$aver program

Target Date Funds



- Target Date Funds (TDFs) are professionally managed to reduce market risk gradually as the target retirement date approaches
- TDFs serve as the Qualified Default Investment Alternative (QDIA) within the Texa\$aver program
- Newly hired state agency employees are automatically enrolled into TDFs at 1% of annual salary
- Employees are enrolled into LifePath® funds based on their assumed retirement age of 65

Texa\$aver program

Core Funds



	Core Investment Fund	Asset Class / Portfolio Role	Texa\$aver Assets on 3/31/23
Conservative ↑	BlackRock Short-Term Investment Fund	Money Market / Short-Term	\$199 million
	BlackRock 1-3 Year Government Bond Index Fund	Short-Term Bond / High Quality	\$36 million
	BlackRock Bond Index Fund	Intermediate-Term Bond / High Quality	\$331 million
	AB All Market Real Return Portfolio Fund	Specialty Fund / Inflation Protection	\$6 million
	Vanguard Wellington Admiral Fund	Domestic Stock and Bond / Balanced	\$410 million
Aggressive ↓	Vanguard Institutional Index Fund	Domestic Stock / Large Cap	\$833 million
	Vanguard Growth Index Fund	Domestic Stock / Large Cap Growth	\$519 million
	BlackRock Mid Capitalization Equity Index Fund	Domestic Stock / Mid Cap	\$221 million
	Wellington Mid Cap Opportunities Fund (WMCOF)	Domestic Stock / Mid Cap Growth	\$15 million
	Vanguard Small-Cap Index Fund	Domestic Stock / Small Cap	\$171 million
	Fidelity International Index Fund	Foreign Stock / Large Cap	\$106 million
	Fidelity Diversified International Fund	Foreign Stock / Large Cap	\$185 million

Texa\$aver Program

Product Review Committee (PRC)



- Consultant to the Board regarding the Texa\$aver investment lineup
- Meets at least semiannually to conduct investment reviews and take any necessary action regarding the investment offerings

Executive Office	Group Benefits	Investments	IAC
Porter Wilson	TBD	David Veal (Chair)	Ruby Dang
Cathy Terrell		Lauren Honza	Laurie Dotter
		Leighton Shantz	Gene Needles

Texa\$aver Program

Product Review Committee (PRC)



- The PRC meeting on July 27, 2023 included:
 - Investment performance updates and watchlist review
 - Presentation on best practices for defined contribution plans
 - Evaluation of Wellington CIF II MidCap Opportunities S1 fund (WMCOF)
 - Fund already on watchlist due to poor relative and peer performance
 - Subcommittee tasked with evaluating and making a recommendation

Texa\$aver Program

PRC Subcommittee



- PRC may appoint a subcommittee for a specific purpose (e.g. due diligence, fund evaluation, research, etc.)
- Current PRC subcommittee members include:
 - Lauren Honza, Managing Director of Public Equity
 - Gene Needles, IAC Chair
 - Leighton Shantz, Managing Director of Credit and Hedge Funds
 - Cheryl Scott-Ryan, Assistant General Counsel

Wellington CIF II
MidCap Opportunities S1 fund
(WMCOF)

Wellington MidCap Opportunities - II

Performance Snapshot



as of June 30th, 2023

Program Assets	\$17.6 million
# of Texa\$aver accounts	23,814

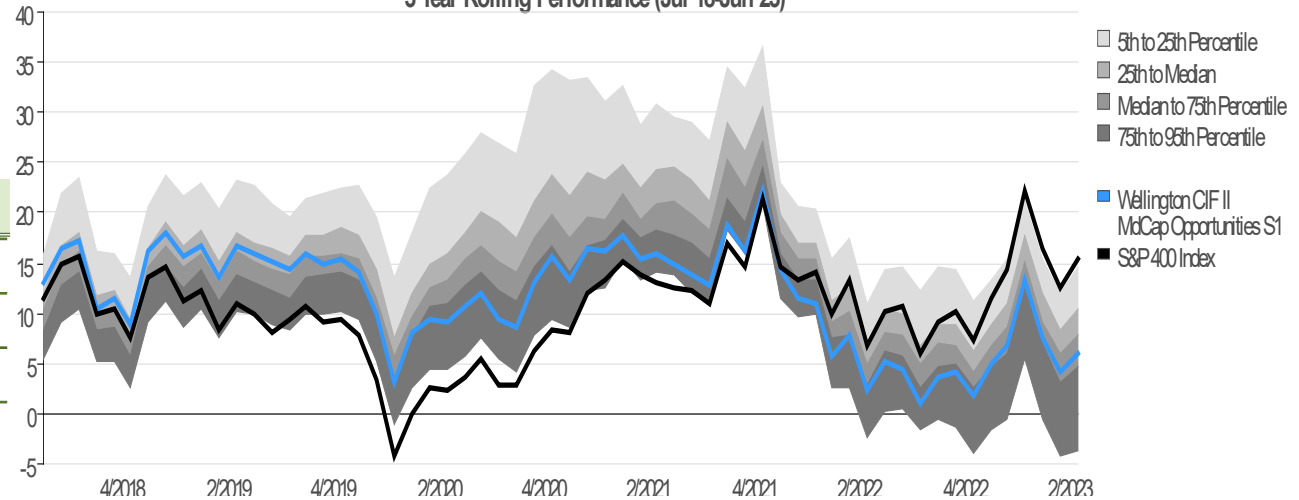
Fund Overview

Investment type	Collective Trust
Investment strategy	Active
Net Texa\$aver expense	0.64%

Fund Composition

Cash	0.1%
US Stocks	97.6%
Non-US Stocks	2.2%

3 Year Rolling Performance (Jul 18-Jun 23)



	1Y	3Y	5Y	10Y
Fund / Peer Rank	11.21 / 91	5.88 / 67	5.25 / 90	10.01 / 71
Benchmark / Peer Rank	17.61 / 52	15.44 / 4	7.79 / 67	10.21 / 66
Excess to Benchmark	-6.40	-9.56	-2.54	0.20

Wellington MidCap Opportunities - II



Due Diligence

- PRC has closely monitored the ongoing performance of WMCOF
- Subcommittee members met with portfolio manager in Austin
- Subcommittee members conducted an onsite visit to Wellington offices
- Subcommittee presented findings at the PRC meeting on July 27, 2023

Wellington MidCap Opportunities - II

Diligence Findings



- Positive absolute returns since 2020 inception with Texa\$aver
- Poor relative performance over 1-year, 3-year and 5-year horizons
- Below median peer results over 1-year, 3-year and 5-year horizons
- Growth at a Reasonable Price (GARP) positioning vs. a core benchmark
- Smaller capitalization positioning vs. mid cap benchmark

Wellington MidCap Opportunities - II



Additional Considerations

Managed Accounts program represents the primary source of allocations

- As of May 2023, Managed Accounts were responsible for 75.4% of WMCOF assets
- Allocations to WMCOF within the managed account portfolios increased for Q1 2023
- ~4,163 participants have balances in the fund but were *not* enrolled in managed accounts

In May, Wellington informed ERS that the fund would begin participating in securities lending

- Subcommittee informed on May 15, but Wellington would not provide lending agreement

In May, senior analyst Joe Sicilian departed unexpectedly

- Sicilian was held out as an eventual potential successor to named PMs on the strategy
- Communication of the departure was handled poorly

Wellington MidCap Opportunities - II

Subcommittee Recommendation: Next Steps



Options Considered by the PRC:

- Remove the Fund from watchlist and end enhanced due diligence/monitoring
- Maintain the Fund on the watchlist and continue enhanced due diligence/monitoring
- Remove the Fund from the lineup and reallocate assets into a different fund:
 - An existing fund option already in the lineup, or
 - A replacement fund, identified via subsequent due diligence efforts

Wellington MidCap Opportunities - II

Texa\$aver PRC Recommendation



The Product Review Committee (PRC) recommends that the Board:

- Remove WMCOF from the Texa\$aver 401(k)/457 Program lineup
- Transfer assets to the existing passive domestic mid cap equity fund

If this recommendation is approved, staff will work with the third party administrator to communicate the upcoming change to participants.

Discussion

Action Item - Board Only

Public Agenda Item #16

*Consideration of the Incentive Compensation Plan
for Plan Year 2024
(Action - Board Only)*

August 23, 2023

DeeDee Sterns, Director of Human Resources

Jamey Pauley, ICP Program Specialist

Incentive Compensation Plan (ICP)

Annual Process



- The Board of Trustees reviews and approves the ICP on an annual basis.
- For the May Board meeting, staff provides:
 - A review of the plan objectives and key features
 - A summary of the ICP awards over the last five years
 - Information on any proposed plan changes
 - A draft plan document for the upcoming fiscal year
- At the August Board meeting:
 - Staff presents the final proposed plan document for consideration and approval

Incentive Compensation Plan

Plan Year 2024 – Proposed Policy Changes



- Eliminate the provision requiring forfeiture of awards after three years of non-positive returns.
- Allow payment of earned but pending awards to participants who retire.

Incentive Compensation Plan

Plan Year 2024 – Proposed Policy Changes



Elimination of the forfeiture provision:

- 6.3 If Global Composite Performance for the one-year Performance Period in the current plan year is not positive, then all Incentive Compensation Awards that otherwise would have been paid on the next Payment Date (including incentive compensation based on Performance Goals not related to Global Composite Performance and previously earned Incentive Compensation Awards remaining to be paid pursuant to the respective Payment Schedule) shall not be paid until the first Payment Date immediately following the next plan year in which the one-year Performance Period for Global Composite Performance is positive. ~~Any unpaid or partially unpaid Incentive Compensation Award shall be forfeited after three (3) years of deferral of payment under this Section.~~

Incentive Compensation Plan

Plan Year 2024 – Proposed Policy Changes



Elimination of the forfeiture provision

Reasons:

- Better alignment with the Plan's objective to attract and retain staff.
- ERS is unique among its benchmark peers in requiring this forfeiture provision.

Incentive Compensation Plan

Plan Year 2024 – Proposed Policy Changes



Allow payment of earned but pending awards to retirees:

Section 6.8.1

Retirement. In the event of termination of employment due to retirement, a Participant forfeits any Incentive Compensation Award for the current Plan Year unless the termination of employment occurs on August 31st of the current Plan Year. Incentive Compensation Awards earned for prior plan years that have not been paid pursuant to Section 6.2 or 6.3 shall be payable on the next Payment Date that follows the Participant's retirement and is not deferred under Section 6.3, subject to the terms and limits of the plan. In the event of death after retirement, section 6.8 shall apply. For purposes of this section, retirement occurs when:

- a) the Executive Director (or the Board, in the case of the Executive Director's retirement) receives a retirement request from a Participant at least 60 days prior to the retirement date;
- b) the Executive Director (or the Board) determines that the Participant is in good standing and approves the retirement date in advance;
- c) the Participant retires under the jurisdiction of ERS or retires under the jurisdiction of the Teacher Retirement System of Texas (TRS) as the result of a transfer of ERS service credit under Chapter 805 of the Texas Government Code (regarding credit transfers between ERS and TRS); and
- d) the Participant is immediately eligible to receive and receives a retirement annuity that is based on age and amount of service credit or based on combined service credit under Chapter 803 of the Texas Government Code (regarding the Proportionate Retirement Program).

Pursuant to Treasury Regulation Sections 1.409A-2(b)(2)(i) and 1.457-12(d)(2), the payment under this Section 6.8.1 shall for all purposes be treated as a separately identifiable payment to which a Participant is entitled under the Plan. This Section 6.8.1 shall be administered in accordance with Code Section 409A and 457(f).

Incentive Compensation Plan

Plan Year 2024 – Proposed Policy Changes



Allow payment of earned but pending awards to retirees

Reasons:

- Initiated at the May meeting.
- Better alignment with peer funds.

Incentive Compensation Plan

Plan Year 2024 – Other Changes



In addition to the proposed material change, staff is proposing some other changes to the Plan document that will:

- Provide clarification.
- Better reflect current processes and practices.

These changes are reflected in the draft Plan document.

Incentive Compensation Plan

Plan Year 2024 – Appendix A



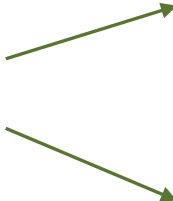
APPENDIX A

ELIGIBLE EMPLOYEE POSITIONS WITH MAXIMUM INCENTIVE AWARD PERCENTAGES AND PAYMENT SCHEDULES

Plan Groups	Maximum Incentive Award Percentages	Payment Schedules (Year 1/2/3, see Section 6.2)
Investment Operations Manager	50%	50/25/25
Operational Due Diligence Manager	50%	50/25/25
Investment Analyst I & II	35%	50/25/25
Performance Specialist	35%	50/25/25
Investment Operations Specialist	25%	50/50/0
Operational Due Diligence Specialist	25%	50/50/0
Investment Administrative Support	5%	100/0/0

APPENDIX A
ELIGIBLE EMPLOYEE POSITIONS WITH
MAXIMUM INCENTIVE AWARD PERCENTAGES AND PAYMENT SCHEDULES

Plan Groups	Maximum Incentive Award Percentages	Payment Schedules (Year 1/2/3, see Section 6.2)
Executive Director	100%	50/25/25
Chief Investment Officer	100%	50/25/25
Deputy Chief Investment Officer	100%	50/25/25
Managing Director	100%	50/25/25
Program Director	90%	50/25/25
Supervising Portfolio Manager	90%	50/25/25
Portfolio Manager IV, V & VI	80%	50/25/25
Portfolio Manager I, II & III	70%	50/25/25
Chief Trader I & II	70%	50/25/25
Investment Analyst V	70%	50/25/25
Trader I, II & III	65%	50/25/25
Investment Analyst III & IV	58%	50/25/25
Investment Operations Manager	50%	50/25/25
Operational Due Diligence Manager	50%	50/25/25
Investment Analyst I & II	35%	50/25/25
Performance Specialist	35%	50/25/25
Investment Operations Specialist	25%	50/50/0
Operational Due Diligence Specialist	25%	50/50/0
Investment Administrative Support	5%	100/0/0
Investments and Securities, Attorney	65%	50/25/25
Investments and Securities, Paralegal	35%	50/25/25



Incentive Compensation Plan

Plan Year 2024 – Appendix B



Sub Category	Exec. Director	CIO Dep. CIO Inv. Serv.	Credit & Hedge Funds	Portfolio Mgmt.	Private Equity	Public Equity	Real Assets	Treasury & Trading	Legal Services
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APPENDIX B
 (Page 1 of 2)
 PERFORMANCE GOAL WEIGHTINGS FOR INVESTMENT PROFESSIONALS AND LEADERSHIP EMPLOYEES
 All weightings from these weightings shall be approved by the Executive Director

Main Category Weight	Main Category	Sub Category	Exec. Director	CIO Dep. CIO Inv. Serv.	Credit & Hedge Funds	Portfolio Mgmt.	Private Equity	Public Equity	Real Assets	Treasury & Trading	Legal Services	
25% Measures (including CEO)	Operational		50%	25%	25%	25%	25%	25%	25%	25%	25%	
		Global Composite Performance	50%	75%	35%	X	35%	35%	35%	35%	35%	
40% Measures	A combination of one or more of the following, as indicated below (1)											
		Global Public Equity						X				
		Internal Credit Public Equity					X					
		Individual Portfolios		X	X				X			
		Internally Traded Portfolios					X			X		
		Trading Performance		X							X	
		Global Credit-Internal										
		Global Credit-External			X							
		Rates									X	
		Private Equity Public Market Equivalent (2)							10%			X
		Private Equity Peer Comparison (3)					10%		30%			X
		Private Real Estate Public Market Equivalent (2) (4)								X		X
		Public Real Estate REIT(s)								X		
		Private Infrastructure Public Market Equivalent (2)									X	
	Hedge Funds			X							X	

Public Credit—Internal				X							
Private Credit—External				X							
Rates									X		
Private Equity Public Market Equivalent (2)								10%			X
Private Equity Peer Comparison (3)								30%			X
Private Real Estate Public Market Equivalent (2) (4)									X		X
Public Real Estate REIT(s)									X		

Discussion

Action Item – Board Only

Public Agenda Item #17

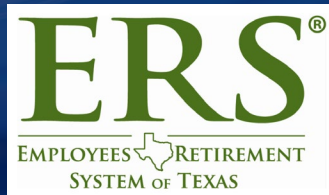
** Consideration of Quarterly Review of Investment Performance and Market Environment*

August 23, 2023

David T. Veal, Chief Investment Officer

John McCaffrey, Managing Director of Portfolio Management

Sam Austin, Partner, NEPC



QUARTERLY PERFORMANCE REPORT

EMPLOYEES RETIREMENT
SYSTEM OF TEXAS

AUGUST 23, 2023

Sam Austin, Partner

Michael Malchenko, Consultant



A background image showing light trails from a city at night, with streaks of light in various colors (blue, orange, yellow, green) moving across the frame.

TABLE OF CONTENTS

- Economic and Market Environment
- Executive Summary



ECONOMIC AND MARKET ENVIRONMENT

ECONOMIC ENVIRONMENT



Can the Fed softly land the plane?

- Unemployment rate remains low at 3.6% as of June
- GDP continues to grow, estimated at over 2% for 2Q23
- Early warnings of a recession have not materialized



Inflation continues to decelerate

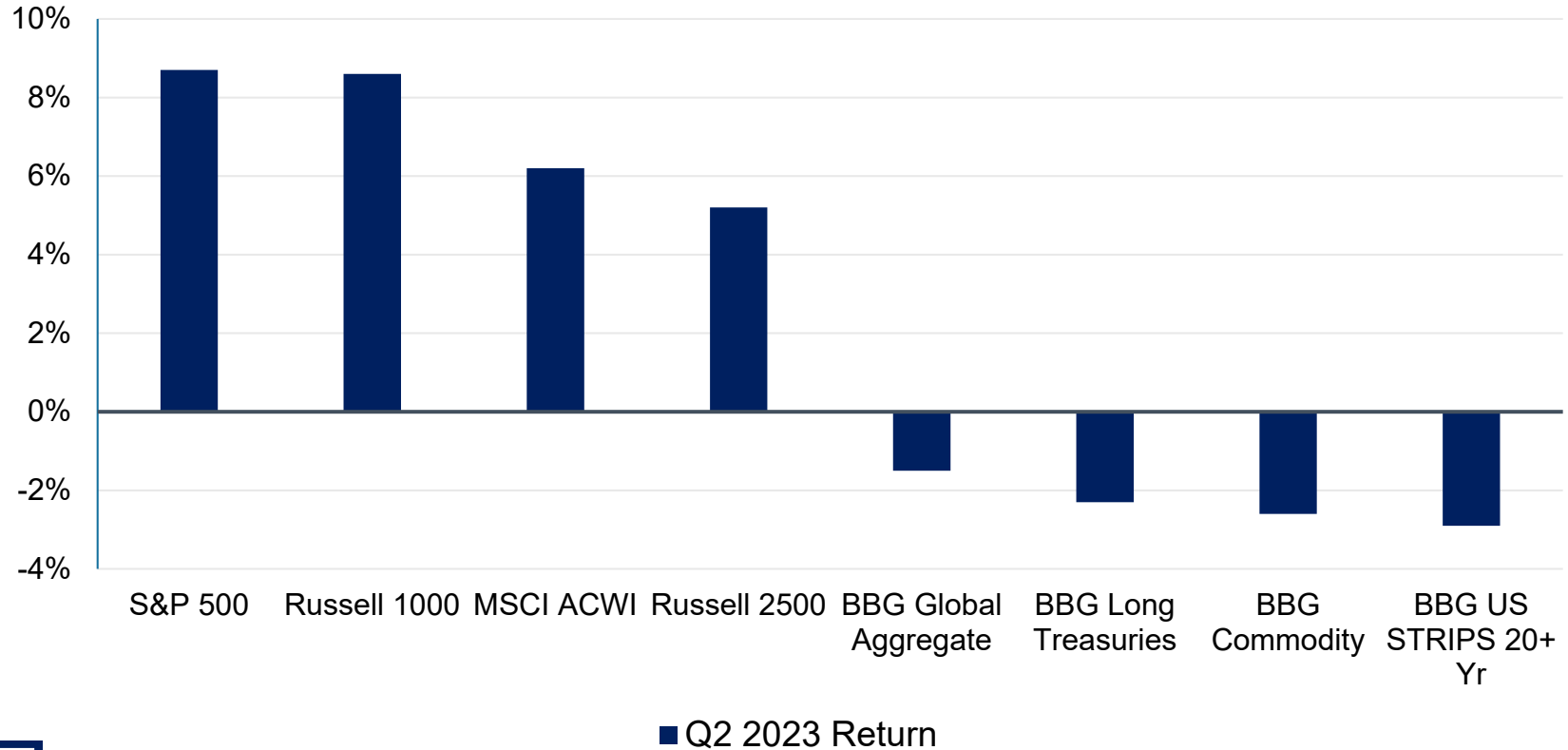
- Core CPI increased 4.8% in June from a year earlier, the slowest pace since October 2021
- Still uncertainty around how long Fed will keep rates elevated to bring inflation to target levels



U.S. dollar slumps to a 14-month low

- With cooling inflation, the U.S. Dollar Index dropped to its lowest level since April 2022
- U.S. economy is still showing signs of resilience, which should help the dollar to find support

BEST AND WORST INDEX PERFORMANCE





EXECUTIVE SUMMARY

ERS TRUST DASHBOARD

Performance	CYTD	FYTD 2023
Total Trust	5.96% (74)	5.68% (61)
Policy Benchmark	5.38% (84)	5.09% (76)
Excess Return	0.58%	0.59%

Risk Statistics	5-Year		3-Year
	Sharpe Ratio	Sortino Ratio	Tracking Error
Total Trust	0.80 (5)	1.21 (7)	2.01%
Policy Benchmark	0.60 (23)	0.89 (23)	-

Attribution Summary

Largest Contributors (Quarter)

Global Public Equity (+0.3%) and Private Real Estate (+0.2%) contributed positively versus the Policy Benchmark.

Largest Detractors (Quarter)

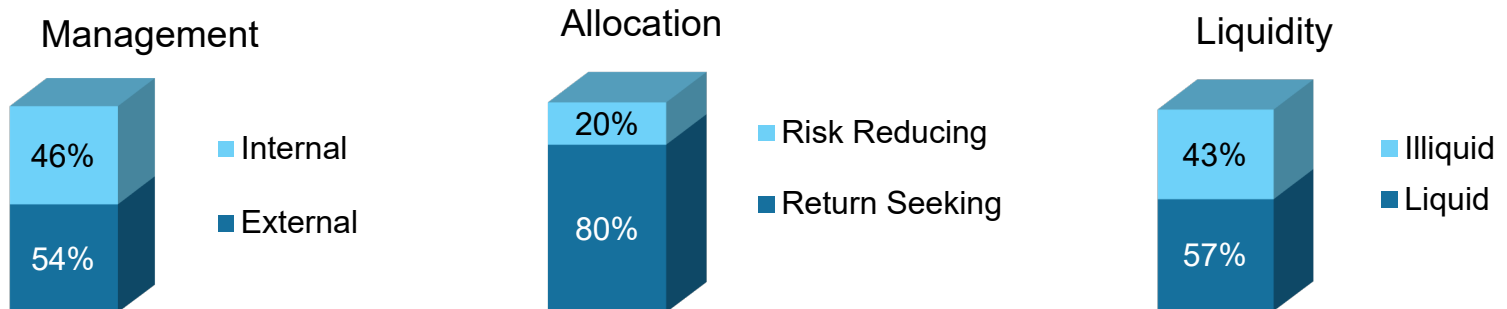
Absolute Return (-0.1%) contributed negatively versus the Policy Benchmark.



Note: Numbers in parentheses indicate the Trust's rank among the peer universe of Public Defined Benefit plans greater than \$1 Billion.

ERS TRUST DASHBOARD

Profile	
Market Value at June 30, 2023	\$35.46 Billion
Actuarial Accrued Liability August 31, 2022	\$45.9 Billion
Actuarial Value of Assets August 31, 2022	\$31.6 Billion
ERS Trust Funded Ratio August 31, 2022	68.9%
Actuarial Assumed Rate of Return	7.00%
Retirees and Beneficiaries August 31, 2022	122,720
Retirement Payments Year Ended August 31, 2022	\$3.91 Billion





PERFORMANCE SUMMARY

TOTAL TRUST PERFORMANCE DETAIL (NET OF FEES)

	Market Value	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Trust	\$35,462,046,427	2.7% (43)	5.7% (61)	7.5% (55)	11.7% (5)	8.0% (5)	8.1% (11)
<i>Policy Benchmark</i>		2.2% (83)	5.1% (76)	7.6% (52)	7.9% (60)	6.6% (43)	7.1% (49)
<i>Passive Index</i>		4.5%	10.1%	13.0%	8.5%	6.8%	7.5%

- **One-year period ended June 30, 2023, the Trust underperformed the policy benchmark by 0.1%.**
- **In the one-year period, the Trust’s assets increased from \$33.03 billion to \$35.46 billion. This includes a \$2.91 billion net investment gain within the one-year period and a \$905 million net investment gain within the second calendar quarter of 2023.**

Note: The Passive Index is comprised of 80% MSCI ACWI IMI and 20% Bloomberg Intermediate Treasury Index. Numbers in parentheses indicate the Trust’s rank among the peer universe of Public Defined Benefit plans greater than \$1 Billion.



TOTAL TRUST PERFORMANCE DETAIL (NET OF FEES)

3 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
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Total Trust	11.7% (5)	7.7% (11)	1.29 (7)	2.39 (7)
Policy Benchmark	7.9% (60)	7.8% (14)	0.85 (23)	1.40 (24)

5 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
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Total Trust	8.0% (5)	8.1% (9)	0.80 (5)	1.21 (7)
Policy Benchmark	6.6% (43)	8.6% (16)	0.60 (23)	0.89 (23)

- The three-year and five-year Trust returns have outperformed the actuarial rate of return.
- On a risk-adjusted basis, the three-year and five-year Sharpe and Sortino Ratios outperformed the benchmark, indicating that active management benefitted the plan.

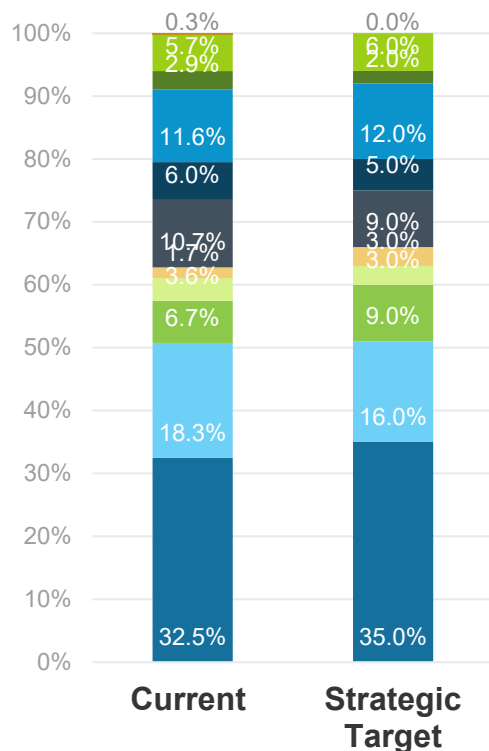


TOTAL TRUST ASSET GROWTH SUMMARY

	Last Three Months	Year-To-Date	Fiscal Year-To-Date	One Year	Three Years	Five Years
Beginning Market Value	\$33,891,622,898	\$33,167,264,323	\$33,321,662,960	\$33,028,200,122	\$27,435,810,375	\$28,499,395,903
Contributions	\$3,976,473,692	\$5,445,145,468	\$22,235,887,061	\$24,191,093,291	\$55,179,975,411	\$82,795,076,851
Withdrawals	-\$3,311,054,660	-\$5,118,095,015	-\$22,444,512,033	-\$24,665,249,512	-\$58,032,160,960	-\$88,238,786,532
Net Cash Flow	\$665,419,032	\$327,050,454	-\$208,624,972	-\$474,156,221	-\$2,852,185,549	-\$5,443,709,681
Net Investment Change	\$905,004,497	\$1,967,731,650	\$2,349,008,439	\$2,908,002,527	\$10,878,421,602	\$12,406,360,206
Ending Market Value	\$35,462,046,427	\$35,462,046,427	\$35,462,046,427	\$35,462,046,427	\$35,462,046,427	\$35,462,046,427
Net Change	\$1,570,423,530	\$2,294,782,104	\$2,140,383,467	\$2,433,846,306	\$8,026,236,053	\$6,962,650,524



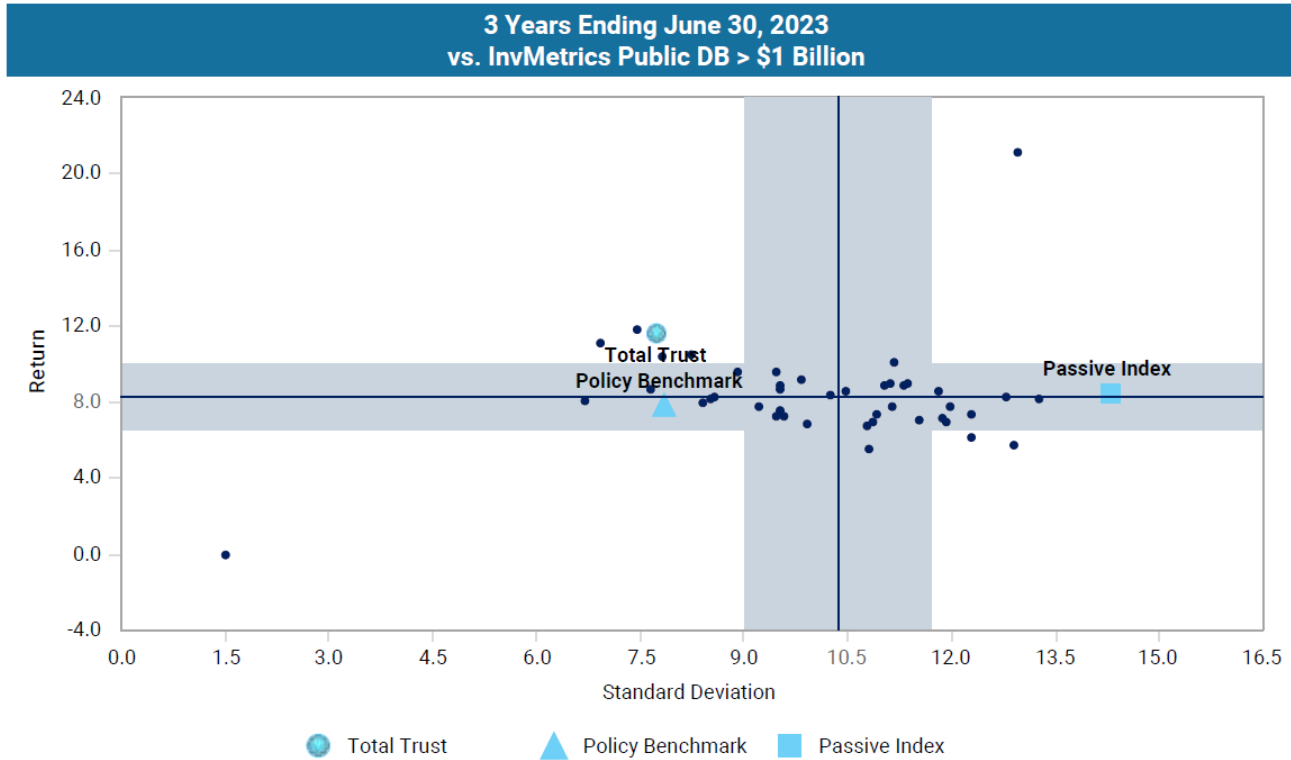
TRUST ASSET ALLOCATION VS. POLICY TARGETS



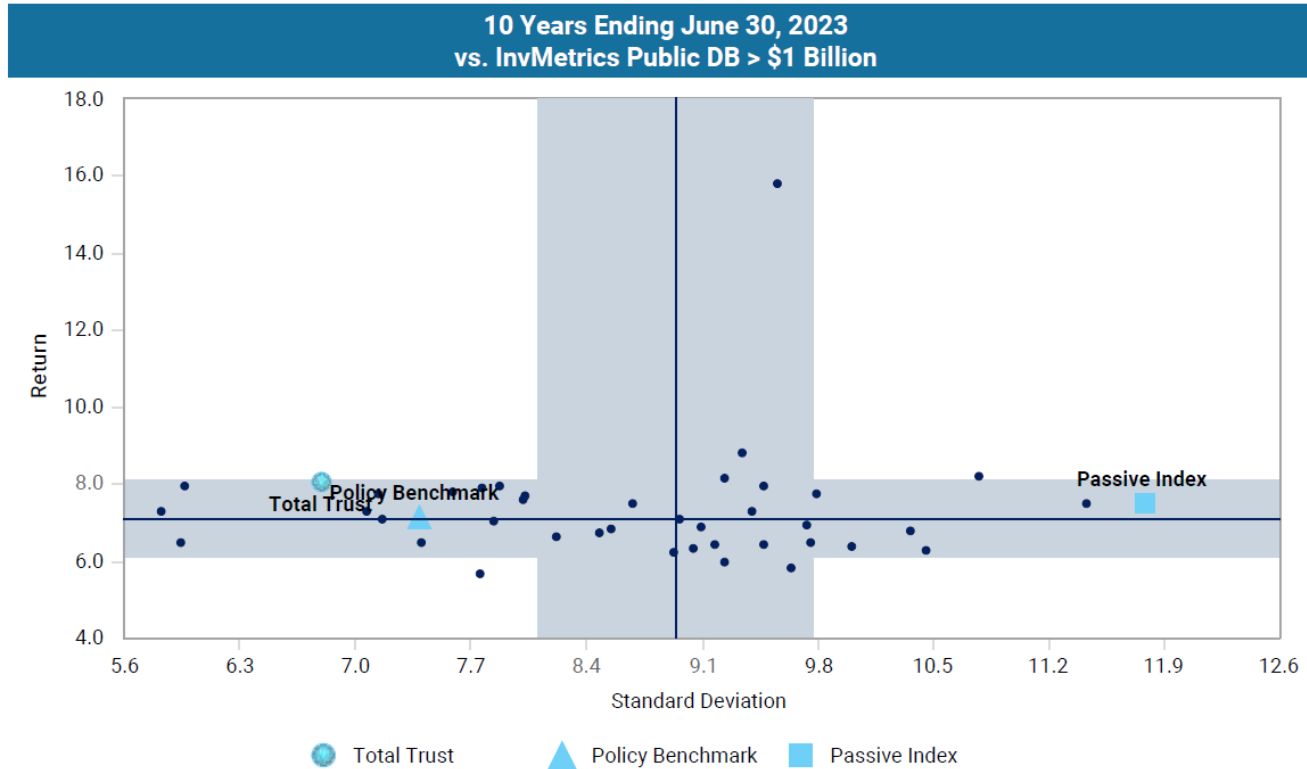
Asset Allocation as of June 30, 2023					
	Current Value	Current	Strategic Target	Tactical Range	
Public Equity	\$11,524,198,310	32.5%	35.0%	25.0% - 45.0%	
Private Equity	\$6,477,621,191	18.3%	16.0%	11.0% - 21.0%	
Public Credit	\$2,366,955,232	6.7%	9.0%	4.0% - 14.0%	
Private Credit	\$1,278,379,085	3.6%	3.0%	0.0% - 8.0%	
Real Estate - Public	\$610,261,028	1.7%	3.0%	0.0% - 13.0%	
Real Estate - Private	\$3,801,442,956	10.7%	9.0%	4.0% - 14.0%	
Infrastructure	\$2,129,494,706	6.0%	5.0%	0.0% - 10.0%	
Rates	\$4,102,398,468	11.6%	12.0%	7.0% - 17.0%	
Cash	\$1,032,229,546	2.9%	2.0%	1.0% - 3.0%	
Hedge Funds	\$2,039,065,905	5.7%	6.0%	0.0% - 11.0%	
Special Situations	\$100,000,000	0.3%	0.0%	0.0% - 5.0%	
Total	\$35,462,046,427	100%	100%		



TOTAL TRUST RISK/RETURN

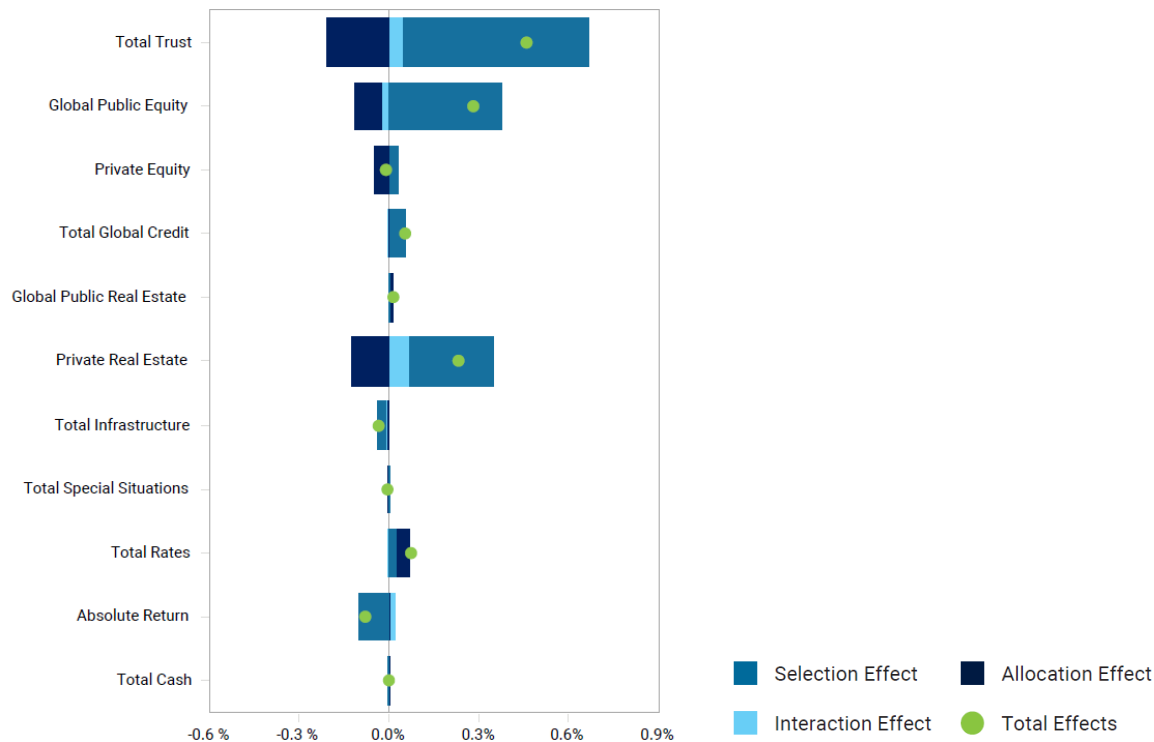


TOTAL TRUST RISK/RETURN



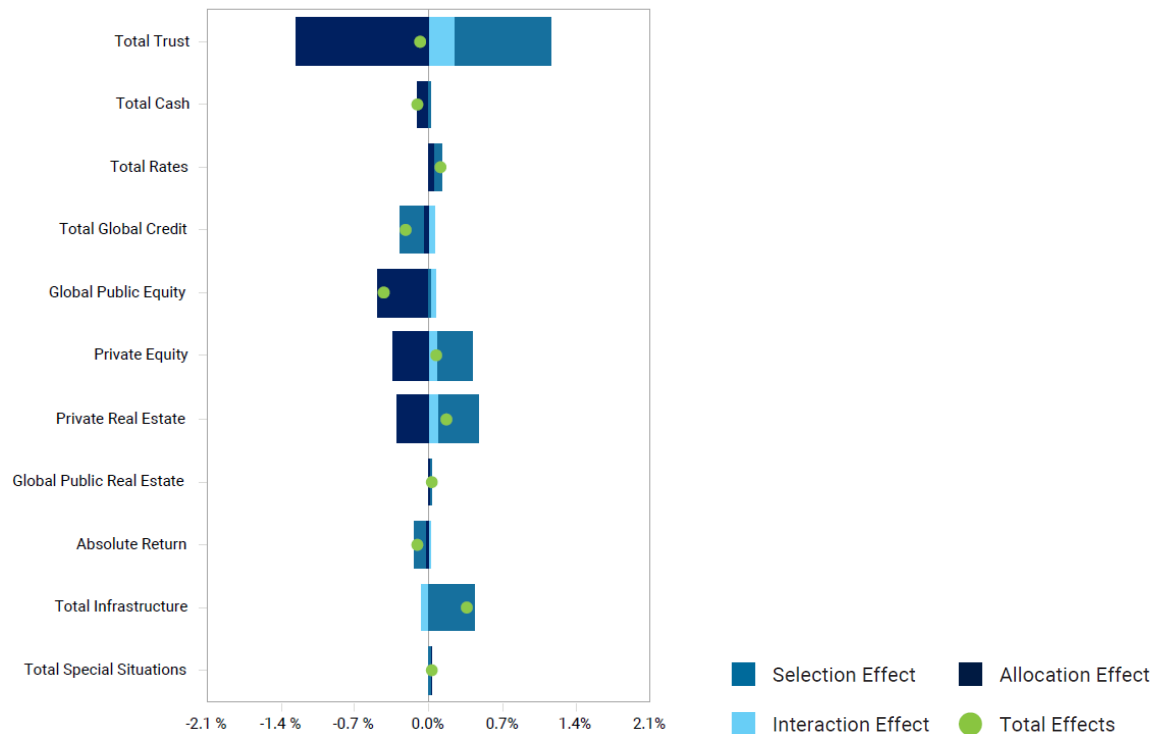
TOTAL TRUST ATTRIBUTION ANALYSIS

Attribution Effects
1 Quarter Ending June 30, 2023

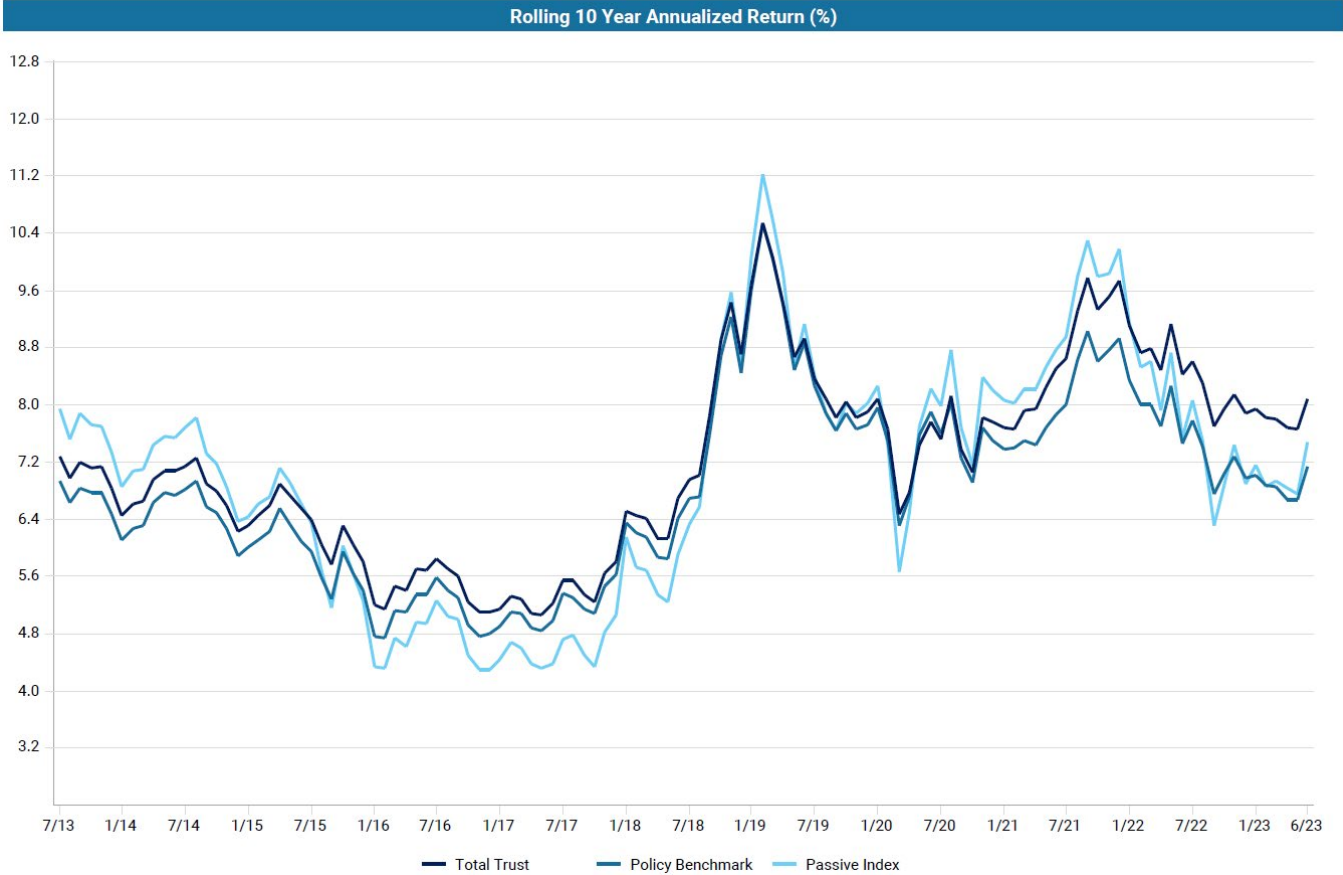


TOTAL TRUST ATTRIBUTION ANALYSIS

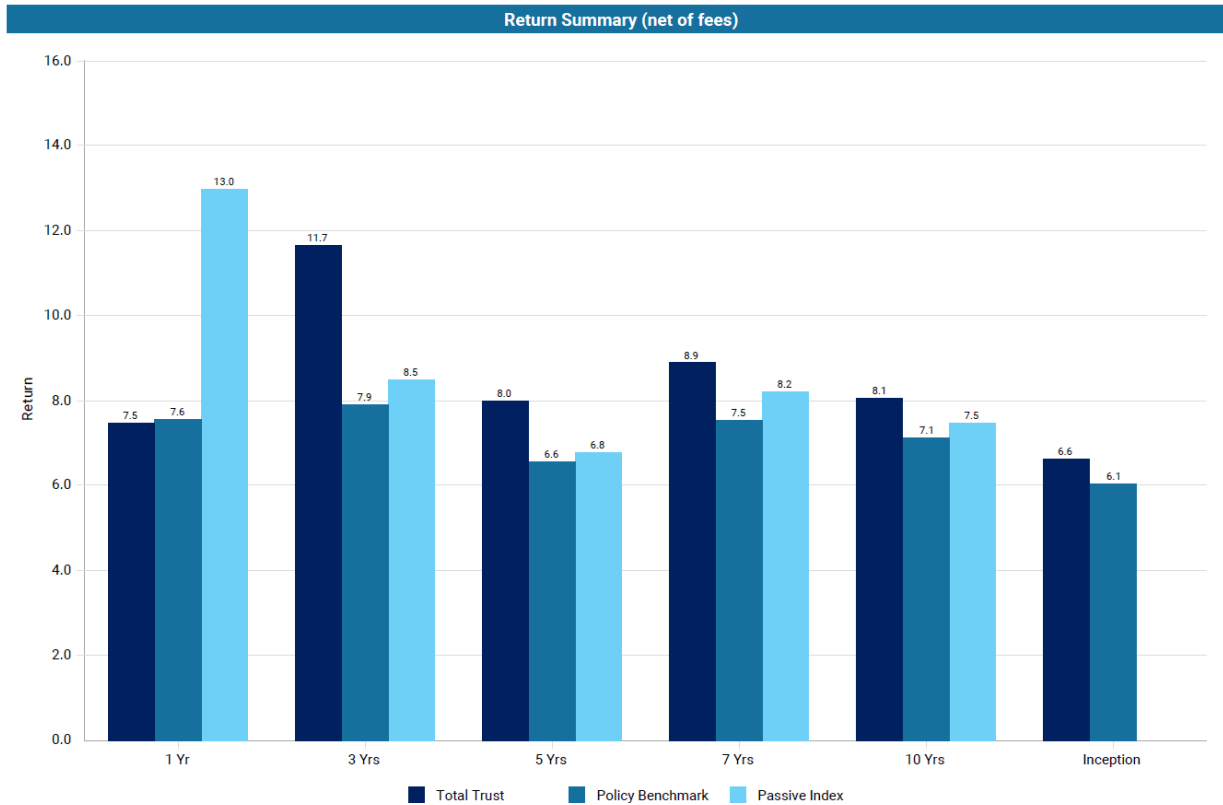
Attribution Effects
1 Year Ending June 30, 2023



LONG TERM INVESTMENT RESULTS



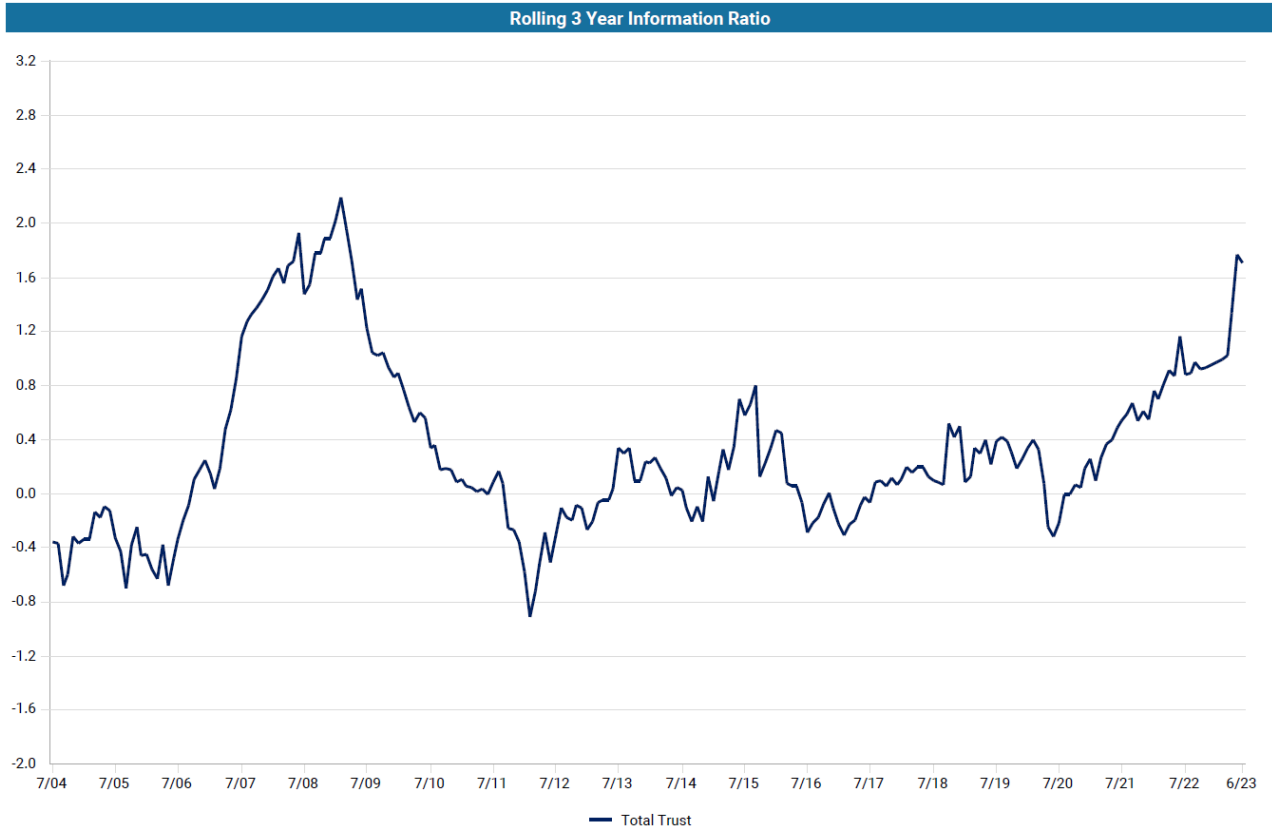
LONG TERM INVESTMENT RESULTS



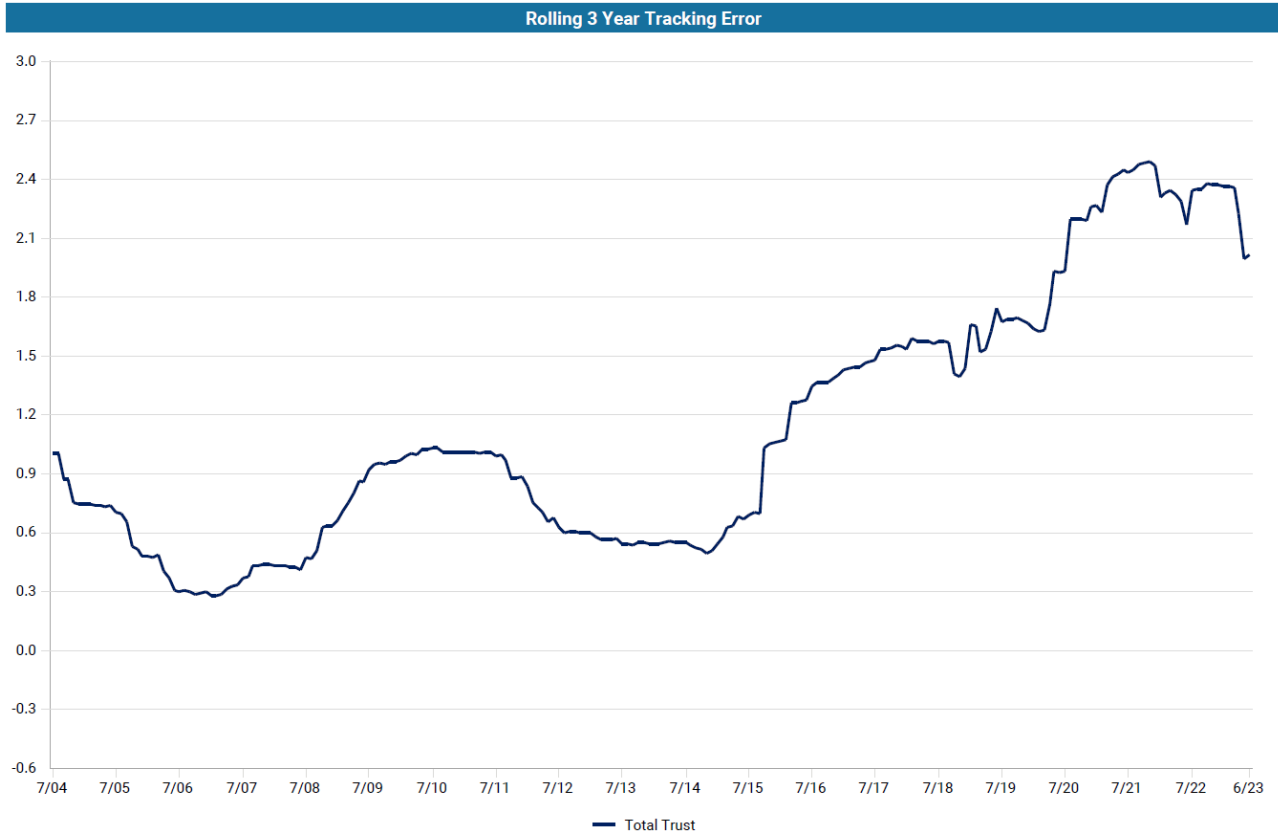
Note: The Passive Index is comprised of 80% MSCI ACWI IMI and 20% Bloomberg Intermediate Treasury Index. Index definitions can be found in the appendix.



ROLLING INFORMATION RATIO



ROLLING TRACKING ERROR



PERFORMANCE SUMMARY COMMENTARY

- **Over the past 10 years, Total Trust outperformed the Policy Benchmark by 0.9% and outperformed the Plan’s actuarial rate of return of 7.0% by 1.1%.**
- **In the one-year period ended June 30, 2023, the Trust underperformed the Policy Benchmark by 0.1%.**
 - The largest contributors to performance against the benchmark were Infrastructure (+0.4%), Private Real Estate (+0.2%), and Private Equity (+0.1%).
 - The largest detractors were Global Public Equity (-0.4%), Global Credit (-0.2%), and Absolute Return (-0.1%).
- **In the past one-year, portfolio positioning at the asset class level detracted -1.3% from Total Trust returns versus the policy benchmark.**
 - An underweight position in Global Public Equity contributed negatively (-0.5%).
 - An overweight position in Private Equity contributed negatively (-0.3%).
 - An overweight position in Private Real Estate contributed negatively (-0.3%).



Discussion

Market Conditions

August 23, 2023

David T. Veal, Chief Investment Officer

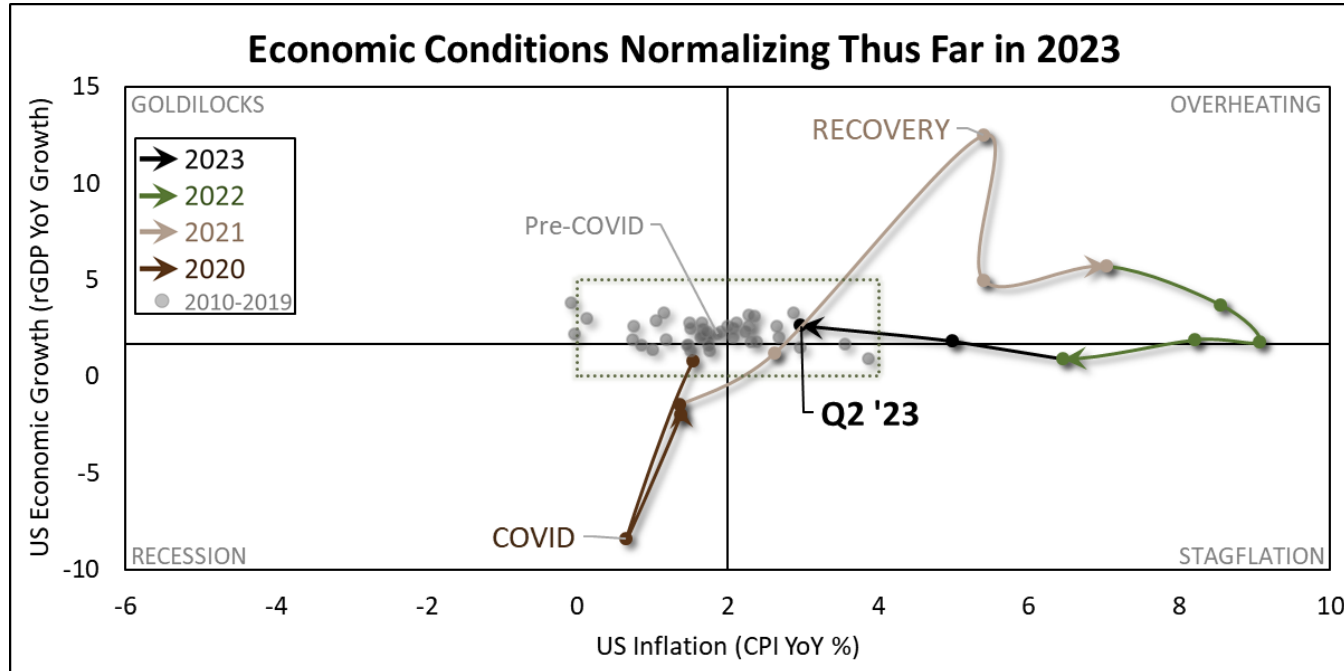
John McCaffrey, Managing Director of Portfolio Management

Strategic goal: balance risk and return in pursuit of the strategic objectives of the investment program.

- Ensure diversification appropriate to economic conditions
- Maintain acceptable levels of volatility given market conditions
- Provide short-term liquidity while investing for long-term growth

Market Conditions

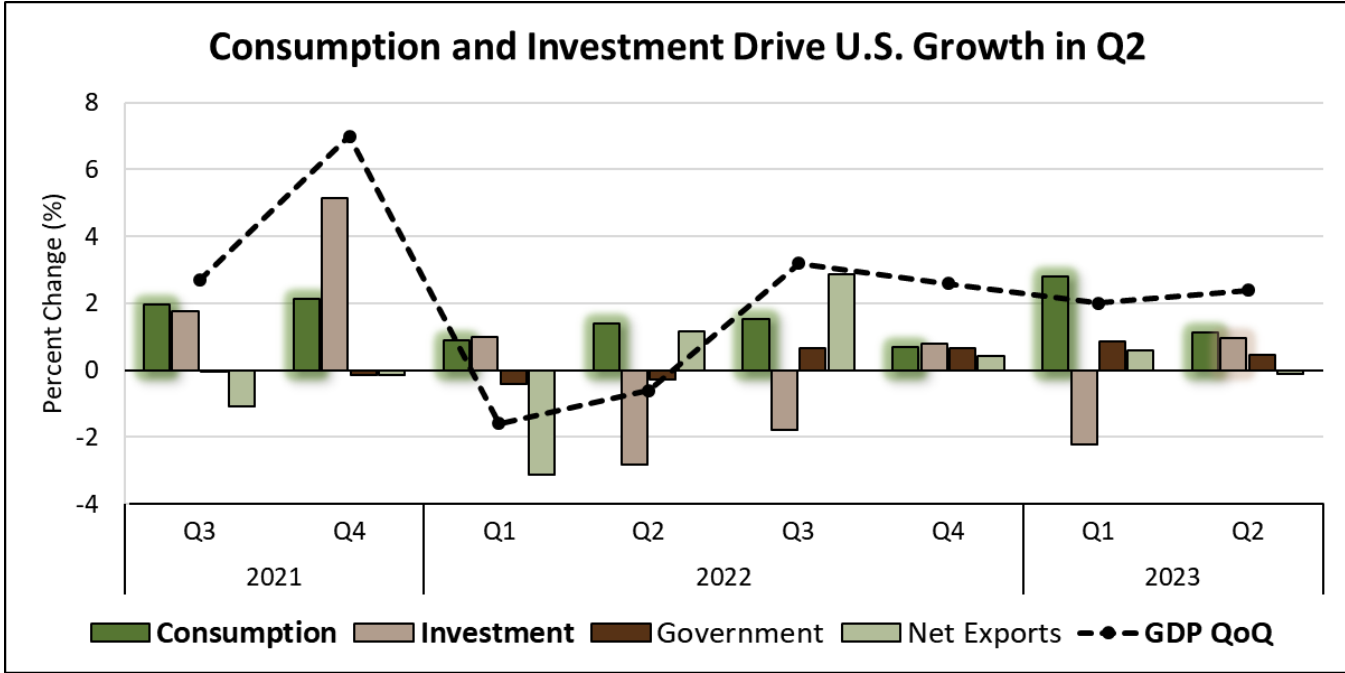
Economic Conditions



Source: Bloomberg, US Bureau of Economic Analysis, US Bureau of Labor Statistics

Market Conditions

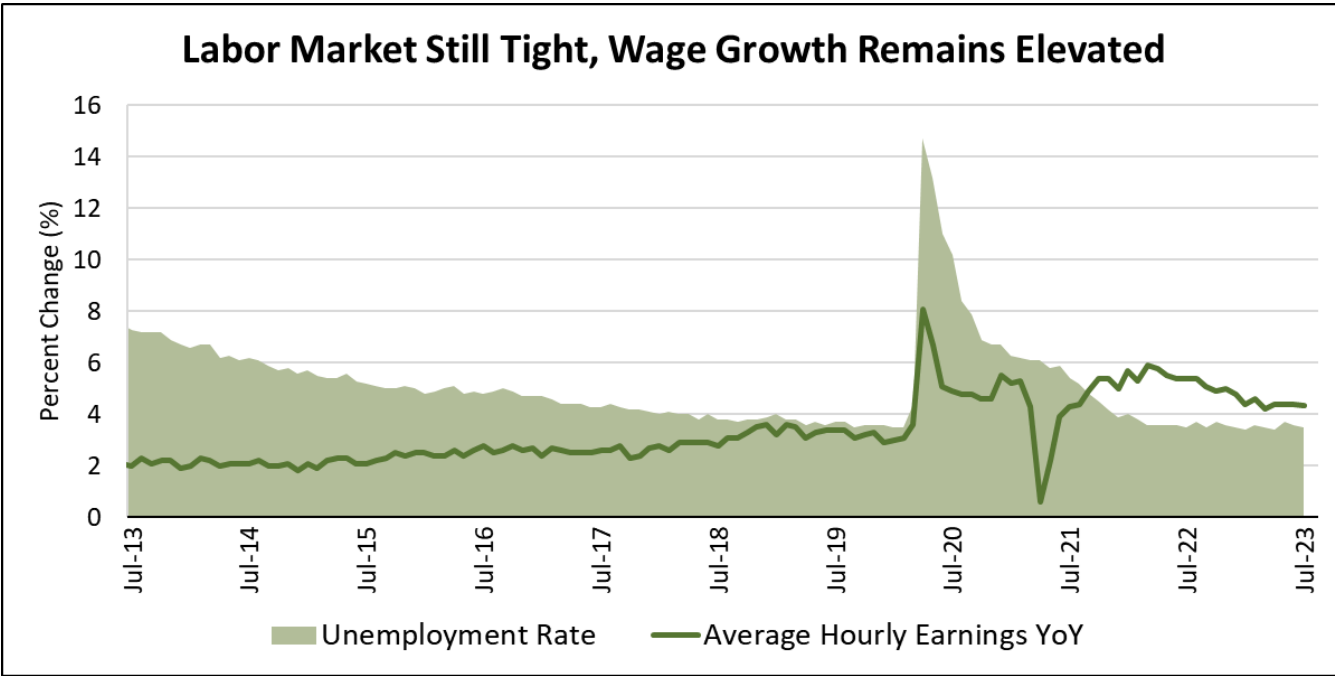
Economic Growth



Source: Bloomberg, US Bureau of Economic Analysis

Market Conditions

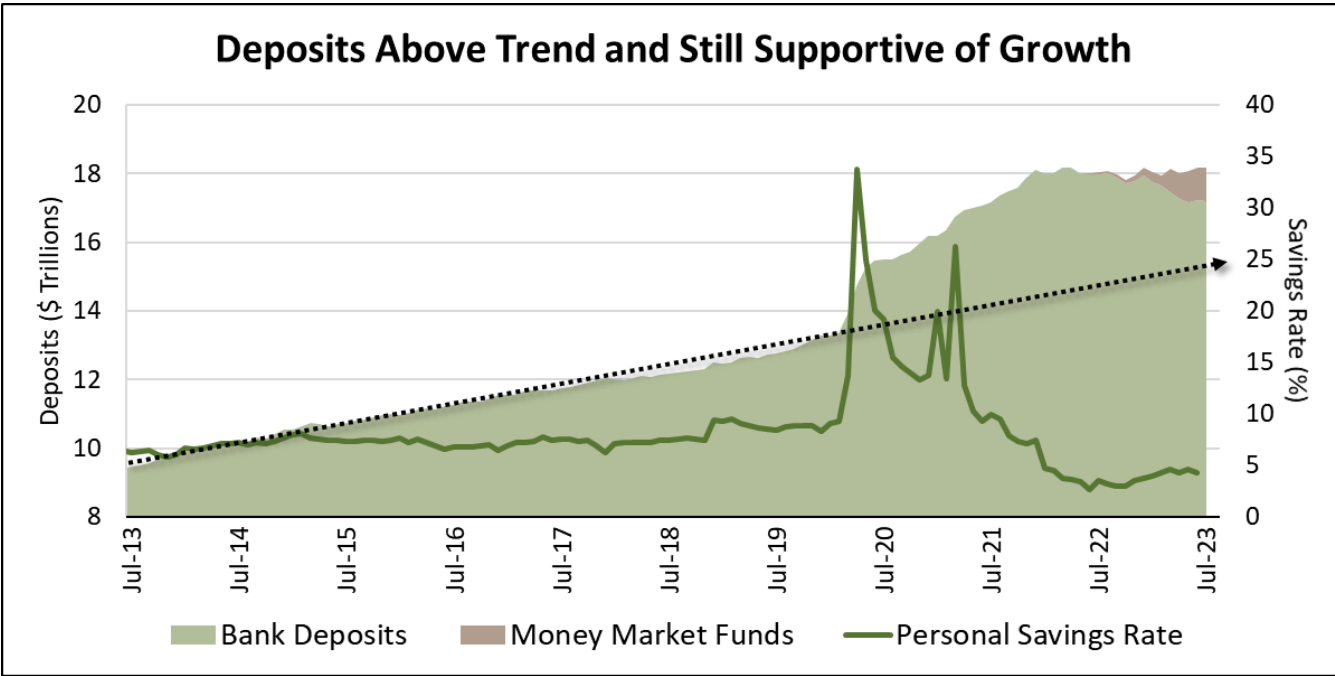
Consumption Activity Outlook



Source: US Bureau of Labor Statistics

Market Conditions

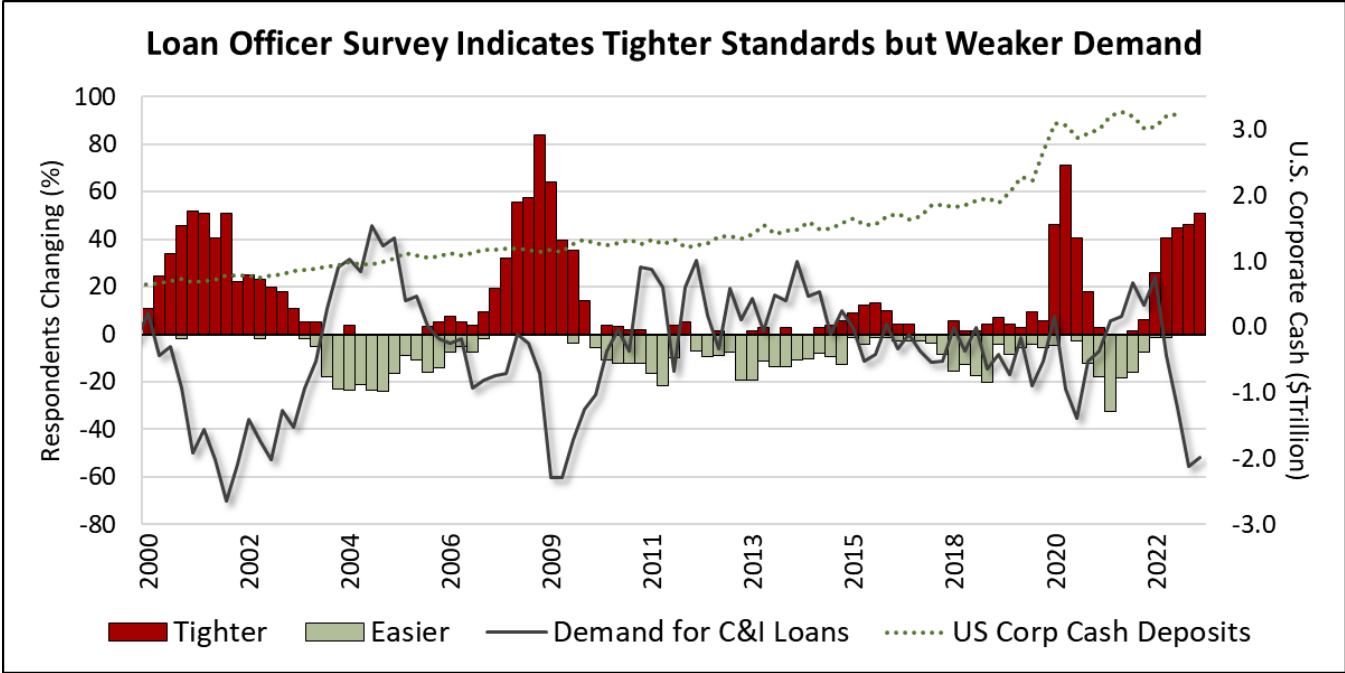
Consumption Activity Outlook



Source: US Federal Reserve

Market Conditions

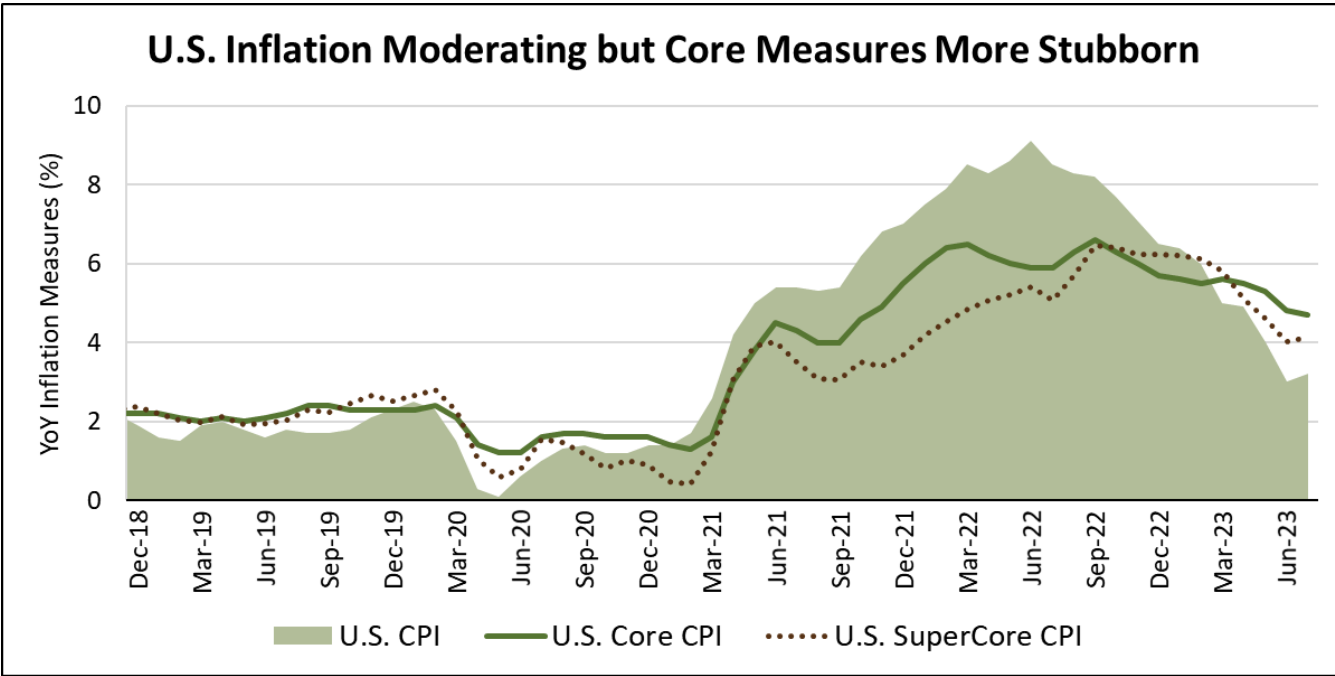
Investment Activity Outlook



Source: US Federal Reserve

Market Conditions

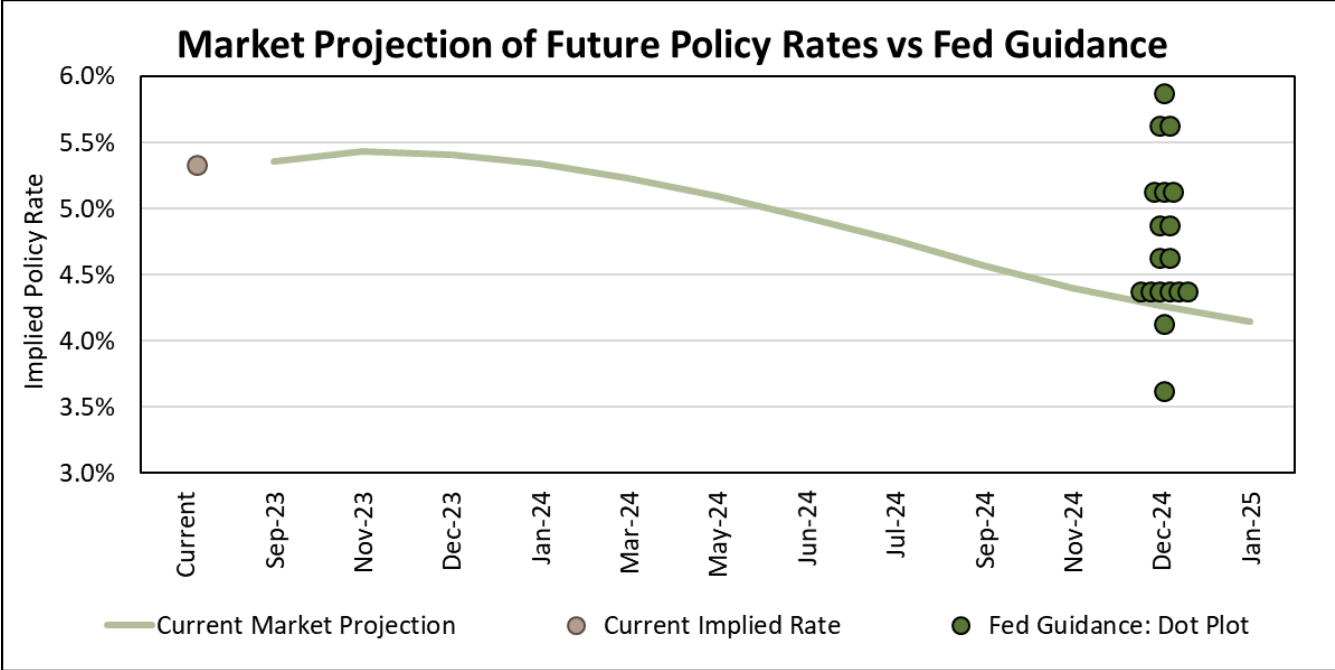
U.S. Inflation



Source: Bloomberg, US Bureau of Labor Statistics

Market Conditions

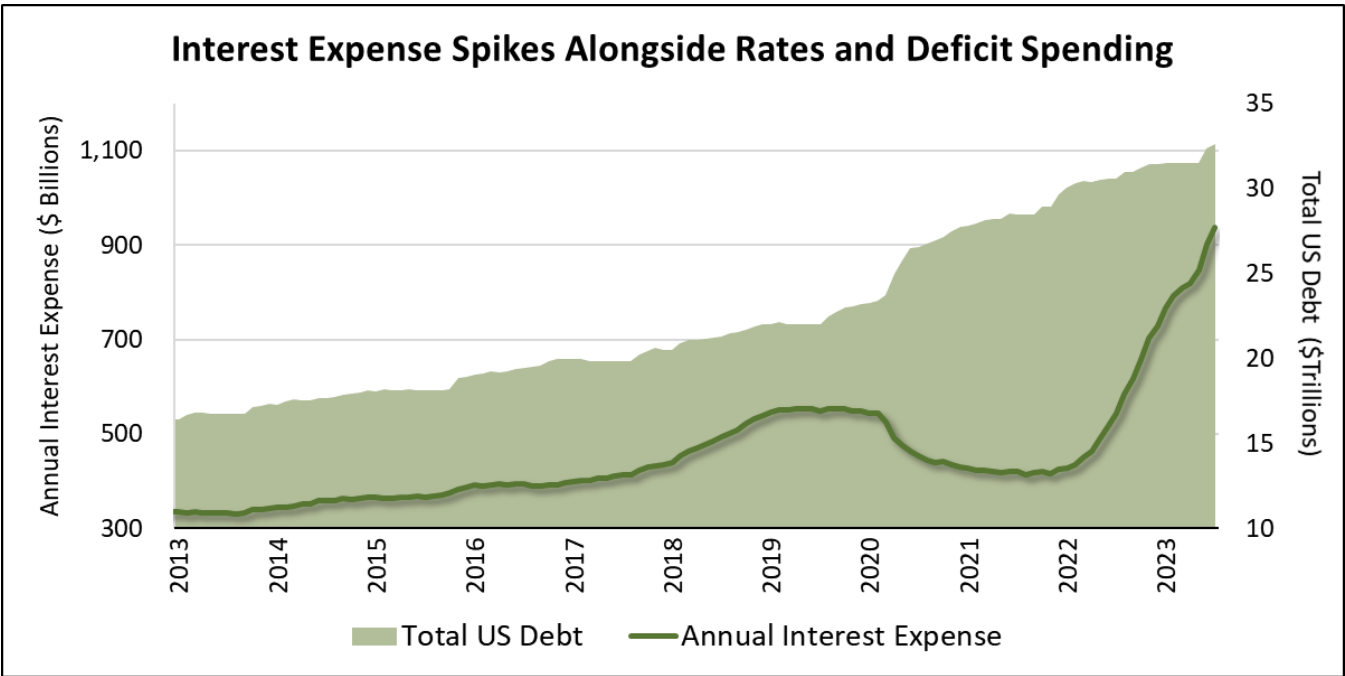
Monetary Policy



Source: Bloomberg, Chicago Mercantile Exchange, US Federal Reserve, as of August 16, 2023

Market Conditions

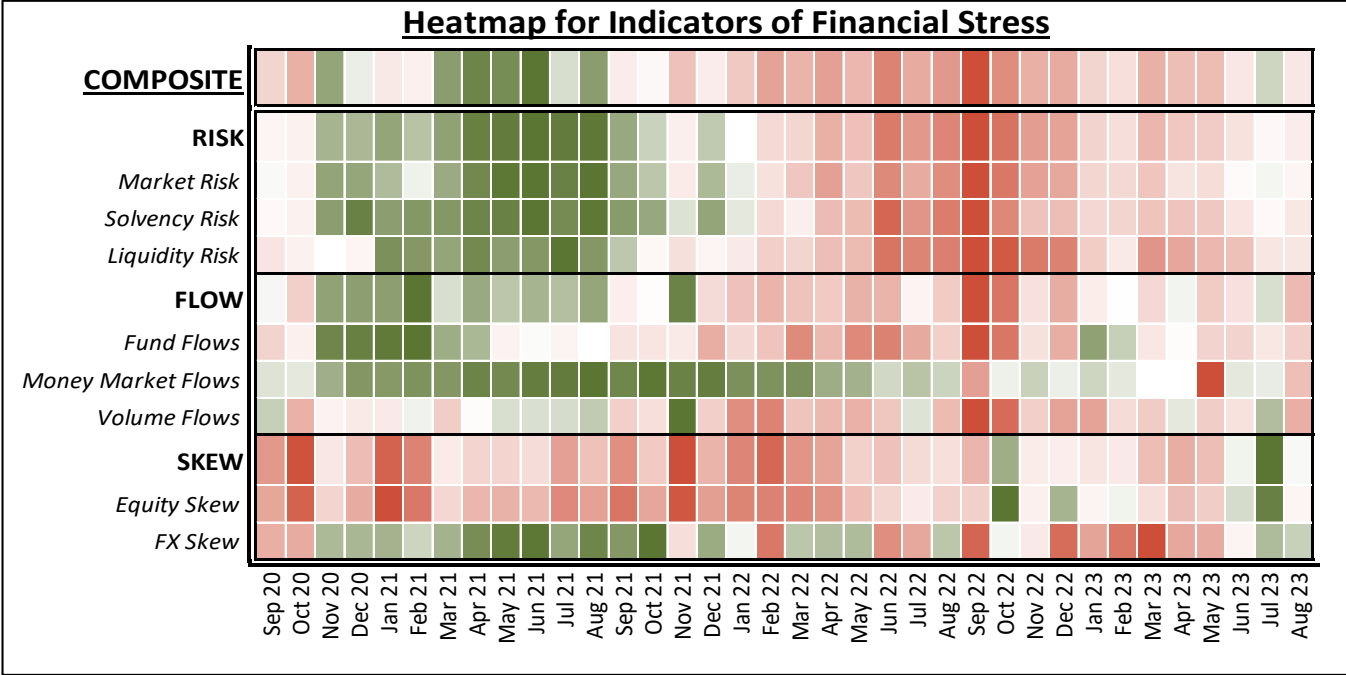
Policy Effects



Source: Bloomberg, US Bureau of Labor Statistics

Market Conditions

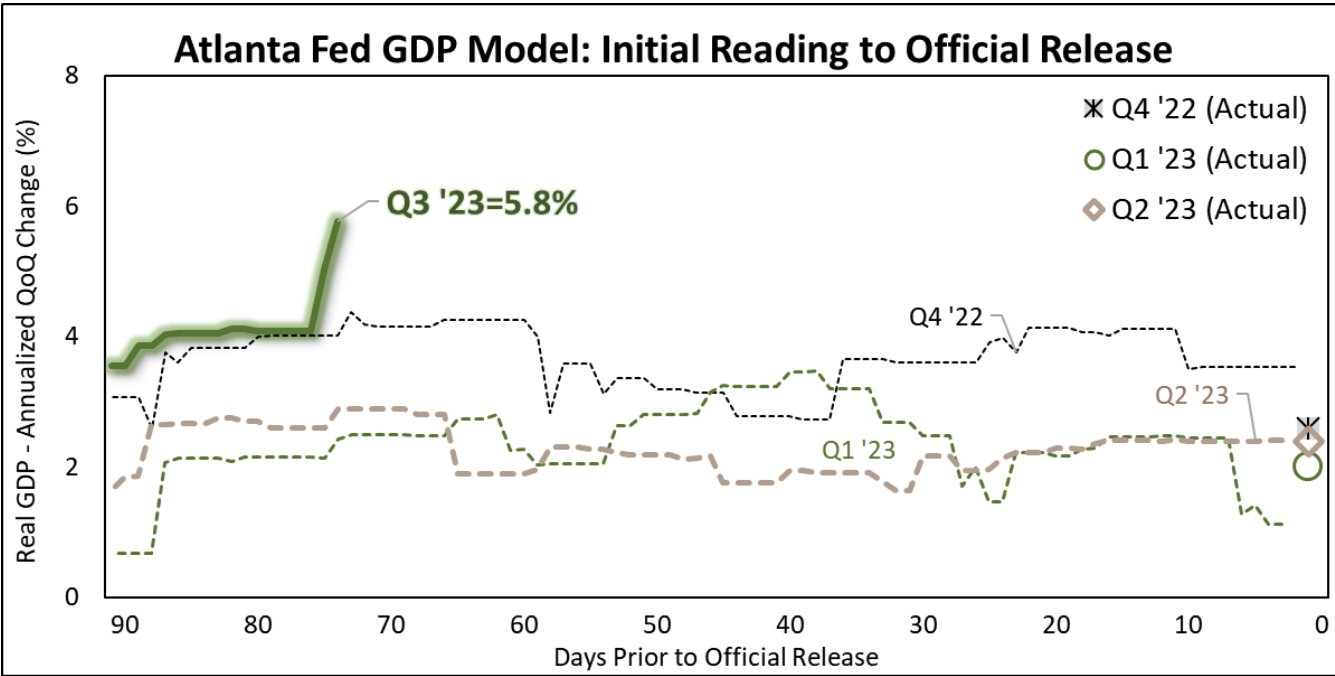
Financial Conditions



Source: Bloomberg, Bank of America. As of August 16, 2023.

Market Conditions

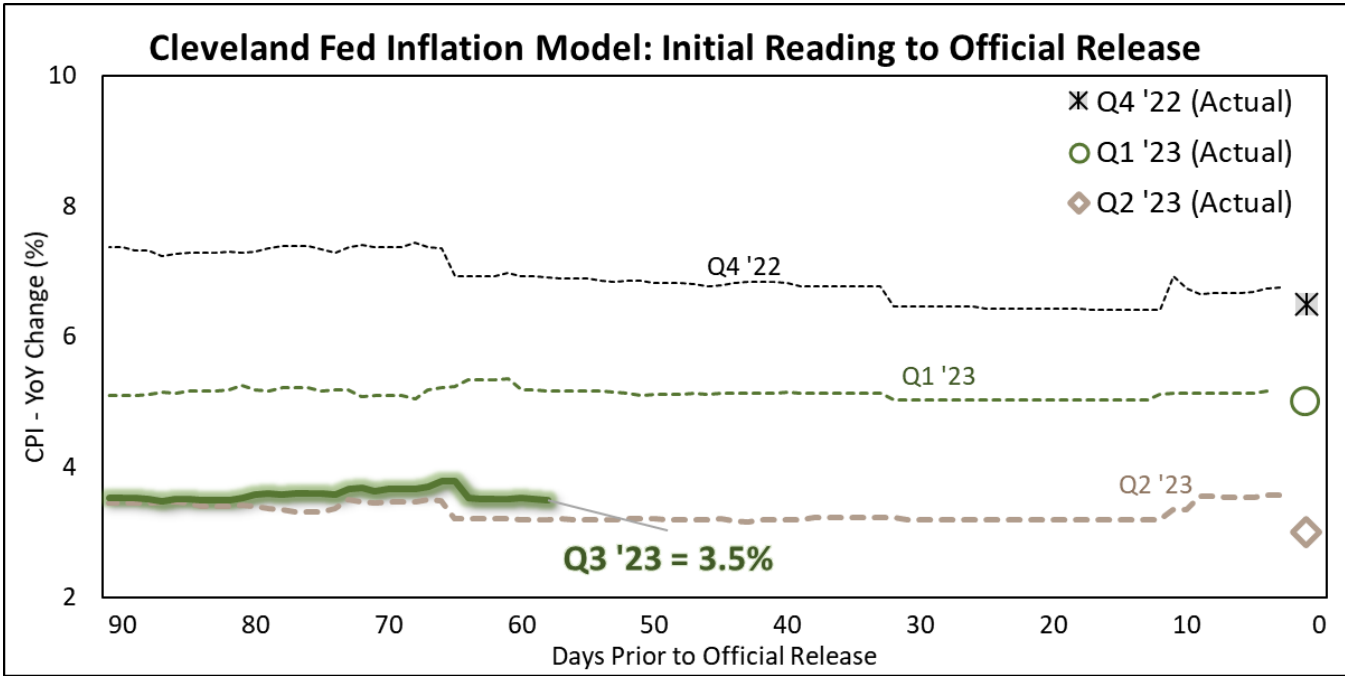
Atlanta Fed U.S. GDPNow Model



Source: Bloomberg, Federal Reserve Bank of Atlanta. As of August 16, 2023.

Market Conditions

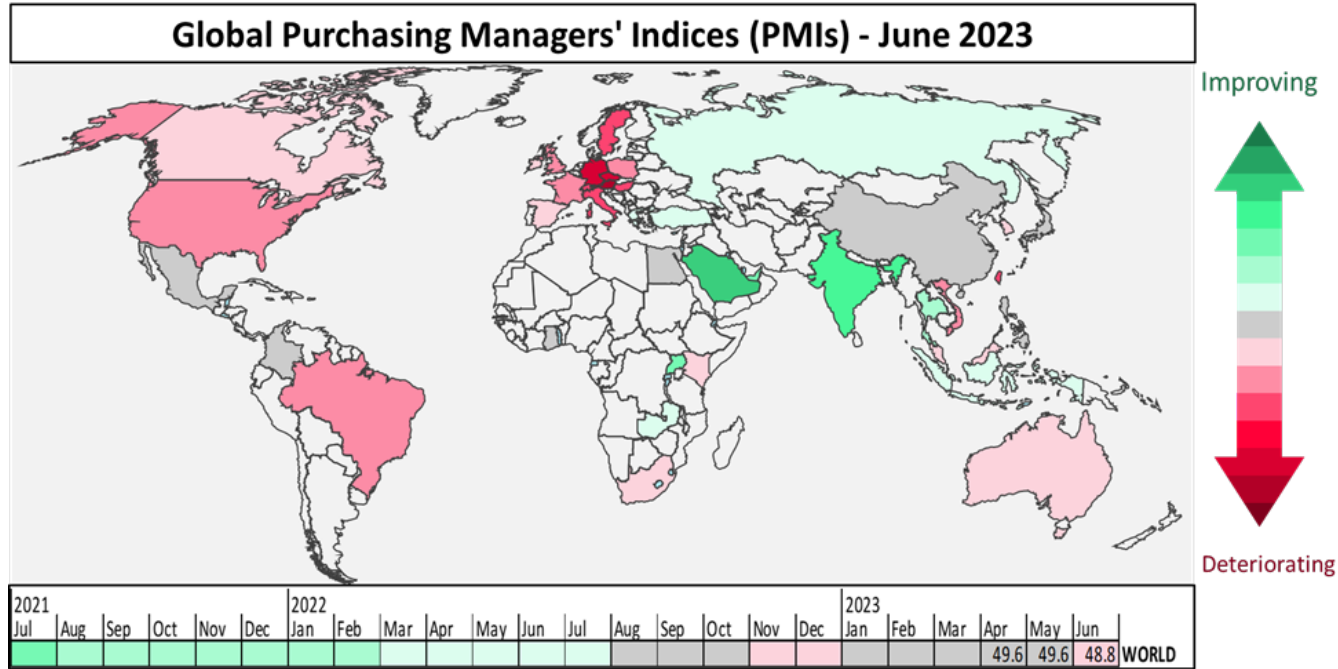
Cleveland Fed U.S. Inflation Model



Source: Bloomberg, Federal Reserve Bank of Cleveland. As of August 16, 2023.

Market Conditions

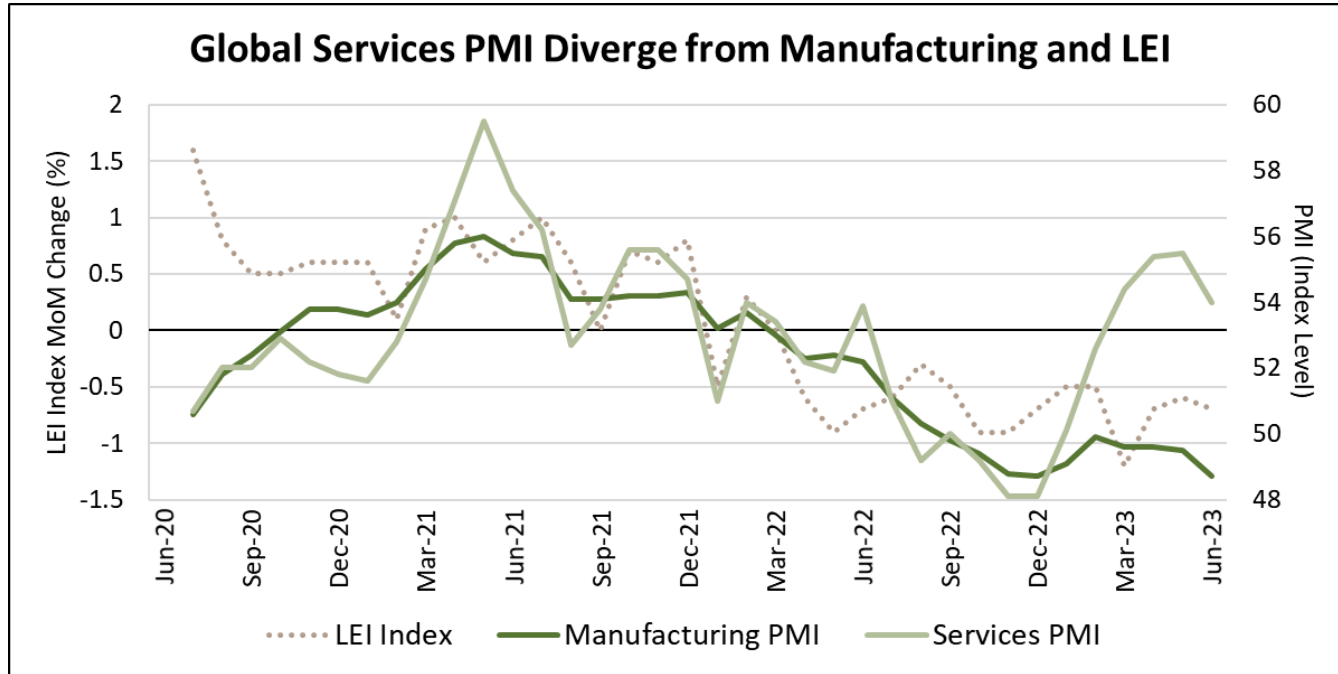
Global Purchasing Managers' Indices (PMIs)



Source: Bloomberg, IHS Markit Economics.

Market Conditions

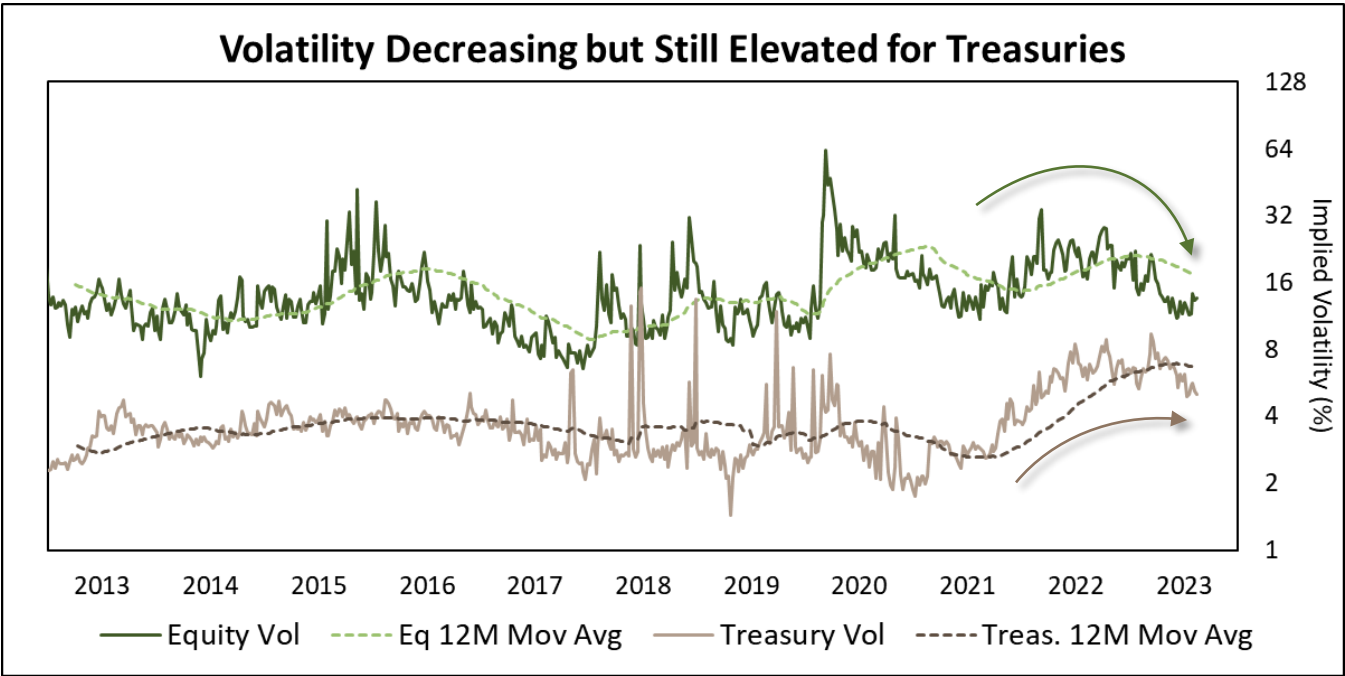
Global Purchasing Managers' Indices (PMIs)



Source: Bloomberg, IHS Markit Economics, Conference Board.

Market Conditions

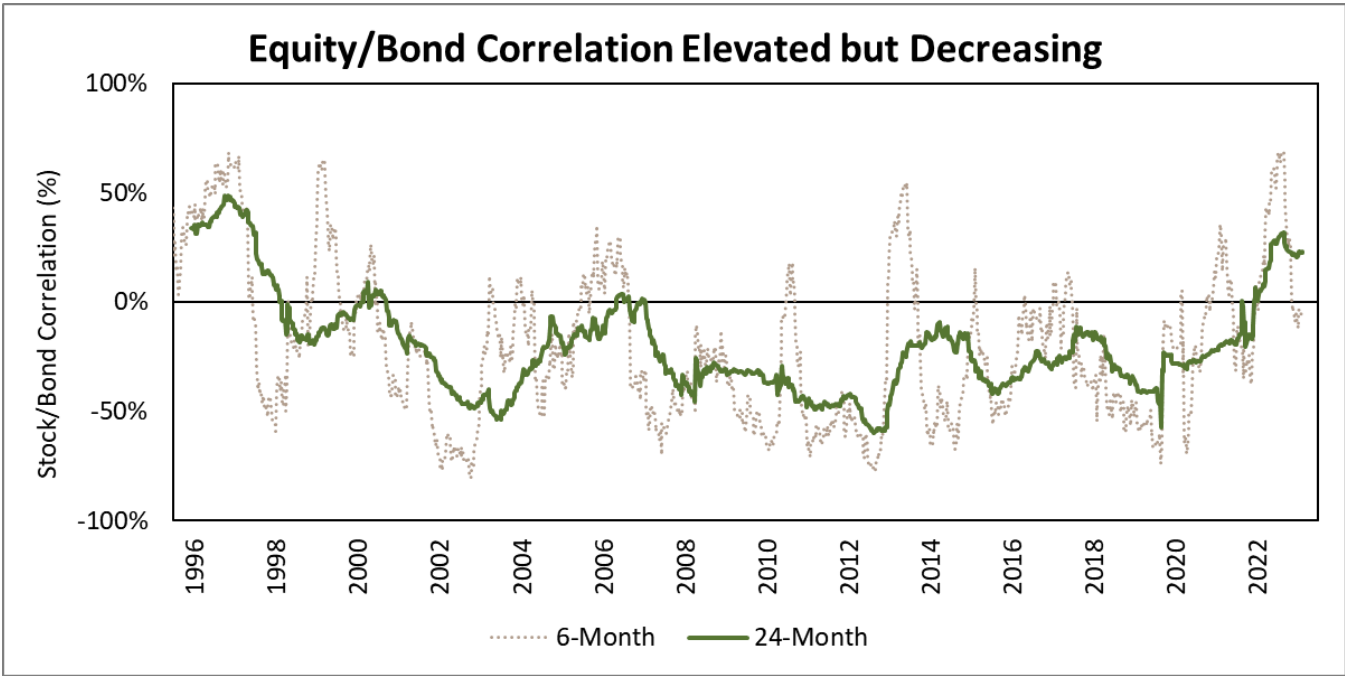
Volatility



Source: Bloomberg, MSCI Inc., As of August 10, 2023

Market Conditions

Correlations



Source: Bloomberg, MSCI Inc., As of August 16, 2023

Market Conditions

Summary Review



- Economic growth and inflation have normalized thus far
 - Wage growth and cash reserves support ongoing economic activity
 - Inflation decelerating, but a slower pace of moderation may lie ahead
- Fed commitment to 2% target may mean higher rates for a while
- Growing debt, higher rates spike US government interest expense
- Service-driven economies poised to outperform globally
- Environment for diversified portfolios still challenged but improving

Discussion

Public Agenda Item #18

Quarterly Report from Chief Investment Officer

August 23, 2023

David T. Veal, CFA, CAIA, FRM

Investment Performance

Mission & Objectives



Prudently maintain a high-performing, well-diversified, and cost-effective portfolio to support the provision of earned benefits.



Add value vs. benchmark
over rolling five-year periods



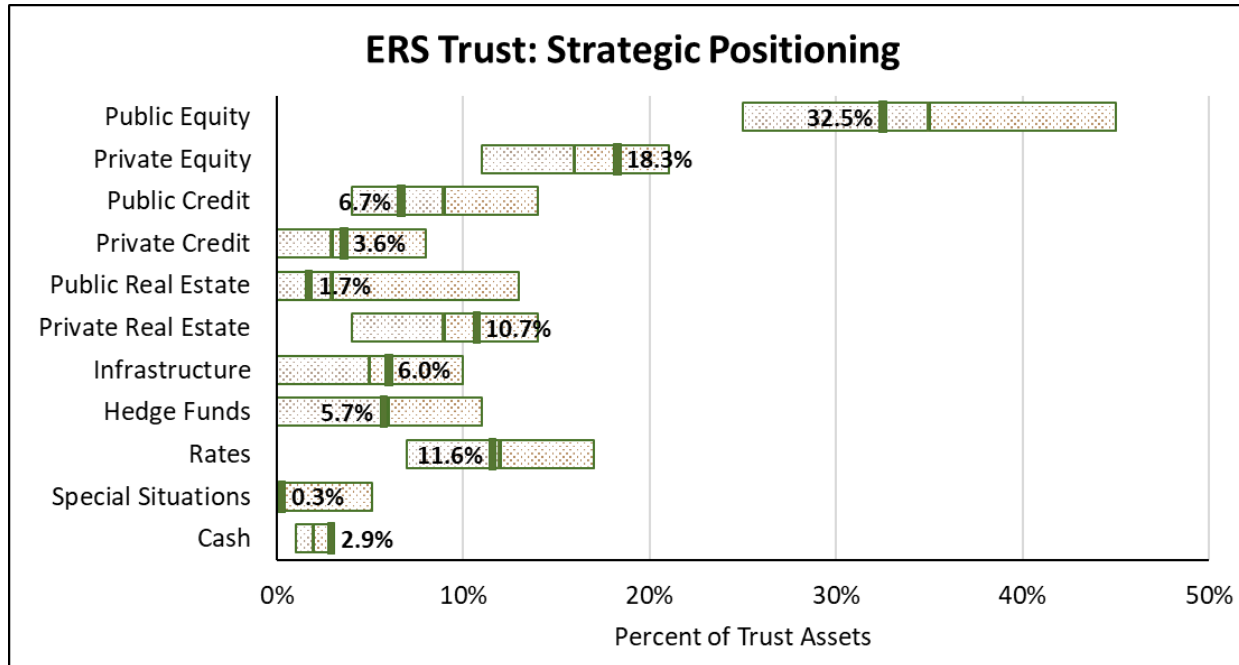
Earn appropriate returns
for the risks assumed

Retirement Fund Performance

Asset Class Positioning



- \$1B in funds received from the State of Texas allocated to Cash and Rates portfolios

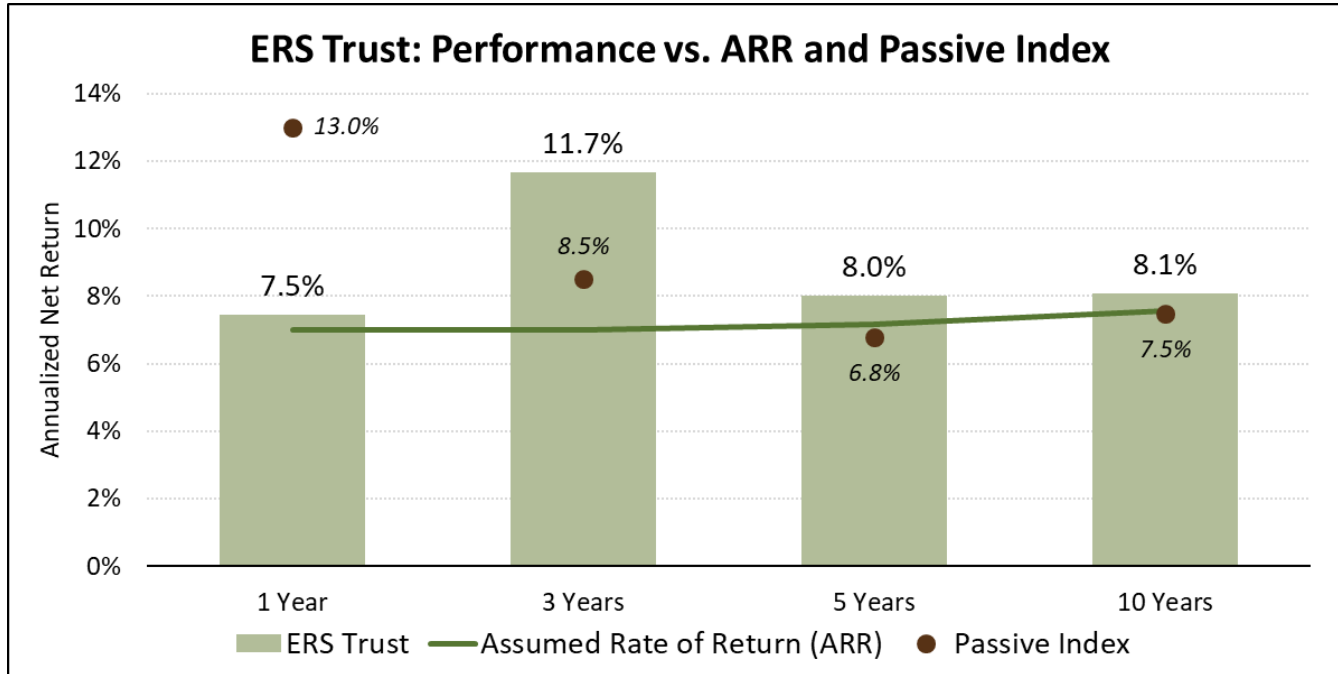


Retirement Fund Performance

Absolute Return



- Meeting strategic objectives despite weak returns from passive public market portfolios

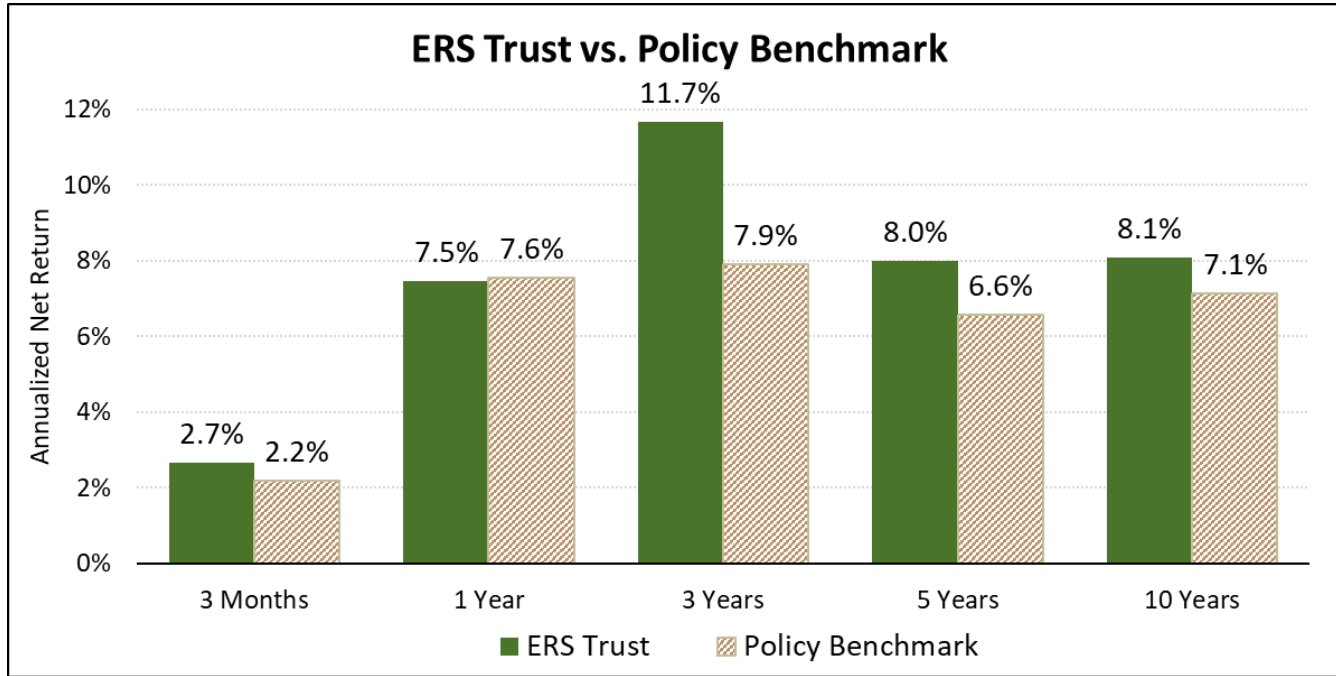


Retirement Fund Performance

Relative Return



- Strong performance vs. Policy Benchmark, including +142 bps on a 5-year basis

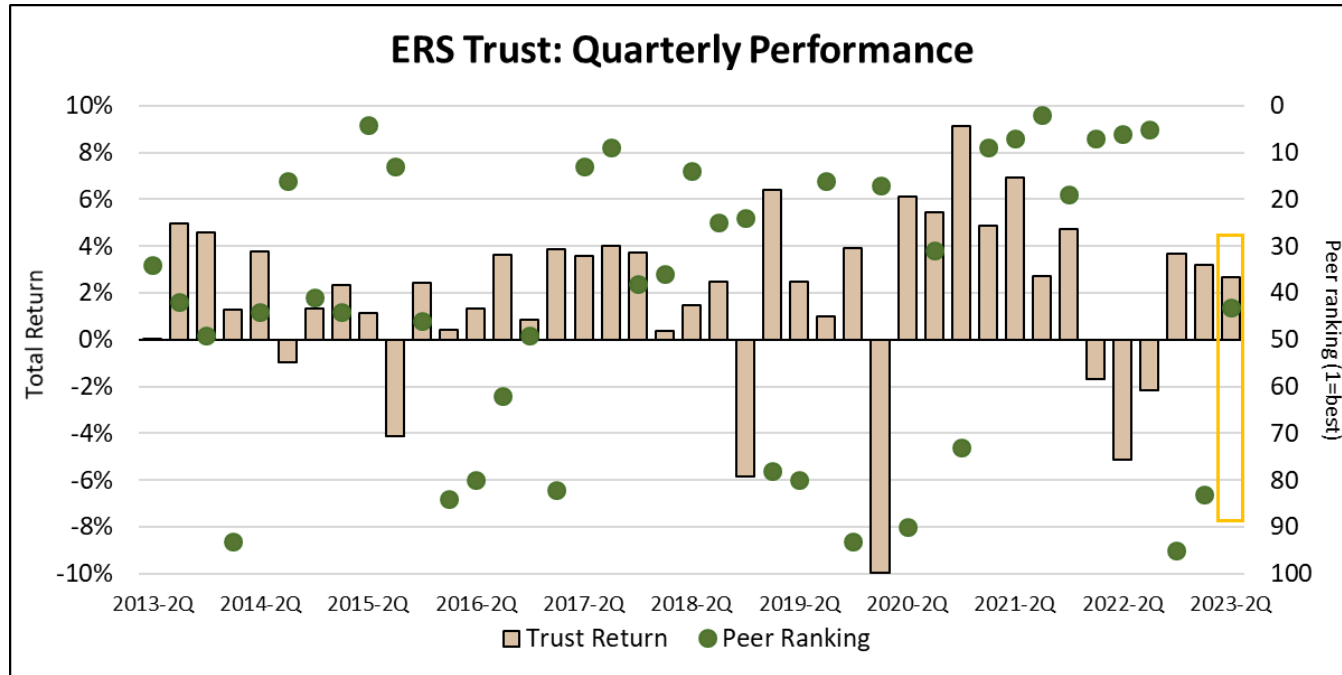


Retirement Fund Performance

Quarterly Performance



- Positive absolute returns for third consecutive quarter, with good peer ranking

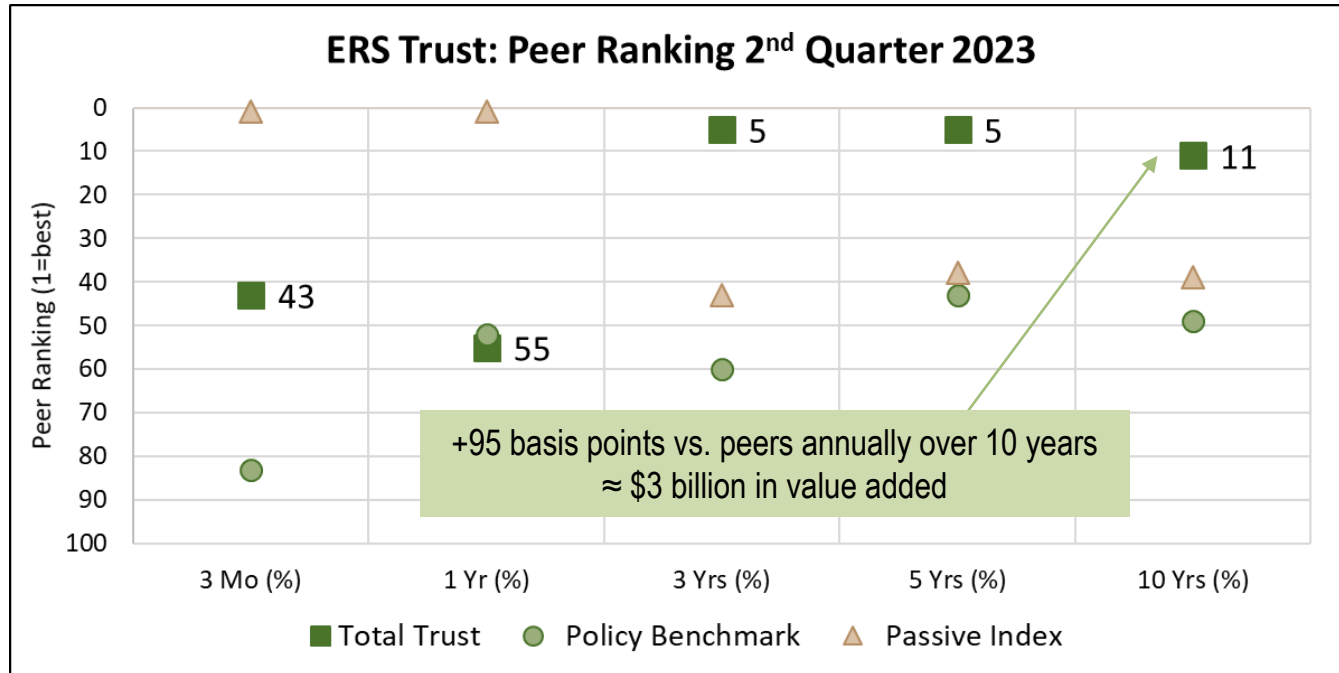


Retirement Fund Performance

Peer Rankings for Current Quarter



- Superior performance over long horizons, including top decile of peers over 5-10 years

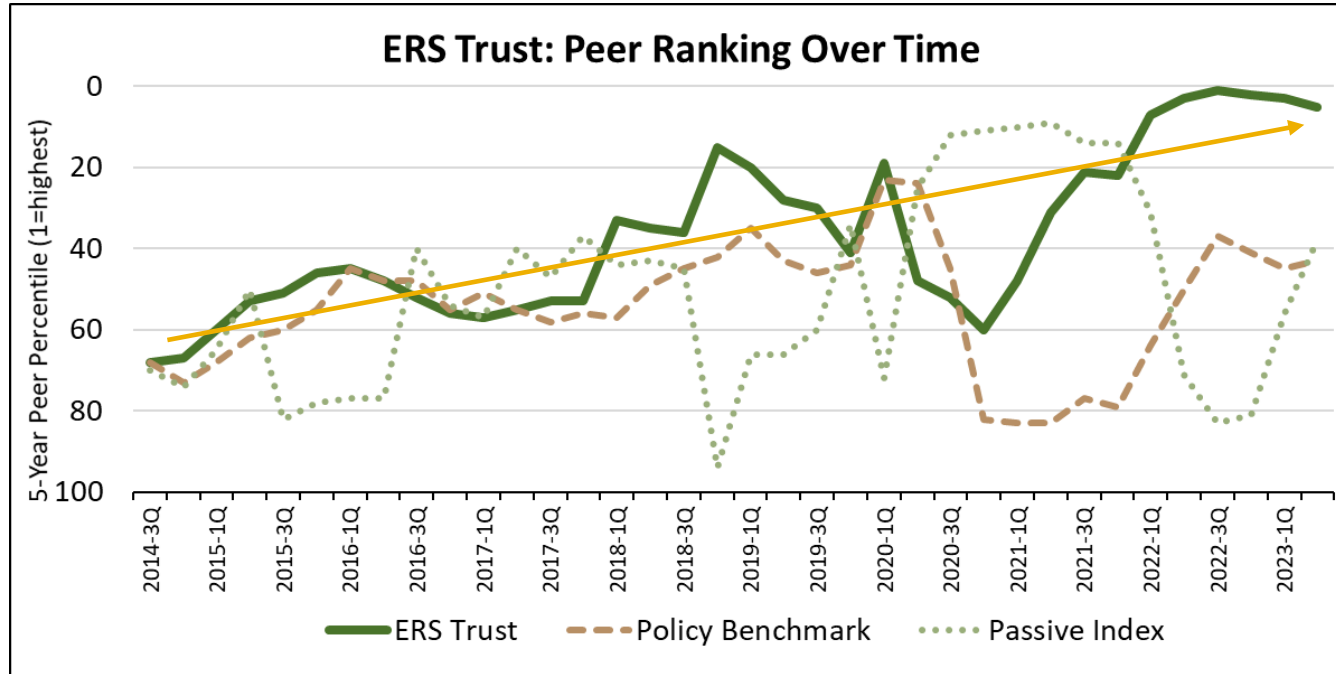


Retirement Fund Performance

Peer Ranking Over Time



- A decade of progress culminates in a top performing fund over long time horizons



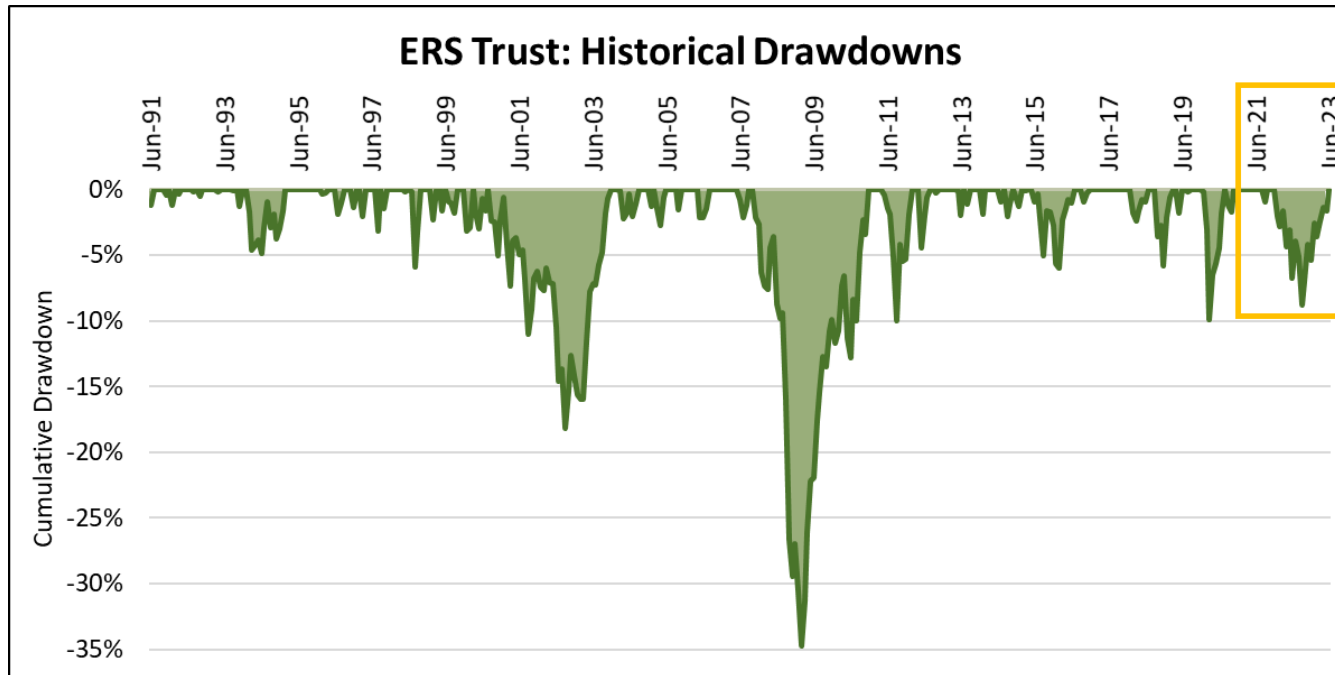
Top 15%
3 year
5 year
10 year

Retirement Fund Performance

Historical Drawdowns



- Performance has fully recovered from 9% decline at September 2022 trough

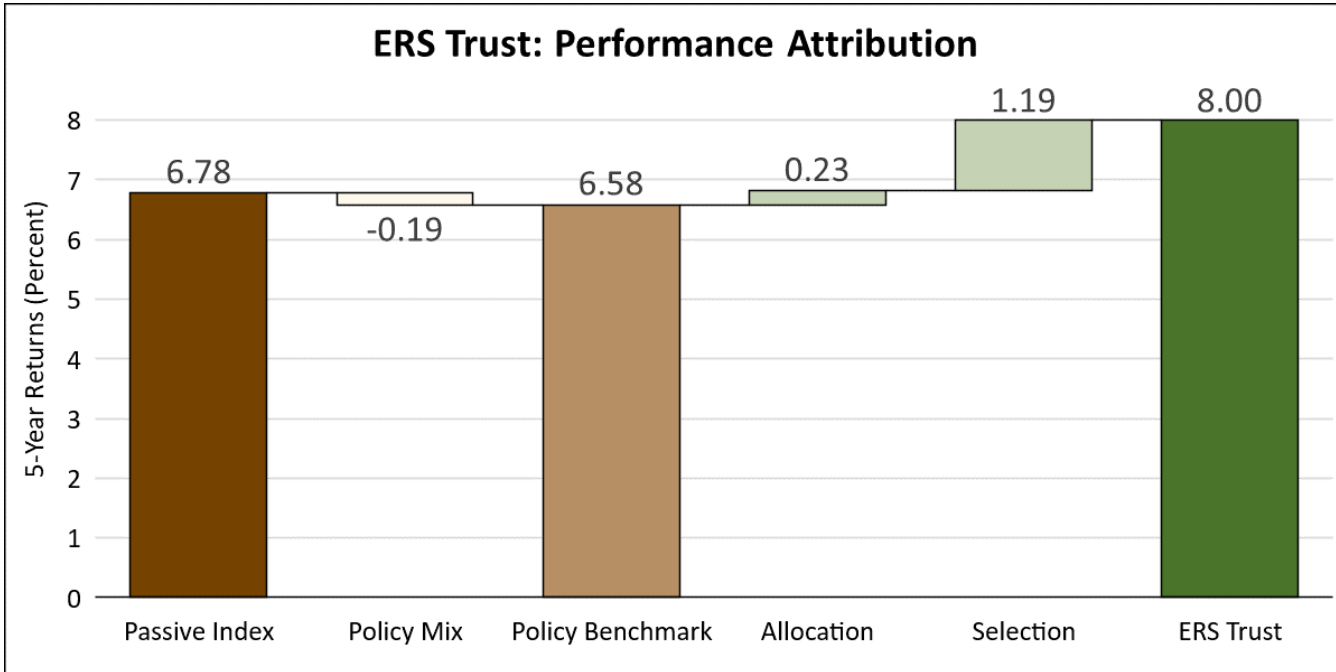


Retirement Fund Performance

Attribution Analysis



- Meaningful excess return from both asset allocation and security selection decisions

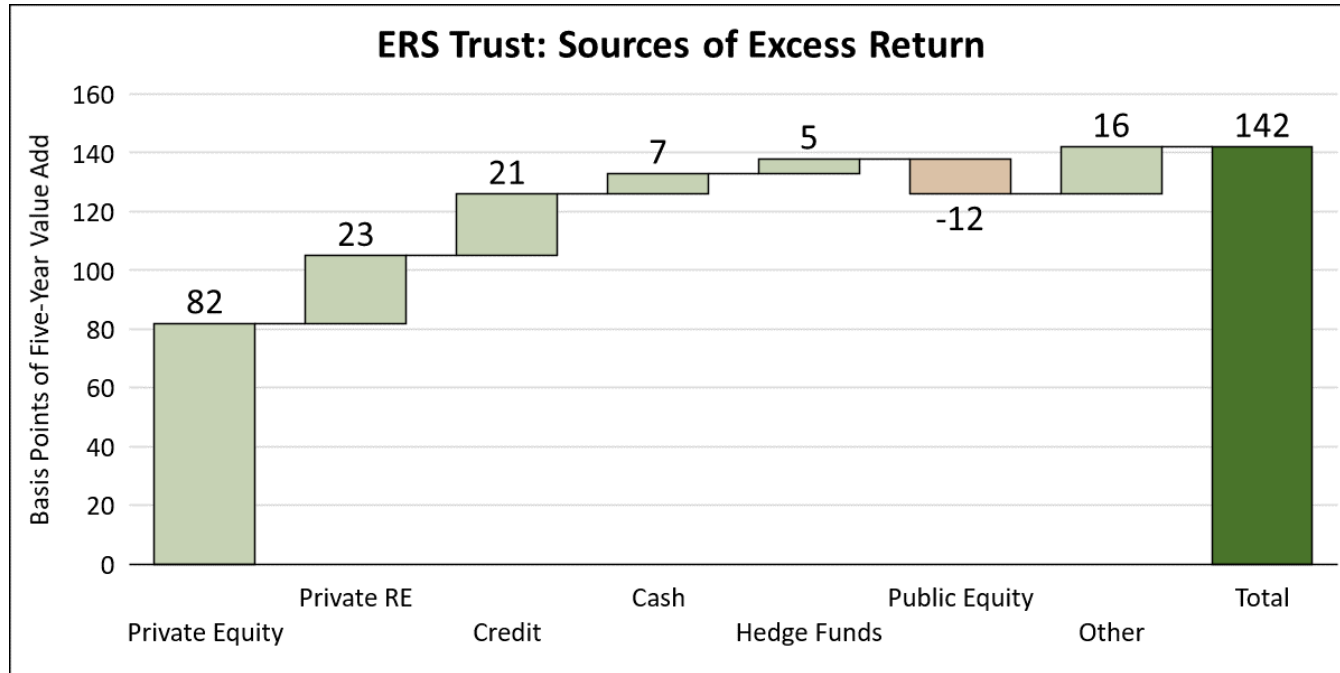


Retirement Fund Performance

Attribution Analysis



- Private equity, private real estate, and credit represent 95% of five-year value add

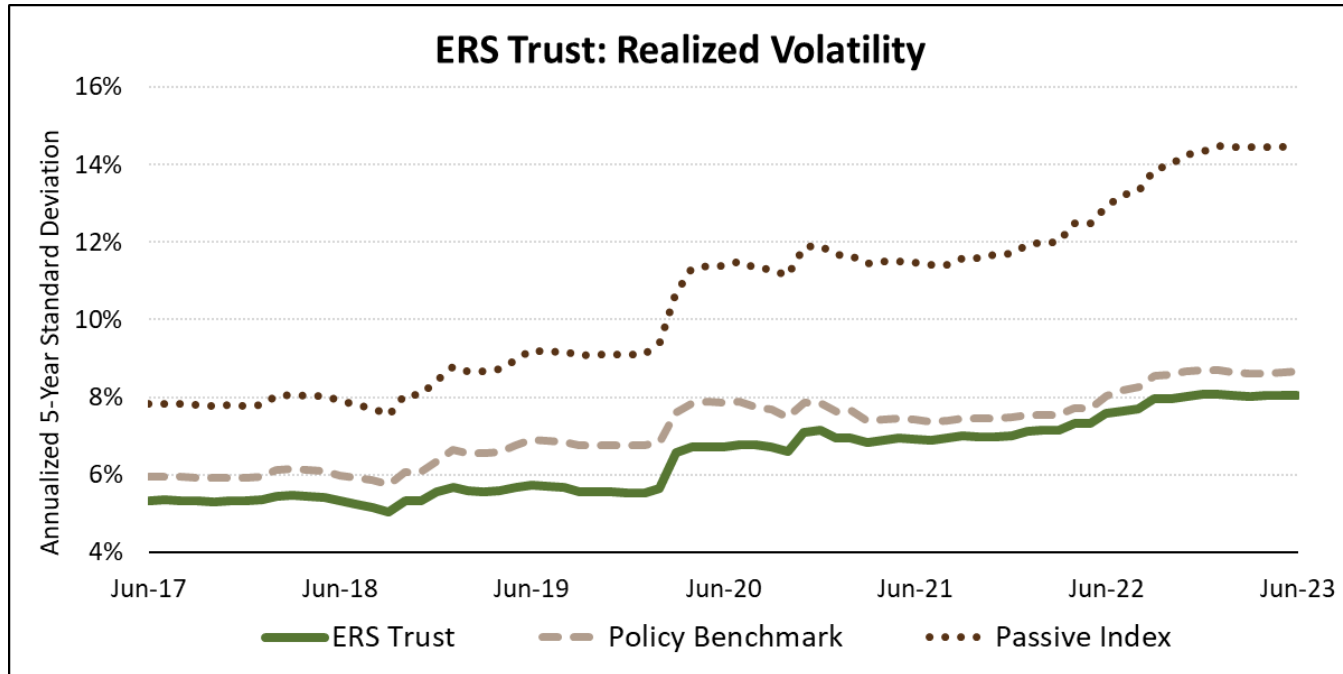


Retirement Fund Performance

Risk Metrics



- Trust risk has almost doubled from the lows of five years ago, but leveled out recently

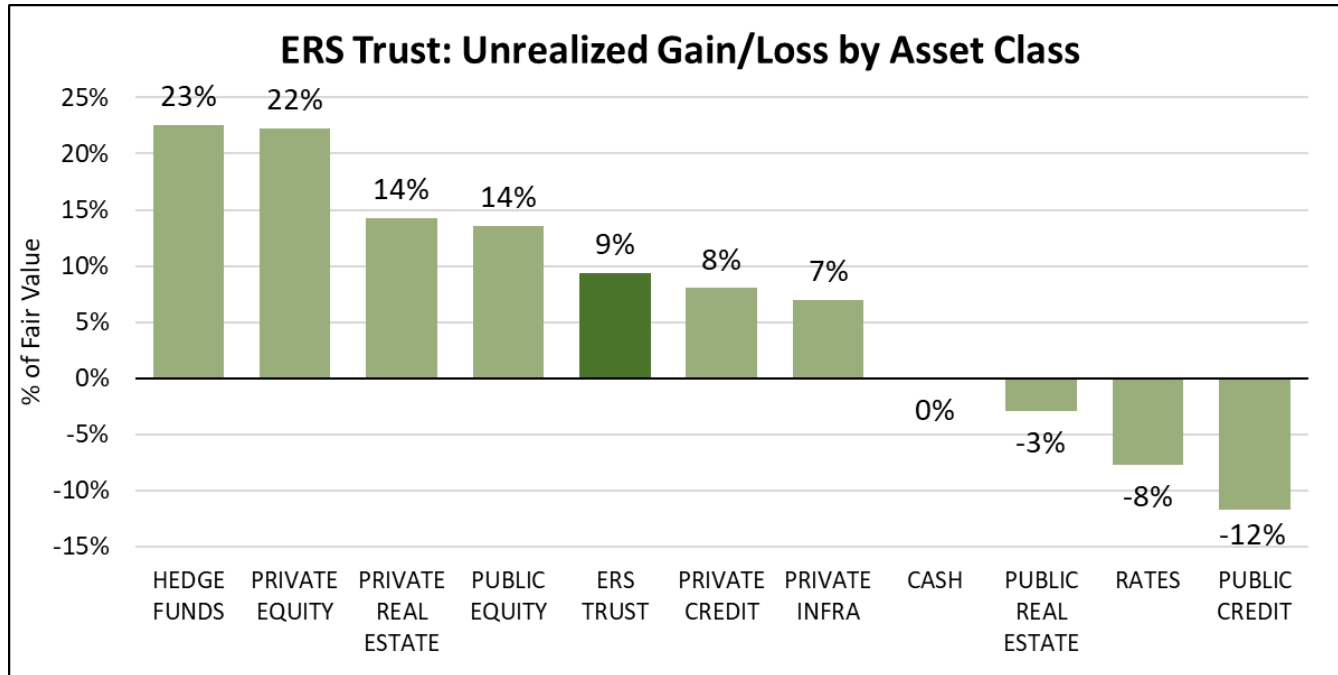


Retirement Fund Performance

Unrealized Gain/Loss by Asset Class



- Unrealized gains within private markets, losses in rate-sensitive liquid assets



Developments & Initiatives

Investments Division



- Focus on attracting and retaining talent
- Investment Practices Review with NEPC
- Division moves to 5th floor of legacy building
- RFQ for all seven investment consulting roles

Investment Practices Review

Working Timeline



- Texas Gov't Code § 802.109 requires a report every three years

Time Period	Activity
January 2023	Staff and NEPC begin engagement
May 2023	NEPC meets with key members of Staff
August 2023	NEPC provides initial findings on IPS
Fall 2023	NEPC conducts follow up meeting as needed
December 2023	NEPC delivers final report to Board
June 2024	Report due to Pension Review Board

Discussion

Public Agenda Item #19

**Consideration and Annual Review of the ERS Investment Policy
Statement - (Action)*

August 23, 2023

David T. Veal, CFA, CAIA, FRM

Annual IPS Review

Process for Developing Recommendations



- Policy requires review of IPS by staff at least annually
- Review conducted by Investments, Investment Compliance, Office of General Counsel, Executive Office, and General Investment Consultant
- Second look from CIO, General Counsel, and Compliance Officer

Annual IPS Review

Highlights of Staff Recommendations



- Most significant proposed updates:
 - Adoption of Charter for Investment Advisory Committee (Board)
 - Update asset allocation parameters related to Cash (IAC)
 - Create two classes of Restricted Persons (Compliance)
 - Add language regarding statutory duty of diversification (Staff)
 - Add detail regarding the role of investment consultants (Staff)

Annual IPS Review

Adoption of IAC Charter



- IAC role and functioning not fully defined within the IPS
- Charter for the IAC would provide detailed guidance on its role
- Proposed charter modeled on ACIC Charter but is also customized
- Inserted as Addendum VI, ACIC Charter becomes Addendum VII
- Redundant text in IPS Chapter III regarding the IAC is deleted

Annual IPS Review



Updates to Strategic Asset Allocation Parameters for Cash

- Interest rates on cash now exceed 5%, making it more important
- Increase maximum Trust allocation from 3% to 5%, target remains 2%
- Increase GBP target allocation from 30% to 50%
 - Reduce allocation to Rates and Public Credit by 10% each
 - Improves risk/return profile by **+40%** while keeping yield above 5%

Annual IPS Review

Updates to Code of Ethics



- Clarifies who is subject to pre-clearing personal trades

Restricted Persons I	Restricted Persons II
Routine access to confidential information	Limited access to confidential information
ED, Investments staff and other personnel as designated by ED	Includes Deputy ED, IS, attorneys, and other personnel as designated by ED
Subject to Personal Transactions policy	Not subject to Personal Transactions policy
Submits quarterly affirmation of compliance	Submits quarterly affirmation of compliance
No gifts, benefits or favors	No gifts, benefits or favors

Annual IPS Review

Statutory Duty of Diversification



- Incorporates longstanding language from Texas statutes requiring a trustee to:
 - Make decisions at the trust level and as part of an overall investment strategy having risk and return objectives reasonably suited to the trust.
 - Diversify trust investments unless reasonably determined that, because of special circumstances, the trust purposes are better served without doing so.
 - Exercise its duty of care by considering all investments of the trust as a whole and not by considering the prudence of a single investment in isolation.

Annual IPS Review

Role of Investment Consultants



- Adds detail regarding the specific roles of investment consultants
- Clearer distinction between general and asset class consultants
- Language aims to support comprehensive RFQ process during FY24

Annual IPS Review

Other Proposed Updates



- Revise governance tables to provide additional clarity (NEPC)
- Clarify distinction between different types of benchmarks (Staff)
- Specifically prohibit the advancement of outside agendas (Staff)
- Delete obsolete language in Code of Ethics (OGC)

Discussion
Action Item

Public Agenda Item #20

** Consideration and Annual Review of Proposed Private Markets Capital Plans for Fiscal Year 2024– (Action)*

August 23, 2023

Anthony Curtiss, Deputy Chief Investment Officer

David T. Veal, Chief Investment Officer

Private Markets Capital Plans

Overview



Capital Planning Process

- Established in IPS
- Guide asset allocation
- Manage commitment activity
- Manage 30+ ACICs per year
- Liquidity management

ERS Private Markets Portfolio	Target Allocation	Target Range	Portfolio Role
Private Equity	16%	11% to 21%	Growth, Enhanced Returns, Illiquidity Premium
Private Real Estate	9%	4% to 14%	Diversification, Yield, Potential to Hedge Inflation, Enhanced Returns, Illiquidity Premium
Private Infrastructure	5%	0% to 10%	Diversification, Income-Orientation, Inflation Hedging, Illiquidity Premium
Private Credit	3%	0% to 8%	Yield, Diversification, Illiquidity Premium

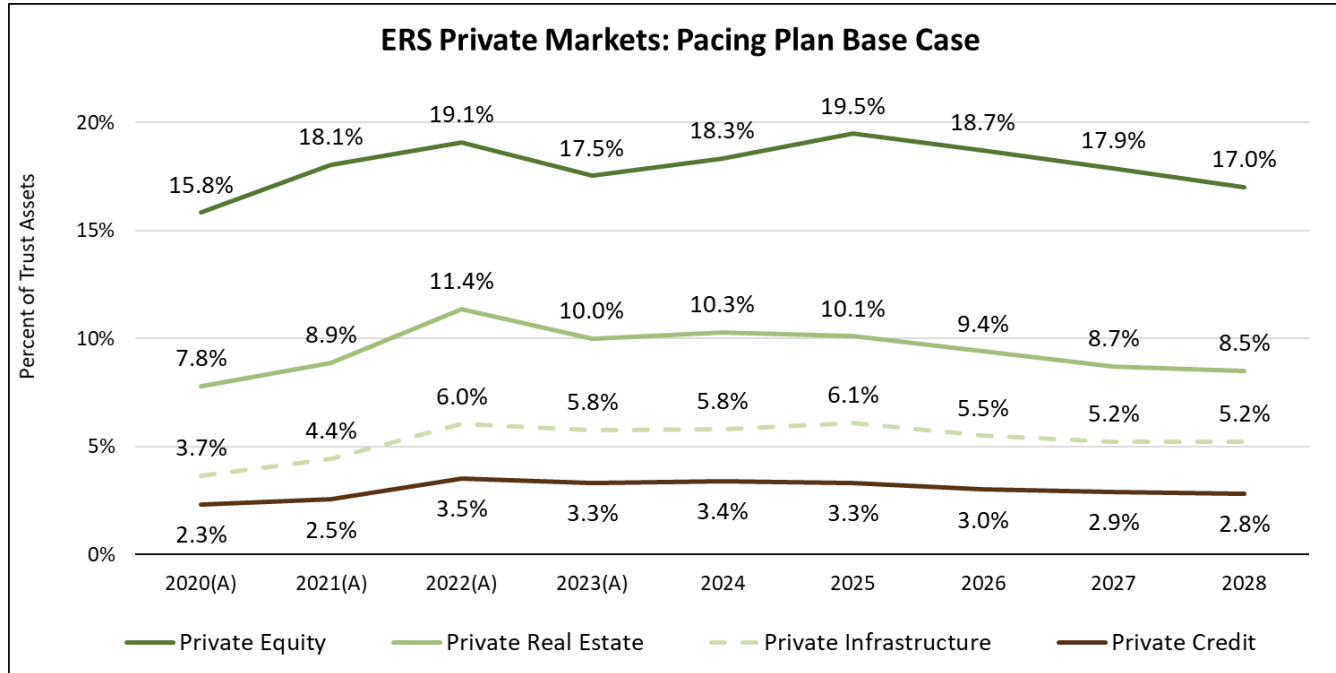
Long-Term View of Trust-level Capital Planning

Private Markets Capital Plans

Plan for Fiscal Years 2024-2028



- Private market allocations continue to trend toward their strategic targets

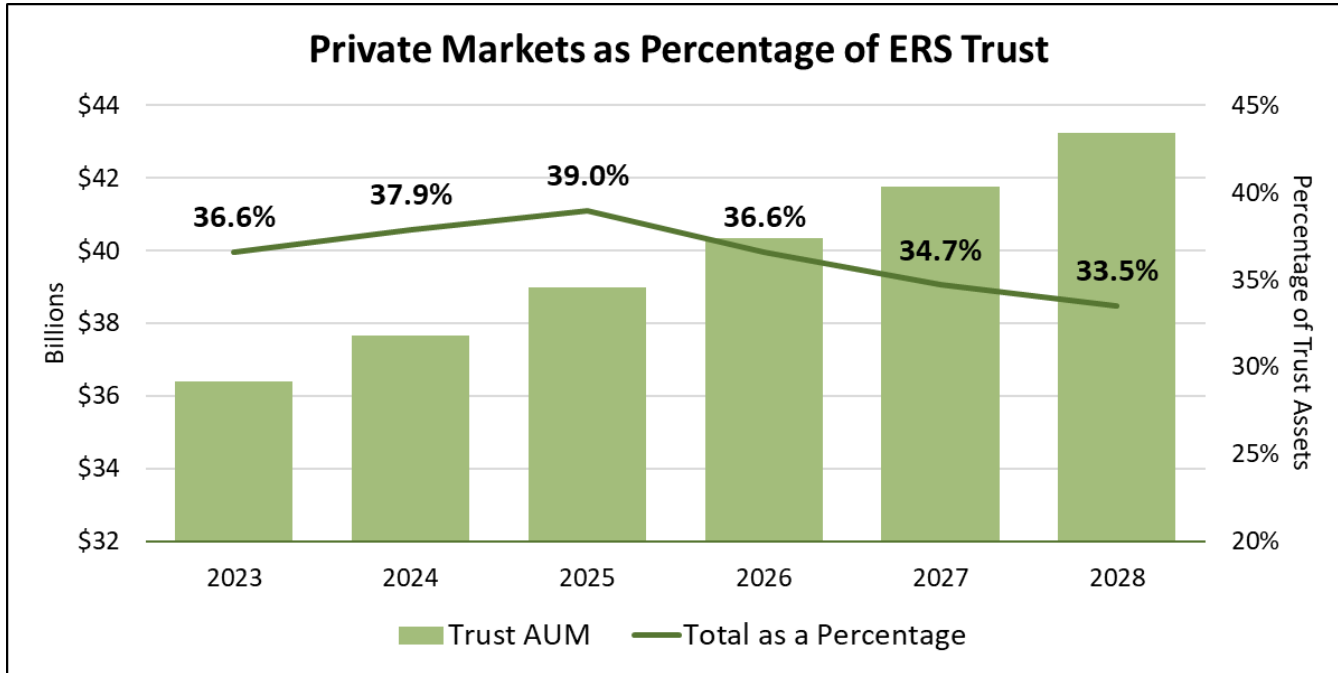


Private Markets Capital Plans

Plan For Fiscal Years 2024-2028



- Current trajectory maintains a prudent risk profile with <40% in private markets

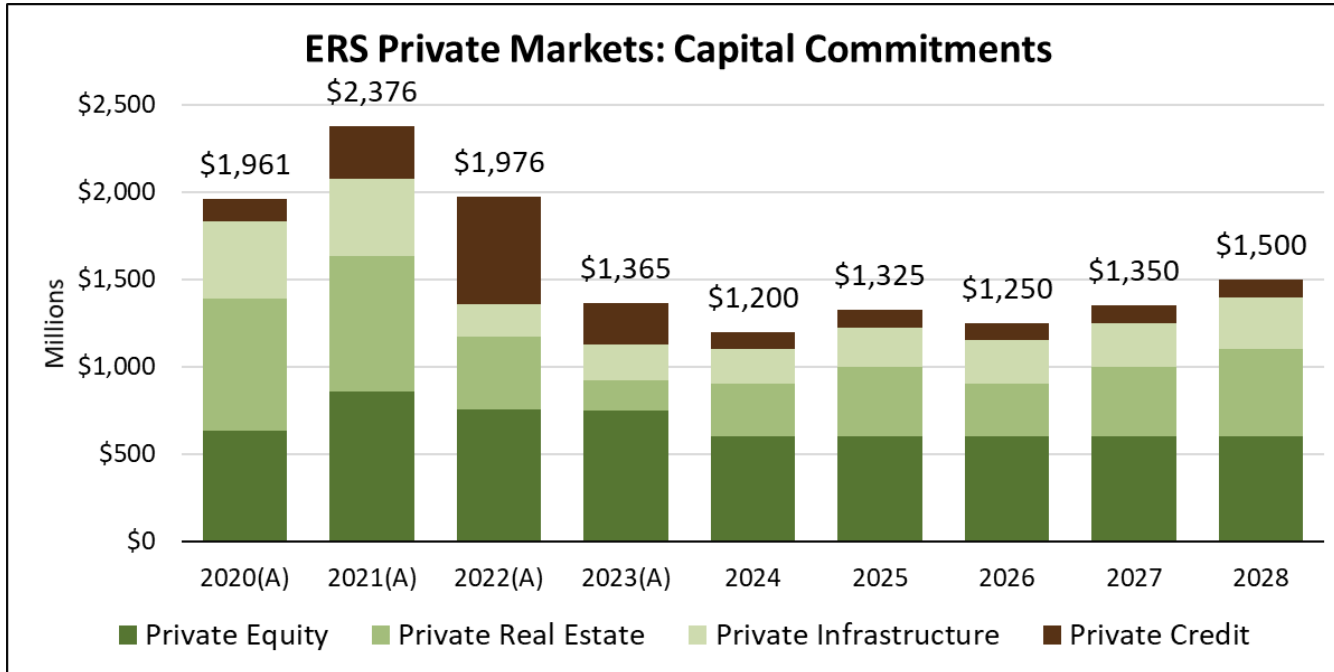


Private Markets Capital Plans

Plan for Fiscal Years 2024-2028



- Conservative commitment level given a mature program

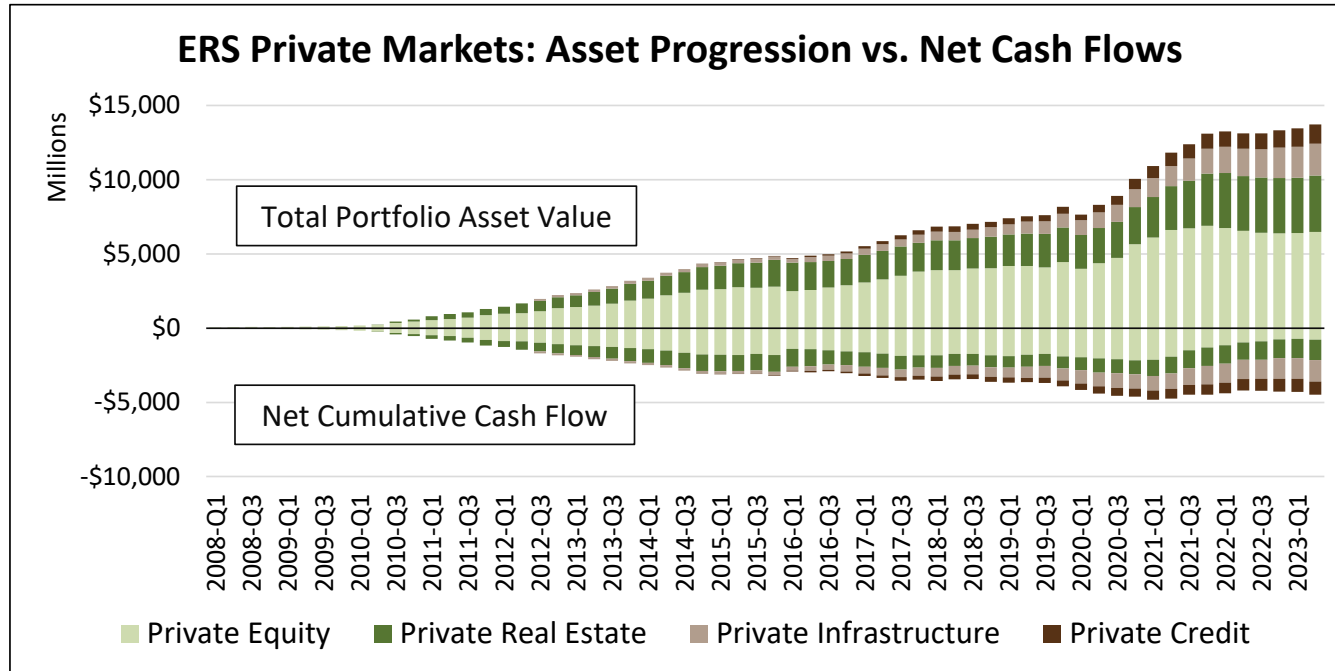


Private Markets Capital Plans

Plan for Fiscal Years 2024-2028 (Action)



- Mature program producing net cash flow, which is expected to continue through FY28

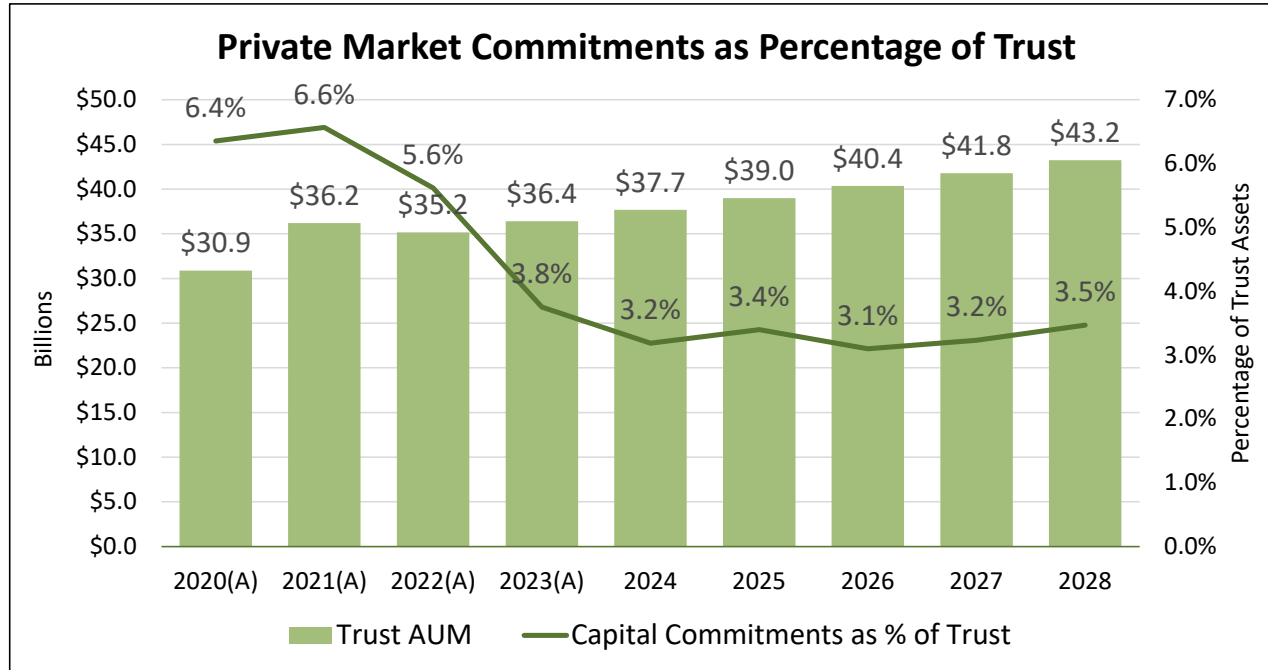


Private Markets Capital Plans

Plan for Fiscal Years 2024-2028



- After a decade of growth, the private markets program has now reached maturity

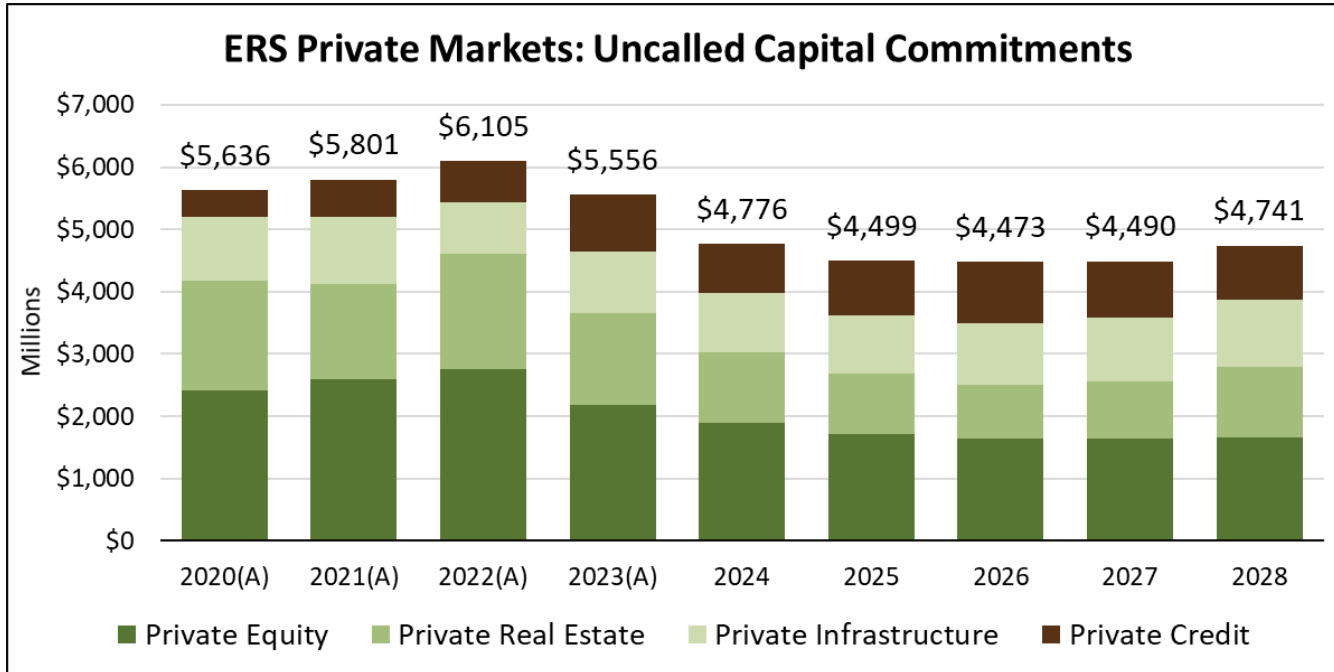


Private Markets Capital Plans

Plan for Fiscal Years 2024-2028



- Uncalled commitments have peaked and are expected to remain stable

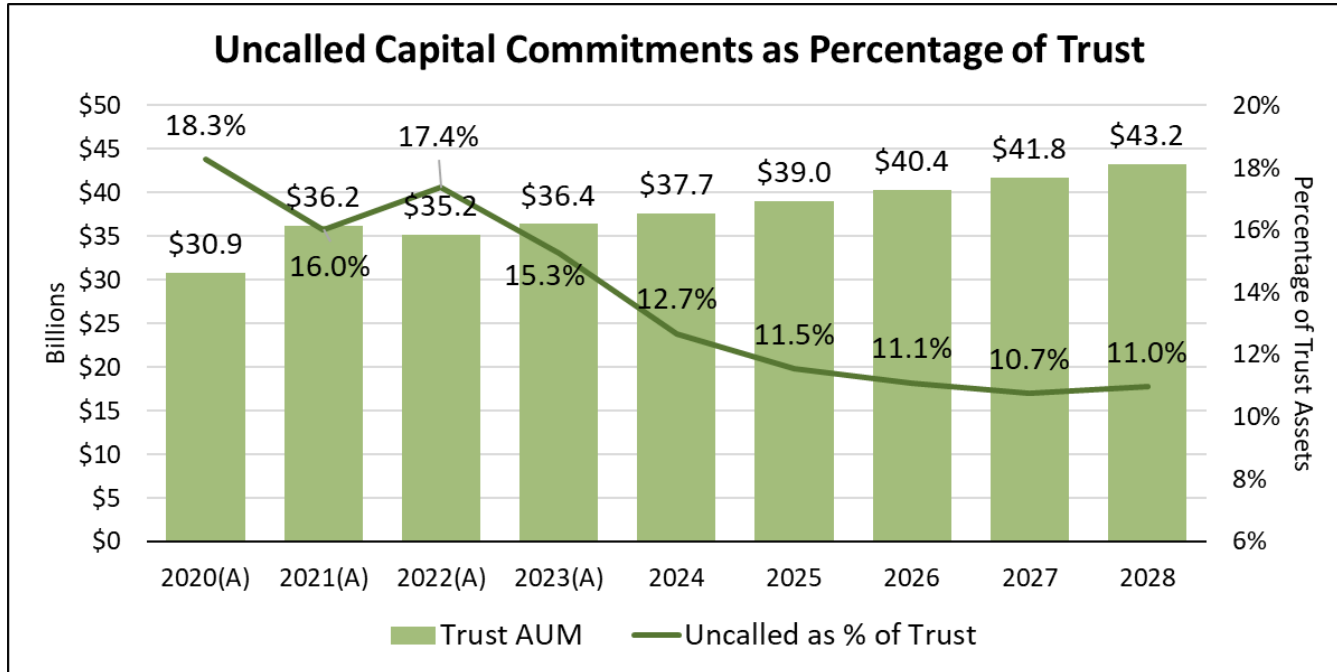


Private Markets Capital Plans

Plan for Fiscal Years 2024-2028



- The relative amount of uncalled capital commitments continues to trend down



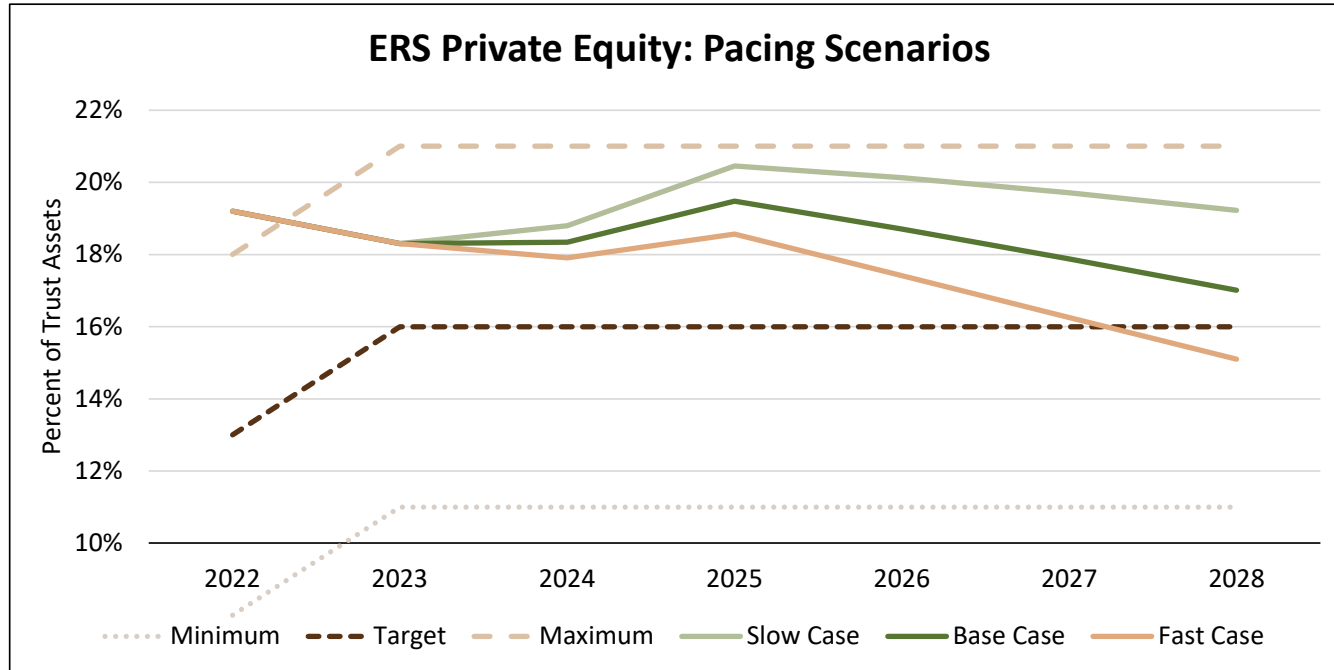
Capital Plans for Private Market Asset Classes

Private Equity Capital Plan

Proposed Tactical Plan for FY24



- Target FY24 commitments of \$600 million, range of \$450-750 million



Private Equity Capital Plan

Proposed Tactical Plan for FY24



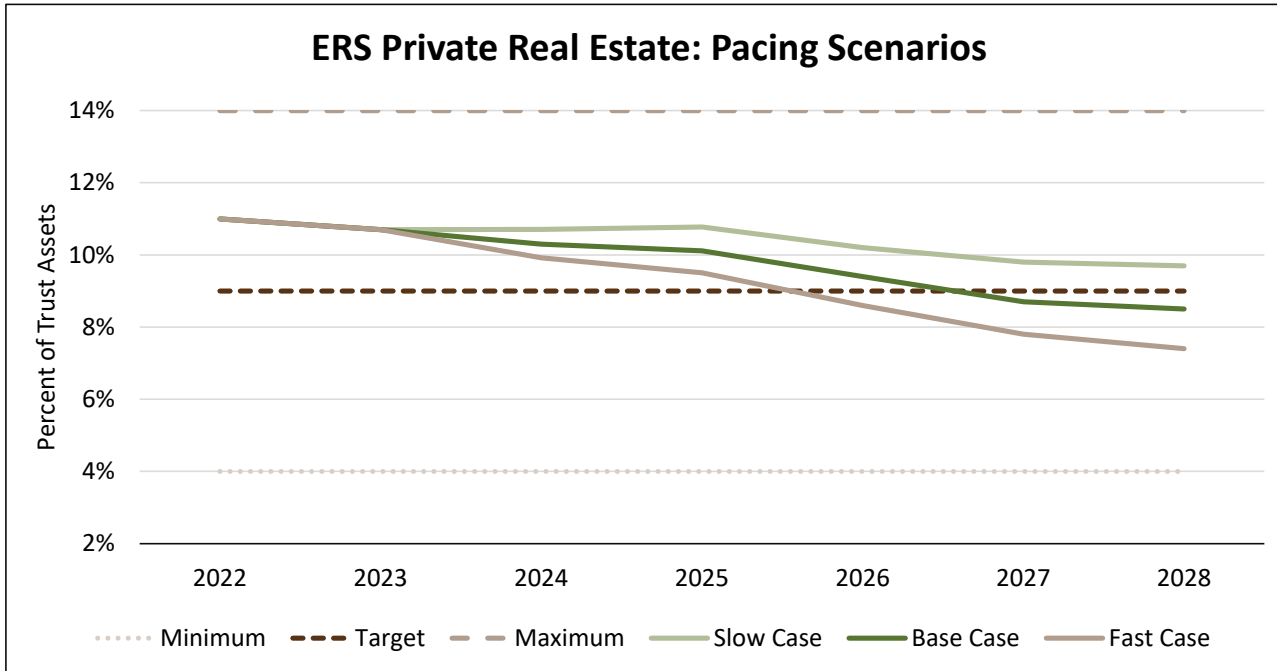
- 12 new primary fund commitments and 5-9 co-investments
- Focus on both buyout and growth equity, with a targeted approach to healthcare and technology
- Additional consideration for energy investments
- Staff expects to maintain a similar pacing for the FY24-FY28
- Transaction multiples continue to decline, driven by slower M&A activity and a difficult fundraising environment

Real Estate Capital Plan

Proposed Tactical Plan for FY24



- Target commitments of \$300 million, range of \$150-450 million



Private Real Estate Capital Plan

Proposed Tactical Plan for FY24



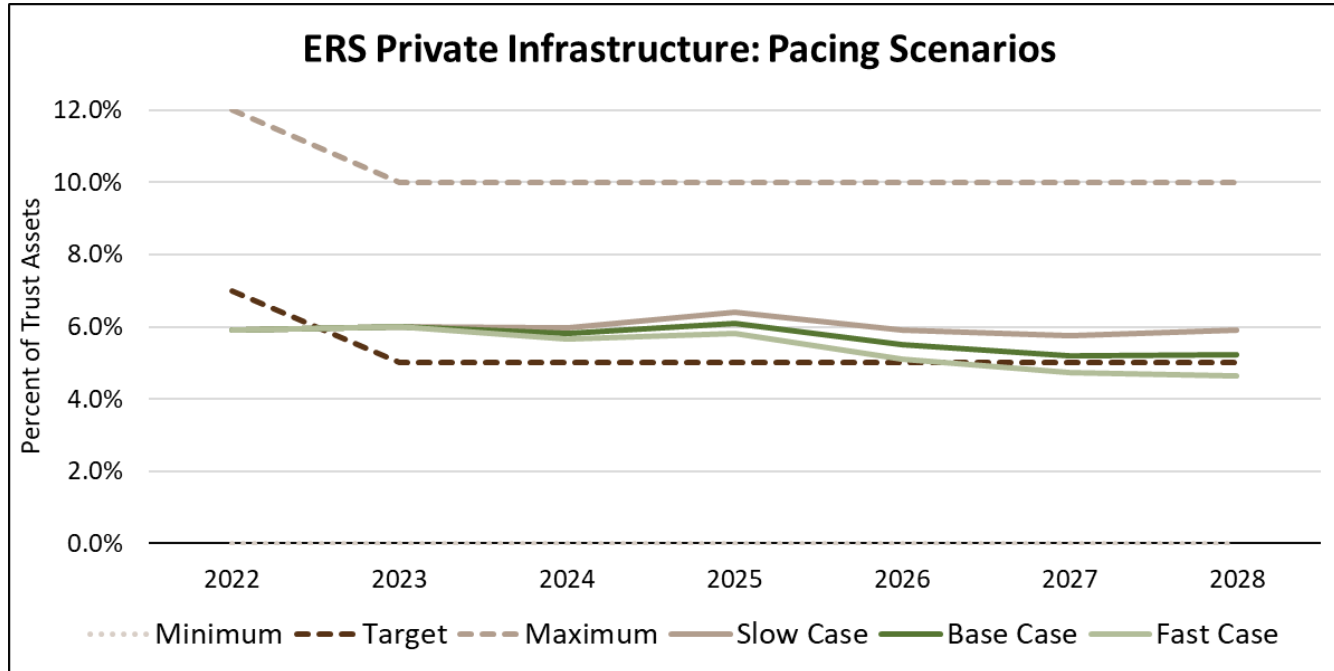
- 5-8 commitments (inclusive of co-investments)
- Strong desire to add industrial exposure
- Niche strategies (i.e. life science, data centers, self storage, etc.)
- Pull forward of some additional commitment capacity
- Vintage year outlook appears favorable with Real Estate prices off ~15% vs. March 2022 highs

Private Infrastructure Capital Plan

Proposed Tactical Plan for FY24



- Target commitments of \$200 million, range of \$150-250 million



Private Infrastructure Capital Plan

Proposed Tactical Plan for FY24



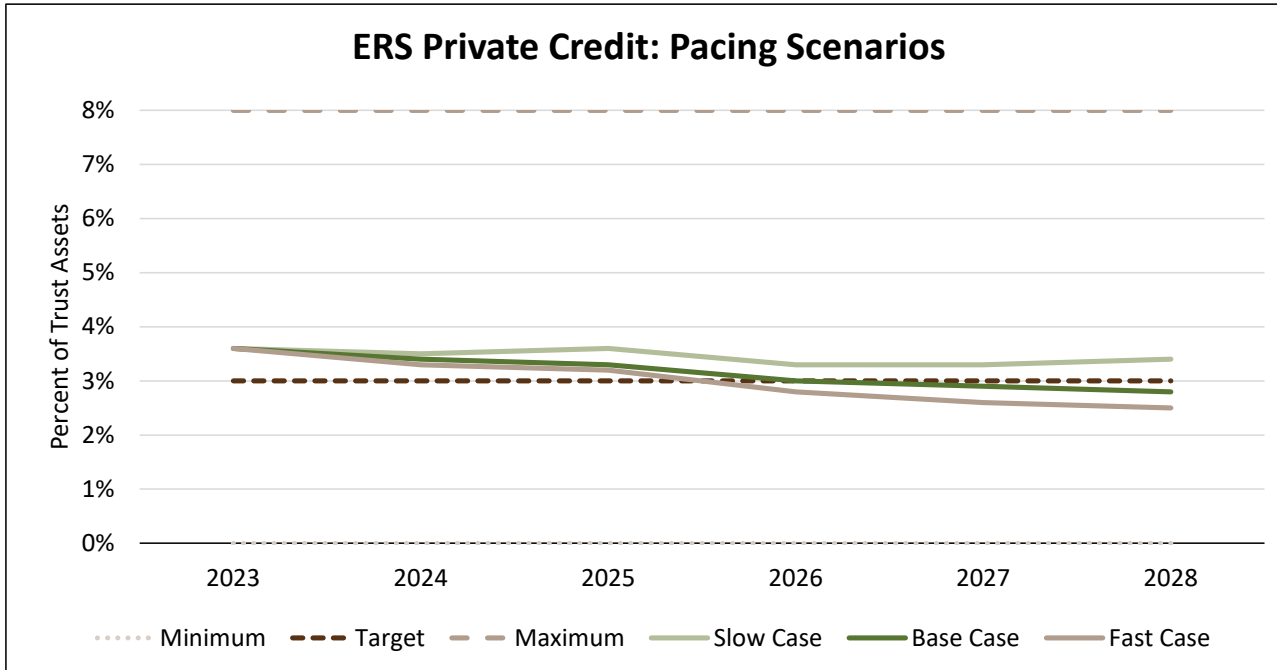
- 4 – 9 commitments (inclusive of co-investments)
- Consideration of adding core exposure in FY24
- Non-U.S. exposure consideration (Europe and Australia)
- Staff expects a gradual increase to its pacing after FY24
- Transaction multiples remain stable despite market volatility

Private Credit Capital Plan

Proposed Tactical Plan for FY24



- Target commitments of \$100 million, range of \$100-150 million



Private Credit Capital Plan

Proposed Tactical Plan for FY24



- Continue to pursue opportunistic approach
- 1 - 2 new primary fund commitments for the year
- Some areas within structured credit appear attractive
- Staff expects to maintain a similar pacing for the FY24-FY28

Private Markets Capital Plan

Capital Plan Proposal for FY24



- Total commitments of \$1.2 billion, range of \$900 million to \$1.5 billion

Program	Proposed FY24	Target Range FY24
Private Equity	\$600 million	\$450 to \$750 million
Private Real Estate	\$300 million	\$150 to \$450 million
Private Infrastructure	\$200 million	\$150 to \$250 million
Private Credit	\$100 million	\$100 to \$150 million
TOTAL TRUST	\$1,200 million	\$900 million to \$1,500 million

Discussion
Action Item

Public Agenda Item #21

Investment Advisory Committee Member Recognition

August 23, 2023

David T. Veal, Chief Investment Officer

Investment Advisory Committee

Operating Framework



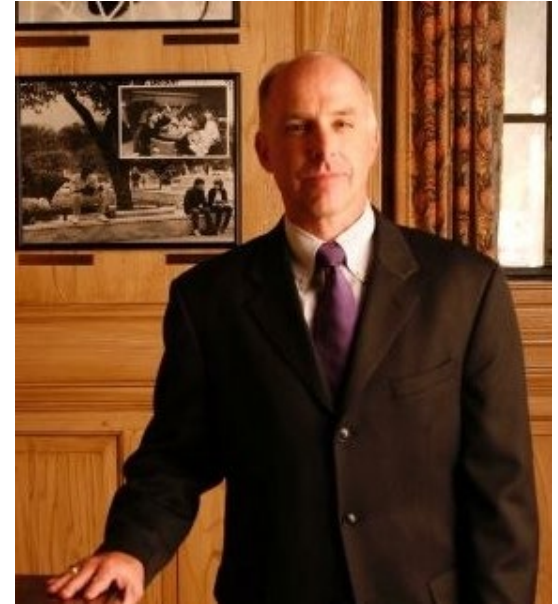
- Chartered in the IPS to advise the Board on matters related to investments
- Exists at the discretion of the Board in Texas Administrative Code § 63.17(b)
- Has at least five members and not more than nine, with eight currently.
- Members are selected based on experience:
 - in managing a business in which investment decisions are made, or
 - as a prominent educator in the fields of economics or finance.
- IAC members serve at the pleasure of the Board for staggered three-year terms.
- Members must comply with ERS Investment Policy Statement and Texas law.

Jim Hille

Professional Credentials



- IAC member at ERS since August 2011
- Retired as first Chief Investment Officer of Texas Christian University (TCU) from 2006-2021
- CIO of Teacher Retirement System of Texas 2002-2006
- Director of Int'l Equities for TRS of Texas 1995-2002
- Former portfolio manager for ERS of Texas 1992-1995
- Served for six years as a US Marine Corps officer



Jim Hille

Resolution in Honor



- ERS IAC member since 2011
 - Attendance at 35 of 38 Board/IAC meetings
 - Participant in numerous ACIC meetings
 - Participated in CIO search process in 2020-2021
- Thank you for your dedicated service to ERS!

Investment Advisory Committee

Skills Assessment



Investment Advisory Committee Skills Assessment as of September 1, 2023

	Term Expiration	Investment Experience	Public Equity	Private Equity	Credit	Hedge Funds	Rates & Cash	Real Estate	Infra-structure	Special Situations
IAC Chair, Gene L. Needles, Jr. Former Chairman, President and CEO, Resolute Investment Managers	5/31/26	42 years	✓	✓	✓	✓		✓		✓
IAC Vice-Chair, Laurie Dotter Retired from Transwestern Corporate Properties as President	5/31/25	38 years						✓	✓	✓
Bob Alley, CFA Retired from AIM Advisors, Inc. as Chief Fixed Income Officer	8/31/24	46 years	✓	✓	✓		✓			✓
Ryan Bailey, CFA, FRM, CAIA, CMT Partner & Co-CIO, Investment Office Resources	3/31/25	23 years	✓	✓	✓	✓	✓	✓	✓	✓
Milton Hixson, CPA, CFP Founder & President, FMP Wealth Advisors	3/31/26	49 years	✓	✓	✓	✓		✓	✓	✓
Ken Mindell Retired SVP, Treasurer & Dir. Investments for Rosewood Management Corporation	5/31/25	41 years	✓	✓	✓	✓		✓		✓
Ruby Muñoz Dang Partner and Director of Marketing & Client Services, Garcia Hamilton & Associates, L.P.	3/31/25	26 years	✓		✓		✓			✓

Discussion

Public Agenda Item #22
Board Member Recognition

August 23, 2023

Porter Wilson, Executive Director

Catherine 'Cat' Melvin



- Served on the ERS Board of Trustees since September 2017
 - Audit Committee Chair - Fiscal Years 2018 and 2019
 - Board Vice Chair - Fiscal Year 2021
 - Board Chair - Fiscal Year 2022
- Currently serves as Chief Auditor for the Texas Department of Public Safety with more than 20 years service as Chief Audit Executive
- Leader in both state government and internal audit community
- Served on and lead numerous interagency and professional committees and task forces



Thank you for your dedicated service to ERS, your fellow state employees,
ERS retirees and their family members!

Public Agenda Item #23

*Election of Board Chair and Board Vice Chair for Fiscal
Year 2024 - (Action - Board Only)*

August 23, 2023

Public Agenda Item #24

Dates for Fiscal Year 2024 Meetings of the ERS Board of Trustees, Investment Advisory Committee, and Audit Committee

August 23, 2023

Next Meeting Dates



Fiscal Year 2023 Meeting Dates

2-day Workshop:

Tuesday, December 5, 2023

Wednesday, December 6, 2023

Wednesday, March 20, 2024

Wednesday, May 22, 2024

Wednesday, August 21, 2024

Public Agenda Item #25

Adjournment of the Joint Meeting of the Board of Trustees and Investment Advisory Committee

August 23, 2023