

# Andover Contributory Retirement System

Performance Review  
December 2022



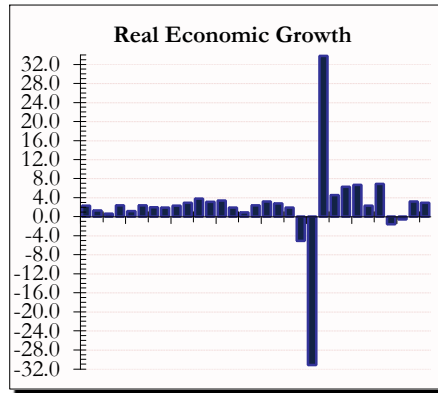
**DAHAB ASSOCIATES**

## ECONOMIC ENVIRONMENT

### Lowered Expectations

Global markets rose broadly in the fourth quarter. The MSCI All Country World index, a benchmark for global equity markets, was up 9.9%.

The market largely seemed to react to indications that the year-



over-year inflation figures, and expectations, have started to roll over, while economic activity has remained more resilient than expected. This decrease was confirmed by the U.S. Bureau of Labor Statistics when they

released their latest monthly Consumer Price Index Summary. The summary showed the index was down -0.1% month-over-month, bringing the year-over-year number to 6.5%. While the decrease in inflation was slight, it may have marked the start of a downward trend that should continue for the rest of the year. The timing may be suspect, but last summer's cost increases in housing, food, and energy will eventually roll off. The size of these components alone (nearly 65% of the total index) will lower the headline numbers.

While the intermediate outlook is becoming more positive, it seems likely that developed market central banks will continue to raise interest rates in the short term (3-6 months). However, as we

continue later through the new year, the general monetary policy forecast is less clear. We should see inflation moderate, and unemployment modestly rise, which should allow central bankers to revisit their means of accomplishing their goals. The Federal Reserve is congressionally mandated to “promote effectively the goals of maximum employment, stable prices, and moderate long-term interest rates.” Most refer to this as their “dual mandate” because accomplishing the first two goals, makes the third one feasible. The second goal, stable prices, is quite vague. A 2% inflation target has become the international standard but originated in an on-the-spot TV interview with a New Zealand finance minister in 1988. So, while 2% has become the de-facto standard, any acceptable non-zero target could become the goal. While Chairman Powell has been explicit that, “[they] are not considering that, and [they] are not going to it,” in the same press conference, he stated that “there may be a longer-run project at some point”. Expect the vacillation to continue.

Advanced estimates of fourth quarter GDP from the U.S. Bureau of Economic Analysis increased at an annualized rate of 2.9%. Prior to the BEA's publication, projections on Q4 GDP were in wider distribution than usual. The Atlanta Federal Reserve's GDPNow tool projected a 3.5% increase in Q4, which was at odds with market economists whose projections ranged from 0.3% to 2.8%. Some of the lag can be attributed to more recent model updates regarding the release of housing starts data; however, that can't be

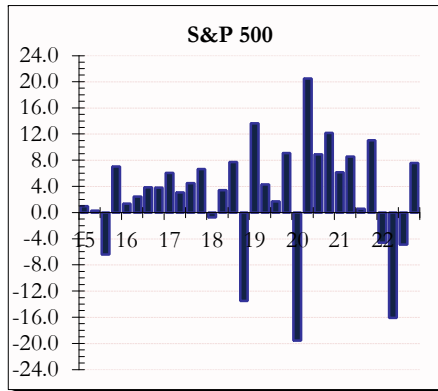
the full story. It seems more likely that the wide range is a function of market participants' varying confidence in the how the underlying dynamics of the current environment will pan out.

## DOMESTIC EQUITIES

### Bounce Back

U.S. equities, as measured by the Russell 3000, gained 7.2% in the fourth quarter. The S&P 500, a proxy for large capitalization companies, gained 7.6%.

Gains were widespread, with 10 of the 12 large cap market sectors showing increases. The best performers were Industrials and Energy, which returned 19.2%, and 22.8%, respectively. Energy was the standout result in 2022, returning 65.7% for the year. This was 64.1% better than the next best sector, Utilities, which returned 1.6%. The worst performing sectors in Q4 were Communications Services and Consumer Discretionary; they posted losses of -1.4% and -10.2%, respectively. Recessionary fears and an increasing lack of affordability for the average consumer negatively affected the valuations of Consumer Discretionary companies. Communications continued their fall from prior months, registering negative results in all four quarters, and was the worst performing large cap sector this year, losing 39.9%.



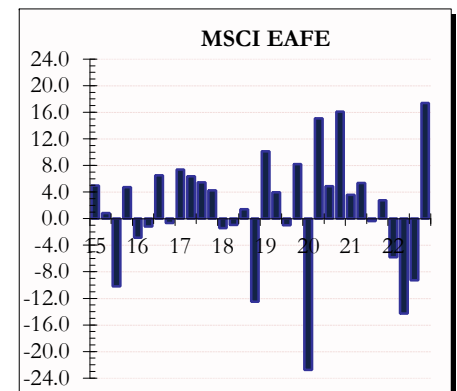
The market broadly preferred companies with value characteristics relative to their growth peers. In Q4 the Russell 3000 Value index returned 12.2%. This was 9.9% more than its counterpart the Russell 3000 Growth index, which returned 2.3%. This trend held true across all cap sizes. Rising rates, and in turn a less advantageous credit environment, weighed on the more promising but less profitable companies.

## INTERNATIONAL EQUITIES

### Change in Fortunes

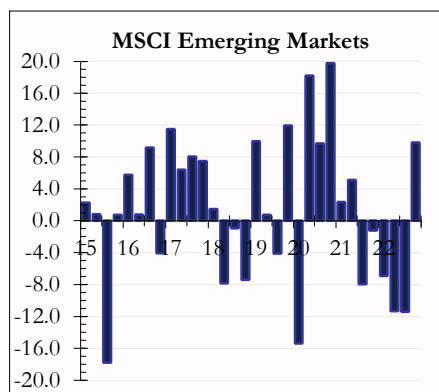
International markets enjoyed a significant rebound in Q4. The MSCI All Country World ex-US index, which broadly tracks global markets excluding the United States, gained 14.4%. Value outpaced Growth, and European markets were particularly strong in the quarter.

In developed markets, the MSCI EAFE returned 17.4% in Q4. Every country except for Israel (-0.18%) posted notable gains. Aggressive action from developed nations' central banks in the fight against inflation has abated people's fears of the worst. Mild winter weather and government action has largely helped to keep the European energy crisis under control. From a macro perspective, international markets saw an



outsized Q4 return as their currencies rebounded against the USD. European markets saw about a 10% rise in domestic currencies, contributing significantly to their quarterly return. Overall, Austria and Denmark both delivered impressive results of over 31%, while the EAFE heavyweight Japan returned a more reasonable 13.3%. Despite the claw-back at the end of the year, developed markets still had a very tough 12 months, bringing the year-to-date performance to -14.0%.

Emerging markets gained a more modest 9.8% this quarter. The



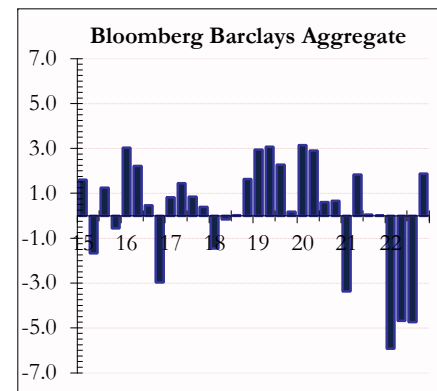
most significant reversal came from China (+13.5%), as their government softened on mandatory lockdowns policies, signaling a colossal improvement in their economic outlook going forward. Similar macro

benefits helped emerging markets perform in Q4, as their currencies also enjoyed a reprieve against the USD, while similarly benefiting from the inflation perspective shift. Brazil had a controversial and uncertain presidential election which weighed on stocks, slightly pushing down the broader index with its 2.5% return. Emerging markets continue to be cheap in valuation in both a historical and relative perspective.

## BOND MARKET

### Small Step Forward

Fixed income markets saw positive returns in the quarter, ending one of the worst years for bonds in nearly 30 years. The Bloomberg Aggregate Index returned 1.9%, ending the year a painful -13.0%. This was in the face of two additional hikes to the federal funds rate from the Federal Reserve, which now sits between 4.25-4.5% as of December 31<sup>st</sup>.



Global bonds outperformed their domestic peers due to a reversal in currency fortunes. The U.S. dollar depreciated against most foreign currencies. The Bloomberg Barclays Global Aggregate gained 4.6%.

Lower quality, shorter credits outperformed their higher quality, longer counterparts as intermediate economic and long-term interest rate expectations stabilized.

## CASH EQUIVALENTS

### Moving On Up

The three-month T-Bill returned 0.10% for the third quarter. This is the 59th quarter in a row that return has been less than 75 basis points. 3-month treasury notes are now yielding 3.45%.

## Economic Statistics

	Current Quarter	Previous Quarter
GDP (Annualized)	2.9%	3.2%
Unemployment	3.5%	3.5%
CPI All Items Year/Year	6.5%	8.2%
Fed Funds Rate	4.1%	3.1%
Industrial Capacity Utilization	78.8%	80.0%
U.S. Dollars per Euro	1.07	0.98

## Major Index Returns

Index	Quarter	12 Months
Russell 3000	7.2%	-19.2%
S&P 500	7.6%	-18.1%
Russell Midcap	9.2%	-17.3%
Russell 2000	6.2%	-20.4%
MSCI EAFE	17.4%	-14.0%
MSCI Emg. Markets	9.8%	-19.7%
NCREIF ODCE	-5.0%	7.5%
U.S. Aggregate	1.9%	-13.0%
90 Day T-bills	0.4%	0.3%

## Domestic Equity Return Distributions

Quarter				Trailing Year			
	VAL	COR	GRO		VAL	COR	GRO
LC	12.4	7.2	2.2	LC	-7.5	-19.1	-29.1
MC	10.5	9.2	6.9	MC	-12.0	-17.3	-26.7
SC	8.4	6.2	4.1	SC	-14.5	-20.4	-26.4

## Market Summary

- Equity markets rise
- Value outpaces growth
- Dollar weakened against most currencies
- Credit spreads tightened
- Unemployment remains low

## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's Total portfolio was valued at \$342,930,561, representing an increase of \$10,937,486 from the September quarter's ending value of \$331,993,075. Last quarter, the Fund posted withdrawals totaling \$3,754,143, which offset the portfolio's net investment return of \$14,691,629. Income receipts totaling \$1,979,273 plus net realized and unrealized capital gains of \$12,712,356 combined to produce the portfolio's net investment return.

## **RELATIVE PERFORMANCE**

### **Total Portfolio**

For the fourth quarter, the Total portfolio returned 4.4%, which was 0.3% below the Policy Index's return of 4.7% and ranked in the 88th percentile of the Public Fund universe. Over the trailing year, the portfolio returned -8.4%, which was 2.3% above the benchmark's -10.7% return, ranking in the 7th percentile. Since December 2012, the portfolio returned 8.6% annualized and ranked in the 3rd percentile. The Policy Index returned an annualized 7.4% over the same period.

### **PRIT Core**

The PRIT core portion of the portfolio returned 4.1% last quarter; that return was 1.1% below the Custom Core Index's return of 5.2% and ranked in the 92nd percentile of the Public Fund universe. Over the trailing twelve-month period, this component returned -10.8%, equal to the benchmark's -10.8% performance, ranking in the 18th percentile. Since December 2012, this component returned 8.3% on an annualized basis and ranked in the 5th percentile. The Custom Core Index returned an annualized 7.2% during the same period.

### **Domestic Equity**

During the fourth quarter, the domestic equity component returned 9.1%, which was 1.9% better than the Russell 3000 Index's return of 7.2% and ranked in the 48th percentile of the Domestic Equity universe. Over the trailing year, the domestic equity portfolio returned -15.9%, which was 3.3% better than the benchmark's -19.2% return, and ranked in the 48th percentile.

### **International Equity**

The international equity portfolio gained 16.4% in the fourth quarter, 1.0% below the MSCI EAFE Index's return of 17.4% and ranked in the 41st percentile of the International Equity universe. Over the trailing year, this segment returned -17.0%, 3.0% below the benchmark's -14.0% performance, and ranked in the 53rd percentile.

### **Emerging Markets**

The emerging markets equity segment returned 9.6% during the fourth quarter; that return was 0.2% below the MSCI Emerging Market Index's return of 9.8% and ranked in the 65th percentile of the Emerging Markets universe. Over the trailing twelve months, the emerging markets equity portfolio returned -18.7%, 1.0% better than the benchmark's -19.7% performance, ranking in the 46th percentile.

### **Real Estate**

During the fourth quarter, the real estate segment returned -0.8%, which was 4.2% better than the NCREIF NFI-ODCE Index's return of -5.0%. Over the trailing twelve-month period, this component returned 7.7%, which was 0.2% better than the benchmark's 7.5% return.

## **Fixed Income**

During the fourth quarter, the fixed income segment gained 2.7%, which was 0.8% above the Bloomberg Aggregate Index's return of 1.9% and ranked in the 33rd percentile of the Broad Market Fixed Income universe. Over the trailing twelve-month period, this segment's return was -13.0%, which was equal to the benchmark's -13.0% performance, ranking in the 76th percentile.

## **ASSET ALLOCATION**

At the end of the fourth quarter, PRIT core comprised 65.2% of the total portfolio (\$223.8 million), while domestic equities totaled 16.1% (\$55.1 million). The account's international equity segment was valued at \$3.2 million, representing 0.9% of the portfolio, while the emerging markets equity component's \$4.5 million totaled 1.3%. The real estate segment totaled 5.3% of the portfolio's value and the fixed income component made up 3.9% (\$13.3 million). The remaining 7.3% was comprised of cash & equivalents (\$25.0 million).

# Andover Contributory Retirement System

## Total Fund Asset Allocation Analysis as of December 31, 2022

Total Portfolio

Total Fund Assets: \$ 342,930,561

	PRIT Core Allocation	Andover Allocation	Target Allocation	Target Dollars	Actual Dollars	+/- Dollars
PRIT Core	100.0%	65.2%	50.0%	\$ 171,465,281	\$ 223,753,173	\$ 52,287,893
Domestic Equity	21.7%	14.1%			\$ 48,464,937	
Int'l Developed Equity	12.6%	8.2%			\$ 28,170,524	
Int'l E.M. Equity	4.6%	3.0%			\$ 10,359,772	
Private Equity	17.1%	11.1%			\$ 38,194,667	
Real Estate	15.0%	9.8%			\$ 33,607,727	
Core Fixed	14.1%	9.2%			\$ 31,459,696	
Value Added	7.1%	4.7%			\$ 15,975,977	
Portfolio Completion	7.8%	5.1%			\$ 17,519,873	
PRIT Sleeves and Separate Managers		34.8%	50.0%			
PRIT Domestic Equity		5.9%	10.0%	\$ 34,293,056	\$ 20,096,473	\$ (14,196,583)
Rhumblin Mid Cap		5.8%	10.0%	\$ 34,293,056	\$ 19,901,594	\$ (14,391,462)
Rhumblin Small Cap		4.4%	8.0%	\$ 27,434,445	\$ 15,076,885	\$ (12,357,560)
PRIT Int'l Equity		0.9%	2.0%	\$ 6,858,611	\$ 3,207,040	\$ (3,651,571)
PRIT Emerging Mkts		1.3%	3.0%	\$ 10,287,917	\$ 4,530,951	\$ (5,756,966)
PRIT Real Estate		5.3%	8.0%	\$ 27,434,445	\$ 18,047,193	\$ (9,387,252)
PRIT Core Fixed Income		1.7%	4.0%	\$ 13,717,222	\$ 5,866,772	\$ (7,850,450)
PRIT Public Value-Added FI		2.2%	5.0%	\$ 17,146,528	\$ 7,418,966	\$ (9,727,562)
PRIT Cash		0.1%	0.0%	\$ -	\$ 229,452	\$ 229,452
MMDT Cash		7.2%	0.0%	\$ -	\$ 24,802,062	\$ 24,802,062

Andover Total Fund	Target Allocation (%)	Actual Allocation (%)	+/- Percent	Target Allocation (\$)	Actual Allocation (\$)	+/- Dollars
Domestic Equity	40.0%	30.2%	-9.8%	\$ 137,172,224	\$ 103,539,889	\$ (33,632,335)
Int'l Equity	15.0%	13.5%	-1.5%	\$ 51,439,584	\$ 46,268,287	\$ (5,171,297)
Private Equity	5.0%	11.1%	6.1%	\$ 17,146,528	\$ 38,194,667	\$ 21,048,139
Real Estate	12.5%	15.1%	2.6%	\$ 42,866,320	\$ 51,654,920	\$ 8,788,599
Fixed Income	25.0%	17.7%	-7.3%	\$ 85,732,640	\$ 60,721,411	\$ (25,011,230)
Portfolio Completion	2.5%	5.1%	2.6%	\$ 8,573,264	\$ 17,519,873	\$ 8,946,609
Cash	0.0%	7.3%	7.3%	\$ -	\$ 25,031,514	\$ 25,031,514
	100.0%	100.0%		\$ 342,930,561	\$ 342,930,561	

\*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 /1Y	3 Year	5 Year	10 Year
<b>Total Portfolio - Gross</b>	4.4	-8.4	7.2	7.1	8.6
<i>PUBLIC FUND RANK</i>	(88)	( 7)	( 1)	( 2)	( 3)
<b>Total Portfolio - Net</b>	4.4	-8.7	6.8	6.8	8.1
Policy Index	4.7	-10.7	5.3	6.1	7.4
<b>PRIT Core - Gross</b>	4.1	-10.8	6.6	6.7	8.3
<i>PUBLIC FUND RANK</i>	(92)	(18)	( 3)	( 5)	( 5)
Custom Core Idx	5.2	-10.8	5.2	5.7	7.2
<b>Domestic Equity - Gross</b>	9.1	-15.9	7.1	7.5	----
<i>DOMESTIC EQUITY RANK</i>	(48)	(48)	(50)	(60)	----
Russell 3000	7.2	-19.2	7.1	8.8	12.1
<b>International Equity - Gross</b>	16.4	-17.0	1.1	2.0	----
<i>INTERNATIONAL EQUITY RANK</i>	(41)	(53)	(57)	(51)	----
MSCI EAFE	17.4	-14.0	1.3	2.0	5.2
<b>Emerging Markets Equity - Gross</b>	9.6	-18.7	0.0	0.8	----
<i>EMERGING MARKETS RANK</i>	(65)	(46)	(41)	(35)	----
MSCI Emg Mkts	9.8	-19.7	-2.3	-1.0	1.8
<b>Real Estate - Gross</b>	-0.8	7.7	11.7	10.4	----
NCREIF ODCE	-5.0	7.5	9.9	8.7	10.1
<b>Fixed Income - Gross</b>	2.7	-13.0	-1.3	1.1	----
<i>BROAD MARKET FIXED RANK</i>	(33)	(76)	(62)	(55)	----
Aggregate Index	1.9	-13.0	-2.7	0.0	1.1

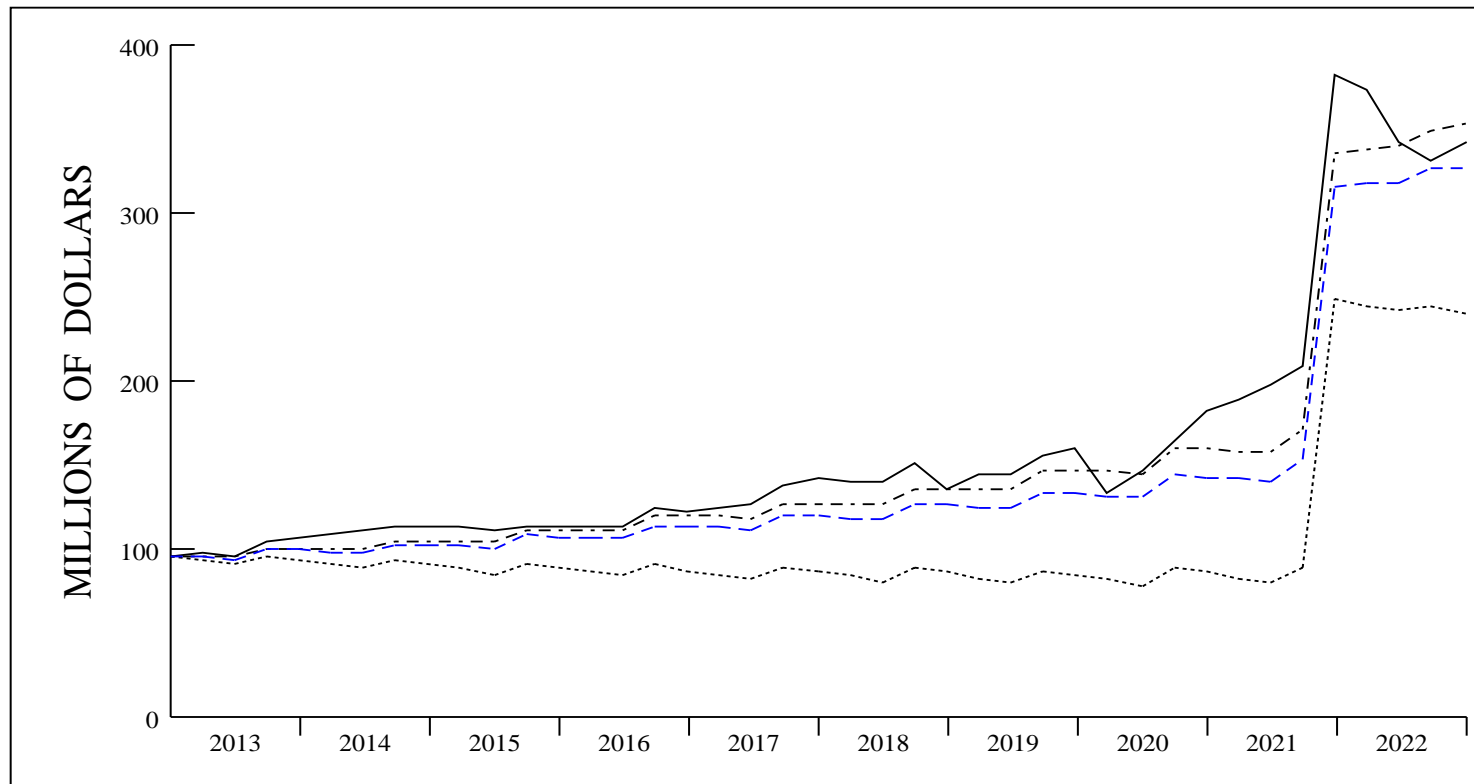
## ASSET ALLOCATION

PRIT Core	65.2%	\$ 223,753,173
Domestic Equity	16.1%	55,074,952
Int'l Equity	0.9%	3,207,040
Emerging Markets	1.3%	4,530,951
Real Estate	5.3%	18,047,193
Fixed Income	3.9%	13,285,738
Cash	7.3%	25,031,514
<b>Total Portfolio</b>	<b>100.0%</b>	<b>\$ 342,930,561</b>

## INVESTMENT RETURN

Market Value 9/2022	\$ 331,993,075
Contribs / Withdrawals	- 3,754,143
Income	1,979,273
Capital Gains / Losses	12,712,356
Market Value 12/2022	\$ 342,930,561

# INVESTMENT GROWTH

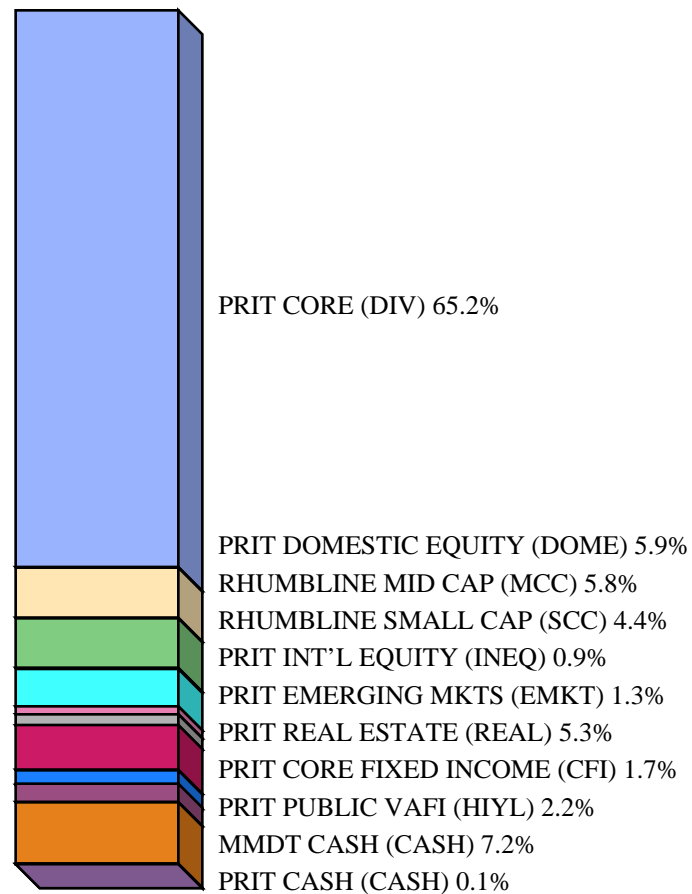


—	ACTUAL RETURN
.....	7.8% DHB PROJ
.....	0.0%
- - - - -	6.4% HZN PROJ

VALUE ASSUMING	
7.8% DHB PROJ \$	353,424,835
6.4% HZN PROJ \$	328,054,145

	LAST QUARTER	PERIOD 12/12 - 12/22
BEGINNING VALUE	\$ 331,993,075	\$ 96,312,379
NET CONTRIBUTIONS	- 3,754,143	145,252,424
INVESTMENT RETURN	14,691,629	101,365,758
ENDING VALUE	\$ 342,930,561	\$ 342,930,561
INCOME	1,979,273	34,114,919
CAPITAL GAINS (LOSSES)	12,712,356	67,250,839
INVESTMENT RETURN	14,691,629	101,365,758

## MANAGER ALLOCATION AND TARGET SUMMARY



Name	Market Value	Percent	Target
PRIT Core (DIV)	\$223,753,173	65.2	50.0
PRIT Domestic Equity (DOME)	\$20,096,473	5.9	10.0
Rhumblin Mid Cap (MCC)	\$19,901,594	5.8	10.0
Rhumblin Small Cap (SCC)	\$15,076,885	4.4	8.0
PRIT Int'l Equity (INEQ)	\$3,207,040	0.9	2.0
PRIT Emerging Mkts (EMKT)	\$4,530,951	1.3	3.0
PRIT Real Estate (REAL)	\$18,047,193	5.3	8.0
PRIT Core Fixed Income (CFI)	\$5,866,772	1.7	4.0
PRIT Public VAFI (HIYL)	\$7,418,966	2.2	5.0
MMDT Cash (CASH)	\$24,802,062	7.2	0.0
PRIT Cash (CASH)	\$229,452	0.1	0.0
<b>Total Portfolio</b>	<b>\$342,930,561</b>	<b>100.0</b>	<b>100.0</b>

## MANAGER PERFORMANCE SUMMARY - GROSS OF FEES

Portfolio	(Universe)	Quarter	YTD	1 Year	3 Years	5 Years	10 Years	
Total Portfolio	(Public Fund)	4.4 (88)	-8.4 ( 7)	-8.4 ( 7)	7.2 ( 1)	7.1 ( 2)	8.6 ( 3)	12/12
<i>Policy Index</i>		<i>4.7 ----</i>	<i>-10.7 ----</i>	<i>-10.7 ----</i>	<i>5.3 ----</i>	<i>6.1 ----</i>	<i>7.4 ----</i>	<i>12/12</i>
PRIT Core	(Public Fund)	4.1 (92)	-10.8 (18)	-10.8 (18)	6.6 ( 3)	6.7 ( 5)	8.3 ( 5)	12/12
<i>Custom Core Idx</i>		<i>5.2 ----</i>	<i>-10.8 ----</i>	<i>-10.8 ----</i>	<i>5.2 ----</i>	<i>5.7 ----</i>	<i>7.2 ----</i>	<i>12/12</i>
PRIT Domestic Equity	(Domestic Eq)	7.3 (65)	-18.5 (59)	-18.5 (59)	7.9 (36)	9.3 (31)	10.1 (20)	09/17
<i>Russell 3000</i>		<i>7.2 ----</i>	<i>-19.2 ----</i>	<i>-19.2 ----</i>	<i>7.1 ----</i>	<i>8.8 ----</i>	<i>9.6 ----</i>	<i>09/17</i>
Rhumblin Mid Cap	(MC Core)	10.8 (44)	-13.1 (35)	-13.1 (35)	7.2 (52)	----	6.6 (55)	06/18
<i>S&amp;P 400</i>		<i>10.8 ----</i>	<i>-13.1 ----</i>	<i>-13.1 ----</i>	<i>7.2 ----</i>	<i>6.7 ----</i>	<i>6.7 ----</i>	<i>06/18</i>
Rhumblin Small Cap	(SC Core)	9.2 (45)	-16.1 (47)	-16.1 (47)	5.8 (63)	----	4.4 (62)	06/18
<i>S&amp;P 600</i>		<i>9.2 ----</i>	<i>-16.1 ----</i>	<i>-16.1 ----</i>	<i>5.8 ----</i>	<i>5.9 ----</i>	<i>4.4 ----</i>	<i>06/18</i>
PRIT Int'l Equity	(Intl Eq)	16.4 (41)	-17.0 (53)	-17.0 (53)	1.1 (57)	2.0 (51)	2.8 (35)	09/17
<i>MSCI EAFE</i>		<i>17.4 ----</i>	<i>-14.0 ----</i>	<i>-14.0 ----</i>	<i>1.3 ----</i>	<i>2.0 ----</i>	<i>2.8 ----</i>	<i>09/17</i>
PRIT Emerging Mkts	(Emerging Mkt)	9.6 (65)	-18.7 (46)	-18.7 (46)	0.0 (41)	0.8 (35)	2.0 (27)	09/17
<i>MSCI Emg Mkts</i>		<i>9.8 ----</i>	<i>-19.7 ----</i>	<i>-19.7 ----</i>	<i>-2.3 ----</i>	<i>-1.0 ----</i>	<i>0.4 ----</i>	<i>09/17</i>
PRIT Real Estate		-0.8 ----	7.7 ----	7.7 ----	11.7 ----	10.4 ----	10.4 ----	09/17
<i>NCREIF ODCE</i>		<i>-5.0 ----</i>	<i>7.5 ----</i>	<i>7.5 ----</i>	<i>9.9 ----</i>	<i>8.7 ----</i>	<i>8.7 ----</i>	<i>09/17</i>
PRIT Core Fixed Income	(Core Fixed)	0.7 (99)	-18.3 (99)	-18.3 (99)	-2.8 (98)	0.3 (76)	0.6 (15)	09/17
<i>Aggregate Index</i>		<i>1.9 ----</i>	<i>-13.0 ----</i>	<i>-13.0 ----</i>	<i>-2.7 ----</i>	<i>0.0 ----</i>	<i>0.1 ----</i>	<i>09/17</i>
PRIT Public VAFI	(Hi Yield)	4.3 (30)	-8.4 (35)	-8.4 (35)	-0.1 (78)	1.7 (96)	1.8 (72)	09/17
<i>Value Added Idx</i>		<i>4.3 ----</i>	<i>-8.3 ----</i>	<i>-8.3 ----</i>	<i>-0.1 ----</i>	<i>1.9 ----</i>	<i>2.0 ----</i>	<i>09/17</i>

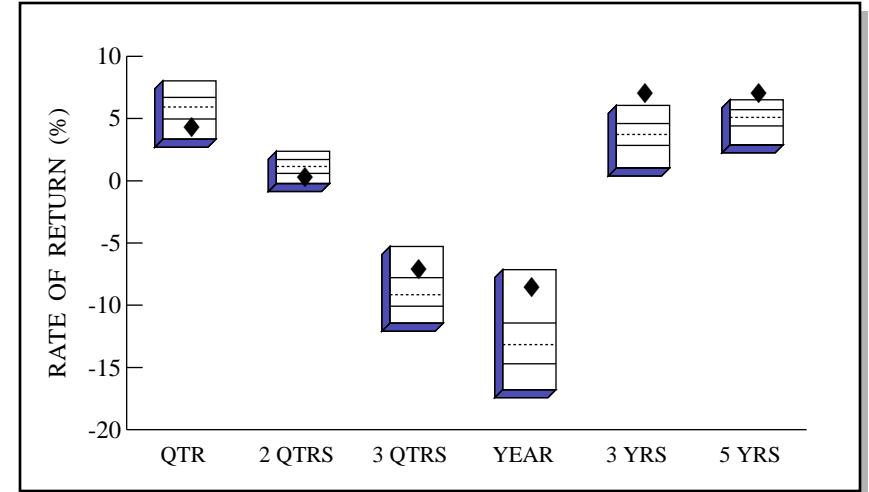
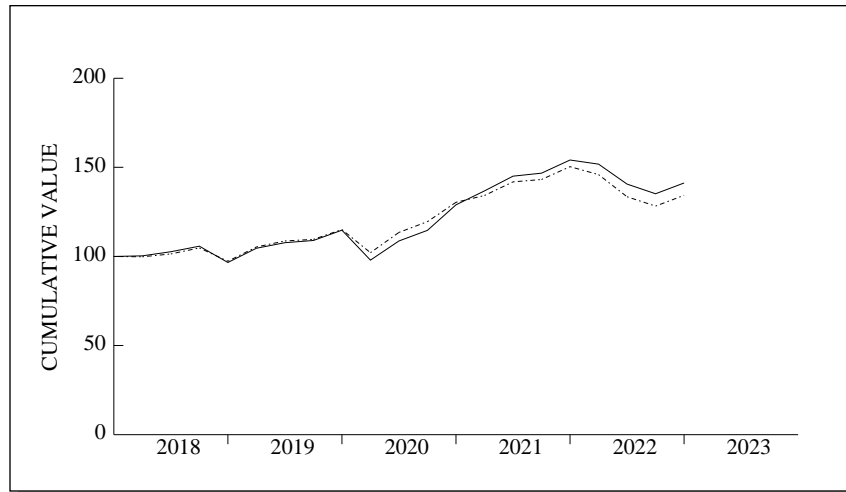
## MANAGER PERFORMANCE SUMMARY - NET OF FEES

Portfolio	Quarter	YTD	1 Year	3 Years	5 Years	10 Years	
Total Portfolio	4.4	-8.7	-8.7	6.8	6.8	8.1	12/12
<i>Policy Index</i>	<i>4.7</i>	<i>-10.7</i>	<i>-10.7</i>	<i>5.3</i>	<i>6.1</i>	<i>7.4</i>	<i>12/12</i>
PRIT Core	4.0	-11.3	-11.3	6.0	6.2	7.8	12/12
<i>Custom Core Idx</i>	<i>5.2</i>	<i>-10.8</i>	<i>-10.8</i>	<i>5.2</i>	<i>5.7</i>	<i>7.2</i>	<i>12/12</i>
PRIT Domestic Equity	7.3	-18.6	-18.6	7.7	9.2	10.0	12/17
<i>Russell 3000</i>	<i>7.2</i>	<i>-19.2</i>	<i>-19.2</i>	<i>7.1</i>	<i>8.8</i>	<i>9.6</i>	<i>12/17</i>
Rhumblin Mid Cap	10.7	-13.1	-13.1	7.2	----	6.6	06/18
<i>S&amp;P 400</i>	<i>10.8</i>	<i>-13.1</i>	<i>-13.1</i>	<i>7.2</i>	<i>6.7</i>	<i>6.7</i>	<i>06/18</i>
Rhumblin Small Cap	9.1	-16.1	-16.1	5.7	----	4.4	06/18
<i>S&amp;P 600</i>	<i>9.2</i>	<i>-16.1</i>	<i>-16.1</i>	<i>5.8</i>	<i>5.9</i>	<i>4.4</i>	<i>06/18</i>
PRIT Int'l Equity	16.3	-17.2	-17.2	0.8	1.8	2.5	12/17
<i>MSCI EAFE</i>	<i>17.4</i>	<i>-14.0</i>	<i>-14.0</i>	<i>1.3</i>	<i>2.0</i>	<i>2.8</i>	<i>12/17</i>
PRIT Emerging Mkts	9.4	-19.2	-19.2	-0.6	0.2	1.4	12/17
<i>MSCI Emg Mkts</i>	<i>9.8</i>	<i>-19.7</i>	<i>-19.7</i>	<i>-2.3</i>	<i>-1.0</i>	<i>0.4</i>	<i>12/17</i>
PRIT Real Estate	-0.7	7.0	7.0	11.1	9.7	9.8	12/17
<i>NCREIF ODCE</i>	<i>-5.0</i>	<i>7.5</i>	<i>7.5</i>	<i>9.9</i>	<i>8.7</i>	<i>8.7</i>	<i>12/17</i>
PRIT Core Fixed Income	0.7	-18.4	-18.4	-2.9	0.2	0.5	12/17
<i>Aggregate Index</i>	<i>1.9</i>	<i>-13.0</i>	<i>-13.0</i>	<i>-2.7</i>	<i>0.0</i>	<i>0.1</i>	<i>12/17</i>
PRIT Public VAFI	4.1	-8.8	-8.8	-0.5	1.2	1.3	12/17
<i>Value Added Idx</i>	<i>4.3</i>	<i>-8.3</i>	<i>-8.3</i>	<i>-0.1</i>	<i>1.9</i>	<i>2.0</i>	<i>12/17</i>

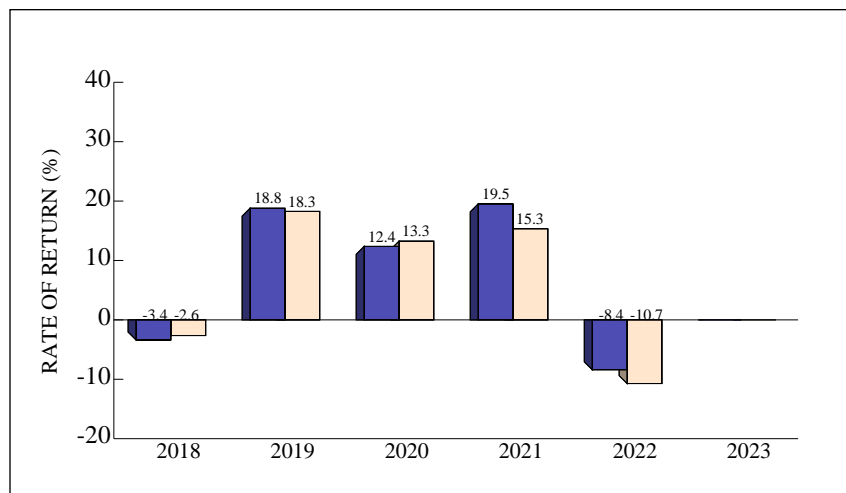
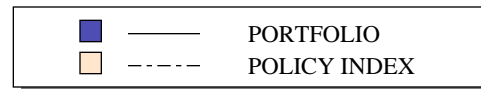
**INVESTMENT RETURN SUMMARY - ONE QUARTER**

<b>Name</b>	<b>Quarter Total Return</b>	<b>Market Value September 30th, 2022</b>	<b>Net Cashflow</b>	<b>Net Investment Return</b>	<b>Market Value December 31st, 2022</b>
PRIT Core (DIV)	4.1	206,543,977	8,446,283	8,762,913	223,753,173
PRIT Domestic Equity (DOME)	7.3	18,731,190	-11,041	1,376,324	20,096,473
Rhumblin Mid Cap (MCC)	10.8	17,967,827	0	1,933,767	19,901,594
Rhumblin Small Cap (SCC)	9.2	13,812,269	0	1,264,616	15,076,885
PRIT Int'l Equity (INEQ)	16.4	2,757,295	-2,351	452,096	3,207,040
PRIT Emerging Mkts (EMKT)	9.6	4,139,644	-6,941	398,248	4,530,951
PRIT Real Estate (REAL)	-0.8	18,181,646	5,110	-139,563	18,047,193
PRIT Core Fixed Income (CFI)	0.7	5,828,413	-1,949	40,308	5,866,772
PRIT Public VAFI (HIYL)	4.3	7,123,965	-8,157	303,158	7,418,966
MMDT Cash (CASH)	---	36,803,595	-12,267,865	266,332	24,802,062
PRIT Cash (CASH)	---	103,254	92,768	33,430	229,452
<b>Total Portfolio</b>	<b>4.4</b>	<b>331,993,075</b>	<b>-3,754,143</b>	<b>14,691,629</b>	<b>342,930,561</b>

# TOTAL RETURN COMPARISONS

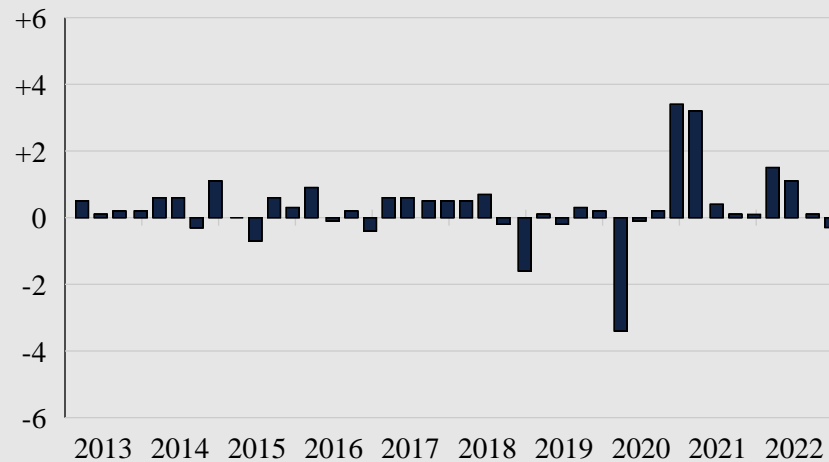


Public Fund Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	4.4	0.4	-7.0	-8.4	7.2	7.1
(RANK)	(88)	(83)	(15)	( 7)	( 1)	( 2)
5TH %ILE	8.0	2.4	-5.3	-7.2	6.1	6.5
25TH %ILE	6.7	1.7	-7.8	-11.4	4.6	5.7
MEDIAN	5.9	1.2	-9.2	-13.2	3.7	5.1
75TH %ILE	5.0	0.6	-10.1	-14.7	2.8	4.4
95TH %ILE	3.3	-0.2	-11.5	-16.8	1.0	2.9
<b>Policy</b>	<b>4.7</b>	<b>0.6</b>	<b>-8.0</b>	<b>-10.7</b>	<b>5.3</b>	<b>6.1</b>

Public Fund Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS****COMPARATIVE BENCHMARK: POLICY INDEX****VARIATION FROM BENCHMARK**

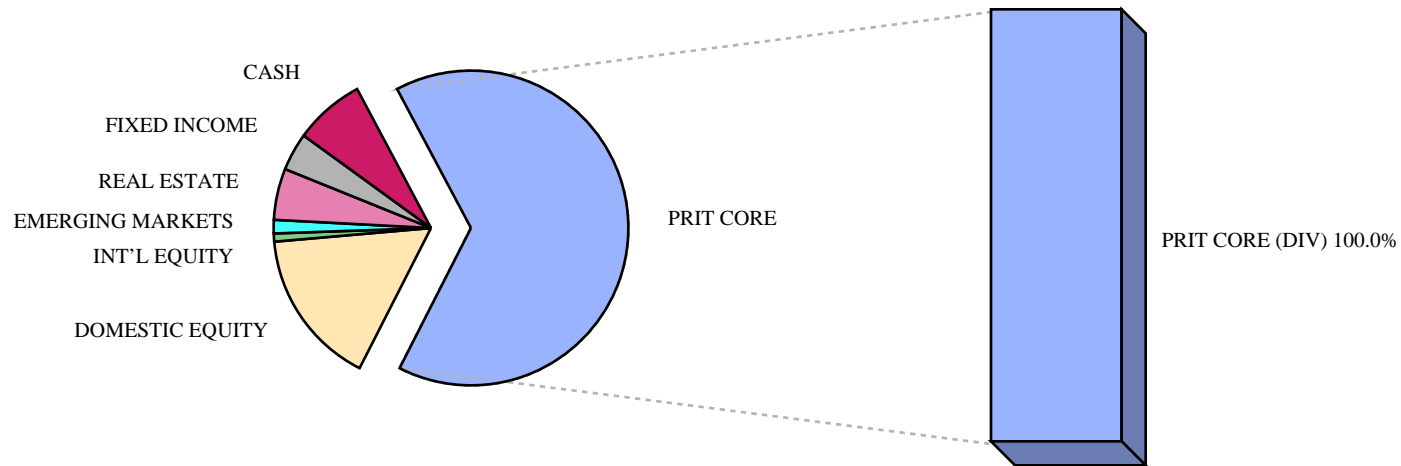
<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>30</b>
<b>Quarters Below the Benchmark</b>	<b>10</b>
<b>Batting Average</b>	<b>.750</b>

**RATES OF RETURN**

Date	Portfolio	Benchmark	Difference
3/13	4.6	4.1	0.5
6/13	0.2	0.1	0.1
9/13	4.9	4.7	0.2
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	-0.5	-0.3
12/14	2.1	1.0	1.1
3/15	2.7	2.7	0.0
6/15	0.0	0.7	-0.7
9/15	-3.6	-4.2	0.6
12/15	2.4	2.1	0.3
3/16	1.9	1.0	0.9
6/16	1.9	2.0	-0.1
9/16	4.2	4.0	0.2
12/16	-0.2	0.2	-0.4
3/17	4.9	4.3	0.6
6/17	3.8	3.2	0.6
9/17	4.0	3.5	0.5
12/17	4.4	3.9	0.5
3/18	0.3	-0.2	0.5
6/18	2.3	1.6	0.7
9/18	3.1	3.3	-0.2
12/18	-8.7	-7.1	-1.6
3/19	8.3	8.2	0.1
6/19	3.0	3.2	-0.2
9/19	1.1	0.8	0.3
12/19	5.3	5.1	0.2
3/20	-14.7	-11.3	-3.4
6/20	11.0	11.1	-0.1
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	-8.5	1.1
9/22	-3.8	-3.9	0.1
12/22	4.4	4.7	-0.3

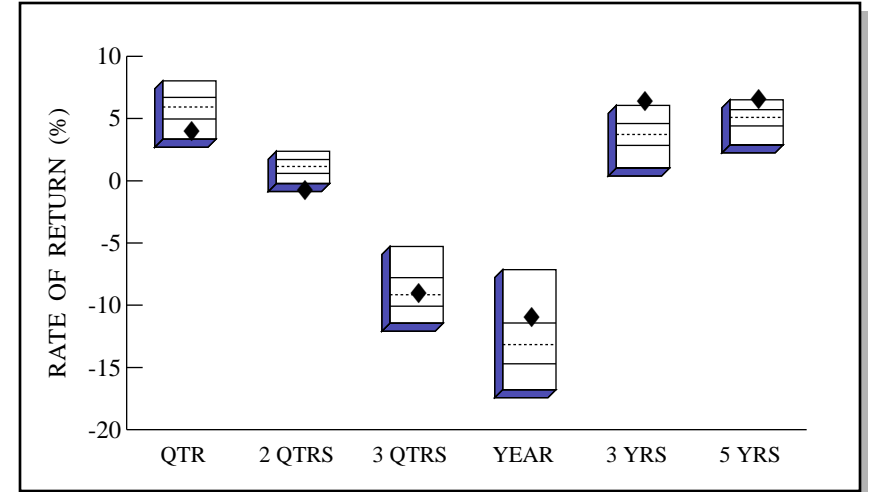
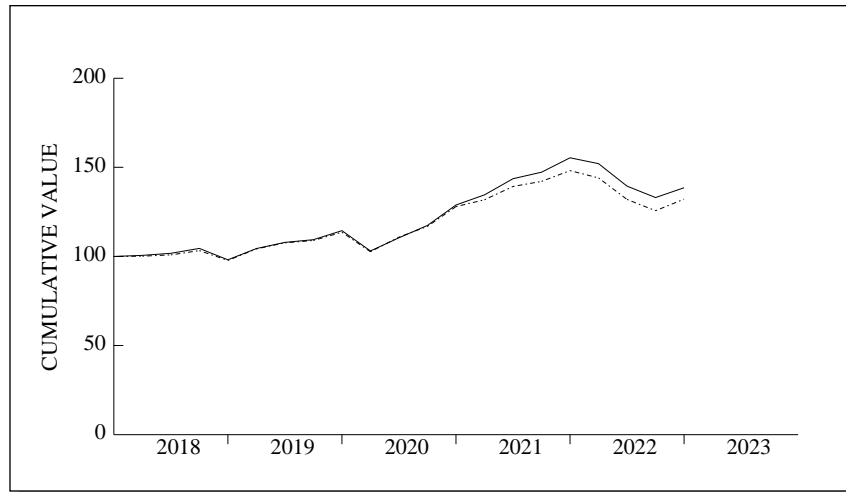


# PRIT CORE MANAGER SUMMARY

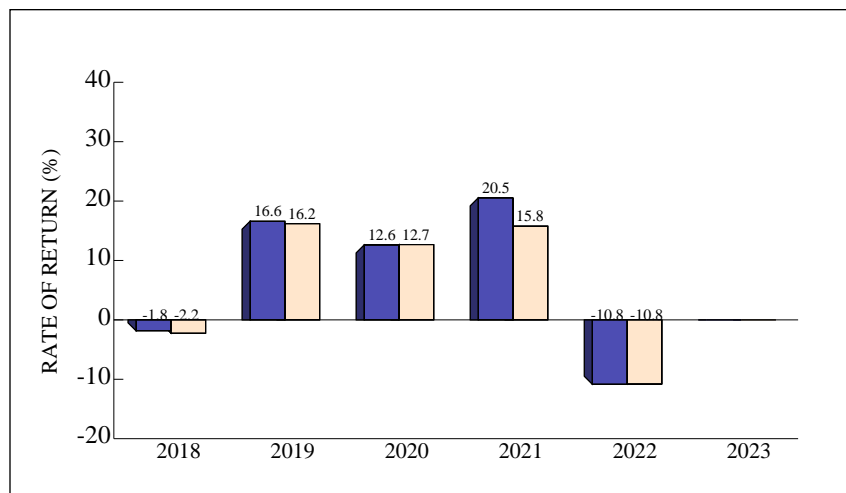
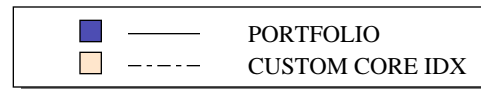


		TOTAL RETURNS AND RANKINGS					MARKET VALUE
MANAGER	(UNIVERSE)	QTR	YTD	1 YEAR	3 YEARS	5 YEARS	
PRIT CORE	(Public Fund)	4.1 (92)	-10.8 (18)	-10.8 (18)	6.6 (3)	6.7 (5)	\$223,753,173
<i>Custom Core Index</i>		<i>5.2 ----</i>	<i>-10.8 ----</i>	<i>-10.8 ----</i>	<i>5.2 ----</i>	<i>5.7 ----</i>	<i>----</i>

# PRIT CORE RETURN COMPARISONS

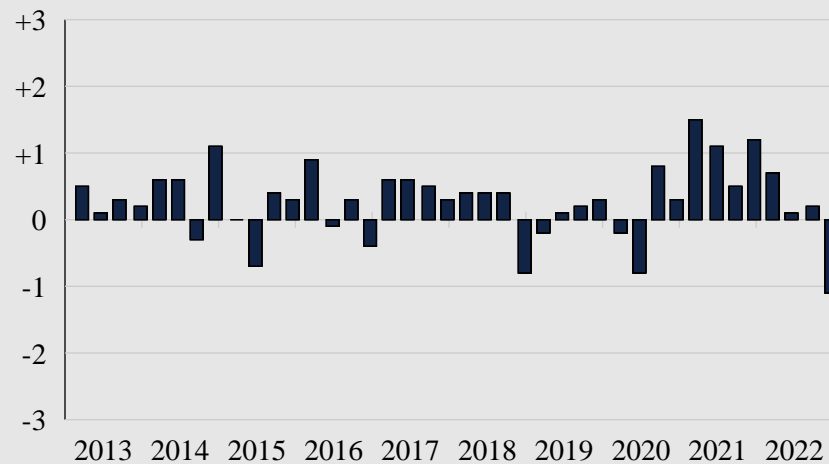


Public Fund Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	4.1	-0.6	-8.9	-10.8	6.6	6.7
(RANK)	(92)	(98)	(45)	(18)	( 3)	( 5)
5TH %ILE	8.0	2.4	-5.3	-7.2	6.1	6.5
25TH %ILE	6.7	1.7	-7.8	-11.4	4.6	5.7
MEDIAN	5.9	1.2	-9.2	-13.2	3.7	5.1
75TH %ILE	5.0	0.6	-10.1	-14.7	2.8	4.4
95TH %ILE	3.3	-0.2	-11.5	-16.8	1.0	2.9
<b>PRIT Index</b>	<b>5.2</b>	<b>0.1</b>	<b>-8.2</b>	<b>-10.8</b>	<b>5.2</b>	<b>5.7</b>

Public Fund Universe

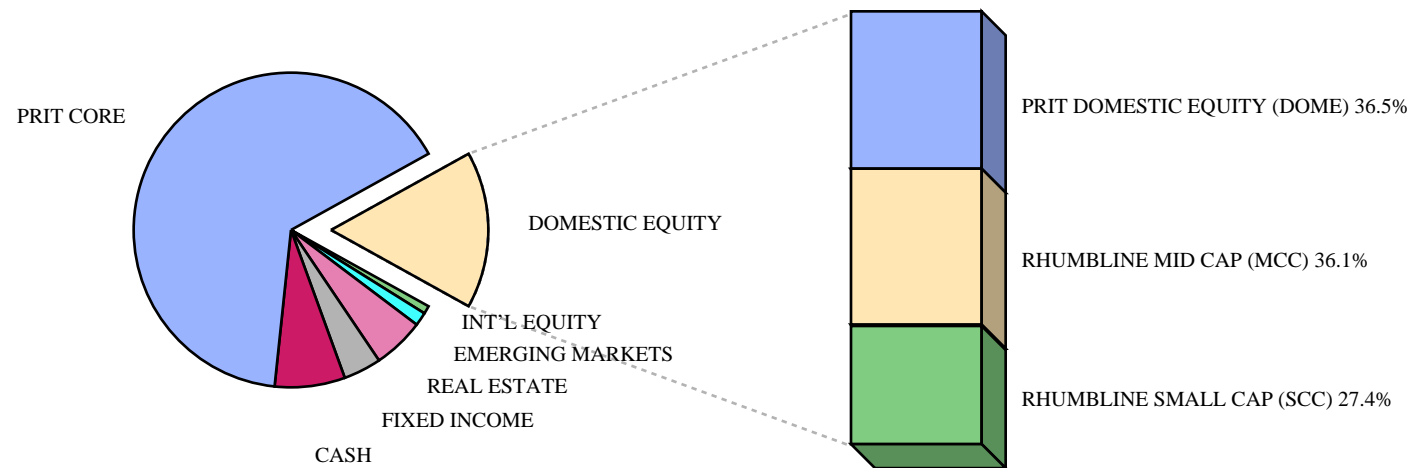
**PRIT CORE QUARTERLY PERFORMANCE SUMMARY - 10 YEARS****COMPARATIVE BENCHMARK: CUSTOM CORE INDEX****VARIATION FROM BENCHMARK**

<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>31</b>
<b>Quarters Below the Benchmark</b>	<b>9</b>
<b>Batting Average</b>	<b>.775</b>

**RATES OF RETURN**

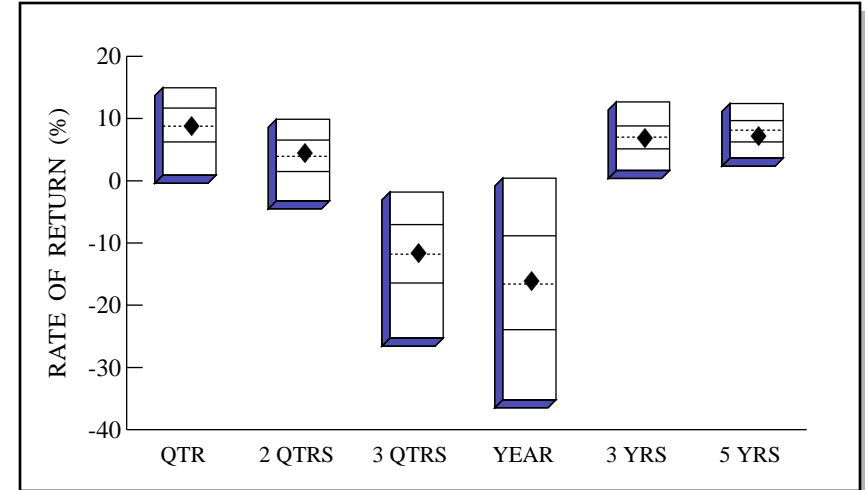
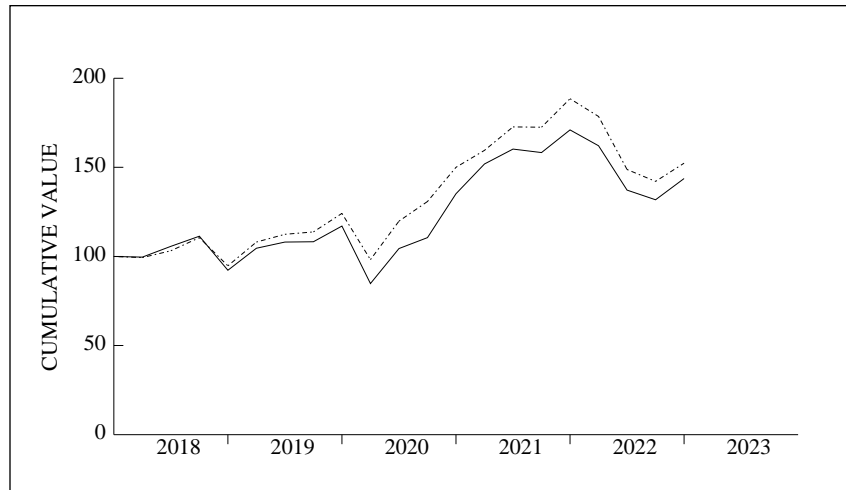
Date	Portfolio	Benchmark	Difference
3/13	4.6	4.1	0.5
6/13	0.2	0.1	0.1
9/13	5.0	4.7	0.3
12/13	4.8	4.6	0.2
3/14	2.7	2.1	0.6
6/14	4.1	3.5	0.6
9/14	-0.8	-0.5	-0.3
12/14	2.1	1.0	1.1
3/15	2.7	2.7	0.0
6/15	0.0	0.7	-0.7
9/15	-3.8	-4.2	0.4
12/15	2.4	2.1	0.3
3/16	1.9	1.0	0.9
6/16	1.9	2.0	-0.1
9/16	4.3	4.0	0.3
12/16	-0.2	0.2	-0.4
3/17	4.9	4.3	0.6
6/17	3.8	3.2	0.6
9/17	4.0	3.5	0.5
12/17	4.0	3.7	0.3
3/18	0.6	0.2	0.4
6/18	1.1	0.7	0.4
9/18	2.8	2.4	0.4
12/18	-6.1	-5.3	-0.8
3/19	6.4	6.6	-0.2
6/19	3.4	3.3	0.1
9/19	1.4	1.2	0.2
12/19	4.6	4.3	0.3
3/20	-9.9	-9.7	-0.2
6/20	7.2	8.0	-0.8
9/20	6.2	5.4	0.8
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	-8.4	0.1
9/22	-4.6	-4.8	0.2
12/22	4.1	5.2	-1.1

# DOMESTIC EQUITY MANAGER SUMMARY

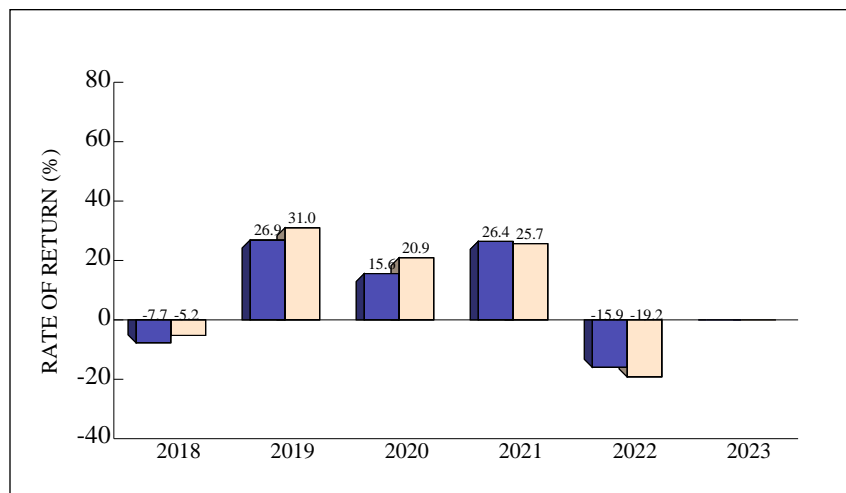


TOTAL RETURNS AND RANKINGS							
MANAGER	(UNIVERSE)	QTR	YTD	1 YEAR	3 YEARS	5 YEARS	MARKET VALUE
PRIT DOMESTIC EQUITY	(Domestic Equity)	7.3 (65)	-18.5 (59)	-18.5 (59)	7.9 (36)	9.3 (31)	\$20,096,473
<i>Russell 3000</i>		7.2 ----	-19.2 ----	-19.2 ----	7.1 ----	8.8 ----	----
RHUMBLINE MID CAP	(Mid Cap Core)	10.8 (44)	-13.1 (35)	-13.1 (35)	7.2 (52)	----	\$19,901,594
<i>S&amp;P 400</i>		10.8 ----	-13.1 ----	-13.1 ----	7.2 ----	6.7 ----	----
RHUMBLINE SMALL CAP	(Small Cap Core)	9.2 (45)	-16.1 (47)	-16.1 (47)	5.8 (63)	----	\$15,076,885
<i>S&amp;P 600 Small Cap</i>		9.2 ----	-16.1 ----	-16.1 ----	5.8 ----	5.9 ----	----

# DOMESTIC EQUITY RETURN COMPARISONS

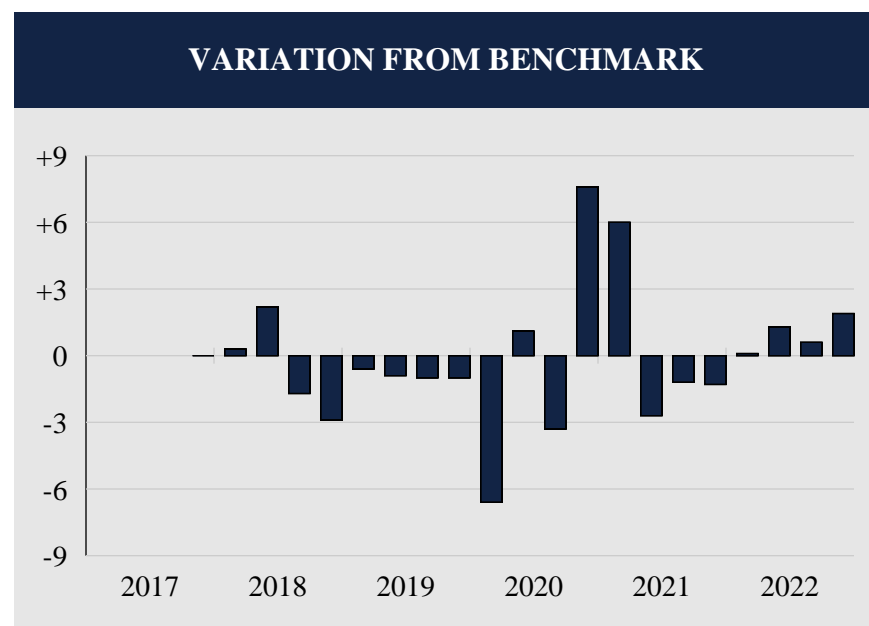


Domestic Equity Universe



	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	9.1	4.8	-11.3	-15.9	7.1	7.5
(RANK)	(48)	(42)	(49)	(48)	(50)	(60)
5TH %ILE	14.9	9.9	-1.8	0.4	12.7	12.4
25TH %ILE	11.7	6.5	-7.0	-8.8	8.8	9.7
MEDIAN	8.8	3.9	-11.8	-16.6	7.0	8.1
75TH %ILE	6.2	1.5	-16.4	-23.9	5.1	6.3
95TH %ILE	0.9	-3.2	-25.3	-35.2	1.7	3.6
<i>Russ 3000</i>	<i>7.2</i>	<i>2.4</i>	<i>-14.7</i>	<i>-19.2</i>	<i>7.1</i>	<i>8.8</i>

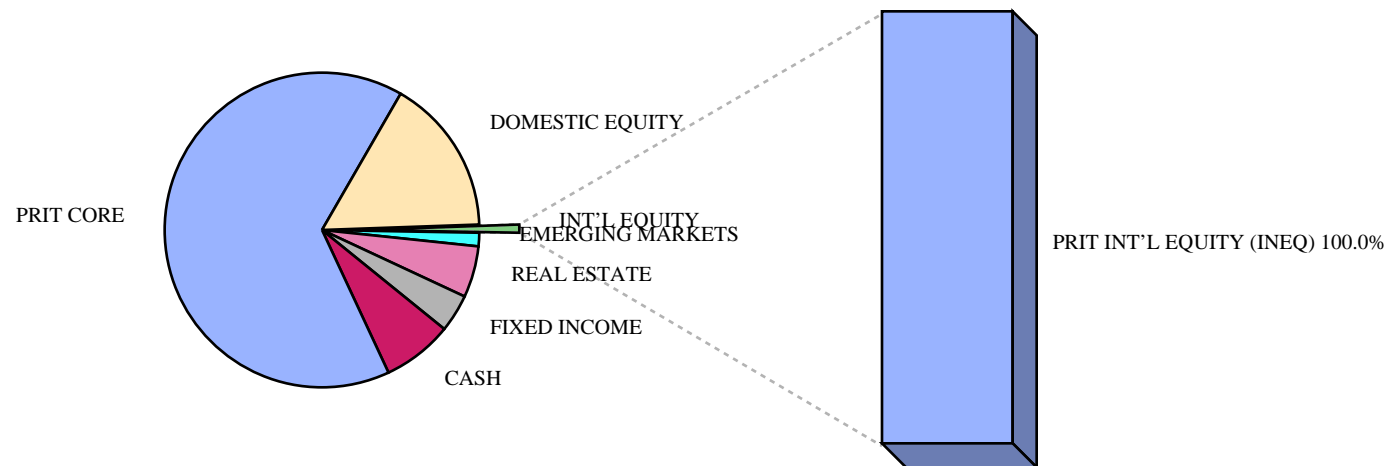
Domestic Equity Universe

**DOMESTIC EQUITY QUARTERLY PERFORMANCE SUMMARY****COMPARATIVE BENCHMARK: RUSSELL 3000**

<b>Total Quarters Observed</b>	<b>21</b>
<b>Quarters At or Above the Benchmark</b>	<b>10</b>
<b>Quarters Below the Benchmark</b>	<b>11</b>
<b>Batting Average</b>	<b>.476</b>

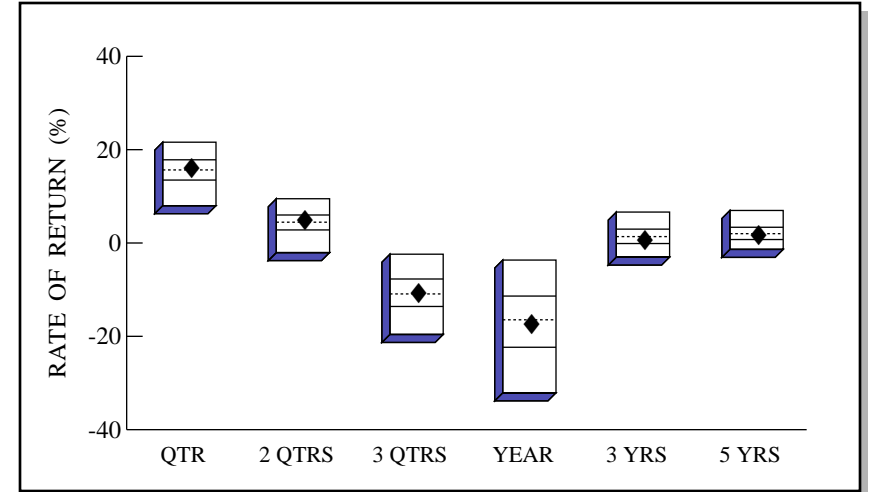
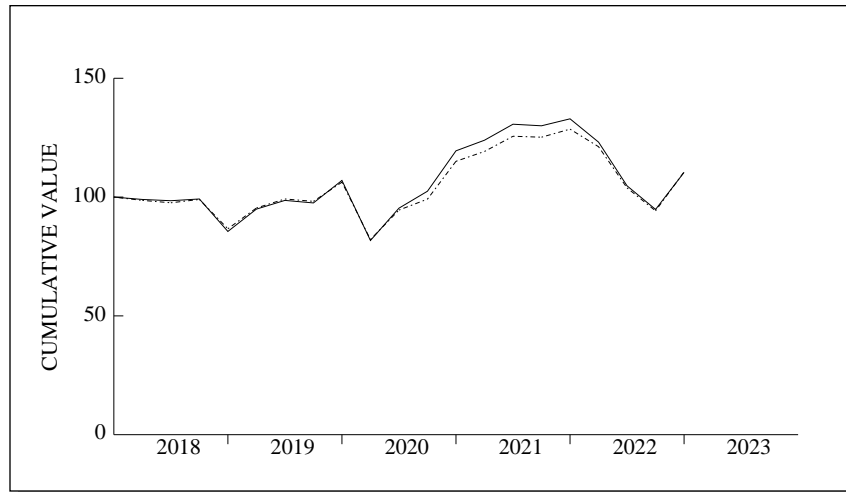
<b>RATES OF RETURN</b>			
<b>Date</b>	<b>Portfolio</b>	<b>Benchmark</b>	<b>Difference</b>
12/17	6.3	6.3	0.0
3/18	-0.3	-0.6	0.3
6/18	6.1	3.9	2.2
9/18	5.4	7.1	-1.7
12/18	-17.2	-14.3	-2.9
3/19	13.4	14.0	-0.6
6/19	3.2	4.1	-0.9
9/19	0.2	1.2	-1.0
12/19	8.1	9.1	-1.0
3/20	-27.5	-20.9	-6.6
6/20	23.1	22.0	1.1
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

## INTERNATIONAL EQUITY MANAGER SUMMARY

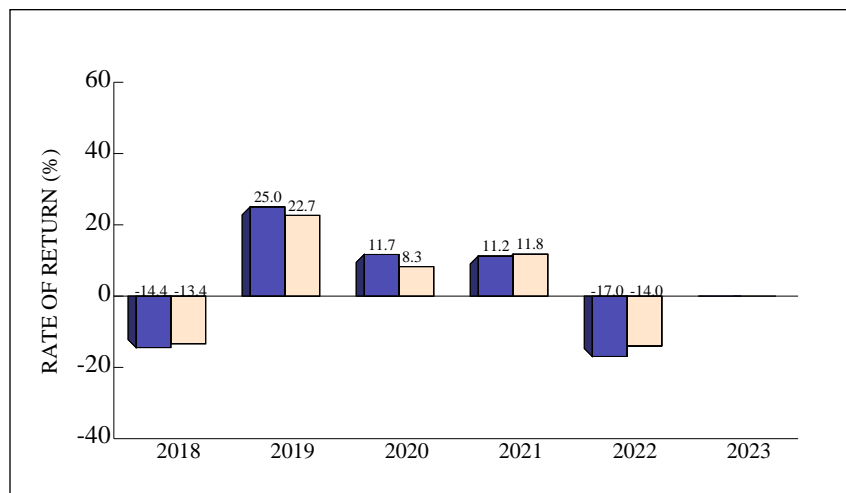
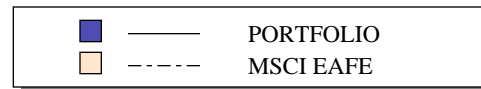


TOTAL RETURNS AND RANKINGS							
MANAGER	(UNIVERSE)	QTR	YTD	1 YEAR	3 YEARS	5 YEARS	MARKET VALUE
PRIT INT'L EQUITY	(International Equity)	16.4 (41)	-17.0 (53)	-17.0 (53)	1.1 (57)	2.0 (51)	\$3,207,040
<i>MSCI EAFE</i>		<i>17.4 ----</i>	<i>-14.0 ----</i>	<i>-14.0 ----</i>	<i>1.3 ----</i>	<i>2.0 ----</i>	<i>----</i>

# INTERNATIONAL EQUITY RETURN COMPARISONS



International Equity Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	16.4	5.4	-10.4	-17.0	1.1	2.0
(RANK)	(41)	(36)	(47)	(53)	(57)	(51)
5TH %ILE	21.6	9.5	-2.4	-3.7	6.6	7.0
25TH %ILE	17.8	6.0	-7.7	-11.4	3.0	3.4
MEDIAN	15.6	4.5	-10.9	-16.5	1.4	2.0
75TH %ILE	13.5	2.8	-13.6	-22.3	-0.1	0.8
95TH %ILE	8.0	-2.0	-19.6	-32.1	-3.0	-1.4
<b>MSCI EAFE</b>	<b>17.4</b>	<b>6.5</b>	<b>-8.7</b>	<b>-14.0</b>	<b>1.3</b>	<b>2.0</b>

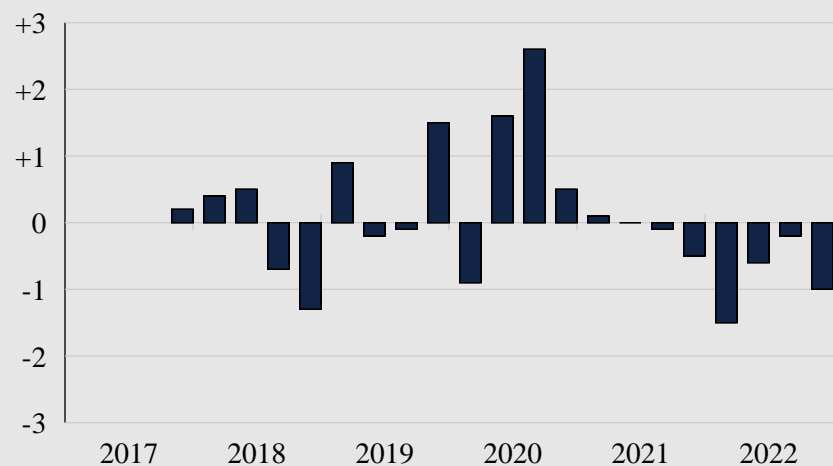
International Equity Universe



## INTERNATIONAL EQUITY QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: MSCI EAFE

## VARIATION FROM BENCHMARK

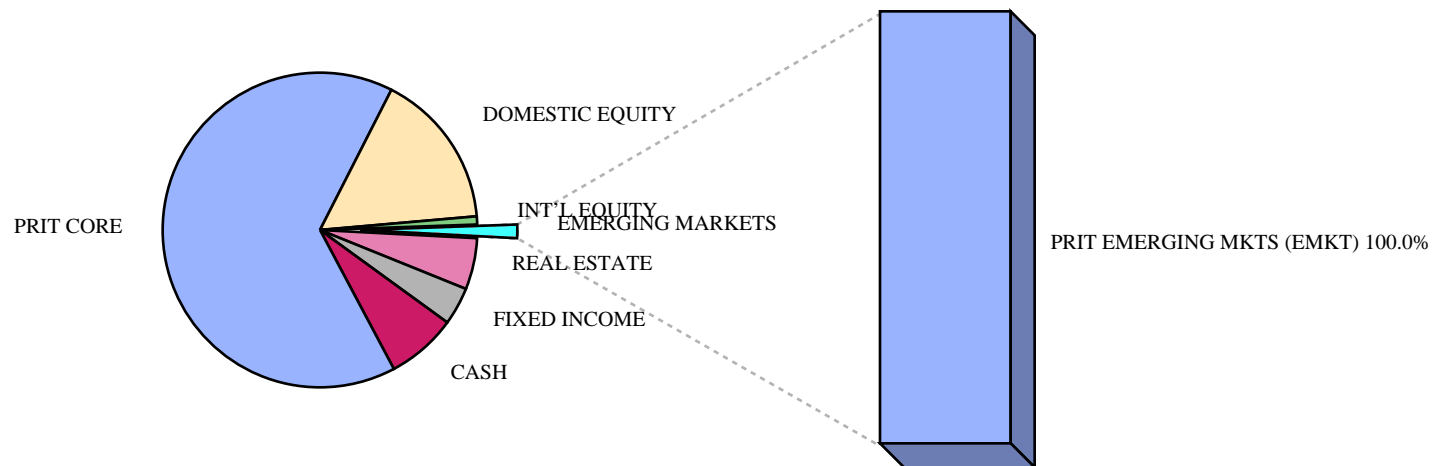


Total Quarters Observed	21
Quarters At or Above the Benchmark	10
Quarters Below the Benchmark	11
Batting Average	.476

## RATES OF RETURN

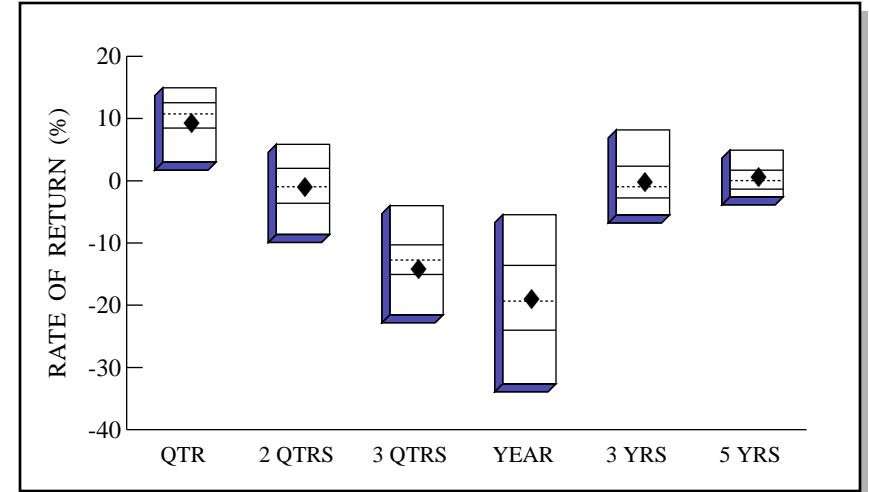
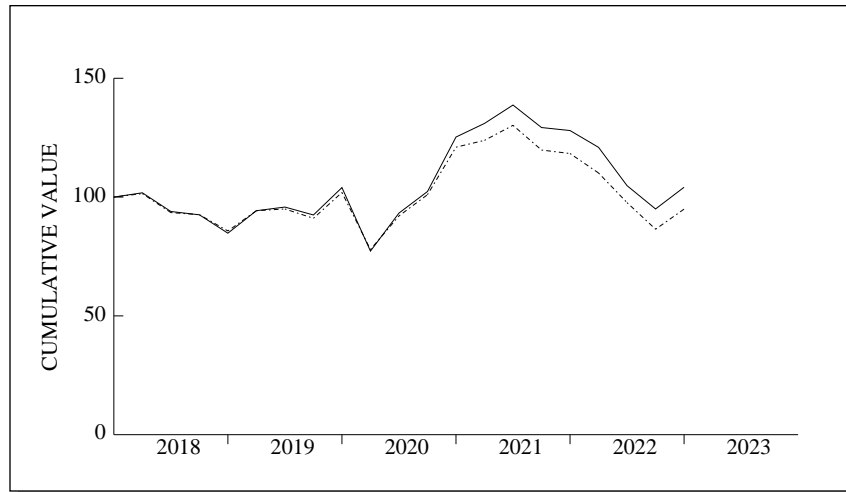
Date	Portfolio	Benchmark	Difference
12/17	4.5	4.3	0.2
3/18	-1.0	-1.4	0.4
6/18	-0.5	-1.0	0.5
9/18	0.7	1.4	-0.7
12/18	-13.8	-12.5	-1.3
3/19	11.0	10.1	0.9
6/19	3.8	4.0	-0.2
9/19	-1.1	-1.0	-0.1
12/19	9.7	8.2	1.5
3/20	-23.6	-22.7	-0.9
6/20	16.7	15.1	1.6
9/20	7.5	4.9	2.6
12/20	16.6	16.1	0.5
3/21	3.7	3.6	0.1
6/21	5.4	5.4	0.0
9/21	-0.5	-0.4	-0.1
12/21	2.2	2.7	-0.5
3/22	-7.3	-5.8	-1.5
6/22	-14.9	-14.3	-0.6
9/22	-9.5	-9.3	-0.2
12/22	16.4	17.4	-1.0

# EMERGING MARKETS EQUITY MANAGER SUMMARY

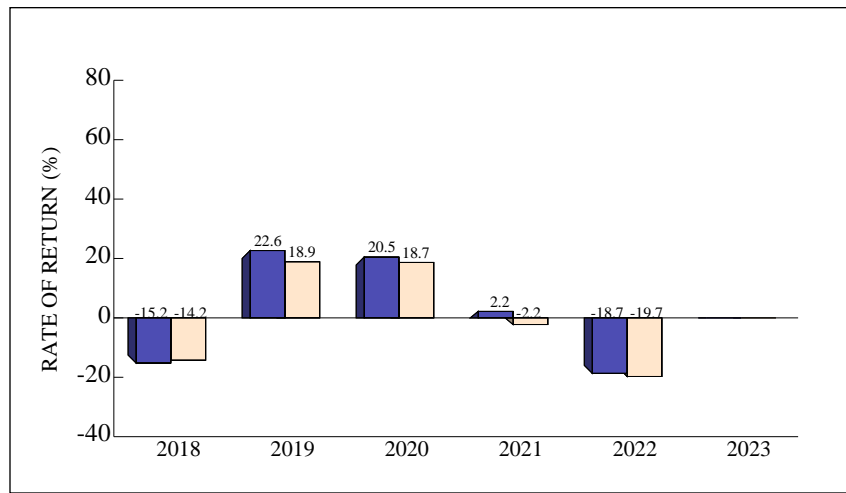
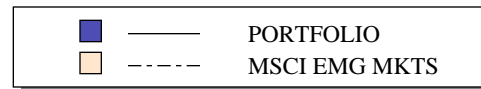


TOTAL RETURNS AND RANKINGS							
MANAGER	(UNIVERSE)	QTR	YTD	1 YEAR	3 YEARS	5 YEARS	MARKET VALUE
PRIT EMERGING MKTS	(Emerging Markets)	9.6 (65)	-18.7 (46)	-18.7 (46)	0.0 (41)	0.8 (35)	\$4,530,951
<i>MSCI Emerging Markets</i>		<i>9.8 ----</i>	<i>-19.7 ----</i>	<i>-19.7 ----</i>	<i>-2.3 ----</i>	<i>-1.0 ----</i>	<i>----</i>

# EMERGING MARKETS EQUITY RETURN COMPARISONS



Emerging Markets Universe

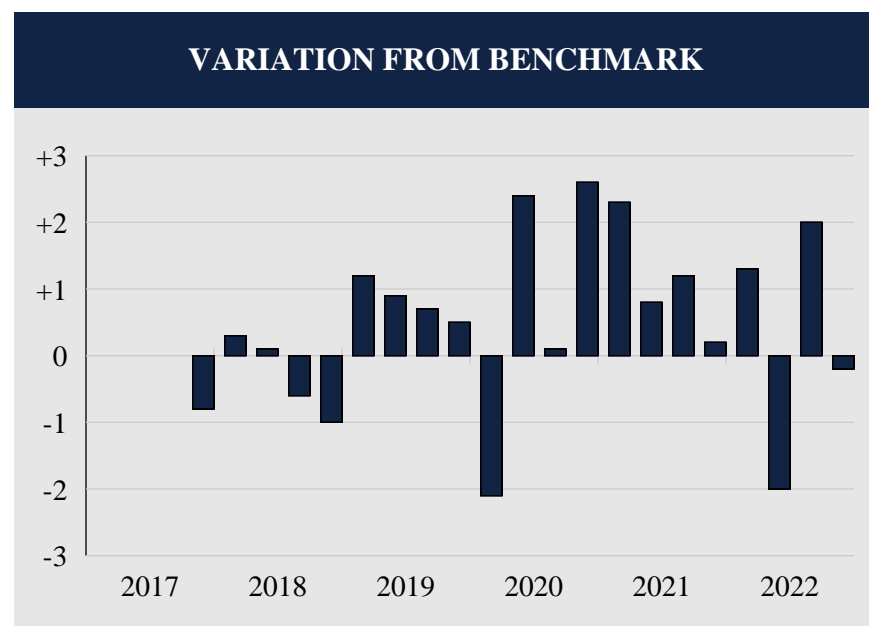


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	9.6	-0.7	-13.9	-18.7	0.0	0.8
(RANK)	(65)	(47)	(60)	(46)	(41)	(35)
5TH %ILE	14.9	5.9	-4.0	-5.4	8.2	4.9
25TH %ILE	12.5	2.0	-10.3	-13.6	2.4	1.7
MEDIAN	10.8	-0.9	-12.8	-19.4	-1.0	0.0
75TH %ILE	8.5	-3.6	-15.0	-24.0	-2.8	-1.4
95TH %ILE	3.0	-8.6	-21.5	-32.6	-5.5	-2.6
<b>MSCI EM</b>	<b>9.8</b>	<b>-2.7</b>	<b>-13.8</b>	<b>-19.7</b>	<b>-2.3</b>	<b>-1.0</b>

Emerging Markets Universe

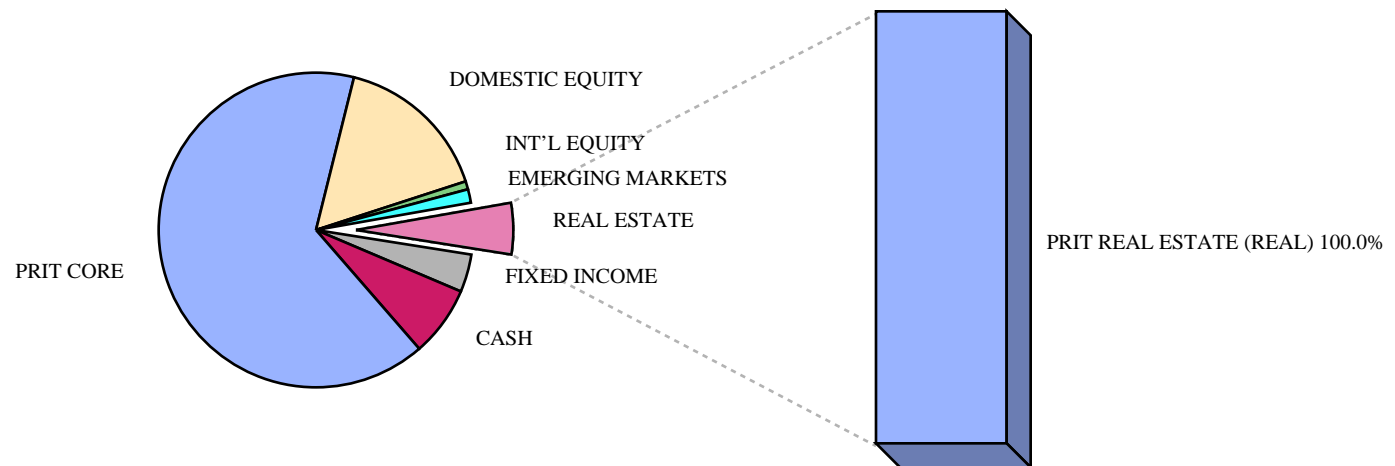
## EMERGING MARKETS EQUITY QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: MSCI EMERGING MARKETS

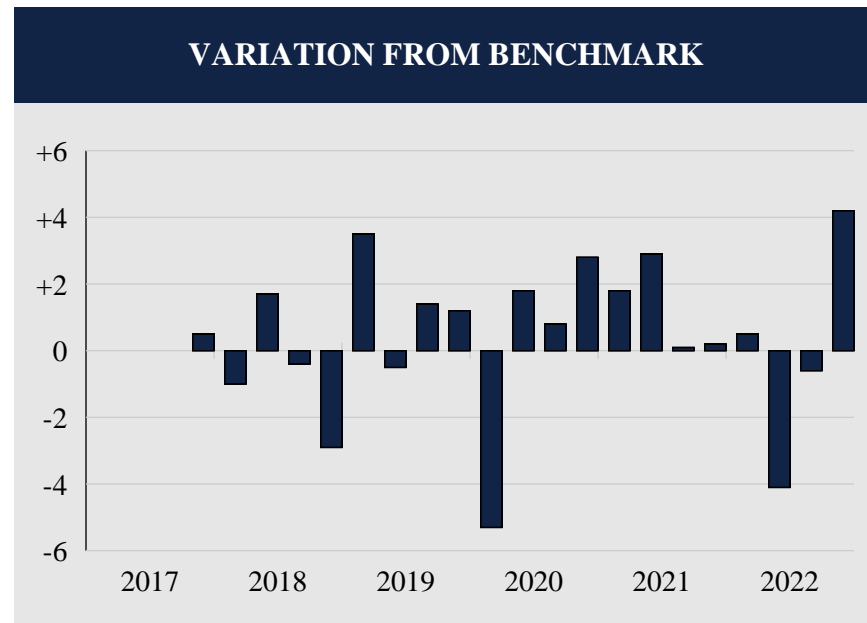


Total Quarters Observed	21
Quarters At or Above the Benchmark	15
Quarters Below the Benchmark	6
Batting Average	.714

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
12/17	6.7	7.5	-0.8
3/18	1.8	1.5	0.3
6/18	-7.8	-7.9	0.1
9/18	-1.5	-0.9	-0.6
12/18	-8.4	-7.4	-1.0
3/19	11.2	10.0	1.2
6/19	1.6	0.7	0.9
9/19	-3.4	-4.1	0.7
12/19	12.4	11.9	0.5
3/20	-25.7	-23.6	-2.1
6/20	20.6	18.2	2.4
9/20	9.8	9.7	0.1
12/20	22.4	19.8	2.6
3/21	4.6	2.3	2.3
6/21	5.9	5.1	0.8
9/21	-6.8	-8.0	1.2
12/21	-1.0	-1.2	0.2
3/22	-5.6	-6.9	1.3
6/22	-13.3	-11.3	-2.0
9/22	-9.4	-11.4	2.0
12/22	9.6	9.8	-0.2

**REAL ESTATE MANAGER SUMMARY**

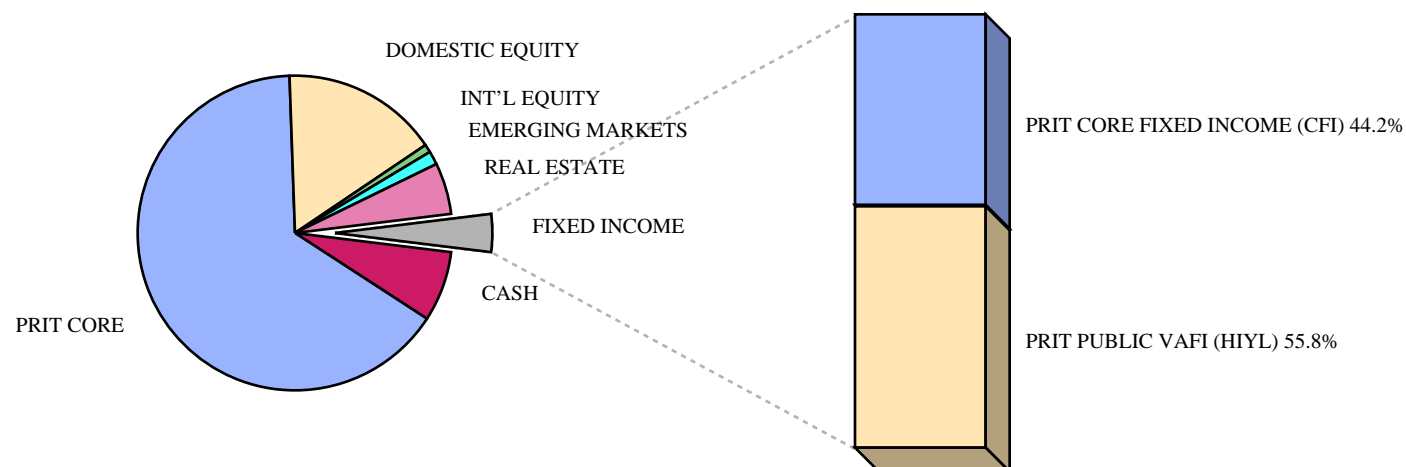
		TOTAL RETURNS AND RANKINGS					
MANAGER	(UNIVERSE)	QTR	YTD	1 YEAR	3 YEARS	5 YEARS	MARKET VALUE
PRIT REAL ESTATE		-0.8 ---	7.7 ---	7.7 ---	11.7 ---	10.4 ---	\$18,047,193
<i>NCREIF NFI-ODCE Index</i>		-5.0 ---	7.5 ---	7.5 ---	9.9 ---	8.7 ---	---

**REAL ESTATE QUARTERLY PERFORMANCE SUMMARY****COMPARATIVE BENCHMARK: NCREIF NFI-ODCE INDEX**

<b>Total Quarters Observed</b>	<b>21</b>
<b>Quarters At or Above the Benchmark</b>	<b>14</b>
<b>Quarters Below the Benchmark</b>	<b>7</b>
<b>Batting Average</b>	<b>.667</b>

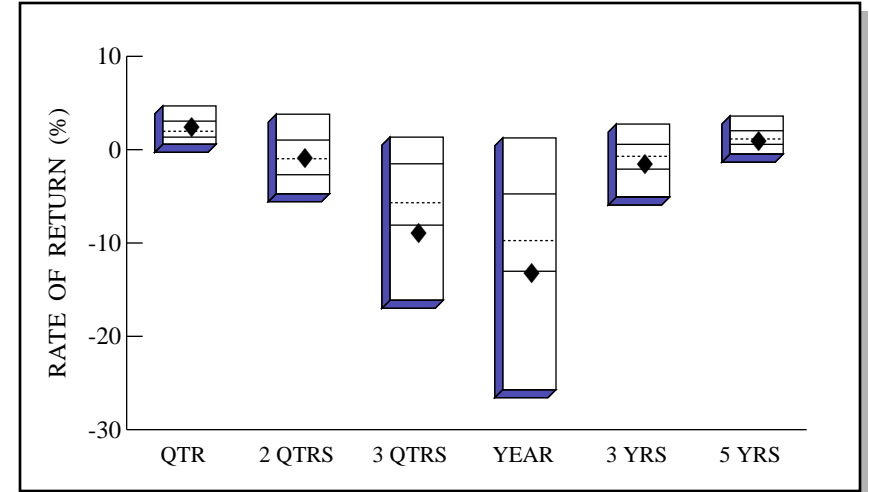
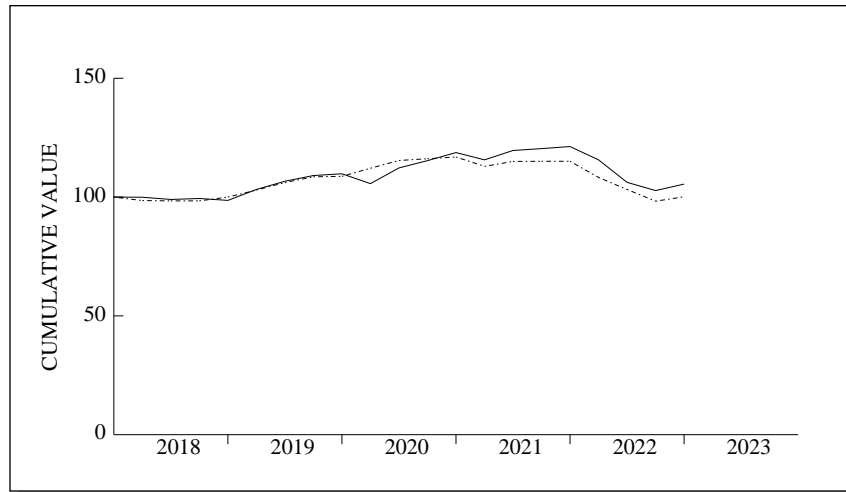
RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
12/17	2.6	2.1	0.5
3/18	1.2	2.2	-1.0
6/18	3.7	2.0	1.7
9/18	1.7	2.1	-0.4
12/18	-1.1	1.8	-2.9
3/19	4.9	1.4	3.5
6/19	0.5	1.0	-0.5
9/19	2.7	1.3	1.4
12/19	2.7	1.5	1.2
3/20	-4.3	1.0	-5.3
6/20	0.2	-1.6	1.8
9/20	1.3	0.5	0.8
12/20	4.1	1.3	2.8
3/21	3.9	2.1	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

## FIXED INCOME MANAGER SUMMARY

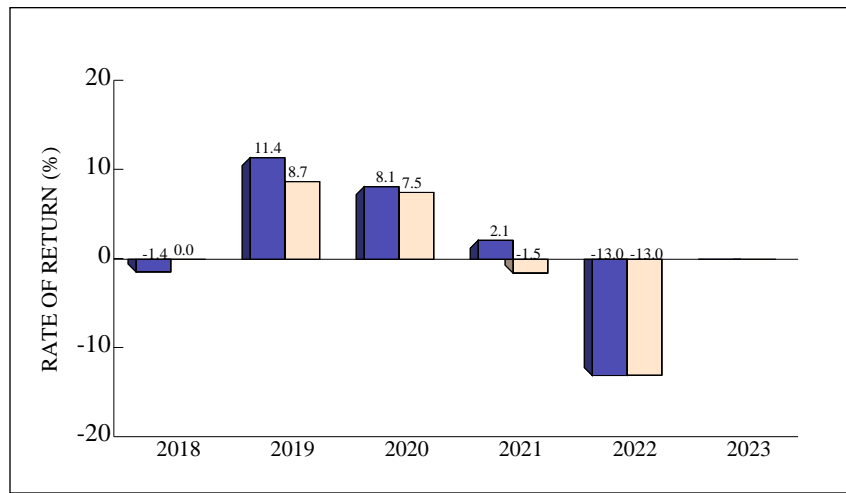
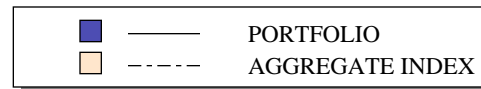


TOTAL RETURNS AND RANKINGS							
MANAGER	(UNIVERSE)	QTR	YTD	1 YEAR	3 YEARS	5 YEARS	MARKET VALUE
PRIT CORE FIXED INCOME	(Core Fixed Income)	0.7 (99)	-18.3 (99)	-18.3 (99)	-2.8 (98)	0.3 (76)	\$5,866,772
<i>Bloomberg Aggregate Index</i>		<i>1.9 ----</i>	<i>-13.0 ----</i>	<i>-13.0 ----</i>	<i>-2.7 ----</i>	<i>0.0 ----</i>	<i>----</i>
PRIT PUBLIC VAFI	(High Yield Fixed)	4.3 (30)	-8.4 (35)	-8.4 (35)	-0.1 (78)	1.7 (96)	\$7,418,966
<i>Blended Value Added Fixed Income Index</i>		<i>4.3 ----</i>	<i>-8.3 ----</i>	<i>-8.3 ----</i>	<i>-0.1 ----</i>	<i>1.9 ----</i>	<i>----</i>

# FIXED INCOME RETURN COMPARISONS



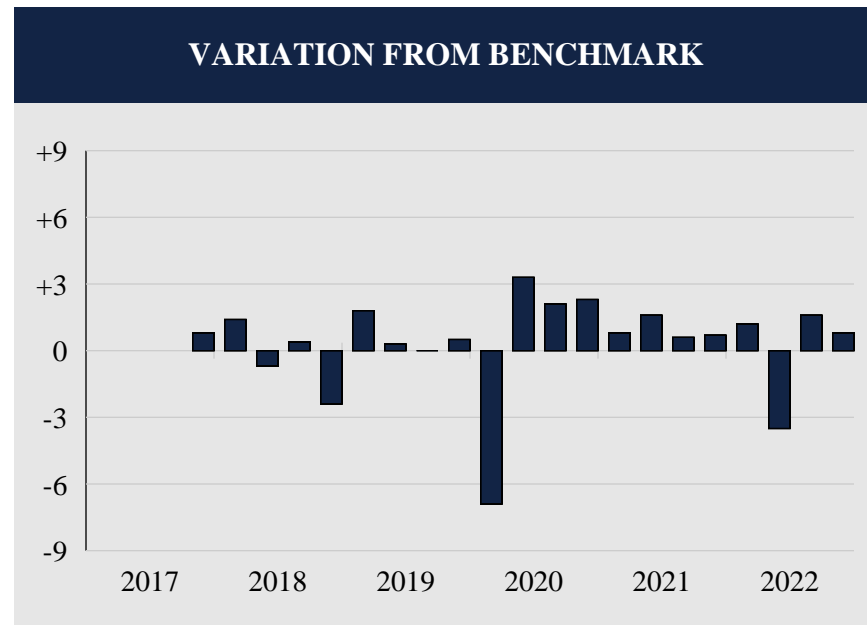
Broad Market Fixed Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	2.7	-0.7	-8.8	-13.0	-1.3	1.1
(RANK)	(33)	(47)	(83)	(76)	(62)	(55)
5TH %ILE	4.7	3.8	1.3	1.3	2.7	3.6
25TH %ILE	3.1	1.0	-1.5	-4.7	0.6	2.0
MEDIAN	2.0	-1.0	-5.7	-9.7	-0.7	1.2
75TH %ILE	1.4	-2.7	-8.1	-13.0	-2.1	0.6
95TH %ILE	0.6	-4.7	-16.1	-25.7	-5.1	-0.5
<b>Agg</b>	<b>1.9</b>	<b>-3.0</b>	<b>-7.5</b>	<b>-13.0</b>	<b>-2.7</b>	<b>0.0</b>

Broad Market Fixed Universe



**FIXED INCOME QUARTERLY PERFORMANCE SUMMARY****COMPARATIVE BENCHMARK: BLOOMBERG AGGREGATE INDEX**

<b>Total Quarters Observed</b>	<b>21</b>
<b>Quarters At or Above the Benchmark</b>	<b>17</b>
<b>Quarters Below the Benchmark</b>	<b>4</b>
<b>Batting Average</b>	<b>.810</b>

<b>RATES OF RETURN</b>			
<b>Date</b>	<b>Portfolio</b>	<b>Benchmark</b>	<b>Difference</b>
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

**MANAGER FEE SUMMARY - ONE QUARTER****ALL FEES ARE ESTIMATED / ACCRUED**

PORTFOLIO	MARKET VALUE	GROSS RETURN	FEE	FEE %	NET RETURN	ANNUAL FEE %
PRIT Core (DIV)	\$223,753,173	4.1	\$253,814	0.12	4.0	0.49
PRIT Domestic Equity (DOME)	\$20,096,473	7.3	\$11,041	0.06	7.3	0.13
Rhumblin Mid Cap (MCC)	\$19,901,594	10.8	\$2,487	0.01	10.7	0.06
Rhumblin Small Cap (SCC)	\$15,076,885	9.2	\$1,884	0.01	9.1	0.05
PRIT Int'l Equity (INEQ)	\$3,207,040	16.4	\$2,351	0.09	16.3	0.22
PRIT Emerging Mkts (EMKT)	\$4,530,951	9.6	\$6,941	0.17	9.4	0.67
PRIT Real Estate (REAL)	\$18,047,193	-0.8	\$-5,110	-0.03	-0.7	0.75
PRIT Core Fixed Income (CFI)	\$5,866,772	0.7	\$1,949	0.03	0.7	0.13
PRIT Public Value-Added FI (HIYL)	\$7,418,966	4.3	\$8,157	0.11	4.1	0.39
MMDT Cash (CASH)	\$24,802,062	----	\$0	0.00	----	0.00
PRIT Cash (CASH)	\$229,452	----	\$0	0.00	----	0.00
<b>Total Portfolio</b>	<b>\$342,930,561</b>	<b>4.4</b>	<b>\$283,514</b>	<b>0.09</b>	<b>4.4</b>	<b>0.34</b>

**MANAGER FEE SCHEDULES**

Portfolio	Fee Schedule
PRIT Core	49 bps on balance
PRIT Domestic Equity	14 bps on balance
Rhumblin Mid Cap	5 bps on first \$25mm 4 bps on next \$25mm
Rhumblin Small Cap	5 bps on first \$25mm 4 bps on next \$25mm
PRIT Int'l Equity	23 bps on balance
PRIT Emerging Markets	69 bps on balance
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

<b>Economic Data</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
Consumer Price Index	Economic Data	0.0	6.5	6.5	4.9	3.8	2.6
<b>Domestic Equity</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
Russell 3000	Broad Equity	7.2	-19.2	-19.2	7.1	8.8	12.1
S&P 500	Large Cap Core	7.6	-18.1	-18.1	7.7	9.4	12.6
Russell 1000	Large Cap	7.2	-19.1	-19.1	7.3	9.1	12.4
Russell 1000 Growth	Large Cap Growth	2.2	-29.1	-29.1	7.8	11.0	14.1
Russell 1000 Value	Large Cap Value	12.4	-7.5	-7.5	6.0	6.7	10.3
Russell Mid Cap	Midcap	9.2	-17.3	-17.3	5.9	7.1	11.0
Russell Mid Cap Growth	Midcap Growth	6.9	-26.7	-26.7	3.9	7.6	11.4
Russell Mid Cap Value	Midcap Value	10.5	-12.0	-12.0	5.8	5.7	10.1
Russell 2000	Small Cap	6.2	-20.4	-20.4	3.1	4.1	9.0
Russell 2000 Growth	Small Cap Growth	4.1	-26.4	-26.4	0.6	3.5	9.2
Russell 2000 Value	Small Cap Value	8.4	-14.5	-14.5	4.7	4.1	8.5
<b>International Equity</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
MSCI All Country World ex US	Foreign Equity	14.4	-15.6	-15.6	0.5	1.4	4.3
MSCI EAFE	Developed Markets Equity	17.4	-14.0	-14.0	1.3	2.0	5.2
MSCI EAFE Growth	Developed Markets Growth	15.1	-22.7	-22.7	0.8	2.8	6.0
MSCI EAFE Value	Developed Markets Value	19.7	-4.9	-4.9	1.3	0.8	4.1
MSCI Emerging Markets	Emerging Markets Equity	9.8	-19.7	-19.7	-2.3	-1.0	1.8
<b>Domestic Fixed Income</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
Bloomberg Aggregate Index	Core Fixed Income	1.9	-13.0	-13.0	-2.7	0.0	1.1
Bloomberg Capital Gov't Bond	Treasuries	0.7	-12.3	-12.3	-1.9	0.3	0.8
Bloomberg Capital Credit Bond	Corporate Bonds	3.4	-15.3	-15.3	-1.7	1.1	2.2
Intermediate Aggregate	Core Intermediate	1.7	-9.5	-9.5	-1.9	0.3	1.0
ML/BoA 1-3 Year Treasury	Short Term Treasuries	0.7	-3.8	-3.8	-0.5	0.7	0.6
Bloomberg Capital High Yield	High Yield Bonds	4.2	-12.7	-12.7	-0.5	2.0	3.8
<b>Alternative Assets</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Years</b>	<b>5 Years</b>	<b>10 Years</b>
Bloomberg Global Treasury Ex US	International Treasuries	7.3	-19.4	-19.4	-6.7	-3.3	-1.8
NCREIF NFI-ODCE Index	Real Estate	-5.0	7.5	7.5	9.9	8.7	10.1
HFRI FOF Composite	Hedge Funds	3.2	-2.7	-2.7	4.6	3.6	3.8

**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  
DECEMBER 2022



## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's PRIT Core portfolio was valued at \$223,753,173, representing an increase of \$17,209,196 from the September quarter's ending value of \$206,543,977. Last quarter, the Fund posted net contributions equaling \$8,446,283 plus a net investment gain equaling \$8,762,913. Total net investment return was the result of income receipts, which totaled \$1,217,853 and net realized and unrealized capital gains of \$7,545,060.

## **RELATIVE PERFORMANCE**

For the fourth quarter, the PRIT Core portfolio returned 4.1%, which was 1.1% below the Custom Core Index's return of 5.2% and ranked in the 92nd percentile of the Public Fund universe. Over the trailing year, the portfolio returned -10.8%, which was equal to the benchmark's -10.8% return, ranking in the 18th percentile. Since December 2012, the portfolio returned 8.3% annualized and ranked in the 5th percentile. The Custom Core Index returned an annualized 7.2% over the same period.

### **PRIT Core**

The PRIT Core fund had a 38.9% allocation in public equity (domestic and foreign) and 17.1% in private equity. Real assets (including real estate and timber) made up 15%, while fixed income (core and value added) comprised 21.2%. Portfolio completion strategies represented the remaining 7.8%.

### **PRIT Global Equity**

Domestic and foreign equity produced a combined return of 10.4% last quarter, while the Russell 3000 returned 7.2% and the MSCI All Country World Ex-U.S. returned 14.4%. Domestic equity (including equity hedge) made up 21.7% of the Core fund. Developed markets outside the U.S. had an 12.6% weight, while emerging markets made up 4.6%.

### **PRIT Private Equity**

The private equity segment represented 17.1% of the Core fund and returned -0.5% last quarter, 20 basis points below the Cambridge Private Equity index, on a quarter lagged basis.

### **PRIT Portfolio Completion Strategies**

This segment returned 0.8% for the quarter and made up 7.8% of the Core Fund.

### **PRIT Real Estate**

This segment includes real estate, timber, and real assets, whose allocations within the Core fund were 10.8%, 3.4%, and 0.9%, respectively.

### **PRIT Fixed Income**

Core fixed income constituted 14.1% of the Core fund and value-added fixed income made up 7.1%. Core fixed income fell behind the Bloomberg Aggregate Index over the quarter, returning 0.7%, compared to the benchmark's 1.9%. Value-added fixed income returned 3.0%, 1.2% below the 4.2% return of the Bloomberg High Yield Index.

**EXECUTIVE SUMMARY****PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	10 Year
<b>Total Portfolio - Gross</b>	4.1	-10.8	6.6	6.7	8.3
<i>PUBLIC FUND RANK</i>	(92)	(18)	( 3)	( 5)	( 5)
<b>Total Portfolio - Net</b>	4.0	-11.3	6.0	6.2	7.8
Custom Core Idx	5.2	-10.8	5.2	5.7	7.2
<b>PRIT Core - Gross</b>	4.1	-10.8	6.6	6.7	8.3
<i>PUBLIC FUND RANK</i>	(92)	(18)	( 3)	( 5)	( 5)
Custom Core Idx	5.2	-10.8	5.2	5.7	7.2

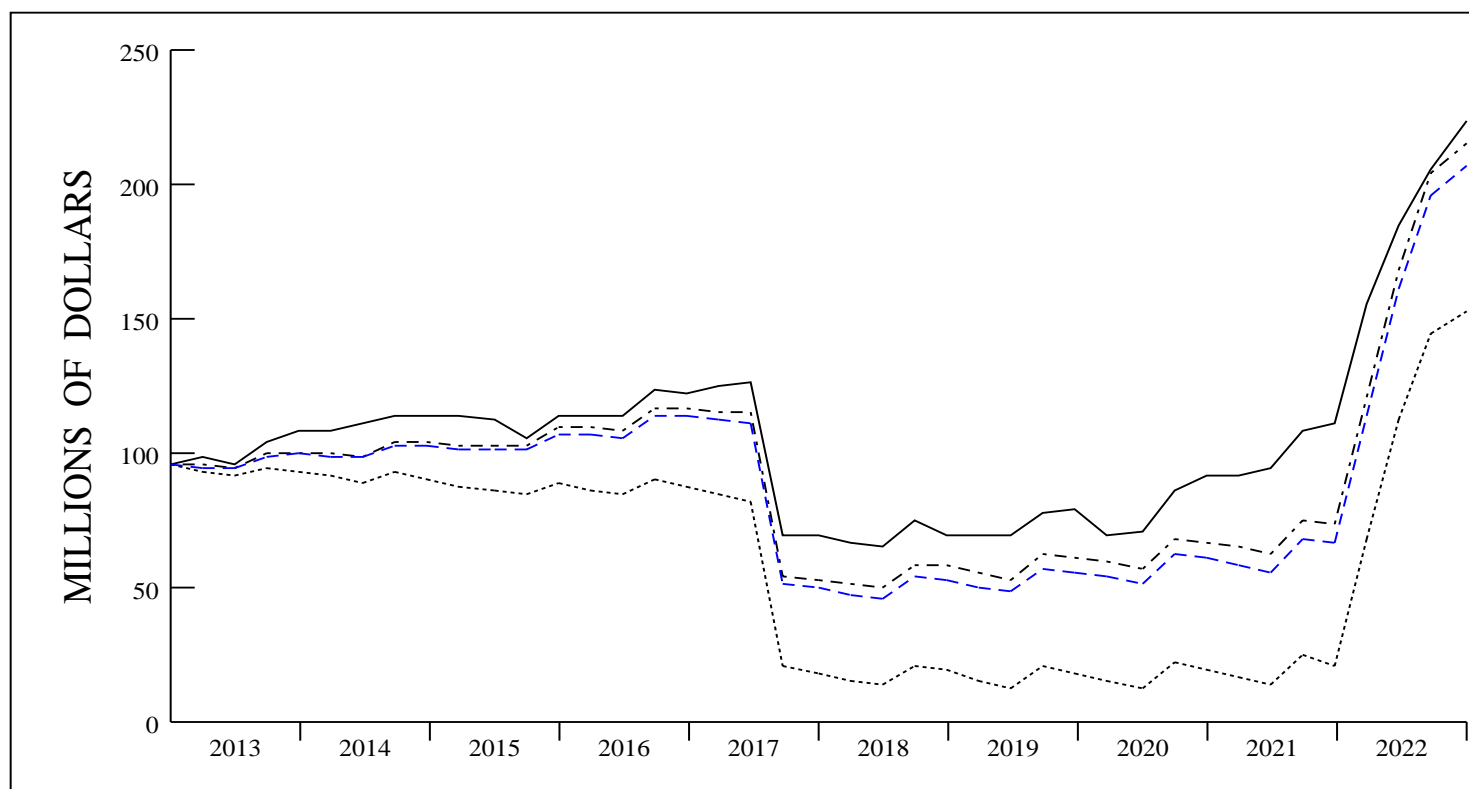
**ASSET ALLOCATION**

PRIT Core	100.0%	\$ 223,753,173
Total Portfolio	100.0%	\$ 223,753,173

**INVESTMENT RETURN**

Market Value 9/2022	\$ 206,543,977
Contribs / Withdrawals	8,446,283
Income	1,217,853
Capital Gains / Losses	7,545,060
Market Value 12/2022	\$ 223,753,173

# INVESTMENT GROWTH

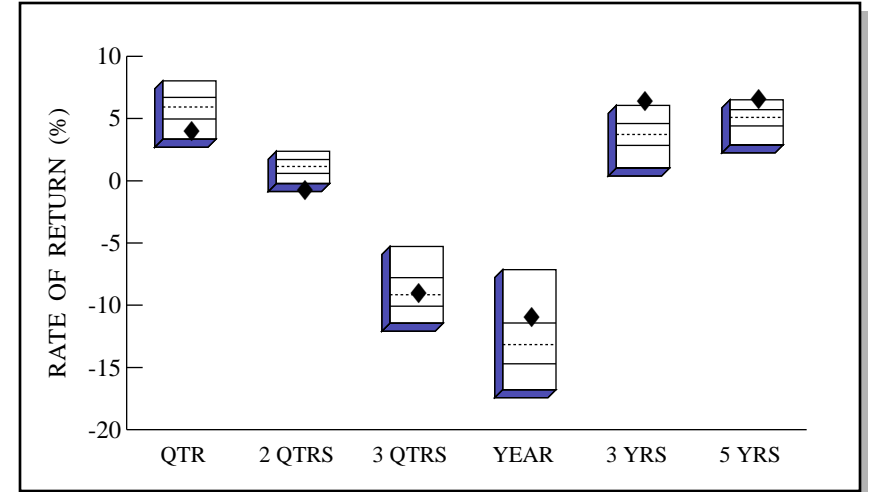
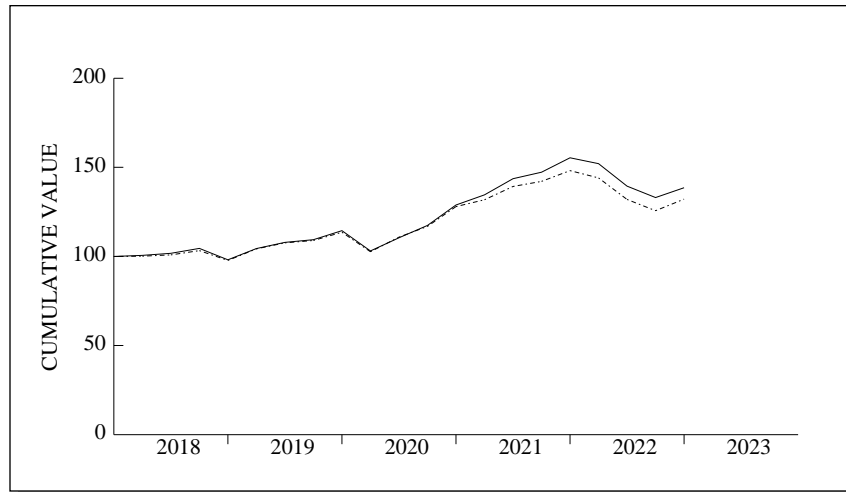


—	ACTUAL RETURN
.....	7.1% DHB PROJ
-----	0.0%
- - - - -	6.4% HZN PROJ

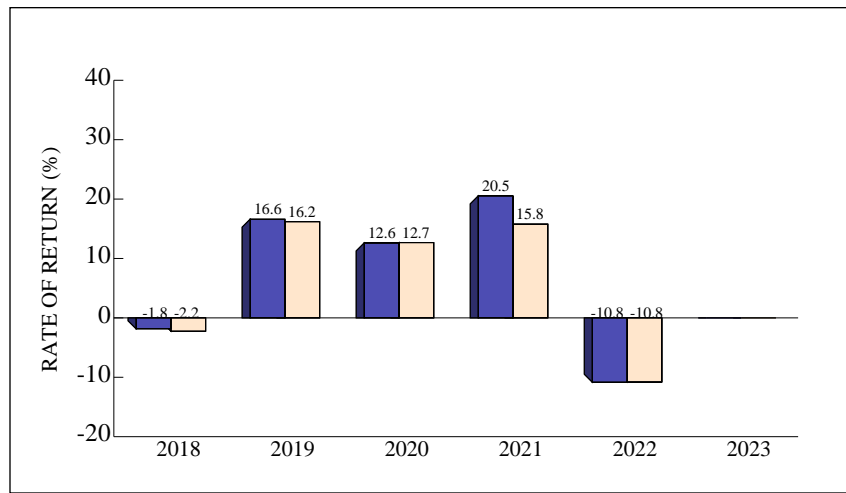
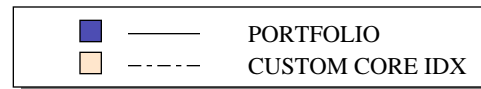
VALUE ASSUMING	
7.1% DHB PROJ \$	216,464,631
6.4% HZN PROJ \$	208,150,835

	LAST QUARTER	PERIOD 12/12 - 12/22
BEGINNING VALUE	\$ 206,543,977	\$ 96,187,295
NET CONTRIBUTIONS	8,446,283	57,753,354
INVESTMENT RETURN	8,762,913	69,812,524
ENDING VALUE	\$ 223,753,173	\$ 223,753,173
INCOME	1,217,853	24,444,243
CAPITAL GAINS (LOSSES)	7,545,060	45,368,281
INVESTMENT RETURN	8,762,913	69,812,524

# TOTAL RETURN COMPARISONS

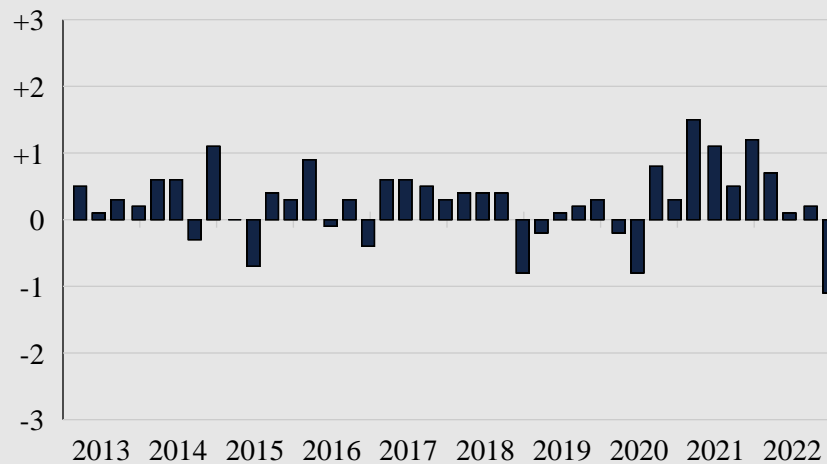


Public Fund Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	4.1	-0.6	-8.9	-10.8	6.6	6.7
(RANK)	(92)	(98)	(45)	(18)	( 3)	( 5)
5TH %ILE	8.0	2.4	-5.3	-7.2	6.1	6.5
25TH %ILE	6.7	1.7	-7.8	-11.4	4.6	5.7
MEDIAN	5.9	1.2	-9.2	-13.2	3.7	5.1
75TH %ILE	5.0	0.6	-10.1	-14.7	2.8	4.4
95TH %ILE	3.3	-0.2	-11.5	-16.8	1.0	2.9
<b>PRIT Index</b>	<b>5.2</b>	<b>0.1</b>	<b>-8.2</b>	<b>-10.8</b>	<b>5.2</b>	<b>5.7</b>

Public Fund Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS****COMPARATIVE BENCHMARK: CUSTOM CORE INDEX****VARIATION FROM BENCHMARK**

<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>31</b>
<b>Quarters Below the Benchmark</b>	<b>9</b>
<b>Batting Average</b>	<b>.775</b>

**RATES OF RETURN**

Date	Portfolio	Benchmark	Difference
3/13	4.6	4.1	0.5
6/13	0.2	0.1	0.1
9/13	5.0	4.7	0.3
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	-0.5	-0.3
12/14	2.1	1.0	1.1
3/15	2.7	2.7	0.0
6/15	0.0	0.7	-0.7
9/15	-3.8	-4.2	0.4
12/15	2.4	2.1	0.3
3/16	1.9	1.0	0.9
6/16	1.9	2.0	-0.1
9/16	4.3	4.0	0.3
12/16	-0.2	0.2	-0.4
3/17	4.9	4.3	0.6
6/17	3.8	3.2	0.6
9/17	4.0	3.5	0.5
12/17	4.0	3.7	0.3
3/18	0.6	0.2	0.4
6/18	1.1	0.7	0.4
9/18	2.8	2.4	0.4
12/18	-6.1	-5.3	-0.8
3/19	6.4	6.6	-0.2
6/19	3.4	3.3	0.1
9/19	1.4	1.2	0.2
12/19	4.6	4.3	0.3
3/20	-9.9	-9.7	-0.2
6/20	7.2	8.0	-0.8
9/20	6.2	5.4	0.8
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	-8.4	0.1
9/22	-4.6	-4.8	0.2
12/22	4.1	5.2	-1.1

## 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  
7% MSCI EAFE  
13% HFRI FOF Composite  
4% NCREIF Timber  
2.5% JP Morgan EMBI

4% Russell 2500  
7% MSCI Emerging Markets  
2% FTSE REIT  
5% Bloomberg Aggregate  
2% US TIPS

7% MSCI ACWI Ex-US  
11% Cambridge Private Equity (lagged)  
8% NCREIF Property  
7.5% Bloomberg High Yield  
5% Bloomberg US Strips 20+ Year

For all periods from April 2018 to March 2019:

15% S&P 500  
8% MSCI EAFE  
13% HFRI FOF Composite  
4% NCREIF Timber  
2.5% JP Morgan EMBI

4% Russell 2500  
6% MSCI Emerging Markets  
2% FTSE REIT  
5% Bloomberg Aggregate  
5% US TIPS

6% MSCI ACWI Ex-US  
12% Cambridge Private Equity (lagged)  
8% NCREIF Property  
7.5% Bloomberg High Yield  
2% Bloomberg US Strips 20+ Year

For all periods since April 2019:

11% S&P 500  
6% MSCI ACWI Ex-US  
13% Cambridge Private Equity (lagged)  
8% NCREIF Property  
6% Bloomberg High Yield  
4% Bloomberg US Strips 20+ Year

3% Russell 2500  
7% MSCI EAFE  
11% HFRI FOF Composite  
4% NCREIF Timber  
2% JP Morgan EMBI

6% 80% S&P 500 / 20% LIBOR  
6% MSCI Emerging Markets  
2% FTSE REIT  
6% Bloomberg Aggregate  
5% US TIPS

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM  
PRIT - DOMESTIC EQUITY  
PERFORMANCE REVIEW  
DECEMBER 2022



## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's PRIT Domestic Equity account was valued at \$20,096,473, an increase of \$1,365,283 over the September ending value of \$18,731,190. During the last three months, the fund recorded \$11,041 in net withdrawals, which marginally offset the portfolio's net investment return of \$1,376,324. Total net investment return was the result of income receipts, which totaled \$83,248 and \$1,293,076 in net realized and unrealized capital gains.

## **RELATIVE PERFORMANCE**

For the fourth quarter, the PRIT Domestic Equity portfolio returned 7.3%, which was 0.1% better than the Russell 3000 Index's return of 7.2% and ranked in the 65th percentile of the Domestic Equity universe. Over the trailing year, the portfolio returned -18.5%, which was 0.7% better than the benchmark's -19.2% return, ranking in the 59th percentile. Since December 2017, the account returned 9.3% per annum and ranked in the 31st percentile. The Russell 3000 returned an annualized 8.8% over the same period.

**EXECUTIVE SUMMARY****PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year
<b>Total Portfolio - Gross</b>	7.3	-18.5	7.9	9.3
<i>DOMESTIC EQUITY RANK</i>	(65)	(59)	(36)	(31)
<b>Total Portfolio - Net</b>	7.3	-18.6	7.7	9.2
Russell 3000	7.2	-19.2	7.1	8.8
<b>Domestic Equity - Gross</b>	7.3	-18.5	7.9	9.3
<i>DOMESTIC EQUITY RANK</i>	(65)	(59)	(36)	(31)
Russell 3000	7.2	-19.2	7.1	8.8

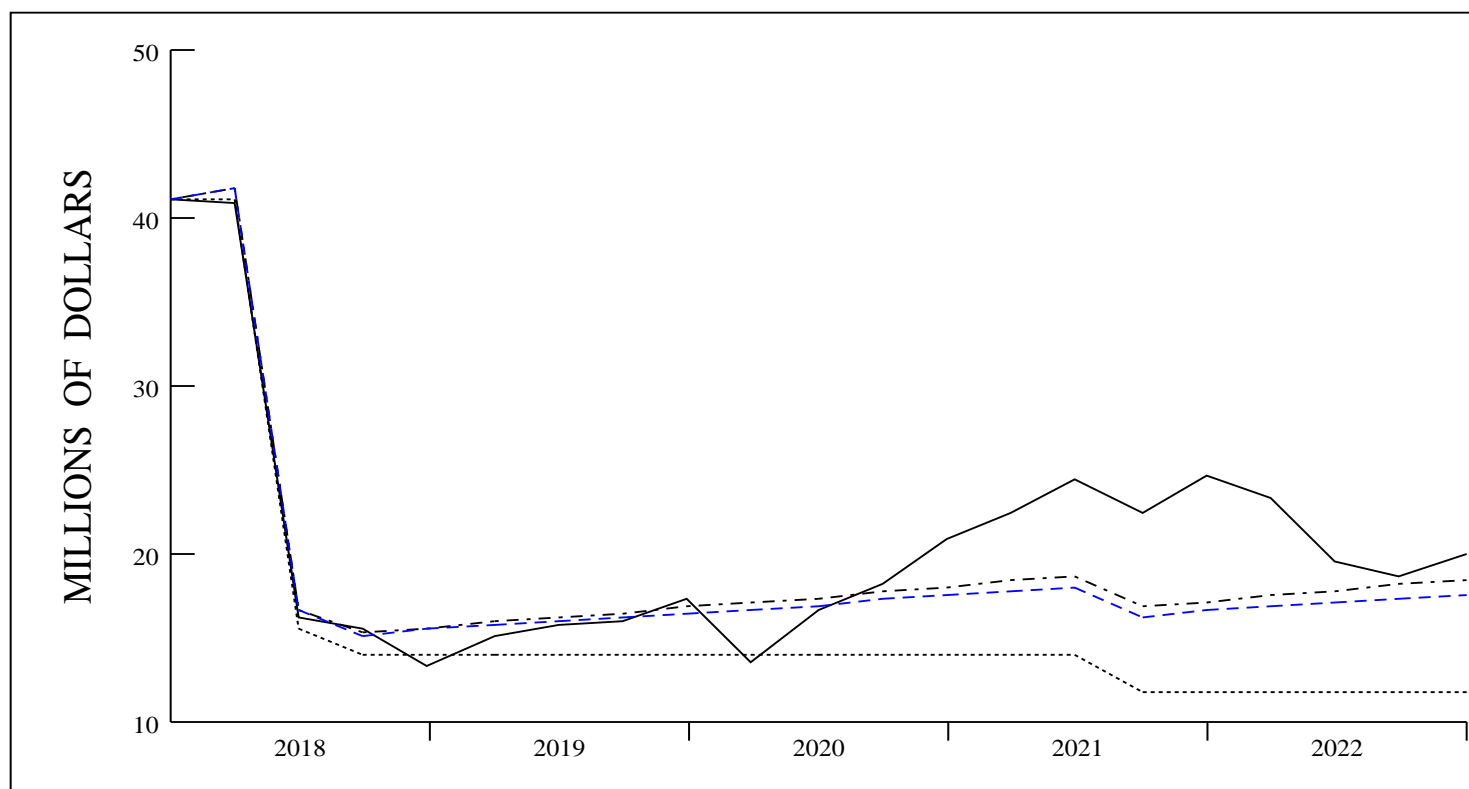
**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 20,096,473
Total Portfolio	100.0%	\$ 20,096,473

**INVESTMENT RETURN**

Market Value 9/2022	\$ 18,731,190
Contribs / Withdrawals	- 11,041
Income	83,248
Capital Gains / Losses	1,293,076
Market Value 12/2022	\$ 20,096,473

# INVESTMENT GROWTH

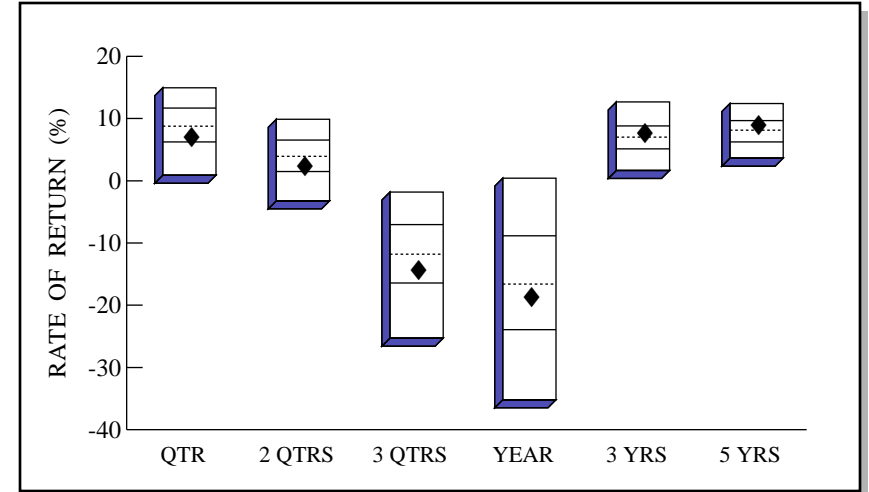
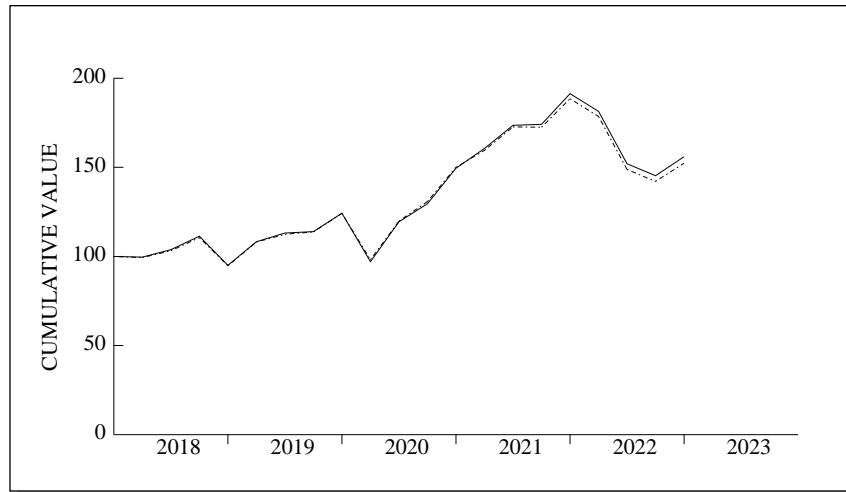


—	ACTUAL RETURN
.....	7.4% DHB PROJ
.....	0.0%
- . - . -	6.6% HZN PROJ

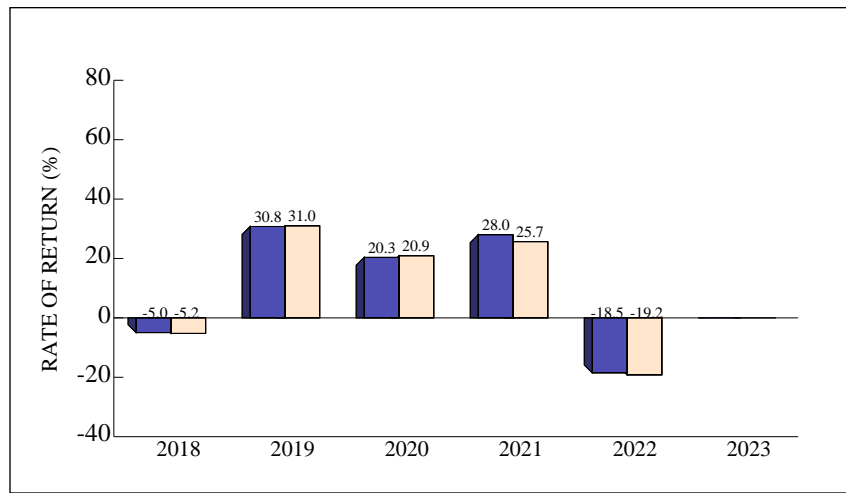
VALUE ASSUMING	
7.4% DHB PROJ	\$ 18,565,382
6.6% HZN PROJ	\$ 17,734,332

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE	\$ 18,731,190	\$ 41,259,855
NET CONTRIBUTIONS	- 11,041	- 29,364,050
INVESTMENT RETURN	1,376,324	8,200,668
ENDING VALUE	\$ 20,096,473	\$ 20,096,473
INCOME	83,248	1,584,785
CAPITAL GAINS (LOSSES)	1,293,076	6,615,883
INVESTMENT RETURN	1,376,324	8,200,668

# TOTAL RETURN COMPARISONS

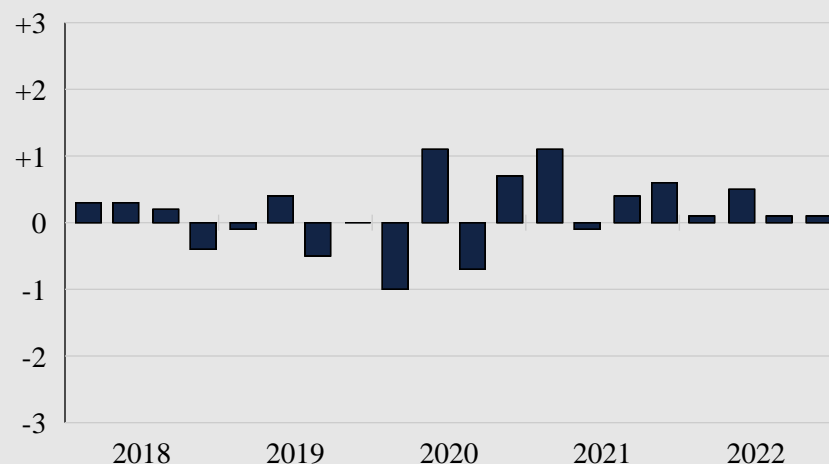


Domestic Equity Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	7.3	2.7	-14.0	-18.5	7.9	9.3
(RANK)	(65)	(64)	(61)	(59)	(36)	(31)
5TH %ILE	14.9	9.9	-1.8	0.4	12.7	12.4
25TH %ILE	11.7	6.5	-7.0	-8.8	8.8	9.7
MEDIAN	8.8	3.9	-11.8	-16.6	7.0	8.1
75TH %ILE	6.2	1.5	-16.4	-23.9	5.1	6.3
95TH %ILE	0.9	-3.2	-25.3	-35.2	1.7	3.6
<b>Russ 3000</b>	<b>7.2</b>	<b>2.4</b>	<b>-14.7</b>	<b>-19.2</b>	<b>7.1</b>	<b>8.8</b>

Domestic Equity Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY****COMPARATIVE BENCHMARK: RUSSELL 3000****VARIATION FROM BENCHMARK**

<b>Total Quarters Observed</b>	<b>20</b>
<b>Quarters At or Above the Benchmark</b>	<b>14</b>
<b>Quarters Below the Benchmark</b>	<b>6</b>
<b>Batting Average</b>	<b>.700</b>

**RATES OF RETURN**

Date	Portfolio	Benchmark	Difference
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

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM  
RHUMBLINE - S&P MID CAP 400 POOLED INDEX FUND  
PERFORMANCE REVIEW  
DECEMBER 2022

## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's RhumbLine S&P Mid Cap 400 Pooled Index Fund was valued at \$19,901,594, representing an increase of \$1,933,767 from the September quarter's ending value of \$17,967,827. Last quarter, the Fund posted no net contributions or withdrawals, while posting \$1,933,767 in net investment returns. Since there were no income receipts for the fourth quarter, the portfolio's net investment return was the result of net realized and unrealized capital gains totaling \$1,933,767.

## **RELATIVE PERFORMANCE**

During the fourth quarter, the RhumbLine S&P Mid Cap 400 Pooled Index Fund gained 10.8%, which was equal to the S&P 400 Index's return of 10.8% and ranked in the 44th percentile of the Mid Cap Core universe. Over the trailing twelve-month period, this portfolio returned -13.1%, which was equal to the benchmark's -13.1% return, and ranked in the 35th percentile. Since June 2018, the portfolio returned 6.6% per annum and ranked in the 55th percentile. For comparison, the S&P 400 returned an annualized 6.7% over the same period.

**EXECUTIVE SUMMARY****PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	Since 06/18
<b>Total Portfolio - Gross</b>	10.8	-13.1	7.2	----	6.6
<i>MID CAP CORE RANK</i>	(44)	(35)	(52)	----	(55)
<b>Total Portfolio - Net</b>	10.7	-13.1	7.2	----	6.6
S&P 400	10.8	-13.1	7.2	6.7	6.7
<b>Domestic Equity - Gross</b>	10.8	-13.1	7.2	----	6.6
<i>MID CAP CORE RANK</i>	(44)	(35)	(52)	----	(55)
S&P 400	10.8	-13.1	7.2	6.7	6.7

**ASSET ALLOCATION**

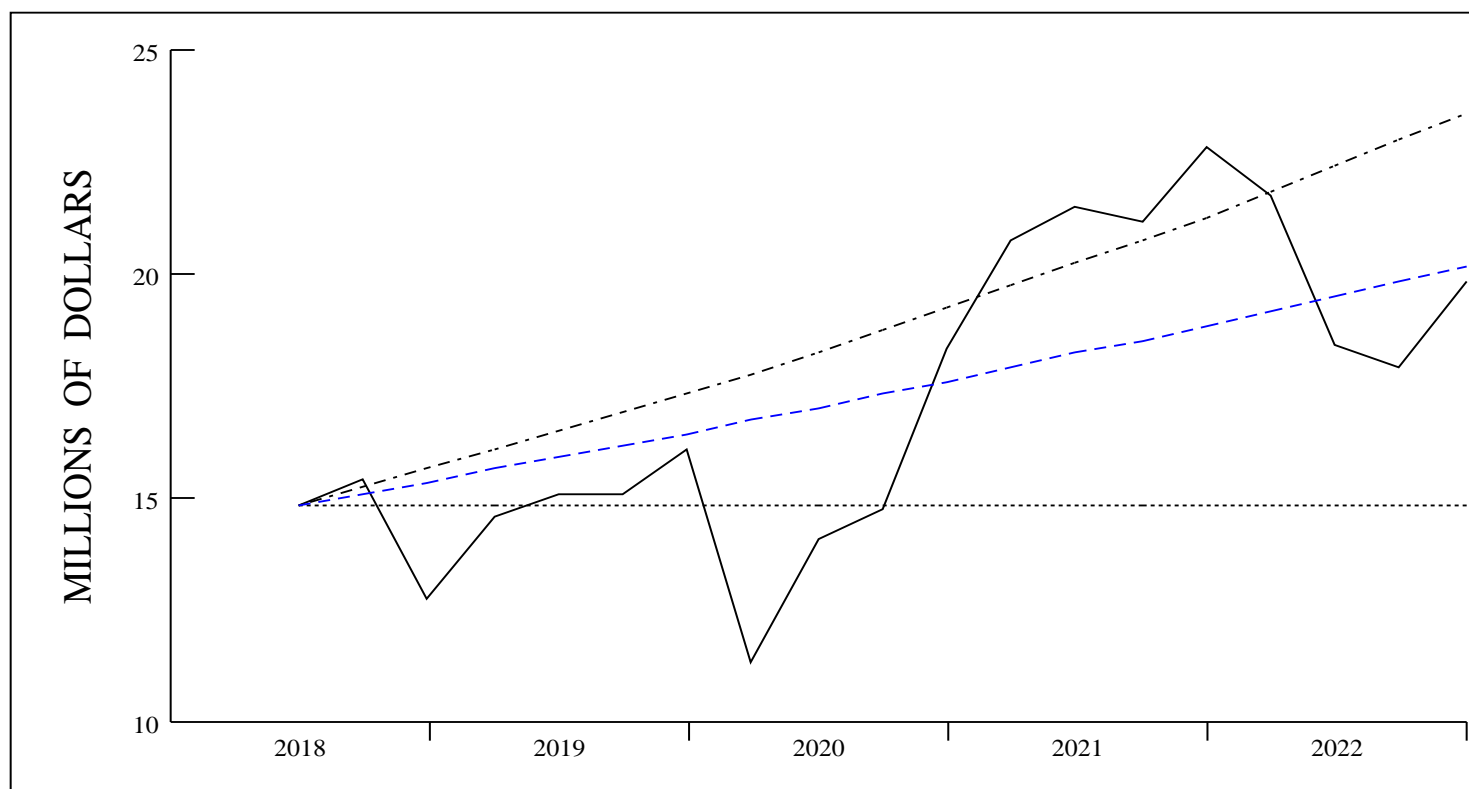
Domestic Equity	100.0%	\$ 19,901,594
Total Portfolio	100.0%	\$ 19,901,594

**INVESTMENT RETURN**

Market Value 9/2022	\$ 17,967,827
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	1,933,767
Market Value 12/2022	\$ 19,901,594



# INVESTMENT GROWTH

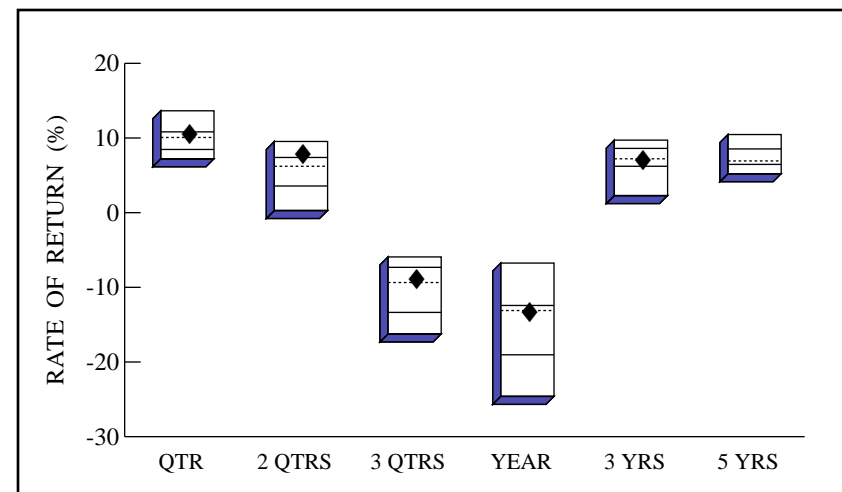
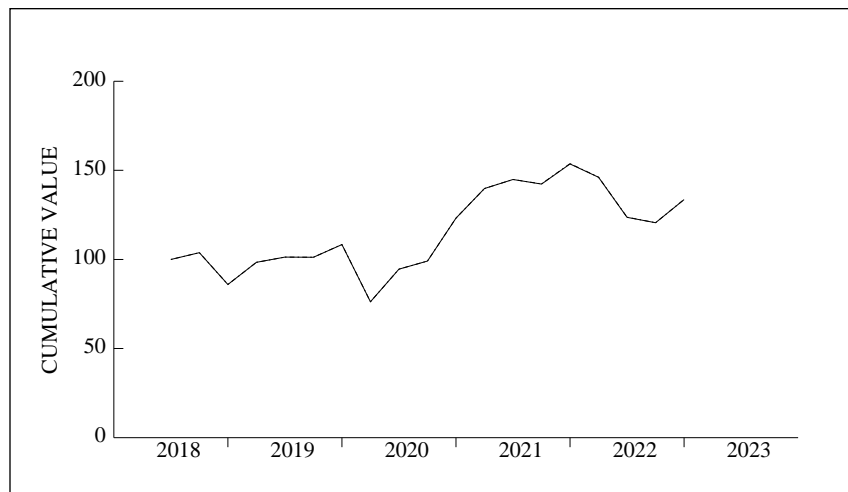


— ACTUAL RETURN  
 - - - 10.8% DHB PROJ  
 . . . 0.0%  
 - - - 7.0% HZN PROJ

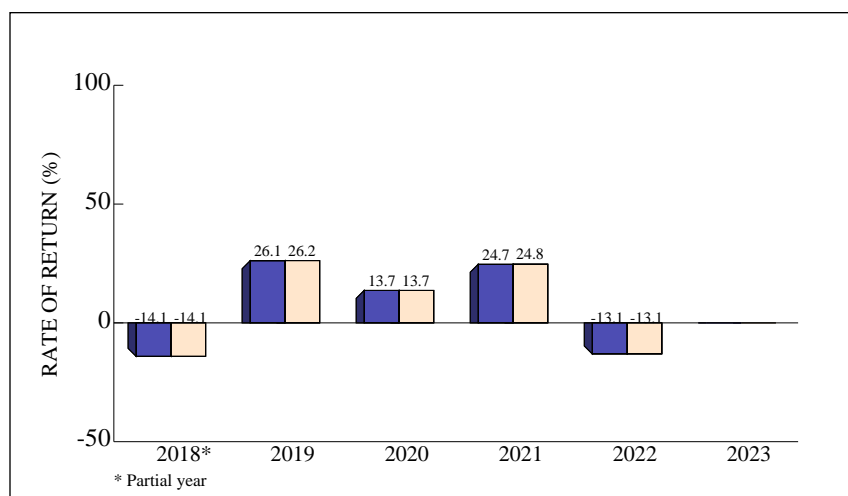
VALUE ASSUMING  
 10.8% DHB PROJ \$ 23,634,540  
 7.0% HZN PROJ \$ 20,199,565

	LAST QUARTER	PERIOD 6/18 - 12/22
BEGINNING VALUE	\$ 17,967,827	\$ 14,897,672
NET CONTRIBUTIONS	0	0
INVESTMENT RETURN	1,933,767	5,003,922
ENDING VALUE	\$ 19,901,594	\$ 19,901,594
INCOME	0	0
CAPITAL GAINS (LOSSES)	1,933,767	5,003,922
INVESTMENT RETURN	1,933,767	5,003,922

# TOTAL RETURN COMPARISONS

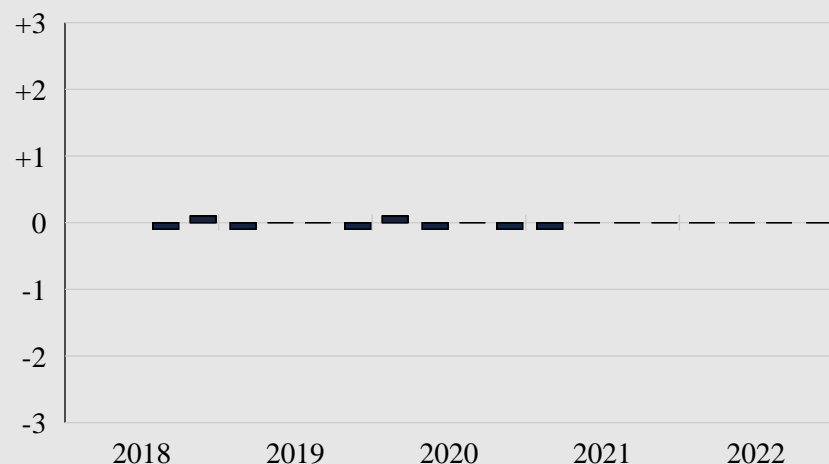


Mid Cap Core Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	10.8	8.0	-8.6	-13.1	7.2	---
(RANK)	(44)	(22)	(36)	(35)	(52)	---
5TH %ILE	13.6	9.5	-5.9	-6.7	9.7	10.5
25TH %ILE	10.8	7.4	-7.3	-12.4	8.6	8.6
MEDIAN	10.1	6.2	-9.3	-13.1	7.2	6.9
75TH %ILE	8.5	3.6	-13.3	-19.0	6.2	6.5
95TH %ILE	7.2	0.3	-16.2	-24.6	2.3	5.2
<b>S&amp;P 400</b>	<b>10.8</b>	<b>8.1</b>	<b>-8.6</b>	<b>-13.1</b>	<b>7.2</b>	<b>6.7</b>

Mid Cap Core Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY****COMPARATIVE BENCHMARK: S&P 400****VARIATION FROM BENCHMARK**

<b>Total Quarters Observed</b>	<b>18</b>
<b>Quarters At or Above the Benchmark</b>	<b>12</b>
<b>Quarters Below the Benchmark</b>	<b>6</b>
<b>Batting Average</b>	<b>.667</b>

**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

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM  
RHUMLINE - S&P SMALL CAP 600 POOLED INDEX FUND  
PERFORMANCE REVIEW  
DECEMBER 2022

## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's RhumbLine S&P Small Cap 600 Pooled Index Fund was valued at \$15,076,885, representing an increase of \$1,264,616 from the September quarter's ending value of \$13,812,269. Last quarter, the Fund posted no net contributions or withdrawals, while posting \$1,264,616 in net investment returns. Since there were no income receipts for the fourth quarter, the portfolio's net investment return was the result of net realized and unrealized capital gains totaling \$1,264,616.

## **RELATIVE PERFORMANCE**

During the fourth quarter, the RhumbLine S&P Small Cap 600 Pooled Index Fund gained 9.2%, which was equal to the S&P 600 Small Cap's return of 9.2% and ranked in the 45th percentile of the Small Cap Core universe. Over the trailing twelve-month period, this portfolio returned -16.1%, which was equal to the benchmark's -16.1% return, and ranked in the 47th percentile. Since June 2018, the portfolio returned 4.4% per annum and ranked in the 62nd percentile. For comparison, the S&P 600 Small Cap returned an annualized 4.4% over the same period.

**EXECUTIVE SUMMARY****PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	Since 06/18
<b>Total Portfolio - Gross</b>	9.2	-16.1	5.8	----	4.4
<i>SMALL CAP CORE RANK</i>	(45)	(47)	(63)	----	(62)
<b>Total Portfolio - Net</b>	9.1	-16.1	5.7	----	4.4
S&P 600	9.2	-16.1	5.8	5.9	4.4
<b>Domestic Equity - Gross</b>	9.2	-16.1	5.8	----	4.4
<i>SMALL CAP CORE RANK</i>	(45)	(47)	(63)	----	(62)
S&P 600	9.2	-16.1	5.8	5.9	4.4

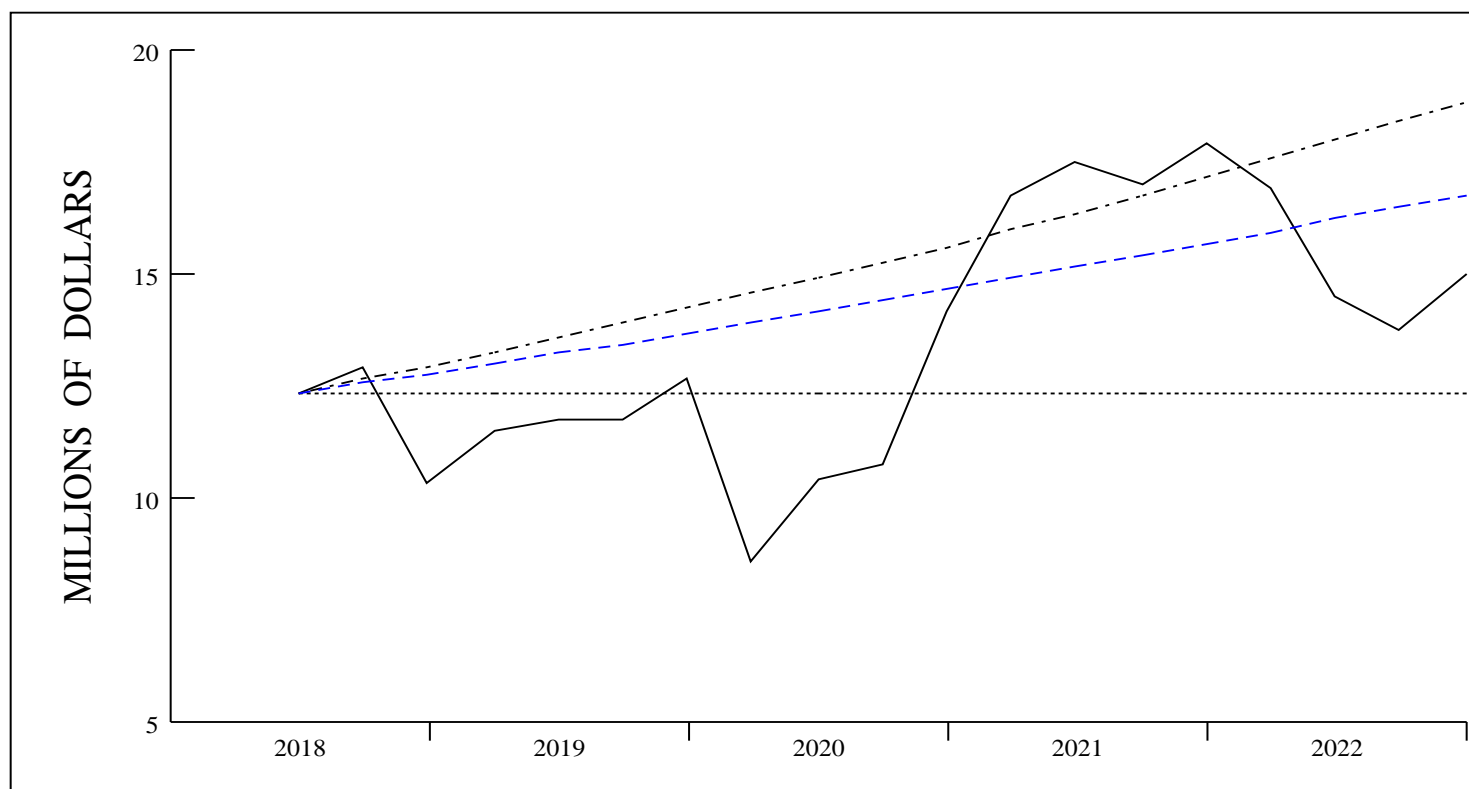
**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 15,076,885
Total Portfolio	100.0%	\$ 15,076,885

**INVESTMENT RETURN**

Market Value 9/2022	\$ 13,812,269
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	1,264,616
Market Value 12/2022	\$ 15,076,885

# INVESTMENT GROWTH

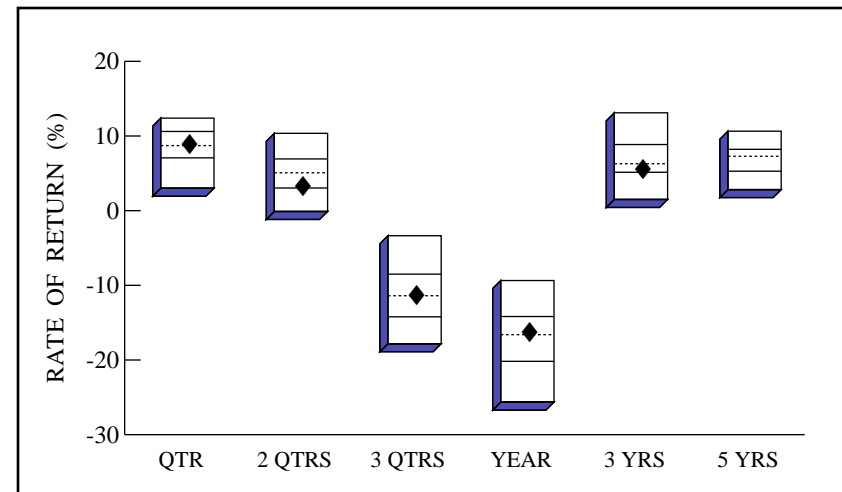
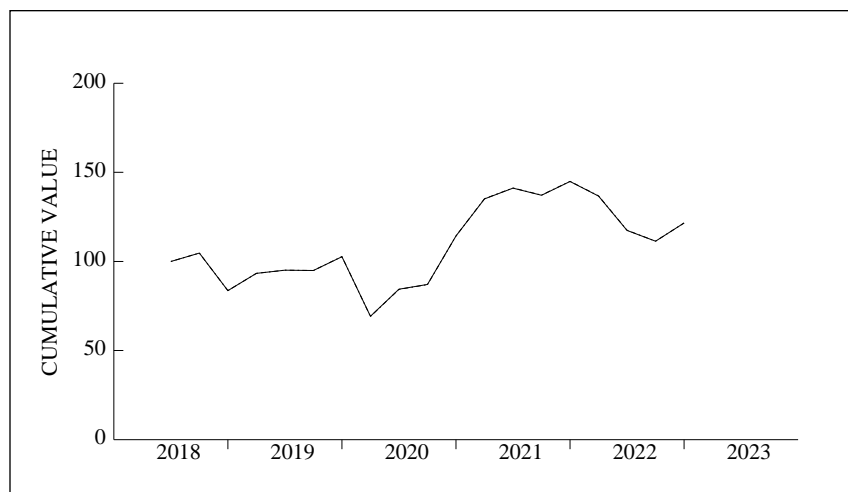


— ACTUAL RETURN  
 - - - 9.8% DHB PROJ  
 . . . 0.0%  
 - - - 7.0% HZN PROJ

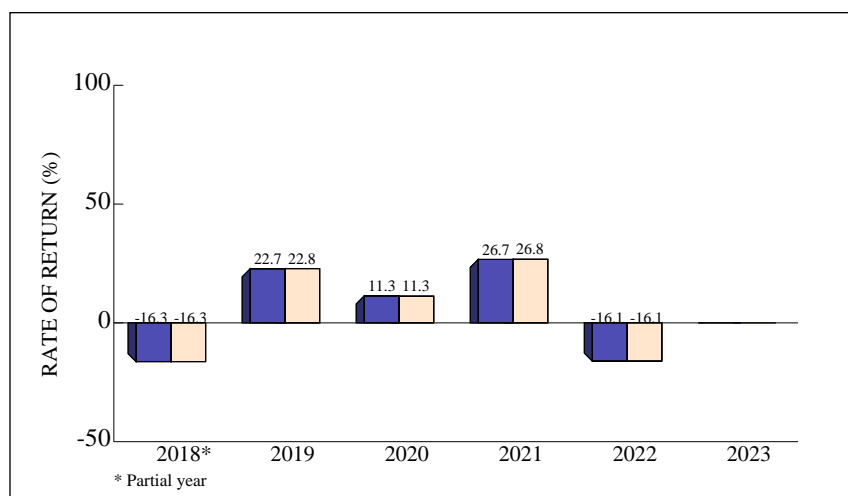
VALUE ASSUMING  
 9.8% DHB PROJ \$ 18,887,564  
 7.0% HZN PROJ \$ 16,814,957

	LAST QUARTER	PERIOD 6/18 - 12/22
BEGINNING VALUE	\$ 13,812,269	\$ 12,401,441
NET CONTRIBUTIONS	0	0
INVESTMENT RETURN	1,264,616	2,675,444
ENDING VALUE	\$ 15,076,885	\$ 15,076,885
INCOME	0	0
CAPITAL GAINS (LOSSES)	1,264,616	2,675,444
INVESTMENT RETURN	1,264,616	2,675,444

# TOTAL RETURN COMPARISONS



Small Cap Core Universe



	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	9.2	3.5	-11.1	-16.1	5.8	---
(RANK)	(45)	(68)	(49)	(47)	(63)	---
5TH %ILE	12.4	10.4	-3.3	-9.4	13.1	10.6
25TH %ILE	10.6	6.9	-8.5	-14.2	8.9	8.2
MEDIAN	8.7	5.1	-11.4	-16.6	6.3	7.3
75TH %ILE	7.1	3.0	-14.2	-20.2	5.2	5.3
95TH %ILE	3.0	-0.1	-17.8	-25.6	1.5	2.8
<b>S&amp;P 600</b>	<b>9.2</b>	<b>3.5</b>	<b>-11.1</b>	<b>-16.1</b>	<b>5.8</b>	<b>5.9</b>

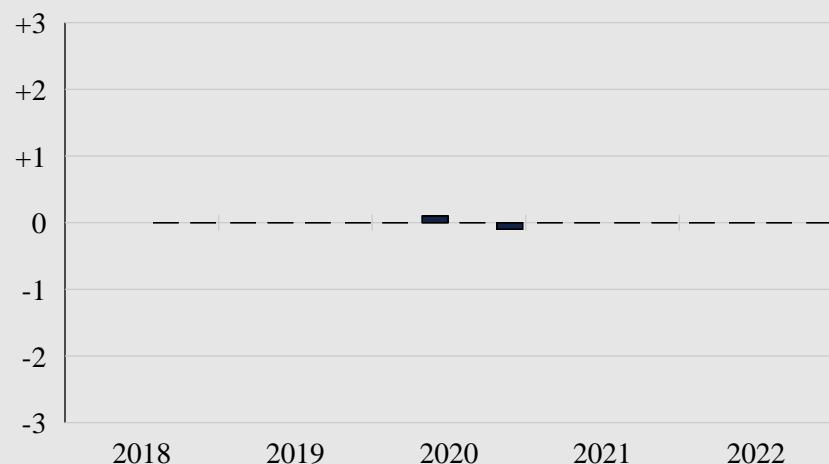
Small Cap Core Universe



# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: S&P 600 SMALL CAP

## VARIATION FROM BENCHMARK



Total Quarters Observed	18
Quarters At or Above the Benchmark	17
Quarters Below the Benchmark	1
Batting Average	.944

## RATES OF RETURN

Date	Portfolio	Benchmark	Difference
9/18	4.7	4.7	0.0
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

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM  
PRIT - INTERNATIONAL EQUITY  
PERFORMANCE REVIEW  
DECEMBER 2022

## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's PRIT International Equity portfolio was valued at \$3,207,040, representing an increase of \$449,745 from the September quarter's ending value of \$2,757,295. Last quarter, the Fund posted withdrawals totaling \$2,351, which partially offset the portfolio's net investment return of \$452,096. Income receipts totaling \$11,822 plus net realized and unrealized capital gains of \$440,274 combined to produce the portfolio's net investment return.

## **RELATIVE PERFORMANCE**

For the fourth quarter, the PRIT International Equity portfolio returned 16.4%, which was 1.0% below the MSCI EAFE Index's return of 17.4% and ranked in the 41st percentile of the International Equity universe. Over the trailing year, the portfolio returned -17.0%, which was 3.0% below the benchmark's -14.0% return, ranking in the 53rd percentile. Since December 2017, the portfolio returned 2.0% annualized and ranked in the 51st percentile. The MSCI EAFE Index returned an annualized 2.0% over the same period.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

	Quarter	YTD /1Y	3 Year	5 Year
<b>Total Portfolio - Gross</b>	16.4	-17.0	1.1	2.0
<i>INTERNATIONAL EQUITY RANK</i>	(41)	(53)	(57)	(51)
<b>Total Portfolio - Net</b>	16.3	-17.2	0.8	1.8
MSCI EAFE	17.4	-14.0	1.3	2.0
<b>International Equity - Gross</b>	16.4	-17.0	1.1	2.0
<i>INTERNATIONAL EQUITY RANK</i>	(41)	(53)	(57)	(51)
MSCI EAFE	17.4	-14.0	1.3	2.0

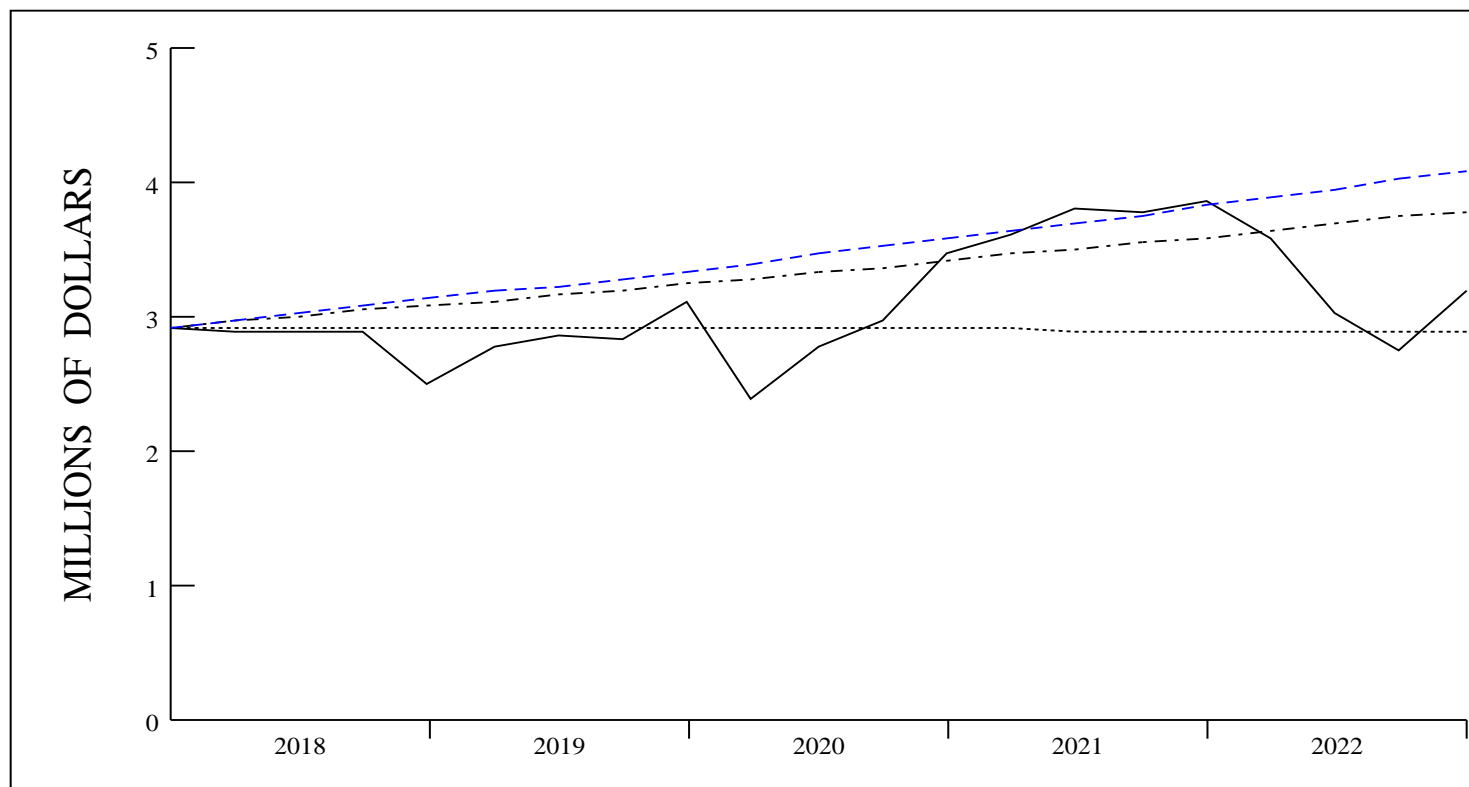
## ASSET ALLOCATION

Int'l Equity	100.0%	\$ 3,207,040
Total Portfolio	100.0%	\$ 3,207,040

## INVESTMENT RETURN

Market Value 9/2022	\$ 2,757,295
Contribs / Withdrawals	- 2,351
Income	11,822
Capital Gains / Losses	440,274
Market Value 12/2022	\$ 3,207,040

# INVESTMENT GROWTH

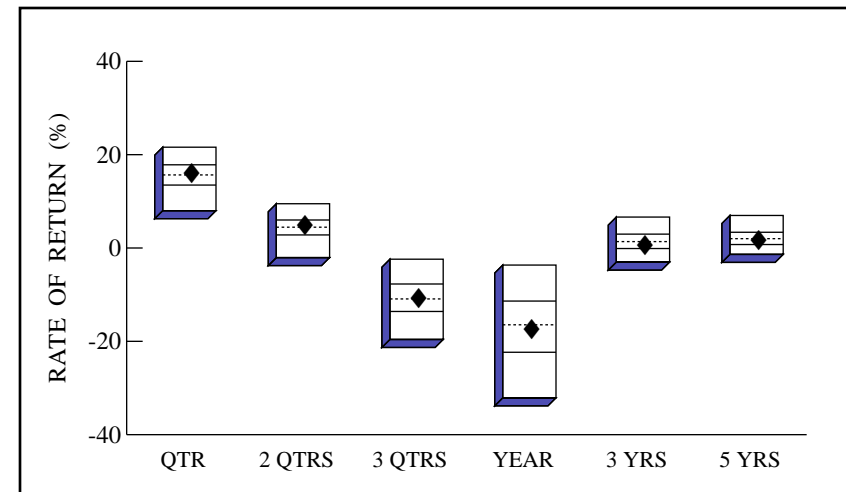
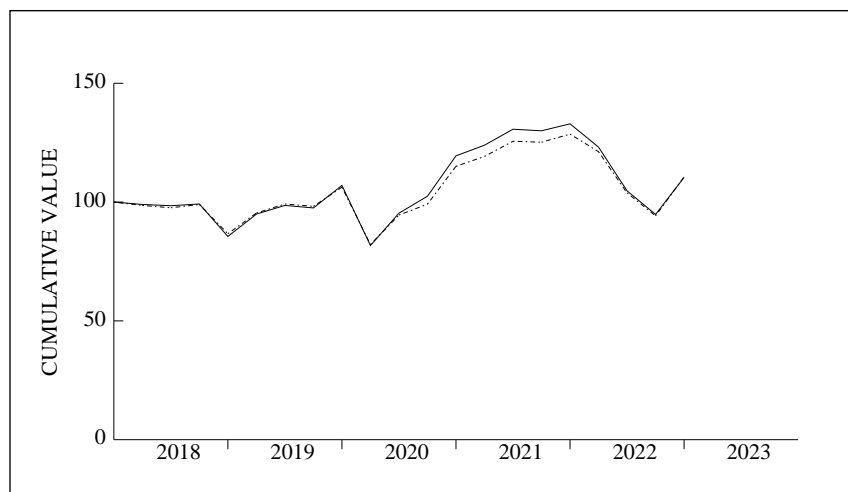


—	ACTUAL RETURN
- - -	5.5% DHB PROJ
.....	0.0%
- - - - -	7.1% HZN PROJ

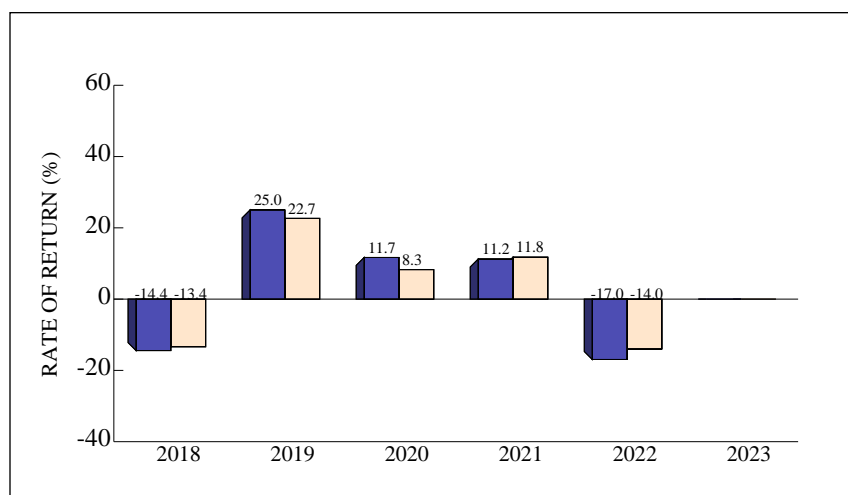
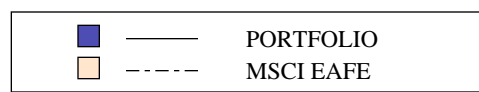
VALUE ASSUMING	
5.5% DHB PROJ	\$ 3,800,730
7.1% HZN PROJ	\$ 4,099,338

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE	\$ 2,757,295	\$ 2,940,435
NET CONTRIBUTIONS	- 2,351	- 37,262
INVESTMENT RETURN	452,096	303,867
ENDING VALUE	\$ 3,207,040	\$ 3,207,040
INCOME	11,822	417,592
CAPITAL GAINS (LOSSES)	440,274	-113,725
INVESTMENT RETURN	452,096	303,867

# TOTAL RETURN COMPARISONS

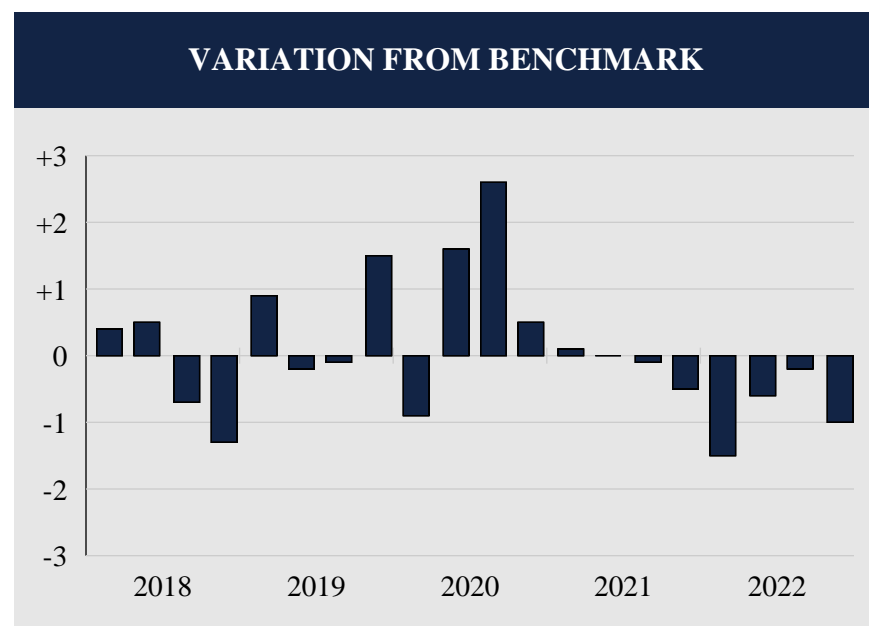


International Equity Universe



	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	16.4	5.4	-10.4	-17.0	1.1	2.0
(RANK)	(41)	(36)	(47)	(53)	(57)	(51)
5TH %ILE	21.6	9.5	-2.4	-3.7	6.6	7.0
25TH %ILE	17.8	6.0	-7.7	-11.4	3.0	3.4
MEDIAN	15.6	4.5	-10.9	-16.5	1.4	2.0
75TH %ILE	13.5	2.8	-13.6	-22.3	-0.1	0.8
95TH %ILE	8.0	-2.0	-19.6	-32.1	-3.0	-1.4
<b>MSCI EAFE</b>	<b>17.4</b>	<b>6.5</b>	<b>-8.7</b>	<b>-14.0</b>	<b>1.3</b>	<b>2.0</b>

International Equity Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY****COMPARATIVE BENCHMARK: MSCI EAFE**

<b>Total Quarters Observed</b>	<b>20</b>
<b>Quarters At or Above the Benchmark</b>	<b>9</b>
<b>Quarters Below the Benchmark</b>	<b>11</b>
<b>Batting Average</b>	<b>.450</b>

<b>RATES OF RETURN</b>			
<b>Date</b>	<b>Portfolio</b>	<b>Benchmark</b>	<b>Difference</b>
3/18	-1.0	-1.4	0.4
6/18	-0.5	-1.0	0.5
9/18	0.7	1.4	-0.7
12/18	-13.8	-12.5	-1.3
3/19	11.0	10.1	0.9
6/19	3.8	4.0	-0.2
9/19	-1.1	-1.0	-0.1
12/19	9.7	8.2	1.5
3/20	-23.6	-22.7	-0.9
6/20	16.7	15.1	1.6
9/20	7.5	4.9	2.6
12/20	16.6	16.1	0.5
3/21	3.7	3.6	0.1
6/21	5.4	5.4	0.0
9/21	-0.5	-0.4	-0.1
12/21	2.2	2.7	-0.5
3/22	-7.3	-5.8	-1.5
6/22	-14.9	-14.3	-0.6
9/22	-9.5	-9.3	-0.2
12/22	16.4	17.4	-1.0

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM  
PRIT - EMERGING MARKETS  
PERFORMANCE REVIEW  
DECEMBER 2022



## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's PRIT Emerging Markets portfolio was valued at \$4,530,951, representing an increase of \$391,307 from the September quarter's ending value of \$4,139,644. Last quarter, the Fund posted withdrawals totaling \$6,941, which partially offset the portfolio's net investment return of \$398,248. Income receipts totaling \$32,898 plus net realized and unrealized capital gains of \$365,350 combined to produce the portfolio's net investment return.

## **RELATIVE PERFORMANCE**

For the fourth quarter, the PRIT Emerging Markets portfolio returned 9.6%, which was 0.2% below the MSCI Emerging Market Index's return of 9.8% and ranked in the 65th percentile of the Emerging Markets universe. Over the trailing year, the portfolio returned -18.7%, which was 1.0% above the benchmark's -19.7% return, ranking in the 46th percentile. Since December 2017, the portfolio returned 0.8% annualized and ranked in the 35th percentile. The MSCI Emerging Markets returned an annualized -1.0% over the same period.

**EXECUTIVE SUMMARY****PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year
<b>Total Portfolio - Gross</b>	9.6	-18.7	0.0	0.8
<i>EMERGING MARKETS RANK</i>	(65)	(46)	(41)	(35)
<b>Total Portfolio - Net</b>	9.4	-19.2	-0.6	0.2
MSCI Emg Mkts	9.8	-19.7	-2.3	-1.0
<b>Emerging Markets Equity - Gross</b>	9.6	-18.7	0.0	0.8
<i>EMERGING MARKETS RANK</i>	(65)	(46)	(41)	(35)
MSCI Emg Mkts	9.8	-19.7	-2.3	-1.0

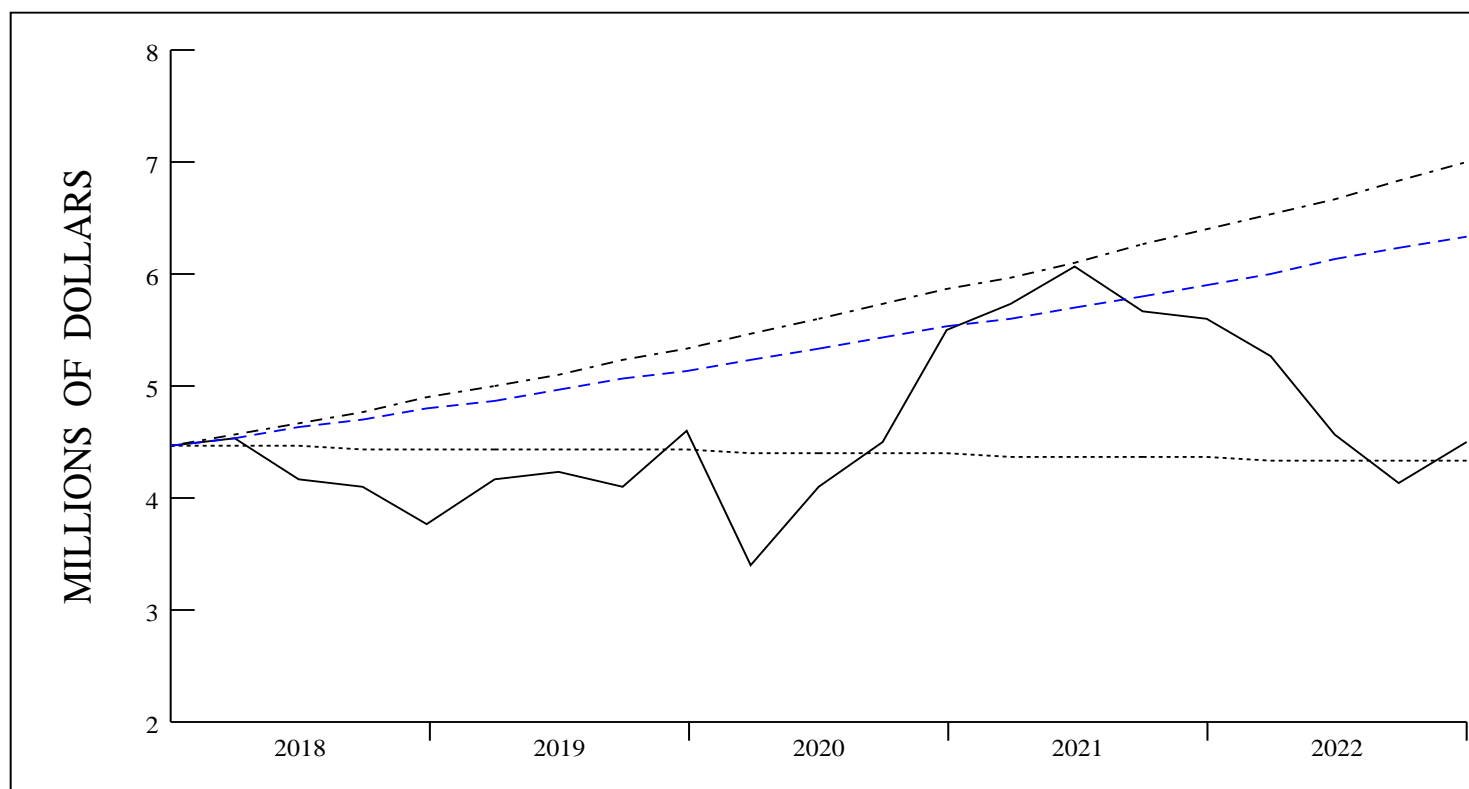
**ASSET ALLOCATION**

Emerging Markets	100.0%	\$ 4,530,951
Total Portfolio	100.0%	\$ 4,530,951

**INVESTMENT RETURN**

Market Value 9/2022	\$ 4,139,644
Contribs / Withdrawals	- 6,941
Income	32,898
Capital Gains / Losses	365,350
Market Value 12/2022	\$ 4,530,951

# INVESTMENT GROWTH

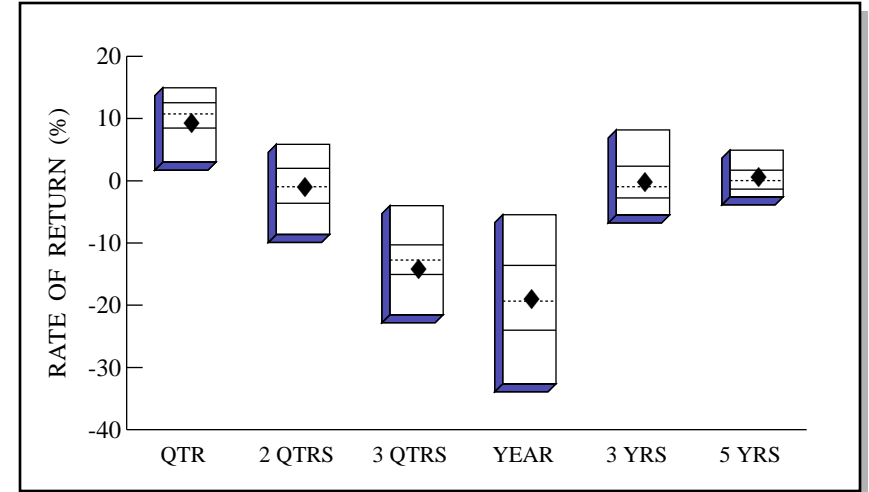
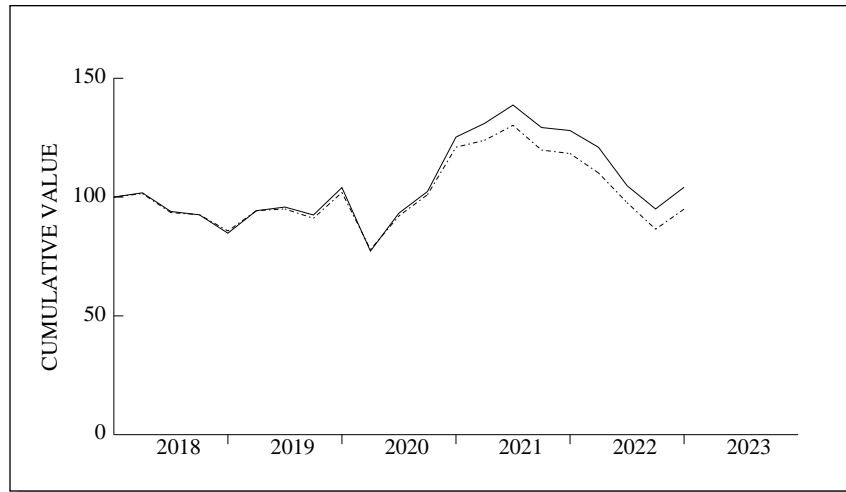


— ACTUAL RETURN  
 ..... 9.9% DHB PROJ  
 ..... 0.0%  
 - - - 7.8% HZN PROJ

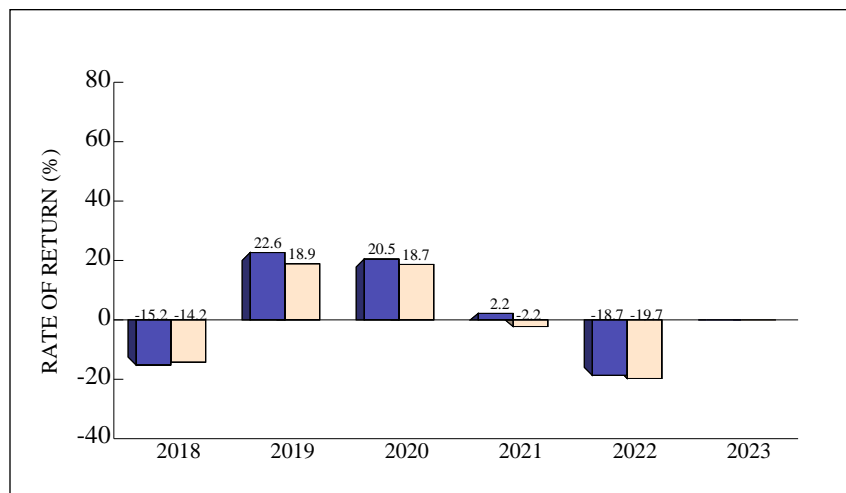
VALUE ASSUMING  
 9.9% DHB PROJ \$ 7,010,887  
 7.8% HZN PROJ \$ 6,358,354

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE	\$ 4,139,644	\$ 4,482,992
NET CONTRIBUTIONS	- 6,941	-140,127
INVESTMENT RETURN	398,248	188,086
ENDING VALUE	\$ 4,530,951	\$ 4,530,951
INCOME	32,898	592,515
CAPITAL GAINS (LOSSES)	365,350	-404,429
INVESTMENT RETURN	398,248	188,086

# TOTAL RETURN COMPARISONS



Emerging Markets Universe

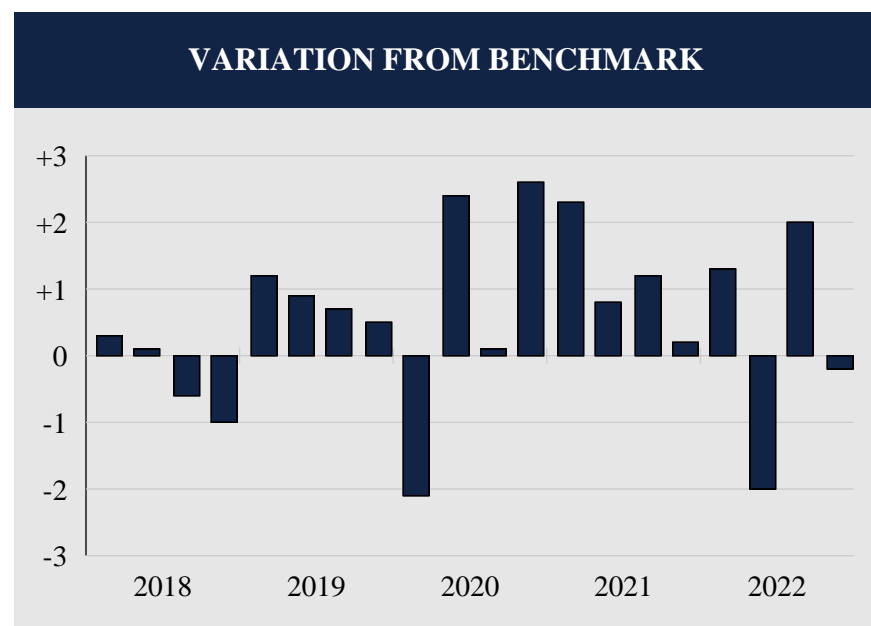


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	9.6	-0.7	-13.9	-18.7	0.0	0.8
(RANK)	(65)	(47)	(60)	(46)	(41)	(35)
5TH %ILE	14.9	5.9	-4.0	-5.4	8.2	4.9
25TH %ILE	12.5	2.0	-10.3	-13.6	2.4	1.7
MEDIAN	10.8	-0.9	-12.8	-19.4	-1.0	0.0
75TH %ILE	8.5	-3.6	-15.0	-24.0	-2.8	-1.4
95TH %ILE	3.0	-8.6	-21.5	-32.6	-5.5	-2.6
<b>MSCI EM</b>	<b>9.8</b>	<b>-2.7</b>	<b>-13.8</b>	<b>-19.7</b>	<b>-2.3</b>	<b>-1.0</b>

Emerging Markets Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: MSCI EMERGING MARKETS



Total Quarters Observed	20
Quarters At or Above the Benchmark	15
Quarters Below the Benchmark	5
Batting Average	.750

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/18	1.8	1.5	0.3
6/18	-7.8	-7.9	0.1
9/18	-1.5	-0.9	-0.6
12/18	-8.4	-7.4	-1.0
3/19	11.2	10.0	1.2
6/19	1.6	0.7	0.9
9/19	-3.4	-4.1	0.7
12/19	12.4	11.9	0.5
3/20	-25.7	-23.6	-2.1
6/20	20.6	18.2	2.4
9/20	9.8	9.7	0.1
12/20	22.4	19.8	2.6
3/21	4.6	2.3	2.3
6/21	5.9	5.1	0.8
9/21	-6.8	-8.0	1.2
12/21	-1.0	-1.2	0.2
3/22	-5.6	-6.9	1.3
6/22	-13.3	-11.3	-2.0
9/22	-9.4	-11.4	2.0
12/22	9.6	9.8	-0.2

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM  
PRIT - CORE REAL ESTATE  
PERFORMANCE REVIEW  
DECEMBER 2022

## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's PRIT Core Real Estate portfolio was valued at \$18,047,193, a decrease of \$134,453 from the September ending value of \$18,181,646. Last quarter, the account recorded total net contributions of \$5,110, which marginally offset the account's \$139,563 net investment loss for the period. The fund's net investment loss was a result of income receipts totaling \$168,906 and realized and unrealized capital losses totaling \$308,469.

## **RELATIVE PERFORMANCE**

During the fourth quarter, the PRIT Core Real Estate portfolio lost 0.8%, which was 4.2% above the NCREIF NFI-ODCE Index's return of -5.0%. Over the trailing twelve-month period, the portfolio returned 7.7%, which was 0.2% better than the benchmark's 7.5% return. Since December 2017, the PRIT Core Real Estate portfolio returned 10.4% on an annualized basis, while the NCREIF NFI-ODCE Index returned an annualized 8.7% over the same time frame.

**EXECUTIVE SUMMARY****PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year
<b>Total Portfolio - Gross</b>	-0.8	7.7	11.7	10.4
<b>Total Portfolio - Net</b>	-0.7	7.0	11.1	9.7
NCREIF ODCE	-5.0	7.5	9.9	8.7
<b>Real Estate - Gross</b>	-0.8	7.7	11.7	10.4
NCREIF ODCE	-5.0	7.5	9.9	8.7

**ASSET ALLOCATION**

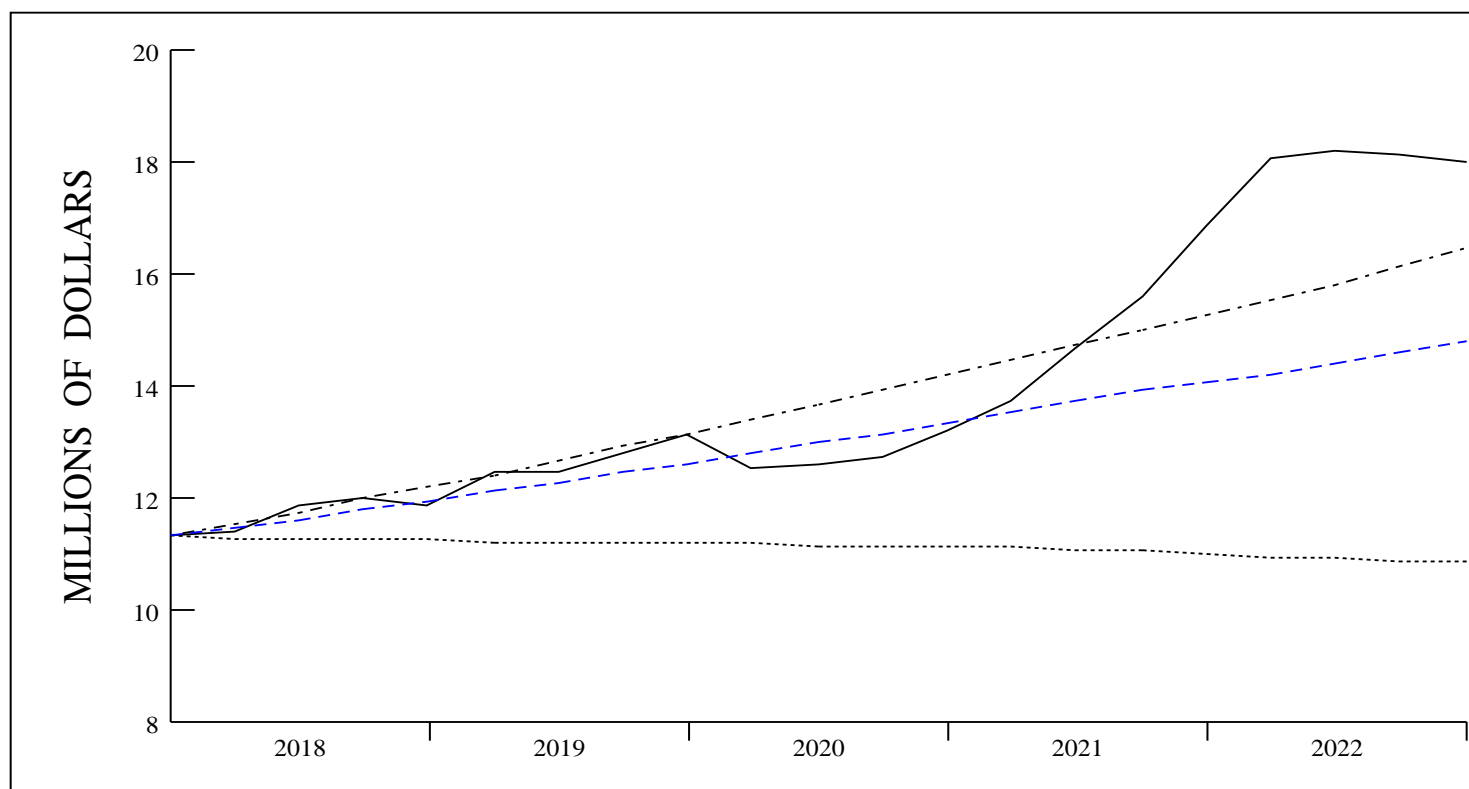
Real Estate	100.0%	\$ 18,047,193
Total Portfolio	100.0%	\$ 18,047,193

**INVESTMENT RETURN**

Market Value 9/2022	\$ 18,181,646
Contribs / Withdrawals	5,110
Income	168,906
Capital Gains / Losses	-308,469
Market Value 12/2022	\$ 18,047,193



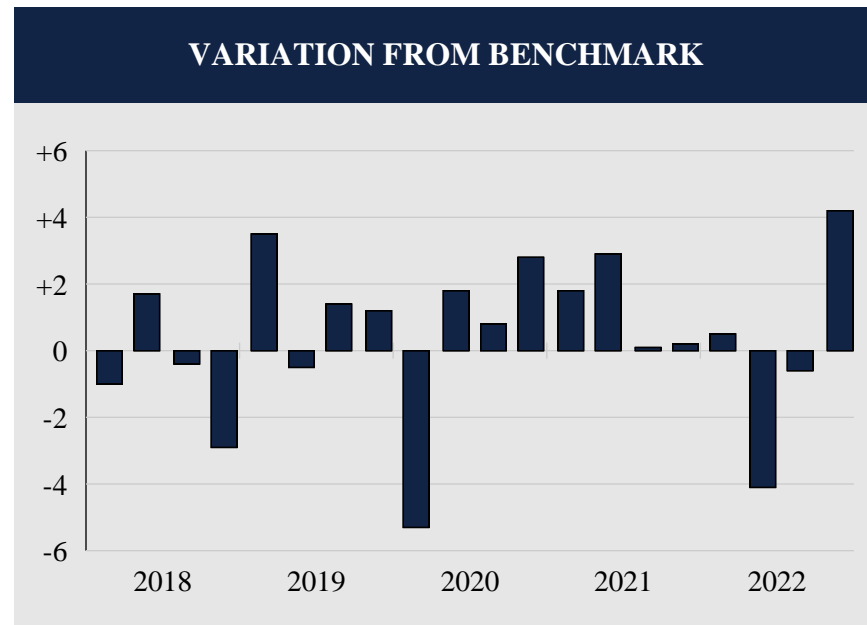
## INVESTMENT GROWTH



— ACTUAL RETURN  
 - - - 8.4% DHB PROJ  
 . . . 0.0%  
 - - - 6.2% HZN PROJ

VALUE ASSUMING  
 8.4% DHB PROJ \$ 16,478,388  
 6.2% HZN PROJ \$ 14,846,000

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE	\$ 18,181,646	\$ 11,339,482
NET CONTRIBUTIONS	5,110	-415,941
INVESTMENT RETURN	-139,563	7,123,652
ENDING VALUE	\$ 18,047,193	\$ 18,047,193
INCOME	168,906	2,779,769
CAPITAL GAINS (LOSSES)	-308,469	4,343,883
INVESTMENT RETURN	-139,563	7,123,652

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY****COMPARATIVE BENCHMARK: NCREIF NFI-ODCE INDEX**

<b>Total Quarters Observed</b>	<b>20</b>
<b>Quarters At or Above the Benchmark</b>	<b>13</b>
<b>Quarters Below the Benchmark</b>	<b>7</b>
<b>Batting Average</b>	<b>.650</b>

<b>RATES OF RETURN</b>			
<b>Date</b>	<b>Portfolio</b>	<b>Benchmark</b>	<b>Difference</b>
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

ANDOVER CONTRIBUTORY RETIREMENT SYSTEM  
PRIT - CORE FIXED INCOME  
PERFORMANCE REVIEW  
DECEMBER 2022

## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's PRIT Core Fixed Income portfolio was valued at \$5,866,772, representing an increase of \$38,359 from the September quarter's ending value of \$5,828,413. Last quarter, the Fund posted withdrawals totaling \$1,949, which partially offset the portfolio's net investment return of \$40,308. Net investment return was a product of income receipts totaling \$43,098 and realized and unrealized capital losses of \$2,790.

## **RELATIVE PERFORMANCE**

For the fourth quarter, the PRIT Core Fixed Income portfolio returned 0.7%, which was 1.2% below the Bloomberg Aggregate Index's return of 1.9% and ranked in the 99th percentile of the Core Fixed Income universe. Over the trailing year, the portfolio returned -18.3%, which was 5.3% below the benchmark's -13.0% return, ranking in the 99th percentile. Since December 2017, the portfolio returned 0.3% annualized and ranked in the 76th percentile. The Bloomberg Aggregate Index returned an annualized 0.0% over the same period.

**EXECUTIVE SUMMARY****PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year
<b>Total Portfolio - Gross</b>	0.7	-18.3	-2.8	0.3
<i>CORE FIXED INCOME RANK</i>	(99)	(99)	(98)	(76)
<b>Total Portfolio - Net</b>	0.7	-18.4	-2.9	0.2
Aggregate Index	1.9	-13.0	-2.7	0.0
<b>Fixed Income - Gross</b>	0.7	-18.3	-2.8	0.3
<i>CORE FIXED INCOME RANK</i>	(99)	(99)	(98)	(76)
Aggregate Index	1.9	-13.0	-2.7	0.0

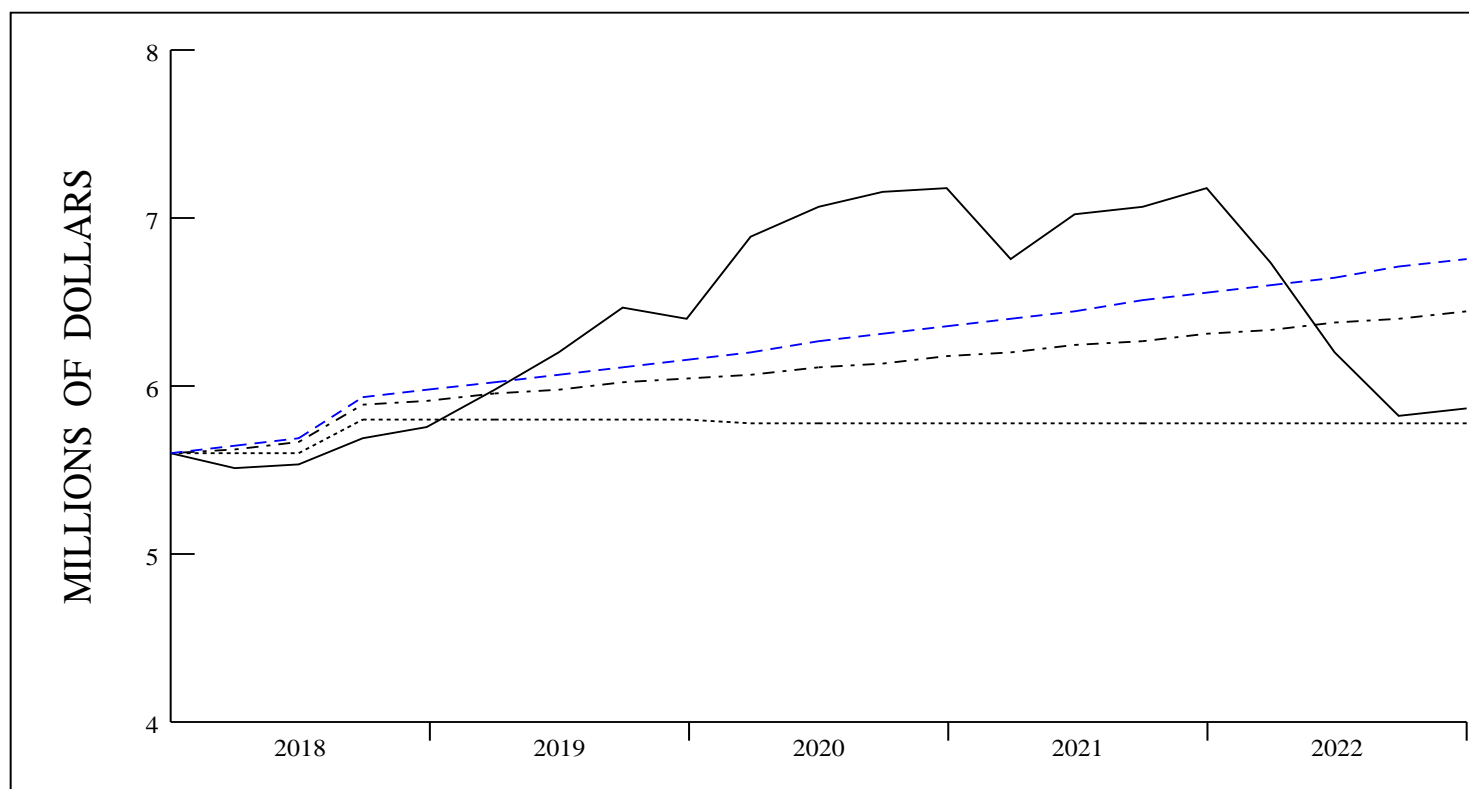
**ASSET ALLOCATION**

Fixed Income	100.0%	\$ 5,866,772
Total Portfolio	100.0%	\$ 5,866,772

**INVESTMENT RETURN**

Market Value 9/2022	\$ 5,828,413
Contribs / Withdrawals	- 1,949
Income	43,098
Capital Gains / Losses	- 2,790
Market Value 12/2022	\$ 5,866,772

# INVESTMENT GROWTH

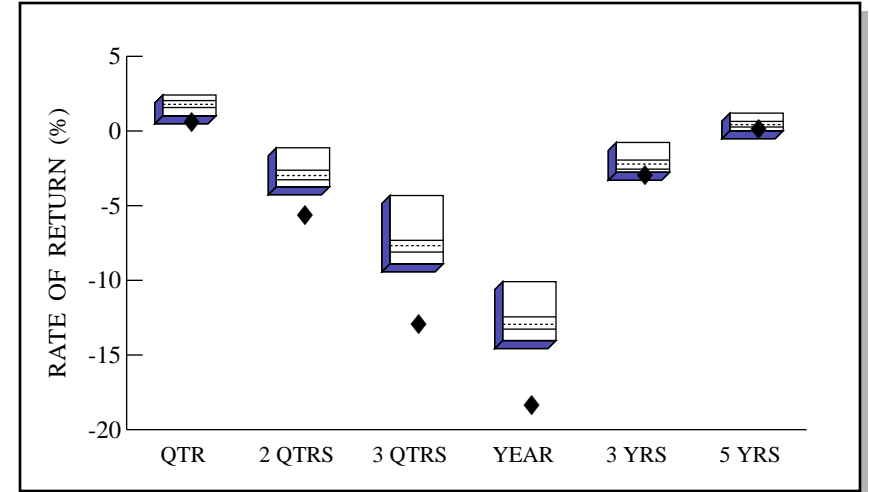
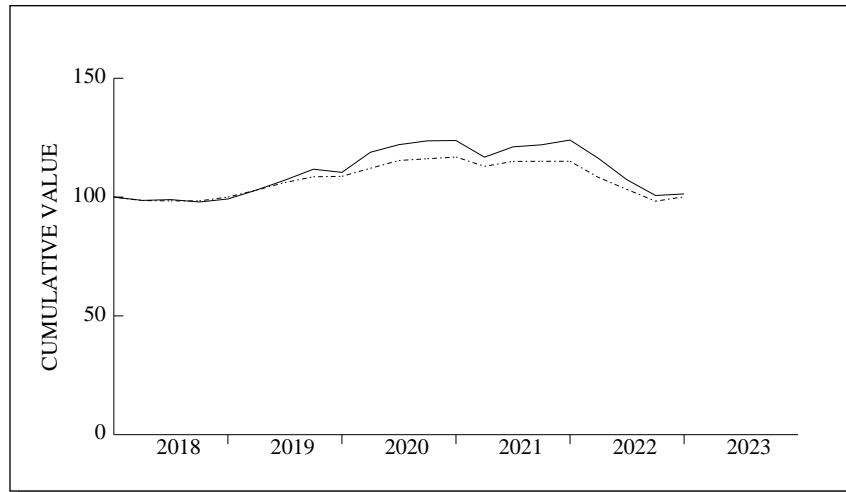


—	ACTUAL RETURN
.....	2.2% DHB PROJ
.....	0.0%
- - - - -	3.2% HZN PROJ

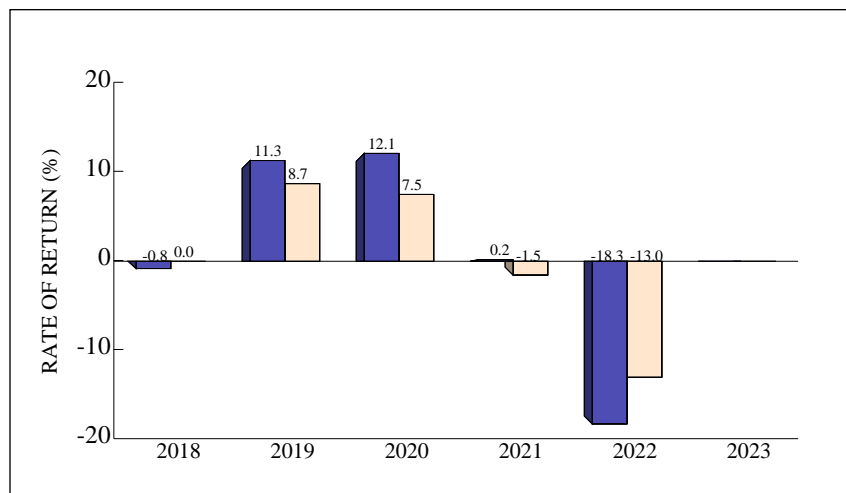
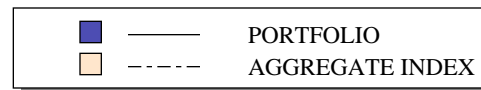
VALUE ASSUMING	
2.2% DHB PROJ	\$ 6,444,756
3.2% HZN PROJ	\$ 6,765,418

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE	\$ 5,828,413	\$ 5,612,200
NET CONTRIBUTIONS	- 1,949	169,588
INVESTMENT RETURN	40,308	84,984
ENDING VALUE	\$ 5,866,772	\$ 5,866,772
INCOME	43,098	811,475
CAPITAL GAINS (LOSSES)	- 2,790	-726,491
INVESTMENT RETURN	40,308	84,984

# TOTAL RETURN COMPARISONS

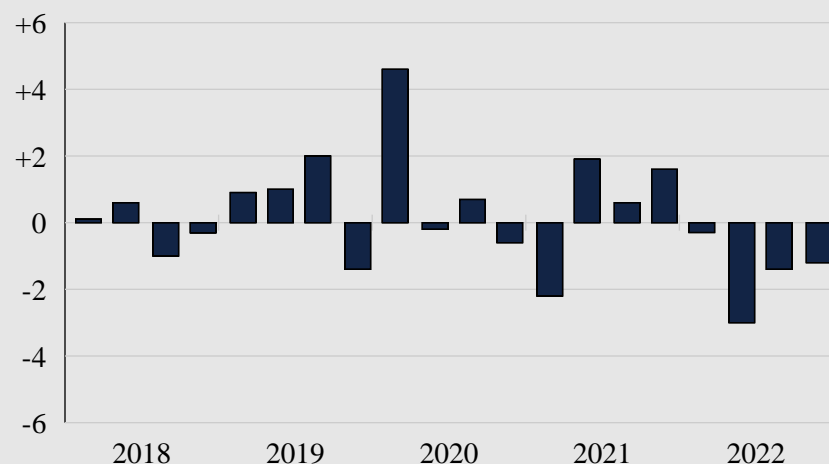


Core Fixed Income Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	0.7	-5.5	-12.8	-18.3	-2.8	0.3
(RANK)	(99)	(99)	(99)	(99)	(98)	(76)
5TH %ILE	2.4	-1.1	-4.3	-10.1	-0.8	1.2
25TH %ILE	2.0	-2.6	-7.3	-12.4	-1.9	0.6
MEDIAN	1.8	-3.0	-7.7	-12.9	-2.2	0.4
75TH %ILE	1.6	-3.3	-8.1	-13.3	-2.6	0.3
95TH %ILE	1.0	-3.7	-8.9	-14.0	-2.8	0.0
<b>Agg</b>	<b>1.9</b>	<b>-3.0</b>	<b>-7.5</b>	<b>-13.0</b>	<b>-2.7</b>	<b>0.0</b>

Core Fixed Income Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY****COMPARATIVE BENCHMARK: BLOOMBERG AGGREGATE INDEX****VARIATION FROM BENCHMARK**

<b>Total Quarters Observed</b>	<b>20</b>
<b>Quarters At or Above the Benchmark</b>	<b>10</b>
<b>Quarters Below the Benchmark</b>	<b>10</b>
<b>Batting Average</b>	<b>.500</b>

**RATES OF RETURN**

Date	Portfolio	Benchmark	Difference
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



ANDOVER CONTRIBUTORY RETIREMENT SYSTEM  
PRIT - PUBLIC VALUE-ADDED FIXED INCOME  
PERFORMANCE REVIEW  
DECEMBER 2022

## **INVESTMENT RETURN**

On December 31st, 2022, the Andover Contributory Retirement System's PRIT Public Value-Added Fixed Income portfolio was valued at \$7,418,966, representing an increase of \$295,001 from the September quarter's ending value of \$7,123,965. Last quarter, the Fund posted withdrawals totaling \$8,157, which partially offset the portfolio's net investment return of \$303,158. Income receipts totaling \$121,686 plus net realized and unrealized capital gains of \$181,472 combined to produce the portfolio's net investment return.

## **RELATIVE PERFORMANCE**

For the fourth quarter, the PRIT Public Value-Added Fixed Income portfolio returned 4.3%, which was equal to the Blended Value Added Fixed Income Index's return of 4.3% and ranked in the 30th percentile of the High Yield Fixed Income universe. Over the trailing year, the portfolio returned -8.4%, which was 0.1% below the benchmark's -8.3% return, ranking in the 35th percentile. Since December 2017, the portfolio returned 1.7% annualized and ranked in the 96th percentile. The Blended Value Added Fixed Income Index returned an annualized 1.9% over the same period.

**EXECUTIVE SUMMARY****PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year
<b>Total Portfolio - Gross</b>	4.3	-8.4	-0.1	1.7
<i>HIGH YIELD FIXED RANK</i>	(30)	(35)	(78)	(96)
<b>Total Portfolio - Net</b>	4.1	-8.8	-0.5	1.2
Value Added Idx	4.3	-8.3	-0.1	1.9
<b>Fixed Income - Gross</b>	4.3	-8.4	-0.1	1.7
<i>HIGH YIELD FIXED RANK</i>	(30)	(35)	(78)	(96)
Value Added Idx	4.3	-8.3	-0.1	1.9

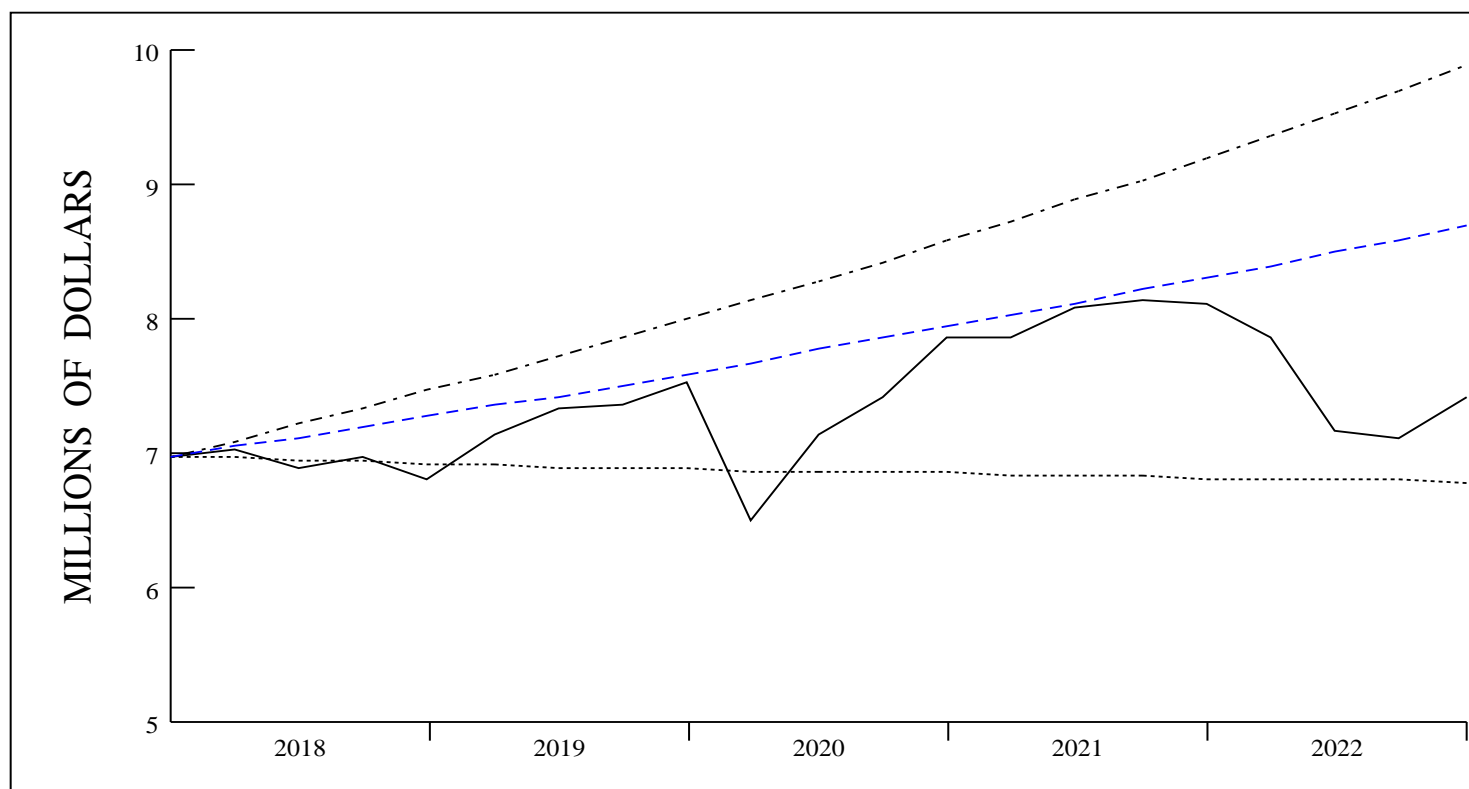
**ASSET ALLOCATION**

Fixed Income	100.0%	\$ 7,418,966
Total Portfolio	100.0%	\$ 7,418,966

**INVESTMENT RETURN**

Market Value 9/2022	\$ 7,123,965
Contribs / Withdrawals	- 8,157
Income	121,686
Capital Gains / Losses	181,472
Market Value 12/2022	\$ 7,418,966

# INVESTMENT GROWTH

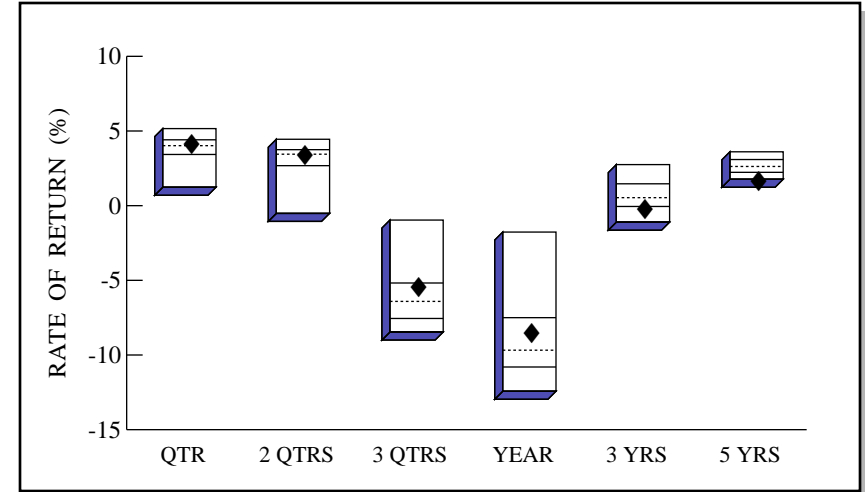
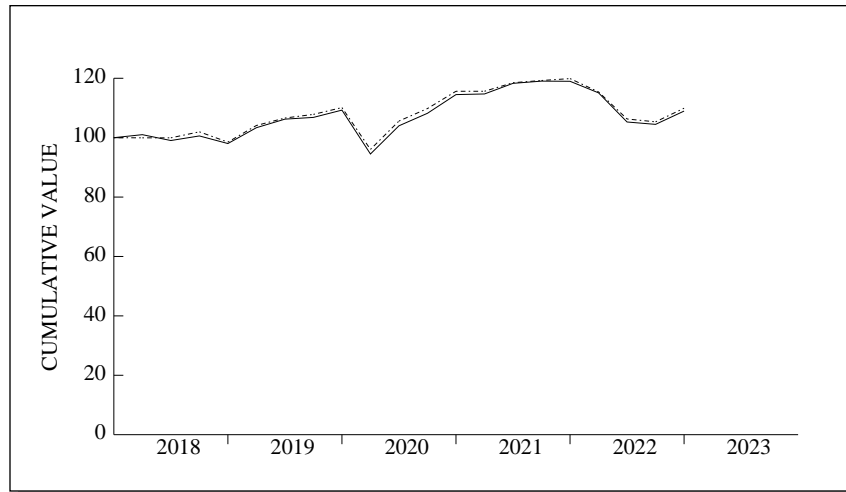


—	ACTUAL RETURN
.....	7.7% DHB PROJ
-----	0.0%
- - - - -	5.0% HZN PROJ

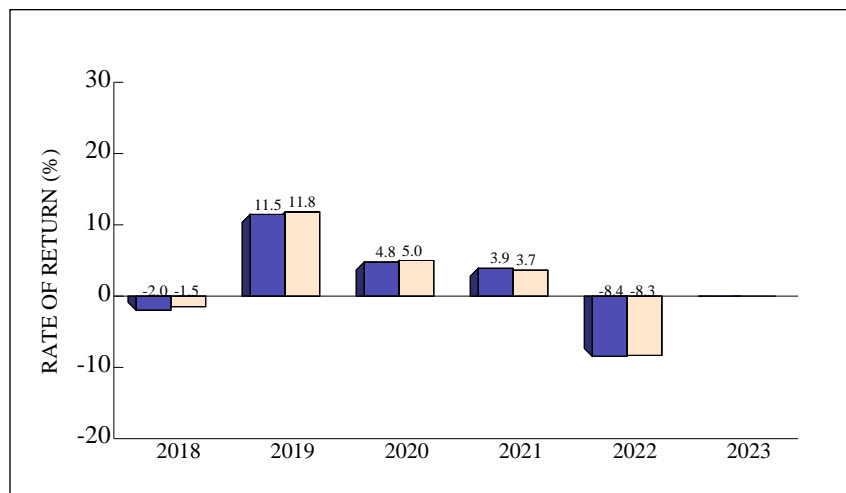
VALUE ASSUMING	
7.7% DHB PROJ	\$ 9,892,934
5.0% HZN PROJ	\$ 8,701,979

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE	\$ 7,123,965	\$ 6,983,158
NET CONTRIBUTIONS	- 8,157	-184,092
INVESTMENT RETURN	303,158	619,900
ENDING VALUE	\$ 7,418,966	\$ 7,418,966
INCOME	121,686	2,037,291
CAPITAL GAINS (LOSSES)	181,472	- 1,417,391
INVESTMENT RETURN	303,158	619,900

# TOTAL RETURN COMPARISONS



High Yield Fixed Universe

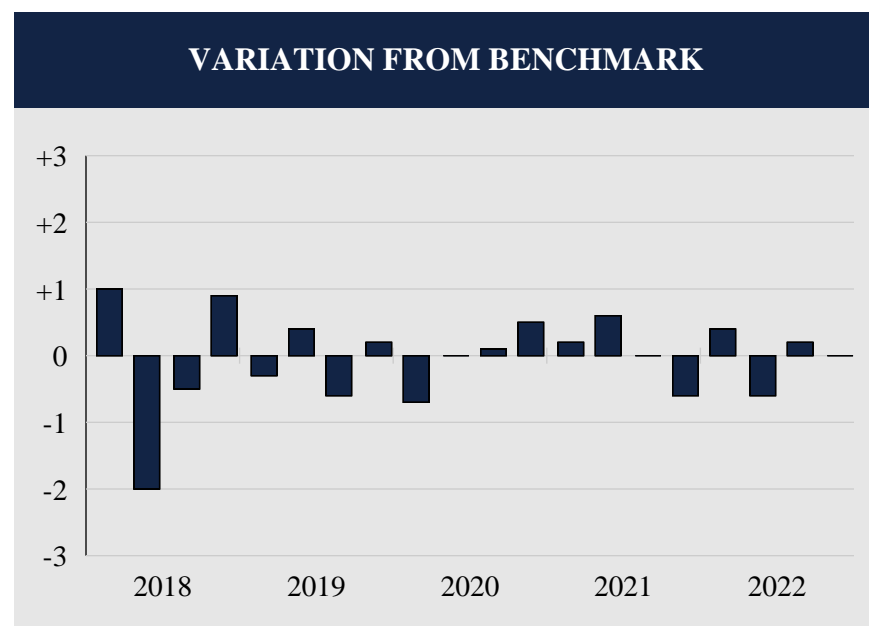


	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	4.3	3.5	-5.3	-8.4	-0.1	1.7
(RANK)	(30)	(47)	(31)	(35)	(78)	(96)
5TH %ILE	5.2	4.4	-1.0	-1.8	2.8	3.6
25TH %ILE	4.4	3.8	-5.2	-7.5	1.5	3.1
MEDIAN	4.0	3.4	-6.4	-9.7	0.5	2.6
75TH %ILE	3.4	2.7	-7.6	-10.8	-0.1	2.2
95TH %ILE	1.2	-0.5	-8.5	-12.4	-1.1	1.8
<b>Value Added</b>	<b>4.3</b>	<b>3.4</b>	<b>-4.8</b>	<b>-8.3</b>	<b>-0.1</b>	<b>1.9</b>

High Yield Fixed Universe

## TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

### COMPARATIVE BENCHMARK: BLENDED VALUE ADDED FIXED INCOME INDEX



<b>Total Quarters Observed</b>	<b>20</b>
<b>Quarters At or Above the Benchmark</b>	<b>13</b>
<b>Quarters Below the Benchmark</b>	<b>7</b>
<b>Batting Average</b>	<b>.650</b>

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
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