# THE COUNTY OF CHESTER

**COMMISSIONERS**
**Marian D. Moskowitz**
**Josh Maxwell**
**Michelle Kichline**

**OFFICE OF THE COMMISSIONERS**
**313 W. Market Street, Suite 6202**
**P.O. Box 2748**
**West Chester, PA 19380-0991**
**(610) 344-6100**

## AGENDA
## RETIREMENT BOARD

**November 2, 2022**

1. **CALL MEETING TO ORDER**
2. **MINUTES OF PREVIOUS MEETING**
   - September 21, 2022
3. **PUBLIC COMMENT ON AGENDA**
4. **ADOPTION OF AGENDA**
5. **PERFORMANCE UPDATE REPORT**
6. **ACTUARIAL REVIEW**
7. **PUBLIC COMMENT**
8. **ADJOURNMENT**

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## RETIREMENT BOARD MEETING MINUTES

**September 21, 2022**

**1. CALL MEETING TO ORDER** — **CALL TO ORDER**

The public meeting of the Chester County Retirement Board was called to order at 1:38 PM on Wednesday, September 21, 2022 in the Commissioners' Boardroom by the Chair of the Board of Commissioners, Marian Moskowitz. In addition to Chair Moskowitz, Commissioner Josh Maxwell, Commissioner Michelle Kichline, Controller Margaret Reif, and Treasurer Patricia Maisano were also present.

**2. MINUTES OF PREVIOUS MEETING** — **MINUTES APPROVED**

Commissioner Maxwell made a motion to approve the Retirement Board Meeting minutes from the last meeting on June 23, 2022. Commissioner Kichline seconded the motion. Motion carried to approve the minutes from the June 23, 2022 Retirement Board Meeting.

**3. PUBLIC COMMENT ON AGENDA ITEMS** — **PUBLIC COMMENT**

There was no public comment on agenda items.

**4. ADOPTION OF AGENDA** — **ADOPTION OF AGENDA**

Commissioner Kichline made a motion to adopt the agenda. Controller Reif seconded the motion. Motion carried to adopt the September 21, 2022 Retirement Board Meeting agenda.

**5. PERFORMANCE UPDATE REPORT** — **PERFORMANCE UPDATE REPORT**

Bill Dahab and Steve Roth of Dahab Associates provided a second quarter performance report for the Chester County Employees' Retirement Fund. It was noted that at the end of the second quarter, the fund was valued at $471,371,349, down 12.5% year-to-date. Mr. Dahab and Mr. Roth noted that although it was not a good quarter, the development shows how they are trying to move the fund away from so much volatility and risk by moving into real estate investments, which were the only positive returns this quarter.

Mr. Roth presented a plan to move $15,900,000 out of the Blackrock Global Tactical Asset Allocation, and $7,600,000 out of the Vanguard S&P as a means to fund the Prudential Short-Term Corporate Bond.

**6. PUBLIC COMMENT** — **PUBLIC COMMENT**

Jim DiLuzio thanked the Board for their hard work during this time. He asked if the Board could present the dollar amounts of the payments made to the investment managers, rather than the percentages, and asked the board to consider a Cost Of Living Adjustment for 2023.

Michael Heaberg asked if a motion was required for the recommended adjustment to fund the Prudential Short-Term Corporate Bond.
Bobby Kagel, County Administrator, explained that the recommendation was not a rebalancing, but rather a means to fund a previously made commitment that had been voted on and approved, so a motion was not required.

There was no further public comment.

**7. ADJOURNMENT** **ADJOURNMENT**

Commissioner Maxwell made a motion to adjourn, which was seconded by Commissioner Kichline. Meeting adjourned at 1:59 PM.

**Taken by Taylor Pettit**
**On behalf of Chief Clerk Robert J. Kagel**

# Chester County Employees Retirement System

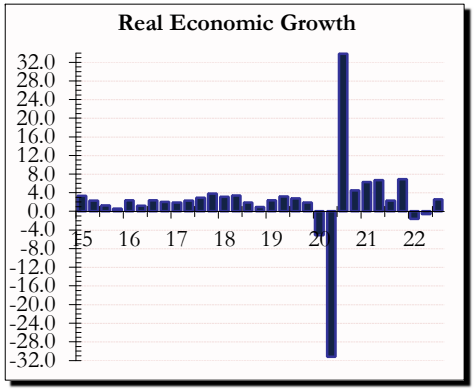
## Performance Review
## September 2022

DAHAB ASSOCIATES

## ECONOMIC ENVIRONMENT

### No Impending Pivot

Global markets turned lower as hopes of interest rate cuts were dashed. Central banks around the world reaffirmed their commitment to fighting inflation, with the Federal Reserve, European Central Bank, and Bank of England all raising interest rates in the quarter. While overall sentiment appears to suggest that a contractionary period would be upcoming, advanced estimates of third quarter GDP from the U.S. Bureau of Economic Analysis increased at an annualized rate of 2.6%.




Inflation, both where it currently stands and where it appears to be going, is now the preeminent topic driving markets. While many seem to be uniquely focused on backward-looking inflation figures, we are starting to see signs of relief looking forward. Unfortunately, we still believe that headline inflation is likely to linger as some of its larger components are "stickier".

First, housing costs, which represents approximately a third of the consumer price index, is represented by the owner's equivalent rent (OER). OER is the amount of rent that would need to be paid in order to substitute a currently fully-owned property as a rental. OER is calculated in a survey-like manner, and typically is lagged by 6-months relative to what the market prevailing rents are. The survey data is collected from about 50,000 landlords or tenants. Real Estate marketplaces and data providers Zillow and Black Knight are beginning to see shelter inflation not only slow, but turn outright deflationary.

Second, Energy prices deflated throughout the third quarter but are still 20% higher than they were in the third quarter of 2021. Furthermore, the year-over-year inflation numbers will include months of double-digit growth for at least the next 9 months. When we overlay this reality with the geopolitical situation in Ukraine, energy crises in Europe, and an energy cartel that is unwilling to increase supply, we are left with a situation where a flattening inflation rate is the best that can be hoped for.

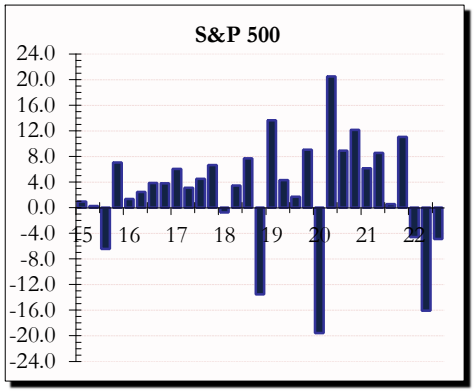
The third major piece is food. Food and beverages make up approximately 15% of the overall inflation figure. All six of the major grocery store food group indexes increased. Additionally, food at employee sites and schools increased by 45% in September alone, as the free school lunch programs that were put in place during COVID expired. The reflexivity of food pricing, higher energy price throughput, suggests that it will take time for the inflation rate of food to decrease.

These three components make up approximately 65% of the overall index. While the data set already shows months of double-digit increases, it seems unlikely that the overall inflation number will turn lower. Therefore, higher inflation, at least in the headline number is likely to persist.

## DOMESTIC EQUITIES

### Stumbling Rotation

U.S. equities, as measured by the Russell 3000, lost 4.5% in the third quarter. Using the S&P 500 as a proxy, large capitalization companies lost 4.9%. Despite continued losses almost completely across the board, the magnitude was not near as grim as last quarter. While it was difficult to find reprieve, the Consumer Discretionary and Energy market sectors solely managed to deliver positive returns. The demand of the U.S. consumer remained strong, and the outlook for energy prices has not eased as global political tensions remain high. Consumer Discretionary and Energy were up 4.4% and 2.4%, respectively.




Of the remaining sectors, Communication Services and Real Estate were the worst performers, both down double digits. Large telecom firms like Verizon, Comcast, and AT&T each lost about a quarter of their valuation, with the sector overall dropping by 12.7%. The Real Estate (down 11.0%) outlook remains gloomy as interest rates steepen and buyers drop out of the prospective pool. Energy remains as the only sector to deliver positive returns year to date (+34.9%).

The market preference towards Value companies from the last few quarters did not hold as well in Q3, as Growth stocks delivered relative outperformance.

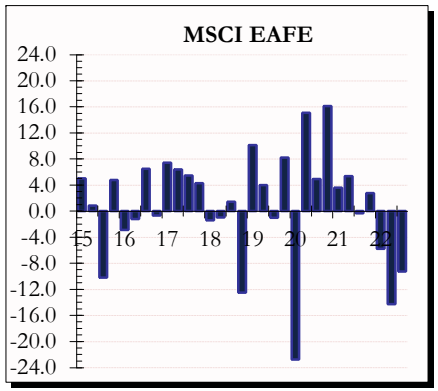
Markets favored smaller capitalization stocks; the larger you were this quarter, the harder you fell. Using Russell indices as a proxy: small-capitalization stocks lost 2.2%, mid-capitalization stocks lost 3.4%, and large-capitalization stocks lost 4.9%.

## INTERNATIONAL EQUITIES

### Continued Downturn

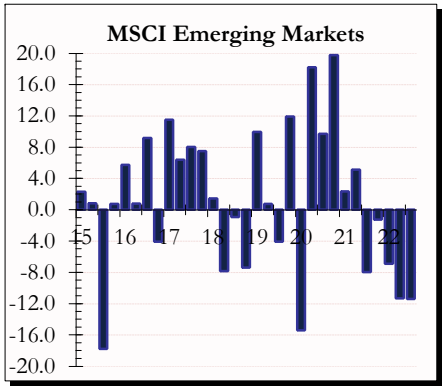
International markets continued their fall in the third quarter. The MSCI All Country World ex. US index, which broadly tracks the global markets excluding the United States, lost 9.8%. Growth indices outpaced Value in the quarter, but both sustained losses.

In developed markets, the MSCI EAFE lost 9.3%. All 21 of the constituent countries in the index had negative returns for the second quarter in a row. The typical concerns regarding geopolitics, potential energy shortages, and runaway inflation all remained. The lowlights include posturing towards nuclear weaponry, pipeline explosions, and 10% eurozone inflation. Germany was among the biggest decliners again, falling



12.6%. This brings the German equities year-to-date loss to nearly 40%. Developed Pacific equities have continued to act as a bulwark against broader losses. The EAFE Pacific index outperformed the broader index by 1.4% in the quarter.

Emerging markets lost 11.4% this quarter. The Latin American markets of Colombia, Peru, and Brazil, among the worst performers in Q2, were a lone bright spot, returning +3.7%. Brazil in particular was up 8.7%, as growth and inflation improved. Highly growth-sensitive Asian markets, such as South Korea and Taiwan, suffered, as the outlook for global trade deteriorated further. Emerging European countries suffered for the same reason as their developed peers – Russian escalation, energy insecurity, and accelerating inflation.

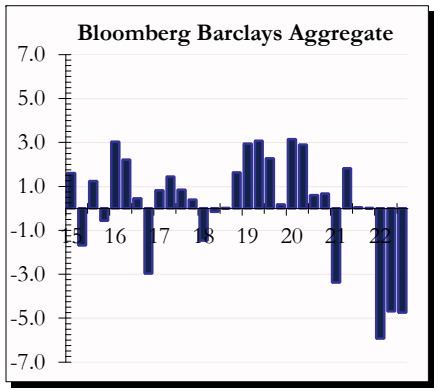



## BOND MARKET

### Unsafe Safety

Fixed income markets continued to fall in the third quarter. The Federal Reserve further hiked interest rates, which they will keep doing until they are satisfied with inflation numbers. Out of the 76 bond indices we track, only one saw positive returns, Short Term Floating Rate Notes.

The Bloomberg U.S. Aggregate Index, an index that tracks the broad investable US fixed income market, lost 4.8%. This continues the historically poor performance for the asset class, and now brings down the year-to-date return below -14.6%.




Global bonds, using the Bloomberg Global Aggregate as a proxy, performed worse than their U.S. counterparts, losing 8.9% this quarter.

Shorter term bonds performed better than their longer-term counterparts once again. The 1-3 Gov Credit only lost 1.5%, while Long Gov/Credit lost 9.0%.

## CASH EQUIVALENTS

### Slightly Higher

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.

Nominal return expectations for cash have moved up relative to the last few years. 3-month treasury notes are now yielding 3.45%.

## Economic Statistics

| | Current Quarter | Previous Quarter |
|---|---|---|
| GDP (Annualized) | 2.6% | -0.6% |
| Unemployment | 3.5% | 3.6% |
| CPI All Items Year/Year | 8.2% | 9.1% |
| Fed Funds Rate | 3.1% | 1.6% |
| Industrial Capacity | 80.0% | 80.8% |
| U.S. Dollars per Euro | 0.98 | 1.05 |

## Major Index Returns

| Index | Quarter | 12 Months |
|---|---|---|
| Russell 3000 | -4.5% | -17.6% |
| S&P 500 | -4.9% | -15.5% |
| Russell Midcap | -3.4% | -19.4% |
| Russell 2000 | -2.2% | -23.5% |
| MSCI EAFE | -9.3% | -24.7% |
| MSCI Emg. Markets | -11.4% | -27.8% |
| NCREIF ODCE | 0.5 | 22.1% |
| U.S. Aggregate | -4.8% | -14.6% |
| 90 Day T-bills | 0.1% | -0.2% |

## Domestic Equity Return Distributions

### Quarter

| | VAL | COR | GRO |
|---|---|---|---|
| LC | -5.6 | -4.6 | -3.6 |
| MC | -4.9 | -3.4 | -0.7 |
| SC | -4.6 | -2.2 | 0.2 |

### Trailing Year

| | VAL | COR | GRO |
|---|---|---|---|
| LC | -11.4 | -17.2 | -22.6 |
| MC | -13.6 | -19.4 | -29.5 |
| SC | -17.7 | -23.5 | -29.3 |

## Market Summary

- Equity markets continue fall
- Growth outpaces value
- Dollar strengthens
- Fixed income yields rise
- Unemployment remains low

## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System was valued at $449,191,725, a decrease of $22,116,791 from the June ending value of $471,308,516. Last quarter, the account recorded total net withdrawals of $220,519 in addition to $21,896,272 in net investment losses. The fund's net investment loss was a result of income receipts totaling $2,912,206 and realized and unrealized capital losses totaling $24,808,478.

## RELATIVE PERFORMANCE

### Total Fund

During the third quarter, the Composite portfolio lost 4.6%, which was 0.5% less than the Chester County Policy Index's return of -4.1% and ranked in the 60th percentile of the Public Fund universe. Over the trailing year, the portfolio returned -17.5%, which was 3.8% less than the benchmark's -13.7% performance, and ranked in the 88th percentile. Since March 1995, the account returned 6.9% per annum. For comparison, the Chester County Policy Index returned an annualized 7.4% over the same time frame.

### Domestic Equity

The domestic equity segment lost 3.7% last quarter, 0.8% above the Russell 3000 Index's return of -4.5% and ranked in the 41st percentile of the Domestic Equity universe. Over the trailing twelve months, the domestic equity portfolio returned -18.4%, 0.8% less than the benchmark's -17.6% performance, and ranked in the 59th percentile.

### International Equity

Last quarter, the international equity segment returned -9.7%, which was 0.4% less than the MSCI EAFE Index's return of -9.3% and ranked in the 57th percentile of the International Equity universe. Over the trailing twelve months, this segment returned -28.3%, which was 3.6% less than the benchmark's -24.7% return, ranking in the 66th percentile.

### Emerging Markets Equity

The emerging markets equity segment returned -10.7% last quarter, 0.8% below the FTSE All Cap EM China A Inclusion's return of -9.9% and ranked in the 59th percentile of the Emerging Markets universe.

### Private Equity

*Current quarter performance for the Private Equity portfolio and the Cambridge Private Equity Index were not available at the time of this report.*

Over the trailing year, this segment returned 16.8%, which was 17.1% above the benchmark's -0.3% return.

### Fixed Income

The fixed income assets lost 2.7% last quarter, 1.2% greater than the 50% Aggregate / 50% Int. Gov. Cred.'s return of -3.9% and ranked in the 48th percentile of the Broad Market Fixed Income universe. Over the trailing twelve months, this component returned -9.4%; that return was 3.0% above the benchmark's -12.4% return, and ranked in the 38th percentile.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | 10 Year | Since 03/95 |
|---|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -4.6 | -21.7 | -17.5 | 3.0 | 4.3 | 6.7 | 6.9 |
| *PUBLIC FUND RANK* | (60) | (96) | (88) | (72) | (70) | (56) | ---- |
| **Total Portfolio - Net** | -4.7 | -21.9 | -17.8 | 2.6 | 3.9 | 6.3 | ---- |
| Policy Index | -4.1 | -18.2 | -13.7 | 5.7 | 6.2 | 7.5 | 7.4 |
| **Domestic Equity - Gross** | -3.7 | -25.2 | -18.4 | 7.1 | 7.7 | ---- | ---- |
| *DOMESTIC EQUITY RANK* | (41) | (62) | (59) | (44) | (46) | ---- | ---- |
| Russell 3000 | -4.5 | -24.6 | -17.6 | 7.7 | 8.6 | 11.4 | 9.4 |
| S&P 500 | -4.9 | -23.9 | -15.5 | 8.2 | 9.2 | 11.7 | 9.5 |
| **International Equity - Gross** | -9.7 | -30.3 | -28.3 | -2.1 | 0.0 | ---- | ---- |
| *INTERNATIONAL EQUITY RANK* | (57) | (65) | (66) | (78) | (51) | ---- | ---- |
| MSCI EAFE | -9.3 | -26.8 | -24.7 | -1.4 | -0.4 | 4.2 | 4.5 |
| **Emerging Markets Equity - Gross** | -10.7 | -23.9 | ---- | ---- | ---- | ---- | ---- |
| *EMERGING MARKETS RANK* | (59) | (33) | ---- | ---- | ---- | ---- | ---- |
| FTSE All Cap EM | -9.9 | -23.8 | -24.2 | -0.2 | -0.4 | 1.9 | ---- |
| MSCI Emg Mkts | -11.4 | -26.9 | -27.8 | -1.7 | -1.4 | 1.4 | 5.3 |
| **Private Equity - Gross** | 0.0 | 5.0 | 16.8 | 32.4 | ---- | ---- | ---- |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 15.2 | 14.9 |
| **Fixed Income - Gross** | -2.7 | -9.1 | -9.4 | -0.1 | 1.3 | ---- | ---- |
| *BROAD MARKET FIXED RANK* | (48) | (37) | (38) | (32) | (33) | ---- | ---- |
| Aggregate/IntGC | -3.9 | -12.1 | -12.4 | -2.4 | 0.1 | 0.9 | 4.3 |
| Aggregate Index | -4.8 | -14.6 | -14.6 | -3.3 | -0.3 | 0.9 | 4.5 |
| Int Gov/Credit | -3.1 | -9.6 | -10.1 | -1.6 | 0.4 | 1.0 | 4.1 |

## ASSET ALLOCATION

| | | |
|---|---|---|
| Domestic Equity | 51.2% | $ 229,909,998 |
| Int'l Equity | 13.2% | 59,459,034 |
| Emerging Markets | 4.8% | 21,690,590 |
| Private Equity | 1.8% | 8,217,524 |
| Real Estate | 5.3% | 23,600,000 |
| Fixed Income | 23.6% | 105,787,072 |
| Cash | 0.1% | 527,507 |
| Total Portfolio | 100.0% | $ 449,191,725 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 471,308,516 |
| Contribs / Withdrawals | -220,519 |
| Income | 2,912,206 |
| Capital Gains / Losses | - 24,808,478 |
| Market Value 9/2022 | $ 449,191,725 |

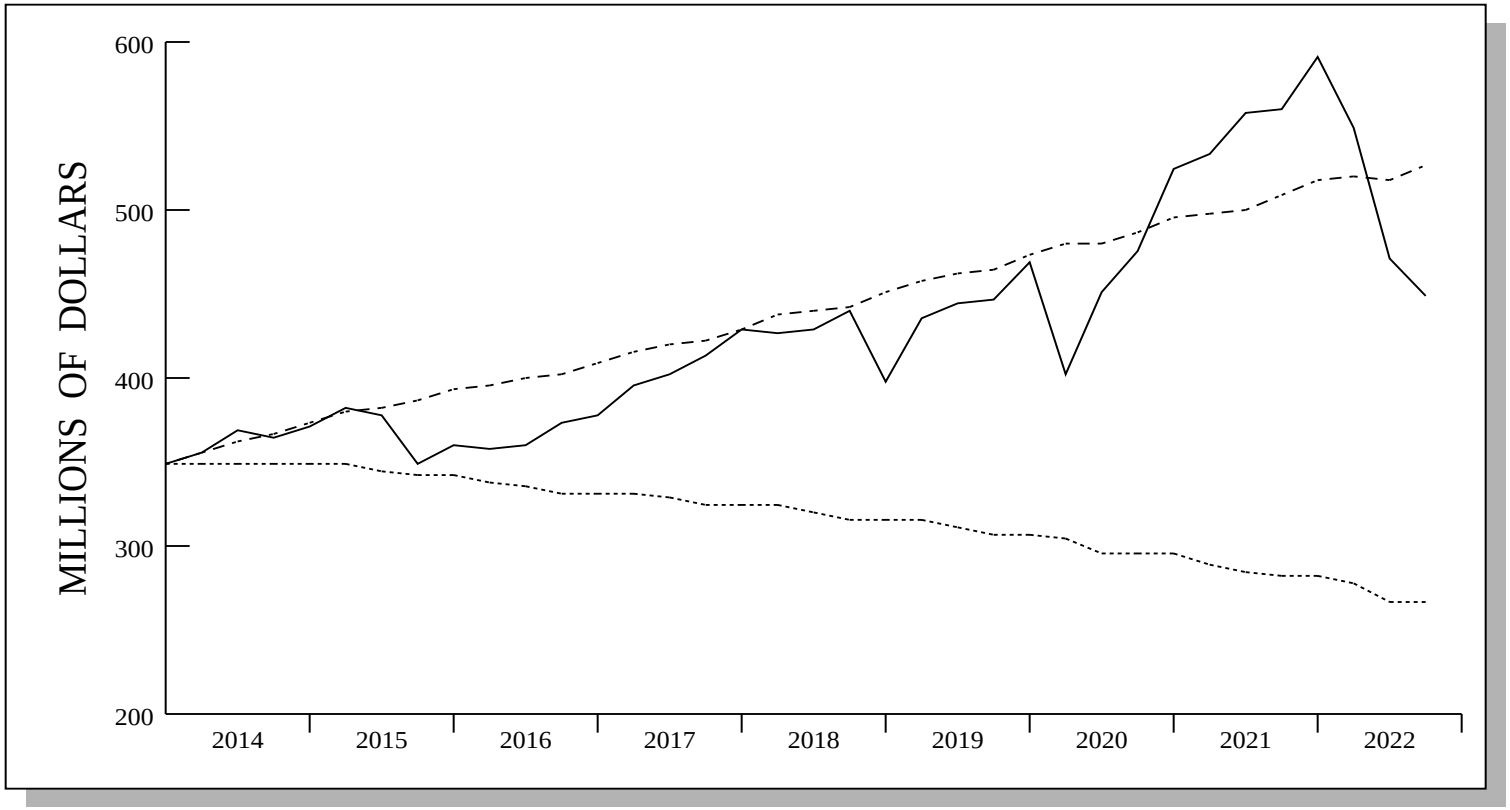
## Gross of Fees Manager Performance Summary

| Portfolio | Universe | QTR | | YTD | | 1 Year | | 3 Year | | 5 Year | | 10 Year | | Inception | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total Portfolio** | **(Public Fund)** | **-4.6** | **(60)** | **-21.7** | **(96)** | **-17.5** | **(88)** | **3.0** | **(72)** | **4.3** | **(70)** | **6.7** | **(56)** | **6.9** | **----** | **03/95** |
| ***Chester County Policy Index*** | | ***-4.1*** | | ***-18.2*** | | ***-13.7*** | | ***5.7*** | | ***6.2*** | | ***7.5*** | | ***7.4*** | | |
| Vanguard 500 | (LC Core) | -4.9 | (55) | -23.9 | (66) | -15.5 | (58) | 8.2 | (31) | ---- | ---- | ---- | ---- | 8.1 | (18) | 06/19 |
| ***S&P 500*** | | ***-4.9*** | | ***-23.9*** | | ***-15.5*** | | ***8.2*** | | ***9.2*** | | ***11.7*** | | ***8.1*** | | |
| Vesper | (LC Core) | -8.4 | (99) | -25.9 | (84) | -16.8 | (70) | ---- | ---- | ---- | ---- | ---- | ---- | 5.7 | (21) | 12/19 |
| ***S&P 500*** | | ***-4.9*** | | ***-23.9*** | | ***-15.5*** | | ***8.2*** | | ***9.2*** | | ***11.7*** | | ***5.6*** | | |
| Vanguard R1000G | (LC Growth) | -3.6 | (38) | -30.7 | (42) | -22.6 | (36) | 11.2 | (14) | 12.6 | (15) | ---- | ---- | 13.8 | (6) | 03/16 |
| ***Russell 1000 Growth*** | | ***-3.6*** | | ***-30.7*** | | ***-22.6*** | | ***10.7*** | | ***12.2*** | | ***13.7*** | | ***13.5*** | | |
| Allspring | (LC Value) | -2.0 | (4) | -18.2 | (65) | -11.9 | (66) | 4.6 | (80) | 7.4 | (33) | 9.9 | (62) | 10.5 | ---- | 09/10 |
| ***Russell 1000 Value*** | | ***-5.6*** | | ***-17.8*** | | ***-11.4*** | | ***4.4*** | | ***5.3*** | | ***9.2*** | | ***9.8*** | | |
| Champlain | (MC Core) | -4.1 | (74) | -30.9 | (96) | -26.3 | (99) | ---- | ---- | ---- | ---- | ---- | ---- | -7.7 | (84) | 12/20 |
| ***Russell Mid Cap*** | | ***-3.4*** | | ***-24.3*** | | ***-19.4*** | | ***5.2*** | | ***6.5*** | | ***10.3*** | | ***-4.2*** | | |
| Vanguard Mid Cap | (MC Core) | -4.1 | (76) | -25.4 | (57) | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | -25.4 | (57) | 12/21 |
| ***CRSP US Mid Cap Index*** | | ***-4.1*** | | ***-25.4*** | | ***-19.5*** | | ***5.5*** | | ***6.7*** | | ***10.5*** | | ***-25.4*** | | |
| Vanguard Small-Cap | (SC Core) | -2.6 | (41) | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | -19.0 | (62) | 03/22 |
| ***CRSP US Small Cap Index*** | | ***-2.6*** | | ***-23.7*** | | ***-20.8*** | | ***5.0*** | | ***5.4*** | | ***9.7*** | | ***-19.1*** | | |
| Macquarie | (Intl Eq) | -10.8 | (81) | -28.0 | (48) | -27.3 | (61) | -4.3 | (93) | -3.1 | (93) | ---- | ---- | 2.6 | (78) | 12/12 |
| ***MSCI EAFE*** | | ***-9.3*** | | ***-26.8*** | | ***-24.7*** | | ***-1.4*** | | ***-0.4*** | | ***4.2*** | | ***3.6*** | | |
| Walter Scott | (Intl Eq) | -8.8 | (36) | -31.7 | (73) | -28.6 | (68) | 0.0 | (44) | 2.9 | (14) | ---- | ---- | 4.9 | (25) | 12/12 |
| ***MSCI All Country World ex US*** | | ***-9.8*** | | ***-26.2*** | | ***-24.8*** | | ***-1.1*** | | ***-0.3*** | | ***3.5*** | | ***3.0*** | | |
| Vanguard Emerging Markets | | -10.7 | (59) | -23.9 | (33) | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | -23.9 | (33) | 12/21 |
| ***FTSE All Cap EM China A Inclusion*** | | ***-9.9*** | | ***-23.8*** | | ***-24.2*** | | ***-0.2*** | | ***-0.4*** | | ***1.9*** | | ***-23.8*** | | |
| Banner Ridge | | 0.0 | ---- | -7.9 | ---- | 26.7 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 70.5 | ---- | 03/21 |
| ***Cambridge US Private Equity*** | | ***0.0*** | | ***-5.3*** | | ***-0.3*** | | ***19.6*** | | ***16.8*** | | ***15.2*** | | ***13.7*** | | |
| Ben Franklin | | 0.0 | ---- | 0.0 | ---- | -20.8 | ---- | -17.9 | ---- | ---- | ---- | ---- | ---- | -13.8 | ---- | 09/18 |
| ***Cambridge US Private Equity*** | | ***0.0*** | | ***-5.3*** | | ***-0.3*** | | ***19.6*** | | ***16.8*** | | ***15.2*** | | ***16.4*** | | |
| Siguler Guff | | 0.0 | ---- | 16.3 | ---- | 26.6 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 32.6 | ---- | 12/19 |
| ***Cambridge US Private Equity*** | | ***0.0*** | | ***-5.3*** | | ***-0.3*** | | ***19.6*** | | ***16.8*** | | ***15.2*** | | ***19.9*** | | |
| Taurus | | 0.0 | ---- | 1.7 | ---- | 7.5 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 14.4 | ---- | 06/20 |
| ***Cambridge US Private Equity*** | | ***0.0*** | | ***-5.3*** | | ***-0.3*** | | ***19.6*** | | ***16.8*** | | ***15.2*** | | ***25.7*** | | |
| Brandes | (Core Fixed) | -3.4 | (4) | -11.2 | (3) | -11.4 | (2) | -2.1 | (22) | ---- | ---- | ---- | ---- | 0.1 | (47) | 03/18 |
| ***Bloomberg Aggregate Index*** | | ***-4.8*** | | ***-14.6*** | | ***-14.6*** | | ***-3.3*** | | ***-0.3*** | | ***0.9*** | | ***-0.1*** | | |
| Birch Run | (Int Fixed) | -2.8 | (28) | -8.4 | (14) | -9.0 | (16) | -0.7 | (13) | 0.9 | (20) | ---- | ---- | 1.0 | (5) | 06/17 |
| ***Intermediate Gov/Credit*** | | ***-3.1*** | | ***-9.6*** | | ***-10.1*** | | ***-1.6*** | | ***0.4*** | | ***1.0*** | | ***0.5*** | | |
| Vanguard Short-Term Corporate | (ST Fixed) | -2.0 | (90) | -7.4 | (99) | -8.0 | (99) | -0.8 | (95) | ---- | ---- | ---- | ---- | 0.9 | (41) | 12/17 |
| ***ML/BoA 1-5 Year Treasury*** | | ***-2.3*** | | ***-6.1*** | | ***-6.8*** | | ***-1.0*** | | ***0.4*** | | ***0.6*** | | ***0.5*** | | |
| PGIM Short-Term Corporate | (ST Fixed) | -1.8 | (86) | -7.9 | (99) | -8.4 | (99) | -0.4 | (75) | ---- | ---- | ---- | ---- | 1.2 | (15) | 12/17 |
| ***ML/BoA 1-5 Year Treasury*** | | ***-2.3*** | | ***-6.1*** | | ***-6.8*** | | ***-1.0*** | | ***0.4*** | | ***0.6*** | | ***0.5*** | | |

## Net of Fees Manager Performance Summary

| Portfolio | QTR | YTD | 1 Year | 3 Year | 5 Year | 10 Year | Inception | |
|---|---|---|---|---|---|---|---|---|
| **Total Portfolio** | **-4.7** | **-21.9** | **-17.8** | **2.6** | **3.9** | **6.3** | **----** | **03/95** |
| ***Chester County Policy Index*** | ***-4.1*** | ***-18.2*** | ***-13.7*** | ***5.7*** | ***6.2*** | ***7.5*** | ***7.4*** | |
| Vanguard 500 | -4.9 | -23.9 | -15.5 | 8.1 | ---- | ---- | 8.0 | 06/19 |
| ***S&P 500*** | ***-4.9*** | ***-23.9*** | ***-15.5*** | ***8.2*** | ***9.2*** | ***11.7*** | ***8.1*** | |
| Vesper | -8.6 | -26.3 | -17.5 | ---- | ---- | ---- | 5.0 | 12/19 |
| ***S&P 500*** | ***-4.9*** | ***-23.9*** | ***-15.5*** | ***8.2*** | ***9.2*** | ***11.7*** | ***5.6*** | |
| Vanguard R1000G | -3.6 | -30.7 | -22.6 | 11.1 | 12.5 | ---- | 13.7 | 03/16 |
| ***Russell 1000 Growth*** | ***-3.6*** | ***-30.7*** | ***-22.6*** | ***10.7*** | ***12.2*** | ***13.7*** | ***13.5*** | |
| Allspring | -2.1 | -18.3 | -12.1 | 4.1 | 6.9 | 9.3 | 9.9 | 09/10 |
| ***Russell 1000 Value*** | ***-5.6*** | ***-17.8*** | ***-11.4*** | ***4.4*** | ***5.3*** | ***9.2*** | ***9.8*** | |
| Champlain | -4.3 | -31.3 | -27.0 | ---- | ---- | ---- | -8.5 | 12/20 |
| ***Russell Mid Cap*** | ***-3.4*** | ***-24.3*** | ***-19.4*** | ***5.2*** | ***6.5*** | ***10.3*** | ***-4.2*** | |
| Vanguard Mid Cap | -4.1 | -25.4 | ---- | ---- | ---- | ---- | -25.4 | 12/21 |
| ***CRSP US Mid Cap Index*** | ***-4.1*** | ***-25.4*** | ***-19.5*** | ***5.5*** | ***6.7*** | ***10.5*** | ***-25.4*** | |
| Vanguard Small-Cap | -2.6 | ---- | ---- | ---- | ---- | ---- | -19.0 | 03/22 |
| ***CRSP US Small Cap Index*** | ***-2.6*** | ***-23.7*** | ***-20.8*** | ***5.0*** | ***5.4*** | ***9.7*** | ***-19.1*** | |
| Macquarie | -11.0 | -28.4 | -27.8 | -5.0 | -3.7 | ---- | 1.8 | 12/12 |
| ***MSCI EAFE*** | ***-9.3*** | ***-26.8*** | ***-24.7*** | ***-1.4*** | ***-0.4*** | ***4.2*** | ***3.6*** | |
| Walter Scott | -8.9 | -32.1 | -29.2 | -0.9 | 2.1 | ---- | 3.9 | 12/12 |
| ***MSCI All Country World ex US*** | ***-9.8*** | ***-26.2*** | ***-24.8*** | ***-1.1*** | ***-0.3*** | ***3.5*** | ***3.0*** | |
| Vanguard Emerging Markets | -10.7 | -24.0 | ---- | ---- | ---- | ---- | -24.0 | 12/21 |
| ***FTSE All Cap EM China A Inclusion*** | ***-9.9*** | ***-23.8*** | ***-24.2*** | ***-0.2*** | ***-0.4*** | ***1.9*** | ***-23.8*** | |
| Banner Ridge | 0.0 | -8.7 | 22.9 | ---- | ---- | ---- | 59.6 | 03/21 |
| ***Cambridge US Private Equity*** | ***0.0*** | ***-5.3*** | ***-0.3*** | ***19.6*** | ***16.8*** | ***15.2*** | ***13.7*** | |
| Ben Franklin | -0.8 | -2.7 | -24.0 | -21.2 | ---- | ---- | -17.2 | 09/18 |
| ***Cambridge US Private Equity*** | ***0.0*** | ***-5.3*** | ***-0.3*** | ***19.6*** | ***16.8*** | ***15.2*** | ***16.4*** | |
| Siguler Guff | 0.0 | 13.7 | 21.9 | ---- | ---- | ---- | 24.1 | 12/19 |
| ***Cambridge US Private Equity*** | ***0.0*** | ***-5.3*** | ***-0.3*** | ***19.6*** | ***16.8*** | ***15.2*** | ***19.9*** | |
| Taurus | -0.2 | 1.0 | 6.6 | ---- | ---- | ---- | 13.3 | 06/20 |
| ***Cambridge US Private Equity*** | ***0.0*** | ***-5.3*** | ***-0.3*** | ***19.6*** | ***16.8*** | ***15.2*** | ***25.7*** | |
| Brandes | -3.5 | -11.3 | -11.6 | -2.3 | ---- | ---- | -0.1 | 03/18 |
| ***Bloomberg Aggregate Index*** | ***-4.8*** | ***-14.6*** | ***-14.6*** | ***-3.3*** | ***-0.3*** | ***0.9*** | ***-0.1*** | |
| Birch Run | -2.9 | -8.5 | -9.2 | -0.9 | 0.7 | ---- | 0.8 | 06/17 |
| ***Intermediate Gov/Credit*** | ***-3.1*** | ***-9.6*** | ***-10.1*** | ***-1.6*** | ***0.4*** | ***1.0*** | ***0.5*** | |
| Vanguard Short-Term Corporate | -2.0 | -7.4 | -8.1 | -0.8 | ---- | ---- | 0.9 | 12/17 |
| ***ML/BoA 1-5 Year Treasury*** | ***-2.3*** | ***-6.1*** | ***-6.8*** | ***-1.0*** | ***0.4*** | ***0.6*** | ***0.5*** | |
| PGIM Short-Term Corporate | -1.9 | -8.1 | -8.8 | -0.8 | ---- | ---- | 0.9 | 12/17 |
| ***ML/BoA 1-5 Year Treasury*** | ***-2.3*** | ***-6.1*** | ***-6.8*** | ***-1.0*** | ***0.4*** | ***0.6*** | ***0.5*** | |

## INVESTMENT GROWTH




ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 528,432,953

| | LAST QUARTER | PERIOD 12/13 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 471,308,516 | $ 351,060,091 |
| NET CONTRIBUTIONS | -220,519 | - 82,997,871 |
| INVESTMENT RETURN | - 21,896,272 | 181,129,505 |
| ENDING VALUE | $ 449,191,725 | $ 449,191,725 |
| INCOME | 2,912,206 | 32,648,262 |
| CAPITAL GAINS (LOSSES) | - 24,808,478 | 148,481,243 |
| INVESTMENT RETURN | - 21,896,272 | 181,129,505 |

## Investment Return Summary

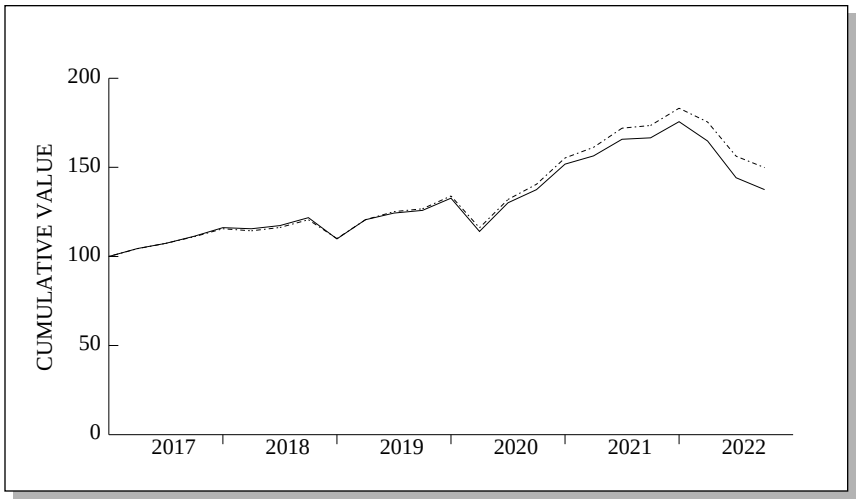
| Portfolio | Prior Quarter Market Value | | Net Cash Flow | Net Investment Return | Current Quarter Market Value | |
|---|---|---|---|---|---|---|
| **Total Portfolio** | **$471,308,516** | **100%** | **($220,519)** | **($21,896,272)** | **$449,191,725** | **100%** |
| Blackrock Global Allocation | $15,937,858 | 3.4% | ($15,104,397) | ($833,461) | $0 | 0.0% |
| Vanguard 500 | $56,032,750 | 11.9% | ($8,500,000) | ($2,598,751) | $44,933,999 | 10.0% |
| Vesper | $2,574,800 | 0.5% | $0 | ($221,491) | $2,353,309 | 0.5% |
| Vanguard R1000G | $32,434,374 | 6.9% | $0 | ($1,172,327) | $31,262,047 | 7.0% |
| Allspring | $36,397,620 | 7.7% | ($23,017) | ($730,805) | $35,643,798 | 7.9% |
| Champlain | $38,435,998 | 8.2% | ($86,915) | ($1,570,558) | $36,778,525 | 8.2% |
| Vanguard Mid Cap | $28,984,139 | 6.1% | $5,000,000 | ($1,471,313) | $32,512,826 | 7.2% |
| Vanguard Small-Cap | $44,660,353 | 9.5% | $3,000,000 | ($1,237,012) | $46,423,341 | 10.3% |
| Macquarie | $30,855,932 | 6.5% | $0 | ($3,385,908) | $27,470,024 | 6.1% |
| Walter Scott | $35,131,229 | 7.5% | ($70,124) | ($3,072,095) | $31,989,010 | 7.1% |
| Vanguard Emerging Markets | $24,296,474 | 5.2% | $0 | ($2,605,884) | $21,690,590 | 4.8% |
| Banner Ridge | $2,481,262 | 0.5% | $0 | $0 | $2,481,262 | 0.6% |
| Ben Franklin | $924,689 | 0.2% | $0 | $0 | $924,689 | 0.2% |
| Siguler Guff | $4,310,775 | 0.9% | ($177,034) | $0 | $4,133,741 | 0.9% |
| Taurus | $577,832 | 0.1% | $100,000 | $0 | $677,832 | 0.2% |
| PRISA | $0 | 0.0% | $23,600,000 | $0 | $23,600,000 | 5.3% |
| Brandes | $42,240,890 | 9.0% | ($5,020,963) | ($1,263,050) | $35,956,877 | 8.0% |
| Birch Run | $39,197,474 | 8.3% | ($19,501) | ($1,116,295) | $38,061,678 | 8.5% |
| Vanguard Short-Term Corporate | $12,101,259 | 2.6% | ($222,500) | ($231,729) | $11,647,030 | 2.6% |
| PGIM Short-Term Corporate | $20,515,046 | 4.4% | $0 | ($393,559) | $20,121,487 | 4.5% |
| Cash | $3,217,762 | 0.7% | ($2,696,068) | $7,966 | $529,660 | 0.1% |

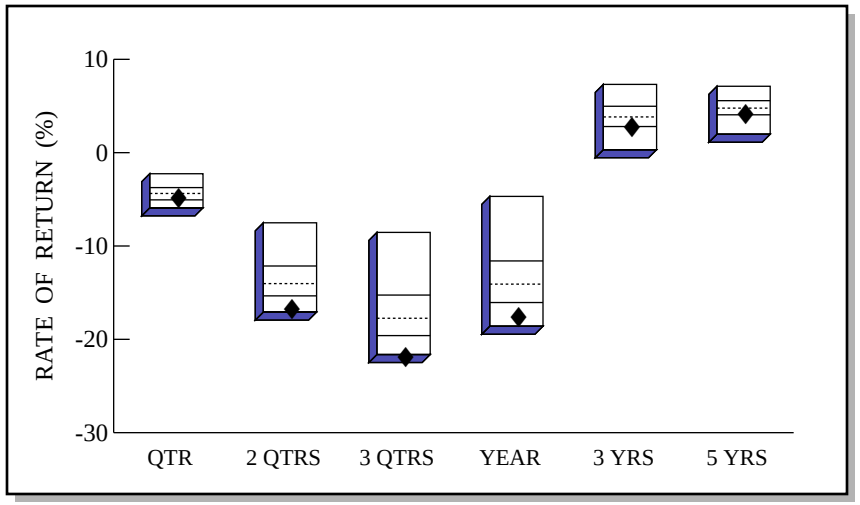
## Allocation and Targets

| Asset Class | Market Value | % | Target | Min | Max |
|---|---|---|---|---|---|
| Large Cap Equity | $ 114,193,153 | 25.4% | 20% | 15% | 25% |
| Mid Cap Equity | $ 69,291,351 | 15.4% | 15% | 10% | 20% |
| Small Cap Equity | $ 46,425,494 | 10.3% | 10% | 5% | 15% |
| International Equity | $ 59,459,034 | 13.2% | 15% | 10% | 20% |
| Emerging Markets | $ 21,690,590 | 4.8% | 5% | 0% | 10% |
| Private Equity | $ 8,217,524 | 1.8% | 5% | 0% | 10% |
| Real Estate | $ 23,600,000 | 5.3% | 10% | 5% | 15% |
| Fixed Income | $ 105,787,072 | 23.6% | 20% | 15% | 25% |
| Cash | $ 527,507 | 0.1% | 0% | 0% | 10% |

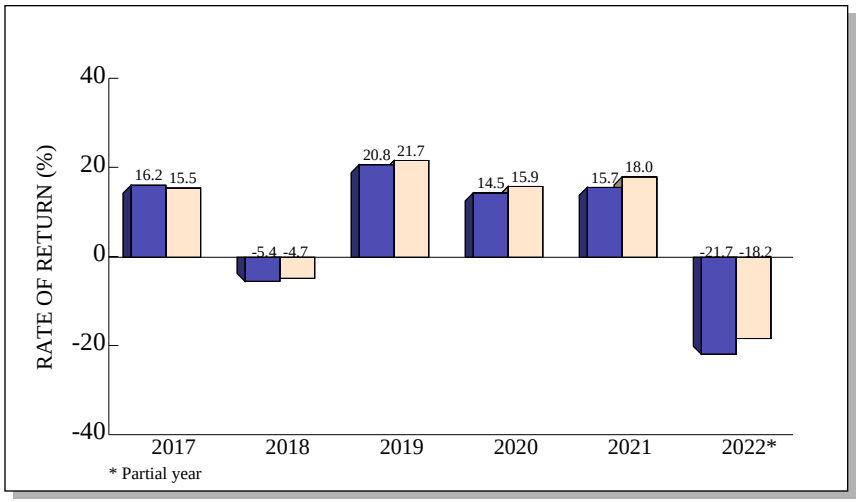
*The Small Cap category includes unmanaged stocks in the cash account in the amount of $2,153.*

# TOTAL RETURN COMPARISONS




Public Fund Universe



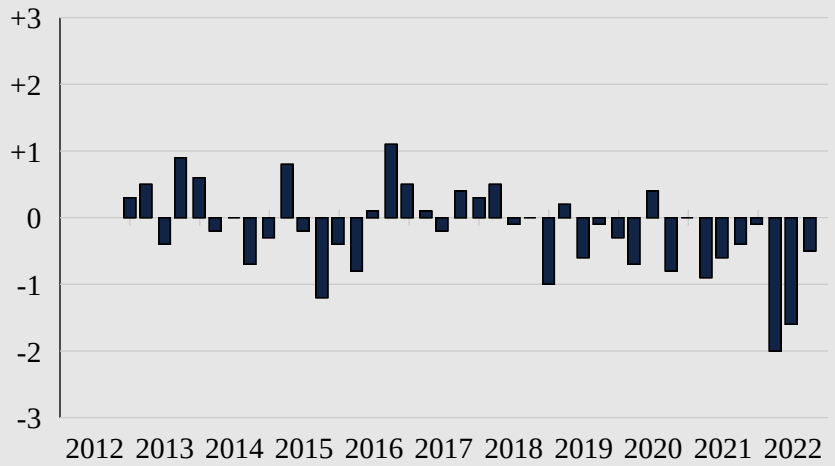

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -4.6 | -16.6 | -21.7 | -17.5 | 3.0 | 4.3 |
| (RANK) | (60) | (93) | (96) | (88) | (72) | (70) |
| 5TH %ILE | -2.3 | -7.5 | -8.6 | -4.7 | 7.3 | 7.1 |
| 25TH %ILE | -3.7 | -12.1 | -15.3 | -11.6 | 5.0 | 5.6 |
| MEDIAN | -4.4 | -14.0 | -17.8 | -14.1 | 3.8 | 4.8 |
| 75TH %ILE | -5.1 | -15.3 | -19.6 | -16.1 | 2.8 | 4.1 |
| 95TH %ILE | -5.9 | -17.1 | -21.6 | -18.6 | 0.3 | 2.0 |
| ***Policy*** | ***-4.1*** | ***-14.6*** | ***-18.2*** | ***-13.7*** | ***5.7*** | ***6.2*** |

Public Fund Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS

## COMPARATIVE BENCHMARK: CHESTER COUNTY POLICY INDEX

### VARIATION FROM BENCHMARK

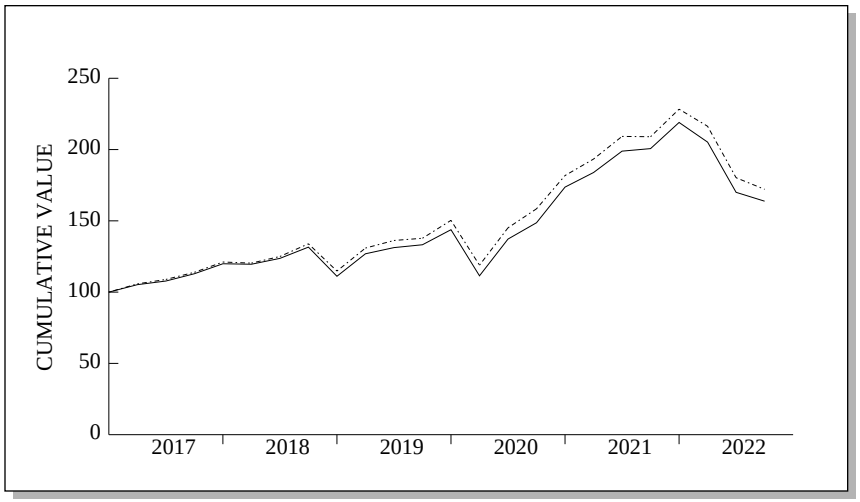


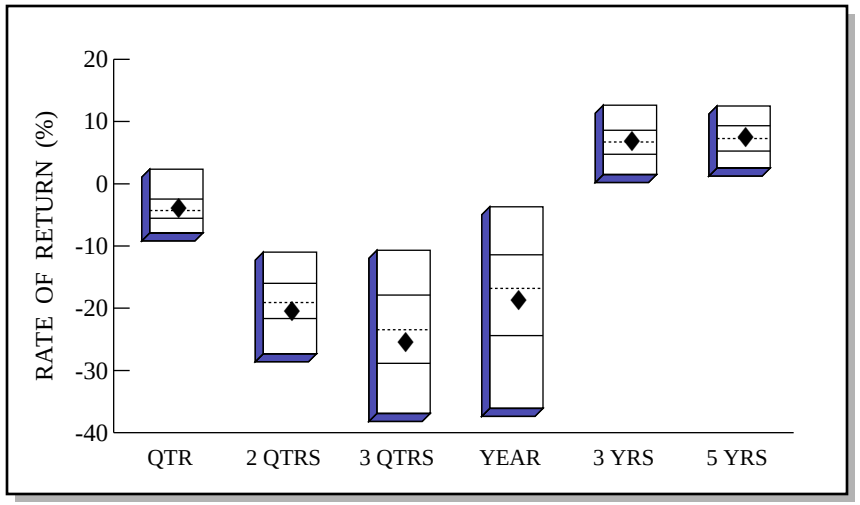

| | |
|---|---|
| **Total Quarters Observed** | **40** |
| **Quarters At or Above the Benchmark** | **17** |
| **Quarters Below the Benchmark** | **23** |
| **Batting Average** | **.425** |

### RATES OF RETURN

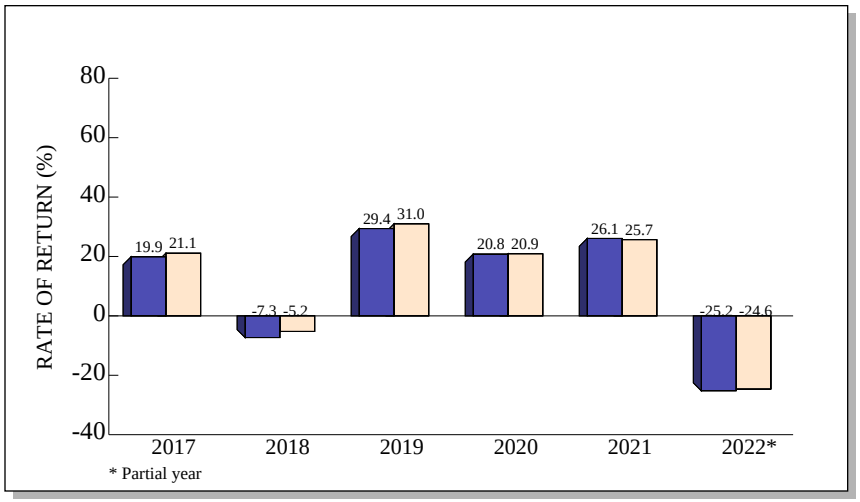
| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 12/12 | 1.5 | 1.2 | 0.3 |
| 3/13 | 6.7 | 6.2 | 0.5 |
| 6/13 | -0.1 | 0.3 | -0.4 |
| 9/13 | 6.0 | 5.1 | 0.9 |
| 12/13 | 6.4 | 5.8 | 0.6 |
| 3/14 | 1.6 | 1.8 | -0.2 |
| 6/14 | 3.8 | 3.8 | 0.0 |
| 9/14 | -1.5 | -0.8 | -0.7 |
| 12/14 | 2.3 | 2.6 | -0.3 |
| 3/15 | 3.0 | 2.2 | 0.8 |
| 6/15 | -0.6 | -0.4 | -0.2 |
| 9/15 | -6.9 | -5.7 | -1.2 |
| 12/15 | 3.3 | 3.7 | -0.4 |
| 3/16 | 0.4 | 1.2 | -0.8 |
| 6/16 | 2.0 | 1.9 | 0.1 |
| 9/16 | 4.5 | 3.4 | 1.1 |
| 12/16 | 1.5 | 1.0 | 0.5 |
| 3/17 | 4.4 | 4.3 | 0.1 |
| 6/17 | 2.8 | 3.0 | -0.2 |
| 9/17 | 3.8 | 3.4 | 0.4 |
| 12/17 | 4.3 | 4.0 | 0.3 |
| 3/18 | -0.5 | -1.0 | 0.5 |
| 6/18 | 1.5 | 1.6 | -0.1 |
| 9/18 | 3.8 | 3.8 | 0.0 |
| 12/18 | -9.8 | -8.8 | -1.0 |
| 3/19 | 9.8 | 9.6 | 0.2 |
| 6/19 | 3.2 | 3.8 | -0.6 |
| 9/19 | 1.2 | 1.3 | -0.1 |
| 12/19 | 5.4 | 5.7 | -0.3 |
| 3/20 | -14.1 | -13.4 | -0.7 |
| 6/20 | 14.2 | 13.8 | 0.4 |
| 9/20 | 5.6 | 6.4 | -0.8 |
| 12/20 | 10.5 | 10.5 | 0.0 |
| 3/21 | 3.0 | 3.9 | -0.9 |
| 6/21 | 6.0 | 6.6 | -0.6 |
| 9/21 | 0.5 | 0.9 | -0.4 |
| 12/21 | 5.5 | 5.6 | -0.1 |
| 3/22 | -6.2 | -4.2 | -2.0 |
| 6/22 | -12.5 | -10.9 | -1.6 |
| 9/22 | -4.6 | -4.1 | -0.5 |

# DOMESTIC EQUITY RETURN COMPARISONS




Domestic Equity Universe



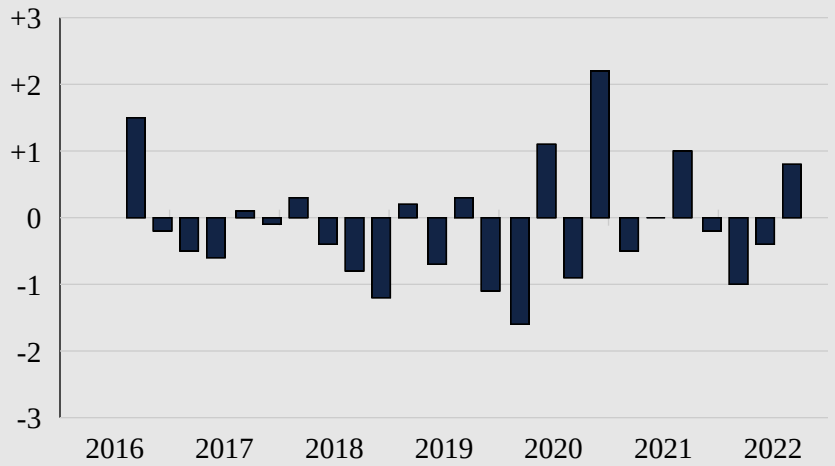

| | | | | | ------ANNUALIZED------ | |
|---|---|---|---|---|---|---|
| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
| RETURN | -3.7 | -20.2 | -25.2 | -18.4 | 7.1 | 7.7 |
| (RANK) | (41) | (62) | (62) | (59) | (44) | (46) |
| 5TH %ILE | 2.4 | -11.0 | -10.7 | -3.7 | 12.6 | 12.5 |
| 25TH %ILE | -2.4 | -16.0 | -17.9 | -11.4 | 8.6 | 9.3 |
| MEDIAN | -4.3 | -19.1 | -23.5 | -16.8 | 6.7 | 7.3 |
| 75TH %ILE | -5.6 | -21.7 | -28.9 | -24.4 | 4.8 | 5.3 |
| 95TH %ILE | -7.9 | -27.3 | -36.9 | -36.1 | 1.5 | 2.5 |
| ***Russ 3000*** | ***-4.5*** | ***-20.4*** | ***-24.6*** | ***-17.6*** | ***7.7*** | ***8.6*** |

Domestic Equity Universe

# DOMESTIC EQUITY QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: RUSSELL 3000**

## VARIATION FROM BENCHMARK

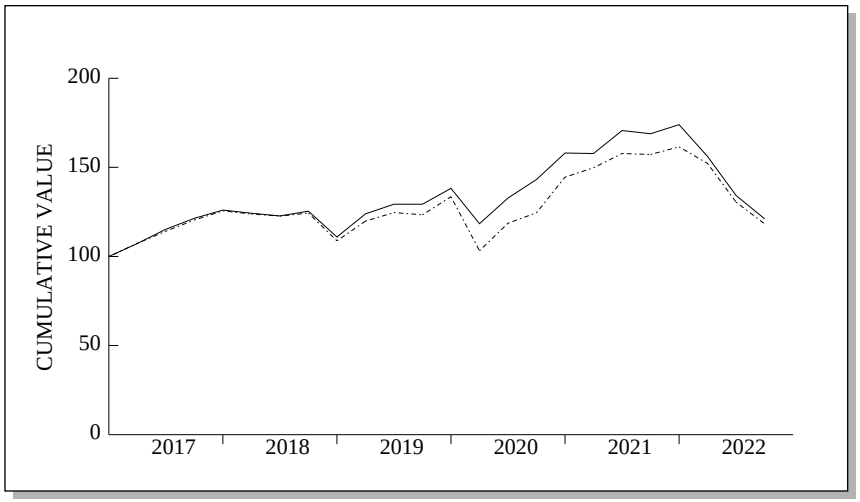


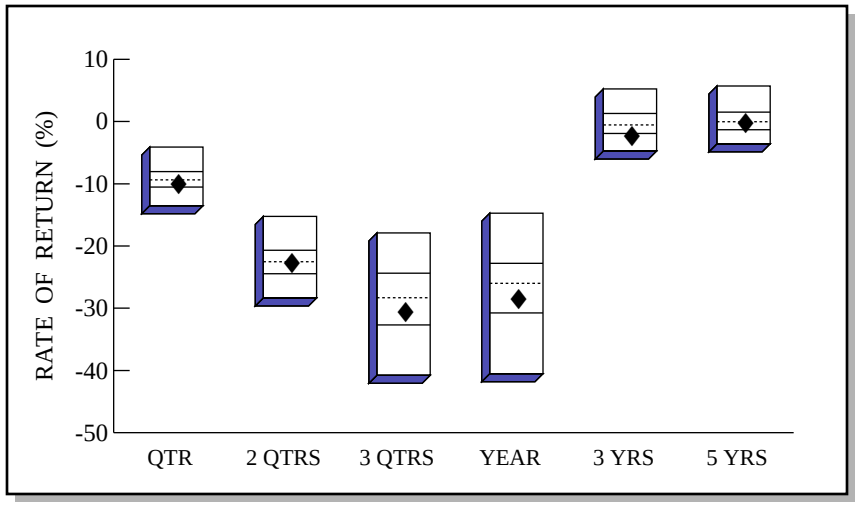

| | |
|---|---|
| **Total Quarters Observed** | **25** |
| **Quarters At or Above the Benchmark** | **10** |
| **Quarters Below the Benchmark** | **15** |
| **Batting Average** | **.400** |

## RATES OF RETURN

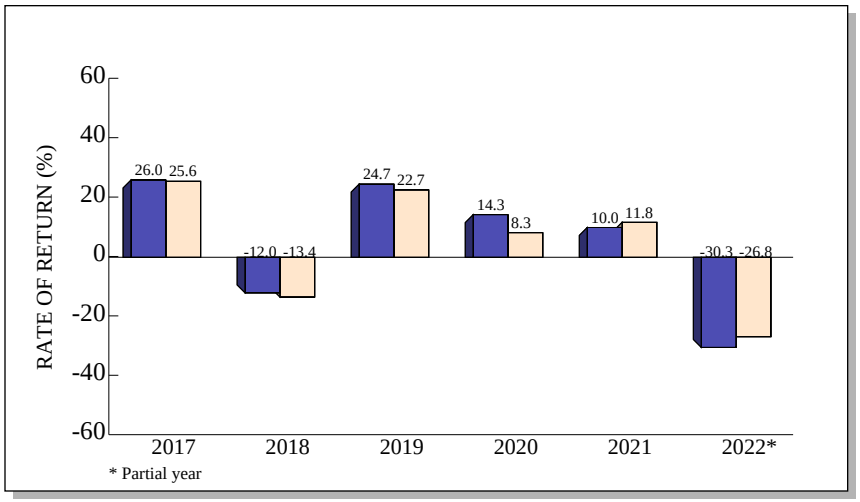
| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 9/16 | 5.9 | 4.4 | 1.5 |
| 12/16 | 4.0 | 4.2 | -0.2 |
| 3/17 | 5.2 | 5.7 | -0.5 |
| 6/17 | 2.4 | 3.0 | -0.6 |
| 9/17 | 4.7 | 4.6 | 0.1 |
| 12/17 | 6.2 | 6.3 | -0.1 |
| 3/18 | -0.3 | -0.6 | 0.3 |
| 6/18 | 3.5 | 3.9 | -0.4 |
| 9/18 | 6.3 | 7.1 | -0.8 |
| 12/18 | -15.5 | -14.3 | -1.2 |
| 3/19 | 14.2 | 14.0 | 0.2 |
| 6/19 | 3.4 | 4.1 | -0.7 |
| 9/19 | 1.5 | 1.2 | 0.3 |
| 12/19 | 8.0 | 9.1 | -1.1 |
| 3/20 | -22.5 | -20.9 | -1.6 |
| 6/20 | 23.1 | 22.0 | 1.1 |
| 9/20 | 8.3 | 9.2 | -0.9 |
| 12/20 | 16.9 | 14.7 | 2.2 |
| 3/21 | 5.8 | 6.3 | -0.5 |
| 6/21 | 8.2 | 8.2 | 0.0 |
| 9/21 | 0.9 | -0.1 | 1.0 |
| 12/21 | 9.1 | 9.3 | -0.2 |
| 3/22 | -6.3 | -5.3 | -1.0 |
| 6/22 | -17.1 | -16.7 | -0.4 |
| 9/22 | -3.7 | -4.5 | 0.8 |

# INTERNATIONAL EQUITY RETURN COMPARISONS




International Equity Universe



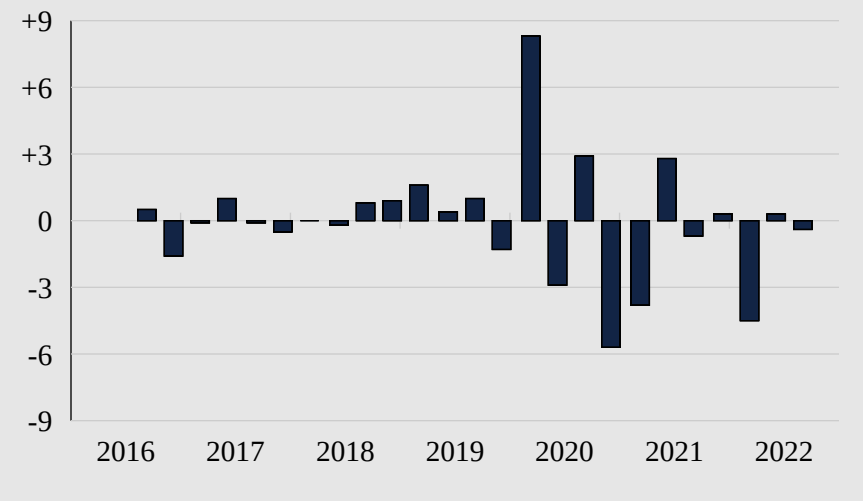

| | QTR | 2 QTRS | 3 QTRS | YEAR | ------ANNUALIZED------ 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| RETURN | -9.7 | -22.4 | -30.3 | -28.3 | -2.1 | 0.0 |
| (RANK) | (57) | (46) | (65) | (66) | (78) | (51) |
| 5TH %ILE | -4.1 | -15.3 | -17.9 | -14.7 | 5.3 | 5.7 |
| 25TH %ILE | -8.1 | -20.7 | -24.4 | -22.8 | 1.3 | 1.5 |
| MEDIAN | -9.4 | -22.5 | -28.3 | -26.0 | -0.6 | 0.0 |
| 75TH %ILE | -10.5 | -24.5 | -32.7 | -30.8 | -1.9 | -1.3 |
| 95TH %ILE | -13.5 | -28.4 | -40.8 | -40.6 | -4.8 | -3.6 |
| ***MSCI EAFE*** | ***-9.3*** | ***-22.3*** | ***-26.8*** | ***-24.7*** | ***-1.4*** | ***-0.4*** |

International Equity Universe

# INTERNATIONAL EQUITY QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: MSCI EAFE**

## VARIATION FROM BENCHMARK

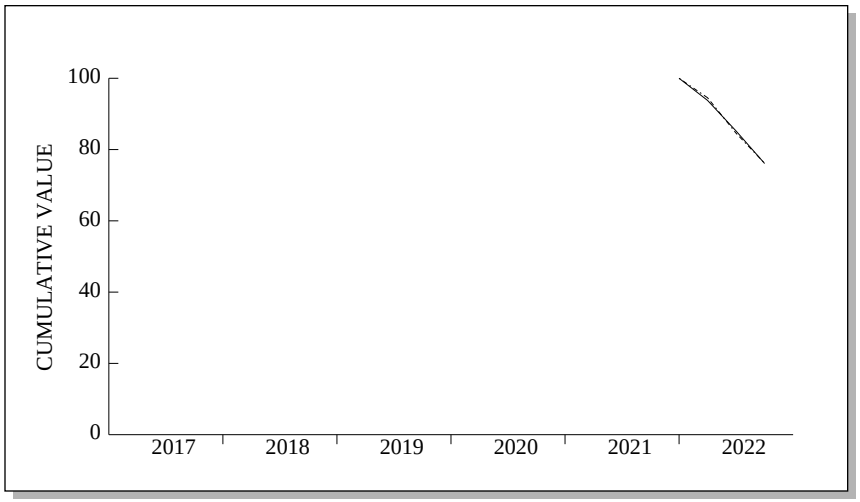


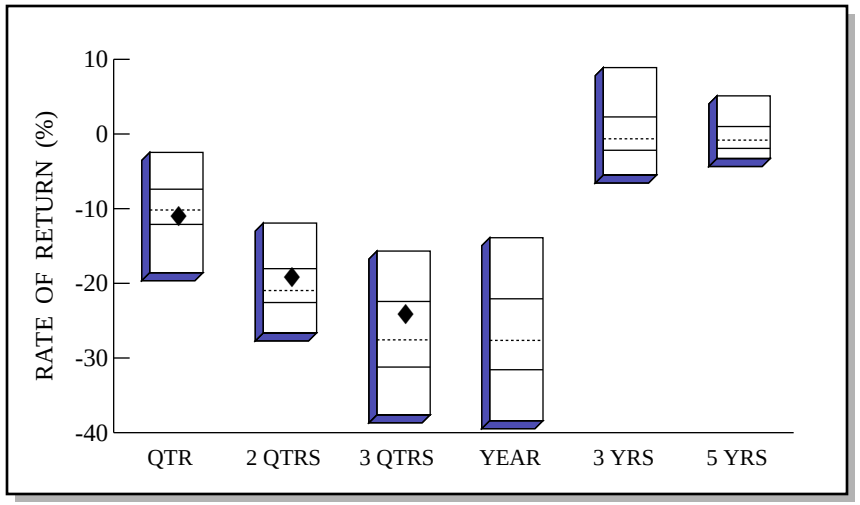

| | |
|---|---|
| **Total Quarters Observed** | **25** |
| **Quarters At or Above the Benchmark** | **13** |
| **Quarters Below the Benchmark** | **12** |
| **Batting Average** | **.520** |

## RATES OF RETURN

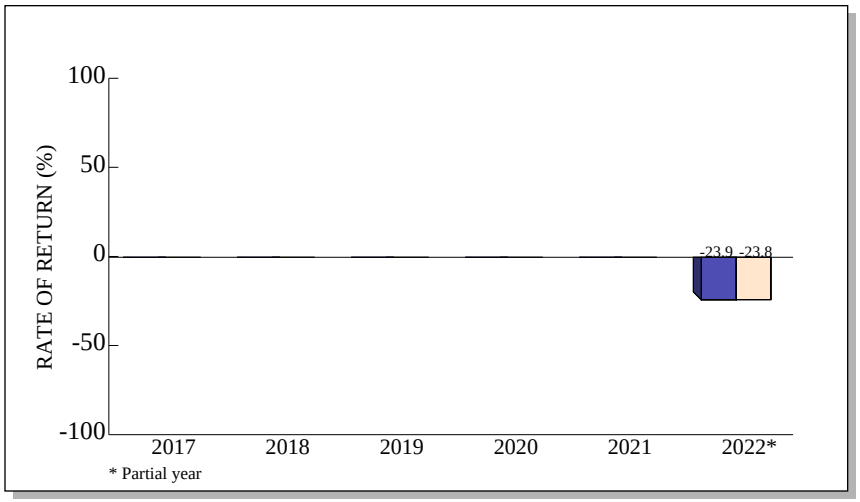
| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 9/16 | 7.0 | 6.5 | 0.5 |
| 12/16 | -2.3 | -0.7 | -1.6 |
| 3/17 | 7.3 | 7.4 | -0.1 |
| 6/17 | 7.4 | 6.4 | 1.0 |
| 9/17 | 5.4 | 5.5 | -0.1 |
| 12/17 | 3.8 | 4.3 | -0.5 |
| 3/18 | -1.4 | -1.4 | 0.0 |
| 6/18 | -1.2 | -1.0 | -0.2 |
| 9/18 | 2.2 | 1.4 | 0.8 |
| 12/18 | -11.6 | -12.5 | 0.9 |
| 3/19 | 11.7 | 10.1 | 1.6 |
| 6/19 | 4.4 | 4.0 | 0.4 |
| 9/19 | 0.0 | -1.0 | 1.0 |
| 12/19 | 6.9 | 8.2 | -1.3 |
| 3/20 | -14.4 | -22.7 | 8.3 |
| 6/20 | 12.2 | 15.1 | -2.9 |
| 9/20 | 7.8 | 4.9 | 2.9 |
| 12/20 | 10.4 | 16.1 | -5.7 |
| 3/21 | -0.2 | 3.6 | -3.8 |
| 6/21 | 8.2 | 5.4 | 2.8 |
| 9/21 | -1.1 | -0.4 | -0.7 |
| 12/21 | 3.0 | 2.7 | 0.3 |
| 3/22 | -10.3 | -5.8 | -4.5 |
| 6/22 | -14.0 | -14.3 | 0.3 |
| 9/22 | -9.7 | -9.3 | -0.4 |

# EMERGING MARKETS EQUITY RETURN COMPARISONS




Emerging Markets Universe



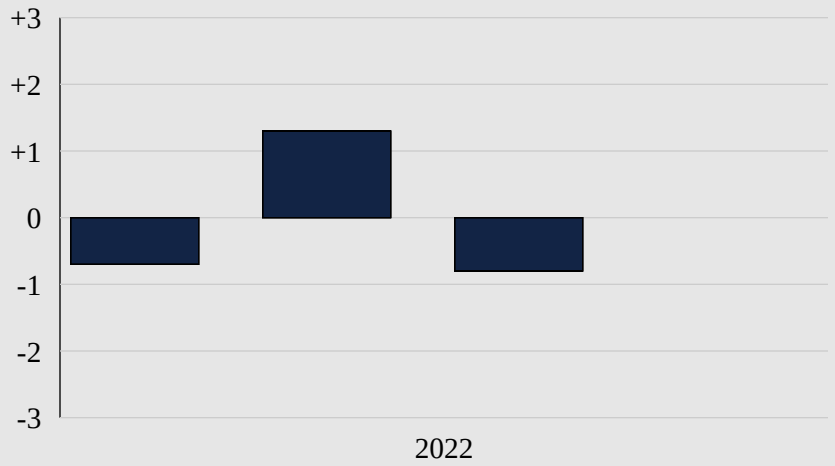

| | | | | | ------ANNUALIZED------ | |
|---|---|---|---|---|---|---|
| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
| RETURN | -10.7 | -18.9 | -23.9 | ---- | ---- | ---- |
| (RANK) | (59) | (34) | (33) | ---- | ---- | ---- |
| 5TH %ILE | -2.5 | -11.9 | -15.7 | -13.9 | 8.9 | 5.1 |
| 25TH %ILE | -7.4 | -18.1 | -22.4 | -22.1 | 2.3 | 1.0 |
| MEDIAN | -10.2 | -21.0 | -27.6 | -27.6 | -0.7 | -0.8 |
| 75TH %ILE | -12.1 | -22.6 | -31.2 | -31.6 | -2.2 | -1.9 |
| 95TH %ILE | -18.6 | -26.7 | -37.6 | -38.4 | -5.5 | -3.3 |
| ***FTSE All Cap EM*** | ***-9.9*** | ***-19.4*** | ***-23.8*** | ***-24.2*** | ***-0.2*** | ***-0.4*** |

Emerging Markets Universe

# EMERGING MARKETS EQUITY QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: FTSE ALL CAP EM CHINA A INCLUSION

### VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **3** |
| **Quarters At or Above the Benchmark** | **1** |
| **Quarters Below the Benchmark** | **2** |
| **Batting Average** | **.333** |

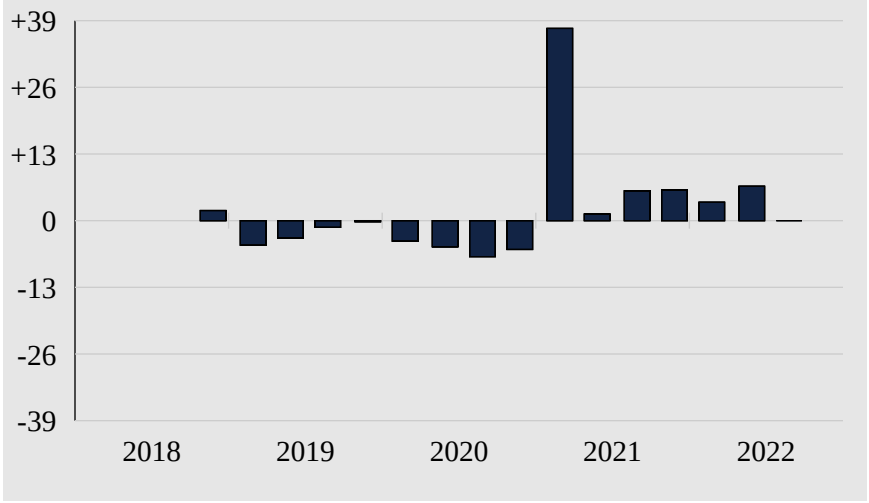
### RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/22 | -6.2 | -5.5 | -0.7 |
| 6/22 | -9.2 | -10.5 | 1.3 |
| 9/22 | -10.7 | -9.9 | -0.8 |

# PRIVATE EQUITY QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY

### VARIATION FROM BENCHMARK

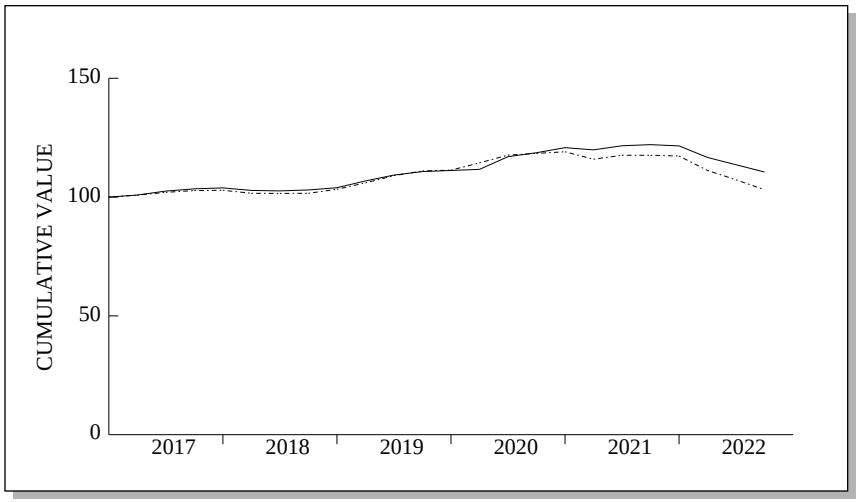


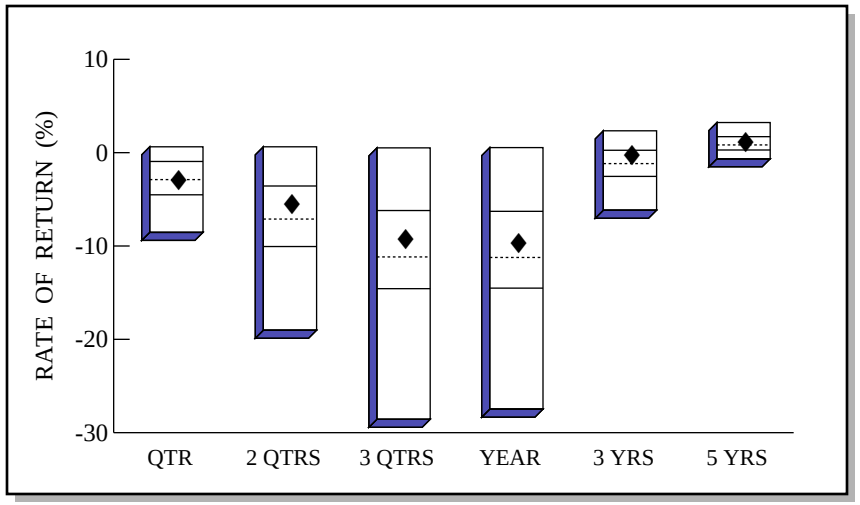

| | |
|---|---|
| **Total Quarters Observed** | **16** |
| **Quarters At or Above the Benchmark** | **8** |
| **Quarters Below the Benchmark** | **8** |
| **Batting Average** | **.500** |

### RATES OF RETURN

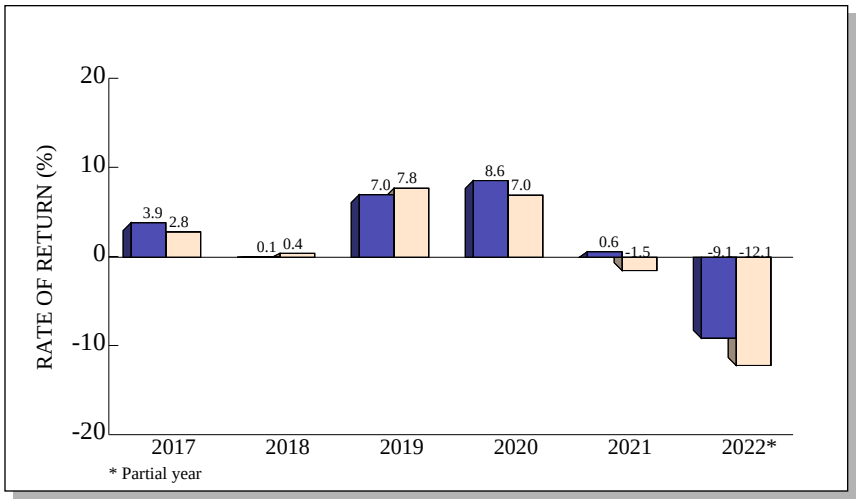
| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 12/18 | 0.0 | -2.0 | 2.0 |
| 3/19 | 0.0 | 4.8 | -4.8 |
| 6/19 | 0.0 | 3.4 | -3.4 |
| 9/19 | 0.0 | 1.3 | -1.3 |
| 12/19 | 3.6 | 3.8 | -0.2 |
| 3/20 | -14.1 | -10.1 | -4.0 |
| 6/20 | 4.3 | 9.4 | -5.1 |
| 9/20 | 4.8 | 11.8 | -7.0 |
| 12/20 | 6.6 | 12.2 | -5.6 |
| 3/21 | 47.5 | 10.0 | 37.5 |
| 6/21 | 16.1 | 14.8 | 1.3 |
| 9/21 | 11.8 | 6.0 | 5.8 |
| 12/21 | 11.3 | 5.3 | 6.0 |
| 3/22 | 2.9 | -0.7 | 3.6 |
| 6/22 | 2.1 | -4.6 | 6.7 |
| 9/22 | 0.0 | 0.0 | 0.0 |

# FIXED INCOME RETURN COMPARISONS




Broad Market Fixed Universe



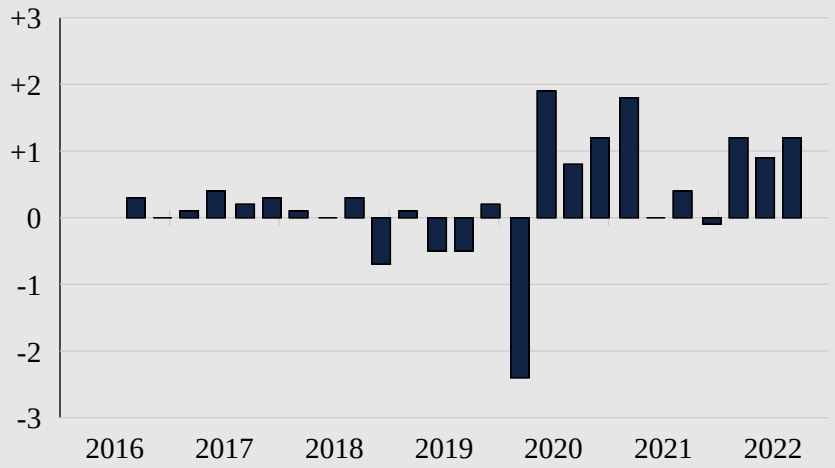

| | QTR | 2 QTRS | 3 QTRS | YEAR | ------ANNUALIZED------ 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| RETURN | -2.7 | -5.3 | -9.1 | -9.4 | -0.1 | 1.3 |
| (RANK) | (48) | (38) | (37) | (38) | (32) | (33) |
| 5TH %ILE | 0.6 | 0.6 | 0.5 | 0.5 | 2.4 | 3.2 |
| 25TH %ILE | -0.9 | -3.6 | -6.2 | -6.3 | 0.3 | 1.7 |
| MEDIAN | -2.9 | -7.1 | -11.2 | -11.2 | -1.2 | 0.8 |
| 75TH %ILE | -4.5 | -10.1 | -14.6 | -14.5 | -2.5 | 0.3 |
| 95TH %ILE | -8.6 | -19.0 | -28.6 | -27.5 | -6.2 | -0.7 |
| ***Agg/Int GC*** | ***-3.9*** | ***-7.3*** | ***-12.1*** | ***-12.4*** | ***-2.4*** | ***0.1*** |

Broad Market Fixed Universe

# FIXED INCOME QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: 50% AGGREGATE / 50% INT. GOV. CRED.**

## VARIATION FROM BENCHMARK

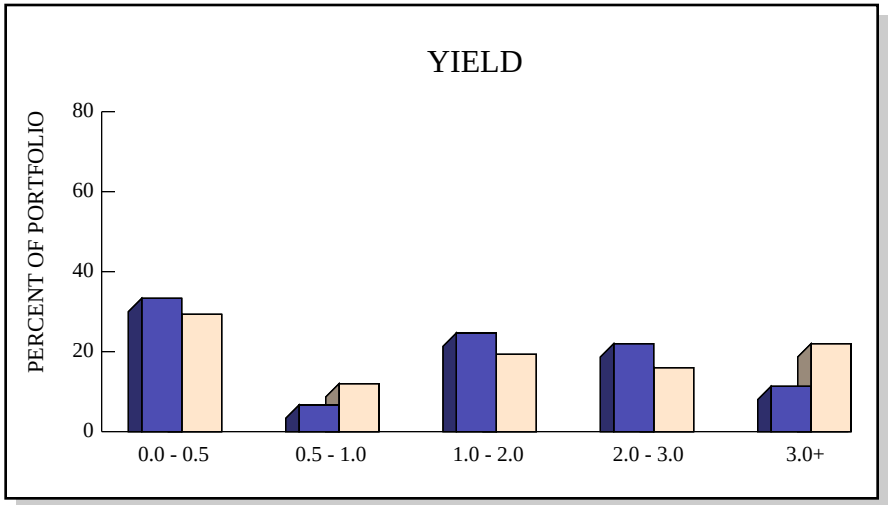



| | |
|---|---|
| **Total Quarters Observed** | **25** |
| **Quarters At or Above the Benchmark** | **20** |
| **Quarters Below the Benchmark** | **5** |
| **Batting Average** | **.800** |

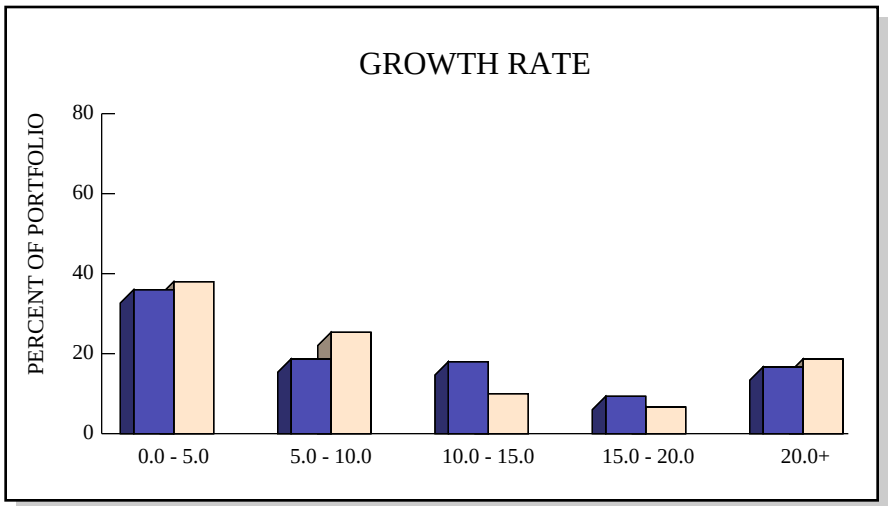
## RATES OF RETURN

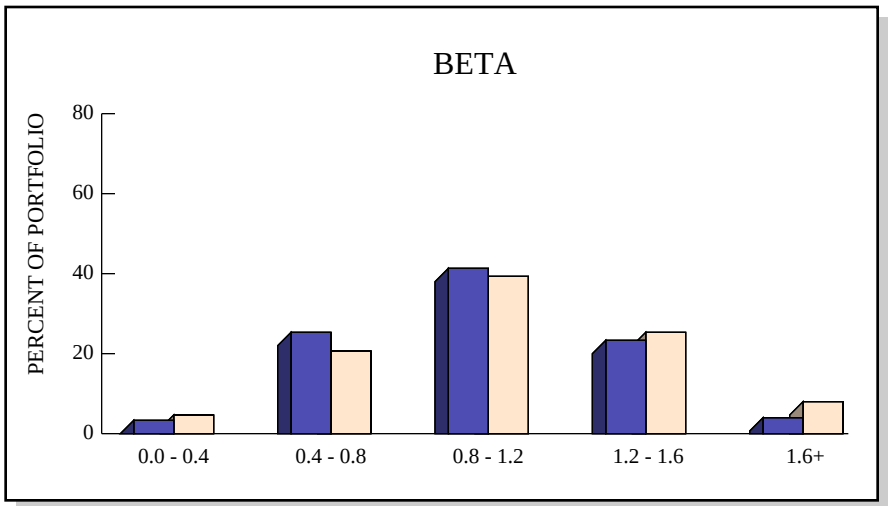
| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 9/16 | 0.6 | 0.3 | 0.3 |
| 12/16 | -2.5 | -2.5 | 0.0 |
| 3/17 | 0.9 | 0.8 | 0.1 |
| 6/17 | 1.6 | 1.2 | 0.4 |
| 9/17 | 0.9 | 0.7 | 0.2 |
| 12/17 | 0.4 | 0.1 | 0.3 |
| 3/18 | -1.1 | -1.2 | 0.1 |
| 6/18 | -0.1 | -0.1 | 0.0 |
| 9/18 | 0.4 | 0.1 | 0.3 |
| 12/18 | 0.9 | 1.6 | -0.7 |
| 3/19 | 2.7 | 2.6 | 0.1 |
| 6/19 | 2.3 | 2.8 | -0.5 |
| 9/19 | 1.3 | 1.8 | -0.5 |
| 12/19 | 0.5 | 0.3 | 0.2 |
| 3/20 | 0.4 | 2.8 | -2.4 |
| 6/20 | 4.8 | 2.9 | 1.9 |
| 9/20 | 1.4 | 0.6 | 0.8 |
| 12/20 | 1.8 | 0.6 | 1.2 |
| 3/21 | -0.8 | -2.6 | 1.8 |
| 6/21 | 1.4 | 1.4 | 0.0 |
| 9/21 | 0.4 | 0.0 | 0.4 |
| 12/21 | -0.4 | -0.3 | -0.1 |
| 3/22 | -4.0 | -5.2 | 1.2 |
| 6/22 | -2.6 | -3.5 | 0.9 |
| 9/22 | -2.7 | -3.9 | 1.2 |

# STOCK CHARACTERISTICS

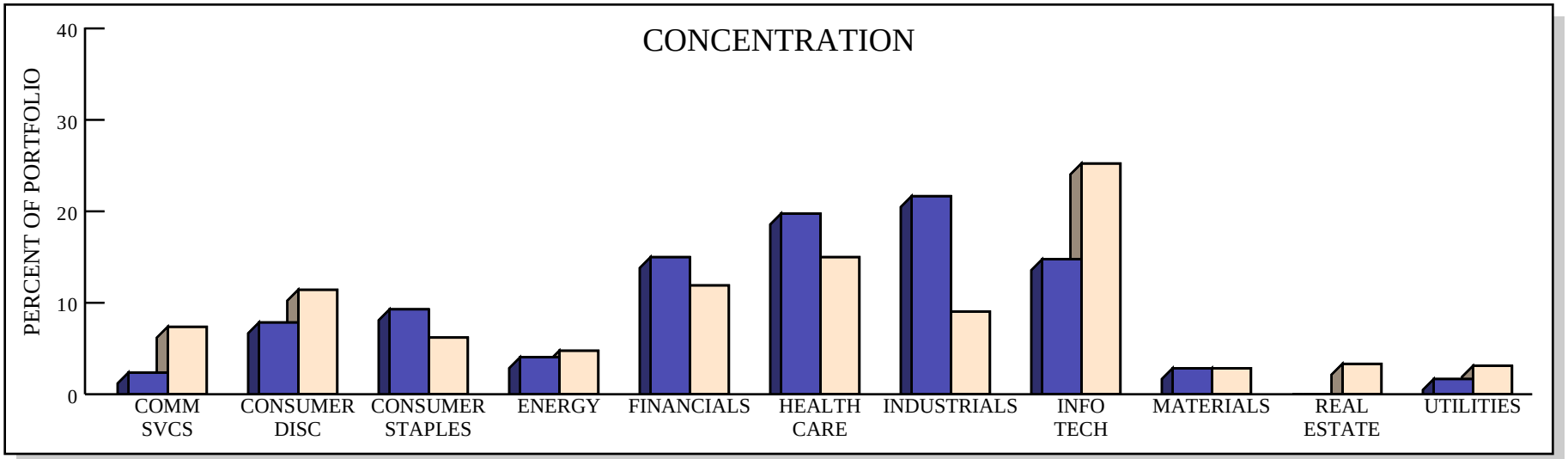


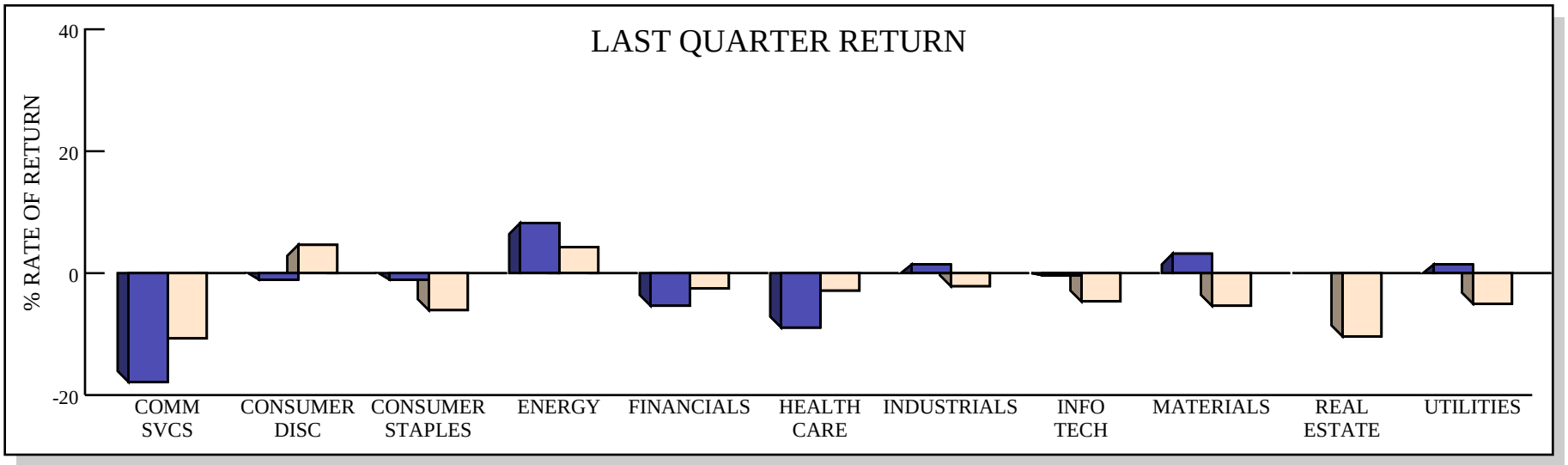
| | # HOLDINGS | YIELD | GROWTH | P/E | BETA |
|---|---|---|---|---|---|
| PORTFOLIO | 102 | 1.4% | 9.7% | 25.0 | 1.01 |
| RUSSELL 3000 | 2,986 | 1.8% | 9.4% | 25.1 | 1.05 |



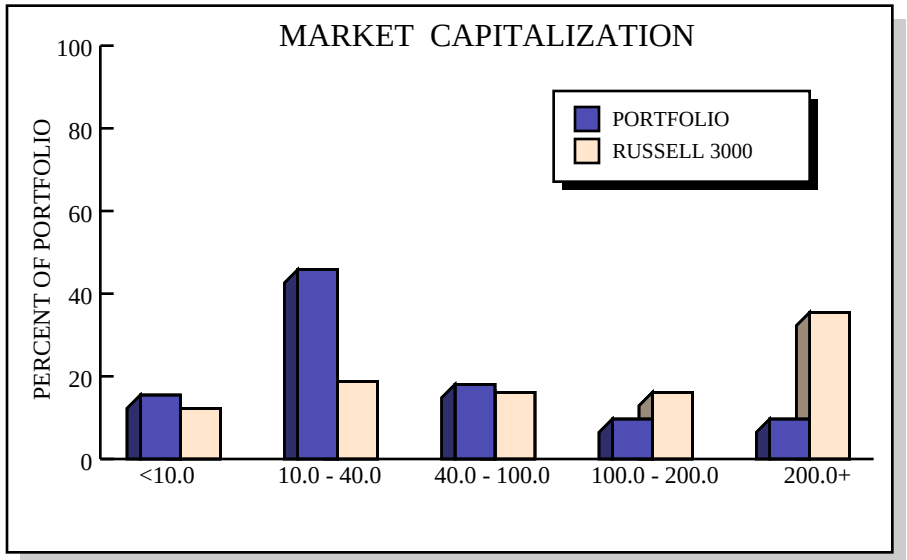



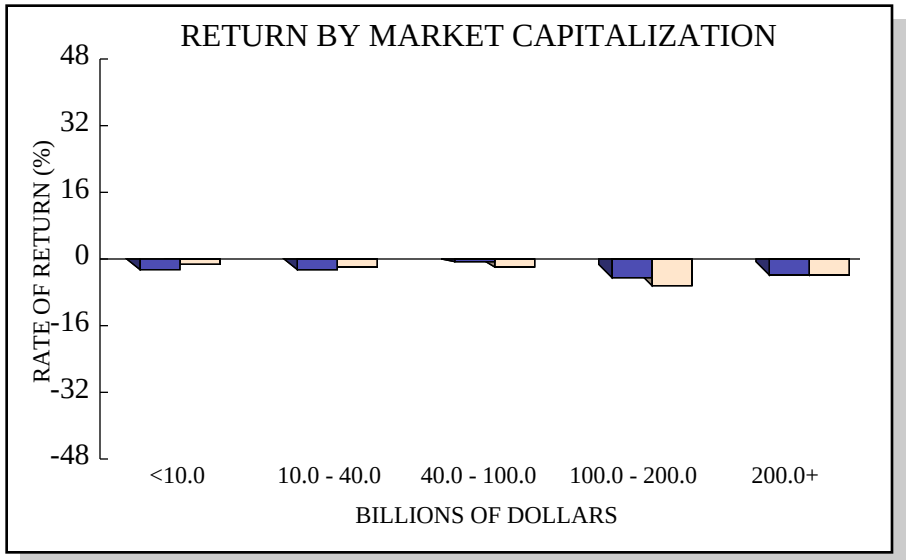
## STOCK INDUSTRY ANALYSIS



## TOP TEN HOLDINGS

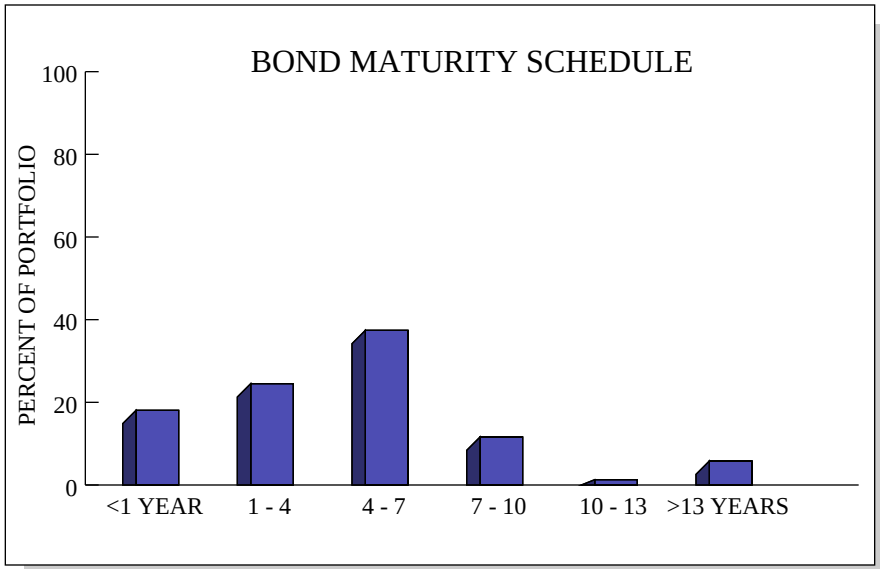


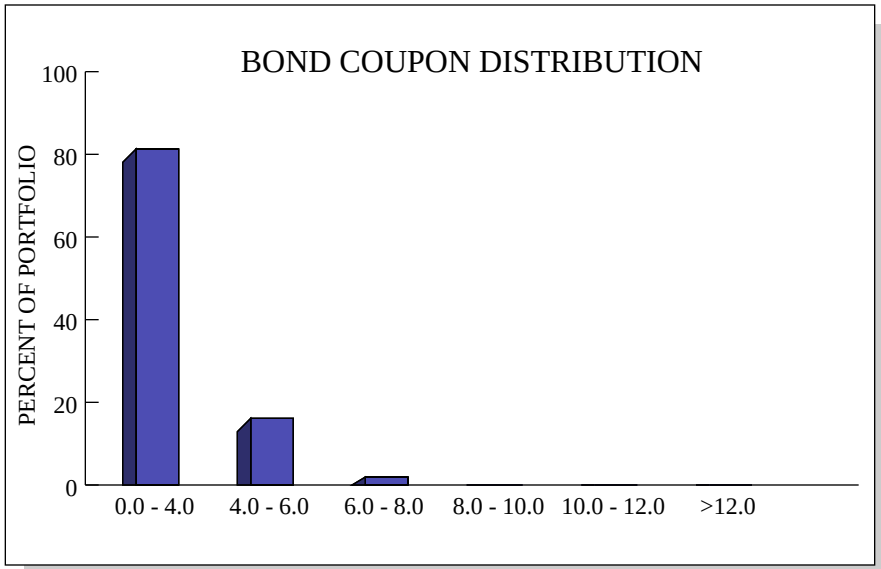



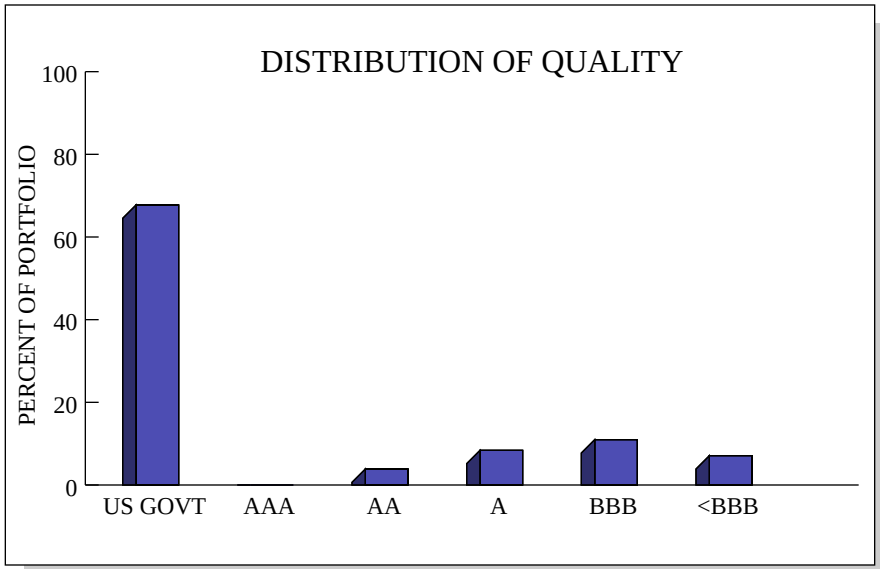

# TOP TEN EQUITY HOLDINGS

| RANK | NAME | VALUE | % EQUITY | RETURN | INDUSTRY SECTOR | MKT CAP |
|---|---|---|---|---|---|---|
| 1 | WALMART INC | $ 1,478,969 | .64% | 7.1% | Consumer Staples | $ 352.0 B |
| 2 | AKAMAI TECHNOLOGIES INC | 1,461,824 | .64% | -12.1% | Information Technology | 12.8 B |
| 3 | CIGNA CORP | 1,396,784 | .61% | 5.7% | Health Care | 84.7 B |
| 4 | AMERICAN INTERNATIONAL GROUP | 1,330,437 | .58% | -6.6% | Financials | 36.1 B |
| 5 | FORTIVE CORP | 1,263,944 | .55% | 7.3% | Industrials | 20.7 B |
| 6 | EVEREST RE GROUP LTD | 1,262,336 | .55% | -5.8% | Financials | 10.3 B |
| 7 | AMETEK INC | 1,229,364 | .53% | 3.4% | Industrials | 26.0 B |
| 8 | GENERAL MOTORS CO | 1,226,897 | .53% | 1.3% | Consumer Discretionary | 46.8 B |
| 9 | NEXTERA ENERGY INC | 1,192,616 | .52% | 1.7% | Utilities | 154.1 B |
| 10 | AERCAP HOLDINGS NV | 1,181,134 | .51% | 3.4% | Industrials | 10.4 B |

# BOND CHARACTERISTICS




| | PORTFOLIO | AGGREGATE INDEX |
|---|---|---|
| No. of Securities | 124 | 12,667 |
| Duration | 4.19 | 6.20 |
| YTM | 4.87 | 4.75 |
| Average Coupon | 2.42 | 2.58 |
| Avg Maturity / WAL | 4.99 | 8.52 |
| Average Quality | AAA | AA |

## Manager Fee Schedules

| Manager | Annual Fee Schedule |
|---|---|
| Vanguard 500 | 0.035% on all assets |
| Vesper | 0.75% on all assets |
| Vanguard R1000G | 0.07% on all assets |
| Allspring | Base fee: 0.25%. Incentive fee: 0.01% increase in annual fee for 0.05% excess return over benchmark on rolling 3-year basis. Minimum annual fee: $20,000 |
| Champlain | 0.85% on first $50 million, 0.75% on next $50 million, 0.65% on remainder |
| Vanguard Mid Cap | 0.04% on all assets |
| Vanguard Small Cap | 0.04% on all assets |
| Maquarie | 0.7% on all assets |
| Walter Scott | 0.75% on first $100 million |
| Vanguard Emerging Markets | 0.1% on all assets |
| Banner Ridge | 1% on committed capital, declining by 10% per annum.<br>5% carried interest with 8% preferred return, 7.5% carried interest with 10% preferred return |
| Ben Franklin | 3% on cost basis of all companies, including those for which capital has not yet been called |
| Siguler Guff | 0.945% through commitment period, followed by 20% reduction per annum thereafter. 5% carry interest allocation after 8% preferred return. |
| Taurus | 0.8% on committed capital in years 1-4, 0.6% on invested capital in years 5-7, 0.3% on invested capital thereafter. 5% carry interest allocation after 8% preferred return. |
| PRISA | 1% on first $25 million, 0.95% on next $25 million |
| Brandes | 0.2% on all assets |
| Birch Run | 0.2% on all assets |
| Vanguard Short-Term Corporate | 0.05% on all assets |
| PGIM Short-Term Corporate | 0.38% on all assets |

# APPENDIX - MAJOR MARKET INDEX RETURNS

| Economic Data | Style | QTR | YTD | 1 Year | 3 Years | 5 Years | 10 Years |
|---|---|---|---|---|---|---|---|
| Consumer Price Index | Economic Data | 0.2 | 6.5 | 8.2 | 4.9 | 3.8 | 2.5 |
| **Domestic Equity** | **Style** | **QTR** | **YTD** | **1 Year** | **3 Years** | **5 Years** | **10 Years** |
| Russell 3000 | Broad Equity | -4.5 | -24.6 | -17.6 | 7.7 | 8.6 | 11.4 |
| S&P 500 | Large Cap Core | -4.9 | -23.9 | -15.5 | 8.2 | 9.2 | 11.7 |
| Russell 1000 | Large Cap | -4.6 | -24.6 | -17.2 | 7.9 | 9.0 | 11.6 |
| Russell 1000 Growth | Large Cap Growth | -3.6 | -30.7 | -22.6 | 10.7 | 12.2 | 13.7 |
| Russell 1000 Value | Large Cap Value | -5.6 | -17.8 | -11.4 | 4.4 | 5.3 | 9.2 |
| Russell Mid Cap | Midcap | -3.4 | -24.3 | -19.4 | 5.2 | 6.5 | 10.3 |
| Russell Mid Cap Growth | Midcap Growth | -0.7 | -31.5 | -29.5 | 4.3 | 7.6 | 10.9 |
| Russell Mid Cap Value | Midcap Value | -4.9 | -20.4 | -13.6 | 4.5 | 4.7 | 9.4 |
| Russell 2000 | Small Cap | -2.2 | -25.1 | -23.5 | 4.3 | 3.5 | 8.5 |
| Russell 2000 Growth | Small Cap Growth | 0.2 | -29.3 | -29.3 | 2.9 | 3.6 | 8.8 |
| Russell 2000 Value | Small Cap Value | -4.6 | -21.1 | -17.7 | 4.7 | 2.9 | 7.9 |
| **International Equity** | **Style** | **QTR** | **YTD** | **1 Year** | **3 Years** | **5 Years** | **10 Years** |
| MSCI All Country World ex US | Foreign Equity | -9.8 | -26.2 | -24.8 | -1.1 | -0.3 | 3.5 |
| MSCI EAFE | Developed Markets Equity | -9.3 | -26.8 | -24.7 | -1.4 | -0.4 | 4.2 |
| MSCI EAFE Growth | Developed Markets Growth | -8.4 | -32.8 | -30.1 | -1.2 | 1.0 | 5.1 |
| MSCI EAFE Value | Developed Markets Value | -10.1 | -20.6 | -19.6 | -2.2 | -2.1 | 3.0 |
| MSCI Emerging Markets | Emerging Markets Equity | -11.4 | -26.9 | -27.8 | -1.7 | -1.4 | 1.4 |
| **Domestic Fixed Income** | **Style** | **QTR** | **YTD** | **1 Year** | **3 Years** | **5 Years** | **10 Years** |
| Bloomberg Aggregate Index | Core Fixed Income | -4.8 | -14.6 | -14.6 | -3.3 | -0.3 | 0.9 |
| Bloomberg Capital Gov't Bond | Treasuries | -4.3 | -12.9 | -11.0 | -2.4 | 0.2 | 0.7 |
| Bloomberg Capital Credit Bond | Corporate Bonds | -4.9 | -18.1 | -15.0 | -2.5 | 0.6 | 1.9 |
| Intermediate Aggregate | Core Intermediate | -3.8 | -11.0 | -11.5 | -2.3 | 0.0 | 0.8 |
| ML/BoA 1-3 Year Treasury | Short Term Treasuries | -1.6 | -4.5 | -5.1 | -0.6 | 0.5 | 0.5 |
| Bloomberg Capital High Yield | High Yield Bonds | -0.6 | -16.2 | -15.6 | -1.0 | 1.2 | 3.8 |
| **Alternative Assets** | **Style** | **QTR** | **YTD** | **1 Year** | **3 Years** | **5 Years** | **10 Years** |
| Bloomberg Global Treasury Ex US | International Treasuries | -8.9 | -24.9 | -26.1 | -8.9 | -4.3 | -2.8 |
| NCREIF NFI-ODCE Index | Real Estate | 0.5 | 13.1 | 22.1 | 12.4 | 10.2 | 10.9 |
| HFRI FOF Composite | Hedge Funds | -0.7 | -5.7 | -5.4 | 4.6 | 3.3 | 3.6 |

## APPENDIX - DISCLOSURES

* For the period since December 31, 2019 the Policy Index is constructed as follows:
  47% Russell 3000, 13% MSCI EAFE, 10% Cambridge Private Equity, 5% NCREIF NFI-ODCE,
  12.5% Bloomberg Aggregate, 12.5% Bloomberg Intermediate Aggregate
  For periods through December 31, 2019, Policy Index returns were provided by the prior consultant.
* 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.

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# VANGUARD - INSTITUTIONAL INDEX
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Vanguard Institutional Index portfolio was valued at $44,933,999, a decrease of $11,098,751 from the June ending value of $56,032,750. Last quarter, the account recorded total net withdrawals of $8,500,000 in addition to $2,598,751 in net investment losses. The fund's net investment loss was a result of income receipts totaling $245,481 and realized and unrealized capital losses totaling $2,844,232.

## RELATIVE PERFORMANCE

*The ticker for this investment is VINIX. In July of 2019, this fund was upgraded to the institutional share class and was previously invested in the Admiral share class (VFIAX).*

### Total Fund

During the third quarter, the Vanguard Institutional Index portfolio lost 4.9%, which was equal to the S&P 500 Index's return of -4.9% and ranked in the 55th percentile of the Large Cap Core universe. Over the trailing year, the portfolio returned -15.5%, which was equal to the benchmark's -15.5% performance, and ranked in the 58th percentile. Since June 2019, the account returned 8.1% per annum and ranked in the 18th percentile. For comparison, the S&P 500 returned an annualized 8.1% over the same time frame.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 06/19 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -4.9 | -23.9 | -15.5 | 8.2 | ---- | 8.1 |
| *LARGE CAP CORE RANK* | (55) | (66) | (58) | (31) | ---- | (18) |
| **Total Portfolio - Net** | -4.9 | -23.9 | -15.5 | 8.1 | ---- | 8.0 |
| S&P 500 | -4.9 | -23.9 | -15.5 | 8.2 | 9.2 | 8.1 |
| **Domestic Equity - Gross** | -4.9 | -23.9 | -15.5 | 8.2 | ---- | 8.1 |
| *LARGE CAP CORE RANK* | (55) | (66) | (58) | (31) | ---- | (18) |
| S&P 500 | -4.9 | -23.9 | -15.5 | 8.2 | 9.2 | 8.1 |

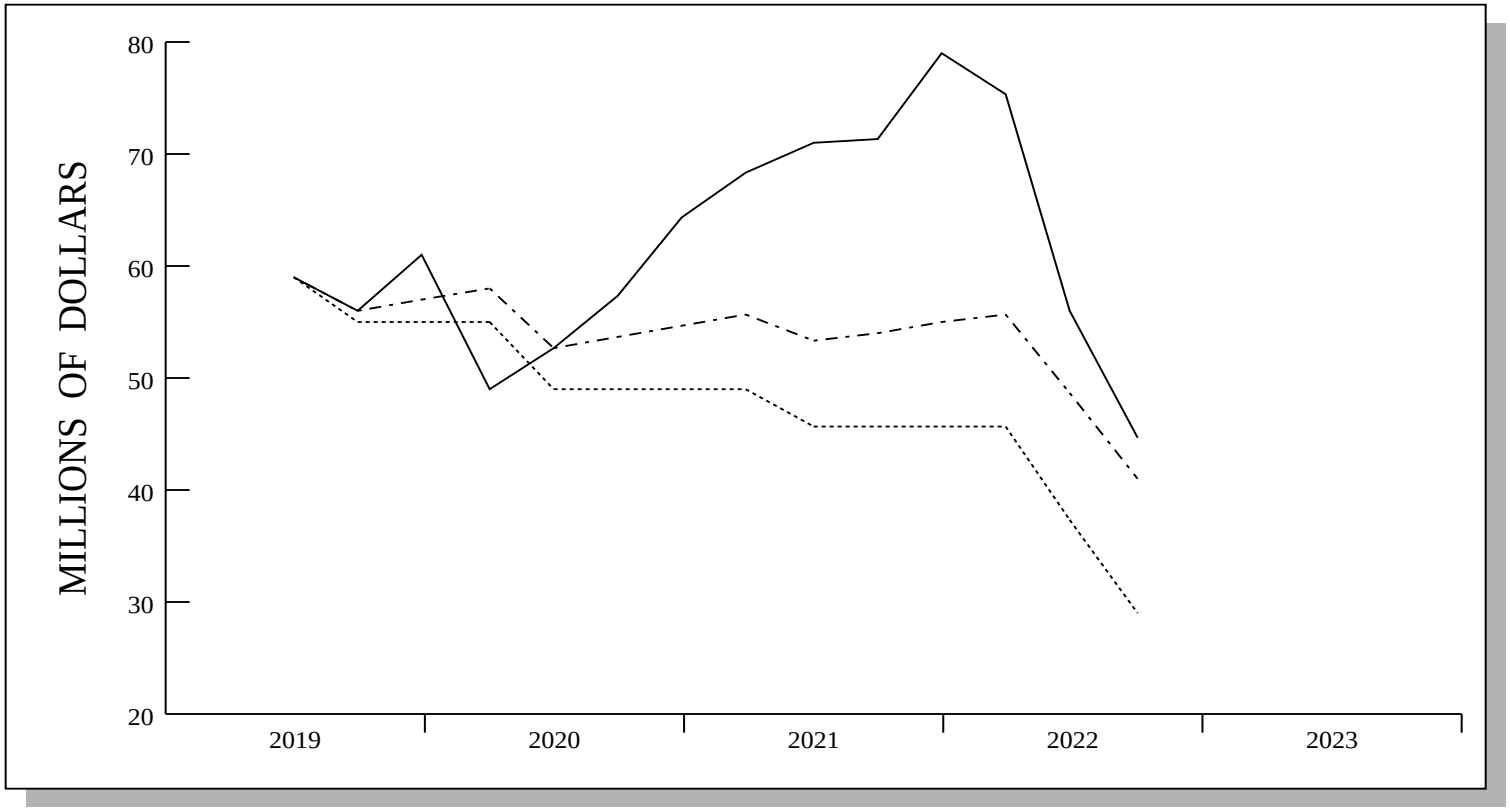
## ASSET ALLOCATION

| | | |
|---|---|---|
| Domestic Equity | 100.0% | $ 44,933,999 |
| Total Portfolio | 100.0% | $ 44,933,999 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 56,032,750 |
| Contribs / Withdrawals | - 8,500,000 |
| Income | 245,481 |
| Capital Gains / Losses | - 2,844,232 |
| Market Value 9/2022 | $ 44,933,999 |

## INVESTMENT GROWTH

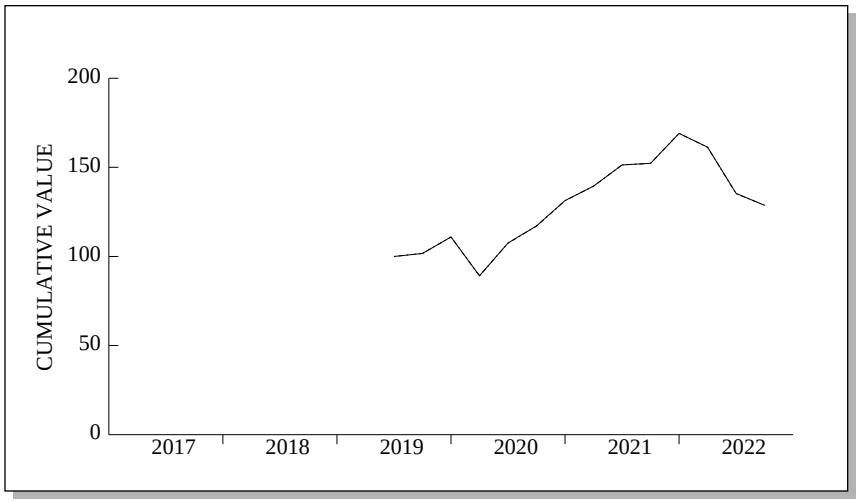


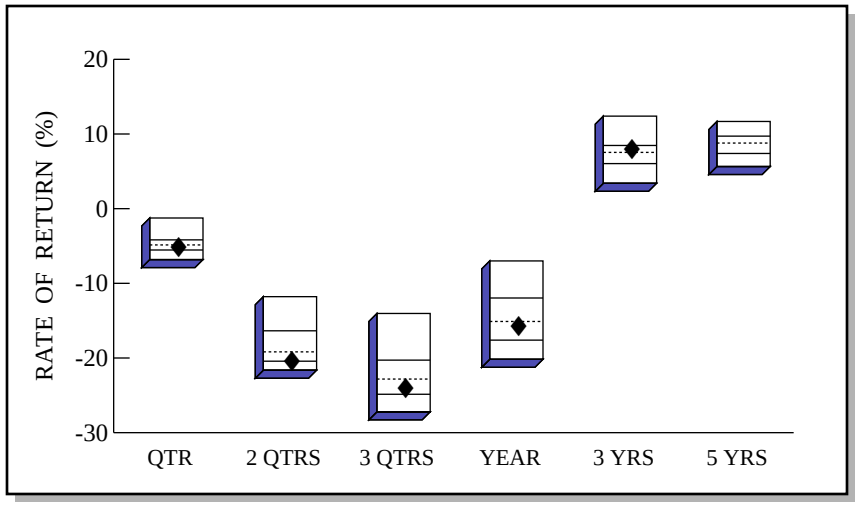

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 41,091,584

| | LAST QUARTER | PERIOD 6/19 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 56,032,750 | $ 59,166,405 |
| NET CONTRIBUTIONS | - 8,500,000 | - 30,012,812 |
| INVESTMENT RETURN | - 2,598,751 | 15,780,406 |
| ENDING VALUE | $ 44,933,999 | $ 44,933,999 |
| INCOME | 245,481 | 5,791,014 |
| CAPITAL GAINS (LOSSES) | - 2,844,232 | 9,989,392 |
| INVESTMENT RETURN | - 2,598,751 | 15,780,406 |

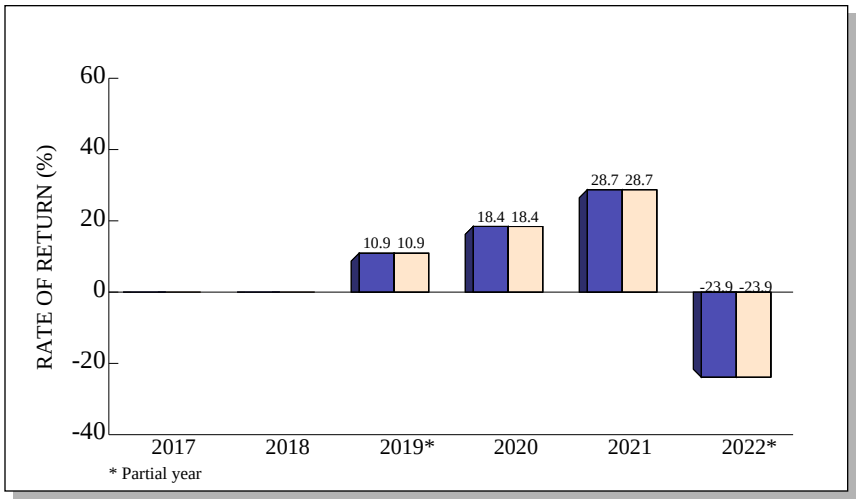
# TOTAL RETURN COMPARISONS




Large Cap Core Universe

PORTFOLIO
S&P 500



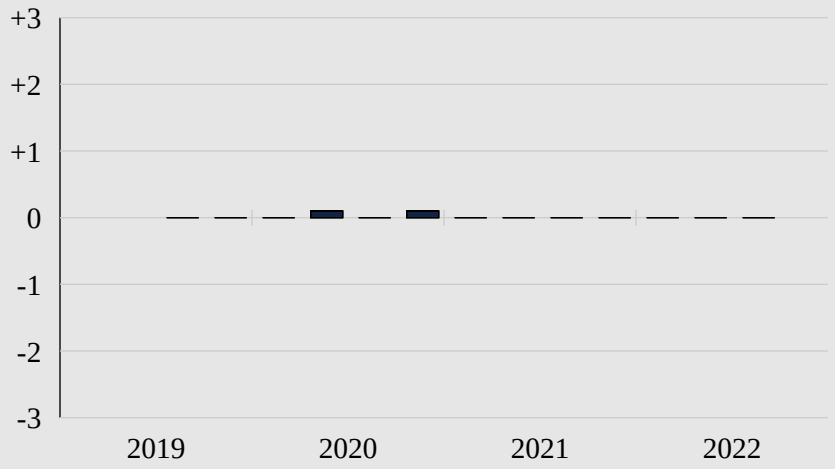

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -4.9 | -20.2 | -23.9 | -15.5 | 8.2 | ---- |
| (RANK) | (55) | (70) | (66) | (58) | (31) | ---- |
| 5TH %ILE | -1.2 | -11.8 | -14.0 | -7.0 | 12.4 | 11.7 |
| 25TH %ILE | -4.2 | -16.3 | -20.3 | -12.0 | 8.5 | 9.7 |
| MEDIAN | -4.8 | -19.2 | -22.8 | -15.1 | 7.5 | 8.8 |
| 75TH %ILE | -5.5 | -20.4 | -24.9 | -17.6 | 6.0 | 7.4 |
| 95TH %ILE | -6.8 | -21.7 | -27.2 | -20.2 | 3.4 | 5.6 |
| ***S&P 500*** | ***-4.9*** | ***-20.2*** | ***-23.9*** | ***-15.5*** | ***8.2*** | ***9.2*** |

Large Cap Core Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: S&P 500**

## VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **13** |
| **Quarters At or Above the Benchmark** | **13** |
| **Quarters Below the Benchmark** | **0** |
| **Batting Average** | **1.000** |

## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 9/19 | 1.7 | 1.7 | 0.0 |
| 12/19 | 9.1 | 9.1 | 0.0 |
| 3/20 | -19.6 | -19.6 | 0.0 |
| 6/20 | 20.6 | 20.5 | 0.1 |
| 9/20 | 8.9 | 8.9 | 0.0 |
| 12/20 | 12.2 | 12.1 | 0.1 |
| 3/21 | 6.2 | 6.2 | 0.0 |
| 6/21 | 8.5 | 8.5 | 0.0 |
| 9/21 | 0.6 | 0.6 | 0.0 |
| 12/21 | 11.0 | 11.0 | 0.0 |
| 3/22 | -4.6 | -4.6 | 0.0 |
| 6/22 | -16.1 | -16.1 | 0.0 |
| 9/22 | -4.9 | -4.9 | 0.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# VESPER - LARGE CAP SHORT-TERM REVERSAL
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Vesper Large Cap Short-Term Reversal portfolio was valued at $2,353,309, a decrease of $221,491 from the June ending value of $2,574,800. Last quarter, the account recorded no net contributions or withdrawals, while recording a net investment loss for the quarter of $221,491. Since there were no income receipts for the third quarter, net investment losses were the result of capital losses (realized and unrealized).

## RELATIVE PERFORMANCE

*The ticker for this investment is UTRN.*

### Total Fund

During the third quarter, the Vesper Large Cap Short-Term Reversal portfolio lost 8.4%, which was 3.5% less than the S&P 500 Index's return of -4.9% and ranked in the 99th percentile of the Large Cap Core universe. Over the trailing year, the portfolio returned -16.8%, which was 1.3% less than the benchmark's -15.5% performance, and ranked in the 70th percentile. Since December 2019, the account returned 5.7% per annum and ranked in the 21st percentile. For comparison, the S&P 500 returned an annualized 5.6% over the same time frame.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 12/19 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -8.4 | -25.9 | -16.8 | ---- | ---- | 5.7 |
| *LARGE CAP CORE RANK* | (99) | (84) | (70) | ---- | ---- | (21) |
| **Total Portfolio - Net** | -8.6 | -26.3 | -17.5 | ---- | ---- | 5.0 |
| S&P 500 | -4.9 | -23.9 | -15.5 | 8.2 | 9.2 | 5.6 |
| **Domestic Equity - Gross** | -8.4 | -25.9 | -16.8 | ---- | ---- | 5.7 |
| *LARGE CAP CORE RANK* | (99) | (84) | (70) | ---- | ---- | (21) |
| S&P 500 | -4.9 | -23.9 | -15.5 | 8.2 | 9.2 | 5.6 |

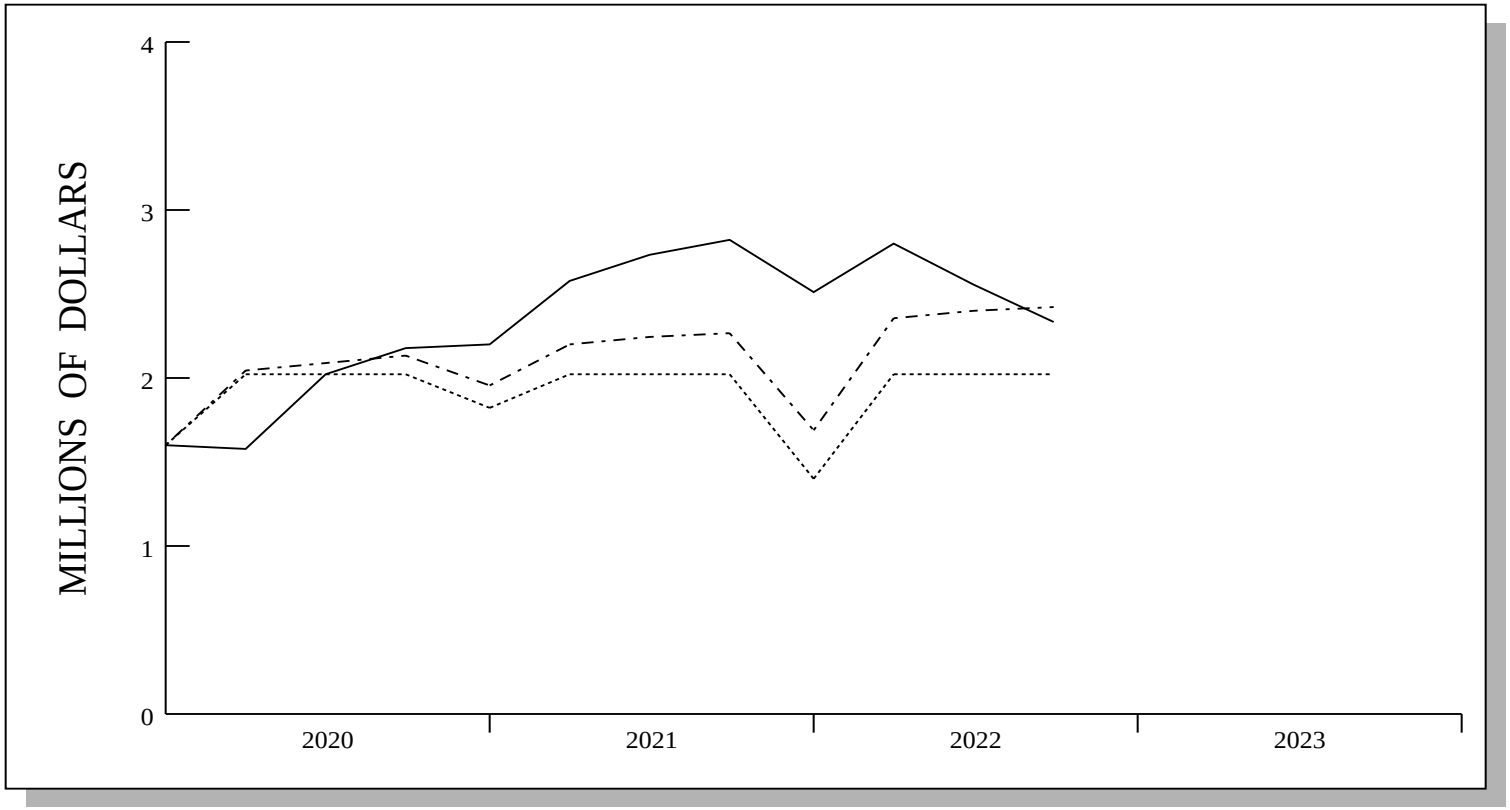
## ASSET ALLOCATION

| | | |
|---|---|---|
| Domestic Equity | 100.0% | $ 2,353,309 |
| Total Portfolio | 100.0% | $ 2,353,309 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 2,574,800 |
| Contribs / Withdrawals | 0 |
| Income | 0 |
| Capital Gains / Losses | -221,491 |
| Market Value 9/2022 | $ 2,353,309 |

## INVESTMENT GROWTH

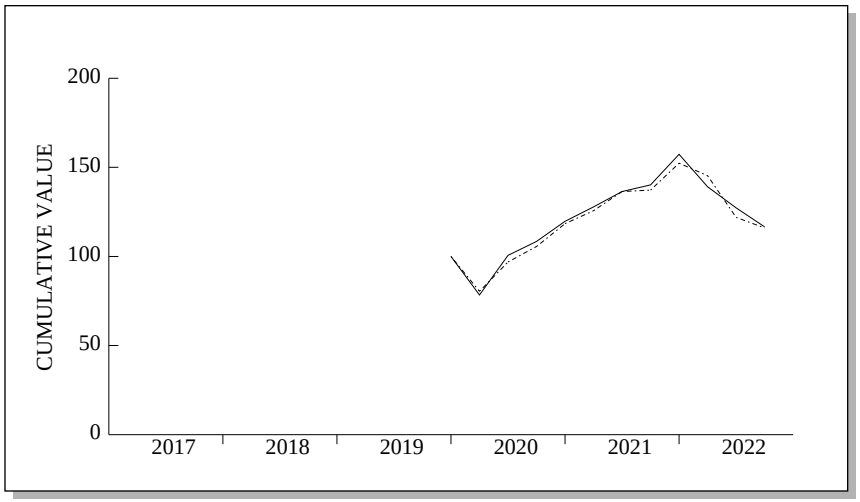


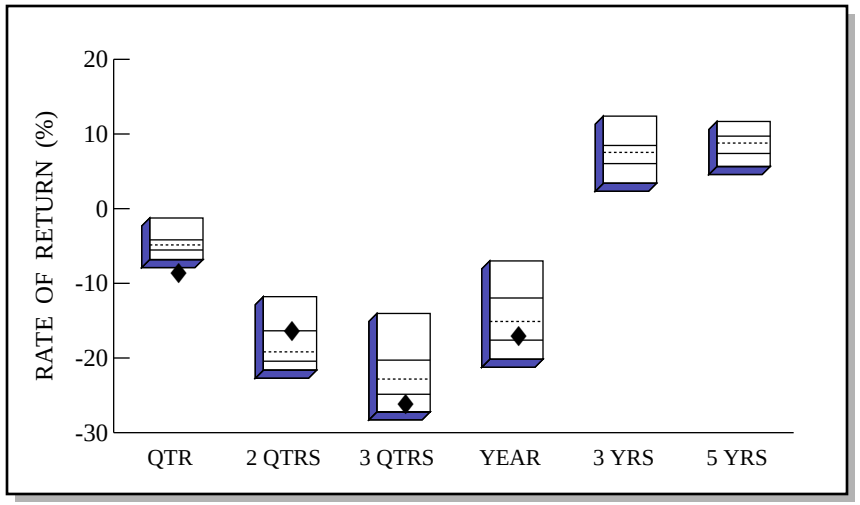

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 2,444,354

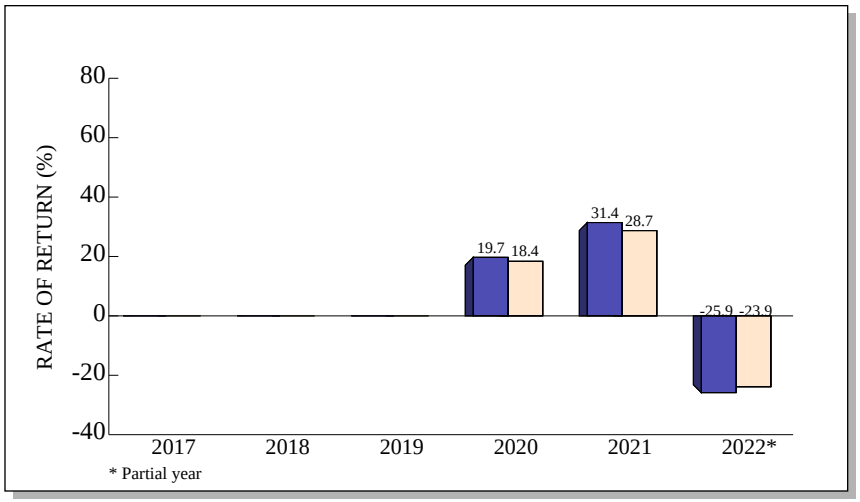
| | LAST QUARTER | PERIOD 12/19 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 2,574,800 | $ 1,621,800 |
| NET CONTRIBUTIONS | 0 | 413,054 |
| INVESTMENT RETURN | -221,491 | 318,455 |
| ENDING VALUE | $ 2,353,309 | $ 2,353,309 |
| INCOME | 0 | 644,621 |
| CAPITAL GAINS (LOSSES) | -221,491 | -326,166 |
| INVESTMENT RETURN | -221,491 | 318,455 |

# TOTAL RETURN COMPARISONS




Large Cap Core Universe



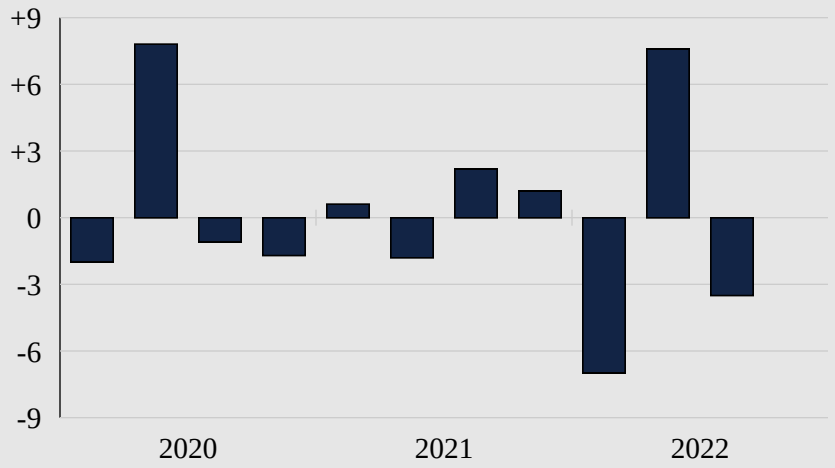

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -8.4 | -16.2 | -25.9 | -16.8 | ---- | ---- |
| (RANK) | (99) | (24) | (84) | (70) | ---- | ---- |
| 5TH %ILE | -1.2 | -11.8 | -14.0 | -7.0 | 12.4 | 11.7 |
| 25TH %ILE | -4.2 | -16.3 | -20.3 | -12.0 | 8.5 | 9.7 |
| MEDIAN | -4.8 | -19.2 | -22.8 | -15.1 | 7.5 | 8.8 |
| 75TH %ILE | -5.5 | -20.4 | -24.9 | -17.6 | 6.0 | 7.4 |
| 95TH %ILE | -6.8 | -21.7 | -27.2 | -20.2 | 3.4 | 5.6 |
| ***S&P 500*** | ***-4.9*** | ***-20.2*** | ***-23.9*** | ***-15.5*** | ***8.2*** | ***9.2*** |

Large Cap Core Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: S&P 500**

## VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **11** |
| **Quarters At or Above the Benchmark** | **5** |
| **Quarters Below the Benchmark** | **6** |
| **Batting Average** | **.455** |

## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/20 | -21.6 | -19.6 | -2.0 |
| 6/20 | 28.3 | 20.5 | 7.8 |
| 9/20 | 7.8 | 8.9 | -1.1 |
| 12/20 | 10.4 | 12.1 | -1.7 |
| 3/21 | 6.8 | 6.2 | 0.6 |
| 6/21 | 6.7 | 8.5 | -1.8 |
| 9/21 | 2.8 | 0.6 | 2.2 |
| 12/21 | 12.2 | 11.0 | 1.2 |
| 3/22 | -11.6 | -4.6 | -7.0 |
| 6/22 | -8.5 | -16.1 | 7.6 |
| 9/22 | -8.4 | -4.9 | -3.5 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# VANGUARD - RUSSELL 1000 GROWTH
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Vanguard Russell 1000 Growth portfolio was valued at $31,262,047, a decrease of $1,172,327 from the June ending value of $32,434,374. Last quarter, the account recorded no net contributions or withdrawals, while recording a net investment loss for the quarter of $1,172,327. Net investment loss was composed of income receipts totaling $87,661 and $1,259,988 in net realized and unrealized capital losses.

## RELATIVE PERFORMANCE

*In December 2020, the Vanguard Russell 1000 Growth ETF (VONG) was sold and proceeds were used to purchase the Vanguard Russell 1000 Growth mutual fund (VRGWX). Performance shown here links the history of these two investments.*

### Total Fund

For the third quarter, the Vanguard Russell 1000 Growth portfolio returned -3.6%, which was equal to the Russell 1000 Growth Index's return of -3.6% and ranked in the 38th percentile of the Large Cap Growth universe. Over the trailing year, this portfolio returned -22.6%, which was equal to the benchmark's -22.6% return, ranking in the 36th percentile. Since March 2016, the account returned 13.8% on an annualized basis and ranked in the 6th percentile. The Russell 1000 Growth returned an annualized 13.5% over the same time frame.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 03/16 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -3.6 | -30.7 | -22.6 | 11.2 | 12.6 | 13.8 |
| *LARGE CAP GROWTH RANK* | (38) | (42) | (36) | (14) | (15) | ( 6) |
| **Total Portfolio - Net** | -3.6 | -30.7 | -22.6 | 11.1 | 12.5 | 13.7 |
| Russell 1000G | -3.6 | -30.7 | -22.6 | 10.7 | 12.2 | 13.5 |
| **Domestic Equity - Gross** | -3.6 | -30.7 | -22.6 | 11.2 | 12.6 | 13.8 |
| *LARGE CAP GROWTH RANK* | (38) | (42) | (36) | (14) | (15) | ( 6) |
| Russell 1000G | -3.6 | -30.7 | -22.6 | 10.7 | 12.2 | 13.5 |

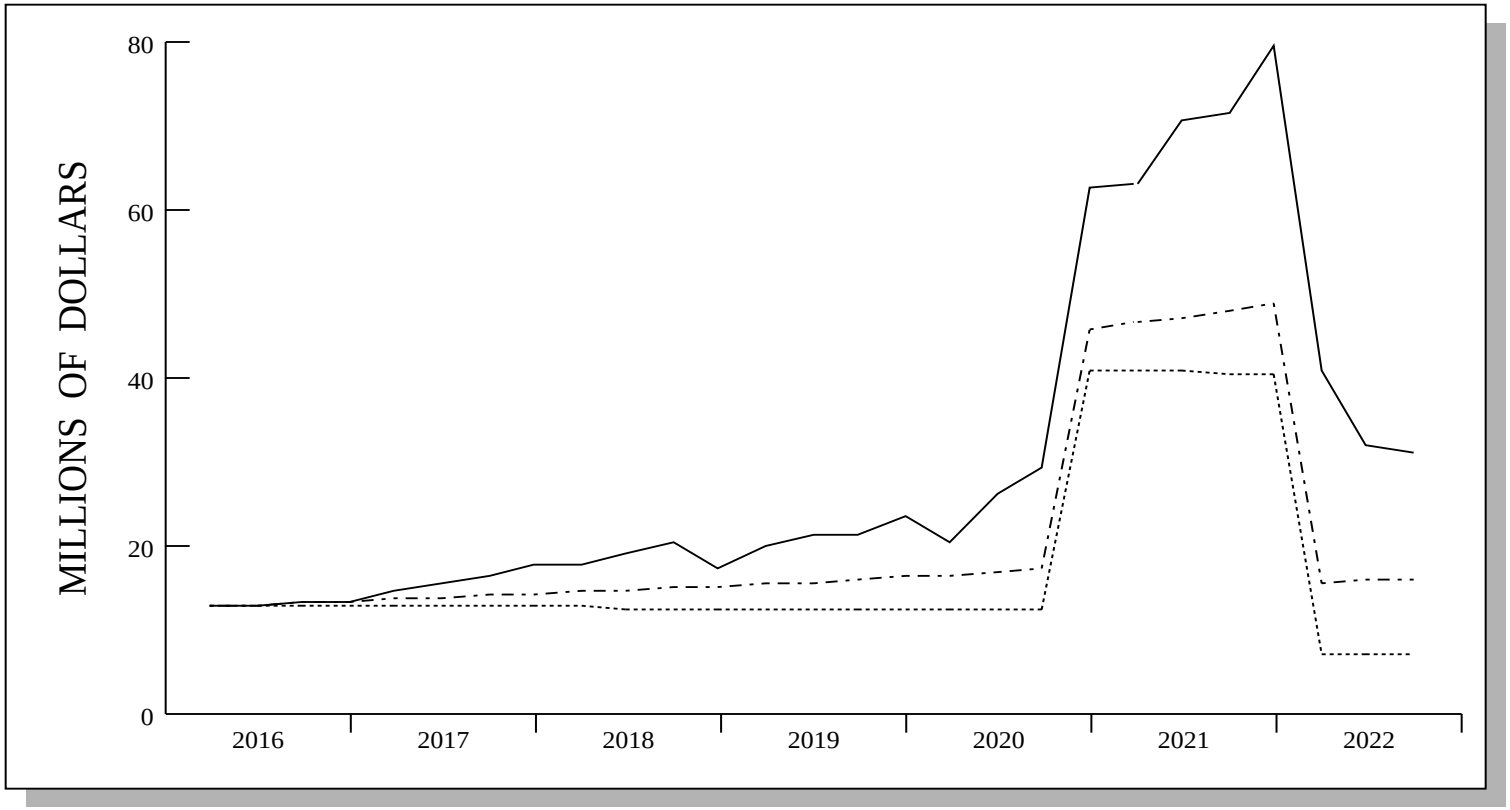
## ASSET ALLOCATION

| | | |
|---|---|---|
| Domestic Equity | 100.0% | $ 31,262,047 |
| Total Portfolio | 100.0% | $ 31,262,047 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 32,434,374 |
| Contribs / Withdrawals | 0 |
| Income | 87,661 |
| Capital Gains / Losses | - 1,259,988 |
| Market Value 9/2022 | $ 31,262,047 |

## INVESTMENT GROWTH

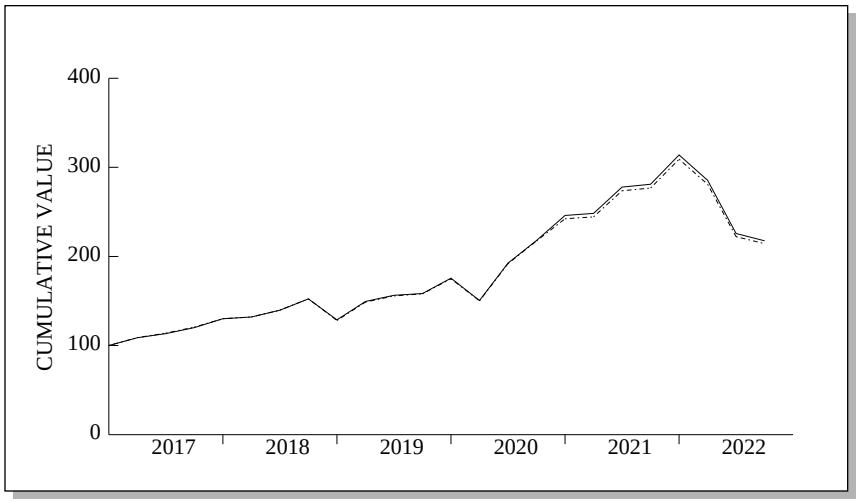


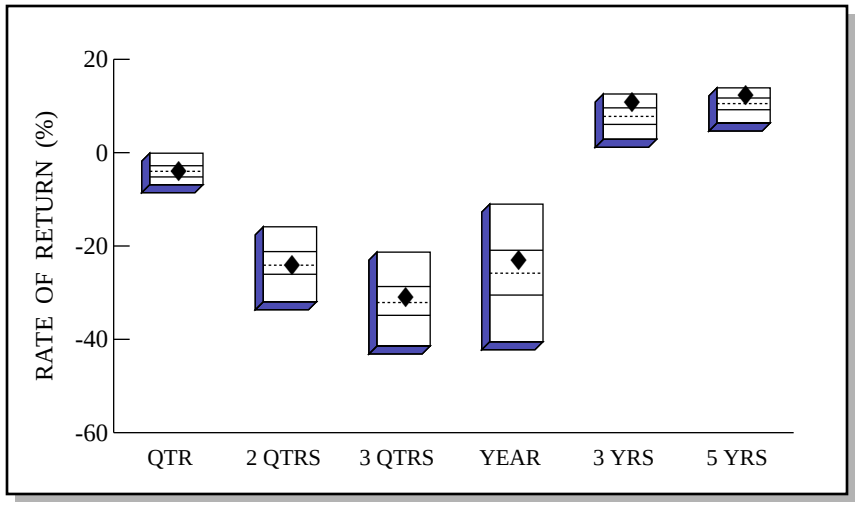

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 16,363,168

| | LAST QUARTER | PERIOD 3/16 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 32,434,374 | $ 12,939,603 |
| NET CONTRIBUTIONS | 0 | - 5,668,510 |
| INVESTMENT RETURN | - 1,172,327 | 23,990,954 |
| ENDING VALUE | $ 31,262,047 | $ 31,262,047 |
| INCOME | 87,661 | 1,896,026 |
| CAPITAL GAINS (LOSSES) | - 1,259,988 | 22,094,928 |
| INVESTMENT RETURN | - 1,172,327 | 23,990,954 |

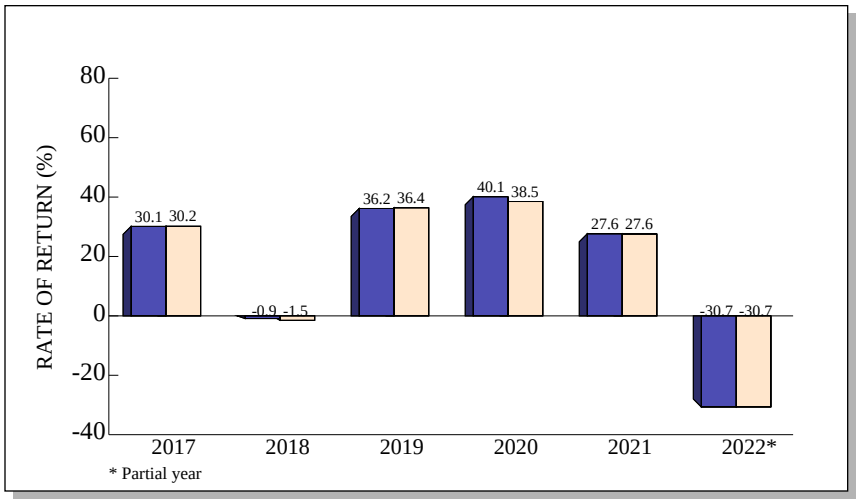
# TOTAL RETURN COMPARISONS




Large Cap Growth Universe

PORTFOLIO
RUSSELL 1000G



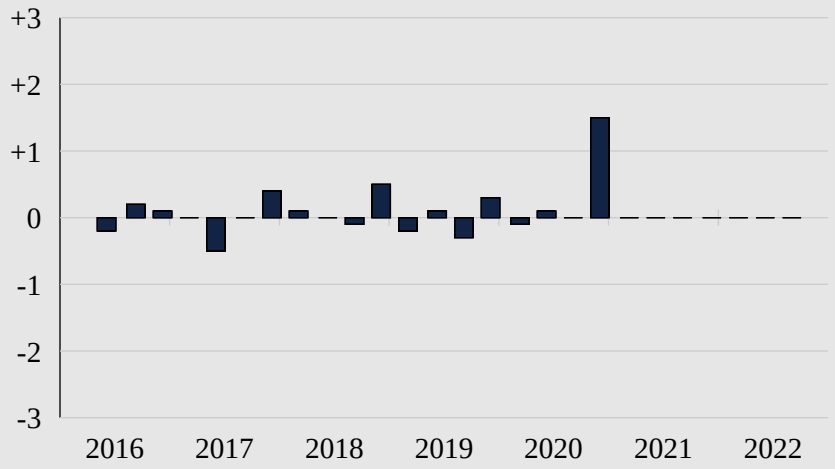

| | QTR | 2 QTRS | 3 QTRS | YEAR | ------ANNUALIZED------ 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| RETURN | -3.6 | -23.8 | -30.7 | -22.6 | 11.2 | 12.6 |
| (RANK) | (38) | (46) | (42) | (36) | (14) | (15) |
| 5TH %ILE | -0.1 | -15.9 | -21.3 | -11.0 | 12.6 | 13.9 |
| 25TH %ILE | -2.8 | -21.2 | -28.7 | -20.9 | 9.6 | 11.7 |
| MEDIAN | -4.0 | -24.1 | -32.1 | -25.8 | 7.8 | 10.5 |
| 75TH %ILE | -5.2 | -26.1 | -34.8 | -30.5 | 6.1 | 9.2 |
| 95TH %ILE | -6.9 | -32.0 | -41.4 | -40.5 | 2.9 | 6.4 |
| ***Russ 1000G*** | ***-3.6*** | ***-23.8*** | ***-30.7*** | ***-22.6*** | ***10.7*** | ***12.2*** |

Large Cap Growth Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: RUSSELL 1000 GROWTH**

## VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **26** |
| **Quarters At or Above the Benchmark** | **20** |
| **Quarters Below the Benchmark** | **6** |
| **Batting Average** | **.769** |

## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 6/16 | 0.4 | 0.6 | -0.2 |
| 9/16 | 4.8 | 4.6 | 0.2 |
| 12/16 | 1.1 | 1.0 | 0.1 |
| 3/17 | 8.9 | 8.9 | 0.0 |
| 6/17 | 4.2 | 4.7 | -0.5 |
| 9/17 | 5.9 | 5.9 | 0.0 |
| 12/17 | 8.3 | 7.9 | 0.4 |
| 3/18 | 1.5 | 1.4 | 0.1 |
| 6/18 | 5.8 | 5.8 | 0.0 |
| 9/18 | 9.1 | 9.2 | -0.1 |
| 12/18 | -15.4 | -15.9 | 0.5 |
| 3/19 | 15.9 | 16.1 | -0.2 |
| 6/19 | 4.7 | 4.6 | 0.1 |
| 9/19 | 1.2 | 1.5 | -0.3 |
| 12/19 | 10.9 | 10.6 | 0.3 |
| 3/20 | -14.2 | -14.1 | -0.1 |
| 6/20 | 27.9 | 27.8 | 0.1 |
| 9/20 | 13.2 | 13.2 | 0.0 |
| 12/20 | 12.9 | 11.4 | 1.5 |
| 3/21 | 0.9 | 0.9 | 0.0 |
| 6/21 | 11.9 | 11.9 | 0.0 |
| 9/21 | 1.2 | 1.2 | 0.0 |
| 12/21 | 11.6 | 11.6 | 0.0 |
| 3/22 | -9.0 | -9.0 | 0.0 |
| 6/22 | -20.9 | -20.9 | 0.0 |
| 9/22 | -3.6 | -3.6 | 0.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# ALLSPRING GLOBAL INVESTMENTS - LARGE CAP VALUE
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

*This portfolio was formerly known as the Metropolitan West portfolio.*

On September 30th, 2022, the Chester County Employees Retirement System's Allspring Global Investments Large Cap Value portfolio was valued at $35,643,798, a decrease of $753,822 from the June ending value of $36,397,620. Last quarter, the account recorded total net withdrawals of $23,017 in addition to $730,805 in net investment losses. The fund's net investment loss was a result of income receipts totaling $174,203 and realized and unrealized capital losses totaling $905,008.

## RELATIVE PERFORMANCE

### Total Fund

During the third quarter, the Allspring Global Investments Large Cap Value portfolio lost 2.0%, which was 3.6% greater than the Russell 1000 Value Index's return of -5.6% and ranked in the 4th percentile of the Large Cap Value universe. Over the trailing year, the portfolio returned -11.9%, which was 0.5% less than the benchmark's -11.4% performance, and ranked in the 66th percentile. Since September 2010, the account returned 10.5% per annum. For comparison, the Russell 1000 Value returned an annualized 9.8% over the same time frame.

## ANALYSIS

Last quarter, the Allspring portfolio was invested in ten of the eleven industry sectors in our analysis. Relative to the Russell 1000 Value index, the portfolio had greater representation in the Industrials and Information Technology sectors, while the Communication Services and Financials sectors were underweighted. The Real Estate sectors was not utilized.

Favorable selection effects propelled the portfolio ahead of its benchmark last quarter. The only two sectors to notably underperform were the Communication Services and Financials sectors. Most of the remaining sectors added varying degrees of value (The Industrials and Information Technology sectors returned about on par with their index counterparts). The Consumer Staples, Energy, Materials, and Utilities sectors were most improved from benchmark returns.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | 10 Year | Since 09/10 |
|---|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -2.0 | -18.2 | -11.9 | 4.6 | 7.4 | 9.9 | 10.5 |
| *LARGE CAP VALUE RANK* | ( 4) | (65) | (66) | (80) | (33) | (62) | ---- |
| **Total Portfolio - Net** | -2.1 | -18.3 | -12.1 | 4.1 | 6.9 | 9.3 | 9.9 |
| Russell 1000V | -5.6 | -17.8 | -11.4 | 4.4 | 5.3 | 9.2 | 9.8 |
| **Domestic Equity - Gross** | -2.0 | -18.2 | -11.9 | 4.6 | 7.4 | 9.9 | 10.5 |
| *LARGE CAP VALUE RANK* | ( 4) | (65) | (66) | (80) | (33) | (62) | ---- |
| Russell 1000V | -5.6 | -17.8 | -11.4 | 4.4 | 5.3 | 9.2 | 9.8 |

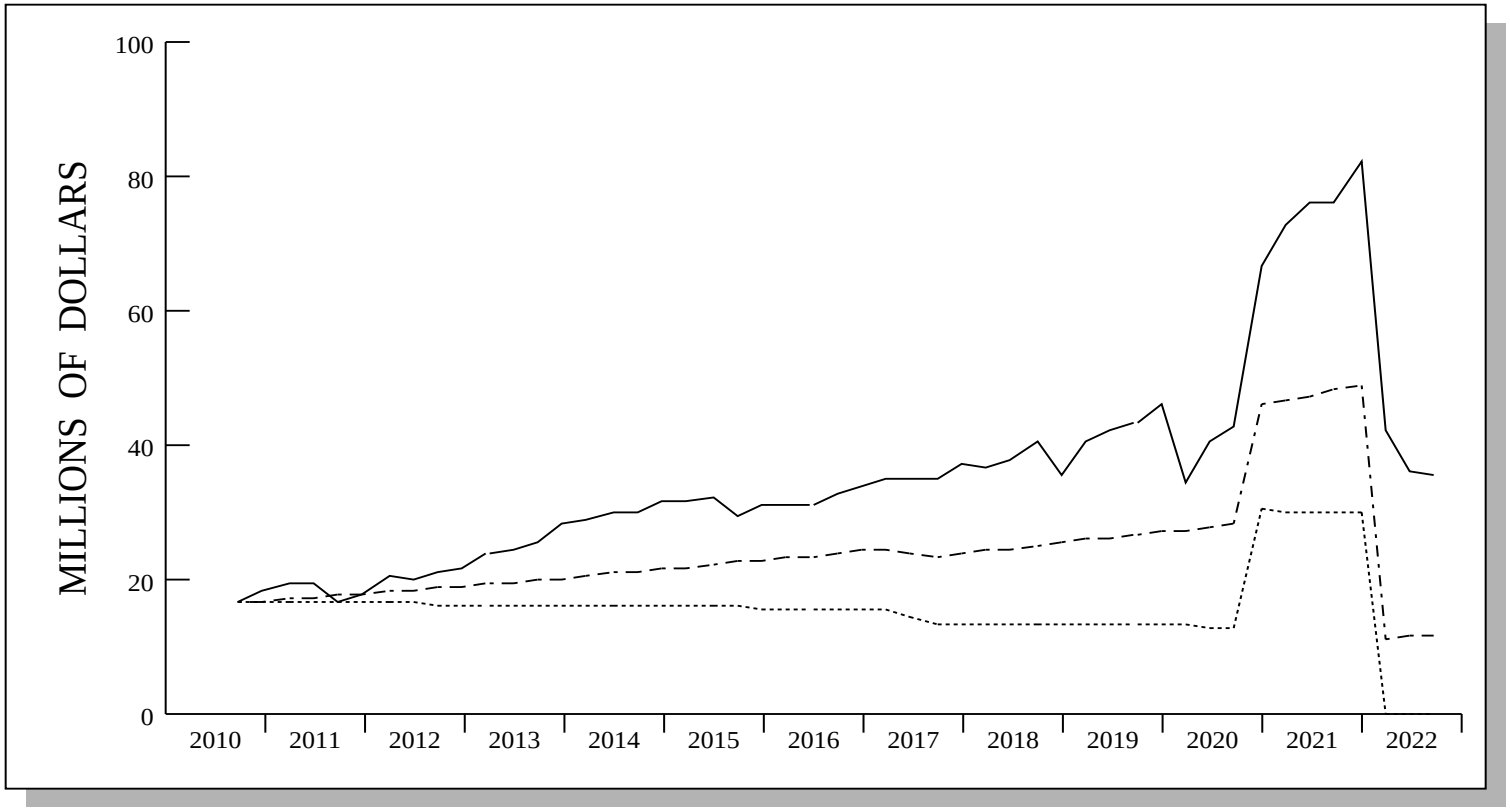
## ASSET ALLOCATION

| | | |
|---|---|---|
| Domestic Equity | 100.0% | $ 35,643,798 |
| Total Portfolio | 100.0% | $ 35,643,798 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 36,397,620 |
| Contribs / Withdrawals | - 23,017 |
| Income | 174,203 |
| Capital Gains / Losses | -905,008 |
| Market Value 9/2022 | $ 35,643,798 |

## INVESTMENT GROWTH

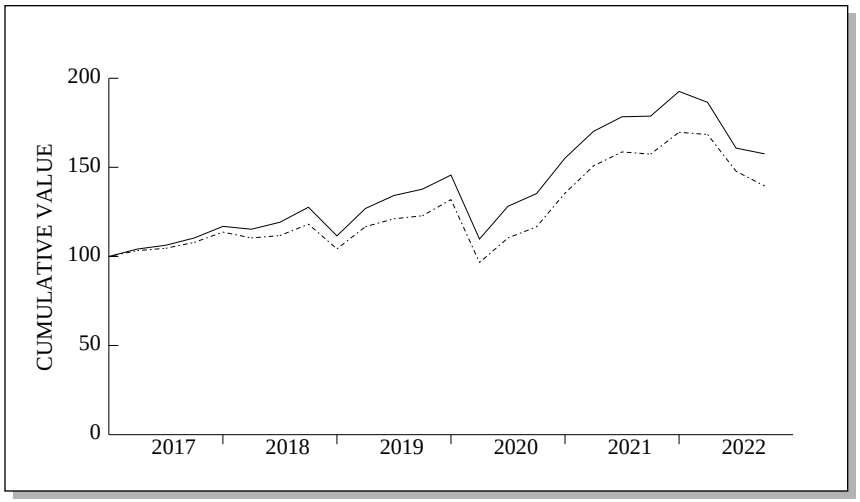


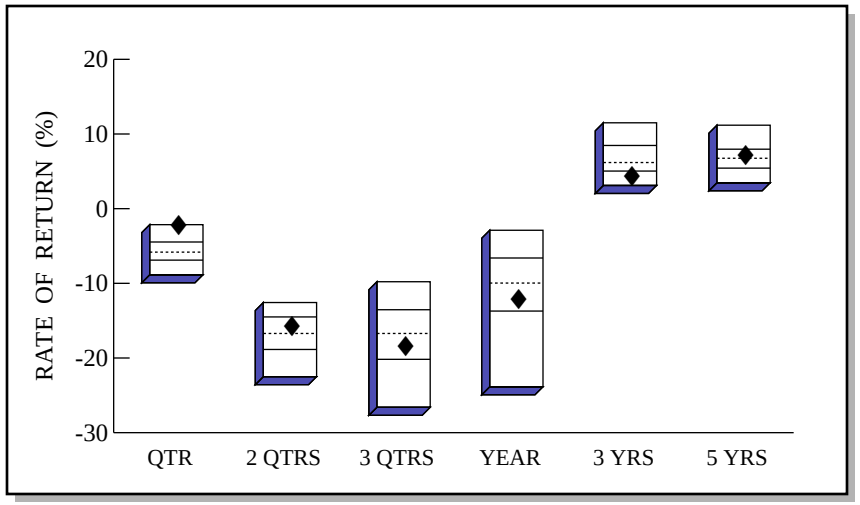

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 11,982,095

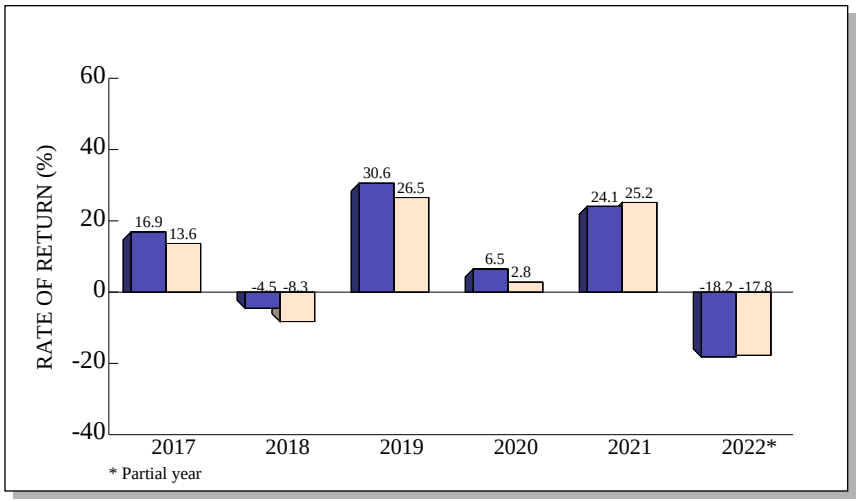
| | LAST QUARTER | PERIOD 9/10 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 36,397,620 | $ 16,902,597 |
| NET CONTRIBUTIONS | - 23,017 | - 24,588,663 |
| INVESTMENT RETURN | -730,805 | 43,329,864 |
| ENDING VALUE | $ 35,643,798 | $ 35,643,798 |
| INCOME | 174,203 | 1,786,470 |
| CAPITAL GAINS (LOSSES) | -905,008 | 41,543,394 |
| INVESTMENT RETURN | -730,805 | 43,329,864 |

# TOTAL RETURN COMPARISONS




Large Cap Value Universe



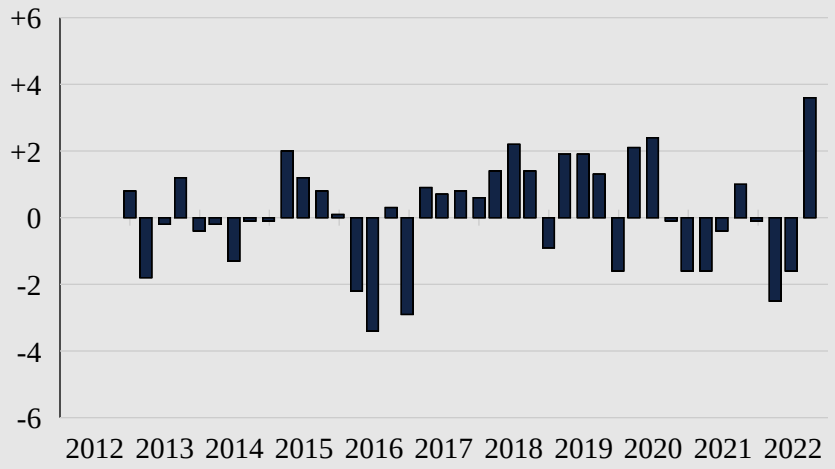

| | | | | | ------ANNUALIZED------ | |
|---|---|---|---|---|---|---|
| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
| RETURN | -2.0 | -15.5 | -18.2 | -11.9 | 4.6 | 7.4 |
| (RANK) | ( 4) | (40) | (65) | (66) | (80) | (33) |
| 5TH %ILE | -2.2 | -12.6 | -9.8 | -2.9 | 11.5 | 11.2 |
| 25TH %ILE | -4.5 | -14.5 | -13.5 | -6.6 | 8.5 | 8.0 |
| MEDIAN | -5.8 | -16.7 | -16.7 | -10.0 | 6.2 | 6.8 |
| 75TH %ILE | -6.9 | -18.8 | -20.2 | -13.7 | 5.0 | 5.4 |
| 95TH %ILE | -8.9 | -22.5 | -26.6 | -23.9 | 3.1 | 3.5 |
| ***Russ 1000V*** | ***-5.6*** | ***-17.1*** | ***-17.8*** | ***-11.4*** | ***4.4*** | ***5.3*** |

Large Cap Value Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS

**COMPARATIVE BENCHMARK: RUSSELL 1000 VALUE**

## VARIATION FROM BENCHMARK

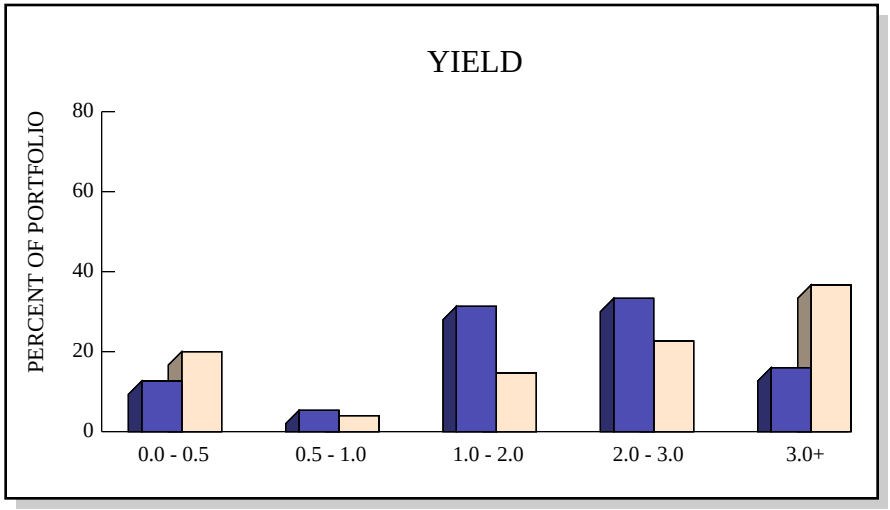


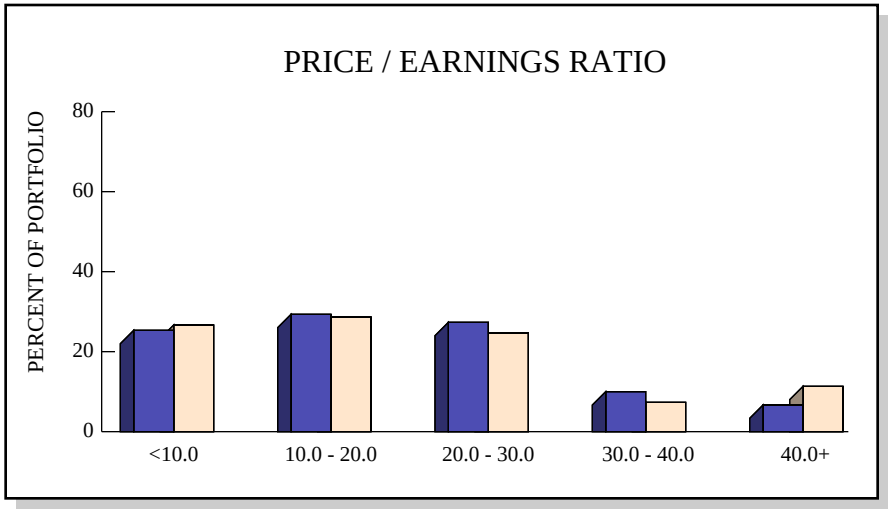

| | |
|---|---|
| **Total Quarters Observed** | **40** |
| **Quarters At or Above the Benchmark** | **21** |
| **Quarters Below the Benchmark** | **19** |
| **Batting Average** | **.525** |

## RATES OF RETURN

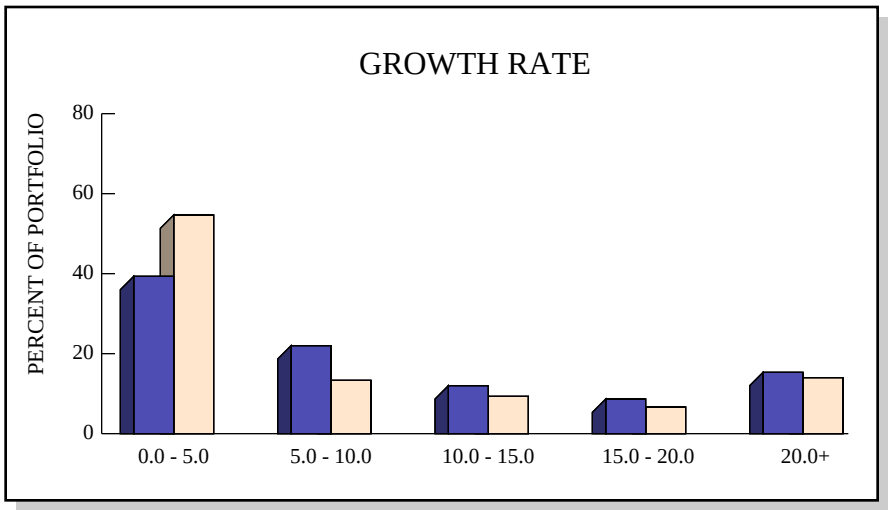
| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 12/12 | 2.3 | 1.5 | 0.8 |
| 3/13 | 10.5 | 12.3 | -1.8 |
| 6/13 | 3.0 | 3.2 | -0.2 |
| 9/13 | 5.1 | 3.9 | 1.2 |
| 12/13 | 9.6 | 10.0 | -0.4 |
| 3/14 | 2.8 | 3.0 | -0.2 |
| 6/14 | 3.8 | 5.1 | -1.3 |
| 9/14 | -0.3 | -0.2 | -0.1 |
| 12/14 | 4.9 | 5.0 | -0.1 |
| 3/15 | 1.3 | -0.7 | 2.0 |
| 6/15 | 1.3 | 0.1 | 1.2 |
| 9/15 | -7.6 | -8.4 | 0.8 |
| 12/15 | 5.7 | 5.6 | 0.1 |
| 3/16 | -0.6 | 1.6 | -2.2 |
| 6/16 | 1.2 | 4.6 | -3.4 |
| 9/16 | 3.8 | 3.5 | 0.3 |
| 12/16 | 3.8 | 6.7 | -2.9 |
| 3/17 | 4.2 | 3.3 | 0.9 |
| 6/17 | 2.0 | 1.3 | 0.7 |
| 9/17 | 3.9 | 3.1 | 0.8 |
| 12/17 | 5.9 | 5.3 | 0.6 |
| 3/18 | -1.4 | -2.8 | 1.4 |
| 6/18 | 3.4 | 1.2 | 2.2 |
| 9/18 | 7.1 | 5.7 | 1.4 |
| 12/18 | -12.6 | -11.7 | -0.9 |
| 3/19 | 13.8 | 11.9 | 1.9 |
| 6/19 | 5.7 | 3.8 | 1.9 |
| 9/19 | 2.7 | 1.4 | 1.3 |
| 12/19 | 5.8 | 7.4 | -1.6 |
| 3/20 | -24.6 | -26.7 | 2.1 |
| 6/20 | 16.7 | 14.3 | 2.4 |
| 9/20 | 5.5 | 5.6 | -0.1 |
| 12/20 | 14.7 | 16.3 | -1.6 |
| 3/21 | 9.7 | 11.3 | -1.6 |
| 6/21 | 4.8 | 5.2 | -0.4 |
| 9/21 | 0.2 | -0.8 | 1.0 |
| 12/21 | 7.7 | 7.8 | -0.1 |
| 3/22 | -3.2 | -0.7 | -2.5 |
| 6/22 | -13.8 | -12.2 | -1.6 |
| 9/22 | -2.0 | -5.6 | 3.6 |

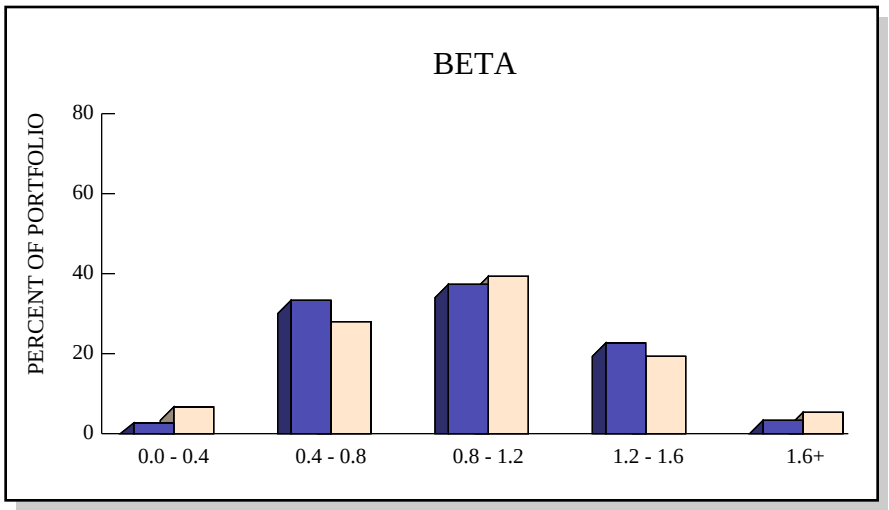
## STOCK CHARACTERISTICS



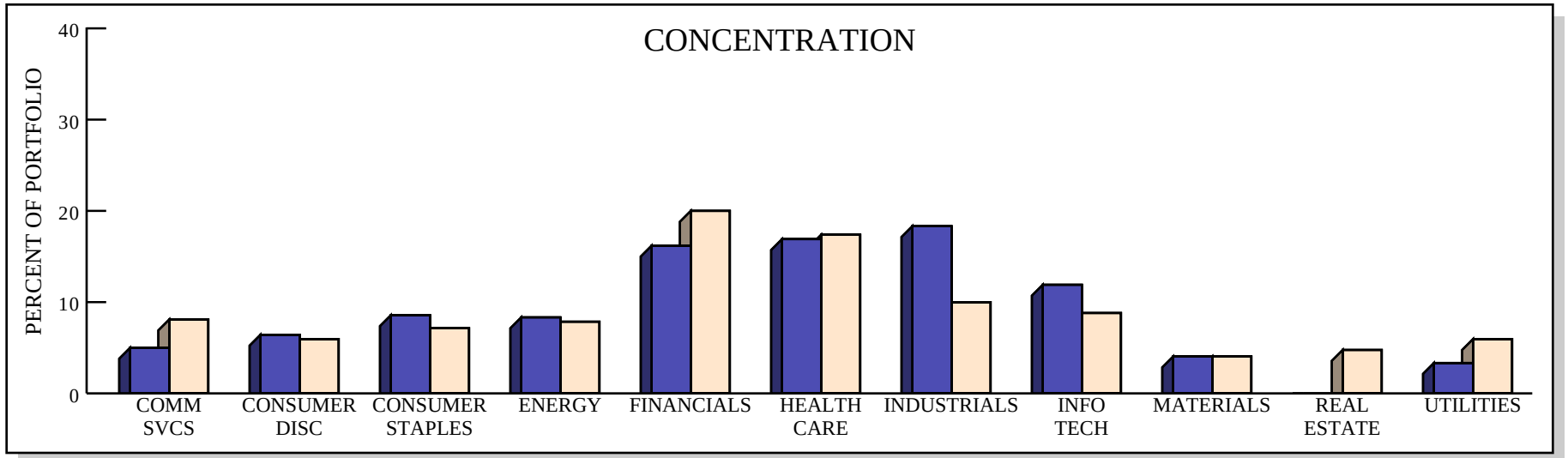



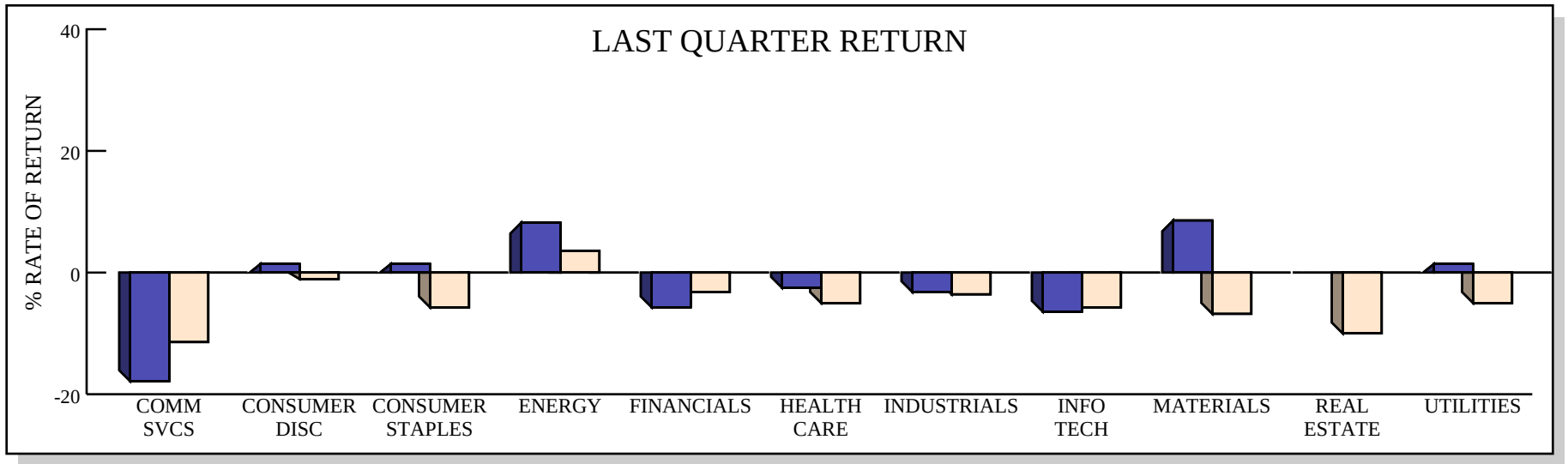

| | # HOLDINGS | YIELD | GROWTH | P/E | BETA |
|---|---|---|---|---|---|
| PORTFOLIO | 40 | 2.0% | 8.8% | 20.0 | 1.00 |
| RUSSELL 1000V | 855 | 2.5% | 4.1% | 21.6 | 0.97 |



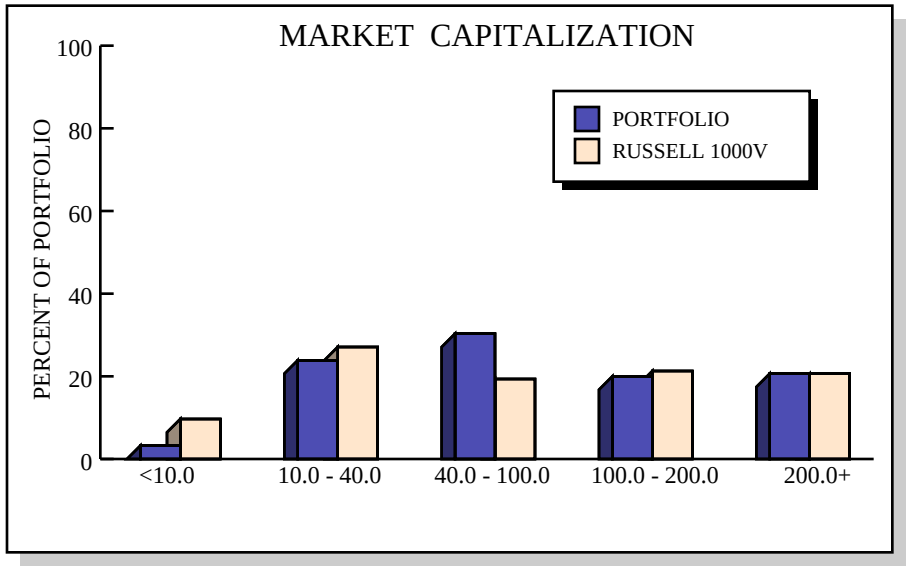



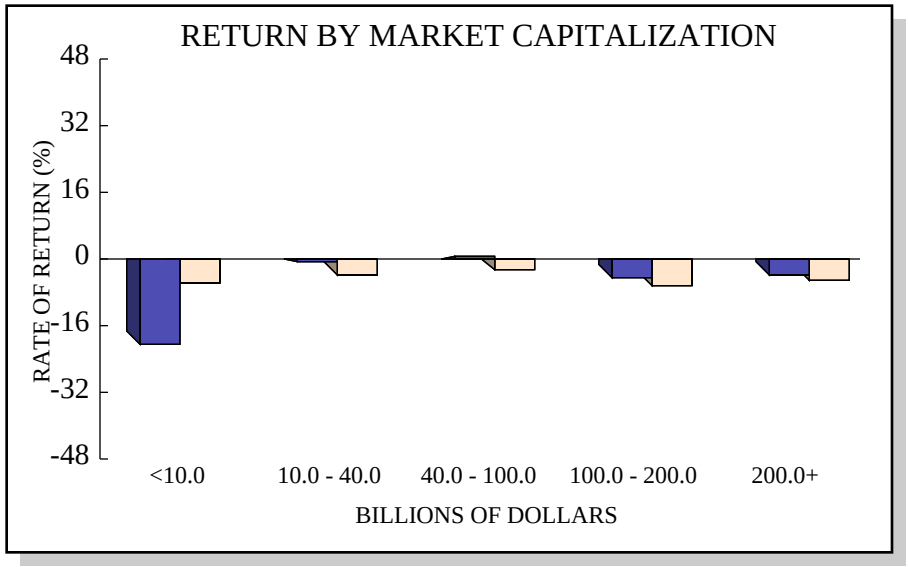
## STOCK INDUSTRY ANALYSIS



**TOP TEN HOLDINGS**




# TOP TEN EQUITY HOLDINGS

| RANK | NAME | VALUE | % EQUITY | RETURN | INDUSTRY SECTOR | MKT CAP |
|---|---|---|---|---|---|---|
| 1 | WALMART INC | $ 1,478,969 | 4.15% | 7.1% | Consumer Staples | $ 352.0 B |
| 2 | CIGNA CORP | 1,396,784 | 3.92% | 5.7% | Health Care | 84.7 B |
| 3 | AMERICAN INTERNATIONAL GROUP | 1,330,437 | 3.73% | -6.6% | Financials | 36.1 B |
| 4 | GENERAL MOTORS CO | 1,226,897 | 3.44% | 1.3% | Consumer Discretionary | 46.8 B |
| 5 | NEXTERA ENERGY INC | 1,192,616 | 3.35% | 1.7% | Utilities | 154.1 B |
| 6 | AERCAP HOLDINGS NV | 1,181,134 | 3.31% | 3.4% | Industrials | 10.4 B |
| 7 | CATERPILLAR INC | 1,156,108 | 3.24% | -7.6% | Industrials | 86.6 B |
| 8 | CONOCOPHILLIPS | 1,137,611 | 3.19% | 16.0% | Energy | 130.3 B |
| 9 | VULCAN MATERIALS CO | 1,055,238 | 2.96% | 11.2% | Materials | 21.0 B |
| 10 | MERCK & CO INC | 1,045,238 | 2.93% | -4.8% | Health Care | 218.2 B |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# CHAMPLAIN - US MID CAP EQUITY
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.
© 1990, 2022

## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Champlain US Mid Cap Equity portfolio was valued at $36,778,525, a decrease of $1,657,473 from the June ending value of $38,435,998. Last quarter, the account recorded total net withdrawals of $86,915 in addition to $1,570,558 in net investment losses. The fund's net investment loss was a result of income receipts totaling $94,015 and realized and unrealized capital losses totaling $1,664,573.

## RELATIVE PERFORMANCE

### Total Fund

During the third quarter, the Champlain US Mid Cap Equity portfolio lost 4.1%, which was 0.7% less than the Russell Mid Cap's return of -3.4% and ranked in the 74th percentile of the Mid Cap Core universe. Over the trailing year, the portfolio returned -26.3%, which was 6.9% less than the benchmark's -19.4% performance, and ranked in the 99th percentile. Since December 2020, the account returned -7.7% per annum and ranked in the 84th percentile. For comparison, the Russell Mid Cap returned an annualized -4.2% over the same time frame.

## ANALYSIS

The Champlain portfolio was concentrated in seven of the eleven industry sectors in our analysis last quarter. The Consumer Staples, Health Care, and Industrials sectors were overweight, relative to the Russell Mid Cap Index. The Consumer Discretionary and Materials sectors received lighter allocations, while the Communication Services, Energy, Real Estate, and Utilities sectors were left vacant.

Selection effects were mixed last quarter. The Consumer Staples, Industrials, and Information Technology sectors outperformed, but the remaining invested sectors fell short. The Health Care sector was particularly troublesome, as it suffered steep losses that were amplified by it’s increased allocation.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 12/20 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -4.1 | -30.9 | -26.3 | ---- | ---- | -7.7 |
| *MID CAP CORE RANK* | (74) | (96) | (99) | ---- | ---- | (84) |
| **Total Portfolio - Net** | -4.3 | -31.3 | -27.0 | ---- | ---- | -8.5 |
| Russell Mid | -3.4 | -24.3 | -19.4 | 5.2 | 6.5 | -4.2 |
| **Domestic Equity - Gross** | -4.1 | -30.9 | -26.3 | ---- | ---- | -7.7 |
| *MID CAP CORE RANK* | (74) | (96) | (99) | ---- | ---- | (84) |
| Russell Mid | -3.4 | -24.3 | -19.4 | 5.2 | 6.5 | -4.2 |

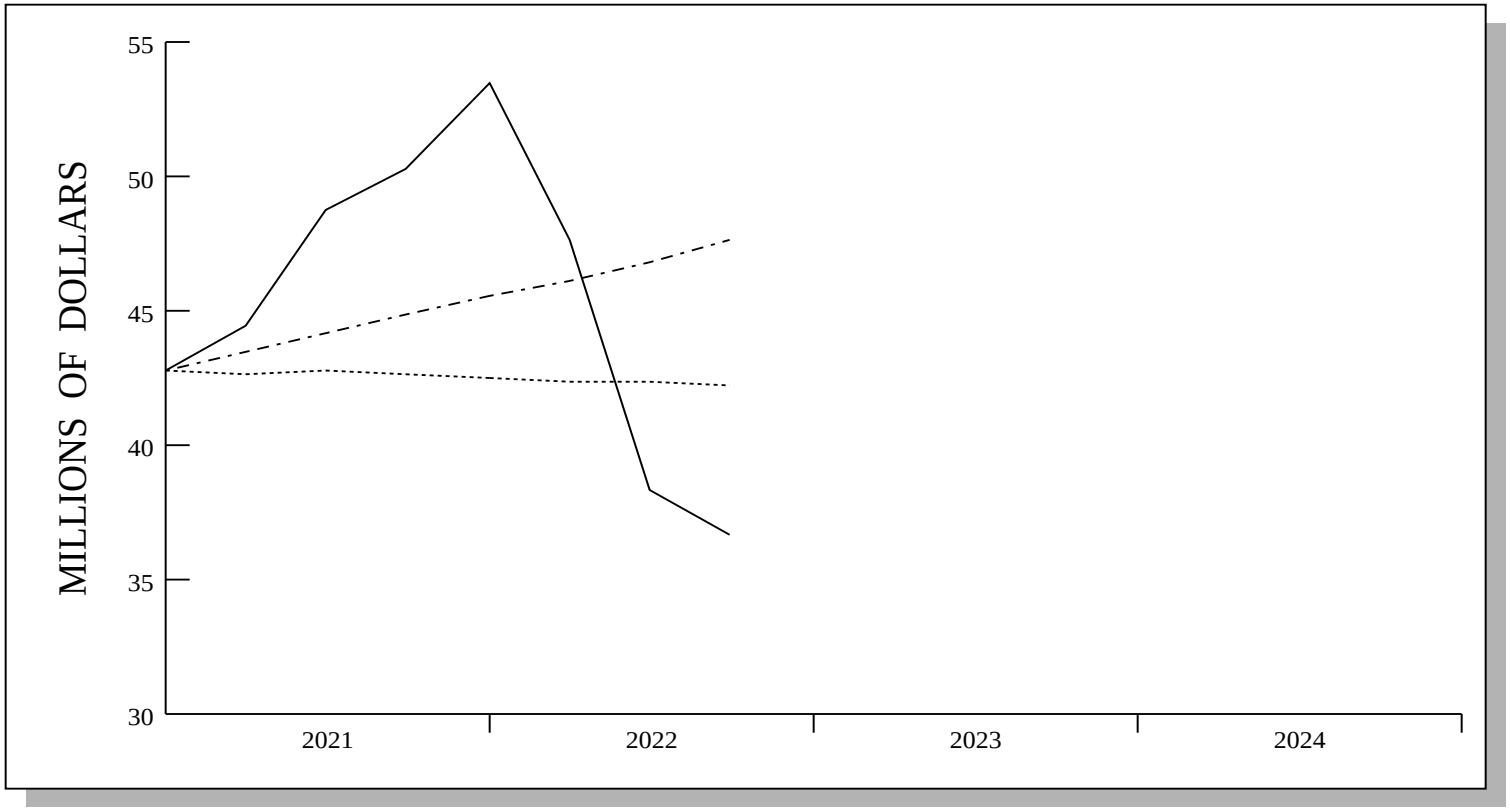
## ASSET ALLOCATION

| | | |
|---|---|---|
| Domestic Equity | 100.0% | $ 36,778,525 |
| Total Portfolio | 100.0% | $ 36,778,525 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 38,435,998 |
| Contribs / Withdrawals | - 86,915 |
| Income | 94,015 |
| Capital Gains / Losses | - 1,664,573 |
| Market Value 9/2022 | $ 36,778,525 |

## INVESTMENT GROWTH

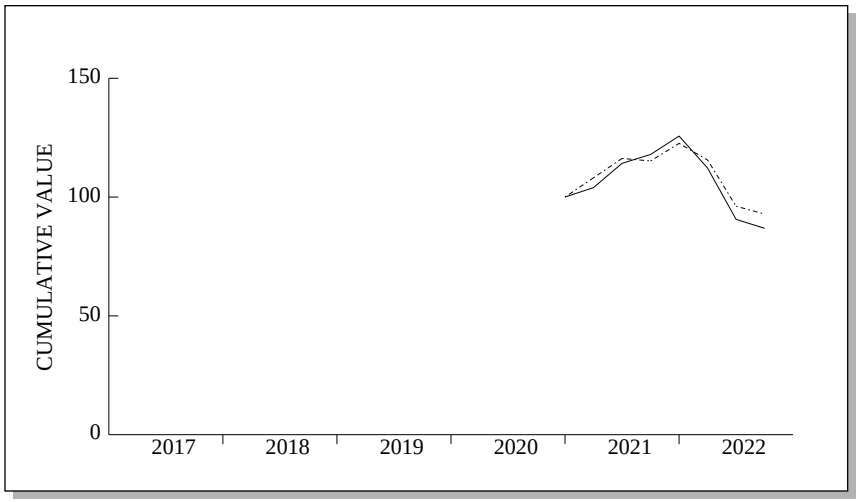


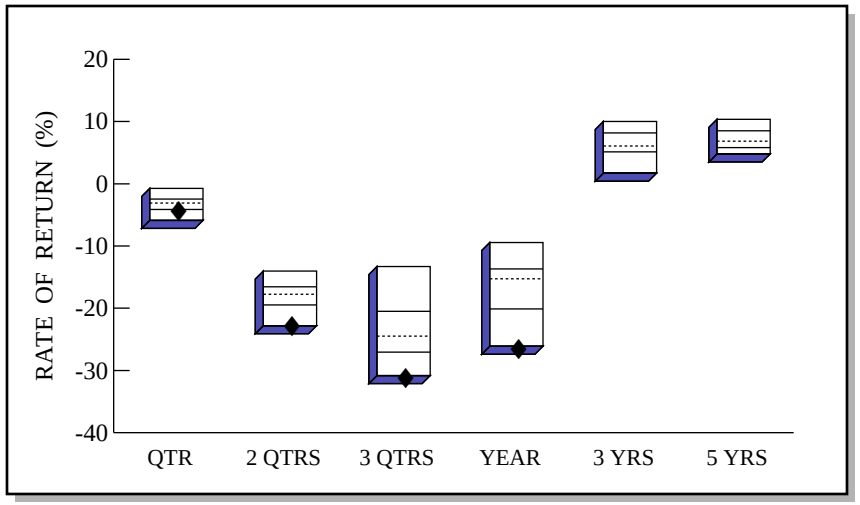

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 47,645,757

| | LAST QUARTER | PERIOD 12/20 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 38,435,998 | $ 42,788,499 |
| NET CONTRIBUTIONS | - 86,915 | -497,143 |
| INVESTMENT RETURN | - 1,570,558 | - 5,512,831 |
| ENDING VALUE | $ 36,778,525 | $ 36,778,525 |
| INCOME | 94,015 | 557,382 |
| CAPITAL GAINS (LOSSES) | - 1,664,573 | - 6,070,213 |
| INVESTMENT RETURN | - 1,570,558 | - 5,512,831 |

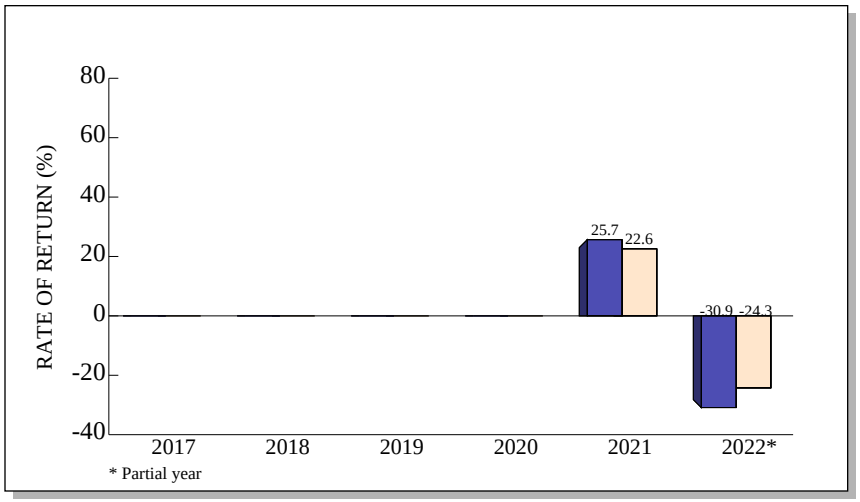
# TOTAL RETURN COMPARISONS




Mid Cap Core Universe

PORTFOLIO
RUSSELL MID



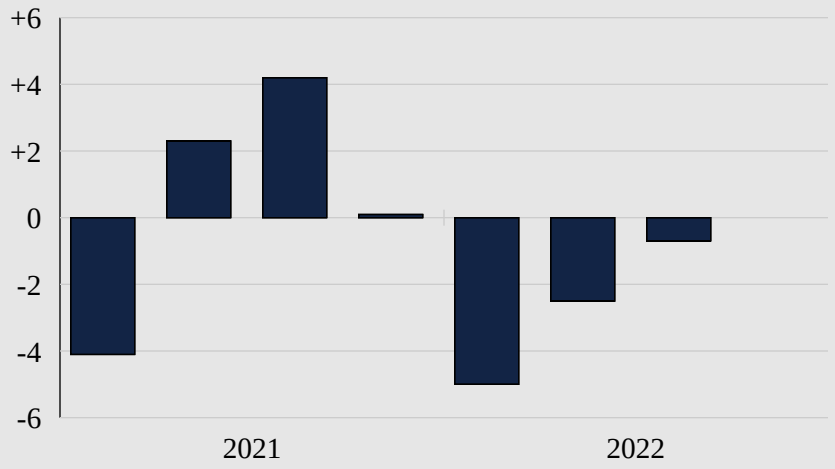

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -4.1 | -22.6 | -30.9 | -26.3 | ---- | ---- |
| (RANK) | (74) | (90) | (96) | (99) | ---- | ---- |
| 5TH %ILE | -0.7 | -14.0 | -13.3 | -9.5 | 10.0 | 10.3 |
| 25TH %ILE | -2.5 | -16.6 | -20.5 | -13.7 | 8.2 | 8.5 |
| MEDIAN | -3.1 | -17.7 | -24.5 | -15.3 | 6.1 | 6.9 |
| 75TH %ILE | -4.1 | -19.5 | -27.1 | -20.1 | 5.1 | 5.8 |
| 95TH %ILE | -5.9 | -22.8 | -30.9 | -26.1 | 1.7 | 4.8 |
| ***Russ MC*** | ***-3.4*** | ***-19.7*** | ***-24.3*** | ***-19.4*** | ***5.2*** | ***6.5*** |

Mid Cap Core Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: RUSSELL MID CAP**

## VARIATION FROM BENCHMARK

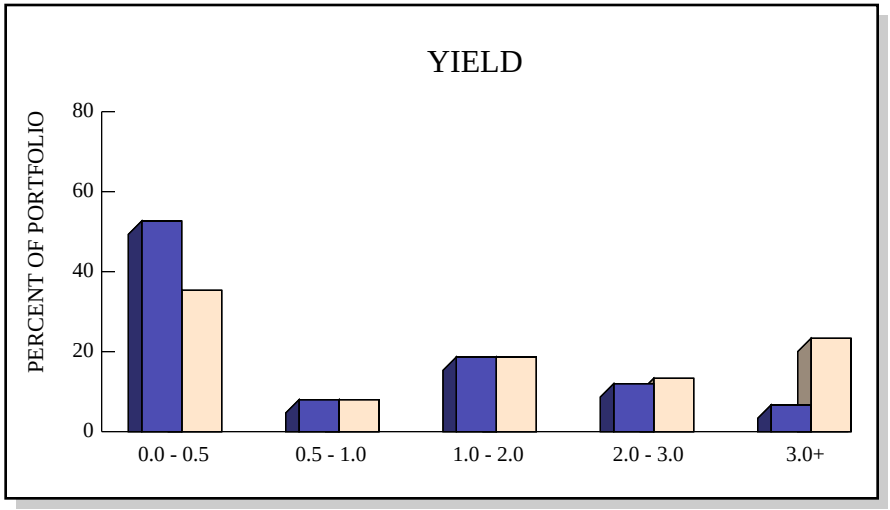


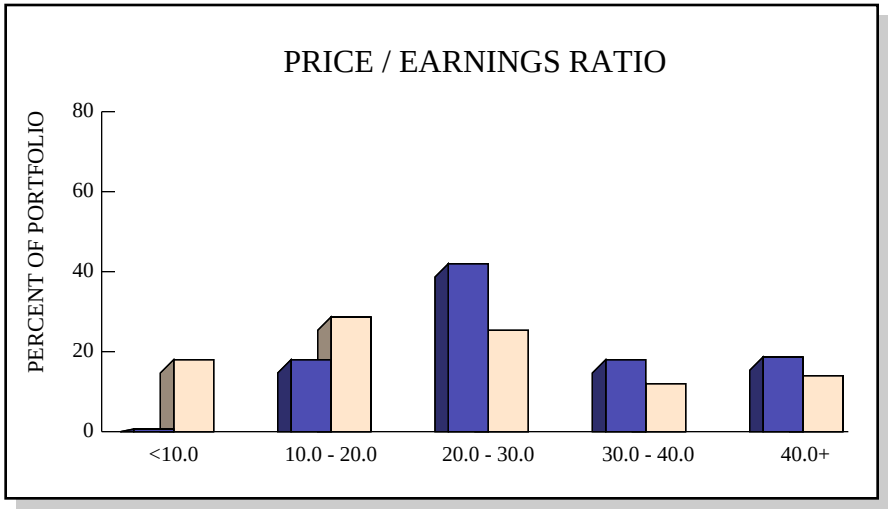

| | |
|---|---|
| **Total Quarters Observed** | **7** |
| **Quarters At or Above the Benchmark** | **3** |
| **Quarters Below the Benchmark** | **4** |
| **Batting Average** | **.429** |

## RATES OF RETURN

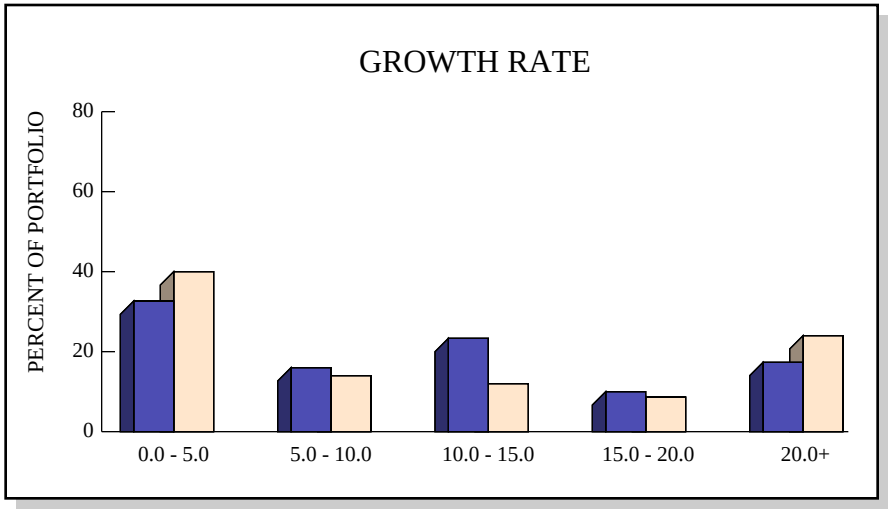
| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/21 | 4.0 | 8.1 | -4.1 |
| 6/21 | 9.8 | 7.5 | 2.3 |
| 9/21 | 3.3 | -0.9 | 4.2 |
| 12/21 | 6.5 | 6.4 | 0.1 |
| 3/22 | -10.7 | -5.7 | -5.0 |
| 6/22 | -19.3 | -16.8 | -2.5 |
| 9/22 | -4.1 | -3.4 | -0.7 |

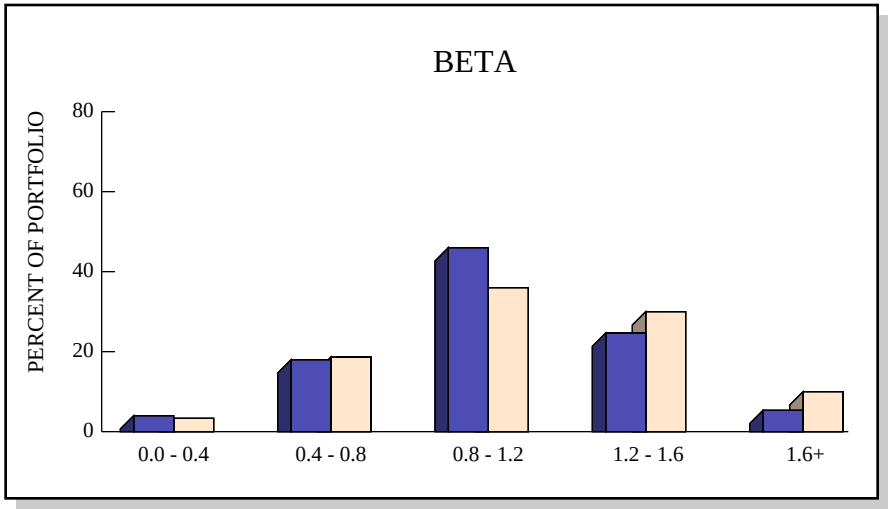
## STOCK CHARACTERISTICS



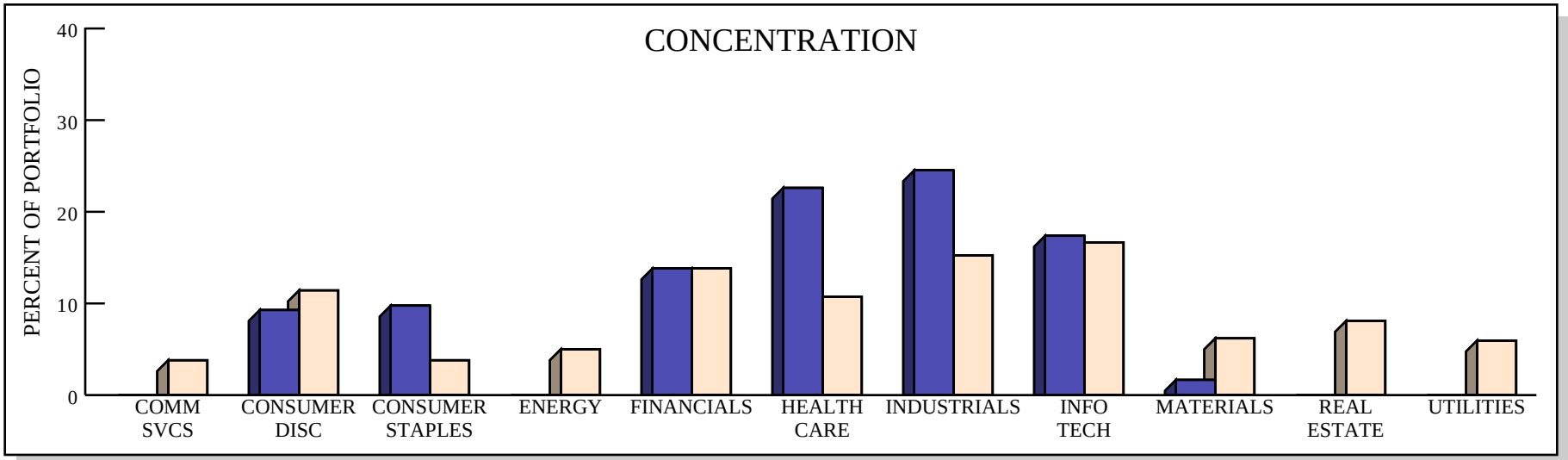



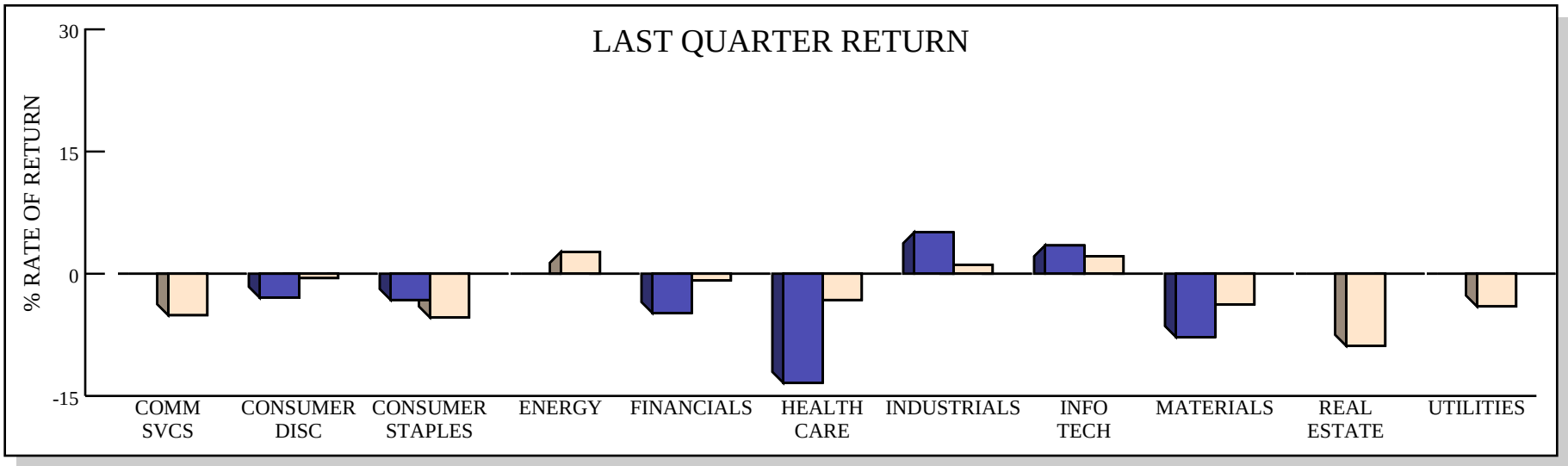

| | # HOLDINGS | YIELD | GROWTH | P/E | BETA |
|---|---|---|---|---|---|
| PORTFOLIO | 61 | 0.9% | 10.6% | 30.6 | 1.02 |
| RUSSELL MID | 824 | 1.8% | 10.3% | 24.1 | 1.12 |



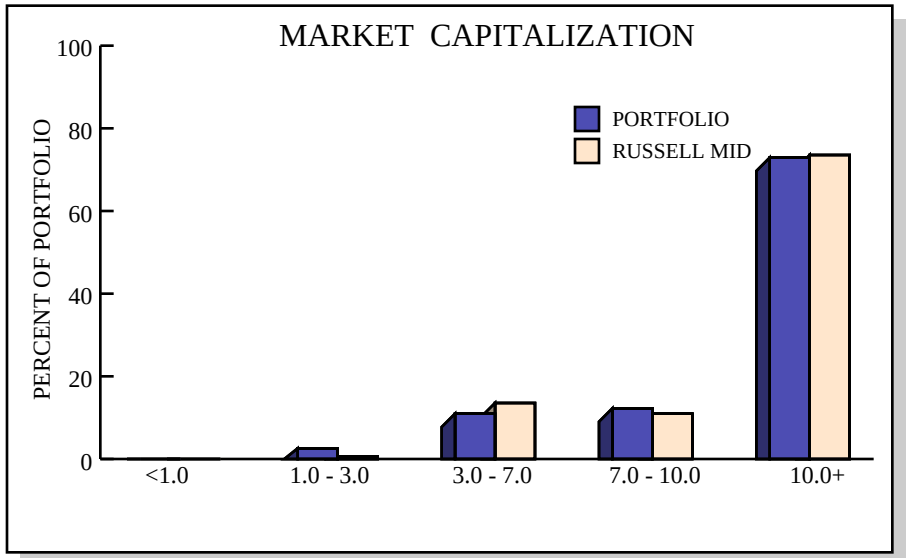



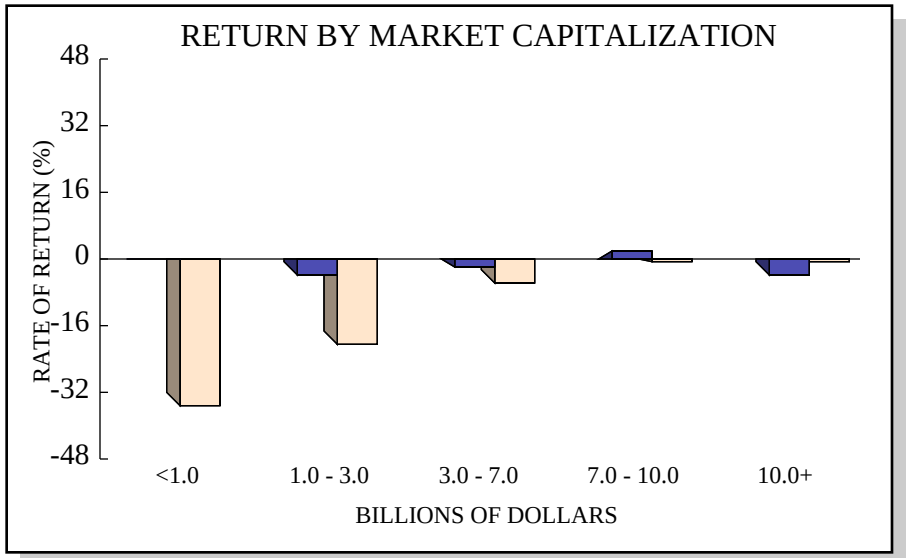
## STOCK INDUSTRY ANALYSIS



## TOP TEN HOLDINGS




# TOP TEN EQUITY HOLDINGS

| RANK | NAME | VALUE | % EQUITY | RETURN | INDUSTRY SECTOR | MKT CAP |
|---|---|---|---|---|---|---|
| 1 | FORTIVE CORP | $ 1,263,944 | 3.44% | 7.3% | Industrials | $ 20.7 B |
| 2 | EVEREST RE GROUP LTD | 1,262,336 | 3.43% | -5.8% | Financials | 10.3 B |
| 3 | AMETEK INC | 1,229,364 | 3.34% | 3.4% | Industrials | 26.0 B |
| 4 | IDEX CORP | 989,258 | 2.69% | 10.4% | Industrials | 15.1 B |
| 5 | ADVANCE AUTO PARTS INC | 975,562 | 2.65% | -8.9% | Consumer Discretionary | 9.4 B |
| 6 | WORKDAY INC | 965,075 | 2.62% | 9.1% | Information Technology | 39.0 B |
| 7 | EDWARDS LIFESCIENCES CORP | 961,813 | 2.62% | -13.1% | Health Care | 51.2 B |
| 8 | TORO CO | 898,527 | 2.44% | 14.1% | Industrials | 9.0 B |
| 9 | GENERAC HOLDINGS INC | 876,449 | 2.38% | -15.4% | Industrials | 11.4 B |
| 10 | ROCKWELL AUTOMATION INC | 866,893 | 2.36% | 8.4% | Industrials | 24.8 B |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# VANGUARD - MID CAP INDEX
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Vanguard Mid Cap Index portfolio was valued at $32,512,826, representing an increase of $3,528,687 from the June quarter's ending value of $28,984,139. Last quarter, the Fund posted net contributions totaling $5,000,000, which overshadowed the account's $1,471,313 net investment loss that was sustained during the quarter. The fund's net investment loss was a result of income receipts totaling $138,608 and realized and unrealized capital losses totaling $1,609,921.

## RELATIVE PERFORMANCE

*The ticker for this investment is VMCIX.*

### Total Fund

During the third quarter, the Vanguard Mid Cap Index portfolio lost 4.1%, which was equal to the CRSP US Mid Cap Index's return of -4.1% and ranked in the 76th percentile of the Mid Cap Core universe.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year |
|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -4.1 | -25.4 | ---- | ---- | ---- |
| *MID CAP CORE RANK* | (76) | (57) | ---- | ---- | ---- |
| **Total Portfolio - Net** | -4.1 | -25.4 | ---- | ---- | ---- |
| CRSP US Mid Cap | -4.1 | -25.4 | -19.5 | 5.5 | 6.7 |
| **Domestic Equity - Gross** | -4.1 | -25.4 | ---- | ---- | ---- |
| *MID CAP CORE RANK* | (76) | (57) | ---- | ---- | ---- |
| CRSP US Mid Cap | -4.1 | -25.4 | -19.5 | 5.5 | 6.7 |

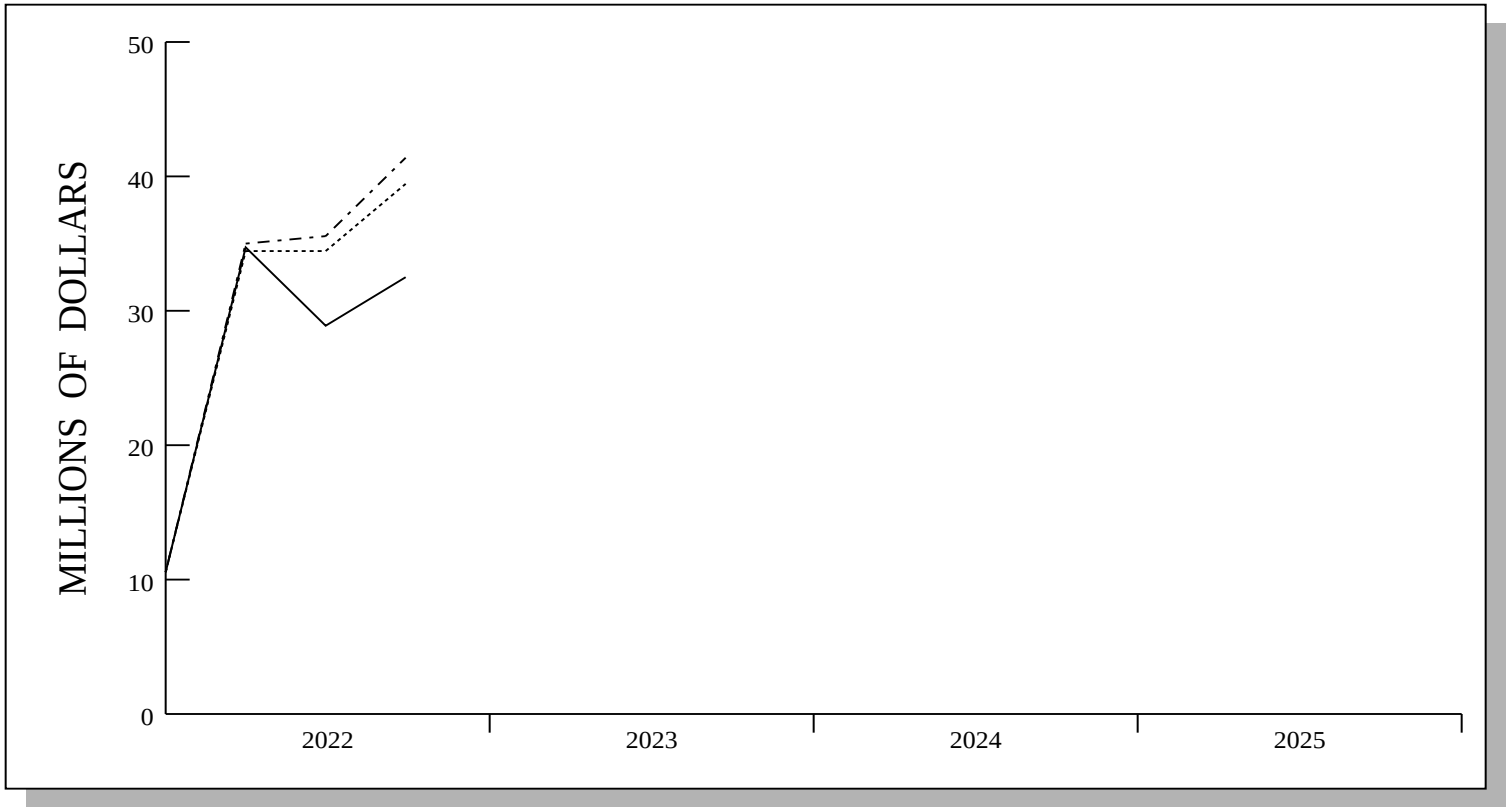
## ASSET ALLOCATION

| | | |
|---|---|---|
| Domestic Equity | 100.0% | $ 32,512,826 |
| Total Portfolio | 100.0% | $ 32,512,826 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 28,984,139 |
| Contribs / Withdrawals | 5,000,000 |
| Income | 138,608 |
| Capital Gains / Losses | - 1,609,921 |
| Market Value 9/2022 | $ 32,512,826 |

## INVESTMENT GROWTH

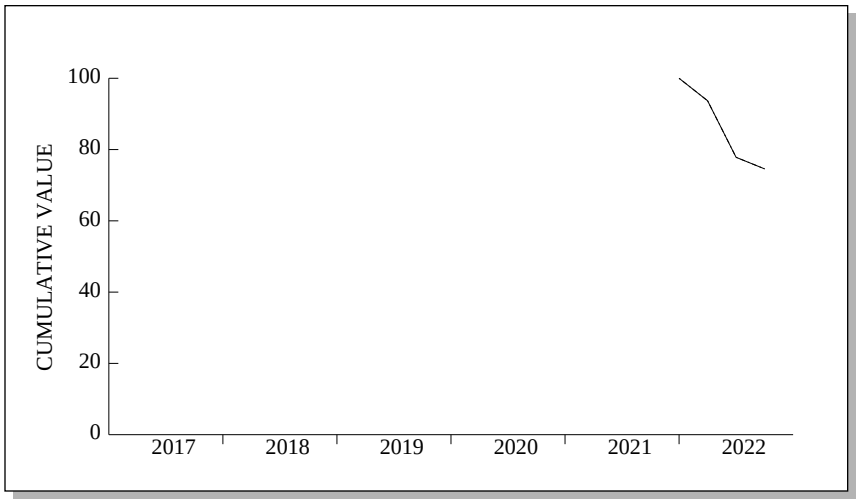


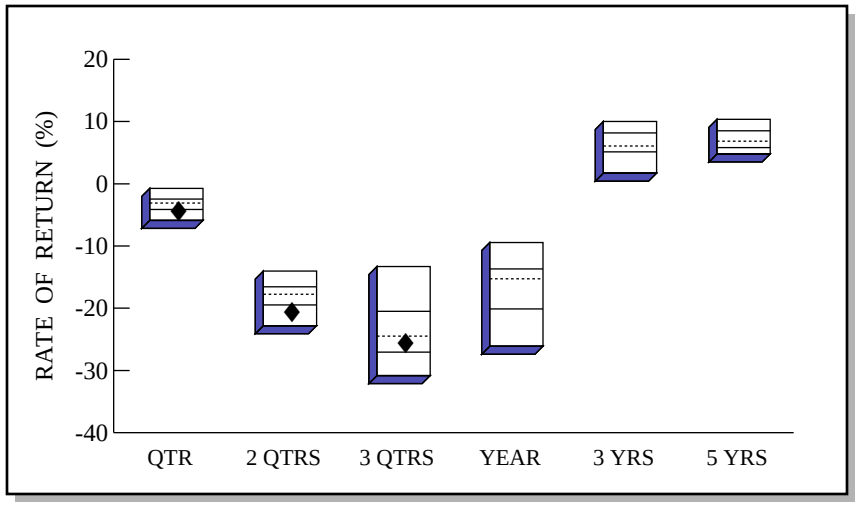

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 41,408,987

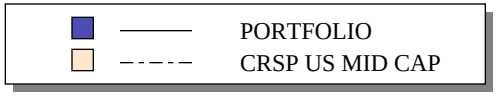
| | LAST QUARTER | PERIOD 12/21 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 28,984,139 | $ 10,607,527 |
| NET CONTRIBUTIONS | 5,000,000 | 29,000,000 |
| INVESTMENT RETURN | - 1,471,313 | - 7,094,701 |
| ENDING VALUE | $ 32,512,826 | $ 32,512,826 |
| INCOME | 138,608 | 334,873 |
| CAPITAL GAINS (LOSSES) | - 1,609,921 | - 7,429,574 |
| INVESTMENT RETURN | - 1,471,313 | - 7,094,701 |

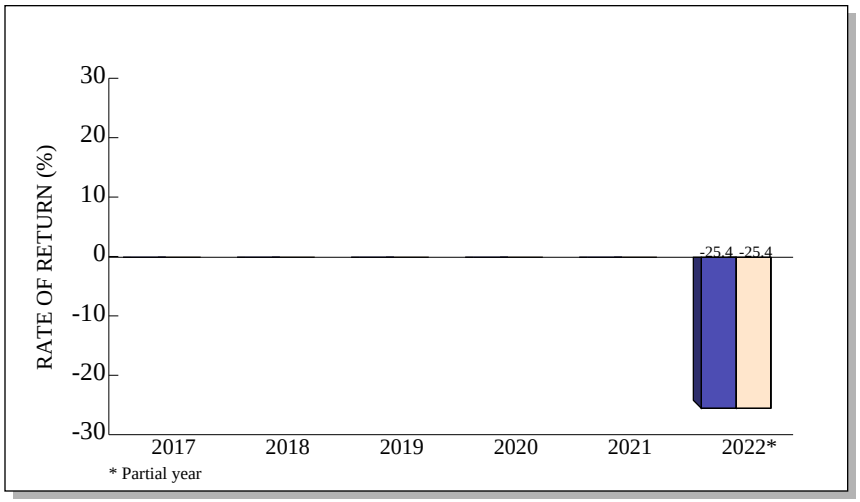
# TOTAL RETURN COMPARISONS




Mid Cap Core Universe



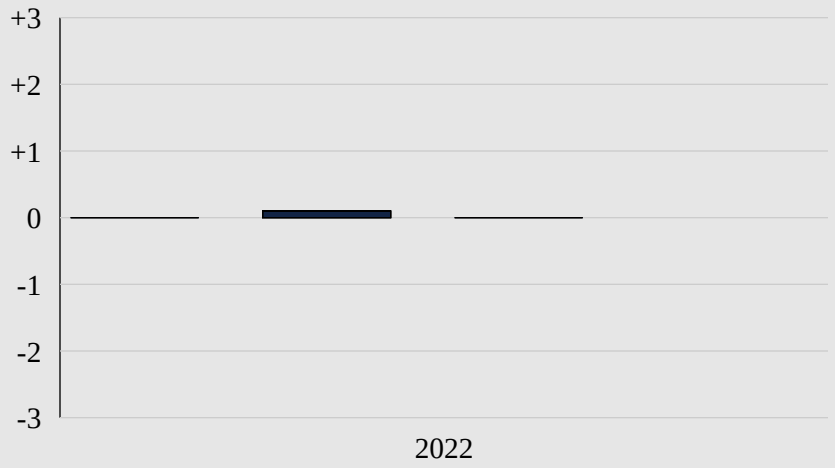

| | | | | | ------ ANNUALIZED ------ | |
|---|---|---|---|---|---|---|
| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
| RETURN | -4.1 | -20.4 | -25.4 | ---- | ---- | ---- |
| (RANK) | (76) | (79) | (57) | ---- | ---- | ---- |
| 5TH %ILE | -0.7 | -14.0 | -13.3 | -9.5 | 10.0 | 10.3 |
| 25TH %ILE | -2.5 | -16.6 | -20.5 | -13.7 | 8.2 | 8.5 |
| MEDIAN | -3.1 | -17.7 | -24.5 | -15.3 | 6.1 | 6.9 |
| 75TH %ILE | -4.1 | -19.5 | -27.1 | -20.1 | 5.1 | 5.8 |
| 95TH %ILE | -5.9 | -22.8 | -30.9 | -26.1 | 1.7 | 4.8 |
| ***CRSP US MC*** | ***-4.1*** | ***-20.4*** | ***-25.4*** | ***-19.5*** | ***5.5*** | ***6.7*** |

Mid Cap Core Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: CRSP US MID CAP INDEX**

## VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **3** |
| **Quarters At or Above the Benchmark** | **3** |
| **Quarters Below the Benchmark** | **0** |
| **Batting Average** | **1.000** |

## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/22 | -6.3 | -6.3 | 0.0 |
| 6/22 | -16.9 | -17.0 | 0.1 |
| 9/22 | -4.1 | -4.1 | 0.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# VANGUARD - SMALL-CAP INDEX
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Vanguard Small-Cap Index portfolio was valued at $46,423,341, representing an increase of $1,762,988 from the June quarter's ending value of $44,660,353. Last quarter, the Fund posted net contributions totaling $3,000,000, which overshadowed the account's $1,237,012 net investment loss that was sustained during the quarter. The fund's net investment loss was a result of income receipts totaling $181,345 and realized and unrealized capital losses totaling $1,418,357.

## RELATIVE PERFORMANCE

*The ticker for this mutual fund is VSCIX.*

### Total Fund

During the third quarter, the Vanguard Small-Cap Index portfolio lost 2.6%, which was equal to the CRSP US Small Cap Index's return of -2.6% and ranked in the 41st percentile of the Small Cap Core universe.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 03/22 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -2.6 | ---- | ---- | ---- | ---- | -19.0 |
| *SMALL CAP CORE RANK* | (41) | ---- | ---- | ---- | ---- | (62) |
| **Total Portfolio - Net** | -2.6 | ---- | ---- | ---- | ---- | -19.0 |
| CRSP US SC | -2.6 | -23.7 | -20.8 | 5.0 | 5.4 | -19.1 |
| **Domestic Equity - Gross** | -2.6 | ---- | ---- | ---- | ---- | -19.0 |
| *SMALL CAP CORE RANK* | (41) | ---- | ---- | ---- | ---- | (62) |
| CRSP US SC | -2.6 | -23.7 | -20.8 | 5.0 | 5.4 | -19.1 |

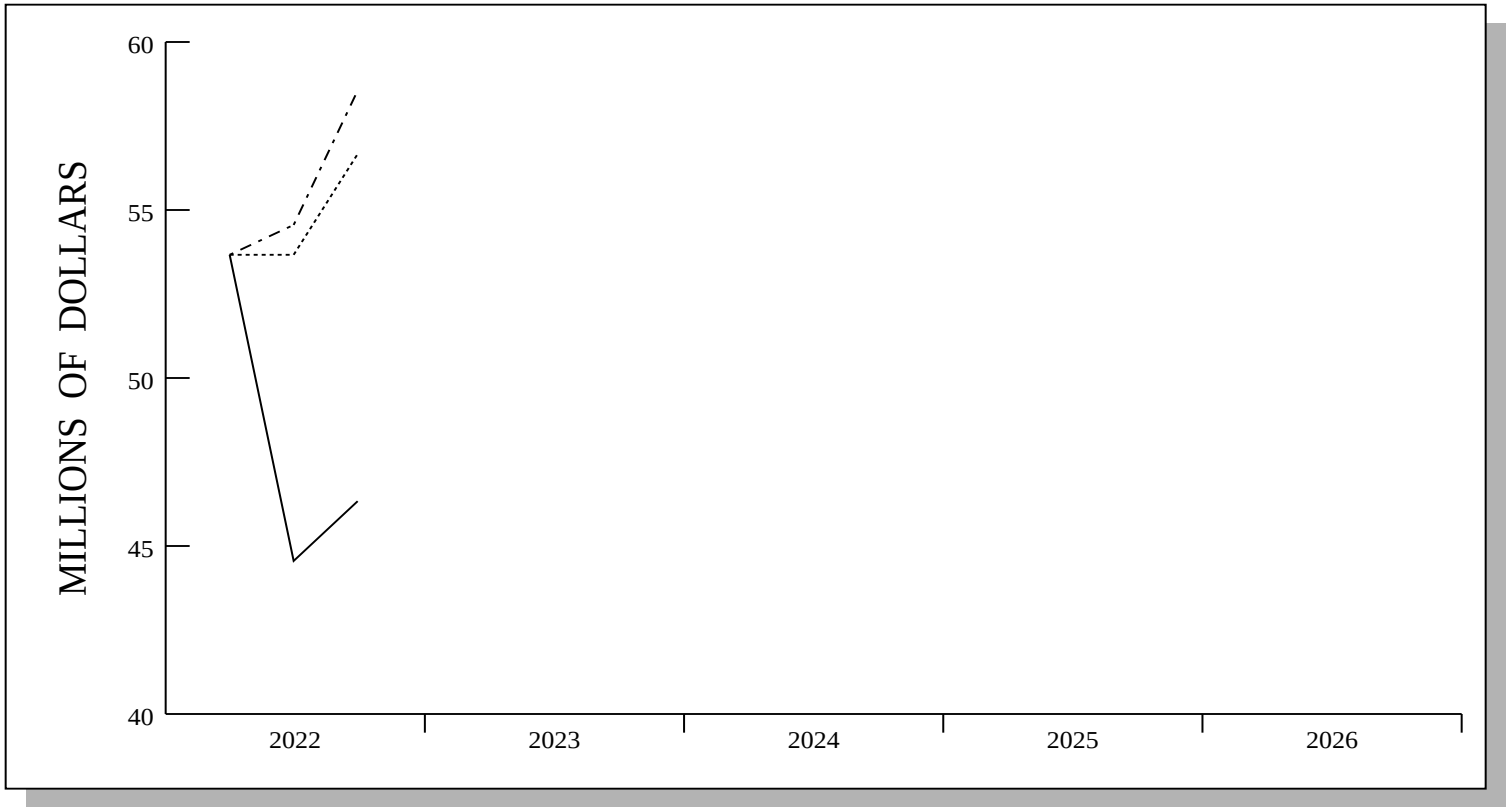
## ASSET ALLOCATION

| | | |
|---|---|---|
| Domestic Equity | 100.0% | $ 46,423,341 |
| Total Portfolio | 100.0% | $ 46,423,341 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 44,660,353 |
| Contribs / Withdrawals | 3,000,000 |
| Income | 181,345 |
| Capital Gains / Losses | - 1,418,357 |
| Market Value 9/2022 | $ 46,423,341 |

## INVESTMENT GROWTH

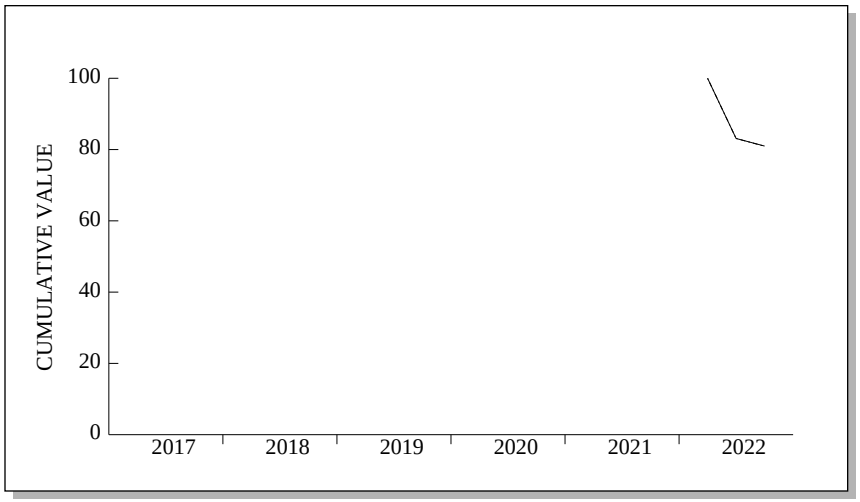


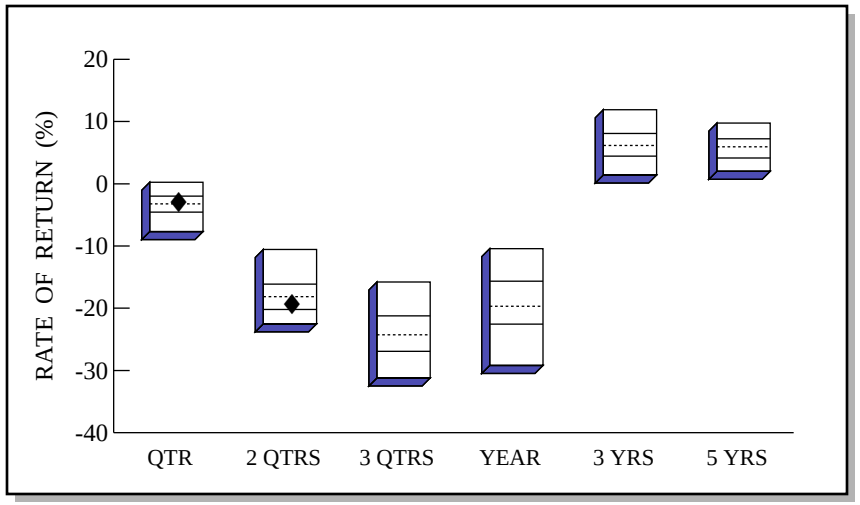

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 58,618,794

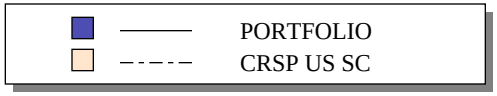
| | LAST QUARTER | PERIOD 3/22 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 44,660,353 | $ 53,727,536 |
| NET CONTRIBUTIONS | 3,000,000 | 3,000,000 |
| INVESTMENT RETURN | - 1,237,012 | - 10,304,195 |
| ENDING VALUE | $ 46,423,341 | $ 46,423,341 |
| INCOME | 181,345 | 331,499 |
| CAPITAL GAINS (LOSSES) | - 1,418,357 | - 10,635,694 |
| INVESTMENT RETURN | - 1,237,012 | - 10,304,195 |

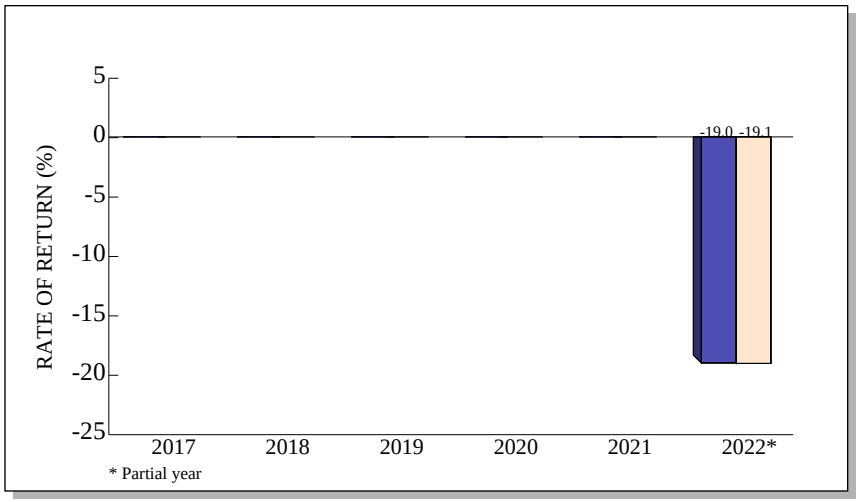
# TOTAL RETURN COMPARISONS




Small Cap Core Universe



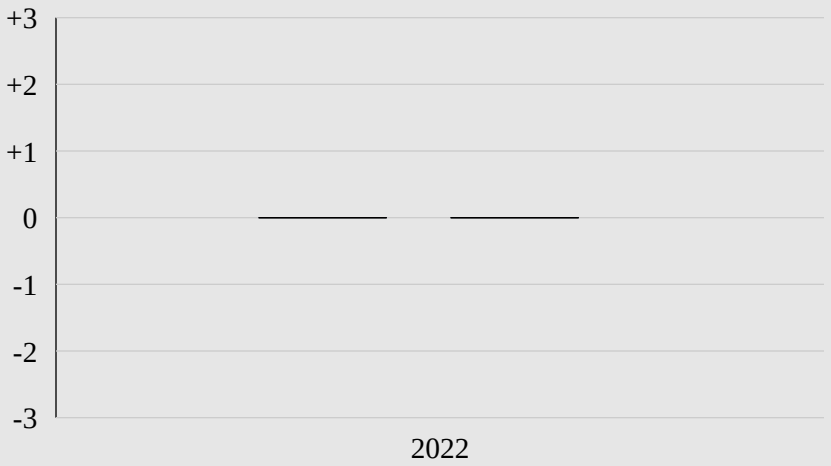

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -2.6 | -19.0 | ---- | ---- | ---- | ---- |
| (RANK) | (41) | (62) | ---- | ---- | ---- | ---- |
| 5TH %ILE | 0.3 | -10.6 | -15.8 | -10.4 | 11.9 | 9.8 |
| 25TH %ILE | -2.0 | -16.1 | -21.3 | -15.7 | 8.1 | 7.2 |
| MEDIAN | -3.2 | -18.1 | -24.3 | -19.7 | 6.2 | 6.0 |
| 75TH %ILE | -4.6 | -20.2 | -26.9 | -22.6 | 4.5 | 4.2 |
| 95TH %ILE | -7.7 | -22.5 | -31.2 | -29.2 | 1.4 | 2.0 |
| ***CRSP US SC*** | ***-2.6*** | ***-19.1*** | ***-23.7*** | ***-20.8*** | ***5.0*** | ***5.4*** |

Small Cap Core Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: CRSP US SMALL CAP INDEX**

## VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **2** |
| **Quarters At or Above the Benchmark** | **2** |
| **Quarters Below the Benchmark** | **0** |
| **Batting Average** | **1.000** |

## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 6/22 | -16.9 | -16.9 | 0.0 |
| 9/22 | -2.6 | -2.6 | 0.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# MACQUARIE - INTERNATIONAL VALUE
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Macquarie International Value portfolio was valued at $27,470,024, a decrease of $3,385,908 from the June ending value of $30,855,932. Last quarter, the account recorded no net contributions or withdrawals, while recording a net investment loss for the quarter of $3,385,908. Since there were no income receipts for the third quarter, net investment losses were the result of capital losses (realized and unrealized).

## RELATIVE PERFORMANCE

### Total Fund

During the third quarter, the Macquarie International Value portfolio lost 10.8%, which was 1.5% less than the MSCI EAFE Index's return of -9.3% and ranked in the 81st percentile of the International Equity universe. Over the trailing year, the portfolio returned -27.3%, which was 2.6% less than the benchmark's -24.7% performance, and ranked in the 61st percentile. Since December 2012, the account returned 2.6% per annum and ranked in the 78th percentile. For comparison, the MSCI EAFE Index returned an annualized 3.6% over the same time frame.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 12/12 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -10.8 | -28.0 | -27.3 | -4.3 | -3.1 | 2.6 |
| *INTERNATIONAL EQUITY RANK* | (81) | (48) | (61) | (93) | (93) | (78) |
| **Total Portfolio - Net** | -11.0 | -28.4 | -27.8 | -5.0 | -3.7 | 1.8 |
| MSCI EAFE | -9.3 | -26.8 | -24.7 | -1.4 | -0.4 | 3.6 |
| **International Equity - Gross** | -10.8 | -28.0 | -27.3 | -4.3 | -3.1 | 2.6 |
| *INTERNATIONAL EQUITY RANK* | (81) | (48) | (61) | (93) | (93) | (78) |
| MSCI EAFE | -9.3 | -26.8 | -24.7 | -1.4 | -0.4 | 3.6 |

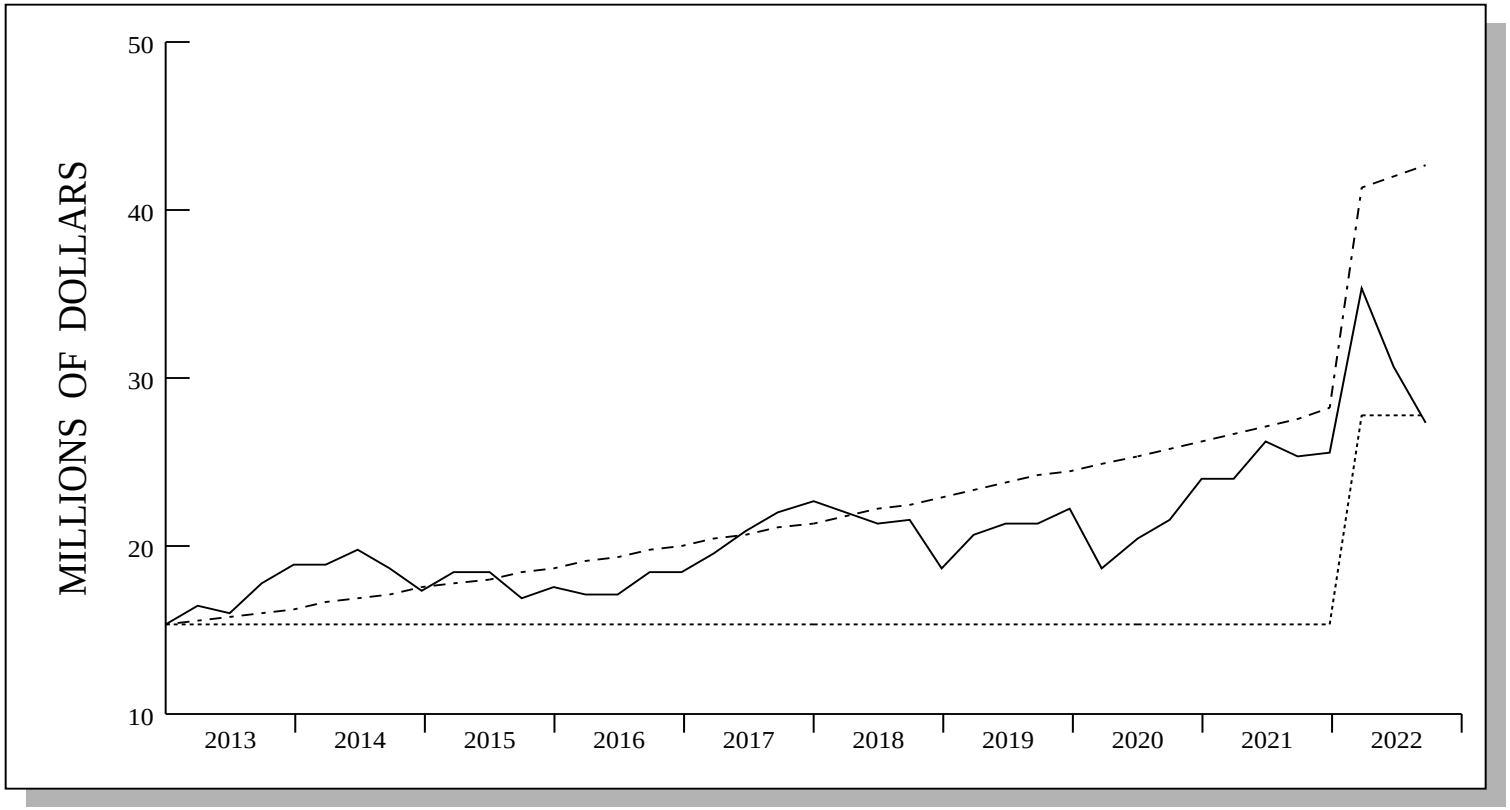
## ASSET ALLOCATION

| | | |
|---|---|---|
| Int'l Equity | 100.0% | $ 27,470,024 |
| Total Portfolio | 100.0% | $ 27,470,024 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 30,855,932 |
| Contribs / Withdrawals | 0 |
| Income | 0 |
| Capital Gains / Losses | - 3,385,908 |
| Market Value 9/2022 | $ 27,470,024 |

## INVESTMENT GROWTH

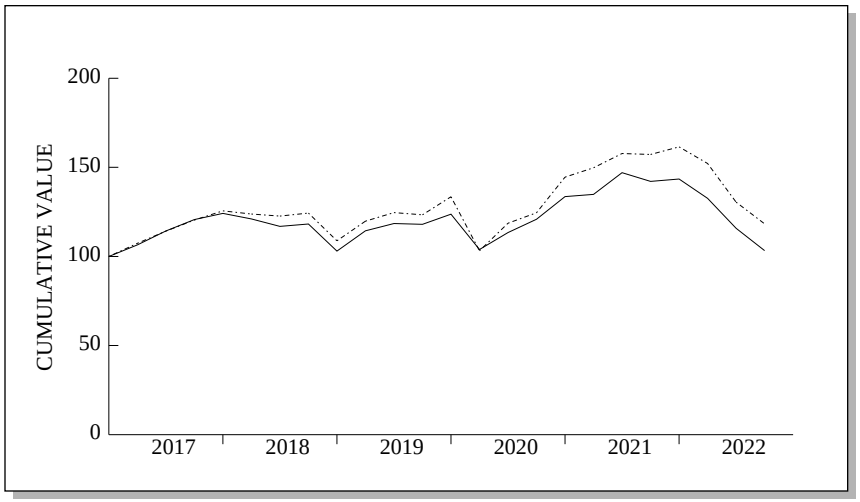


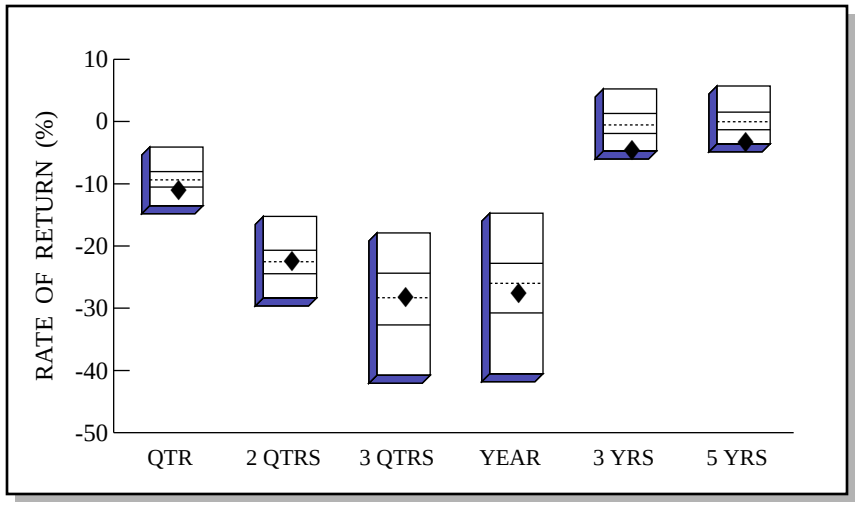

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 42,810,137

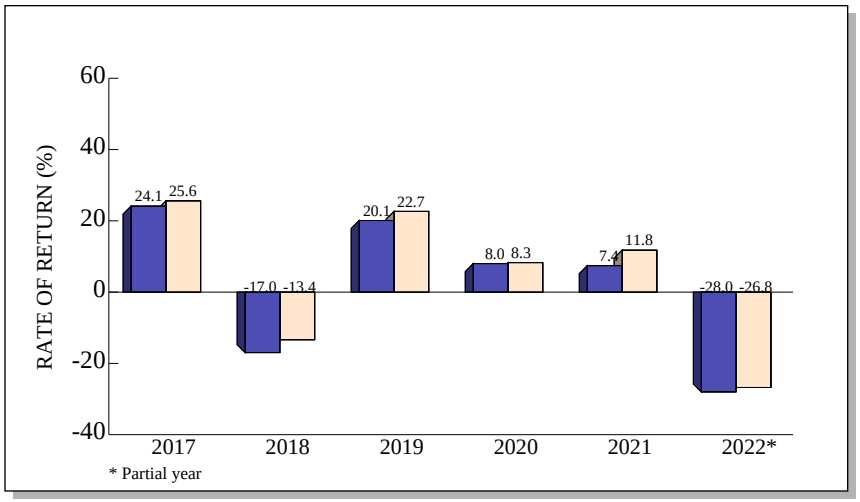
| | LAST QUARTER | PERIOD 12/12 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 30,855,932 | $ 15,353,681 |
| NET CONTRIBUTIONS | 0 | 12,500,000 |
| INVESTMENT RETURN | - 3,385,908 | -383,657 |
| ENDING VALUE | $ 27,470,024 | $ 27,470,024 |
| INCOME | 0 | 0 |
| CAPITAL GAINS (LOSSES) | - 3,385,908 | -383,657 |
| INVESTMENT RETURN | - 3,385,908 | -383,657 |

# TOTAL RETURN COMPARISONS




International Equity Universe



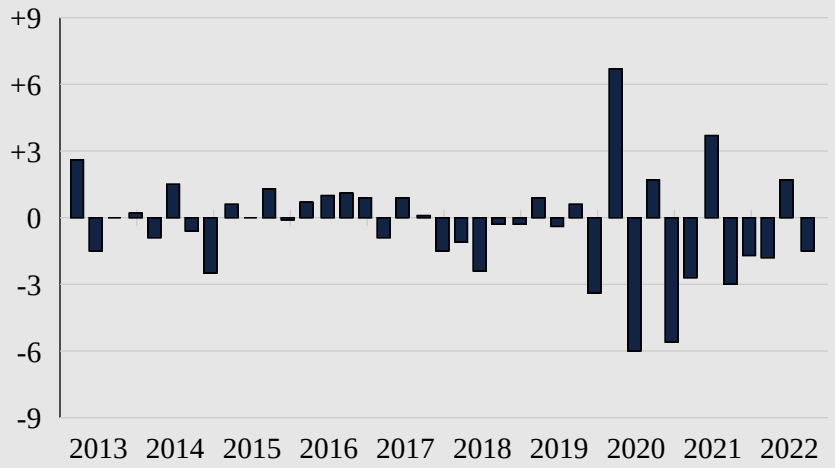

| | QTR | 2 QTRS | 3 QTRS | YEAR | ------ANNUALIZED------ 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| RETURN | -10.8 | -22.1 | -28.0 | -27.3 | -4.3 | -3.1 |
| (RANK) | (81) | (40) | (48) | (61) | (93) | (93) |
| 5TH %ILE | -4.1 | -15.3 | -17.9 | -14.7 | 5.3 | 5.7 |
| 25TH %ILE | -8.1 | -20.7 | -24.4 | -22.8 | 1.3 | 1.5 |
| MEDIAN | -9.4 | -22.5 | -28.3 | -26.0 | -0.6 | 0.0 |
| 75TH %ILE | -10.5 | -24.5 | -32.7 | -30.8 | -1.9 | -1.3 |
| 95TH %ILE | -13.5 | -28.4 | -40.8 | -40.6 | -4.8 | -3.6 |
| ***MSCI EAFE*** | ***-9.3*** | ***-22.3*** | ***-26.8*** | ***-24.7*** | ***-1.4*** | ***-0.4*** |

International Equity Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: MSCI EAFE**

## VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **39** |
| **Quarters At or Above the Benchmark** | **19** |
| **Quarters Below the Benchmark** | **20** |
| **Batting Average** | **.487** |

## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/13 | 7.8 | 5.2 | 2.6 |
| 6/13 | -2.2 | -0.7 | -1.5 |
| 9/13 | 11.6 | 11.6 | 0.0 |
| 12/13 | 5.9 | 5.7 | 0.2 |
| 3/14 | -0.1 | 0.8 | -0.9 |
| 6/14 | 5.8 | 4.3 | 1.5 |
| 9/14 | -6.4 | -5.8 | -0.6 |
| 12/14 | -6.0 | -3.5 | -2.5 |
| 3/15 | 5.6 | 5.0 | 0.6 |
| 6/15 | 0.8 | 0.8 | 0.0 |
| 9/15 | -8.9 | -10.2 | 1.3 |
| 12/15 | 4.6 | 4.7 | -0.1 |
| 3/16 | -2.2 | -2.9 | 0.7 |
| 6/16 | -0.2 | -1.2 | 1.0 |
| 9/16 | 7.6 | 6.5 | 1.1 |
| 12/16 | 0.2 | -0.7 | 0.9 |
| 3/17 | 6.5 | 7.4 | -0.9 |
| 6/17 | 7.3 | 6.4 | 0.9 |
| 9/17 | 5.6 | 5.5 | 0.1 |
| 12/17 | 2.8 | 4.3 | -1.5 |
| 3/18 | -2.5 | -1.4 | -1.1 |
| 6/18 | -3.4 | -1.0 | -2.4 |
| 9/18 | 1.1 | 1.4 | -0.3 |
| 12/18 | -12.8 | -12.5 | -0.3 |
| 3/19 | 11.0 | 10.1 | 0.9 |
| 6/19 | 3.6 | 4.0 | -0.4 |
| 9/19 | -0.4 | -1.0 | 0.6 |
| 12/19 | 4.8 | 8.2 | -3.4 |
| 3/20 | -16.0 | -22.7 | 6.7 |
| 6/20 | 9.1 | 15.1 | -6.0 |
| 9/20 | 6.6 | 4.9 | 1.7 |
| 12/20 | 10.5 | 16.1 | -5.6 |
| 3/21 | 0.9 | 3.6 | -2.7 |
| 6/21 | 9.1 | 5.4 | 3.7 |
| 9/21 | -3.4 | -0.4 | -3.0 |
| 12/21 | 1.0 | 2.7 | -1.7 |
| 3/22 | -7.6 | -5.8 | -1.8 |
| 6/22 | -12.6 | -14.3 | 1.7 |
| 9/22 | -10.8 | -9.3 | -1.5 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# WALTER SCOTT - NCS GROUP TRUST INTERNATIONAL FUND
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

*This portfolio was previously invested in the BNY Mellon International Stock Mutual Fund (DISRX). In December 2020, this investment was transferred to the NCS Group Trust International Fund.*

On September 30th, 2022, the Chester County Employees Retirement System's Walter Scott NCS Group Trust International Fund was valued at $31,989,010, a decrease of $3,142,219 from the June ending value of $35,131,229. Last quarter, the account recorded total net withdrawals of $70,124 in addition to $3,072,095 in net investment losses. Because there were no income receipts during the third quarter, the portfolio's net investment losses were entirely made up of capital losses (realized and unrealized).

## RELATIVE PERFORMANCE

### Total Fund

During the third quarter, the Walter Scott NCS Group Trust International Fund lost 8.8%, which was 1.0% greater than the MSCI All Country World Ex US Index's return of -9.8% and ranked in the 36th percentile of the International Equity universe. Over the trailing twelve-month period, this portfolio returned -28.6%, which was 3.8% below the benchmark's -24.8% return, and ranked in the 68th percentile. Since December 2012, the portfolio returned 4.9% per annum and ranked in the 25th percentile. For comparison, the MSCI All Country World ex US returned an annualized 3.0% over the same period.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 12/12 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -8.8 | -31.7 | -28.6 | 0.0 | 2.9 | 4.9 |
| *INTERNATIONAL EQUITY RANK* | (36) | (73) | (68) | (44) | (14) | (25) |
| **Total Portfolio - Net** | -8.9 | -32.1 | -29.2 | -0.9 | 2.1 | 3.9 |
| ACWI ex US | -9.8 | -26.2 | -24.8 | -1.1 | -0.3 | 3.0 |
| **International Equity - Gross** | -8.8 | -31.7 | -28.6 | 0.0 | 2.9 | 4.9 |
| *INTERNATIONAL EQUITY RANK* | (36) | (73) | (68) | (44) | (14) | (25) |
| ACWI ex US | -9.8 | -26.2 | -24.8 | -1.1 | -0.3 | 3.0 |

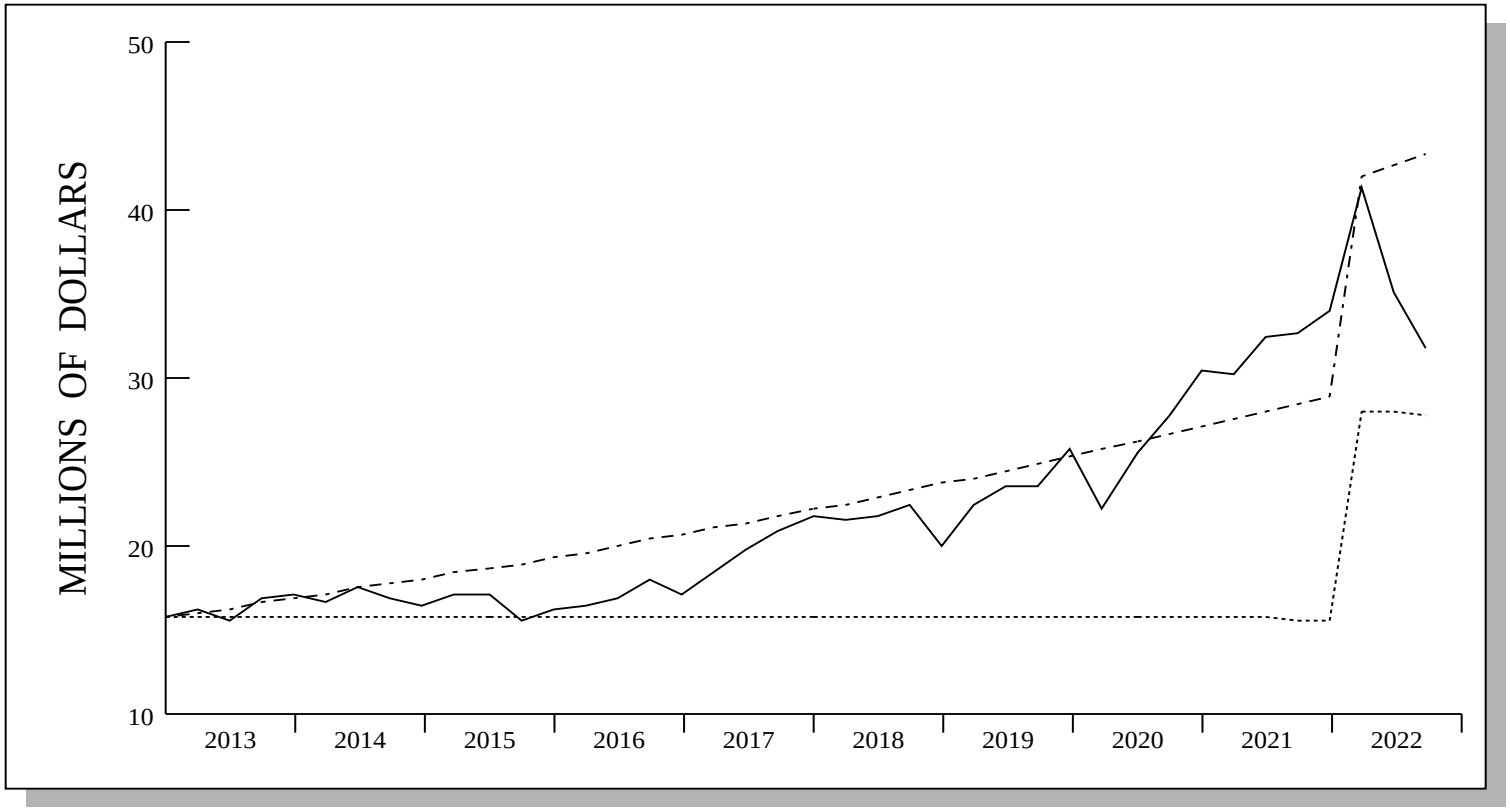
## ASSET ALLOCATION

| | | |
|---|---|---|
| Int'l Equity | 100.0% | $ 31,989,010 |
| Total Portfolio | 100.0% | $ 31,989,010 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 35,131,229 |
| Contribs / Withdrawals | - 70,124 |
| Income | 0 |
| Capital Gains / Losses | - 3,072,095 |
| Market Value 9/2022 | $ 31,989,010 |

## INVESTMENT GROWTH

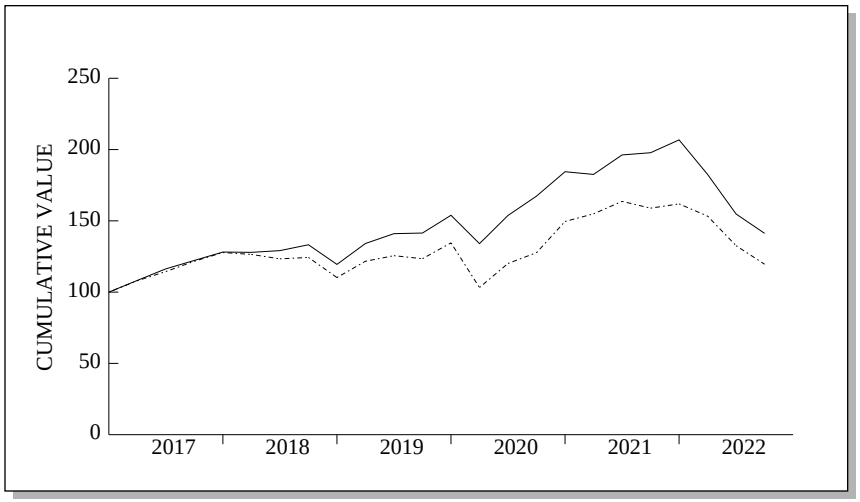


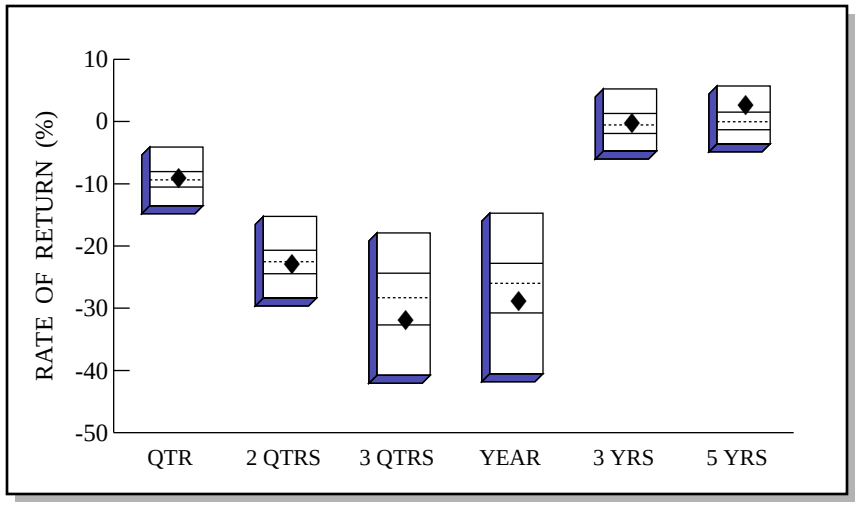

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 43,376,293

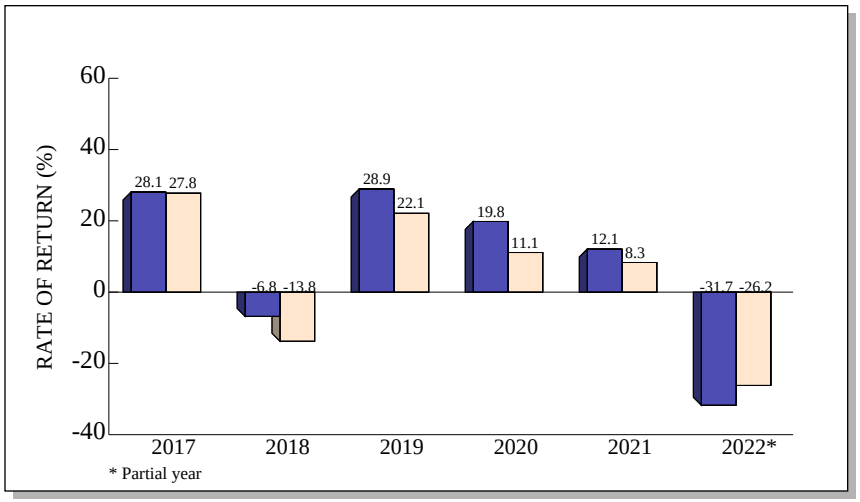
| | LAST QUARTER | PERIOD 12/12 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 35,131,229 | $ 15,865,957 |
| NET CONTRIBUTIONS | - 70,124 | 12,098,630 |
| INVESTMENT RETURN | - 3,072,095 | 4,024,423 |
| ENDING VALUE | $ 31,989,010 | $ 31,989,010 |
| INCOME | 0 | 0 |
| CAPITAL GAINS (LOSSES) | - 3,072,095 | 4,024,423 |
| INVESTMENT RETURN | - 3,072,095 | 4,024,423 |

# TOTAL RETURN COMPARISONS




International Equity Universe



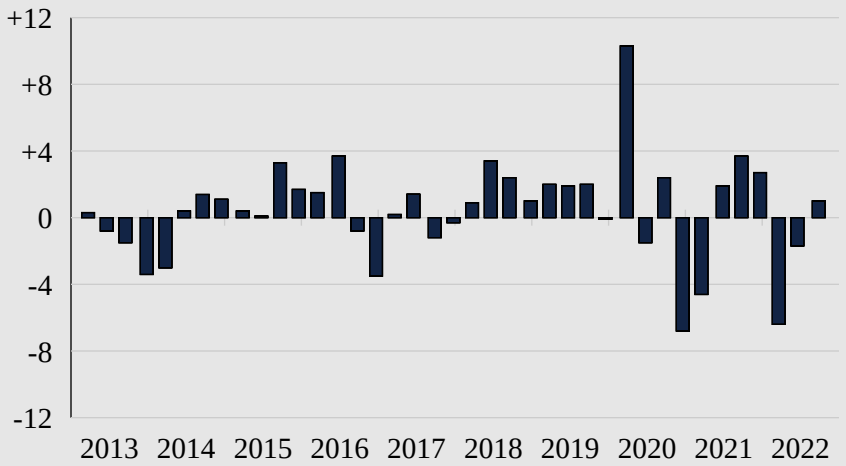

| | QTR | 2 QTRS | 3 QTRS | YEAR | ------ANNUALIZED------ 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| RETURN | -8.8 | -22.6 | -31.7 | -28.6 | 0.0 | 2.9 |
| (RANK) | (36) | (52) | (73) | (68) | (44) | (14) |
| 5TH %ILE | -4.1 | -15.3 | -17.9 | -14.7 | 5.3 | 5.7 |
| 25TH %ILE | -8.1 | -20.7 | -24.4 | -22.8 | 1.3 | 1.5 |
| MEDIAN | -9.4 | -22.5 | -28.3 | -26.0 | -0.6 | 0.0 |
| 75TH %ILE | -10.5 | -24.5 | -32.7 | -30.8 | -1.9 | -1.3 |
| 95TH %ILE | -13.5 | -28.4 | -40.8 | -40.6 | -4.8 | -3.6 |
| ***ACWI ex US*** | ***-9.8*** | ***-22.0*** | ***-26.2*** | ***-24.8*** | ***-1.1*** | ***-0.3*** |

International Equity Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: MSCI ALL COUNTRY WORLD EX US

### VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **39** |
| **Quarters At or Above the Benchmark** | **25** |
| **Quarters Below the Benchmark** | **14** |
| **Batting Average** | **.641** |

### RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/13 | 3.6 | 3.3 | 0.3 |
| 6/13 | -3.7 | -2.9 | -0.8 |
| 9/13 | 8.7 | 10.2 | -1.5 |
| 12/13 | 1.4 | 4.8 | -3.4 |
| 3/14 | -2.4 | 0.6 | -3.0 |
| 6/14 | 5.6 | 5.2 | 0.4 |
| 9/14 | -3.8 | -5.2 | 1.4 |
| 12/14 | -2.7 | -3.8 | 1.1 |
| 3/15 | 4.0 | 3.6 | 0.4 |
| 6/15 | 0.8 | 0.7 | 0.1 |
| 9/15 | -8.8 | -12.1 | 3.3 |
| 12/15 | 5.0 | 3.3 | 1.7 |
| 3/16 | 1.2 | -0.3 | 1.5 |
| 6/16 | 3.3 | -0.4 | 3.7 |
| 9/16 | 6.2 | 7.0 | -0.8 |
| 12/16 | -4.7 | -1.2 | -3.5 |
| 3/17 | 8.2 | 8.0 | 0.2 |
| 6/17 | 7.4 | 6.0 | 1.4 |
| 9/17 | 5.1 | 6.3 | -1.2 |
| 12/17 | 4.8 | 5.1 | -0.3 |
| 3/18 | -0.2 | -1.1 | 0.9 |
| 6/18 | 1.0 | -2.4 | 3.4 |
| 9/18 | 3.2 | 0.8 | 2.4 |
| 12/18 | -10.4 | -11.4 | 1.0 |
| 3/19 | 12.4 | 10.4 | 2.0 |
| 6/19 | 5.1 | 3.2 | 1.9 |
| 9/19 | 0.3 | -1.7 | 2.0 |
| 12/19 | 8.9 | 9.0 | -0.1 |
| 3/20 | -13.0 | -23.3 | 10.3 |
| 6/20 | 14.8 | 16.3 | -1.5 |
| 9/20 | 8.8 | 6.4 | 2.4 |
| 12/20 | 10.3 | 17.1 | -6.8 |
| 3/21 | -1.0 | 3.6 | -4.6 |
| 6/21 | 7.5 | 5.6 | 1.9 |
| 9/21 | 0.8 | -2.9 | 3.7 |
| 12/21 | 4.6 | 1.9 | 2.7 |
| 3/22 | -11.7 | -5.3 | -6.4 |
| 6/22 | -15.2 | -13.5 | -1.7 |
| 9/22 | -8.8 | -9.8 | 1.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# VANGUARD - EMERGING MARKETS INDEX
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Vanguard Emerging Markets Index portfolio was valued at $21,690,590, a decrease of $2,605,884 from the June ending value of $24,296,474. Last quarter, the account recorded no net contributions or withdrawals, while recording a net investment loss for the quarter of $2,605,884. Net investment loss was composed of income receipts totaling $308,144 and $2,914,028 in net realized and unrealized capital losses.

## RELATIVE PERFORMANCE

*The ticker for this investment is VEMIX.*

### Total Fund

For the third quarter, the Vanguard Emerging Markets Index portfolio returned -10.7%, which was 0.8% below the FTSE All Cap EM China A Inclusion's return of -9.9% and ranked in the 59th percentile of the Emerging Markets universe.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year |
|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -10.7 | -23.9 | ---- | ---- | ---- |
| *EMERGING MARKETS RANK* | (59) | (33) | ---- | ---- | ---- |
| **Total Portfolio - Net** | -10.7 | -24.0 | ---- | ---- | ---- |
| FTSE All Cap EM | -9.9 | -23.8 | -24.2 | -0.2 | -0.4 |
| **Emerging Markets Equity - Gross** | -10.7 | -23.9 | ---- | ---- | ---- |
| *EMERGING MARKETS RANK* | (59) | (33) | ---- | ---- | ---- |
| FTSE All Cap EM | -9.9 | -23.8 | -24.2 | -0.2 | -0.4 |

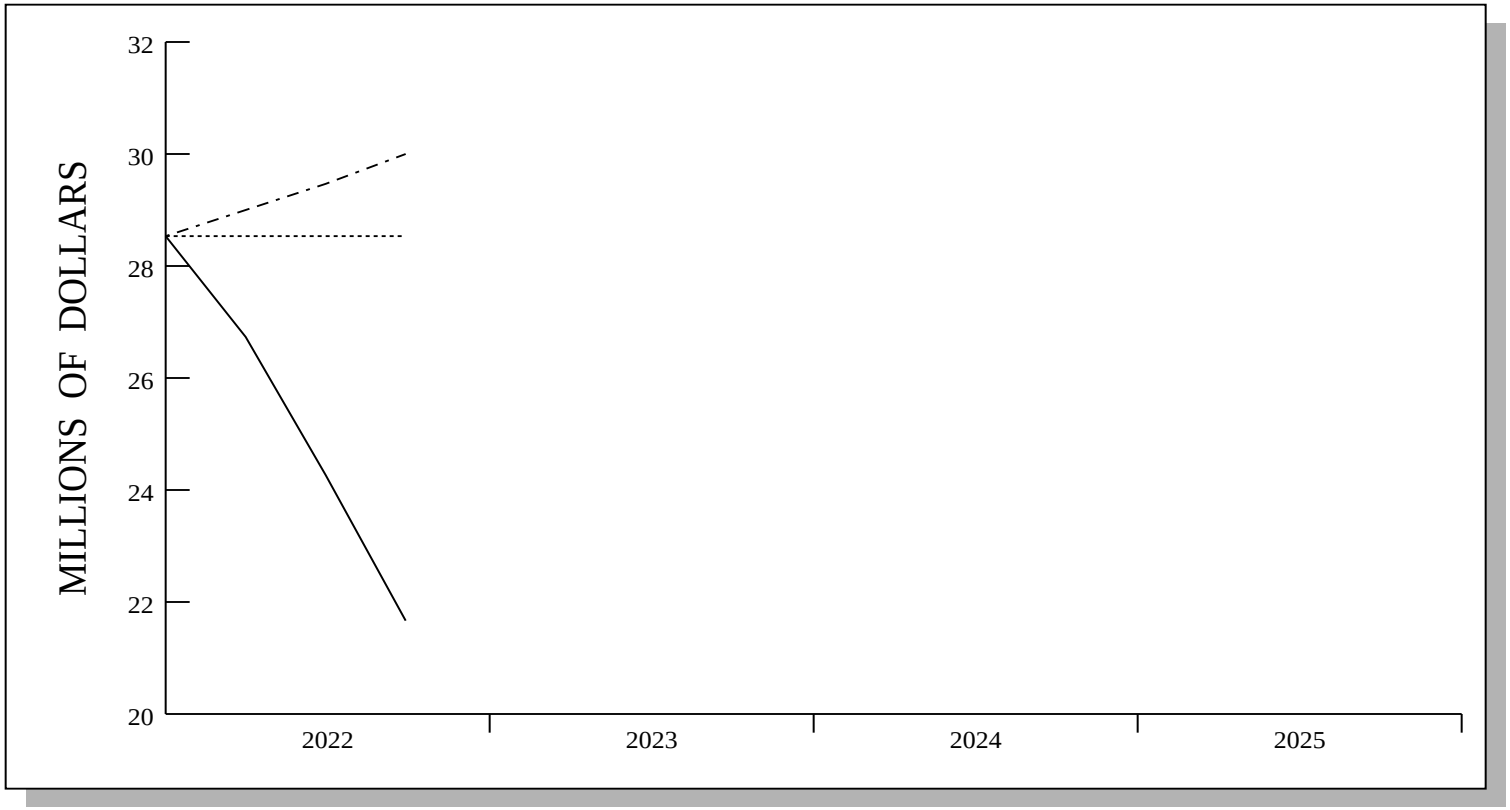
## ASSET ALLOCATION

| | | |
|---|---|---|
| Emerging Markets | 100.0% | $ 21,690,590 |
| Total Portfolio | 100.0% | $ 21,690,590 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 24,296,474 |
| Contribs / Withdrawals | 0 |
| Income | 308,144 |
| Capital Gains / Losses | - 2,914,028 |
| Market Value 9/2022 | $ 21,690,590 |

## INVESTMENT GROWTH

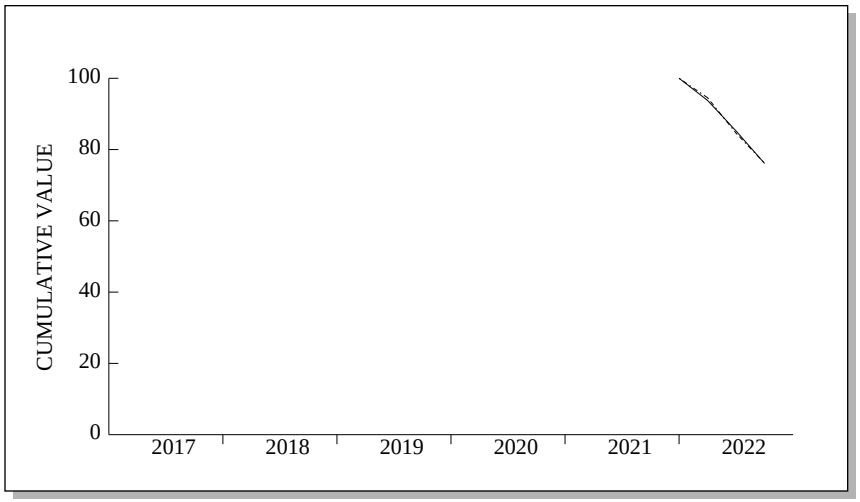


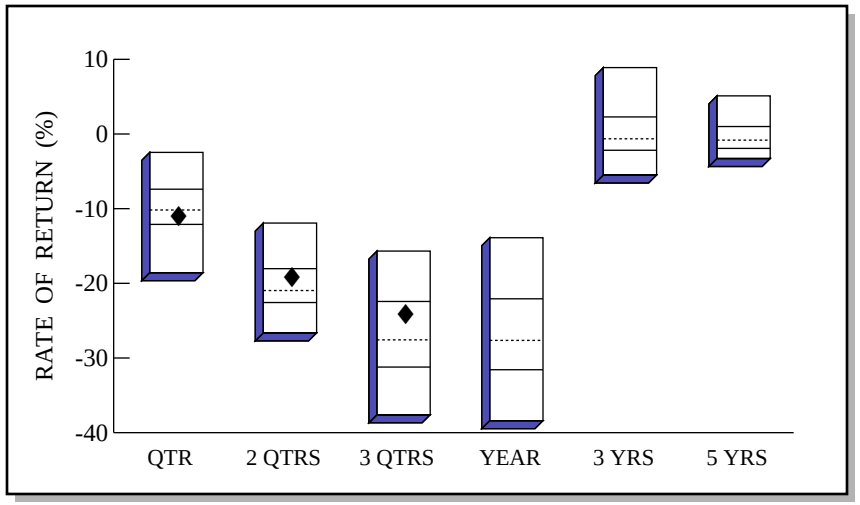

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 30,019,679

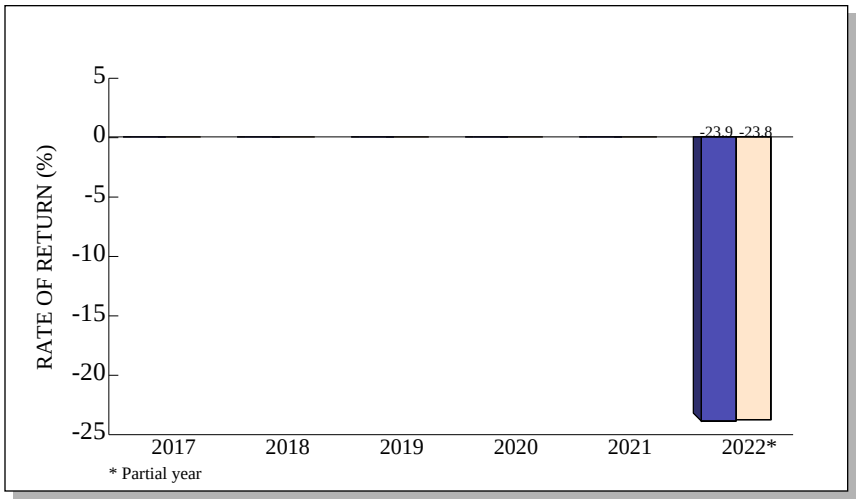
| | LAST QUARTER | PERIOD 12/21 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 24,296,474 | $ 28,534,365 |
| NET CONTRIBUTIONS | 0 | 0 |
| INVESTMENT RETURN | - 2,605,884 | - 6,843,775 |
| ENDING VALUE | $ 21,690,590 | $ 21,690,590 |
| INCOME | 308,144 | 560,310 |
| CAPITAL GAINS (LOSSES) | - 2,914,028 | - 7,404,085 |
| INVESTMENT RETURN | - 2,605,884 | - 6,843,775 |

# TOTAL RETURN COMPARISONS




Emerging Markets Universe



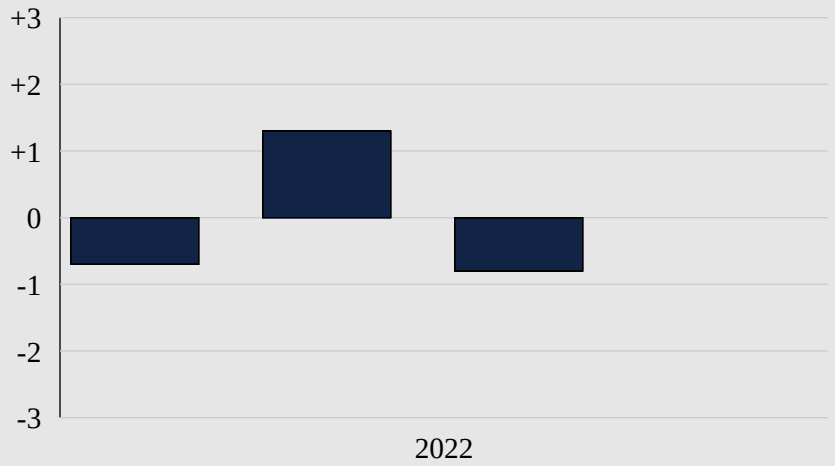

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -10.7 | -18.9 | -23.9 | ---- | ---- | ---- |
| (RANK) | (59) | (34) | (33) | ---- | ---- | ---- |
| 5TH %ILE | -2.5 | -11.9 | -15.7 | -13.9 | 8.9 | 5.1 |
| 25TH %ILE | -7.4 | -18.1 | -22.4 | -22.1 | 2.3 | 1.0 |
| MEDIAN | -10.2 | -21.0 | -27.6 | -27.6 | -0.7 | -0.8 |
| 75TH %ILE | -12.1 | -22.6 | -31.2 | -31.6 | -2.2 | -1.9 |
| 95TH %ILE | -18.6 | -26.7 | -37.6 | -38.4 | -5.5 | -3.3 |
| ***FTSE All Cap EM*** | ***-9.9*** | ***-19.4*** | ***-23.8*** | ***-24.2*** | ***-0.2*** | ***-0.4*** |

Emerging Markets Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: FTSE ALL CAP EM CHINA A INCLUSION

### VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **3** |
| **Quarters At or Above the Benchmark** | **1** |
| **Quarters Below the Benchmark** | **2** |
| **Batting Average** | **.333** |

### RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/22 | -6.2 | -5.5 | -0.7 |
| 6/22 | -9.2 | -10.5 | 1.3 |
| 9/22 | -10.7 | -9.9 | -0.8 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# BANNER RIDGE - DSCO FUND I OFFSHORE
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Banner Ridge DSCO Fund I Offshore portfolio was valued at $2,481,262.

## RELATIVE PERFORMANCE

### Total Fund

*Performance for the Banner Ridge DSCO Fund I Offshore portfolio and its benchmark, the Cambridge Private Equity Index were not available at the time of this report. A flat return of 0.0% was assumed for the quarter.*

Over the trailing year, the account returned 26.7%, which was 27.0% greater than the benchmark's -0.3% performance. Since March 2021, the account returned 70.5% on an annualized basis, while the Cambridge US Private Equity returned an annualized 13.7% over the same period.

# Private Equity Investor Report
# Banner Ridge DSCO Fund I (Offshore), LP

| | | | | |
|---|---|---|---|---|
| **Net IRR Since Inception:** | **32.73%** | | | |
| **Market Value:** | **$ 2,481,262** | | Report as of: | 9/30/2022 |
| Total Commitment: | $ 10,000,000 | | Last Statement: | 6/30/2022 |
| Committed Capital | $ 3,237,768 | 32.4% | | |
| Unfunded Commitment: | $ 6,762,232 | 67.6% | | |

| Date | Credit Deployed | % of Commitment | Capital Contributions | % of Commitment | Distributions |
|---|---|---|---|---|---|
| 2021-03-31 | $ 2,173,000 | 21.7% | $ - | - | $ - |
| 2021-12-17 | $ - | - | $ 1,064,768 | 10.6% | $ - |
| **Total** | **$ 2,173,000** | **21.7%** | **$ 1,064,768** | **10.6%** | **$ -** |

*This portfolio has been funded through a combination of capital contributions from Chesco and credit deployed by a credit facility. The market value shown here is a liquidating value, net of liabilities to the credit facility.*

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 03/21 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | 0.0 | -7.9 | 26.7 | ---- | ---- | 70.5 |
| **Total Portfolio - Net** | 0.0 | -8.7 | 22.9 | ---- | ---- | 59.6 |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 13.7 |
| **Private Equity - Gross** | 0.0 | -7.9 | 26.7 | ---- | ---- | 70.5 |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 13.7 |

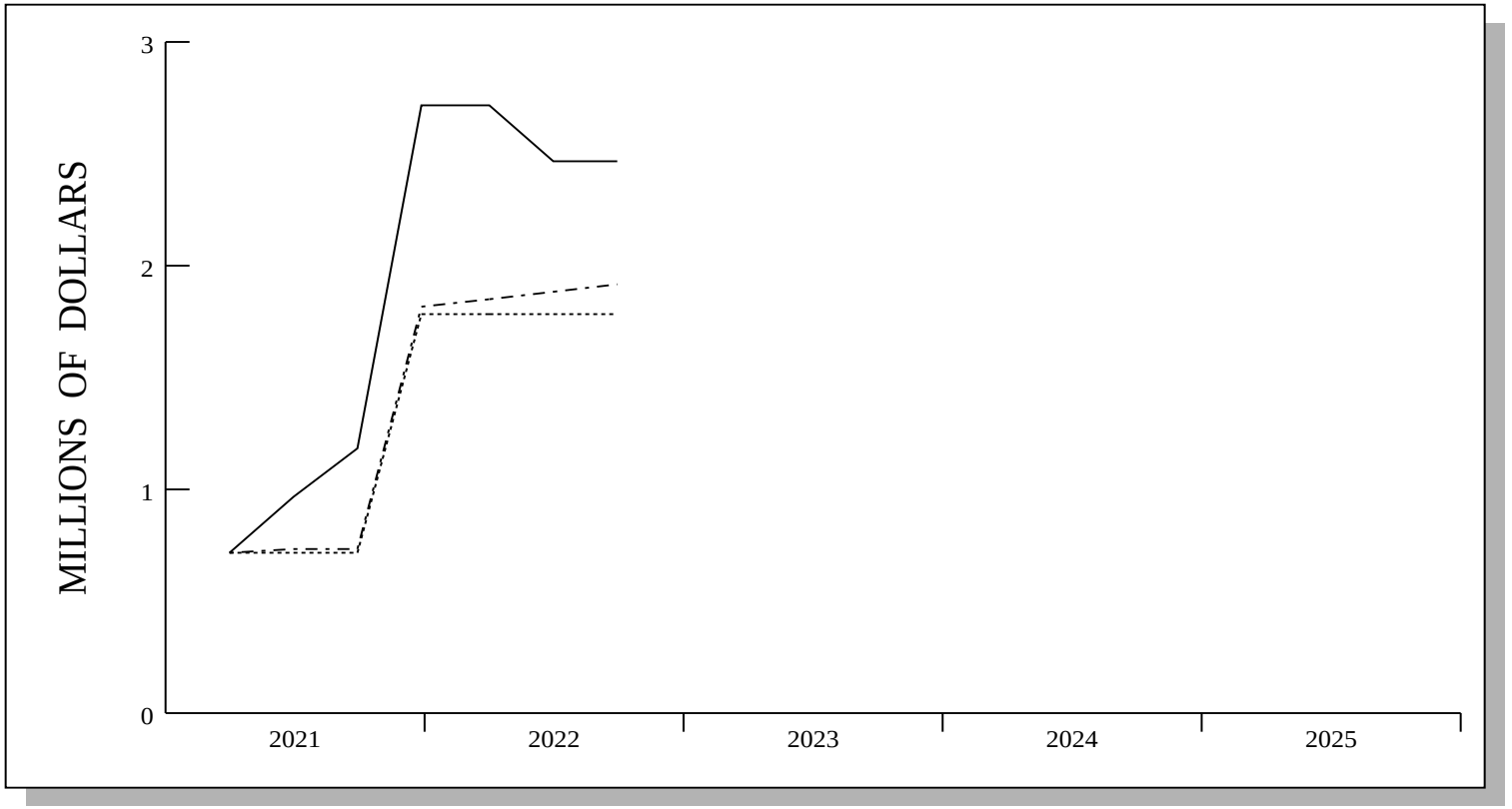
## ASSET ALLOCATION

| | | |
|---|---|---|
| Private Equity | 100.0% | $ 2,481,262 |
| Total Portfolio | 100.0% | $ 2,481,262 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 2,481,262 |
| Contribs / Withdrawals | 0 |
| Income | 0 |
| Capital Gains / Losses | 0 |
| Market Value 9/2022 | $ 2,481,262 |

## INVESTMENT GROWTH




ACTUAL RETURN
7.0%
0.0%

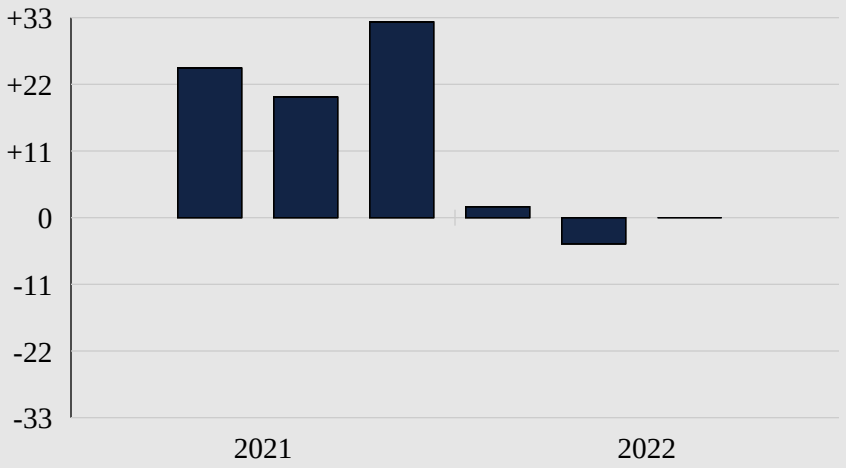
VALUE ASSUMING
7.0% RETURN $ 1,924,335

| | LAST QUARTER | PERIOD 3/21 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 2,481,262 | $ 723,675 |
| NET CONTRIBUTIONS | 0 | 1,064,768 |
| INVESTMENT RETURN | 0 | 692,819 |
| ENDING VALUE | $ 2,481,262 | $ 2,481,262 |
| INCOME | 0 | 0 |
| CAPITAL GAINS (LOSSES) | 0 | 692,819 |
| INVESTMENT RETURN | 0 | 692,819 |

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY

### VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **6** |
| **Quarters At or Above the Benchmark** | **5** |
| **Quarters Below the Benchmark** | **1** |
| **Batting Average** | **.833** |

### RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 6/21 | 39.5 | 14.8 | 24.7 |
| 9/21 | 25.9 | 6.0 | 19.9 |
| 12/21 | 37.6 | 5.3 | 32.3 |
| 3/22 | 1.1 | -0.7 | 1.8 |
| 6/22 | -8.9 | -4.6 | -4.3 |
| 9/22 | 0.0 | 0.0 | 0.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# BEN FRANKLIN TECHNOLOGY PARTNERS - VENTURE CHESCO
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

© 1990, 2022

## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Ben Franklin Technology Partners Venture Chesco portfolio was valued at $924,689.

## RELATIVE PERFORMANCE

### Total Fund

*A current quarter valuation for Ben Franklin Technology Partners Venture Chesco portfolio and its benchmark, the Cambridge Private Equity Index were not available at the time of this report. A flat return of 0.0% was assumed for both the portfolio and its index.*

Over the trailing year, the account returned -20.8%, which was 20.5% less than the benchmark's -0.3% performance. Since September 2018, the account returned -13.8% on an annualized basis, while the Cambridge US Private Equity returned an annualized 16.4% over the same period.

# Private Equity Investor Report
## Ben Franklin Technology Partners - Venture Chesco

| | | |
|---|---|---|
| **Net IRR Since Inception:** | **-13.90%** | Report as of: |
| **Market Value:** | **$924,689** | 9/30/2022 |
| Total Committed Capital: | $1,140,000 | Last Statement: |
| Cost Basis for Fees: | $1,040,000 | 6/30/2022 |

| Date | Capital Calls | Distributions | Fees |
|---|---|---|---|
| Q3 2018 | $ 100,000 | $ - | $ 1,775 |
| Q4 2018 | $ - | $ - | $ 1,538 |
| Q1 2019 | $ 205,000 | $ - | $ 2,038 |
| Q2 2019 | $ - | $ - | $ 2,288 |
| Q3 2019 | $ - | $ - | $ 2,288 |
| Q4 2019 | $ - | $ - | $ 2,288 |
| Q1 2020 | $ 25,000 | $ - | $ 1,326 |
| Q2 2020 | $ - | $ - | $ 2,475 |
| Q3 2020 | $ - | $ - | $ 2,125 |
| Q4 2020 | $ 250,000 | $ - | $ 4,663 |
| Q1 2021 | $ - | $ - | $ 6,138 |
| Q2 2021 | $ 280,000 | $ - | $ 6,525 |
| Q3 2021 | $ - | $ - | $ 7,925 |
| Q4 2021 | $ - | $ - | $ 8,550 |
| Q1 2022 | $ 280,000 | $ - | $ 7,800 |
| Q2 2022 | $ - | $ - | $ 7,800 |
| Q3 2022 | $ - | $ - | $ 7,800 |
| **Total** | **$ 1,140,000** | **$ -** | **$ 75,338** |

*Q3-2022 fee is estimated.*

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 09/18 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | 0.0 | 0.0 | -20.8 | -17.9 | ---- | -13.8 |
| **Total Portfolio - Net** | -0.8 | -2.7 | -24.0 | -21.2 | ---- | -17.2 |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 16.4 |
| **Private Equity - Gross** | 0.0 | 0.0 | -20.8 | -17.9 | ---- | -13.8 |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 16.4 |

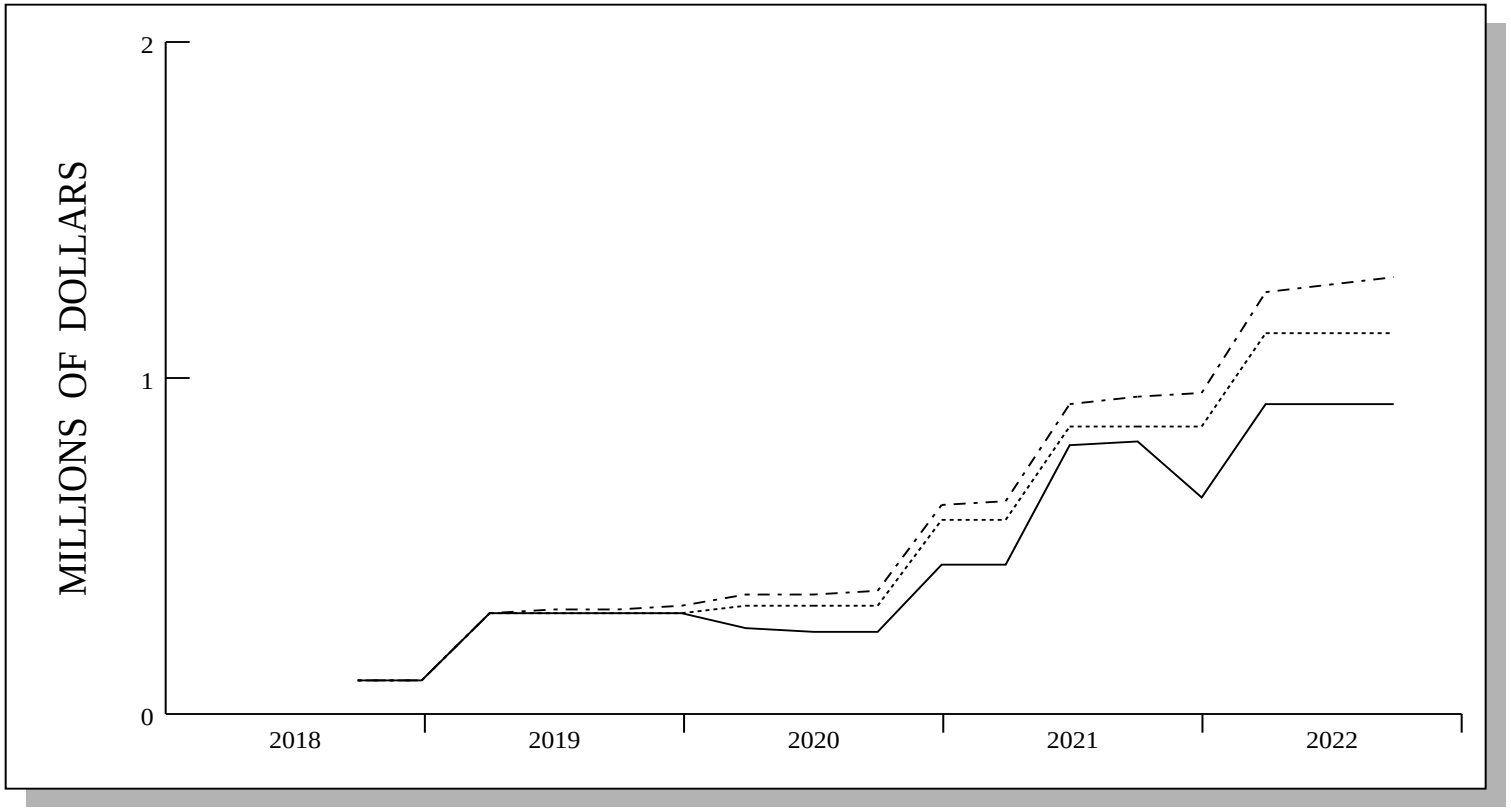
## ASSET ALLOCATION

| | | |
|---|---|---|
| Private Equity | 100.0% | $ 924,689 |
| Total Portfolio | 100.0% | $ 924,689 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 924,689 |
| Contribs / Withdrawals | 0 |
| Income | 0 |
| Capital Gains / Losses | 0 |
| Market Value 9/2022 | $ 924,689 |

## INVESTMENT GROWTH




ACTUAL RETURN
7.0%
0.0%

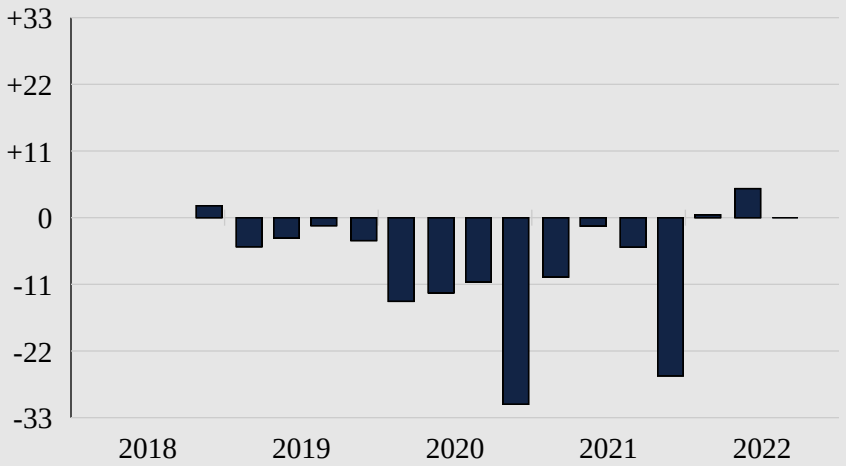
VALUE ASSUMING
7.0% RETURN $ 1,306,060

| | LAST QUARTER | PERIOD 9/18 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 924,689 | $ 100,000 |
| NET CONTRIBUTIONS | 0 | 1,040,000 |
| INVESTMENT RETURN | 0 | -215,311 |
| ENDING VALUE | $ 924,689 | $ 924,689 |
| INCOME | 0 | 0 |
| CAPITAL GAINS (LOSSES) | 0 | -215,311 |
| INVESTMENT RETURN | 0 | -215,311 |

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY

### VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **16** |
| **Quarters At or Above the Benchmark** | **4** |
| **Quarters Below the Benchmark** | **12** |
| **Batting Average** | **.250** |

### RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 12/18 | 0.0 | -2.0 | 2.0 |
| 3/19 | 0.0 | 4.8 | -4.8 |
| 6/19 | 0.0 | 3.4 | -3.4 |
| 9/19 | 0.0 | 1.3 | -1.3 |
| 12/19 | 0.0 | 3.8 | -3.8 |
| 3/20 | -23.9 | -10.1 | -13.8 |
| 6/20 | -3.0 | 9.4 | -12.4 |
| 9/20 | 1.2 | 11.8 | -10.6 |
| 12/20 | -18.6 | 12.2 | -30.8 |
| 3/21 | 0.2 | 10.0 | -9.8 |
| 6/21 | 13.4 | 14.8 | -1.4 |
| 9/21 | 1.1 | 6.0 | -4.9 |
| 12/21 | -20.8 | 5.3 | -26.1 |
| 3/22 | -0.2 | -0.7 | 0.5 |
| 6/22 | 0.2 | -4.6 | 4.8 |
| 9/22 | 0.0 | 0.0 | 0.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# SIGULER GUFF - SMALL BUYOUT OPPORTUNITIES FUND IV
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

*A current quarter statement was not available at the time of this report. The previous quarter's value was adjusted for flows and a 0% return was assumed.*

On September 30th, 2022, the Chester County Employees Retirement System's Siguler Guff Small Buyout Opportunities Fund IV portfolio was valued at $4,133,741, a decrease of $177,034 from the June ending value of $4,310,775. Last quarter, the account recorded total net withdrawals of $177,034 in contrast to flat net investment returns. Because there were no income receipts or capital gains or losses for the period, there were no net investment returns.

## RELATIVE PERFORMANCE

### Total Fund

*Performance for the Cambridge Private Equity Index was not available at the time of this report. A flat return of 0.0% was assumed for the quarter.*

Over the trailing year, the portfolio returned 26.6%, which was 26.9% above the benchmark's -0.3% return. Since December 2019, the portfolio returned 32.6% annualized, while the Cambridge US Private Equity returned an annualized 19.9% over the same period.

# Siguler Guff
# Small Buyout Opportunities IV

| | | |
|---|---|---|
| **Net IRR Since Inception:** | **26.41%** | |
| **Market Value:** | **$4,133,741** | |
| Total Commitment: | $5,000,000 | |
| Unfunded Commitment: | $1,808,577 | 36.2% |
| Report as of: | 9/30/2022 | |
| Last Statement: | 6/30/2022 | |

*Continued on the next page.*

| Date | Capital Calls | Recallable Distributions | Ordinary Distributions | Special Distributions | Interest Paid/(Received) |
|---|---|---|---|---|---|
| 2019-12-13 | $ 227,500 | $ - | $ - | $ - | $ - |
| 2020-01-27 | $ 182,500 | $ - | $ - | $ - | $ - |
| 2020-02-28 | $ 45,000 | $ - | $ - | $ - | $ - |
| 2020-03-17 | $ 190,000 | $ - | $ - | $ - | $ 464.54 |
| 2020-03-26 | $ - | $ - | $ - | $ 2,088.87 | $ - |
| 2020-04-13 | $ 77,500 | $ - | $ - | $ - | $ - |
| 2020-05-11 | $ 25,000 | $ - | $ - | $ - | $ - |
| 2020-05-26 | $ 50,000 | $ - | $ - | $ - | $ - |
| 2020-06-25 | $ - | $ - | $ - | $ 687.50 | $ - |
| 2020-07-13 | $ 25,000 | $ - | $ - | $ - | $ - |
| 2020-09-04 | $ 25,000 | $ - | $ - | $ - | $ - |
| 2020-09-24 | $ - | $ - | $ - | $ 687.50 | $ - |
| 2020-10-13 | $ 247,500 | $ - | $ - | $ - | $ - |
| 2020-12-16 | $ 65,000 | $ - | $ - | $ - | $ - |
| 2020-12-17 | $ - | $ - | $ - | $ 687.50 | $ - |
| 2021-01-20 | $ 77,500 | $ - | $ - | $ - | $ - |
| 2021-02-22 | $ 135,000 | $ - | $ - | $ - | $ - |
| 2021-03-22 | $ 72,500 | $ - | $ - | $ - | $ - |
| 2021-03-25 | $ - | $ - | $ - | $ 687.50 | $ - |
| 2021-04-23 | $ 50,000 | $ - | $ - | $ - | $ - |
| 2021-05-24 | $ 110,000 | $ 3,564 | $ 20,118 | $ - | $ - |
| 2021-06-17 | $ 197,500 | $ - | $ - | $ - | $ - |
| 2021-06-24 | $ - | $ - | $ - | $ 687.50 | $ - |
| 2021-07-21 | $ 47,500 | $ - | $ - | $ - | $ - |
| 2021-08-19 | $ 150,000 | $ - | $ - | $ - | $ - |
| 2021-09-24 | $ - | $ - | $ - | $ 687.50 | $ - |
| 2021-09-27 | $ 190,000 | $ - | $ - | $ - | $ - |
| 2021-10-25 | $ 92,500 | $ - | $ - | $ - | $ - |
| 2021-11-29 | $ 65,000 | $ - | $ - | $ - | $ - |
| 2021-12-17 | $ - | $ - | $ - | $ 687.50 | $ - |
| 2021-12-22 | $ 185,000 | $ - | $ 36,906 | $ - | $ - |
| 2022-01-18 | $ 105,000 | $ - | $ - | $ - | $ - |
| 2022-03-10 | $ 347,500 | $ - | $ - | $ - | $ - |
| 2022-03-18 | $ - | $ 10,843 | $ 42,404 | $ - | $ - |
| 2022-03-25 | $ - | $ - | $ - | $ 687.50 | $ - |
| 2022-04-19 | $ - | $ 21,887 | $ 35,457 | $ - | $ - |
| 2022-05-12 | $ 82,500 | $ 28,233 | $ - | $ - | $ - |
| 2022-06-17 | $ 80,000 | $ - | $ - | $ - | $ - |
| 2022-06-24 | $ - | $ - | $ - | $ 687.50 | $ - |

# Siguler Guff
# Small Buyout Opportunities IV

| | | |
|---|---|---|
| **Net IRR Since Inception:** | **26.41%** | |
| **Market Value:** | **$4,133,741** | |
| Total Commitment: | $5,000,000 | |
| Unfunded Commitment: | $1,808,577 | 36.2% |
| Report as of: | 9/30/2022 | |
| Last Statement: | 6/30/2022 | |

| Date | Capital Calls | Recallable Distributions | Ordinary Distributions | Special Distributions | Interest Paid/(Received) |
|---|---|---|---|---|---|
| 2022-07-15 | $ - | $ 24,359 | $ 194,326 | $ - | $ - |
| 2022-08-12 | $ 52,500 | $ - | $ - | $ - | $ - |
| 2022-09-13 | $ 122,500 | $ - | $ - | $ - | $ - |
| 2022-09-14 | $ 42,500 | $ 84,691 | $ 90,471 | $ - | $ - |
| 2022-09-23 | $ - | $ - | $ - | $ 687.50 | $ - |
| **Total** | **$ 3,365,000** | **$ 173,577** | **$ 419,682** | **$ 8,963.87** | **$ 464.54** |

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 12/19 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | 0.0 | 16.3 | 26.6 | ---- | ---- | 32.6 |
| **Total Portfolio - Net** | 0.0 | 13.7 | 21.9 | ---- | ---- | 24.1 |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 19.9 |
| **Private Equity - Gross** | 0.0 | 16.3 | 26.6 | ---- | ---- | 32.6 |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 19.9 |

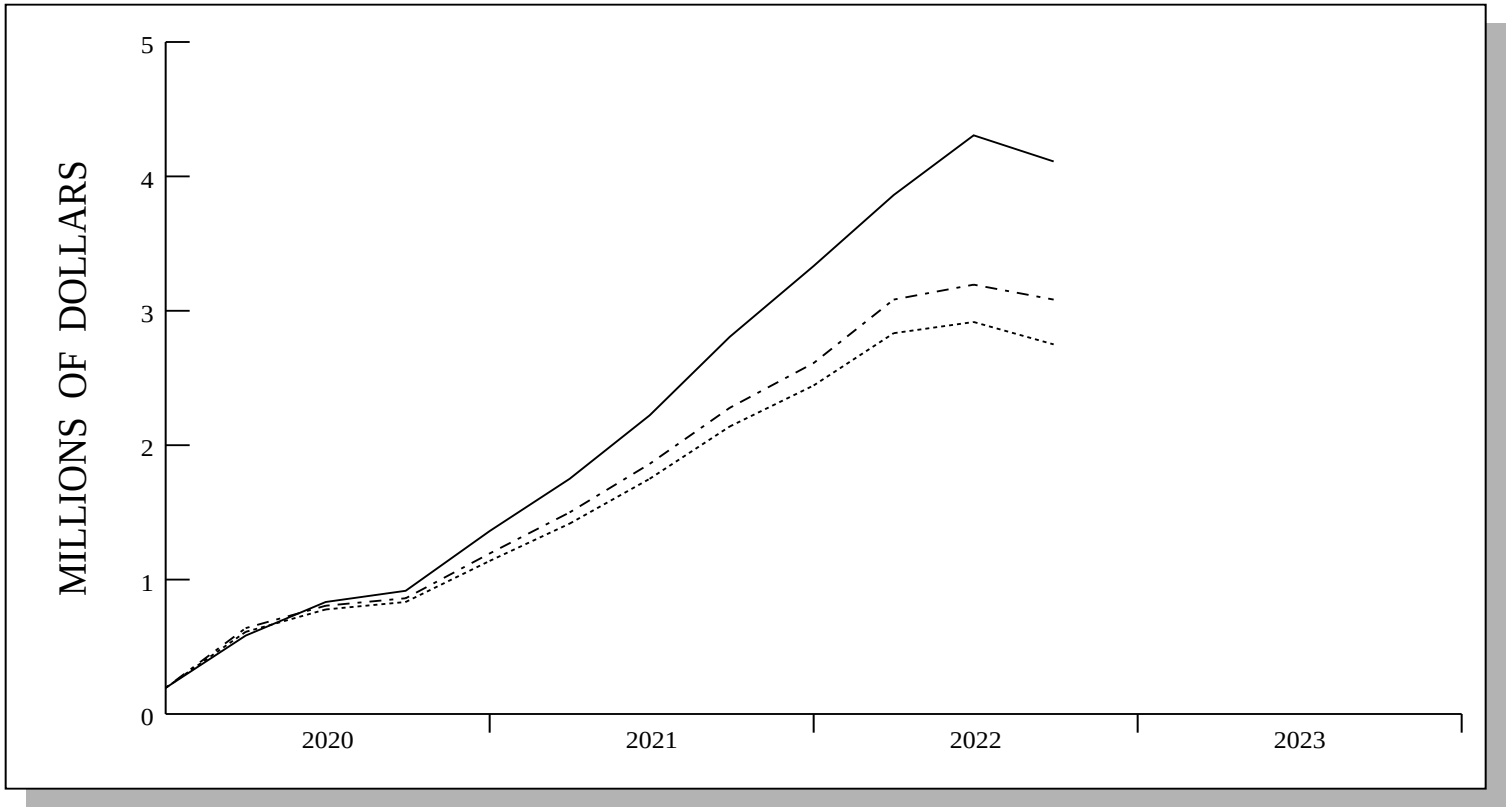
## ASSET ALLOCATION

| | | |
|---|---|---|
| Private Equity | 100.0% | $ 4,133,741 |
| Total Portfolio | 100.0% | $ 4,133,741 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 4,310,775 |
| Contribs / Withdrawals | -177,034 |
| Income | 0 |
| Capital Gains / Losses | 0 |
| Market Value 9/2022 | $ 4,133,741 |

## INVESTMENT GROWTH




ACTUAL RETURN
7.0%
0.0%

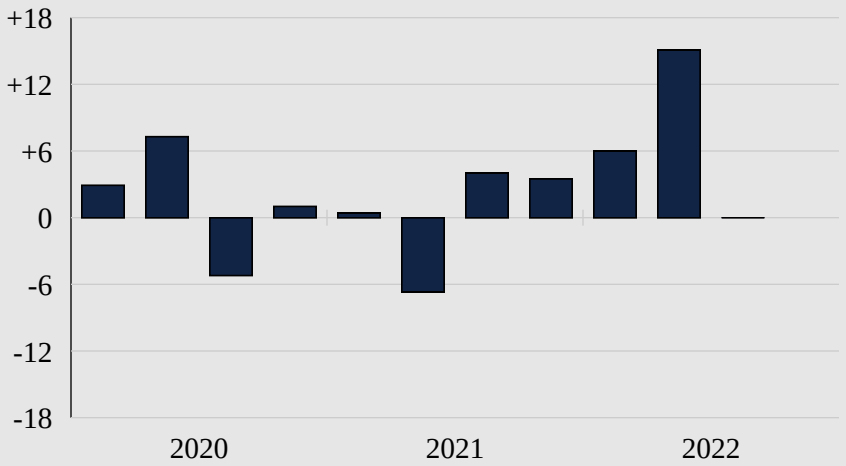
VALUE ASSUMING
7.0% RETURN $ 3,087,572

| | LAST QUARTER | PERIOD 12/19 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 4,310,775 | $ 220,066 |
| NET CONTRIBUTIONS | -177,034 | 2,536,429 |
| INVESTMENT RETURN | 0 | 1,377,246 |
| ENDING VALUE | $ 4,133,741 | $ 4,133,741 |
| INCOME | 0 | 0 |
| CAPITAL GAINS (LOSSES) | 0 | 1,377,246 |
| INVESTMENT RETURN | 0 | 1,377,246 |

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY

### VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **11** |
| **Quarters At or Above the Benchmark** | **9** |
| **Quarters Below the Benchmark** | **2** |
| **Batting Average** | **.818** |

### RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/20 | -7.2 | -10.1 | 2.9 |
| 6/20 | 16.7 | 9.4 | 7.3 |
| 9/20 | 6.6 | 11.8 | -5.2 |
| 12/20 | 13.2 | 12.2 | 1.0 |
| 3/21 | 10.4 | 10.0 | 0.4 |
| 6/21 | 8.1 | 14.8 | -6.7 |
| 9/21 | 10.0 | 6.0 | 4.0 |
| 12/21 | 8.8 | 5.3 | 3.5 |
| 3/22 | 5.3 | -0.7 | 6.0 |
| 6/22 | 10.5 | -4.6 | 15.1 |
| 9/22 | 0.0 | 0.0 | 0.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# TAURUS - PRIVATE MARKETS FUND
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Taurus Private Markets Fund was valued at $677,832, representing an increase of $100,000 from the June quarter's ending value of $577,832. Last quarter, the Fund posted net contributions totaling $100,000, without recording any net investment return. Since there were no income receipts or capital gains or losses during the period, there were no net investment returns.

## RELATIVE PERFORMANCE

### Total Fund

*Performance for the Taurus Private Equity portfolio and its benchmark, the Cambridge Private Equity Index were not available at the time of this report. A flat return of 0.0% was assumed for the quarter.*

Over the trailing year, the account returned 7.5%, which was 7.8% above the benchmark's -0.3% performance. Since June 2020, the portfolio returned 14.4% on an annualized basis, while the Cambridge US Private Equity returned an annualized 25.7% over the same period.

# Private Equity Investor Report
# Taurus Private Markets Fund, LP

| | | | | |
|---|---|---|---|---|
| **Net IRR Since Inception:** | | **2.44%** | Report as of: | 9/30/2022 |
| **Market Value:** | **$** | **677,832** | Last Statement: | 6/30/2022 |
| Total Commitment: | $ | 2,000,000 | | |
| Unfunded Commitment: | $ | 1,340,000 | 67.0% | |

| Date | Capital Calls | % of Commitment | Distributions | Interest Paid / (Received) |
|---|---|---|---|---|
| 2020-06-26 | $ 165,000 | 8.3% | $ - | $ 10,479 |
| 2020-11-30 | $ 45,000 | 2.3% | $ - | $ (4,053) |
| 2021-05-13 | $ 80,000 | 4.0% | $ - | $ - |
| 2021-07-28 | $ 50,000 | 2.5% | $ - | $ (9,455) |
| 2021-10-15 | $ 60,000 | 3.0% | $ - | $ - |
| 2021-11-05 | $ 160,000 | 8.0% | $ - | $ - |
| 2022-08-02 | $ 100,000 | 5.0% | $ - | $ - |
| **Total** | **$ 660,000** | **33.0%** | **$ -** | **$ (3,029)** |

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 06/20 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | 0.0 | 1.7 | 7.5 | ---- | ---- | 14.4 |
| **Total Portfolio - Net** | -0.2 | 1.0 | 6.6 | ---- | ---- | 13.3 |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 25.7 |
| **Private Equity - Gross** | 0.0 | 1.7 | 7.5 | ---- | ---- | 14.4 |
| Cambridge PE | 0.0 | -5.3 | -0.3 | 19.6 | 16.8 | 25.7 |

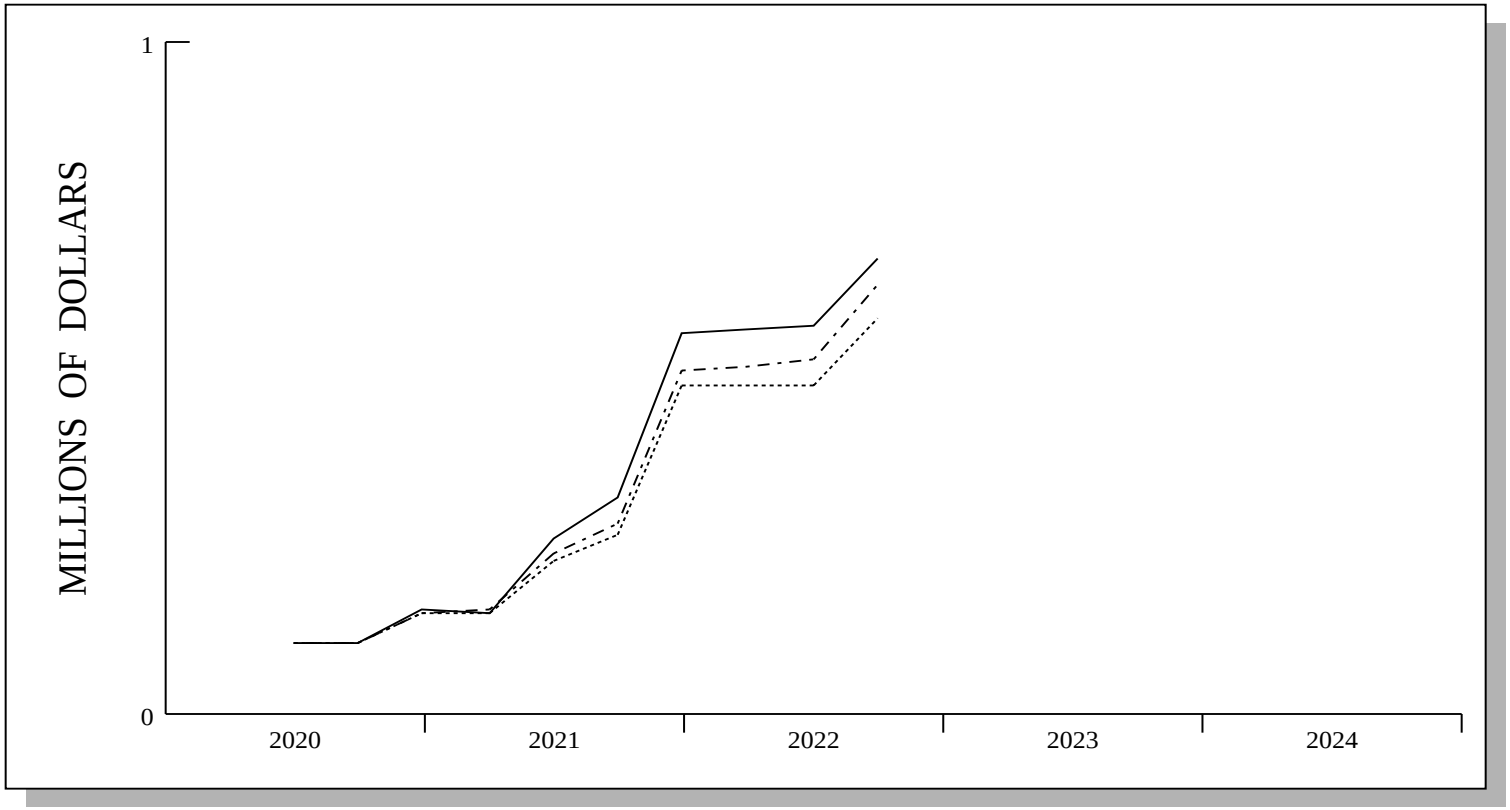
## ASSET ALLOCATION

| | | |
|---|---|---|
| Private Equity | 100.0% | $ 677,832 |
| Total Portfolio | 100.0% | $ 677,832 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 577,832 |
| Contribs / Withdrawals | 100,000 |
| Income | 0 |
| Capital Gains / Losses | 0 |
| Market Value 9/2022 | $ 677,832 |

## INVESTMENT GROWTH




ACTUAL RETURN
7.0%
0.0%

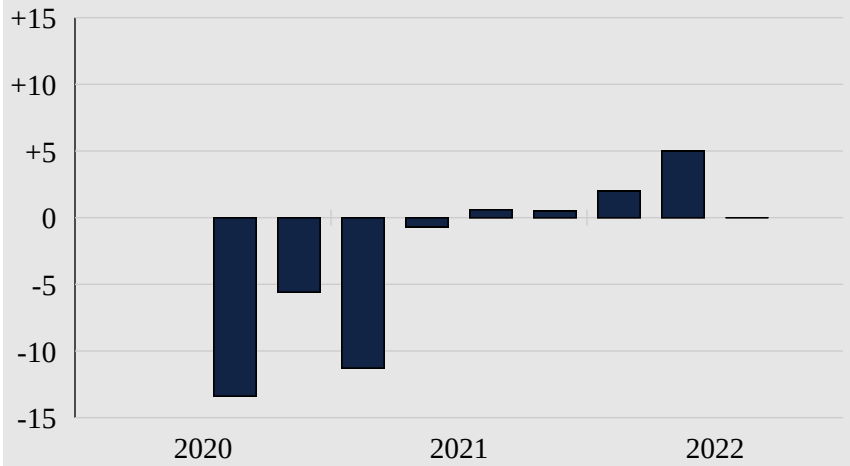
VALUE ASSUMING
7.0% RETURN $ 640,118

| | LAST QUARTER | PERIOD 6/20 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 577,832 | $ 109,242 |
| NET CONTRIBUTIONS | 100,000 | 481,492 |
| INVESTMENT RETURN | 0 | 87,098 |
| ENDING VALUE | $ 677,832 | $ 677,832 |
| INCOME | 0 | 0 |
| CAPITAL GAINS (LOSSES) | 0 | 87,098 |
| INVESTMENT RETURN | 0 | 87,098 |

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY

### VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **9** |
| **Quarters At or Above the Benchmark** | **5** |
| **Quarters Below the Benchmark** | **4** |
| **Batting Average** | **.556** |

### RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 9/20 | -1.6 | 11.8 | -13.4 |
| 12/20 | 6.6 | 12.2 | -5.6 |
| 3/21 | -1.3 | 10.0 | -11.3 |
| 6/21 | 14.1 | 14.8 | -0.7 |
| 9/21 | 6.6 | 6.0 | 0.6 |
| 12/21 | 5.8 | 5.3 | 0.5 |
| 3/22 | 1.3 | -0.7 | 2.0 |
| 6/22 | 0.4 | -4.6 | 5.0 |
| 9/22 | 0.0 | 0.0 | 0.0 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# BRANDES - CORE PLUS FIXED INCOME
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Brandes Core Plus Fixed Income portfolio was valued at $35,956,877, a decrease of $6,284,013 from the June ending value of $42,240,890. Last quarter, the account recorded total net withdrawals of $5,020,963 in addition to $1,263,050 in net investment losses. The fund's net investment loss was a result of income receipts totaling $348,839 and realized and unrealized capital losses totaling $1,611,889.

## RELATIVE PERFORMANCE

### Total Fund

During the third quarter, the Brandes Core Plus Fixed Income portfolio lost 3.4%, which was 1.4% greater than the Bloomberg Aggregate Index's return of -4.8% and ranked in the 4th percentile of the Core Fixed Income universe. Over the trailing year, the portfolio returned -11.4%, which was 3.2% greater than the benchmark's -14.6% performance, and ranked in the 2nd percentile. Since March 2018, the account returned 0.1% per annum and ranked in the 47th percentile. For comparison, the Bloomberg Aggregate Index returned an annualized -0.1% over the same time frame.

## ANALYSIS

At the end of the quarter, approximately 65% of the total bond portfolio was comprised of USG quality securities. The remainder of the portfolio consisted of corporate securities, rated AA through less than BBB, giving the portfolio an overall average quality rating of AAA-AA. The average maturity of the portfolio was 6.39 years, less than the Bloomberg Barclays Aggregate Index's 8.52-year maturity. The average coupon was 3.29%.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 03/18 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -3.4 | -11.2 | -11.4 | -2.1 | ---- | 0.1 |
| *CORE FIXED INCOME RANK* | ( 4) | ( 3) | ( 2) | (22) | ---- | (47) |
| **Total Portfolio - Net** | -3.5 | -11.3 | -11.6 | -2.3 | ---- | -0.1 |
| Aggregate Index | -4.8 | -14.6 | -14.6 | -3.3 | -0.3 | -0.1 |
| **Fixed Income - Gross** | -3.4 | -11.2 | -11.4 | -2.1 | ---- | 0.1 |
| *CORE FIXED INCOME RANK* | ( 4) | ( 3) | ( 2) | (22) | ---- | (47) |
| Aggregate Index | -4.8 | -14.6 | -14.6 | -3.3 | -0.3 | -0.1 |

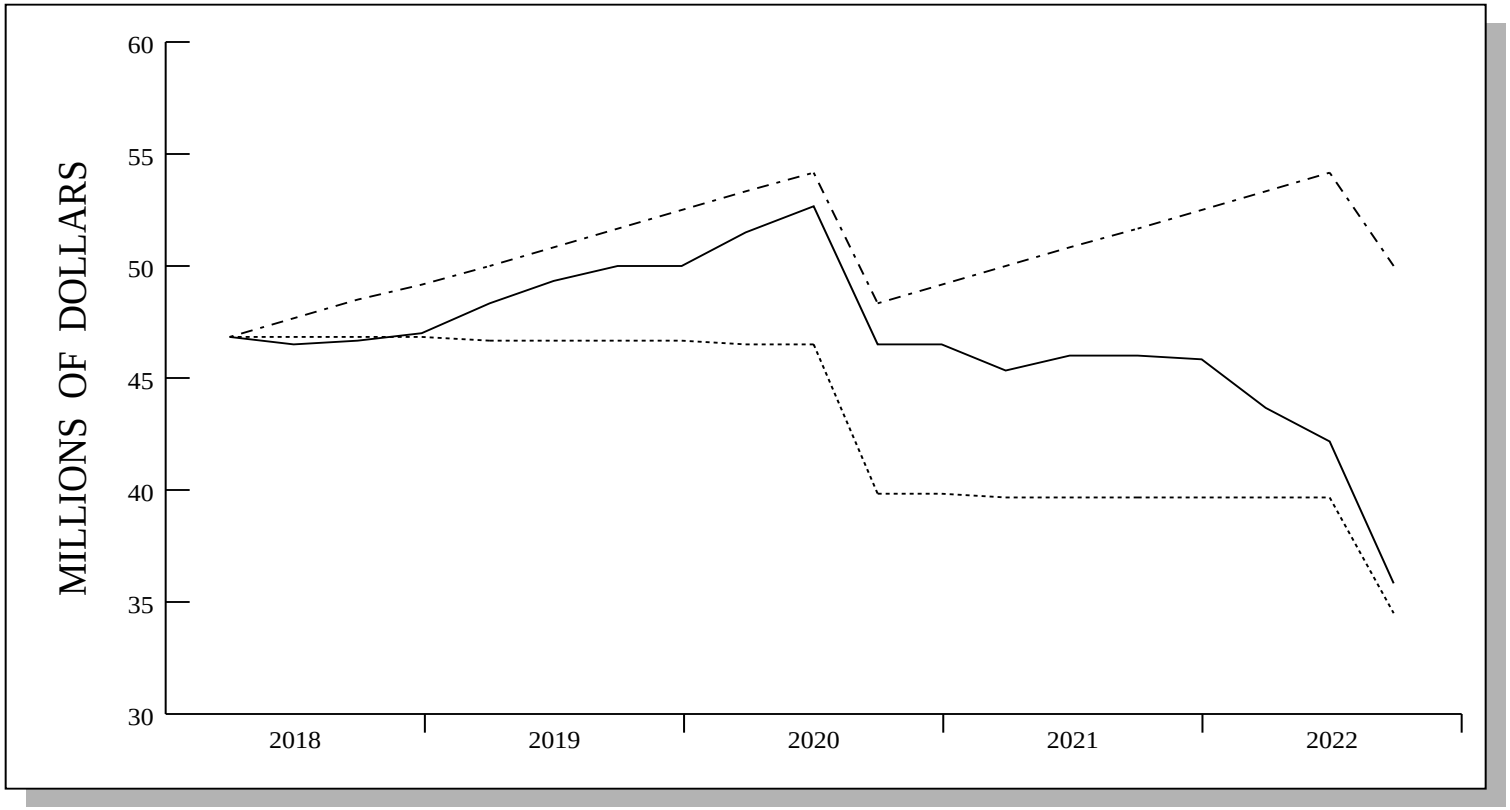
## ASSET ALLOCATION

| | | |
|---|---|---|
| Fixed Income | 100.0% | $ 35,956,877 |
| Total Portfolio | 100.0% | $ 35,956,877 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 42,240,890 |
| Contribs / Withdrawals | - 5,020,963 |
| Income | 348,839 |
| Capital Gains / Losses | - 1,611,889 |
| Market Value 9/2022 | $ 35,956,877 |

## INVESTMENT GROWTH

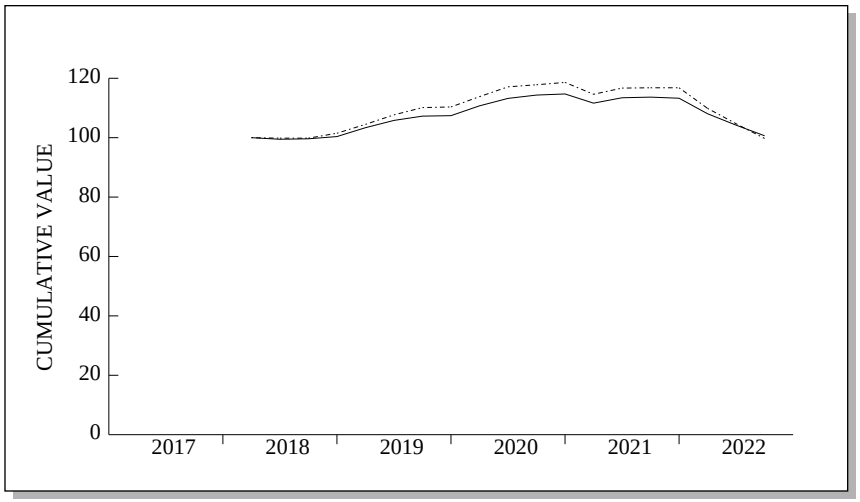


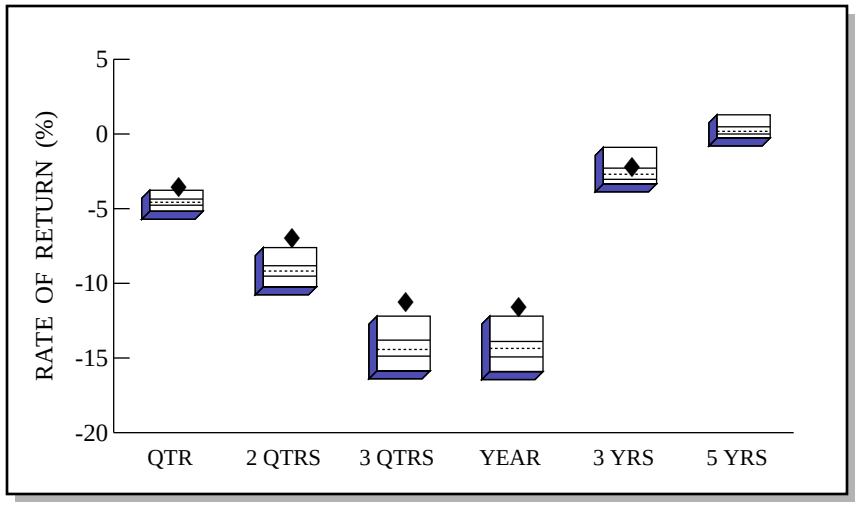

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 50,141,855

| | LAST QUARTER | PERIOD 3/18 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 42,240,890 | $ 46,919,863 |
| NET CONTRIBUTIONS | - 5,020,963 | - 12,270,847 |
| INVESTMENT RETURN | - 1,263,050 | 1,307,861 |
| ENDING VALUE | $ 35,956,877 | $ 35,956,877 |
| INCOME | 348,839 | 2,303,346 |
| CAPITAL GAINS (LOSSES) | - 1,611,889 | -995,485 |
| INVESTMENT RETURN | - 1,263,050 | 1,307,861 |

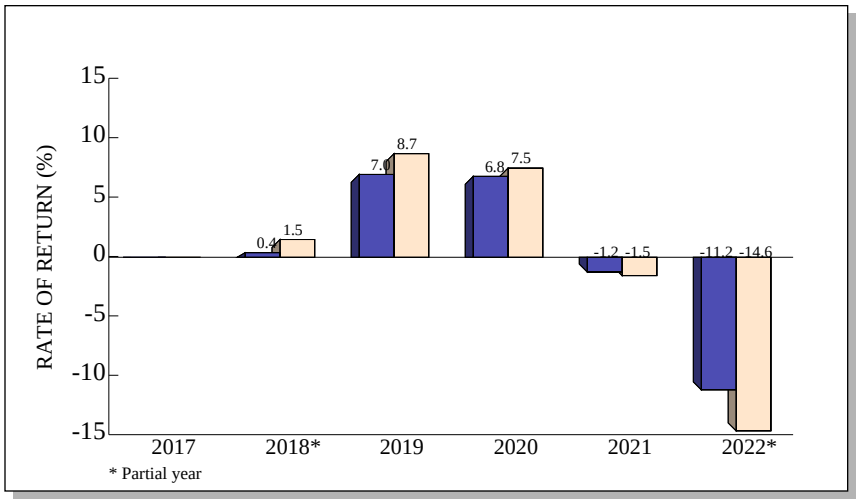
# TOTAL RETURN COMPARISONS




Core Fixed Income Universe

PORTFOLIO
AGGREGATE INDEX



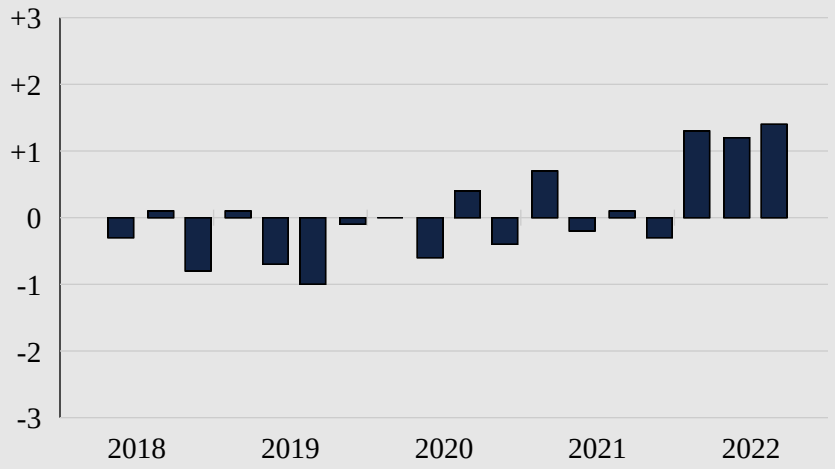

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -3.4 | -6.8 | -11.2 | -11.4 | -2.1 | ---- |
| (RANK) | ( 4) | ( 4) | ( 3) | ( 2) | (22) | ---- |
| 5TH %ILE | -3.8 | -7.6 | -12.2 | -12.2 | -0.9 | 1.3 |
| 25TH %ILE | -4.4 | -8.8 | -13.8 | -13.9 | -2.3 | 0.5 |
| MEDIAN | -4.6 | -9.2 | -14.4 | -14.4 | -2.7 | 0.2 |
| 75TH %ILE | -4.8 | -9.5 | -14.9 | -14.9 | -3.0 | 0.0 |
| 95TH %ILE | -5.2 | -10.2 | -15.9 | -15.9 | -3.3 | -0.3 |
| ***Agg*** | ***-4.8*** | ***-9.2*** | ***-14.6*** | ***-14.6*** | ***-3.3*** | ***-0.3*** |

Core Fixed Income Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

## COMPARATIVE BENCHMARK: BLOOMBERG AGGREGATE INDEX

### VARIATION FROM BENCHMARK

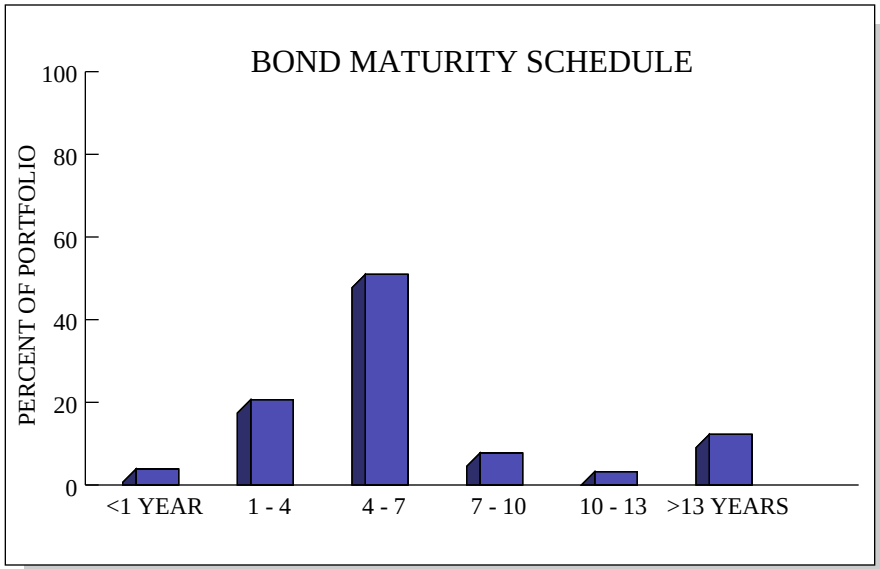


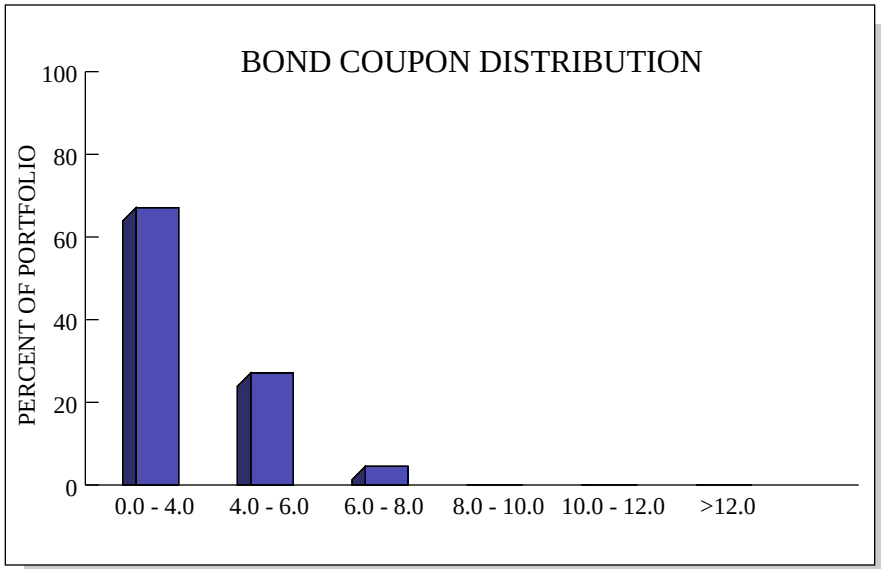

| | |
|---|---|
| **Total Quarters Observed** | **18** |
| **Quarters At or Above the Benchmark** | **9** |
| **Quarters Below the Benchmark** | **9** |
| **Batting Average** | **.500** |

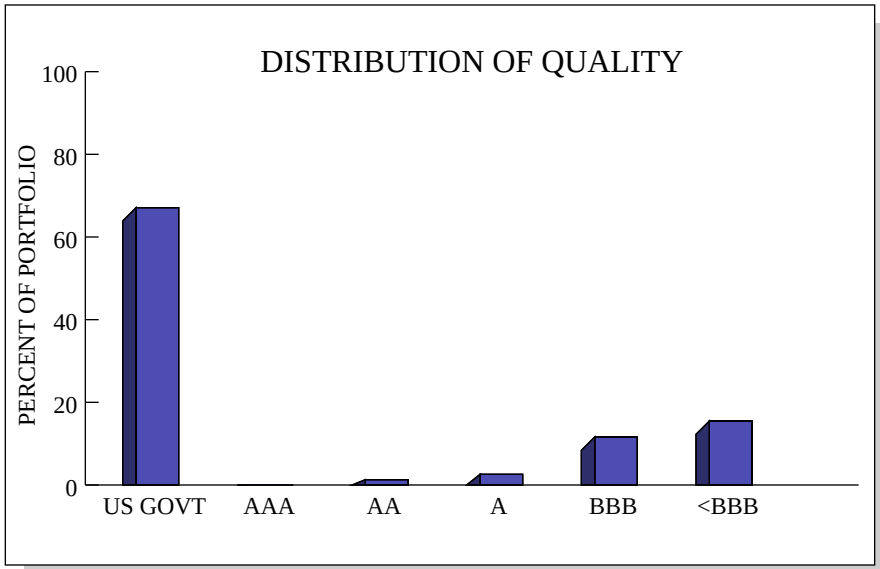
### RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 6/18 | -0.5 | -0.2 | -0.3 |
| 9/18 | 0.1 | 0.0 | 0.1 |
| 12/18 | 0.8 | 1.6 | -0.8 |
| 3/19 | 3.0 | 2.9 | 0.1 |
| 6/19 | 2.4 | 3.1 | -0.7 |
| 9/19 | 1.3 | 2.3 | -1.0 |
| 12/19 | 0.1 | 0.2 | -0.1 |
| 3/20 | 3.1 | 3.1 | 0.0 |
| 6/20 | 2.3 | 2.9 | -0.6 |
| 9/20 | 1.0 | 0.6 | 0.4 |
| 12/20 | 0.3 | 0.7 | -0.4 |
| 3/21 | -2.7 | -3.4 | 0.7 |
| 6/21 | 1.6 | 1.8 | -0.2 |
| 9/21 | 0.2 | 0.1 | 0.1 |
| 12/21 | -0.3 | 0.0 | -0.3 |
| 3/22 | -4.6 | -5.9 | 1.3 |
| 6/22 | -3.5 | -4.7 | 1.2 |
| 9/22 | -3.4 | -4.8 | 1.4 |

## BOND CHARACTERISTICS




| | PORTFOLIO | AGGREGATE INDEX |
|---|---|---|
| No. of Securities | 49 | 12,667 |
| Duration | 5.15 | 6.20 |
| YTM | 5.07 | 4.75 |
| Average Coupon | 3.29 | 2.58 |
| Avg Maturity / WAL | 6.39 | 8.52 |
| Average Quality | AAA-AA | AA |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# BIRCH RUN - INTERMEDIATE FIXED INCOME
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Birch Run Intermediate Fixed Income portfolio was valued at $38,061,678, a decrease of $1,135,796 from the June ending value of $39,197,474. Last quarter, the account recorded total net withdrawals of $19,501 in addition to $1,116,295 in net investment losses. The fund's net investment loss was a result of income receipts totaling $225,524 and realized and unrealized capital losses totaling $1,341,819.

## RELATIVE PERFORMANCE

### Total Fund

During the third quarter, the Birch Run Intermediate Fixed Income portfolio lost 2.8%, which was 0.3% greater than the Intermediate Gov/Credit Index's return of -3.1% and ranked in the 28th percentile of the Intermediate Fixed Income universe. Over the trailing year, the portfolio returned -9.0%, which was 1.1% greater than the benchmark's -10.1% performance, and ranked in the 16th percentile. Since June 2017, the account returned 1.0% per annum and ranked in the 5th percentile. For comparison, the Intermediate Gov/Credit returned an annualized 0.5% over the same time frame.

## ANALYSIS

At the end of the quarter, nearly 70% of the total bond portfolio was comprised of USG quality securities. The remainder of the portfolio consisted of corporate securities, rated AA through BBB, giving the portfolio an overall average quality rating of AAA. The average maturity of the portfolio was 3.69 years, less than the Bloomberg Barclays Intermediate Gov/Credit Index's 4.28-year maturity. The average coupon was 1.60%.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 06/17 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -2.8 | -8.4 | -9.0 | -0.7 | 0.9 | 1.0 |
| *INTERMEDIATE FIXED RANK* | (28) | (14) | (16) | (13) | (20) | ( 5) |
| **Total Portfolio - Net** | -2.9 | -8.5 | -9.2 | -0.9 | 0.7 | 0.8 |
| Int Gov/Credit | -3.1 | -9.6 | -10.1 | -1.6 | 0.4 | 0.5 |
| **Fixed Income - Gross** | -2.8 | -8.4 | -9.0 | -0.7 | 0.9 | 1.0 |
| *INTERMEDIATE FIXED RANK* | (28) | (14) | (16) | (13) | (20) | ( 5) |
| Int Gov/Credit | -3.1 | -9.6 | -10.1 | -1.6 | 0.4 | 0.5 |

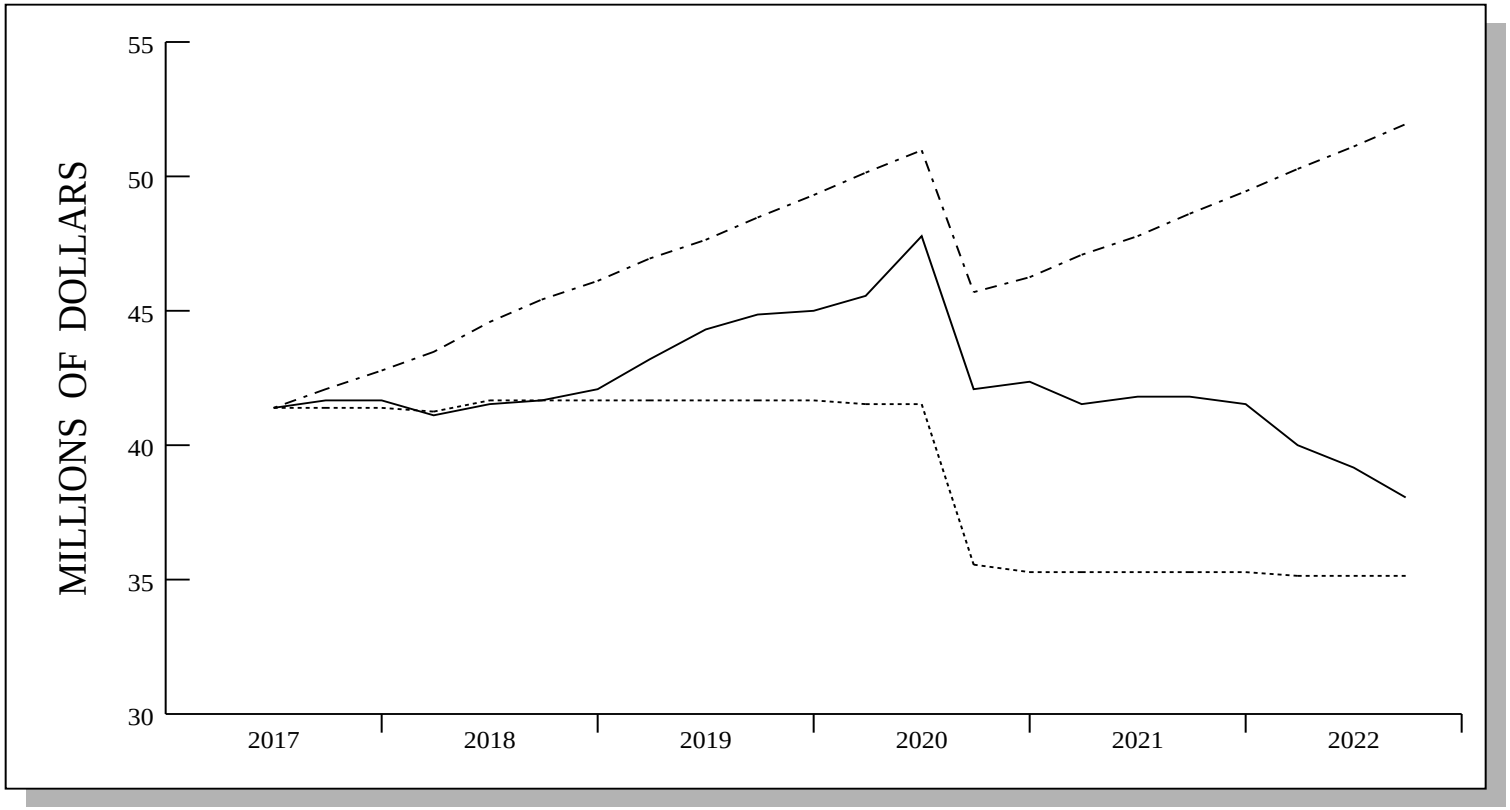
## ASSET ALLOCATION

| | | |
|---|---|---|
| Fixed Income | 100.0% | $ 38,061,678 |
| Total Portfolio | 100.0% | $ 38,061,678 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 39,197,474 |
| Contribs / Withdrawals | - 19,501 |
| Income | 225,524 |
| Capital Gains / Losses | - 1,341,819 |
| Market Value 9/2022 | $ 38,061,678 |

## INVESTMENT GROWTH

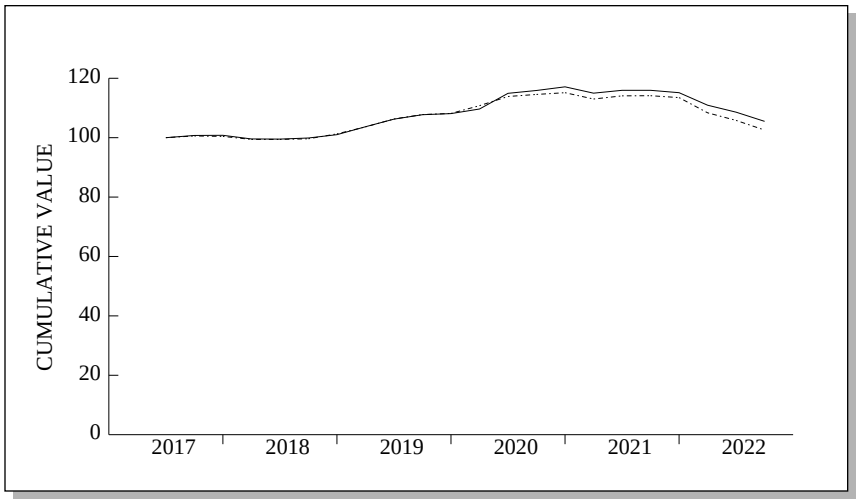


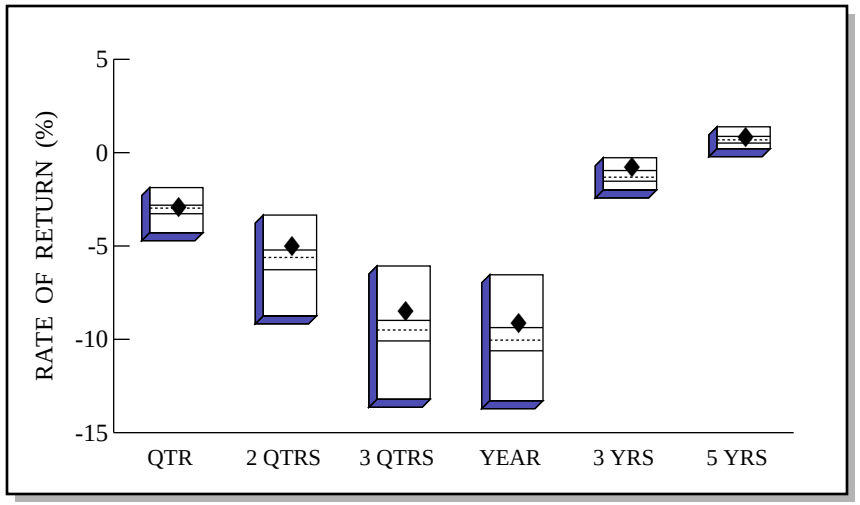

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 51,996,730

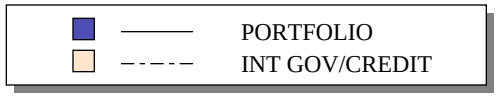
| | LAST QUARTER | PERIOD 6/17 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 39,197,474 | $ 41,449,315 |
| NET CONTRIBUTIONS | - 19,501 | - 6,230,448 |
| INVESTMENT RETURN | - 1,116,295 | 2,842,811 |
| ENDING VALUE | $ 38,061,678 | $ 38,061,678 |
| INCOME | 225,524 | 1,355,185 |
| CAPITAL GAINS (LOSSES) | - 1,341,819 | 1,487,626 |
| INVESTMENT RETURN | - 1,116,295 | 2,842,811 |

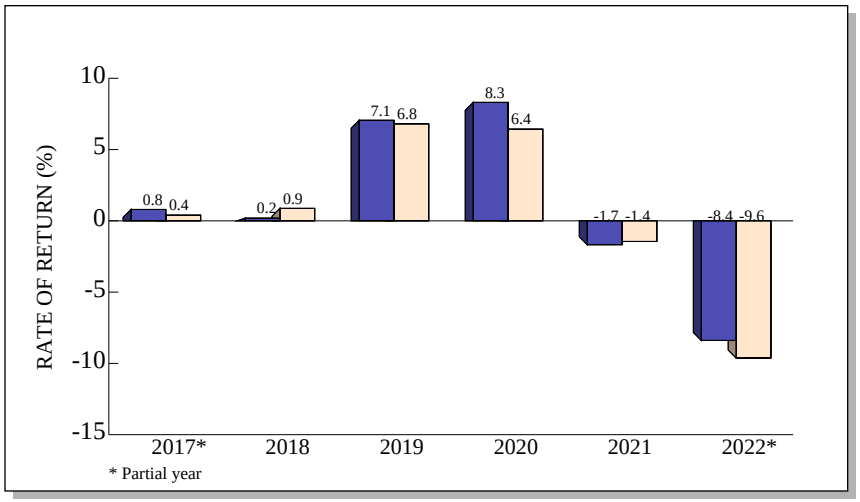
# TOTAL RETURN COMPARISONS




Intermediate Fixed Universe



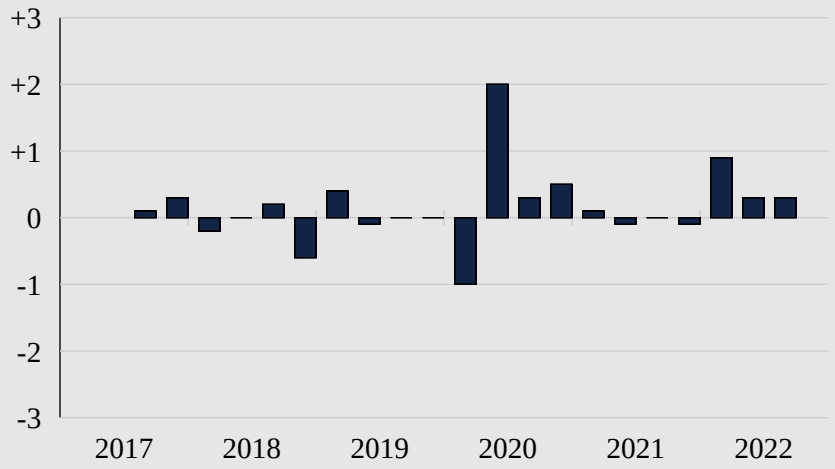

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -2.8 | -4.9 | -8.4 | -9.0 | -0.7 | 0.9 |
| (RANK) | (28) | (17) | (14) | (16) | (13) | (20) |
| 5TH %ILE | -1.9 | -3.4 | -6.1 | -6.5 | -0.3 | 1.4 |
| 25TH %ILE | -2.8 | -5.2 | -9.0 | -9.4 | -1.0 | 0.9 |
| MEDIAN | -3.0 | -5.6 | -9.5 | -10.0 | -1.3 | 0.7 |
| 75TH %ILE | -3.3 | -6.3 | -10.1 | -10.6 | -1.5 | 0.5 |
| 95TH %ILE | -4.3 | -8.7 | -13.2 | -13.3 | -2.0 | 0.2 |
| ***Int G/C*** | ***-3.1*** | ***-5.4*** | ***-9.6*** | ***-10.1*** | ***-1.6*** | ***0.4*** |

Intermediate Fixed Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: INTERMEDIATE GOV/CREDIT**

## VARIATION FROM BENCHMARK

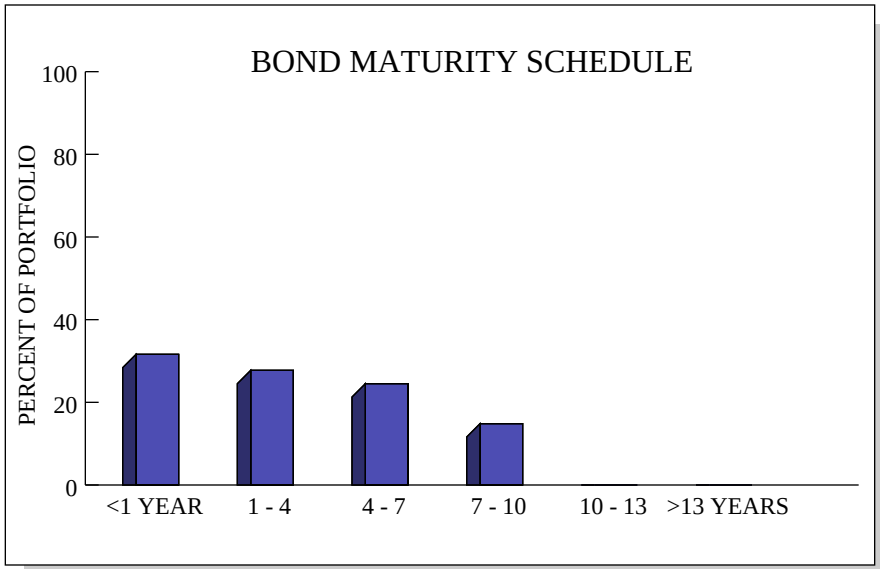


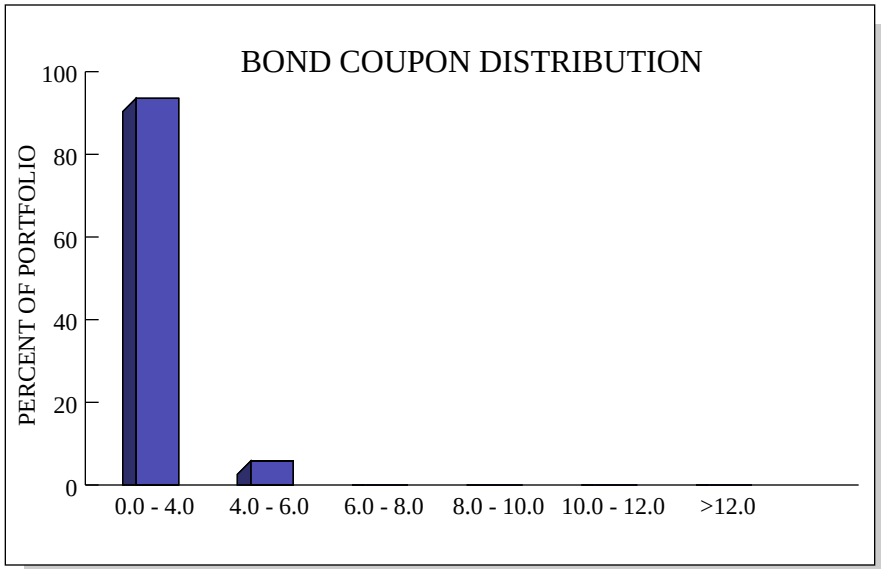

| | |
|---|---|
| **Total Quarters Observed** | **21** |
| **Quarters At or Above the Benchmark** | **15** |
| **Quarters Below the Benchmark** | **6** |
| **Batting Average** | **.714** |

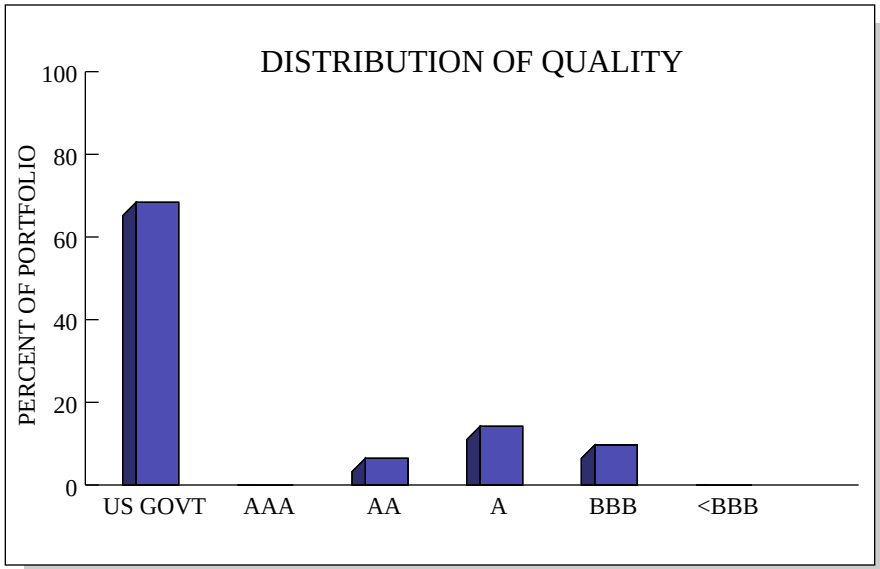
## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 9/17 | 0.7 | 0.6 | 0.1 |
| 12/17 | 0.1 | -0.2 | 0.3 |
| 3/18 | -1.2 | -1.0 | -0.2 |
| 6/18 | 0.0 | 0.0 | 0.0 |
| 9/18 | 0.4 | 0.2 | 0.2 |
| 12/18 | 1.1 | 1.7 | -0.6 |
| 3/19 | 2.7 | 2.3 | 0.4 |
| 6/19 | 2.5 | 2.6 | -0.1 |
| 9/19 | 1.4 | 1.4 | 0.0 |
| 12/19 | 0.4 | 0.4 | 0.0 |
| 3/20 | 1.4 | 2.4 | -1.0 |
| 6/20 | 4.8 | 2.8 | 2.0 |
| 9/20 | 0.9 | 0.6 | 0.3 |
| 12/20 | 1.0 | 0.5 | 0.5 |
| 3/21 | -1.8 | -1.9 | 0.1 |
| 6/21 | 0.9 | 1.0 | -0.1 |
| 9/21 | 0.0 | 0.0 | 0.0 |
| 12/21 | -0.7 | -0.6 | -0.1 |
| 3/22 | -3.6 | -4.5 | 0.9 |
| 6/22 | -2.1 | -2.4 | 0.3 |
| 9/22 | -2.8 | -3.1 | 0.3 |

## BOND CHARACTERISTICS




| | PORTFOLIO | INT GOV/CREDIT |
|---|---|---|
| No. of Securities | 75 | 5,579 |
| Duration | 3.31 | 3.86 |
| YTM | 4.69 | 4.61 |
| Average Coupon | 1.60 | 2.17 |
| Avg Maturity / WAL | 3.69 | 4.28 |
| Average Quality | AAA | AA |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# VANGUARD - SHORT-TERM CORPORATE BOND
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

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## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Vanguard Short-Term Corporate Bond portfolio was valued at $11,647,030, a decrease of $454,229 from the June ending value of $12,101,259. Last quarter, the account recorded total net withdrawals of $222,500 in addition to $231,729 in net investment losses. The fund's net investment loss was a result of income receipts totaling $60,005 and realized and unrealized capital losses totaling $291,734.

## RELATIVE PERFORMANCE

*The ticker for this investment is VSTBX.*

### Total Fund

During the third quarter, the Vanguard Short-Term Corporate Bond portfolio lost 2.0%, which was 0.3% greater than the ML/BoA 1-5 Year Treasury Index's return of -2.3% and ranked in the 90th percentile of the Short-Term Fixed Income universe. Over the trailing year, the portfolio returned -8.0%, which was 1.2% less than the benchmark's -6.8% performance, and ranked in the 99th percentile. Since December 2017, the account returned 0.9% per annum and ranked in the 41st percentile. For comparison, the ML/BoA 1-5 Year Treasury returned an annualized 0.5% over the same time frame.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 12/17 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -2.0 | -7.4 | -8.0 | -0.8 | ---- | 0.9 |
| *SHORT-TERM FIXED RANK* | (90) | (99) | (99) | (95) | ---- | (41) |
| **Total Portfolio - Net** | -2.0 | -7.4 | -8.1 | -0.8 | ---- | 0.9 |
| ML/BoA 1-5 Trea | -2.3 | -6.1 | -6.8 | -1.0 | 0.4 | 0.5 |
| **Fixed Income - Gross** | -2.0 | -7.4 | -8.0 | -0.8 | ---- | 0.9 |
| *SHORT-TERM FIXED RANK* | (90) | (99) | (99) | (95) | ---- | (41) |
| ML/BoA 1-5 Trea | -2.3 | -6.1 | -6.8 | -1.0 | 0.4 | 0.5 |

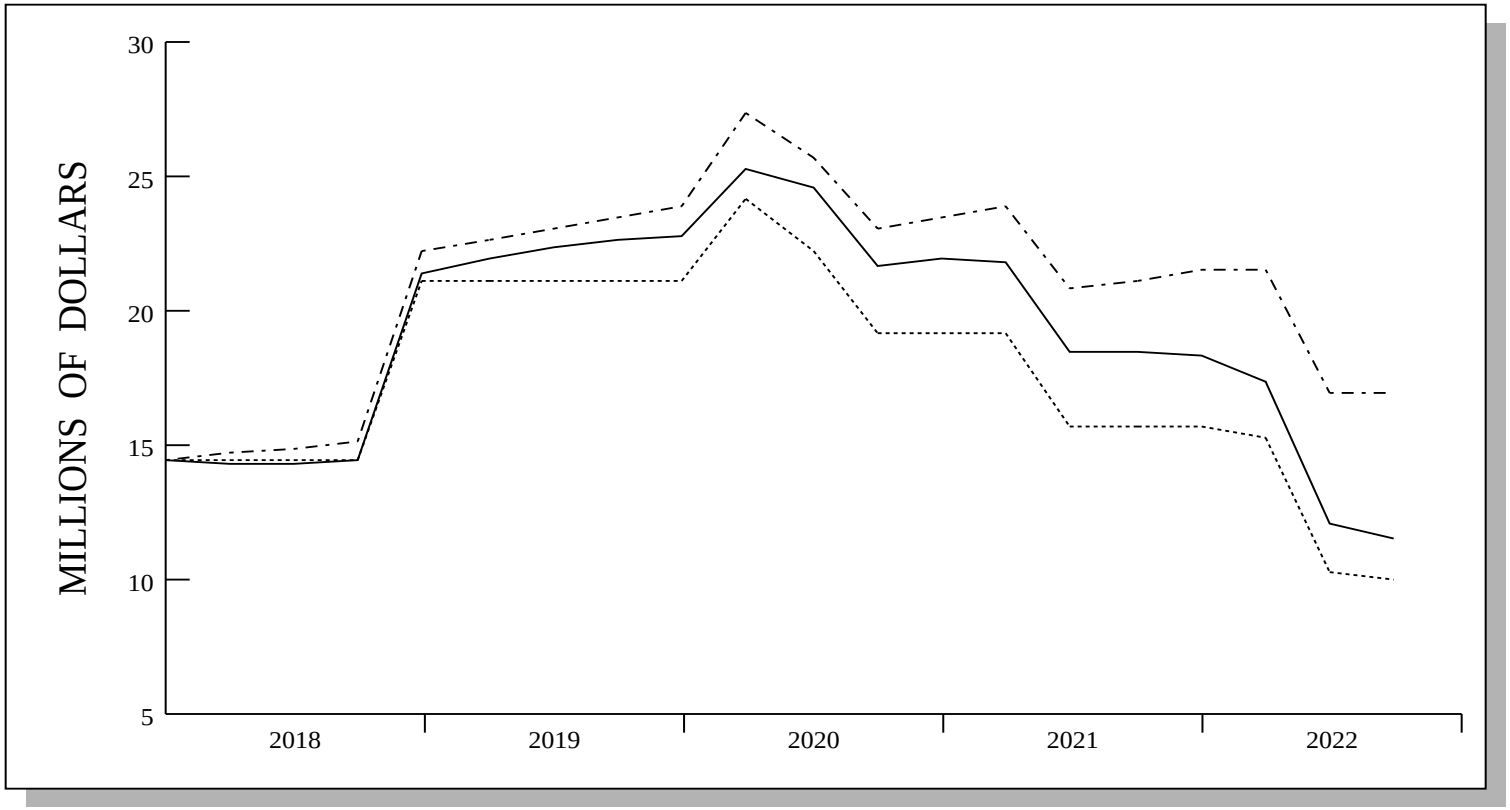
## ASSET ALLOCATION

| | | |
|---|---|---|
| Fixed Income | 100.0% | $ 11,647,030 |
| Total Portfolio | 100.0% | $ 11,647,030 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 12,101,259 |
| Contribs / Withdrawals | -222,500 |
| Income | 60,005 |
| Capital Gains / Losses | -291,734 |
| Market Value 9/2022 | $ 11,647,030 |

## INVESTMENT GROWTH

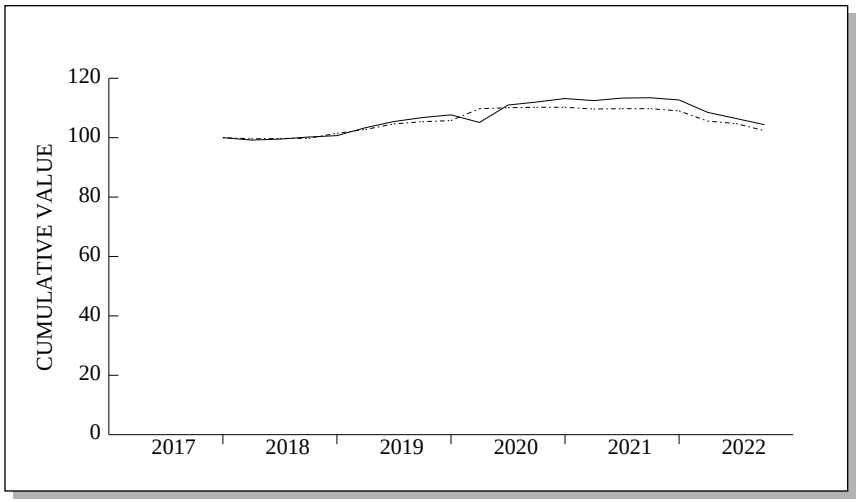


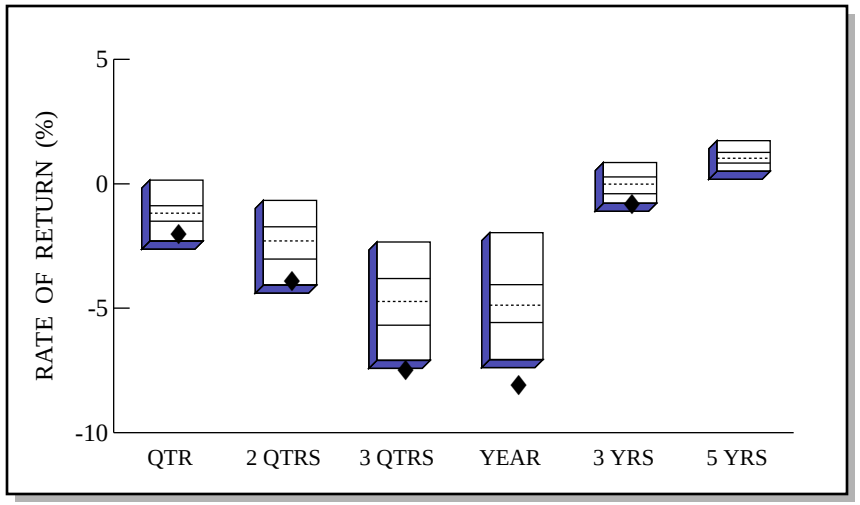

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 17,011,600

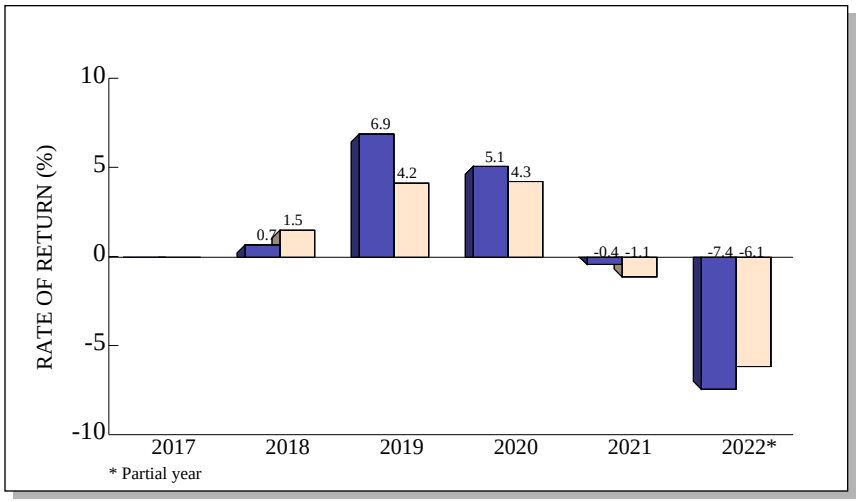
| | LAST QUARTER | PERIOD 12/17 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 12,101,259 | $ 14,494,248 |
| NET CONTRIBUTIONS | -222,500 | - 4,363,177 |
| INVESTMENT RETURN | -231,729 | 1,515,959 |
| ENDING VALUE | $ 11,647,030 | $ 11,647,030 |
| INCOME | 60,005 | 2,155,352 |
| CAPITAL GAINS (LOSSES) | -291,734 | -639,393 |
| INVESTMENT RETURN | -231,729 | 1,515,959 |

# TOTAL RETURN COMPARISONS




Short-Term Fixed Universe



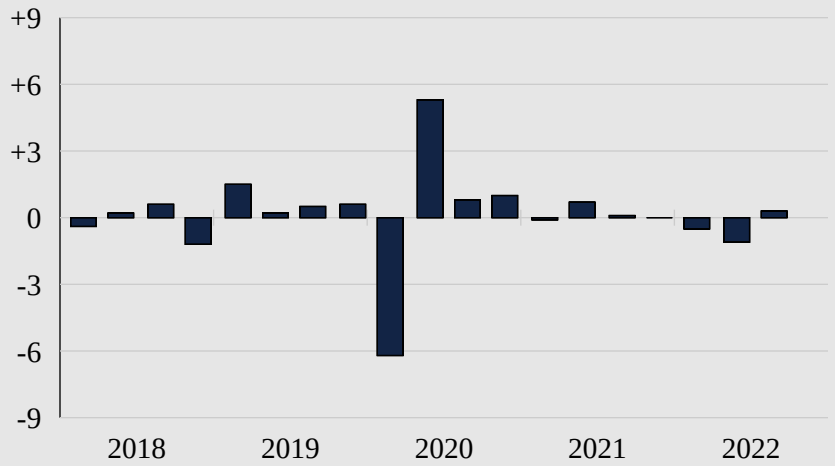

| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
|---|---|---|---|---|---|---|
| | | | | | ------ANNUALIZED------ | |
| RETURN | -2.0 | -3.9 | -7.4 | -8.0 | -0.8 | ---- |
| (RANK) | (90) | (89) | (99) | (99) | (95) | ---- |
| 5TH %ILE | 0.2 | -0.7 | -2.3 | -2.0 | 0.9 | 1.7 |
| 25TH %ILE | -0.9 | -1.7 | -3.8 | -4.1 | 0.3 | 1.3 |
| MEDIAN | -1.2 | -2.3 | -4.7 | -4.9 | 0.0 | 1.0 |
| 75TH %ILE | -1.5 | -3.0 | -5.7 | -5.6 | -0.4 | 0.8 |
| 95TH %ILE | -2.3 | -4.1 | -7.1 | -7.1 | -0.8 | 0.5 |
| ***ML/BoA 1-5*** | ***-2.3*** | ***-3.1*** | ***-6.1*** | ***-6.8*** | ***-1.0*** | ***0.4*** |

Short-Term Fixed Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: ML/BOA 1-5 YEAR TREASURY**

## VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **19** |
| **Quarters At or Above the Benchmark** | **13** |
| **Quarters Below the Benchmark** | **6** |
| **Batting Average** | **.684** |

## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/18 | -0.8 | -0.4 | -0.4 |
| 6/18 | 0.3 | 0.1 | 0.2 |
| 9/18 | 0.7 | 0.1 | 0.6 |
| 12/18 | 0.5 | 1.7 | -1.2 |
| 3/19 | 2.7 | 1.2 | 1.5 |
| 6/19 | 2.0 | 1.8 | 0.2 |
| 9/19 | 1.2 | 0.7 | 0.5 |
| 12/19 | 0.9 | 0.3 | 0.6 |
| 3/20 | -2.4 | 3.8 | -6.2 |
| 6/20 | 5.6 | 0.3 | 5.3 |
| 9/20 | 0.9 | 0.1 | 0.8 |
| 12/20 | 1.0 | 0.0 | 1.0 |
| 3/21 | -0.6 | -0.5 | -0.1 |
| 6/21 | 0.8 | 0.1 | 0.7 |
| 9/21 | 0.1 | 0.0 | 0.1 |
| 12/21 | -0.7 | -0.7 | 0.0 |
| 3/22 | -3.7 | -3.2 | -0.5 |
| 6/22 | -1.9 | -0.8 | -1.1 |
| 9/22 | -2.0 | -2.3 | 0.3 |

# CHESTER COUNTY EMPLOYEES RETIREMENT SYSTEM
# PRUDENTIAL - SHORT-TERM CORPORATE BOND
# PERFORMANCE REVIEW
# SEPTEMBER 2022

DAHAB Associates, Inc.

© 1990, 2022

## INVESTMENT RETURN

On September 30th, 2022, the Chester County Employees Retirement System's Prudential Short-Term Corporate Bond portfolio was valued at $20,121,487, a decrease of $393,559 from the June ending value of $20,515,046. Last quarter, the account recorded no net contributions or withdrawals, while recording a net investment loss for the quarter of $393,559. Net investment loss was composed of income receipts totaling $139,240 and $532,799 in net realized and unrealized capital losses.

## RELATIVE PERFORMANCE

*The ticker for this investment is PSTQX.*

### Total Fund

For the third quarter, the Prudential Short-Term Corporate Bond portfolio returned -1.8%, which was 0.5% above the ML/BoA 1-5 Year Treasury Index's return of -2.3% and ranked in the 86th percentile of the Short-Term Fixed Income universe. Over the trailing year, this portfolio returned -8.4%, which was 1.6% less than the benchmark's -6.8% return, ranking in the 99th percentile. Since December 2017, the account returned 1.2% on an annualized basis and ranked in the 15th percentile. The ML/BoA 1-5 Year Treasury returned an annualized 0.5% over the same time frame.

# EXECUTIVE SUMMARY

## PERFORMANCE SUMMARY

| | Quarter | YTD | 1 Year | 3 Year | 5 Year | Since 12/17 |
|---|---|---|---|---|---|---|
| **Total Portfolio - Gross** | -1.8 | -7.9 | -8.4 | -0.4 | ---- | 1.2 |
| *SHORT-TERM FIXED RANK* | (86) | (99) | (99) | (75) | ---- | (15) |
| **Total Portfolio - Net** | -1.9 | -8.1 | -8.8 | -0.8 | ---- | 0.9 |
| ML/BoA 1-5 Trea | -2.3 | -6.1 | -6.8 | -1.0 | 0.4 | 0.5 |
| **Fixed Income - Gross** | -1.8 | -7.9 | -8.4 | -0.4 | ---- | 1.2 |
| *SHORT-TERM FIXED RANK* | (86) | (99) | (99) | (75) | ---- | (15) |
| ML/BoA 1-5 Trea | -2.3 | -6.1 | -6.8 | -1.0 | 0.4 | 0.5 |

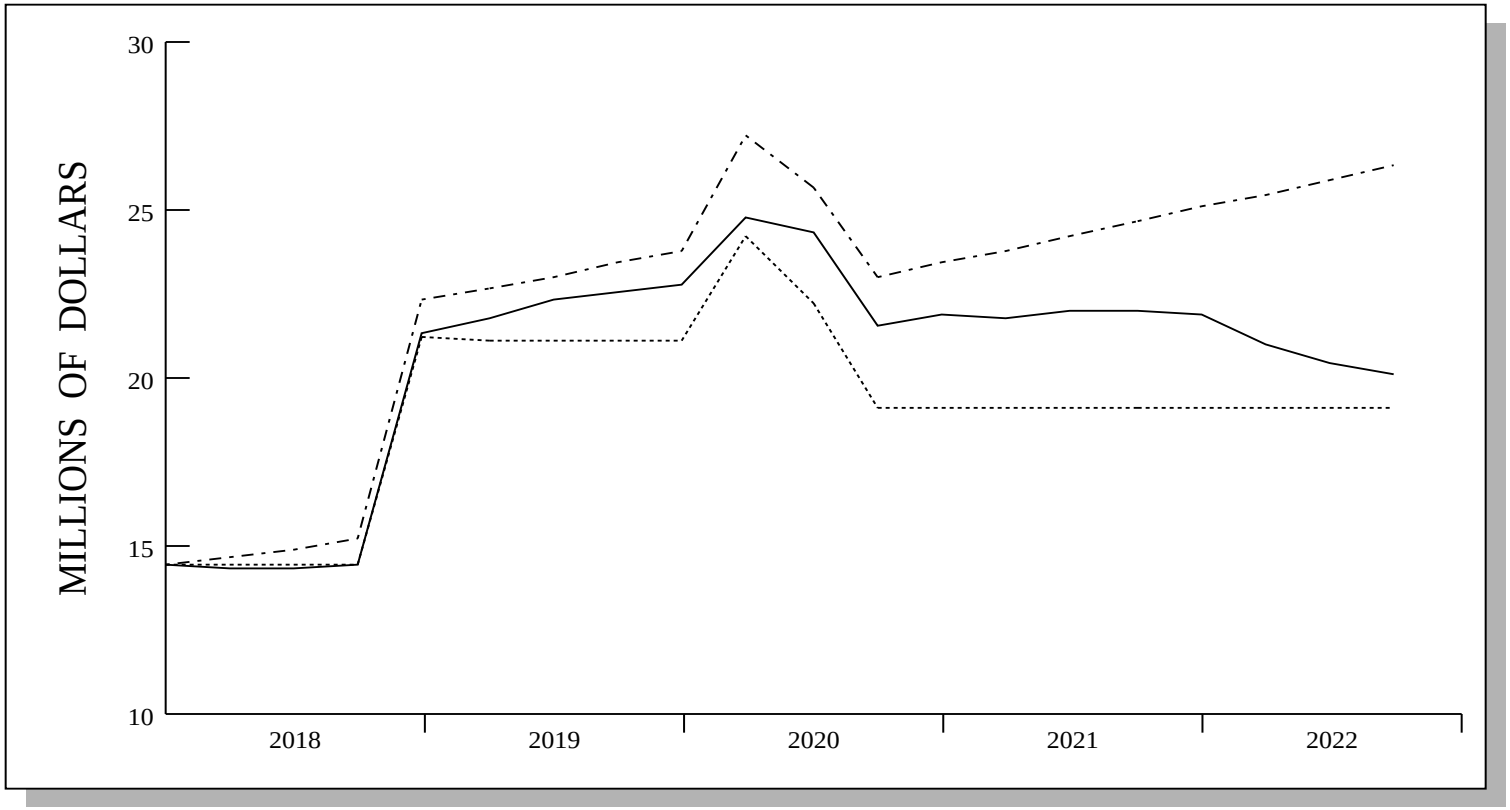
## ASSET ALLOCATION

| | | |
|---|---|---|
| Fixed Income | 100.0% | $ 20,121,487 |
| Total Portfolio | 100.0% | $ 20,121,487 |

## INVESTMENT RETURN

| | |
|---|---|
| Market Value 6/2022 | $ 20,515,046 |
| Contribs / Withdrawals | 0 |
| Income | 139,240 |
| Capital Gains / Losses | -532,799 |
| Market Value 9/2022 | $ 20,121,487 |

## INVESTMENT GROWTH

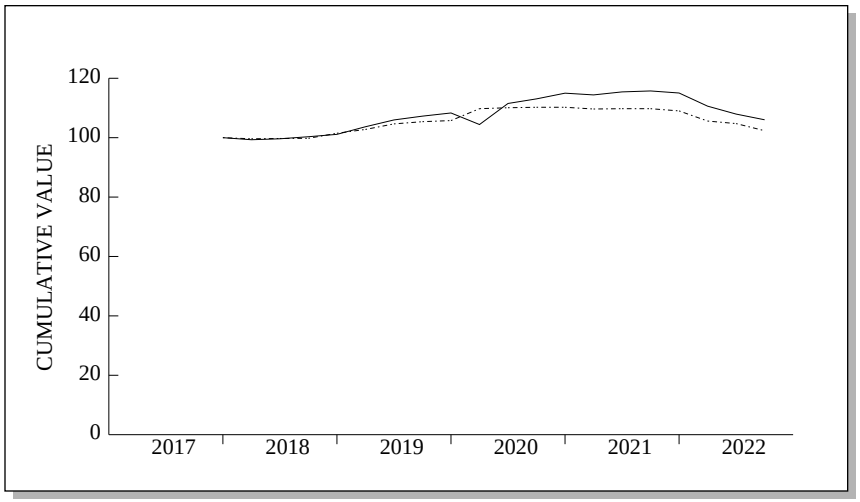


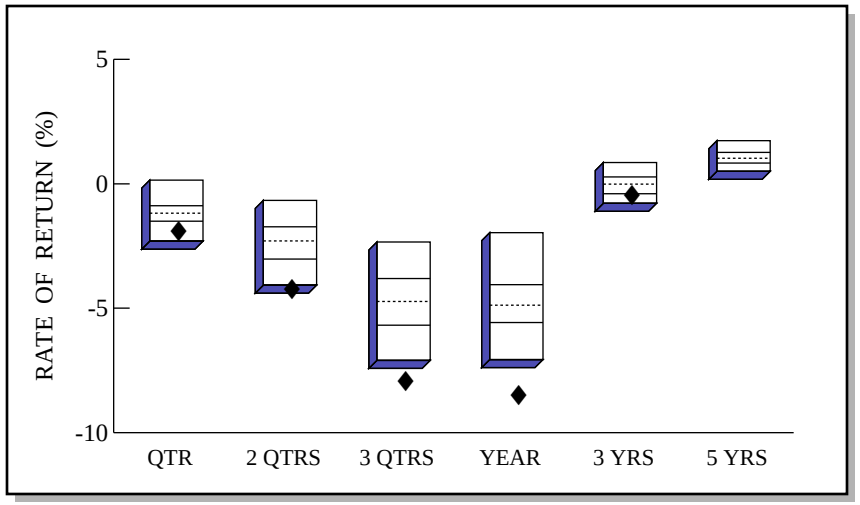

ACTUAL RETURN
7.0%
0.0%

VALUE ASSUMING
7.0% RETURN $ 26,429,068

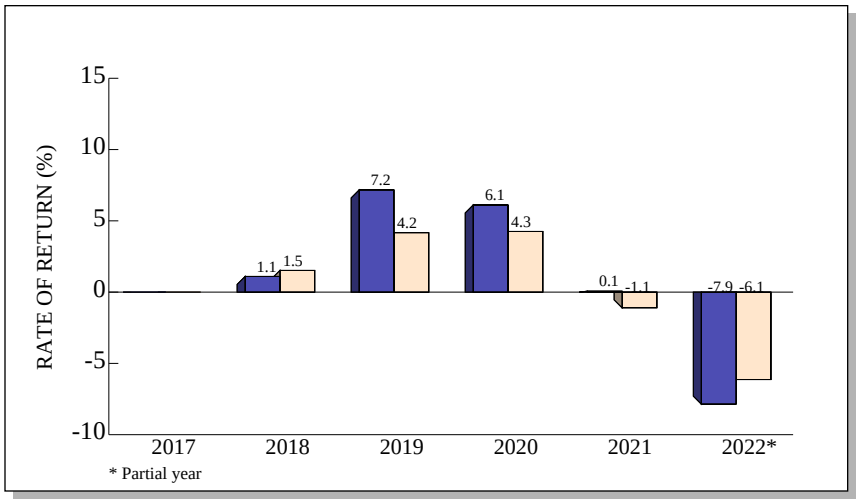
| | LAST QUARTER | PERIOD 12/17 - 9/22 |
|---|---|---|
| BEGINNING VALUE | $ 20,515,046 | $ 14,491,997 |
| NET CONTRIBUTIONS | 0 | 4,637,381 |
| INVESTMENT RETURN | -393,559 | 992,109 |
| ENDING VALUE | $ 20,121,487 | $ 20,121,487 |
| INCOME | 139,240 | 2,581,541 |
| CAPITAL GAINS (LOSSES) | -532,799 | - 1,589,432 |
| INVESTMENT RETURN | -393,559 | 992,109 |

# TOTAL RETURN COMPARISONS




Short-Term Fixed Universe



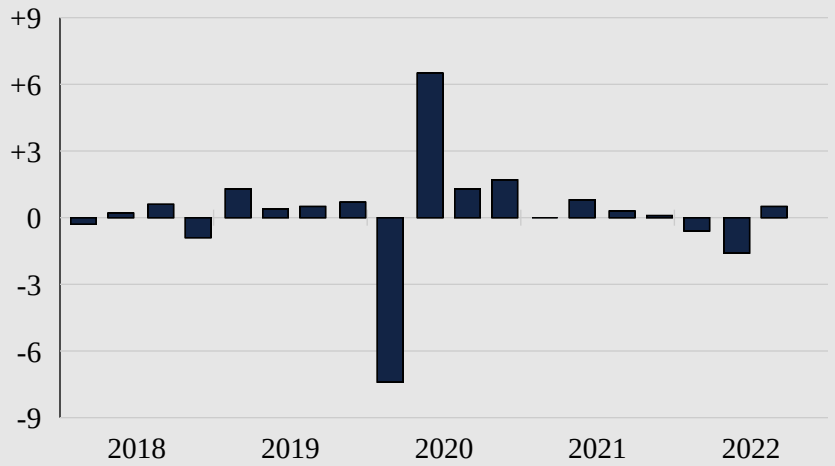

| | | | | | ------ANNUALIZED------ | |
|---|---|---|---|---|---|---|
| | QTR | 2 QTRS | 3 QTRS | YEAR | 3 YRS | 5 YRS |
| RETURN | -1.8 | -4.2 | -7.9 | -8.4 | -0.4 | ---- |
| (RANK) | (86) | (97) | (99) | (99) | (75) | ---- |
| 5TH %ILE | 0.2 | -0.7 | -2.3 | -2.0 | 0.9 | 1.7 |
| 25TH %ILE | -0.9 | -1.7 | -3.8 | -4.1 | 0.3 | 1.3 |
| MEDIAN | -1.2 | -2.3 | -4.7 | -4.9 | 0.0 | 1.0 |
| 75TH %ILE | -1.5 | -3.0 | -5.7 | -5.6 | -0.4 | 0.8 |
| 95TH %ILE | -2.3 | -4.1 | -7.1 | -7.1 | -0.8 | 0.5 |
| ***ML/BoA 1-5*** | ***-2.3*** | ***-3.1*** | ***-6.1*** | ***-6.8*** | ***-1.0*** | ***0.4*** |

Short-Term Fixed Universe

# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: ML/BOA 1-5 YEAR TREASURY**

## VARIATION FROM BENCHMARK




| | |
|---|---|
| **Total Quarters Observed** | **19** |
| **Quarters At or Above the Benchmark** | **14** |
| **Quarters Below the Benchmark** | **5** |
| **Batting Average** | **.737** |

## RATES OF RETURN

| Date | Portfolio | Benchmark | Difference |
|---|---|---|---|
| 3/18 | -0.7 | -0.4 | -0.3 |
| 6/18 | 0.3 | 0.1 | 0.2 |
| 9/18 | 0.7 | 0.1 | 0.6 |
| 12/18 | 0.8 | 1.7 | -0.9 |
| 3/19 | 2.5 | 1.2 | 1.3 |
| 6/19 | 2.2 | 1.8 | 0.4 |
| 9/19 | 1.2 | 0.7 | 0.5 |
| 12/19 | 1.0 | 0.3 | 0.7 |
| 3/20 | -3.6 | 3.8 | -7.4 |
| 6/20 | 6.8 | 0.3 | 6.5 |
| 9/20 | 1.4 | 0.1 | 1.3 |
| 12/20 | 1.7 | 0.0 | 1.7 |
| 3/21 | -0.5 | -0.5 | 0.0 |
| 6/21 | 0.9 | 0.1 | 0.8 |
| 9/21 | 0.3 | 0.0 | 0.3 |
| 12/21 | -0.6 | -0.7 | 0.1 |
| 3/22 | -3.8 | -3.2 | -0.6 |
| 6/22 | -2.4 | -0.8 | -1.6 |
| 9/22 | -1.8 | -2.3 | 0.5 |