

*Pontiac*  
General Employees' Retirement System

City of Pontiac  
General Employees' Retirement System

Performance Review  
December 2018

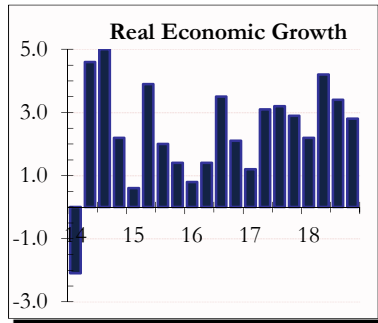


**DAHAB ASSOCIATES**  
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## ECONOMIC ENVIRONMENT

### Staying Power

The US economy chugged along despite a trade war with China, entrenched beltway politics, higher short-term interest rates, and falling market prices. Third quarter GDP growth was 3.4% and the latest Q4 estimate is 2.8%. Why so healthy? Several factors contributed: government spending, corporate capital investment, inventory buildup, and consumer buying. Job growth was impressive in 2018, with 2.6 million more workers added to the rolls, and 312,000 new jobs added in December alone. While new and existing home sales fell during the quarter, existing home sales (*annualized as of November*) remained a robust 5.3 million. Importantly, inflation remained tame for both the quarter and the year.



Corporate manufacturing and services industries continued to expand, but the rate of growth diminished. Yet virtually all the individual industry sectors reported some growth. Consumer sentiment was off its recent high, but solidly above neutral. Consumers were happy with their current situation, but less so regarding the short-term future. In December, the Federal Reserve followed through on a final rate hike. Arguably, four increases in 2018 put a brake on the economy. However, Fed Chairman Jerome Powell also stated that additional increases may not occur because rates have already climbed to “the lower end of the neutral rate range.” Translation: expect no rate increases for a while!

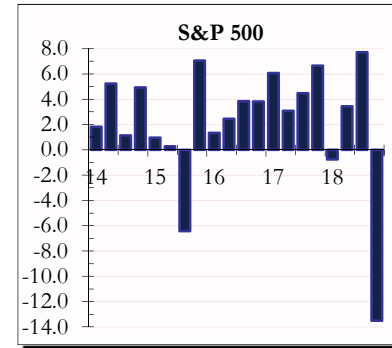
Commodity prices fell more than 9% for the quarter, mostly due to collapsing oil prices (-36%). The dollar’s strength and a slower Chinese economy also stymied the price of metals. Among commodities, the only bright lights were cocoa (+16.5%) and gold (+7.2%). While the economy accelerated during the quarter, the stock markets fell back. Brexit uncertainty and a simmering trade war were just two factors that contributed to an equities meltdown. Other contributors included a partial Government shutdown late in the year, lower anticipated corporate earnings, the huge and growing

Federal deficit, and very high stock prices at the beginning of October. Spoiler alert: cash became king.

## DOMESTIC EQUITIES

### Volatility and a Downward Slide

All of the major stock indices lost ground for the quarter. The NASDAQ’s tech stocks tumbled 17.3%. The S&P 500 lost 13.5%, and the DJIA, which is more defensive in nature, dropped 11.3%. Growth stocks, which had soared through September, fell more than value stocks. Among large companies, the Russell 1000 Growth Index lost 15.9% vs. the Russell 1000 Value Index, which was off 11.7%. The same pattern held true for smaller names, although declines were steeper. For example, the Russell Microcap Growth Index was pummeled 25% vs. a 19.5% drop for the Microcap Value Index. The growth–value disparity existed because growth stocks were already priced to “perfection,” but, this was not the case for value names.



With the exception of utilities, stocks in every other S&P sector ended in negative territory. Given the plunge in oil prices, the energy sector was the worst performer, down 23.8%. The IT sector, including the so-called FAANG (Apple added to the old FANG) stocks, gave back 17.3%. Industrials, consumer discretionary and telecom names weren’t far behind. Healthcare performed somewhat better (-8.7%) on the strength of new products and mergers. Consumer staples (-5.2%) benefited from sizable job growth. Finally, the “run for cover” utilities sector eked out a 1.4% gain. Even there, stocks of some utilities such as NextEra were in the black while others like PG&E were hemorrhaging. Overall, it was a tough quarter for stocks.

The market’s run-up through September partially offset the fourth quarter rout. For the full year, NASDAQ fell 2.8%, the S&P 500 dropped 4.4% and the DJIA lost 3.5%. Large-caps lost less than

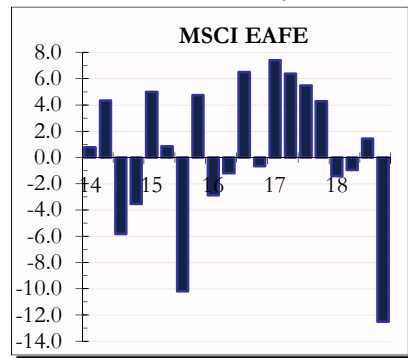
small-caps and growth fell a lot less than value. The Russell 1000 Growth was down 1.5% vs. an 8.3% loss for its value counterpart. The Russell 2000 Growth dropped 9.3% compared to the Russell 2000 Value, which lost 12.9%. Bottom line, the fourth quarter declines put a big dent in 2018 performance. But an unmitigated disaster it was not!

## INTERNATIONAL EQUITIES

### Falling Prices Far and Wide

A tightening US monetary policy and the trade impasse between the US and China have squeezed international developed stock markets. In addition, European economies have slumped and populist politicians have ascended to top positions. Australian shares weakened due to historic drought conditions and Japan suffered from lower exports and reduced tourism. The net effect: a 12.5% decline in the EAFE Index.

The Euro market fell 13.1% with Europe's two largest economies, France and Germany, each declining an average of 15%. France



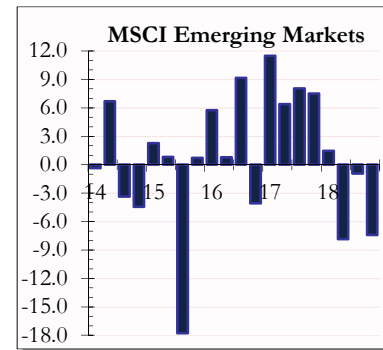
experienced civil unrest over a new green tax on fuel and Germany saw sinking auto sales. Italy, the third largest Euro economy, fell 11.8%, but mitigated its losses by adhering to a low annual projected deficit and making serious efforts to turn around its problem banks. Spain (-8.5%) enjoyed a more robust economy fueled by rising tourism and consumer spending. The UK

struggled with a slowing economy amid the ongoing Brexit crisis, but also employed many new workers. The net effect was a market loss of 11.8%. Ireland fell almost 18%, in anticipation of a possible closed UK border, post Brexit.

Australia, besieged by continued drought and reduced demand for its raw material, lost 10%. Japan shares dived 14%, reflecting a 2.5% GDP decline in the third quarter and natural disasters that dampened both exports and tourism. Singapore (-6.7%) suffered

from slow growth in its manufacturing and services sectors, but saw exports tick up. Hong Kong (-4.5%) was impacted both by China's slower growth and its own slumping property markets. It was surprising that shares didn't fall further. Israel (-14.3%) had healthy domestic growth and high consumer confidence; however, these positives were offset by corruption allegations against its long-time Prime Minister. Finally, Canada (not part of the EAFE Index) dealt with much lower oil export prices and slowing economic momentum, as well as its ties to the slumping US stock market. As a result, Canada's shares dropped more than 15%. For the full year, EAFE lost 12.5%, most of which occurred in the fourth quarter. For the larger countries, it was a particularly tough quarter and tough year.

Emerging market (EM) returns fell 7.4% for the quarter, continuing to fall far from its glory days through 2017. The reasons were obvious: the US tariff dispute with China, falling currencies, moderating China demand, new populist political leaders, and unique country issues. For full year 2018, the EM Index was 14.3% in the red. Excluding China, the loss was 12%, which was no worse than that of the EAFE. In the past, emerging market stocks have rebounded from worse situations to become top performers.



Brazil shined in an otherwise dismal EM performance array. Brazil is part of the BRIC country group that also includes Russia, India and China. This South American powerhouse made a dramatic turnaround for the quarter (+13.6%), due in part to the recent election of populist President Jair Bolsonaro, who is pro-business and has already begun to privatize some state-owned enterprises. In addition, oil giant Petrobras is under new leadership, with less state involvement. Russia (-8.8%), still mired in Ukraine-related sanctions, managed to gain some economic steam. A reduction in US sanctions against some major Russian companies helped, but the plunge in oil prices put a lid on any good news from the Russian economy. India was another positive performer (+2.5%), where lower oil prices proved a boon to its oil-importing economy. Still, weak agricultural output and bad banking loans acted as a brake on

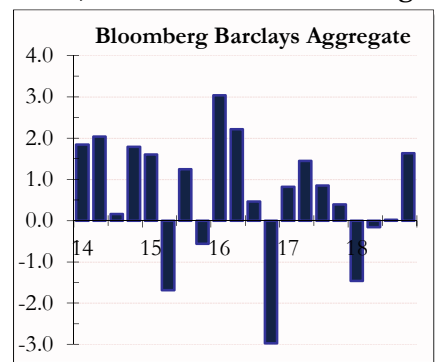
India's performance. China's economic story is familiar. Investors became net sellers as growth moderated from a very high base and investors feared potential disaster from the trade impasse with the US. Softening consumer demand for such items as autos and smart phones added to China's woes, sending its shares down 10.7%.

Among other emerging markets, Korean shares dropped 12.8% due to reduced electronics parts shipments and other issues. Taiwan's economy lost ground, by comparison (-13.7%), as China's renewed threats toward that island nation rattled investor confidence. Indonesian shares were surprisingly positive (+9.8%). Turkish shares turned positive (+4.8%) after a devastating drop earlier in the year. Still, the country's economy remains dismal. Finally, Mexico was down almost 19%. Compared to Brazil's new populist leader, Mexico's President Obrador is far to the political left, which has not helped the Mexican market. Not only has he threatened the role of private oil companies, but he has done so as oil prices were falling.

## BOND MARKET

### Modest Positive Returns in Some Sectors

In December, the Fed funds rate was raised for the fourth time in 2018; it now stands in the range of 2.25%–2.50%. In anticipation of the increase, rates all along the yield curve rose through November. Then, almost miraculously, rates dropped significantly. The 10-year Treasury bond fell almost 30 basis points in December and 36 basis points for the quarter. This was attributable to several events: a flight to safety, acknowledgement of the global economic slowdown, the steep decline in oil prices, and continued low inflation.



economic slowdown, the steep decline in oil prices, and continued low inflation.

While Treasury securities benefited from the 'risk off' sentiment, corporate credit spreads widened as investors began to question the strength of corporate earnings for the near-term. As a result, credits of BAA and below turned in negative returns. Even so, Treasuries

and higher-rated corporate credits performed decidedly better than most equities, incurring smaller losses or making modest gains.

The Barclays Aggregate Index returned 1.6% for the quarter, driven mainly by the heavy Treasury component. The Treasury sector alone rose 2.6%. 10-year and longer Treasuries added over 4%! Other positive performers were: residential mortgage paper (+2.1%), commercial mortgage instruments (+1.7%), and asset-backed securities (+1.3%). The highly leveraged 'junk' bond sector lost 4.5% due to investor concerns regarding future economic performance. The lowest-rated CA-D credits plunged 24.1%! Even BAA credits, a step above junk, lost 0.9%.

Major foreign bond markets again fared poorly in US dollar terms, as the Euro, UK pound, Canadian and Australian dollars lost value against the US dollar. However, the Japanese Yen rose 3.5%. Non-US investment-grade global bonds managed a 1.6% gain (unhedged), helped both by the stronger Yen and an anticipated ECB slowdown in raising its interest rates. The US dollar's strength and China trade issues dampened EM bond returns for an average 0.2% loss.

The Barclays Aggregate Index returned zero for the full year, while the High Yield Index was down 2.1%. Non-US investment grade bonds (unhedged) lost 1.7% and EM bonds gave back 2.5%. While bond returns were nothing to celebrate, they were an excellent counterweight to the more volatile equity markets.

## CASH EQUIVALENTS

### Cash Ruled

The three-month T-Bill returned 0.6% for the fourth quarter and 1.9% for the year. Six-month and one-year Treasuries had comparable results. By year-end, a few banks were offering one-year CDs at close to 3% annualized rate. Bottom line: cash equivalents were THE best-performing asset class in 2018.

### Economic Statistics

	Current Quarter	Previous Quarter
GDP	2.8%	3.4%
Unemployment	3.9%	3.7%
CPI All Items Year/Year	1.9%	2.3%
Fed Funds Rate	2.50%	2.25%
Industrial Capacity	78.7%	78.4%
US Dollars per Euro	1.15	1.16

### Major Index Returns

Index	Quarter	12 Months
Russell 3000	-14.3	-5.2
S&P 500	-13.5	-4.4
Russell Midcap	-15.4	-9.1
Russell 2000	-20.2	-11.0
MSCI EAFE	-12.5	-13.4
MSCI Emg Markets	-7.4	-14.3
NCREIF ODCE	1.8	8.3
U.S. Aggregate	1.6	0.0
90 Day T-bills	0.6	2.0

### Domestic Equity Return Distributions

	Quarter			Trailing Year		
	VAL	COR	GRO	VAL	COR	GRO
LC	-11.7	-13.8	-15.9	-8.3	-4.8	-1.5
MC	-15.0	-15.4	-16.0	-12.3	-9.1	-4.8
SC	-18.7	-20.2	-21.7	-12.9	-11.0	-9.3

### Market Summary

- The Atlanta Fed estimates a 2.8% GDP for Q4.
- Unemployment ticked up to 3.9%.
- Inflation during the calendar year was 1.9%.
- The US dollar continued to strengthen.
- Growth stocks, which had outpaced value for the first three quarters of the year, took a deeper dive as markets contracted in Q4, but were still ahead of their value counterparts for the full year.

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System was valued at \$454,862,046, a decrease of \$56,409,417 from the September ending value of \$511,271,463. Last quarter, the account recorded total net withdrawals of \$9,986,664 in addition to \$46,422,753 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$2,157,009 and realized and unrealized capital losses totaling \$48,579,762.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the total portfolio lost 9.2%, which ranked in the 76th percentile of the Public Fund universe. Over the trailing twelve-month period, the portfolio returned -4.3%, which ranked in the 47th percentile. Since December 2008, the account returned 9.8% annualized and ranked in the 6th percentile.

### **Domestic Equity**

The domestic equity portfolio returned -15.8% last quarter; that return was 1.5% less than the Russell 3000 Index's return of -14.3% and ranked in the 49th percentile of the Domestic Equity universe. Over the trailing year, the domestic equity portfolio returned -8.9%; that return was 3.7% below the benchmark's -5.2% return, ranking in the 60th percentile. Since December 2008, this component returned 12.7% per annum and ranked in the 67th percentile. For comparison, the Russell 3000 returned an annualized 13.2% over the same time frame.

### **International Equity**

For the fourth quarter, the international equity segment returned -10.1%, which was 2.4% above the MSCI EAFE Index's return of -12.5% and

ranked in the 36th percentile of the International Equity universe. Over the trailing year, this segment returned -7.7%, which was 5.7% greater than the benchmark's -13.4% return, and ranked in the 6th percentile. Since December 2008, this component returned 6.8% on an annualized basis and ranked in the 81st percentile. The MSCI EAFE Index returned an annualized 6.8% over the same time frame.

### **Private Equity**

*The current quarter return for the Cambridge Private Equity Index was not available at this time.*

During the fourth quarter, the private equity segment returned 1.9%. Over the trailing year, this segment returned 10.7%, which was 2.1% below the benchmark's 12.8% performance. Since December 2008, this component returned 2.4% annualized, while the Cambridge US Private Equity returned an annualized 14.0% over the same period.

### **Real Estate**

During the fourth quarter, the real estate segment gained 1.9%, which was 0.1% above the NCREIF NFI-ODCE Index's return of 1.8%. Over the trailing year, this component returned 9.7%, which was 1.4% above the benchmark's 8.3% performance.

### **Domestic Fixed Income**

For the fourth quarter, the domestic fixed income component gained 2.1%, which was 0.5% greater than the Bloomberg Barclays Aggregate Index's return of 1.6% and ranked in the 6th percentile of the Broad Market Fixed Income universe. Over the trailing twelve-month period, this segment returned 1.4%, which was 1.4% greater than the benchmark's 0.0% return, and ranked in the 29th percentile. Since December 2008, this component returned 4.6% annualized and ranked in the 49th percentile. The Bloomberg Barclays Aggregate Index returned an annualized 3.5% over the same time frame.

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

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year
<b>Total Portfolio - Gross</b>	-9.2	-4.3	6.3	5.1	8.7	9.8
<i>PUBLIC FUND RANK</i>	(76)	(47)	(31)	(34)	(12)	( 6)
<b>Total Portfolio - Net</b>	-9.3	-4.8	5.7	4.5	8.1	9.1
SHADOW INDEX	-8.9	-3.7	6.8	5.8	9.0	9.7
<b>Domestic Equity - Gross</b>	-15.8	-8.9	7.3	6.1	11.2	12.7
<i>DOMESTIC EQUITY RANK</i>	(49)	(60)	(62)	(57)	(64)	(67)
Russell 3000	-14.3	-5.2	9.0	7.9	12.5	13.2
<b>International Equity - Gross</b>	-10.1	-7.7	6.5	5.2	8.6	6.8
<i>INTERNATIONAL EQUITY RANK</i>	(36)	( 6)	(36)	(12)	(21)	(81)
MSCI EAFE	-12.5	-13.4	3.4	1.0	6.2	6.8
<b>Private Equity - Gross</b>	1.9	10.7	5.4	7.4	9.8	2.4
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0
<b>Real Estate - Gross</b>	1.9	9.7	----	----	----	----
NCREIF ODCE	1.8	8.3	8.2	10.4	11.0	7.0
<b>Domestic Fixed Income - Gross</b>	2.1	1.4	2.0	1.2	2.3	4.6
<i>BROAD MARKET FIXED RANK</i>	( 6)	(29)	(71)	(93)	(66)	(49)
Aggregate Index	1.6	0.0	2.1	2.5	2.1	3.5

**ASSET ALLOCATION**

Domestic Equity	50.9%	\$ 231,662,217
Int'l Equity	8.5%	38,749,481
Emerging Markets	4.4%	20,072,866
Private Equity	2.5%	11,437,503
Real Estate	7.5%	34,226,747
Domestic Fixed	25.4%	115,679,570
Cash	0.7%	3,033,662
<b>Total Portfolio</b>	<b>100.0%</b>	<b>\$ 454,862,046</b>

**INVESTMENT RETURN**

Market Value 9/2018	\$ 511,271,463
Contribs / Withdrawals	- 9,986,664
Income	2,157,009
Capital Gains / Losses	- 48,579,762
Market Value 12/2018	\$ 454,862,046

## EXECUTIVE SUMMARY - USING LAGGED PRIVATE EQUITY DATA

## PERFORMANCE SUMMARY

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year
<b>Total Portfolio</b>	-9.1	-4.3	6.3	5.1	8.7	9.8
<i>PUBLIC FUND RANK</i>	(75)	(46)	(31)	(32)	(12)	( 6)
SHADOW INDEX	-8.8	-3.5	6.8	5.8	9.1	9.7
<b>Domestic Equity</b>	-15.8	-8.9	7.3	6.1	11.2	12.7
<i>DOMESTIC EQUITY RANK</i>	(49)	(60)	(62)	(57)	(64)	(67)
Russell 3000	-14.3	-5.2	9.0	7.9	12.5	13.2
<b>International Equity</b>	-10.1	-7.7	6.5	5.2	8.6	6.8
<i>INTERNATIONAL EQUITY RANK</i>	(36)	( 6)	(36)	(12)	(21)	(81)
MSCI EAFE	-12.5	-13.4	3.4	1.0	6.2	6.8
<b>Private Equity</b>	3.1	10.9	4.9	9.5	9.8	0.1
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0
<b>Real Estate</b>	1.9	9.7	----	----	----	----
NCREIF ODCE	1.8	8.3	8.2	10.4	11.0	7.0
<b>Domestic Fixed Income</b>	2.1	1.4	2.0	1.2	2.3	4.6
<i>BROAD MARKET FIXED RANK</i>	( 6)	(29)	(71)	(93)	(66)	(49)
Aggregate Index	1.6	0.0	2.1	2.5	2.1	3.5

## ASSET ALLOCATION

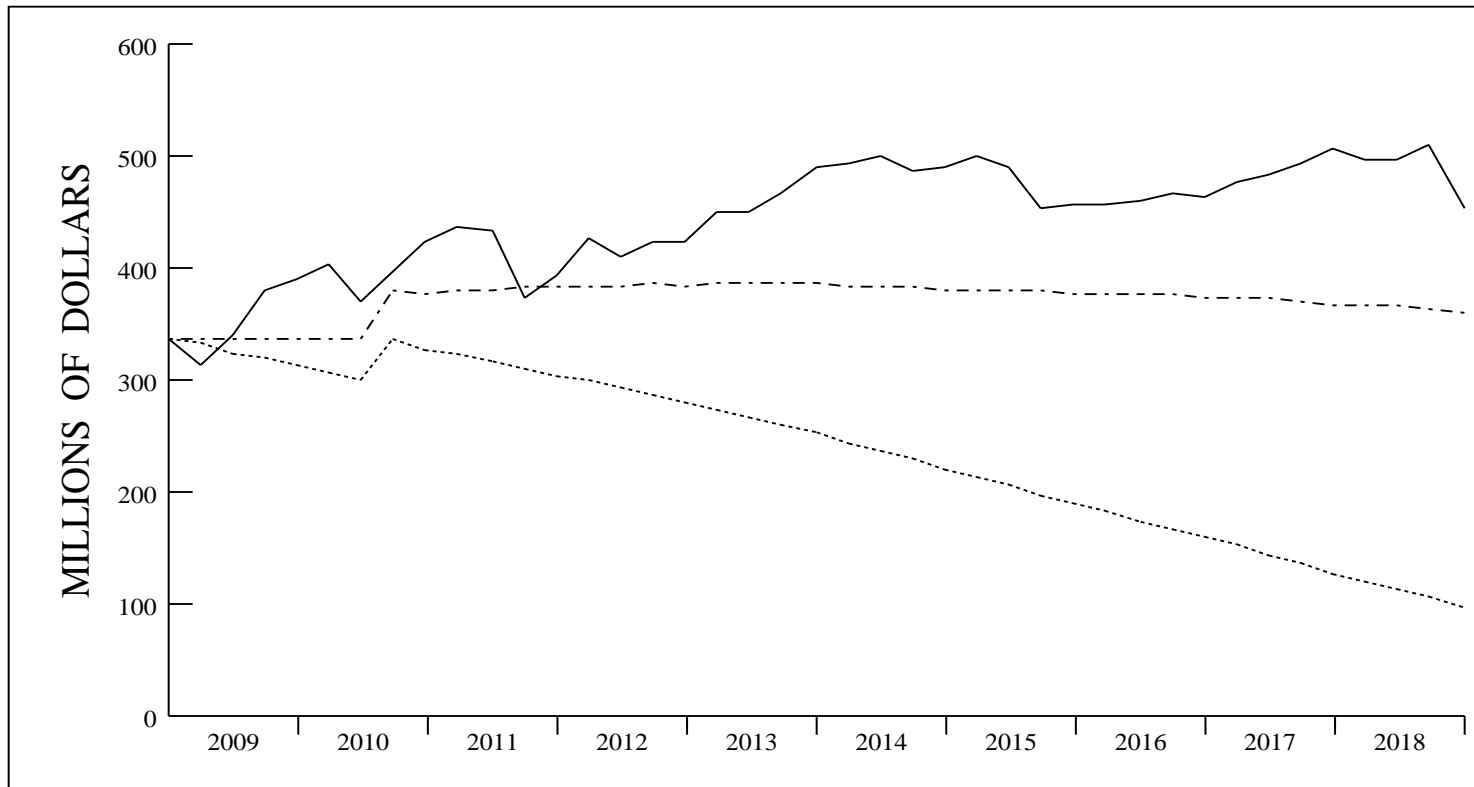
Domestic Equity	50.9%	\$ 231,662,217
Int'l Equity	8.5%	38,749,481
Emerging Markets	4.4%	20,072,866
Private Equity	2.6%	11,837,200
Real Estate	7.5%	34,226,747
Domestic Fixed	25.4%	115,679,570
Cash	0.7%	3,033,662
<b>Total Portfolio</b>	<b>100.0%</b>	<b>\$ 455,261,743</b>

## INVESTMENT RETURN

Market Value 9/2018	\$ 511,722,812
Contribs / Withdrawals	- 10,196,065
Income	2,157,009
Capital Gains / Losses	-48,422,013
Market Value 12/2018	\$ 455,261,743



**INVESTMENT GROWTH**



— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE\$ 362,695,343

	LAST QUARTER	PERIOD 12/08 - 12/18
BEGINNING VALUE	\$ 511,271,463	\$ 338,579,399
NET CONTRIBUTIONS	- 9,986,664	-240,590,894
<u>INVESTMENT RETURN</u>	<u>- 46,422,753</u>	<u>356,873,541</u>
ENDING VALUE	\$ 454,862,046	\$ 454,862,046
INCOME	2,157,009	69,497,752
<u>CAPITAL GAINS (LOSSES)</u>	<u>- 48,579,762</u>	<u>287,375,789</u>
INVESTMENT RETURN	- 46,422,753	356,873,541

**PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM  
ASSET ALLOCATIONS AND TARGETS  
AS OF DECEMBER 2018**

Asset Class	Market Value	% of Total Portfolio	Target	+ / -	Range
<b>Total Portfolio</b>	<b>\$ 454,862,046</b>	<b>100%</b>			
Equity (Excluding PE)	\$ 290,484,564	63.9%	60.0%	3.9%	55 - 65%
Domestic Large Cap	\$ 104,468,645	23.0%	20.0%	3.0%	15 - 25%
Domestic Mid Cap	\$ 73,415,290	16.1%	17.5%	-1.4%	12 - 22%
Domestic Small Cap	\$ 53,778,282	11.8%	12.5%	-0.7%	8 - 17%
Developed International	\$ 38,749,481	8.5%	5.0%	3.5%	3 - 7%
Emerging Markets	\$ 20,072,866	4.4%	5.0%	-0.6%	3 - 7%
Private Equity	\$ 11,437,503	2.5%	5.0%	-2.5%	3 - 7%
Real Estate	\$ 34,226,747	7.5%	10.0%	-2.5%	7 - 12%
Fixed Income	\$ 115,679,570	25.4%	25.0%	0.4%	20 - 30%
Cash	\$ 3,033,662	0.7%	0.0%	0.7%	0 - 5%

**PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM  
PA 314 COMPLIANCE AS OF DECEMBER 2018**

Category	Market Value	% of Total Portfolio	Allocation Limit	+ / -	Compliance
<b>Stocks</b>	<b>\$ 270,411,698</b>	<b>63.9%</b>	<b>70%</b>	<b>-6.2%</b>	<b>YES</b>
Attucks Emerging Manager	\$ 47,815,415	10.5%			
Sawgrass Asset Management	\$ 32,106,733	7.1%			
Attucks Michigan	\$ 24,546,497	5.4%			
Victory Capital Management Mid Cap	\$ 36,524,163	8.0%			
Systematic Financial Management	\$ 36,891,127	8.1%			
Kennedy Small Cap Core	\$ 18,271,896	4.0%			
Kennedy Small Cap Growth	\$ 819	0.0%			
Northern Trust Russell 2000 Growth	\$ 13,203,319	2.9%			
Loomis Sayles	\$ 22,302,248	4.9%			
First Eagle	\$ 17,207,053	3.8%			
WCM	\$ 21,542,428	4.7%			
Northern Trust EM Index	\$ 7,997,807	1.8%			
Wellington Trust	\$ 12,075,059	2.7%			
<b>Global Equity</b>	<b>\$ 58,822,347</b>	<b>12.9%</b>	<b>20%</b>	<b>-7.1%</b>	<b>YES</b>
First Eagle	\$ 17,207,053	3.8%			
WCM	\$ 21,542,428	4.7%			
Northern Trust EM Index	\$ 7,997,807	1.8%			
Wellington Trust	\$ 12,075,059	2.7%			
<b>Real Estate</b>	<b>\$ 34,226,747</b>	<b>7.5%</b>	<b>10%</b>	<b>-2.5%</b>	<b>YES</b>
Intercontinental	\$ 5,353,942	1.2%			
Invesco Core RE	\$ 16,446,882	3.6%			
Principal	\$ 12,425,923	2.7%			
<b>Basket Clause</b>	<b>\$ 11,437,503</b>	<b>2.5%</b>	<b>20%</b>	<b>-17.5%</b>	<b>YES</b>
Consequent Capital Management GrayCo I	\$ 5,028,124	1.1%			
Invesco V	\$ 1,365,817	0.3%			
Mesirow Financial IV	\$ 2,553,597	0.6%			
Mesirow Financial VI	\$ 2,489,965	0.5%			
<b>Holdings &gt; 5% of Market Cap</b>	<b>\$ -</b>	<b>0.0%</b>	<b>0%</b>	<b>0.0%</b>	<b>YES</b>

**CITY OF PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM**  
**TOP TWENTY STOCK HOLDINGS AS OF DECEMBER 31, 2018**

	<b>Name</b>	<b>Ticker</b>	<b>Sector</b>	<b>Market Cap</b>	<b>Market Value</b>	<b>%</b>
1	Apple Inc	AAPL	Information Technology	748,539	\$4,146,354	0.9%
2	Alphabet Inc-Cl A	GOOGL	Communication Services	312,413	\$2,865,280	0.6%
3	Microsoft Corp	MSFT	Information Technology	785,026	\$2,809,934	0.6%
4	Cisco Systems Inc	CSCO	Information Technology	194,810	\$2,265,726	0.5%
5	Amgen Inc	AMGN	Health Care	124,047	\$2,003,349	0.4%
6	Berkshire Hathaway Inc-Cl B	BRK/B	Financials	278,255	\$1,993,205	0.4%
7	Verizon Communications Inc	VZ	Communication Services	232,302	\$1,940,208	0.4%
8	Autozone Inc	AZO	Consumer Discretionary	21,130	\$1,886,265	0.4%
9	Mastercard Inc - A	MA	Information Technology	192,599	\$1,788,025	0.4%
10	Walt Disney Co/The	DIS	Communication Services	163,233	\$1,680,935	0.4%
11	Home Depot Inc	HD	Consumer Discretionary	194,076	\$1,651,190	0.4%
12	Unitedhealth Group Inc	UNH	Health Care	239,662	\$1,632,982	0.4%
13	Exelon Corp	EXC	Utilities	43,562	\$1,538,090	0.3%
14	Entergy Corp	ETR	Utilities	15,591	\$1,486,601	0.3%
15	Pfizer Inc	PFE	Health Care	252,318	\$1,431,545	0.3%
16	Verisk Analytics Inc	VRSK	Industrials	17,950	\$1,405,526	0.3%
17	Ingersoll-Rand Plc	IR	Industrials	22,411	\$1,367,994	0.3%
18	Comcast Corp-Class A	CMCSA	Communication Services	154,589	\$1,354,169	0.3%
19	Intel Corp	INTC	Information Technology	214,189	\$1,329,855	0.3%
20	Walmart Inc	WMT	Consumer Staples	270,625	\$1,323,196	0.3%

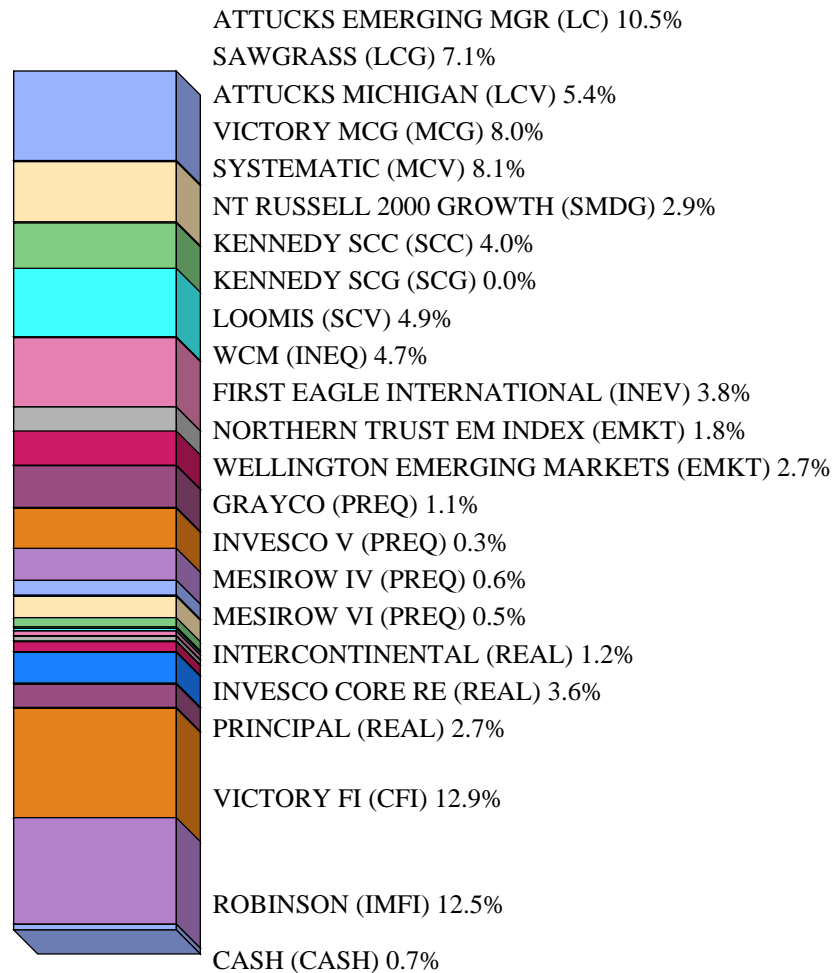
*Percentages shown are out of the total portfolio. Market capitalization is expressed in millions.*

**CITY OF PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM**  
**TOP TWENTY FIXED INCOME HOLDINGS AS OF DECEMBER 31, 2018**

	<b>Name</b>	<b>Coupon</b>	<b>Maturity</b>	<b>Quality</b>	<b>Sector</b>	<b>Market Value</b>	<b>%</b>
1	US TREASURY N/B	2.875	4.83	USG	GOVT	\$6,202,521	1.4%
2	US TREASURY N/B	2.750	6.50	USG	GOVT	\$5,050,400	1.1%
3	US TREASURY N/B	2.750	1.75	USG	GOVT	\$4,877,221	1.1%
4	US TREASURY N/B	1.750	4.37	USG	GOVT	\$3,924,369	0.9%
5	US TREASURY N/B	2.000	6.62	USG	GOVT	\$2,926,886	0.6%
6	US TREASURY N/B	2.625	1.87	USG	GOVT	\$2,504,600	0.6%
7	UST	3.000	29.12	USG	GOVT	\$2,454,796	0.5%
8	US TREASURY N/B	1.625	7.12	USG	GOVT	\$2,340,225	0.5%
9	US TREASURY N/B	1.500	7.62	USG	GOVT	\$2,306,250	0.5%
10	STRIPS	7.870	7.62	USG	GOVT	\$2,039,000	0.4%
11	US TREASURY N/B	2.000	3.12	USG	GOVT	\$1,971,880	0.4%
12	US TREASURY N/B	2.750	9.12	USG	GOVT	\$1,881,660	0.4%
13	HARTLAND CONS SD-B	1.830	0.34	AA	MUNI	\$1,496,325	0.3%
14	US TREASURY N/B	2.375	1.33	USG	GOVT	\$1,496,010	0.3%
15	FREDDIE MAC	1.250	0.59	USG	GOVT	\$1,487,520	0.3%
16	US TREASURY N/B	2.250	8.12	USG	GOVT	\$1,456,530	0.3%
17	US TREASURY N/B	2.875	24.37	USG	GOVT	\$1,227,096	0.3%
18	FNR 2017-15 KD	2.500	8.08	USG	MTGE	\$1,174,525	0.3%
19	FNR 2016-32 EA	3.500	3.68	USG	MTGE	\$1,146,149	0.3%
20	FN BD3667	3.500	8.06	USG	MTGE	\$1,133,893	0.2%

*Percentages shown are out of the total portfolio.*

**MANAGER ALLOCATION SUMMARY**



Name	Market Value	Percent
Attucks Emerging Mgr (LC)	\$47,815,415	10.5
Sawgrass (LCG)	\$32,106,733	7.1
Attucks Michigan (LCV)	\$24,546,497	5.4
Victory MCG (MCG)	\$36,524,163	8.0
Systematic (MCV)	\$36,891,127	8.1
NT Russell 2000 Growth (SMDG)	\$13,203,319	2.9
Kennedy SCC (SCC)	\$18,271,896	4.0
Kennedy SCG (SCG)	\$819	0.0
Loomis (SCV)	\$22,302,248	4.9
WCM (INEQ)	\$21,542,428	4.7
First Eagle International (INEV)	\$17,207,053	3.8
Northern Trust EM Index (EMKT)	\$7,997,807	1.8
Wellington Emerging Markets (EMKT)	\$12,075,059	2.7
GrayCo (PREQ)	\$5,028,124	1.1
Invesco V (PREQ)	\$1,365,817	0.3
Mesirow IV (PREQ)	\$2,553,597	0.6
Mesirow VI (PREQ)	\$2,489,965	0.5
Intercontinental (REAL)	\$5,353,942	1.2
Invesco Core RE (REAL)	\$16,446,882	3.6
Principal (REAL)	\$12,425,923	2.7
Victory FI (CFI)	\$58,780,673	12.9
Robinson (IMFI)	\$56,898,897	12.5
Cash (CASH)	\$3,033,662	0.7
<b>Total</b>	<b>\$454,862,046</b>	<b>100.0</b>

**PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM  
MANAGER PERFORMANCE SUMMARY AS OF DECEMBER 2018**

Portfolio	Universe	Quarter	1 Year	3 Years	5 Years	7 Years	10 Years
<b>Total Portfolio Return</b>	<b>(Public Fund)</b>	<b>-9.2 (76)</b>	<b>-4.3 (47)</b>	<b>6.3 (31)</b>	<b>5.1 (34)</b>	<b>8.7 (12)</b>	<b>9.8 (6)</b>
<b>Total Portfolio Returns net of fees</b>		<b>-9.3</b>	<b>-4.8</b>	<b>5.7</b>	<b>4.5</b>	<b>8.1</b>	<b>9.1</b>
<b>Total Portfolio Shadow Index</b>		<b>-8.9</b>	<b>-3.7</b>	<b>6.8</b>	<b>5.8</b>	<b>9.0</b>	<b>9.7</b>
Attucks Emerging Mgr	(Large Cap)	-13.3 (37)	-3.8 (35)	8.7 (48)	7.6 (58)	12.2 (60)	----
Attucks Emerging Mgr net of fees		-13.5	-4.3	8.1	7.0	11.5	----
<b>S&amp;P 500</b>		<b>-13.5</b>	<b>-4.4</b>	<b>9.3</b>	<b>8.5</b>	<b>12.7</b>	<b>13.1</b>
Sawgrass	(Large Cap Growth)	-10.4 (8)	3.4 (16)	10.7 (41)	9.5 (54)	13.6 (56)	14.2 (66)
Sawgrass net of fees		-10.6	2.9	10.1	9.0	13.0	13.8
<b>Russell 1000 Growth</b>		<b>-15.9</b>	<b>-1.5</b>	<b>11.1</b>	<b>10.4</b>	<b>14.1</b>	<b>15.3</b>
Attucks Michigan	(Large Cap Value)	-13.6 (50)	-9.2 (58)	6.7 (61)	6.5 (43)	11.5 (46)	----
Attucks Michigan net of fees		-13.7	-9.7	6.0	5.8	10.8	----
<b>Russell 1000 Value</b>		<b>-11.7</b>	<b>-8.3</b>	<b>6.9</b>	<b>5.9</b>	<b>11.0</b>	<b>11.2</b>
Victory Mid Cap	(Mid Cap Growth)	-16.9 (54)	-12.4 (96)	6.1 (83)	5.1 (88)	10.7 (82)	13.2 (89)
Victory Mid Cap net of fees		-16.9	-12.7	5.7	4.8	10.3	12.9
<b>Russell Mid Cap Growth</b>		<b>-16.0</b>	<b>-4.8</b>	<b>8.6</b>	<b>7.4</b>	<b>12.3</b>	<b>15.1</b>
Systematic	(Mid Cap Value)	-18.3 (80)	-15.9 (79)	5.5 (68)	3.4 (81)	9.4 (87)	11.6 (88)
Systematic net of fees		-18.4	-16.3	5.0	2.9	8.9	11.2
<b>Russell Mid Cap Value</b>		<b>-15.0</b>	<b>-12.3</b>	<b>6.0</b>	<b>5.4</b>	<b>10.9</b>	<b>13.0</b>
Kennedy Small Cap Core	(Small Cap Core)	-19.2 (36)	-13.0 (73)	6.1 (69)	4.8 (66)	10.0 (88)	13.6 (48)
Kennedy Small Cap Core net of fees		-19.4	-13.9	5.1	3.8	8.9	12.8
<b>Russell 2000</b>		<b>-20.2</b>	<b>-11.0</b>	<b>7.3</b>	<b>4.4</b>	<b>10.4</b>	<b>12.0</b>
Loomis	(Small Cap Value)	-18.2 (33)	-15.1 (58)	6.0 (54)	4.4 (42)	10.2 (63)	13.3 (45)
Loomis net of fees		-18.4	-15.7	5.3	3.7	9.5	12.7
<b>Russell 2000 Value</b>		<b>-18.7</b>	<b>-12.9</b>	<b>7.4</b>	<b>3.6</b>	<b>9.6</b>	<b>10.4</b>
First Eagle	(International Equity)	-7.0 (16)	----	----	----	----	----
First Eagle net of fees		-7.1	----	----	----	----	----
<b>MSCI All Country Ex US Value</b>		<b>-10.6</b>	<b>-13.4</b>	<b>5.4</b>	<b>0.2</b>	<b>4.6</b>	<b>6.5</b>

**PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM  
MANAGER PERFORMANCE SUMMARY AS OF DECEMBER 2018**

Portfolio	Universe	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
WCM	(International Equity)	-12.1	(51)	-5.6	(4)	8.4	(22)	6.8	(6)	----	----	----	----
WCM net of fees		-12.3		-6.4		7.6		6.0		----		----	
<i>MSCI All Country World Ex US Net</i>		<b>-11.5</b>		<b>-14.2</b>		<b>4.5</b>		<b>0.7</b>		<b>4.8</b>		<b>6.6</b>	
GrayCo I		0.4		5.8		-3.7		1.4		----		----	
GrayCo I net of fees		0.2		4.8		-4.7		0.5		----		----	
<i>Cambridge Private Equity</i>		----		<b>12.8</b>		<b>14.5</b>		<b>12.0</b>		<b>13.4</b>		<b>14.0</b>	
Invesco V		----		13.2		13.0		11.7		14.3		21.0	
Invesco V net of fees		-0.3		12.2		12.0		10.6		13.3		19.3	
<i>Cambridge Private Equity</i>		----		<b>12.8</b>		<b>14.5</b>		<b>12.0</b>		<b>13.4</b>		<b>14.0</b>	
Mesirow IV		6.9		7.1		13.6		13.6		14.8		14.3	
Mesirow IV net of fees		6.6		6.0		12.5		11.1		12.9		10.9	
<i>Cambridge Private Equity</i>		----		<b>12.8</b>		<b>14.5</b>		<b>12.0</b>		<b>13.4</b>		<b>14.0</b>	
Mesirow VI		0.9		29.0		17.2		10.1		----		----	
Mesirow VI net of fees		0.6		27.3		14.3		2.6		----		----	
<i>Cambridge Private Equity</i>		----		<b>12.8</b>		<b>14.5</b>		<b>12.0</b>		<b>13.4</b>		<b>14.0</b>	
Intercontinental US REIF		2.1		10.7		----		----		----		----	
Intercontinental US REIF net of fees		1.4		9.0		----		----		----		----	
<i>NCREIF NFI-ODCE Index</i>		<b>1.8</b>		<b>8.3</b>		<b>8.2</b>		<b>10.4</b>		<b>11.0</b>		<b>7.0</b>	
Invesco Core RE		2.2		9.4		----		----		----		----	
Invesco Core RE net of fees		1.9		8.2		----		----		----		----	
<i>NCREIF NFI-ODCE Index</i>		<b>1.8</b>		<b>8.3</b>		<b>8.2</b>		<b>10.4</b>		<b>11.0</b>		<b>7.0</b>	
Principal RE		1.5		9.2		----		----		----		----	
Principal RE net of fees		1.2		8.0		----		----		----		----	
<i>NCREIF NFI-ODCE Index</i>		<b>1.8</b>		<b>8.3</b>		<b>8.2</b>		<b>10.4</b>		<b>11.0</b>		<b>7.0</b>	
Victory Fixed Income	(Core Fixed Income)	2.1	(7)	0.5	(22)	2.4	(59)	2.7	(65)	2.6	(49)	3.9	(75)
Victory Fixed Income net of fees		2.1		0.1		2.0		2.3		2.3		3.6	
<i>Bloomberg Barclays Aggregate</i>		<b>1.6</b>		<b>0.0</b>		<b>2.1</b>		<b>2.5</b>		<b>2.1</b>		<b>3.5</b>	
Robinson	(Intermediate Fixed)	2.0	(5)	2.4	(2)	1.9	(57)	2.3	(36)	2.3	(43)	----	----
Robinson net of fees		1.9		2.2		1.7		2.1		2.0		----	
<i>Bloomberg Barclays Int. Gov/Cred</i>		<b>1.7</b>		<b>0.9</b>		<b>1.7</b>		<b>1.9</b>		<b>1.7</b>		<b>2.9</b>	



**PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM**  
**ATTUCKS PERFORMANCE SUMMARY AS OF DECEMBER 2018**

Portfolio	Universe	Quarter		1 Year		3 Years		5 Years	
<b>Attucks Emerging Mgr</b>	<b>(Large Cap)</b>	<b>-13.3</b>	<b>(37)</b>	<b>-3.8</b>	<b>(35)</b>	<b>8.7</b>	<b>(48)</b>	<b>7.6</b>	<b>(58)</b>
<b>Net of mgr fees &amp; gross of Attucks fees</b>		<b>-13.4</b>		<b>-4.1</b>		<b>8.4</b>		<b>7.3</b>	
<b>Attucks Emerging Mgr net of all fees</b>		<b>-13.5</b>		<b>-4.3</b>		<b>8.1</b>		<b>7.0</b>	
<i>S&amp;P 500</i>		<i>-13.5</i>		<i>-4.4</i>		<i>9.3</i>		<i>8.5</i>	
Ativo	(Large Cap Core)	-13.2	(36)	-6.6	(73)	7.2	(80)	7.3	(72)
Ativo net of fees		-13.2		-6.9		6.8		7.0	
<i>S&amp;P 500</i>		<i>-13.5</i>		<i>-4.4</i>		<i>9.3</i>		<i>8.5</i>	
Matarin	(Large Cap Core)	-13.8	(49)	-3.7	(27)	----	----	----	----
Matarin net of fees		-13.9		-3.9		----		----	
<i>S&amp;P 500</i>		<i>-13.5</i>		<i>-4.4</i>		<i>9.3</i>		<i>8.5</i>	
Oakbrook	(Large Cap Growth)	-17.5	(85)	-3.3	(71)	10.7	(40)	10.7	(26)
Oakbrook net of fees		-17.5		-3.6		10.4		10.4	
<i>Russell 1000 Growth</i>		<i>-15.9</i>		<i>-1.5</i>		<i>11.1</i>		<i>10.4</i>	
<b>Attucks Michigan</b>	<b>(Large Cap Value)</b>	<b>-13.6</b>	<b>(50)</b>	<b>-9.2</b>	<b>(58)</b>	<b>6.7</b>	<b>(61)</b>	<b>6.5</b>	<b>(43)</b>
<b>Net of mgr fees &amp; gross of Attucks fees</b>		<b>-13.6</b>		<b>-9.5</b>		<b>6.3</b>		<b>6.1</b>	
<b>Attucks Michigan net of fees</b>		<b>-13.7</b>		<b>-9.7</b>		<b>6.0</b>		<b>5.8</b>	
<i>Russell 1000 Value</i>		<i>-11.7</i>		<i>-8.3</i>		<i>6.9</i>		<i>5.9</i>	
NorthPointe	(Large Cap Value)	-13.0	(43)	-10.6	(71)	5.3	(84)	5.9	(61)
NorthPointe net of fees		-13.0		-10.9		5.0		5.6	
<i>Russell 1000 Value</i>		<i>-11.7</i>		<i>-8.3</i>		<i>6.9</i>		<i>5.9</i>	
Seizert	(Large Cap Value)	-14.2	(61)	-7.9	(43)	8.9	(20)	7.3	(28)
Seizert net of fees		-14.2		-8.2		8.6		6.9	
<i>Russell 1000 Value</i>		<i>-11.7</i>		<i>-8.3</i>		<i>6.9</i>		<i>5.9</i>	

## MANAGER VALUE ADDED

1 Quarter	Portfolio	Benchmark	1 Year
0.2	Attucks Emerging Mgr	S&P 500	0.6
5.5	Sawgrass	Russell 1000G	4.9
-1.9	Attucks Michigan	Russell 1000V	-0.9
-0.9	Victory MCG	Russ Mid Gro	-7.6
-3.3	Systematic	Russ Mid Val	-3.6
1.0	Kennedy SCC	Russell 2000	-2.0
0.5	Loomis	Russell 2000V	-2.2
-0.6	WCM	ACWI Ex US Net	8.6
3.6	First Eagle International	ACWI Ex US Value	N/A
0.4	GrayCo	Cambridge PE	-7.0
0.0	Invesco V	Cambridge PE	0.4
6.9	Mesirow IV	Cambridge PE	-5.7
0.9	Mesirow VI	Cambridge PE	16.2
0.3	Intercontinental	NCREIF ODCE	2.4
0.4	Invesco Core RE	NCREIF ODCE	1.1
-0.3	Principal	NCREIF ODCE	0.9
0.5	Victory FI	Aggregate Index	0.5
0.3	Robinson	Int Gov/Credit	1.5
<b>-0.3  </b>	<b>Total Portfolio</b>	<b>Shadow Index</b>	<b>-0.6  </b>

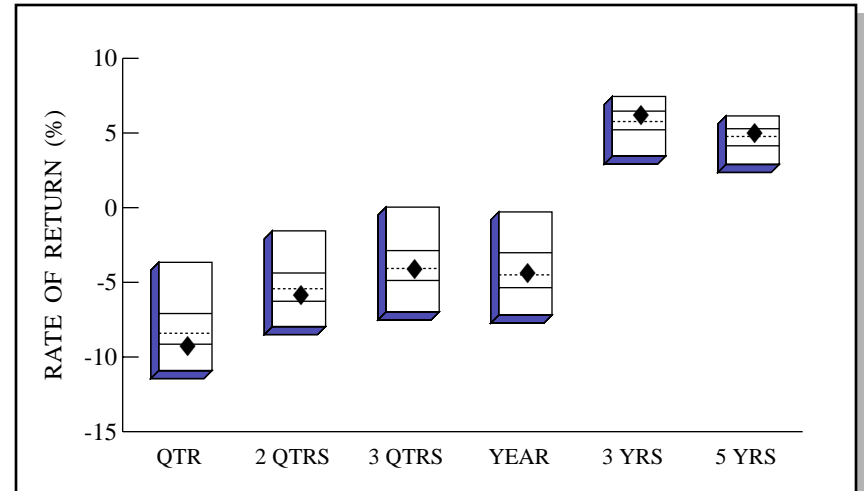
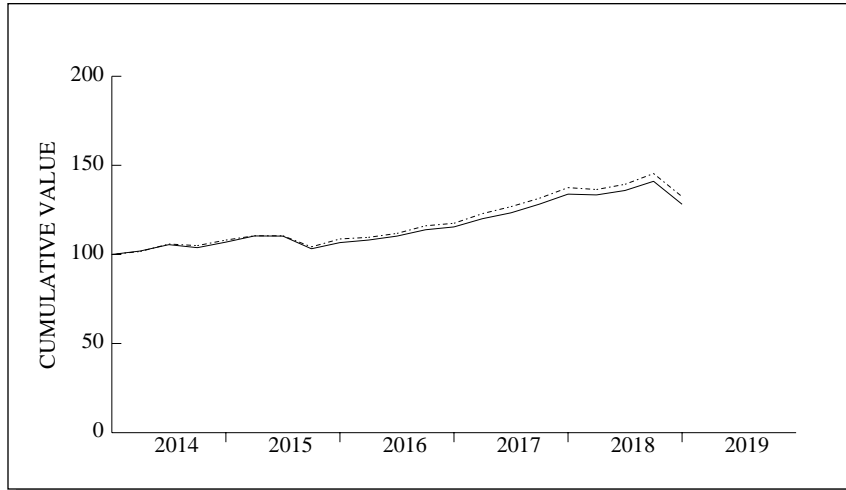
**INVESTMENT RETURN SUMMARY - ONE QUARTER**

<b>Name</b>	<b>Quarter Total Return</b>	<b>Market Value September 30th, 2018</b>	<b>Net Cashflow</b>	<b>Net Investment Return</b>	<b>Market Value December 31st, 2018</b>
Attucks Emerging Mgr (LC)	-13.3	59,599,540	-4,200,251	-7,583,874	47,815,415
Sawgrass (LCG)	-10.4	35,852,165	-394	-3,745,038	32,106,733
Attucks Michigan (LCV)	-13.6	32,055,418	-3,500,255	-4,008,666	24,546,497
Victory MCG (MCG)	-16.9	43,928,004	-112	-7,403,729	36,524,163
Systematic (MCV)	-18.3	45,137,570	-321	-8,246,122	36,891,127
NT Russell 2000 Growth (SMDG)	---	0	13,390,745	-187,426	13,203,319
Kennedy SCC (SCC)	-19.2	22,616,493	-238	-4,344,359	18,271,896
Kennedy SCG (SCG)	---	16,745,098	-13,392,565	-3,351,714	819
Loomis (SCV)	-18.2	27,270,103	-365	-4,967,490	22,302,248
WCM (INEQ)	-12.1	34,315,356	-8,704,154	-4,068,774	21,542,428
First Eagle International (INEV)	-7.0	27,666,880	-8,700,000	-1,759,827	17,207,053
Northern Trust EM Index (EMKT)	---	0	8,000,000	-2,193	7,997,807
Wellington Emerging Markets (EMKT)	---	0	11,977,463	97,596	12,075,059
GrayCo (PREQ)	0.4	5,248,187	-241,886	21,823	5,028,124
Invesco V (PREQ)	0.0	1,423,178	-57,361	0	1,365,817
Mesirow IV (PREQ)	6.9	2,660,977	-281,204	173,824	2,553,597
Mesirow VI (PREQ)	0.9	2,504,858	-29,785	14,892	2,489,965
Intercontinental (REAL)	2.1	5,318,249	-77,274	112,967	5,353,942
Invesco Core RE (REAL)	2.2	16,235,574	-140,258	351,566	16,446,882
Principal (REAL)	1.5	12,274,436	0	151,487	12,425,923
Brandywine (GLFI)	---	2,693,908	-2,625,707	-68,201	0
Victory FI (CFI)	2.1	57,545,829	-234	1,235,078	58,780,673
Robinson (IMFI)	2.0	55,784,593	-953	1,115,257	56,898,897
Cash (CASH)	---	4,395,047	-1,401,555	40,170	3,033,662
<b>Total Portfolio</b>	<b>-9.2</b>	<b>511,271,463</b>	<b>-9,986,664</b>	<b>-46,422,753</b>	<b>454,862,046</b>

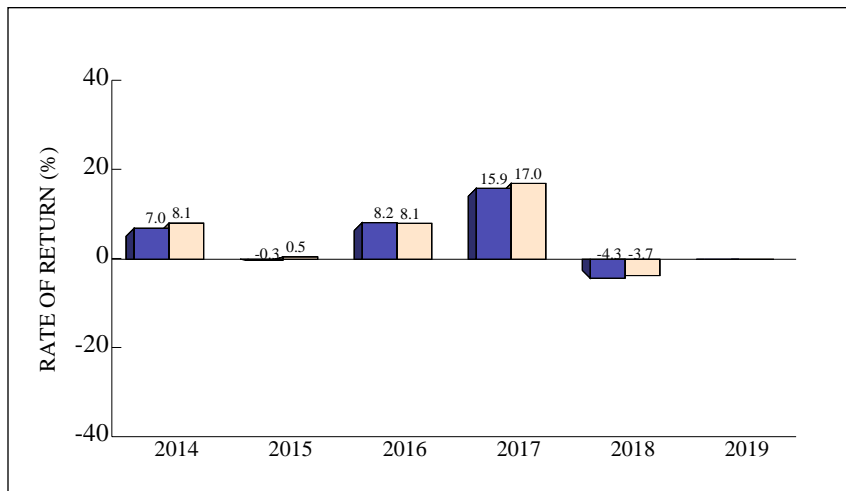
**INVESTMENT RETURN SUMMARY WITH LAGGED PRIVATE EQUITY - ONE QUARTER**

Name	Quarter Total Return	Market Value September 30th, 2018	Net Cashflow	Net Investment Return	Market Value December 31st, 2018
Attucks Emerging Mgr (LC)	-13.3	59,599,540	-4,200,251	-7,583,874	47,815,415
Sawgrass (LCG)	-10.4	35,852,165	-394	-3,745,038	32,106,733
Attucks Michigan (LCV)	-13.6	32,055,418	-3,500,255	-4,008,666	24,546,497
Victory MCG (MCG)	-16.9	43,928,004	-112	-7,403,729	36,524,163
Systematic (MCV)	-18.3	45,137,570	-321	-8,246,122	36,891,127
NT Russell 2000 Growth (SMDG)	---	0	13,390,745	-187,426	13,203,319
Kennedy SCC (SCC)	-19.2	22,616,493	-238	-4,344,359	18,271,896
Kennedy SCG (SCG)	---	16,745,098	-13,392,565	-3,351,714	819
Loomis (SCV)	-18.2	27,270,103	-365	-4,967,490	22,302,248
WCM (INEQ)	-12.1	34,315,356	-8,704,154	-4,068,774	21,542,428
First Eagle International (INEV)	-7.0	27,666,880	-8,700,000	-1,759,827	17,207,053
Northern Trust EM Index (EMKT)	---	0	8,000,000	-2,193	7,997,807
Wellington Emerging Markets (EMKT)	---	0	11,977,463	97,596	12,075,059
GrayCo (Lag) (PREQ)	2.2	5,373,925	-242,429	116,691	5,248,187
Invesco V (Lag) (PREQ)	4.2	1,968,516	-619,828	74,490	1,423,178
Mesirow IV (Lag) (PREQ)	2.4	2,705,571	-107,380	62,786	2,660,977
Mesirow VI (Lag) (PREQ)	5.4	2,240,537	150,000	114,321	2,504,858
Intercontinental (REAL)	2.1	5,318,249	-77,274	112,967	5,353,942
Invesco Core RE (REAL)	2.2	16,235,574	-140,258	351,566	16,446,882
Principal (REAL)	1.5	12,274,436	0	151,487	12,425,923
Brandywine (GLFI)	---	2,693,908	-2,625,707	-68,201	0
Victory FI (CFI)	2.1	57,545,829	-234	1,235,078	58,780,673
Robinson (IMFI)	2.0	55,784,593	-953	1,115,257	56,898,897
Cash (CASH)	---	4,395,047	-1,401,555	40,170	3,033,662
<b>Total Portfolio</b>	<b>-9.1</b>	<b>511,722,812</b>	<b>-10,196,065</b>	<b>-46,265,004</b>	<b>455,261,743</b>

**TOTAL RETURN COMPARISONS**



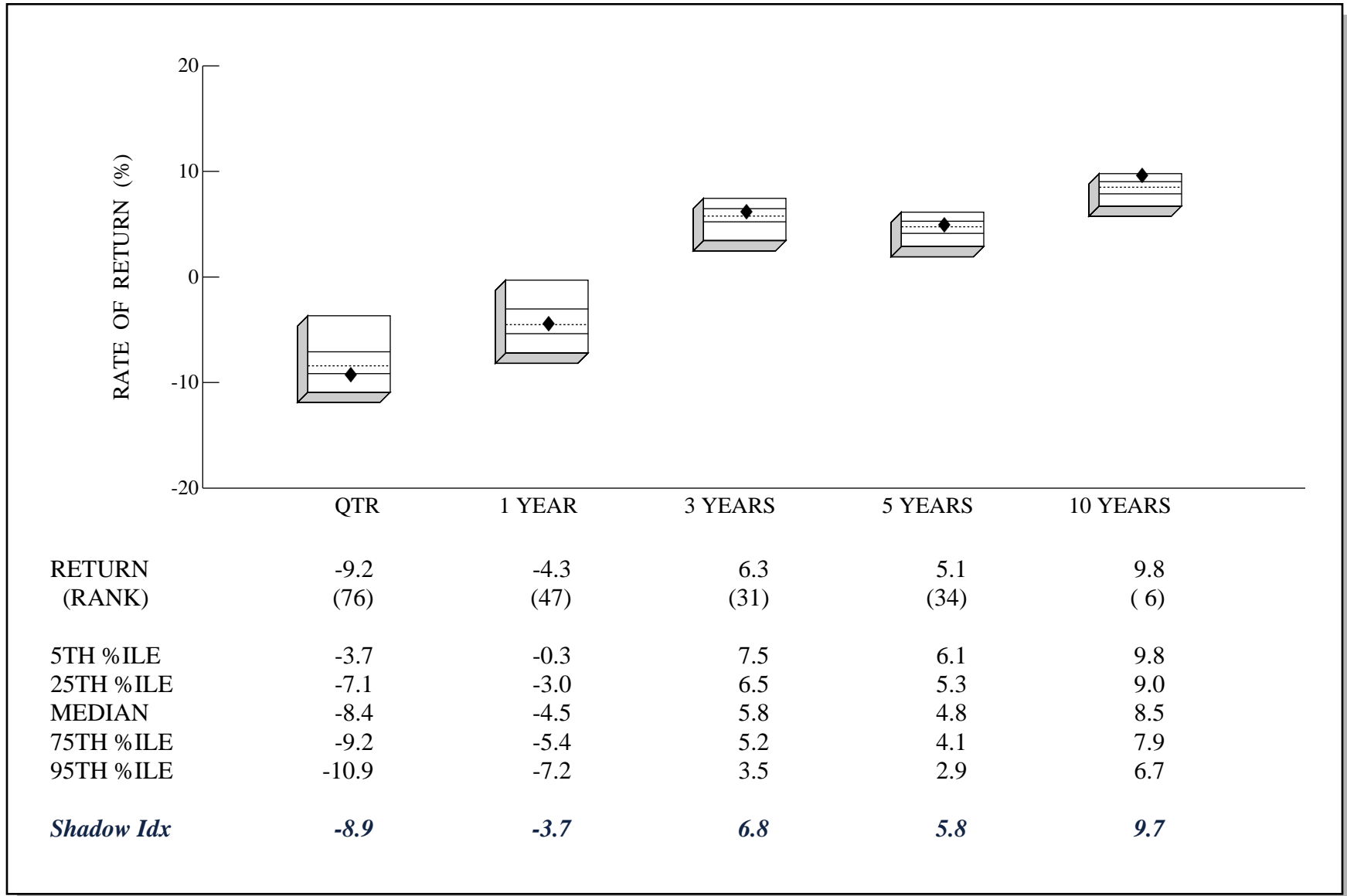
Public Fund Universe



	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	-9.2	-5.7	-4.0	-4.3	6.3	5.1
(RANK)	(76)	(60)	(49)	(47)	(31)	(34)
5TH %ILE	-3.7	-1.6	0.0	-0.3	7.5	6.1
25TH %ILE	-7.1	-4.4	-2.9	-3.0	6.5	5.3
MEDIAN	-8.4	-5.4	-4.1	-4.5	5.8	4.8
75TH %ILE	-9.2	-6.3	-4.9	-5.4	5.2	4.1
95TH %ILE	-10.9	-8.0	-7.0	-7.2	3.5	2.9
<i>Shadow Idx</i>	<b>-8.9</b>	<b>-5.0</b>	<b>-3.0</b>	<b>-3.7</b>	<b>6.8</b>	<b>5.8</b>

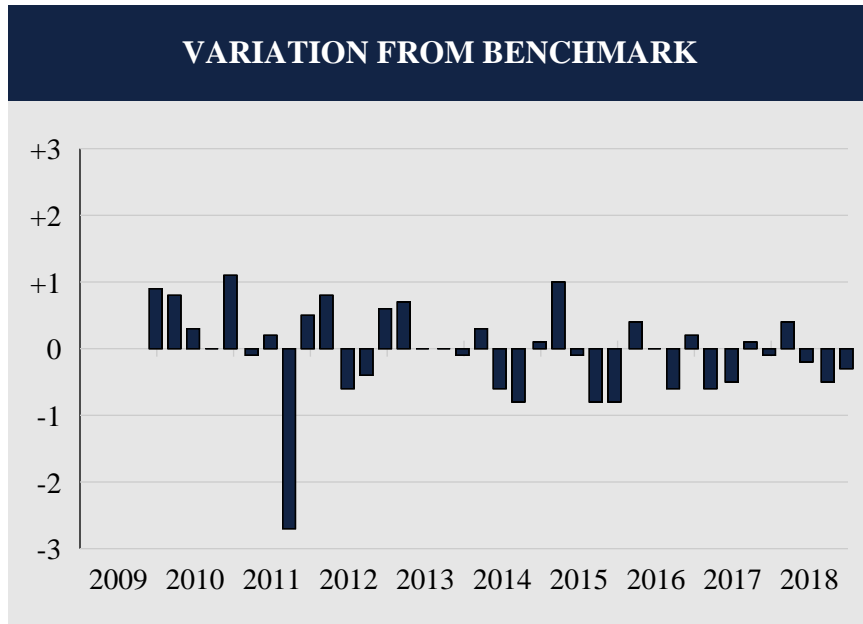
Public Fund Universe

**TOTAL PORTFOLIO UNIVERSE RANKINGS - PUBLIC FUND UNIVERSE**



**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY SINCE DECEMBER 2007**

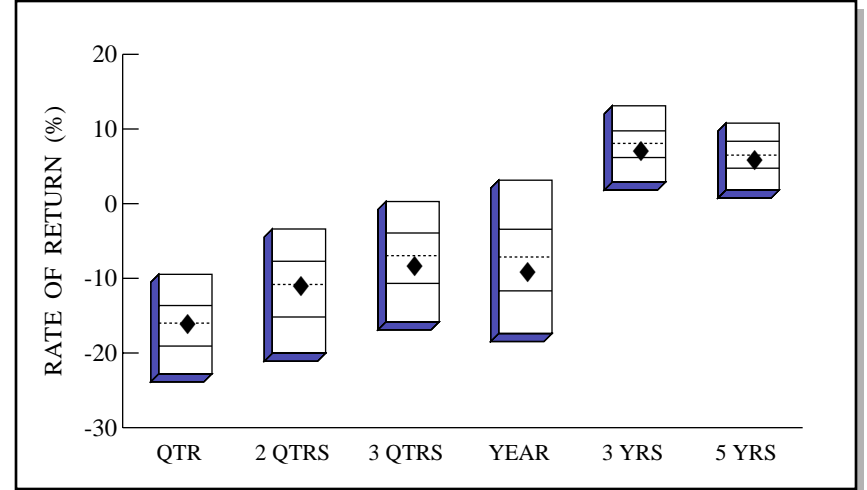
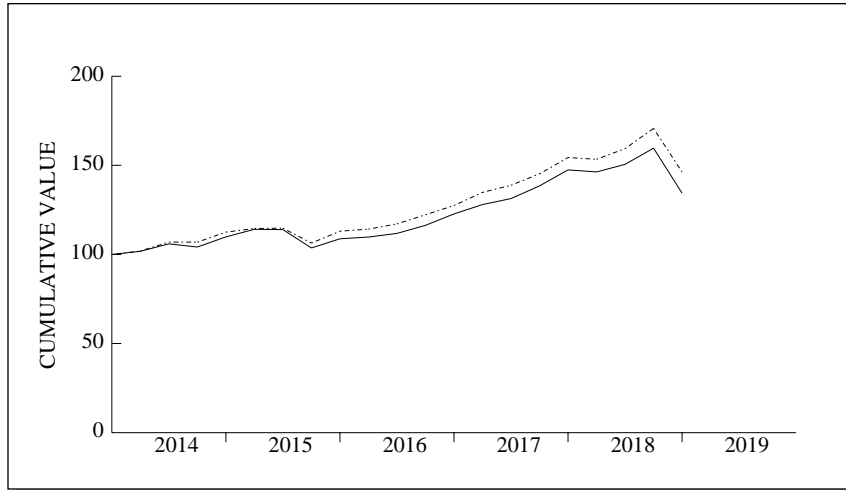
**COMPARATIVE BENCHMARK: SHADOW INDEX**



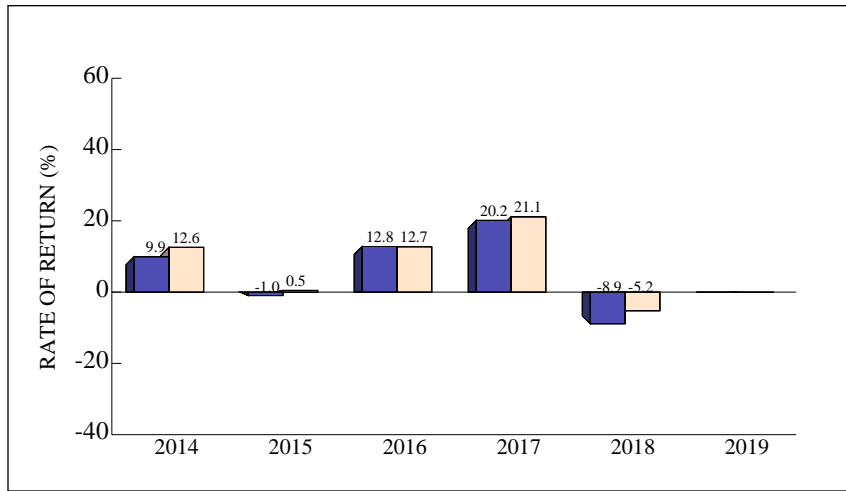
<b>Total Quarters Observed</b>	<b>37</b>
<b>Quarters At or Above the Benchmark</b>	<b>20</b>
<b>Quarters Below the Benchmark</b>	<b>17</b>
<b>Batting Average</b>	<b>.541</b>

<b>RATES OF RETURN</b>			
Date	Portfolio	Benchmark	Difference
12/09	4.6	3.7	0.9
3/10	5.0	4.2	0.8
6/10	-6.5	-6.8	0.3
9/10	8.8	8.8	0.0
12/10	8.3	7.2	1.1
3/11	4.4	4.5	-0.1
6/11	1.0	0.8	0.2
9/11	-13.0	-10.3	-2.7
12/11	8.0	7.5	0.5
3/12	9.5	8.7	0.8
6/12	-2.6	-2.0	-0.6
9/12	4.6	5.0	-0.4
12/12	1.9	1.3	0.6
3/13	7.9	7.2	0.7
6/13	1.0	1.0	0.0
9/13	5.7	5.7	0.0
12/13	6.7	6.8	-0.1
3/14	2.0	1.7	0.3
6/14	3.5	4.1	-0.6
9/14	-1.6	-0.8	-0.8
12/14	3.0	2.9	0.1
3/15	3.2	2.2	1.0
6/15	-0.1	0.0	-0.1
9/15	-6.4	-5.6	-0.8
12/15	3.4	4.2	-0.8
3/16	1.3	0.9	0.4
6/16	2.0	2.0	0.0
9/16	3.2	3.8	-0.6
12/16	1.4	1.2	0.2
3/17	4.0	4.6	-0.6
6/17	2.7	3.2	-0.5
9/17	3.9	3.8	0.1
12/17	4.4	4.5	-0.1
3/18	-0.3	-0.7	0.4
6/18	1.9	2.1	-0.2
9/18	3.8	4.3	-0.5
12/18	-9.2	-8.9	-0.3

**DOMESTIC EQUITY RETURN COMPARISONS**



Domestic Equity Universe



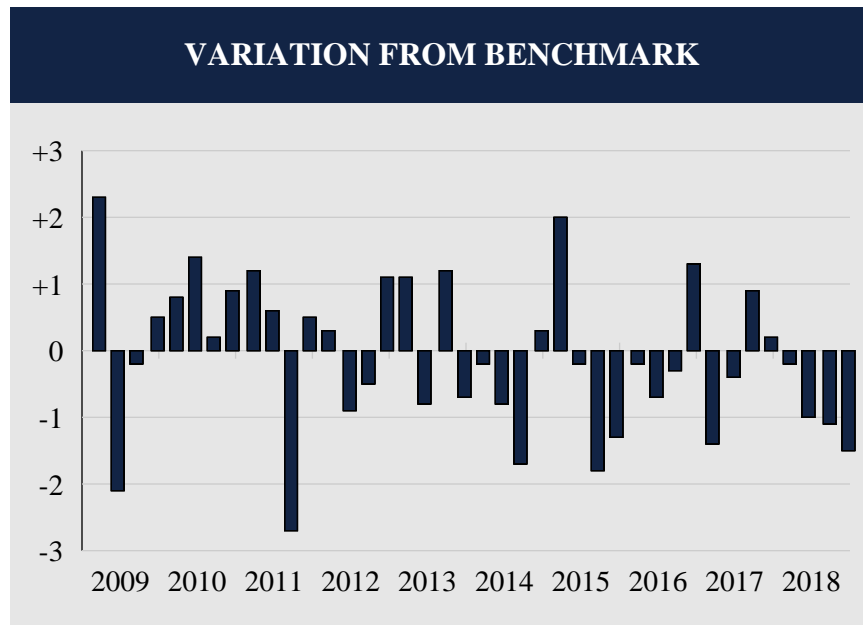
	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	-15.8	-10.8	-8.2	-8.9	7.3	6.1
(RANK)	(49)	(50)	(58)	(60)	(62)	(57)
5TH %ILE	-9.5	-3.4	0.3	3.2	13.1	10.8
25TH %ILE	-13.6	-7.7	-3.9	-3.4	9.8	8.3
MEDIAN	-16.0	-10.8	-7.0	-7.1	8.1	6.5
75TH %ILE	-19.1	-15.2	-10.7	-11.7	6.2	4.8
95TH %ILE	-22.8	-20.0	-15.8	-17.4	2.9	1.8
<b>Russ 3000</b>	<b>-14.3</b>	<b>-8.2</b>	<b>-4.6</b>	<b>-5.2</b>	<b>9.0</b>	<b>7.9</b>

Domestic Equity Universe



**DOMESTIC EQUITY QUARTERLY PERFORMANCE SUMMARY - 10 YEARS**

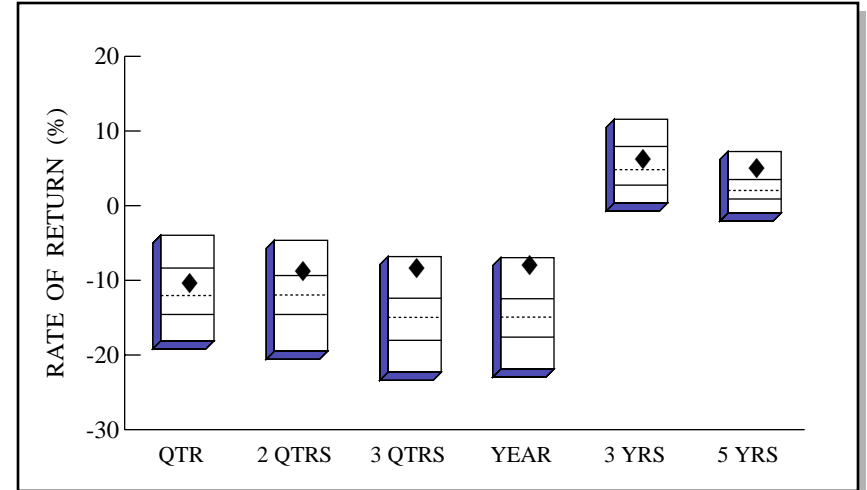
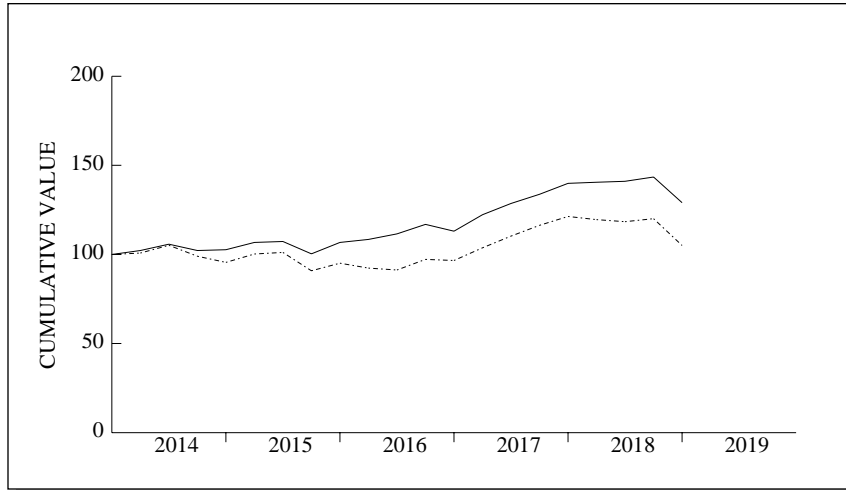
**COMPARATIVE BENCHMARK: RUSSELL 3000**



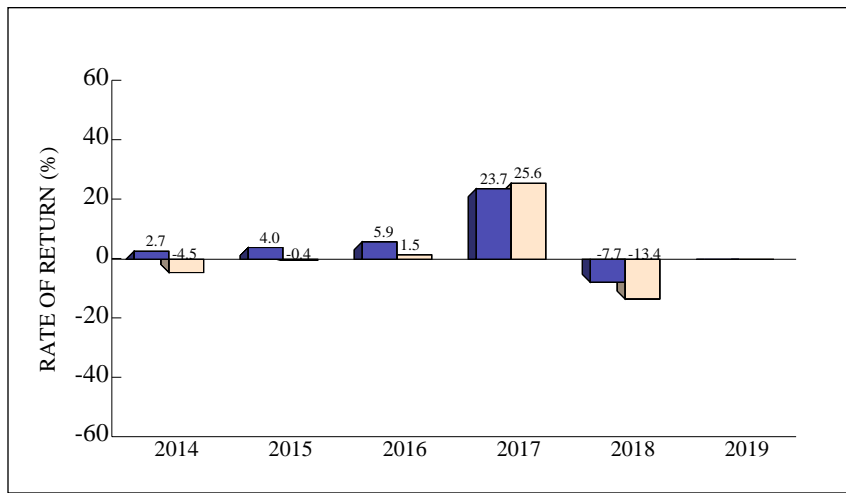
RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/09	-8.5	-10.8	2.3
6/09	14.7	16.8	-2.1
9/09	16.1	16.3	-0.2
12/09	6.4	5.9	0.5
3/10	6.7	5.9	0.8
6/10	-9.9	-11.3	1.4
9/10	11.7	11.5	0.2
12/10	12.5	11.6	0.9
3/11	7.6	6.4	1.2
6/11	0.6	0.0	0.6
9/11	-18.0	-15.3	-2.7
12/11	12.6	12.1	0.5
3/12	13.2	12.9	0.3
6/12	-4.0	-3.1	-0.9
9/12	5.7	6.2	-0.5
12/12	1.4	0.3	1.1
3/13	12.2	11.1	1.1
6/13	1.9	2.7	-0.8
9/13	7.6	6.4	1.2
12/13	9.4	10.1	-0.7
3/14	1.8	2.0	-0.2
6/14	4.1	4.9	-0.8
9/14	-1.7	0.0	-1.7
12/14	5.5	5.2	0.3
3/15	3.8	1.8	2.0
6/15	-0.1	0.1	-0.2
9/15	-9.0	-7.2	-1.8
12/15	5.0	6.3	-1.3
3/16	0.8	1.0	-0.2
6/16	1.9	2.6	-0.7
9/16	4.1	4.4	-0.3
12/16	5.5	4.2	1.3
3/17	4.3	5.7	-1.4
6/17	2.6	3.0	-0.4
9/17	5.5	4.6	0.9
12/17	6.5	6.3	0.2
3/18	-0.8	-0.6	-0.2
6/18	2.9	3.9	-1.0
9/18	6.0	7.1	-1.1
12/18	-15.8	-14.3	-1.5

<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>18</b>
<b>Quarters Below the Benchmark</b>	<b>22</b>
<b>Batting Average</b>	<b>.450</b>

### INTERNATIONAL EQUITY RETURN COMPARISONS



International Equity Universe

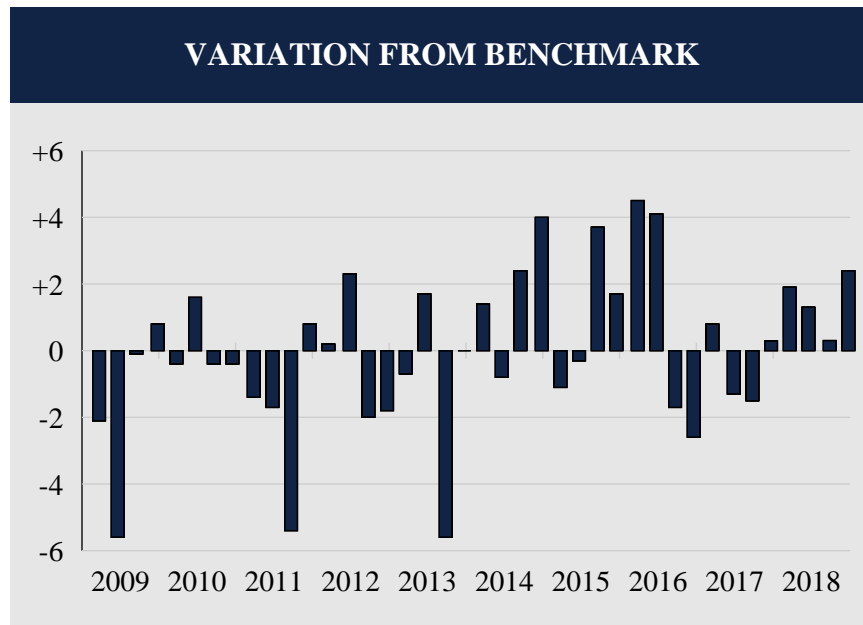


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	-10.1	-8.5	-8.2	-7.7	6.5	5.2
(RANK)	(36)	(21)	(8)	(6)	(36)	(12)
5TH %ILE	-4.0	-4.7	-6.8	-7.0	11.6	7.3
25TH %ILE	-8.3	-9.3	-12.4	-12.5	7.9	3.5
MEDIAN	-12.0	-12.0	-15.0	-14.9	4.8	2.1
75TH %ILE	-14.6	-14.6	-18.0	-17.6	2.8	0.9
95TH %ILE	-18.1	-19.5	-22.3	-21.9	0.4	-1.0
<b>MSCI EAFE</b>	<b>-12.5</b>	<b>-11.3</b>	<b>-12.1</b>	<b>-13.4</b>	<b>3.4</b>	<b>1.0</b>

International Equity Universe

**INTERNATIONAL EQUITY QUARTERLY PERFORMANCE SUMMARY - 10 YEARS**

**COMPARATIVE BENCHMARK: MSCI EAFE**

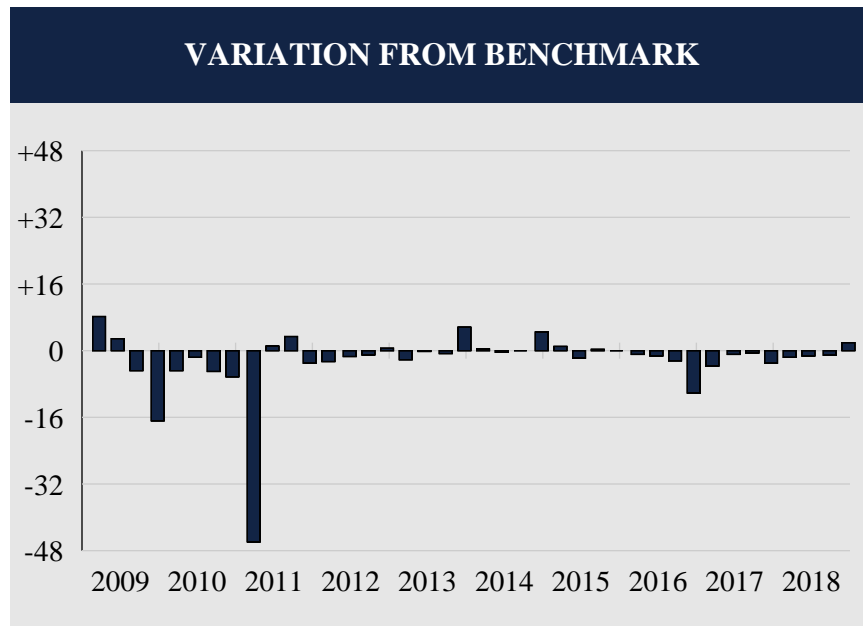


<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>20</b>
<b>Quarters Below the Benchmark</b>	<b>20</b>
<b>Batting Average</b>	<b>.500</b>

<b>RATES OF RETURN</b>			
<b>Date</b>	<b>Portfolio</b>	<b>Benchmark</b>	<b>Difference</b>
3/09	-16.0	-13.9	-2.1
6/09	20.2	25.8	-5.6
9/09	19.4	19.5	-0.1
12/09	3.0	2.2	0.8
3/10	0.5	0.9	-0.4
6/10	-12.1	-13.7	1.6
9/10	16.1	16.5	-0.4
12/10	6.3	6.7	-0.4
3/11	2.0	3.4	-1.4
6/11	0.1	1.8	-1.7
9/11	-24.4	-19.0	-5.4
12/11	4.2	3.4	0.8
3/12	11.2	11.0	0.2
6/12	-4.6	-6.9	2.3
9/12	5.0	7.0	-2.0
12/12	4.8	6.6	-1.8
3/13	4.5	5.2	-0.7
6/13	1.0	-0.7	1.7
9/13	6.0	11.6	-5.6
12/13	5.7	5.7	0.0
3/14	2.2	0.8	1.4
6/14	3.5	4.3	-0.8
9/14	-3.4	-5.8	2.4
12/14	0.5	-3.5	4.0
3/15	3.9	5.0	-1.1
6/15	0.5	0.8	-0.3
9/15	-6.5	-10.2	3.7
12/15	6.4	4.7	1.7
3/16	1.6	-2.9	4.5
6/16	2.9	-1.2	4.1
9/16	4.8	6.5	-1.7
12/16	-3.3	-0.7	-2.6
3/17	8.2	7.4	0.8
6/17	5.1	6.4	-1.3
9/17	4.0	5.5	-1.5
12/17	4.6	4.3	0.3
3/18	0.5	-1.4	1.9
6/18	0.3	-1.0	1.3
9/18	1.7	1.4	0.3
12/18	-10.1	-12.5	2.4

## PRIVATE EQUITY QUARTERLY PERFORMANCE SUMMARY

**COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY**



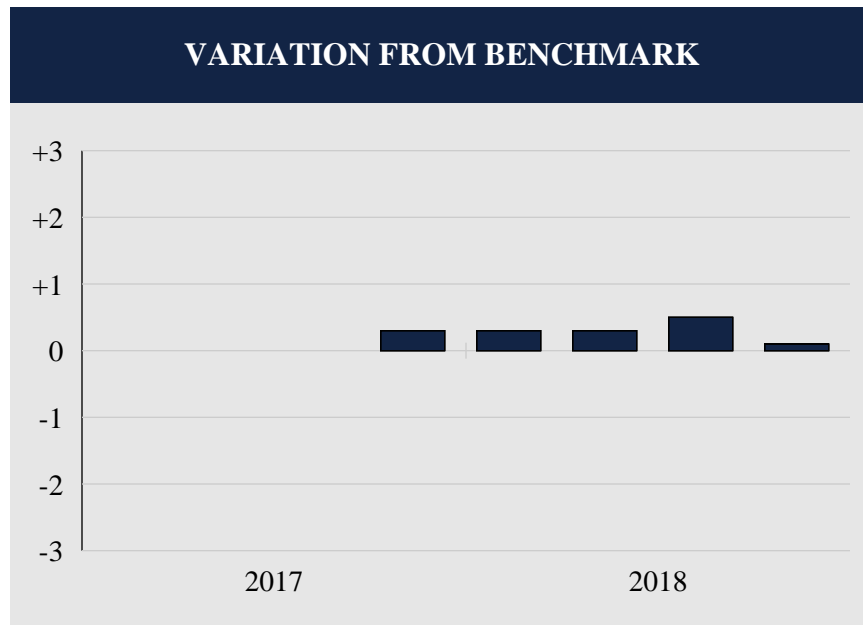
<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>13</b>
<b>Quarters Below the Benchmark</b>	<b>27</b>
<b>Batting Average</b>	<b>.325</b>

### RATES OF RETURN

Date	Portfolio	Benchmark	Difference
3/09	4.9	-3.3	8.2
6/09	7.4	4.5	2.9
9/09	1.0	5.8	-4.8
12/09	-10.8	6.0	-16.8
3/10	-0.4	4.4	-4.8
6/10	0.0	1.6	-1.6
9/10	0.1	5.1	-5.0
12/10	2.8	9.1	-6.3
3/11	-40.7	5.2	-45.9
6/11	5.7	4.6	1.1
9/11	-0.8	-4.2	3.4
12/11	2.3	5.3	-3.0
3/12	2.8	5.4	-2.6
6/12	-1.5	-0.1	-1.4
9/12	2.7	3.7	-1.0
12/12	4.4	3.8	0.6
3/13	2.4	4.6	-2.2
6/13	2.9	3.1	-0.2
9/13	4.4	5.1	-0.7
12/13	12.5	6.9	5.6
3/14	3.5	3.1	0.4
6/14	5.0	5.4	-0.4
9/14	1.5	1.5	0.0
12/14	5.4	0.9	4.5
3/15	3.6	2.6	1.0
6/15	2.0	3.8	-1.8
9/15	-1.1	-1.4	0.3
12/15	0.5	0.5	0.0
3/16	-0.9	0.0	-0.9
6/16	2.7	4.0	-1.3
9/16	1.5	3.9	-2.4
12/16	-5.6	4.6	-10.2
3/17	0.2	3.9	-3.7
6/17	2.6	3.5	-0.9
9/17	3.4	4.0	-0.6
12/17	2.1	5.1	-3.0
3/18	1.1	2.7	-1.6
6/18	4.1	5.4	-1.3
9/18	3.1	4.2	-1.1
12/18	1.9	0.0	1.9

**REAL ESTATE QUARTERLY PERFORMANCE SUMMARY**

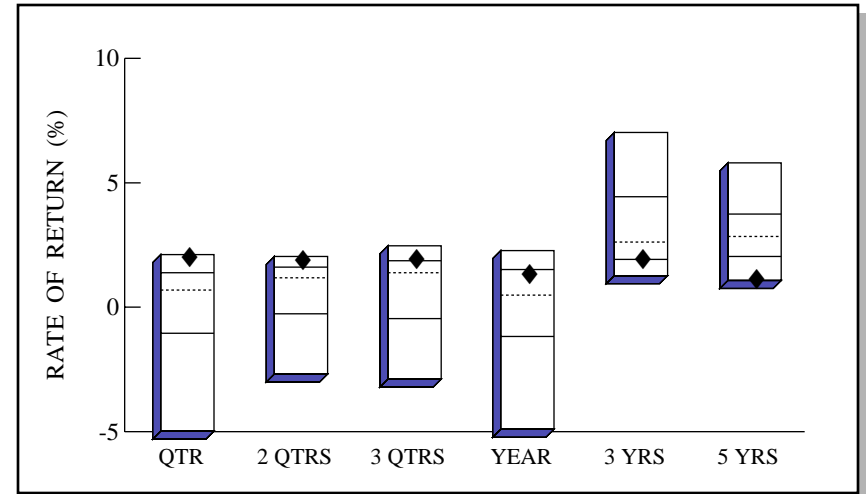
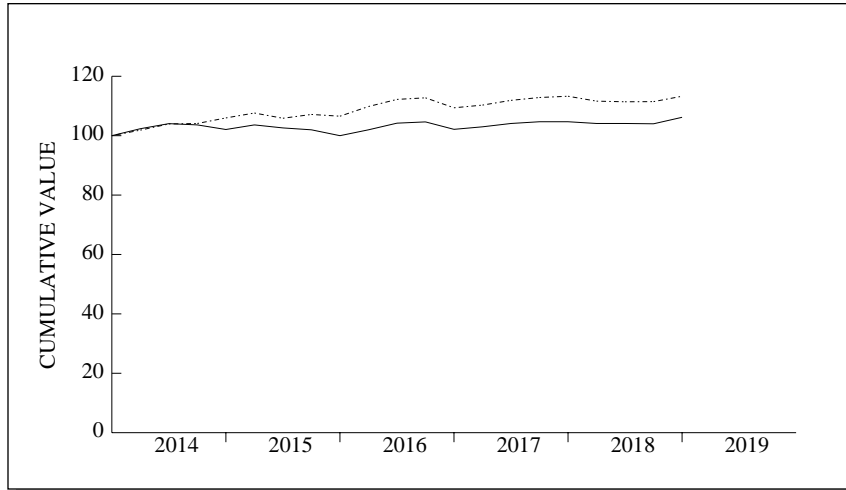
**COMPARATIVE BENCHMARK: NCREIF NFI-ODCE INDEX**



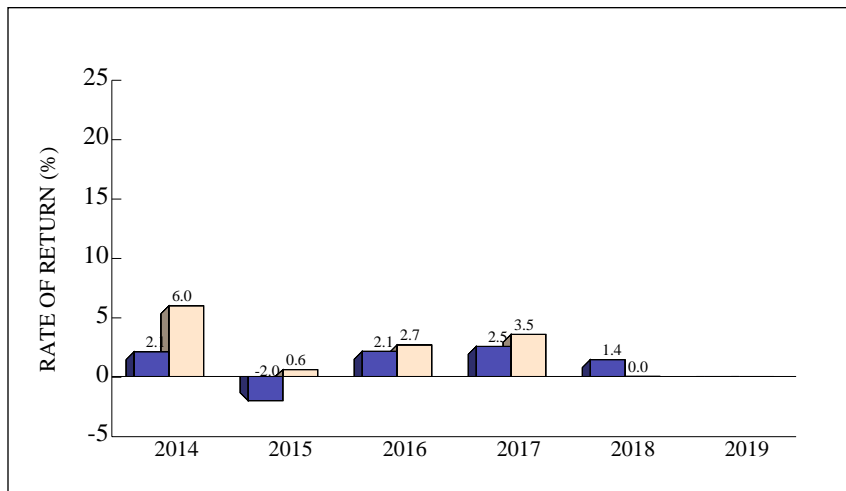
RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
12/17	2.4	2.1	0.3
3/18	2.5	2.2	0.3
6/18	2.3	2.0	0.3
9/18	2.6	2.1	0.5
12/18	1.9	1.8	0.1

<b>Total Quarters Observed</b>	<b>5</b>
<b>Quarters At or Above the Benchmark</b>	<b>5</b>
<b>Quarters Below the Benchmark</b>	<b>0</b>
<b>Batting Average</b>	<b>1.000</b>

**DOMESTIC FIXED INCOME RETURN COMPARISONS**



Broad Market Fixed Universe

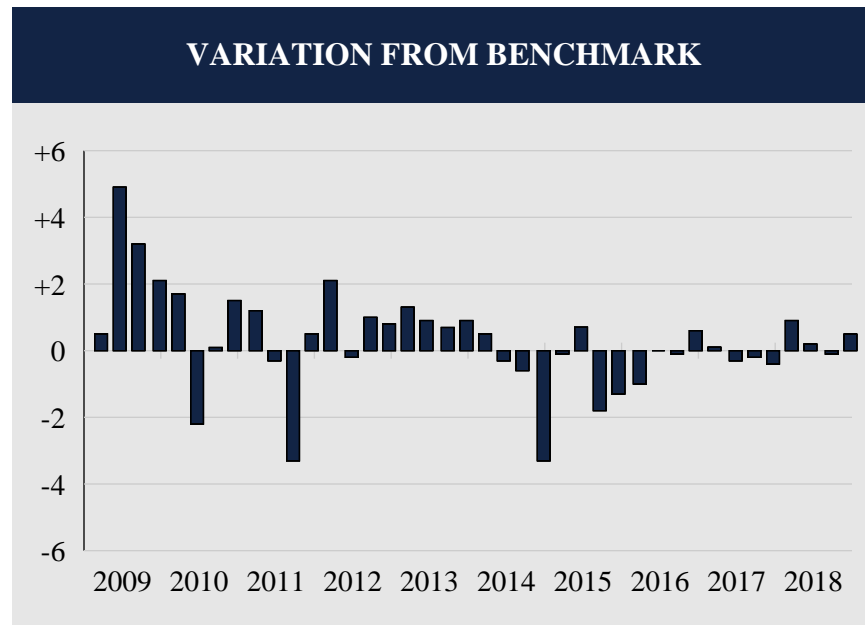


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	2.1	2.0	2.0	1.4	2.0	1.2
(RANK)	(6)	(7)	(18)	(29)	(71)	(93)
5TH %ILE	2.1	2.0	2.5	2.3	7.0	5.8
25TH %ILE	1.4	1.6	1.9	1.5	4.4	3.7
MEDIAN	0.7	1.2	1.4	0.5	2.6	2.8
75TH %ILE	-1.1	-0.3	-0.5	-1.2	1.9	2.0
95TH %ILE	-5.0	-2.7	-2.9	-4.9	1.3	1.1
<b>Agg</b>	<b>1.6</b>	<b>1.7</b>	<b>1.5</b>	<b>0.0</b>	<b>2.1</b>	<b>2.5</b>

Broad Market Fixed Universe

**DOMESTIC FIXED INCOME QUARTERLY PERFORMANCE SUMMARY - 10 YEARS**

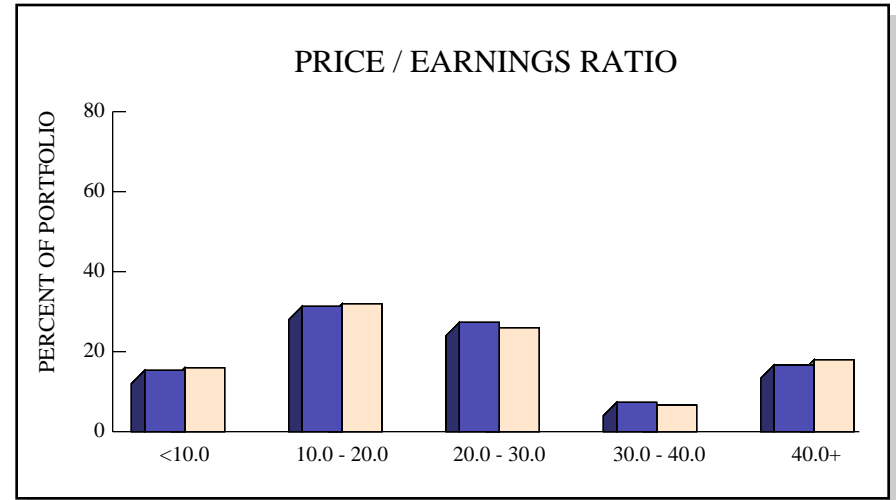
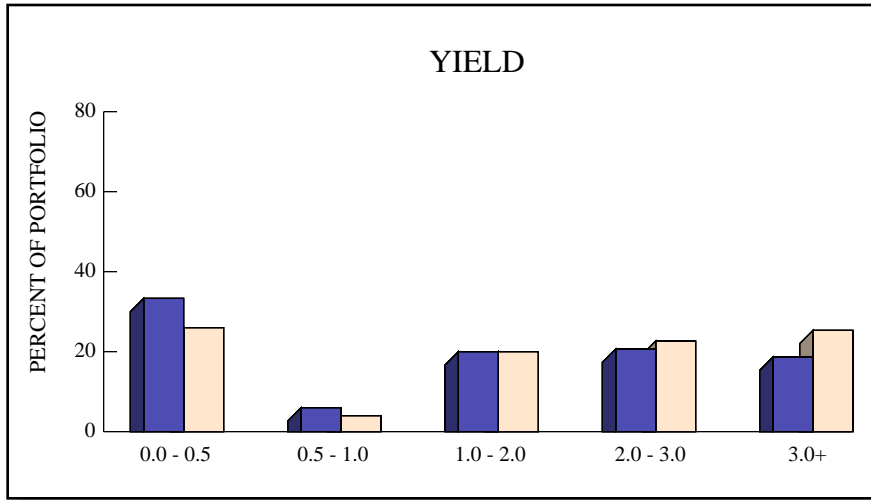
**COMPARATIVE BENCHMARK: BLOOMBERG BARCLAYS AGGREGATE INDEX**



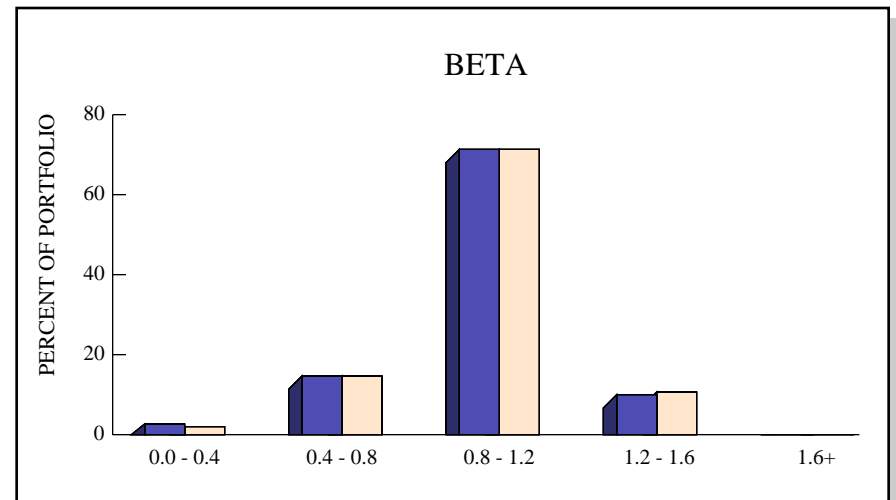
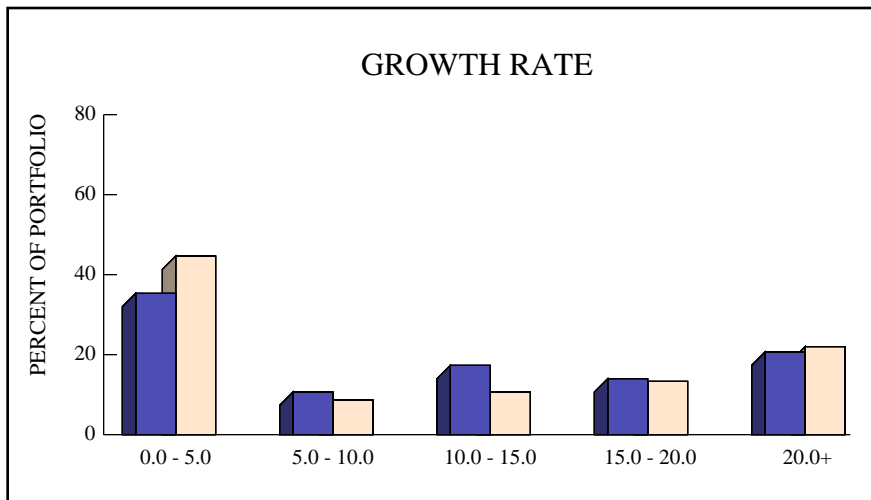
RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/09	0.6	0.1	0.5
6/09	6.7	1.8	4.9
9/09	6.9	3.7	3.2
12/09	2.3	0.2	2.1
3/10	3.5	1.8	1.7
6/10	1.3	3.5	-2.2
9/10	2.6	2.5	0.1
12/10	0.2	-1.3	1.5
3/11	1.6	0.4	1.2
6/11	2.0	2.3	-0.3
9/11	0.5	3.8	-3.3
12/11	1.6	1.1	0.5
3/12	2.4	0.3	2.1
6/12	1.9	2.1	-0.2
9/12	2.6	1.6	1.0
12/12	1.0	0.2	0.8
3/13	1.2	-0.1	1.3
6/13	-1.4	-2.3	0.9
9/13	1.3	0.6	0.7
12/13	0.8	-0.1	0.9
3/14	2.3	1.8	0.5
6/14	1.7	2.0	-0.3
9/14	-0.4	0.2	-0.6
12/14	-1.5	1.8	-3.3
3/15	1.5	1.6	-0.1
6/15	-1.0	-1.7	0.7
9/15	-0.6	1.2	-1.8
12/15	-1.9	-0.6	-1.3
3/16	2.0	3.0	-1.0
6/16	2.2	2.2	0.0
9/16	0.4	0.5	-0.1
12/16	-2.4	-3.0	0.6
3/17	0.9	0.8	0.1
6/17	1.1	1.4	-0.3
9/17	0.6	0.8	-0.2
12/17	0.0	0.4	-0.4
3/18	-0.6	-1.5	0.9
6/18	0.0	-0.2	0.2
9/18	-0.1	0.0	-0.1
12/18	2.1	1.6	0.5

<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>24</b>
<b>Quarters Below the Benchmark</b>	<b>16</b>
<b>Batting Average</b>	<b>.600</b>

**STOCK CHARACTERISTICS**

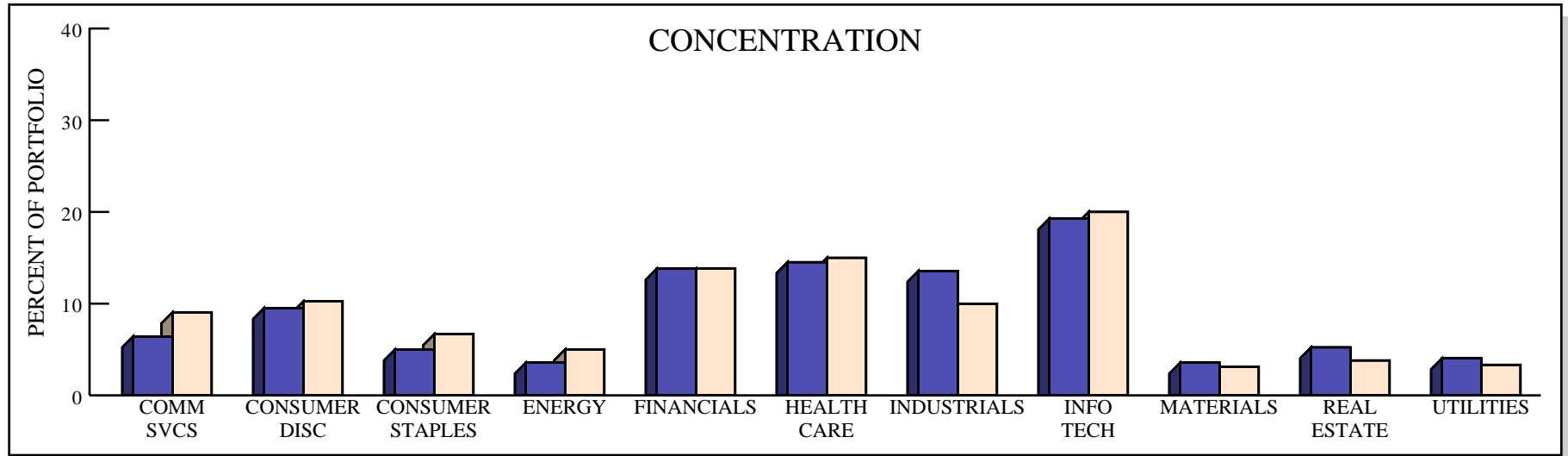


	# HOLDINGS	YIELD	GROWTH	P/E	BETA
PORTFOLIO	735	1.7%	10.3%	24.3	0.96
RUSSELL 3000	3,015	2.0%	9.5%	23.8	0.98

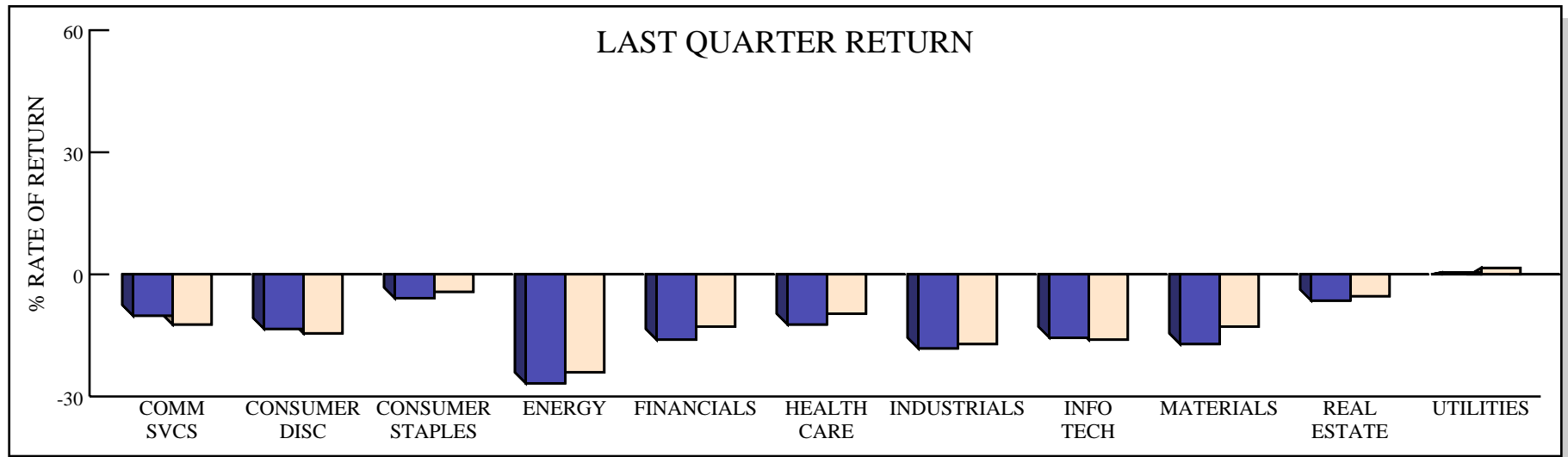




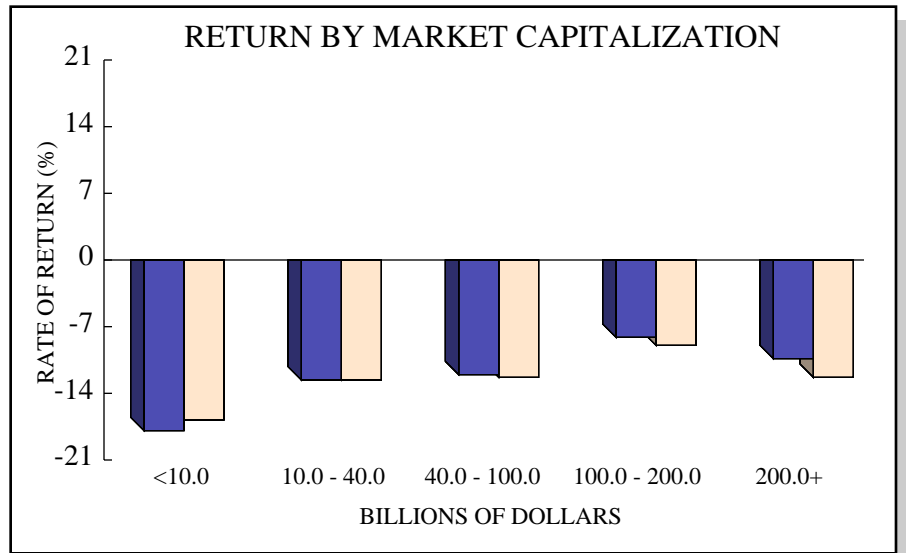
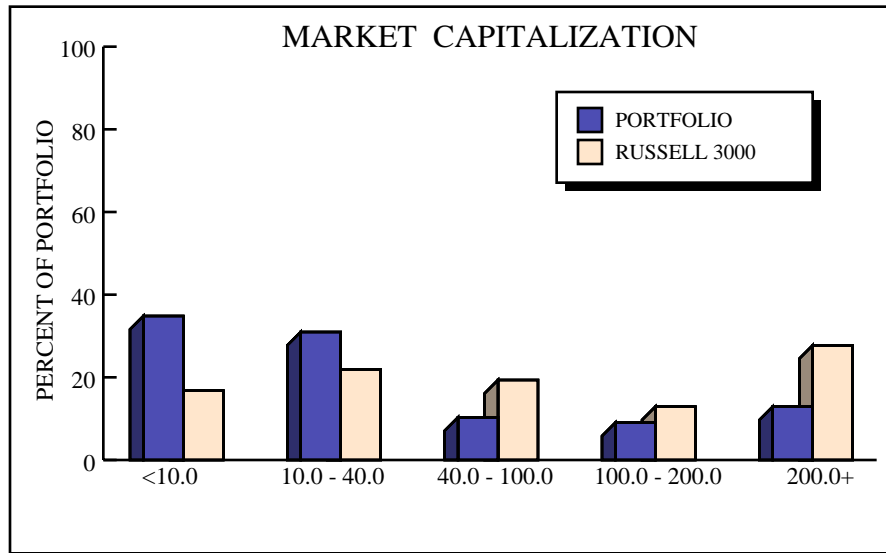
**STOCK INDUSTRY ANALYSIS**



■ PORTFOLIO      ■ RUSSELL 3000



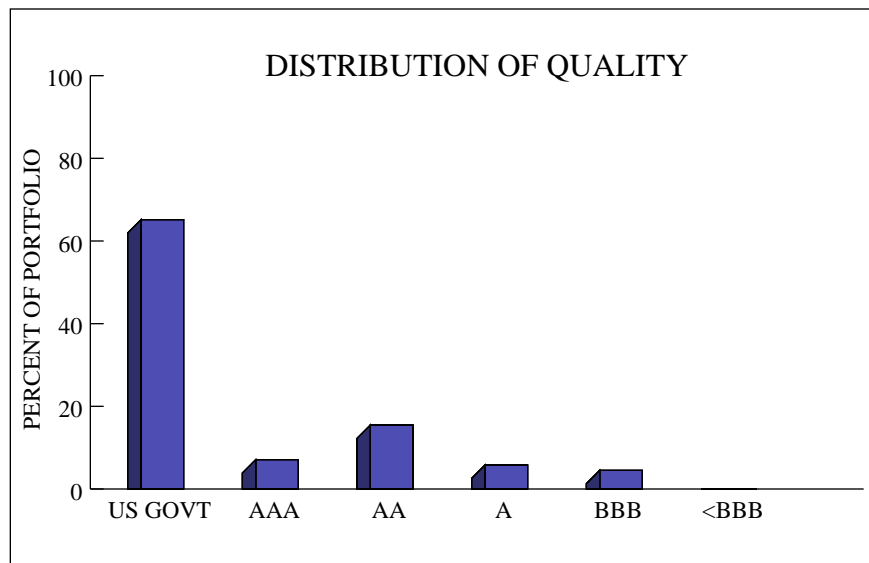
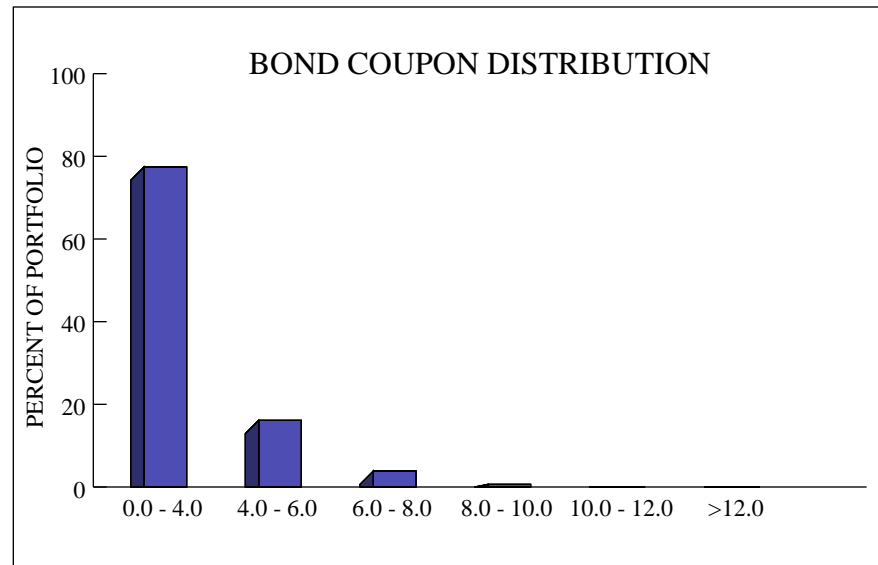
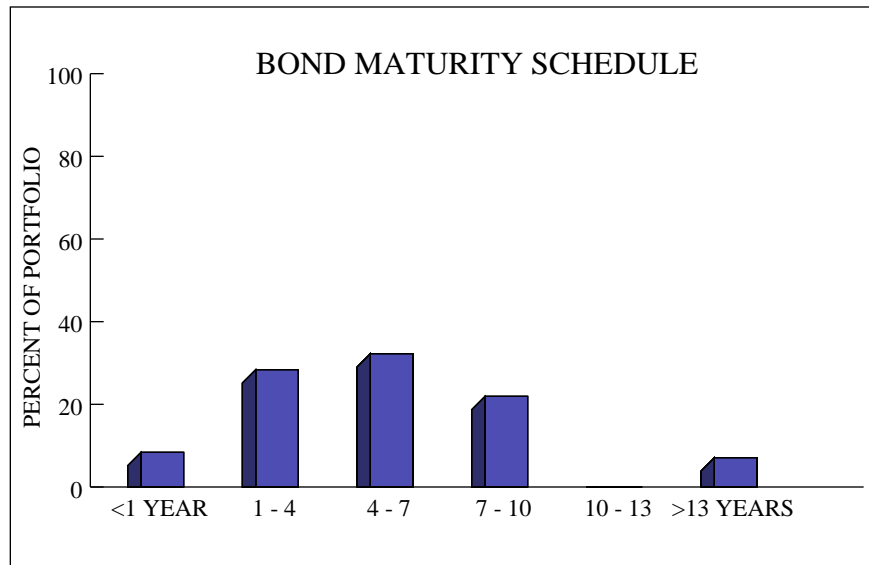
**TOP TEN HOLDINGS**



**TOP TEN EQUITY HOLDINGS**

RANK	NAME	VALUE	% EQUITY	RETURN	INDUSTRY SECTOR	MKT CAP
1	APPLE INC	\$ 4,146,354	1.79%	-29.9%	Information Technology	\$ 748.5 B
2	ALPHABET INC-CL A	2,865,280	1.24%	-13.4%	Communication Services	312.4 B
3	MICROSOFT CORP	2,809,934	1.21%	-10.8%	Information Technology	785.0 B
4	CISCO SYSTEMS INC	2,265,726	.98%	-10.3%	Information Technology	194.8 B
5	AMGEN INC	2,003,349	.86%	-5.4%	Health Care	124.0 B
6	BERKSHIRE HATHAWAY INC-CL B	1,993,205	.86%	-4.6%	Financials	278.3 B
7	VERIZON COMMUNICATIONS INC	1,940,208	.84%	6.5%	Communication Services	232.3 B
8	AUTOZONE INC	1,886,265	.81%	8.1%	Consumer Discretionary	21.1 B
9	MASTERCARD INC - A	1,788,025	.77%	-15.2%	Information Technology	192.6 B
10	WALT DISNEY CO/THE	1,680,935	.73%	-5.5%	Communication Services	163.2 B

**BOND CHARACTERISTICS**



	<b>PORTFOLIO</b>	<b>AGGREGATE INDEX</b>
No. of Securities	228	10,252
Duration	3.31	5.87
YTM	2.86	3.28
Average Coupon	3.19	3.20
Avg Maturity / WAL	6.13	8.22
Average Quality	AAA	USG-AAA

**PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM  
MANAGER FEE SCHEDULES**

Manager	Annual Fee Schedule
Attucks Emerging Mgr Attucks Michigan	0.5% on all assets
First Eagle	0.75% on all assets
GrayCo I	1% on invested capital
Intercontinental U.S. REIF	1.1% on first \$25 million; 1% on next \$25 million; 0.85% on next \$50 million. Preferred Return: 8%; Carried Interest: 20%
Invesco V	0.7% on committed capital in year one; 0.8% in year two; 0.9% in years three through eight; reduced by 10% per year thereafter, but not below a rate of 0.5%
Invesco Core RE	Management Fee: 1.1% Cash Management: 0.15% on cash in excess of 7.5% of aggregate NAV
Kennedy SCC	95 basis points on all assets
Loomis	0.8% on first \$10 million; 0.6% on remainder
Mesirow IV Mesirow VI	1% on committed capital for years one through seven; reduced by 10% per year thereafter
Northern Trust EM	0.1% on all assets
Northern Trust Russell 2000 Growth	0.06% on all assets
Principal	1% on all assets
Robinson	0.22% on all assets
Sawgrass	0.6% on first \$20 million; 0.5% on remainder
Systematic	0.5% on first \$75 million; 0.4% on remainder
Victory MCG Victory Fixed Income	0.45% on first \$25 million; 0.35% on next \$25 million; 0.30% on remainder of combined assets between both portfolios
WCM	0.75% on all assets
Wellington	0.5% on all assets

## APPENDIX - MAJOR MARKET INDEX RETURNS

<b>Economic Data</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 years</b>	<b>5 Years</b>
Consumer Price Index	Economic Data	-0.5	1.9	1.9	2.0	1.5
<b>Domestic Equity</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 years</b>	<b>5 Years</b>
Russell 3000	Broad Equity	-14.3	-5.2	-5.2	9.0	7.9
S&P 500	Large Cap Core	-13.5	-4.4	-4.4	9.3	8.5
Russell 1000	Large Cap	-13.8	-4.8	-4.8	9.1	8.2
Russell 1000 Growth	Large Cap Growth	-15.9	-1.5	-1.5	11.1	10.4
Russell 1000 Value	Large Cap Value	-11.7	-8.3	-8.3	6.9	5.9
Russell Mid Cap	Midcap	-15.4	-9.1	-9.1	7.0	6.3
Russell Mid Cap Growth	Midcap Growth	-16.0	-4.8	-4.8	8.6	7.4
Russell Mid Cap Value	Midcap Value	-15.0	-12.3	-12.3	6.0	5.4
Russell 2000	Small Cap	-20.2	-11.0	-11.0	7.3	4.4
Russell 2000 Growth	Small Cap Growth	-21.7	-9.3	-9.3	7.2	5.1
Russell 2000 Value	Small Cap Value	-18.7	-12.9	-12.9	7.4	3.6
<b>International Equity</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 years</b>	<b>5 Years</b>
MSCI All Country World Ex US	Foreign Equity	-11.4	-13.8	-13.8	5.0	1.1
MSCI EAFE	Developed Markets Equity	-12.5	-13.4	-13.4	3.4	1.0
MSCI EAFE Growth	Developed Markets Growth	-13.3	-12.5	-12.5	3.3	2.0
MSCI EAFE Value	Developed Markets Value	-11.6	-14.3	-14.3	3.4	-0.1
MSCI Emerging Markets	Emerging Markets Equity	-7.4	-14.2	-14.2	9.7	2.0
<b>Domestic Fixed Income</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 years</b>	<b>5 Years</b>
Bloomberg Barclays Aggregate Index	Core Fixed Income	1.6	0.0	0.0	2.1	2.5
Bloomberg Barclays Capital Gov't Bond	Treasuries	2.5	0.9	0.9	1.4	2.0
Bloomberg Barclays Capital Credit Bond	Corporate Bonds	0.0	-2.1	-2.1	3.2	3.2
Intermediate Aggregate	Core Intermediate	1.8	0.9	0.9	1.7	2.1
ML/BoA 1-3 Year Treasury	Short Term Treasuries	1.3	1.6	1.6	1.0	0.8
Bloomberg Barclays Capital High Yield	High Yield Bonds	-4.5	-2.1	-2.1	7.2	3.8
<b>Alternative Assets</b>	<b>Style</b>	<b>QTR</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 years</b>	<b>5 Years</b>
Bloomberg Barclays Global Treasury Ex US	International Treasuries	1.9	-0.9	-0.9	3.3	0.4
NCREIF NFI-ODCE Index	Real Estate	1.8	8.3	8.3	8.2	10.4
HFRI FOF Composite	Hedge Funds	-4.8	-3.9	-3.9	1.3	1.4

**APPENDIX - DISCLOSURES**

\* The shadow index is a customized index that matches your portfolio's asset allocation on a quarterly basis.

This index was calculated using the following asset classes and corresponding benchmarks:

Domestic Equity	Russell 3000
International Equity	MSCI EAFE
Emerging Markets Equity	MSCI Emerging Markets
Private Equity	Cambridge US Private Equity
Real Estate	NCREIF NFI-ODCE Index
Domestic Fixed Income	Bloomberg Barclays Aggregate Index
Cash & Equivalent	90 Day T Bill

\* Dahab Associates utilizes data provided by a custodian and other vendors it believes are reliable. However, it cannot assume responsibility for errors and omissions therefrom.

\* All returns were calculated on a time-weighted basis, and are gross of fees unless otherwise noted.

\* All returns for periods greater than one year are annualized.

\* Dahab Associates uses the modified duration measure to present average duration.

\* All values are in US dollars.

\* The blended assumption rate is 7.5% through December 31, 2015 and 7.0% thereafter.

**A note on our industry sector classifications:**

Beginning with our December 2018 reports, we have changed the classification of industry sectors in our equity analysis. We believe the current system better reflects the segments of the equity market at this time. The current system differs from our previous system in a few distinct ways. Previously, Health Care had been disaggregated by its various components such as medical devices, health services, and pharmaceuticals into other sectors. Real Estate had been part of the Financials sector, but is now a standalone category. Durable Goods and Non-Durable goods were replaced by Discretionary and Staples. As always, we calculate sector returns for equity portfolios and their benchmarks using the same methodology in order to present a fair comparison.

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
ATTUCKS - EMERGING MANAGER  
PERFORMANCE REVIEW  
DECEMBER 2018



## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Attucks Emerging Manager portfolio was valued at \$47,815,415, a decrease of \$11,784,125 from the September ending value of \$59,599,540. Last quarter, the account recorded total net withdrawals of \$4,200,251 in addition to \$7,583,874 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$244,958 and realized and unrealized capital losses totaling \$7,828,832.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Attucks Emerging Manager portfolio lost 13.3%, which was 0.2% greater than the S&P 500 Index's return of -13.5% and ranked in the 37th percentile of the Large Cap universe. Over the trailing year, the portfolio returned -3.8%, which was 0.6% greater than the benchmark's -4.4% performance, and ranked in the 35th percentile. Since June 2011, the account returned 10.3% per annum and ranked in the 66th percentile. For comparison, the S&P 500 returned an annualized 11.2% over the same time frame.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 06/11
<b>Total Portfolio - Gross</b>	-13.3	-3.8	8.7	7.6	12.2	----	10.3
<i>LARGE CAP RANK</i>	(37)	(35)	(48)	(58)	(60)	----	(66)
<b>Total Portfolio - Net</b>	-13.5	-4.3	8.1	7.0	11.5	----	9.6
S&P 500	-13.5	-4.4	9.3	8.5	12.7	13.1	11.2
<b>Domestic Equity - Gross</b>	-13.3	-3.8	8.7	7.6	12.2	----	10.3
<i>LARGE CAP RANK</i>	(37)	(35)	(48)	(58)	(60)	----	(66)
S&P 500	-13.5	-4.4	9.3	8.5	12.7	13.1	11.2

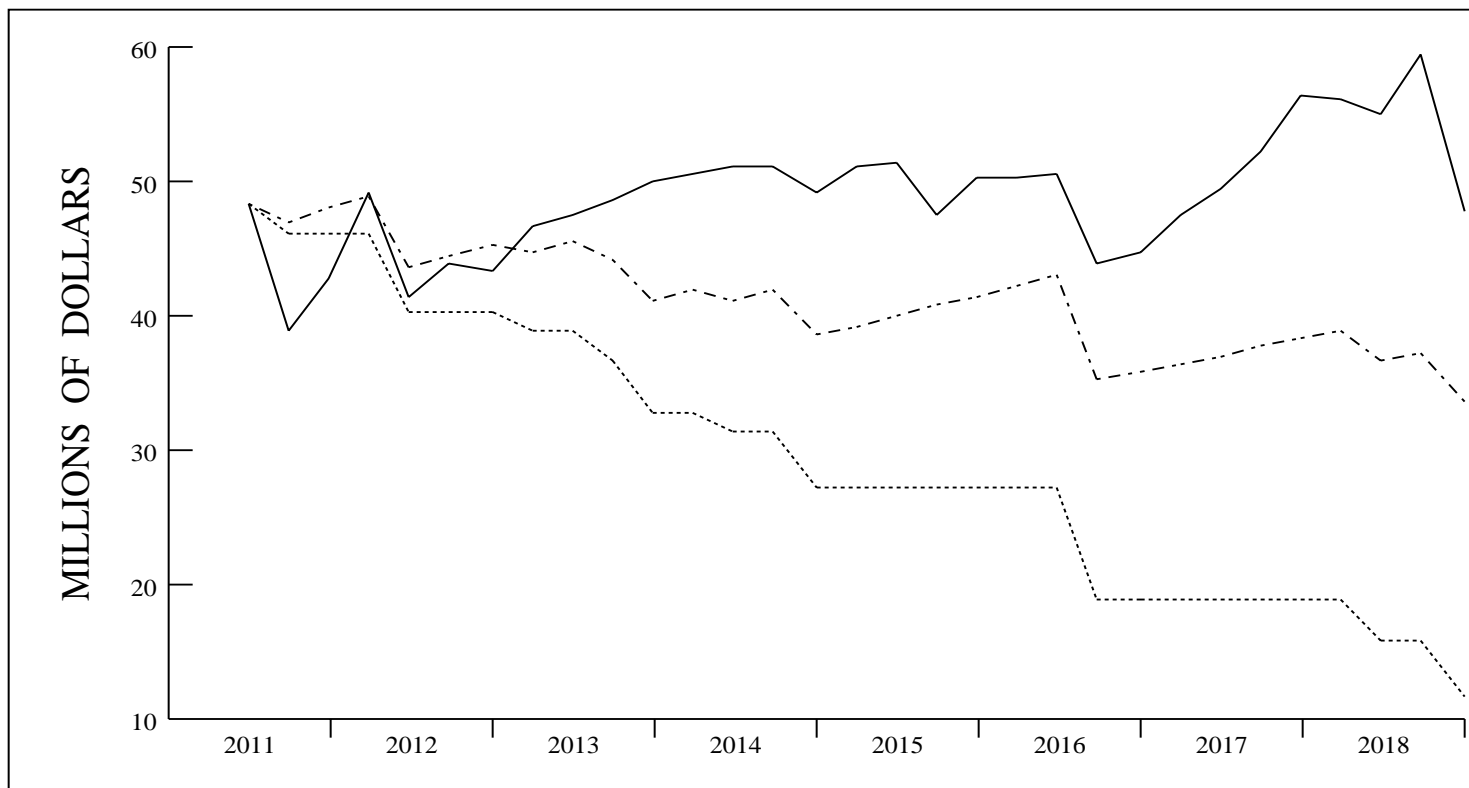
**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 47,815,415
Total Portfolio	100.0%	\$ 47,815,415

**INVESTMENT RETURN**

Market Value 9/2018	\$ 59,599,540
Contribs / Withdrawals	-4,200,251
Income	244,958
Capital Gains / Losses	-7,828,832
Market Value 12/2018	\$ 47,815,415

**INVESTMENT GROWTH**



— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 33,786,550

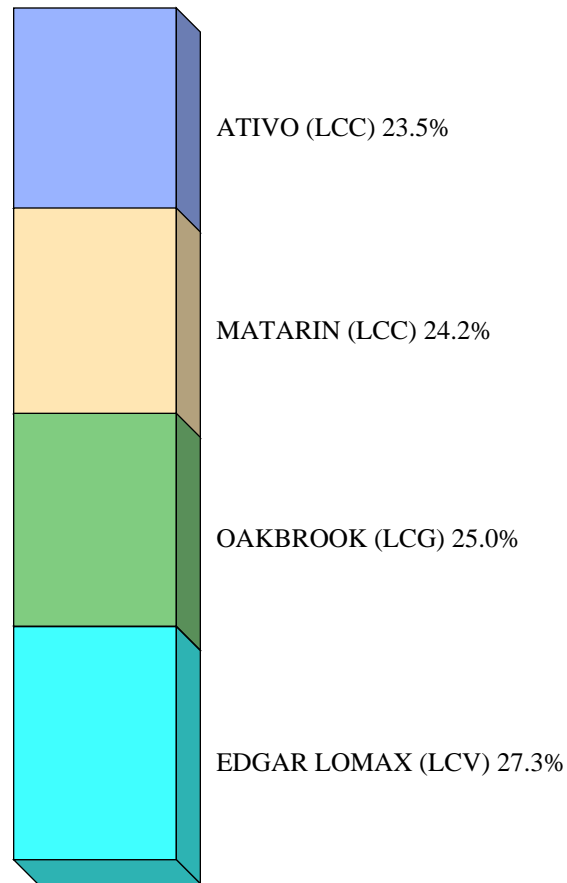
	LAST QUARTER	PERIOD 6/11 - 12/18
BEGINNING VALUE	\$ 59,599,540	\$ 48,594,092
NET CONTRIBUTIONS	- 4,200,251	- 36,792,247
INVESTMENT RETURN	- 7,583,874	36,013,570
ENDING VALUE	\$ 47,815,415	\$ 47,815,415
INCOME	244,958	6,863,398
CAPITAL GAINS (LOSSES)	- 7,828,832	29,150,173
INVESTMENT RETURN	- 7,583,874	36,013,570

**PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM**  
**ATTUCKS EMERGING MANAGER SUMMARY AS OF DECEMBER 2018**

Portfolio	Universe	Quarter		1 Year		3 Years		5 Years	
<b>Attucks Emerging Mgr</b>	<b>(Large Cap)</b>	<b>-13.3</b>	<b>(37)</b>	<b>-3.8</b>	<b>(35)</b>	<b>8.7</b>	<b>(48)</b>	<b>7.6</b>	<b>(58)</b>
<b>Net of mgr fees &amp; gross of Attucks fees</b>		<b>-13.4</b>		<b>-4.1</b>		<b>8.4</b>		<b>7.3</b>	
<b>Attucks Emerging Mgr net of all fees</b>		<b>-13.5</b>		<b>-4.3</b>		<b>8.1</b>		<b>7.0</b>	
<i><b>S&amp;P 500</b></i>		<i><b>-13.5</b></i>		<i><b>-4.4</b></i>		<i><b>9.3</b></i>		<i><b>8.5</b></i>	
Ativo	(Large Cap Core)	-13.2	(36)	-6.6	(73)	7.2	(80)	7.3	(72)
Ativo net of fees		-13.2		-6.9		6.8		7.0	
<i><b>S&amp;P 500</b></i>		<i><b>-13.5</b></i>		<i><b>-4.4</b></i>		<i><b>9.3</b></i>		<i><b>8.5</b></i>	
Matarin	(Large Cap Core)	-13.8	(49)	-3.7	(27)	----	----	----	----
Matarin net of fees		-13.9		-3.9		----		----	
<i><b>S&amp;P 500</b></i>		<i><b>-13.5</b></i>		<i><b>-4.4</b></i>		<i><b>9.3</b></i>		<i><b>8.5</b></i>	
Oakbrook	(Large Cap Growth)	-17.5	(85)	-3.3	(71)	10.7	(40)	10.7	(26)
Oakbrook net of fees		-17.5		-3.6		10.4		10.4	
<i><b>Russell 1000 Growth</b></i>		<i><b>-15.9</b></i>		<i><b>-1.5</b></i>		<i><b>11.1</b></i>		<i><b>10.4</b></i>	

*\*Actual fee schedule for historical manager Union Heritage could not be obtained. An expense ratio of 32.5 bps was assumed, putting it in line with the other managers.*

**MANAGER ALLOCATION SUMMARY**

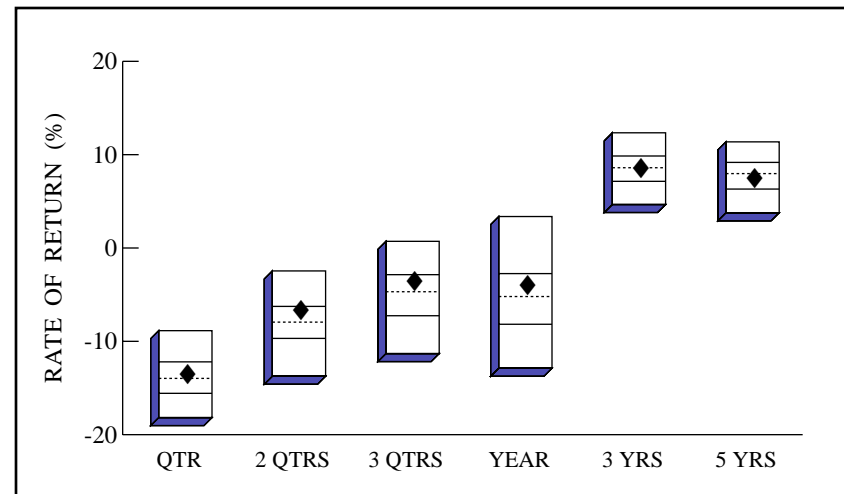
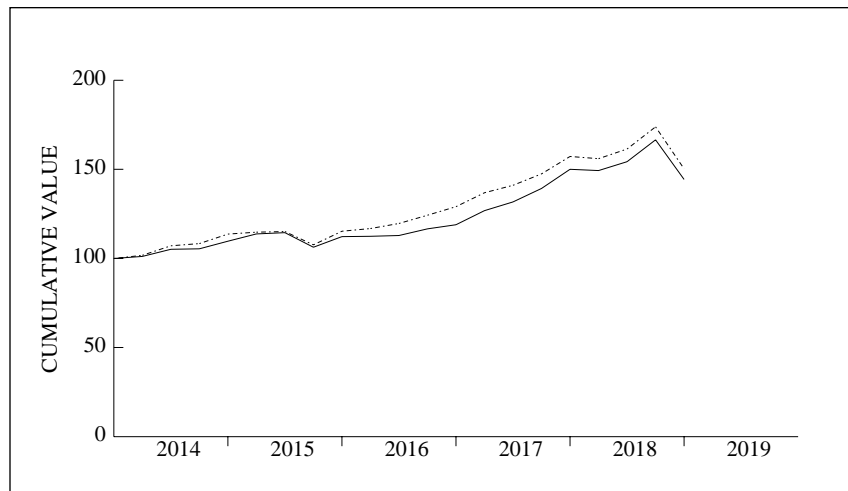


Name	Market Value	Percent
Ativo (LCC)	\$11,250,689	23.5
Matarin (LCC)	\$11,570,785	24.2
Oakbrook (LCG)	\$11,934,656	25.0
Edgar Lomax (LCV)	\$13,059,285	27.3
<b>Total</b>	<b>\$47,815,415</b>	<b>100.0</b>

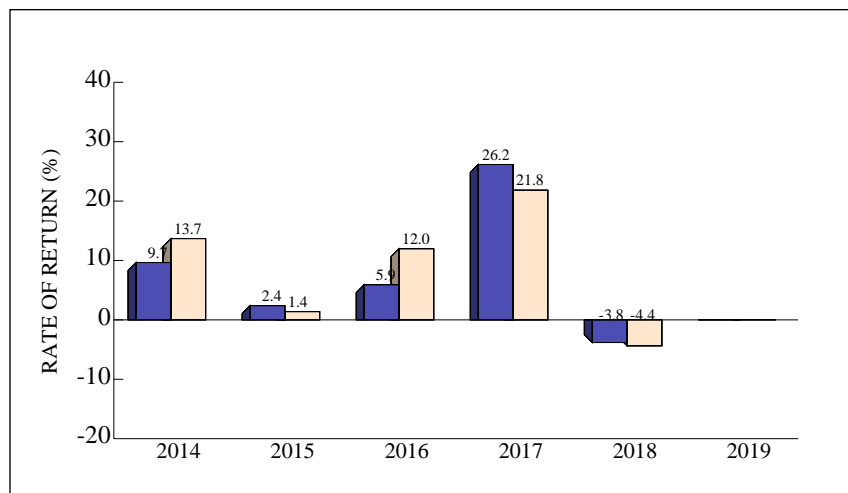
**INVESTMENT RETURN SUMMARY - ONE QUARTER**

<b>Name</b>	<b>Quarter Total Return</b>	<b>Market Value September 30th, 2018</b>	<b>Net Cashflow</b>	<b>Net Investment Return</b>	<b>Market Value December 31st, 2018</b>
Ativo (LCC)	-13.2	14,012,066	-1,000,055	-1,761,322	11,250,689
Matarin (LCC)	-13.8	14,479,532	-1,000,037	-1,908,710	11,570,785
Piedmont (LCC)	---	0	-497	497	0
Oakbrook (LCG)	-17.5	15,526,848	-1,000,020	-2,592,172	11,934,656
Edgar Lomax (LCV)	-9.0	15,581,094	-1,199,642	-1,322,167	13,059,285
<b>Total Portfolio</b>	<b>-13.3</b>	<b>59,599,540</b>	<b>-4,200,251</b>	<b>-7,583,874</b>	<b>47,815,415</b>

**TOTAL RETURN COMPARISONS**



Large Cap Universe

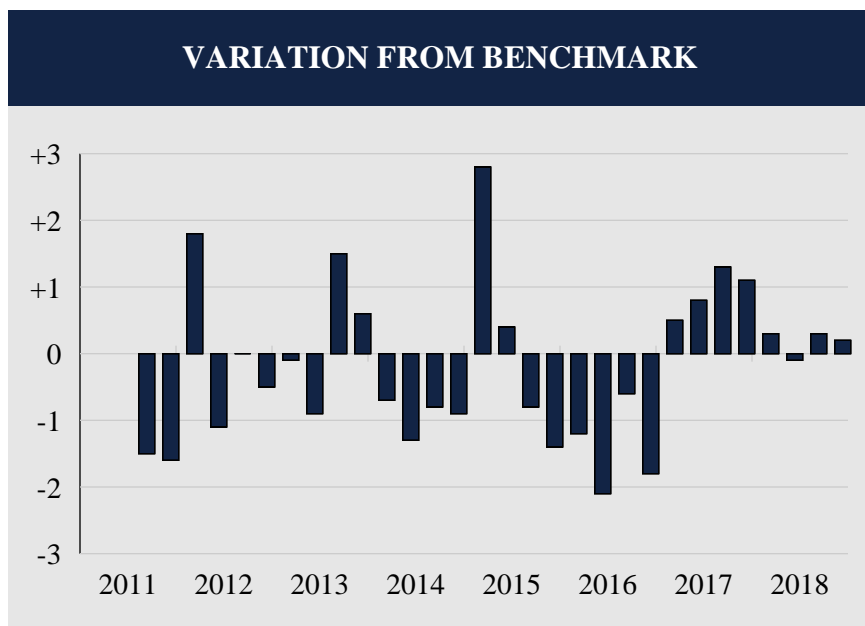


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	-13.3	-6.4	-3.3	-3.8	8.7	7.6
(RANK)	(37)	(28)	(30)	(35)	(48)	(58)
5TH %ILE	-8.9	-2.5	0.7	3.4	12.4	11.4
25TH %ILE	-12.2	-6.3	-2.9	-2.7	9.9	9.2
MEDIAN	-14.0	-8.0	-4.7	-5.2	8.6	8.0
75TH %ILE	-15.6	-9.7	-7.3	-8.2	7.1	6.3
95TH %ILE	-18.2	-13.8	-11.3	-12.9	4.7	3.8
<b>S&amp;P 500</b>	<b>-13.5</b>	<b>-6.9</b>	<b>-3.7</b>	<b>-4.4</b>	<b>9.3</b>	<b>8.5</b>

Large Cap Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY**

**COMPARATIVE BENCHMARK: S&P 500**

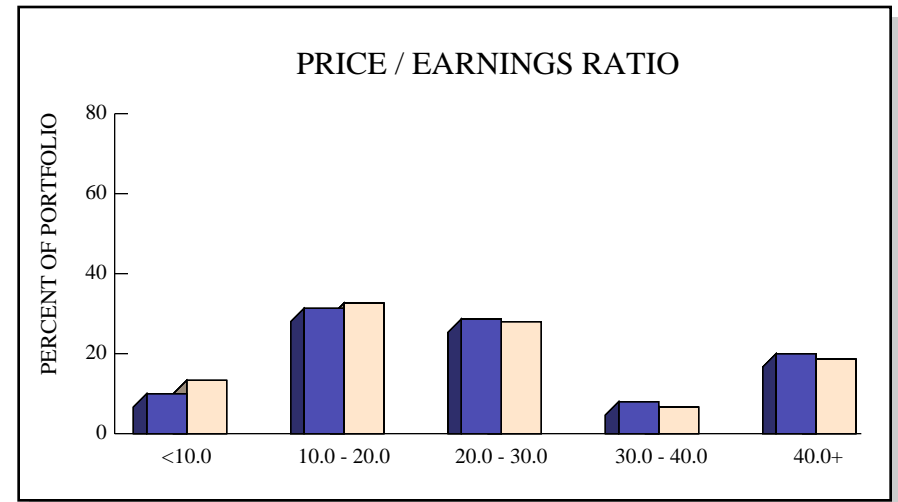
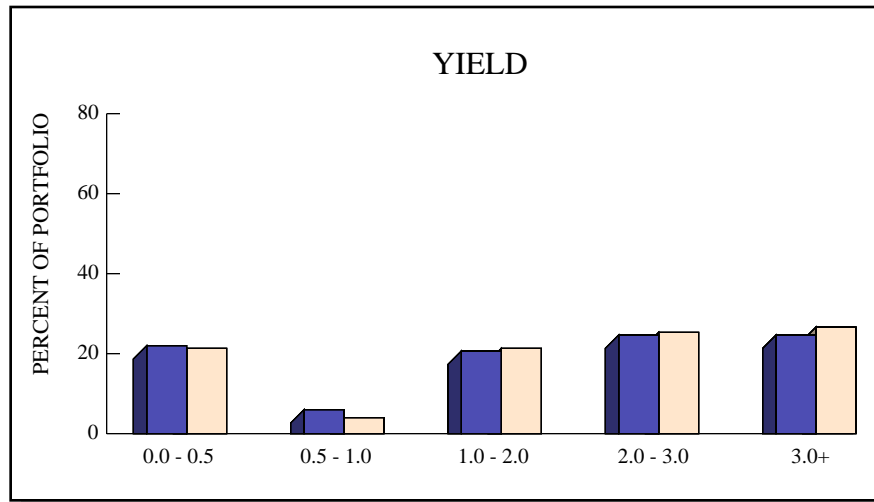


RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
9/11	-15.4	-13.9	-1.5
12/11	10.2	11.8	-1.6
3/12	14.4	12.6	1.8
6/12	-3.9	-2.8	-1.1
9/12	6.3	6.3	0.0
12/12	-0.9	-0.4	-0.5
3/13	10.5	10.6	-0.1
6/13	2.0	2.9	-0.9
9/13	6.7	5.2	1.5
12/13	11.1	10.5	0.6
3/14	1.1	1.8	-0.7
6/14	3.9	5.2	-1.3
9/14	0.3	1.1	-0.8
12/14	4.0	4.9	-0.9
3/15	3.7	0.9	2.8
6/15	0.7	0.3	0.4
9/15	-7.2	-6.4	-0.8
12/15	5.6	7.0	-1.4
3/16	0.1	1.3	-1.2
6/16	0.4	2.5	-2.1
9/16	3.3	3.9	-0.6
12/16	2.0	3.8	-1.8
3/17	6.6	6.1	0.5
6/17	3.9	3.1	0.8
9/17	5.8	4.5	1.3
12/17	7.7	6.6	1.1
3/18	-0.5	-0.8	0.3
6/18	3.3	3.4	-0.1
9/18	8.0	7.7	0.3
12/18	-13.3	-13.5	0.2

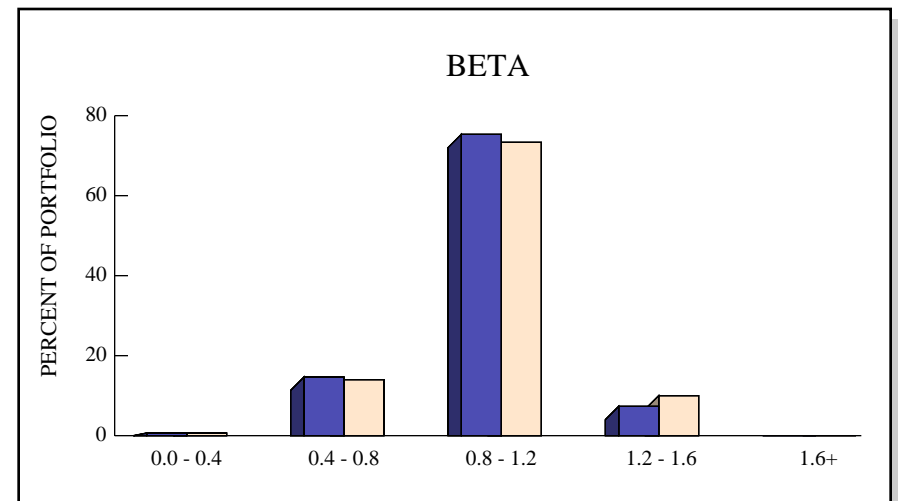
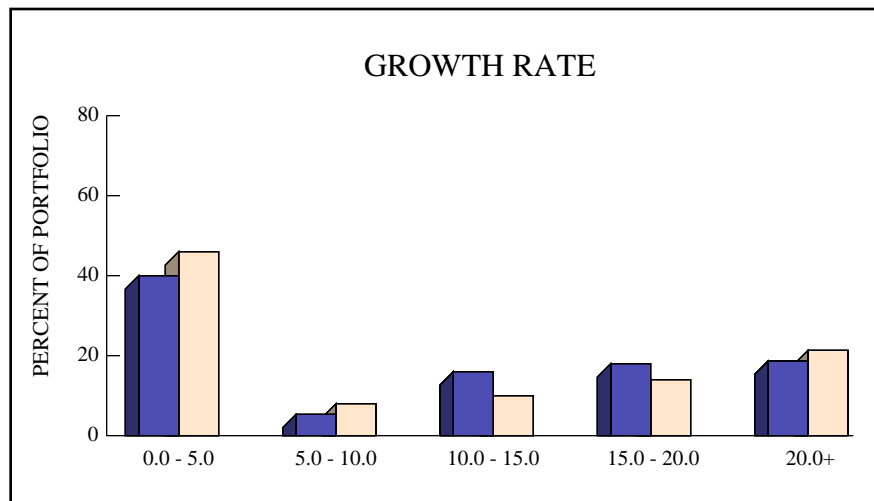
<b>Total Quarters Observed</b>	<b>30</b>
<b>Quarters At or Above the Benchmark</b>	<b>13</b>
<b>Quarters Below the Benchmark</b>	<b>17</b>
<b>Batting Average</b>	<b>.433</b>



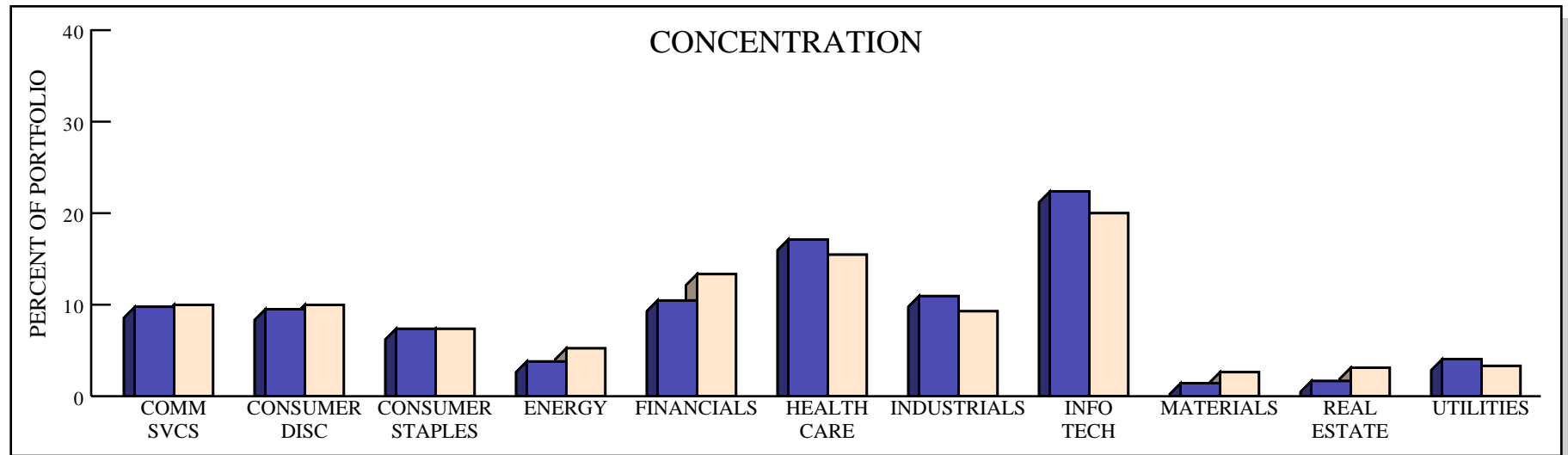
**STOCK CHARACTERISTICS**



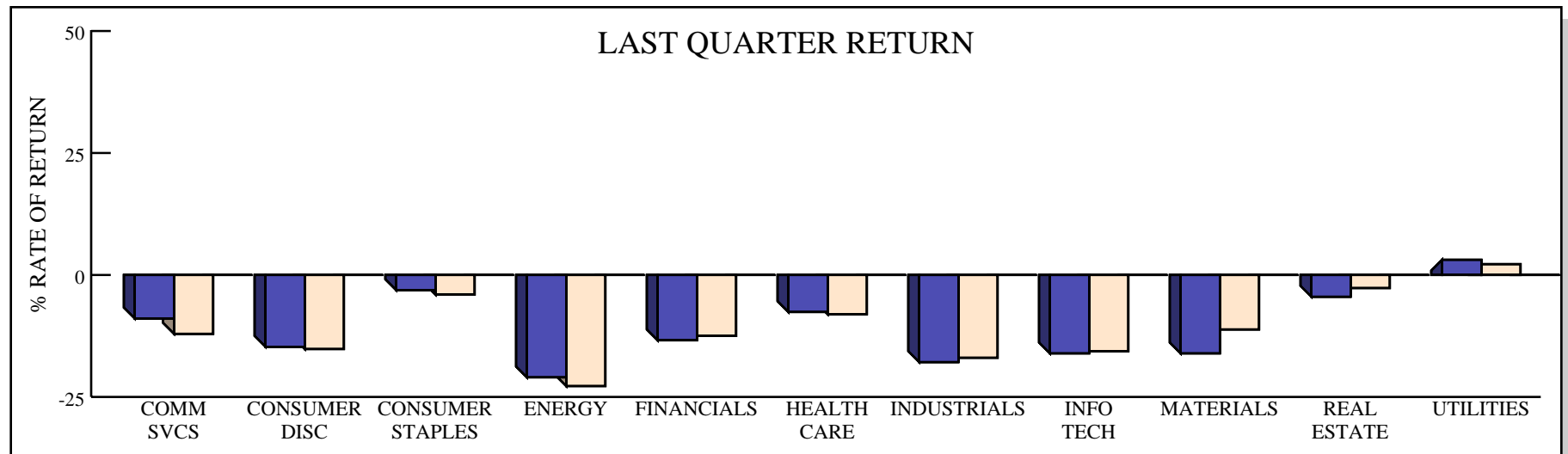
	# HOLDINGS	YIELD	GROWTH	P/E	BETA
PORTFOLIO	400	1.9%	10.7%	26.5	0.97
S&P 500	505	2.1%	9.3%	24.6	0.99



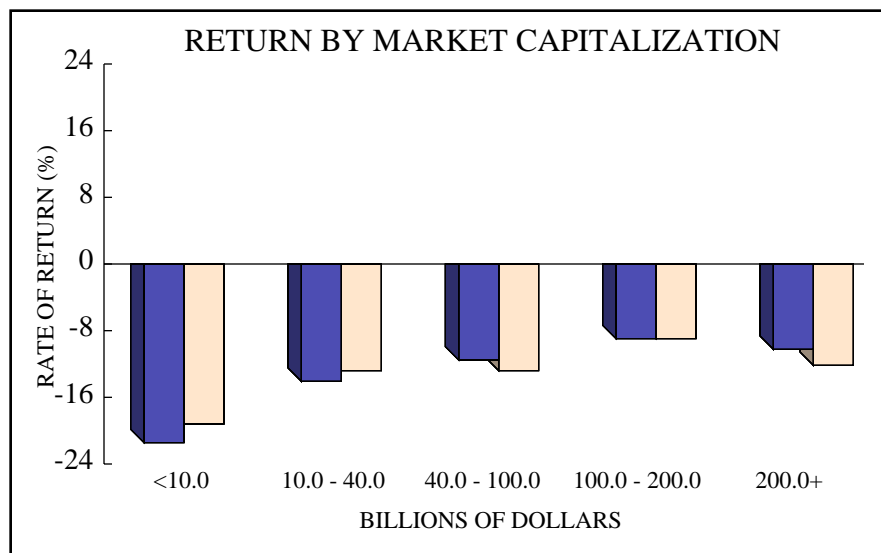
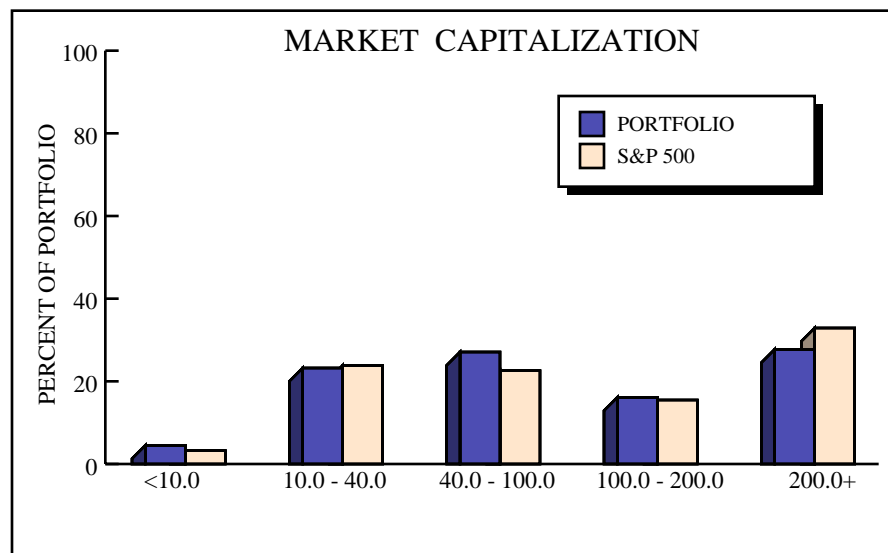
**STOCK INDUSTRY ANALYSIS**



■ PORTFOLIO      ■ S&P 500



**TOP TEN HOLDINGS**



**TOP TEN EQUITY HOLDINGS**

RANK	NAME	VALUE	% EQUITY	RETURN	INDUSTRY SECTOR	MKT CAP
1	APPLE INC	\$ 1,794,608	3.75%	-29.9%	Information Technology	\$ 748.5 B
2	ALPHABET INC-CL A	1,266,491	2.65%	-13.4%	Communication Services	312.4 B
3	PFIZER INC	1,211,375	2.53%	-0.2%	Health Care	252.3 B
4	EXELON CORP	1,015,968	2.12%	4.1%	Utilities	43.6 B
5	MICROSOFT CORP	968,064	2.02%	-10.8%	Information Technology	785.0 B
6	VERIZON COMMUNICATIONS INC	895,585	1.87%	6.5%	Communication Services	232.3 B
7	MASTERCARD INC - A	886,278	1.85%	-15.2%	Information Technology	192.6 B
8	CISCO SYSTEMS INC	868,637	1.82%	-10.3%	Information Technology	194.8 B
9	WALMART INC	834,065	1.74%	-0.3%	Consumer Staples	270.6 B
10	MERCK & CO. INC.	773,116	1.62%	8.5%	Health Care	198.7 B

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
SAWGRASS ASSET MANAGEMENT - LARGE CAP GROWTH  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Sawgrass Asset Management Large Cap Growth portfolio was valued at \$32,106,733, a decrease of \$3,745,432 from the September ending value of \$35,852,165. Last quarter, the account recorded total net withdrawals of \$394 in addition to \$3,745,038 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$184,214 and realized and unrealized capital losses totaling \$3,929,252.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Sawgrass Asset Management Large Cap Growth portfolio lost 10.4%, which was 5.5% greater than the Russell 1000 Growth Index's return of -15.9% and ranked in the 8th percentile of the Large Cap Growth universe. Over the trailing year, the portfolio returned 3.4%, which was 4.9% greater than the benchmark's -1.5% performance, and ranked in the 16th percentile. Since December 2007, the account returned 8.2% per annum. For comparison, the Russell 1000 Growth returned an annualized 8.9% over the same time frame.

## **HOLDINGS ANALYSIS**

Last quarter, the Sawgrass portfolio was invested in eight of the eleven industry sectors shown in our analysis, maintaining similar allocations to those within the benchmark. The Energy, Real Estate, and Utilities sectors were vacant, also having little to no exposure in the index. The Consumer Staples and Health Care sectors were slightly overweight, while the Consumer Discretionary and Information Technology sectors were slightly underweight.

The portfolio's better conservation of capital relative to the index last quarter resulted from superior selection, particularly in the Communications Services, Consumer Discretionary, and Consumer Staples sectors. Complete avoidance of the large cap growth market's weakest sector, Energy, also helped the portfolio.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 12/07
<b>Total Portfolio - Gross</b>	-10.4	3.4	10.7	9.5	13.6	14.2	8.2
<i>LARGE CAP GROWTH RANK</i>	( 8)	(16)	(41)	(54)	(56)	(66)	----
<b>Total Portfolio - Net</b>	-10.6	2.9	10.1	9.0	13.0	13.8	7.8
Russell 1000G	-15.9	-1.5	11.1	10.4	14.1	15.3	8.9
<b>Domestic Equity - Gross</b>	-10.4	3.4	10.7	9.5	13.6	14.2	8.2
<i>LARGE CAP GROWTH RANK</i>	( 8)	(16)	(41)	(54)	(56)	(66)	----
Russell 1000G	-15.9	-1.5	11.1	10.4	14.1	15.3	8.9

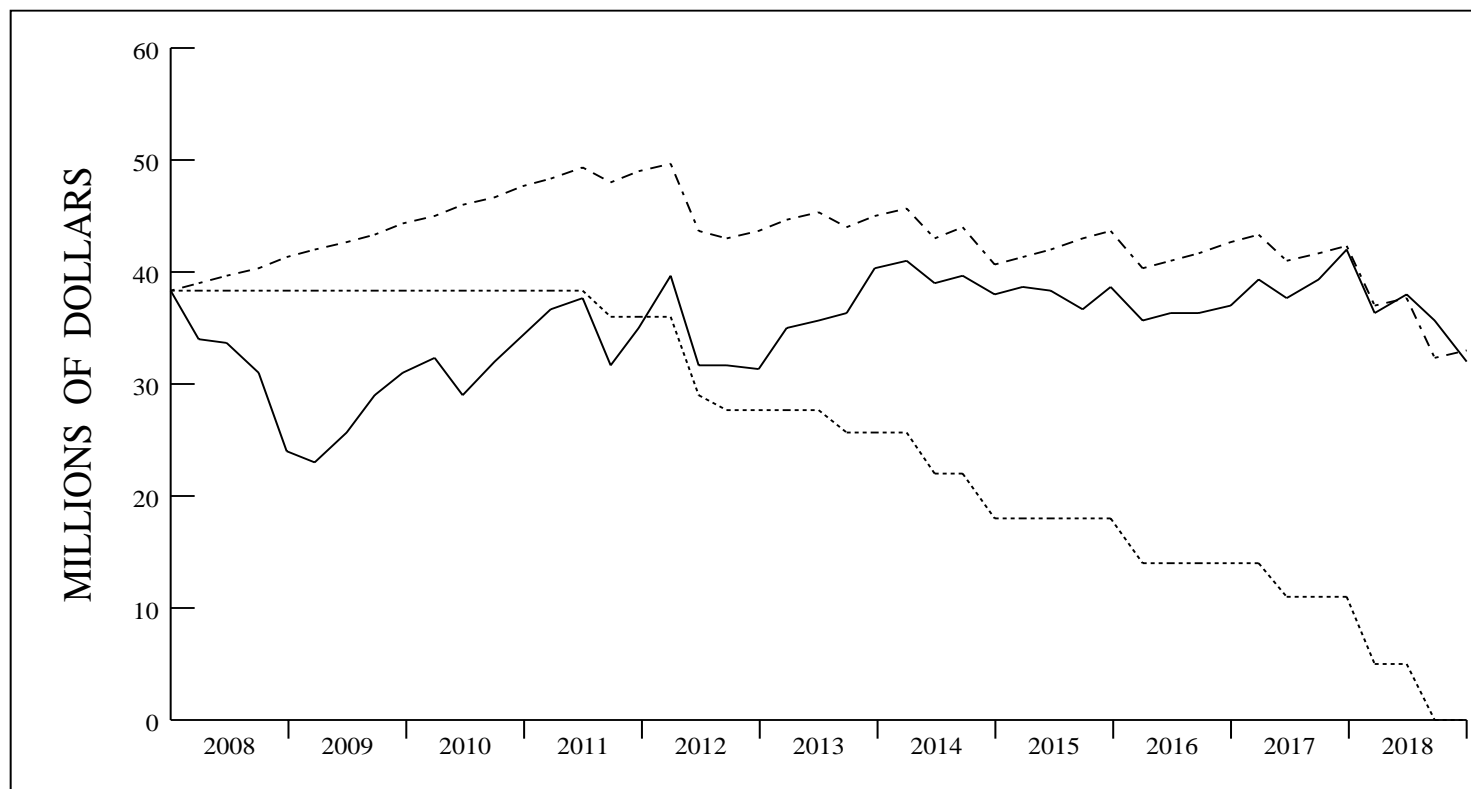
**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 32,106,733
Total Portfolio	100.0%	\$ 32,106,733

**INVESTMENT RETURN**

Market Value 9/2018	\$ 35,852,165
Contribs / Withdrawals	-394
Income	184,214
Capital Gains / Losses	- 3,929,252
Market Value 12/2018	\$ 32,106,733

**INVESTMENT GROWTH**

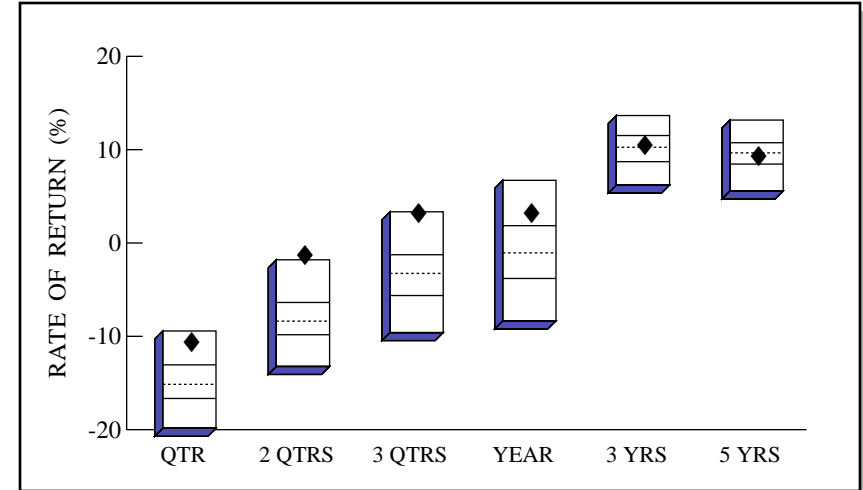
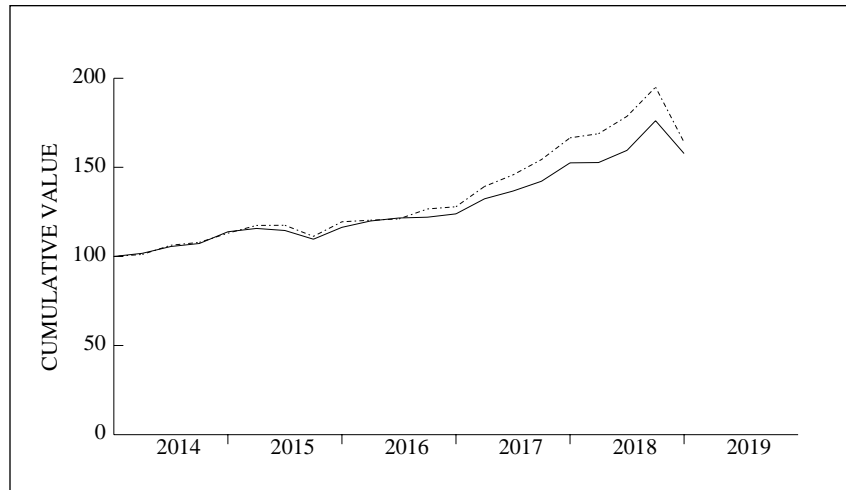


—	ACTUAL RETURN
- - - - -	BLENDED RATE
.....	0.0%

VALUE ASSUMING	
BLENDED RATE \$	33,043,367

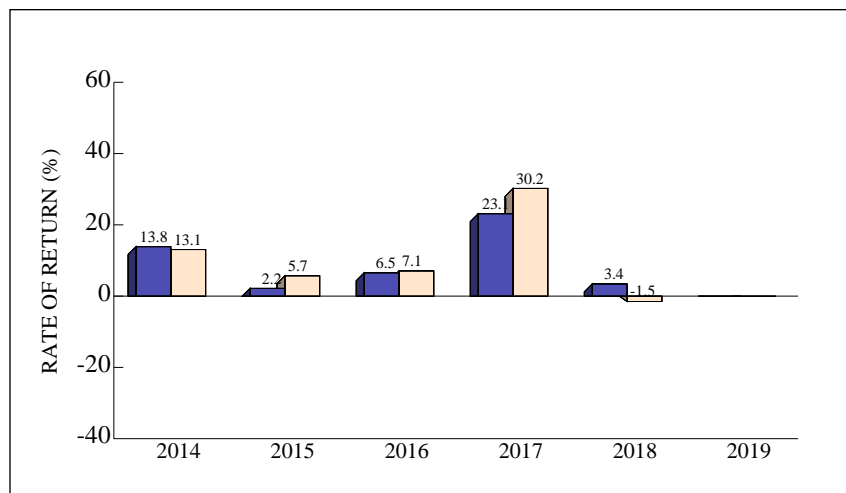
	LAST QUARTER	PERIOD 12/07 - 12/18
BEGINNING VALUE	\$ 35,852,165	\$ 38,467,655
NET CONTRIBUTIONS	-394	-39,264,145
<u>INVESTMENT RETURN</u>	<u>-3,745,038</u>	<u>32,903,223</u>
ENDING VALUE	\$ 32,106,733	\$ 32,106,733
INCOME	184,214	4,690,089
<u>CAPITAL GAINS (LOSSES)</u>	<u>-3,929,252</u>	<u>28,213,134</u>
INVESTMENT RETURN	-3,745,038	32,903,223

**TOTAL RETURN COMPARISONS**



■ ——— PORTFOLIO  
■ - - - - - RUSSELL 1000G

Large Cap Growth Universe



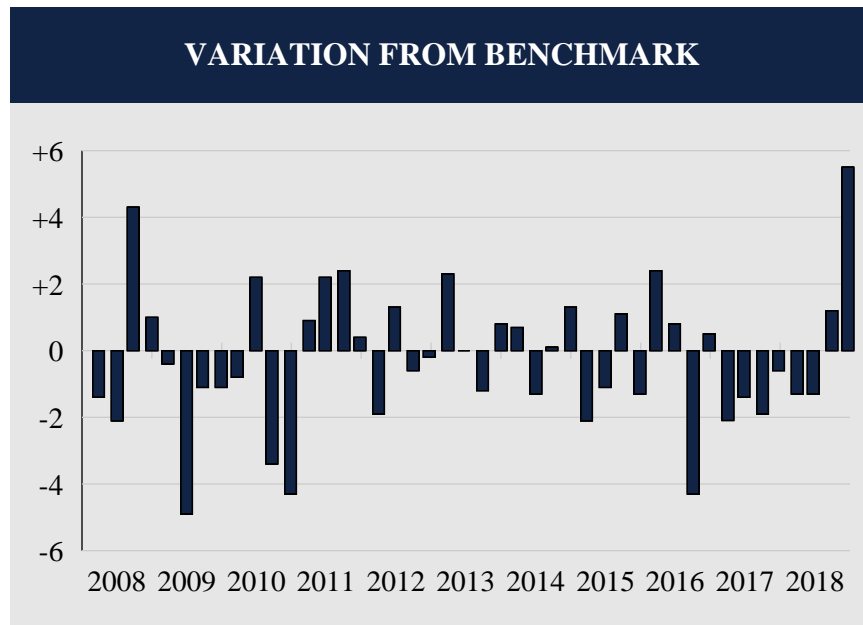
	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	-10.4	-1.1	3.3	3.4	10.7	9.5
(RANK)	( 8)	( 4)	( 5)	(16)	(41)	(54)
5TH %ILE	-9.4	-1.8	3.3	6.7	13.7	13.2
25TH %ILE	-13.1	-6.4	-1.3	1.9	11.5	10.7
MEDIAN	-15.1	-8.4	-3.3	-1.1	10.3	9.7
75TH %ILE	-16.7	-9.8	-5.6	-3.8	8.7	8.5
95TH %ILE	-19.9	-13.2	-9.6	-8.4	6.2	5.6
<b>Russ 1000G</b>	<b>-15.9</b>	<b>-8.2</b>	<b>-2.9</b>	<b>-1.5</b>	<b>11.1</b>	<b>10.4</b>

Large Cap Growth Universe



### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

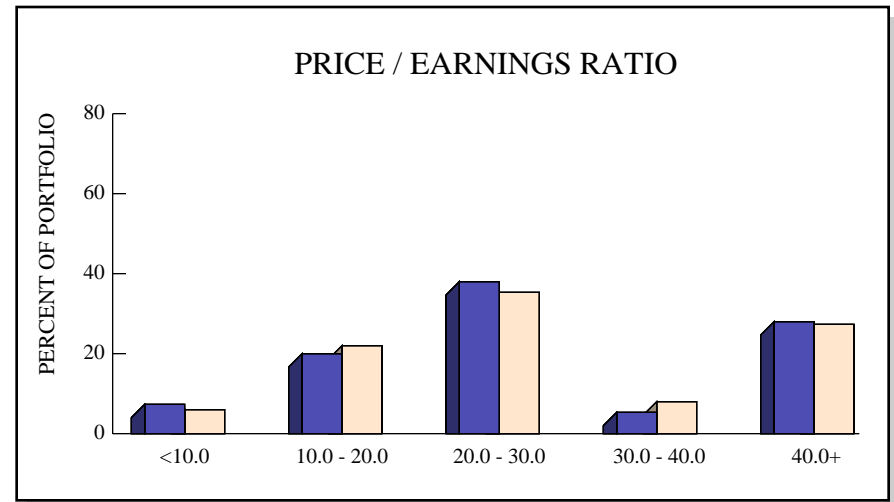
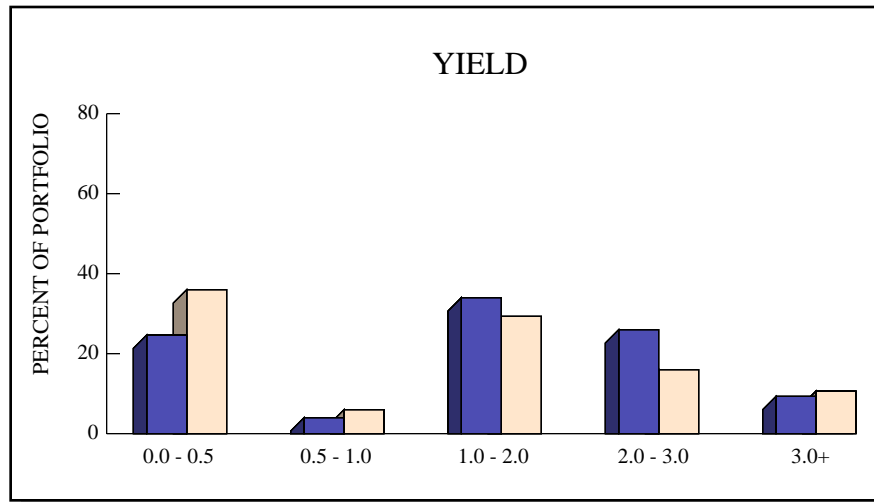
COMPARATIVE BENCHMARK: RUSSELL 1000 GROWTH



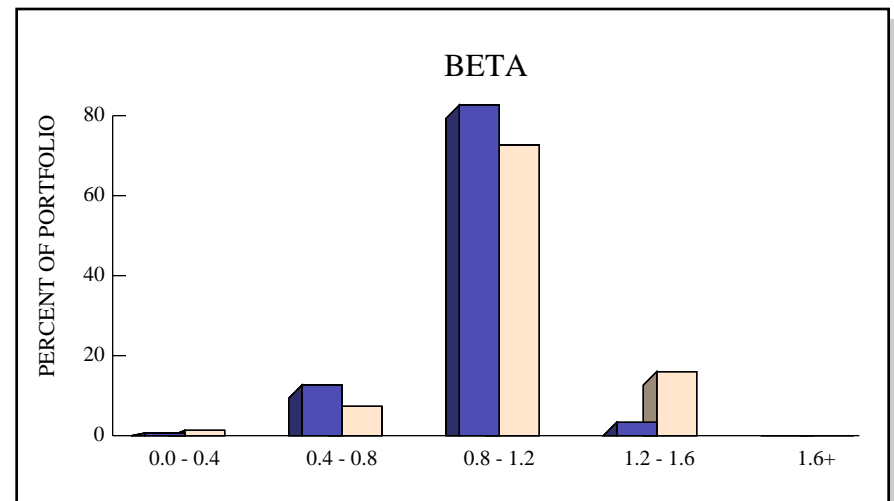
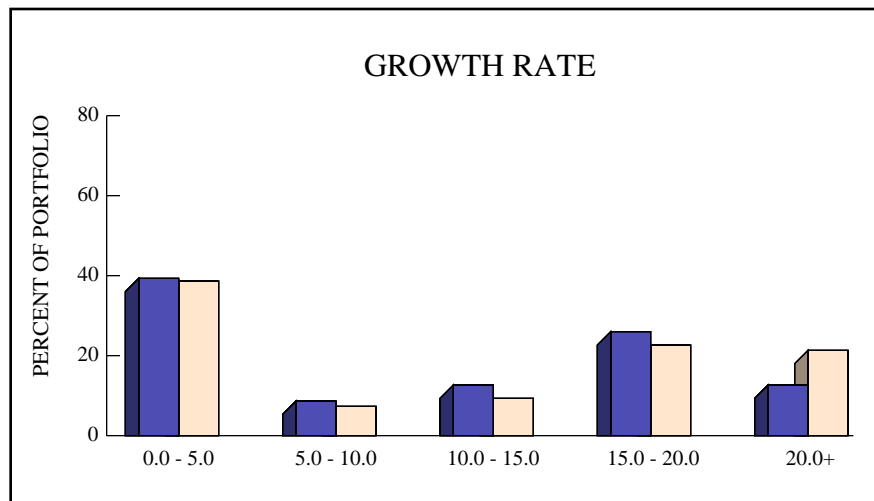
<b>Total Quarters Observed</b>	<b>44</b>
<b>Quarters At or Above the Benchmark</b>	<b>20</b>
<b>Quarters Below the Benchmark</b>	<b>24</b>
<b>Batting Average</b>	<b>.455</b>

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/08	-11.6	-10.2	-1.4
6/08	-0.8	1.3	-2.1
9/08	-8.0	-12.3	4.3
12/08	-21.8	-22.8	1.0
3/09	-4.5	-4.1	-0.4
6/09	11.4	16.3	-4.9
9/09	12.9	14.0	-1.1
12/09	6.8	7.9	-1.1
3/10	3.9	4.7	-0.8
6/10	-9.6	-11.8	2.2
9/10	9.6	13.0	-3.4
12/10	7.5	11.8	-4.3
3/11	6.9	6.0	0.9
6/11	3.0	0.8	2.2
9/11	-10.7	-13.1	2.4
12/11	11.0	10.6	0.4
3/12	12.8	14.7	-1.9
6/12	-2.7	-4.0	1.3
9/12	5.5	6.1	-0.6
12/12	-1.5	-1.3	-0.2
3/13	11.8	9.5	2.3
6/13	2.1	2.1	0.0
9/13	6.9	8.1	-1.2
12/13	11.2	10.4	0.8
3/14	1.8	1.1	0.7
6/14	3.8	5.1	-1.3
9/14	1.6	1.5	0.1
12/14	6.1	4.8	1.3
3/15	1.7	3.8	-2.1
6/15	-1.0	0.1	-1.1
9/15	-4.2	-5.3	1.1
12/15	6.0	7.3	-1.3
3/16	3.1	0.7	2.4
6/16	1.4	0.6	0.8
9/16	0.3	4.6	-4.3
12/16	1.5	1.0	0.5
3/17	6.8	8.9	-2.1
6/17	3.3	4.7	-1.4
9/17	4.0	5.9	-1.9
12/17	7.3	7.9	-0.6
3/18	0.1	1.4	-1.3
6/18	4.5	5.8	-1.3
9/18	10.4	9.2	1.2
12/18	-10.4	-15.9	5.5

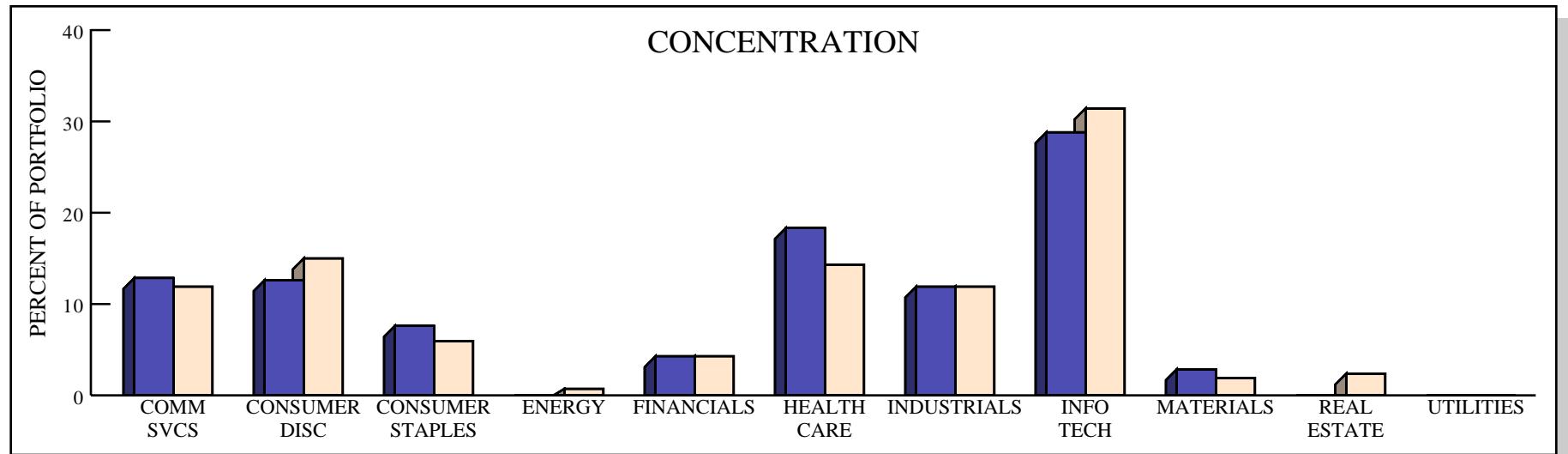
**STOCK CHARACTERISTICS**



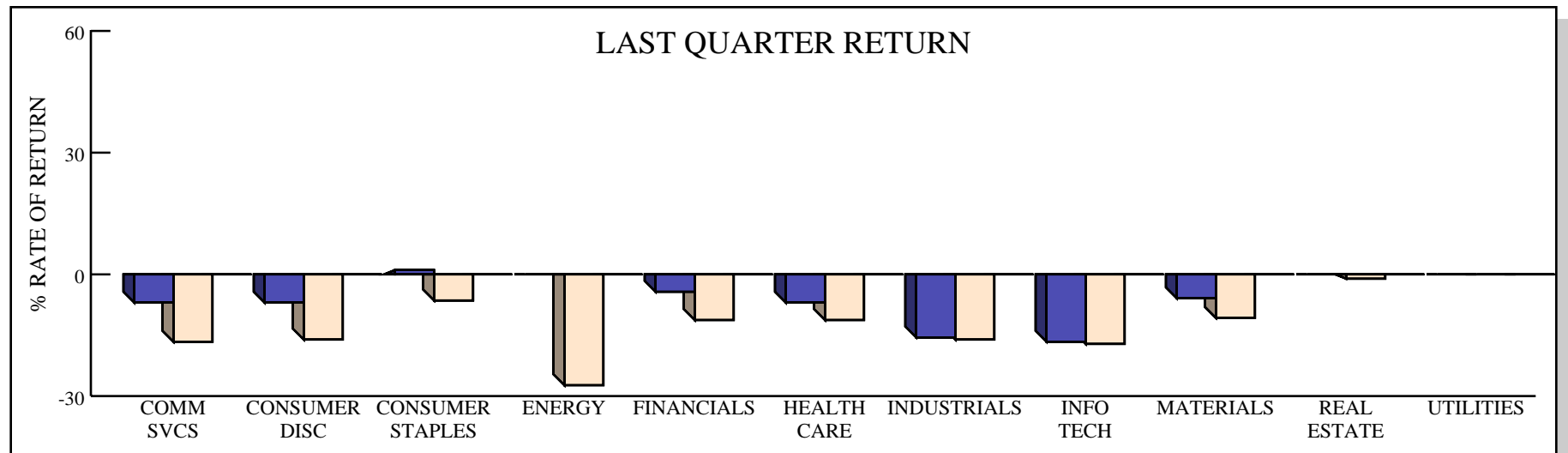
	# HOLDINGS	YIELD	GROWTH	P/E	BETA
PORTFOLIO	51	1.5%	7.5%	32.2	0.96
RUSSELL 1000G	542	1.3%	11.8%	29.8	1.04



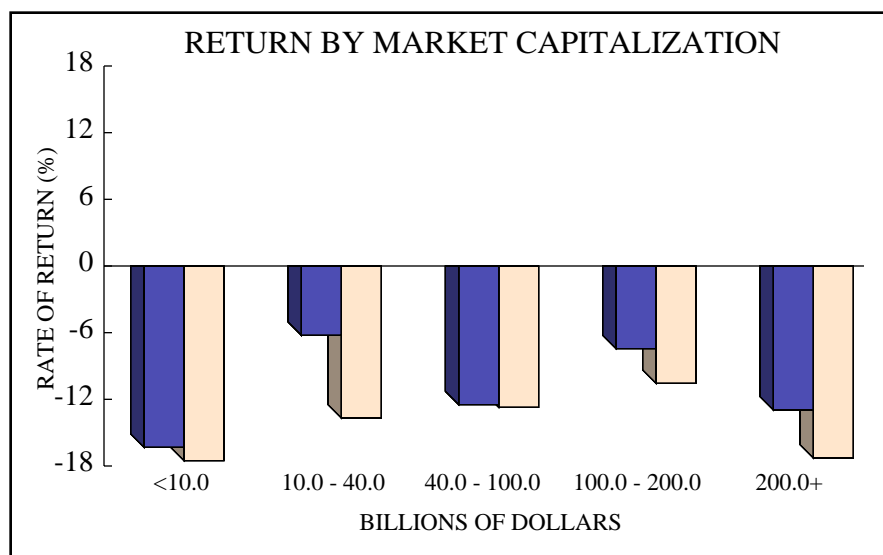
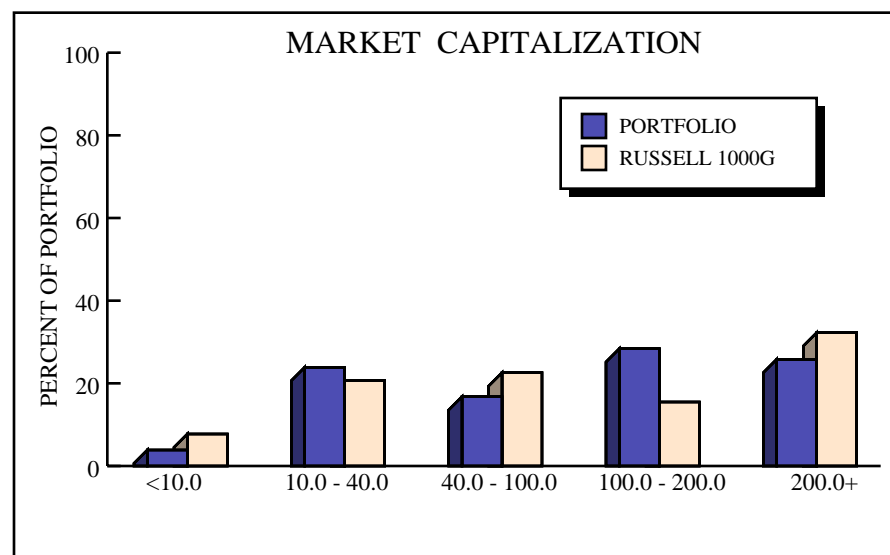
**STOCK INDUSTRY ANALYSIS**



■ PORTFOLIO      ■ RUSSELL 1000G



**TOP TEN HOLDINGS**



**TOP TEN EQUITY HOLDINGS**

RANK	NAME	VALUE	% EQUITY	RETURN	INDUSTRY SECTOR	MKT CAP
1	APPLE INC	\$ 1,998,566	6.22%	-29.9%	Information Technology	\$ 748.5 B
2	ALPHABET INC-CL A	1,598,789	4.98%	-13.4%	Communication Services	312.4 B
3	MICROSOFT CORP	1,484,953	4.63%	-10.8%	Information Technology	785.0 B
4	WALT DISNEY CO/THE	1,121,720	3.49%	-5.5%	Communication Services	163.2 B
5	HOME DEPOT INC	1,094,493	3.41%	-16.6%	Consumer Discretionary	194.1 B
6	AMGEN INC	1,090,152	3.40%	-5.4%	Health Care	124.0 B
7	UNITEDHEALTH GROUP INC	954,130	2.97%	-6.1%	Health Care	239.7 B
8	MASTERCARD INC - A	901,747	2.81%	-15.2%	Information Technology	192.6 B
9	ECOLAB INC	895,888	2.79%	-5.7%	Materials	42.6 B
10	AUTOZONE INC	838,340	2.61%	8.1%	Consumer Discretionary	21.1 B

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
ATTUCKS - MICHIGAN  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Attucks Michigan portfolio was valued at \$24,546,497, a decrease of \$7,508,921 from the September ending value of \$32,055,418. Last quarter, the account recorded total net withdrawals of \$3,500,255 in addition to \$4,008,666 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$162,222 and realized and unrealized capital losses totaling \$4,170,888.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Attucks Michigan portfolio lost 13.6%, which was 1.9% less than the Russell 1000 Value Index's return of -11.7% and ranked in the 50th percentile of the Large Cap Value universe. Over the trailing year, the portfolio returned -9.2%, which was 0.9% less than the benchmark's -8.3% performance, and ranked in the 58th percentile. Since June 2011, the account returned 9.8% per annum and ranked in the 49th percentile. For comparison, the Russell 1000 Value returned an annualized 9.5% over the same time frame.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 06/11
<b>Total Portfolio - Gross</b>	-13.6	-9.2	6.7	6.5	11.5	----	9.8
<i>LARGE CAP VALUE RANK</i>	(50)	(58)	(61)	(43)	(46)	----	(49)
<b>Total Portfolio - Net</b>	-13.7	-9.7	6.0	5.8	10.8	----	9.1
Russell 1000V	-11.7	-8.3	6.9	5.9	11.0	11.2	9.5
<b>Domestic Equity - Gross</b>	-13.6	-9.2	6.7	6.5	11.5	----	9.8
<i>LARGE CAP VALUE RANK</i>	(50)	(58)	(61)	(43)	(46)	----	(49)
Russell 1000V	-11.7	-8.3	6.9	5.9	11.0	11.2	9.5

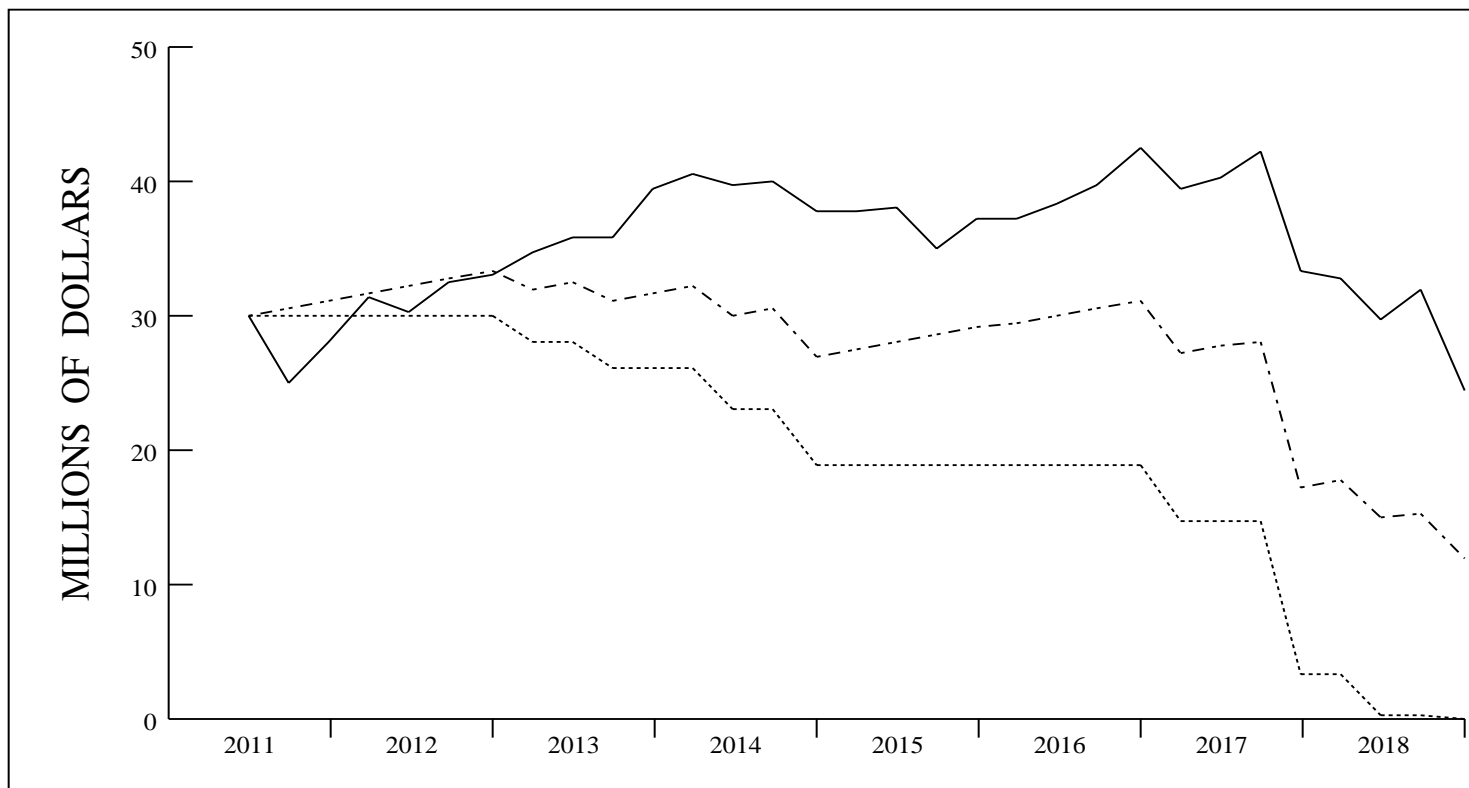
**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 24,546,497
Total Portfolio	100.0%	\$ 24,546,497

**INVESTMENT RETURN**

Market Value 9/2018	\$ 32,055,418
Contribs / Withdrawals	- 3,500,255
Income	162,222
Capital Gains / Losses	- 4,170,888
Market Value 12/2018	\$ 24,546,497

**INVESTMENT GROWTH**



— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 12,050,922

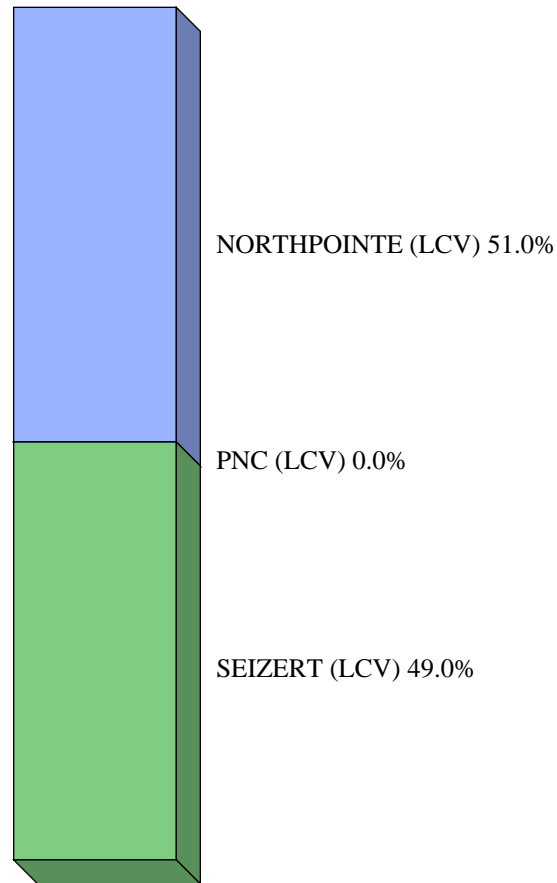
	LAST QUARTER	PERIOD 6/11 - 12/18
BEGINNING VALUE	\$ 32,055,418	\$ 30,133,108
NET CONTRIBUTIONS	- 3,500,255	- 33,092,181
INVESTMENT RETURN	- 4,008,666	27,505,570
ENDING VALUE	\$ 24,546,497	\$ 24,546,497
INCOME	162,222	5,960,919
CAPITAL GAINS (LOSSES)	- 4,170,888	21,544,651
INVESTMENT RETURN	- 4,008,666	27,505,570



**PONTIAC GENERAL EMPLOYEES RETIREMENT SYSTEM  
ATTUCKS MICHIGAN SUMMARY AS OF DECEMBER 2018**

Portfolio	Universe	Quarter		1 Year		3 Years		5 Years	
<b>Attucks Michigan</b>	(Large Cap Value)	<b>-13.6</b>	<b>(50)</b>	<b>-9.2</b>	<b>(58)</b>	<b>6.7</b>	<b>(61)</b>	<b>6.5</b>	<b>(43)</b>
<b>Net of mgr fees &amp; gross of Attucks fees</b>		<b>-13.6</b>		<b>-9.5</b>		<b>6.3</b>		<b>6.1</b>	
<b>Attucks Michigan net of fees</b>		<b>-13.7</b>		<b>-9.7</b>		<b>6.0</b>		<b>5.8</b>	
<i>Russell 1000 Value</i>		<i>-11.7</i>		<i>-8.3</i>		<i>6.9</i>		<i>5.9</i>	
NorthPointe	(Large Cap Value)	-13.0	(43)	-10.6	(71)	5.3	(84)	5.9	(61)
NorthPointe net of fees		-13.0		-10.9		5.0		5.6	
<i>Russell 1000 Value</i>		<i>-11.7</i>		<i>-8.3</i>		<i>6.9</i>		<i>5.9</i>	
Seizert	(Large Cap Value)	-14.2	(61)	-7.9	(43)	8.9	(20)	7.3	(28)
Seizert net of fees		-14.2		-8.2		8.6		6.9	
<i>Russell 1000 Value</i>		<i>-11.7</i>		<i>-8.3</i>		<i>6.9</i>		<i>5.9</i>	

**MANAGER ALLOCATION SUMMARY**

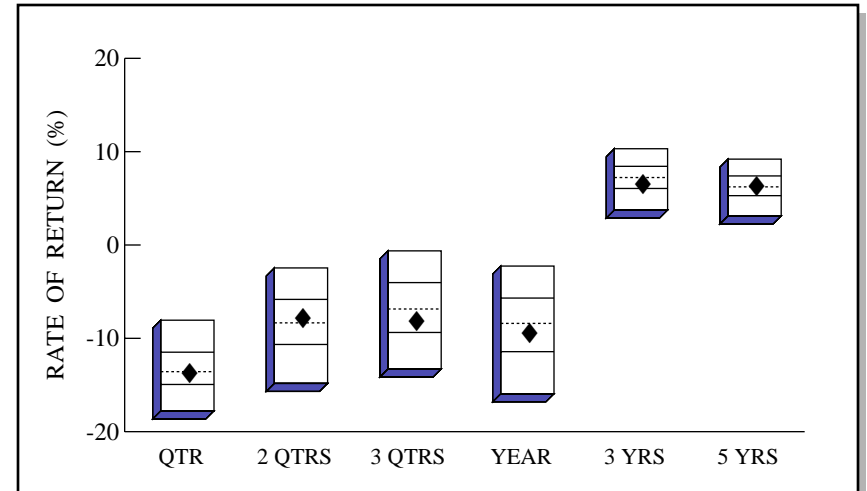
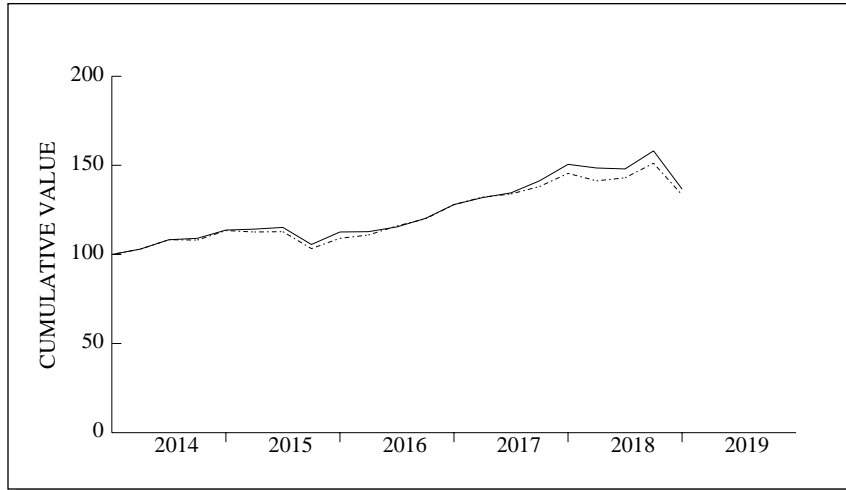


Name	Market Value	Percent
NorthPointe (LCV)	\$12,527,095	51.0
PNC (LCV)	\$5	0.0
Seizert (LCV)	\$12,019,397	49.0
<b>Total</b>	<b>\$24,546,497</b>	<b>100.0</b>

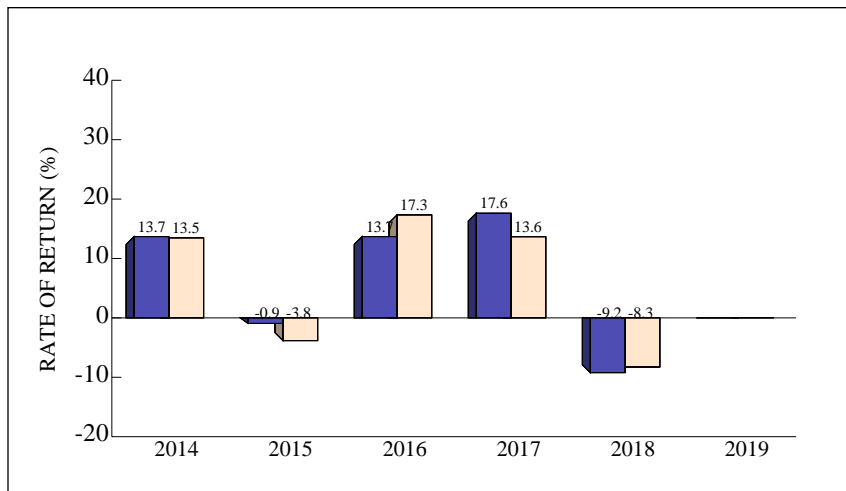
**INVESTMENT RETURN SUMMARY - ONE QUARTER**

<b>Name</b>	<b>Quarter Total Return</b>	<b>Market Value September 30th, 2018</b>	<b>Net Cashflow</b>	<b>Net Investment Return</b>	<b>Market Value December 31st, 2018</b>
NorthPointe (LCV)	-13.0	15,442,733	-1,000,027	-1,915,611	12,527,095
PNC (LCV)	---	5	0	0	5
Seizert (LCV)	-14.2	16,612,680	-2,500,228	-2,093,055	12,019,397
<b>Total Portfolio</b>	<b>-13.6</b>	<b>32,055,418</b>	<b>-3,500,255</b>	<b>-4,008,666</b>	<b>24,546,497</b>

**TOTAL RETURN COMPARISONS**



Large Cap Value Universe

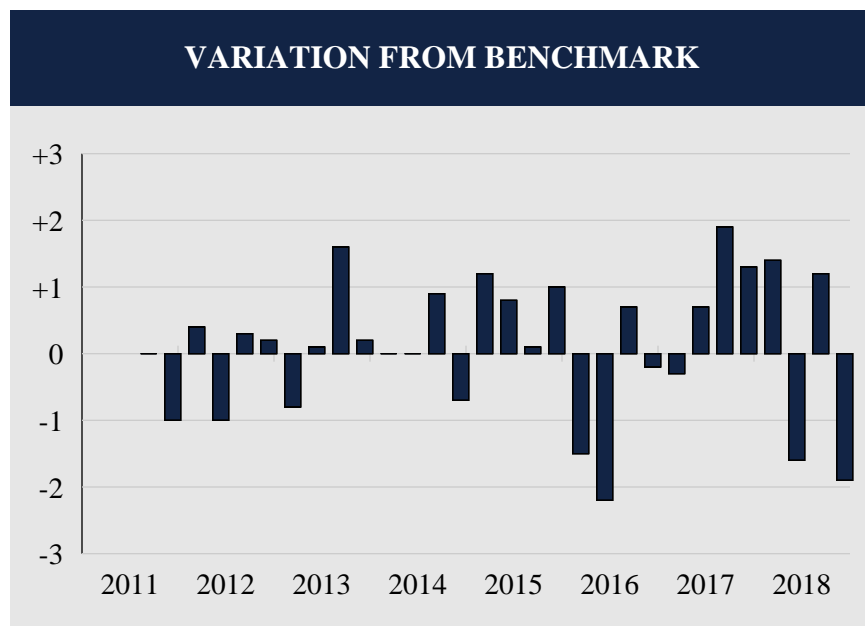


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	-13.6	-7.6	-8.0	-9.2	6.7	6.5
(RANK)	(50)	(44)	(62)	(58)	(61)	(43)
5TH %ILE	-8.1	-2.5	-0.6	-2.3	10.3	9.2
25TH %ILE	-11.5	-5.8	-4.0	-5.7	8.4	7.4
MEDIAN	-13.6	-8.4	-6.9	-8.4	7.2	6.2
75TH %ILE	-15.0	-10.7	-9.4	-11.4	6.1	5.3
95TH %ILE	-17.8	-14.8	-13.3	-16.0	3.7	3.1
<b>Russ 1000V</b>	<b>-11.7</b>	<b>-6.7</b>	<b>-5.6</b>	<b>-8.3</b>	<b>6.9</b>	<b>5.9</b>

Large Cap Value Universe

### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

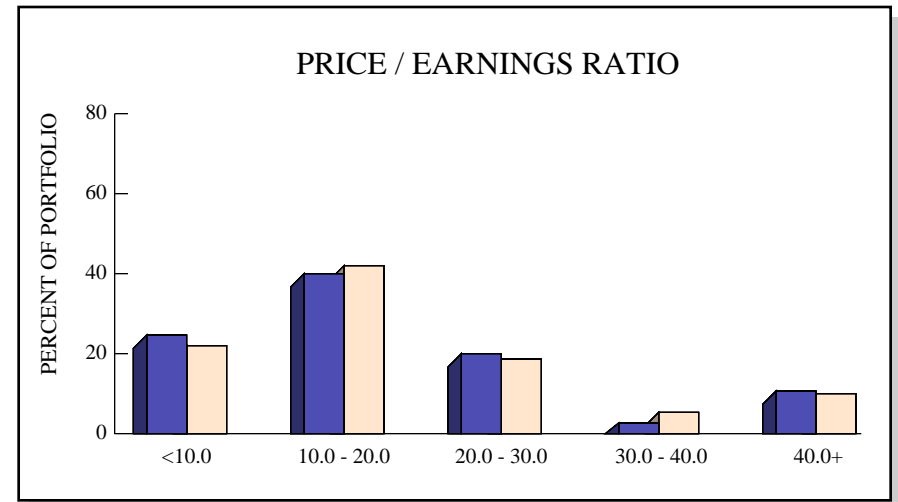
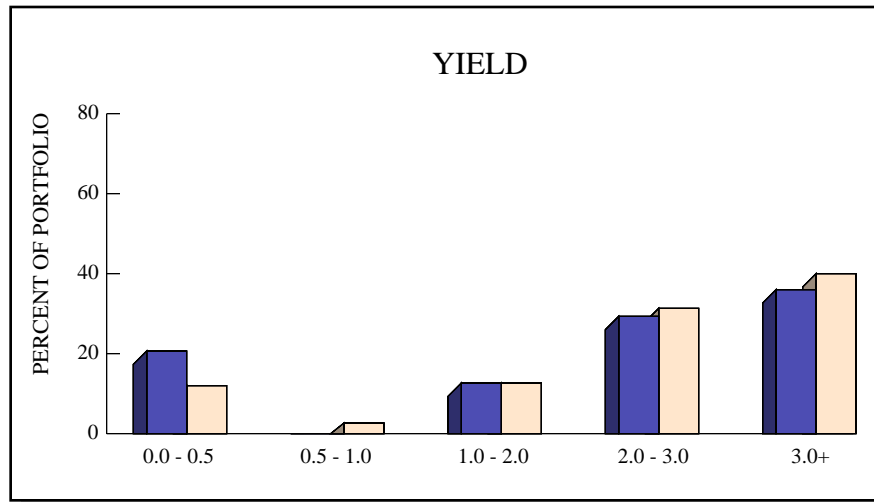
COMPARATIVE BENCHMARK: RUSSELL 1000 VALUE



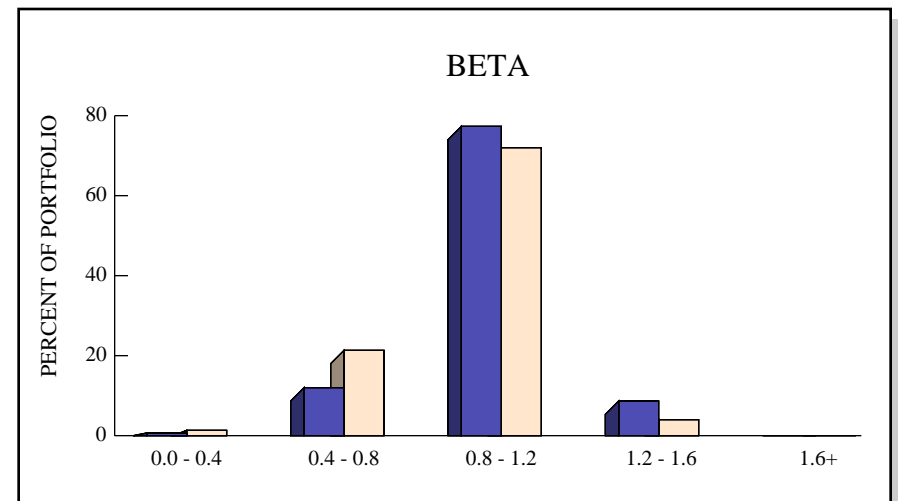
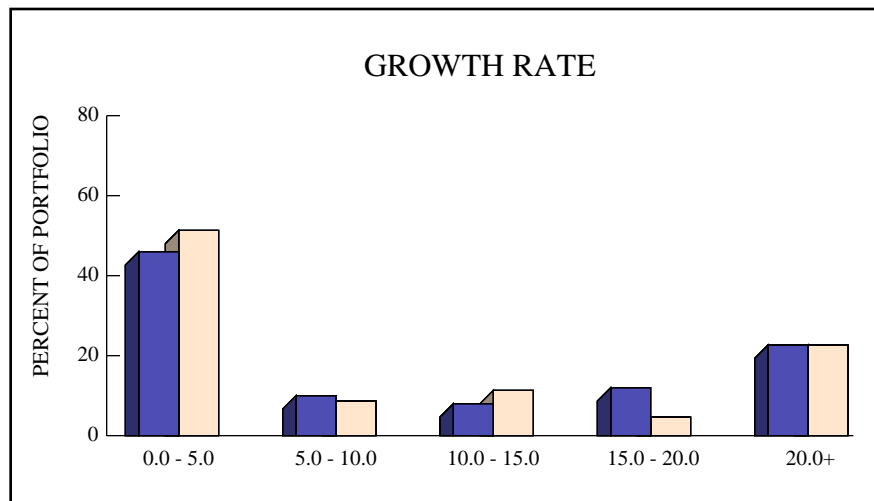
<b>Total Quarters Observed</b>	<b>30</b>
<b>Quarters At or Above the Benchmark</b>	<b>20</b>
<b>Quarters Below the Benchmark</b>	<b>10</b>
<b>Batting Average</b>	<b>.667</b>

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
9/11	-16.2	-16.2	0.0
12/11	12.1	13.1	-1.0
3/12	11.5	11.1	0.4
6/12	-3.2	-2.2	-1.0
9/12	6.8	6.5	0.3
12/12	1.7	1.5	0.2
3/13	11.5	12.3	-0.8
6/13	3.3	3.2	0.1
9/13	5.5	3.9	1.6
12/13	10.2	10.0	0.2
3/14	3.0	3.0	0.0
6/14	5.1	5.1	0.0
9/14	0.7	-0.2	0.9
12/14	4.3	5.0	-0.7
3/15	0.5	-0.7	1.2
6/15	0.9	0.1	0.8
9/15	-8.3	-8.4	0.1
12/15	6.6	5.6	1.0
3/16	0.1	1.6	-1.5
6/16	2.4	4.6	-2.2
9/16	4.2	3.5	0.7
12/16	6.5	6.7	-0.2
3/17	3.0	3.3	-0.3
6/17	2.0	1.3	0.7
9/17	5.0	3.1	1.9
12/17	6.6	5.3	1.3
3/18	-1.4	-2.8	1.4
6/18	-0.4	1.2	-1.6
9/18	6.9	5.7	1.2
12/18	-13.6	-11.7	-1.9

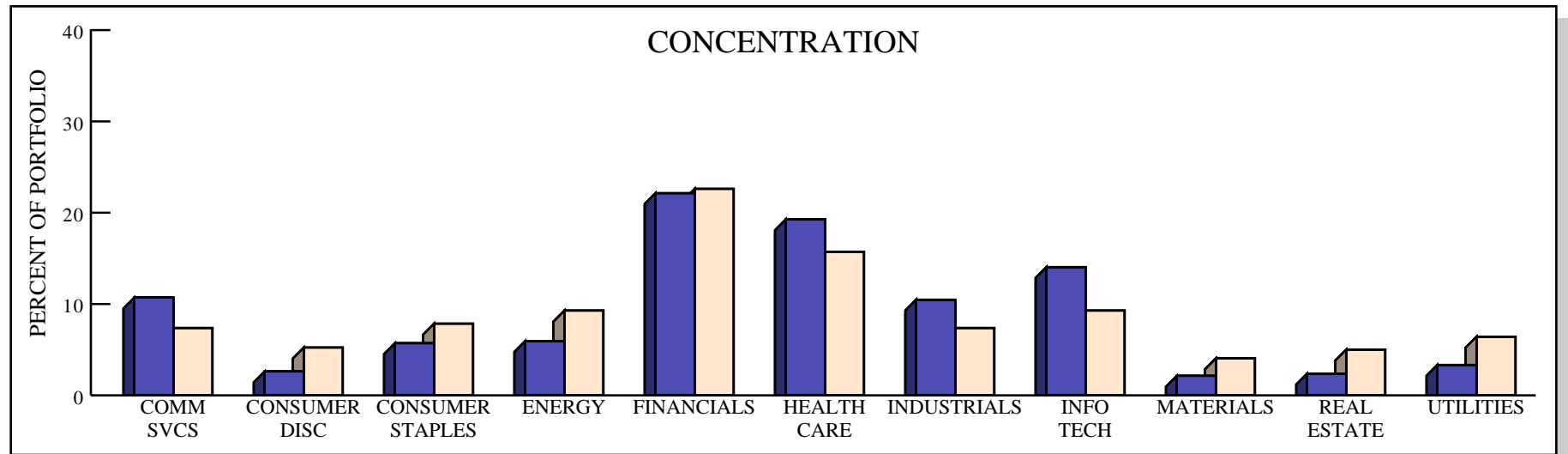
**STOCK CHARACTERISTICS**



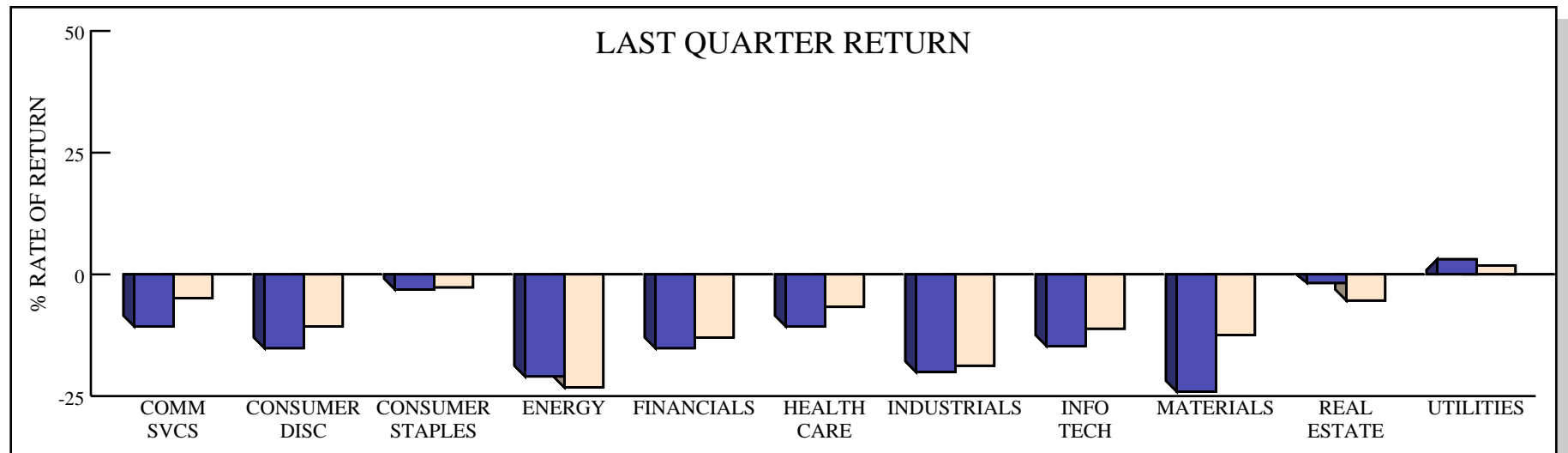
	# HOLDINGS	YIELD	GROWTH	P/E	BETA
PORTFOLIO	101	2.5%	9.3%	18.9	1.00
RUSSELL 1000V	725	2.8%	7.4%	19.2	0.92



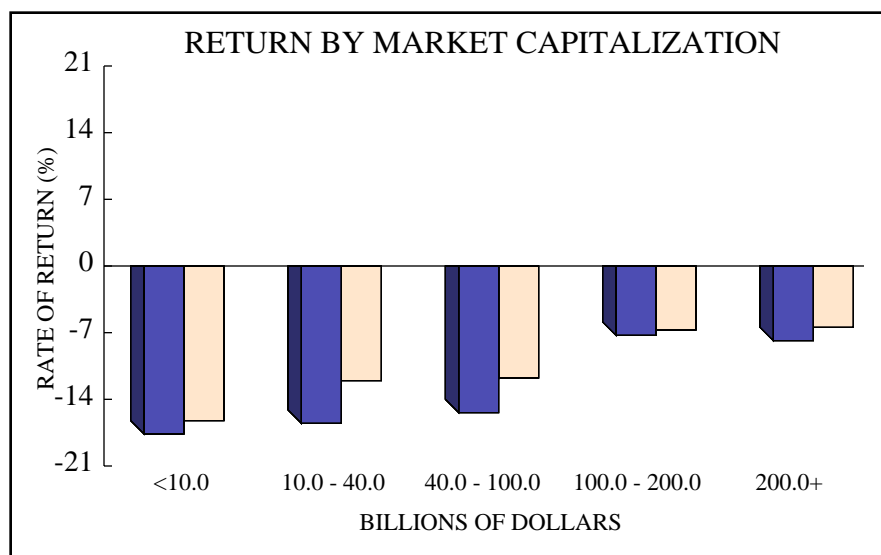
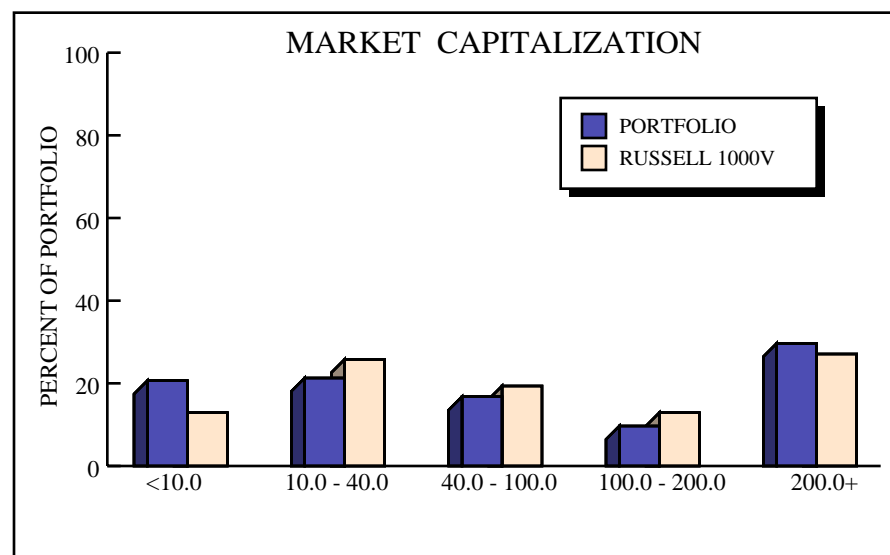
**STOCK INDUSTRY ANALYSIS**



■ PORTFOLIO      ■ RUSSELL 1000V



**TOP TEN HOLDINGS**



**TOP TEN EQUITY HOLDINGS**

RANK	NAME	VALUE	% EQUITY	RETURN	INDUSTRY SECTOR	MKT CAP
1	BERKSHIRE HATHAWAY INC-CL B	\$ 918,606	3.74%	-4.6%	Financials	\$ 278.3 B
2	JPMORGAN CHASE & CO	854,663	3.48%	-12.9%	Financials	324.6 B
3	CISCO SYSTEMS INC	685,611	2.79%	-10.3%	Information Technology	194.8 B
4	VERIZON COMMUNICATIONS INC	620,163	2.53%	6.5%	Communication Services	232.3 B
5	EXXON MOBIL CORP	619,643	2.52%	-19.0%	Energy	288.7 B
6	INTEL CORP	607,744	2.48%	-0.1%	Information Technology	214.2 B
7	BANK OF AMERICA CORP	574,753	2.34%	-15.9%	Financials	241.8 B
8	JOHNSON & JOHNSON	542,268	2.21%	-6.0%	Health Care	346.1 B
9	WALMART INC	489,131	1.99%	-0.3%	Consumer Staples	270.6 B
10	PRUDENTIAL FINANCIAL INC	455,783	1.86%	-18.7%	Financials	33.7 B



CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
VICTORY CAPITAL MANAGEMENT - MID-CAP CORE GROWTH  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Victory Capital Management Mid-Cap Core Growth portfolio was valued at \$36,524,163, a decrease of \$7,403,841 from the September ending value of \$43,928,004. Last quarter, the account recorded total net withdrawals of \$112 in addition to \$7,403,729 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$87,503 and realized and unrealized capital losses totaling \$7,491,232.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Victory Capital Management Mid-Cap Core Growth portfolio lost 16.9%, which was 0.9% less than the Russell Mid Cap Growth Index's return of -16.0% and ranked in the 54th percentile of the Mid Cap Growth universe. Over the trailing year, the portfolio returned -12.4%, which was 7.6% less than the benchmark's -4.8% performance, and ranked in the 96th percentile. Since March 2006, the account returned 7.2% per annum. For comparison, the Russell Mid Cap Growth returned an annualized 7.8% over the same time frame.

## **HOLDINGS ANALYSIS**

Last quarter, the Victory Mid Cap portfolio was diversified across all eleven industry sectors shown in our analysis. Compared to the Russell Mid Cap Growth index, the portfolio was more heavily weighted in the Financials, Materials, Real Estate, and Utilities sectors, and underweight in the Information Technology sector.

Negative selection effects were observed in most sectors last quarter, the cumulative effect of which was a 90 basis point performance shortfall.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 03/06
<b>Total Portfolio - Gross</b>	-16.9	-12.4	6.1	5.1	10.7	13.2	7.2
<i>MID CAP GROWTH RANK</i>	(54)	(96)	(83)	(88)	(82)	(89)	----
<b>Total Portfolio - Net</b>	-16.9	-12.7	5.7	4.8	10.3	12.9	7.0
Russ Mid Gro	-16.0	-4.8	8.6	7.4	12.3	15.1	7.8
<b>Domestic Equity - Gross</b>	-16.9	-12.4	6.1	5.1	10.7	13.2	7.2
<i>MID CAP GROWTH RANK</i>	(54)	(96)	(83)	(88)	(82)	(89)	----
Russ Mid Gro	-16.0	-4.8	8.6	7.4	12.3	15.1	7.8

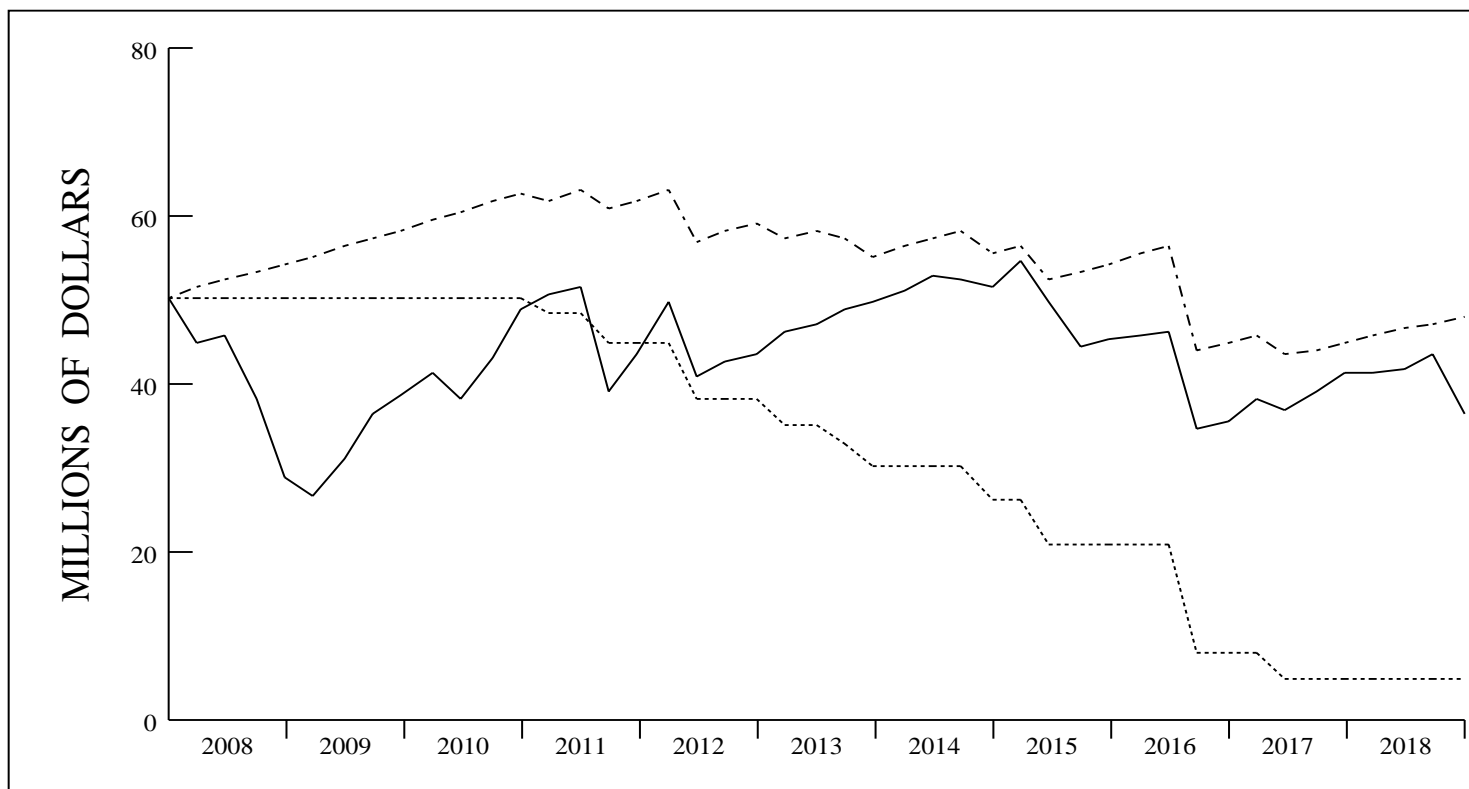
**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 36,524,163
Total Portfolio	100.0%	\$ 36,524,163

**INVESTMENT RETURN**

Market Value 9/2018	\$ 43,928,004
Contribs / Withdrawals	-112
Income	87,503
Capital Gains / Losses	-7,491,232
Market Value 12/2018	\$ 36,524,163

**INVESTMENT GROWTH**

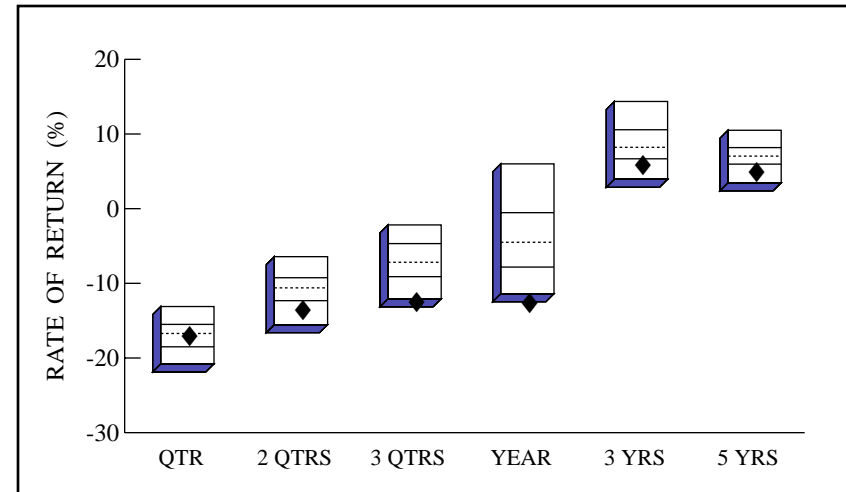
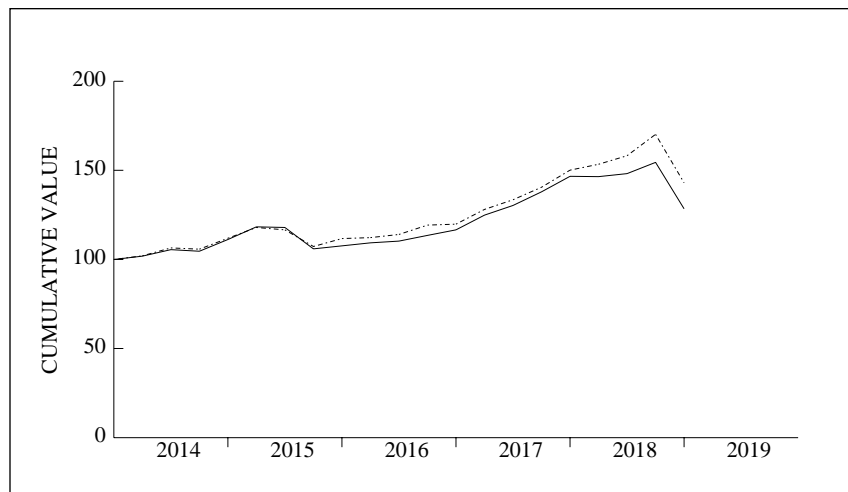


— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

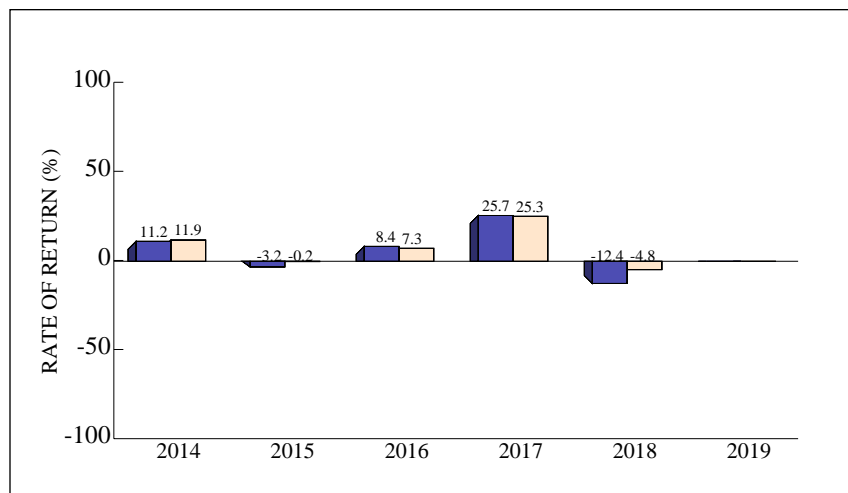
VALUE ASSUMING  
 BLENDED RATE \$ 48,355,061

	LAST QUARTER	PERIOD 12/07 - 12/18
BEGINNING VALUE	\$ 43,928,004	\$ 50,647,301
NET CONTRIBUTIONS	-112	-45,404,912
<u>INVESTMENT RETURN</u>	<u>-7,403,729</u>	<u>31,281,774</u>
ENDING VALUE	\$ 36,524,163	\$ 36,524,163
INCOME	87,503	3,933,282
<u>CAPITAL GAINS (LOSSES)</u>	<u>-7,491,232</u>	<u>27,348,492</u>
INVESTMENT RETURN	-7,403,729	31,281,774

**TOTAL RETURN COMPARISONS**



Mid Cap Growth Universe

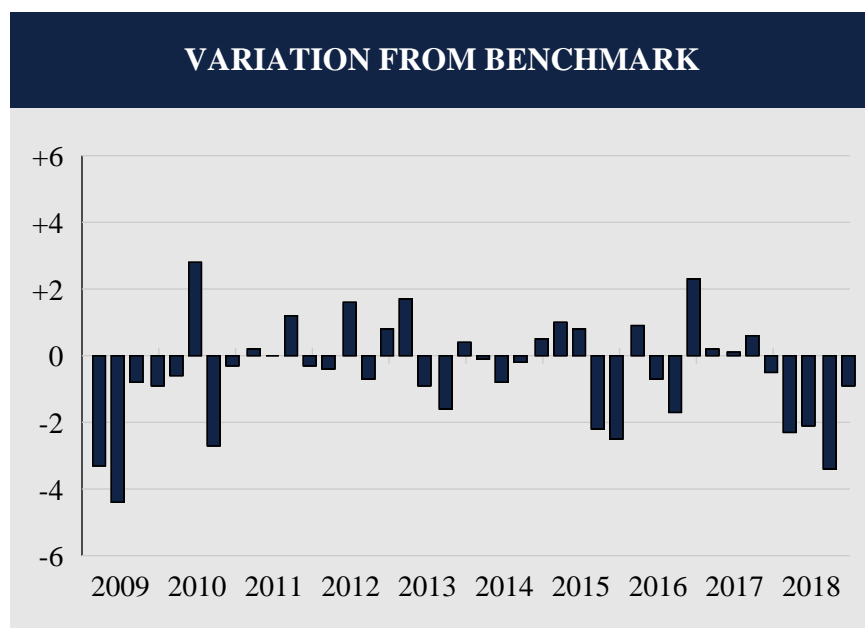


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	-16.9	-13.3	-12.3	-12.4	6.1	5.1
(RANK)	(54)	(86)	(97)	(96)	(83)	(88)
5TH %ILE	-13.1	-6.4	-2.2	6.0	14.4	10.5
25TH %ILE	-15.5	-9.2	-4.7	-0.6	10.6	8.2
MEDIAN	-16.7	-10.6	-7.2	-4.5	8.2	7.0
75TH %ILE	-18.5	-12.3	-9.1	-7.8	6.7	6.0
95TH %ILE	-20.8	-15.5	-12.1	-11.4	3.9	3.5
<b>Russ MCG</b>	<b>-16.0</b>	<b>-9.6</b>	<b>-6.8</b>	<b>-4.8</b>	<b>8.6</b>	<b>7.4</b>

Mid Cap Growth Universe

### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS

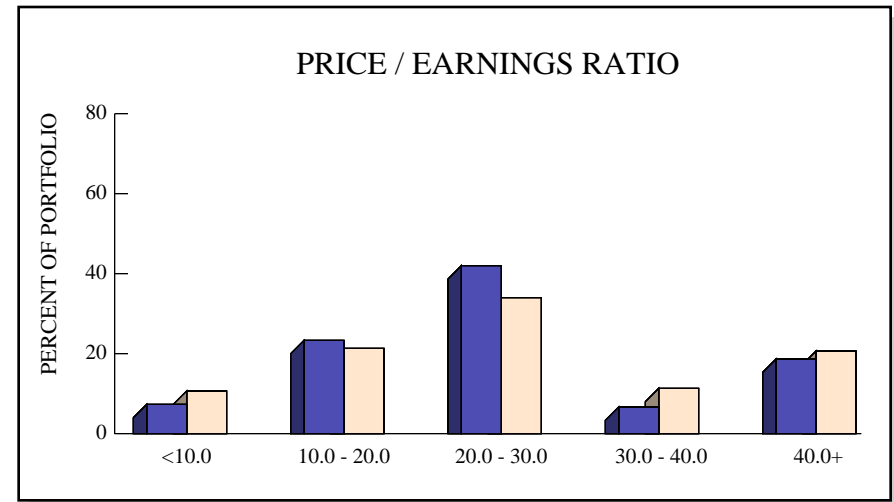
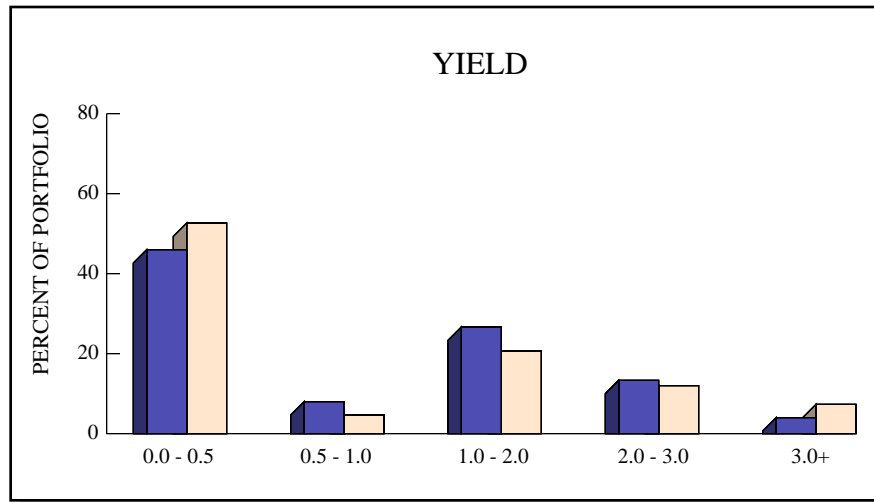
COMPARATIVE BENCHMARK: RUSSELL MID CAP GROWTH



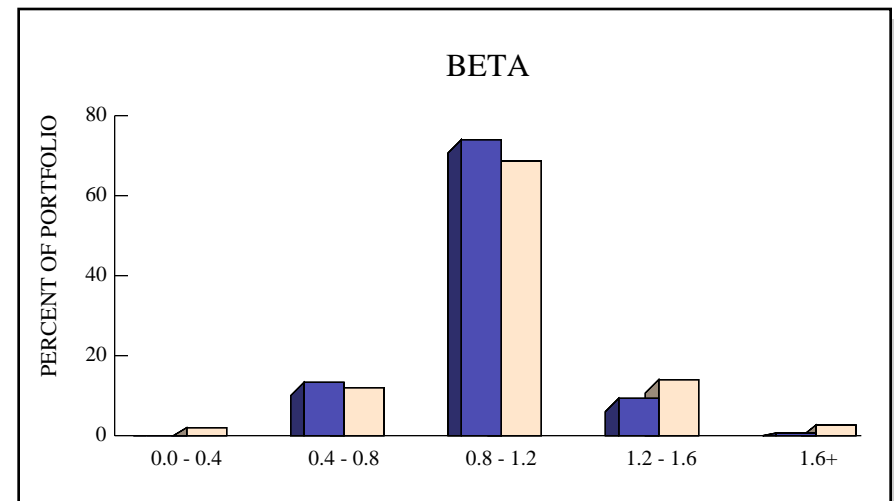
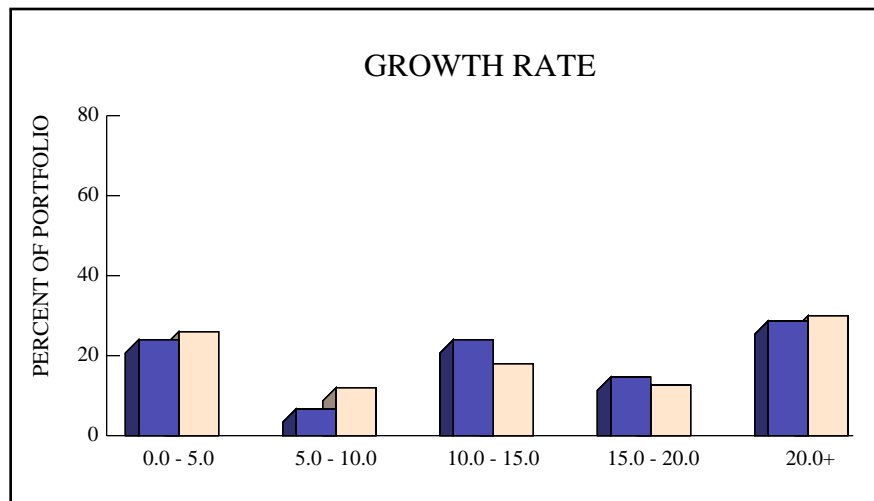
<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>16</b>
<b>Quarters Below the Benchmark</b>	<b>24</b>
<b>Batting Average</b>	<b>.400</b>

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/09	-6.7	-3.4	-3.3
6/09	16.3	20.7	-4.4
9/09	16.8	17.6	-0.8
12/09	5.8	6.7	-0.9
3/10	7.1	7.7	-0.6
6/10	-7.4	-10.2	2.8
9/10	12.0	14.7	-2.7
12/10	13.7	14.0	-0.3
3/11	8.1	7.9	0.2
6/11	1.6	1.6	0.0
9/11	-18.1	-19.3	1.2
12/11	10.9	11.2	-0.3
3/12	14.1	14.5	-0.4
6/12	-4.0	-5.6	1.6
9/12	4.6	5.3	-0.7
12/12	2.5	1.7	0.8
3/13	13.2	11.5	1.7
6/13	2.0	2.9	-0.9
9/13	7.7	9.3	-1.6
12/13	8.6	8.2	0.4
3/14	1.9	2.0	-0.1
6/14	3.6	4.4	-0.8
9/14	-0.9	-0.7	-0.2
12/14	6.3	5.8	0.5
3/15	6.4	5.4	1.0
6/15	-0.3	-1.1	0.8
9/15	-10.2	-8.0	-2.2
12/15	1.6	4.1	-2.5
3/16	1.5	0.6	0.9
6/16	0.9	1.6	-0.7
9/16	2.9	4.6	-1.7
12/16	2.8	0.5	2.3
3/17	7.1	6.9	0.2
6/17	4.3	4.2	0.1
9/17	5.9	5.3	0.6
12/17	6.3	6.8	-0.5
3/18	-0.1	2.2	-2.3
6/18	1.1	3.2	-2.1
9/18	4.2	7.6	-3.4
12/18	-16.9	-16.0	-0.9

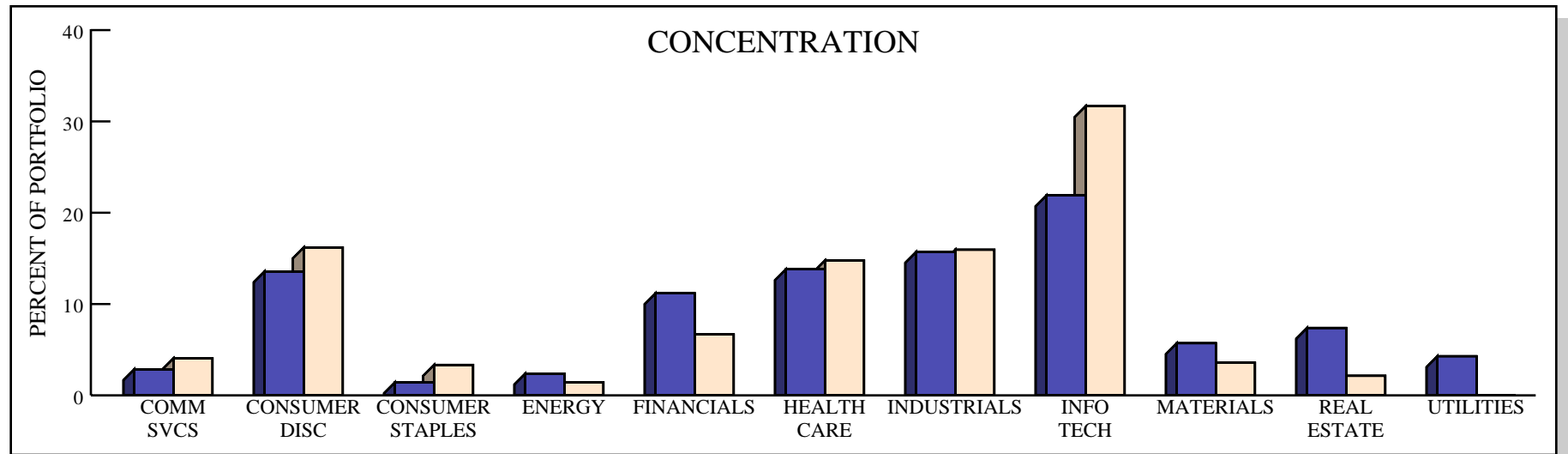
**STOCK CHARACTERISTICS**



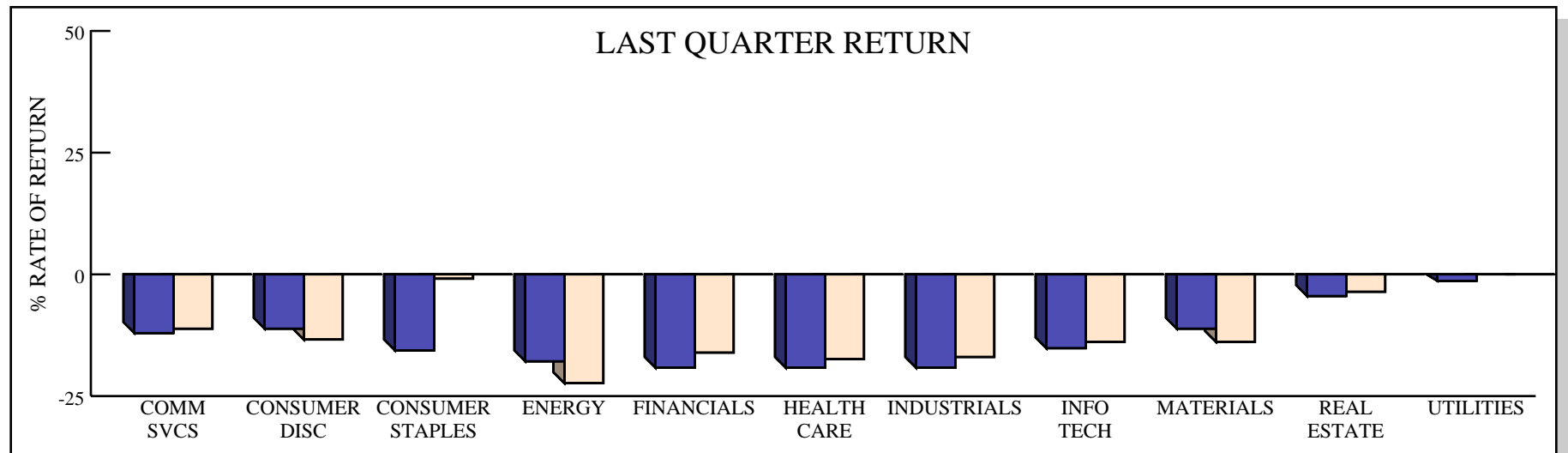
	# HOLDINGS	YIELD	GROWTH	P/E	BETA
PORTFOLIO	73	0.9%	12.7%	28.1	0.98
RUSS MID GRO	415	0.9%	15.0%	26.6	1.01



**STOCK INDUSTRY ANALYSIS**

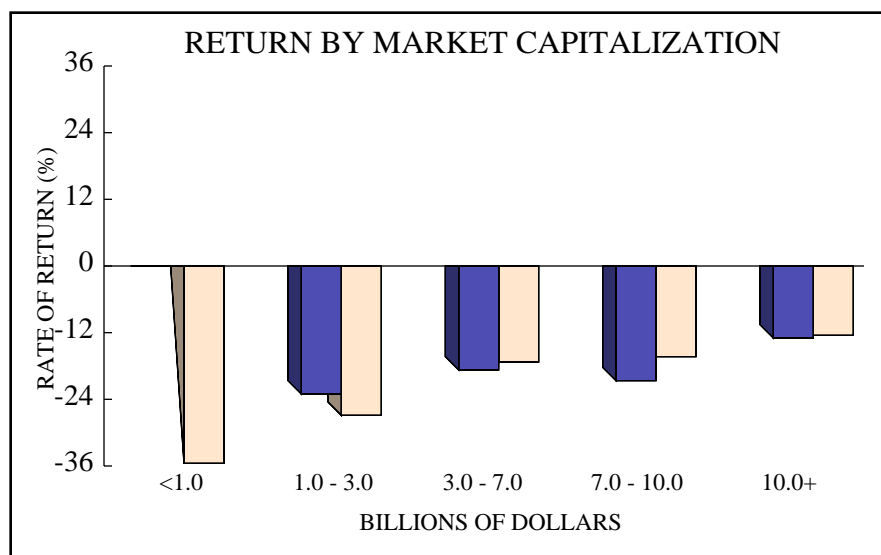
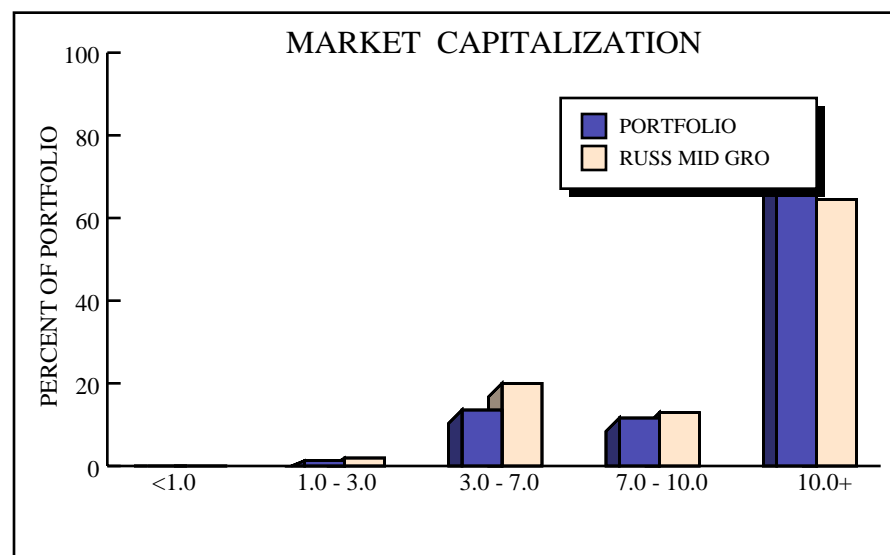


■ PORTFOLIO      ■ RUS MID GRO





**TOP TEN HOLDINGS**



**TOP TEN EQUITY HOLDINGS**

RANK	NAME	VALUE	% EQUITY	RETURN	INDUSTRY SECTOR	MKT CAP
1	ROSS STORES INC	\$ 1,106,560	3.03%	-15.8%	Consumer Discretionary	\$ 30.8 B
2	FIDELITY NATIONAL INFO SERV	1,004,990	2.75%	-5.7%	Information Technology	33.6 B
3	CENTENE CORP	899,340	2.46%	-20.4%	Health Care	23.8 B
4	SPDR S&P MIDCAP 400 ETF	875,624	2.40%	-17.3%	N/A	16.7 B
5	PTC INC	829,000	2.27%	-21.9%	Information Technology	9.8 B
6	SBA COMMUNICATIONS CORP	817,544	2.24%	0.8%	Real Estate	18.3 B
7	SVB FINANCIAL GROUP	759,680	2.08%	-38.9%	Financials	10.1 B
8	BAXTER INTERNATIONAL INC	750,348	2.05%	-14.4%	Health Care	35.0 B
9	MICROCHIP TECHNOLOGY INC	713,374	1.95%	-8.4%	Information Technology	17.0 B
10	ENCOMPASS HEALTH CORP	678,700	1.86%	-20.5%	Health Care	6.1 B

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
SYSTEMATIC FINANCIAL MANAGEMENT - MID CAP VALUE  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Systematic Financial Management Mid Cap Value portfolio was valued at \$36,891,127, a decrease of \$8,246,443 from the September ending value of \$45,137,570. Last quarter, the account recorded total net withdrawals of \$321 in addition to \$8,246,122 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$198,620 and realized and unrealized capital losses totaling \$8,444,742.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Systematic Financial Management Mid Cap Value portfolio lost 18.3%, which was 3.3% less than the Russell Mid Cap Value Index's return of -15.0% and ranked in the 80th percentile of the Mid Cap Value universe. Over the trailing year, the portfolio returned -15.9%, which was 3.6% less than the benchmark's -12.3% performance, and ranked in the 79th percentile. Since March 2006, the account returned 7.0% per annum. For comparison, the Russell Mid Cap Value returned an annualized 6.8% over the same time frame.

## **HOLDINGS ANALYSIS**

Last quarter, the Systematic portfolio was invested across all eleven industry sectors shown in our analysis. Relative to the Russell Mid Cap Value index, the portfolio held larger allocations in the Health Care, Industrials, and Information Technology sectors, while the Financials, Real Estate, and Utilities sectors were underweight.

Generally unfavorable selection in most sectors added up to a shortfall greater than 3% against the benchmark last quarter. The Consumer Staples and Materials sectors had the most notable performance deficits, while milder underperformance in the Financials, Industrials, and Real Estate sectors also had a significant impact, since these were the top three heaviest sectors in the portfolio.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 03/06
<b>Total Portfolio - Gross</b>	-18.3	-15.9	5.5	3.4	9.4	11.6	7.0
<i>MID CAP VALUE RANK</i>	(80)	(79)	(68)	(81)	(87)	(88)	----
<b>Total Portfolio - Net</b>	-18.4	-16.3	5.0	2.9	8.9	11.2	6.7
Russ Mid Val	-15.0	-12.3	6.0	5.4	10.9	13.0	6.8
<b>Domestic Equity - Gross</b>	-18.3	-15.9	5.5	3.4	9.4	11.6	7.0
<i>MID CAP VALUE RANK</i>	(80)	(79)	(68)	(81)	(87)	(88)	----
Russ Mid Val	-15.0	-12.3	6.0	5.4	10.9	13.0	6.8

**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 36,891,127
Total Portfolio	100.0%	\$ 36,891,127

**INVESTMENT RETURN**

Market Value 9/2018	\$ 45,137,570
Contribs / Withdrawals	-321
Income	198,620
Capital Gains / Losses	- 8,444,742
Market Value 12/2018	\$ 36,891,127

**INVESTMENT GROWTH**

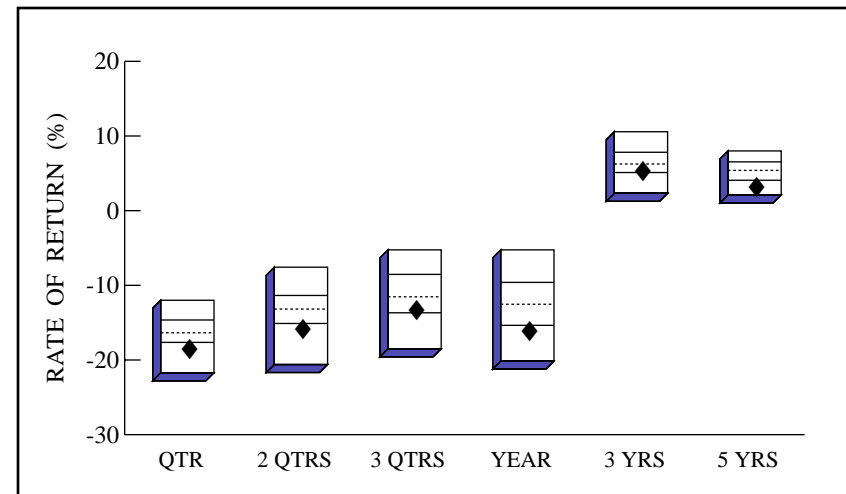
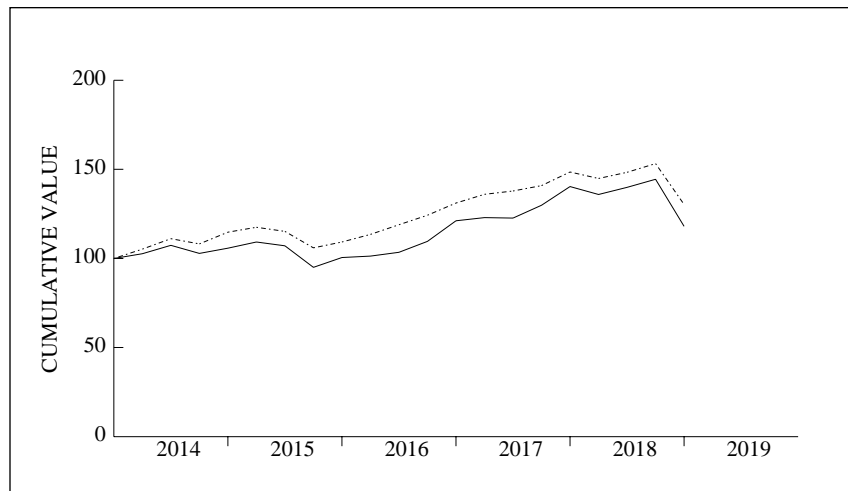


— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 48,583,319

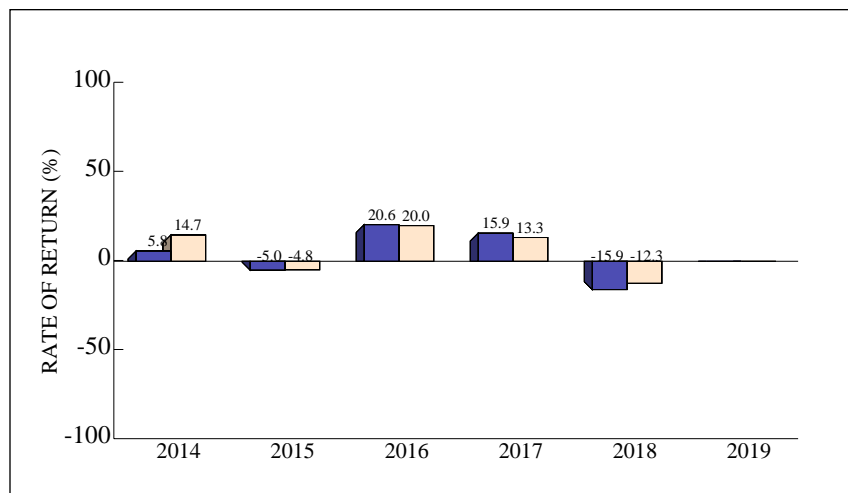
	LAST QUARTER	PERIOD 12/07 - 12/18
BEGINNING VALUE	\$ 45,137,570	\$ 48,865,376
NET CONTRIBUTIONS	-321	-41,879,353
<u>INVESTMENT RETURN</u>	<u>-8,246,122</u>	<u>29,905,104</u>
ENDING VALUE	\$ 36,891,127	\$ 36,891,127
INCOME	198,620	5,992,819
<u>CAPITAL GAINS (LOSSES)</u>	<u>-8,444,742</u>	<u>23,912,285</u>
INVESTMENT RETURN	-8,246,122	29,905,104

**TOTAL RETURN COMPARISONS**



■ ——— PORTFOLIO  
■ - - - - - RUSS MID VAL

Mid Cap Value Universe

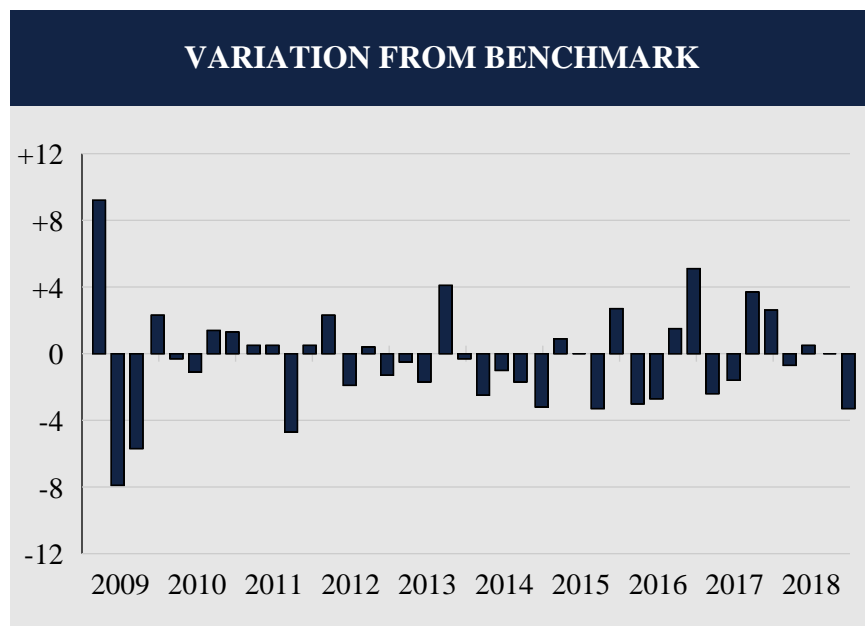


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	-18.3	-15.6	-13.1	-15.9	5.5	3.4
(RANK)	(80)	(79)	(70)	(79)	(68)	(81)
5TH %ILE	-12.0	-7.6	-5.3	-5.3	10.6	8.0
25TH %ILE	-14.6	-11.4	-8.5	-9.6	7.8	6.5
MEDIAN	-16.4	-13.2	-11.5	-12.5	6.2	5.4
75TH %ILE	-17.7	-15.1	-13.7	-15.3	5.1	4.1
95TH %ILE	-21.7	-20.6	-18.5	-20.1	2.3	2.1
<b>Russ MCV</b>	<b>-15.0</b>	<b>-12.2</b>	<b>-10.1</b>	<b>-12.3</b>	<b>6.0</b>	<b>5.4</b>

Mid Cap Value Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS**

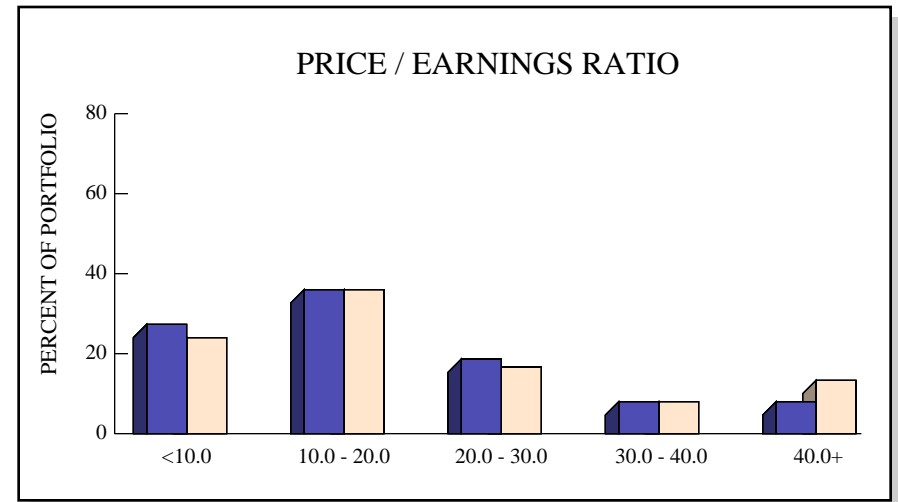
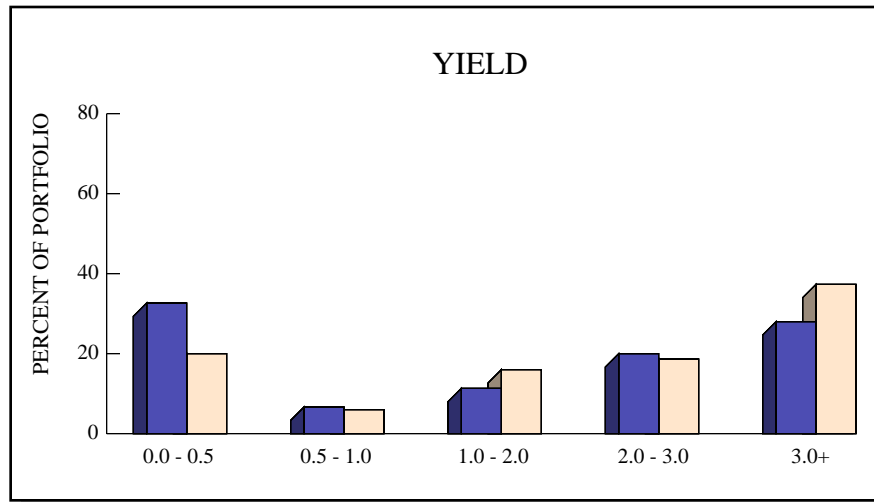
**COMPARATIVE BENCHMARK: RUSSELL MID CAP VALUE**



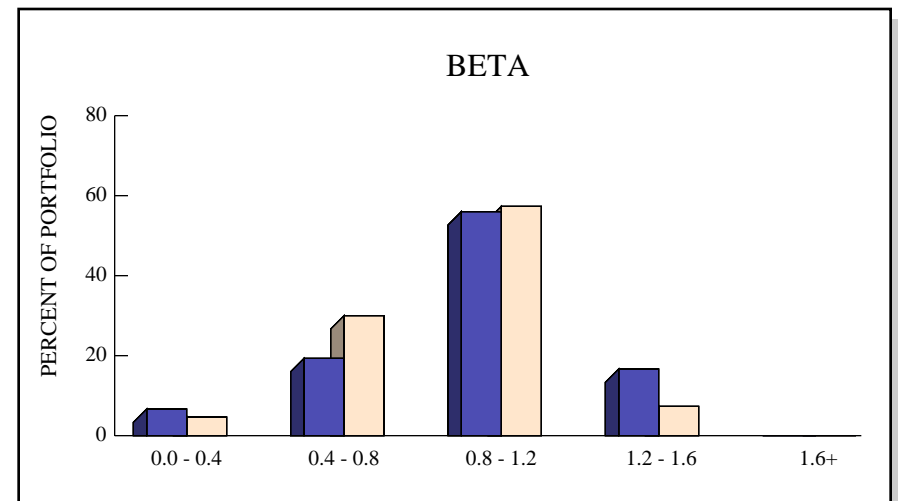
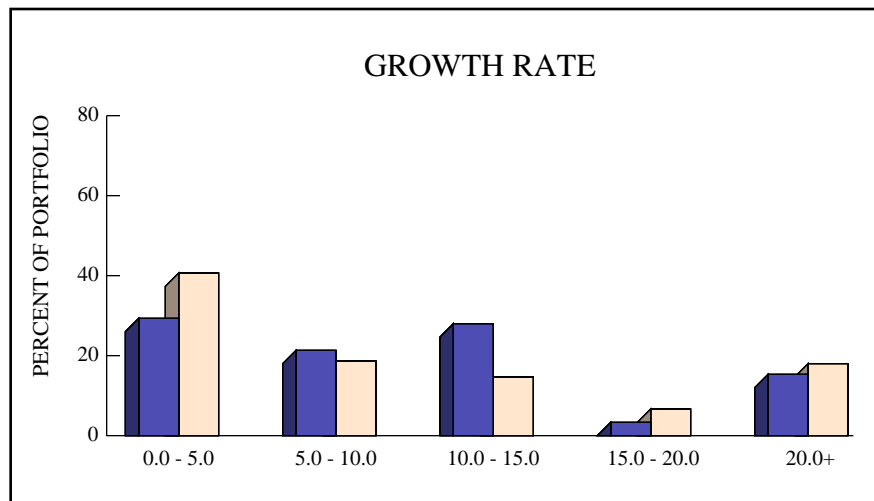
<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>19</b>
<b>Quarters Below the Benchmark</b>	<b>21</b>
<b>Batting Average</b>	<b>.475</b>

<b>RATES OF RETURN</b>			
Date	Portfolio	Benchmark	Difference
3/09	-5.5	-14.7	9.2
6/09	13.0	20.9	-7.9
9/09	17.9	23.6	-5.7
12/09	7.5	5.2	2.3
3/10	9.3	9.6	-0.3
6/10	-10.7	-9.6	-1.1
9/10	13.5	12.1	1.4
12/10	13.5	12.2	1.3
3/11	7.9	7.4	0.5
6/11	-0.2	-0.7	0.5
9/11	-23.2	-18.5	-4.7
12/11	13.9	13.4	0.5
3/12	13.7	11.4	2.3
6/12	-5.2	-3.3	-1.9
9/12	6.2	5.8	0.4
12/12	2.6	3.9	-1.3
3/13	13.7	14.2	-0.5
6/13	0.0	1.7	-1.7
9/13	10.0	5.9	4.1
12/13	8.3	8.6	-0.3
3/14	2.7	5.2	-2.5
6/14	4.6	5.6	-1.0
9/14	-4.3	-2.6	-1.7
12/14	2.9	6.1	-3.2
3/15	3.3	2.4	0.9
6/15	-2.0	-2.0	0.0
9/15	-11.3	-8.0	-3.3
12/15	5.8	3.1	2.7
3/16	0.9	3.9	-3.0
6/16	2.1	4.8	-2.7
9/16	5.9	4.4	1.5
12/16	10.6	5.5	5.1
3/17	1.4	3.8	-2.4
6/17	-0.2	1.4	-1.6
9/17	5.8	2.1	3.7
12/17	8.1	5.5	2.6
3/18	-3.2	-2.5	-0.7
6/18	2.9	2.4	0.5
9/18	3.3	3.3	0.0
12/18	-18.3	-15.0	-3.3

**STOCK CHARACTERISTICS**

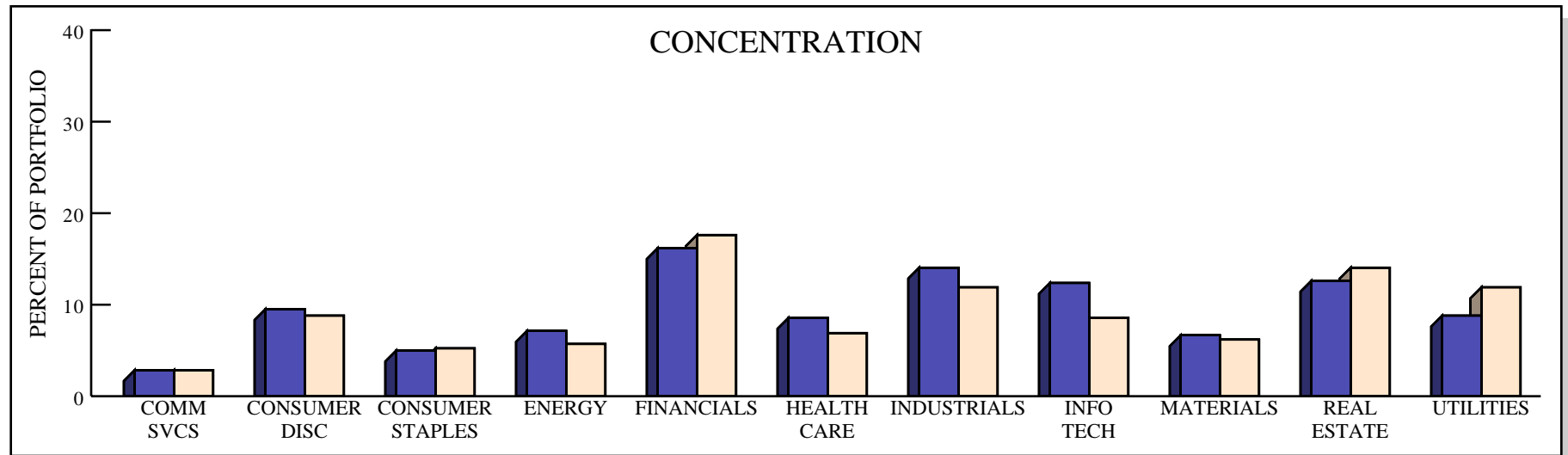


	# HOLDINGS	YIELD	GROWTH	P/E	BETA
PORTFOLIO	81	2.3%	8.5%	18.1	0.92
RUSS MID VAL	583	2.6%	7.5%	20.3	0.86

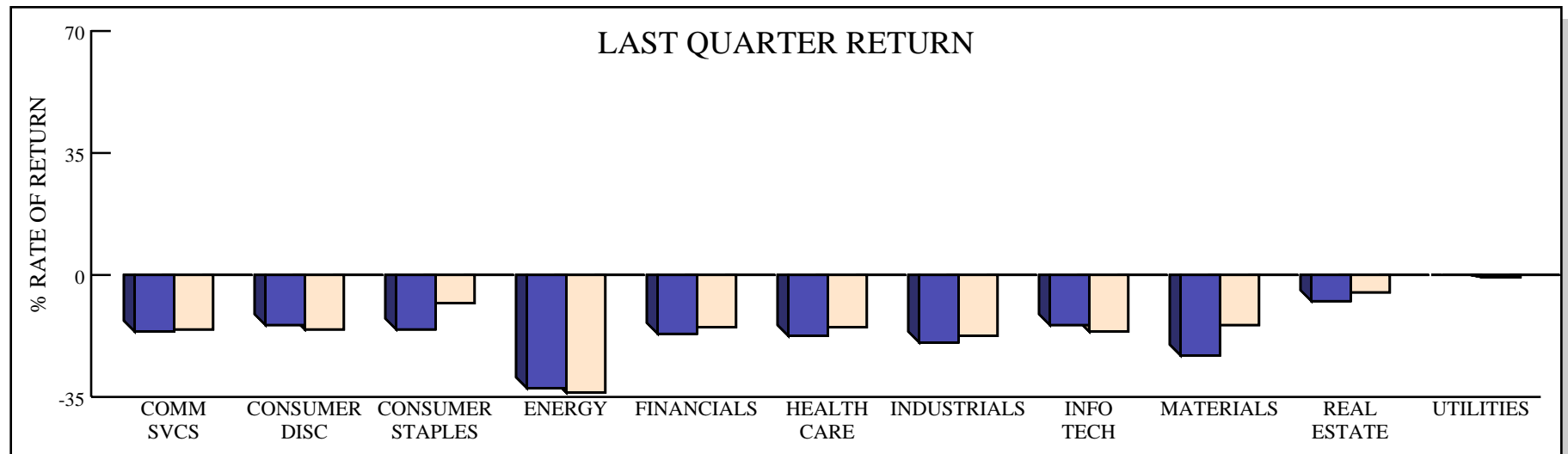




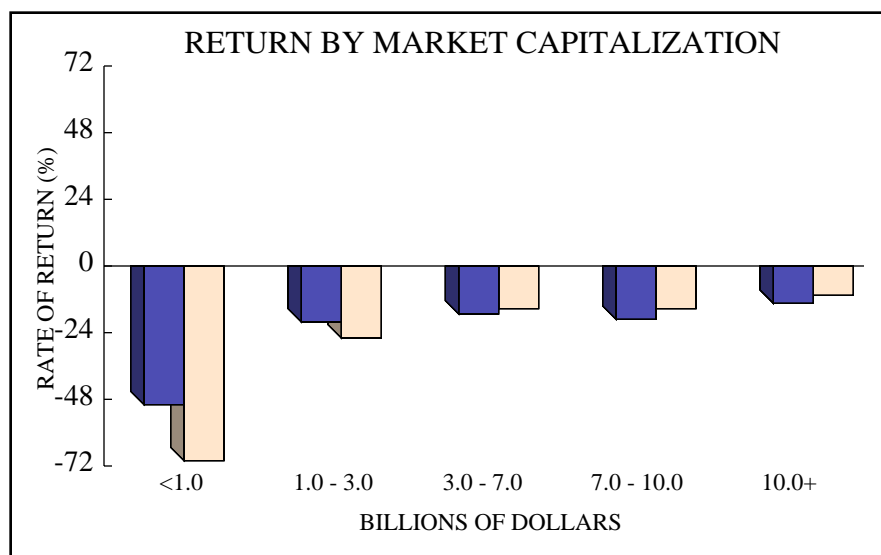
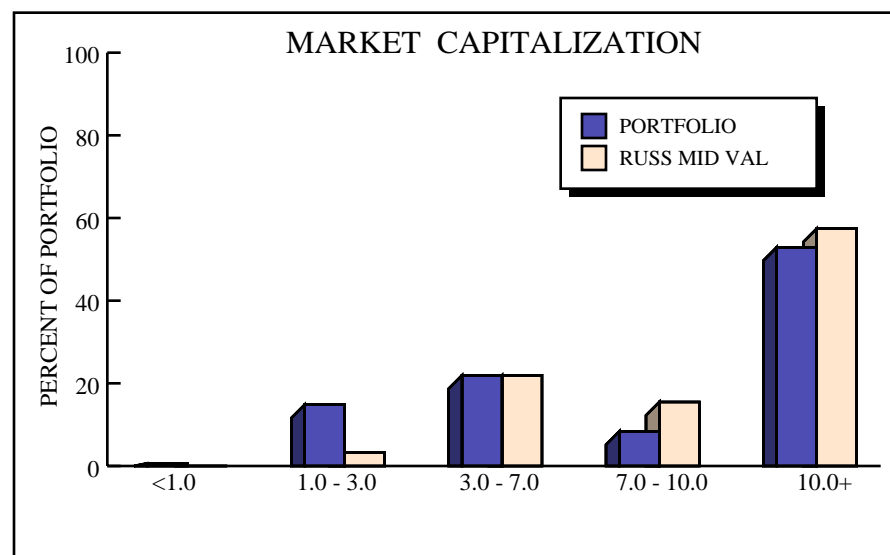
**STOCK INDUSTRY ANALYSIS**



■ PORTFOLIO      ■ RUS MID VAL



**TOP TEN HOLDINGS**



**TOP TEN EQUITY HOLDINGS**

RANK	NAME	VALUE	% EQUITY	RETURN	INDUSTRY SECTOR	MKT CAP
1	ENTERGY CORP	\$ 1,343,122	3.64%	7.2%	Utilities	\$ 15.6 B
2	CITIZENS FINANCIAL GROUP	985,995	2.67%	-22.4%	Financials	13.9 B
3	LIBERTY PROPERTY TRUST	842,835	2.28%	0.1%	Real Estate	6.2 B
4	BJ'S WHOLESALE CLUB HOLDINGS	822,579	2.23%	-17.3%	Consumer Staples	3.0 B
5	SYNOPSIS INC	761,951	2.07%	-14.6%	Information Technology	12.6 B
6	EDISON INTERNATIONAL	757,312	2.05%	-15.2%	Utilities	18.5 B
7	AGILENT TECHNOLOGIES INC	727,556	1.97%	-3.9%	Health Care	21.5 B
8	DICK'S SPORTING GOODS INC	696,852	1.89%	-11.5%	Consumer Discretionary	2.3 B
9	GAMING AND LEISURE PROPERTIE	649,754	1.76%	-6.5%	Real Estate	6.9 B
10	DIGITAL REALTY TRUST INC	646,759	1.75%	-4.4%	Real Estate	22.0 B

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
KENNEDY - SMALL CAP CORE  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Kennedy Small Cap Core portfolio was valued at \$18,271,896, a decrease of \$4,344,597 from the September ending value of \$22,616,493. Last quarter, the account recorded total net withdrawals of \$238 in addition to \$4,344,359 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$56,020 and realized and unrealized capital losses totaling \$4,400,379.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Kennedy Small Cap Core portfolio lost 19.2%, which was 1.0% greater than the Russell 2000 Index's return of -20.2% and ranked in the 36th percentile of the Small Cap Core universe. Over the trailing year, the portfolio returned -13.0%, which was 2.0% less than the benchmark's -11.0% performance, and ranked in the 73rd percentile. Since December 1994, the account returned 13.8% per annum. For comparison, the Russell 2000 returned an annualized 8.7% over the same time frame.

## **HOLDINGS ANALYSIS**

The Kennedy Small Cap Core portfolio was invested in ten of the eleven industry sectors shown in our analysis last quarter. With regard to the Russell 2000 index the portfolio was overweight in the Health Care and Industrials sectors, while underweight in the Consumer Discretionary sector. The Communications Services sector was vacant.

The portfolio's two overweight sectors had better preservation of capital than many of the other sectors in the small cap market, which was a benefit to the portfolio. Furthermore, the portfolio experienced slightly less negative returns in those sectors than were reflected by the broader small cap market. Unfavorable selection effects in the Consumer Discretionary and Energy sectors detracted from the total return, although the minor allocation to the Energy sector limited its impact.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 12/94
<b>Total Portfolio - Gross</b>	-19.2	-13.0	6.1	4.8	10.0	13.6	13.8
<i>SMALL CAP CORE RANK</i>	(36)	(73)	(69)	(66)	(88)	(48)	----
<b>Total Portfolio - Net</b>	-19.4	-13.9	5.1	3.8	8.9	12.8	13.4
Russell 2000	-20.2	-11.0	7.3	4.4	10.4	12.0	8.7
<b>Domestic Equity - Gross</b>	-19.2	-13.0	6.1	4.8	10.0	13.6	13.8
<i>SMALL CAP CORE RANK</i>	(36)	(73)	(69)	(66)	(88)	(48)	----
Russell 2000	-20.2	-11.0	7.3	4.4	10.4	12.0	8.7

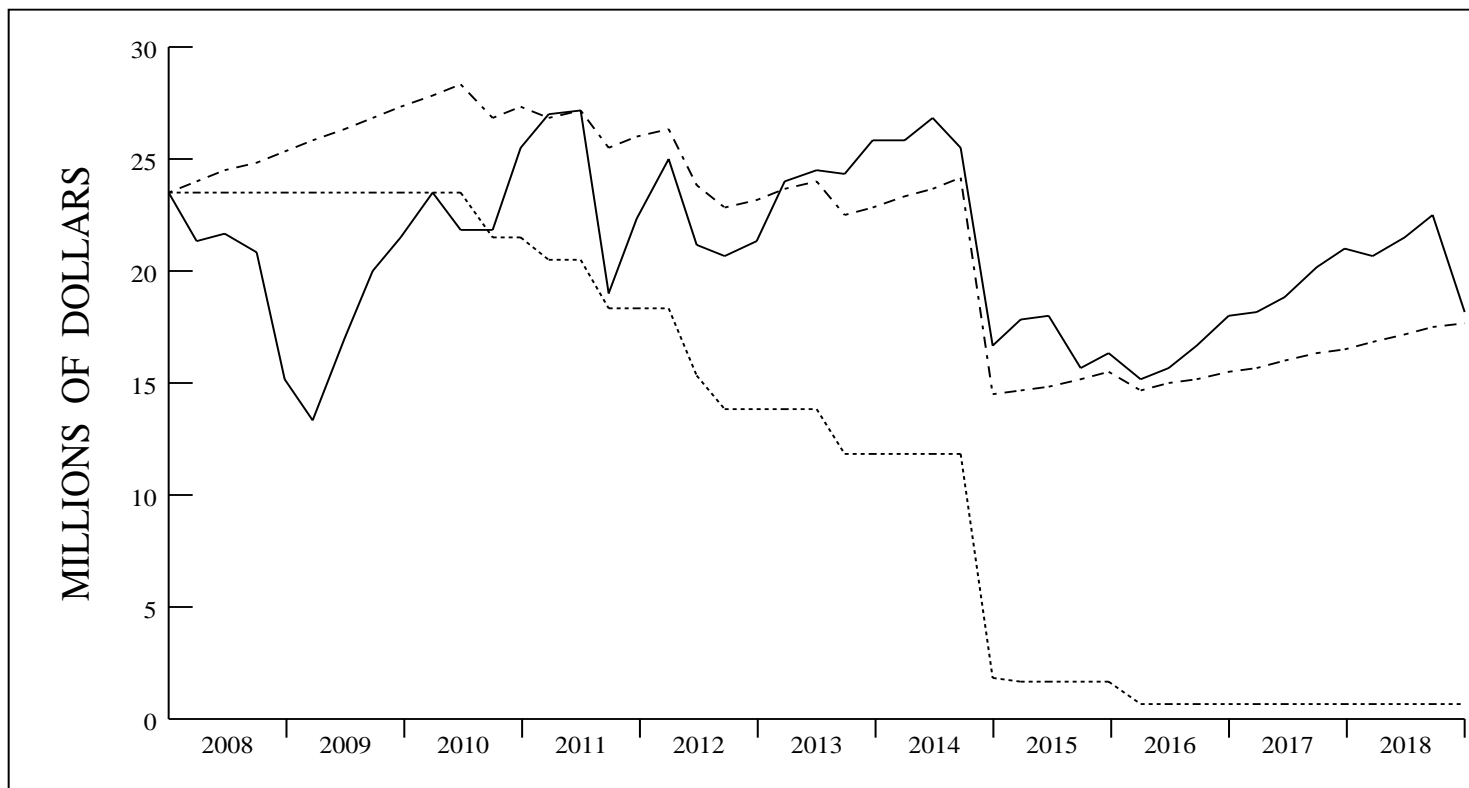
**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 18,271,896
Total Portfolio	100.0%	\$ 18,271,896

**INVESTMENT RETURN**

Market Value 9/2018	\$ 22,616,493
Contribs / Withdrawals	-238
Income	56,020
Capital Gains / Losses	-4,400,379
Market Value 12/2018	\$ 18,271,896

**INVESTMENT GROWTH**

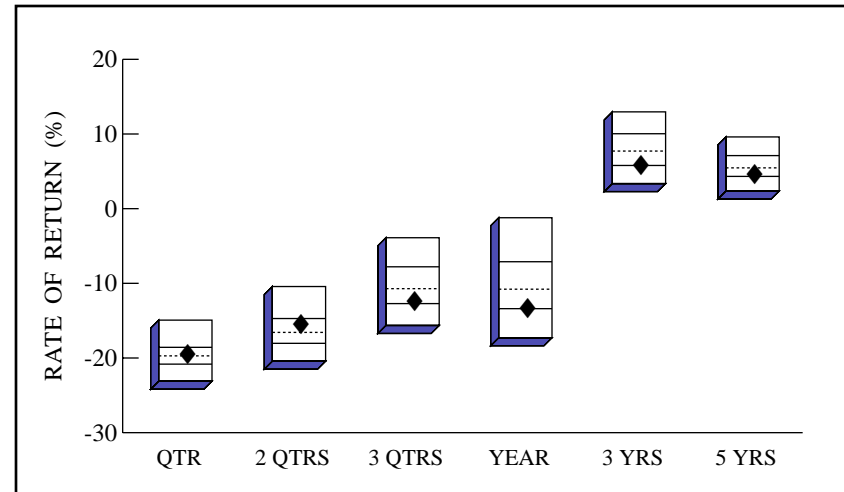
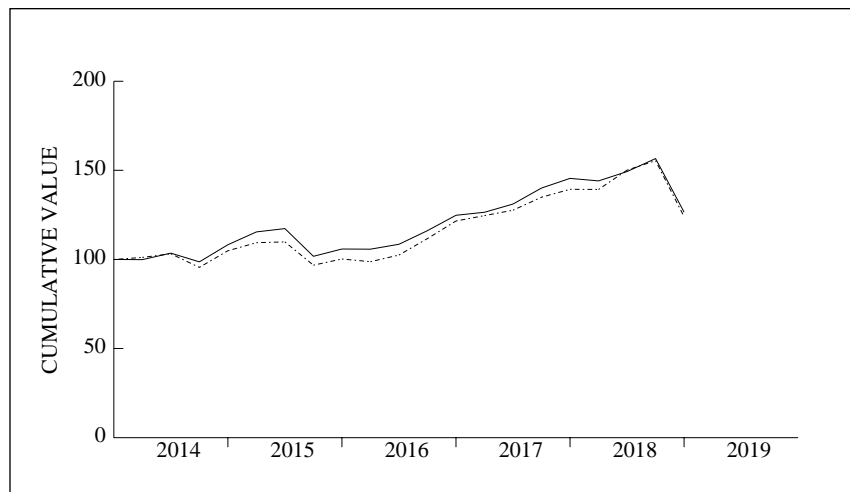


— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 17,815,124

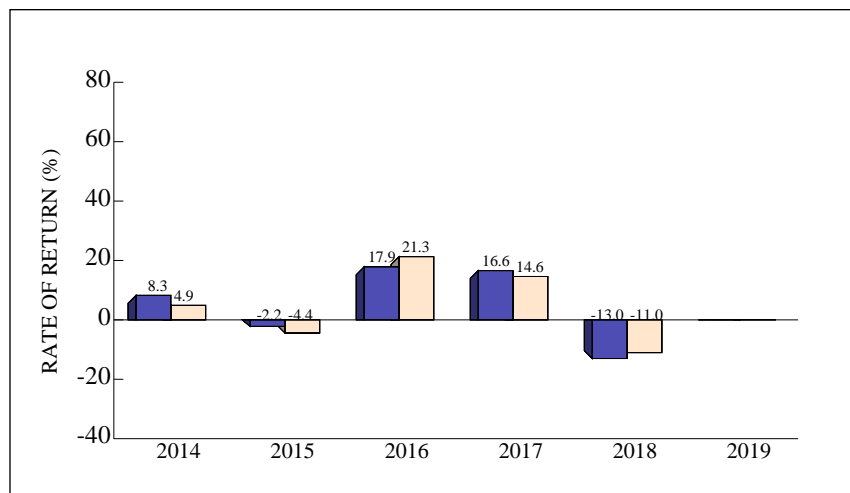
	LAST QUARTER	PERIOD 12/07 - 12/18
BEGINNING VALUE	\$ 22,616,493	\$ 23,664,669
NET CONTRIBUTIONS	-238	-22,852,908
INVESTMENT RETURN	-4,344,359	17,460,135
ENDING VALUE	\$ 18,271,896	\$ 18,271,896
INCOME	56,020	1,742,683
CAPITAL GAINS (LOSSES)	-4,400,379	15,717,452
INVESTMENT RETURN	-4,344,359	17,460,135

**TOTAL RETURN COMPARISONS**



■ ——— PORTFOLIO  
■ - - - - - RUSSELL 2000

Small Cap Core Universe

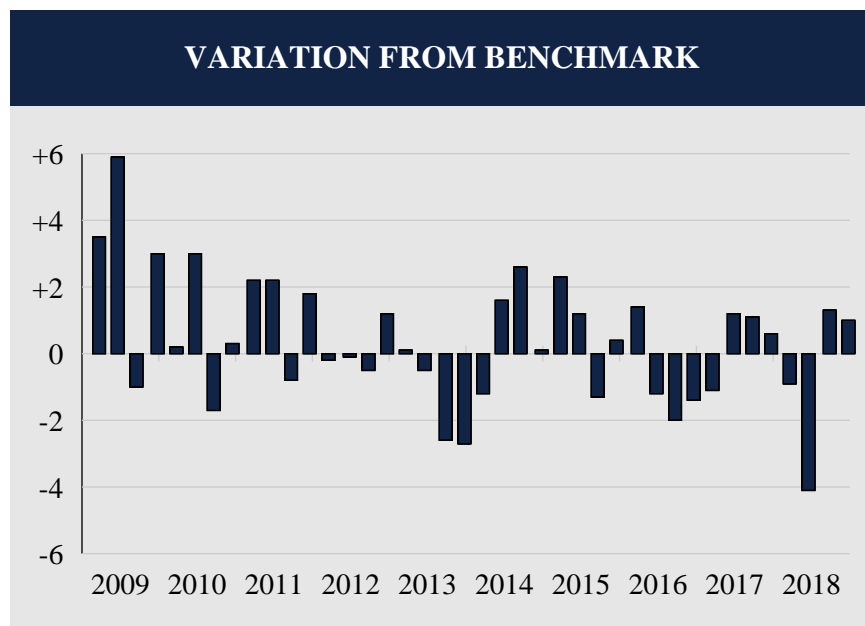


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	-19.2	-15.3	-12.2	-13.0	6.1	4.8
(RANK)	(36)	(31)	(65)	(73)	(69)	(66)
5TH %ILE	-14.9	-10.4	-3.9	-1.2	13.0	9.6
25TH %ILE	-18.6	-14.7	-7.8	-7.1	10.1	7.1
MEDIAN	-19.7	-16.6	-10.7	-10.8	7.7	5.5
75TH %ILE	-20.8	-18.1	-12.7	-13.4	5.8	4.3
95TH %ILE	-23.1	-20.4	-15.7	-17.3	3.4	2.4
<b>Russ 2000</b>	<b>-20.2</b>	<b>-17.4</b>	<b>-11.0</b>	<b>-11.0</b>	<b>7.3</b>	<b>4.4</b>

Small Cap Core Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS**

**COMPARATIVE BENCHMARK: RUSSELL 2000**

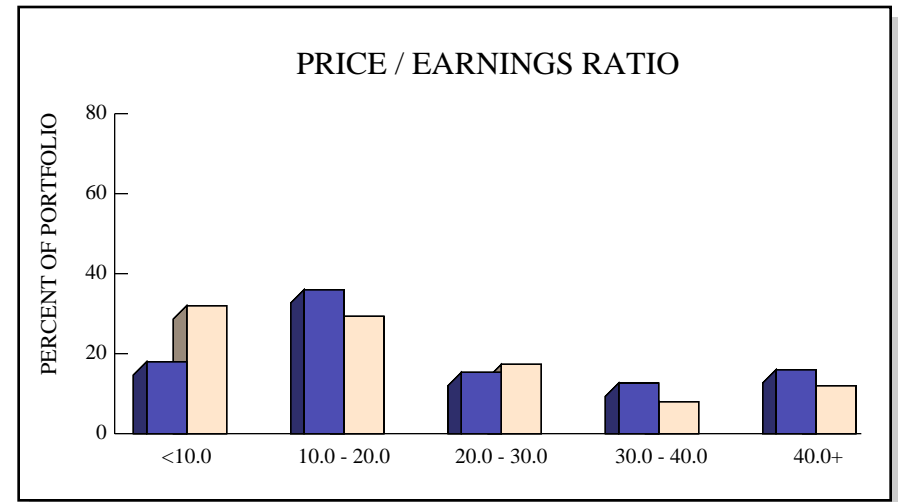
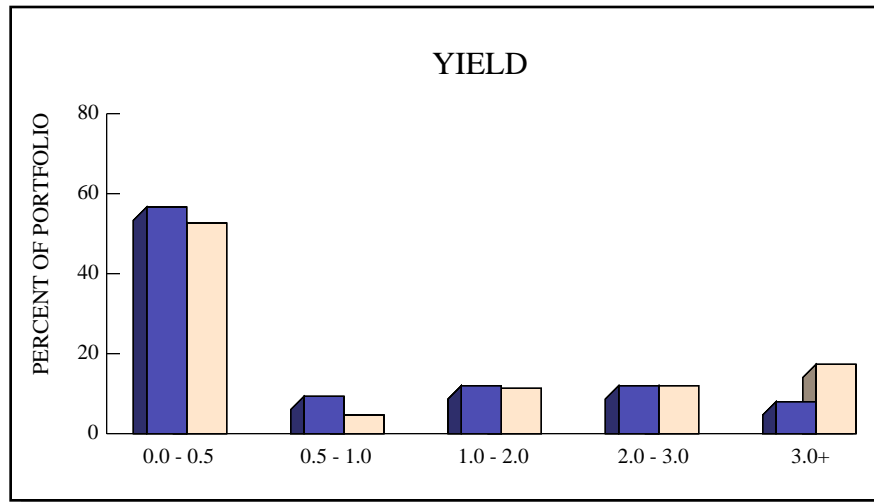


<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>23</b>
<b>Quarters Below the Benchmark</b>	<b>17</b>
<b>Batting Average</b>	<b>.575</b>

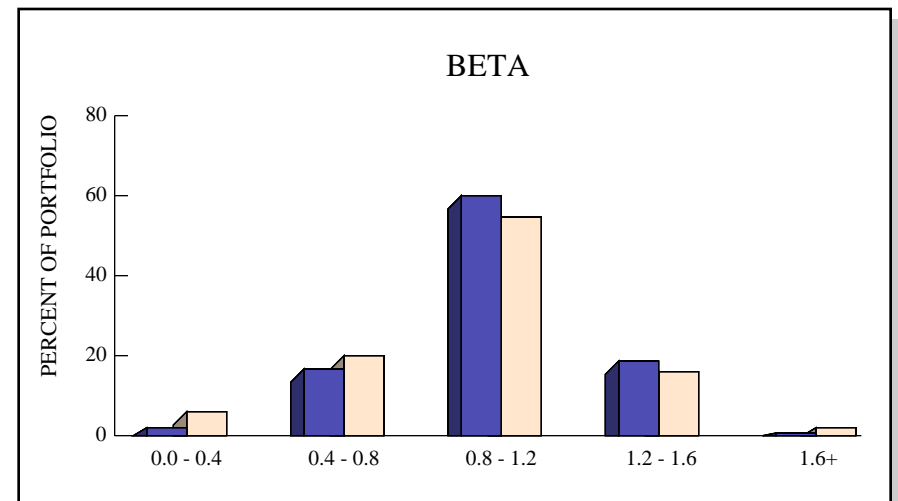
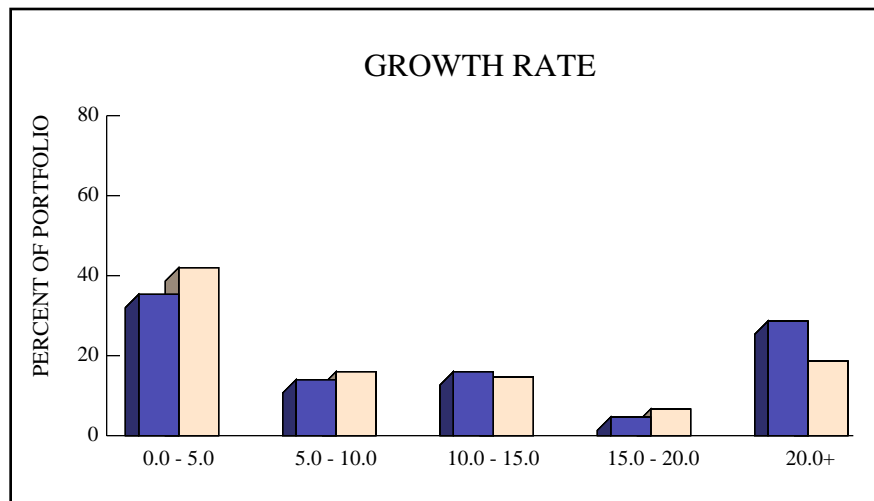
<b>RATES OF RETURN</b>			
Date	Portfolio	Benchmark	Difference
3/09	-11.5	-15.0	3.5
6/09	26.6	20.7	5.9
9/09	18.3	19.3	-1.0
12/09	6.9	3.9	3.0
3/10	9.1	8.9	0.2
6/10	-6.9	-9.9	3.0
9/10	9.6	11.3	-1.7
12/10	16.6	16.3	0.3
3/11	10.1	7.9	2.2
6/11	0.6	-1.6	2.2
9/11	-22.7	-21.9	-0.8
12/11	17.3	15.5	1.8
3/12	12.2	12.4	-0.2
6/12	-3.6	-3.5	-0.1
9/12	4.7	5.2	-0.5
12/12	3.0	1.8	1.2
3/13	12.5	12.4	0.1
6/13	2.6	3.1	-0.5
9/13	7.6	10.2	-2.6
12/13	6.0	8.7	-2.7
3/14	-0.1	1.1	-1.2
6/14	3.6	2.0	1.6
9/14	-4.8	-7.4	2.6
12/14	9.8	9.7	0.1
3/15	6.6	4.3	2.3
6/15	1.6	0.4	1.2
9/15	-13.2	-11.9	-1.3
12/15	4.0	3.6	0.4
3/16	-0.1	-1.5	1.4
6/16	2.6	3.8	-1.2
9/16	7.0	9.0	-2.0
12/16	7.4	8.8	-1.4
3/17	1.4	2.5	-1.1
6/17	3.7	2.5	1.2
9/17	6.8	5.7	1.1
12/17	3.9	3.3	0.6
3/18	-1.0	-0.1	-0.9
6/18	3.7	7.8	-4.1
9/18	4.9	3.6	1.3
12/18	-19.2	-20.2	1.0



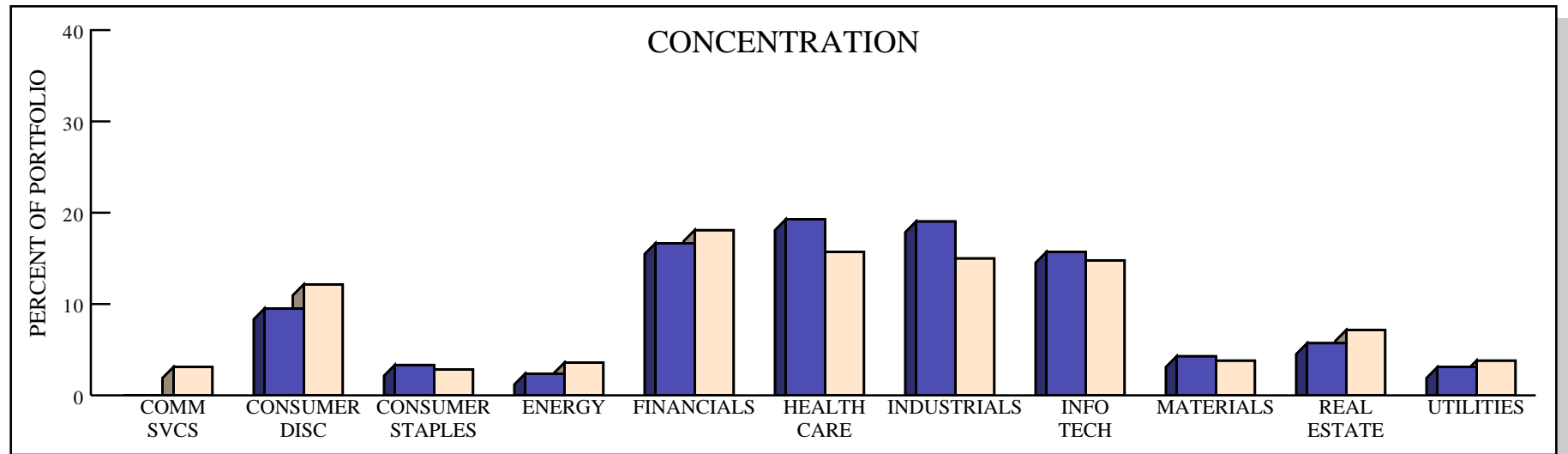
**STOCK CHARACTERISTICS**



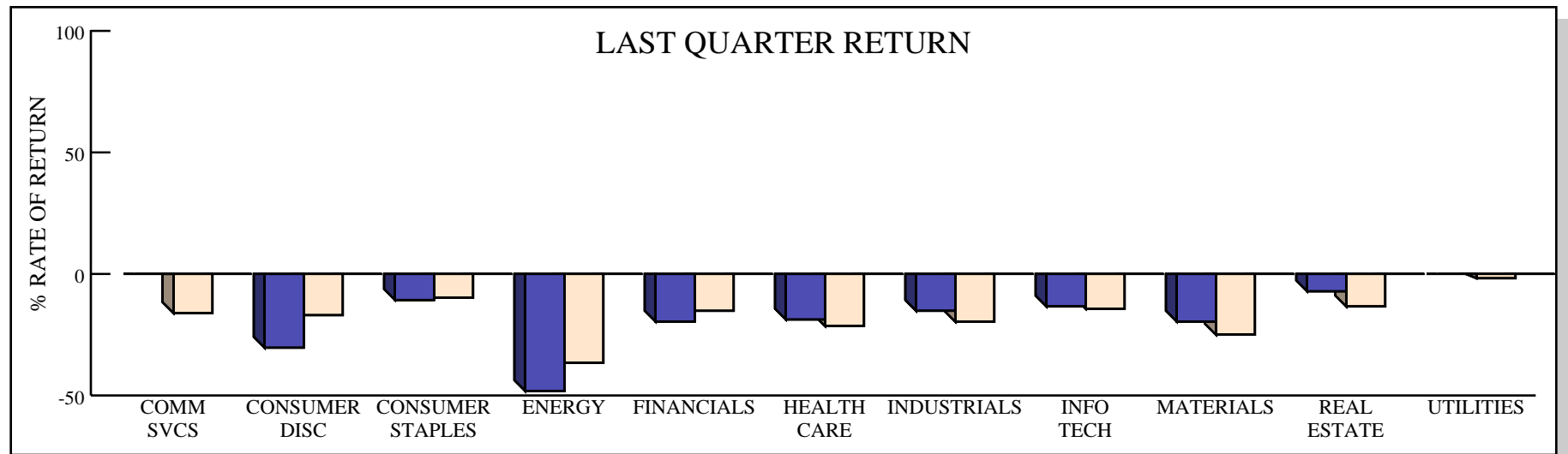
	# HOLDINGS	YIELD	GROWTH	P/E	BETA
PORTFOLIO	95	1.0%	13.2%	23.3	0.98
RUSSELL 2000	1,997	1.5%	8.8%	17.2	0.93



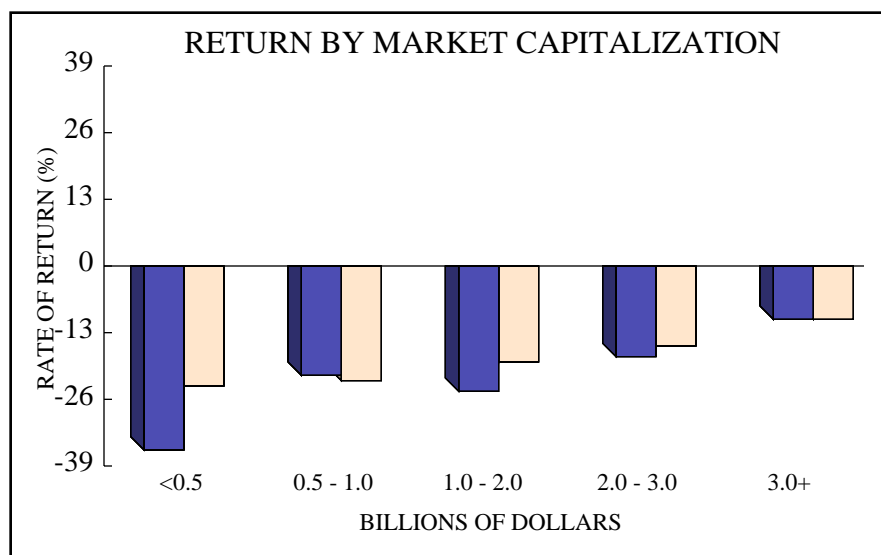
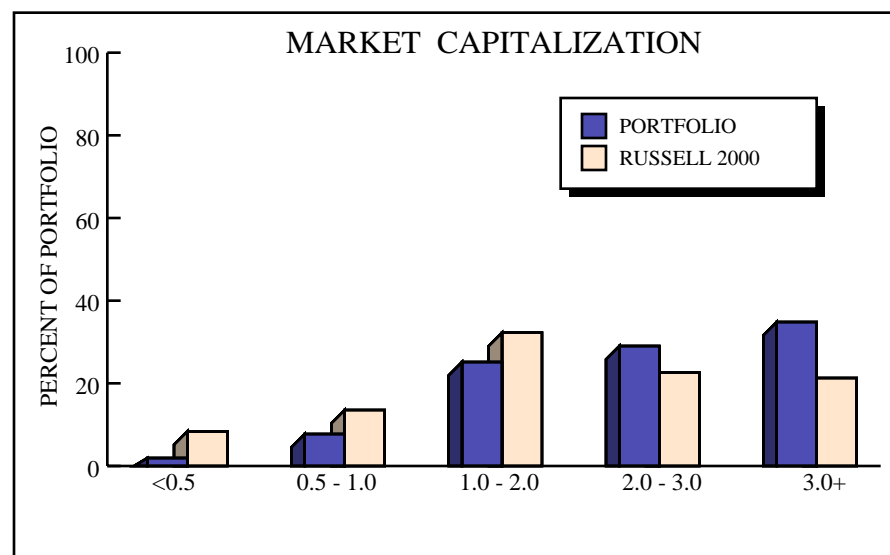
**STOCK INDUSTRY ANALYSIS**



■ PORTFOLIO      ■ RUSSELL 2000



**TOP TEN HOLDINGS**



**TOP TEN EQUITY HOLDINGS**

RANK	NAME	VALUE	% EQUITY	RETURN	INDUSTRY SECTOR	MKT CAP
1	LHC GROUP INC	\$ 403,966	2.21%	-8.9%	Health Care	\$ 2.9 B
2	INGEVITY CORP	398,867	2.18%	-17.9%	Materials	3.5 B
3	WALKER & DUNLOP INC	367,409	2.01%	-17.8%	Financials	1.4 B
4	BRINK'S CO/THE	363,398	1.99%	-7.1%	Industrials	3.3 B
5	GLOBUS MEDICAL INC - A	323,648	1.77%	-23.8%	Health Care	3.3 B
6	MERCURY SYSTEMS INC	317,363	1.74%	-14.5%	Industrials	2.3 B
7	MARRIOTT VACATIONS WORLD	286,976	1.57%	-36.5%	Consumer Discretionary	3.3 B
8	OMNICELL INC	284,031	1.55%	-14.8%	Health Care	2.4 B
9	NOVANTA INC	283,752	1.55%	-7.9%	Information Technology	2.2 B
10	EURONET WORLDWIDE INC	282,978	1.55%	2.2%	Information Technology	5.3 B

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
LOOMIS SAYLES - SMALL CAP VALUE  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Loomis Sayles Small Cap Value portfolio was valued at \$22,302,248, a decrease of \$4,967,855 from the September ending value of \$27,270,103. Last quarter, the account recorded total net withdrawals of \$365 in addition to \$4,967,490 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$84,246 and realized and unrealized capital losses totaling \$5,051,736.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Loomis Sayles Small Cap Value portfolio lost 18.2%, which was 0.5% greater than the Russell 2000 Value Index's return of -18.7% and ranked in the 33rd percentile of the Small Cap Value universe. Over the trailing year, the portfolio returned -15.1%, which was 2.2% less than the benchmark's -12.9% performance, and ranked in the 58th percentile. Since December 1994, the account returned 12.4% per annum. For comparison, the Russell 2000 Value returned an annualized 9.7% over the same time frame.

## **HOLDINGS ANALYSIS**

Last quarter, the Loomis portfolio was invested across all eleven industry sectors in our analysis. Compared to the Russell 2000 Value, the portfolio was overweight in the Industrials and Information Technology sectors, while underweight in the Financials, Real Estate, and Utilities sectors.

There were both favorable and unfavorable allocation effects pulling in opposite directions on the total return. The Real Estate and Utilities declined much less than the other sectors in the small cap value market, so reduced weights in these sectors worked against the portfolio's benefit. Conversely, the Industrials and Information Technology sectors were weak performers and had extra weight.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 12/94
<b>Total Portfolio - Gross</b>	-18.2	-15.1	6.0	4.4	10.2	13.3	12.4
<i>SMALL CAP VALUE RANK</i>	(33)	(58)	(54)	(42)	(63)	(45)	----
<b>Total Portfolio - Net</b>	-18.4	-15.7	5.3	3.7	9.5	12.7	12.1
Russell 2000V	-18.7	-12.9	7.4	3.6	9.6	10.4	9.7
<b>Domestic Equity - Gross</b>	-18.2	-15.1	6.0	4.4	10.2	13.3	12.4
<i>SMALL CAP VALUE RANK</i>	(33)	(58)	(54)	(42)	(63)	(45)	----
Russell 2000V	-18.7	-12.9	7.4	3.6	9.6	10.4	9.7

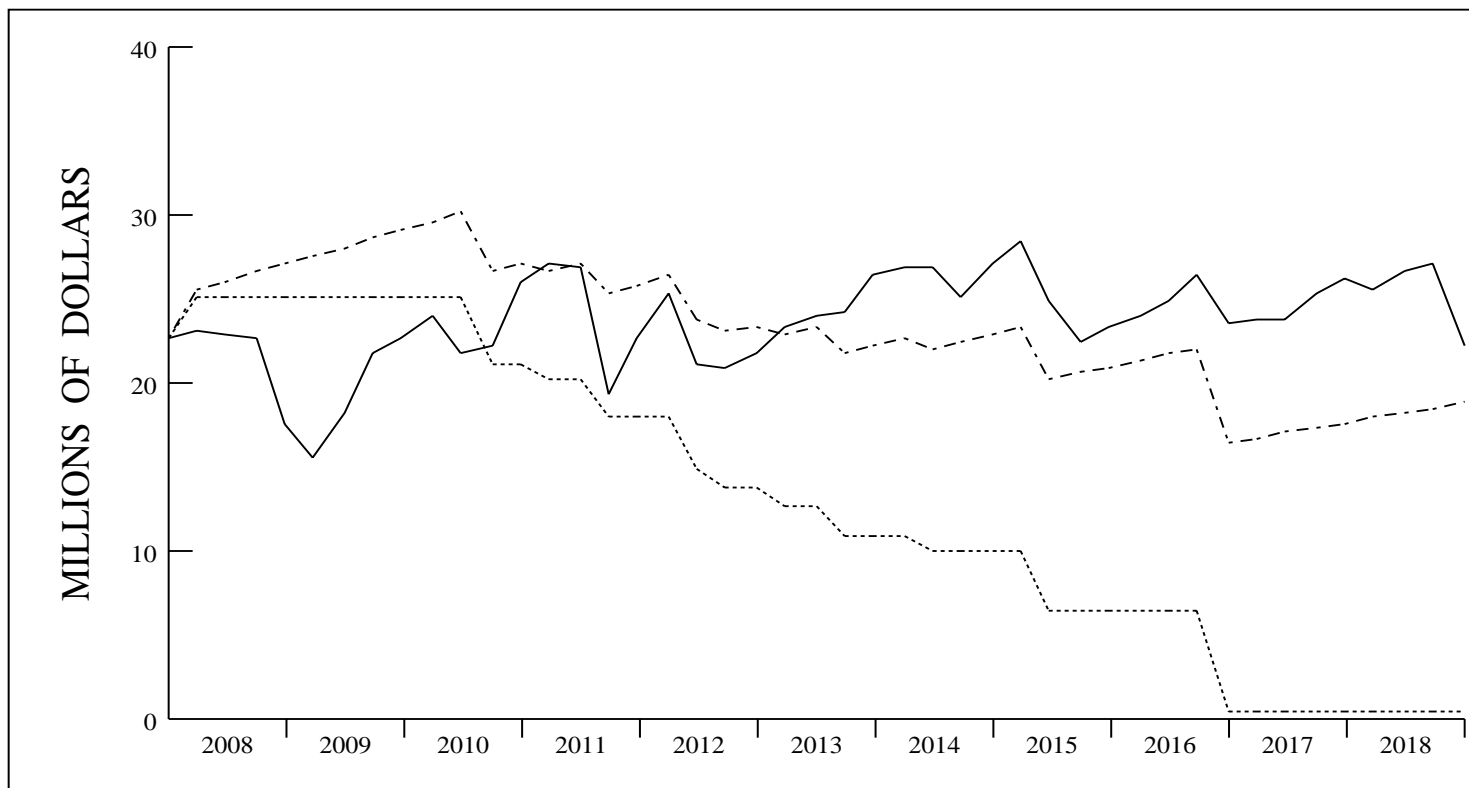
**ASSET ALLOCATION**

Domestic Equity	100.0%	\$ 22,302,248
Total Portfolio	100.0%	\$ 22,302,248

**INVESTMENT RETURN**

Market Value 9/2018	\$ 27,270,103
Contribs / Withdrawals	-365
Income	84,246
Capital Gains / Losses	-5,051,736
Market Value 12/2018	\$ 22,302,248

**INVESTMENT GROWTH**

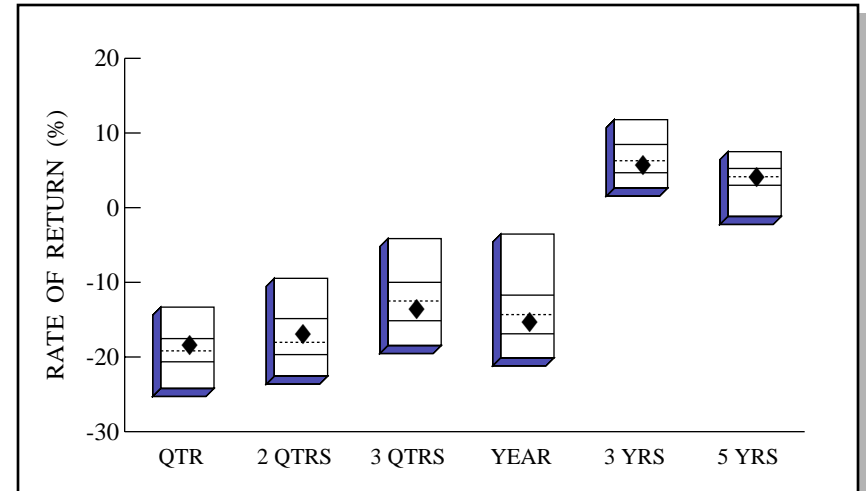
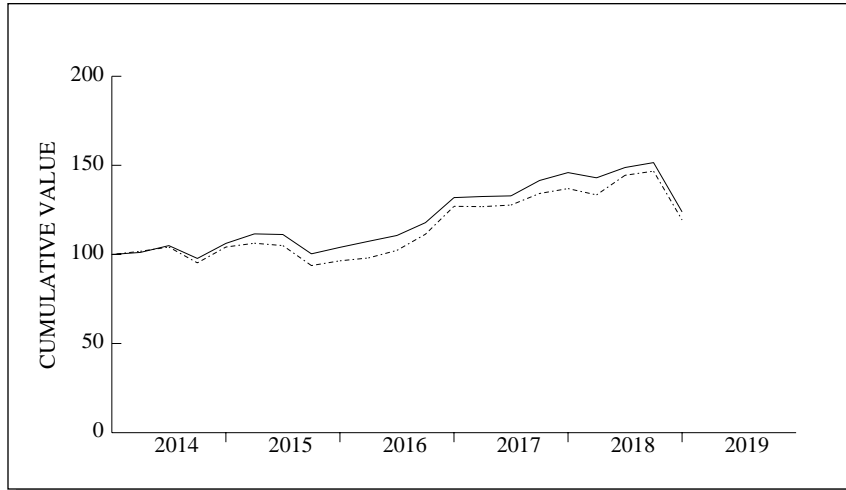


— ACTUAL RETURN  
 - - - BLENDED RATE  
 ..... 0.0%

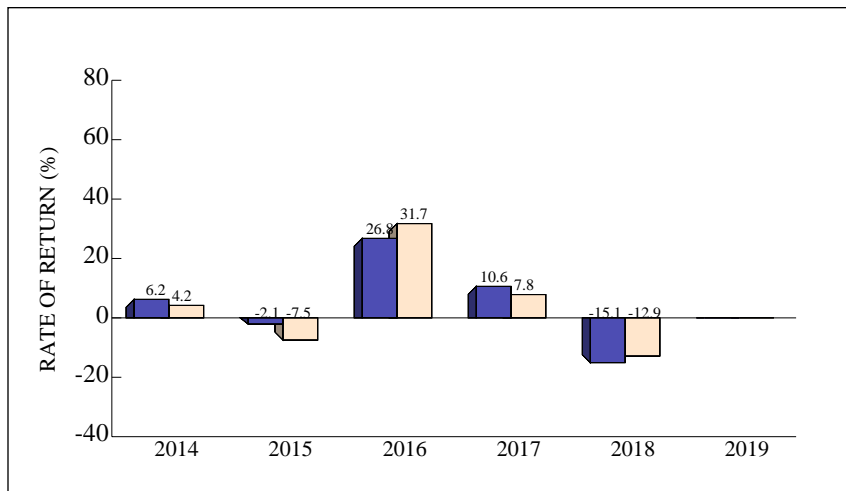
VALUE ASSUMING  
 BLENDED RATE \$ 18,952,514

	LAST QUARTER	PERIOD 12/07 - 12/18
BEGINNING VALUE	\$ 27,270,103	\$ 22,726,519
NET CONTRIBUTIONS	-365	- 22,207,515
<u>INVESTMENT RETURN</u>	<u>- 4,967,490</u>	<u>21,783,244</u>
ENDING VALUE	\$ 22,302,248	\$ 22,302,248
INCOME	84,246	3,124,222
<u>CAPITAL GAINS (LOSSES)</u>	<u>- 5,051,736</u>	<u>18,659,022</u>
INVESTMENT RETURN	- 4,967,490	21,783,244

**TOTAL RETURN COMPARISONS**



Small Cap Value Universe



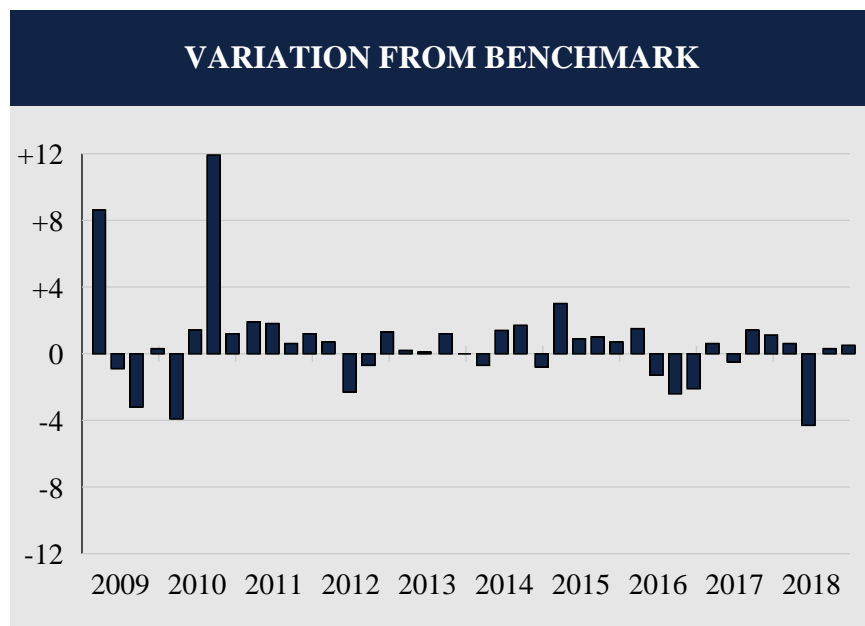
	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED----- 3 YRS	5 YRS
RETURN	-18.2	-16.7	-13.3	-15.1	6.0	4.4
(RANK)	(33)	(38)	(58)	(58)	(54)	(42)
5TH %ILE	-13.3	-9.5	-4.2	-3.5	11.8	7.5
25TH %ILE	-17.5	-14.9	-10.0	-11.7	8.5	5.3
MEDIAN	-19.2	-18.0	-12.5	-14.3	6.3	4.1
75TH %ILE	-20.6	-19.7	-15.2	-16.9	4.7	3.0
95TH %ILE	-24.2	-22.6	-18.5	-20.1	2.6	-1.2
<b>Russ 2000V</b>	<b>-18.7</b>	<b>-17.4</b>	<b>-10.5</b>	<b>-12.9</b>	<b>7.4</b>	<b>3.6</b>

Small Cap Value Universe



**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS**

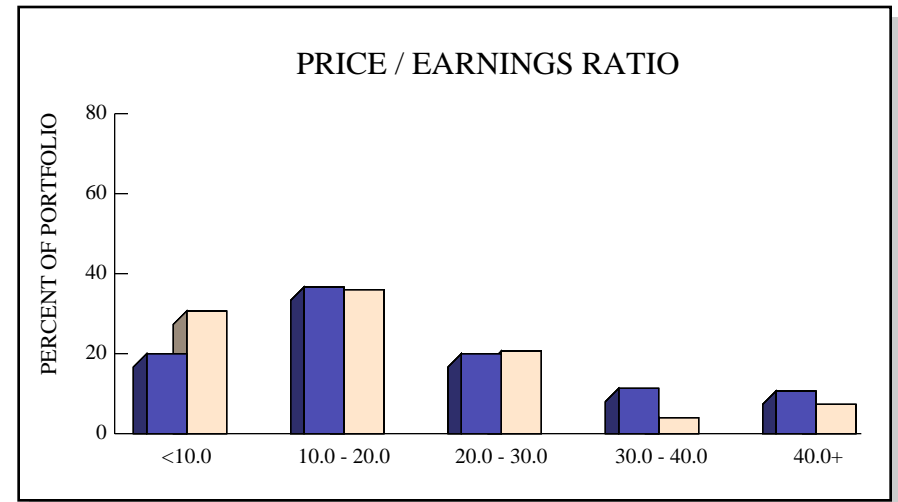
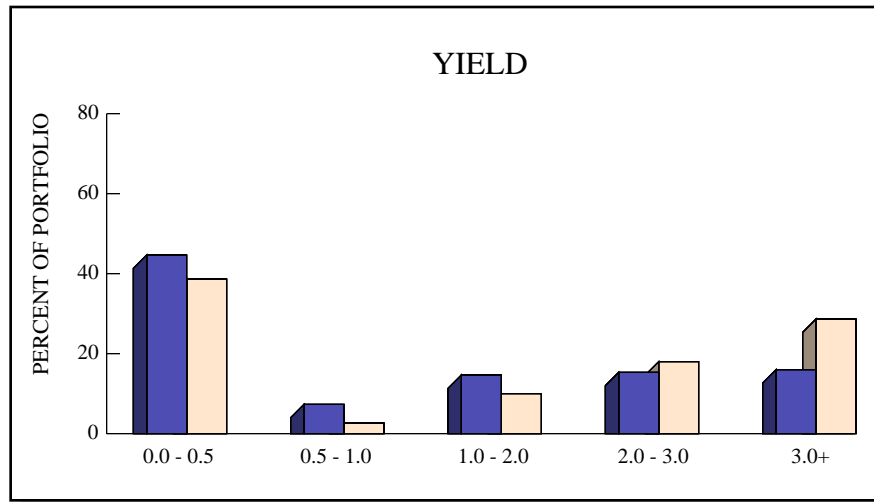
**COMPARATIVE BENCHMARK: RUSSELL 2000 VALUE**



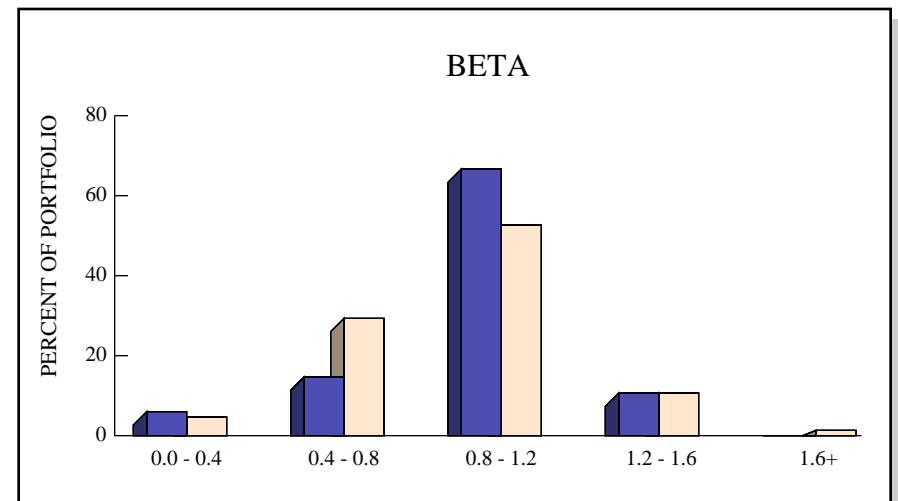
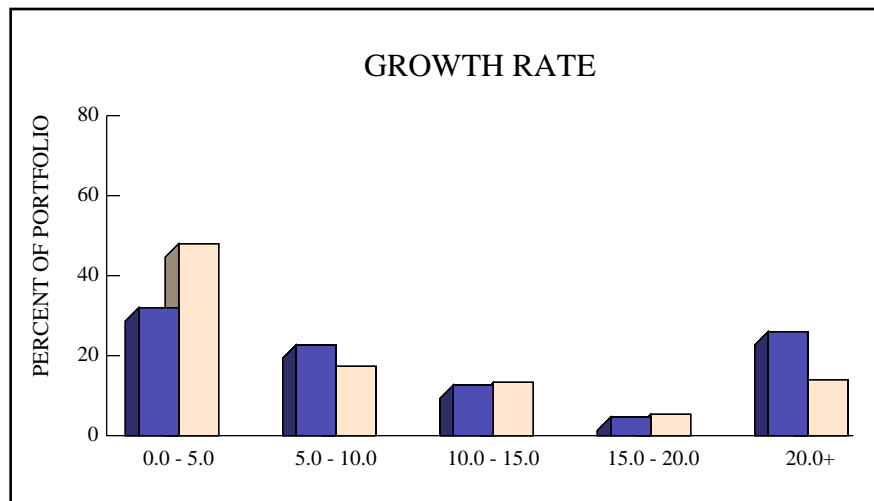
RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/09	-11.0	-19.6	8.6
6/09	17.1	18.0	-0.9
9/09	19.5	22.7	-3.2
12/09	3.9	3.6	0.3
3/10	6.1	10.0	-3.9
6/10	-9.2	-10.6	1.4
9/10	21.6	9.7	11.9
12/10	16.6	15.4	1.2
3/11	8.5	6.6	1.9
6/11	-0.9	-2.7	1.8
9/11	-20.9	-21.5	0.6
12/11	17.2	16.0	1.2
3/12	12.3	11.6	0.7
6/12	-5.3	-3.0	-2.3
9/12	5.0	5.7	-0.7
12/12	4.5	3.2	1.3
3/13	11.8	11.6	0.2
6/13	2.6	2.5	0.1
9/13	8.8	7.6	1.2
12/13	9.3	9.3	0.0
3/14	1.1	1.8	-0.7
6/14	3.8	2.4	1.4
9/14	-6.9	-8.6	1.7
12/14	8.6	9.4	-0.8
3/15	5.0	2.0	3.0
6/15	-0.3	-1.2	0.9
9/15	-9.7	-10.7	1.0
12/15	3.6	2.9	0.7
3/16	3.2	1.7	1.5
6/16	3.0	4.3	-1.3
9/16	6.5	8.9	-2.4
12/16	12.0	14.1	-2.1
3/17	0.5	-0.1	0.6
6/17	0.2	0.7	-0.5
9/17	6.5	5.1	1.4
12/17	3.1	2.0	1.1
3/18	-2.0	-2.6	0.6
6/18	4.0	8.3	-4.3
9/18	1.9	1.6	0.3
12/18	-18.2	-18.7	0.5

<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>28</b>
<b>Quarters Below the Benchmark</b>	<b>12</b>
<b>Batting Average</b>	<b>.700</b>

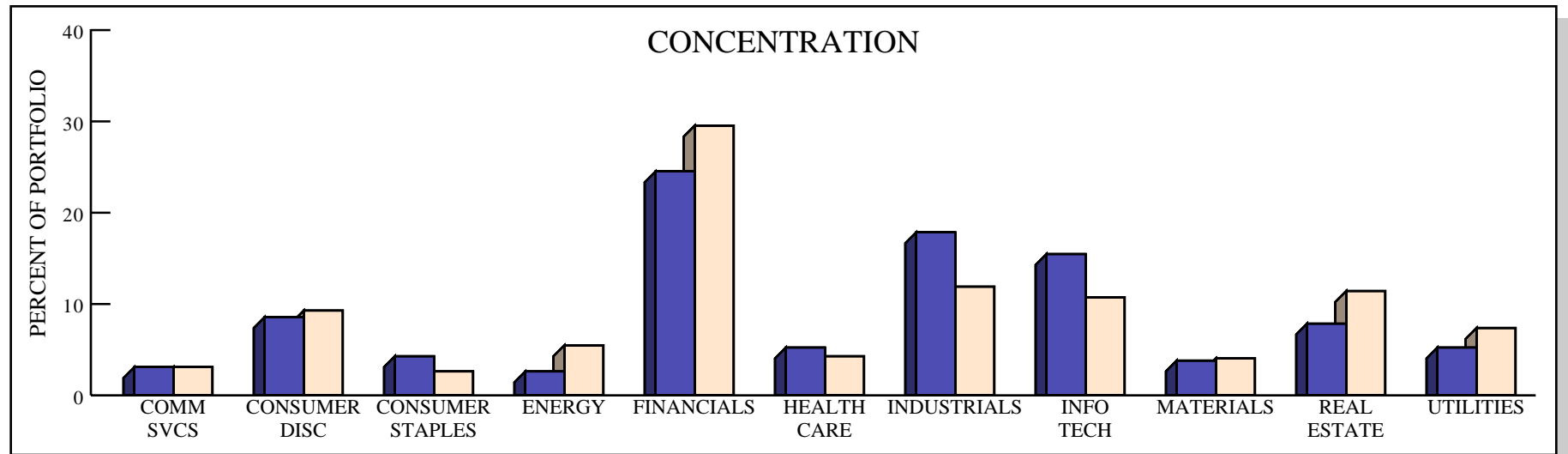
**STOCK CHARACTERISTICS**



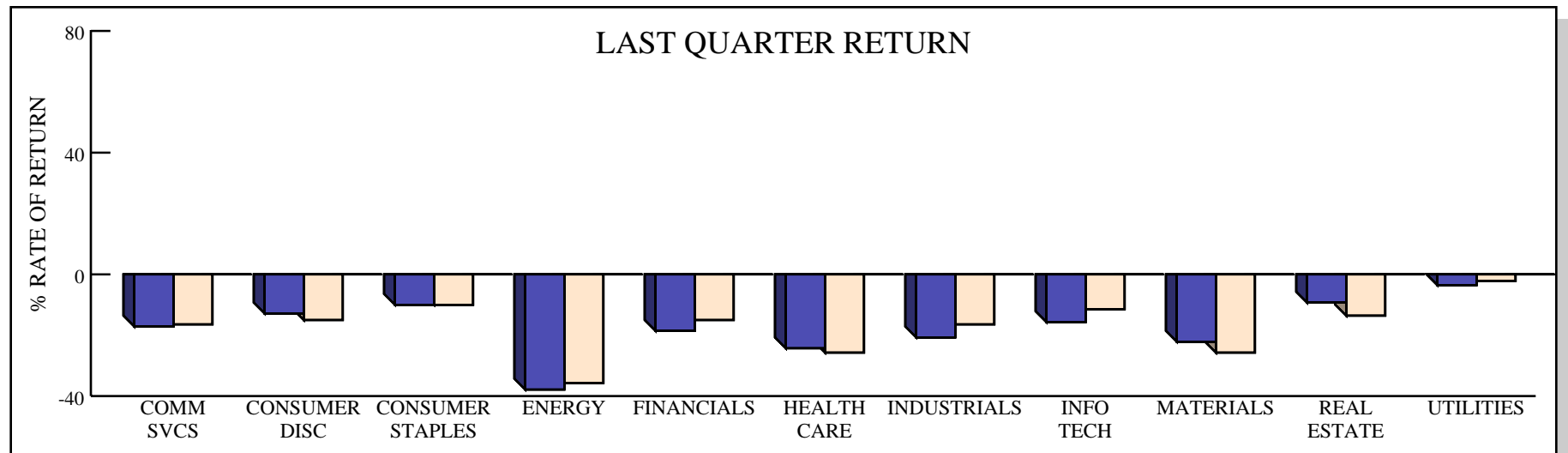
	# HOLDINGS	YIELD	GROWTH	P/E	BETA
PORTFOLIO	145	1.5%	11.8%	19.3	0.91
RUSSELL 2000V	1,387	2.3%	6.5%	16.0	0.88



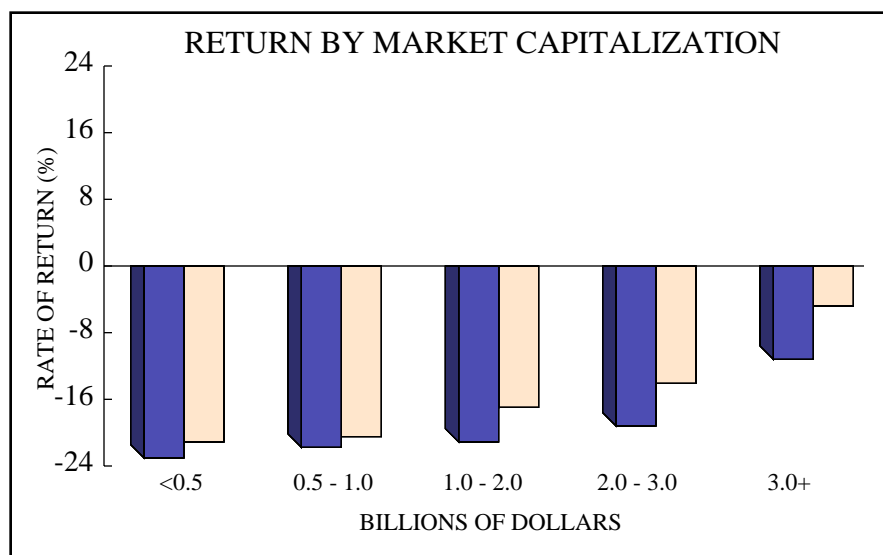
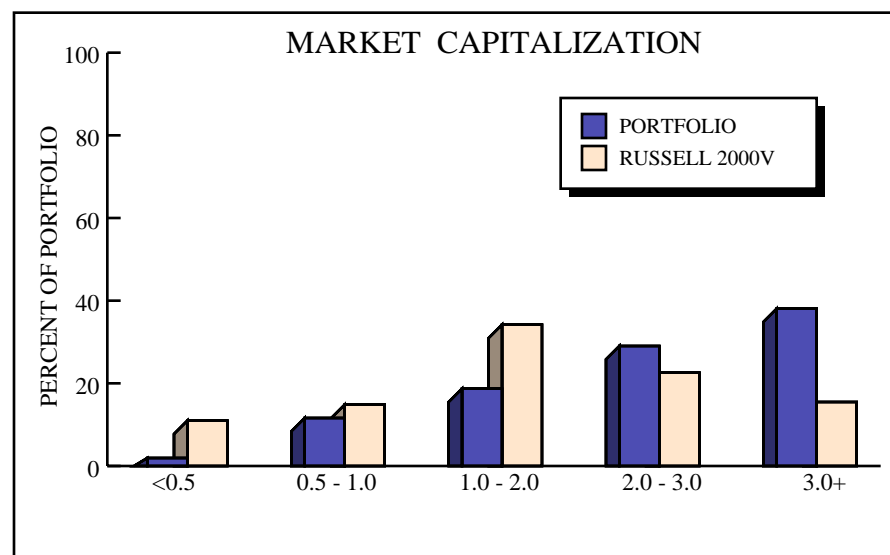
**STOCK INDUSTRY ANALYSIS**



■ PORTFOLIO      ■ RUSSELL 2000V



**TOP TEN HOLDINGS**



**TOP TEN EQUITY HOLDINGS**

RANK	NAME	VALUE	% EQUITY	RETURN	INDUSTRY SECTOR	MKT CAP
1	LITTELFUSE INC	\$ 358,050	1.61%	-13.1%	Information Technology	\$ 4.3 B
2	MELLANOX TECHNOLOGIES LTD	316,494	1.42%	25.8%	Information Technology	4.9 B
3	ALLETE INC	315,017	1.41%	2.3%	Utilities	3.9 B
4	VIAD CORP	271,087	1.22%	-15.3%	Industrials	1.0 B
5	EMPLOYERS HOLDINGS INC	270,455	1.21%	-7.0%	Financials	1.4 B
6	KAR AUCTION SERVICES INC	260,599	1.17%	-19.5%	Industrials	6.4 B
7	RETAIL OPPORTUNITY INVESTMEN	245,171	1.10%	-14.0%	Real Estate	1.8 B
8	NOMAD FOODS LTD	244,129	1.09%	-17.5%	Consumer Staples	2.9 B
9	POPULAR INC	240,822	1.08%	-7.4%	Financials	4.7 B
10	CUBESMART	237,525	1.07%	1.7%	Real Estate	5.3 B

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
FIRST EAGLE - INTERNATIONAL VALUE  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's First Eagle International Value portfolio was valued at \$17,207,053, a decrease of \$10,459,827 from the September ending value of \$27,666,880. Last quarter, the account recorded total net withdrawals of \$8,700,000 in addition to \$1,759,827 in net investment losses. Because there were no income receipts during the fourth quarter, the portfolio's net investment losses were entirely made up of capital losses (realized and unrealized).

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the First Eagle International Value portfolio lost 7.0%, which was 3.6% greater than the MSCI AC World Ex US Value Index's return of -10.6% and ranked in the 16th percentile of the International Equity universe.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 06/18
<b>Total Portfolio - Gross</b>	-7.0	----	----	----	----	----	-7.0
<i>INTERNATIONAL EQUITY RANK (16)</i>		----	----	----	----	----	(13)
<b>Total Portfolio - Net</b>	-7.1	----	----	----	----	----	-7.3
ACWI Ex US Value	-10.6	-13.4	5.4	0.2	4.6	6.5	-9.0
<b>International Equity - Gross</b>	-7.0	----	----	----	----	----	-7.0
<i>INTERNATIONAL EQUITY RANK (16)</i>		----	----	----	----	----	(13)
ACWI Ex US Value	-10.6	-13.4	5.4	0.2	4.6	6.5	-9.0

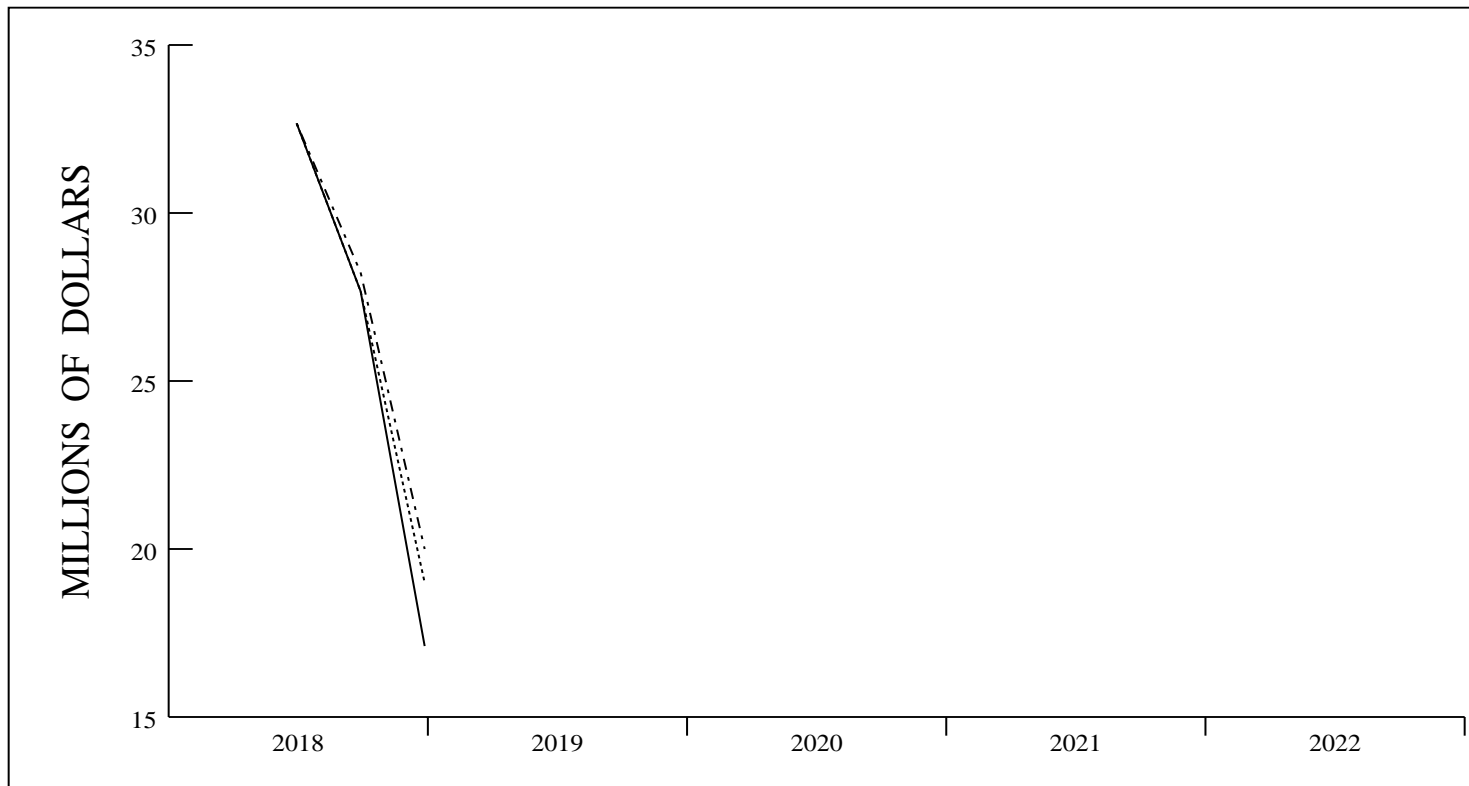
**ASSET ALLOCATION**

Int'l Equity	100.0%	\$ 17,207,053
Total Portfolio	100.0%	\$ 17,207,053

**INVESTMENT RETURN**

Market Value 9/2018	\$ 27,666,880
Contribs / Withdrawals	- 8,700,000
Income	0
Capital Gains / Losses	- 1,759,827
Market Value 12/2018	\$ 17,207,053

**INVESTMENT GROWTH**



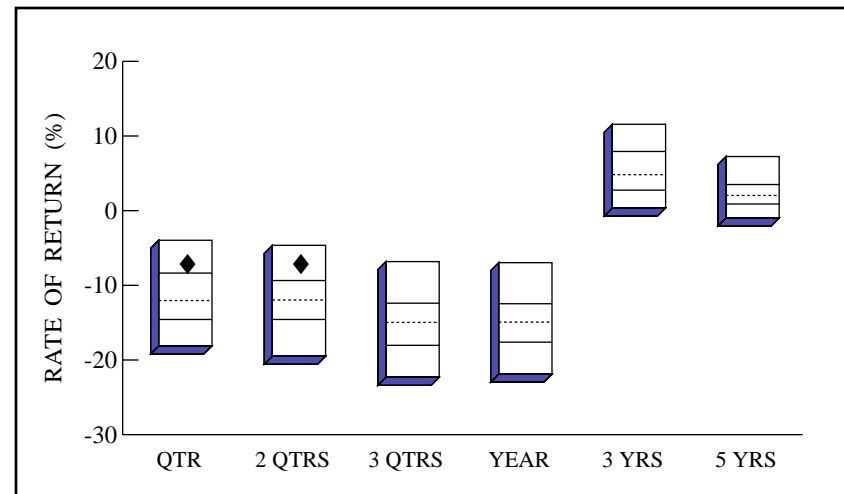
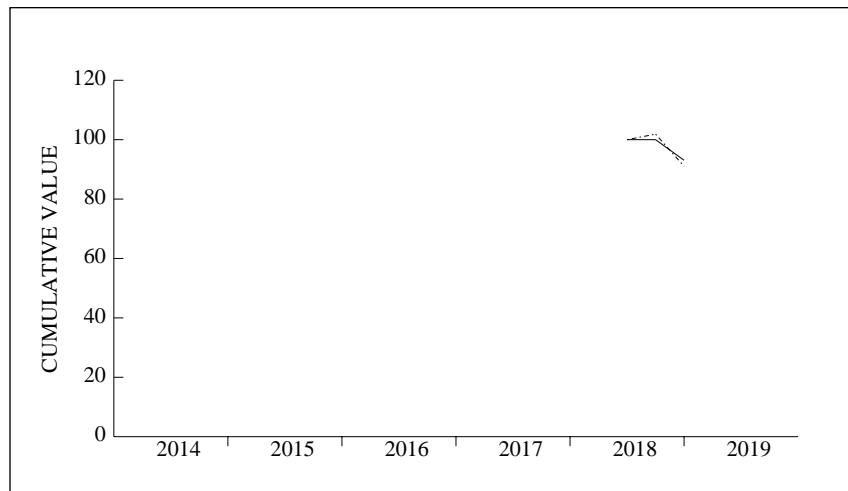
——— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 20,020,466

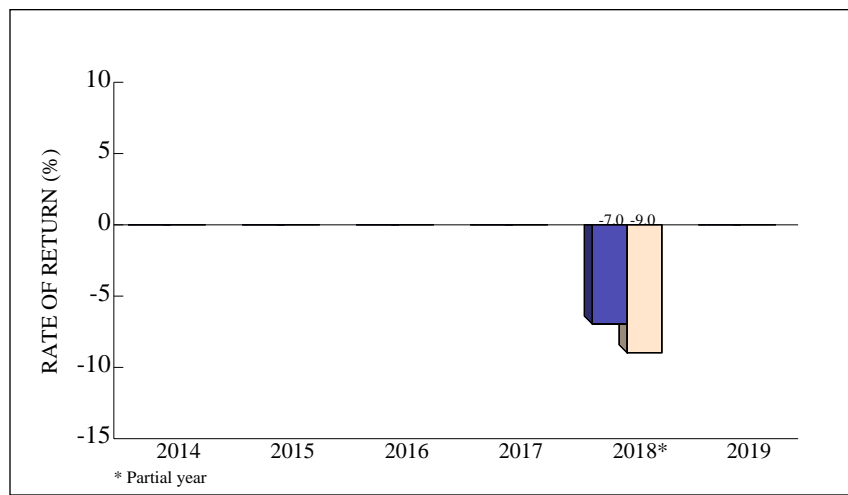
	LAST QUARTER	PERIOD 6/18 - 12/18
BEGINNING VALUE	\$ 27,666,880	\$ 32,766,649
NET CONTRIBUTIONS	- 8,700,000	- 13,700,000
INVESTMENT RETURN	- 1,759,827	- 1,859,596
ENDING VALUE	\$ 17,207,053	\$ 17,207,053
INCOME	0	0
CAPITAL GAINS (LOSSES)	- 1,759,827	- 1,859,596
INVESTMENT RETURN	- 1,759,827	- 1,859,596



**TOTAL RETURN COMPARISONS**



International Equity Universe

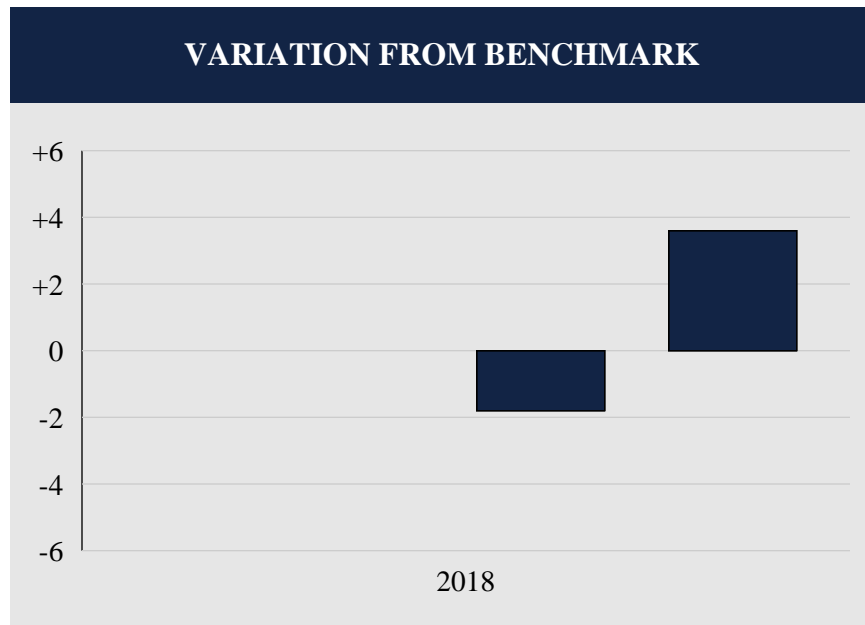


	<u>QTR</u>	<u>2 QTRS</u>	<u>3 QTRS</u>	<u>YEAR</u>	-----ANNUALIZED-----	
					<u>3 YRS</u>	<u>5 YRS</u>
RETURN	-7.0	-7.0	----	----	----	----
(RANK)	(16)	(13)	----	----	----	----
5TH %ILE	-4.0	-4.7	-6.8	-7.0	11.6	7.3
25TH %ILE	-8.3	-9.3	-12.4	-12.5	7.9	3.5
MEDIAN	-12.0	-12.0	-15.0	-14.9	4.8	2.1
75TH %ILE	-14.6	-14.6	-18.0	-17.6	2.8	0.9
95TH %ILE	-18.1	-19.5	-22.3	-21.9	0.4	-1.0
<b>ACWI Ex US Val</b>	<b>-10.6</b>	<b>-9.0</b>	<b>-12.2</b>	<b>-13.4</b>	<b>5.4</b>	<b>0.2</b>

International Equity Universe

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY**

**COMPARATIVE BENCHMARK: MSCI AC WORLD EX US VALUE**



RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
9/18	0.0	1.8	-1.8
12/18	-7.0	-10.6	3.6

<b>Total Quarters Observed</b>	<b>2</b>
<b>Quarters At or Above the Benchmark</b>	<b>1</b>
<b>Quarters Below the Benchmark</b>	<b>1</b>
<b>Batting Average</b>	<b>.500</b>

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
WCM - FOCUSED GROWTH INTERNATIONAL  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's WCM Focused Growth International portfolio was valued at \$21,542,428, a decrease of \$12,772,928 from the September ending value of \$34,315,356. Last quarter, the account recorded total net withdrawals of \$8,704,154 in addition to \$4,068,774 in net investment losses. The fund's net investment loss was a result of income receipts totaling \$91,198 and realized and unrealized capital losses totaling \$4,159,972.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the WCM Focused Growth International portfolio lost 12.1%, which was 0.6% less than the MSCI All Country World Ex US Net Index's return of -11.5% and ranked in the 51st percentile of the International Equity universe. Over the trailing year, the portfolio returned -5.6%, which was 8.6% greater than the benchmark's -14.2% performance, and ranked in the 4th percentile. Since September 2013, the account returned 7.7% per annum and ranked in the 6th percentile. For comparison, the MSCI All Country World Ex US Net Index returned an annualized 1.5% over the same time frame.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 09/13
<b>Total Portfolio - Gross</b>	-12.1	-5.6	8.4	6.8	----	----	7.7
<i>INTERNATIONAL EQUITY RANK (51)</i>	( 4)	(22)	( 6)	----	----	( 6)	
<b>Total Portfolio - Net</b>	-12.3	-6.4	7.6	6.0	----	----	6.9
ACWI Ex US Net	-11.5	-14.2	4.5	0.7	4.8	6.6	1.5
<b>International Equity - Gross</b>	-12.1	-5.6	8.4	6.8	----	----	7.7
<i>INTERNATIONAL EQUITY RANK (51)</i>	( 4)	(22)	( 6)	----	----	( 6)	
ACWI Ex US Net	-11.5	-14.2	4.5	0.7	4.8	6.6	1.5

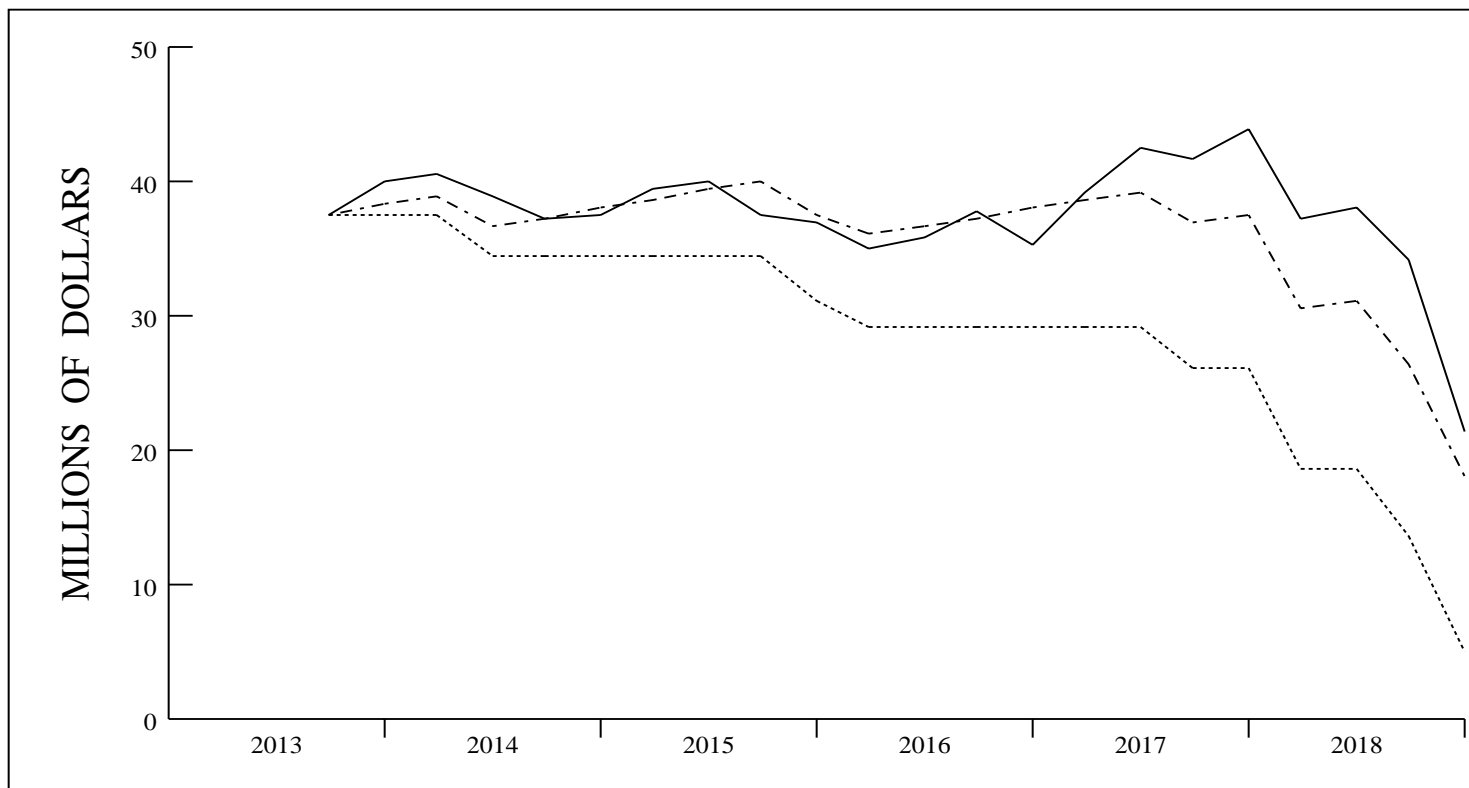
**ASSET ALLOCATION**

Int'l Equity	100.0%	\$ 21,542,428
Total Portfolio	100.0%	\$ 21,542,428

**INVESTMENT RETURN**

Market Value 9/2018	\$ 34,315,356
Contribs / Withdrawals	- 8,704,154
Income	91,198
Capital Gains / Losses	- 4,159,972
Market Value 12/2018	\$ 21,542,428

**INVESTMENT GROWTH**

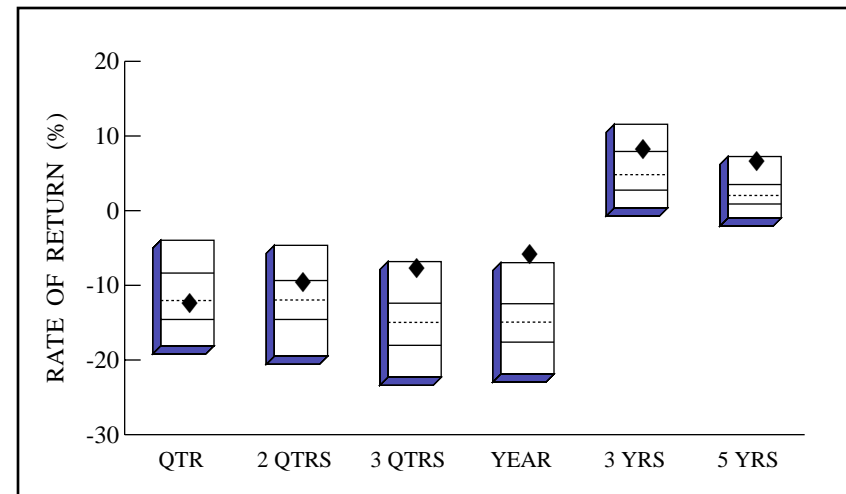
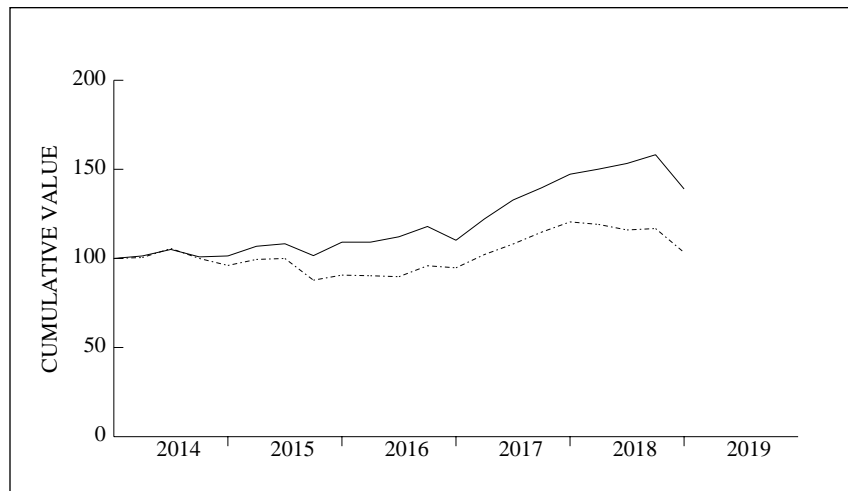


— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 18,287,394

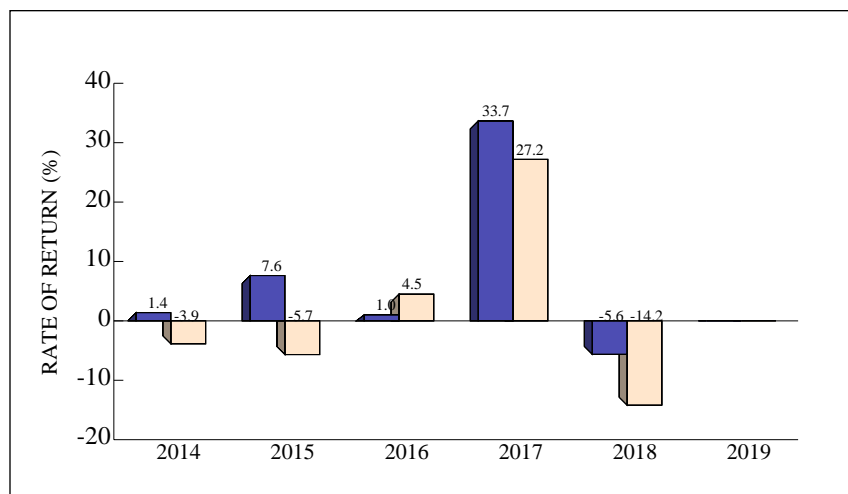
	LAST QUARTER	PERIOD 9/13 - 12/18
BEGINNING VALUE	\$ 34,315,356	\$ 37,653,208
NET CONTRIBUTIONS	- 8,704,154	- 32,584,434
INVESTMENT RETURN	- 4,068,774	16,473,654
ENDING VALUE	\$ 21,542,428	\$ 21,542,428
INCOME	91,198	2,965,660
CAPITAL GAINS (LOSSES)	- 4,159,972	13,507,994
INVESTMENT RETURN	- 4,068,774	16,473,654

**TOTAL RETURN COMPARISONS**



■ ——— PORTFOLIO  
■ - - - - ACWI EX US NET

International Equity Universe

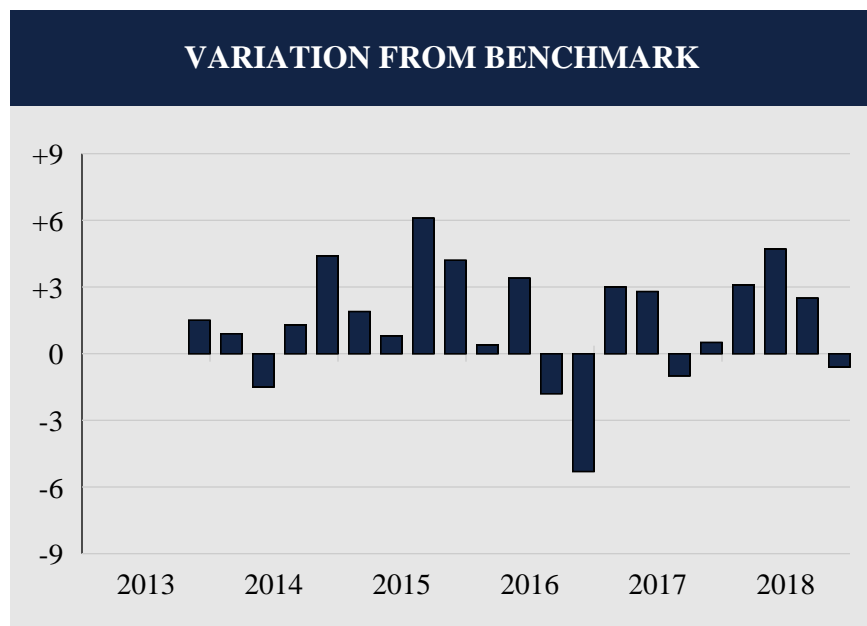


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	-12.1	-9.3	-7.4	-5.6	8.4	6.8
(RANK)	(51)	(25)	(6)	(4)	(22)	(6)
5TH %ILE	-4.0	-4.7	-6.8	-7.0	11.6	7.3
25TH %ILE	-8.3	-9.3	-12.4	-12.5	7.9	3.5
MEDIAN	-12.0	-12.0	-15.0	-14.9	4.8	2.1
75TH %ILE	-14.6	-14.6	-18.0	-17.6	2.8	0.9
95TH %ILE	-18.1	-19.5	-22.3	-21.9	0.4	-1.0
<b>ACWI Ex US Net</b>	<b>-11.5</b>	<b>-10.8</b>	<b>-13.2</b>	<b>-14.2</b>	<b>4.5</b>	<b>0.7</b>

International Equity Universe

### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: MSCI ALL COUNTRY WORLD EX US NET



RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
12/13	6.3	4.8	1.5
3/14	1.4	0.5	0.9
6/14	3.5	5.0	-1.5
9/14	-4.0	-5.3	1.3
12/14	0.5	-3.9	4.4
3/15	5.4	3.5	1.9
6/15	1.3	0.5	0.8
9/15	-6.1	-12.2	6.1
12/15	7.4	3.2	4.2
3/16	0.0	-0.4	0.4
6/16	2.8	-0.6	3.4
9/16	5.1	6.9	-1.8
12/16	-6.6	-1.3	-5.3
3/17	10.9	7.9	3.0
6/17	8.6	5.8	2.8
9/17	5.2	6.2	-1.0
12/17	5.5	5.0	0.5
3/18	1.9	-1.2	3.1
6/18	2.1	-2.6	4.7
9/18	3.2	0.7	2.5
12/18	-12.1	-11.5	-0.6

<b>Total Quarters Observed</b>	<b>21</b>
<b>Quarters At or Above the Benchmark</b>	<b>16</b>
<b>Quarters Below the Benchmark</b>	<b>5</b>
<b>Batting Average</b>	<b>.762</b>



CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
CONSEQUENT CAPITAL MANAGEMENT - GRAYCO ALTERNATIVE PARTNERS I  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

*The most recent statement available at this time was September 30, 2018. The market value was carried forward and adjusted for distributions. The return shown is a function of distributions and estimated fees.*

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Consequent Capital Management GrayCo Alternative Partners I portfolio was valued at \$5,028,124, a decrease of \$220,063 from the September ending value of \$5,248,187. Last quarter, the account recorded a net withdrawal of \$241,886, which overshadowed the fund's net investment return of \$21,823. Barring income receipts during the fourth quarter, the portfolio's net investment return figure was the product of \$21,823 in realized and unrealized capital gains.

## **RELATIVE PERFORMANCE**

### **Total Fund**

*The Cambridge US Private Equity Index return was not yet available for the quarter. A flat return of 0% was assumed for the index.*

For the fourth quarter, the Consequent Capital Management GrayCo Alternative Partners I account gained 0.4%. Over the trailing twelve-month period, the account returned 5.8%, which was 7.0% below the benchmark's 12.8% performance. Since March 2012, the portfolio returned 4.9% per annum, while the Cambridge US Private Equity returned an annualized 13.1% over the same period.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 03/12
<b>Total Portfolio - Gross</b>	0.4	5.8	-3.7	1.4	----	----	4.9
<b>Total Portfolio - Net</b>	0.2	4.8	-4.7	0.5	----	----	3.6
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0	13.1
<b>Private Equity - Gross</b>	0.4	5.8	-3.7	1.4	----	----	4.9
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0	13.1

**ASSET ALLOCATION**

Private Equity	100.0%	\$ 5,028,124
Total Portfolio	100.0%	\$ 5,028,124

**INVESTMENT RETURN**

Market Value 9/2018	\$ 5,248,187
Contribs / Withdrawals	-241,886
Income	0
Capital Gains / Losses	21,823
Market Value 12/2018	\$ 5,028,124

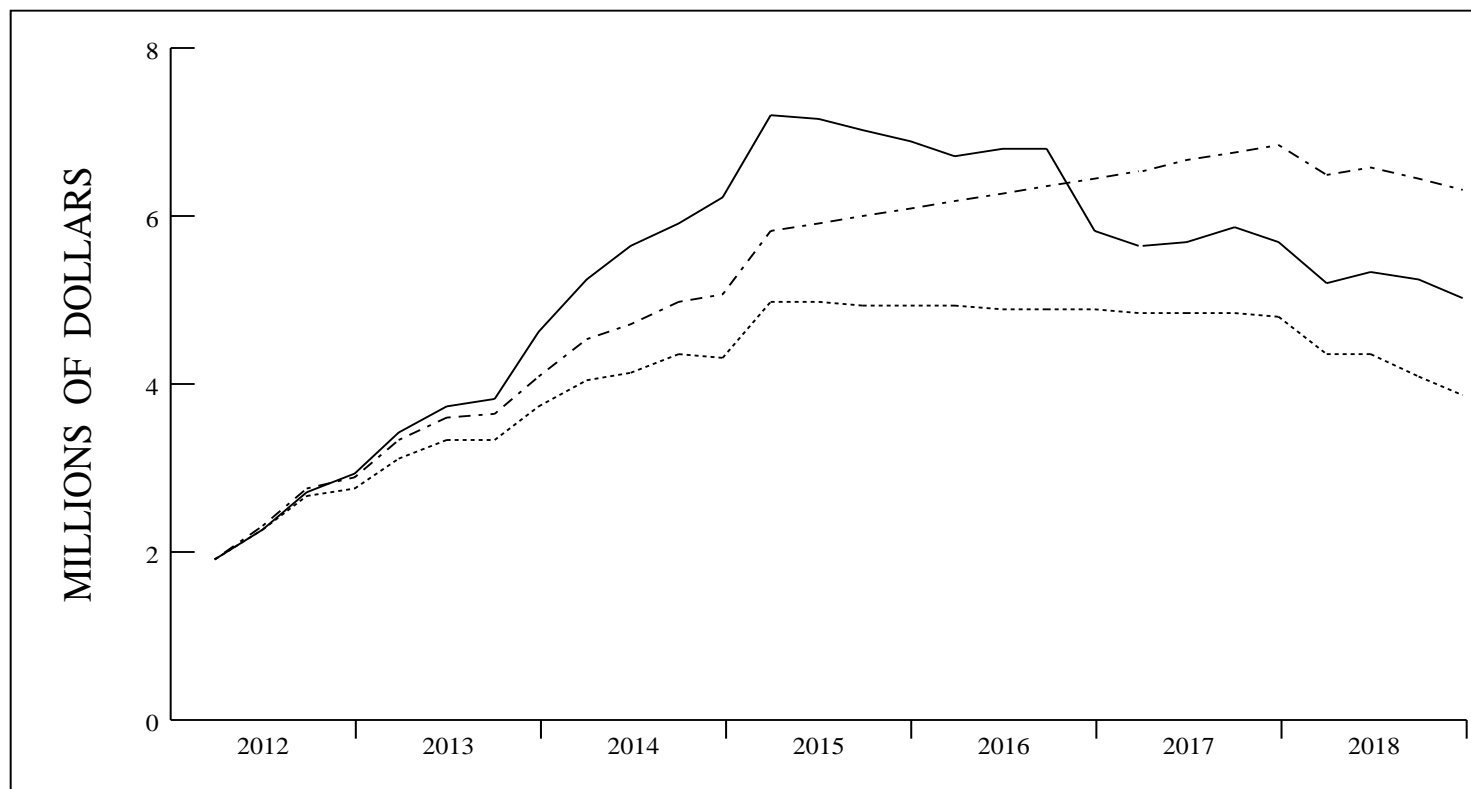
**EXECUTIVE SUMMARY - USING LAGGED DATA**

PERFORMANCE SUMMARY							
	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 06/12
<b>Total Portfolio - Gross</b>	2.2	2.5	-4.4	3.4	----	----	5.0
<b>Total Portfolio - Net</b>	2.0	1.5	-5.3	2.4	----	----	3.7
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0	13.6
<b>Private Equity - Gross</b>	2.2	2.5	-4.4	3.4	----	----	5.0
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0	13.6

ASSET ALLOCATION		
Private Equity	100.0%	\$ 5,248,187
Total Portfolio	100.0%	\$ 5,248,187

INVESTMENT RETURN	
Market Value 9/2018	\$ 5,373,925
Contribs / Withdrawals	-242,429
Income	0
Capital Gains / Losses	116,691
Market Value 12/2018	\$ 5,248,187

**INVESTMENT GROWTH**



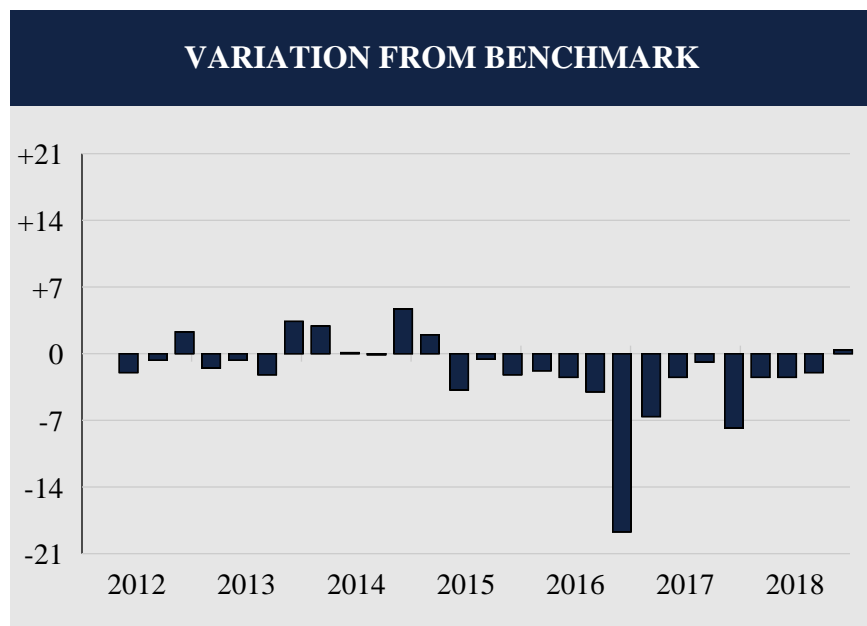
— ACTUAL RETURN  
 - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 6,352,898

	LAST QUARTER	PERIOD 3/12 - 12/18
BEGINNING VALUE	\$ 5,248,187	\$ 1,931,469
NET CONTRIBUTIONS	-241,886	1,941,919
INVESTMENT RETURN	21,823	1,154,736
ENDING VALUE	\$ 5,028,124	\$ 5,028,124
INCOME	0	0
CAPITAL GAINS (LOSSES)	21,823	1,154,736
INVESTMENT RETURN	21,823	1,154,736

### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY



<b>Total Quarters Observed</b>	<b>27</b>
<b>Quarters At or Above the Benchmark</b>	<b>7</b>
<b>Quarters Below the Benchmark</b>	<b>20</b>
<b>Batting Average</b>	<b>.259</b>

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
6/12	-2.1	-0.1	-2.0
9/12	3.0	3.7	-0.7
12/12	6.1	3.8	2.3
3/13	3.1	4.6	-1.5
6/13	2.4	3.1	-0.7
9/13	2.9	5.1	-2.2
12/13	10.3	6.9	3.4
3/14	6.0	3.1	2.9
6/14	5.5	5.4	0.1
9/14	1.4	1.5	-0.1
12/14	5.6	0.9	4.7
3/15	4.6	2.6	2.0
6/15	0.0	3.8	-3.8
9/15	-2.0	-1.4	-0.6
12/15	-1.7	0.5	-2.2
3/16	-1.8	0.0	-1.8
6/16	1.5	4.0	-2.5
9/16	-0.1	3.9	-4.0
12/16	-14.1	4.6	-18.7
3/17	-2.7	3.9	-6.6
6/17	1.0	3.5	-2.5
9/17	3.1	4.0	-0.9
12/17	-2.7	5.1	-7.8
3/18	0.2	2.7	-2.5
6/18	2.9	5.4	-2.5
9/18	2.2	4.2	-2.0
12/18	0.4	0.0	0.4

## Private Equity Investor Report Consequent - GrayCo Alternative Partners I

<b>Net IRR Since Inception:</b>	<b>2.26%</b>	Report as of:
<b>Market Value:</b>	<b>\$ 5,028,124</b>	12/31/2018
Total Commitment:	\$ 6,000,000	Last Statement:
Unfunded Commitment:	\$ 746,557	9/30/2018

*The remaining committment will not be called.*

<u>Quarter</u>	<u>Capital Calls</u>	<u>Distributions</u>	<u>Fees</u>
1Q 2012	\$ 1,997,816	\$ -	\$ 22,663
2Q 2012	\$ 392,928	\$ -	\$ 15,000
3Q 2012	\$ 410,345	\$ -	\$ 15,000
4Q 2012	\$ 76,384	\$ -	\$ 15,000
1Q 2013	\$ 401,449	\$ -	\$ 15,000
2Q 2013	\$ 218,391	\$ -	\$ 15,000
3Q 2013	\$ -	\$ -	\$ 15,000
4Q 2013	\$ 412,644	\$ -	\$ 15,000
1Q 2014	\$ 354,023	\$ -	\$ 15,000
2Q 2014	\$ 114,943	\$ -	\$ 15,000
3Q 2014	\$ 206,897	\$ -	\$ 15,000
4Q 2014	\$ -	\$ -	\$ 15,000
1Q 2015	\$ 667,623	\$ -	\$ 15,000
2Q 2015	\$ -	\$ -	\$ 15,000
3Q 2015	\$ -	\$ -	\$ 15,000
4Q 2015	\$ -	\$ -	\$ 15,000
Year 2016	\$ -	\$ -	\$ 60,000
Year 2017	\$ -	\$ -	\$ 59,310
Year 2018	\$ -	\$ 919,541	\$ 50,243
<b>Total</b>	<b>\$ 5,253,443</b>	<b>\$ 919,541</b>	<b>\$ 417,216</b>

*A current quarter fee was estimated.*

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
INVESCO - PARTNERSHIP FUND V  
PERFORMANCE REVIEW  
DECEMBER 2018



## **INVESTMENT RETURN**

*The most recent statement available at this time was September 2018. That value was carried forward and adjusted for distributions.*

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Invesco Partnership Fund V portfolio was valued at \$1,365,817, a decrease of \$57,361 from the September ending value of \$1,423,178. Last quarter, the account recorded total net withdrawals of \$57,361 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**

*The Cambridge US Private Equity Index return was not yet available for the quarter. A flat return of 0% was assumed for the index.*

Over the trailing year, the portfolio returned 13.2%, which was 0.4% above the benchmark's 12.8% return. Since March 2008, the portfolio returned 13.6% annualized, while the Cambridge US Private Equity returned an annualized 10.5% over the same period.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 03/08
<b>Total Portfolio - Gross</b>	0.0	13.2	13.0	11.7	14.3	21.0	13.6
<b>Total Portfolio - Net</b>	-0.3	12.2	12.0	10.6	13.3	19.3	11.8
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0	10.5
<b>Private Equity - Gross</b>	0.0	13.2	13.0	11.7	14.3	21.0	13.6
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0	10.5

**ASSET ALLOCATION**

Private Equity	100.0%	\$ 1,365,817
Total Portfolio	100.0%	\$ 1,365,817

**INVESTMENT RETURN**

Market Value 9/2018	\$ 1,423,178
Contribs / Withdrawals	- 57,361
Income	0
Capital Gains / Losses	0
Market Value 12/2018	\$ 1,365,817

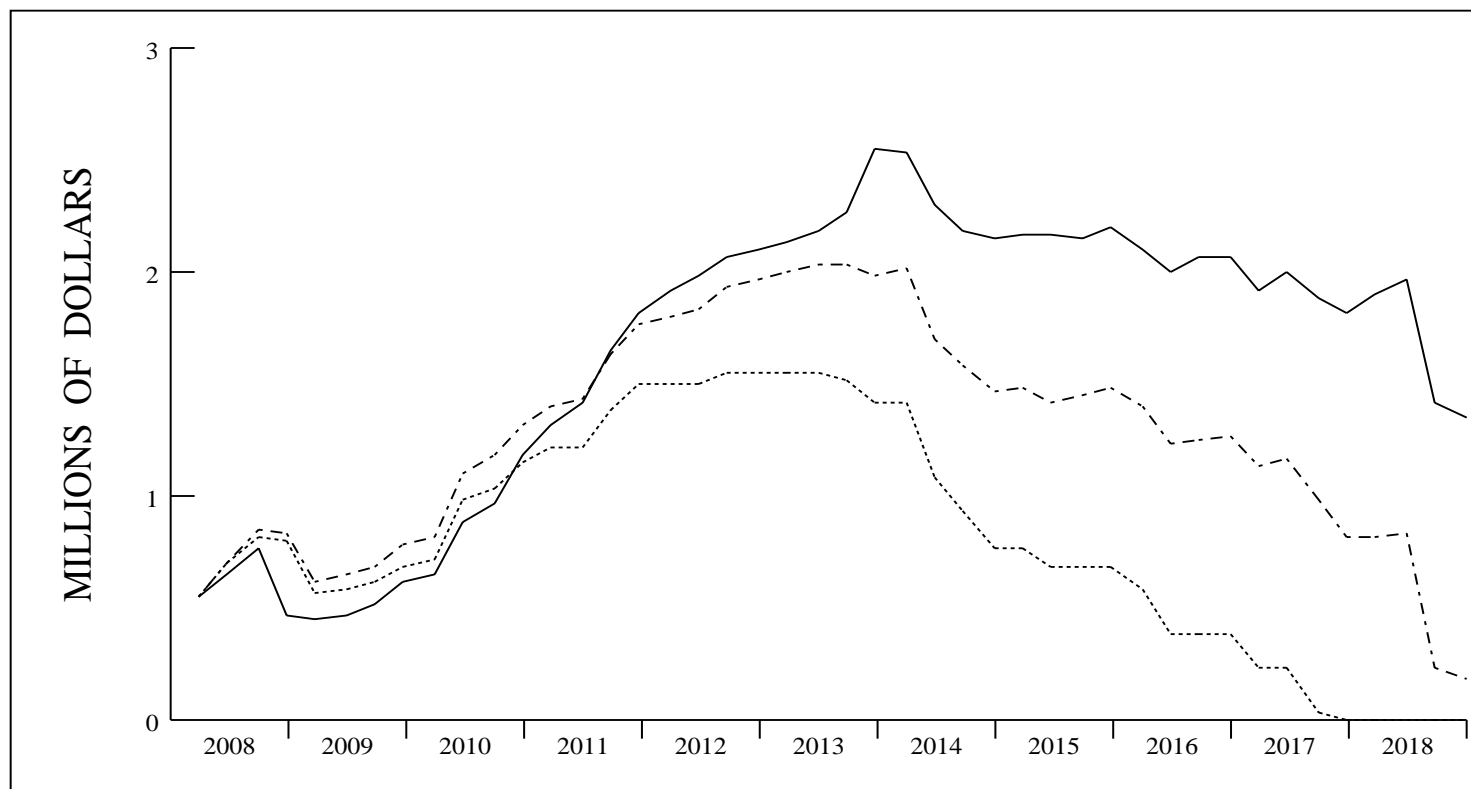
**EXECUTIVE SUMMARY - USING LAGGED DATA**

PERFORMANCE SUMMARY							
	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 06/08
<b>Total Portfolio - Gross</b>	4.2	20.4	13.7	15.2	15.0	15.6	14.0
<b>Total Portfolio - Net</b>	4.0	19.4	12.7	14.2	13.9	13.9	12.2
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0	10.8
<b>Private Equity - Gross</b>	4.2	20.4	13.7	15.2	15.0	15.6	14.0
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0	10.8

ASSET ALLOCATION		
Private Equity	100.0%	\$ 1,423,178
Total Portfolio	100.0%	\$ 1,423,178

INVESTMENT RETURN	
Market Value 9/2018	\$ 1,968,516
Contribs / Withdrawals	-619,828
Income	0
Capital Gains / Losses	74,490
Market Value 12/2018	\$ 1,423,178

**INVESTMENT GROWTH**



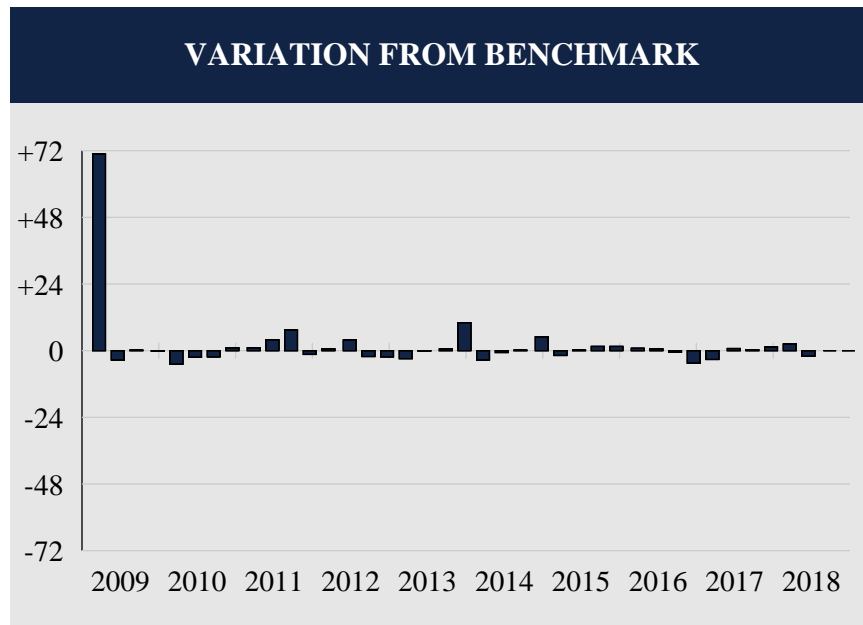
— ACTUAL RETURN  
 - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 185,666

	LAST QUARTER	PERIOD 3/08 - 12/18
BEGINNING VALUE	\$ 1,423,178	\$ 553,119
NET CONTRIBUTIONS	- 57,361	- 1,374,015
INVESTMENT RETURN	0	2,186,713
ENDING VALUE	\$ 1,365,817	\$ 1,365,817
INCOME	0	15,714
CAPITAL GAINS (LOSSES)	0	2,170,999
INVESTMENT RETURN	0	2,186,713

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS**

**COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY**



RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/09	67.5	-3.3	70.8
6/09	1.1	4.5	-3.4
9/09	6.0	5.8	0.2
12/09	5.8	6.0	-0.2
3/10	-0.5	4.4	-4.9
6/10	-0.8	1.6	-2.4
9/10	2.9	5.1	-2.2
12/10	10.2	9.1	1.1
3/11	6.3	5.2	1.1
6/11	8.5	4.6	3.9
9/11	3.3	-4.2	7.5
12/11	4.0	5.3	-1.3
3/12	6.1	5.4	0.7
6/12	3.7	-0.1	3.8
9/12	1.6	3.7	-2.1
12/12	1.6	3.8	-2.2
3/13	1.7	4.6	-2.9
6/13	3.0	3.1	-0.1
9/13	5.7	5.1	0.6
12/13	17.0	6.9	10.1
3/14	-0.3	3.1	-3.4
6/14	4.7	5.4	-0.7
9/14	1.7	1.5	0.2
12/14	5.9	0.9	5.0
3/15	0.9	2.6	-1.7
6/15	4.1	3.8	0.3
9/15	0.1	-1.4	1.5
12/15	2.0	0.5	1.5
3/16	0.9	0.0	0.9
6/16	4.7	4.0	0.7
9/16	3.3	3.9	-0.6
12/16	0.1	4.6	-4.5
3/17	0.7	3.9	-3.2
6/17	4.3	3.5	0.8
9/17	4.3	4.0	0.3
12/17	6.4	5.1	1.3
3/18	5.1	2.7	2.4
6/18	3.4	5.4	-2.0
9/18	4.2	4.2	0.0
12/18	0.0	0.0	0.0

<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>23</b>
<b>Quarters Below the Benchmark</b>	<b>17</b>
<b>Batting Average</b>	<b>.575</b>

**Private Equity Investor Report**  
**Invesco Partnership Fund V**

<b>Net IRR Since Inception:</b>	<b>13.10%</b>	Report as of:
<b>Market Value:</b>	<b>\$ 1,365,817</b>	12/31/2018
<b>Total Commitment:</b>	<b>\$ 2,500,000</b>	Last Statement:
<b>Unfunded Commitment:</b>	<b>\$ 993,643</b>	9/30/2018

<u>Year</u>	<u>Capital Calls</u>	<u>Refunded Capital Calls</u>	<u>Distributions</u>	<u>Interest Received / (Paid)</u>	<u>Fees</u>
2008	\$ 883,926	\$ 143,530	\$ -	\$ 5,964	\$ 17,640
2009	\$ 136,479	\$ 239,887	\$ -	\$ 9,800	\$ 19,408
2010	\$ 525,344	\$ 60,968	\$ -	\$ 36	\$ 21,590
2011	\$ 342,835	\$ -	\$ -	\$ -	\$ 21,632
2012	\$ 62,158	\$ -	\$ -	\$ -	\$ 21,632
2013	\$ -	\$ -	\$ 136,226	\$ -	\$ 21,632
2014	\$ -	\$ -	\$ 647,073	\$ -	\$ 21,632
2015	\$ -	\$ -	\$ 90,817	\$ -	\$ 21,507
2016	\$ -	\$ -	\$ 295,157	\$ -	\$ 19,468
2017	\$ -	\$ -	\$ 538,936	\$ -	\$ 17,524
2018	\$ -	\$ -	\$ 677,189	\$ -	\$ 16,404
<b>Total</b>	<b>\$ 1,950,742</b>	<b>\$ 444,385</b>	<b>\$ 2,385,398</b>	<b>\$ 15,800</b>	<b>\$ 220,069</b>

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
MESIROW FINANCIAL - PARTNERSHIP FUND IV  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

*The most recent statement available at this time was September 30, 2018. The market value has been adjusted for the capital portion of the distribution. The return shown for the quarter results from the income portion of the distribution.*

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Mesirow Financial Partnership Fund IV portfolio was valued at \$2,553,597, a decrease of \$107,380 from the September ending value of \$2,660,977. Last quarter, the account recorded a net withdrawal of \$281,204, which overshadowed the fund's net investment return of \$173,824. Barring income receipts during the fourth quarter, the portfolio's net investment return figure was the product of \$173,824 in realized and unrealized capital gains.

## **RELATIVE PERFORMANCE**

### **Total Fund**

*The Cambridge US Private Equity Index return was not yet available for the quarter. A flat return of 0% was assumed for the index.*

For the fourth quarter, the Mesirow Financial Partnership Fund IV account gained 6.9%. Over the trailing twelve-month period, the account returned 7.1%, which was 5.7% below the benchmark's 12.8% performance. Since March 2007, the portfolio returned 9.3% per annum, while the Cambridge US Private Equity returned an annualized 10.5% over the same period.



**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 03/07
<b>Total Portfolio - Gross</b>	6.9	7.1	13.6	13.6	14.8	14.3	9.3
<b>Total Portfolio - Net</b>	6.6	6.0	12.5	11.1	12.9	10.9	5.3
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0	10.5
<b>Private Equity - Gross</b>	6.9	7.1	13.6	13.6	14.8	14.3	9.3
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0	10.5

**ASSET ALLOCATION**

Private Equity	100.0%	\$ 2,553,597
Total Portfolio	100.0%	\$ 2,553,597

**INVESTMENT RETURN**

Market Value 9/2018	\$ 2,660,977
Contribs / Withdrawals	-281,204
Income	0
Capital Gains / Losses	173,824
Market Value 12/2018	\$ 2,553,597

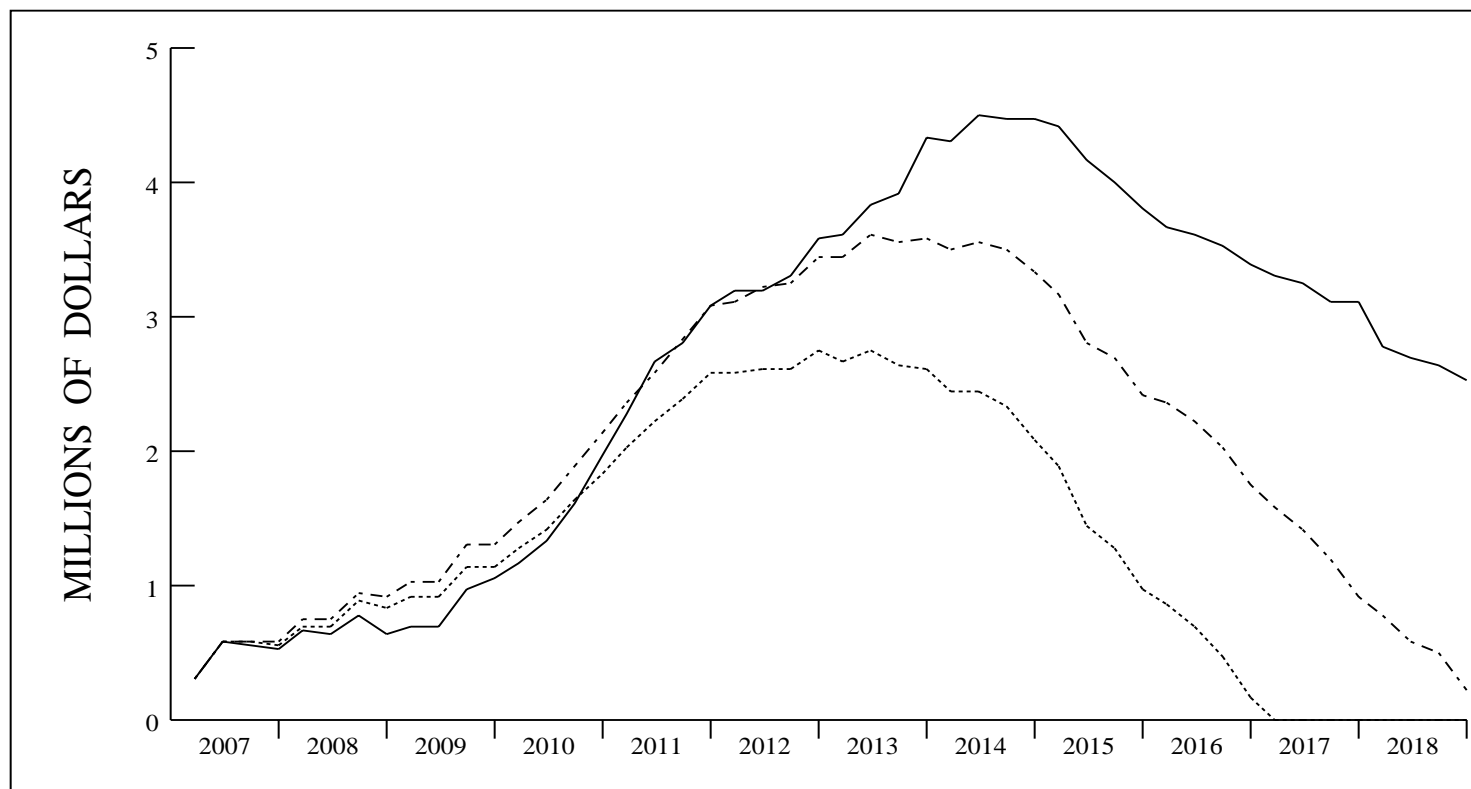
**EXECUTIVE SUMMARY - USING LAGGED DATA**

PERFORMANCE SUMMARY							
	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 06/07
<b>Total Portfolio - Gross</b>	2.4	10.3	12.3	14.6	14.2	11.9	8.9
<b>Total Portfolio - Net</b>	2.1	9.2	9.4	12.5	12.2	8.4	4.8
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0	10.7
<b>Private Equity - Gross</b>	2.4	10.3	12.3	14.6	14.2	11.9	8.9
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0	10.7

ASSET ALLOCATION		
Private Equity	100.0%	\$ 2,660,977
Total Portfolio	100.0%	\$ 2,660,977

INVESTMENT RETURN	
Market Value 9/2018	\$ 2,705,571
Contribs / Withdrawals	-107,380
Income	0
Capital Gains / Losses	62,786
Market Value 12/2018	\$ 2,660,977

**INVESTMENT GROWTH**



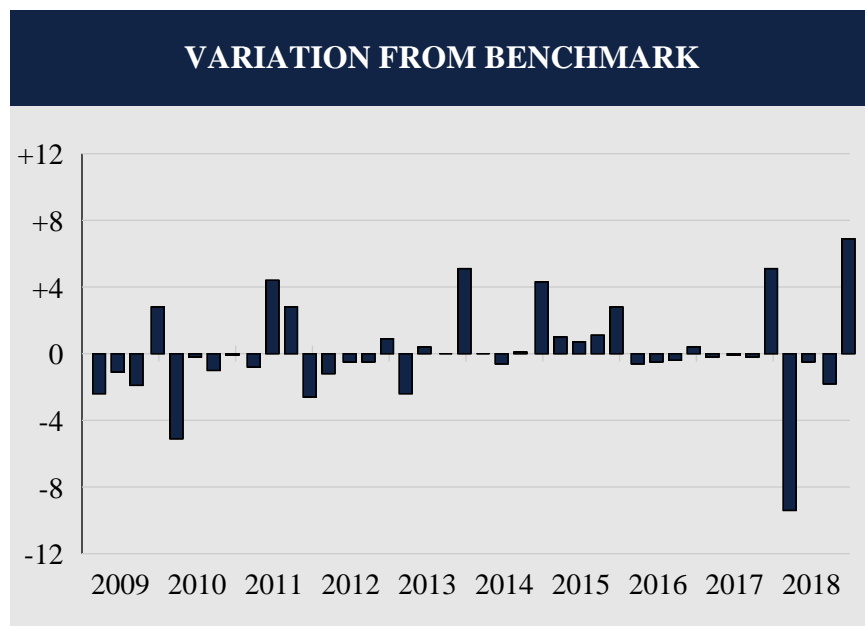
——— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 231,786

	LAST QUARTER	PERIOD 3/07 - 12/18
BEGINNING VALUE	\$ 2,660,977	\$ 315,118
NET CONTRIBUTIONS	-281,204	-1,818,962
INVESTMENT RETURN	173,824	4,057,441
ENDING VALUE	\$ 2,553,597	\$ 2,553,597
INCOME	0	25,752
CAPITAL GAINS (LOSSES)	173,824	4,031,689
INVESTMENT RETURN	173,824	4,057,441

### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY - 10 YEARS

COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY



<b>Total Quarters Observed</b>	<b>40</b>
<b>Quarters At or Above the Benchmark</b>	<b>17</b>
<b>Quarters Below the Benchmark</b>	<b>23</b>
<b>Batting Average</b>	<b>.425</b>

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/09	-5.7	-3.3	-2.4
6/09	3.4	4.5	-1.1
9/09	3.9	5.8	-1.9
12/09	8.8	6.0	2.8
3/10	-0.7	4.4	-5.1
6/10	1.4	1.6	-0.2
9/10	4.1	5.1	-1.0
12/10	9.0	9.1	-0.1
3/11	4.4	5.2	-0.8
6/11	9.0	4.6	4.4
9/11	-1.4	-4.2	2.8
12/11	2.7	5.3	-2.6
3/12	4.2	5.4	-1.2
6/12	-0.6	-0.1	-0.5
9/12	3.2	3.7	-0.5
12/12	4.7	3.8	0.9
3/13	2.2	4.6	-2.4
6/13	3.5	3.1	0.4
9/13	5.1	5.1	0.0
12/13	12.0	6.9	5.1
3/14	3.1	3.1	0.0
6/14	4.8	5.4	-0.6
9/14	1.6	1.5	0.1
12/14	5.2	0.9	4.3
3/15	3.6	2.6	1.0
6/15	4.5	3.8	0.7
9/15	-0.3	-1.4	1.1
12/15	3.3	0.5	2.8
3/16	-0.6	0.0	-0.6
6/16	3.5	4.0	-0.5
9/16	3.5	3.9	-0.4
12/16	5.0	4.6	0.4
3/17	3.7	3.9	-0.2
6/17	3.4	3.5	-0.1
9/17	3.8	4.0	-0.2
12/17	10.2	5.1	5.1
3/18	-6.7	2.7	-9.4
6/18	4.9	5.4	-0.5
9/18	2.4	4.2	-1.8
12/18	6.9	0.0	6.9

**Private Equity Investor Report  
Mesirow Partnership Fund IV**

<b>Net IRR Since Inception:</b>	<b>10.48%</b>	Report as of:
<b>Market Value:</b>	<b>\$ 2,553,597</b>	12/31/2018
<b>Total Commitment:</b>	<b>\$ 5,000,000</b>	Last Statement:
<b>Unfunded Commitment:</b>	<b>\$ 250,000</b>	9/30/2018

<u>Year</u>	<u>Capital Calls</u>	<u>Distributions</u>	<u>Interest Received / (Paid)</u>	<u>Fees</u>
2007	\$ 650,000	\$ -	\$ (3,682)	\$ 55,753
2008	\$ 350,000	\$ -	\$ 25,752	\$ 50,000
2009	\$ 350,000	\$ -	\$ -	\$ 50,000
2010	\$ 750,000	\$ -	\$ -	\$ 50,000
2011	\$ 800,000	\$ -	\$ -	\$ 50,000
2012	\$ 400,000	\$ 200,000	\$ -	\$ 50,000
2013	\$ 350,000	\$ 425,000	\$ -	\$ 50,000
2014	\$ 650,000	\$ 1,125,000	\$ -	\$ 45,000
2015	\$ 200,000	\$ 1,275,000	\$ -	\$ 40,500
2016	\$ 125,000	\$ 898,720	\$ -	\$ 36,448
2017	\$ 100,000	\$ 1,023,898	\$ -	\$ 32,800
2018	\$ 25,000	\$ 723,824	\$ -	\$ 29,520
<b>Total</b>	<b>\$ 4,750,000</b>	<b>\$ 5,671,442</b>	<b>\$ 22,070</b>	<b>\$ 540,021</b>

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
MESIROW FINANCIAL - PARTNERSHIP FUND VI  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

*The most recent statement available at this time was September 30, 2018. The market value has been adjusted for the capital portion of the distribution. The return shown for the quarter results from the income portion of the distribution.*

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Mesirow Financial Partnership Fund VI portfolio was valued at \$2,489,965, a decrease of \$14,893 from the September ending value of \$2,504,858. Last quarter, the account recorded a net withdrawal of \$29,785, which overshadowed the fund's net investment return of \$14,892. Barring income receipts during the fourth quarter, the portfolio's net investment return figure was the product of \$14,892 in realized and unrealized capital gains.

## **RELATIVE PERFORMANCE**

### **Total Fund**

*The Cambridge US Private Equity Index return was not yet available for the quarter. A flat return of 0% was assumed for the index.*

For the fourth quarter, the Mesirow Financial Partnership Fund VI account gained 0.9%, which was 0.9% greater than the Cambridge US Private Equity's return of 0.0%. Over the trailing twelve-month period, the account returned 29.0%, which was 16.2% above the benchmark's 12.8% performance. Since December 2013, the portfolio returned 10.1% per annum, while the Cambridge US Private Equity returned an annualized 12.0% over the same period.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year
<b>Total Portfolio - Gross</b>	0.9	29.0	17.2	10.1	----	----
<b>Total Portfolio - Net</b>	0.6	27.3	14.3	2.6	----	----
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0
<b>Private Equity - Gross</b>	0.9	29.0	17.2	10.1	----	----
Cambridge PE	0.0	12.8	14.5	12.0	13.4	14.0

**ASSET ALLOCATION**

Private Equity	100.0%	\$ 2,489,965
Total Portfolio	100.0%	\$ 2,489,965

**INVESTMENT RETURN**

Market Value 9/2018	\$ 2,504,858
Contribs / Withdrawals	- 29,785
Income	0
Capital Gains / Losses	14,892
Market Value 12/2018	\$ 2,489,965



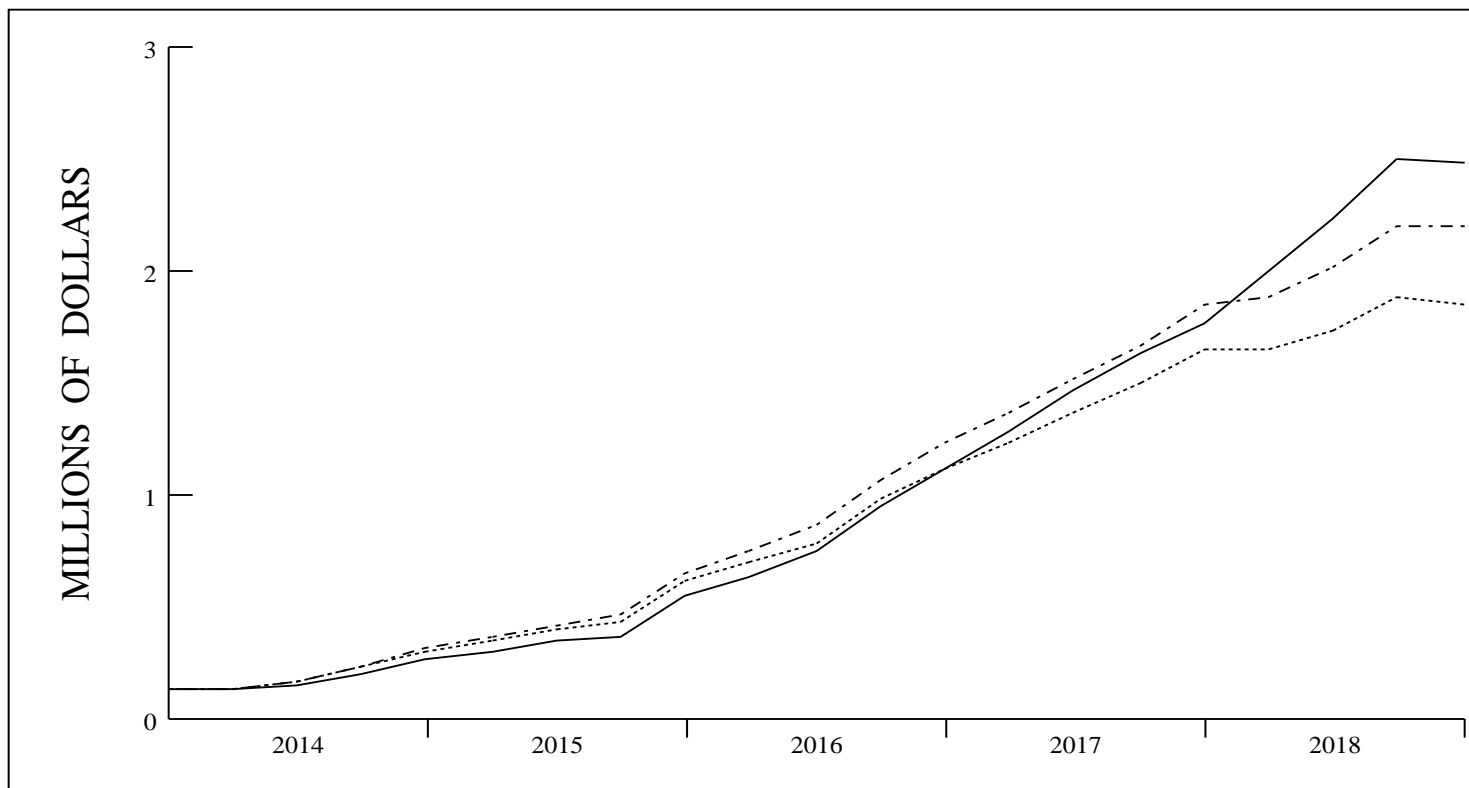
**EXECUTIVE SUMMARY - USING LAGGED DATA**

PERFORMANCE SUMMARY							
	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 09/13
<b>Total Portfolio - Gross</b>	5.4	27.9	17.7	13.1	----	----	13.3
<b>Total Portfolio - Net</b>	5.0	26.0	14.3	4.5	----	----	3.9
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0	13.9
<b>Private Equity - Gross</b>	5.4	27.9	17.7	13.1	----	----	13.3
Cambridge PE (Lag)	4.2	18.5	14.7	13.5	14.3	12.0	13.9

ASSET ALLOCATION		
Private Equity	100.0%	\$ 2,504,858
Total Portfolio	100.0%	\$ 2,504,858

INVESTMENT RETURN	
Market Value 9/2018	\$ 2,240,537
Contribs / Withdrawals	150,000
Income	0
Capital Gains / Losses	114,321
Market Value 12/2018	\$ 2,504,858

**INVESTMENT GROWTH**



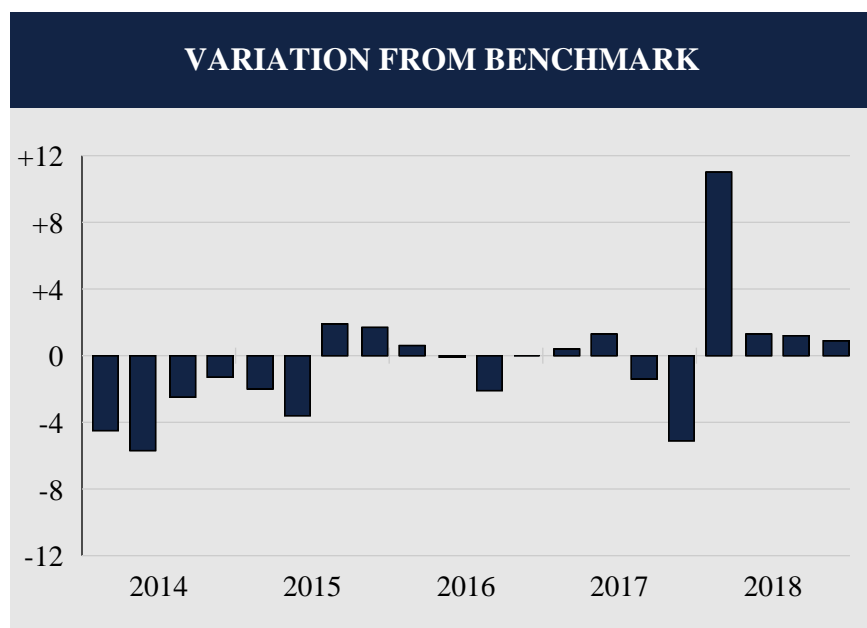
— ACTUAL RETURN  
 - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 2,209,467

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE	\$ 2,504,858	\$ 145,562
NET CONTRIBUTIONS	- 29,785	1,717,070
INVESTMENT RETURN	14,892	627,333
ENDING VALUE	\$ 2,489,965	\$ 2,489,965
INCOME	0	0
CAPITAL GAINS (LOSSES)	14,892	627,333
INVESTMENT RETURN	14,892	627,333

### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: CAMBRIDGE US PRIVATE EQUITY



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

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/14	-1.4	3.1	-4.5
6/14	-0.3	5.4	-5.7
9/14	-1.0	1.5	-2.5
12/14	-0.4	0.9	-1.3
3/15	0.6	2.6	-2.0
6/15	0.2	3.8	-3.6
9/15	0.5	-1.4	1.9
12/15	2.2	0.5	1.7
3/16	0.6	0.0	0.6
6/16	3.9	4.0	-0.1
9/16	1.8	3.9	-2.1
12/16	4.6	4.6	0.0
3/17	4.3	3.9	0.4
6/17	4.8	3.5	1.3
9/17	2.6	4.0	-1.4
12/17	0.0	5.1	-5.1
3/18	13.7	2.7	11.0
6/18	6.7	5.4	1.3
9/18	5.4	4.2	1.2
12/18	0.9	0.0	0.9

**Private Equity Investor Report  
Mesirow Partnership Fund VI**

<b>Net IRR Since Inception:</b>		<b>13.55%</b>	Report as of:
<b>Market Value:</b>	\$	<b>2,489,965</b>	12/31/2018
<b>Total Commitment:</b>	\$	<b>3,000,000</b>	Last Statement:
<b>Unfunded Commitment:</b>	\$	<b>1,050,000</b>	9/30/2018

<u>Quarter</u>	<u>Capital Calls</u>	<u>Distributions</u>	<u>Fees</u>
2Q 2013	\$ 120,000	\$ -	\$ -
3Q 2013	\$ 15,000	\$ -	\$ 7,500
4Q 2013	\$ -	\$ -	\$ 7,500
1Q 2014	\$ -	\$ -	\$ 7,500
2Q 2014	\$ 30,000	\$ -	\$ 7,500
3Q 2014	\$ 60,000	\$ -	\$ 7,500
4Q 2014	\$ 75,000	\$ -	\$ 7,500
1Q 2015	\$ 45,000	\$ -	\$ 7,500
2Q 2015	\$ 45,000	\$ -	\$ 7,500
3Q 2015	\$ 45,000	\$ 8,173	\$ 7,500
4Q 2015	\$ 180,000	\$ -	\$ 7,500
1Q 2016	\$ 90,000	\$ -	\$ 7,500
2Q 2016	\$ 90,000	\$ -	\$ 7,500
3Q 2016	\$ 195,000	\$ -	\$ 7,500
4Q 2016	\$ 135,000	\$ -	\$ 7,500
1Q 2017	\$ 120,000	\$ -	\$ 7,500
2Q 2017	\$ 120,000	\$ -	\$ 7,500
3Q 2017	\$ 135,000	\$ -	\$ 7,500
4Q 2017	\$ 150,000	\$ -	\$ 7,500
1Q 2018	\$ -	\$ -	\$ 7,500
2Q 2018	\$ 150,000	\$ 59,972	\$ 7,500
3Q 2018	\$ 150,000	\$ -	\$ 7,500
4Q 2018	\$ -	\$ 29,785	\$ 7,500
<b>Total</b>	<b>\$ 1,950,000</b>	<b>\$ 97,930</b>	<b>\$ 165,000</b>

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
INTERCONTINENTAL - US REAL ESTATE INVESTMENT  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Intercontinental US Real Estate Investment portfolio was valued at \$5,353,942, representing an increase of \$35,693 from the September quarter's ending value of \$5,318,249. Last quarter, the Fund posted withdrawals totaling \$77,274, which offset the portfolio's net investment return of \$112,967. Since there were no income receipts for the fourth quarter, the portfolio's net investment return figure was the product of net realized and unrealized capital gains totaling \$112,967.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Intercontinental US Real Estate Investment account returned 2.1%, which was 0.3% above the NCREIF NFI-ODCE Index's return of 1.8%. Over the trailing year, the portfolio returned 10.7%, which was 2.4% above the benchmark's 8.3% return.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year
<b>Total Portfolio - Gross</b>	2.1	10.7	----	----	----	----
<b>Total Portfolio - Net</b>	1.4	9.0	----	----	----	----
NCREIF ODCE	1.8	8.3	8.2	10.4	11.0	7.0
<b>Real Estate - Gross</b>	2.1	10.7	----	----	----	----
NCREIF ODCE	1.8	8.3	8.2	10.4	11.0	7.0

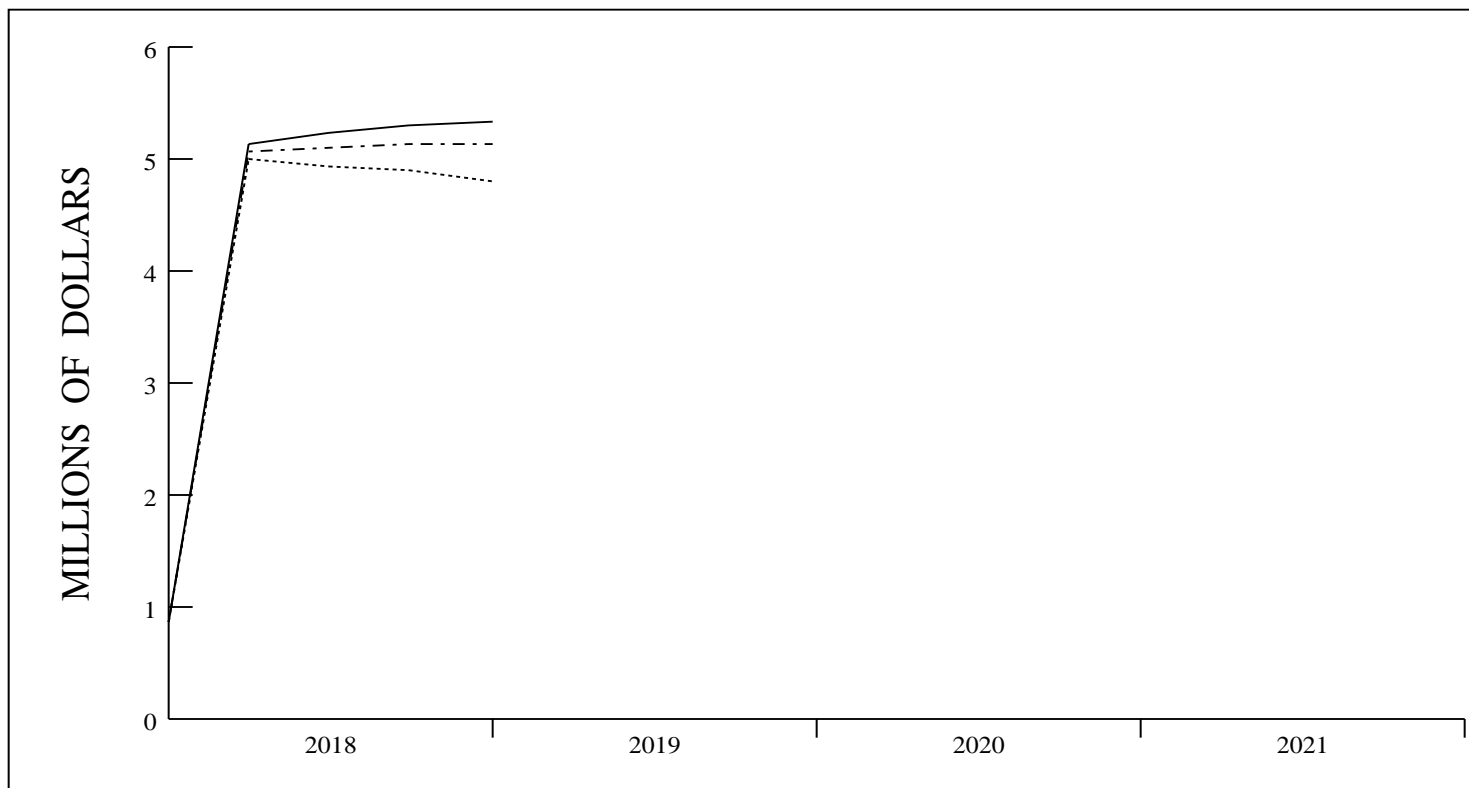
**ASSET ALLOCATION**

Real Estate	100.0%	\$ 5,353,942
<b>Total Portfolio</b>	<b>100.0%</b>	<b>\$ 5,353,942</b>

**INVESTMENT RETURN**

Market Value 9/2018	\$ 5,318,249
Contribs / Withdrawals	- 77,274
Income	0
Capital Gains / Losses	112,967
Market Value 12/2018	\$ 5,353,942

**INVESTMENT GROWTH**



— ACTUAL RETURN  
 - - - BLENDED RATE  
 ..... 0.0%

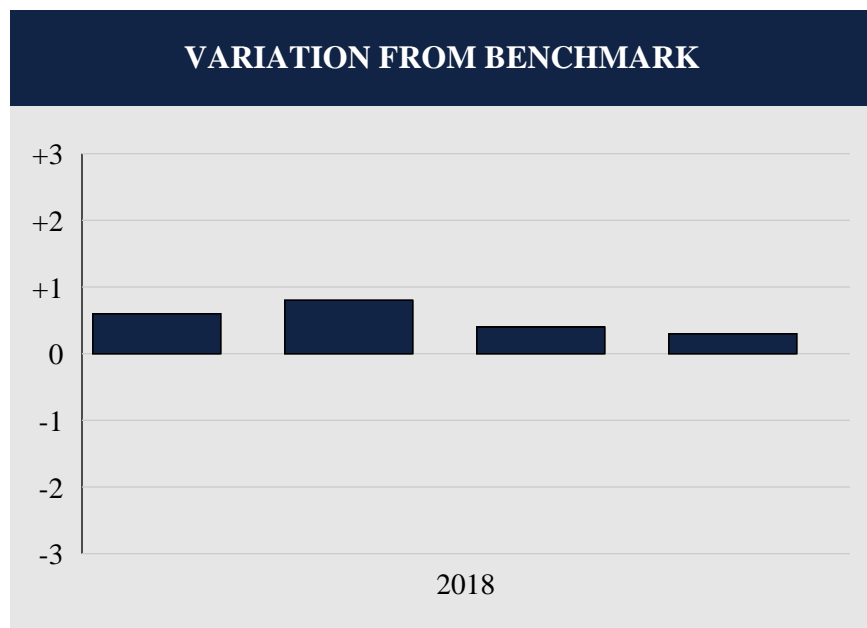
VALUE ASSUMING  
 BLENDED RATE \$ 5,164,203

	LAST QUARTER	ONE YEAR
BEGINNING VALUE	\$ 5,318,249	\$ 881,489
NET CONTRIBUTIONS	- 77,274	3,948,896
INVESTMENT RETURN	112,967	523,557
ENDING VALUE	\$ 5,353,942	\$ 5,353,942
INCOME	0	0
CAPITAL GAINS (LOSSES)	112,967	523,557
INVESTMENT RETURN	112,967	523,557



**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY**

**COMPARATIVE BENCHMARK: NCREIF NFI-ODCE INDEX**



RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/18	2.8	2.2	0.6
6/18	2.8	2.0	0.8
9/18	2.5	2.1	0.4
12/18	2.1	1.8	0.3

<b>Total Quarters Observed</b>	<b>4</b>
<b>Quarters At or Above the Benchmark</b>	<b>4</b>
<b>Quarters Below the Benchmark</b>	<b>0</b>
<b>Batting Average</b>	<b>1.000</b>

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
INVESCO - CORE REAL ESTATE  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Invesco Core Real Estate portfolio was valued at \$16,446,882, representing an increase of \$211,308 from the September quarter's ending value of \$16,235,574. Last quarter, the Fund posted withdrawals totaling \$140,258, which offset the portfolio's net investment return of \$351,566. Income receipts totaling \$98,790 plus net realized and unrealized capital gains of \$252,776 combined to produce the portfolio's net investment return.

## **RELATIVE PERFORMANCE**

### **Total Fund**

For the fourth quarter, the Invesco Core Real Estate account gained 2.2%, which was 0.4% greater than the NCREIF NFI-ODCE Index's return of 1.8%. Over the trailing twelve-month period, the account returned 9.4%, which was 1.1% above the benchmark's 8.3% performance. Since September 2017, the portfolio returned 9.4% per annum, while the NCREIF NFI-ODCE Index returned an annualized 8.4% over the same period.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 09/17
<b>Total Portfolio - Gross</b>	2.2	9.4	----	----	----	----	9.4
<b>Total Portfolio - Net</b>	1.9	8.2	----	----	----	----	8.2
NCREIF ODCE	1.8	8.3	8.2	10.4	11.0	7.0	8.4
<b>Real Estate - Gross</b>	2.2	9.4	----	----	----	----	9.4
NCREIF ODCE	1.8	8.3	8.2	10.4	11.0	7.0	8.4

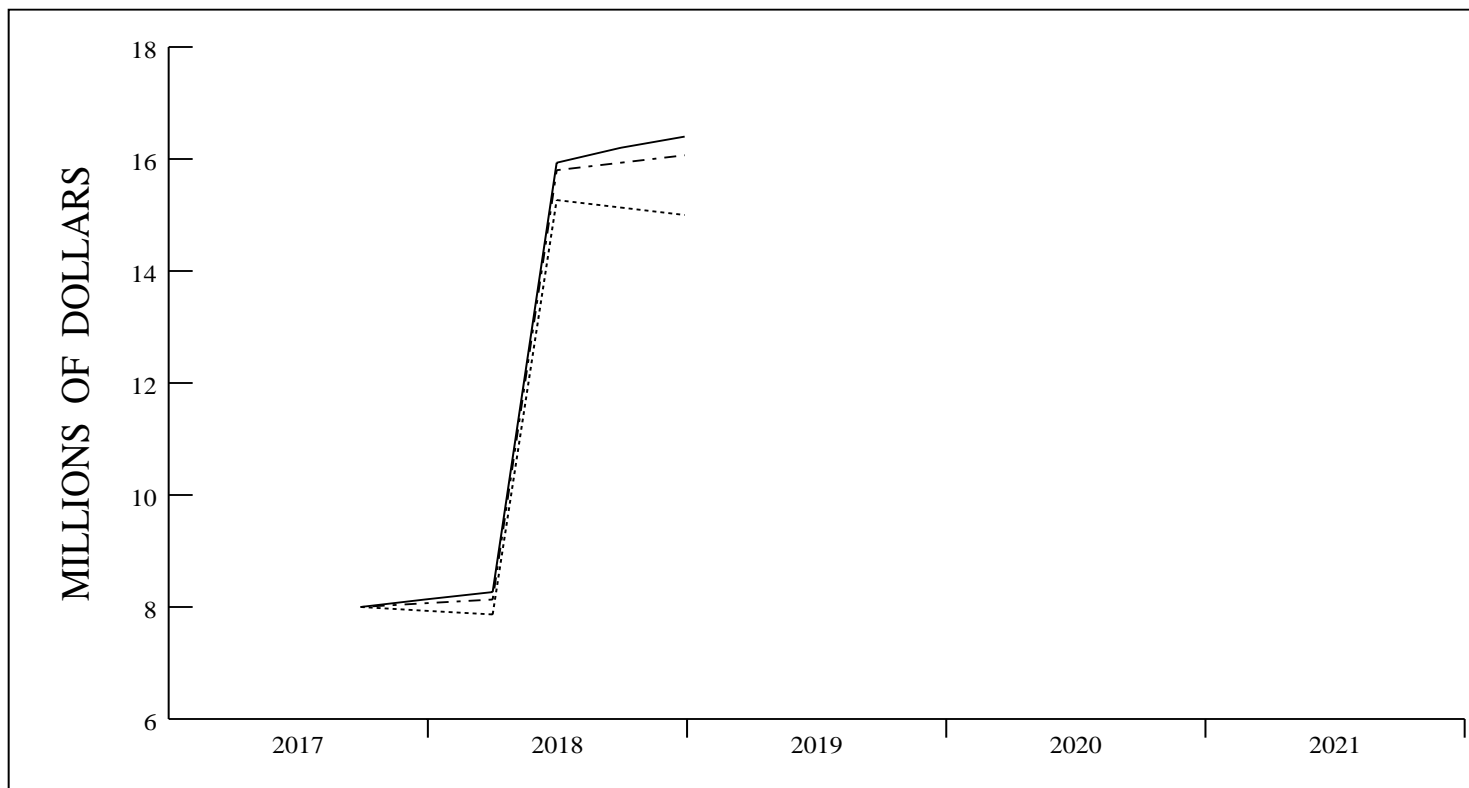
**ASSET ALLOCATION**

Real Estate	100.0%	\$ 16,446,882
Total Portfolio	100.0%	\$ 16,446,882

**INVESTMENT RETURN**

Market Value 9/2018	\$ 16,235,574
Contribs / Withdrawals	-140,258
Income	98,790
Capital Gains / Losses	252,776
Market Value 12/2018	\$ 16,446,882

**INVESTMENT GROWTH**



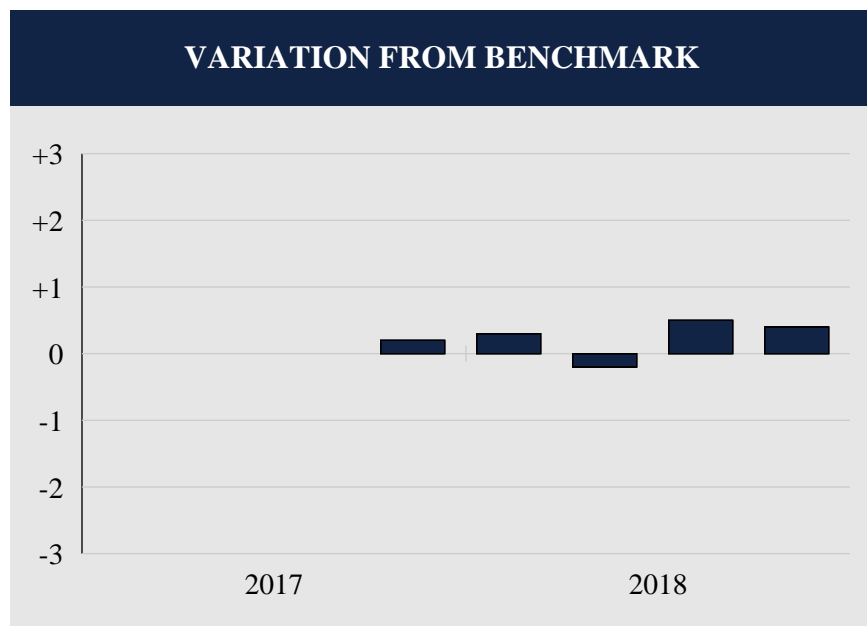
— ACTUAL RETURN  
 - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 16,071,780

	LAST QUARTER	PERIOD 9/17 - 12/18
BEGINNING VALUE	\$ 16,235,574	\$ 8,051,583
NET CONTRIBUTIONS	-140,258	6,957,927
<u>INVESTMENT RETURN</u>	<u>351,566</u>	<u>1,437,372</u>
ENDING VALUE	\$ 16,446,882	\$ 16,446,882
INCOME	98,790	375,866
<u>CAPITAL GAINS (LOSSES)</u>	<u>252,776</u>	<u>1,061,506</u>
INVESTMENT RETURN	351,566	1,437,372

### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: NCREIF NFI-ODCE INDEX



RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
12/17	2.3	2.1	0.2
3/18	2.5	2.2	0.3
6/18	1.8	2.0	-0.2
9/18	2.6	2.1	0.5
12/18	2.2	1.8	0.4

<b>Total Quarters Observed</b>	<b>5</b>
<b>Quarters At or Above the Benchmark</b>	<b>4</b>
<b>Quarters Below the Benchmark</b>	<b>1</b>
<b>Batting Average</b>	<b>.800</b>

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
PRINCIPAL - US PROPERTY  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Principal US Property portfolio was valued at \$12,425,923, representing an increase of \$151,487 from the September quarter's ending value of \$12,274,436. Last quarter, the Fund posted no net contributions or withdrawals, while posting \$151,487 in net investment returns. Since there were no income receipts for the fourth quarter, the portfolio's net investment return was the result of net realized and unrealized capital gains totaling \$151,487.

## **RELATIVE PERFORMANCE**

### **Total Fund**

During the fourth quarter, the Principal US Property portfolio returned 1.5%, which was 0.3% less than the NCREIF NFI-ODCE Index's return of 1.8%. Over the trailing year, the account returned 9.2%, which was 0.9% greater than the benchmark's 8.3% return. Since December 2017, the portfolio returned 9.2%, while the NCREIF NFI-ODCE Index returned 8.3% over the same time frame.



**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year
<b>Total Portfolio - Gross</b>	1.5	9.2	----	----	----	----
<b>Total Portfolio - Net</b>	1.2	8.0	----	----	----	----
NCREIF ODCE	1.8	8.3	8.2	10.4	11.0	7.0
<b>Real Estate - Gross</b>	1.5	9.2	----	----	----	----
NCREIF ODCE	1.8	8.3	8.2	10.4	11.0	7.0

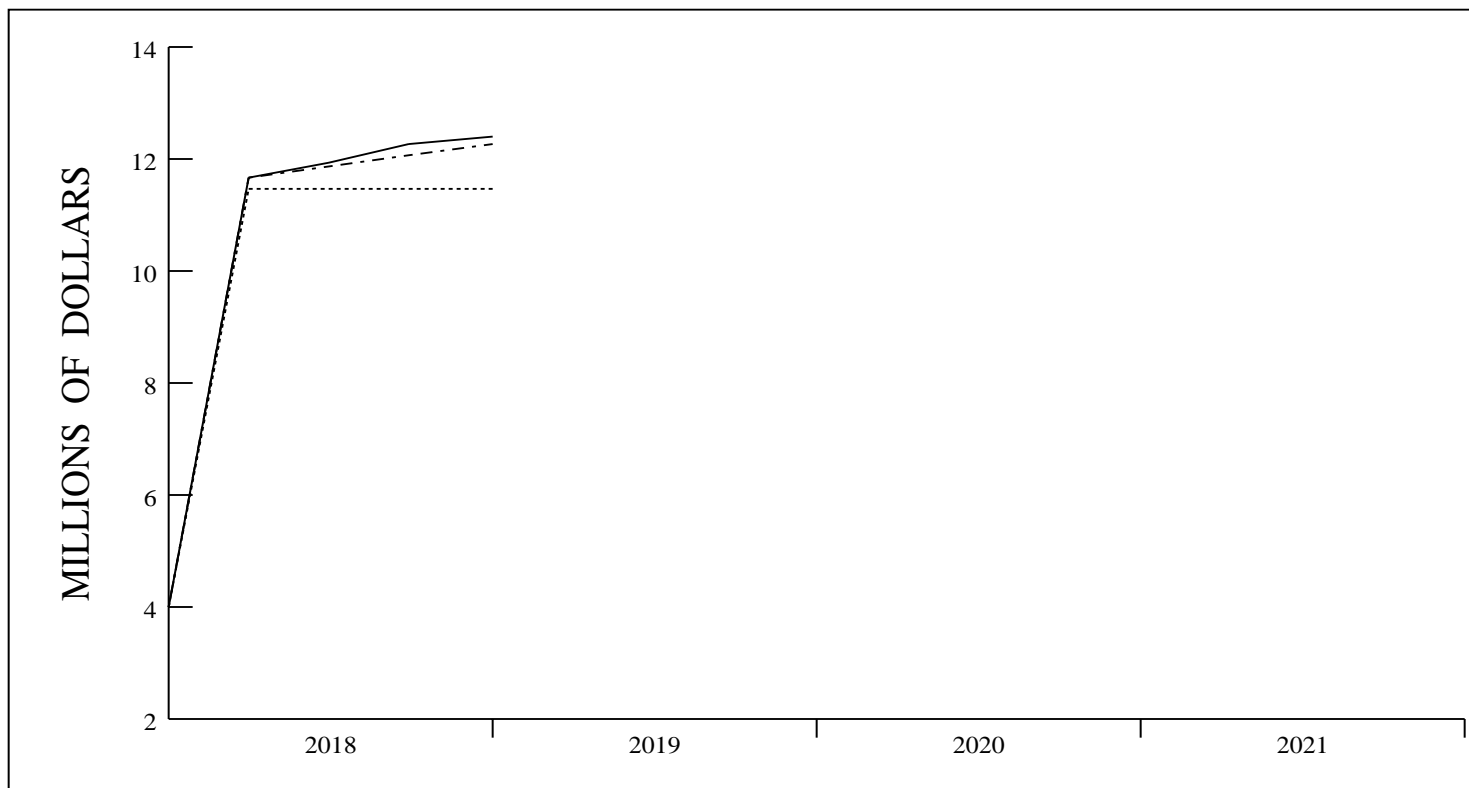
**ASSET ALLOCATION**

Real Estate	100.0%	\$ 12,425,923
Total Portfolio	100.0%	\$ 12,425,923

**INVESTMENT RETURN**

Market Value 9/2018	\$ 12,274,436
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	151,487
Market Value 12/2018	\$ 12,425,923

**INVESTMENT GROWTH**



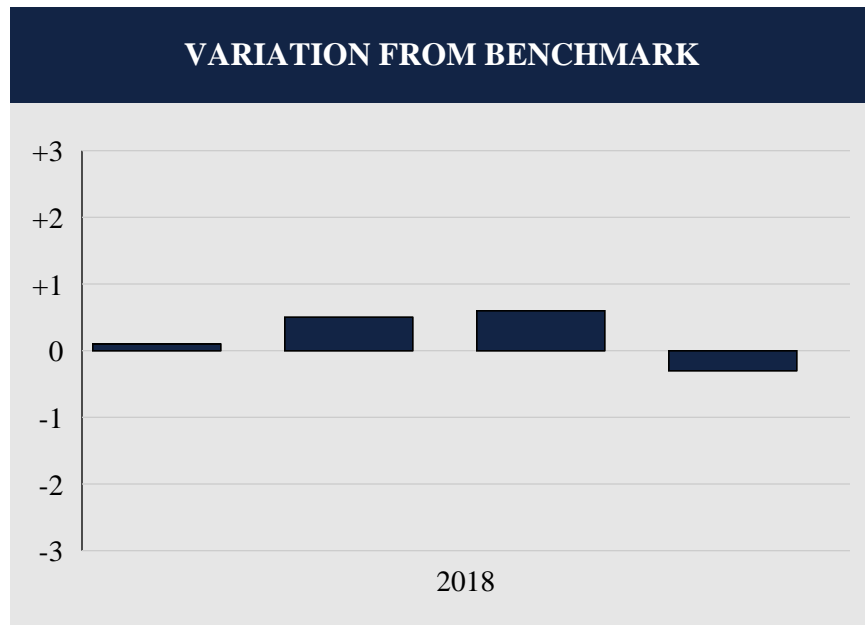
——— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

VALUE ASSUMING  
 BLENDED RATE \$ 12,299,434

	LAST QUARTER	ONE YEAR
BEGINNING VALUE	\$ 12,274,436	\$ 4,015,901
NET CONTRIBUTIONS	0	7,500,000
<u>INVESTMENT RETURN</u>	<u>151,487</u>	<u>910,022</u>
ENDING VALUE	\$ 12,425,923	\$ 12,425,923
INCOME	0	0
<u>CAPITAL GAINS (LOSSES)</u>	<u>151,487</u>	<u>910,022</u>
INVESTMENT RETURN	151,487	910,022

**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY**

**COMPARATIVE BENCHMARK: NCREIF NFI-ODCE INDEX**



RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
3/18	2.3	2.2	0.1
6/18	2.5	2.0	0.5
9/18	2.7	2.1	0.6
12/18	1.5	1.8	-0.3

<b>Total Quarters Observed</b>	<b>4</b>
<b>Quarters At or Above the Benchmark</b>	<b>3</b>
<b>Quarters Below the Benchmark</b>	<b>1</b>
<b>Batting Average</b>	<b>.750</b>

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
VICTORY CAPITAL MANAGEMENT - CORE FIXED INCOME  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Victory Capital Management Core Fixed Income portfolio was valued at \$58,780,673, representing an increase of \$1,234,844 from the September quarter's ending value of \$57,545,829. Last quarter, the Fund posted withdrawals totaling \$234, which partially offset the portfolio's net investment return of \$1,235,078. Income receipts totaling \$414,917 plus net realized and unrealized capital gains of \$820,161 combined to produce the portfolio's net investment return.

## **RELATIVE PERFORMANCE**

### **Total Fund**

For the fourth quarter, the Victory Capital Management Core Fixed Income portfolio returned 2.1%, which was 0.5% above the Bloomberg Barclays Aggregate Index's return of 1.6% and ranked in the 7th percentile of the Core Fixed Income universe. Over the trailing year, the portfolio returned 0.5%, which was 0.5% above the benchmark's 0.0% return, ranking in the 22nd percentile. Since December 1994, the portfolio returned 5.6% annualized. The Bloomberg Barclays Aggregate Index returned an annualized 5.4% over the same period.

## **HOLDINGS ANALYSIS**

At the end of the quarter, USG rated securities comprised approximately 80% of the bond portfolio, helping to minimize default risk. Corporate securities, rated AAA through BBB, made up the remainder, giving the portfolio an overall average quality rating of USG-AAA. The average maturity of the portfolio was 8.22 years, matching the Bloomberg Barclays Aggregate Index's 8.22-year maturity. The average coupon was 3.26%.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 12/94
<b>Total Portfolio - Gross</b>	2.1	0.5	2.4	2.7	2.6	3.9	5.6
<i>CORE FIXED INCOME RANK</i>	(7)	(22)	(59)	(65)	(49)	(75)	----
<b>Total Portfolio - Net</b>	2.1	0.1	2.0	2.3	2.3	3.6	5.5
Aggregate Index	1.6	0.0	2.1	2.5	2.1	3.5	5.4
<b>Domestic Fixed Income - Gross</b>	2.1	0.5	2.4	2.7	2.6	3.9	5.6
<i>CORE FIXED INCOME RANK</i>	(7)	(22)	(59)	(65)	(49)	(75)	----
Aggregate Index	1.6	0.0	2.1	2.5	2.1	3.5	5.4

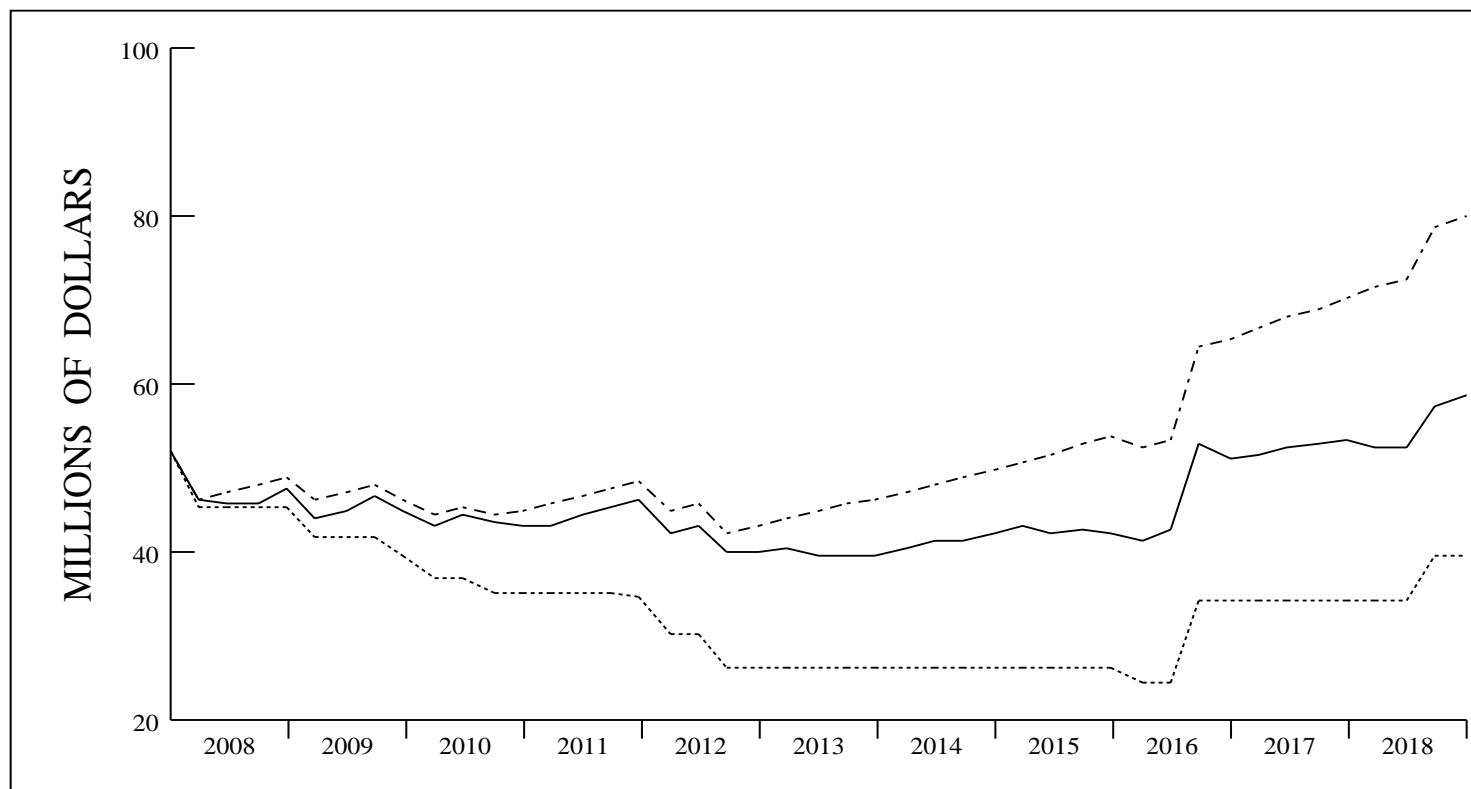
**ASSET ALLOCATION**

Domestic Fixed	100.0%	\$ 58,780,673
Total Portfolio	100.0%	\$ 58,780,673

**INVESTMENT RETURN**

Market Value 9/2018	\$ 57,545,829
Contribs / Withdrawals	-234
Income	414,917
Capital Gains / Losses	820,161
Market Value 12/2018	\$ 58,780,673

**INVESTMENT GROWTH**

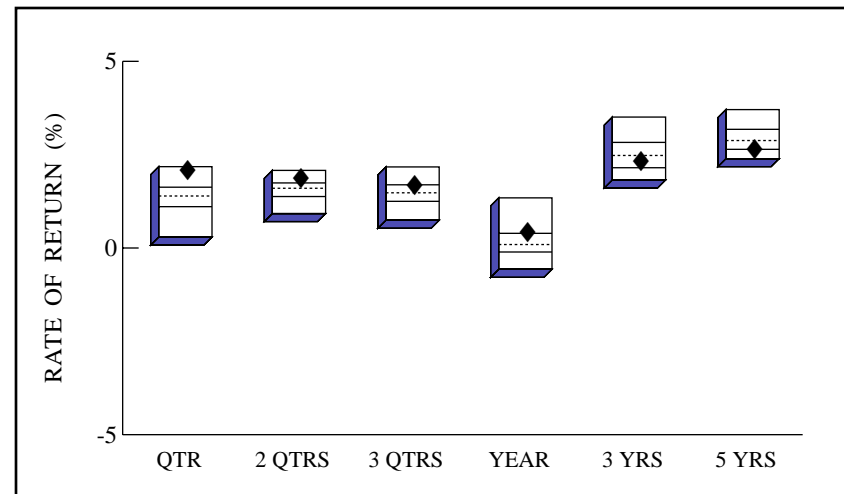
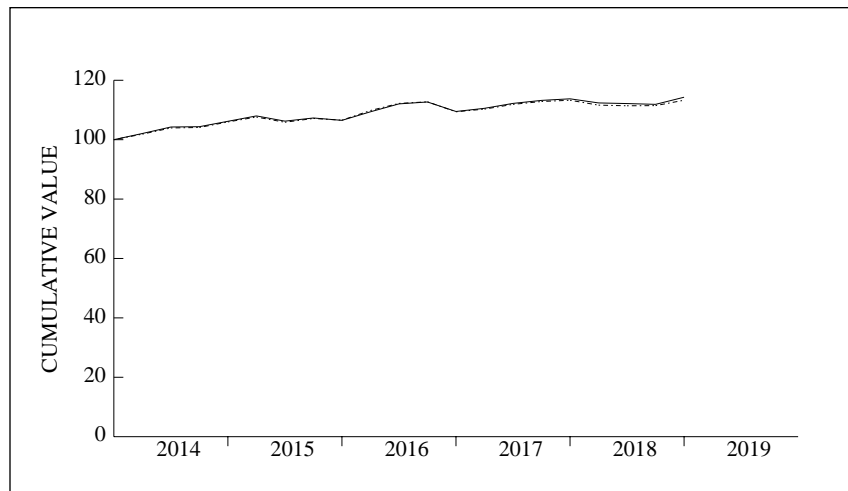


— ACTUAL RETURN  
 - - - - - BLENDED RATE  
 ..... 0.0%

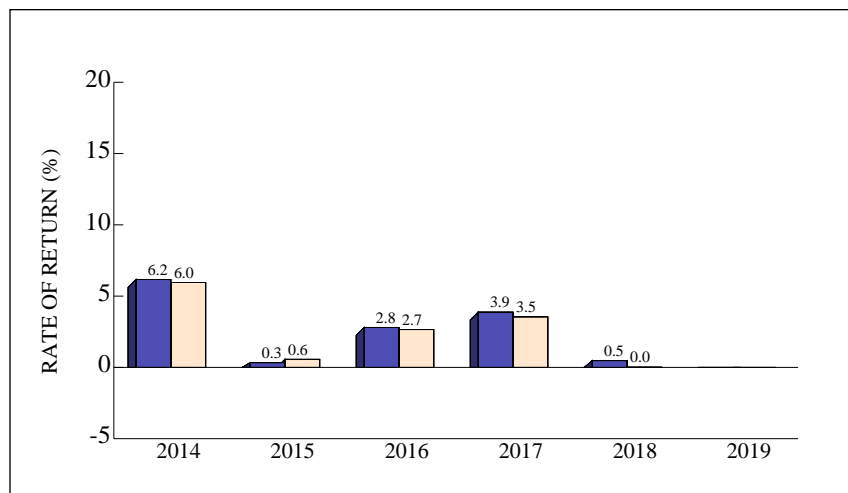
VALUE ASSUMING  
 BLENDED RATE \$ 80,388,130

	LAST QUARTER	PERIOD 12/07 - 12/18
BEGINNING VALUE	\$ 57,545,829	\$ 52,350,710
NET CONTRIBUTIONS	-234	- 12,758,032
<u>INVESTMENT RETURN</u>	<u>1,235,078</u>	<u>19,187,996</u>
ENDING VALUE	\$ 58,780,673	\$ 58,780,673
INCOME	414,917	11,491,105
<u>CAPITAL GAINS (LOSSES)</u>	<u>820,161</u>	<u>7,696,891</u>
INVESTMENT RETURN	1,235,078	19,187,996

**TOTAL RETURN COMPARISONS**



Core Fixed Income Universe

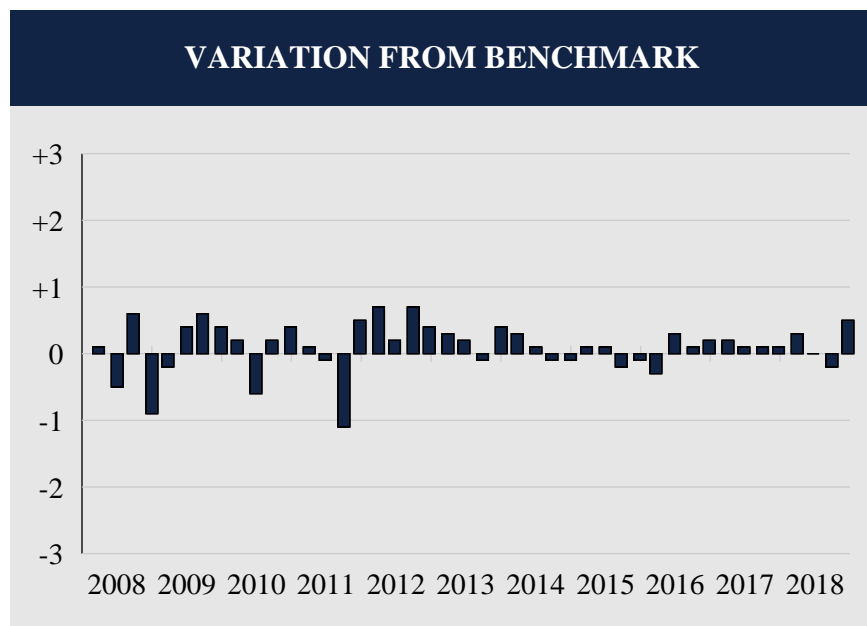


	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	2.1	1.9	1.7	0.5	2.4	2.7
(RANK)	(7)	(12)	(24)	(22)	(59)	(65)
5TH %ILE	2.2	2.1	2.2	1.3	3.5	3.7
25TH %ILE	1.6	1.7	1.7	0.4	2.8	3.2
MEDIAN	1.4	1.6	1.5	0.1	2.5	2.9
75TH %ILE	1.1	1.4	1.3	-0.1	2.2	2.6
95TH %ILE	0.3	0.9	0.7	-0.6	1.8	2.4
<b>Agg</b>	<b>1.6</b>	<b>1.7</b>	<b>1.5</b>	<b>0.0</b>	<b>2.1</b>	<b>2.5</b>

Core Fixed Income Universe



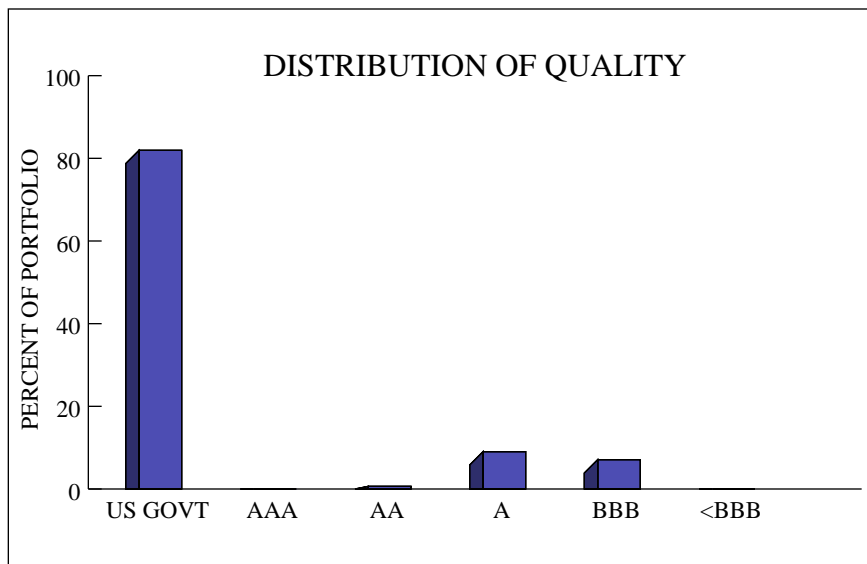
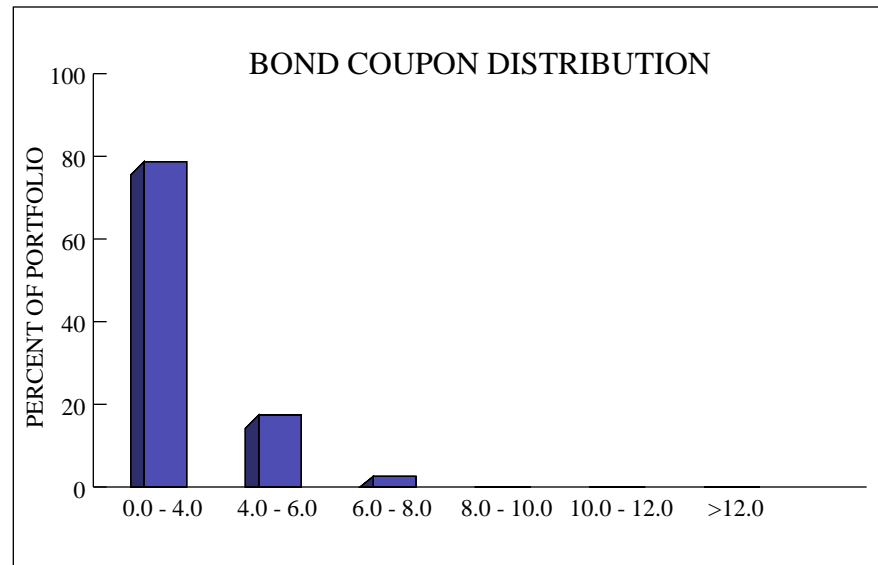
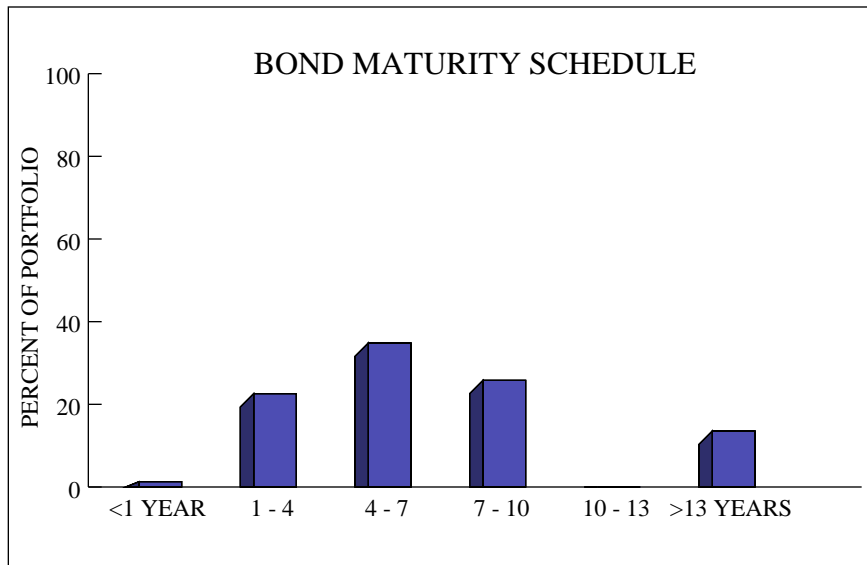
**TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY**  
**COMPARATIVE BENCHMARK: BLOOMBERG BARCLAYS AGGREGATE INDEX**



<b>Total Quarters Observed</b>	<b>44</b>
<b>Quarters At or Above the Benchmark</b>	<b>31</b>
<b>Quarters Below the Benchmark</b>	<b>13</b>
<b>Batting Average</b>	<b>.705</b>

<b>RATES OF RETURN</b>			
<b>Date</b>	<b>Portfolio</b>	<b>Benchmark</b>	<b>Difference</b>
3/08	2.3	2.2	0.1
6/08	-1.5	-1.0	-0.5
9/08	0.1	-0.5	0.6
12/08	3.7	4.6	-0.9
3/09	-0.1	0.1	-0.2
6/09	2.2	1.8	0.4
9/09	4.3	3.7	0.6
12/09	0.6	0.2	0.4
3/10	2.0	1.8	0.2
6/10	2.9	3.5	-0.6
9/10	2.7	2.5	0.2
12/10	-0.9	-1.3	0.4
3/11	0.5	0.4	0.1
6/11	2.2	2.3	-0.1
9/11	2.7	3.8	-1.1
12/11	1.6	1.1	0.5
3/12	1.0	0.3	0.7
6/12	2.3	2.1	0.2
9/12	2.3	1.6	0.7
12/12	0.6	0.2	0.4
3/13	0.2	-0.1	0.3
6/13	-2.1	-2.3	0.2
9/13	0.5	0.6	-0.1
12/13	0.3	-0.1	0.4
3/14	2.1	1.8	0.3
6/14	2.1	2.0	0.1
9/14	0.1	0.2	-0.1
12/14	1.7	1.8	-0.1
3/15	1.7	1.6	0.1
6/15	-1.6	-1.7	0.1
9/15	1.0	1.2	-0.2
12/15	-0.7	-0.6	-0.1
3/16	2.7	3.0	-0.3
6/16	2.5	2.2	0.3
9/16	0.6	0.5	0.1
12/16	-2.8	-3.0	0.2
3/17	1.0	0.8	0.2
6/17	1.5	1.4	0.1
9/17	0.9	0.8	0.1
12/17	0.5	0.4	0.1
3/18	-1.2	-1.5	0.3
6/18	-0.2	-0.2	0.0
9/18	-0.2	0.0	-0.2
12/18	2.1	1.6	0.5

**BOND CHARACTERISTICS**



	<b>PORTFOLIO</b>	<b>AGGREGATE INDEX</b>
No. of Securities	139	10,252
Duration	6.22	5.87
YTM	3.23	3.28
Average Coupon	3.26	3.20
Avg Maturity / WAL	8.22	8.22
Average Quality	USG-AAA	USG-AAA

CITY OF PONTIAC GENERAL EMPLOYEES' RETIREMENT SYSTEM  
ROBINSON - CORE FIXED INCOME  
PERFORMANCE REVIEW  
DECEMBER 2018

## **INVESTMENT RETURN**

On December 31st, 2018, the City of Pontiac General Employees' Retirement System's Robinson Core Fixed Income portfolio was valued at \$56,898,897, representing an increase of \$1,114,304 from the September quarter's ending value of \$55,784,593. Last quarter, the Fund posted withdrawals totaling \$953, which partially offset the portfolio's net investment return of \$1,115,257. Income receipts totaling \$438,004 plus net realized and unrealized capital gains of \$677,253 combined to produce the portfolio's net investment return.

## **RELATIVE PERFORMANCE**

### **Total Fund**

For the fourth quarter, the Robinson Core Fixed Income portfolio returned 2.0%, which was 0.3% above the Intermediate Gov/Credit Index's return of 1.7% and ranked in the 5th percentile of the Intermediate Fixed Income universe. Over the trailing year, the portfolio returned 2.4%, which was 1.5% above the benchmark's 0.9% return, ranking in the 2nd percentile. Since September 2010, the portfolio returned 2.6% annualized and ranked in the 36th percentile. The Intermediate Gov/Credit returned an annualized 2.0% over the same period.

## **HOLDINGS 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 AAA through BBB, giving the portfolio an overall average quality rating of AAA. The average maturity of the portfolio was 3.91 years, less than the Bloomberg Barclays Intermediate Gov/Credit Index's 4.28-year maturity. The average coupon was 3.12%.

**EXECUTIVE SUMMARY**

**PERFORMANCE SUMMARY**

	Quarter	YTD /1Y	3 Year	5 Year	7 Year	10 Year	Since 09/10
<b>Total Portfolio - Gross</b>	2.0	2.4	1.9	2.3	2.3	----	2.6
<i>INTERMEDIATE FIXED RANK</i>	( 5)	( 2)	(57)	(36)	(43)	----	(36)
<b>Total Portfolio - Net</b>	1.9	2.2	1.7	2.1	2.0	----	2.3
Int Gov/Credit	1.7	0.9	1.7	1.9	1.7	2.9	2.0
<b>Domestic Fixed Income - Gross</b>	2.0	2.4	1.9	2.3	2.3	----	2.6
<i>INTERMEDIATE FIXED RANK</i>	( 5)	( 2)	(57)	(36)	(43)	----	(36)
Int Gov/Credit	1.7	0.9	1.7	1.9	1.7	2.9	2.0

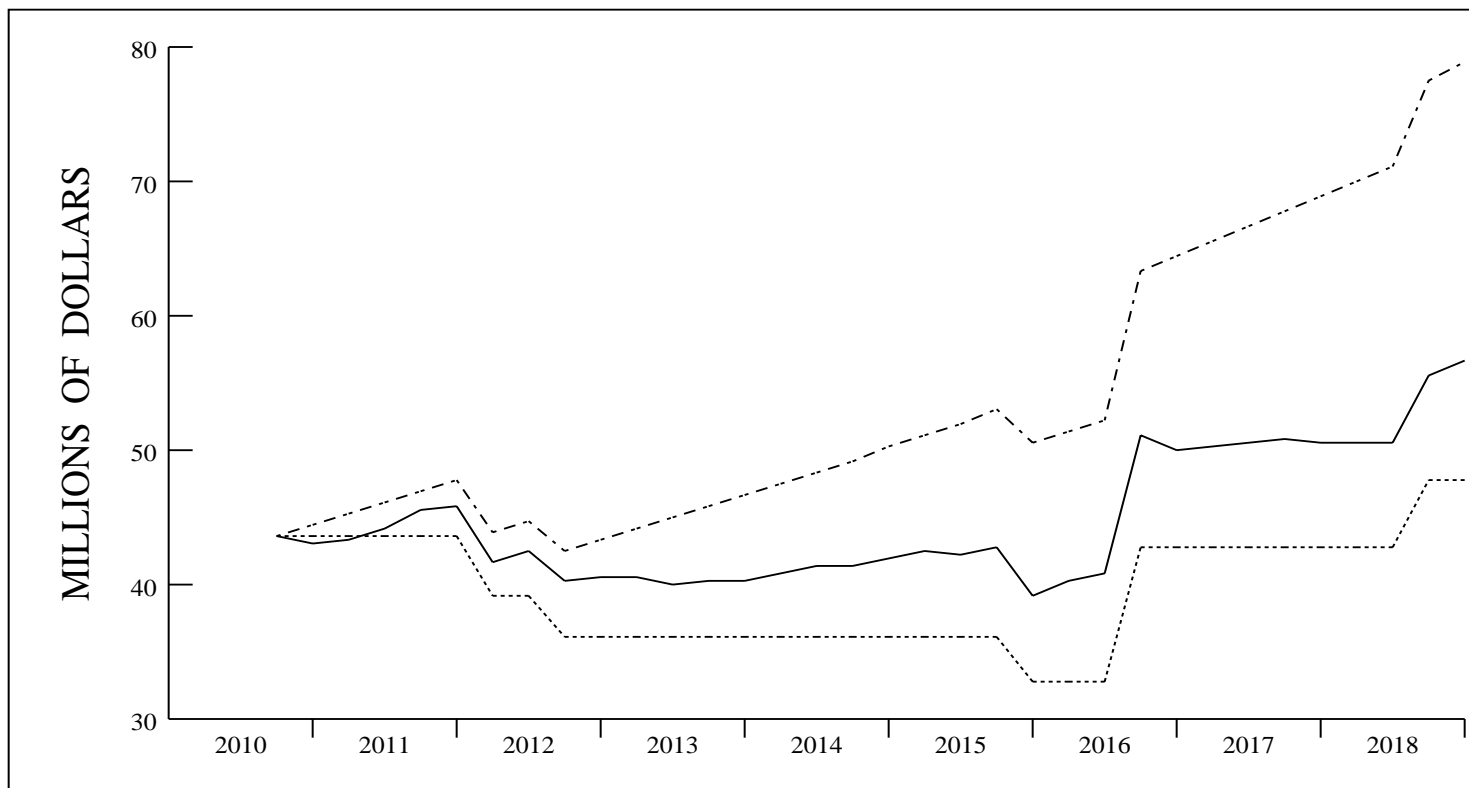
**ASSET ALLOCATION**

Domestic Fixed	100.0%	\$ 56,898,897
Total Portfolio	100.0%	\$ 56,898,897

**INVESTMENT RETURN**

Market Value 9/2018	\$ 55,784,593
Contribs / Withdrawals	-953
Income	438,004
Capital Gains / Losses	677,253
Market Value 12/2018	\$ 56,898,897

**INVESTMENT GROWTH**

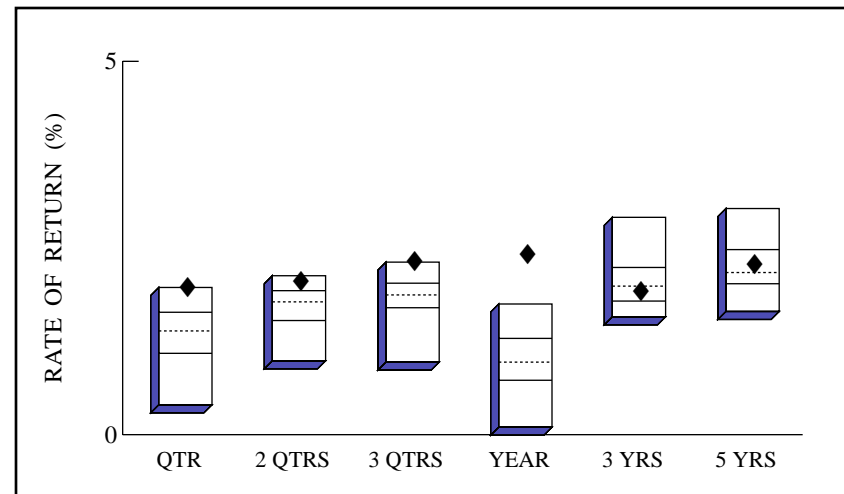
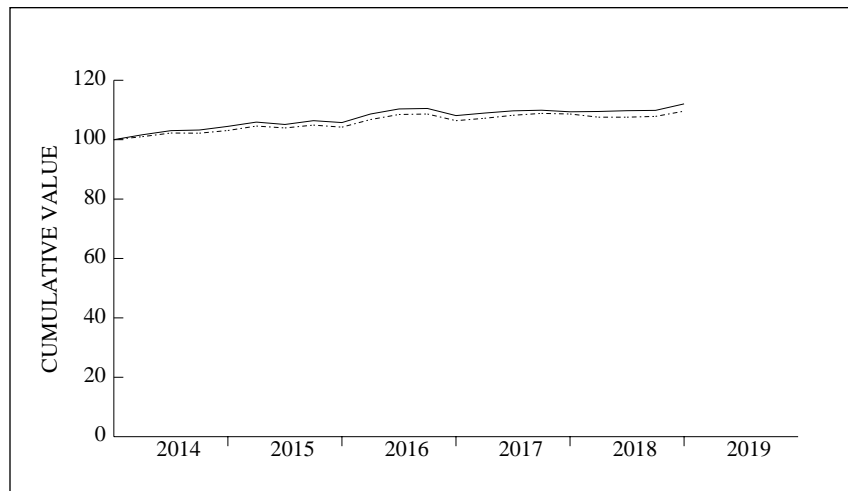


— ACTUAL RETURN  
 - - - BLENDED RATE  
 ..... 0.0%

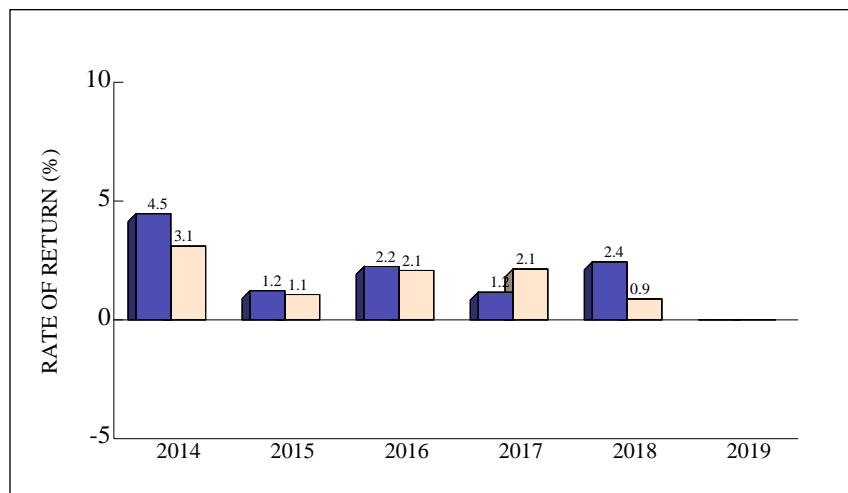
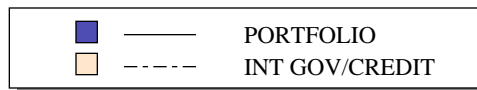
VALUE ASSUMING  
 BLENDED RATE \$ 78,948,202

	LAST QUARTER	PERIOD 9/10 - 12/18
BEGINNING VALUE	\$ 55,784,593	\$ 43,698,759
NET CONTRIBUTIONS	-953	4,183,144
<u>INVESTMENT RETURN</u>	<u>1,115,257</u>	<u>9,016,994</u>
ENDING VALUE	\$ 56,898,897	\$ 56,898,897
INCOME	438,004	11,264,812
<u>CAPITAL GAINS (LOSSES)</u>	<u>677,253</u>	<u>- 2,247,818</u>
INVESTMENT RETURN	1,115,257	9,016,994

**TOTAL RETURN COMPARISONS**



Intermediate Fixed Universe

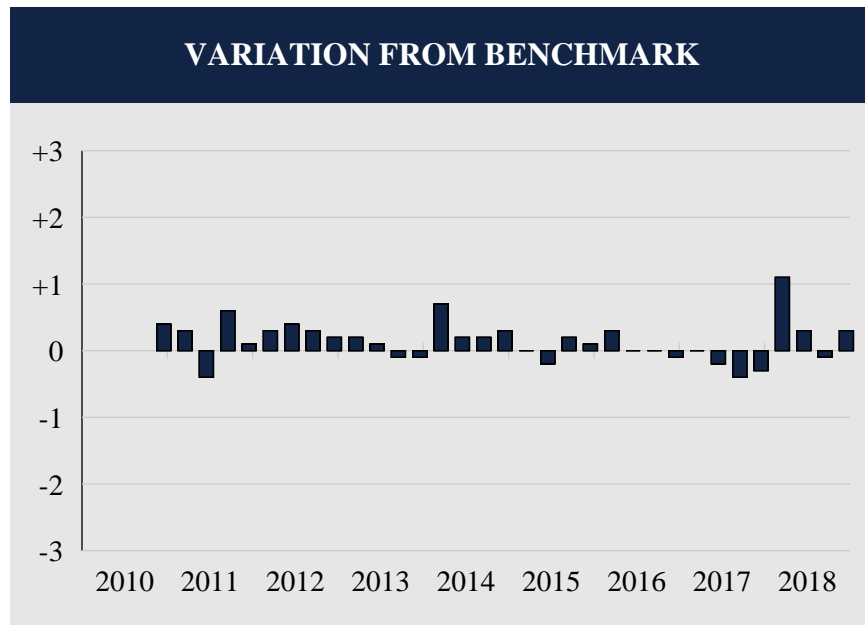


	QTR	2 QTRS	3 QTRS	YEAR	-----ANNUALIZED-----	
					3 YRS	5 YRS
RETURN	2.0	2.1	2.3	2.4	1.9	2.3
(RANK)	(5)	(7)	(4)	(2)	(57)	(36)
5TH %ILE	2.0	2.1	2.3	1.8	2.9	3.0
25TH %ILE	1.6	1.9	2.0	1.3	2.2	2.5
MEDIAN	1.4	1.8	1.9	1.0	2.0	2.2
75TH %ILE	1.1	1.5	1.7	0.7	1.8	2.0
95TH %ILE	0.4	1.0	1.0	0.1	1.6	1.7
<i>Int G/C</i>	<i>1.7</i>	<i>1.9</i>	<i>1.9</i>	<i>0.9</i>	<i>1.7</i>	<i>1.9</i>

Intermediate Fixed Universe

### TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: INTERMEDIATE GOV/CREDIT

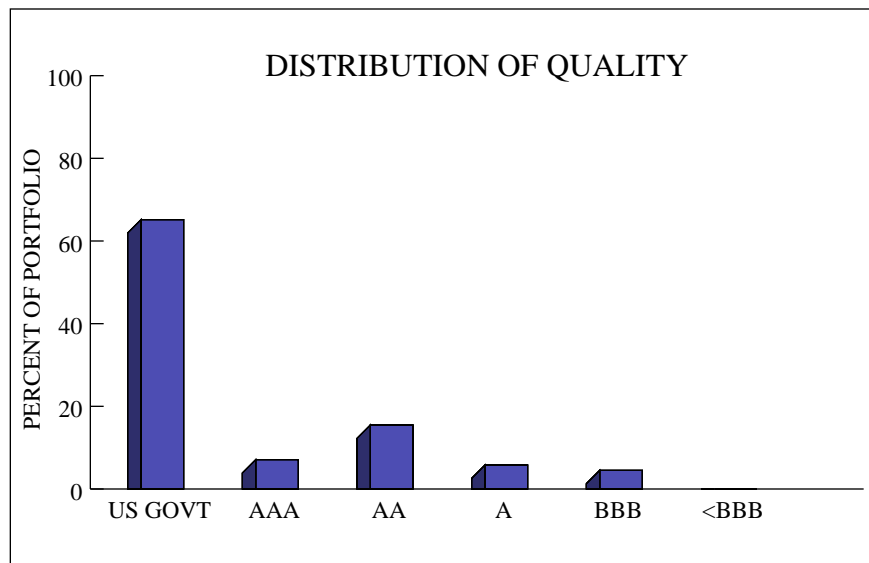
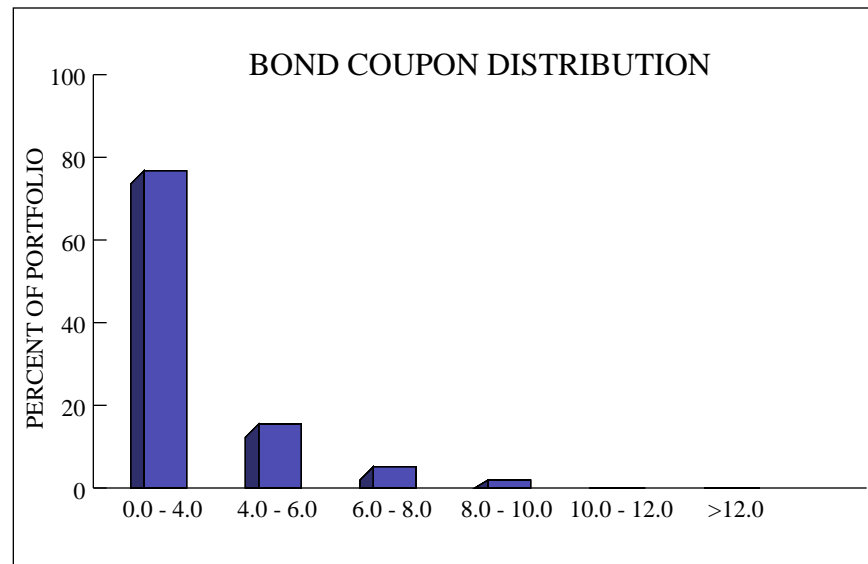
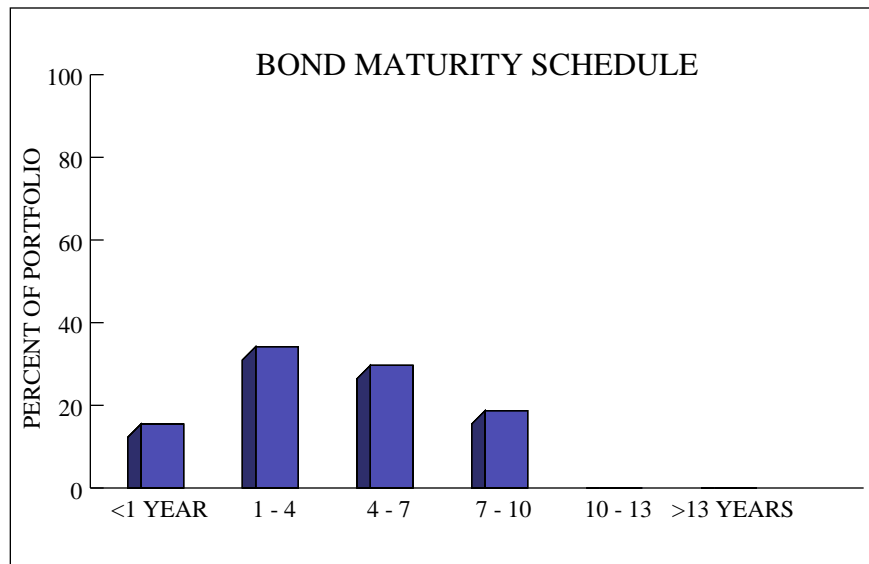


RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
12/10	-1.0	-1.4	0.4
3/11	0.6	0.3	0.3
6/11	1.7	2.1	-0.4
9/11	3.0	2.4	0.6
12/11	0.9	0.8	0.1
3/12	0.9	0.6	0.3
6/12	1.9	1.5	0.4
9/12	1.7	1.4	0.3
12/12	0.5	0.3	0.2
3/13	0.5	0.3	0.2
6/13	-1.6	-1.7	0.1
9/13	0.5	0.6	-0.1
12/13	-0.1	0.0	-0.1
3/14	1.7	1.0	0.7
6/14	1.4	1.2	0.2
9/14	0.2	0.0	0.2
12/14	1.2	0.9	0.3
3/15	1.4	1.4	0.0
6/15	-0.8	-0.6	-0.2
9/15	1.2	1.0	0.2
12/15	-0.6	-0.7	0.1
3/16	2.7	2.4	0.3
6/16	1.6	1.6	0.0
9/16	0.1	0.1	0.0
12/16	-2.2	-2.1	-0.1
3/17	0.8	0.8	0.0
6/17	0.7	0.9	-0.2
9/17	0.2	0.6	-0.4
12/17	-0.5	-0.2	-0.3
3/18	0.1	-1.0	1.1
6/18	0.3	0.0	0.3
9/18	0.1	0.2	-0.1
12/18	2.0	1.7	0.3

<b>Total Quarters Observed</b>	<b>33</b>
<b>Quarters At or Above the Benchmark</b>	<b>24</b>
<b>Quarters Below the Benchmark</b>	<b>9</b>
<b>Batting Average</b>	<b>.727</b>



**BOND CHARACTERISTICS**



	<b>PORTFOLIO</b>	<b>INT GOV/CREDIT</b>
No. of Securities	89	4,853
Duration	3.40	3.87
YTM	2.86	2.99
Average Coupon	3.12	2.67
Avg Maturity / WAL	3.91	4.28
Average Quality	AAA	USG-AAA