Andover Contributory Retirement System

Performance Review
September 2023

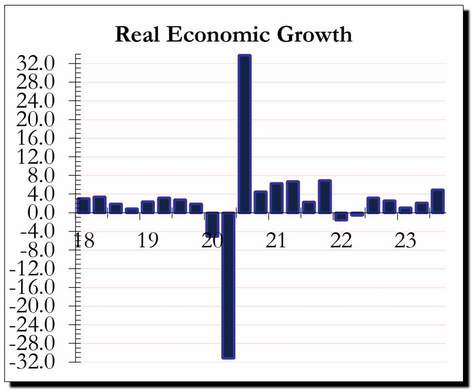
DAHAB ASSOCIATES

ECONOMIC ENVIRONMENT

Tensions Create Tremors

While Q3 started off strong, it ended in a whimper. Global equity markets fell in tandem as an acknowledgement of the challenges ahead moved to the forefront. The MSCI All Country World index fell -3.3%, lowering the YTD return to a still respectable 10.5%.

Economic data has remained robust, which in a strong case of market irony, is potentially a bad thing for markets given that the Federal Reserve has indicated that rate hikes may continue to stay in front of inflation. The advanced estimate of Q3 2023 GDP from the Bureau of Economic Analysis increased by 4.9%.



The debt ceiling re-emerged as a focal point of contention, causing intermittent market jitters. Despite a resolution, the episode highlighted the ongoing political uncertainties that could potentially derail economic recovery.

Corporate earnings were a mixed bag. Many firms reported robust earnings, buoyed by economic reopening and adaptation to the new normal. However, the pressure from labor unions intensified, especially in key sectors like transportation and logistics, as they sought better wages and working conditions amidst rising corporate profits.

Inflation, although moderating from previous highs, remains a concern. The pass-through effects of earlier price rises were still working through the economy, impacting consumer sentiment and spending behaviors. The resumption of student loan repayments and escalating credit card debt levels further strained household budgets, hinting at a potential headwind to future consumption growth.

Residential real estate markets have continued to defy expectations by maintaining stability, a silver lining that supported consumer wealth and confidence. However, concerns about affordability and the impact of rising mortgage rates have begun to surface, hinting at potential cooling in the upcoming quarters.

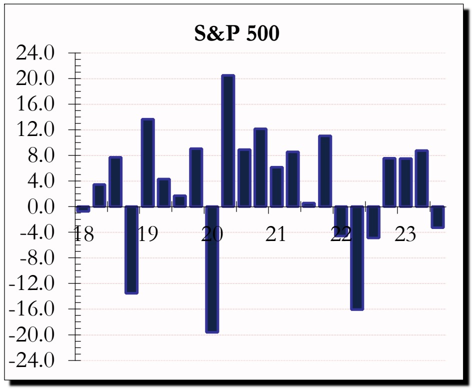
Geopolitical tensions have continued to escalate. The climate of discord and uncertainty, which has been exacerbated by an ever-increasing number of international conflicts and power struggles, has cast a long shadow. As a result, market participants have grown more temperamental, adding to market volatility.

DOMESTIC EQUITIES

Summer Stumble

During the latter half of the summer, the U.S. stock market experienced a decline, relinquishing some of the gains earned during the first six months of the year. This downturn witnessed a continued relative outperformance of large capitalization companies. The Russell 3000 Index, which reflects the performance of the broader domestic market, saw a decrease of 3.3%. In a similar vein, the S&P 500 Index, representing large-cap companies, declined by 3.1%. Meanwhile, the indices for mid and small-cap companies, the Russell Mid Cap and Russell 2000, decreased by 4.7% and 5.1% respectively.

In this period, the energy sector emerged as a singular area of positive performance. Specifically, large capitalization energy companies experienced a growth of 12.2%, fueled by surging oil and gas prices.



The price of West Texas Intermediate (WTI) crude oil soared over 25% in the third quarter, while the Henery Hub Natural Gas spot pricing increased by 20%. Contrary to what is typically expected in a down market, the utilities sector, often viewed as a defensive yield investment, was the worst performer, declining by 9.3%. The real estate sector continued to face challenges, exacerbated by escalating interest rates and negative investor sentiment, leading to a decline of 8.9% in the large capitalization real estate sector.

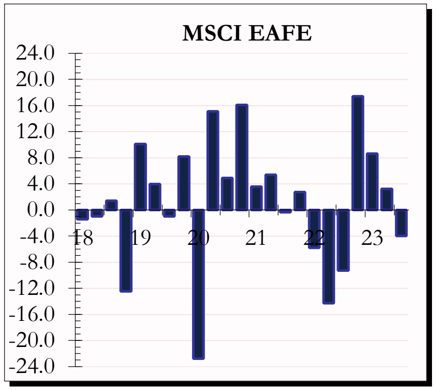
The performance of stock market factor portfolios was predominantly negative, with Momentum being the notable exception, gaining 2.8%. Interestingly, the factors that fared the worst were Low Volatility and High Beta.

Concerns persist regarding headline valuations in large capitalization companies. However, a closer examination of the individual companies within these indices reveals a discernible discrepancy between the headline figures and the actual circumstances of the underlying companies. The most significant U.S. companies maintain their dominance in both headlines and indices. As the quarter concluded, these entities have contributed a larger share of the total performance than witnessed in many decades. The valuation of mid and small-cap indices remains relatively low compared to large capitalization indices. According to Yardeni Research, the forward Price to Earnings (P/E) ratio of the S&P 500 stands at 18.0, contrasting with 12.8 for the S&P 400 (mid-cap) and 12.1 for the S&P 600 (small-cap). This relative valuation premium for large-cap has been observed for three years, representing a sharp deviation from the past 30 years, where small and mid-cap typically traded at a premium compared to large-cap.

INTERNATIONAL EQUITIES

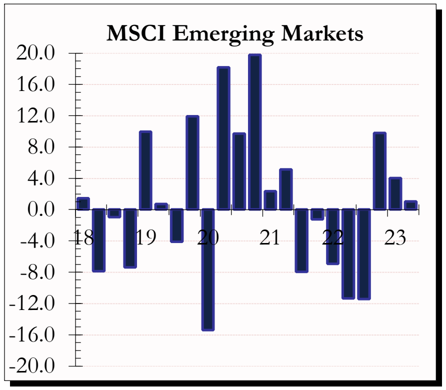
Dangerous Times

International markets struggled in the third quarter as earnings pressure continued and geopolitical tensions rose. The MSCI All Country World ex-US index, which tracks global markets excluding the United States, lost -4.0%. There was a wide dispersion between Growth and Value styles in the market. Growth companies lost -7.3%, while Value companies were relatively flat, gaining 0.1%. In developed markets, the MSCI



EAFE index lost -4.1%. Rising inflation, and the requisite raising of central bank reserve rates continue to weigh on markets. The overall index would be down more if not for Japan, the indices largest country by weight. Japanese equities only fell -1.5%.

The MSCI Emerging Markets index lost -2.8%. It continues to be a tale of two markets, the largest market China was down -1.8%. These losses were a continuation of what had been seen through the first half of the year as tensions with the U.S. and internal economic contraction have weighed on results. The opposite has been true of India, the second largest country by weight, which rose 2.9%, and is now up 8.3%, year to date. As many companies have decided to move their supply chain out of China, India has been the leading beneficiary.

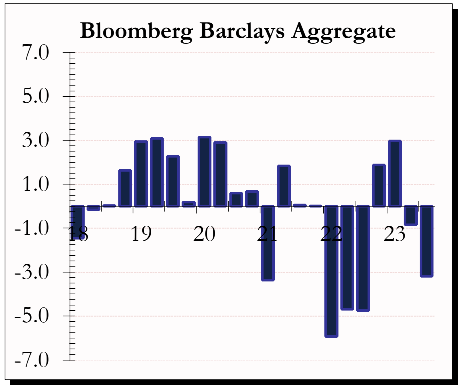


BOND MARKET

Long-Dated Lose

For the third quarter, the fixed income landscape was dominated by a continued divergence in performance driven by shifting interest rate expectations and external pressures on the U.S. credit profile. While there was a palpable sentiment of apprehension around how long buoyant consumer spending could be sustained, particularly among the wealthier demographics, any tangible signs of slowdown remained elusive.

The Bloomberg U.S. Aggregate Bond Index contracted further, shedding -3.2% over the quarter, reflecting broader concerns over rising U.S. debt levels and a potential overheating of the economy. Its international sibling, the Bloomberg Global Aggregate Index, trailed with a loss of -3.6%, echoing global uncertainties around rate trajectories and geopolitical events.



Yields rose across the curve, but most prominently at the long end. Throughout the quarter, the 30-Year Treasury yield rose nearly 1.0%, from 3.8% to 4.7%. That rise has continued into the fourth quarter.

Low quality issues, which typically have higher yields, have continued to outperform their higher quality peers. The Bloomberg High Yield index gained 0.5%, and is up 5.9%, year-to-date.

CASH EQUIVALENTS

Cash Matters Again

The three-month T-Bill returned 0.87% for the second quarter. Three-month treasury bills are now yielding 5.63%, this is the highest it's been since December 2000.

Economic Statistics

	Current Quarter	Previous Quarter
GDP (Annualized)	4.9%	2.1%
Unemployment	3.8%	3.6%
CPI All Items Year/Year	3.7%	3.1%
Fed Funds Rate	5.3%	5.1%
Industrial Capacity Utilization	79.7%	78.9%
U.S. Dollars per Euro	1.06	1.09

Major Index Returns

Index	Quarter	12 Months
Russell 3000	-3.3	20.5
S&P 500	-3.3	21.6
Russell Midcap	-4.7	13.4
Russell 2000	-5.1	8.9
MSCI EAFE	-4.0	26.3
MSCI Emg. Markets	-2.8	12.2
NCREIF ODCE	-1.9	-12.2
U.S. Aggregate	-3.2	0.6
90 Day T-bills	0.9	2.5

Domestic Equity Return Distributions

Quarter

	GRO	COR	VAL
LC	-3.1	-3.1	-3.2
MC	-5.2	-4.7	-4.5
SC	-7.3	-5.1	-3.0

Trailing Year

	GRO	COR	VAL
LC	27.7	21.2	14.4
MC	17.5	13.4	11.0
SC	9.6	8.9	7.8

Market Summary

- GDP growth strong
- Equity markets stumble
- Yields rise across the curve
- Geopolitical tensions rise

INVESTMENT RETURN

On September 30th, 2023, the Andover Contributory Retirement System's Total portfolio was valued at $352,947,936, a decrease of $3,801,547 from the June ending value of $356,749,483. Last quarter, the account recorded total net contributions of $3,178,655, which partially offset the account's $6,980,202 net investment loss for the period. The fund's net investment loss was a result of income receipts totaling $2,422,389 and realized and unrealized capital losses totaling $9,402,591.

RELATIVE PERFORMANCE

Total Portfolio

During the third quarter, the Total portfolio lost 2.0%, which was 0.6% better than the Policy Index's return of -2.6% and ranked in the 17th percentile of the Public Fund universe. Over the trailing year, the portfolio returned 9.2%, which was 0.2% better than the benchmark's 9.0% performance, and ranked in the 79th percentile. Since September 2013, the account returned 8.0% per annum and ranked in the 1st percentile. For comparison, the Policy Index returned an annualized 7.1% over the same time frame.

PRIT Core

The PRIT core segment lost 1.7% last quarter, 0.6% above the Custom Core Index's return of -2.3% and ranked in the 11th percentile of the Public Fund universe. Over the trailing twelve months, the PRIT core portfolio returned 9.4%, 0.2% better than the benchmark's 9.2% performance, and ranked in the 76th percentile. Since September 2013, this component returned 7.8% on an annualized basis and ranked in the 3rd percentile. For comparison, the Custom Core Index returned an annualized 6.9% during the same period.

Domestic Equity

The domestic equity portfolio returned -4.2% in the third quarter, 0.9% below the Russell 3000 Index’s return of -3.3% and ranked in the 66th percentile of the Domestic Equity universe. Over the trailing twelve-month period, the domestic equity portfolio returned 15.7%; that return was 4.8% below the benchmark's 20.5% return, and ranked in the 57th percentile.

Real Estate

In the third quarter, the real estate component returned -1.5%, which was 0.4% above the NCREIF NFI-ODCE Index's return of -1.9%. Over the trailing twelve-month period, this component returned -4.1%, which was 8.1% better than the benchmark's -12.2% return.

Fixed Income

The fixed income portfolio returned -2.7% last quarter; that return was 0.5% above the Bloomberg Aggregate Index's return of -3.2% and ranked in the 65th percentile of the Broad Market Fixed Income universe. Over the trailing year, this component returned 4.1%, 3.5% above the benchmark's 0.6% performance, ranking in the 31st percentile.

ASSET ALLOCATION

At the end of the third quarter, PRIT core comprised 65.7% of the total portfolio ($231.9 million), while domestic equities totaled 16.5% ($58.4 million). The account's real estate segment was valued at $20.3 million, representing 5.8% of the portfolio, while the fixed income component's $16.1 million totaled 4.6%. The remaining 7.4% was comprised of cash & equivalents ($26.2 million).

Andover Contributory Retirement System

Total Fund Asset Allocation Analysis as of September 30, 2023

Total Portfolio **Total Fund Assets: $ 352,947,936**

	PRIT Core Allocation	Andover Allocation	Target Allocation	Target Dollars	Actual Dollars	+/- Dollars
PRIT Core	100.0%	65.7%	65.0%	$ 229,416,158	$ 231,945,149	$ 2,528,991
Global Equity	39.2%	25.8%			$ 91,015,276	
Private Equity	17.3%	11.4%			$ 40,207,692	
Real Estate	14.0%	9.2%			$ 32,565,099	
Core Fixed	13.0%	8.5%			$ 30,060,091	
Value Added	7.5%	4.9%			$ 17,419,081	
Portfolio Completion	8.9%	5.9%			$ 20,677,910	
PRIT Sleeves and Separate Managers		34.3%	35.0%			
PRIT Domestic Equity		6.4%	5.0%	$ 17,647,397	$ 22,454,130	$ 4,806,733
Rhumbline Mid Cap		5.4%	5.0%	$ 17,647,397	$ 19,041,652	$ 1,394,255
Rhumbline Small Cap		4.8%	5.0%	$ 17,647,397	$ 16,894,311	$ (753,086)
PRIT Real Estate		5.8%	10.0%	$ 35,294,794	$ 20,297,919	$ (14,996,875)
PRIT Core Fixed Income		2.3%	5.0%	$ 17,647,397	$ 8,259,870	$ (9,387,527)
PRIT Public VAFI		2.2%	0.0%	$ -	$ 7,878,701	$ 7,878,701
PRIT Cash		0.1%	0.0%	$ -	$ 406,204	$ 406,204
MMDT Cash		7.3%	5.0%	$ -	$ 25,770,000	$ 25,770,000

Andover Total Fund	Target Allocation (%)	Actual Allocation (%)	+/- Percent	Target Allocation ($)	Actual Allocation ($)	+/- Dollars
Global Equity	42.0%	42.3%	0.3%	$ 148,238,133	$ 149,405,369	$ 1,167,236
Private Equity	10.0%	11.4%	1.4%	$ 35,294,794	$ 40,207,692	$ 4,912,898
Real Estate	18.0%	15.0%	-3.0%	$ 63,530,628	$ 52,863,018	$ (10,667,611)
Fixed Income	20.0%	18.0%	-2.0%	$ 70,589,587	$ 63,617,743	$ (6,971,844)
Portfolio Completion	5.0%	5.9%	0.9%	$ 17,647,397	$ 20,677,910	$ 3,030,513
Cash	5.0%	7.4%	2.4%	$ 17,647,397	$ 26,176,204	$ 8,528,807
	100.0%	100.0%		$ 352,947,936	$ 352,947,936	

**Domestic Equity includes Equity Hedge. Value Added includes Other Credit Opportunities and Private Debt. Portfolio Completion includes Hedge Funds, Overlay, Liquidating portfolio, and Risk Premia. Real Estate includes Real Assets and Timberland.*

EXECUTIVE SUMMARY

PERFORMANCE SUMMARY

	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Total Portfolio - Gross	-2.0	4.6	9.2	8.8	6.9	8.0
PUBLIC FUND RANK	(17)	(58)	(79)	(1)	(4)	(1)
Total Portfolio - Net	-2.1	4.3	8.8	8.4	6.5	7.6
Policy Index	-2.6	4.2	9.0	5.3	6.0	7.1
PRIT Core - Gross	-1.7	5.0	9.4	7.4	6.8	7.8
PUBLIC FUND RANK	(11)	(42)	(76)	(3)	(4)	(3)
Custom Core Idx	-2.3	4.0	9.2	5.5	6.1	6.9
Domestic Equity - Gross	-4.2	6.1	15.7	11.3	6.5	----
DOMESTIC EQUITY RANK	(66)	(54)	(57)	(41)	(64)	----
Russell 3000	-3.3	12.4	20.5	9.4	9.1	11.3
Real Estate - Gross	-1.5	-3.4	-4.1	11.6	8.2	----
NCREIF ODCE	-1.9	-7.6	-12.2	7.1	5.7	8.2
Fixed Income - Gross	-2.7	1.4	4.1	-2.5	1.5	----
BROAD MARKET FIXED RANK	(65)	(42)	(31)	(55)	(48)	----
Aggregate Index	-3.2	-1.2	0.6	-5.2	0.1	1.1

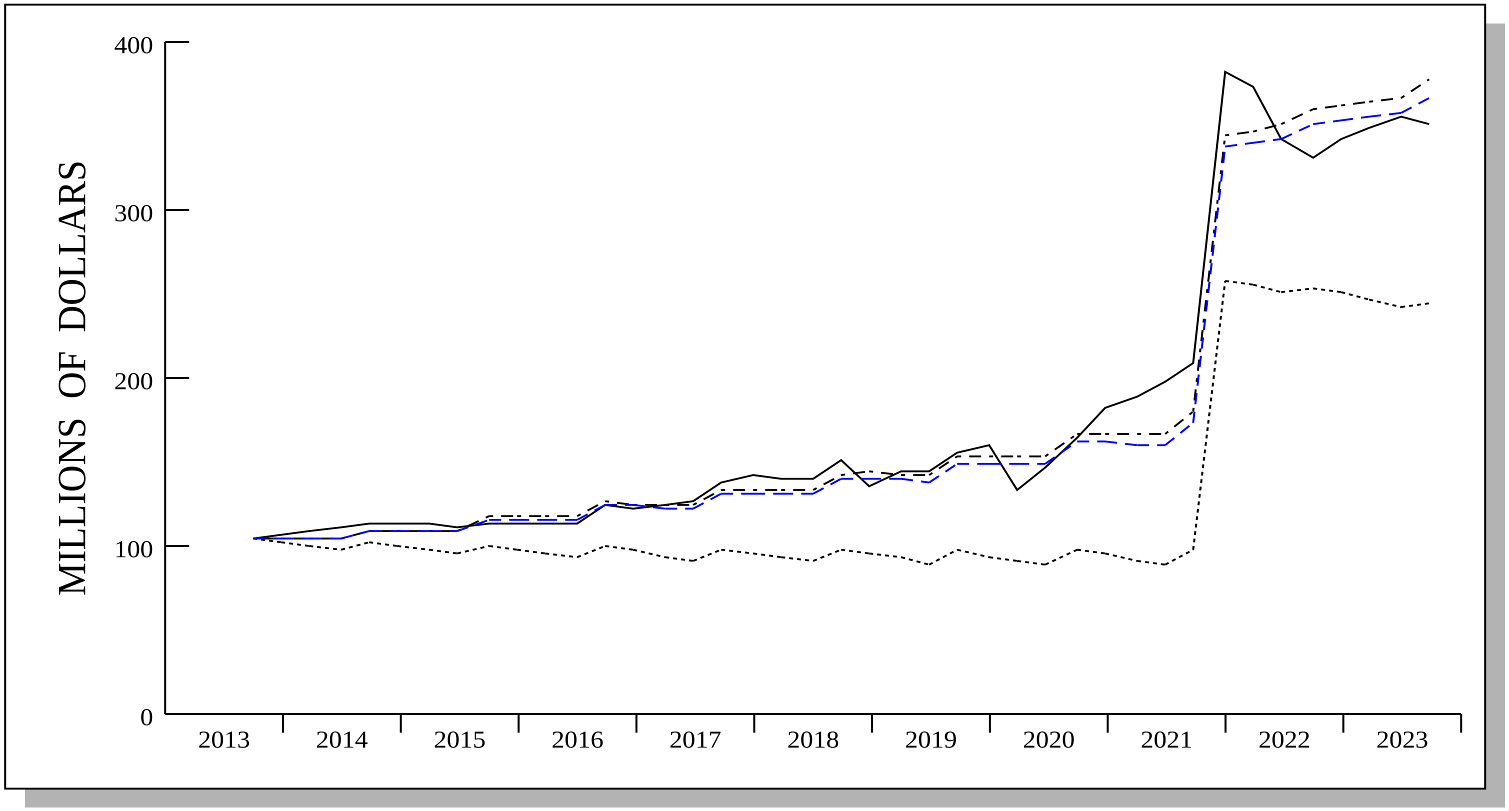
ASSET ALLOCATION

PRIT Core	65.7%	$ 231,945,149
Domestic Equity	16.5%	58,390,093
Real Estate	5.8%	20,297,919
Fixed Income	4.6%	16,138,571
Cash	7.4%	26,176,204
Total Portfolio	100.0%	$ 352,947,936

INVESTMENT RETURN

Market Value 6/2023	$ 356,749,483
Contribs / Withdrawals	3,178,655
Income	2,422,389
Capital Gains / Losses	- 9,402,591
Market Value 9/2023	$ 352,947,936

INVESTMENT GROWTH



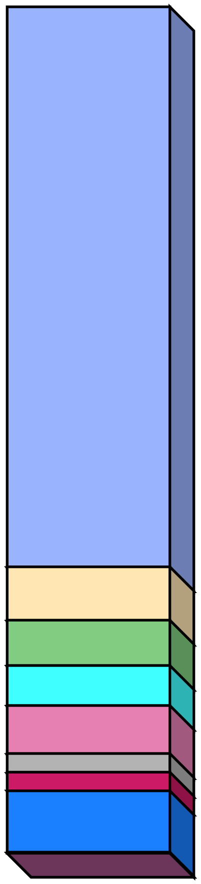
ACTUAL RETURN
7.9% DHB PROJ
0.0%
7.4% HZN PROJ

VALUE ASSUMING

7.9% DHB PROJ $	379,011,932
7.4% HZN PROJ $	368,084,500

	LAST QUARTER	PERIOD 9/13 - 9/23
BEGINNING VALUE	$ 356,749,483	$ 105,398,570
NET CONTRIBUTIONS	3,178,655	140,235,549
INVESTMENT RETURN	- 6,980,202	107,313,817
ENDING VALUE	$ 352,947,936	$ 352,947,936
INCOME	2,422,389	39,552,240
CAPITAL GAINS (LOSSES)	- 9,402,591	67,761,577
INVESTMENT RETURN	- 6,980,202	107,313,817

MANAGER ALLOCATION AND TARGET SUMMARY



Name	Market Value	Percent	Target
PRIT Core (DIV)	$231,945,149	65.7	65.0
PRIT Domestic Equity (DOME)	$22,454,130	6.4	5.0
Rhumbline Mid Cap (MCC)	$19,041,652	5.4	5.0
Rhumbline Small Cap (SCC)	$16,894,311	4.8	5.0
PRIT Real Estate (REAL)	$20,297,919	5.8	10.0
PRIT Core Fixed Income (CFI)	$8,259,870	2.3	5.0
PRIT Public VAFI (HIYL)	$7,878,701	2.2	0.0
MMDT Cash (CASH)	$25,770,000	7.3	5.0
PRIT Cash (CASH)	$406,204	0.1	0.0
Total Portfolio	**$352,947,936**	**100.0**	**100.0**

MANAGER PERFORMANCE SUMMARY - GROSS OF FEES

Portfolio	(Universe)	Quarter	YTD	1 Year	3 Years	5 Years	Inception or 10 Years	
Total Portfolio	(Public Fund)	-2.0 (17)	4.6 (58)	9.2 (79)	8.8 (1)	6.9 (4)	8.0 (1)	09/13
Policy Index		***-2.6 ----***	***4.2 ----***	***9.0 ----***	***5.3 ----***	***6.0 ----***	***7.1 ----***	***09/13***
PRIT Core	(Public Fund)	-1.7 (11)	5.0 (42)	9.4 (76)	7.4 (3)	6.8 (4)	7.8 (3)	09/13
Custom Core Idx		***-2.3 ----***	***4.0 ----***	***9.2 ----***	***5.5 ----***	***6.1 ----***	***6.9 ----***	***09/13***
PRIT Domestic Equity	(Domestic Eq)	-3.6 (55)	11.8 (28)	20.0 (33)	10.4 (47)	9.4 (27)	10.8 (28)	09/17
Russell 3000		***-3.3 ----***	***12.4 ----***	***20.5 ----***	***9.4 ----***	***9.1 ----***	***10.5 ----***	***09/17***
Rhumbline Mid Cap	(MC Core)	-4.2 (50)	4.3 (40)	15.5 (46)	12.0 (38)	6.0 (79)	6.5 (66)	06/18
S&P 400		***-4.2 ----***	***4.3 ----***	***15.5 ----***	***12.0 ----***	***6.1 ----***	***6.5 ----***	***06/18***
Rhumbline Small Cap	(SC Core)	-4.9 (63)	0.8 (76)	10.1 (67)	12.1 (28)	3.2 (82)	4.0 (66)	06/18
S&P 600		***-4.9 ----***	***0.8 ----***	***10.1 ----***	***12.1 ----***	***3.2 ----***	***4.0 ----***	***06/18***
PRIT Real Estate		-1.5 ----	-3.4 ----	-4.1 ----	11.6 ----	8.2 ----	8.4 ----	09/17
NCREIF ODCE		***-1.9 ----***	***-7.6 ----***	***-12.2 ----***	***7.1 ----***	***5.7 ----***	***6.2 ----***	***09/17***
PRIT Core Fixed Income	(Core Fixed)	-5.9 (99)	-3.1 (99)	-2.5 (99)	-7.4 (99)	0.1 (96)	0.0 (86)	09/17
Aggregate Index		***-3.2 ----***	***-1.2 ----***	***0.6 ----***	***-5.2 ----***	***0.1 ----***	***-0.1 ----***	***09/17***
PRIT Public VAFI	(Hi Yield)	1.2 (20)	6.5 (15)	11.1 (18)	2.4 (48)	2.9 (74)	2.7 (82)	09/17
Value Added Idx		***1.0 ----***	***6.9 ----***	***11.6 ----***	***2.3 ----***	***2.9 ----***	***2.9 ----***	***09/17***

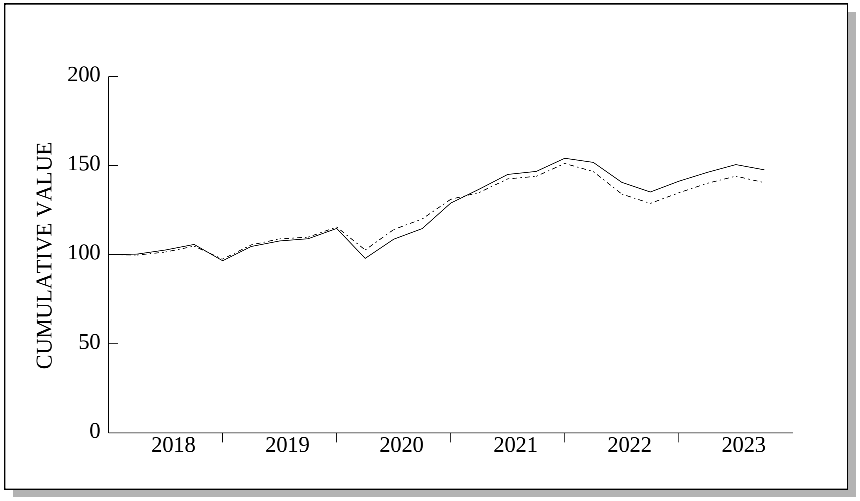
MANAGER PERFORMANCE SUMMARY - NET OF FEES

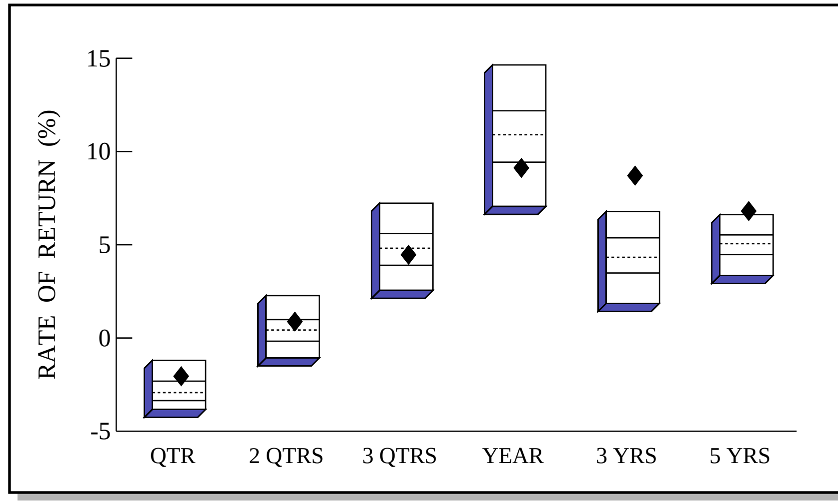
Portfolio	Quarter	YTD	1 Year	3 Years	5 Years	Inception or 10 Years	
Total Portfolio	-2.1	4.3	8.8	8.4	6.5	7.6	09/13
Policy Index	*-2.6*	*4.2*	*9.0*	*5.3*	*6.0*	*7.1*	*09/13*
PRIT Core	-1.8	4.6	8.9	6.9	6.3	7.3	09/13
Custom Core Idx	*-2.3*	*4.0*	*9.2*	*5.5*	*6.1*	*6.9*	*09/13*
PRIT Domestic Equity	-3.6	11.7	19.9	10.2	9.2	10.7	09/17
Russell 3000	*-3.3*	*12.4*	*20.5*	*9.4*	*9.1*	*10.5*	*09/17*
Rhumbline Mid Cap	-4.2	4.2	15.4	12.0	6.0	6.5	06/18
S&P 400	*-4.2*	*4.3*	*15.5*	*12.0*	*6.1*	*6.5*	*06/18*
Rhumbline Small Cap	-4.9	0.8	10.0	12.0	3.2	3.9	09/18
S&P 600	*-4.9*	*0.8*	*10.1*	*12.1*	*3.2*	*4.0*	*09/18*
PRIT Real Estate	-1.7	-3.8	-4.5	10.8	7.6	7.8	09/17
NCREIF ODCE	*-1.9*	*-7.6*	*-12.2*	*7.1*	*5.7*	*6.2*	*09/17*
PRIT Core Fixed Income	-5.9	-3.2	-2.6	-7.5	0.0	-0.1	09/17
Aggregate Index	*-3.2*	*-1.2*	*0.6*	*-5.2*	*0.1*	*-0.1*	*09/17*
PRIT Public VAFI	1.1	6.2	10.6	1.9	2.4	2.2	09/17
Value Added Idx	*1.0*	*6.9*	*11.6*	*2.3*	*2.9*	*2.9*	*09/17*

INVESTMENT RETURN SUMMARY - ONE QUARTER

Name	Quarter Total Return	Market Value June 30th, 2023	Net Cashflow	Net Investment Return	Market Value September 30th, 2023
PRIT Core (DIV)	-1.7	238,814,699	-2,804,378	-4,065,172	231,945,149
PRIT Domestic Equity (DOME)	-3.6	23,298,986	-7,098	-837,758	22,454,130
Rhumbline Mid Cap (MCC)	-4.2	21,661,548	-1,800,000	-819,896	19,041,652
Rhumbline Small Cap (SCC)	-4.9	15,986,897	1,800,000	-892,586	16,894,311
PRIT Real Estate (REAL)	-1.5	17,658,354	2,968,252	-328,687	20,297,919
PRIT Core Fixed Income (CFI)	-5.9	6,037,515	2,723,180	-500,825	8,259,870
PRIT Public VAFI (HIYL)	1.2	7,794,973	-8,113	91,841	7,878,701
MMDT Cash (CASH)	---	25,416,289	0	353,711	25,770,000
PRIT Cash (CASH)	---	80,222	306,812	19,170	406,204
Total Portfolio	**-2.0**	**356,749,483**	**3,178,655**	**-6,980,202**	**352,947,936**

TOTAL RETURN COMPARISONS

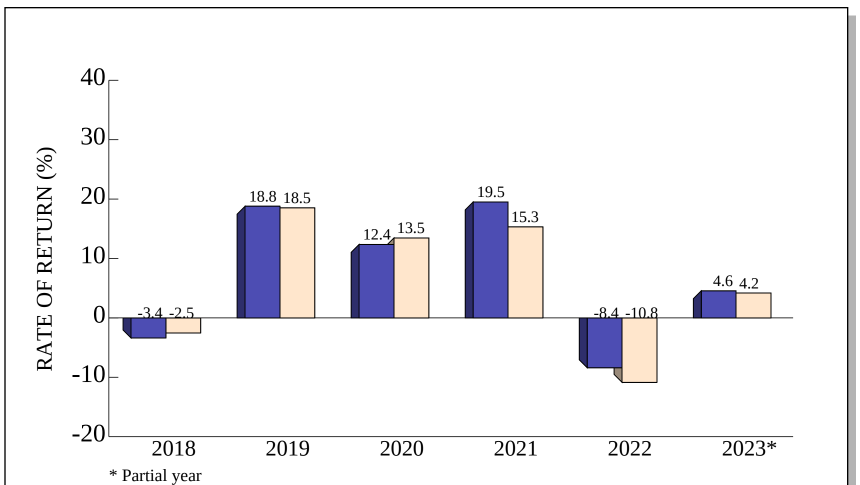




Public Fund Universe

PORTFOLIO

POLICY INDEX



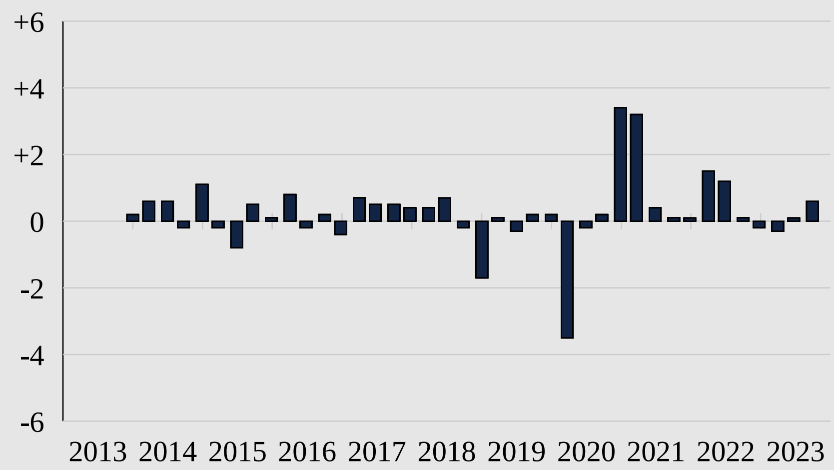
					------ANNUALIZED------	
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	-2.0	1.0	4.6	9.2	8.8	6.9
(RANK)	(17)	(26)	(58)	(79)	(1)	(4)
5TH %ILE	-1.2	2.3	7.2	14.6	6.8	6.6
25TH %ILE	-2.3	1.0	5.6	12.2	5.4	5.5
MEDIAN	-2.9	0.4	4.8	10.9	4.3	5.1
75TH %ILE	-3.4	-0.2	3.9	9.4	3.5	4.5
95TH %ILE	-3.8	-1.1	2.6	7.1	1.9	3.4
Policy	***-2.6***	***0.2***	***4.2***	***9.0***	***5.3***	***6.0***

Public Fund Universe

TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS

COMPARATIVE BENCHMARK: POLICY INDEX

VARIATION FROM BENCHMARK

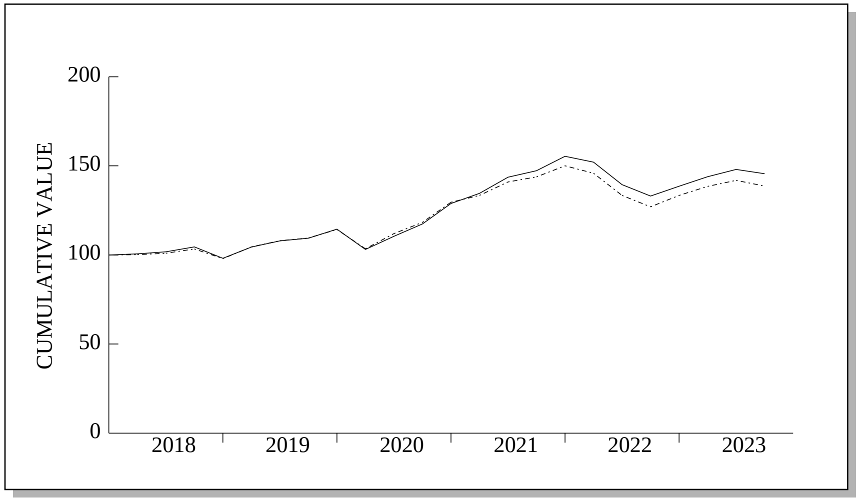


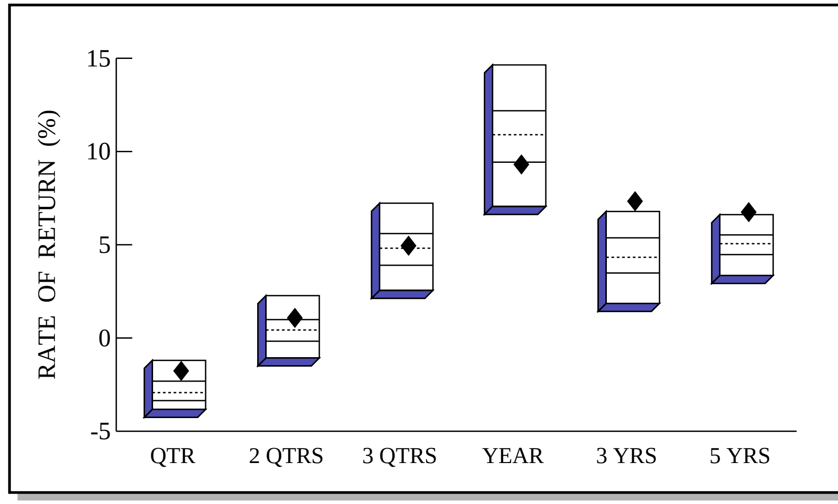
Total Quarters Observed	**40**
Quarters At or Above the Benchmark	**28**
Quarters Below the Benchmark	**12**
Batting Average	**.700**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/13	4.8	4.6	0.2
3/14	2.7	2.1	0.6
6/14	4.1	3.5	0.6
9/14	-0.8	-0.6	-0.2
12/14	2.1	1.0	1.1
3/15	2.7	2.9	-0.2
6/15	0.0	0.8	-0.8
9/15	-3.6	-4.1	0.5
12/15	2.4	2.3	0.1
3/16	1.9	1.1	0.8
6/16	1.9	2.1	-0.2
9/16	4.2	4.0	0.2
12/16	-0.2	0.2	-0.4
3/17	4.9	4.2	0.7
6/17	3.8	3.3	0.5
9/17	4.0	3.5	0.5
12/17	4.4	4.0	0.4
3/18	0.3	-0.1	0.4
6/18	2.3	1.6	0.7
9/18	3.1	3.3	-0.2
12/18	-8.7	-7.0	-1.7
3/19	8.3	8.2	0.1
6/19	3.0	3.3	-0.3
9/19	1.1	0.9	0.2
12/19	5.3	5.1	0.2
3/20	-14.7	-11.2	-3.5
6/20	11.0	11.2	-0.2
9/20	5.5	5.3	0.2
12/20	12.5	9.1	3.4
3/21	6.1	2.9	3.2
6/21	6.1	5.7	0.4
9/21	1.1	1.0	0.1
12/21	5.1	5.0	0.1
3/22	-1.5	-3.0	1.5
6/22	-7.4	-8.6	1.2
9/22	-3.8	-3.9	0.1
12/22	4.4	4.6	-0.2
3/23	3.6	3.9	-0.3
6/23	3.0	2.9	0.1
9/23	-2.0	-2.6	0.6

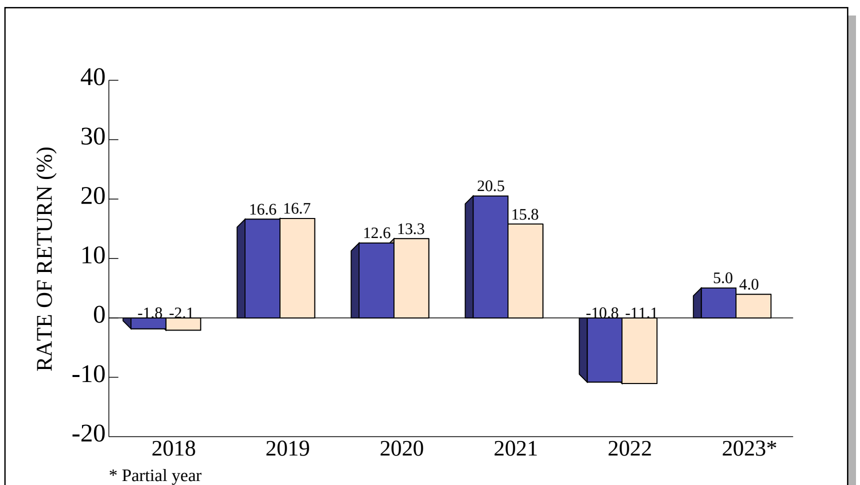
PRIT CORE RETURN COMPARISONS





Public Fund Universe

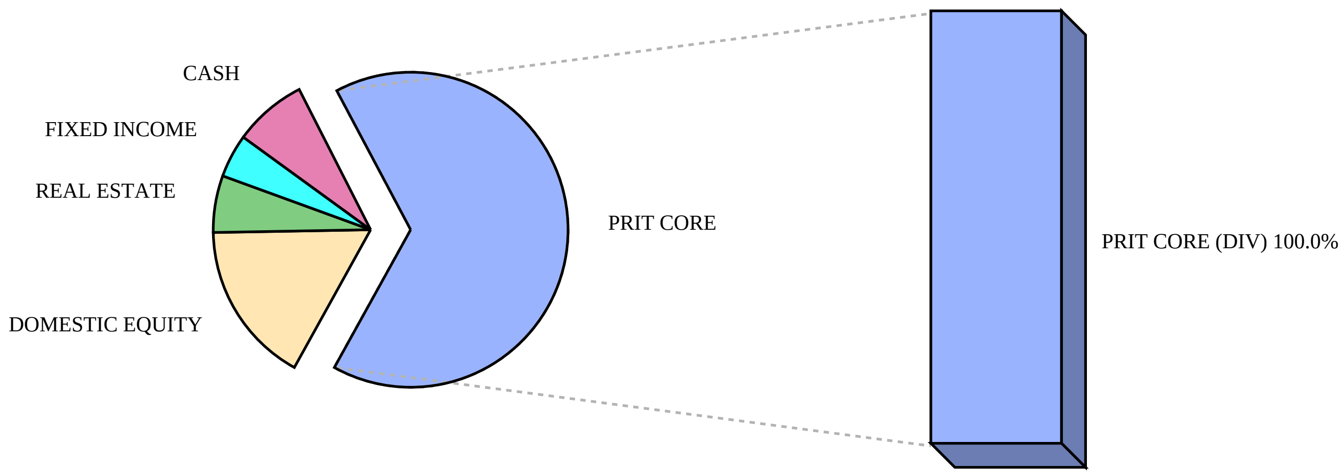
■ ———	PORTFOLIO
□ -·-·-	CUSTOM CORE IDX



	QTR	2 QTRS	3 QTRS	YEAR	------ANNUALIZED------ 3 YRS	5 YRS
RETURN	-1.7	1.2	5.0	9.4	7.4	6.8
(RANK)	(11)	(22)	(42)	(76)	(3)	(4)
5TH %ILE	-1.2	2.3	7.2	14.6	6.8	6.6
25TH %ILE	-2.3	1.0	5.6	12.2	5.4	5.5
MEDIAN	-2.9	0.4	4.8	10.9	4.3	5.1
75TH %ILE	-3.4	-0.2	3.9	9.4	3.5	4.5
95TH %ILE	-3.8	-1.1	2.6	7.1	1.9	3.4
PRIT Index	***-2.3***	***0.1***	***4.0***	***9.2***	***5.5***	***6.1***

Public Fund Universe

PRIT CORE MANAGER SUMMARY

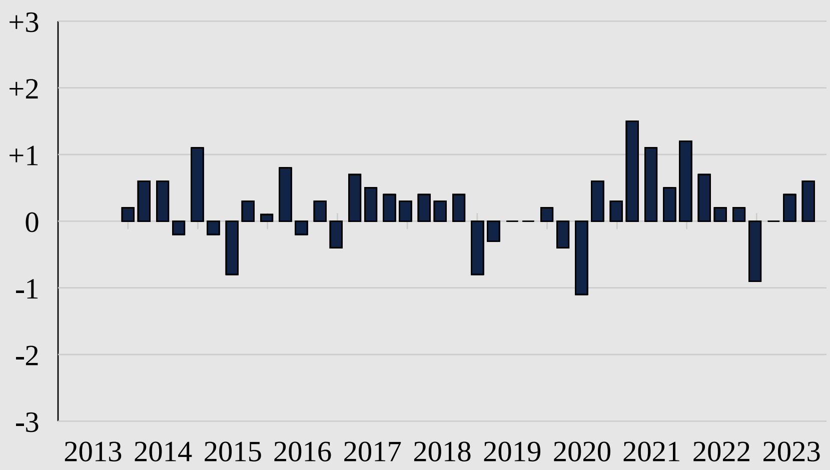


TOTAL RETURNS AND RANKINGS							
MANAGER	**(UNIVERSE)**	**QTR**	**YTD**	**1 YEAR**	**3 YEARS**	**5 YEARS**	**MARKET VALUE**
PRIT CORE	(Public Fund)	-1.7 (11)	5.0 (42)	9.4 (76)	7.4 (3)	6.8 (4)	$231,945,149
Custom Core Index		*-2.3 ----*	*4.0 ----*	*9.2 ----*	*5.5 ----*	*6.1 ----*	*----*

PRIT CORE QUARTERLY PERFORMANCE SUMMARY - 10 YEARS

COMPARATIVE BENCHMARK: CUSTOM CORE INDEX

VARIATION FROM BENCHMARK

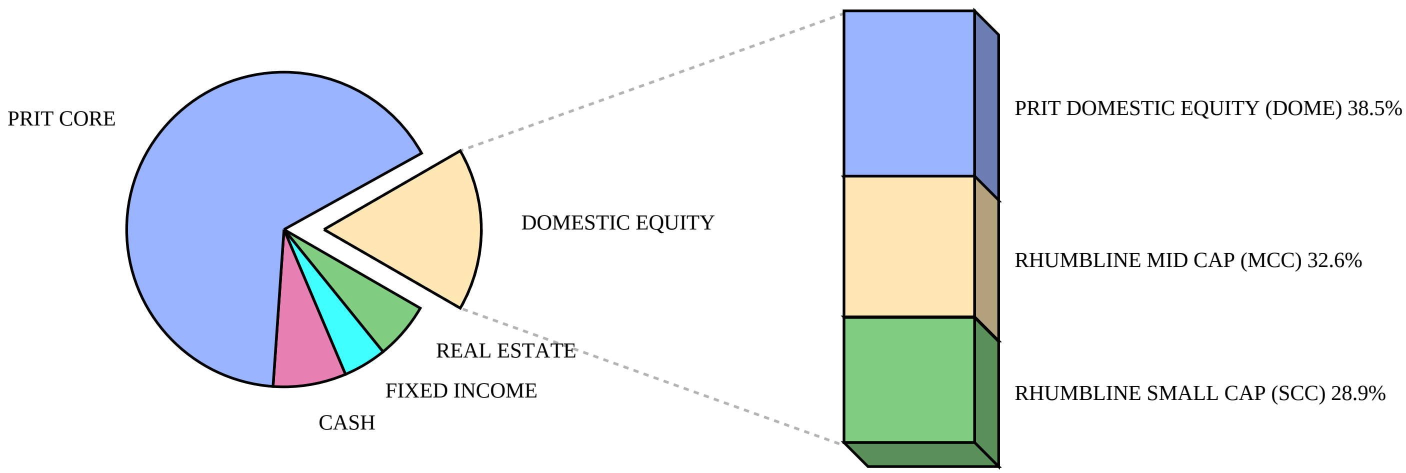


Total Quarters Observed	**40**
Quarters At or Above the Benchmark	**30**
Quarters Below the Benchmark	**10**
Batting Average	**.750**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/13	4.8	4.6	0.2
3/14	2.7	2.1	0.6
6/14	4.1	3.5	0.6
9/14	-0.8	-0.6	-0.2
12/14	2.1	1.0	1.1
3/15	2.7	2.9	-0.2
6/15	0.0	0.8	-0.8
9/15	-3.8	-4.1	0.3
12/15	2.4	2.3	0.1
3/16	1.9	1.1	0.8
6/16	1.9	2.1	-0.2
9/16	4.3	4.0	0.3
12/16	-0.2	0.2	-0.4
3/17	4.9	4.2	0.7
6/17	3.8	3.3	0.5
9/17	4.0	3.6	0.4
12/17	4.0	3.7	0.3
3/18	0.6	0.2	0.4
6/18	1.1	0.8	0.3
9/18	2.8	2.4	0.4
12/18	-6.1	-5.3	-0.8
3/19	6.4	6.7	-0.3
6/19	3.4	3.4	0.0
9/19	1.4	1.4	0.0
12/19	4.6	4.4	0.2
3/20	-9.9	-9.5	-0.4
6/20	7.2	8.3	-1.1
9/20	6.2	5.6	0.6
12/20	9.8	9.5	0.3
3/21	4.4	2.9	1.5
6/21	6.8	5.7	1.1
9/21	2.5	2.0	0.5
12/21	5.5	4.3	1.2
3/22	-2.1	-2.8	0.7
6/22	-8.3	-8.5	0.2
9/22	-4.6	-4.8	0.2
12/22	4.1	5.0	-0.9
3/23	3.8	3.8	0.0
6/23	2.9	2.5	0.4
9/23	-1.7	-2.3	0.6

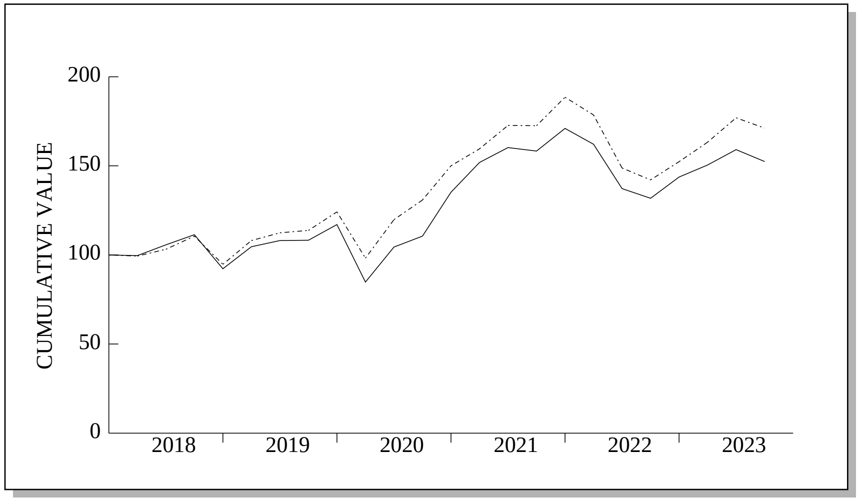
DOMESTIC EQUITY MANAGER SUMMARY

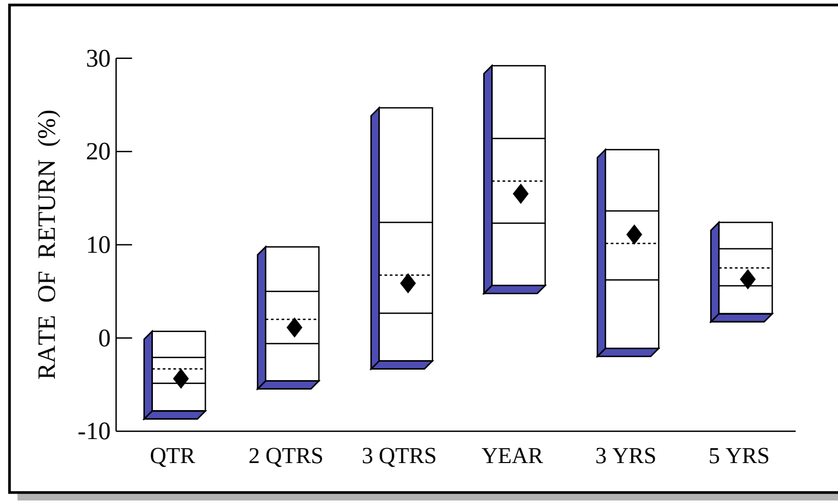


TOTAL RETURNS AND RANKINGS

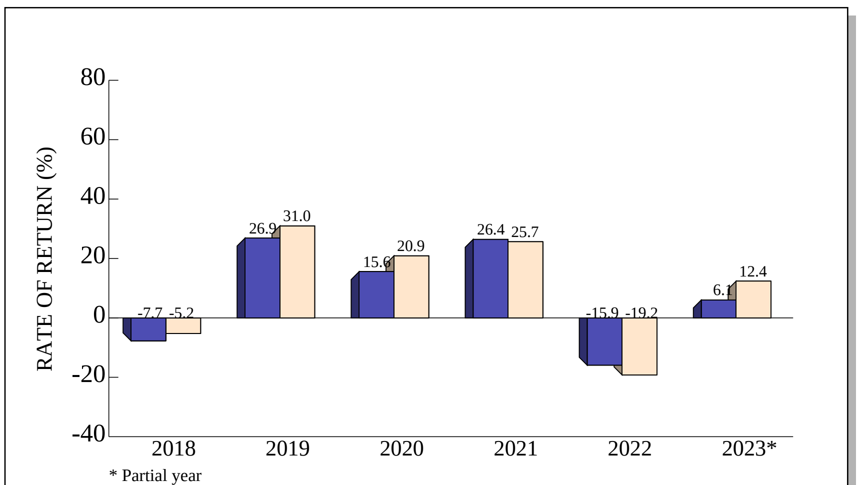
MANAGER	(UNIVERSE)	QTR		YTD		1 YEAR		3 YEARS		5 YEARS		MARKET VALUE
PRIT DOMESTIC EQUITY	(Domestic Equity)	-3.6	(55)	11.8	(28)	20.0	(33)	10.4	(47)	9.4	(27)	$22,454,130
Russell 3000		*-3.3*	*----*	*12.4*	*----*	*20.5*	*----*	*9.4*	*----*	*9.1*	*----*	*----*
RHUMBLINE MID CAP	(Mid Cap Core)	-4.2	(50)	4.3	(40)	15.5	(46)	12.0	(38)	6.0	(79)	$19,041,652
S&P 400		*-4.2*	*----*	*4.3*	*----*	*15.5*	*----*	*12.0*	*----*	*6.1*	*----*	*----*
RHUMBLINE SMALL CAP	(Small Cap Core)	-4.9	(63)	0.8	(76)	10.1	(67)	12.1	(28)	3.2	(82)	$16,894,311
S&P 600 Small Cap		*-4.9*	*----*	*0.8*	*----*	*10.1*	*----*	*12.1*	*----*	*3.2*	*----*	*----*

DOMESTIC EQUITY RETURN COMPARISONS





Domestic Equity Universe



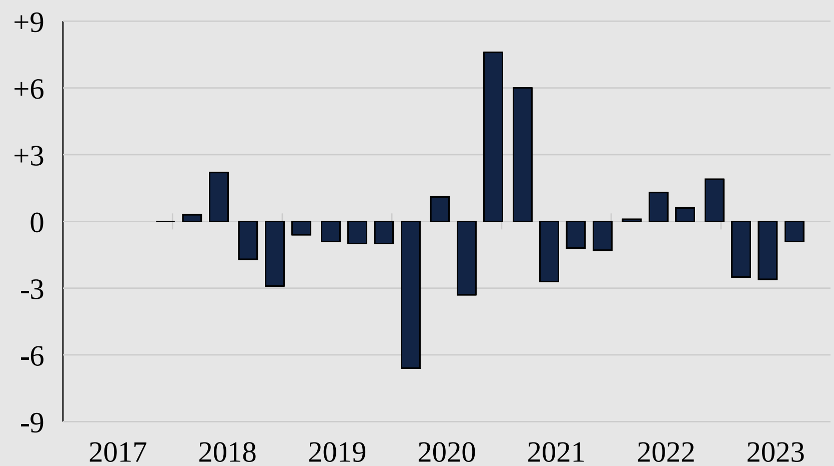
					------ANNUALIZED------	
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	-4.2	1.3	6.1	15.7	11.3	6.5
(RANK)	(66)	(56)	(54)	(57)	(41)	(64)
5TH %ILE	0.7	9.8	24.7	29.2	20.2	12.4
25TH %ILE	-2.1	5.0	12.4	21.4	13.6	9.6
MEDIAN	-3.3	2.0	6.8	16.8	10.2	7.5
75TH %ILE	-4.9	-0.6	2.7	12.3	6.2	5.6
95TH %ILE	-7.8	-4.6	-2.5	5.6	-1.1	2.6
Russ 3000	***-3.3***	***4.9***	***12.4***	***20.5***	***9.4***	***9.1***

Domestic Equity Universe

DOMESTIC EQUITY QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: RUSSELL 3000

VARIATION FROM BENCHMARK

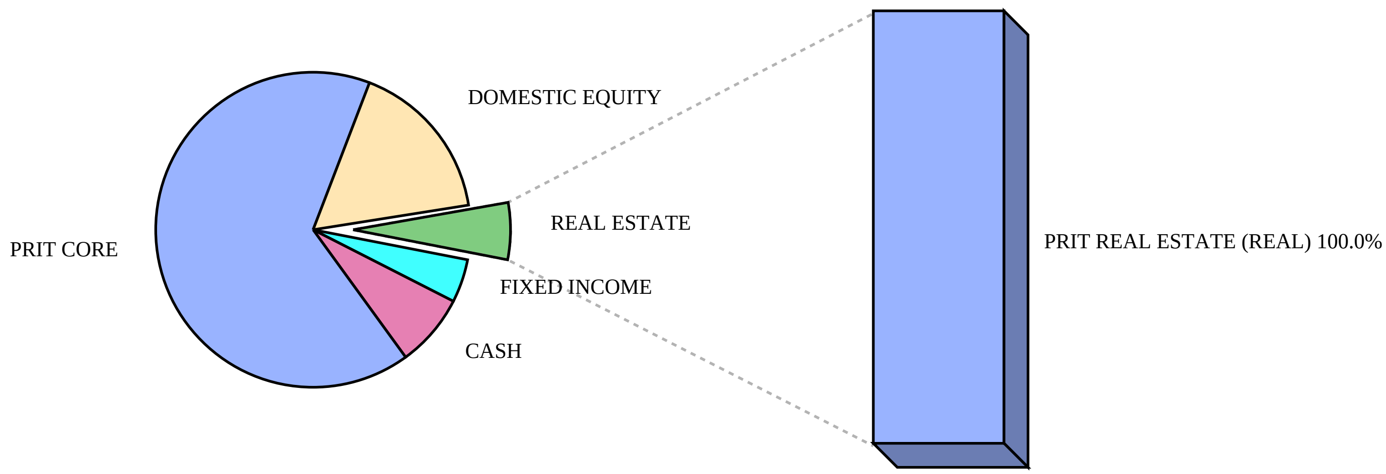


Total Quarters Observed	**24**
Quarters At or Above the Benchmark	**10**
Quarters Below the Benchmark	**14**
Batting Average	**.417**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/17	6.3	6.3	0.0
3/18	-0.3	-0.6	0.3
6/18	6.1	3.9	2.2
9/18	5.4	7.1	-1.7
12/18	-17.2	-14.3	-2.9
3/19	13.4	14.0	-0.6
6/19	3.2	4.1	-0.9
9/19	0.2	1.2	-1.0
12/19	8.1	9.1	-1.0
3/20	-27.5	-20.9	-6.6
6/20	23.1	22.0	1.1
9/20	5.9	9.2	-3.3
12/20	22.3	14.7	7.6
3/21	12.3	6.3	6.0
6/21	5.5	8.2	-2.7
9/21	-1.3	-0.1	-1.2
12/21	8.0	9.3	-1.3
3/22	-5.2	-5.3	0.1
6/22	-15.4	-16.7	1.3
9/22	-3.9	-4.5	0.6
12/22	9.1	7.2	1.9
3/23	4.7	7.2	-2.5
6/23	5.8	8.4	-2.6
9/23	-4.2	-3.3	-0.9

REAL ESTATE MANAGER SUMMARY



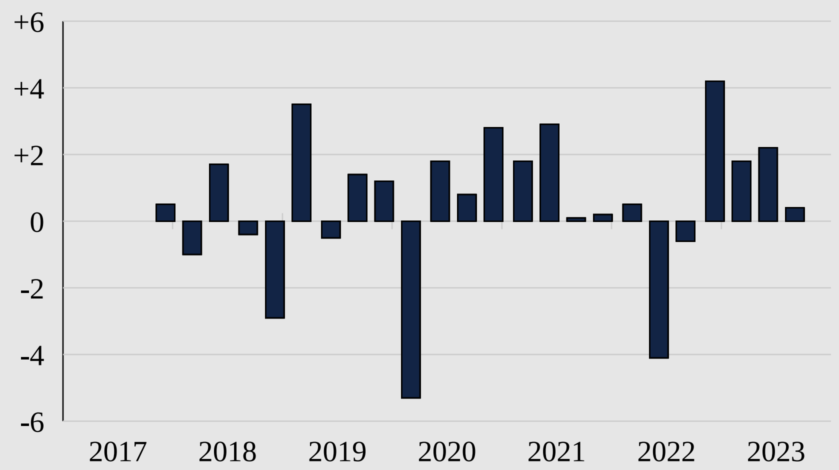
TOTAL RETURNS AND RANKINGS

MANAGER	(UNIVERSE)	QTR		YTD		1 YEAR		3 YEARS		5 YEARS		MARKET VALUE
PRIT REAL ESTATE		-1.5	----	-3.4	----	-4.1	----	11.6	----	8.2	----	$20,297,919
NCREIF NFI-ODCE Index		*-1.9*	*----*	*-7.6*	*----*	*-12.2*	*----*	*7.1*	*----*	*5.7*	*----*	*----*

REAL ESTATE QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: NCREIF NFI-ODCE INDEX

VARIATION FROM BENCHMARK

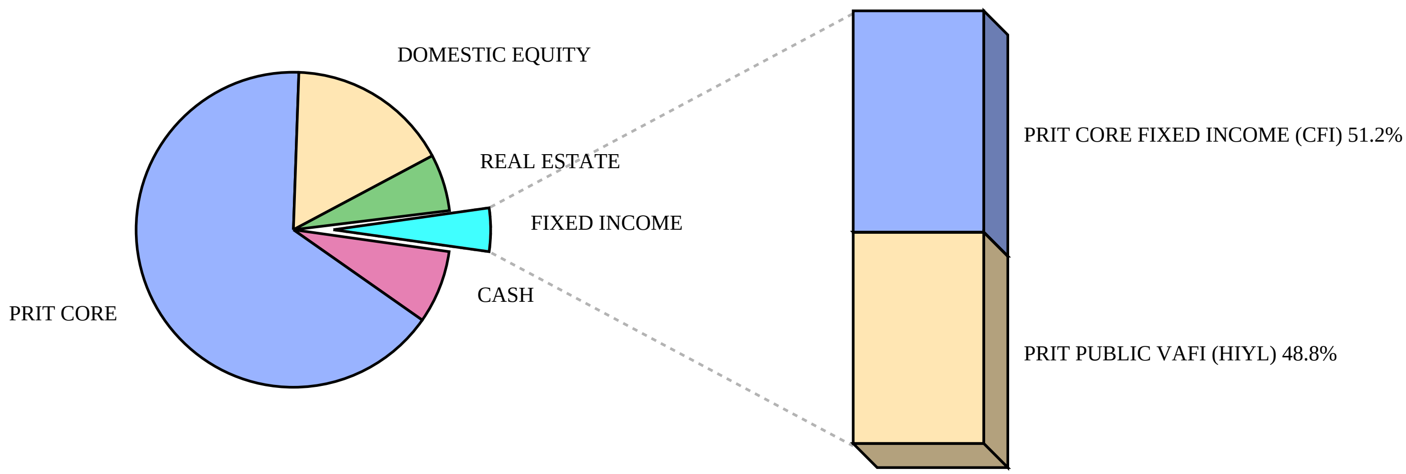


Total Quarters Observed	**24**
Quarters At or Above the Benchmark	**17**
Quarters Below the Benchmark	**7**
Batting Average	**.708**

RATES OF RETURN

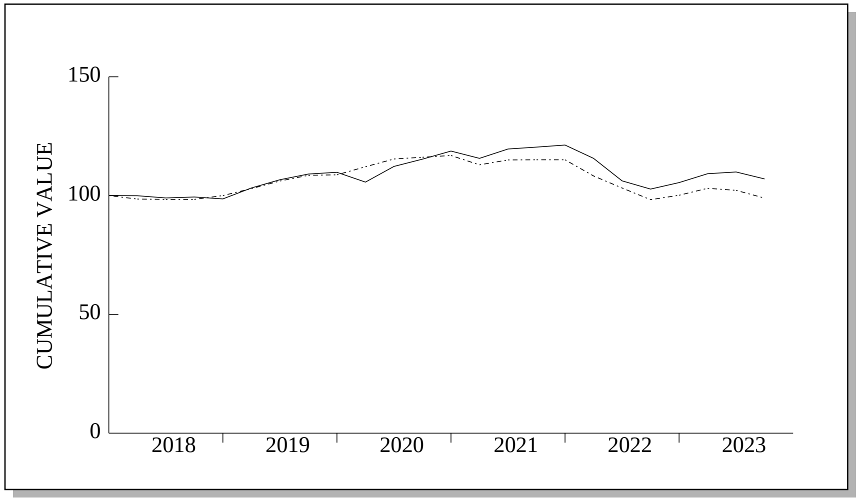
Date	Portfolio	Benchmark	Difference
12/17	2.6	2.1	0.5
3/18	1.2	2.2	-1.0
6/18	3.7	2.0	1.7
9/18	1.7	2.1	-0.4
12/18	-1.1	1.8	-2.9
3/19	4.9	1.4	3.5
6/19	0.5	1.0	-0.5
9/19	2.7	1.3	1.4
12/19	2.7	1.5	1.2
3/20	-4.3	1.0	-5.3
6/20	0.2	-1.6	1.8
9/20	1.3	0.5	0.8
12/20	4.1	1.3	2.8
3/21	3.9	2.1	1.8
6/21	6.8	3.9	2.9
9/21	6.7	6.6	0.1
12/21	8.2	8.0	0.2
3/22	7.9	7.4	0.5
6/22	0.7	4.8	-4.1
9/22	-0.1	0.5	-0.6
12/22	-0.8	-5.0	4.2
3/23	-1.4	-3.2	1.8
6/23	-0.5	-2.7	2.2
9/23	-1.5	-1.9	0.4

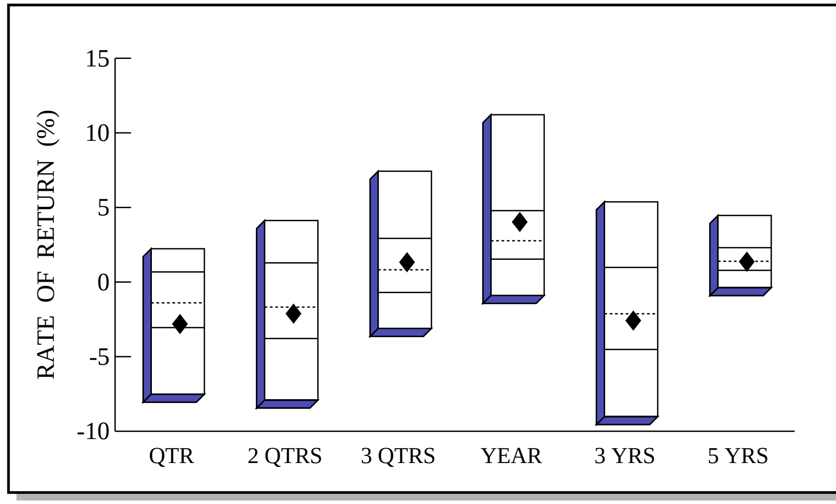
FIXED INCOME MANAGER SUMMARY



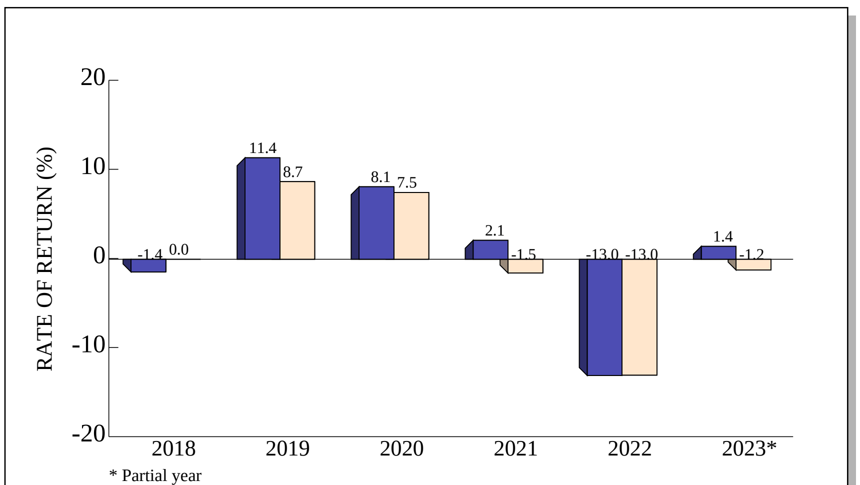
TOTAL RETURNS AND RANKINGS												
MANAGER	(UNIVERSE)	QTR		YTD		1 YEAR		3 YEARS		5 YEARS		MARKET VALUE
PRIT CORE FIXED INCOME	(Core Fixed Income)	-5.9	(99)	-3.1	(99)	-2.5	(99)	-7.4	(99)	0.1	(96)	$8,259,870
Bloomberg Aggregate Index		*-3.2*	----	*-1.2*	----	*0.6*	----	*-5.2*	----	*0.1*	----	----
PRIT PUBLIC VAFI	(High Yield Fixed)	1.2	(20)	6.5	(15)	11.1	(18)	2.4	(48)	2.9	(74)	$7,878,701
Blended Value Added Fixed Income Index		*1.0*	----	*6.9*	----	*11.6*	----	*2.3*	----	*2.9*	----	----

FIXED INCOME RETURN COMPARISONS





Broad Market Fixed Universe



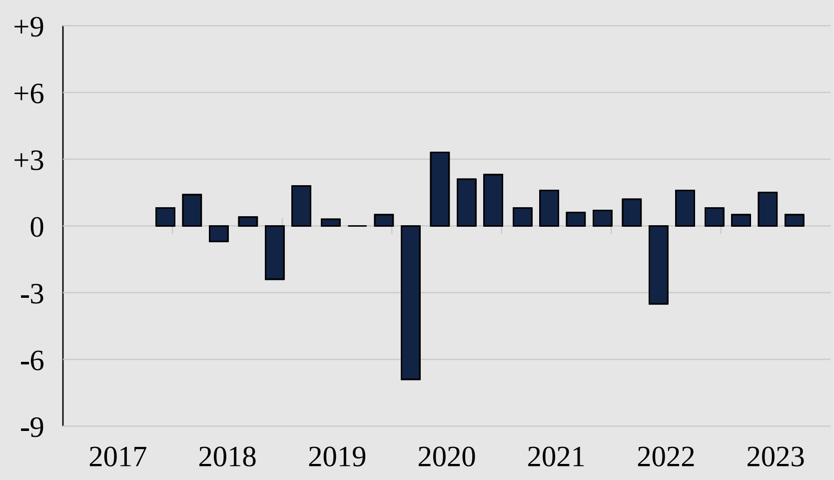
					------ANNUALIZED------	
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	-2.7	-2.0	1.4	4.1	-2.5	1.5
(RANK)	(65)	(53)	(42)	(31)	(55)	(48)
5TH %ILE	2.2	4.1	7.4	11.2	5.4	4.5
25TH %ILE	0.7	1.3	2.9	4.8	1.0	2.3
MEDIAN	-1.4	-1.7	0.8	2.8	-2.1	1.4
75TH %ILE	-3.1	-3.8	-0.7	1.5	-4.5	0.8
95TH %ILE	-7.5	-7.9	-3.1	-0.9	-9.0	-0.4
Agg	***-3.2***	***-4.0***	***-1.2***	***0.6***	***-5.2***	***0.1***

Broad Market Fixed Universe

FIXED INCOME QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: BLOOMBERG AGGREGATE INDEX

VARIATION FROM BENCHMARK



Total Quarters Observed	**24**
Quarters At or Above the Benchmark	**20**
Quarters Below the Benchmark	**4**
Batting Average	**.833**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/17	1.2	0.4	0.8
3/18	-0.1	-1.5	1.4
6/18	-0.9	-0.2	-0.7
9/18	0.4	0.0	0.4
12/18	-0.8	1.6	-2.4
3/19	4.7	2.9	1.8
6/19	3.4	3.1	0.3
9/19	2.3	2.3	0.0
12/19	0.7	0.2	0.5
3/20	-3.8	3.1	-6.9
6/20	6.2	2.9	3.3
9/20	2.7	0.6	2.1
12/20	3.0	0.7	2.3
3/21	-2.6	-3.4	0.8
6/21	3.4	1.8	1.6
9/21	0.7	0.1	0.6
12/21	0.7	0.0	0.7
3/22	-4.7	-5.9	1.2
6/22	-8.2	-4.7	-3.5
9/22	-3.2	-4.8	1.6
12/22	2.7	1.9	0.8
3/23	3.5	3.0	0.5
6/23	0.7	-0.8	1.5
9/23	-2.7	-3.2	0.5

MANAGER FEE SUMMARY - ONE QUARTER

ALL FEES ARE ESTIMATED / ACCRUED

PORTFOLIO	MARKET VALUE	GROSS RETURN	FEE	FEE %	NET RETURN	ANNUAL FEE %
PRIT Core (DIV)	$231,945,149	-1.7	$304,196	0.13	-1.8	0.51
PRIT Domestic Equity (DOME)	$22,454,130	-3.6	$7,098	0.03	-3.6	0.12
Rhumbline Mid Cap (MCC)	$19,041,652	-4.2	$2,379	0.01	-4.2	0.04
Rhumbline Small Cap (SCC)	$16,894,311	-4.9	$2,112	0.01	-4.9	0.05
PRIT Real Estate (REAL)	$20,297,919	-1.5	$31,748	0.18	-1.7	0.72
PRIT Core Fixed Income (CFI)	$8,259,870	-5.9	$1,664	0.02	-5.9	0.09
PRIT Public VAFI (HIYL)	$7,878,701	1.2	$8,113	0.10	1.1	0.42
MMDT Cash (CASH)	$25,770,000	----	$0	0.00	----	0.00
PRIT Cash (CASH)	$406,204	----	$0	0.00	----	0.00
Total Portfolio	**$352,947,936**	**-2.0**	**$357,310**	**0.10**	**-2.1**	**0.40**

MANAGER FEE SCHEDULES

Portfolio	Fee Schedule
PRIT Core	49 bps on balance
PRIT Domestic Equity	14 bps on balance
Rhumbline Mid Cap	5 bps on first $25mm 4 bps on next $25mm
Rhumbline Small Cap	5 bps on first $25mm 4 bps on next $25mm
PRIT Real Estate	52 bps on balance
PRIT Core FI	8 bps on balance
PRIT Value Added FI	37 bps on balance

PRIM Board does not charge annual fees. Actual management expenses of underlying funds are passed through to the client each month.

APPENDIX - MAJOR MARKET INDEX RETURNS

Economic Data	Style	QTR	YTD	1 Year	3 Years	5 Years	10 Years
Consumer Price Index	Economic Data	0.9	3.7	3.7	5.7	4.0	2.8

Domestic Equity	Style	QTR	YTD	1 Year	3 Years	5 Years	10 Years
Russell 3000	Broad Equity	-3.3	12.4	20.5	9.4	9.1	11.3
S&P 500	Large Cap Core	-3.3	13.1	21.6	10.1	9.9	11.9
Russell 1000	Large Cap	-3.1	13.0	21.2	9.5	9.6	11.6
Russell 1000 Growth	Large Cap Growth	-3.1	25.0	27.7	8.0	12.4	14.5
Russell 1000 Value	Large Cap Value	-3.2	1.8	14.4	11.0	6.2	8.4
Russell Mid Cap	Midcap	-4.7	3.9	13.4	8.1	6.4	9.0
Russell Mid Cap Growth	Midcap Growth	-5.2	9.9	17.5	2.6	7.0	9.9
Russell Mid Cap Value	Midcap Value	-4.5	0.5	11.0	11.0	5.2	7.9
Russell 2000	Small Cap	-5.1	2.5	8.9	7.2	2.4	6.6
Russell 2000 Growth	Small Cap Growth	-7.3	5.2	9.6	1.1	1.5	6.7
Russell 2000 Value	Small Cap Value	-3.0	-0.5	7.8	13.3	2.6	6.2

International Equity	Style	QTR	YTD	1 Year	3 Years	5 Years	10 Years
MSCI All Country World ex US	Foreign Equity	-3.7	5.8	21.0	4.2	3.1	3.8
MSCI EAFE	Developed Markets Equity	-4.0	7.6	26.3	6.3	3.7	4.3
MSCI EAFE Growth	Developed Markets Growth	-8.6	4.6	20.4	0.7	3.6	4.8
MSCI EAFE Value	Developed Markets Value	0.7	10.6	32.5	11.9	3.5	3.6
MSCI Emerging Markets	Emerging Markets Equity	-2.8	2.2	12.2	-1.3	0.9	2.5

Domestic Fixed Income	Style	QTR	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Aggregate Index	Core Fixed Income	-3.2	-1.2	0.6	-5.2	0.1	1.1
Bloomberg Gov't Bond	Treasuries	-3.0	-1.4	-0.7	-5.1	0.4	0.9
Bloomberg Credit Bond	Corporate Bonds	-3.0	0.0	3.5	-3.7	1.6	2.5
Intermediate Aggregate	Core Intermediate	-1.9	-0.3	1.4	-3.7	0.4	1.1
ML/BoA 1-3 Year Treasury	Short Term Treasuries	0.7	1.7	2.4	-0.9	1.0	0.8
Bloomberg High Yield	High Yield Bonds	0.5	5.9	10.3	1.2	2.6	4.1

Alternative Assets	Style	QTR	YTD	1 Year	3 Years	5 Years	10 Years
Bloomberg Global Treasury Ex US	International Treasuries	-4.9	-3.3	3.7	-9.1	-3.4	-1.8
NCREIF NFI-ODCE Index	Real Estate	-1.9	-7.6	-12.2	7.1	5.7	8.2
HFRI FOF Composite	Hedge Funds	0.5	3.2	5.0	3.9	3.5	3.3

APPENDIX - DISCLOSURES

* Dahab Associates utilizes data provided by a custodian and other vendors it believes are reliable. However, it cannot assume responsibility for errors and omissions therefrom.
* All returns were calculated on a time-weighted basis, and are gross of fees unless otherwise noted.
* All returns for periods greater than one year are annualized.
* Dahab Associates uses the modified duration measure to present average duration.
* All values are in US dollars.
* The Policy Index is a policy-weighted passive index and was constructed as follows:
  For all periods through June 2017:
  100% Custom PRIT Core Policy Index

  For all periods from July 2017 to June 2019:

37% Russell 3000	16% MSCI ACWI Ex-US	13% NCREIF NFI-ODCE
2% NCREIF Timber	5.5% Cambridge Private Equity	
6.5% HFRI FOF Composite	20% Bloomberg Aggregate	

  For all periods since July 2019:

33% Russell 3000	16% MSCI ACWI Ex-US	15% NCREIF NFI-ODCE
2% NCREIF Timber	5.5% Cambridge Private Equity	
6.5% HFRI FOF Composite	22% Bloomberg Aggregate	

* The Blended Value Added Fixed Income Index consists of 35% ML US High Yield Master, 45% S&P LSTA Leverage Loan, and 20% JP Morgan Emerging Markets Bond Index.

APPENDIX - DISCLOSURES

* The Custom PRIT Core Policy Index is a policy-weighted passive index and was constructed as follows:

For all periods through December 2010:

26% Russell 3000	20% MSCI EAFE	5% MSCI Emerging Markets
15% Bloomberg Aggregate	5% CSFB High Yield	10% Cambridge Private Equity (lagged)
10% NCREIF NFI-ODCE	4% NCREIF Timber	5% HFRI Fund of Funds Composite

For all periods from January 2011 through July 2011:

24% Russell 3000	20% MSCI EAFE	5% MSCI Emerging Markets
13% Bloomberg Aggregate	6% CSFB High Yield	10% Cambridge Private Equity (lagged)
10% NCREIF NFI-ODCE	4% NCREIF Timber	8% HFRI Fund of Funds Composite

For all periods from August 2011 through January 2014:

19% Russell 3000	17% MSCI EAFE	7% MSCI Emerging Markets
14% Bloomberg Aggregate	6% CSFB High Yield	10% Cambridge Private Equity (lagged)
10% NCREIF NFI-ODCE	4% NCREIF Timber	10% HFRI Fund of Funds Composite
3% Bloomberg US TIPS		

For all periods from February 2014 through September 2015:

18% Russell 3000	16% MSCI EAFE	6% MSCI Emerging Markets
4% Bloomberg Aggregate	6% CSFB High Yield	10% Cambridge Private Equity (lagged)
10% NCREIF NFI-ODCE	4% NCREIF Timber	9% HFRI Fund of Funds Composite
3% Bloomberg US TIPS	10% Bloomberg 5-10 Year Treasury	4% MSCI ACWI Ex-US

For all periods from October 2015 through March 2016:

18% Russell 3000	16% MSCI EAFE	6% MSCI Emerging Markets
4% Bloomberg Aggregate	10% Cambridge Private Equity (lagged)	10% NCREIF NFI-ODCE
4% NCREIF Timber	9% HFRI Fund of Funds Composite	3% Bloomberg US TIPS
10% Bloomberg 5-10 Year Treasury	4% MSCI ACWI Ex-US	6% Bloomberg High Yield

For all periods from April 2016 to March 2017:

15% S&P 500	4% Russell 2000	7% MSCI ACWI Ex-US
7% MSCI EAFE	7% MSCI Emerging Markets	10% Cambridge Private Equity (lagged)
13% HFRI FOF Composite	2% FTSE REIT	8% NCREIF Property
4% NCREIF Timber	5% Bloomberg Aggregate	10% Bloomberg High Yield
3% US TIPS	5% Bloomberg US STRIPS 20+ Year	

APPENDIX - DISCLOSURES

* For all periods from April 2017 to March 2018:

15% S&P 500	4% Russell 2500	7% MSCI ACWI Ex-US
7% MSCI EAFE	7% MSCI Emerging Markets	11% Cambridge Private Equity (lagged)
13% HFRI FOF Composite	2% FTSE REIT	8% NCREIF Property
4% NCREIF Timber	5% Bloomberg Aggregate	7.5% Bloomberg High Yield
2.5% JP Morgan EMBI	2% US TIPS	5% Bloomberg US Strips 20+ Year

For all periods from April 2018 to March 2019:

15% S&P 500	4% Russell 2500	6% MSCI ACWI Ex-US
8% MSCI EAFE	6% MSCI Emerging Markets	12% Cambridge Private Equity (lagged)
13% HFRI FOF Composite	2% FTSE REIT	8% NCREIF Property
4% NCREIF Timber	5% Bloomberg Aggregate	7.5% Bloomberg High Yield
2.5% JP Morgan EMBI	5% US TIPS	2% Bloomberg US Strips 20+ Year

For all periods since April 2019:

11% S&P 500	3% Russell 2500	6% 80% S&P 500 / 20% LIBOR
6% MSCI ACWI Ex-US	7% MSCI EAFE	6% MSCI Emerging Markets
13% Cambridge Private Equity (lagged)	11% HFRI FOF Composite	2% FTSE REIT
8% NCREIF Property	4% NCREIF Timber	6% Bloomberg Aggregate
6% Bloomberg High Yield	2% JP Morgan EMBI	5% US TIPS
4% Bloomberg US Strips 20+ Year		

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM
PRIT - CORE
PERFORMANCE REVIEW
SEPTEMBER 2023

DAHAB Associates, Inc.

INVESTMENT RETURN

On September 30th, 2023, the Andover Contributory Retirement System's PRIT Core portfolio was valued at $231,945,149, a decrease of $6,869,550 from the June ending value of $238,814,699. Last quarter, the account recorded total net withdrawals of $2,804,378 in addition to $4,065,172 in net investment losses. The fund's net investment loss was a result of income receipts totaling $1,563,393 and realized and unrealized capital losses totaling $5,628,565.

RELATIVE PERFORMANCE

During the third quarter, the PRIT Core portfolio lost 1.7%, which was 0.6% better than the Custom Core Index's return of -2.3% and ranked in the 11th percentile of the Public Fund universe. Over the trailing year, the portfolio returned 9.4%, which was 0.2% better than the benchmark's 9.2% performance, and ranked in the 76th percentile. Since September 2013, the account returned 7.8% per annum and ranked in the 3rd percentile. For comparison, the Custom Core Index returned an annualized 6.9% over the same time frame.

PRIT Core

The PRIT Core fund had a 39.2% allocation in global equity, 17.3% in private equity, 14% in real estate, and 20.5% in fixed income. Portfolio completion strategies (including overlay) represented the remaining 8.9%.

PRIT Global Equity

Global equity returned -3.4% last quarter, 10 basis points lower than the the Russell 3000 return of -3.3%, and 30 basis points above the MSCI All Country World Ex-U.S. return of -3.7%.

PRIT Private Equity

The private equity segment represented 17.3% of the Core fund and returned 2.5% last quarter. On a one quarter lagged basis, the Cambridge Private Equity Index returned 2.7%.

PRIT Portfolio Completion Strategies

The overlay portion made up 0.6% and returned -5.3% last quarter. The portfolio completion segment made up 8.3% and returned 1.5%.

PRIT Real Estate

The Real Estate segment made up 10.8% and returned -1.5% last quarter. For comparison, the NCREIF ODCE Index returned -1.9%.

PRIT Fixed Income

Core fixed income constituted 13% of the Core fund and value-added fixed income made up 7.5%. Core fixed income underperformed against the Bloomberg Aggregate Index over the quarter, returning -5.9%, compared to the benchmark’s -3.2%. Value-added fixed income surpassed the Bloomberg High Yield Index, returning 1.5% vs. the 0.5% return of the benchmark.

EXECUTIVE SUMMARY

PERFORMANCE SUMMARY

	Quarter	YTD	1 Year	3 Year	5 Year	10 Year
Total Portfolio - Gross	-1.7	5.0	9.4	7.4	6.8	7.8
PUBLIC FUND RANK	(11)	(42)	(76)	(3)	(4)	(3)
Total Portfolio - Net	-1.8	4.6	8.9	6.9	6.3	7.3
Custom Core Idx	-2.3	4.0	9.2	5.5	6.1	6.9
PRIT Core - Gross	-1.7	5.0	9.4	7.4	6.8	7.8
PUBLIC FUND RANK	(11)	(42)	(76)	(3)	(4)	(3)
Custom Core Idx	-2.3	4.0	9.2	5.5	6.1	6.9

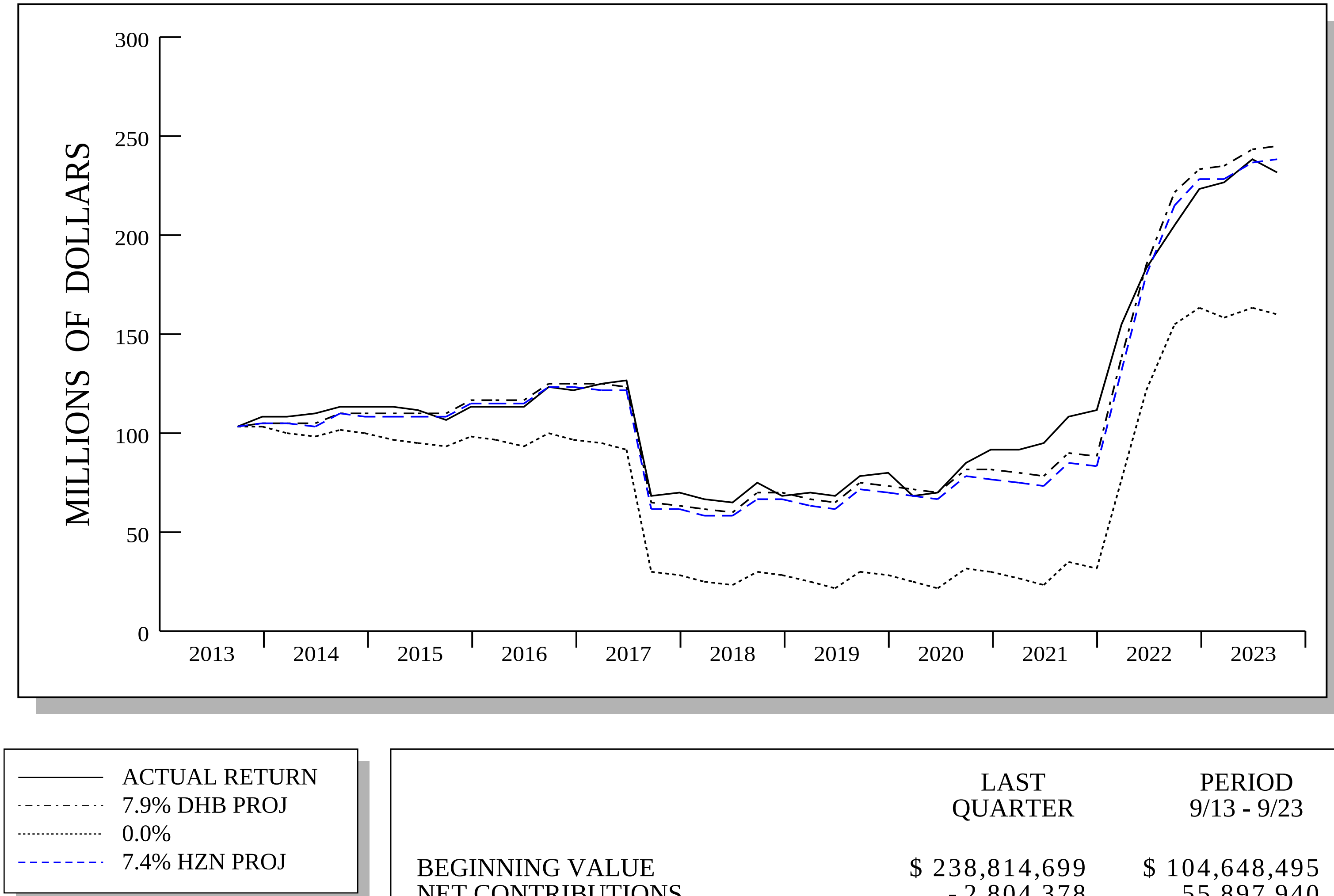
ASSET ALLOCATION

PRIT Core	100.0%	$ 231,945,149
Total Portfolio	100.0%	$ 231,945,149

INVESTMENT RETURN

Market Value 6/2023	$ 238,814,699
Contribs / Withdrawals	- 2,804,378
Income	1,563,393
Capital Gains / Losses	- 5,628,565
Market Value 9/2023	$ 231,945,149

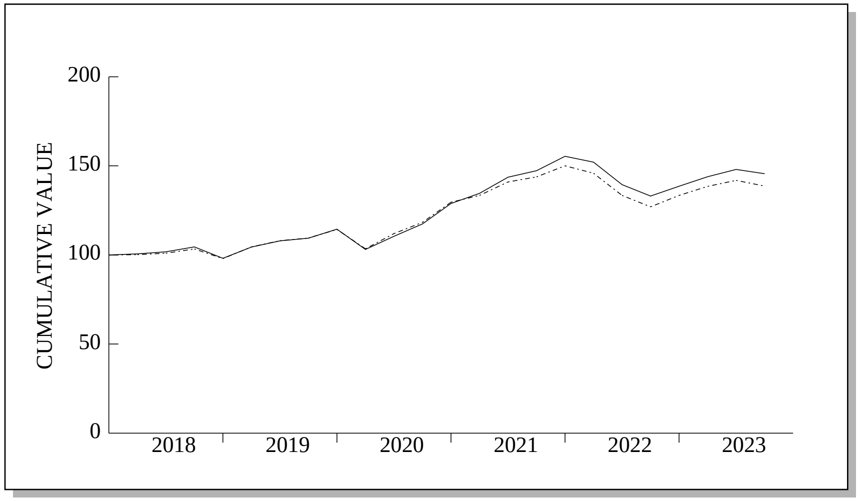
INVESTMENT GROWTH

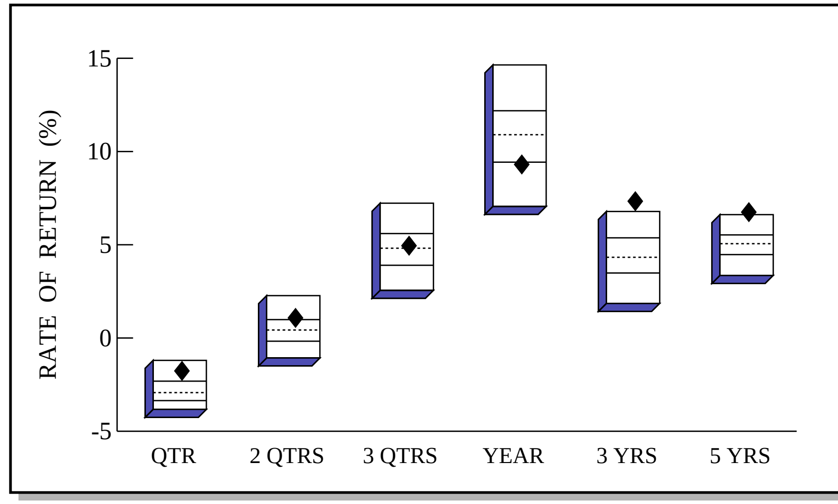


VALUE ASSUMING	
7.9% DHB PROJ $	245,701,703
7.4% HZN PROJ $	238,346,722

	LAST QUARTER	PERIOD 9/13 - 9/23
BEGINNING VALUE	$ 238,814,699	$ 104,648,495
NET CONTRIBUTIONS	- 2,804,378	55,897,940
INVESTMENT RETURN	- 4,065,172	71,398,714
ENDING VALUE	$ 231,945,149	$ 231,945,149
INCOME	1,563,393	27,366,935
CAPITAL GAINS (LOSSES)	- 5,628,565	44,031,779
INVESTMENT RETURN	- 4,065,172	71,398,714

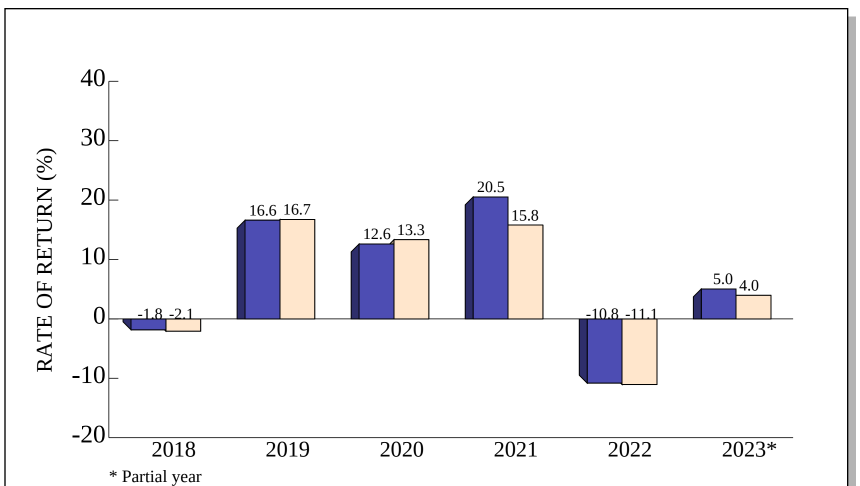
TOTAL RETURN COMPARISONS





Public Fund Universe

PORTFOLIO
CUSTOM CORE IDX



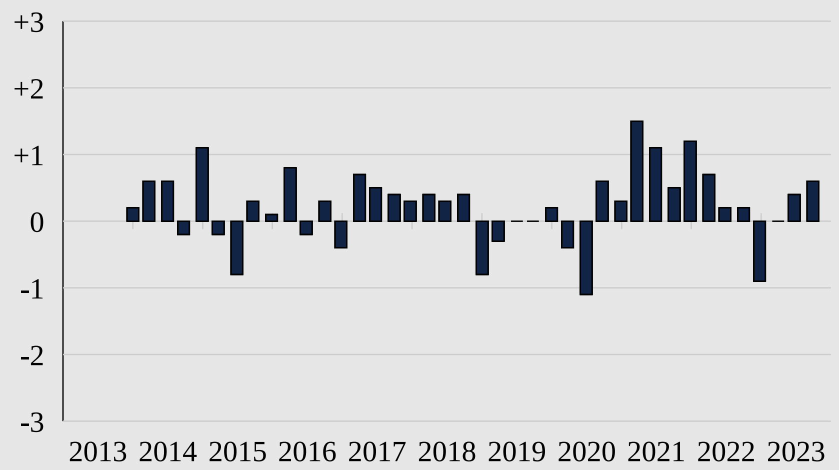
					------ANNUALIZED------	
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	-1.7	1.2	5.0	9.4	7.4	6.8
(RANK)	(11)	(22)	(42)	(76)	(3)	(4)
5TH %ILE	-1.2	2.3	7.2	14.6	6.8	6.6
25TH %ILE	-2.3	1.0	5.6	12.2	5.4	5.5
MEDIAN	-2.9	0.4	4.8	10.9	4.3	5.1
75TH %ILE	-3.4	-0.2	3.9	9.4	3.5	4.5
95TH %ILE	-3.8	-1.1	2.6	7.1	1.9	3.4
PRIT Index	***-2.3***	***0.1***	***4.0***	***9.2***	***5.5***	***6.1***

Public Fund Universe

TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS

COMPARATIVE BENCHMARK: CUSTOM CORE INDEX

VARIATION FROM BENCHMARK



Total Quarters Observed	**40**
Quarters At or Above the Benchmark	**30**
Quarters Below the Benchmark	**10**
Batting Average	**.750**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/13	4.8	4.6	0.2
3/14	2.7	2.1	0.6
6/14	4.1	3.5	0.6
9/14	-0.8	-0.6	-0.2
12/14	2.1	1.0	1.1
3/15	2.7	2.9	-0.2
6/15	0.0	0.8	-0.8
9/15	-3.8	-4.1	0.3
12/15	2.4	2.3	0.1
3/16	1.9	1.1	0.8
6/16	1.9	2.1	-0.2
9/16	4.3	4.0	0.3
12/16	-0.2	0.2	-0.4
3/17	4.9	4.2	0.7
6/17	3.8	3.3	0.5
9/17	4.0	3.6	0.4
12/17	4.0	3.7	0.3
3/18	0.6	0.2	0.4
6/18	1.1	0.8	0.3
9/18	2.8	2.4	0.4
12/18	-6.1	-5.3	-0.8
3/19	6.4	6.7	-0.3
6/19	3.4	3.4	0.0
9/19	1.4	1.4	0.0
12/19	4.6	4.4	0.2
3/20	-9.9	-9.5	-0.4
6/20	7.2	8.3	-1.1
9/20	6.2	5.6	0.6
12/20	9.8	9.5	0.3
3/21	4.4	2.9	1.5
6/21	6.8	5.7	1.1
9/21	2.5	2.0	0.5
12/21	5.5	4.3	1.2
3/22	-2.1	-2.8	0.7
6/22	-8.3	-8.5	0.2
9/22	-4.6	-4.8	0.2
12/22	4.1	5.0	-0.9
3/23	3.8	3.8	0.0
6/23	2.9	2.5	0.4
9/23	-1.7	-2.3	0.6

APPENDIX - DISCLOSURES

* The Custom PRIT Core Policy Index is a policy-weighted passive index and was constructed as follows:

For all periods through December 2010:

26% Russell 3000	20% MSCI EAFE	5% MSCI Emerging Markets
15% Bloomberg Aggregate	5% CSFB High Yield	10% Cambridge Private Equity (lagged)
10% NCREIF NFI-ODCE	4% NCREIF Timber	5% HFRI Fund of Funds Composite

For all periods from January 2011 through July 2011:

24% Russell 3000	20% MSCI EAFE	5% MSCI Emerging Markets
13% Bloomberg Aggregate	6% CSFB High Yield	10% Cambridge Private Equity (lagged)
10% NCREIF NFI-ODCE	4% NCREIF Timber	8% HFRI Fund of Funds Composite

For all periods from August 2011 through January 2014:

19% Russell 3000	17% MSCI EAFE	7% MSCI Emerging Markets
14% Bloomberg Aggregate	6% CSFB High Yield	10% Cambridge Private Equity (lagged)
10% NCREIF NFI-ODCE	4% NCREIF Timber	10% HFRI Fund of Funds Composite
3% Bloomberg US TIPS		

For all periods from February 2014 through September 2015:

18% Russell 3000	16% MSCI EAFE	6% MSCI Emerging Markets
4% Bloomberg Aggregate	6% CSFB High Yield	10% Cambridge Private Equity (lagged)
10% NCREIF NFI-ODCE	4% NCREIF Timber	9% HFRI Fund of Funds Composite
3% Bloomberg US TIPS	10% Bloomberg 5-10 Year Treasury	4% MSCI ACWI Ex-US

For all periods from October 2015 through March 2016:

18% Russell 3000	16% MSCI EAFE	6% MSCI Emerging Markets
4% Bloomberg Aggregate	10% Cambridge Private Equity (lagged)	10% NCREIF NFI-ODCE
4% NCREIF Timber	9% HFRI Fund of Funds Composite	3% Bloomberg US TIPS
10% Bloomberg 5-10 Year Treasury	4% MSCI ACWI Ex-US	6% Bloomberg High Yield

For all periods from April 2016 to March 2017:

15% S&P 500	4% Russell 2000	7% MSCI ACWI Ex-US
7% MSCI EAFE	7% MSCI Emerging Markets	10% Cambridge Private Equity (lagged)
13% HFRI FOF Composite	2% FTSE REIT	8% NCREIF Property
4% NCREIF Timber	5% Bloomberg Aggregate	10% Bloomberg High Yield
3% US TIPS	5% Bloomberg US STRIPS 20+ Year	

APPENDIX - DISCLOSURES

* For all periods from April 2017 to March 2018:

15% S&P 500	4% Russell 2500	7% MSCI ACWI Ex-US
7% MSCI EAFE	7% MSCI Emerging Markets	11% Cambridge Private Equity (lagged)
13% HFRI FOF Composite	2% FTSE REIT	8% NCREIF Property
4% NCREIF Timber	5% Bloomberg Aggregate	7.5% Bloomberg High Yield
2.5% JP Morgan EMBI	2% US TIPS	5% Bloomberg US Strips 20+ Year

For all periods from April 2018 to March 2019:

15% S&P 500	4% Russell 2500	6% MSCI ACWI Ex-US
8% MSCI EAFE	6% MSCI Emerging Markets	12% Cambridge Private Equity (lagged)
13% HFRI FOF Composite	2% FTSE REIT	8% NCREIF Property
4% NCREIF Timber	5% Bloomberg Aggregate	7.5% Bloomberg High Yield
2.5% JP Morgan EMBI	5% US TIPS	2% Bloomberg US Strips 20+ Year

For all periods since April 2019:

11% S&P 500	3% Russell 2500	6% 80% S&P 500 / 20% LIBOR
6% MSCI ACWI Ex-US	7% MSCI EAFE	6% MSCI Emerging Markets
13% Cambridge Private Equity (lagged)	11% HFRI FOF Composite	2% FTSE REIT
8% NCREIF Property	4% NCREIF Timber	6% Bloomberg Aggregate
6% Bloomberg High Yield	2% JP Morgan EMBI	5% US TIPS
4% Bloomberg US Strips 20+ Year		

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM
PRIT - DOMESTIC EQUITY
PERFORMANCE REVIEW
SEPTEMBER 2023

DAHAB Associates, Inc.

INVESTMENT RETURN

On September 30th, 2023, the Andover Contributory Retirement System's PRIT Domestic Equity portfolio was valued at $22,454,130, a decrease of $844,856 from the June ending value of $23,298,986. Last quarter, the account recorded total net withdrawals of $7,098 in addition to $837,758 in net investment losses. The fund's net investment loss was a result of income receipts totaling $86,835 and realized and unrealized capital losses totaling $924,593.

RELATIVE PERFORMANCE

During the third quarter, the PRIT Domestic Equity portfolio lost 3.6%, which was 0.3% below the Russell 3000 Index's return of -3.3% and ranked in the 55th percentile of the Domestic Equity universe. Over the trailing year, the portfolio returned 20.0%, which was 0.5% below the benchmark's 20.5% performance, and ranked in the 33rd percentile. Since September 2017, the account returned 10.8% per annum and ranked in the 28th percentile. For comparison, the Russell 3000 returned an annualized 10.5% over the same time frame.

EXECUTIVE SUMMARY

PERFORMANCE SUMMARY

	Quarter	YTD	1 Year	3 Year	5 Year	Since 09/17
Total Portfolio - Gross	-3.6	11.8	20.0	10.4	9.4	10.8
DOMESTIC EQUITY RANK	(55)	(28)	(33)	(47)	(27)	(28)
Total Portfolio - Net	-3.6	11.7	19.9	10.2	9.2	10.7
Russell 3000	-3.3	12.4	20.5	9.4	9.1	10.5
Domestic Equity - Gross	-3.6	11.8	20.0	10.4	9.4	10.8
DOMESTIC EQUITY RANK	(55)	(28)	(33)	(47)	(27)	(28)
Russell 3000	-3.3	12.4	20.5	9.4	9.1	10.5

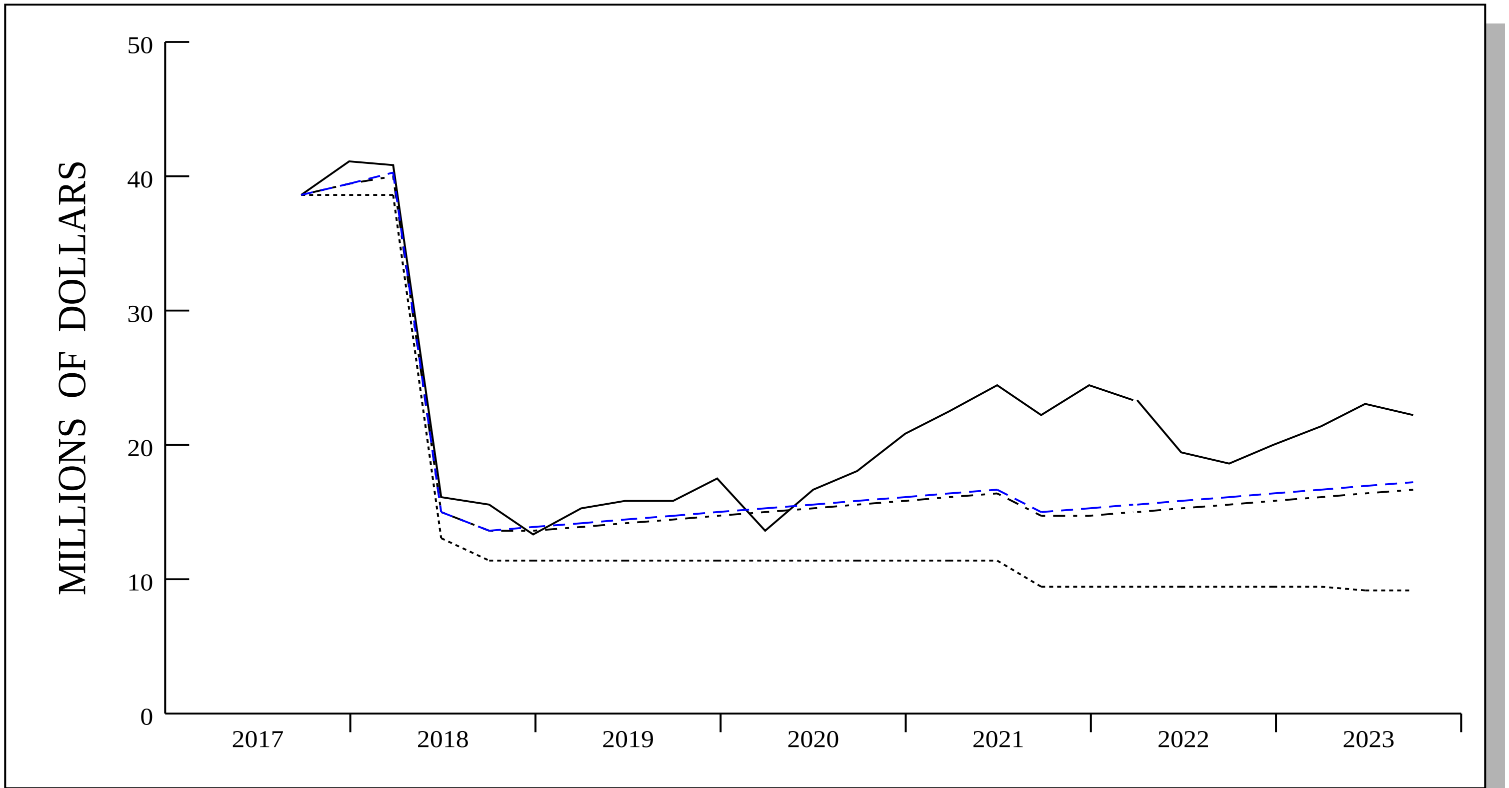
ASSET ALLOCATION

Domestic Equity	100.0%	$ 22,454,130
Total Portfolio	100.0%	$ 22,454,130

INVESTMENT RETURN

Market Value 6/2023	$ 23,298,986
Contribs / Withdrawals	- 7,098
Income	86,835
Capital Gains / Losses	-924,593
Market Value 9/2023	$ 22,454,130

INVESTMENT GROWTH

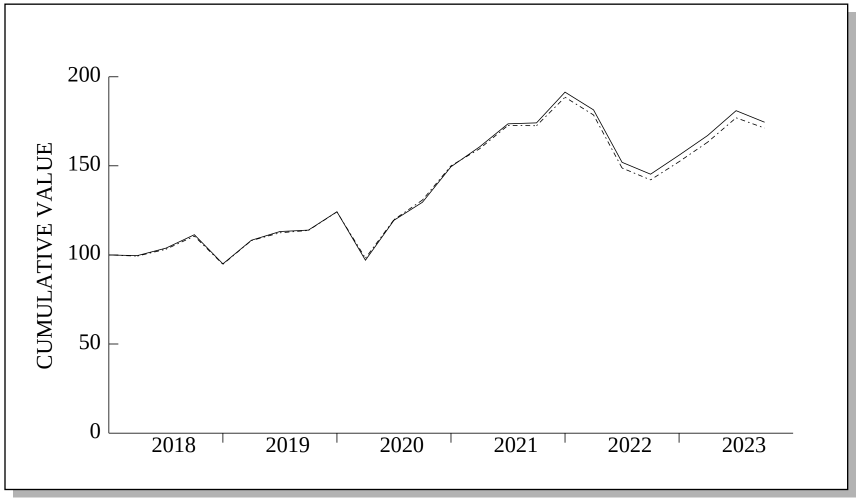


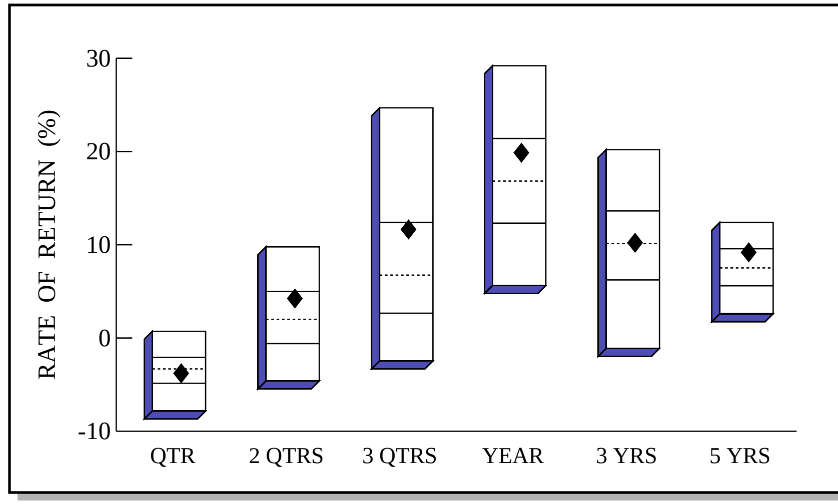
	ACTUAL RETURN
	7.4% DHB PROJ
	0.0%
	7.8% HZN PROJ

VALUE ASSUMING	
7.4% DHB PROJ	$ 16,933,969
7.8% HZN PROJ	$ 17,439,593

	LAST QUARTER	PERIOD 9/17 - 9/23
BEGINNING VALUE	$ 23,298,986	$ 38,825,403
NET CONTRIBUTIONS	- 7,098	- 29,394,191
INVESTMENT RETURN	-837,758	13,022,918
ENDING VALUE	$ 22,454,130	$ 22,454,130
INCOME	86,835	2,021,032
CAPITAL GAINS (LOSSES)	-924,593	11,001,886
INVESTMENT RETURN	-837,758	13,022,918

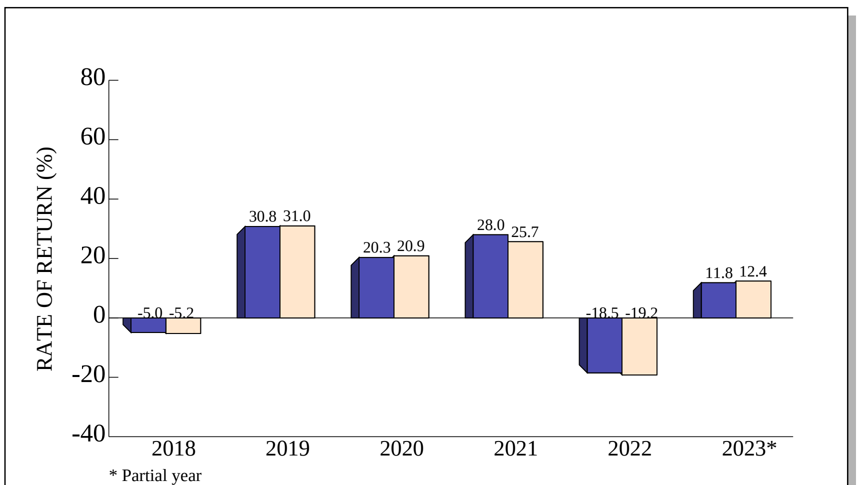
TOTAL RETURN COMPARISONS





Domestic Equity Universe

PORTFOLIO
RUSSELL 3000



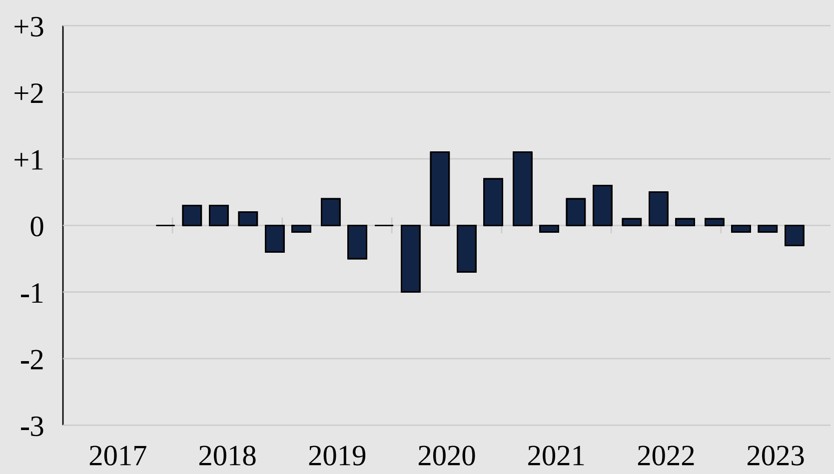
					------ANNUALIZED------	
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	-3.6	4.4	11.8	20.0	10.4	9.4
(RANK)	(55)	(30)	(28)	(33)	(47)	(27)
5TH %ILE	0.7	9.8	24.7	29.2	20.2	12.4
25TH %ILE	-2.1	5.0	12.4	21.4	13.6	9.6
MEDIAN	-3.3	2.0	6.8	16.8	10.2	7.5
75TH %ILE	-4.9	-0.6	2.7	12.3	6.2	5.6
95TH %ILE	-7.8	-4.6	-2.5	5.6	-1.1	2.6
Russ 3000	***-3.3***	***4.9***	***12.4***	***20.5***	***9.4***	***9.1***

Domestic Equity Universe

TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: RUSSELL 3000

VARIATION FROM BENCHMARK



Total Quarters Observed	**24**
Quarters At or Above the Benchmark	**15**
Quarters Below the Benchmark	**9**
Batting Average	**.625**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/17	6.3	6.3	0.0
3/18	-0.3	-0.6	0.3
6/18	4.2	3.9	0.3
9/18	7.3	7.1	0.2
12/18	-14.7	-14.3	-0.4
3/19	13.9	14.0	-0.1
6/19	4.5	4.1	0.4
9/19	0.7	1.2	-0.5
12/19	9.1	9.1	0.0
3/20	-21.9	-20.9	-1.0
6/20	23.1	22.0	1.1
9/20	8.5	9.2	-0.7
12/20	15.4	14.7	0.7
3/21	7.4	6.3	1.1
6/21	8.1	8.2	-0.1
9/21	0.3	-0.1	0.4
12/21	9.9	9.3	0.6
3/22	-5.2	-5.3	0.1
6/22	-16.2	-16.7	0.5
9/22	-4.4	-4.5	0.1
12/22	7.3	7.2	0.1
3/23	7.1	7.2	-0.1
6/23	8.3	8.4	-0.1
9/23	-3.6	-3.3	-0.3

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM
RHUMBLINE - S&P MID CAP 400 POOLED INDEX FUND
PERFORMANCE REVIEW
SEPTEMBER 2023

DAHAB Associates, Inc.

INVESTMENT RETURN

On September 30th, 2023, the Andover Contributory Retirement System's RhumbLine S&P Mid Cap 400 Pooled Index Fund was valued at $19,041,652, a decrease of $2,619,896 from the June ending value of $21,661,548. Last quarter, the account recorded total net withdrawals of $1,800,000 in addition to $819,896 in net investment losses. Because there were no income receipts during the third quarter, the portfolio's net investment losses were entirely made up of capital losses (realized and unrealized).

RELATIVE PERFORMANCE

During the third quarter, the RhumbLine S&P Mid Cap 400 Pooled Index Fund lost 4.2%, which was equal to the S&P 400 Index's return of -4.2% and ranked in the 50th percentile of the Mid Cap Core universe. Over the trailing twelve-month period, this portfolio returned 15.5%, which was equal to the benchmark's 15.5% return, and ranked in the 46th percentile. Since June 2018, the portfolio returned 6.5% per annum and ranked in the 66th percentile. For comparison, the S&P 400 returned an annualized 6.5% over the same period.

EXECUTIVE SUMMARY

PERFORMANCE SUMMARY

	Quarter	YTD	1 Year	3 Year	5 Year	Since 06/18
Total Portfolio - Gross	-4.2	4.3	15.5	12.0	6.0	6.5
MID CAP CORE RANK	(50)	(40)	(46)	(38)	(79)	(66)
Total Portfolio - Net	-4.2	4.2	15.4	12.0	6.0	6.5
S&P 400	-4.2	4.3	15.5	12.0	6.1	6.5
Domestic Equity - Gross	-4.2	4.3	15.5	12.0	6.0	6.5
MID CAP CORE RANK	(50)	(40)	(46)	(38)	(79)	(66)
S&P 400	-4.2	4.3	15.5	12.0	6.1	6.5

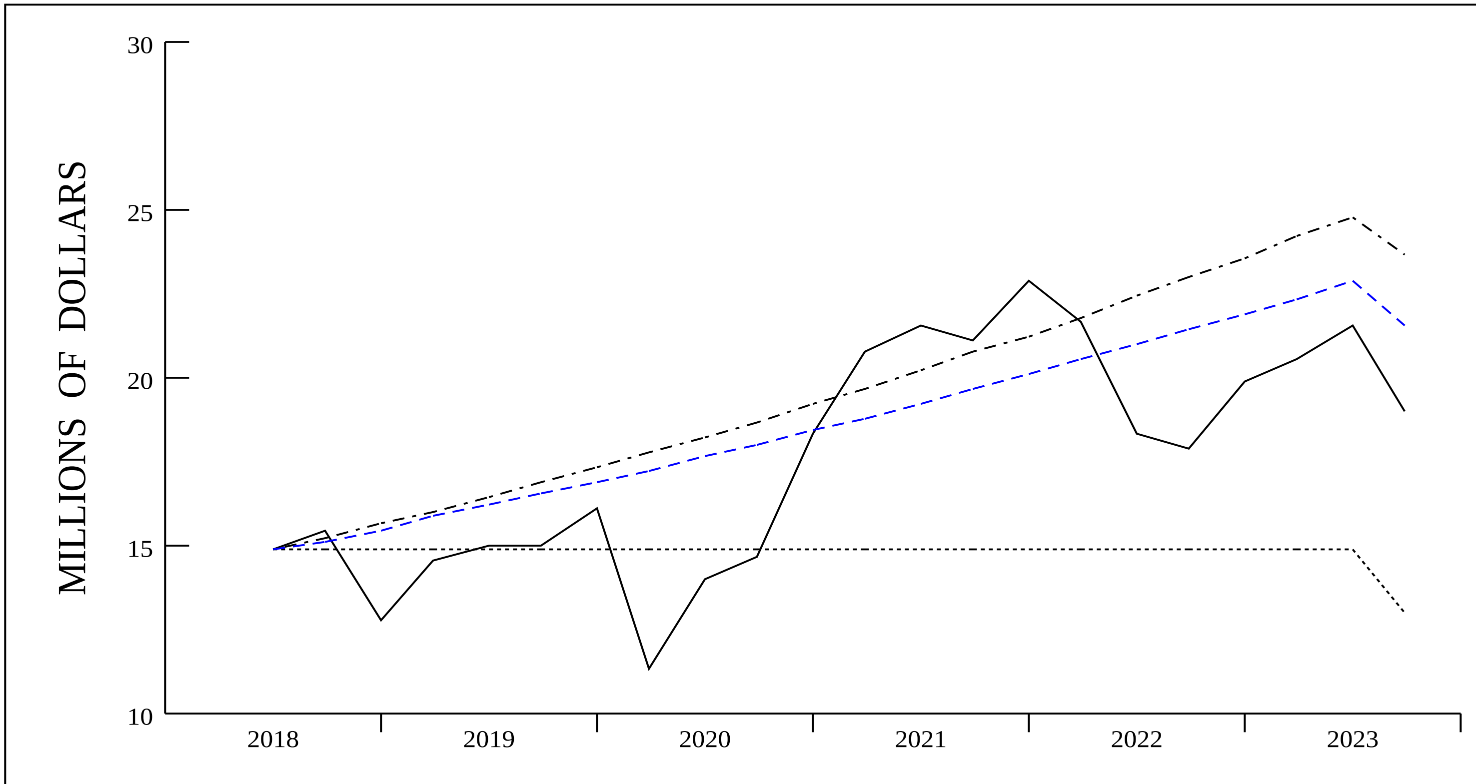
ASSET ALLOCATION

Domestic Equity	100.0%	$ 19,041,652
Total Portfolio	100.0%	$ 19,041,652

INVESTMENT RETURN

Market Value 6/2023	$ 21,661,548
Contribs / Withdrawals	- 1,800,000
Income	0
Capital Gains / Losses	-819,896
Market Value 9/2023	$ 19,041,652

INVESTMENT GROWTH

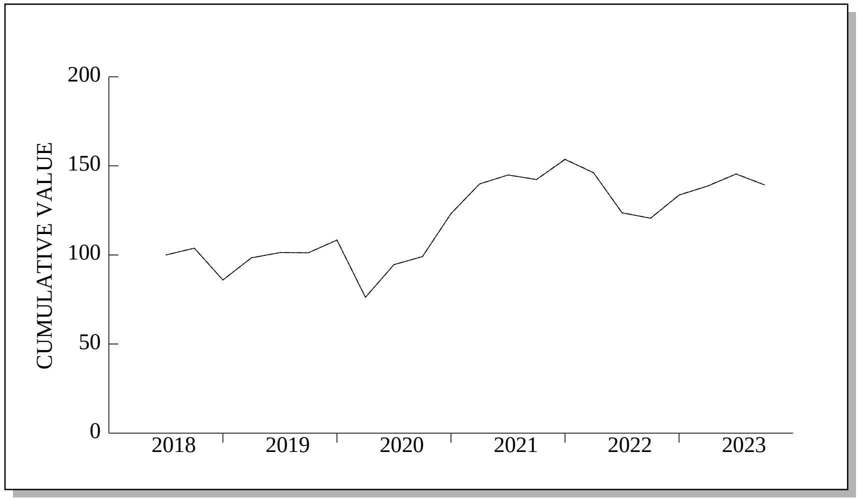


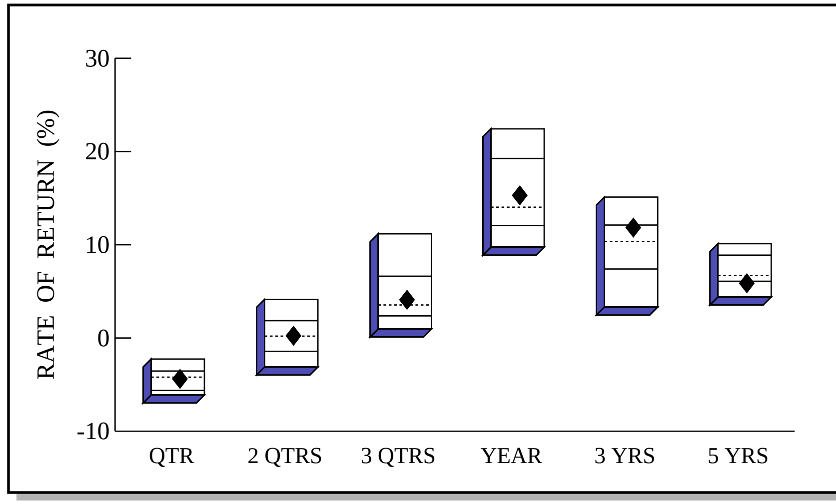
———	ACTUAL RETURN
-·-·-·-	10.8% DHB PROJ
········	0.0%
- - - -	9.0% HZN PROJ

VALUE ASSUMING		
10.8% DHB PROJ	$	23,700,949
9.0% HZN PROJ	$	21,601,134

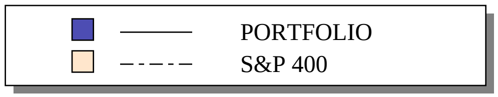
	LAST QUARTER	PERIOD 6/18 - 9/23
BEGINNING VALUE	$ 21,661,548	$ 14,897,672
NET CONTRIBUTIONS	- 1,800,000	- 1,800,000
INVESTMENT RETURN	-819,896	5,943,980
ENDING VALUE	$ 19,041,652	$ 19,041,652
INCOME	0	0
CAPITAL GAINS (LOSSES)	-819,896	5,943,980
INVESTMENT RETURN	-819,896	5,943,980

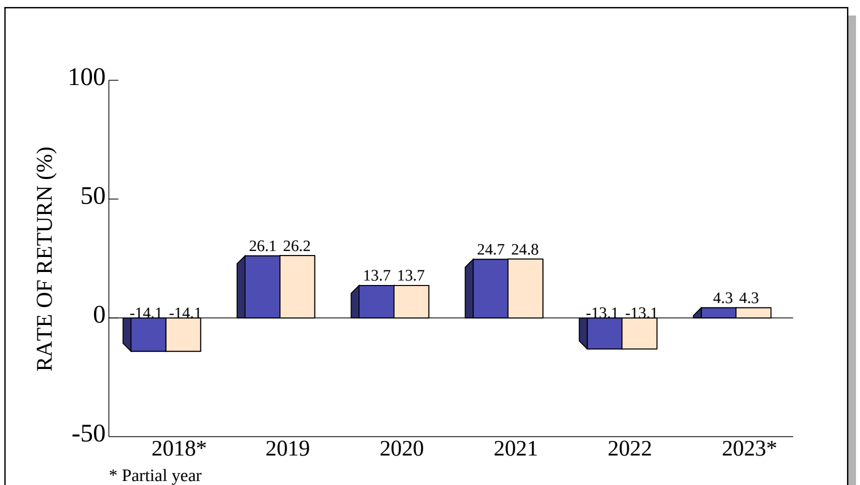
TOTAL RETURN COMPARISONS





Mid Cap Core Universe





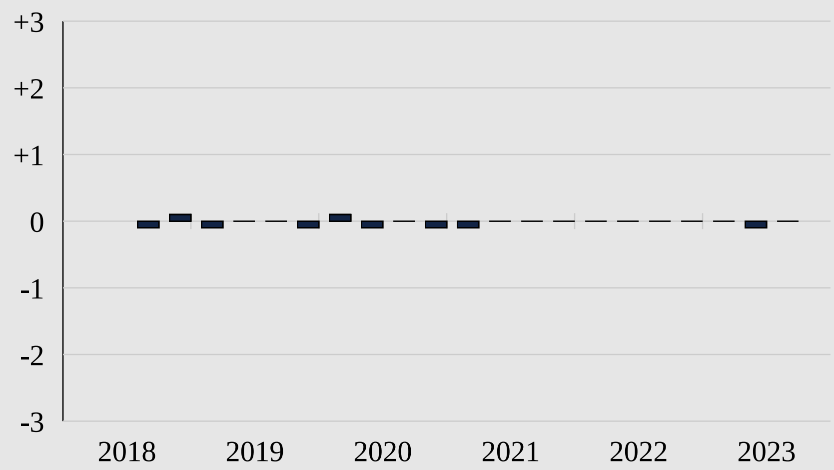
					------ANNUALIZED------	
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	-4.2	0.4	4.3	15.5	12.0	6.0
(RANK)	(50)	(48)	(40)	(46)	(38)	(79)
5TH %ILE	-2.3	4.2	11.2	22.4	15.1	10.1
25TH %ILE	-3.5	1.9	6.6	19.3	12.1	8.9
MEDIAN	-4.2	0.2	3.5	14.0	10.4	6.7
75TH %ILE	-5.6	-1.4	2.4	12.1	7.4	6.1
95TH %ILE	-6.1	-3.1	1.0	9.7	3.3	4.4
S&P 400	***-4.2***	***0.4***	***4.3***	***15.5***	***12.0***	***6.1***

Mid Cap Core Universe

TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: S&P 400

VARIATION FROM BENCHMARK



Total Quarters Observed	**21**
Quarters At or Above the Benchmark	**14**
Quarters Below the Benchmark	**7**
Batting Average	**.667**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
9/18	3.8	3.9	-0.1
12/18	-17.2	-17.3	0.1
3/19	14.4	14.5	-0.1
6/19	3.0	3.0	0.0
9/19	-0.1	-0.1	0.0
12/19	7.0	7.1	-0.1
3/20	-29.6	-29.7	0.1
6/20	24.0	24.1	-0.1
9/20	4.8	4.8	0.0
12/20	24.3	24.4	-0.1
3/21	13.4	13.5	-0.1
6/21	3.6	3.6	0.0
9/21	-1.8	-1.8	0.0
12/21	8.0	8.0	0.0
3/22	-4.9	-4.9	0.0
6/22	-15.4	-15.4	0.0
9/22	-2.5	-2.5	0.0
12/22	10.8	10.8	0.0
3/23	3.8	3.8	0.0
6/23	4.8	4.9	-0.1
9/23	-4.2	-4.2	0.0

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM
RHUMBLINE - S&P SMALL CAP 600 POOLED INDEX FUND
PERFORMANCE REVIEW
SEPTEMBER 2023

DAHAB Associates, Inc.

INVESTMENT RETURN

On September 30th, 2023, the Andover Contributory Retirement System's RhumbLine S&P Small Cap 600 Pooled Index Fund was valued at $16,894,311, representing an increase of $907,414 from the June quarter's ending value of $15,986,897. Last quarter, the Fund posted net contributions totaling $1,800,000, which overshadowed the account's $892,586 net investment loss that was sustained during the quarter. Because there were no income receipts during the third quarter, the portfolio's net investment losses were entirely made up of capital losses (realized and unrealized).

RELATIVE PERFORMANCE

During the third quarter, the RhumbLine S&P Small Cap 600 Pooled Index Fund lost 4.9%, which was equal to the S&P 600 Small Cap's return of -4.9% and ranked in the 63rd percentile of the Small Cap Core universe. Over the trailing twelve-month period, this portfolio returned 10.1%, which was equal to the benchmark's 10.1% return, and ranked in the 67th percentile. Since September 2018, the portfolio returned 3.2% per annum and ranked in the 82nd percentile. For comparison, the S&P 600 Small Cap returned an annualized 3.2% over the same period.

EXECUTIVE SUMMARY

PERFORMANCE SUMMARY

	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	-4.9	0.8	10.1	12.1	3.2
SMALL CAP CORE RANK	(63)	(76)	(67)	(28)	(82)
Total Portfolio - Net	-4.9	0.8	10.0	12.0	3.2
S&P 600	-4.9	0.8	10.1	12.1	3.2
Domestic Equity - Gross	-4.9	0.8	10.1	12.1	3.2
SMALL CAP CORE RANK	(63)	(76)	(67)	(28)	(82)
S&P 600	-4.9	0.8	10.1	12.1	3.2

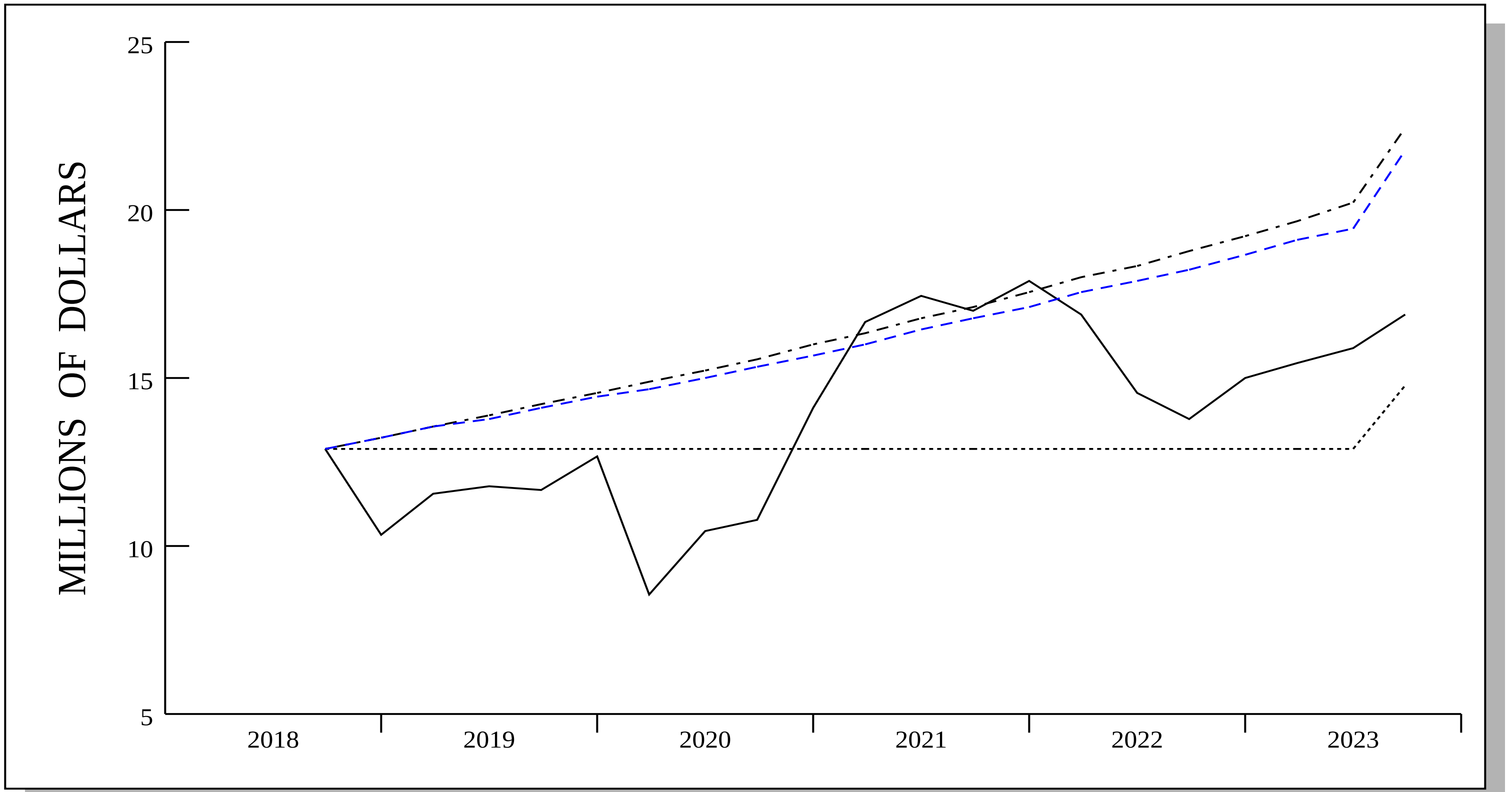
ASSET ALLOCATION

Domestic Equity	100.0%	$ 16,894,311
Total Portfolio	100.0%	$ 16,894,311

INVESTMENT RETURN

Market Value 6/2023	$ 15,986,897
Contribs / Withdrawals	1,800,000
Income	0
Capital Gains / Losses	-892,586
Market Value 9/2023	$ 16,894,311

INVESTMENT GROWTH



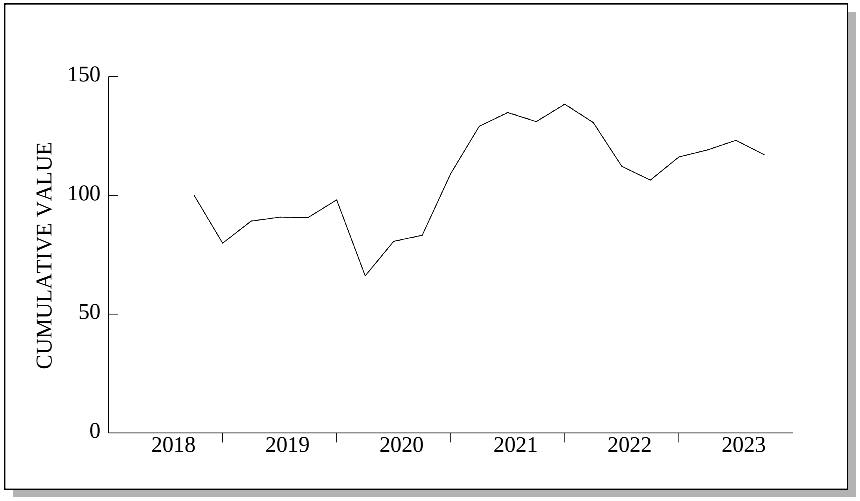
ACTUAL RETURN
9.8% DHB PROJ
0.0%
9.0% HZN PROJ

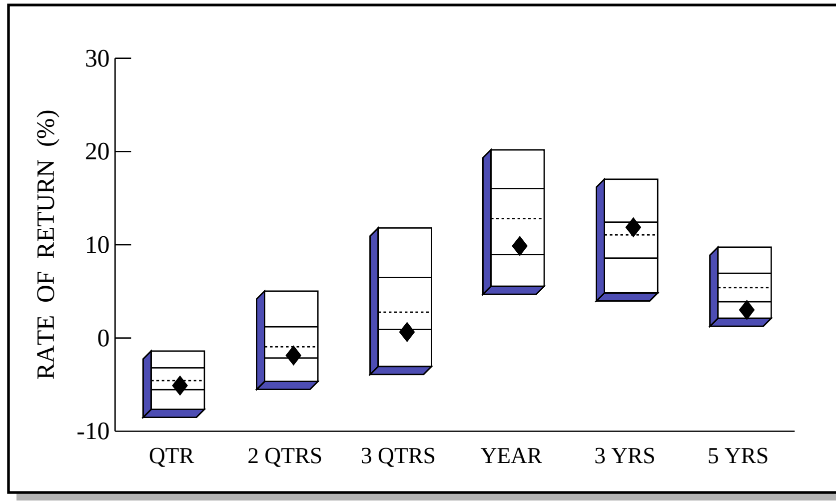
VALUE ASSUMING

9.8% DHB PROJ	$	22,544,390
9.0% HZN PROJ	$	21,798,661

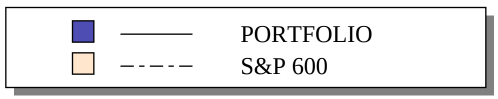
	LAST QUARTER	FIVE YEARS
BEGINNING VALUE	$ 15,986,897	$ 12,985,330
NET CONTRIBUTIONS	1,800,000	1,800,000
INVESTMENT RETURN	-892,586	2,108,981
ENDING VALUE	$ 16,894,311	$ 16,894,311
INCOME	0	0
CAPITAL GAINS (LOSSES)	-892,586	2,108,981
INVESTMENT RETURN	-892,586	2,108,981

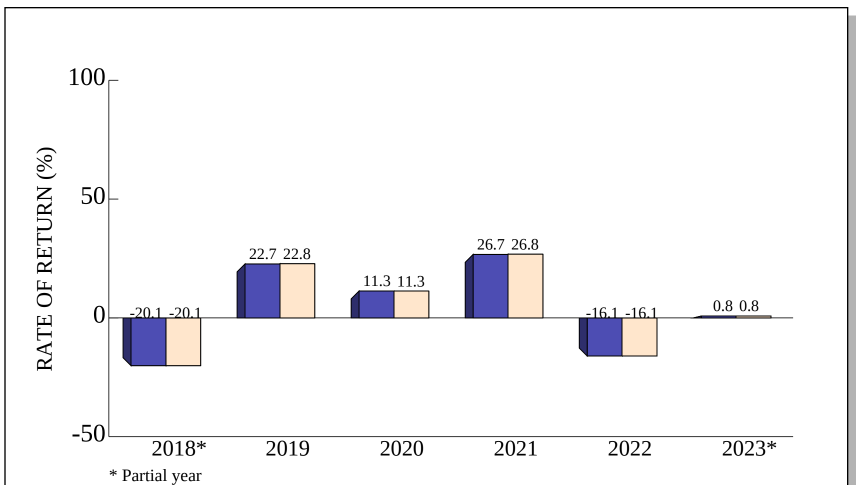
TOTAL RETURN COMPARISONS





Small Cap Core Universe





* Partial year

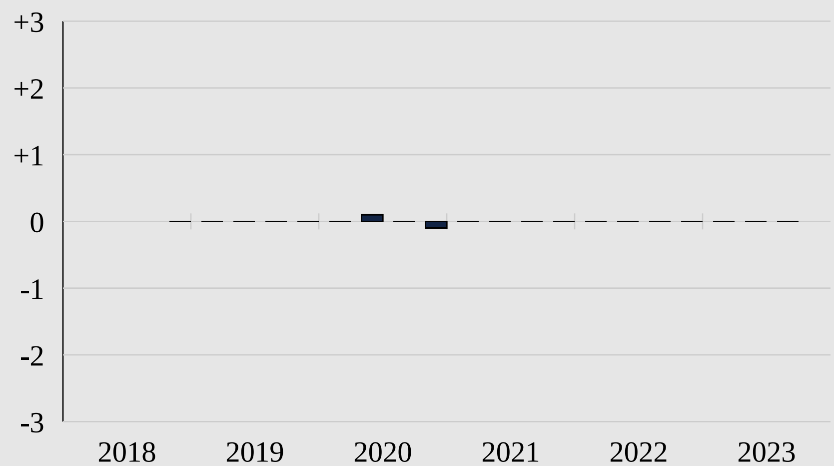
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS (Annualized)	5 YRS (Annualized)
RETURN	-4.9	-1.7	0.8	10.1	12.1	3.2
(RANK)	(63)	(66)	(76)	(67)	(28)	(82)
5TH %ILE	-1.4	5.0	11.8	20.2	17.0	9.8
25TH %ILE	-3.2	1.2	6.5	16.0	12.4	7.0
MEDIAN	-4.6	-0.9	2.8	12.8	11.1	5.4
75TH %ILE	-5.5	-2.2	0.9	9.0	8.6	3.9
95TH %ILE	-7.7	-4.7	-3.1	5.5	4.8	2.1
S&P 600	***-4.9***	***-1.7***	***0.8***	***10.1***	***12.1***	***3.2***

Small Cap Core Universe

TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: S&P 600 SMALL CAP

VARIATION FROM BENCHMARK



Total Quarters Observed	**20**
Quarters At or Above the Benchmark	**19**
Quarters Below the Benchmark	**1**
Batting Average	**.950**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/18	-20.1	-20.1	0.0
3/19	11.6	11.6	0.0
6/19	1.9	1.9	0.0
9/19	-0.2	-0.2	0.0
12/19	8.2	8.2	0.0
3/20	-32.6	-32.6	0.0
6/20	22.0	21.9	0.1
9/20	3.2	3.2	0.0
12/20	31.2	31.3	-0.1
3/21	18.2	18.2	0.0
6/21	4.5	4.5	0.0
9/21	-2.8	-2.8	0.0
12/21	5.6	5.6	0.0
3/22	-5.6	-5.6	0.0
6/22	-14.1	-14.1	0.0
9/22	-5.2	-5.2	0.0
12/22	9.2	9.2	0.0
3/23	2.6	2.6	0.0
6/23	3.4	3.4	0.0
9/23	-4.9	-4.9	0.0

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM
PRIT - CORE REAL ESTATE
PERFORMANCE REVIEW
SEPTEMBER 2023

DAHAB Associates, Inc.

INVESTMENT RETURN

On September 30th, 2023, the Andover Contributory Retirement System's PRIT Core Real Estate portfolio was valued at $20,297,919, representing an increase of $2,639,565 from the June quarter's ending value of $17,658,354. Last quarter, the Fund posted net contributions totaling $2,968,252, which overshadowed the account's $328,687 net investment loss that was sustained during the quarter. The fund's net investment loss was a result of income receipts totaling $196,150 and realized and unrealized capital losses totaling $524,837.

RELATIVE PERFORMANCE

During the third quarter, the PRIT Core Real Estate portfolio lost 1.5%, which was 0.4% above the NCREIF NFI-ODCE Index's return of -1.9%. Over the trailing twelve-month period, the portfolio returned -4.1%, which was 8.1% better than the benchmark's -12.2% return. Since September 2017, the PRIT Core Real Estate portfolio returned 8.4% on an annualized basis, while the NCREIF NFI-ODCE Index returned an annualized 6.2% over the same time frame.

EXECUTIVE SUMMARY

PERFORMANCE SUMMARY

	Quarter	YTD	1 Year	3 Year	5 Year	Since 09/17
Total Portfolio - Gross	-1.5	-3.4	-4.1	11.6	8.2	8.4
Total Portfolio - Net	-1.7	-3.8	-4.5	10.8	7.6	7.8
NCREIF ODCE	-1.9	-7.6	-12.2	7.1	5.7	6.2
Real Estate - Gross	-1.5	-3.4	-4.1	11.6	8.2	8.4
NCREIF ODCE	-1.9	-7.6	-12.2	7.1	5.7	6.2

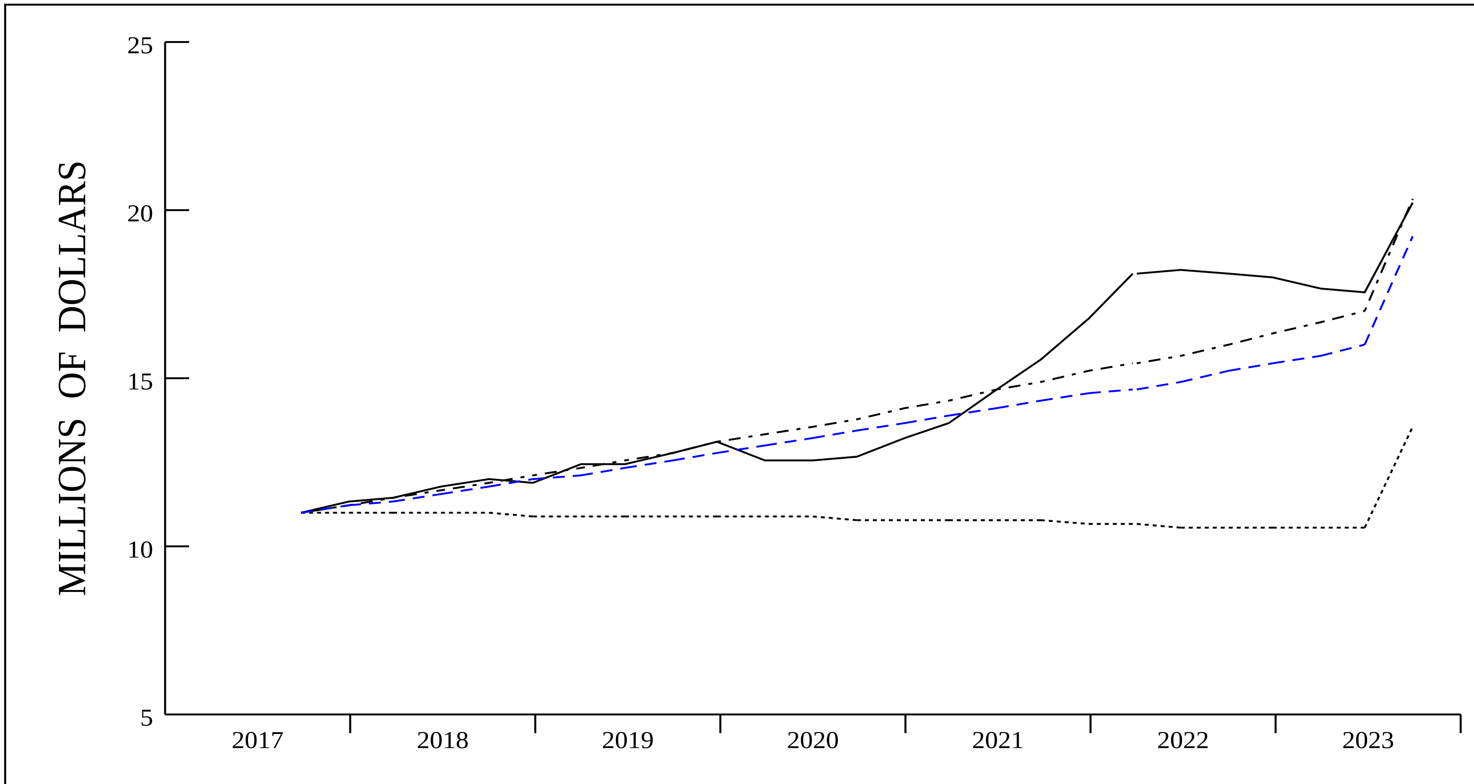
ASSET ALLOCATION

Real Estate	100.0%	$ 20,297,919
Total Portfolio	100.0%	$ 20,297,919

INVESTMENT RETURN

Market Value 6/2023	$ 17,658,354
Contribs / Withdrawals	2,968,252
Income	196,150
Capital Gains / Losses	-524,837
Market Value 9/2023	$ 20,297,919

INVESTMENT GROWTH



ACTUAL RETURN
8.4% DHB PROJ
0.0%
7.3% HZN PROJ

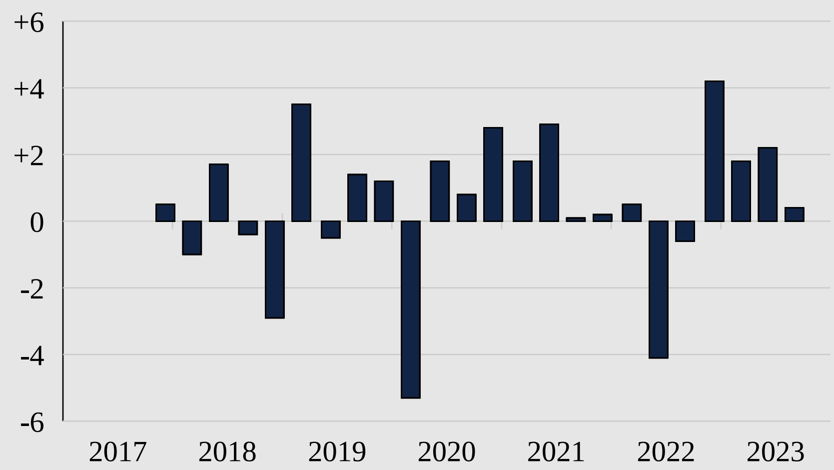
VALUE ASSUMING	
8.4% DHB PROJ	$ 20,347,130
7.3% HZN PROJ	$ 19,296,590

	LAST QUARTER	PERIOD 9/17 - 9/23
BEGINNING VALUE	$ 17,658,354	$ 11,063,977
NET CONTRIBUTIONS	2,968,252	2,496,367
INVESTMENT RETURN	-328,687	6,737,575
ENDING VALUE	$ 20,297,919	$ 20,297,919
INCOME	196,150	3,475,622
CAPITAL GAINS (LOSSES)	-524,837	3,261,953
INVESTMENT RETURN	-328,687	6,737,575

TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: NCREIF NFI-ODCE INDEX

VARIATION FROM BENCHMARK



Total Quarters Observed	**24**
Quarters At or Above the Benchmark	**17**
Quarters Below the Benchmark	**7**
Batting Average	**.708**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/17	2.6	2.1	0.5
3/18	1.2	2.2	-1.0
6/18	3.7	2.0	1.7
9/18	1.7	2.1	-0.4
12/18	-1.1	1.8	-2.9
3/19	4.9	1.4	3.5
6/19	0.5	1.0	-0.5
9/19	2.7	1.3	1.4
12/19	2.7	1.5	1.2
3/20	-4.3	1.0	-5.3
6/20	0.2	-1.6	1.8
9/20	1.3	0.5	0.8
12/20	4.1	1.3	2.8
3/21	3.9	2.1	1.8
6/21	6.8	3.9	2.9
9/21	6.7	6.6	0.1
12/21	8.2	8.0	0.2
3/22	7.9	7.4	0.5
6/22	0.7	4.8	-4.1
9/22	-0.1	0.5	-0.6
12/22	-0.8	-5.0	4.2
3/23	-1.4	-3.2	1.8
6/23	-0.5	-2.7	2.2
9/23	-1.5	-1.9	0.4

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM
PRIT - CORE FIXED INCOME
PERFORMANCE REVIEW
SEPTEMBER 2023

DAHAB Associates, Inc.

INVESTMENT RETURN

On September 30th, 2023, the Andover Contributory Retirement System's PRIT Core Fixed Income portfolio was valued at $8,259,870, representing an increase of $2,222,355 from the June quarter's ending value of $6,037,515. Last quarter, the Fund posted net contributions totaling $2,723,180, which overshadowed the account's $500,825 net investment loss that was sustained during the quarter. The fund's net investment loss was a result of income receipts totaling $60,096 and realized and unrealized capital losses totaling $560,921.

RELATIVE PERFORMANCE

During the third quarter, the PRIT Core Fixed Income portfolio lost 5.9%, which was 2.7% below the Bloomberg Aggregate Index's return of -3.2% and ranked in the 99th percentile of the Core Fixed Income universe. Over the trailing year, the portfolio returned -2.5%, which was 3.1% below the benchmark's 0.6% performance, and ranked in the 99th percentile. Since September 2017, the account returned 0.0% per annum and ranked in the 86th percentile. For comparison, the Bloomberg Aggregate Index returned an annualized -0.1% over the same time frame.

EXECUTIVE SUMMARY

PERFORMANCE SUMMARY

	Quarter	YTD	1 Year	3 Year	5 Year	Since 09/17
Total Portfolio - Gross	-5.9	-3.1	-2.5	-7.4	0.1	0.0
CORE FIXED INCOME RANK	(99)	(99)	(99)	(99)	(96)	(86)
Total Portfolio - Net	-5.9	-3.2	-2.6	-7.5	0.0	-0.1
Aggregate Index	-3.2	-1.2	0.6	-5.2	0.1	-0.1
Fixed Income - Gross	-5.9	-3.1	-2.5	-7.4	0.1	0.0
CORE FIXED INCOME RANK	(99)	(99)	(99)	(99)	(96)	(86)
Aggregate Index	-3.2	-1.2	0.6	-5.2	0.1	-0.1

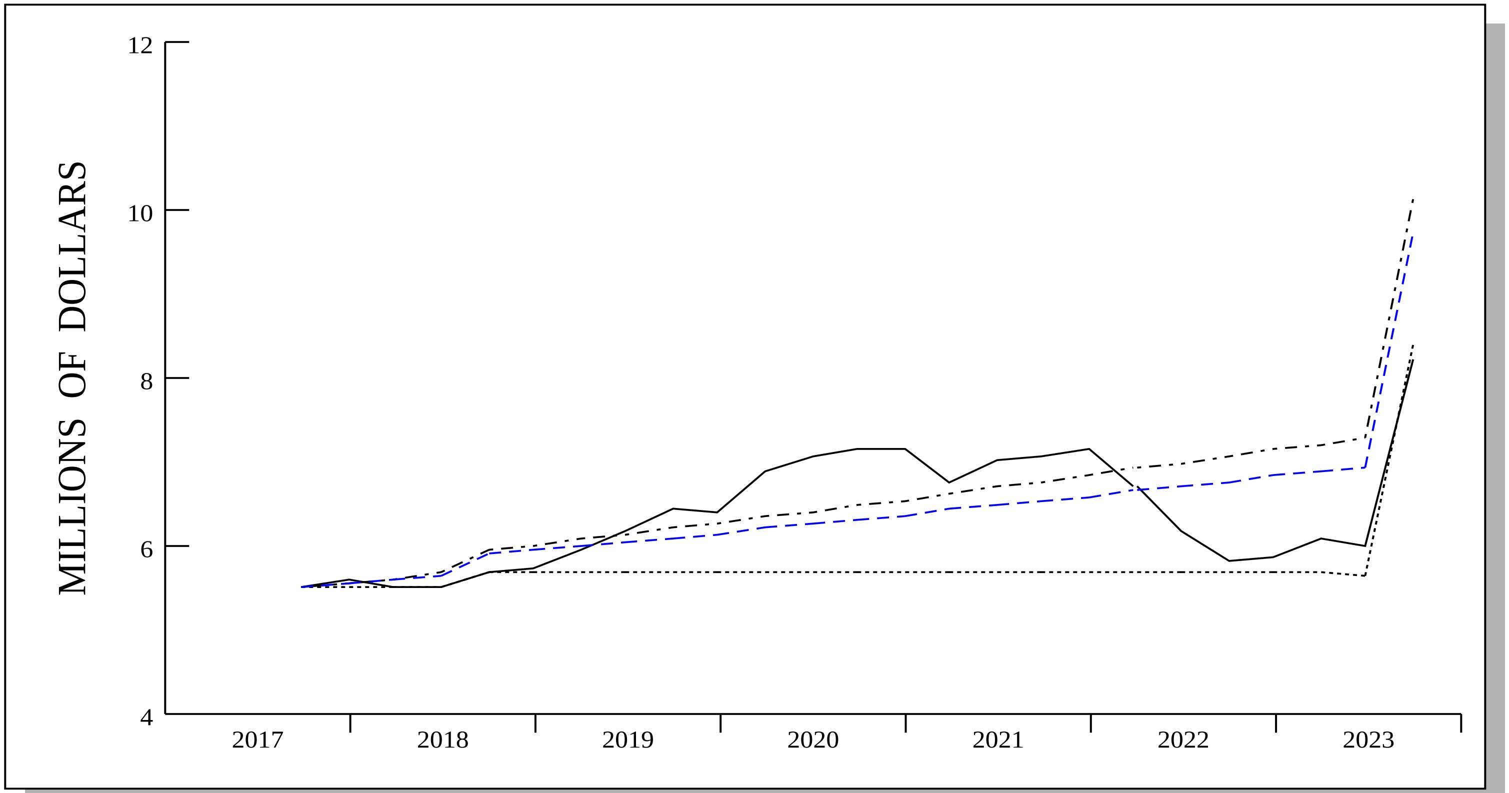
ASSET ALLOCATION

Fixed Income	100.0%	$ 8,259,870
Total Portfolio	100.0%	$ 8,259,870

INVESTMENT RETURN

Market Value 6/2023	$ 6,037,515
Contribs / Withdrawals	2,723,180
Income	60,096
Capital Gains / Losses	-560,921
Market Value 9/2023	$ 8,259,870

INVESTMENT GROWTH



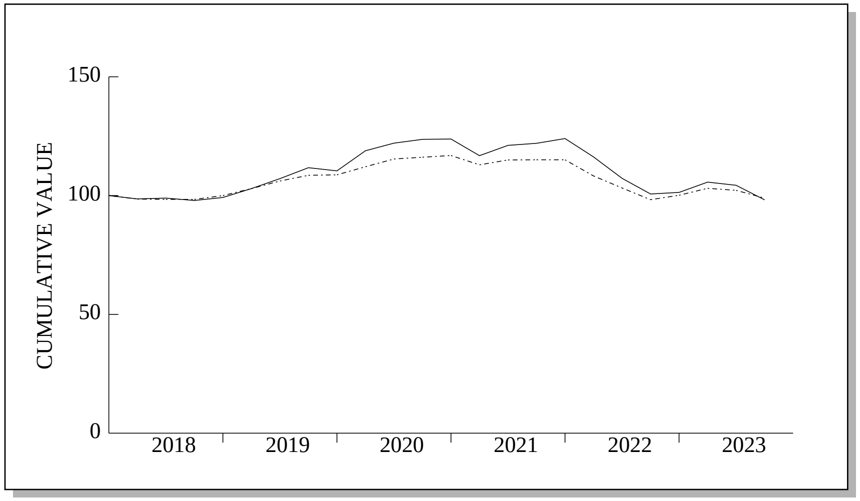
ACTUAL RETURN	
4.5% DHB PROJ	
0.0%	
3.6% HZN PROJ	

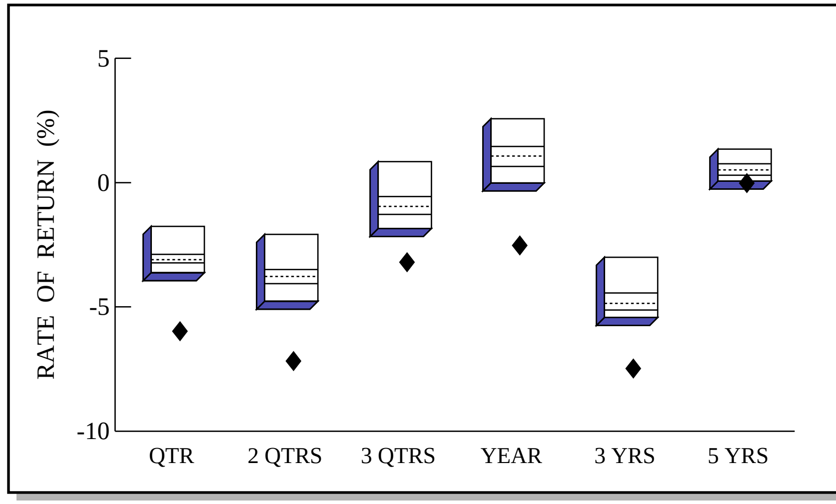
VALUE ASSUMING

4.5% DHB PROJ	$	10,140,384
3.6% HZN PROJ	$	9,764,214

	LAST QUARTER	PERIOD 9/17 - 9/23
BEGINNING VALUE	$ 6,037,515	$ 5,522,746
NET CONTRIBUTIONS	2,723,180	2,888,656
INVESTMENT RETURN	-500,825	-151,532
ENDING VALUE	$ 8,259,870	$ 8,259,870
INCOME	60,096	1,001,125
CAPITAL GAINS (LOSSES)	-560,921	- 1,152,657
INVESTMENT RETURN	-500,825	-151,532

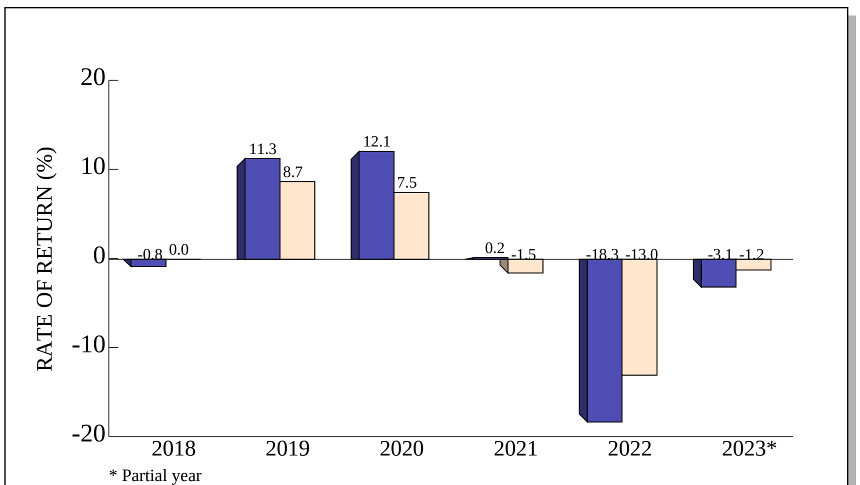
TOTAL RETURN COMPARISONS





Core Fixed Income Universe

PORTFOLIO
AGGREGATE INDEX



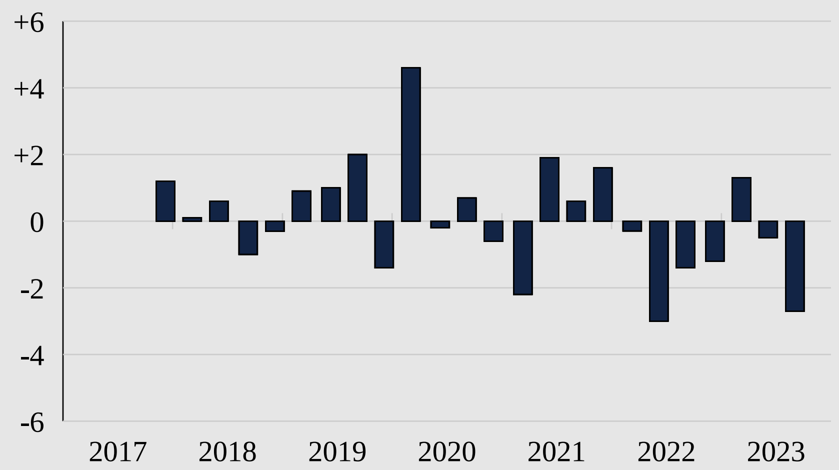
	QTR	2 QTRS	3 QTRS	YEAR	------ANNUALIZED------ 3 YRS	5 YRS
RETURN	-5.9	-7.1	-3.1	-2.5	-7.4	0.1
(RANK)	(99)	(99)	(99)	(99)	(99)	(96)
5TH %ILE	-1.8	-2.1	0.8	2.6	-3.0	1.4
25TH %ILE	-2.9	-3.5	-0.6	1.5	-4.4	0.8
MEDIAN	-3.1	-3.8	-1.0	1.1	-4.9	0.5
75TH %ILE	-3.2	-4.1	-1.3	0.7	-5.1	0.3
95TH %ILE	-3.6	-4.8	-1.9	0.0	-5.4	0.1
Agg	***-3.2***	***-4.0***	***-1.2***	***0.6***	***-5.2***	***0.1***

Core Fixed Income Universe

TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: BLOOMBERG AGGREGATE INDEX

VARIATION FROM BENCHMARK



Total Quarters Observed	**24**
Quarters At or Above the Benchmark	**12**
Quarters Below the Benchmark	**12**
Batting Average	**.500**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/17	1.6	0.4	1.2
3/18	-1.4	-1.5	0.1
6/18	0.4	-0.2	0.6
9/18	-1.0	0.0	-1.0
12/18	1.3	1.6	-0.3
3/19	3.8	2.9	0.9
6/19	4.1	3.1	1.0
9/19	4.3	2.3	2.0
12/19	-1.2	0.2	-1.4
3/20	7.7	3.1	4.6
6/20	2.7	2.9	-0.2
9/20	1.3	0.6	0.7
12/20	0.1	0.7	-0.6
3/21	-5.6	-3.4	-2.2
6/21	3.7	1.8	1.9
9/21	0.7	0.1	0.6
12/21	1.6	0.0	1.6
3/22	-6.2	-5.9	-0.3
6/22	-7.7	-4.7	-3.0
9/22	-6.2	-4.8	-1.4
12/22	0.7	1.9	-1.2
3/23	4.3	3.0	1.3
6/23	-1.3	-0.8	-0.5
9/23	-5.9	-3.2	-2.7

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM
PRIT - PUBLIC VALUE-ADDED FIXED INCOME
PERFORMANCE REVIEW
SEPTEMBER 2023

DAHAB Associates, Inc.

INVESTMENT RETURN

On September 30th, 2023, the Andover Contributory Retirement System's PRIT Public Value-Added Fixed Income portfolio was valued at $7,878,701, representing an increase of $83,728 from the June quarter's ending value of $7,794,973. Last quarter, the Fund posted withdrawals totaling $8,113, which partially offset the portfolio's net investment return of $91,841. Net investment return was a product of income receipts totaling $143,036 and realized and unrealized capital losses of $51,195.

RELATIVE PERFORMANCE

For the third quarter, the PRIT Public Value-Added Fixed Income portfolio returned 1.2%, which was 0.2% above the Blended Value Added Fixed Income Index's return of 1.0% and ranked in the 20th percentile of the High Yield Fixed Income universe. Over the trailing year, the portfolio returned 11.1%, which was 0.5% below the benchmark's 11.6% return, ranking in the 18th percentile. Since September 2017, the portfolio returned 2.7% annualized and ranked in the 82nd percentile. The Blended Value Added Fixed Income Index returned an annualized 2.9% over the same period.

EXECUTIVE SUMMARY

PERFORMANCE SUMMARY

	Quarter	YTD	1 Year	3 Year	5 Year	Since 09/17
Total Portfolio - Gross	1.2	6.5	11.1	2.4	2.9	2.7
HIGH YIELD FIXED RANK	(20)	(15)	(18)	(48)	(74)	(82)
Total Portfolio - Net	1.1	6.2	10.6	1.9	2.4	2.2
Value Added Idx	1.0	6.9	11.6	2.3	2.9	2.9
Fixed Income - Gross	1.2	6.5	11.1	2.4	2.9	2.7
HIGH YIELD FIXED RANK	(20)	(15)	(18)	(48)	(74)	(82)
Value Added Idx	1.0	6.9	11.6	2.3	2.9	2.9

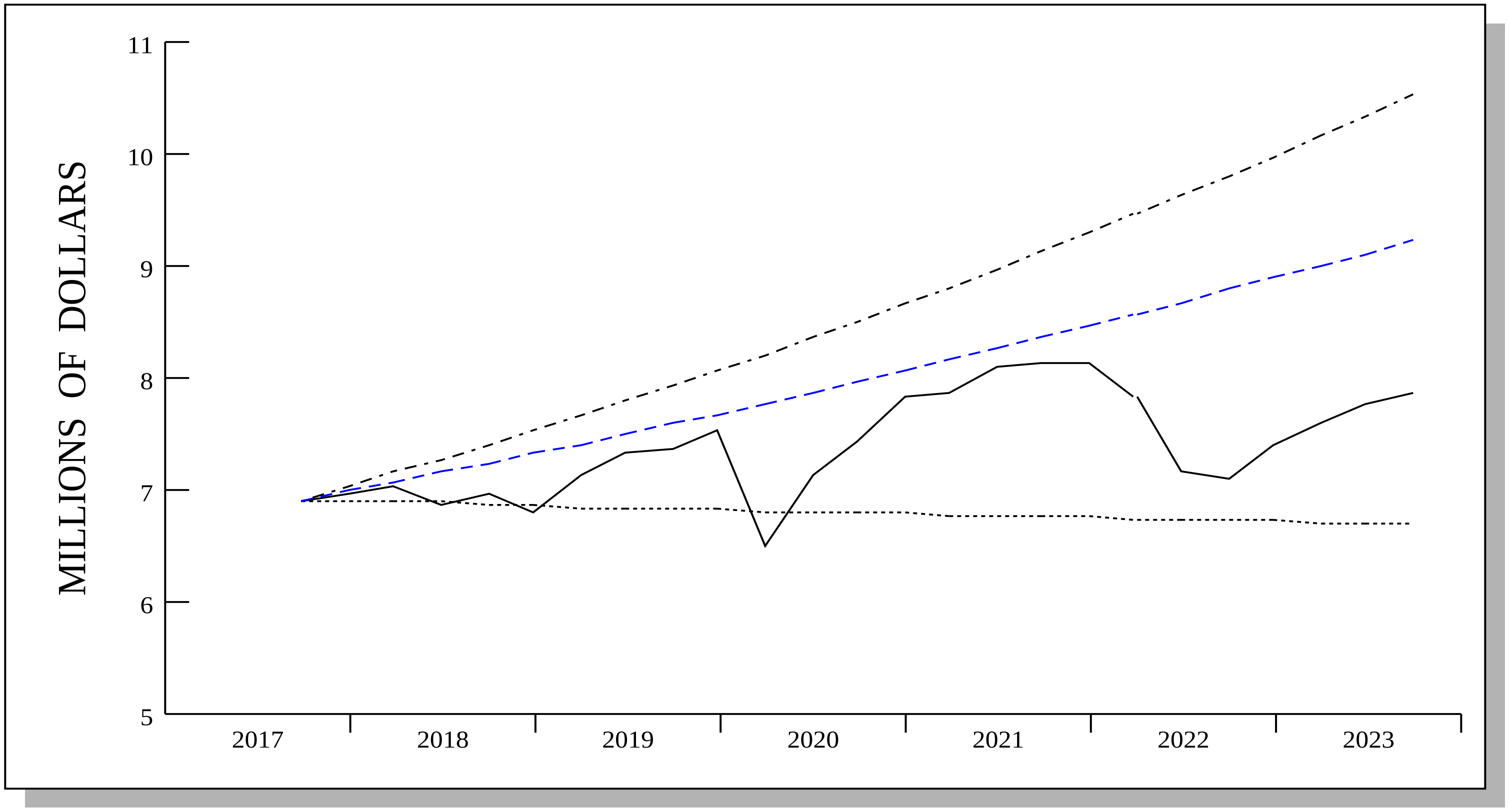
ASSET ALLOCATION

Fixed Income	100.0%	$ 7,878,701
Total Portfolio	100.0%	$ 7,878,701

INVESTMENT RETURN

Market Value 6/2023	$ 7,794,973
Contribs / Withdrawals	- 8,113
Income	143,036
Capital Gains / Losses	- 51,195
Market Value 9/2023	$ 7,878,701

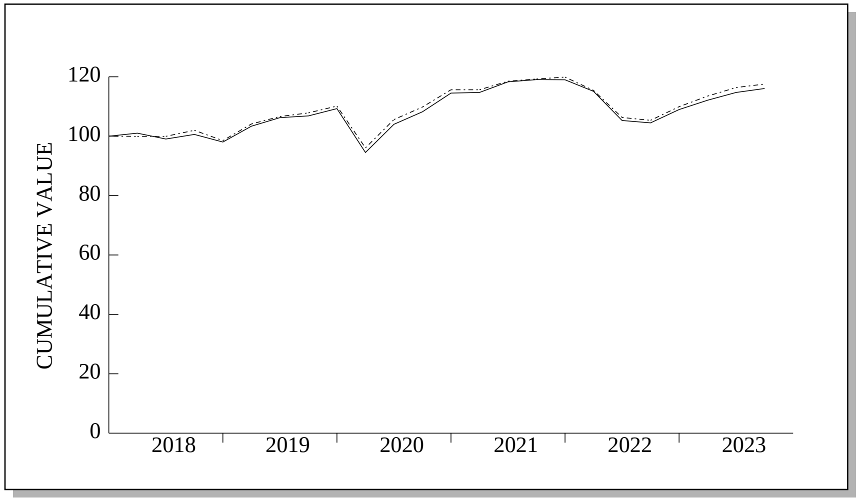
INVESTMENT GROWTH

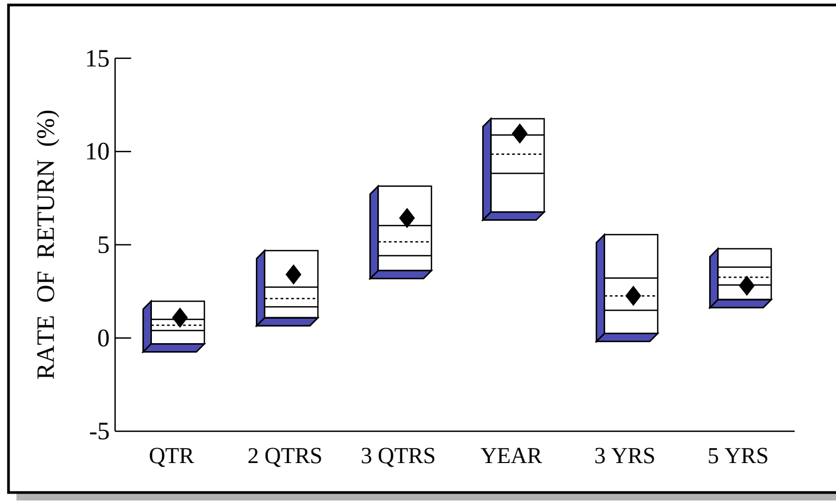


VALUE ASSUMING		
7.7% DHB PROJ	$	10,540,306
5.4% HZN PROJ	$	9,245,352

	LAST QUARTER	PERIOD 9/17 - 9/23
BEGINNING VALUE	$ 7,794,973	$ 6,930,507
NET CONTRIBUTIONS	- 8,113	-215,794
INVESTMENT RETURN	91,841	1,163,988
ENDING VALUE	$ 7,878,701	$ 7,878,701
INCOME	143,036	2,589,399
CAPITAL GAINS (LOSSES)	- 51,195	- 1,425,411
INVESTMENT RETURN	91,841	1,163,988

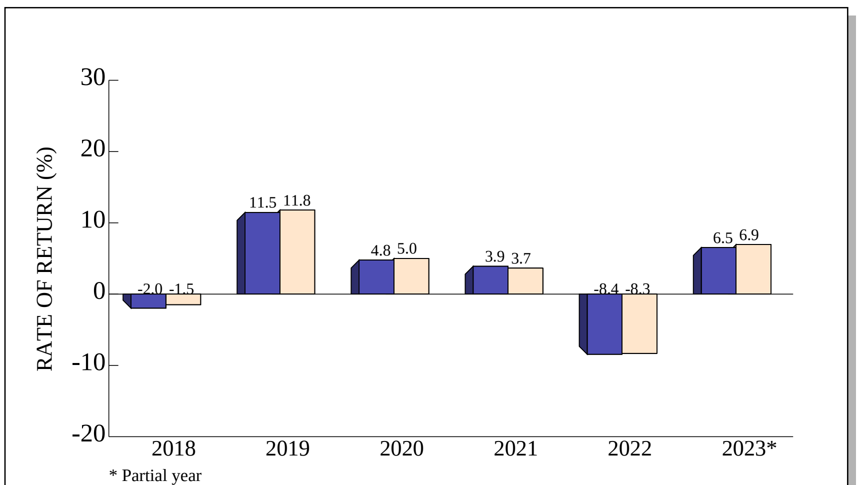
TOTAL RETURN COMPARISONS





High Yield Fixed Universe

PORTFOLIO
VALUE ADDED IDX



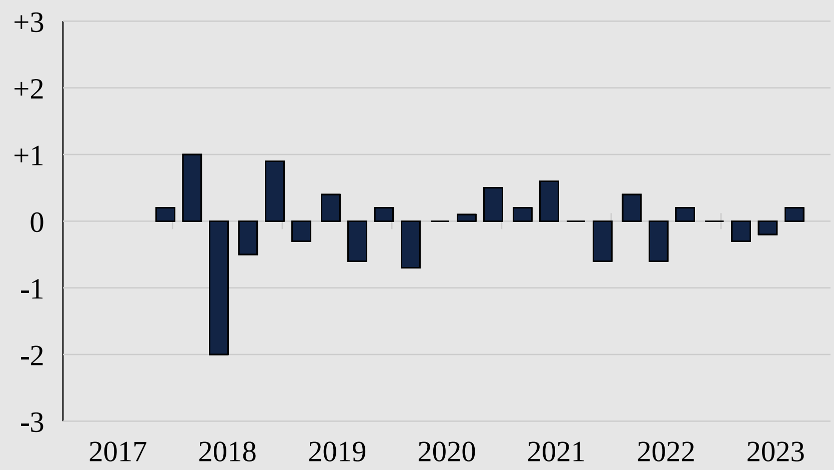
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
					------ANNUALIZED------	
RETURN	1.2	3.5	6.5	11.1	2.4	2.9
(RANK)	(20)	(14)	(15)	(18)	(48)	(74)
5TH %ILE	2.0	4.7	8.1	11.8	5.5	4.8
25TH %ILE	1.0	2.7	6.0	10.9	3.2	3.8
MEDIAN	0.7	2.1	5.2	9.9	2.3	3.3
75TH %ILE	0.4	1.7	4.4	8.8	1.5	2.8
95TH %ILE	-0.3	1.1	3.6	6.8	0.2	2.1
Value Added	***1.0***	***3.6***	***6.9***	***11.6***	***2.3***	***2.9***

High Yield Fixed Universe

TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: BLENDED VALUE ADDED FIXED INCOME INDEX

VARIATION FROM BENCHMARK



Total Quarters Observed	**24**
Quarters At or Above the Benchmark	**15**
Quarters Below the Benchmark	**9**
Batting Average	**.625**

RATES OF RETURN

Date	Portfolio	Benchmark	Difference
12/17	0.9	0.7	0.2
3/18	1.0	0.0	1.0
6/18	-2.0	0.0	-2.0
9/18	1.6	2.1	-0.5
12/18	-2.5	-3.4	0.9
3/19	5.4	5.7	-0.3
6/19	2.8	2.4	0.4
9/19	0.6	1.2	-0.6
12/19	2.3	2.1	0.2
3/20	-13.5	-12.8	-0.7
6/20	10.0	10.0	0.0
9/20	4.1	4.0	0.1
12/20	5.8	5.3	0.5
3/21	0.2	0.0	0.2
6/21	3.1	2.5	0.6
9/21	0.6	0.6	0.0
12/21	-0.1	0.5	-0.6
3/22	-3.3	-3.7	0.4
6/22	-8.5	-7.9	-0.6
9/22	-0.7	-0.9	0.2
12/22	4.3	4.3	0.0
3/23	2.9	3.2	-0.3
6/23	2.3	2.5	-0.2
9/23	1.2	1.0	0.2