

**CITY OF FORT LAUDERDALE  
POLICE AND FIRE RETIREMENT SYSTEM**

---

**PERFORMANCE REVIEW  
DECEMBER 31, 2019**



## TABLE OF CONTENTS

<b>Market Commentary</b>	<b>1</b>
<b>Performance Review</b>	
<b>Total Fund</b>	<b>2</b>
<b>Domestic Equity</b>	<b>3</b>
<b>International Equity</b>	<b>4</b>
<b>Fixed Income</b>	<b>5</b>
<b>Alternative Investments</b>	<b>6</b>
<b>Investment Policy Statement</b>	<b>7</b>
<b>Appendix</b>	<b>8</b>
<b>Important Disclosures</b>	<b>9</b>

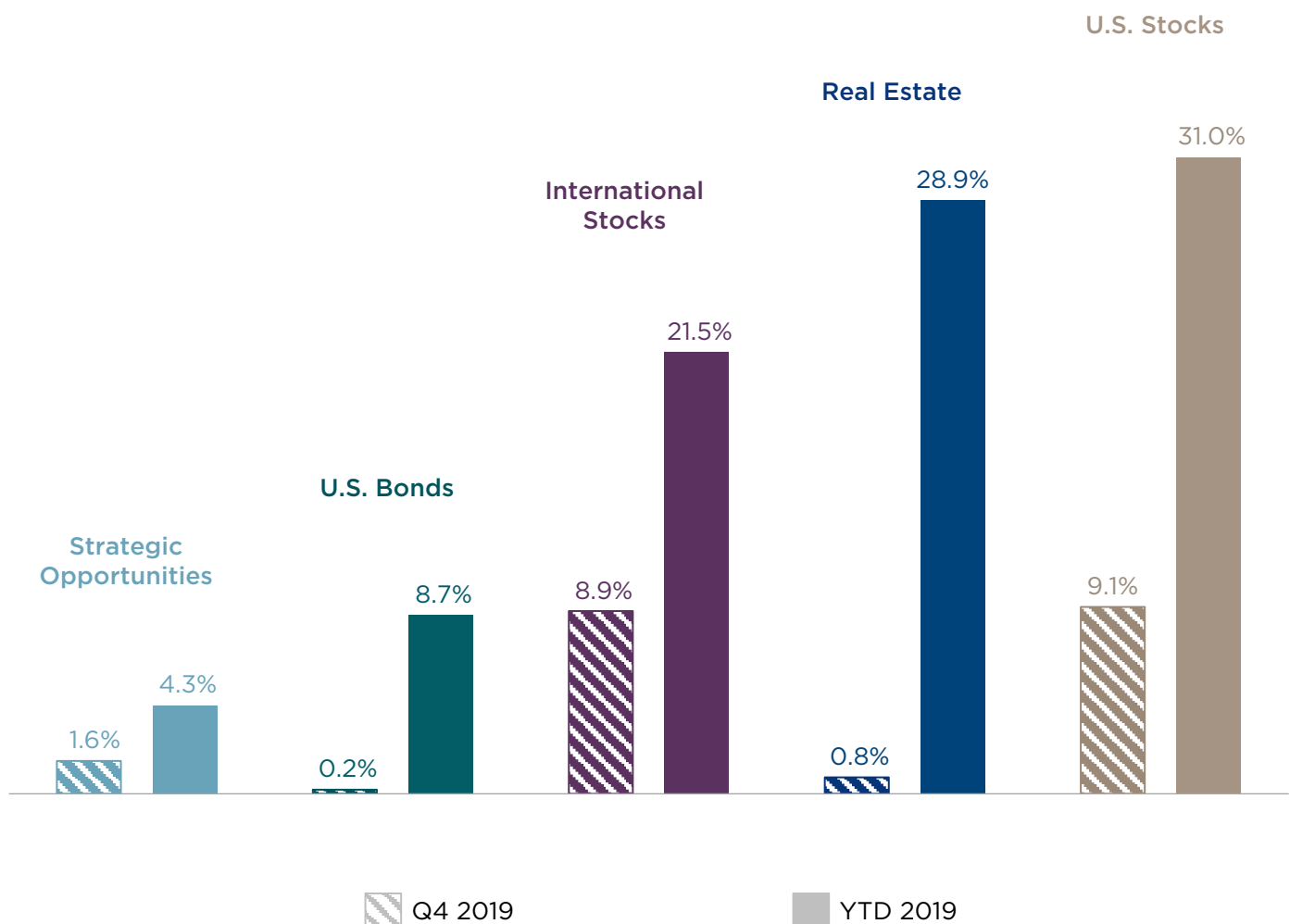
---



## STRONG FINISH TO 2019

All asset classes posted solid results for 2019. U.S. and international stocks and bonds performed well as the Federal Reserve and other central banks implemented policies to counter fears of slowing global economic growth. Despite distracting headlines along the way, patient investors were rewarded with generous gains during this news-driven year.

- While the economy grew only modestly in 2019, U.S. stocks posted their best year since 2013, aided by easing U.S.-China trade tensions and a boost from the Fed. The technology sector was especially strong last year.
- International developed and emerging market stocks also posted strong gains last year despite headwinds created by sluggish economic growth in Europe and China and a strong U.S. dollar.
- Bonds recorded their best year in more than a decade as interest rates fell significantly during the calendar year.
- Public real estate benefited from the helpful combination of low interest rates and favorable market demand.
- Strategic opportunities posted a modest gain for the year but lagged other asset classes.



Asset class returns are represented by the following indexes: Russell 3000 Index (U.S. stocks), MSCI All-Country World ex USA Index (international stocks), Bloomberg Barclays U.S. Aggregate Bond Index (U.S. bonds), Dow Jones U.S. Real Estate Index (real estate), and HFRX Absolute Return Index (strategic opportunities).

## DIGGING DEEPER – STOCKS AND BONDS

### Equities

	Q4 2019	YTD 2019	Last 12 Months
U.S. Stocks	9.1%	31.5%	31.5%
- Q4 Best Sector: Technology	14.4%	50.3%	50.3%
- Q4 Worst Sector: Real Estate	-0.5%	29.0%	29.0%
International Stocks	8.2%	22.0%	22.0%
Emerging Market Stocks	11.8%	18.4%	18.4%

### Fixed Income

	12.31.19	9.30.19	12.31.18
1-Year U.S. Treasury Yield	1.59%	1.75%	2.63%
10-Year U.S. Treasury Yield	1.92%	1.68%	2.69%
	QTD 2019	YTD 2019	Last 12 Months
10-Year U.S. Treasury Total Return	-1.77%	8.90%	8.90%

### Equities – Relative Performance by Market Capitalization and Style

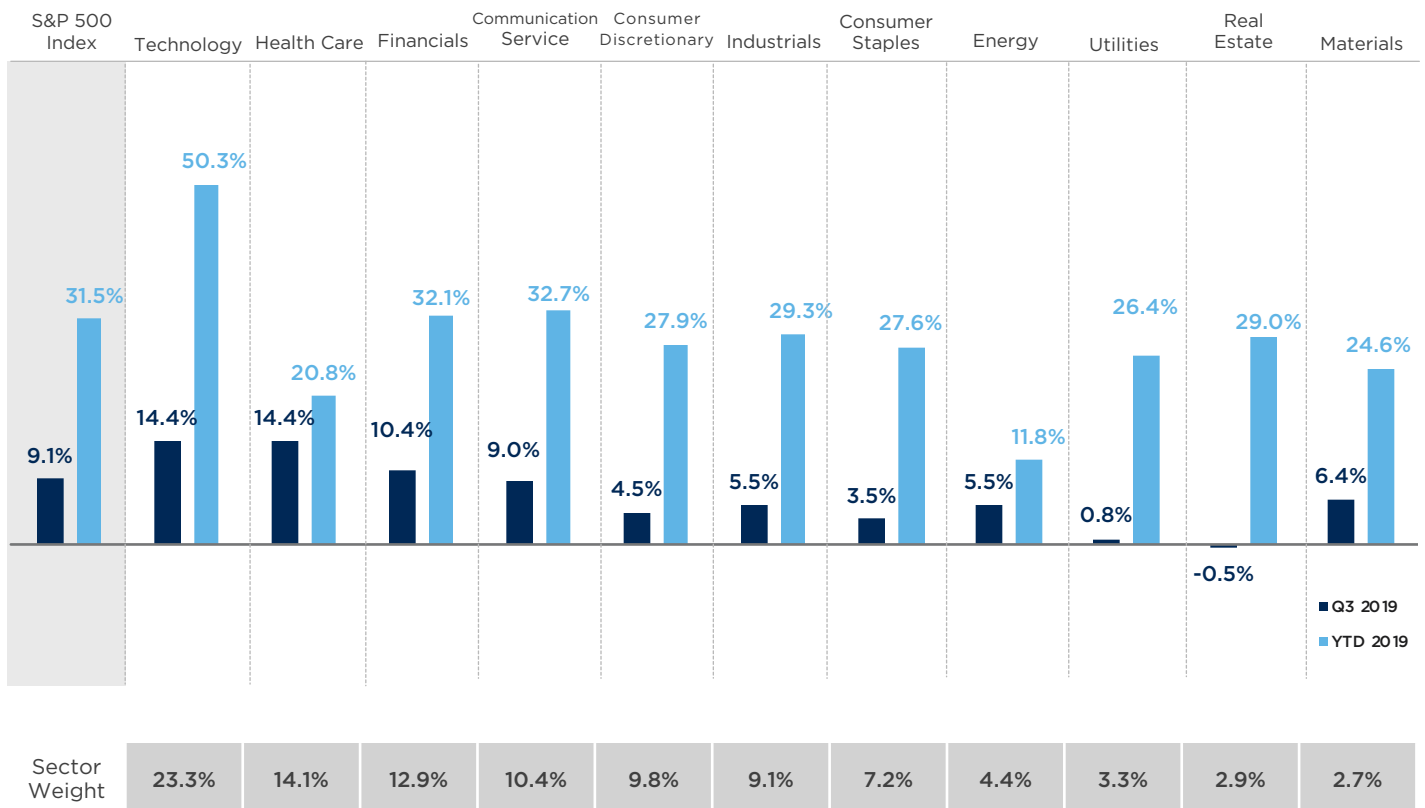
	Q4 2019			YTD 2019			Last 12 Months				
	Value	Blend	Growth	Value	Blend	Growth	Value	Blend	Growth		
Large	7.4%	9.1%	10.6%	Large	26.5%	31.5%	36.4%	Large	26.5%	31.5%	36.4%
Mid	6.4%	7.1%	8.2%	Mid	27.1%	30.5%	35.5%	Mid	27.1%	30.5%	35.5%
Small	8.5%	9.9%	11.4%	Small	22.4%	25.5%	28.5%	Small	22.4%	25.5%	28.5%

Asset class returns are represented by the following indexes: S&P 500 Index (U.S. stocks), MSCI EAFE Index (international stocks), and MSCI Emerging Markets Index (emerging market stocks). Relative performance by market capitalization and style is based upon the Russell U.S. Style Indexes except for large-cap blend, which is based upon the S&P 500 Index. Best and worst sectors are based on returns from the quarter. Source: Bloomberg, U.S. Treasury, Barclays Live.

## DIGGING DEEPER: U.S. EQUITY MARKETS

The S&P 500 Index is a market-capitalization-weighted index of U.S. large-cap stocks across a diverse set of industry sectors. The stocks represented in those 11 sectors generated a range of returns in the second quarter and for the year-to-date period.

Returns by S&P 500 Sector



All calculations are cumulative total return, not annualized, including dividends for the stated period. Past performance is not indicative of future returns. Source: Bloomberg.

## DIGGING DEEPER: FIXED INCOME MARKET

Interest Rates	3 Month	2 Year	5 Year	10 Year	30 Year	Mortgage Rate
September 2019	1.88%	1.63%	1.55%	1.68%	2.12%	3.72%
December 2019	1.55%	1.58%	1.69%	1.92%	2.39%	3.86%
Change	-0.33%	-0.05%	0.14%	0.24%	0.27%	0.14%

The Treasury yield curve steepened in the fourth quarter and is no longer inverted. Shorter maturity bond yields fell after the Federal Reserve cut overnight rates by 25 bps.

Bloomberg Barclays U.S. Aggregate Bond Index	Yield to Worst	Duration	Total Return Q4 2019	Spread	Treasury Rate	AA Spread	BBB Spread
September 2019	2.26%	5.78	0.18%	0.46%	1.80%	0.55%	1.52%
December 2019	2.31%	5.87		0.39%	1.92%	0.50%	1.25%
Change	0.05%	0.09		-0.07%	0.12%	-0.05%	-0.27%

After several strong quarters, the Bloomberg Barclays U.S. Aggregate Bond Index returned a modest 0.18% for the fourth quarter. A decline in BBB spreads supported performance, while an increase in overall interest rates held it back.

Bloomberg Barclays U.S. Long Credit Index	Yield to Worst	Duration	Total Return Q4 2019	Spread	Treasury Rate	AA Spread	BBB Spread
September 2019	3.64%	14.26	1.18%	1.67%	1.97%	1.05%	2.10%
December 2019	3.63%	14.27		1.39%	2.24%	0.91%	1.76%
Change	-0.01%	0.01		-0.28%	0.27%	-0.14%	-0.34%

The Bloomberg Barclays U.S. Long Credit Index returned 1.18% for the fourth quarter. Spread tightening, particularly in BBB-rated bonds drove returns, while an increase in long Treasury rates detracted from performance.

Source: Bloomberg, Barclays Live, CAPTRUST, U.S. Treasury.



## ECONOMIC OUTLOOK

The global economic picture typically consists of favorable attributes (tailwinds) and challenges (headwinds). Here, we provide our perspective on both and offer our view on which side has the upper hand.

### TAILWINDS

#### Consumer Optimism

- The U.S. consumer, a key driver of the economy, remains healthy.
- With unemployment at a 50-year low and plentiful job openings, consumer confidence is near 10-year highs. Other consumer health measures remain stable.
- From here, continued employment growth will be influenced by business confidence, which has suffered from trade uncertainty.



#### More Stimulus

- The Fed lowered short-term interest rates and is once again expanding its balance sheet by buying Treasuries.
- Other central banks are also in stimulus mode. Their actions have put a floor under global growth, as shown by a bottoming of manufacturing indexes in the U.S., China, and Germany.
- Accommodative monetary policy has given investors a green light to buy risky assets like stocks.

#### A China Trade Truce...

- The U.S. and China have reached a phase one trade deal, although the details remain elusive.
- Despite the lack of specifics, the announcement indicates a positive direction and de-escalation of tensions, which has been enough to boost the spirits of investors and business executives.

### HEADWINDS

#### ...But Linger Trade Uncertainty

- Despite the phase one announcement, investors are concerned that China trade tensions could re-escalate as phase two negotiations begin.
- With the 2020 election approaching, we could see trade rhetoric and tensions shift to other parts of the world.
- The potential for auto tariffs, for example, could threaten the fragile recoveries in Europe and China.



#### Geopolitical Uncertainty

- Investors remain wary of risks, including an early-2020 Brexit, U.S. elections, unrest in Hong Kong, and Middle East tensions.
- With no definitive Democrat frontrunner, the U.S. presidential outlook remains cloudy. Institutional investors expect the president's reelection, but his low approval rating and impeachment trial raise uncertainty.

#### Corporate Earnings Worries

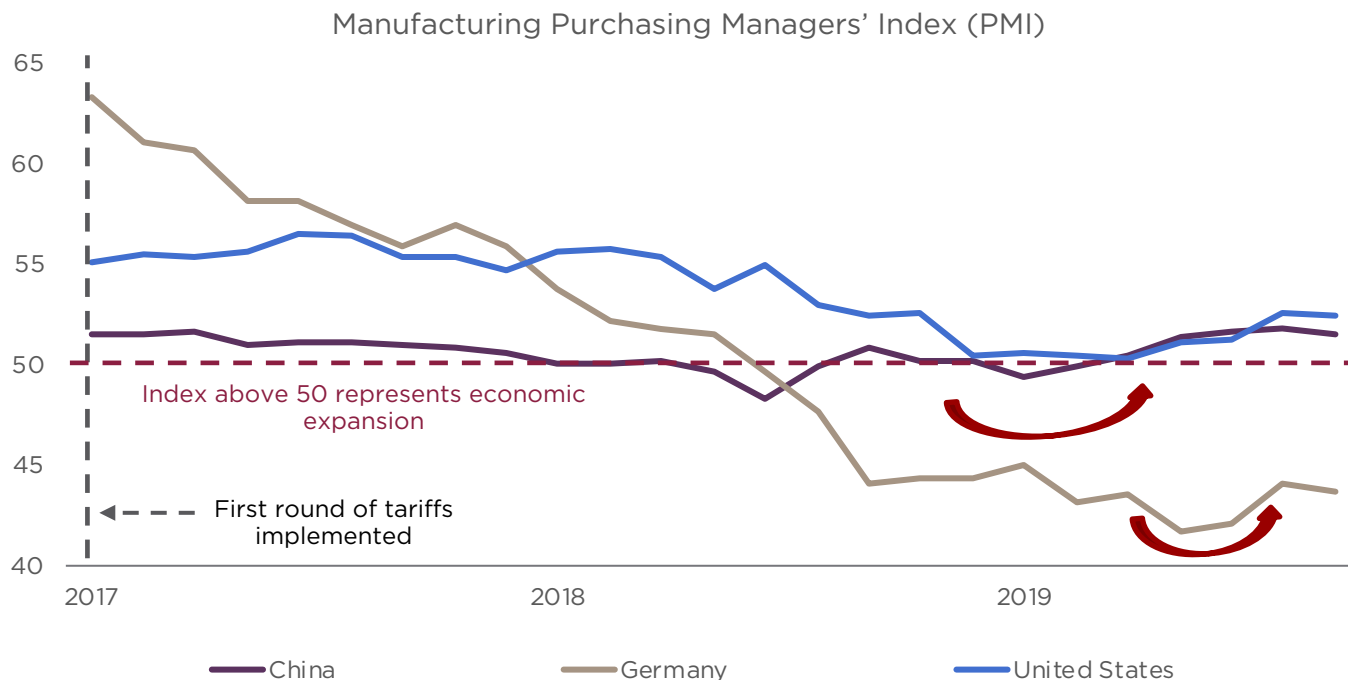
- In 2019, more than 90% of the S&P 500's return came from higher valuations, as opposed to earnings growth.
- While 2020 earnings estimates reflect an improvement, estimates tend to start high and decline as the future becomes clearer.
- Corporate profit margins may face pressure from rising input costs and higher wages in 2020.

2019 finished far better than it started, as recession fears ebbed, trade tensions cooled, and global monetary stimulus boosted investors' appetites for risky assets.



## GLOBAL ECONOMIC STABILIZATION

Global economic activity is recovering, thanks to supportive monetary policy moves that have kept interest rates low and a better outlook for U.S.-China trade. Over the past two years, trade uncertainty has been a major headwind to global growth. But with waning U.S.-China tensions and the anticipatory export pull-forward behind us, global manufacturing activity, as reflected in Manufacturing Purchasing Managers' Index (PMI) data, has improved. Looking ahead, we believe there is further upside if the policy backdrop remains supportive.



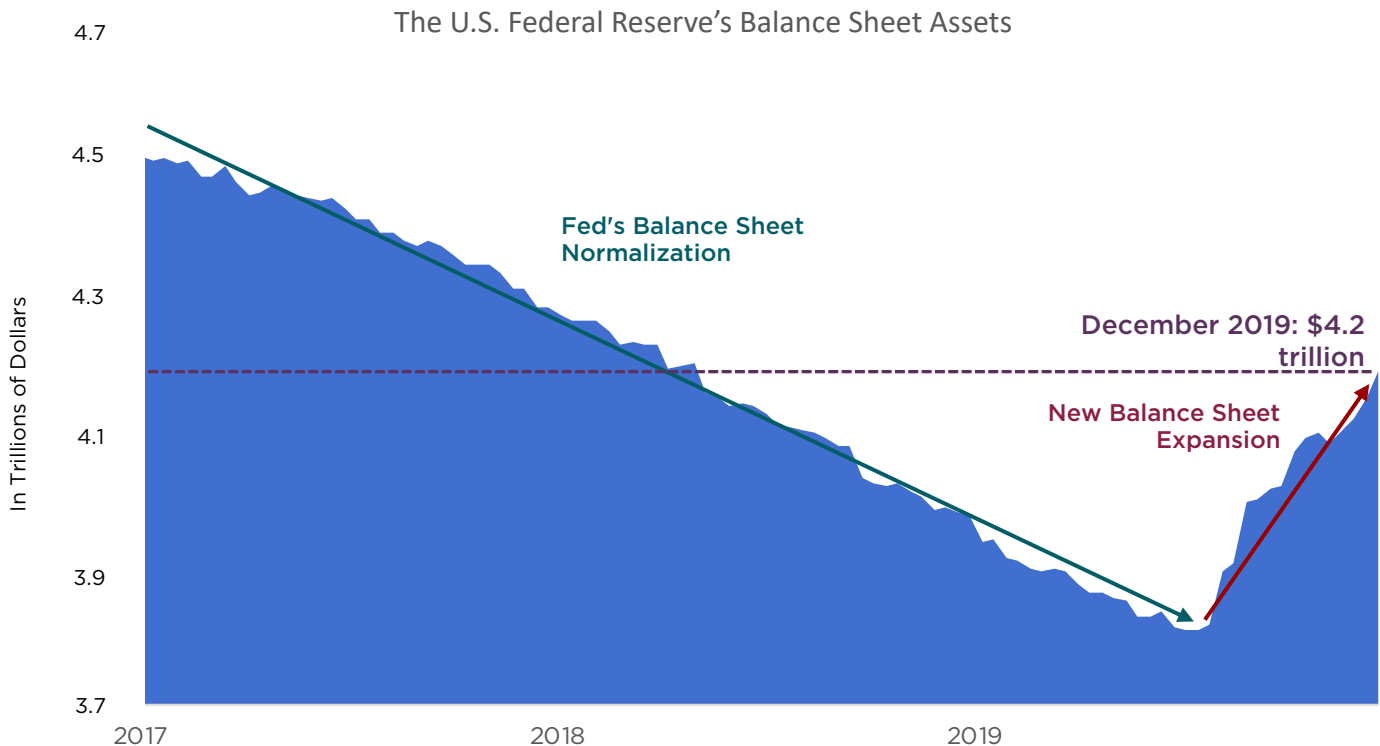
Sources: Bloomberg, Markit, National Federation of Independent Business, CAPTRUST Research

### OBSERVATIONS

- China’s stimulus over the past 18 months continues to support economic recovery, as shown by improving PMI readings since July. This is significant because China’s manufacturing activity represents a leading indicator of global economic activity.
- Manufacturing activity in Germany’s export-oriented economy has declined sharply since the start of the U.S.-China trade dispute. Germany’s PMI, while still weak, has bottomed and started to recover.
- U.S. manufacturing PMI has remained in expansion over the course of trade dispute.
- In November, the NFIB’s Small Business Optimism Index posted its largest month-over-month gain since May 2018.
- Two years after passage of the Tax Cuts and Jobs Act, which included sweeteners for small businesses, owners continue to hire, raise wages, and invest in their businesses.

## MORE STIMULUS FROM THE FED

The Federal Reserve reversed course with its monetary policy in 2019. It paused its balance sheet normalization program and expanded its purchases of U.S. Treasuries to provide market liquidity. In contrast to its four 2018 rate hikes, the Fed cut its policy rate three times in 2019, for a total reduction of 0.75%. Although we do not expect more cuts in 2020, these measures have boosted investor confidence and market returns.



Sources: Bloomberg, Federal Reserve, CAPTRUST Research

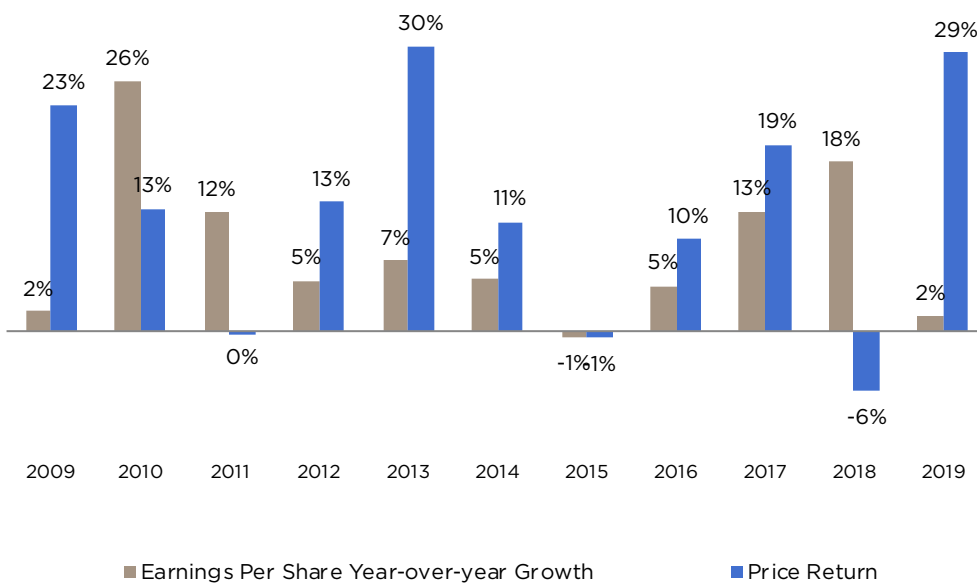
### OBSERVATIONS

- Between 2009 and late 2014, the Fed's balance sheet ballooned as it conducted asset-purchase programs to support economic recovery.
- Starting in late 2017, the Fed's balance sheet shrank as a result of its balance sheet normalization program. But starting in October, the Fed began purchasing Treasuries, swelling its balance sheet to \$4.2 trillion by December.
- Interest rates remain supportive of growth, with a 1.75% fed funds rate—far lower than its 30-year average of 3%.
- Recession is more likely when real interest rates exceed growth rates. Today's inflation-adjusted fed funds rate holds near zero, well below the level that would restrict growth.
- The Treasury yield curve, the yield difference between short- and longer-term Treasuries, has steepened. This suggests improving confidence in future economic conditions.

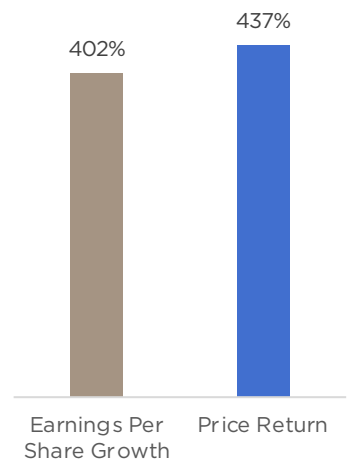
## CORPORATE EARNINGS WORRIES

From 2009 to 2018, most of the S&P 500 Index's price return was generated by earnings growth. In 2019, with very little earnings growth, more than 90% of the index's return was generated by price-to-earnings multiple expansion. This means that stock prices rose because investors were willing to pay more for a dollar of earnings. Although 2020 earnings expectations reflect an improvement from 2019's paltry levels, earnings estimates tend to start high and decline as the future becomes clearer.

S&P 500 Calendar Year Price Return vs Year-over-Year Earnings Per Share Growth



2009-2018 Cumulative Growth



Sources: Bloomberg, National Association for Business Economics, CAPTRUST Research

### OBSERVATIONS

- Last year's increase in price-to-earnings multiples contributed to the S&P 500 Index's best price return since 2013, despite flat earnings growth. This was due in part to higher investor appetite for stocks after the Fed's move toward a stimulative policy stance. With the Fed likely on pause in 2020, market attention will shift toward corporate fundamentals.
- Wall Street analysts project S&P 500 stock profits to expand at a mid-to high-single-digit rate in 2020, compared with just 2% in 2019. They almost always overestimate future earnings and lower their projections as the forecast period nears.
- Rising labor and raw materials costs may compress margins in 2020. According to the NABE Business Condition Survey published in October, material costs rose for a 14th consecutive quarter, with more respondents reporting falling sales and anemic profit margins.

S&P 500 Index: Forward P/E Ratio

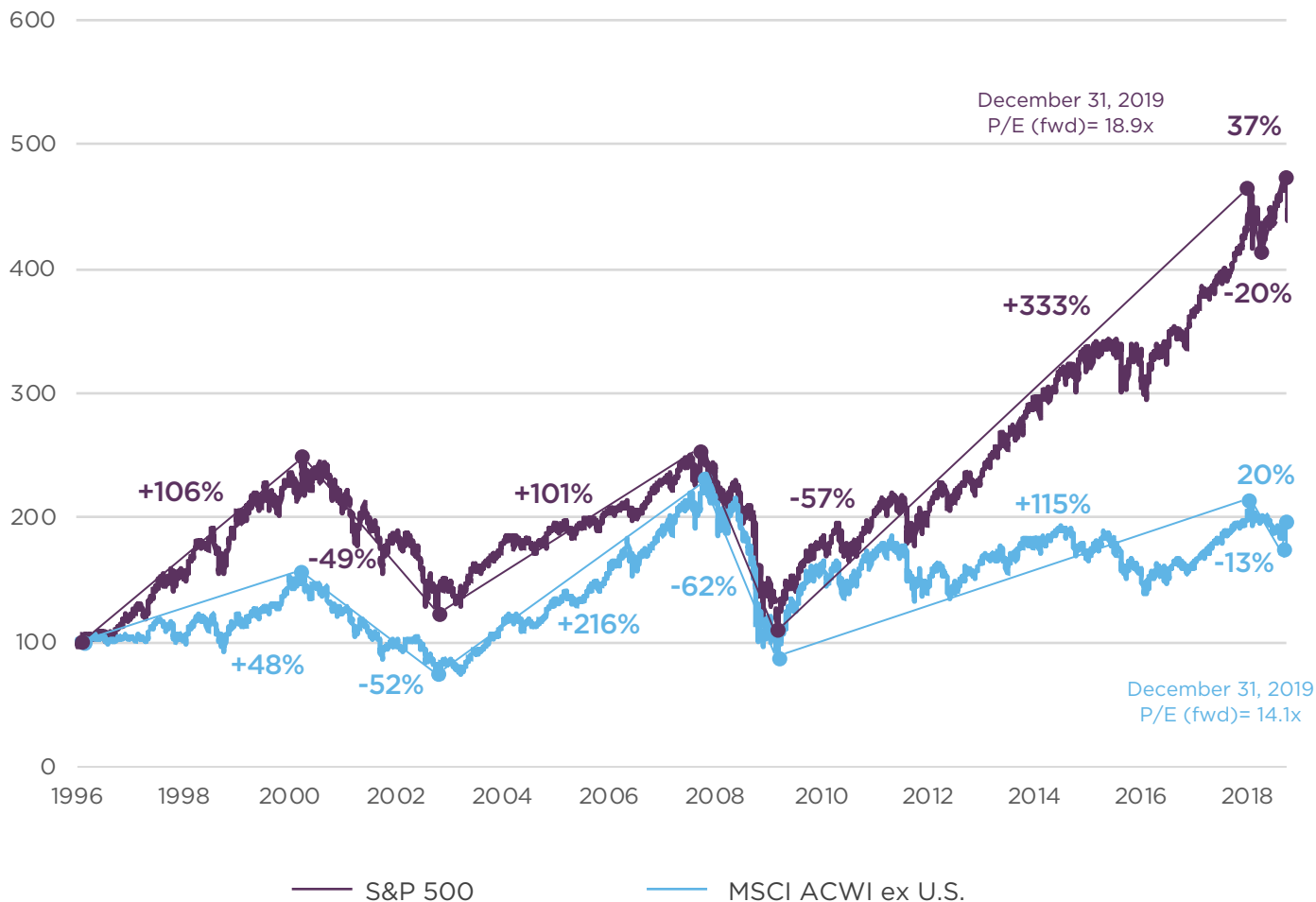


Source: Bloomberg, Robert Shiller, CAPTRUST Research

Valuation Measure	Description	Latest	25-year Average	Std Dev Over-/Under-Valued	Inception Year
P/E	Forward P/E	18.9x	16.6x	0.7x	1994
CAPE	Shiller's P/E	30.9	27.2	0.6	1994
Div. Yield	Dividend Yield	1.8%	2.1%	-1.0%	2006
P/B	Price to Book	3.6	3.0	0.8	1994
P/CF	Price to Cash Flow	12.4	10.0	1.3	2006

Sources: Bloomberg, Robert Shiller, CAPTRUST Research. Price to earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months provided by Bloomberg. Average P/E and standard deviations are calculated using 25 years of history. Shiller's P/E uses trailing 10 years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the current year's consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price to cash flow is price divided by cash flow for next 12 months. Standard deviation over-/under-valued is calculated using the average and standard deviation for each measure.

S&P 500 and MSCI ACWI Excluding U.S. Index Price Return  
(January 1996 = 100)

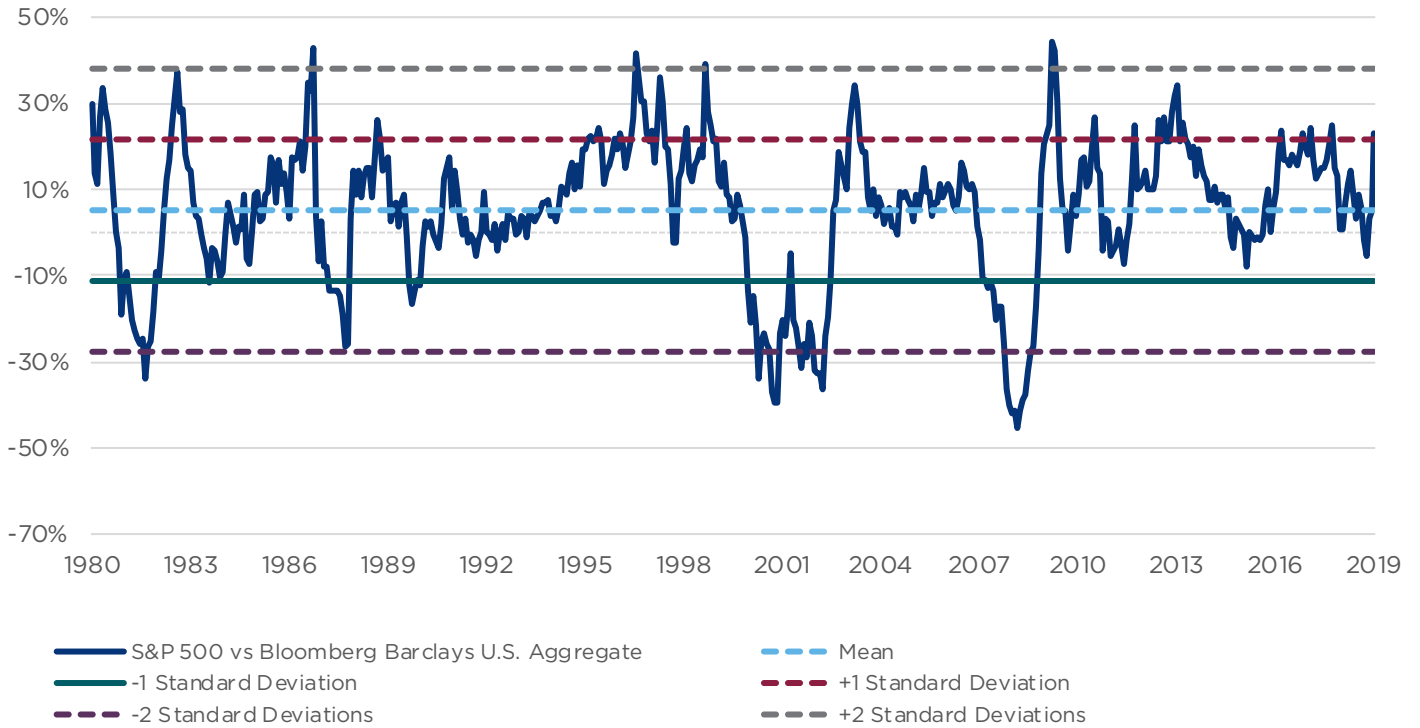


Source: Bloomberg, CAPTRUST Research

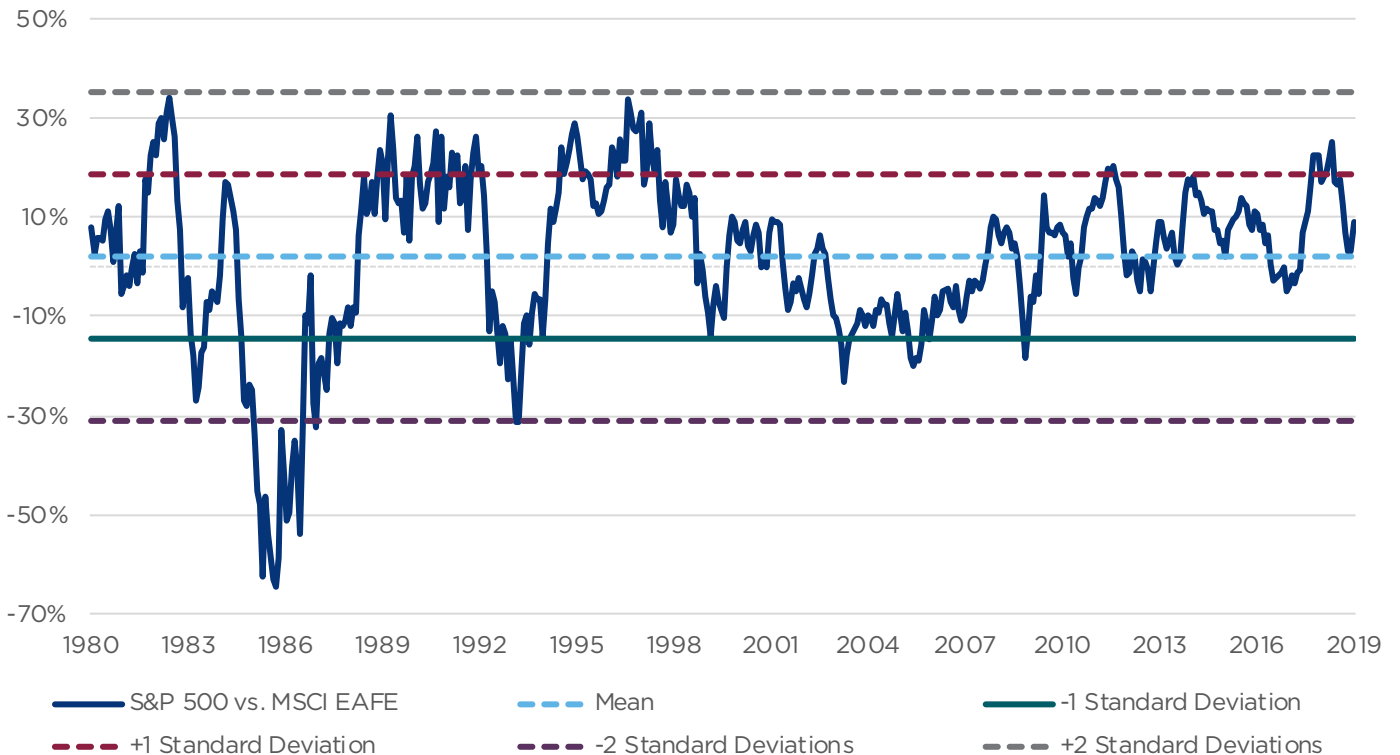
	P/E	Avg Since 12.31.2005	Div Yield	Avg Since 12.31.2005
S&P 500	18.9x	15.1x	1.8%	2.1%
MSCI ACWI ex-U.S.	14.1x	13.1x	3.1%	3.2%

Sources: Bloomberg, CAPTRUST Research. Price to earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months provided by Bloomberg. Returns are cumulative and based on price movement only, and do not include the reinvestment of dividends. Dividend yield is calculated as consensus estimates of dividends for current year, divided by most recent price, as provided by Bloomberg. Past performance is not a reliable indicator of current and future results.

S&P 500 vs. Bloomberg Barclays U.S. Aggregate

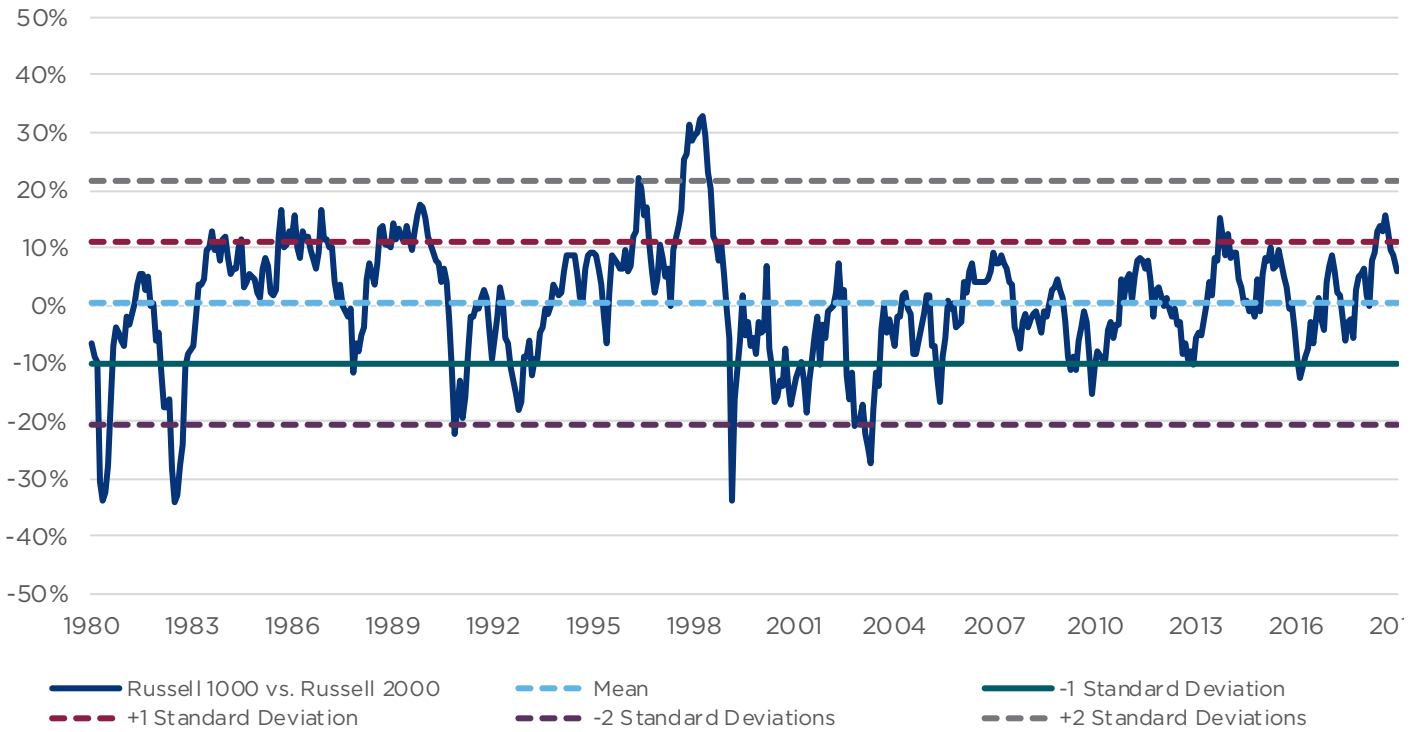


S&P 500 vs. MSCI EAFE



Source: CAPTRUST Research, Bloomberg

Russell 1000 vs. Russell 2000



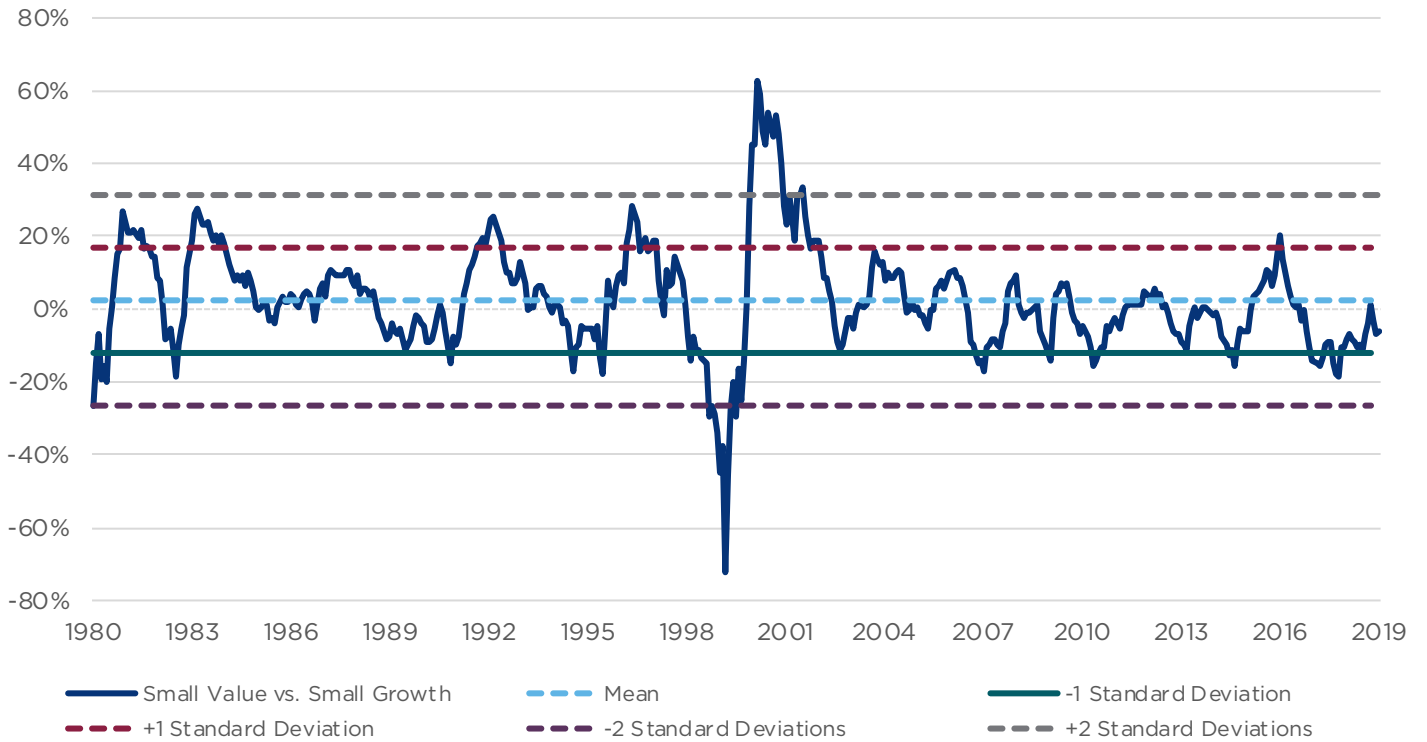
Russell 1000 Value vs. Russell 1000 Growth



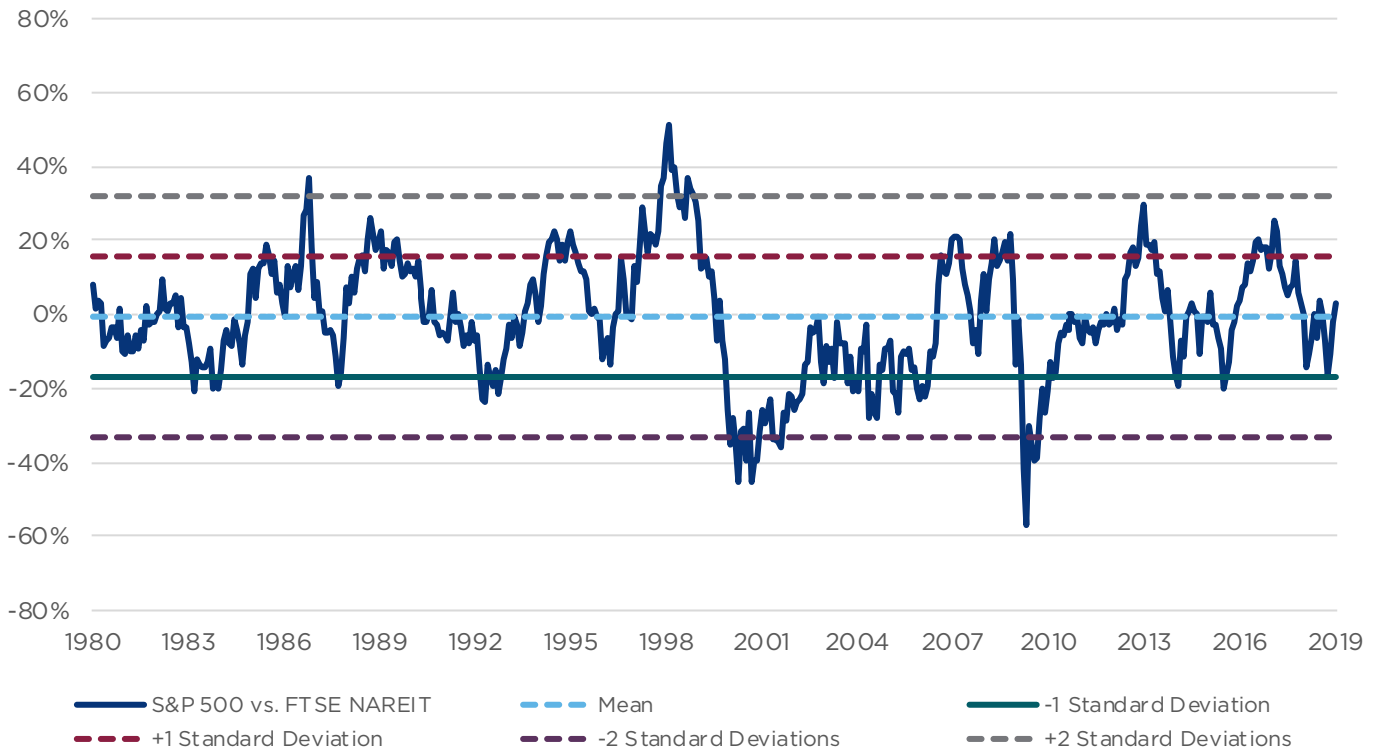
Source: CAPTRUST Research, Bloomberg



Russell 2000 Value vs. Russell 2000 Growth

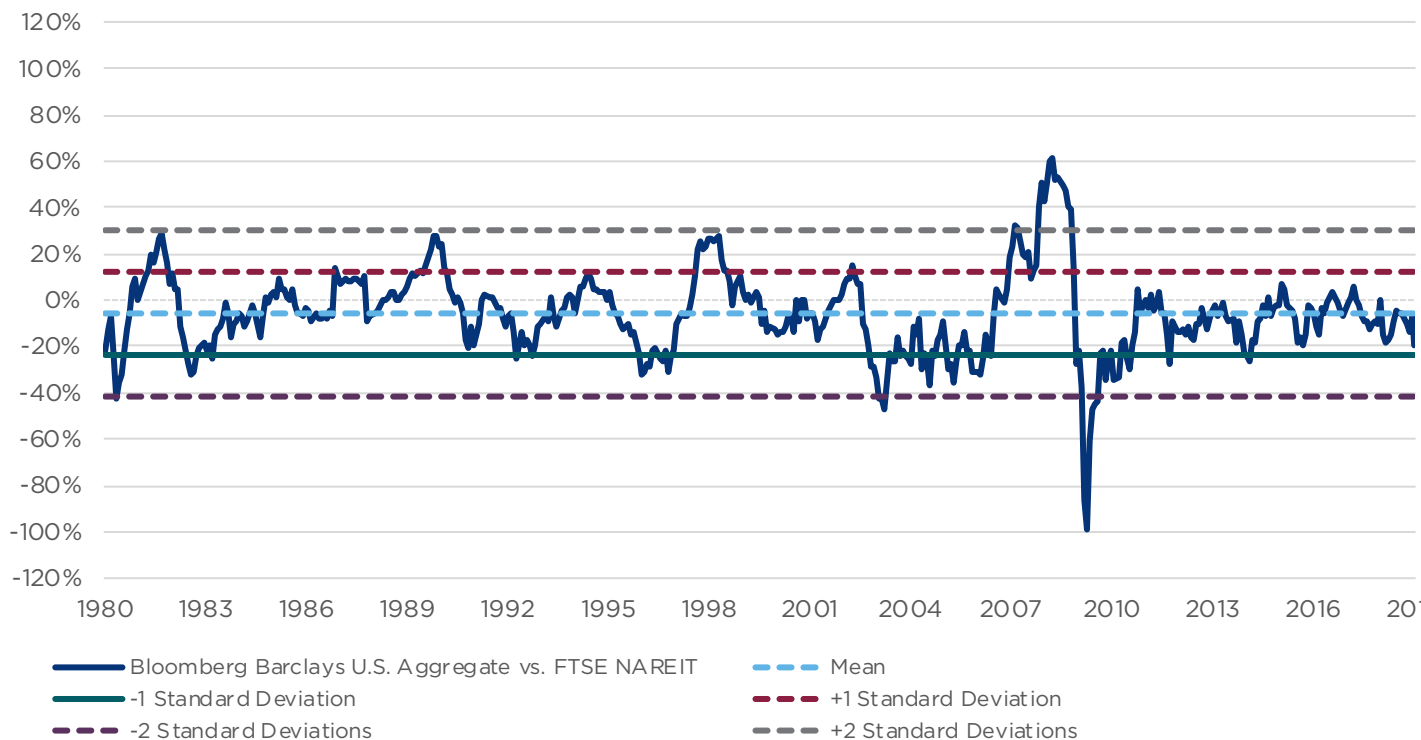


S&P 500 vs. FTSE NAREIT



Source: CAPTRUST Research, Bloomberg

Bloomberg Barclays U.S. Aggregate Vs. FTSE NAREIT



Source: CAPTRUST Research, Bloomberg

2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real Estate 35.92%	International Equities 17.12%	Fixed Income 5.24%	International Equities 42.14%	Real Estate 28.48%	Real Estate 8.69%	Real Estate 17.77%	Small-Cap Stocks 38.82%	Real Estate 30.38%	Strategic Opportunities 2.86%	Small-Cap Stocks 21.31%	International Equities 27.77%	Cash 1.87%	Large-Cap Stocks 31.43%
International Equities 27.16%	Fixed Income 6.97%	Cash 1.51%	Mid-Cap Stocks 40.48%	Small-Cap Stocks 26.85%	Fixed Income 7.84%	International Equities 17.39%	Mid-Cap Stocks 34.76%	Large-Cap Stocks 13.24%	Real Estate 2.14%	Mid-Cap Stocks 13.80%	Large-Cap Stocks 21.69%	Fixed Income 0.01%	Mid-Cap Stocks 30.54%
Small-Cap Stocks 18.37%	Strategic Opportunities 6.68%	Strategic Opportunities -13.09%	Real Estate 28.61%	Mid-Cap Stocks 25.48%	Large-Cap Stocks 1.50%	Mid-Cap Stocks 17.28%	Large-Cap Stocks 33.11%	Mid-Cap Stocks 13.22%	Large-Cap Stocks 0.92%	Large-Cap Stocks 12.05%	Mid-Cap Stocks 18.52%	Strategic Opportunities -0.49%	Real Estate 28.92%
Large-Cap Stocks 15.46%	Large-Cap Stocks 5.77%	Small-Cap Stocks -33.79%	Large-Cap Stocks 28.43%	Large-Cap Stocks 16.10%	Cash 0.10%	Large-Cap Stocks 16.42%	International Equities 15.78%	Fixed Income 5.97%	Fixed Income 0.55%	Real Estate 7.56%	Small-Cap Stocks 14.65%	Real Estate -4.03%	Small-Cap Stocks 25.52%
Mid-Cap Stocks 15.26%	Mid-Cap Stocks 5.60%	Large-Cap Stocks -37.60%	Small-Cap Stocks 27.17%	International Equities 11.60%	Mid-Cap Stocks -1.55%	Small-Cap Stocks 16.35%	Strategic Opportunities 3.58%	Small-Cap Stocks 4.89%	Cash 0.05%	International Equities 5.01%	Real Estate 9.84%	Large-Cap Stocks -4.78%	International Equities 22.13%
Strategic Opportunities 7.43%	Cash 4.71%	Real Estate -37.97%	Fixed Income 5.93%	Fixed Income 6.54%	Strategic Opportunities -3.71%	Fixed Income 4.22%	Real Estate 2.47%	Strategic Opportunities 0.79%	Mid-Cap Stocks -2.44%	Fixed Income 2.65%	Fixed Income 3.54%	Mid-Cap Stocks -9.06%	Fixed Income 8.72%
Cash 5.08%	Small-Cap Stocks -1.57%	Mid-Cap Stocks -41.46%	Cash 0.21%	Cash 0.13%	Small-Cap Stocks -4.18%	Strategic Opportunities 0.88%	Cash 0.07%	Cash 0.03%	Small-Cap Stocks -4.41%	Cash 0.33%	Strategic Opportunities 3.40%	Small-Cap Stocks -11.01%	Strategic Opportunities 4.37%
Fixed Income 4.33%	Real Estate -16.82%	International Equities -45.25%	Strategic Opportunities -3.58%	Strategic Opportunities -0.12%	International Equities -13.33%	Cash 0.11%	Fixed Income -2.02%	International Equities -3.44%	International Equities -5.25%	Strategic Opportunities 0.31%	Cash 0.86%	International Equities -13.78%	Cash 2.28%

Source: Markov Processes, Inc., Bloomberg, Mobius

**Large-Cap Stocks (Russell 1000 Index)**  
The Russell 1000 Index tracks the performance of 1,000 of the largest public companies in the U.S. It includes more than 90% of the total market capitalization of all listed U.S. stocks.

**Mid-Cap Stocks (Russell Mid-Cap Index)**  
The Russell Mid-Cap Index is a market-capitalization-weighted index representing the smallest 800 companies in the Russell 1000 Index.

**Small-Cap Stocks (Russell 2000 Index)**  
The Russell 2000 Index tracks the performance of approximately 2,000 small-cap companies contained in the Russell 3000 Index, which is made up of 3,000 of the biggest U.S. stocks.

**International Equities (MSCI ACWI Ex-US Index)**  
The MSCI ACWI Ex-US Index tracks large- and mid-cap stocks from 22 of 23 developed market countries (excluding the U.S.) and 24 emerging markets countries. This index covers approximately 85% of the global equity opportunity set outside the United States.

**Fixed Income (Bloomberg Barclays U.S. Aggregate Bond Index)**  
The Bloomberg Barclays U.S. Aggregate Bond Index is a market capitalization-weighted index that tracks the majority of U.S.-traded investment grade bonds. The index includes Treasuries, agency bonds, mortgage-backed bonds, corporate bonds, and a small amount of foreign bonds traded in United States.

**Real Estate (Dow Jones US Real Estate Index)**  
The Dow Jones US Real Estate Index tracks the performance of publicly traded real estate equity. It is comprised of companies whose charter is the equity ownership and operation of commercial real estate.

**Strategic Opportunities (HFRX Absolute Return Index)**  
The HFRX Absolute Return Index measures the overall returns of hedge funds. Since hedge funds explore unique investment strategies and seek to generate absolute returns rather than focus on beating a benchmark, the HFRX is representative of all hedge fund strategies.

**Cash (BofA Merrill Lynch 3-Month Treasury Bill Index)**  
The BofA Merrill Lynch 3-Month Treasury Bill Index tracks the performance of the U.S. dollar denominated U.S. Treasury Bills publicly issued in the U.S. domestic market with a remaining term to maturity of less than 3 months.

The information contained in this report is from sources believed to be reliable, but not warranted by CAPTRUST Financial Advisors to be accurate or complete.

# INDEX PERFORMANCE

Period Ending 12.31.19 | Q4 19

INDEXES	Q4 2019	YTD	2018	2017	2016	2015	2014	1 YEAR	3 YEAR	5 YEAR	10 YEAR
90-Day U.S. Treasury	0.46%	2.28%	1.87%	0.86%	0.33%	0.05%	0.03%	2.28%	1.67%	1.07%	0.58%
Bloomberg Barclays Government 1-3 Year	0.51%	3.59%	1.58%	0.45%	0.87%	0.57%	0.64%	3.59%	1.86%	1.40%	1.25%
Bloomberg Barclays Intermediate Govt	0.01%	5.20%	1.43%	1.14%	1.05%	1.18%	2.52%	5.20%	2.57%	1.99%	2.38%
Bloomberg Barclays Muni Bond	0.74%	7.54%	1.28%	5.45%	0.25%	3.30%	9.05%	7.54%	4.72%	3.53%	4.34%
Bloomberg Barclays Intermediate Govt/Credit	0.37%	6.80%	0.88%	2.14%	2.08%	1.07%	3.13%	6.80%	3.24%	2.57%	3.05%
Bloomberg Barclays Intermediate Credit	0.98%	9.52%	0.01%	3.67%	3.68%	0.90%	4.16%	9.52%	4.33%	3.50%	4.25%
Bloomberg Barclays Aggregate Bond	0.18%	8.72%	0.01%	3.54%	2.65%	0.55%	5.97%	8.72%	4.03%	3.05%	3.75%
Bloomberg Barclays Corporate IG Bond	1.18%	14.54%	-2.51%	6.42%	6.11%	-0.68%	7.46%	14.54%	5.92%	4.60%	5.54%
Bloomberg Barclays High Yield	2.61%	14.32%	-2.08%	7.50%	17.13%	-4.47%	2.45%	14.32%	6.37%	6.13%	7.57%
Bloomberg Barclays Global Aggregate	0.49%	6.84%	-1.20%	7.39%	2.09%	-3.15%	0.59%	6.84%	4.27%	2.31%	2.48%
Bloomberg Barclays U.S. Long Corporate	1.33%	23.89%	-7.24%	12.09%	10.97%	-4.61%	15.73%	23.89%	8.81%	6.40%	7.99%
S&P 500	9.07%	31.49%	-4.38%	21.83%	11.96%	1.38%	13.69%	31.49%	15.27%	11.70%	13.56%
Dow Jones Industrial Average	6.67%	25.34%	-3.48%	28.11%	16.50%	0.21%	10.04%	25.34%	15.73%	12.59%	13.40%
NASDAQ Composite	12.17%	35.23%	-3.88%	28.24%	7.50%	5.73%	13.40%	35.23%	18.57%	13.63%	14.74%
Russell 1000 Value	7.41%	26.54%	-8.27%	13.66%	17.34%	-3.83%	13.45%	26.54%	9.68%	8.29%	11.80%
Russell 1000	9.04%	31.43%	-4.78%	21.69%	12.05%	0.92%	13.24%	31.43%	15.05%	11.48%	13.54%
Russell 1000 Growth	10.62%	36.39%	-1.51%	30.21%	7.08%	5.67%	13.05%	36.39%	20.49%	14.63%	15.22%
Russell Mid-Cap Value Index	6.36%	27.06%	-12.29%	13.34%	20.00%	-4.78%	14.75%	27.06%	8.10%	7.62%	12.41%
Russell Mid-Cap Index	7.06%	30.54%	-9.06%	18.52%	13.80%	-2.44%	13.22%	30.54%	12.06%	9.33%	13.19%
Russell Mid-Cap Growth Index	8.17%	35.47%	-4.75%	25.27%	7.33%	-0.20%	11.90%	35.47%	17.36%	11.60%	14.24%
MSCI EAFE	8.21%	22.66%	-13.36%	25.62%	1.51%	-0.39%	-4.48%	22.66%	10.11%	6.18%	6.00%
MSCI ACWI ex U.S.	8.99%	22.13%	-13.78%	27.77%	5.01%	-5.25%	-3.44%	22.13%	10.40%	6.01%	5.45%
Russell 2000 Value	8.49%	22.39%	-12.86%	7.84%	31.74%	-7.47%	4.22%	22.39%	4.77%	6.99%	10.56%
Russell 2000	9.94%	25.52%	-11.01%	14.65%	21.31%	-4.41%	4.89%	25.52%	8.59%	8.23%	11.83%
Russell 2000 Growth	11.39%	28.48%	-9.31%	22.17%	11.32%	-1.38%	5.60%	28.48%	12.49%	9.34%	13.01%
MSCI Emerging Markets	11.93%	18.90%	-14.25%	37.75%	11.60%	-14.60%	-1.82%	18.90%	11.99%	6.01%	4.04%
Dow Jones U.S. Real Estate Index	0.79%	28.92%	-4.03%	9.84%	7.56%	2.14%	27.24%	28.92%	10.77%	8.35%	11.96%
HFRX Absolute Return Index	1.57%	4.37%	-0.49%	3.39%	0.31%	2.86%	0.79%	4.37%	2.40%	2.07%	1.16%
Consumer Price Index (Inflation)	0.17%	2.38%	1.91%	2.11%	2.07%	0.73%	0.76%	2.38%	2.13%	1.84%	1.76%
<b>BLENDED BENCHMARKS</b>	<b>Q4 2019</b>	<b>YTD</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>1 YEAR</b>	<b>3 YEAR</b>	<b>5 YEAR</b>	<b>10 YEAR</b>
25% S&P 500/5% MSCI EAFE/70% BB Agg	2.76%	14.96%	-1.55%	8.93%	5.00%	0.92%	7.37%	14.96%	7.23%	5.49%	6.45%
30% S&P 500/10% MSCI EAFE/60% BB Agg	3.60%	16.79%	-2.44%	10.90%	5.43%	0.95%	7.21%	16.79%	8.11%	6.11%	7.09%
35% S&P 500/15% MSCI EAFE/50% BB Agg	4.44%	18.63%	-3.34%	12.90%	5.85%	0.97%	7.04%	18.63%	8.99%	6.71%	7.71%
40% S&P 500/20% MSCI EAFE/40% BB Agg	5.29%	20.48%	-4.25%	14.93%	6.26%	0.96%	6.87%	20.48%	9.86%	7.30%	8.31%
45% S&P 500/25% MSCI EAFE/30% BB Agg	6.15%	22.33%	-5.17%	16.99%	6.65%	0.93%	6.69%	22.33%	10.72%	7.88%	8.90%
60% S&P 500/40% Bloomberg Barclays Agg	5.46%	22.16%	-2.28%	14.25%	8.41%	1.40%	10.75%	22.16%	10.90%	8.44%	9.87%

The opinions expressed in this report are subject to change without notice. This material has been prepared or is distributed solely for informational purposes and is not a solicitation or an offer to buy any security or to participate in any investment strategy. The performance data quoted represents past performance and does not guarantee future results. Index averages are provided for comparison purposes only. The information and statistics in this report are from sources believed to be reliable but are not guaranteed to be accurate or complete. CAPTRUST Financial Advisors is an investment adviser registered under the Investment Advisers Act of 1940. Sources: Morningstar Direct, MPI

City of Fort Lauderdale Police and Fire  
Asset Allocation vs Target & Policy  
Total Fund Composite  
As of 12/31/19

Manager	Market Value	Actual %	Target %
Intech Large Core	27,580,724.85	2.71	2.75
Rhumblin Large Cap Fund	149,328,164.94	14.66	8.75
Sawgrass	31,410,362.30	3.08	3.00
Aristotle Capital Management	28,570,882.60	2.81	3.00
Eagle Asset Management	27,218,534.53	2.67	2.50
Rhumblin Mid Cap Fund	59,176,940.67	5.81	5.00
Vaughan Nelson	22,936,672.34	2.25	2.50
Rhumblin Small Cap Fund	21,448,189.29	2.11	2.50
<b>Total Domestic Equity</b>	<b>367,670,471.52</b>	<b>36.10</b>	<b>30.00</b>
Lazard International Equity	77,635,850.46	7.62	7.50
Dodge&Cox International Equity	65,793,043.10	6.46	7.50
<b>Total International Equity</b>	<b>143,428,893.56</b>	<b>14.08</b>	<b>15.00</b>
Agincourt	93,937,800.04	9.22	10.00
Boyd Watterson	91,364,949.94	8.97	10.00
<b>Total Domestic Fixed Income</b>	<b>185,302,749.98</b>	<b>18.19</b>	<b>20.00</b>
Cash	8,277,055.77	0.81	0.00
<b>Total Short Term</b>	<b>8,277,055.77</b>	<b>0.81</b>	<b>0.00</b>
Core Realty Fund	64,199,057.56	6.30	6.88
Prudential RE Investors PRISA II	51,156,236.72	5.02	3.13
American Strategic Value Realty	24,449,686.44	2.40	2.50
<b>Total Real Estate</b>	<b>139,804,980.72</b>	<b>13.73</b>	<b>12.50</b>
Lazard Global Infrastructure	76,656,126.92	7.53	7.00
EnTrust Special Opportunities III	20,844,296.00	2.05	4.00
Invesco International Fund VI	2,938,407.00	0.29	0.55
Invesco US Private Equity Fund VI	6,289,158.00	0.62	0.70
Invesco Venture Fund VI	3,959,439.00	0.39	0.25
Entrust Diversified Class X Series	1,294,489.00	0.13	0.00
Capital Dynamics US MM Credit Fund	21,957,185.43	2.16	5.00
Boyd Watterson GSA	15,569,962.00	1.53	1.25
Boyd Watterson State Government Fund	15,911,154.00	1.56	1.25
Bloomfield Capital Income Fund V, LLC	8,523,029.73	0.84	2.50
<b>Total Special Investments</b>	<b>173,943,247.08</b>	<b>17.08</b>	<b>22.50</b>
<b>Total Fund Composite</b>	<b>1,018,427,398.63</b>	<b>100.00</b>	<b>100.00</b>

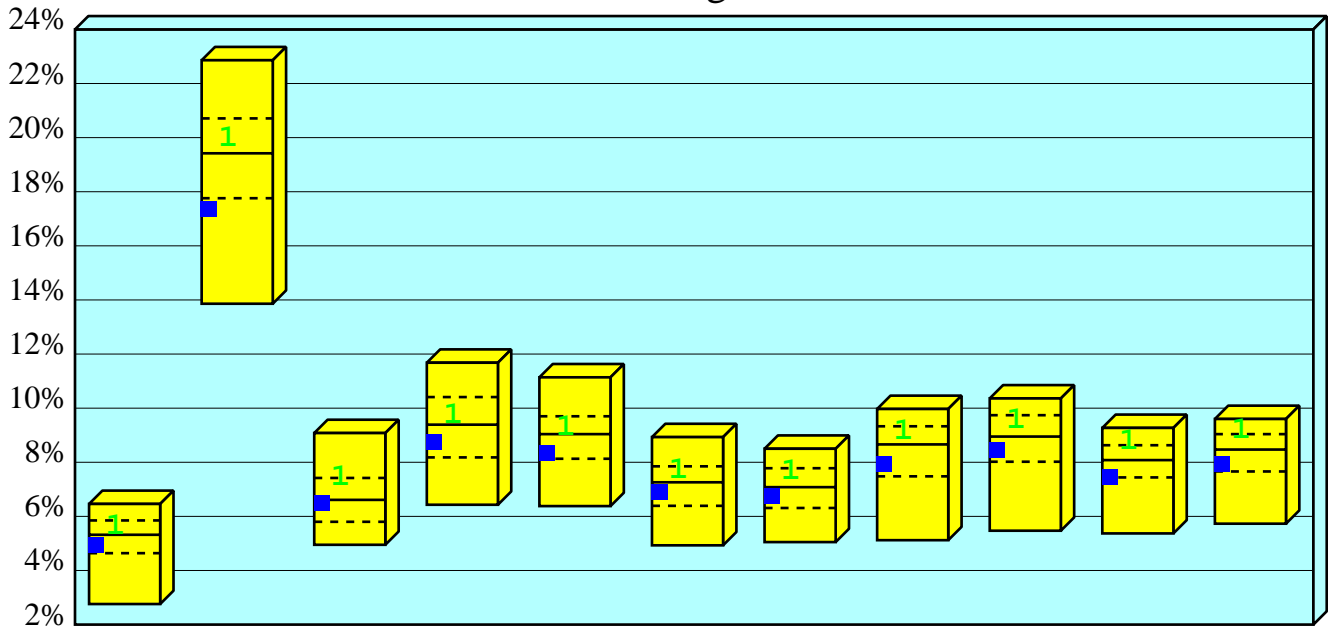
**City of Fort Lauderdale Police and Fire  
Executive Summary Table  
Periods Ending December 31, 2019  
Net of Fee Return**

Name	Value \$(000)	% of Fund	Periods Ending 12/31/19						Since Inception	
			Cur Qtr	2 Qtrs	3 Qtrs	1 Year	3 Yrs	5 Yrs	Ret	Date
<b>Total Fund Composite</b>	<b>1,018,427</b>	<b>100.0</b>	<b>4.90</b>	<b>5.45</b>	<b>8.56</b>	<b>17.33</b>	<b>8.71</b>	<b>6.88</b>	<b>7.33</b>	<b>9/30/95</b>
<i>Policy Index</i>			5.60	6.67	10.24	19.94	9.70	7.69	7.66	9/30/95
<b>Large Cap Composite</b>	<b>236,890</b>	<b>23.3</b>	<b>8.79</b>	<b>10.76</b>	<b>15.90</b>	<b>31.44</b>	<b>15.33</b>	<b>11.45</b>	<b>8.81</b>	<b>1/31/07</b>
Aristotle Capital Management	28,571	2.8	8.47	11.38	18.47	32.74	14.33		14.02	11/30/15
<i>Russell 1000 Value</i>			7.41	8.86	13.05	26.54	9.68		10.71	11/30/15
Intech Large Core	27,581	2.7	8.69	10.55	16.12	32.89	14.71	10.86	9.59	3/31/04
<i>Standard &amp; Poors 500</i>			9.07	10.92	15.70	31.49	15.27	11.70	9.15	3/31/04
Rhumblin Large Cap Fund	149,328	14.7	9.05	10.88	15.66	31.42	15.19	11.63	9.45	9/30/95
<i>Standard &amp; Poors 500</i>			9.07	10.92	15.70	31.49	15.27	11.70	9.37	9/30/95
Sawgrass	31,410	3.1	7.95	9.79	14.65	29.13	17.64	11.93	9.79	3/31/07
<i>Russell 1000 Growth</i>			10.62	12.27	17.47	36.39	20.49	14.63	11.15	3/31/07
<b>Small/Mid Cap Composite</b>	<b>130,780</b>	<b>12.8</b>	<b>7.03</b>	<b>6.15</b>	<b>8.86</b>	<b>24.70</b>	<b>9.26</b>	<b>8.84</b>	<b>7.68</b>	<b>10/31/06</b>
Eagle Asset Management	27,219	2.7	8.97	3.67	5.42	23.04	14.67	10.47	10.53	6/30/11
<i>Russell 2000 Growth</i>			11.39	6.75	9.68	28.48	12.49	9.34	10.97	6/30/11
Rhumblin Mid Cap Fund	59,177	5.8	7.02	6.91	10.17	26.08	9.20	8.96	10.86	6/30/11
<i>S&amp;P Midcap 400</i>			7.06	6.97	10.23	26.20	9.26	9.03	10.90	6/30/11
Rhumblin Small Cap Fund	21,448	2.1	8.17	7.96	9.97	22.71			8.72	7/31/17
<i>S&amp;P Smallcap 600</i>			8.21	8.00	10.01	22.78			8.79	7/31/17
Vaughan Nelson	22,937	2.3	3.82	5.56	8.68	25.06	4.63		6.73	8/31/15
<i>Russell 2000 Value</i>			8.49	7.87	9.35	22.39	4.77		9.89	8/31/15
<b>International Equity Composite</b>	<b>143,429</b>	<b>14.1</b>	<b>9.90</b>	<b>7.57</b>	<b>11.32</b>	<b>24.11</b>	<b>10.18</b>	<b>4.81</b>	<b>4.00</b>	<b>11/30/00</b>
Dodge&Cox International Equity	65,793	6.5	10.61	8.78	11.84	22.78	7.67	3.68	3.89	1/31/14
<i>MSCI EAFE (Net)</i>			8.17	7.01	10.94	22.01	9.56	5.67	4.61	1/31/14
Lazard International Equity	77,636	7.6	9.30	6.56	10.88	25.27	12.52	5.84	8.97	11/30/11
<i>MSCI EAFE (Net)</i>			8.17	7.01	10.94	22.01	9.56	5.67	7.45	11/30/11
<b>Total Domestic Fixed Income</b>	<b>185,303</b>	<b>18.2</b>	<b>0.36</b>	<b>1.82</b>	<b>4.53</b>	<b>7.37</b>	<b>3.51</b>	<b>2.79</b>	<b>4.07</b>	<b>5/31/05</b>
Agincourt	93,938	9.2	0.34	1.82	4.55	7.35	3.47	2.88	5.19	12/31/95
<i>Barclays Int Govt/Credit</i>			0.37	1.75	4.38	6.80	3.24	2.57	4.89	12/31/95
Boyd Watterson	91,365	9.0	0.39	1.81	4.50	7.39	3.54	2.69	2.79	4/30/11
<i>Barclays Int Govt/Credit</i>			0.37	1.75	4.38	6.80	3.24	2.57	2.68	4/30/11
Cash	8,277	0.8	0.56	1.30	1.99	2.59	1.67	1.13	1.51	1/31/06
<i>Citigroup 3-month T-Bill</i>										1/31/06
<b>Real Estate Composite</b>	<b>139,805</b>	<b>13.7</b>	<b>1.64</b>	<b>3.05</b>	<b>4.40</b>	<b>6.17</b>	<b>7.10</b>	<b>8.77</b>	<b>4.92</b>	<b>6/30/07</b>
American Strategic Value Realty	24,450	2.4	2.30	4.18	5.90	8.32	8.77		10.36	3/31/15
<i>NCREIF Prop Index</i>			1.55	2.98	4.54	6.42	6.70		7.90	3/31/15

City of Fort Lauderdale Police and Fire  
Executive Summary Table  
Periods Ending December 31, 2019  
Net of Fee Return

Name	Value \$(000)	% of Fund	Periods Ending 12/31/19						Since Inception	
			Cur Qtr	2 Qtrs	3 Qtrs	1 Year	3 Yrs	5 Yrs	Ret	Date
Core Realty Fund	64,199	6.3	1.22	2.43	3.75	5.30	6.67	8.02	4.77	7/31/07
<i>NCREIF Prop Index</i>			1.55	2.98	4.54	6.42	6.70	8.25	6.52	7/31/07
Prudential RE Investors PRISA II	51,156	5.0	1.86	3.30	4.52	6.28	7.09	9.41	4.14	7/31/07
<i>NCREIF Prop Index</i>			1.55	2.98	4.54	6.42	6.70	8.25	6.52	7/31/07
Bloomfield Capital Income Fund V, LLC	8,523	0.8	0.83	1.02					1.02	6/30/19
Boyd Watterson GSA	15,570	1.5	0.99	3.89	6.88	8.14			8.14	12/31/18
<i>NCREIF ODCE Fund Index</i>			1.51	2.84	3.87	5.34			5.34	12/31/18
Boyd Watterson State Government Fund	15,911	1.6	4.00	6.96					8.46	4/30/19
<i>NCREIF ODCE Fund Index</i>			1.51	2.84					3.87	4/30/19
Capital Dynamics US MM Credit Fund	21,957	2.2	0.00	2.75	3.53	4.78			2.65	9/30/18
<i>Barclays Int Govt/Credit</i>			0.37	1.75	4.38	6.80			6.80	9/30/18
EnTrust Special Opportunities III	20,844	2.0	2.42	-9.18	-11.11	-1.67	-1.55		2.72	2/28/15
<i>HFRI FOF: Diversified Index</i>			2.55	1.84	3.67	8.03	3.71		1.93	2/28/15
Entrust Diversified Class X Series	1,294	0.1	-3.10	-5.24	-5.61	-6.27			-5.05	1/31/17
<i>HFRI FOF: Diversified Index</i>			2.55	1.84	3.67	8.03			3.55	1/31/17
Invesco International Fund VI	2,938	0.3	0.00	3.01	5.86	8.16	15.85		12.95	12/31/15
<i>MSCI EAFE (Net)</i>			8.17	7.01	10.94	22.01	9.56		7.36	12/31/15
Invesco US Private Equity Fund VI	6,289	0.6	0.00	2.56	4.10	9.12	15.14		14.34	12/31/15
<i>Standard &amp; Poors 500</i>			9.07	10.92	15.70	31.49	15.27		14.44	12/31/15
Invesco Venture Fund VI	3,959	0.4	0.00	-2.29	2.24	2.21	8.74		7.58	12/31/15
<i>Standard &amp; Poors 500</i>			9.07	10.92	15.70	31.49	15.27		14.44	12/31/15
Lazard Global Infrastructure	76,656	7.5	3.75	6.89	11.68	22.26	12.44	11.16	12.42	11/30/13
<i>S&amp;P Global Infrastructure Index</i>			5.12	5.69	11.34	26.99	11.35	6.57	7.75	11/30/13

## City of Fort Lauderdale Police and Fire Cumulative Performance Comparison Total Returns of Total Fund Public Sponsors Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years	Last 9 Years	Last 10 Years
High	6.46	22.86	9.08	11.68	11.14	8.93	8.50	9.97	10.36	9.27	9.60
1st Qt	5.85	20.71	7.42	10.41	9.70	7.85	7.78	9.33	9.74	8.63	9.04
Median	5.32	19.42	6.61	9.39	9.04	7.26	7.08	8.66	8.95	8.08	8.47
3rd Qt	4.64	17.76	5.80	8.18	8.13	6.39	6.31	7.48	8.02	7.44	7.66
Low	2.76	13.86	4.95	6.43	6.38	4.93	5.05	5.12	5.47	5.37	5.73

**■ Total Fund Composite**

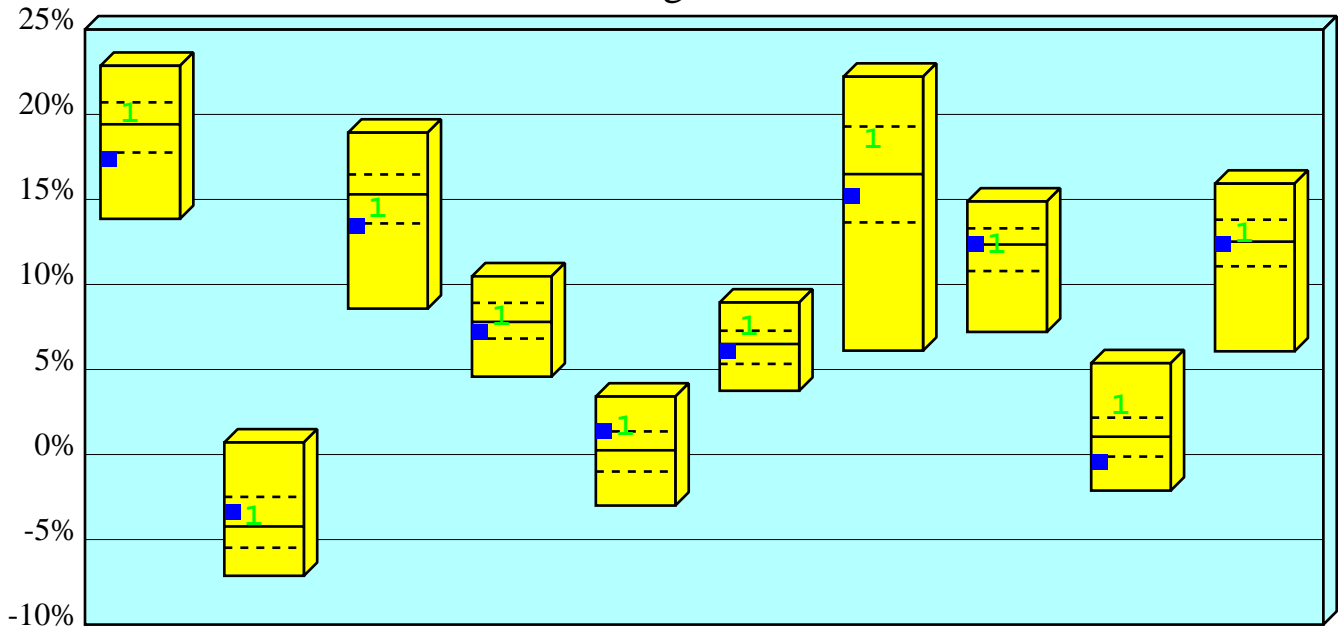
Net Ret	4.90	17.33	6.44	8.71	8.32	6.88	6.73	7.89	8.43	7.40	7.89
Rank	67	77	60	64	66	59	60	62	66	75	68

**1 Policy Index**

Net Ret	5.60	19.94	7.43	9.70	9.28	7.69	7.65	9.13	9.52	8.75	9.16
Rank	43	39	23	37	39	30	33	30	33	20	14



## City of Fort Lauderdale Police and Fire Calendar Year Performance Comparison Total Returns of Total Fund Public Sponsors Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
High	22.86	0.71	18.93	10.48	3.41	8.94	22.22	14.88	5.37	15.93
1st Qt	20.71	-2.49	16.47	8.92	1.36	7.28	19.29	13.30	2.17	13.81
Median	19.42	-4.23	15.30	7.80	0.25	6.50	16.49	12.35	1.05	12.52
3rd Qt	17.76	-5.48	13.59	6.82	-1.00	5.33	13.65	10.79	-0.12	11.07
Low	13.86	-7.13	8.58	4.58	-3.00	3.75	6.11	7.21	-2.12	6.07

**■ Total Fund Composite**

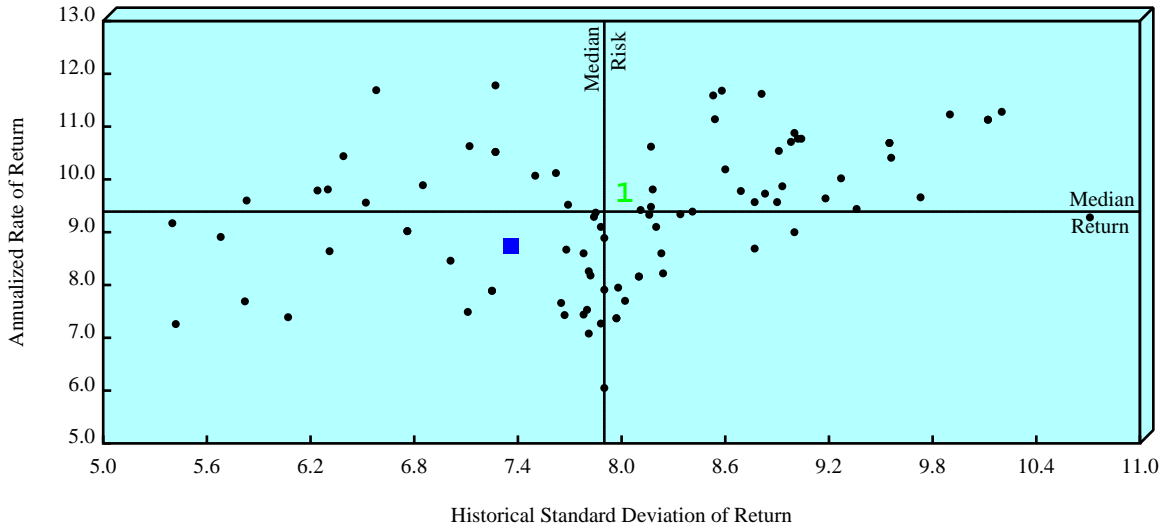
Net Ret	17.33	-3.44	13.39	7.14	1.31	6.01	15.13	12.31	-0.51	12.33
Rank	77	36	76	66	25	62	63	51	79	53

**1 Policy Index**

Net Ret	19.94	-3.76	14.38	8.03	1.55	7.46	18.42	12.28	2.79	12.92
Rank	39	41	65	44	22	21	34	51	16	42

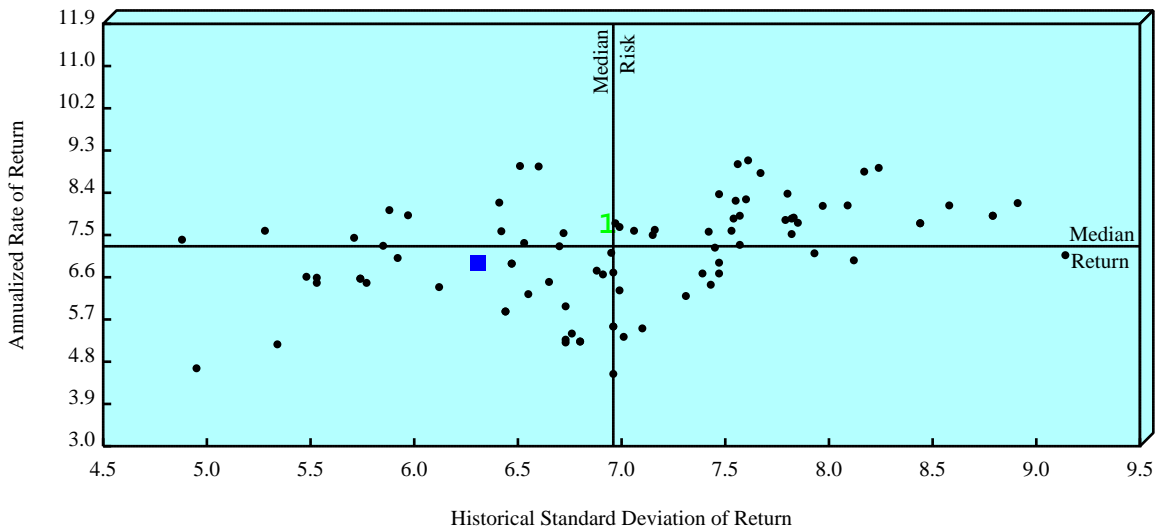
# City of Fort Lauderdale Police and Fire Return vs Risk Total Returns of Total Fund Public Sponsors

3 Years Ending 12/31/19



	Annualized Net of Fee Return		Standard Deviation	
	Value	Rank	Value	Rank
■ Total Fund Composite	8.71	64	7.40	32
1 Policy Index	9.70	37	8.05	56
Median	9.39		7.90	

5 Years Ending 12/31/19



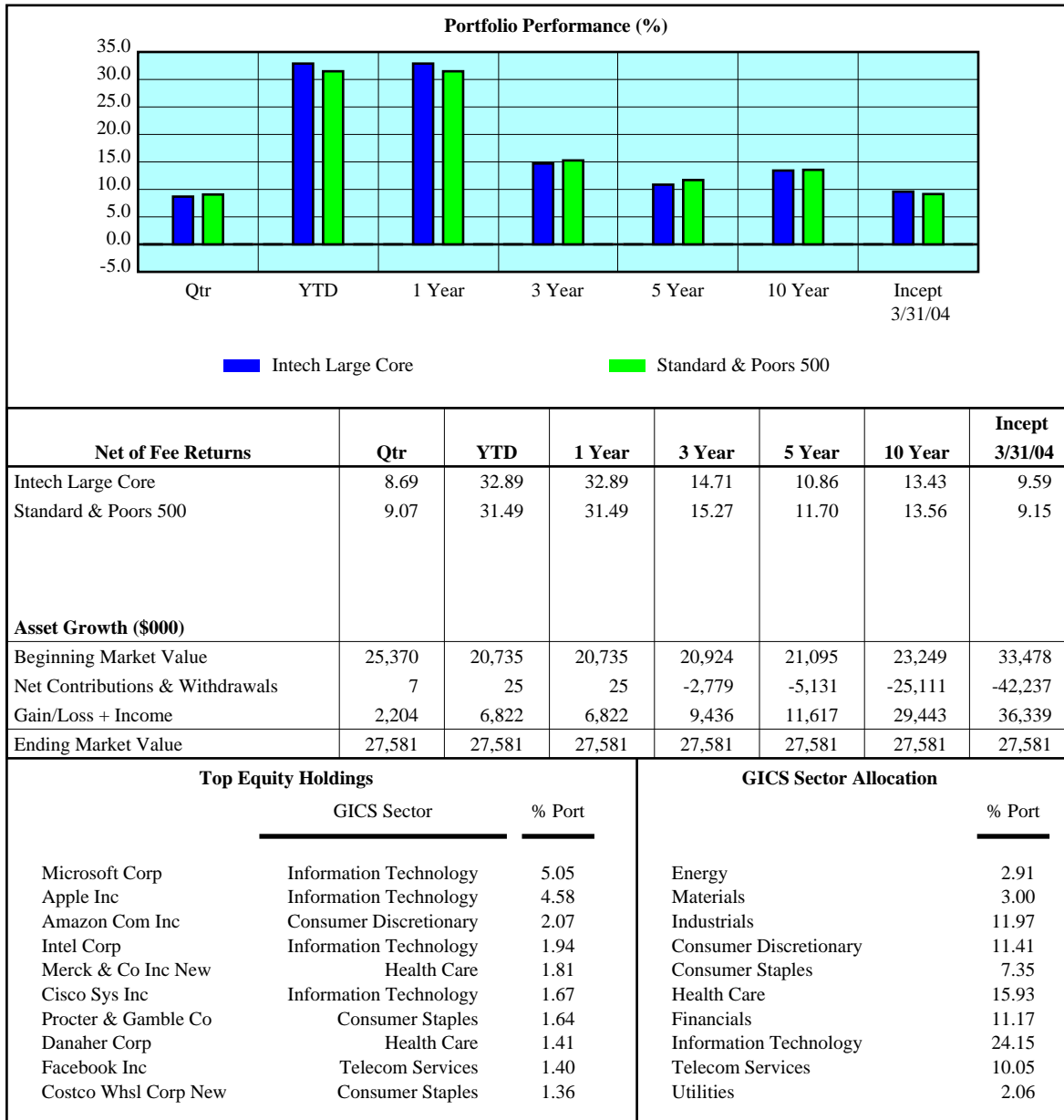
	Annualized Net of Fee Return		Standard Deviation	
	Value	Rank	Value	Rank
■ Total Fund Composite	6.88	59	6.34	25
1 Policy Index	7.69	30	6.96	51
Median	7.26		6.96	

City of Fort Lauderdale Police and Fire  
 Risk Measure Summary  
 Total Fund Composite  
 Quarterly Periods Ending 12/31/19

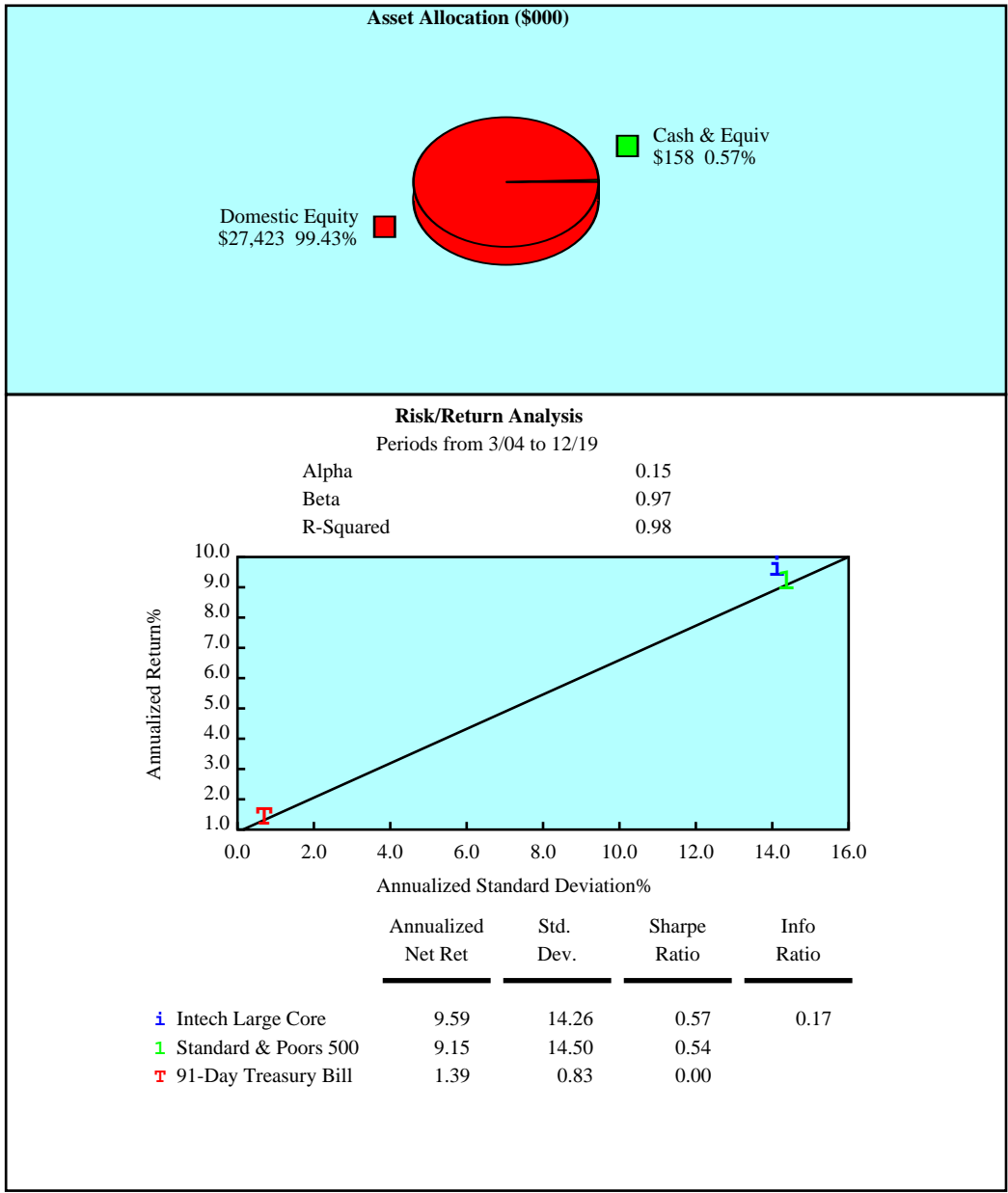
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	2	2	4	3	25	24
Positive Periods	4	4	10	10	16	17	72	73
Up Market Capture	0.88		0.91		0.91		0.95	
Down Market Capture			0.89		0.90		0.94	
Batting Average	0.00		0.25		0.35		0.42	
Worst Quarter	0.58	1.02	-7.37	-8.00	-7.37	-8.00	-11.33	-12.61
Best Quarter	8.13	8.79	8.13	8.79	8.13	8.79	14.12	12.93
Worst 4 Quarters	17.55	19.94	-3.24	-3.76	-3.24	-3.76	-22.18	-24.64
Best 4 Quarters	17.55	19.94	17.55	19.94	17.55	19.94	33.57	32.86
Standard Deviation	6.38	6.63	7.39	8.05	6.34	6.96	9.17	9.49
Beta	0.93		0.92		0.91		0.95	
Alpha	-0.24		-0.03		-0.01		0.00	
R-Squared	1.00		1.00		0.99		0.97	
Sharpe Ratio	2.39	2.66	0.98	1.00	0.94	0.95	0.55	0.56
Treynor Ratio	16.40		7.89		6.59		5.29	
Tracking Error	0.32		0.82		0.97		1.78	
Information Ratio	-6.49		-0.95		-0.67		-0.17	



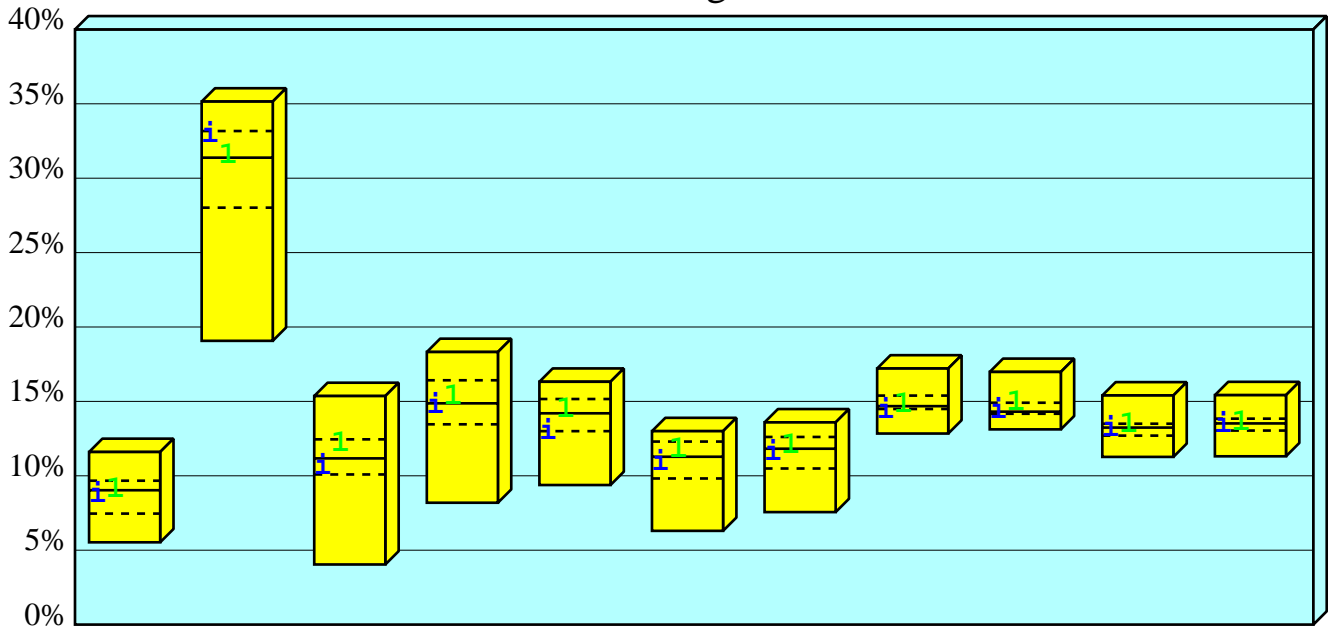
## City of Fort Lauderdale Police and Fire Intech Large Core as of 12/31/19



# City of Fort Lauderdale Police and Fire Intech Large Core as of 12/31/19



# City of Fort Lauderdale Police and Fire Large Neutral Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years	Last 9 Years	Last 10 Years
High	11.60	35.15	15.36	18.32	16.32	13.00	13.59	17.21	16.98	15.40	15.42
1st Qt	9.67	33.17	12.45	16.42	15.16	12.30	12.61	15.39	14.91	13.50	13.84
Median	9.03	31.38	11.17	14.87	14.20	11.28	11.82	14.68	14.31	13.24	13.52
3rd Qt	7.46	28.02	10.09	13.46	13.00	9.82	10.49	14.49	14.17	12.70	13.04
Low	5.53	19.07	4.04	8.19	9.38	6.30	7.56	12.84	13.12	11.27	11.31

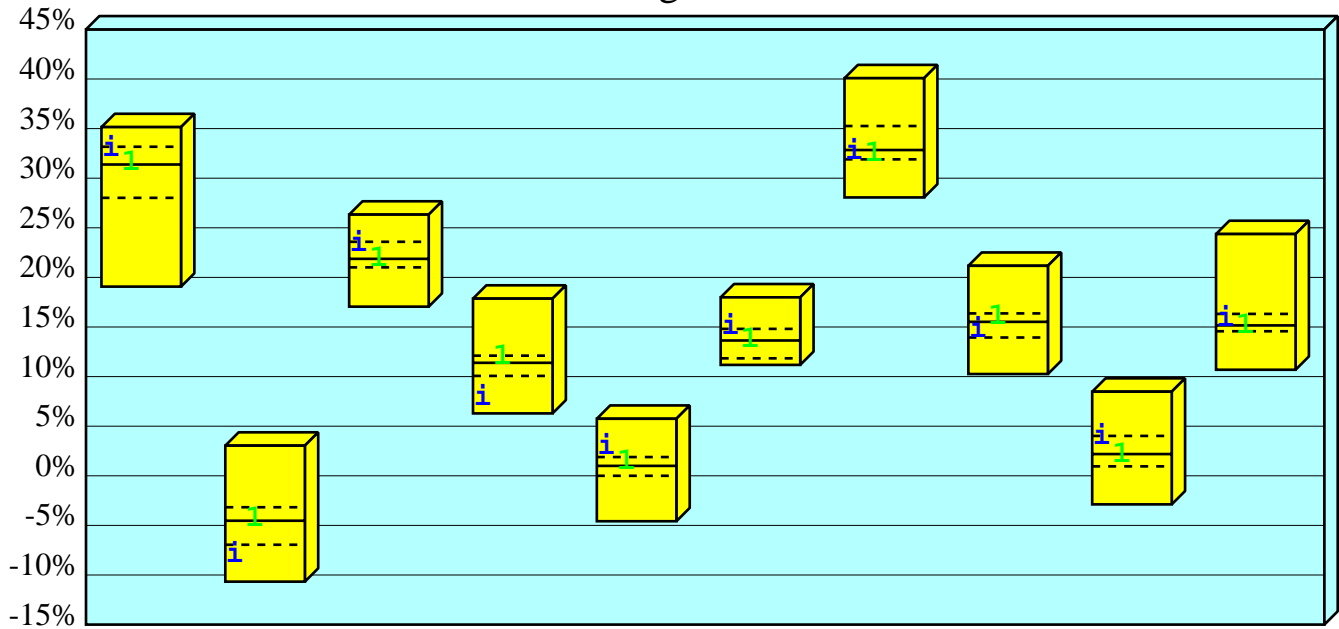
**i** Intech Large Core

Net Ret	8.69	32.89	10.59	14.71	12.94	10.86	11.54	14.33	14.38	13.17	13.43
Rank	63	26	63	53	75	55	55	75	47	52	53

**1** Standard & Poors 500

Net Ret	9.07	31.49	12.13	15.27	14.44	11.70	12.03	14.73	14.89	13.39	13.56
Rank	41	36	35	36	33	30	37	47	25	33	37

## City of Fort Lauderdale Police and Fire Large Neutral Consecutive Performance Comparisons Total Returns of Equity Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
High	35.15	3.04	26.33	17.86	5.75	17.99	40.08	21.17	8.48	24.37
1st Qt	33.17	-3.17	23.59	12.11	1.89	14.81	35.26	16.37	4.02	16.32
Median	31.38	-4.53	21.87	11.39	1.00	13.64	32.84	15.52	2.19	15.16
3rd Qt	28.02	-6.95	21.01	10.07	0.00	11.84	31.90	13.94	0.95	14.57
Low	19.07	-10.67	17.05	6.29	-4.58	11.18	28.06	10.26	-2.88	10.69

### **i** Intech Large Core

Net Ret	32.89	-7.96	23.40	7.79	2.93	15.04	32.60	14.70	3.95	15.77
Rank	26	79	26	87	16	23	53	66	28	37

### **1** Standard & Poors 500

Net Ret	31.49	-4.38	21.83	11.96	1.38	13.69	32.41	15.98	2.12	15.05
Rank	36	41	50	30	40	43	56	36	51	56

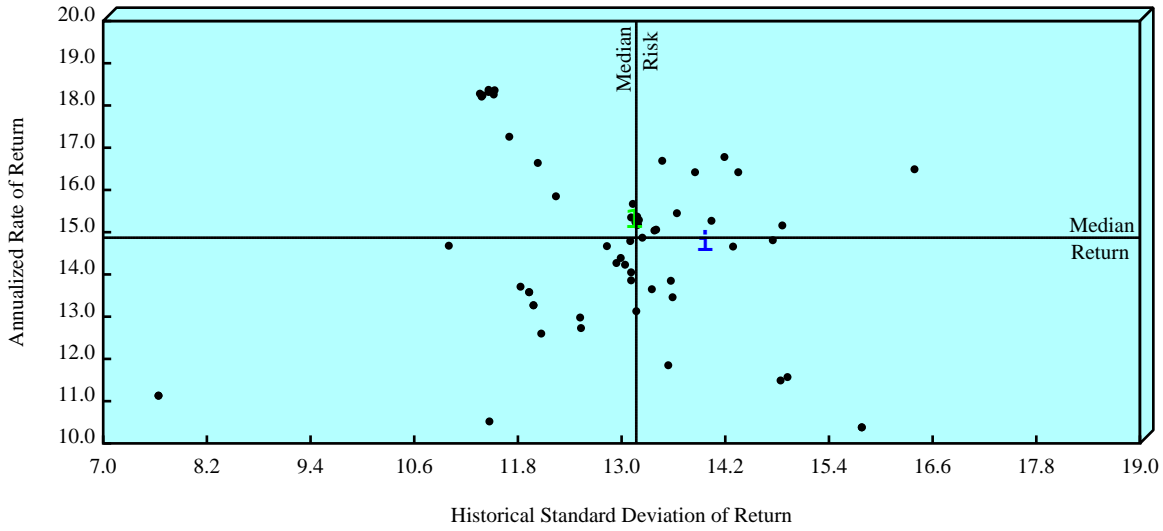


# City of Fort Lauderdale Police and Fire

## Return vs Risk

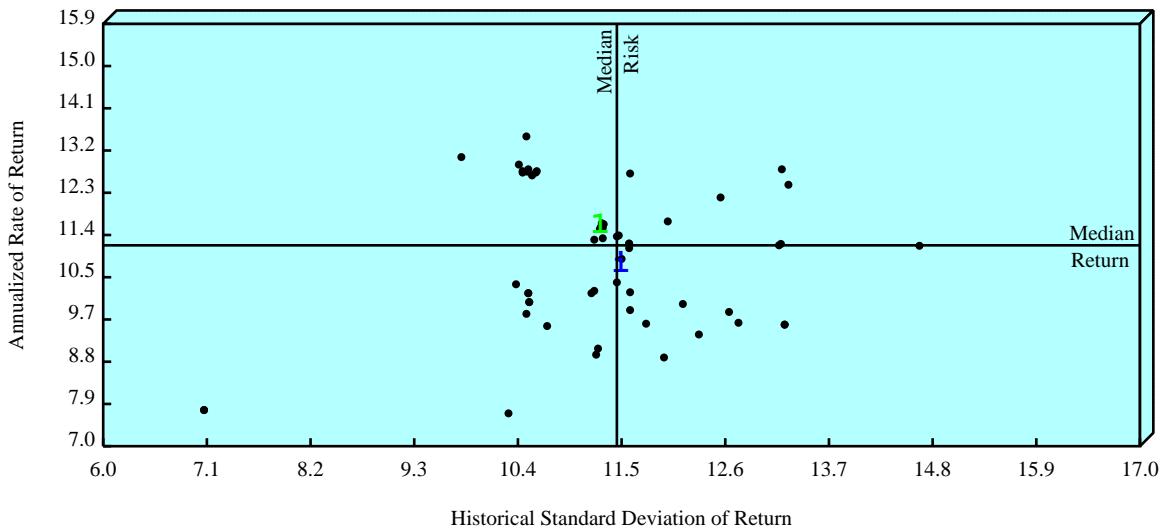
### Total Returns of Large Neutral Portfolios

3 Years Ending 12/31/19



	Annualized Net of Fee Return		Standard Deviation	
	Value	Rank	Value	Rank
i Intech Large Core	14.71	53	14.03	76
l Standard & Poors 500	15.27	36	13.21	60
Median	14.87		13.17	

5 Years Ending 12/31/19



	Annualized Net of Fee Return		Standard Deviation	
	Value	Rank	Value	Rank
i Intech Large Core	10.86	55	11.55	57
l Standard & Poors 500	11.70	30	11.33	51
Median	11.28		11.45	

City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Intech Large Core  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	1	2	3	3	15	16
Positive Periods	4	4	11	10	17	17	48	47
Up Market Capture	1.04		0.98		0.92		0.99	
Down Market Capture			1.03		0.93		0.93	
Batting Average	0.75		0.58		0.50		0.60	
Worst Quarter	1.71	1.70	-15.21	-13.52	-15.21	-13.52	-21.62	-21.93
Best Quarter	14.44	13.65	14.44	13.65	14.44	13.65	15.35	15.93
Worst 4 Quarters	32.89	31.49	-7.96	-4.38	-7.96	-4.38	-37.08	-38.07
Best 4 Quarters	32.89	31.49	32.89	31.49	32.89	31.49	48.89	49.75
Standard Deviation	10.90	10.57	14.03	13.21	11.55	11.33	14.26	14.50
Beta	1.03		1.04		0.99		0.97	
Alpha	0.08		-0.25		-0.16		0.15	
R-Squared	0.99		0.97		0.95		0.98	
Sharpe Ratio	2.81	2.76	0.93	1.03	0.85	0.94	0.57	0.54
Treynor Ratio	29.69		12.48		9.87		8.42	
Tracking Error	1.14		2.53		2.68		2.15	
Information Ratio	1.01		-0.17		-0.29		0.17	

City of Fort Lauderdale Police and Fire  
Equity Summary Statistics  
Intech Large Core  
Period Ending 12/19

	<u>Portfolio</u>	<u>Standard &amp; Poors 500</u>
Total Number Of Securities	187	505
Equity Market Value	27,422,961	
Average Capitalization \$(000)	243,593,181	283,329,987
Median Capitalization \$(000)	37,821,530	23,997,415
Equity Segment Yield	1.98	1.85
Equity Segment P/E - Average	22.99	24.22
Equity Segment P/E - Median	22.20	22.22
Equity Segment Beta	1.02	1.00
Price/Book Ratio	3.93	3.79
Debt/Equity Ratio	65.16	66.10
Five Year Earnings Growth	9.03	12.08

Ten Largest Holdings	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Microsoft Corp	1,381,767	5.05	13.82
Apple Inc	1,252,711	4.58	31.50
Amazon Com Inc	565,439	2.07	6.45
Intel Corp	532,067	1.94	16.78
Merck & Co Inc New	494,859	1.81	8.78
Cisco Sys Inc	458,498	1.67	-2.21
Procter & Gamble Co	448,016	1.64	1.06
Danaher Corp	385,388	1.41	6.38
Facebook Inc	384,433	1.40	15.26
Costco Whsl Corp New	373,572	1.36	2.24

Ten Best Performers	<u>Quarterly Ret</u>	Ten Worst Performers	<u>Quarterly Ret</u>
Align Technology Inc	54.23	Twitter Inc	-22.21
Centene Corp Del	45.33	Arista Networks Inc	-14.87
Tiffany & Co New	44.91	Boeing Co	-13.89
Humana Inc	43.57	Yum Brands Inc	-10.82
Unitedhealth Group I	35.80	Technipfmc Ltd	-10.59
Nvidia Corp	35.27	Hasbro Bradley Inc	-10.40
State Str Corp	34.52	Cincinnati Finl Corp	-9.39
Apple Inc	31.50	Constellation Brands	-8.10
Vertex Pharmaceutica	29.24	McDonalds Corp	-7.37
Wynn Resorts Ltd	28.81	American Intl Group	-7.26

City of Fort Lauderdale Police and Fire  
Equity Contribution to Return  
Intech Large Core  
Period Ending 12/19

	<u>Portfolio</u>	<u>Standard &amp; Poors 500</u>
Total Number Of Securities	187	505
Equity Market Value	27,422,961	
Average Capitalization \$(000)	243,593,181	283,329,987
Median Capitalization \$(000)	37,821,530	23,997,415
Equity Segment Yield	1.98	1.85
Equity Segment P/E - Average	22.99	24.22
Equity Segment P/E - Median	22.20	22.22
Equity Segment Beta	1.02	1.00
Price/Book Ratio	3.93	3.79
Debt/Equity Ratio	65.16	66.10
Five Year Earnings Growth	9.03	12.08

Ten Best Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Apple Inc	1,252,711	4.58	31.50
Microsoft Corp	1,381,767	5.05	13.82
Intel Corp	532,067	1.94	16.78
Unitedhealth Group I	221,955	0.81	35.80
Best Buy Inc	283,067	1.03	28.01
Align Technology Inc	141,473	0.52	54.23
Tiffany & Co New	169,201	0.62	44.91
Target Corp	360,398	1.32	20.64
Abbvie Inc	372,753	1.36	18.63
AES Corp	299,754	1.09	22.76

Ten Worst Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Twitter Inc	114,194	0.42	-22.21
Intl Business McHn	371,559	1.36	-6.74
American Intl Group	289,963	1.06	-7.26
Johnson Ctls Intl Pl	273,856	1.00	-6.65
Progressive Corp Ohi	290,863	1.06	-6.17
McDonalds Corp	176,268	0.64	-7.37
Oracle Corp	319,999	1.17	-3.30
Cisco Sys Inc	458,498	1.67	-2.21
Boeing Co	62,546	0.23	-13.89
Hasbro Bradley Inc	74,561	0.27	-10.40

City of Fort Lauderdale Police and Fire  
Equity Sector Attribution Analysis  
Intech Large Core  
Quarter Ending 12/19

GICS Sectors	Weight		Return		Selection		
	Portfolio	Index	Portfolio	Index	Stock	Sector	Total
Energy	6.00	4.52	6.39	5.47	0.05	-0.05	0.00
Materials	3.06	2.73	5.90	6.38	-0.01	-0.01	-0.02
Industrials	11.45	9.34	4.82	5.52	-0.08	-0.07	-0.16
Consumer Discretionary	8.85	10.11	7.58	4.34	0.29	0.06	0.35
Consumer Staples	6.69	7.60	3.96	3.51	0.03	0.05	0.08
Health Care	15.37	13.65	14.66	14.27	0.06	0.09	0.15
Financials	15.19	12.94	6.56	10.45	-0.59	0.03	-0.56
Information Technology	22.34	21.93	12.98	14.45	-0.33	0.02	-0.31
Telecom. Services	6.79	10.36	8.68	8.97	-0.02	0.00	-0.02
Utilities	4.27	3.59	2.20	0.76	0.06	-0.06	0.01
	100.00	100.00	8.88	9.07	-0.54	0.06	-0.48

Index - Standard & Poors 500

Stock Selection Return Attribution

[ Portfolio Market Value Sector Percentage ] \* [ Portfolio Sector Return - Index Sector Return ]

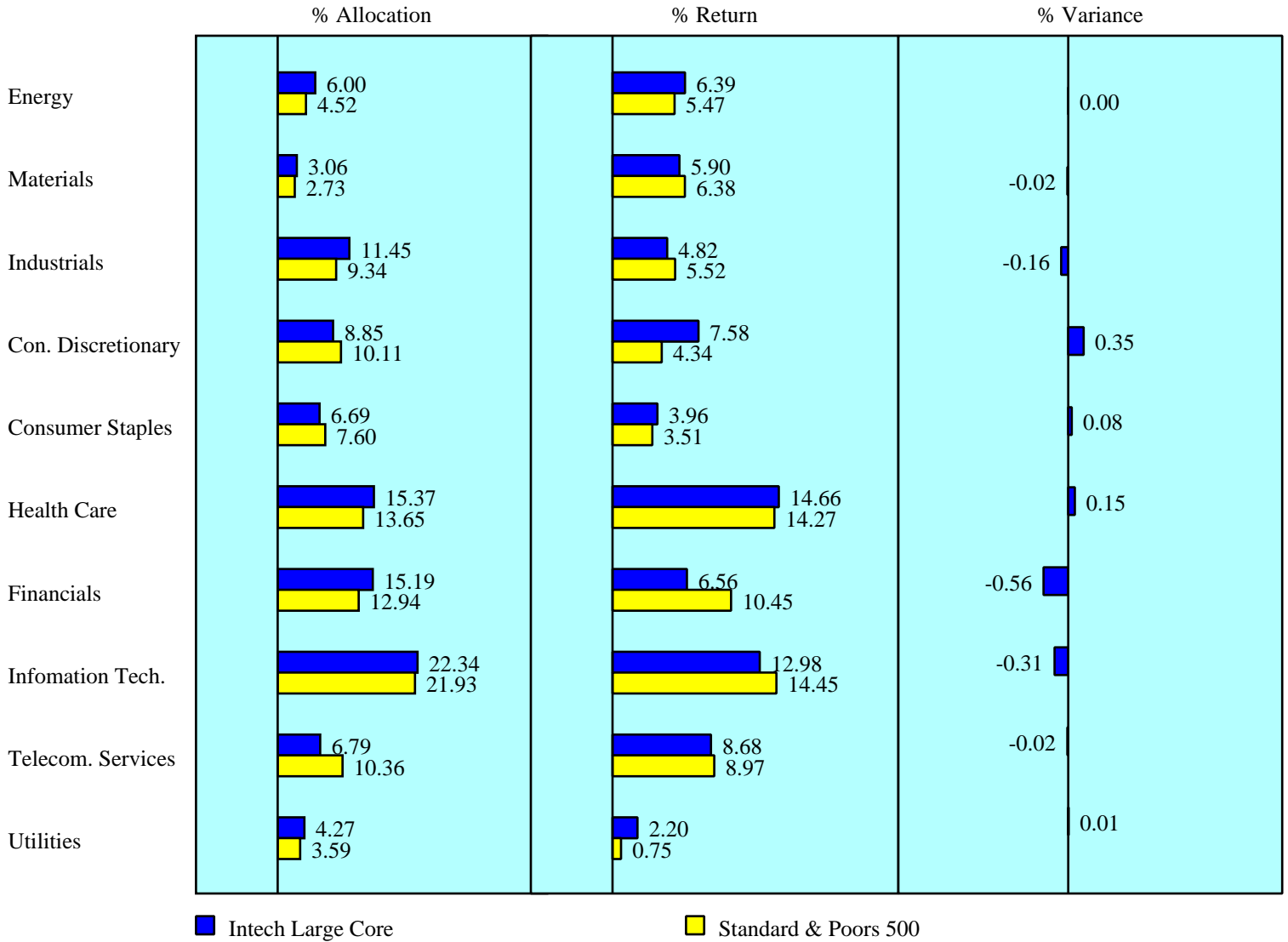
Sector Selection Return Attribution

[ Portfolio Sector Percentage - Index Sector Percentage ] \* [ Index Sector Return - Index Total Return ]

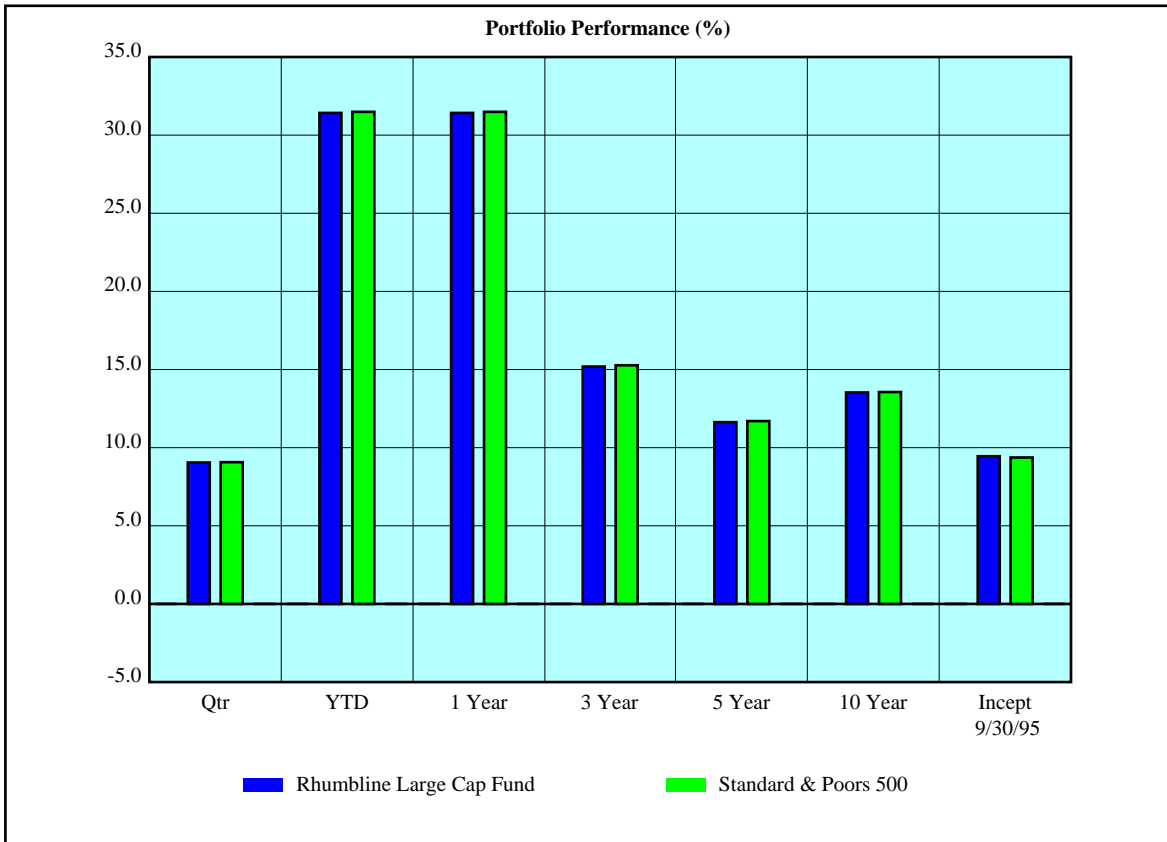
Trading Effect -0.12%

[ Actual Return 8.76% ] - [ Buy Hold Return 8.88% ]

# City of Fort Lauderdale Police and Fire Equity Sector Attribution Chart Intech Large Core Quarter Ending 12/19

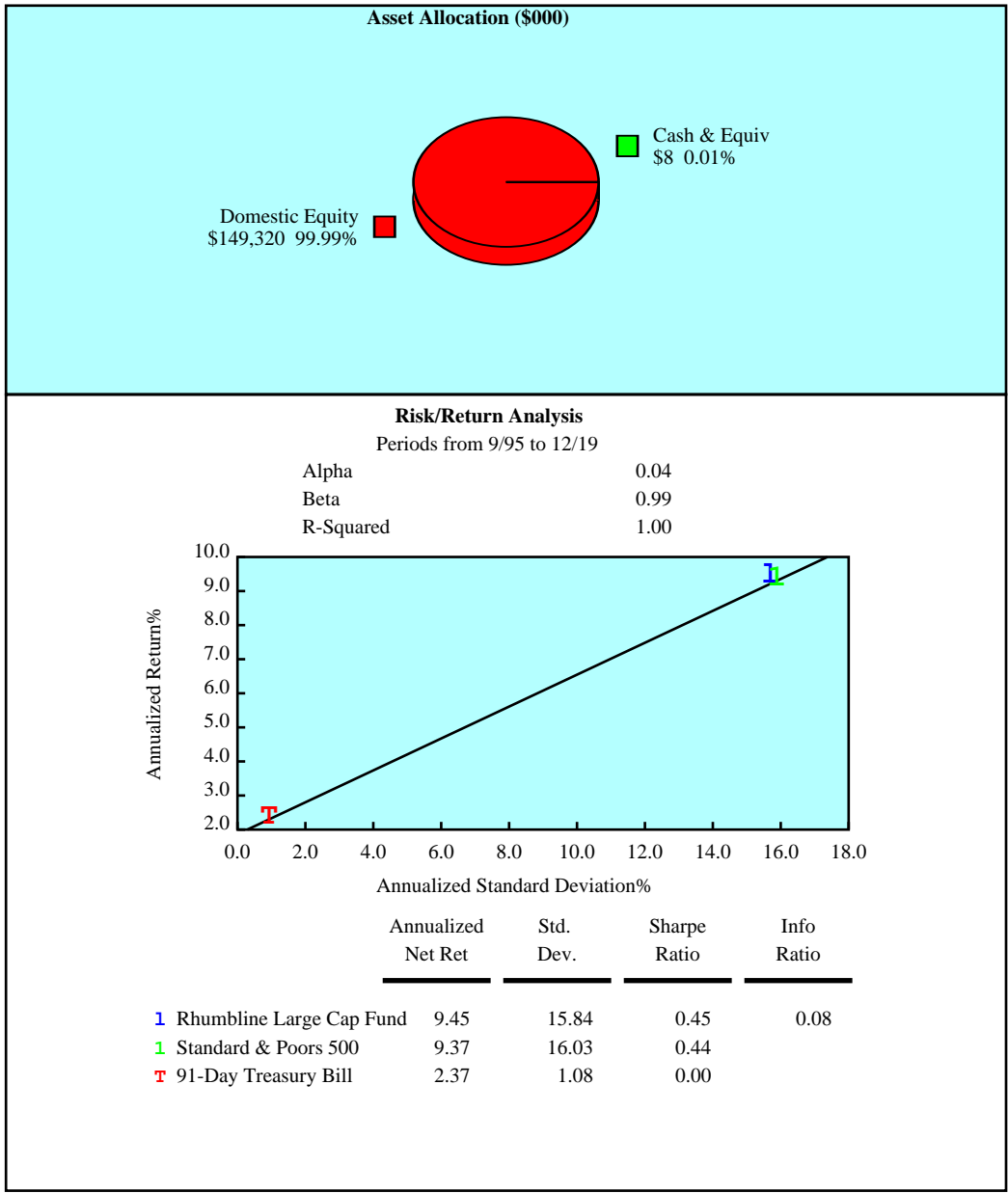


## City of Fort Lauderdale Police and Fire Rhumbline Large Cap Fund as of 12/31/19



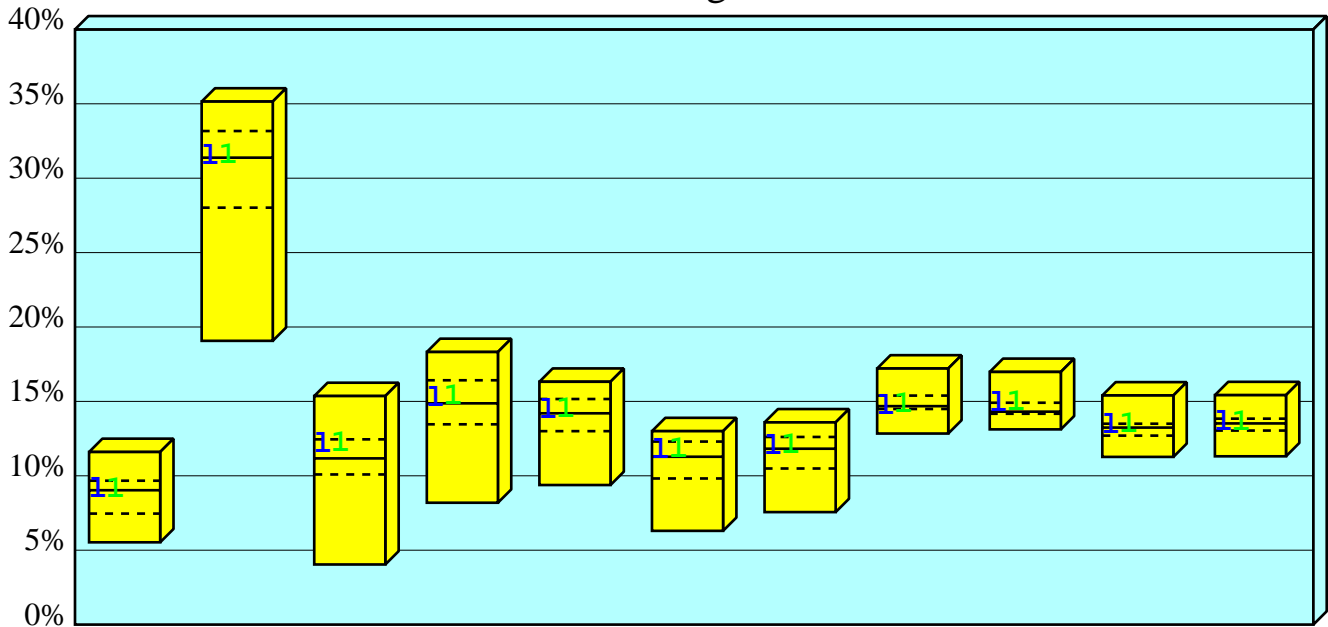
<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 9/30/95</b>
Rhumbline Large Cap Fund	9.05	31.42	31.42	15.19	11.63	13.53	9.45
Standard & Poors 500	9.07	31.49	31.49	15.27	11.70	13.56	9.37
<b>Asset Growth (\$000)</b>							
Beginning Market Value	136,931	122,099	122,099	117,039	112,658	25,131	8,000
Net Contributions & Withdrawals	11	-9,964	-9,964	-24,901	-34,804	11,258	25,275
Gain/Loss + Income	12,386	37,193	37,193	57,190	71,474	112,939	116,053
Ending Market Value	149,328	149,328	149,328	149,328	149,328	149,328	149,328

# City of Fort Lauderdale Police and Fire Rhumblin Large Cap Fund as of 12/31/19





## City of Fort Lauderdale Police and Fire Large Neutral Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years	Last 9 Years	Last 10 Years
High	11.60	35.15	15.36	18.32	16.32	13.00	13.59	17.21	16.98	15.40	15.42
1st Qt	9.67	33.17	12.45	16.42	15.16	12.30	12.61	15.39	14.91	13.50	13.84
Median	9.03	31.38	11.17	14.87	14.20	11.28	11.82	14.68	14.31	13.24	13.52
3rd Qt	7.46	28.02	10.09	13.46	13.00	9.82	10.49	14.49	14.17	12.70	13.04
Low	5.53	19.07	4.04	8.19	9.38	6.30	7.56	12.84	13.12	11.27	11.31

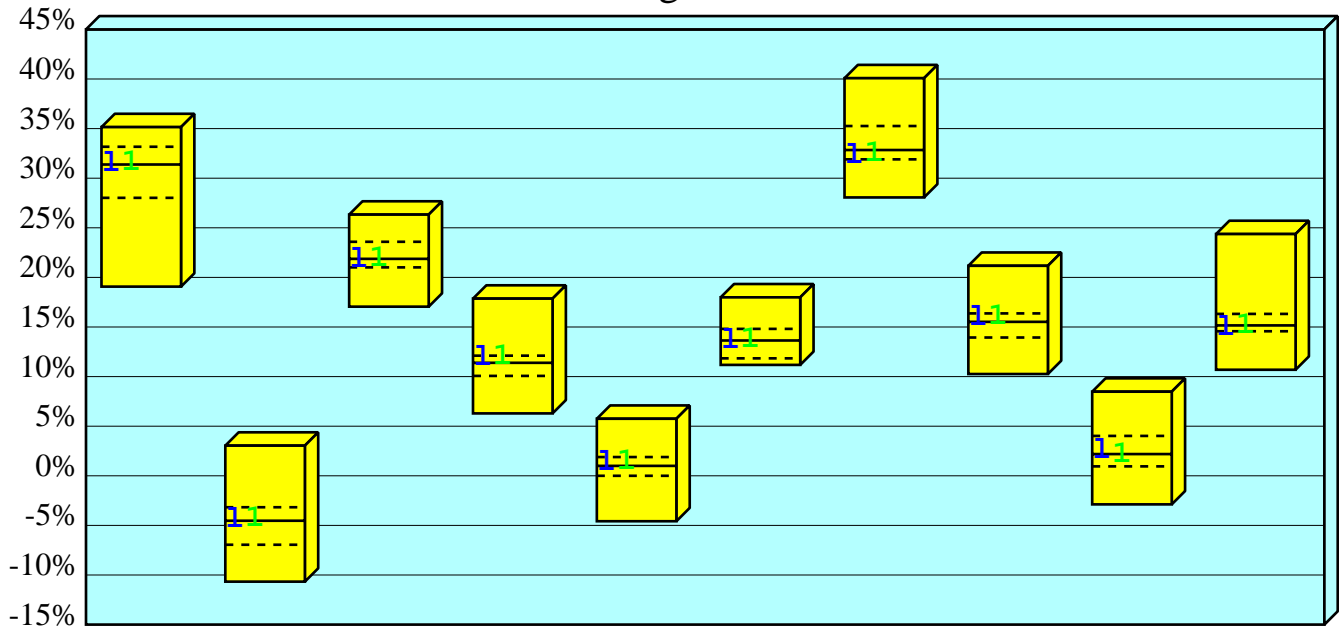
### 1 Rhumblin Large Cap Fund

Net Ret	9.05	31.42	12.05	15.19	14.36	11.63	11.96	14.65	14.81	13.37	13.53
Rank	46	45	38	40	38	35	42	54	35	38	46

### 1 Standard & Poors 500

Net Ret	9.07	31.49	12.13	15.27	14.44	11.70	12.03	14.73	14.89	13.39	13.56
Rank	41	36	35	36	33	30	37	47	25	33	37

# City of Fort Lauderdale Police and Fire Large Neutral Consecutive Performance Comparisons Total Returns of Equity Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
High	35.15	3.04	26.33	17.86	5.75	17.99	40.08	21.17	8.48	24.37
1st Qt	33.17	-3.17	23.59	12.11	1.89	14.81	35.26	16.37	4.02	16.32
Median	31.38	-4.53	21.87	11.39	1.00	13.64	32.84	15.52	2.19	15.16
3rd Qt	28.02	-6.95	21.01	10.07	0.00	11.84	31.90	13.94	0.95	14.57
Low	19.07	-10.67	17.05	6.29	-4.58	11.18	28.06	10.26	-2.88	10.69

## 1 Rhumblin Large Cap Fund

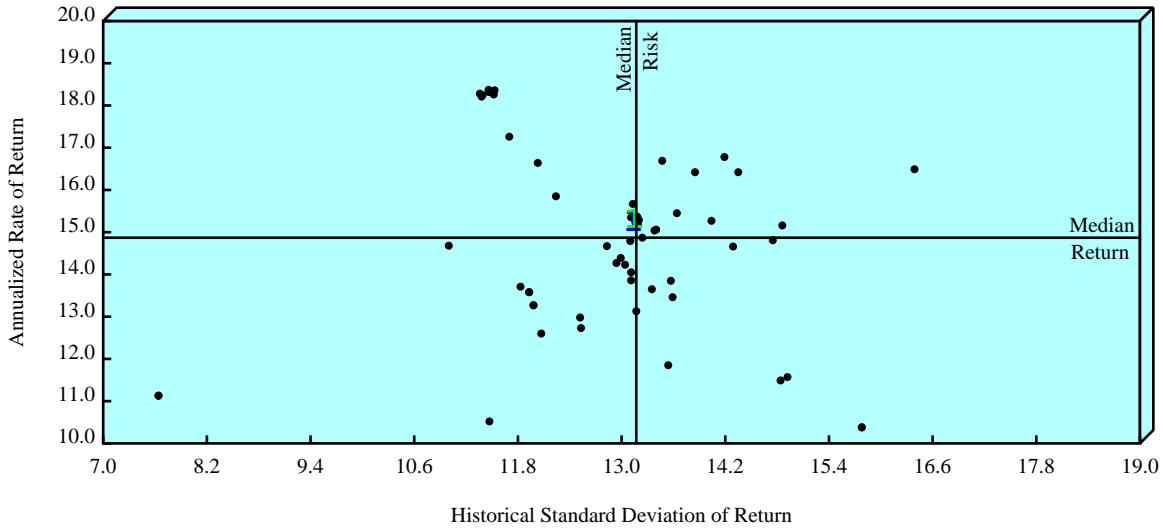
Net Ret	31.42	-4.46	21.74	11.90	1.33	13.63	32.22	15.94	2.48	14.93
Rank	45	47	57	34	42	51	68	40	34	66

## 1 Standard & Poors 500

Net Ret	31.49	-4.38	21.83	11.96	1.38	13.69	32.41	15.98	2.12	15.05
Rank	36	41	50	30	40	43	56	36	51	56

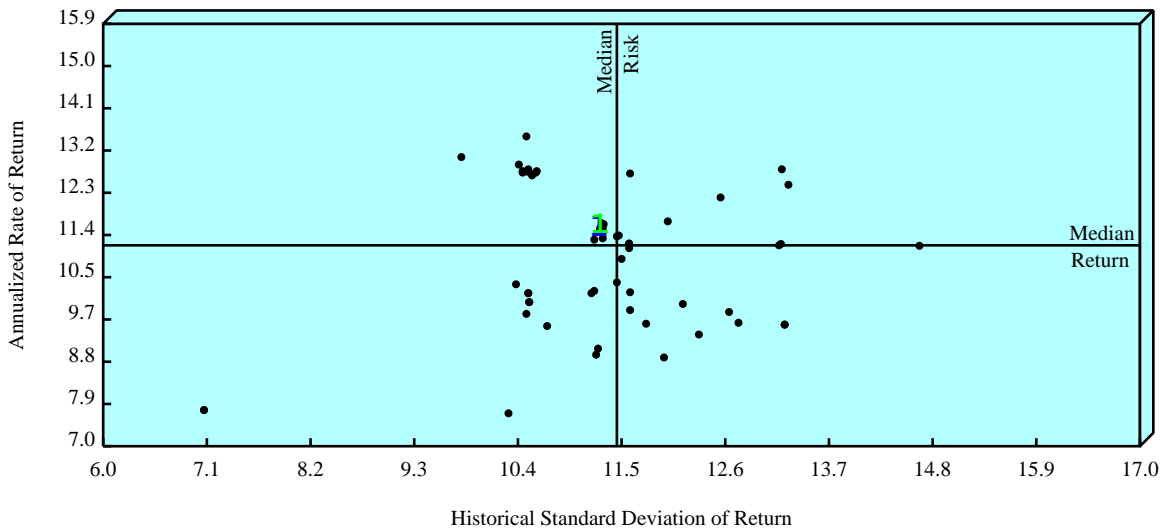
# City of Fort Lauderdale Police and Fire Return vs Risk Total Returns of Large Neutral Portfolios

3 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
1	Rhumblin Large Cap Fund	15.19	40	13.20	58
1	Standard & Poors 500	15.27	36	13.21	60
	Median	14.87		13.17	

5 Years Ending 12/31/19

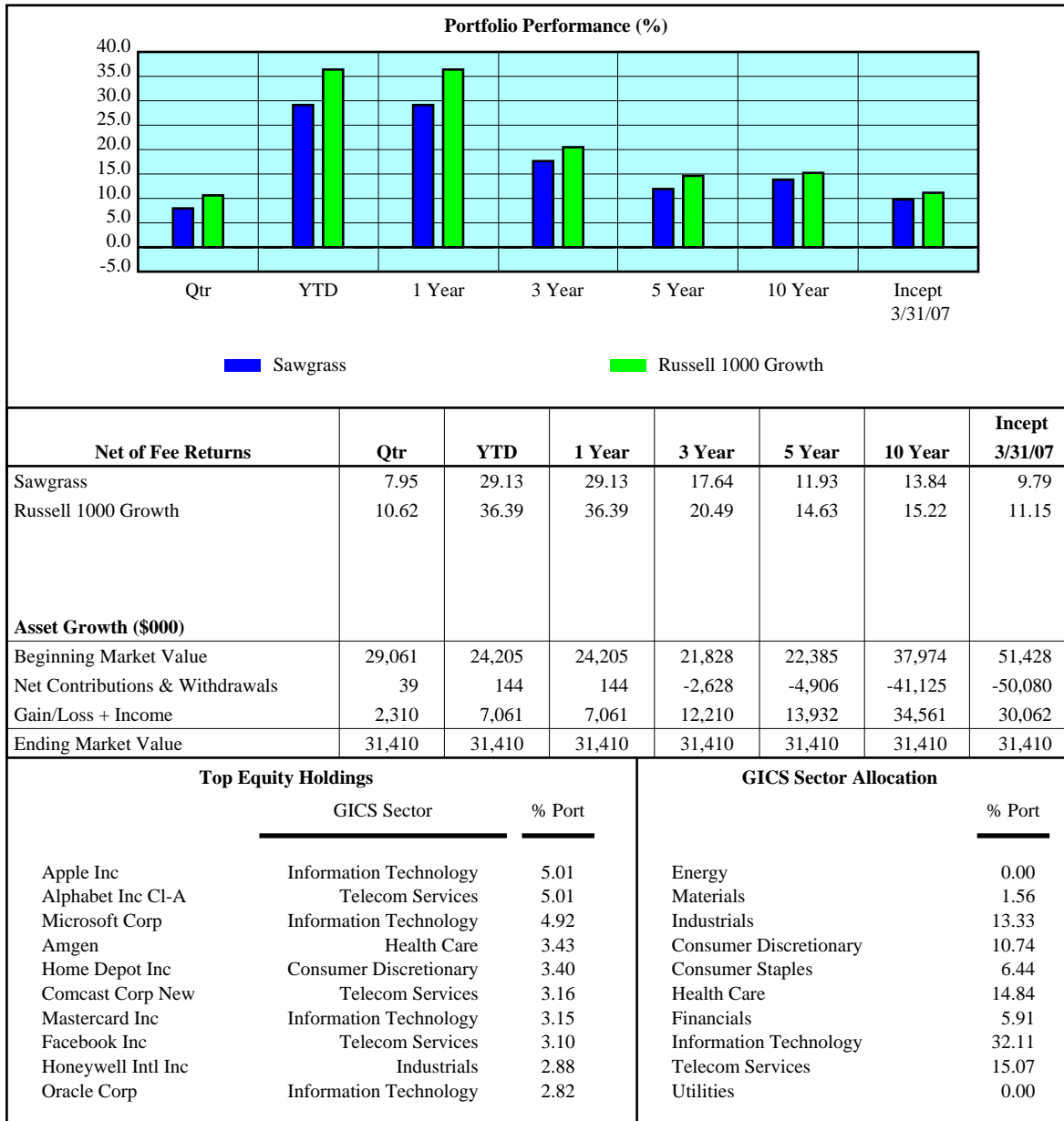


		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
1	Rhumblin Large Cap Fund	11.63	35	11.32	51
1	Standard & Poors 500	11.70	30	11.33	51
	Median	11.28		11.45	

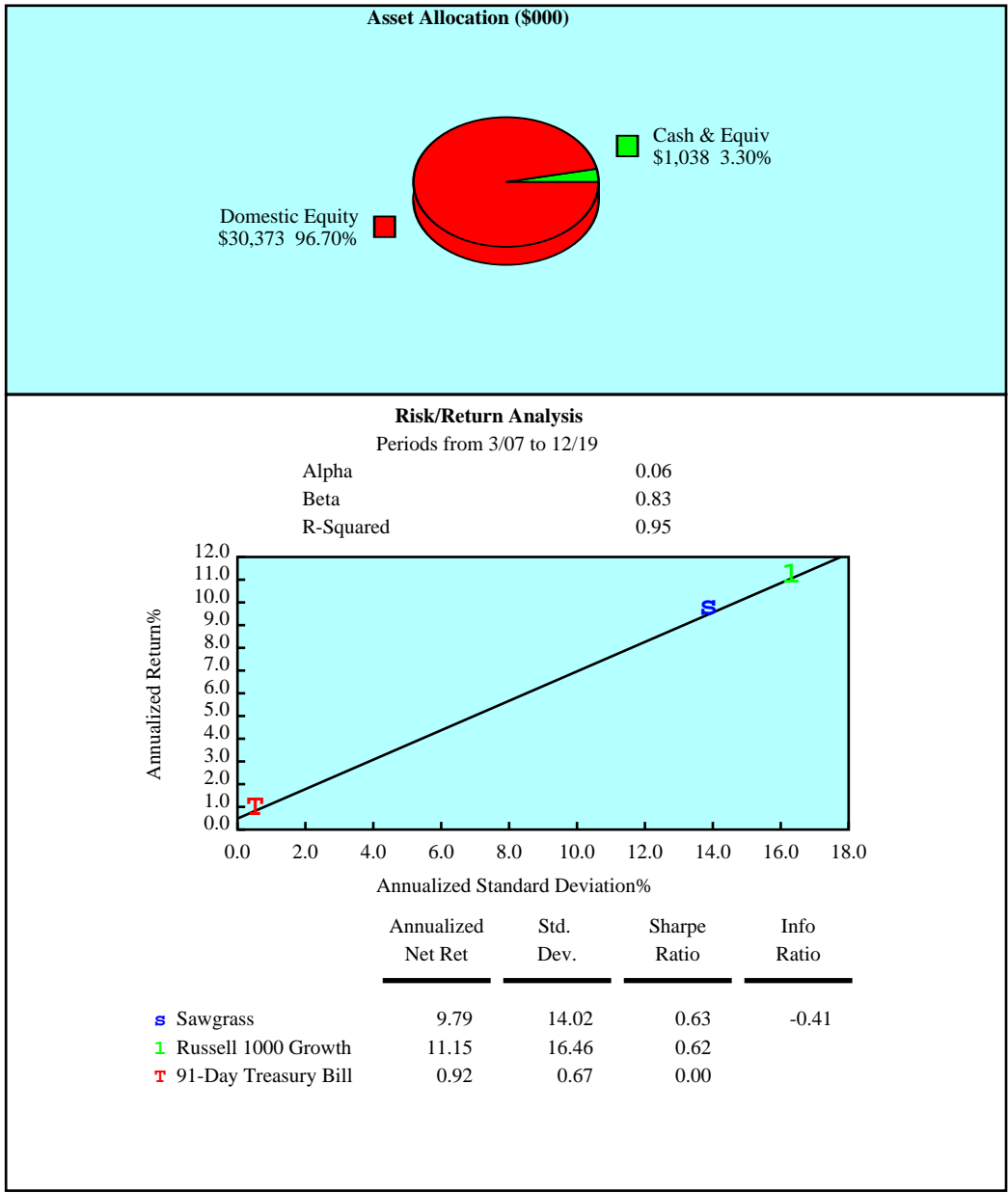
City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Rhumbline Large Cap Fund  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	2	2	3	3	26	26
Positive Periods	4	4	10	10	17	17	71	71
Up Market Capture	1.00		1.00		1.00		1.00	
Down Market Capture			1.00		1.00		0.99	
Batting Average	0.25		0.17		0.15		0.48	
Worst Quarter	1.68	1.70	-13.52	-13.52	-13.52	-13.52	-21.62	-21.93
Best Quarter	13.63	13.65	13.63	13.65	13.63	13.65	21.07	21.32
Worst 4 Quarters	31.42	31.49	-4.46	-4.38	-4.46	-4.38	-37.64	-38.07
Best 4 Quarters	31.42	31.49	31.42	31.49	31.42	31.49	49.68	49.75
Standard Deviation	10.55	10.57	13.20	13.21	11.32	11.33	15.84	16.03
Beta	1.00		1.00		1.00		0.99	
Alpha	-0.00		-0.02		-0.01		0.04	
R-Squared	1.00		1.00		1.00		1.00	
Sharpe Ratio	2.76	2.76	1.02	1.03	0.93	0.94	0.45	0.44
Treynor Ratio	29.19		13.53		10.56		7.16	
Tracking Error	0.03		0.03		0.03		0.56	
Information Ratio	-2.21		-2.88		-2.36		0.08	

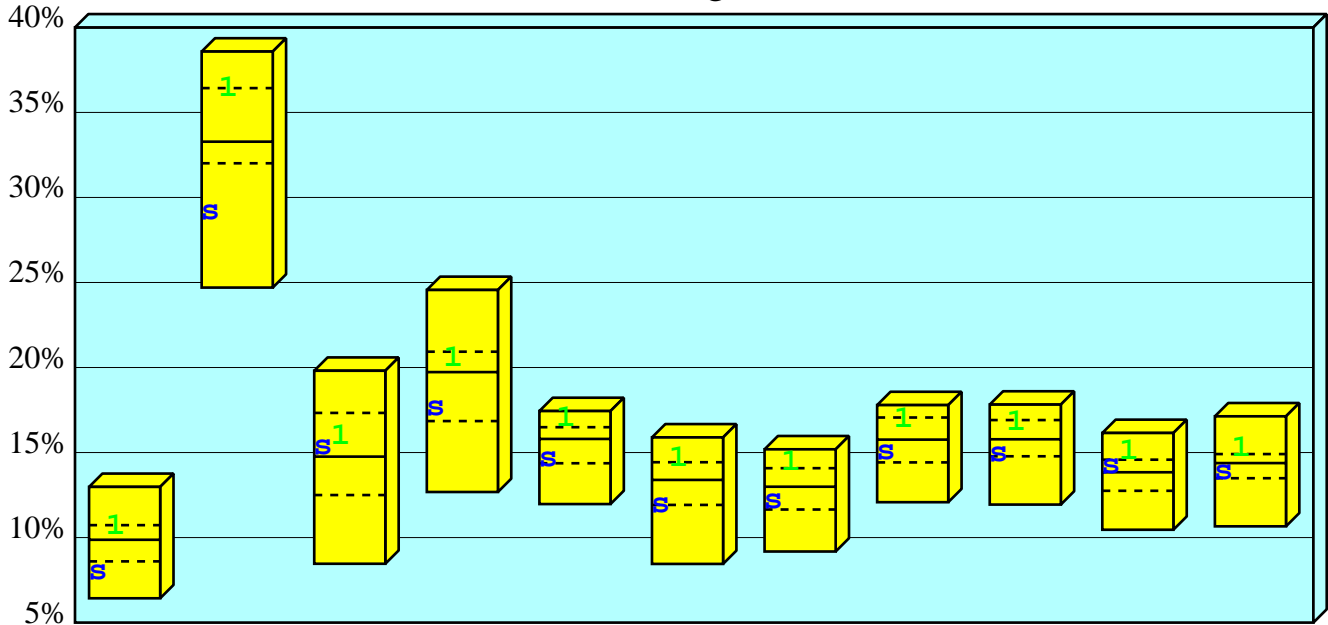
## City of Fort Lauderdale Police and Fire Sawgrass as of 12/31/19



# City of Fort Lauderdale Police and Fire Sawgrass as of 12/31/19



# City of Fort Lauderdale Police and Fire Large Growth Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years	Last 9 Years	Last 10 Years
High	12.98	38.58	19.81	24.56	17.44	15.89	15.19	17.79	17.82	16.15	17.13
1st Qt	10.73	36.43	17.33	20.93	16.49	14.43	14.08	17.06	16.91	14.58	14.91
Median	9.87	33.28	14.76	19.73	15.80	13.39	12.99	15.76	15.78	13.84	14.38
3rd Qt	8.60	32.01	12.50	16.85	14.37	11.92	11.65	14.42	14.78	12.75	13.49
Low	6.43	24.70	8.46	12.68	11.97	8.45	9.18	12.08	11.94	10.46	10.66

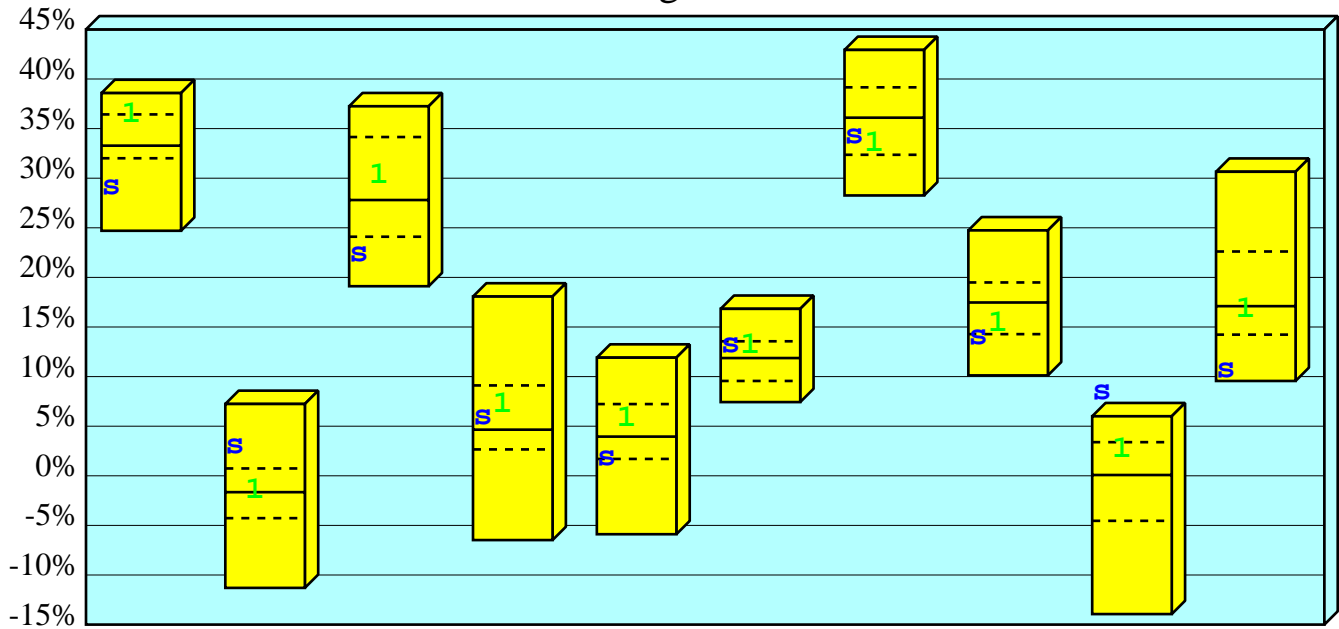
**S** Sawgrass

Net Ret	7.95	29.13	15.35	17.64	14.60	11.93	12.14	15.05	14.93	14.19	13.84
Rank	86	88	45	72	70	71	69	62	64	33	58

**1** Russell 1000 Growth

Net Ret	10.62	36.39	15.90	20.49	16.98	14.63	14.36	16.92	16.71	15.05	15.22
Rank	28	27	39	32	13	15	14	25	32	17	21

# City of Fort Lauderdale Police and Fire Large Growth Consecutive Performance Comparisons Total Returns of Equity Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
High	38.58	7.24	37.25	18.07	11.91	16.83	42.93	24.74	6.00	30.65
1st Qt	36.43	0.74	34.15	9.11	7.23	13.56	39.16	19.49	3.39	22.61
Median	33.28	-1.65	27.80	4.65	3.95	11.87	36.10	17.47	0.08	17.10
3rd Qt	32.01	-4.27	24.10	2.66	1.70	9.56	32.36	14.28	-4.54	14.23
Low	24.70	-11.30	19.11	-6.48	-5.89	7.43	28.26	10.12	-13.94	9.56

**S** Sawgrass

Net Ret	29.13	3.04	22.36	5.95	1.83	13.22	34.20	14.03	8.49	10.69
Rank	88	14	89	43	73	32	70	77	1	93

**1** Russell 1000 Growth

Net Ret	36.39	-1.51	30.21	7.08	5.67	13.05	33.49	15.26	2.63	16.72
Rank	27	49	44	31	42	34	72	67	31	54

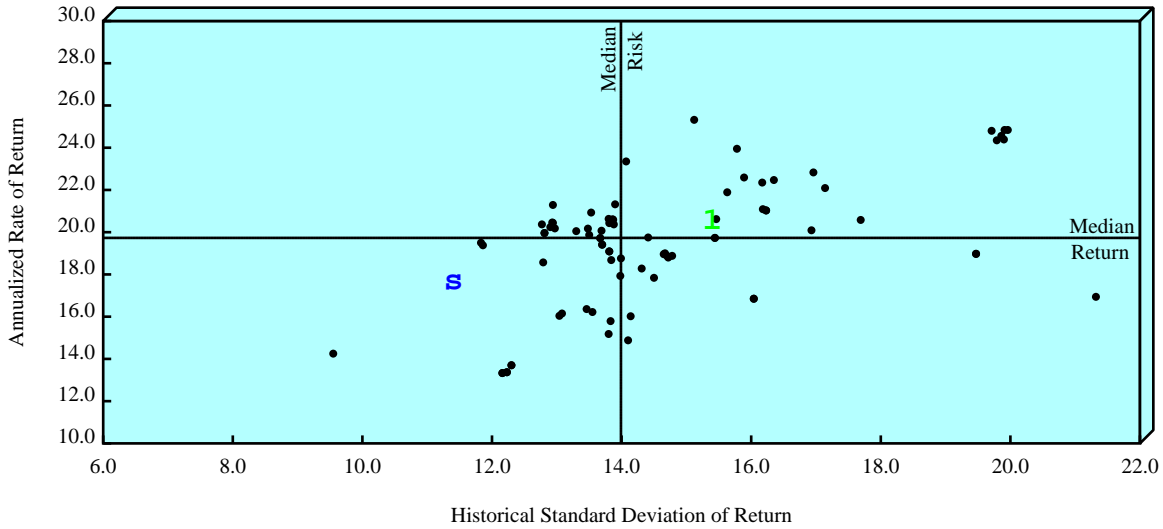


# City of Fort Lauderdale Police and Fire

## Return vs Risk

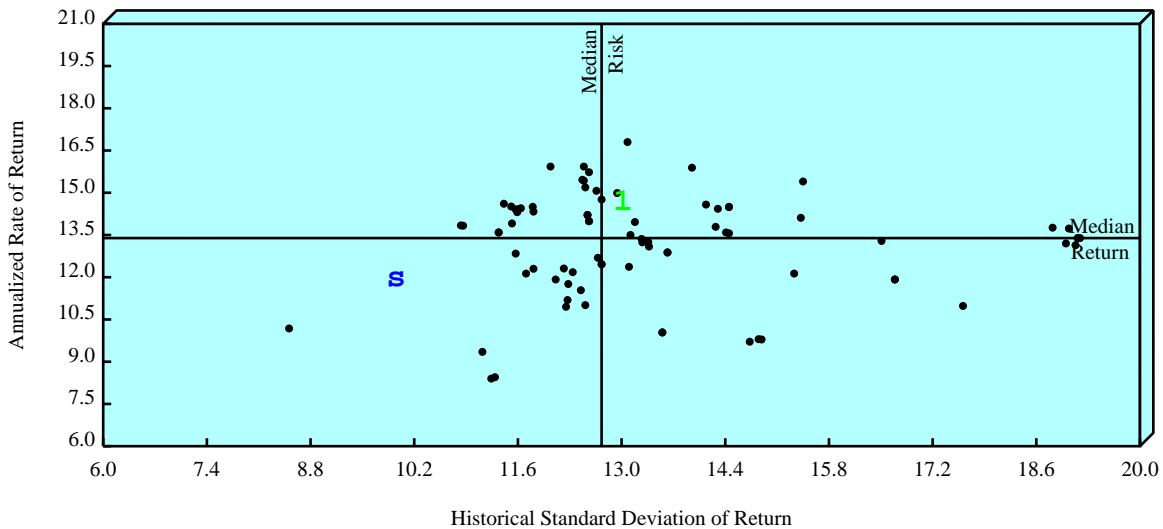
### Total Returns of Large Growth Portfolios

3 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
s	Sawgrass	17.64	72	11.49	2
l	Russell 1000 Growth	20.49	32	15.48	69
	Median	19.73		13.99	

5 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
s	Sawgrass	11.93	71	10.03	2
l	Russell 1000 Growth	14.63	15	13.09	56
	Median	13.39		12.73	

City of Fort Lauderdale Police and Fire  
 Risk Measure Summary  
 Sawgrass  
 Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	2	1	4	2	14	11
Positive Periods	4	4	10	11	16	18	37	40
Up Market Capture	0.80		0.79		0.77		0.84	
Down Market Capture			0.64		0.69		0.85	
Batting Average	0.25		0.25		0.35		0.43	
Worst Quarter	1.71	1.49	-10.12	-15.89	-10.12	-15.89	-21.12	-22.79
Best Quarter	12.63	16.10	12.63	16.10	12.63	16.10	13.15	16.32
Worst 4 Quarters	29.13	36.39	3.04	-1.51	1.83	-1.51	-36.37	-38.44
Best 4 Quarters	29.13	36.39	29.13	36.39	29.13	36.39	40.15	49.75
Standard Deviation	9.44	12.96	11.49	15.48	10.03	13.09	14.02	16.46
Beta	0.75		0.73		0.73		0.83	
Alpha	0.38		0.49		0.21		0.06	
R-Squared	0.99		0.96		0.92		0.95	
Sharpe Ratio	2.85	2.63	1.39	1.22	1.08	1.04	0.63	0.62
Treynor Ratio	35.85		21.84		14.81		10.68	
Tracking Error	3.63		4.77		4.44		4.22	
Information Ratio	-1.67		-0.65		-0.65		-0.41	

City of Fort Lauderdale Police and Fire  
Equity Summary Statistics  
Sawgrass  
Period Ending 12/19

	<u>Portfolio</u>	<u>Russell 1000 Growth</u>
Total Number Of Securities	49	530
Equity Market Value	30,372,501	
Average Capitalization \$(000)	276,807,489	379,890,794
Median Capitalization \$(000)	125,355,965	13,547,706
Equity Segment Yield	1.54	1.16
Equity Segment P/E - Average	25.40	31.19
Equity Segment P/E - Median	27.23	25.93
Equity Segment Beta	0.91	1.05
Price/Book Ratio	5.84	8.38
Debt/Equity Ratio	67.44	64.98
Five Year Earnings Growth	11.59	16.99

Ten Largest Holdings	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Apple Inc	1,526,980	5.01	31.50
Alphabet Inc Cl-A	1,526,905	5.01	9.68
Microsoft Corp	1,499,727	4.92	13.82
Amgen	1,046,244	3.43	25.40
Home Depot Inc	1,037,305	3.40	-5.28
Comcast Corp New	964,157	3.16	0.23
Mastercard Inc	958,474	3.15	10.09
Facebook Inc	944,150	3.10	15.26
Honeywell Intl Inc	877,920	2.88	5.13
Oracle Corp	858,965	2.82	-3.30

Ten Best Performers	<u>Quarterly Ret</u>	Ten Worst Performers	<u>Quarterly Ret</u>
Unitedhealth Group I	35.80	McDonalds Corp	-7.37
Apple Inc	31.50	Akamai Technologies	-5.47
Amgen	25.40	Verisk Analytics Inc	-5.40
Varian Med Sys Inc	19.25	Home Depot Inc	-5.28
Abbvie Inc	18.63	Dunkin Brands Group	-4.35
Intel Corp	16.78	Oracle Corp	-3.30
Broadcom Inc	15.64	Ecolab Inc	-2.30
Illinois Tool Wks In	15.47	Cisco Sys Inc	-2.21
Citrix Sys Inc	15.26	Dell Technologies In	-0.91
Facebook Inc	15.26	Comcast Corp New	0.23

**City of Fort Lauderdale Police and Fire**  
**Equity Contribution to Return**  
**Sawgrass**  
**Period Ending 12/19**

	<u>Portfolio</u>	<u>Russell 1000 Growth</u>
Total Number Of Securities	49	530
Equity Market Value	30,372,501	
Average Capitalization \$(000)	276,807,489	379,890,794
Median Capitalization \$(000)	125,355,965	13,547,706
Equity Segment Yield	1.54	1.16
Equity Segment P/E - Average	25.40	31.19
Equity Segment P/E - Median	27.23	25.93
Equity Segment Beta	0.91	1.05
Price/Book Ratio	5.84	8.38
Debt/Equity Ratio	67.44	64.98
Five Year Earnings Growth	11.59	16.99

Ten Best Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Apple Inc	1,526,980	5.01	31.50
Amgen	1,046,244	3.43	25.40
Unitedhealth Group I	634,997	2.08	35.80
Microsoft Corp	1,499,727	4.92	13.82
Alphabet Inc Cl-A	1,526,905	5.01	9.68
Facebook Inc	944,150	3.10	15.26
Broadcom Inc	793,210	2.60	15.64
Mastercard Inc	958,474	3.15	10.09
Intel Corp	565,583	1.86	16.78
Fiserv Inc	775,877	2.55	11.62

Ten Worst Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Home Depot Inc	1,037,305	3.40	-5.28
Oracle Corp	858,965	2.82	-3.30
McDonalds Corp	294,439	0.97	-7.37
Dunkin Brands Group	449,463	1.48	-4.35
Akamai Technologies	300,602	0.99	-5.47
Verisk Analytics Inc	285,239	0.94	-5.40
Cisco Sys Inc	637,868	2.09	-2.21
Ecolab Inc	474,562	1.56	-2.30
Dell Technologies In	488,513	1.60	-0.91
Comcast Corp New	964,157	3.16	0.23

City of Fort Lauderdale Police and Fire  
Equity Sector Attribution Analysis  
Sawgrass  
Quarter Ending 12/19

GICS Sectors	Weight		Return		Selection		
	Portfolio	Index	Portfolio	Index	Stock	Sector	Total
Energy	0.00	0.27		6.36	0.00	0.01	0.01
Materials	2.18	1.45	-2.30	1.76	-0.09	-0.06	-0.15
Industrials	14.26	9.97	5.70	2.65	0.43	-0.34	0.09
Consumer Discretionary	12.73	14.43	-0.16	6.02	-0.79	0.08	-0.71
Consumer Staples	6.78	4.93	4.08	3.62	0.03	-0.13	-0.10
Health Care	13.30	14.23	16.62	16.10	0.07	-0.05	0.02
Financials	5.95	3.16	8.66	8.91	-0.01	-0.05	-0.06
Information Technology	30.00	37.58	11.58	14.41	-0.85	-0.29	-1.14
Telecom. Services	14.80	11.41	8.09	10.89	-0.42	0.01	-0.40
Utilities	0.00	0.00		0.00	0.00	-0.00	0.00
	100.00	100.00	8.42	10.59	-1.62	-0.82	-2.44

Index - Russell 1000 Growth

Stock Selection Return Attribution

[ Portfolio Market Value Sector Percentage ] \* [ Portfolio Sector Return - Index Sector Return ]

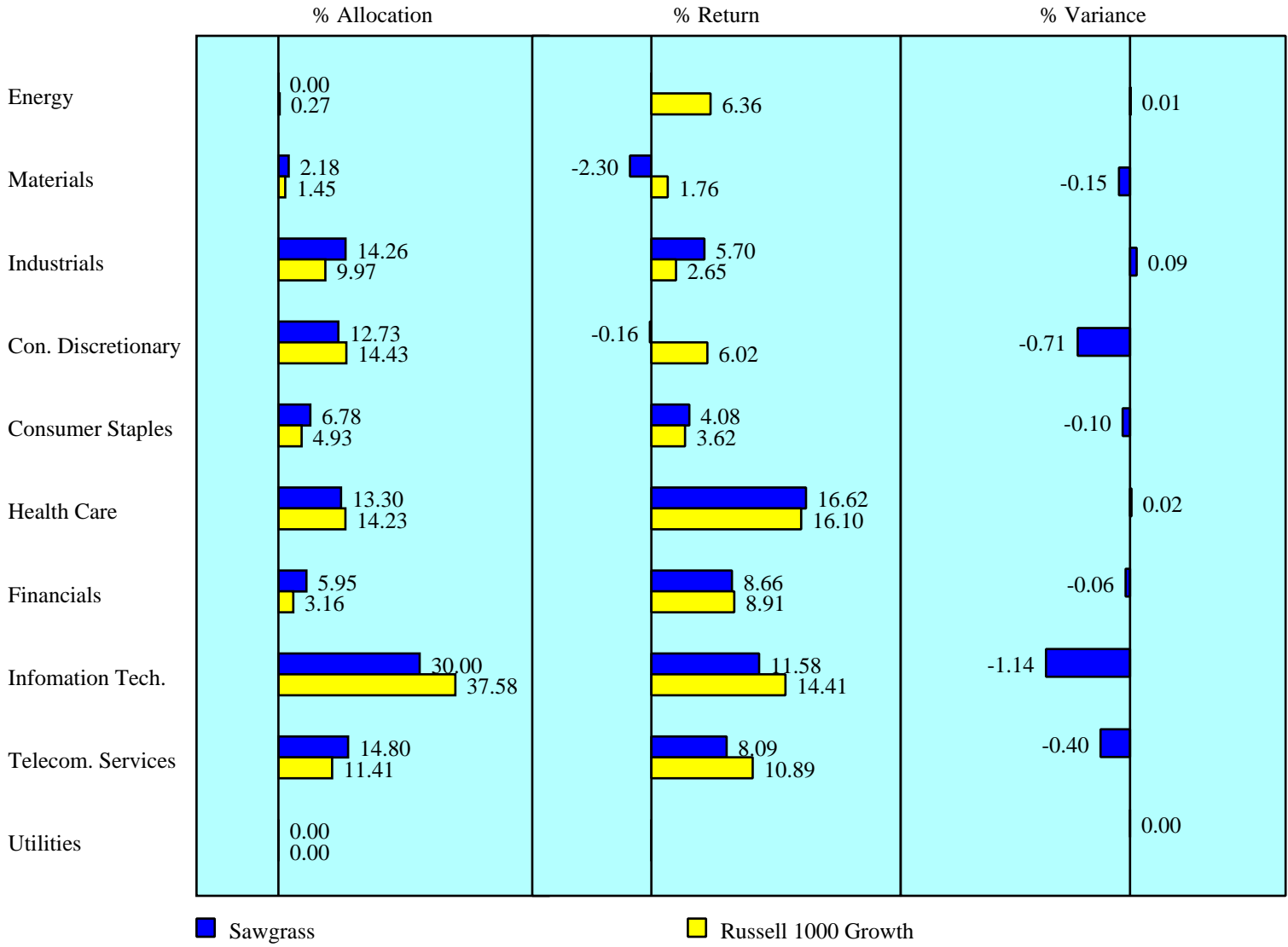
Sector Selection Return Attribution

[ Portfolio Sector Percentage - Index Sector Percentage ] \* [ Index Sector Return - Index Total Return ]

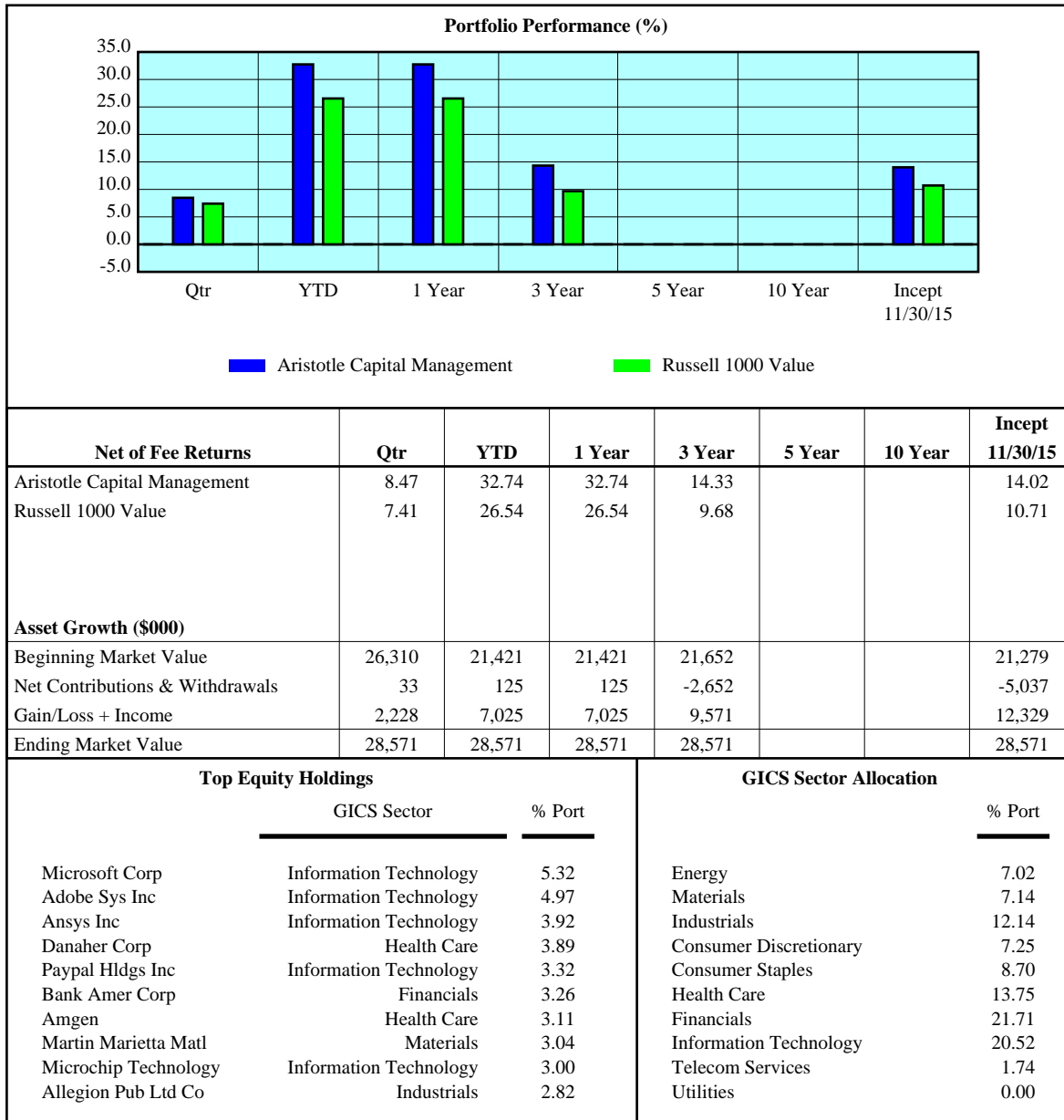
Trading Effect -0.36%

[ Actual Return 8.05% ] - [ Buy Hold Return 8.42% ]

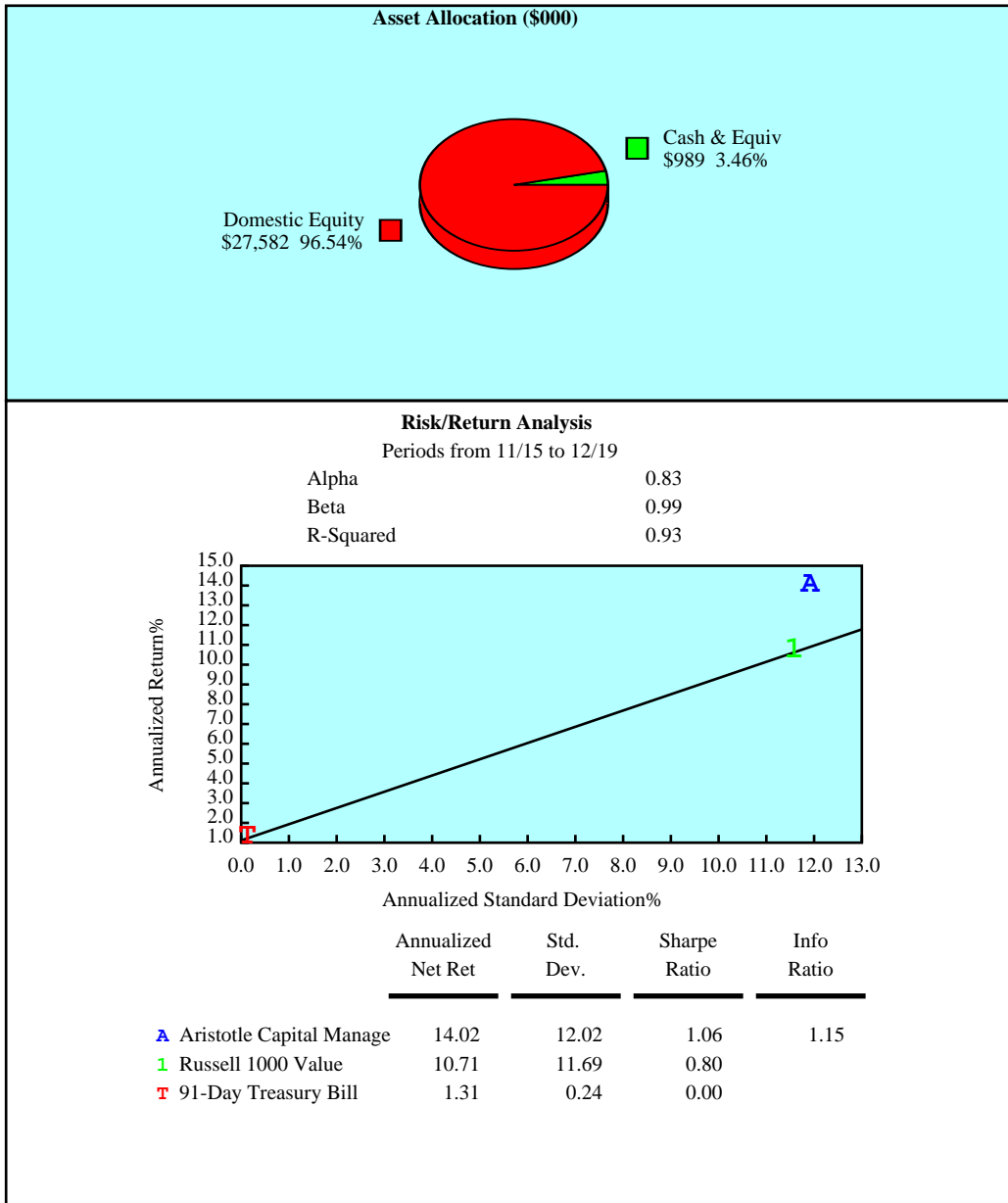
# City of Fort Lauderdale Police and Fire Equity Sector Attribution Chart Sawgrass Quarter Ending 12/19



## City of Fort Lauderdale Police and Fire Aristotle Capital Management as of 12/31/19

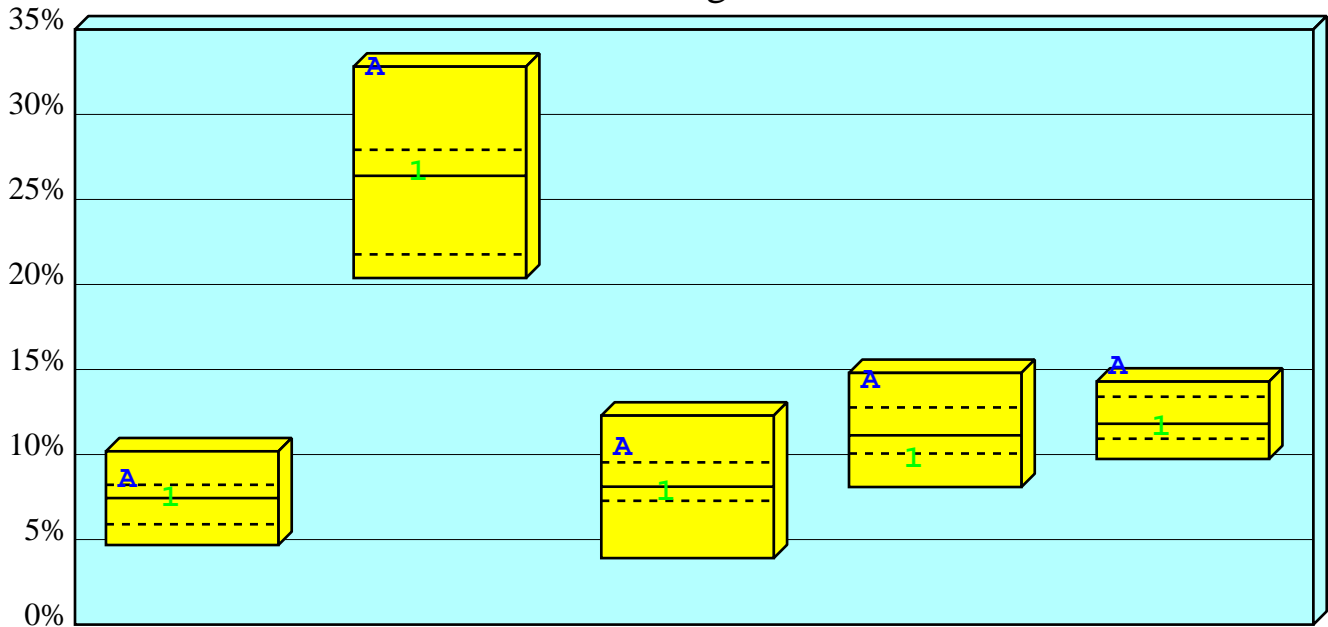


# City of Fort Lauderdale Police and Fire Aristotle Capital Management as of 12/31/19





# City of Fort Lauderdale Police and Fire Large Value Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years
High	10.19	32.81	12.29	14.80	14.29
1st Qt	8.22	27.92	9.54	12.77	13.40
Median	7.44	26.39	8.11	11.13	11.81
3rd Qt	5.90	21.77	7.28	10.06	10.93
Low	4.68	20.38	3.91	8.09	9.74

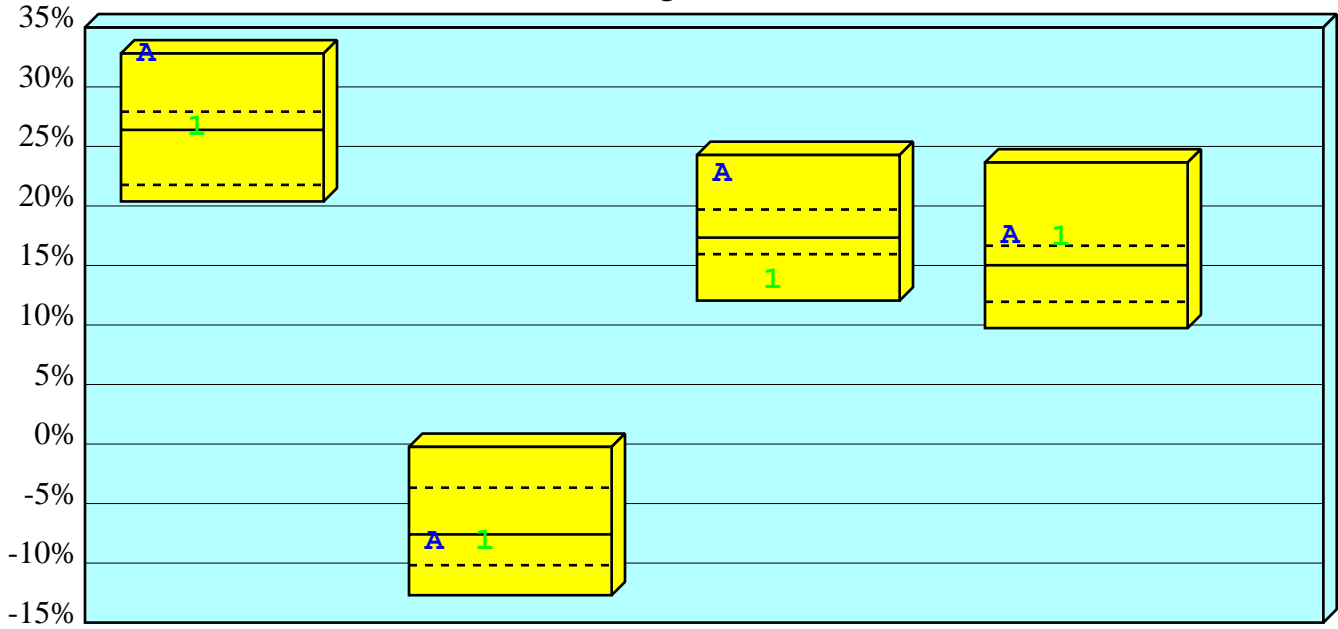
**A** Aristotle Capital Management

Net Ret	8.47	32.74	10.38	14.33	15.12
Rank	21	6	18	10	1

**1** Russell 1000 Value

Net Ret	7.41	26.54	7.74	9.68	11.55
Rank	50	48	61	84	54

City of Fort Lauderdale Police and Fire  
 Large Value Consecutive Performance Comparisons  
 Total Returns of Equity Portfolios  
 Years Ending December



	2019	2018	2017	2016
High	32.81	-0.24	24.28	23.65
1st Qt	27.92	-3.67	19.70	16.66
Median	26.39	-7.59	17.34	15.02
3rd Qt	21.77	-10.18	15.95	11.95
Low	20.38	-12.70	12.05	9.74

**A** Aristotle Capital Management

Net Ret	32.74	-8.21	22.66	17.50
Rank	6	56	8	18

**1** Russell 1000 Value

Net Ret	26.54	-8.27	13.66	17.34
Rank	48	56	91	19

City of Fort Lauderdale Police and Fire  
 Risk Measure Summary  
 Aristotle Capital Management  
 Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	2	2			2	2
Positive Periods	4	4	10	10			14	14
Up Market Capture	1.23		1.29				1.21	
Down Market Capture			0.91				0.91	
Batting Average	1.00		0.83				0.75	
Worst Quarter	2.68	1.36	-12.33	-11.72			-12.33	-11.72
Best Quarter	12.04	11.93	12.04	11.93			12.04	11.93
Worst 4 Quarters	32.74	26.54	-8.21	-8.27			-8.21	-8.27
Best 4 Quarters	32.74	26.54	32.74	26.54			32.74	26.54
Standard Deviation	7.83	9.19	12.01	11.59			10.47	10.20
Beta	0.97		1.01				0.99	
Alpha	1.45		1.05				0.83	
R-Squared	0.95		0.94				0.93	
Sharpe Ratio	3.89	2.64	1.05	0.69			1.32	1.00
Treynor Ratio	31.54		12.48				13.86	
Tracking Error	1.99		2.95				2.85	
Information Ratio	2.56		1.48				1.15	

City of Fort Lauderdale Police and Fire  
Equity Summary Statistics  
Aristotle Capital Management  
Period Ending 12/19

	<u>Portfolio</u>	<u>Russell 1000 Value</u>
Total Number Of Securities	43	764
Equity Market Value	27,582,338	
Average Capitalization \$(000)	146,490,319	130,891,710
Median Capitalization \$(000)	31,565,447	9,760,807
Equity Segment Yield	1.54	2.49
Equity Segment P/E - Average	18.35	20.74
Equity Segment P/E - Median	18.23	19.23
Equity Segment Beta	1.09	0.95
Price/Book Ratio	2.91	2.14
Debt/Equity Ratio	60.22	66.39
Five Year Earnings Growth	13.28	5.28

Ten Largest Holdings	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Microsoft Corp	1,466,610	5.32	13.82
Adobe Sys Inc	1,368,712	4.97	19.39
Ansys Inc	1,081,122	3.92	16.29
Danaher Corp	1,072,825	3.89	6.38
Paypal Hldgs Inc	914,037	3.32	4.42
Bank Amer Corp	898,110	3.26	21.40
Amgen	856,040	3.11	25.40
Martin Marietta Matl	838,920	3.04	2.23
Microchip Technology	827,288	3.00	13.16
Allegion Pub Ltd Co	777,130	2.82	20.42

Ten Best Performers	<u>Quarterly Ret</u>	Ten Worst Performers	<u>Quarterly Ret</u>
Halliburton Co	30.90	Twitter Inc	-22.21
Amgen	25.40	Johnson Ctls Intl Pl	-6.65
Oshkosh Truck Corp	25.28	Home Depot Inc	-5.28
Bank Amer Corp	21.40	Unilever N V	-3.66
Pioneer Nat Res Co	20.71	Chubb Limited	-3.11
Allegion Pub Ltd Co	20.42	Alcon Inc	-2.95
J P Morgan Chase & C	19.40	General Dynamics Cor	-2.93
Adobe Sys Inc	19.39	Cabot Oil & Gas Corp	-0.36
Commerce Bancshares	18.10	Lennar Corp- Cl A	-0.04
Ansys Inc	16.29	Lennar Corp	0.83

City of Fort Lauderdale Police and Fire  
Equity Contribution to Return  
Aristotle Capital Management  
Period Ending 12/19

	<u>Portfolio</u>	<u>Russell 1000 Value</u>
Total Number Of Securities	43	764
Equity Market Value	27,582,338	
Average Capitalization \$(000)	146,490,319	130,891,710
Median Capitalization \$(000)	31,565,447	9,760,807
Equity Segment Yield	1.54	2.49
Equity Segment P/E - Average	18.35	20.74
Equity Segment P/E - Median	18.23	19.23
Equity Segment Beta	1.09	0.95
Price/Book Ratio	2.91	2.14
Debt/Equity Ratio	60.22	66.39
Five Year Earnings Growth	13.28	5.28

Ten Best Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Adobe Sys Inc	1,368,712	4.97	19.39
Amgen	856,040	3.11	25.40
Microsoft Corp	1,466,610	5.32	13.82
Oshkosh Truck Corp	766,665	2.78	25.28
Bank Amer Corp	898,110	3.26	21.40
Ansys Inc	1,081,122	3.92	16.29
Allegion Pub Ltd Co	777,130	2.82	20.42
J P Morgan Chase & C	585,480	2.12	19.40
Sony Corp	748,680	2.72	15.00
Microchip Technology	827,288	3.00	13.16

Ten Worst Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Twitter Inc	480,750	1.74	-22.21
Johnson Ctls Intl Pl	588,260	2.13	-6.65
Home Depot Inc	712,356	2.58	-5.28
Unilever N V	531,505	1.93	-3.66
Chubb Limited	544,810	1.98	-3.11
General Dynamics Cor	511,415	1.86	-2.93
Alcon Inc	485,710	1.76	-2.95
Cabot Oil & Gas Corp	586,717	2.13	-0.36
Lennar Corp- Cl A	530,005	1.92	-0.04
Lennar Corp	8,493	0.03	0.83

City of Fort Lauderdale Police and Fire  
Equity Sector Attribution Analysis  
Aristotle Capital Management  
Quarter Ending 12/19

GICS Sectors	Weight		Return		Selection		
	Portfolio	Index	Portfolio	Index	Stock	Sector	Total
Energy	6.65	8.37	11.13	5.72	0.36	0.03	0.39
Materials	5.76	4.29	6.98	8.07	-0.06	0.01	-0.05
Industrials	12.00	9.41	10.48	9.01	0.18	0.04	0.22
Consumer Discretionary	7.68	6.09	2.96	4.11	-0.09	-0.05	-0.14
Consumer Staples	9.26	9.17	2.83	3.49	-0.06	-0.00	-0.06
Health Care	13.88	12.40	8.88	12.02	-0.44	0.07	-0.37
Financials	22.68	23.56	11.25	9.97	0.29	-0.02	0.27
Information Technology	19.64	6.02	13.81	12.18	0.32	0.65	0.97
Telecom. Services	2.44	8.19	-22.21	6.75	-0.71	0.04	-0.67
Utilities	0.00	7.01		0.54	0.00	0.48	0.48
	100.00	100.00	8.85	7.41	-0.21	1.24	1.03

Index - Russell 1000 Value

Stock Selection Return Attribution

[ Portfolio Market Value Sector Percentage ] \* [ Portfolio Sector Return - Index Sector Return ]

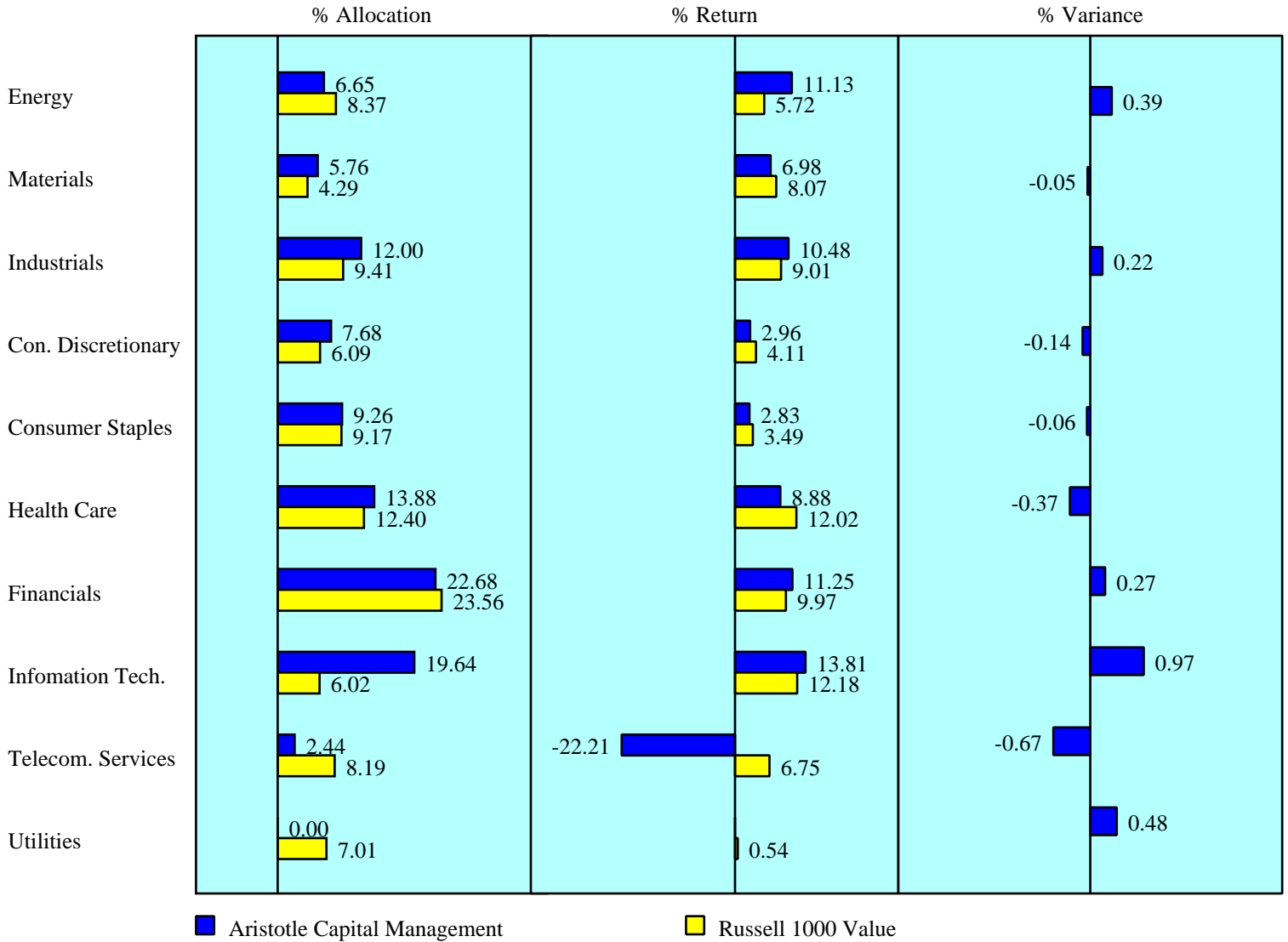
Sector Selection Return Attribution

[ Portfolio Sector Percentage - Index Sector Percentage ] \* [ Index Sector Return - Index Total Return ]

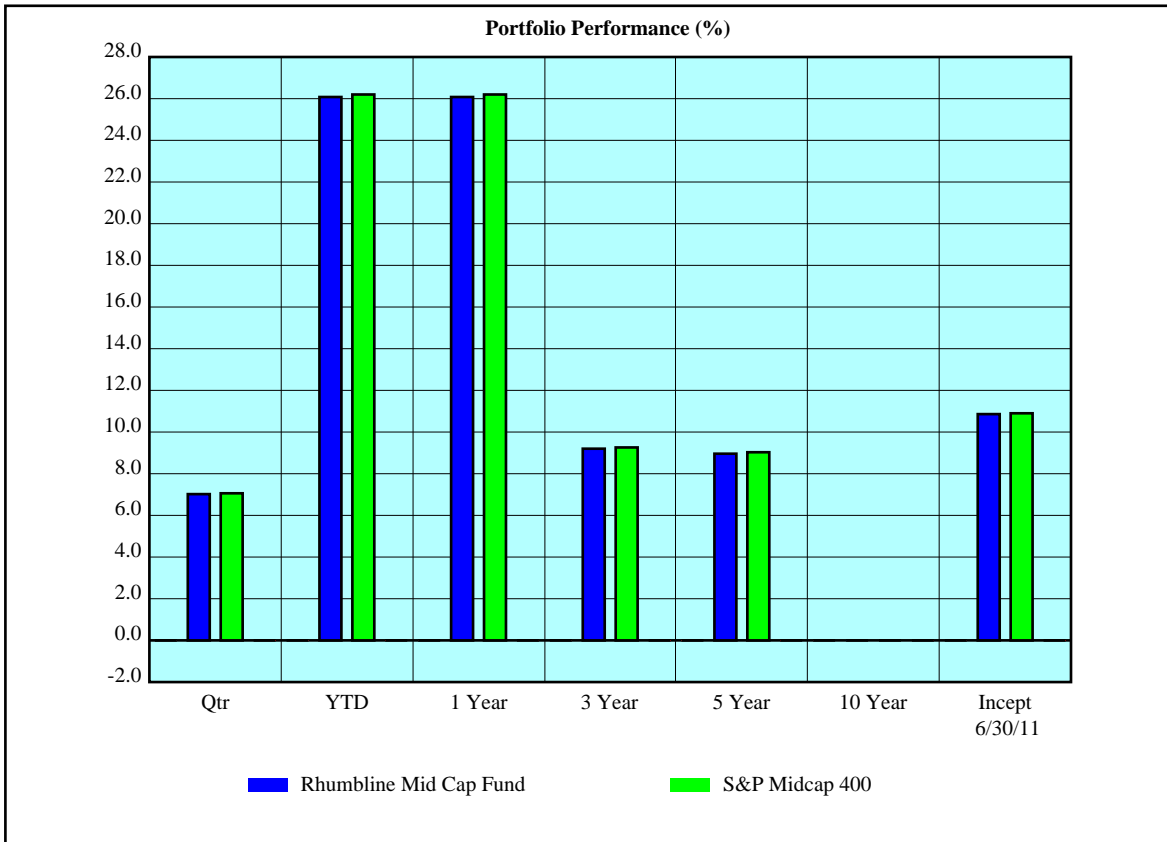
Trading Effect 0.06%

[ Actual Return 8.90% ] - [ Buy Hold Return 8.85% ]

# City of Fort Lauderdale Police and Fire Equity Sector Attribution Chart Aristotle Capital Management Quarter Ending 12/19



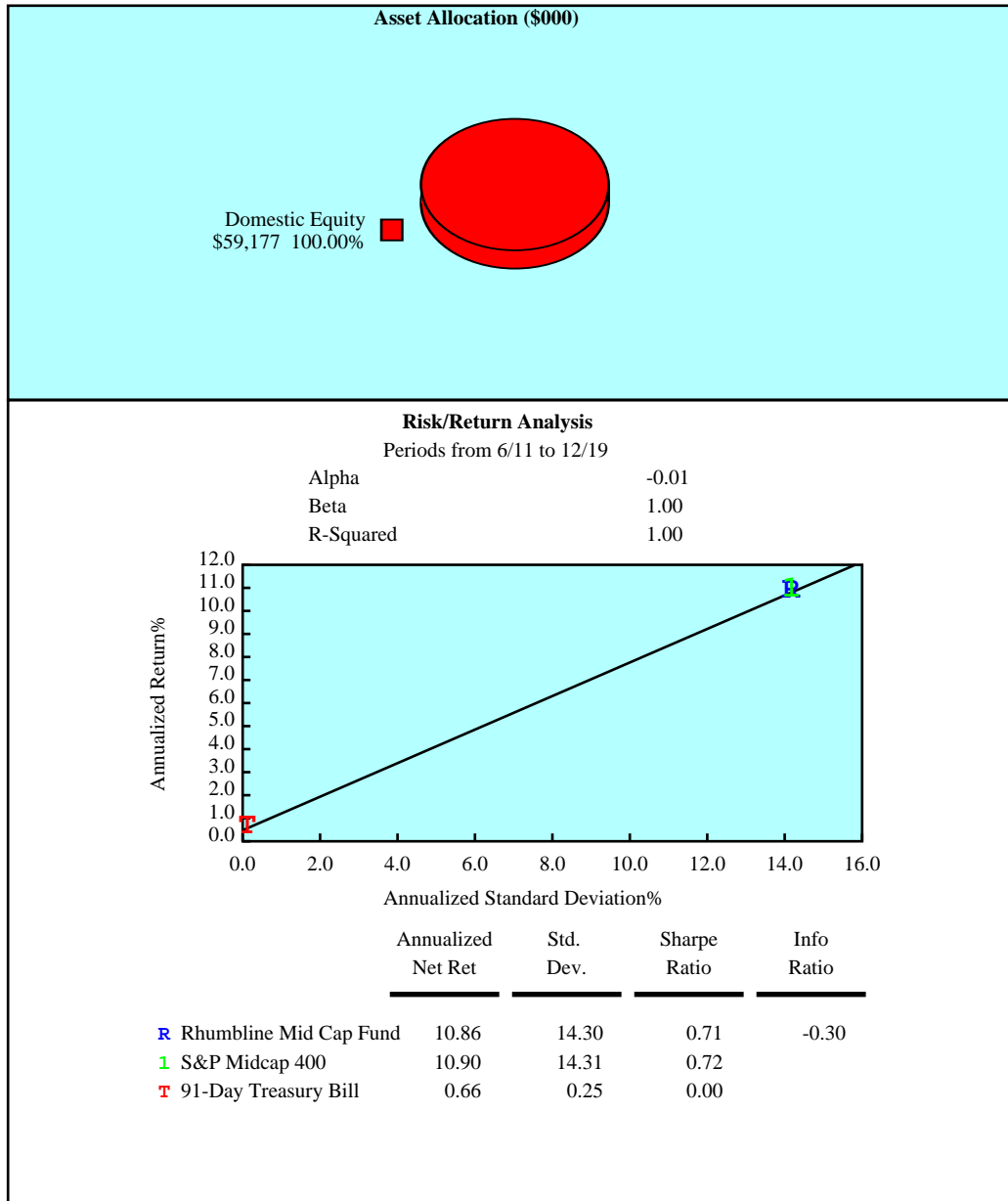
## City of Fort Lauderdale Police and Fire Rhumbleline Mid Cap Fund as of 12/31/19



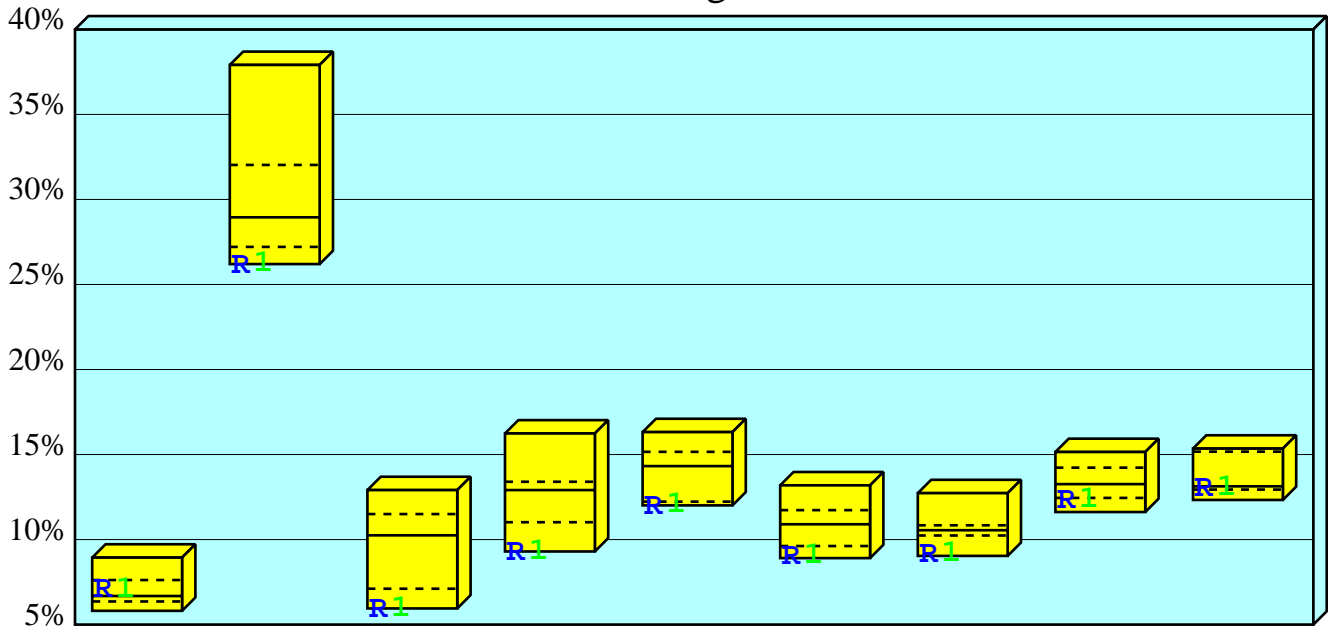
Net of Fee Returns	Qtr	YTD	1 Year	3 Year	5 Year	10 Year	Incept 6/30/11
Rhumbleline Mid Cap Fund	7.02	26.08	26.08	9.20	8.96		10.86
S&P Midcap 400	7.06	26.20	26.20	9.26	9.03		10.90
<b>Asset Growth (\$000)</b>							
Beginning Market Value	55,290	51,122	51,122	49,463	77,989		13,182
Net Contributions & Withdrawals	4	-4,983	-4,983	-4,950	-41,384		3,305
Gain/Loss + Income	3,883	13,039	13,039	14,664	22,572		42,690
Ending Market Value	59,177	59,177	59,177	59,177	59,177		59,177



# City of Fort Lauderdale Police and Fire Rhumbline Mid Cap Fund as of 12/31/19



# City of Fort Lauderdale Police and Fire Midcap Neutral Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years
High	8.94	37.91	12.91	16.24	16.32	13.19	12.73	15.15	15.35
1st Qt	7.62	32.03	11.50	13.40	15.16	11.73	10.84	14.23	15.17
Median	6.68	28.95	10.25	12.91	14.32	10.90	10.55	13.26	13.13
3rd Qt	6.36	27.21	7.11	11.02	12.23	9.62	10.24	12.45	12.94
Low	5.81	26.20	5.95	9.30	12.01	8.91	9.04	11.62	12.33

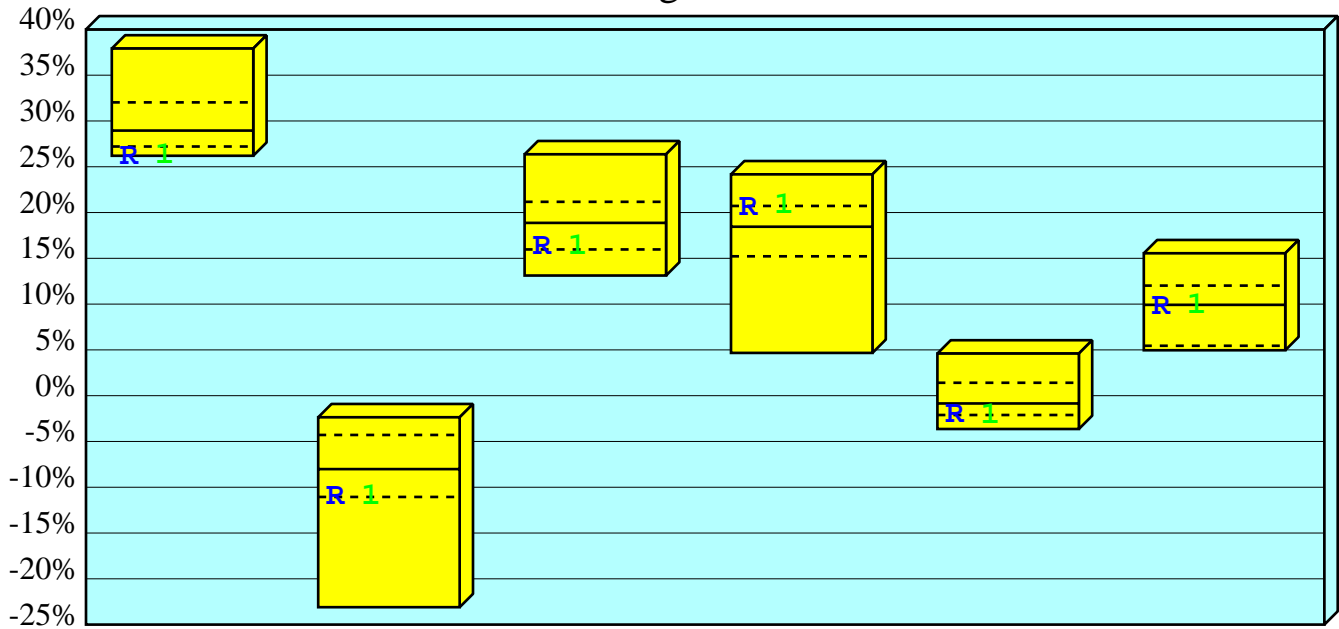
**R** Rhumbline Mid Cap Fund

Net Ret	7.02	26.08	5.87	9.20	11.93	8.96	9.09	12.27	12.99
Rank	46	95	95	95	95	92	88	87	73

**1** S&P Midcap 400

Net Ret	7.06	26.20	5.93	9.26	12.02	9.03	9.15	12.34	13.02
Rank	46	95	95	95	92	88	88	87	71

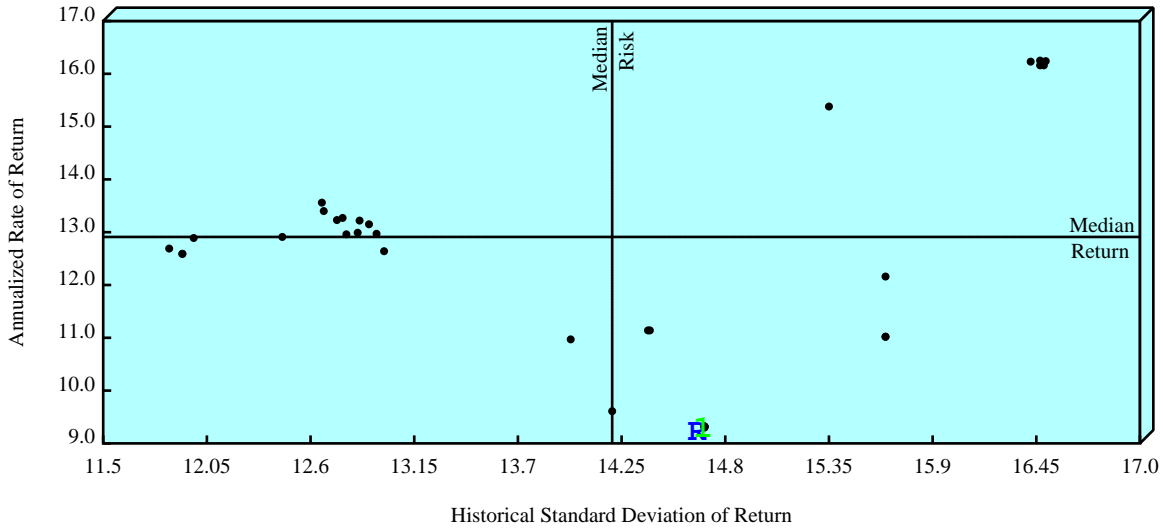
## City of Fort Lauderdale Police and Fire Midcap Neutral Consecutive Performance Comparisons Total Returns of Equity Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014
High	37.91	-2.36	26.36	24.17	4.60	15.55
1st Qt	32.03	-4.29	21.17	20.72	1.41	12.02
Median	28.95	-8.02	18.87	18.45	-0.85	9.92
3rd Qt	27.21	-11.06	15.97	15.22	-2.11	5.45
Low	26.20	-23.10	13.12	4.67	-3.64	4.96
<b>R Rhumbline Mid Cap Fund</b>						
Net Ret	26.08	-11.10	16.19	20.52	-2.14	9.72
Rank	95	77	72	30	75	61
<b>1 S&amp;P Midcap 400</b>						
Net Ret	26.20	-11.08	16.24	20.74	-2.18	9.77
Rank	95	77	70	18	80	58

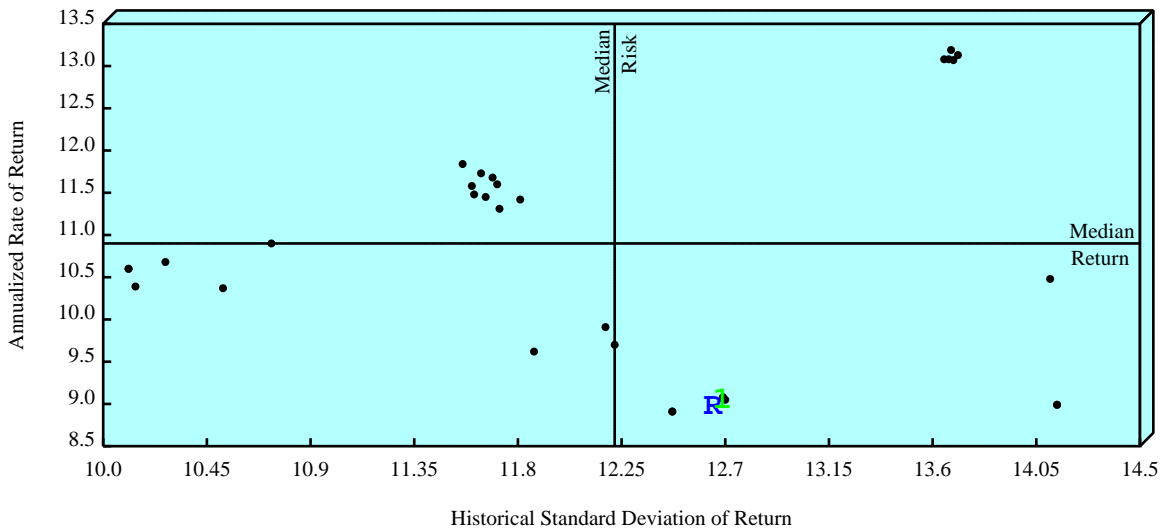
# City of Fort Lauderdale Police and Fire Return vs Risk Total Returns of Midcap Neutral Portfolios

3 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
R	Rhumbline Mid Cap Fund	9.20	95	14.68	61
I	S&P Midcap 400	9.26	95	14.71	73
	Median	12.91		14.20	

5 Years Ending 12/31/19

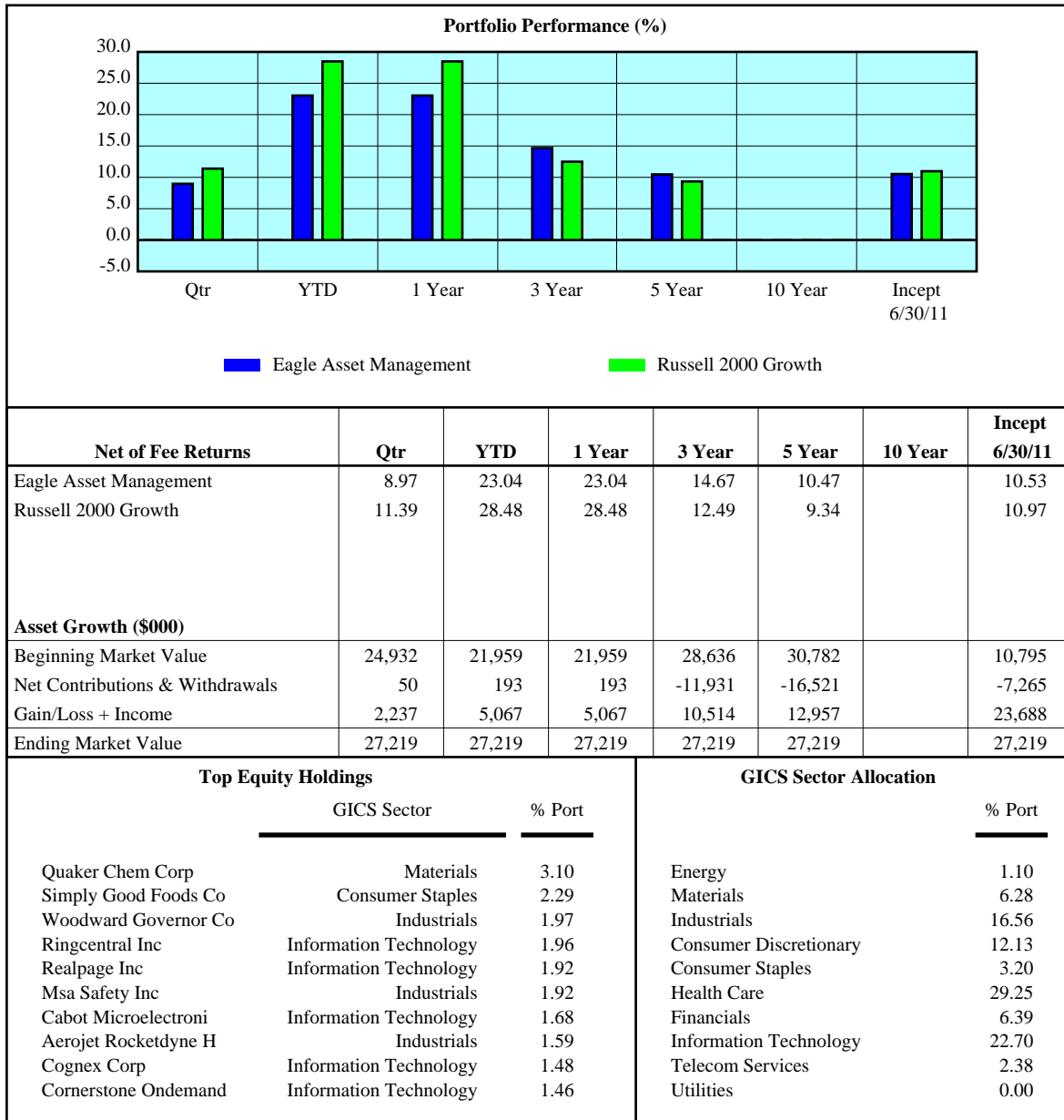


		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
R	Rhumbline Mid Cap Fund	8.96	92	12.67	61
I	S&P Midcap 400	9.03	88	12.71	76
	Median	10.90		12.22	

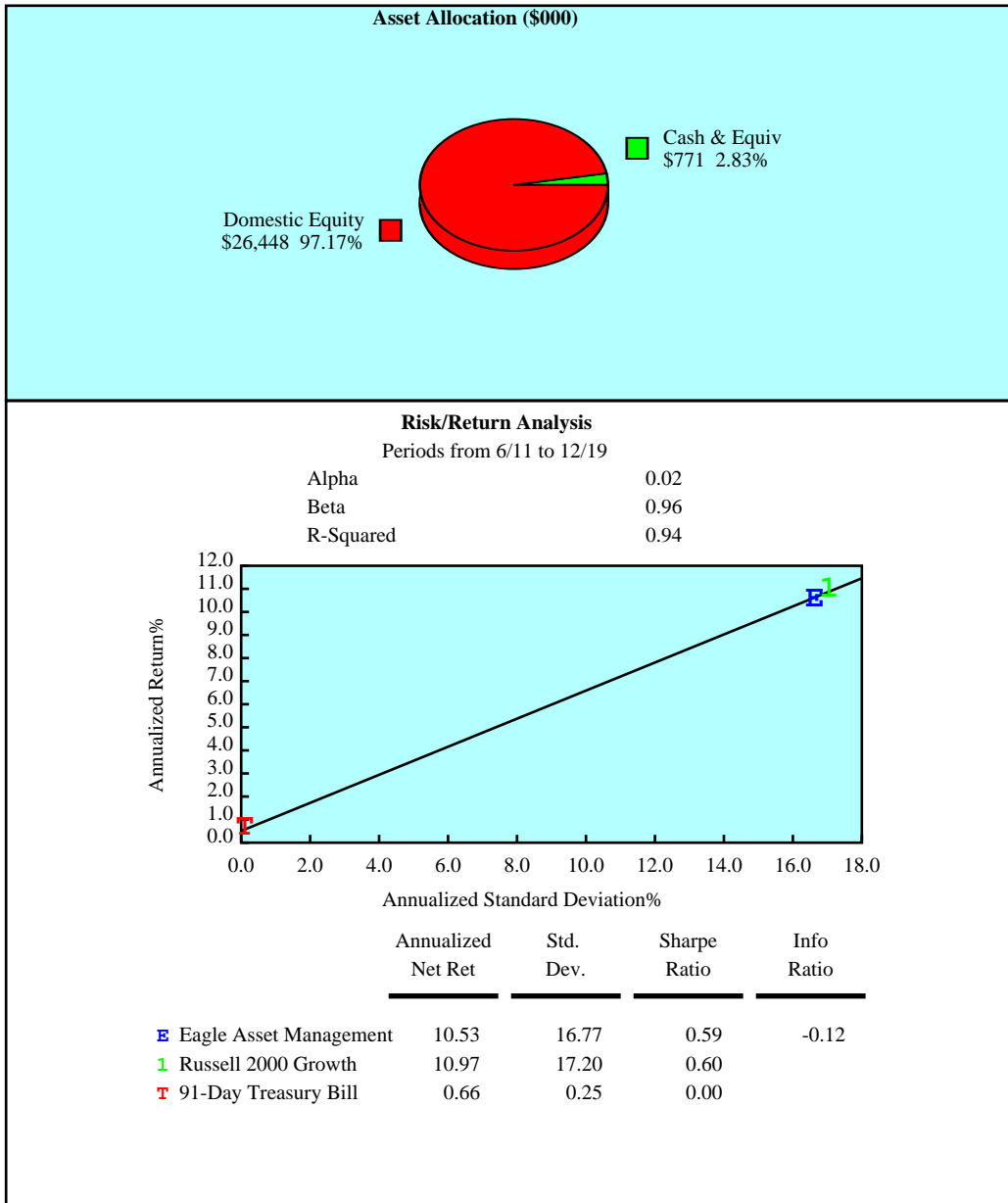
City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Rhumbline Mid Cap Fund  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	1	1	3	3	5	5	8	8
Positive Periods	3	3	9	9	15	15	26	26
Up Market Capture	1.00		1.00		0.99		1.00	
Down Market Capture	1.21		1.00		1.00		1.00	
Batting Average	0.25		0.17		0.20		0.29	
Worst Quarter	-0.10	-0.09	-17.24	-17.28	-17.24	-17.28	-19.88	-19.88
Best Quarter	14.44	14.49	14.44	14.49	14.44	14.49	14.44	14.49
Worst 4 Quarters	26.08	26.20	-11.10	-11.08	-11.10	-11.08	-11.10	-11.08
Best 4 Quarters	26.08	26.20	26.08	26.20	26.08	26.20	33.39	33.51
Standard Deviation	12.55	12.59	14.68	14.71	12.67	12.71	14.76	14.78
Beta	1.00		1.00		1.00		1.00	
Alpha	-0.01		-0.01		-0.01		-0.01	
R-Squared	1.00		1.00		1.00		1.00	
Sharpe Ratio	1.90	1.90	0.51	0.52	0.62	0.63	0.69	0.69
Treynor Ratio	23.88		7.55		7.91		10.22	
Tracking Error	0.05		0.04		0.06		0.11	
Information Ratio	-2.17		-1.35		-1.20		-0.30	

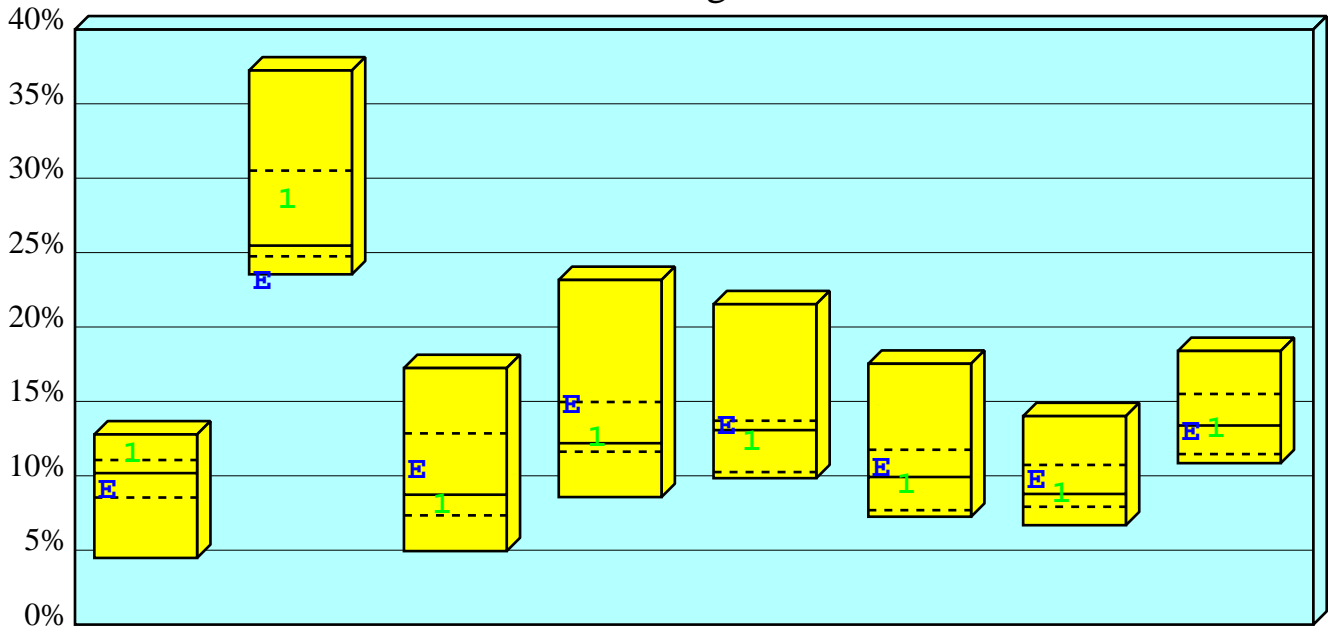
# City of Fort Lauderdale Police and Fire Eagle Asset Management as of 12/31/19



# City of Fort Lauderdale Police and Fire Eagle Asset Management as of 12/31/19



# City of Fort Lauderdale Police and Fire Small Growth Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years
High	12.78	37.24	17.24	23.16	21.53	17.53	14.01	18.39
1st Qt	11.06	30.51	12.85	14.96	13.70	11.75	10.73	15.50
Median	10.18	25.47	8.73	12.19	13.07	9.92	8.78	13.38
3rd Qt	8.54	24.75	7.34	11.62	10.25	7.69	7.92	11.46
Low	4.48	23.54	4.94	8.57	9.84	7.25	6.68	10.85

**E** Eagle Asset Management

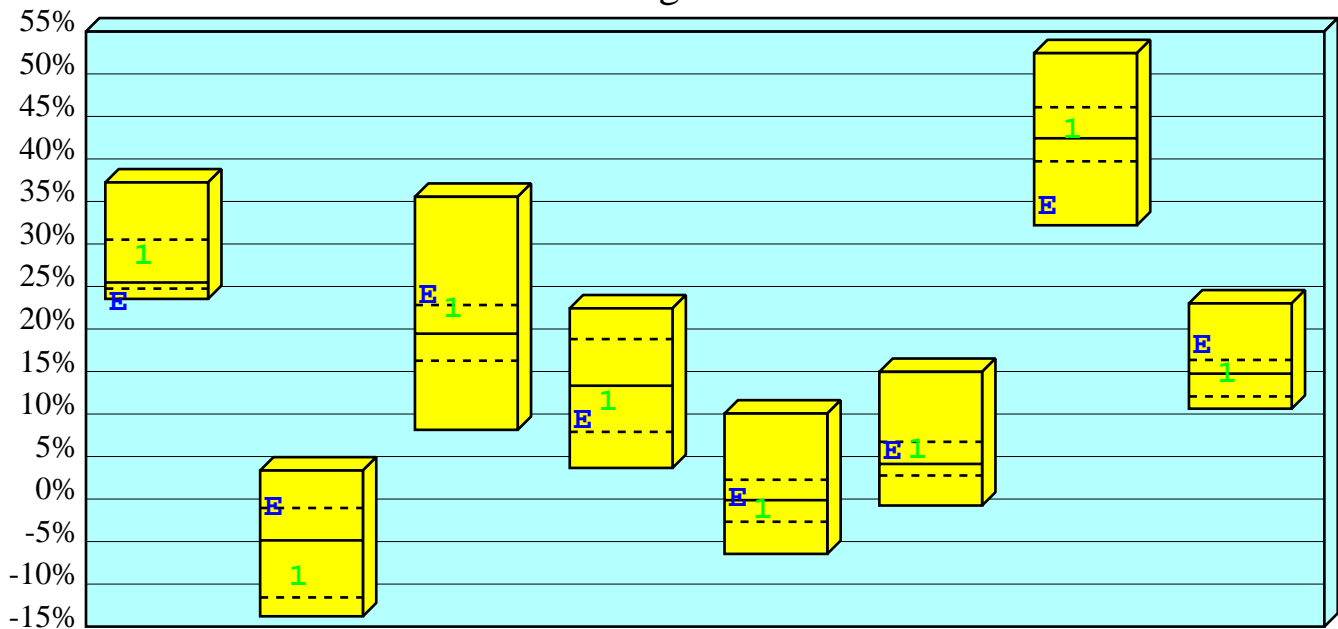
Net Ret	8.97	23.04	10.34	14.67	13.26	10.47	9.64	12.86
Rank	65	100	30	30	43	37	34	53

**1** Russell 2000 Growth

Net Ret	11.39	28.48	7.95	12.49	12.20	9.34	8.71	13.08
Rank	8	33	68	38	59	50	50	53



## City of Fort Lauderdale Police and Fire Small Growth Consecutive Performance Comparisons Total Returns of Equity Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012
High	37.24	3.36	35.55	22.43	10.06	14.96	52.44	23.01
1st Qt	30.51	-1.05	22.82	18.81	2.27	6.73	46.08	16.36
Median	25.47	-4.86	19.45	13.33	-0.13	4.13	42.43	14.75
3rd Qt	24.75	-11.57	16.27	7.90	-2.67	2.77	39.72	12.07
Low	23.54	-13.79	8.14	3.66	-6.45	-0.76	32.20	10.63

**E** Eagle Asset Management

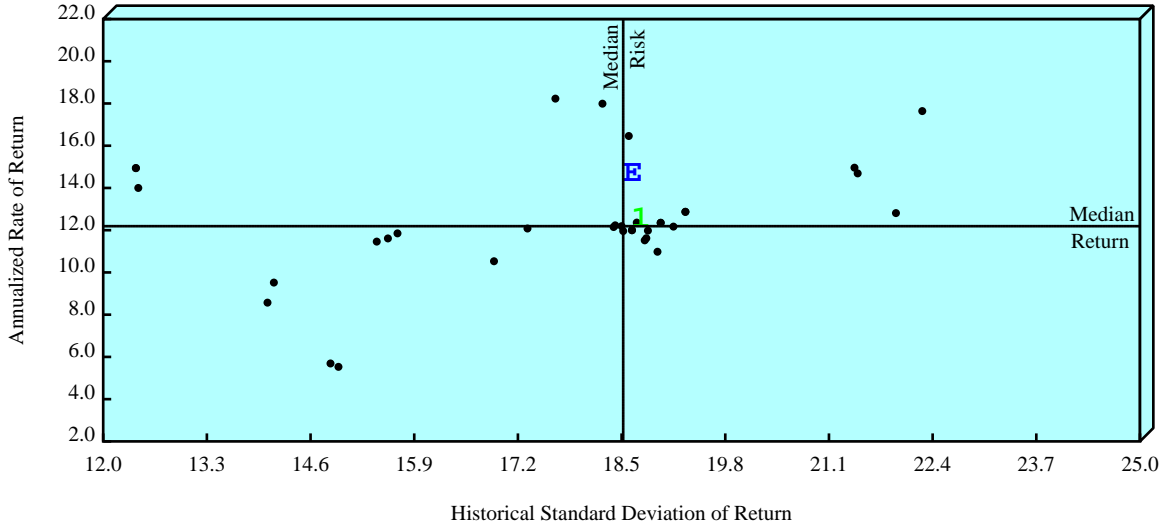
Net Ret	23.04	-1.05	23.86	9.13	-0.01	5.57	34.30	17.98
Rank	100	25	21	71	47	33	91	20

**1** Russell 2000 Growth

Net Ret	28.48	-9.31	22.17	11.32	-1.38	5.60	43.29	14.59
Rank	33	63	30	53	56	31	40	52

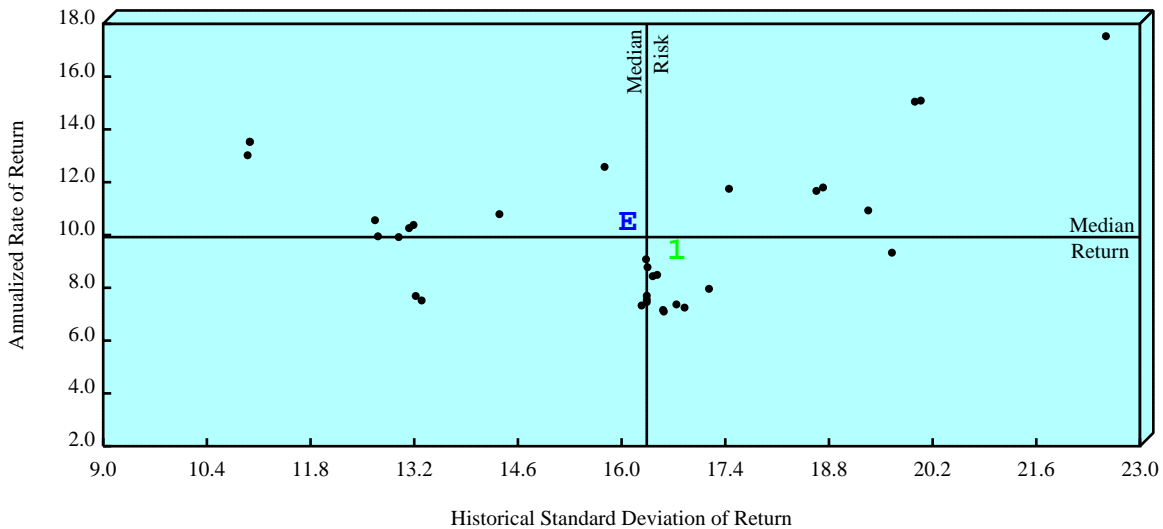
# City of Fort Lauderdale Police and Fire Return vs Risk Total Returns of Small Growth Portfolios

3 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
E	Eagle Asset Management	14.67	30	18.70	63
I	Russell 2000 Growth	12.49	38	18.81	65
	Median	12.19		18.52	

5 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
E	Eagle Asset Management	10.47	37	16.15	39
I	Russell 2000 Growth	9.34	50	16.82	73
	Median	9.92		16.34	

City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Eagle Asset Management  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	1	1	2	2	4	4	8	7
Positive Periods	3	3	10	10	16	16	26	27
Up Market Capture	0.86		1.09		1.02		0.98	
Down Market Capture	1.17		0.98		0.94		1.01	
Batting Average	0.00		0.50		0.55		0.47	
Worst Quarter	-4.87	-4.17	-20.43	-21.65	-20.43	-21.65	-23.41	-22.26
Best Quarter	16.71	17.14	16.71	17.14	16.71	17.14	17.16	17.14
Worst 4 Quarters	23.04	28.48	-10.16	-9.63	-10.16	-11.84	-10.16	-11.84
Best 4 Quarters	23.04	28.48	31.30	28.48	31.30	28.48	34.30	43.29
Standard Deviation	18.61	18.80	18.70	18.81	16.15	16.82	17.76	17.96
Beta	0.96		0.97		0.93		0.96	
Alpha	-0.93		0.58		0.40		0.02	
R-Squared	0.99		0.95		0.93		0.94	
Sharpe Ratio	1.12	1.39	0.70	0.58	0.58	0.49	0.56	0.57
Treynor Ratio	21.54		13.41		10.13		10.33	
Tracking Error	1.77		4.41		4.37		4.58	
Information Ratio	-2.56		0.42		0.19		-0.12	

City of Fort Lauderdale Police and Fire  
Equity Summary Statistics  
Eagle Asset Management  
Period Ending 12/19

	<u>Portfolio</u>	<u>Russell 2000 Growth</u>
Total Number Of Securities	100	1,171
Equity Market Value	26,447,692	
Average Capitalization \$(000)	4,715,032	2,766,430
Median Capitalization \$(000)	3,635,796	951,384
Equity Segment Yield	0.43	0.70
Equity Segment P/E - Average	131.55	136.41
Equity Segment P/E - Median	28.41	13.45
Equity Segment Beta	1.17	1.15
Price/Book Ratio	5.35	4.09
Debt/Equity Ratio	46.01	43.07
Five Year Earnings Growth	10.75	9.29

Ten Largest Holdings	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Quaker Chem Corp	818,652	3.10	4.28
Simply Good Foods Co	605,790	2.29	-1.55
Woodward Governor Co	521,254	1.97	10.00
Ringcentral Inc	519,335	1.96	34.23
Realpage Inc	508,153	1.92	-14.49
Msa Safety Inc	507,083	1.92	16.20
Cabot Microelectroni	444,506	1.68	2.83
Aerojet Rocketdyne H	420,483	1.59	-9.60
Cognex Corp	392,168	1.48	14.19
Cornerstone Ondemand	386,430	1.46	6.80

Ten Best Performers	<u>Quarterly Ret</u>	Ten Worst Performers	<u>Quarterly Ret</u>
Karuna Therapeutics	361.64	Sinclair Broadcast G	-21.55
Arqule Inc	178.38	Realpage Inc	-14.49
Arrowhead Pharmaceut	125.09	Firstcash Inc	-11.75
Ra Pharmaceuticals I	98.44	Proofpoint Inc	-11.06
Uniqure Nv	82.06	Hexcel Corp New	-10.54
Mirati Therapeutics	65.40	Aerojet Rocketdyne H	-9.60
Global Blood Therape	63.83	Kura Oncology Inc	-9.36
Dicerna Pharmaceutic	53.41	Viper Energy Partner	-9.18
Neogenomics Inc	52.98	Haemonetics Corp	-8.91
Iovance Biotherapeut	52.09	Evo Pmts Inc	-6.08

City of Fort Lauderdale Police and Fire  
Equity Contribution to Return  
Eagle Asset Management  
Period Ending 12/19

	<u>Portfolio</u>	<u>Russell 2000 Growth</u>
Total Number Of Securities	100	1,171
Equity Market Value	26,447,692	
Average Capitalization \$(000)	4,715,032	2,766,430
Median Capitalization \$(000)	3,635,796	951,384
Equity Segment Yield	0.43	0.70
Equity Segment P/E - Average	131.55	136.41
Equity Segment P/E - Median	28.41	13.45
Equity Segment Beta	1.17	1.15
Price/Book Ratio	5.35	4.09
Debt/Equity Ratio	46.01	43.07
Five Year Earnings Growth	10.75	9.29

Ten Best Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Arqule Inc	325,627	1.23	178.38
Karuna Therapeutics	122,428	0.46	361.64
Arrowhead Pharmaceut	172,783	0.65	125.09
Ra Pharmaceuticals I	215,596	0.82	98.44
Ringcentral Inc	519,335	1.96	34.23
Lumentum Hldgs Inc	331,950	1.26	48.06
Eldorado Resorts Inc	301,182	1.14	49.59
Neogenomics Inc	226,629	0.86	52.98
Uniqure Nv	141,743	0.54	82.06
Horizon Therapeutics	334,524	1.27	32.94

Ten Worst Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Realpage Inc	508,153	1.92	-14.49
Sinclair Broadcast G	210,842	0.80	-21.55
Aerojet Rocketdyne H	420,483	1.59	-9.60
Firstcash Inc	315,021	1.19	-11.75
Hexcel Corp New	265,162	1.00	-10.54
Viper Energy Partner	291,974	1.10	-9.18
Haemonetics Corp	274,956	1.04	-8.91
Proofpoint Inc	209,703	0.79	-11.06
Evo Pmts Inc	253,219	0.96	-6.08
Kura Oncology Inc	116,916	0.44	-9.36

City of Fort Lauderdale Police and Fire  
Equity Sector Attribution Analysis  
Eagle Asset Management  
Quarter Ending 12/19

GICS Sectors	Weight		Return		Selection		
	Portfolio	Index	Portfolio	Index	Stock	Sector	Total
Energy	1.30	0.68	-9.18	5.07	-0.19	-0.04	-0.22
Materials	6.46	3.19	3.58	9.32	-0.37	-0.06	-0.43
Industrials	18.00	19.49	4.35	6.90	-0.46	0.06	-0.40
Consumer Discretionary	12.81	12.32	7.68	9.21	-0.20	-0.01	-0.21
Consumer Staples	3.60	3.47	-1.44	5.24	-0.24	-0.01	-0.25
Health Care	25.36	27.47	22.66	22.98	-0.08	-0.25	-0.33
Financials	6.97	5.99	10.14	7.17	0.21	-0.04	0.17
Information Technology	22.95	18.26	7.20	7.06	0.03	-0.19	-0.16
Telecom. Services	2.54	2.46	-7.48	7.47	-0.38	-0.00	-0.38
Utilities	0.00	1.79		-1.57	0.00	0.23	0.23
	100.00	100.00	9.74	11.18	-1.67	-0.31	-1.98

Index - Russell 2000 Growth

Stock Selection Return Attribution

[ Portfolio Market Value Sector Percentage ] \* [ Portfolio Sector Return - Index Sector Return ]

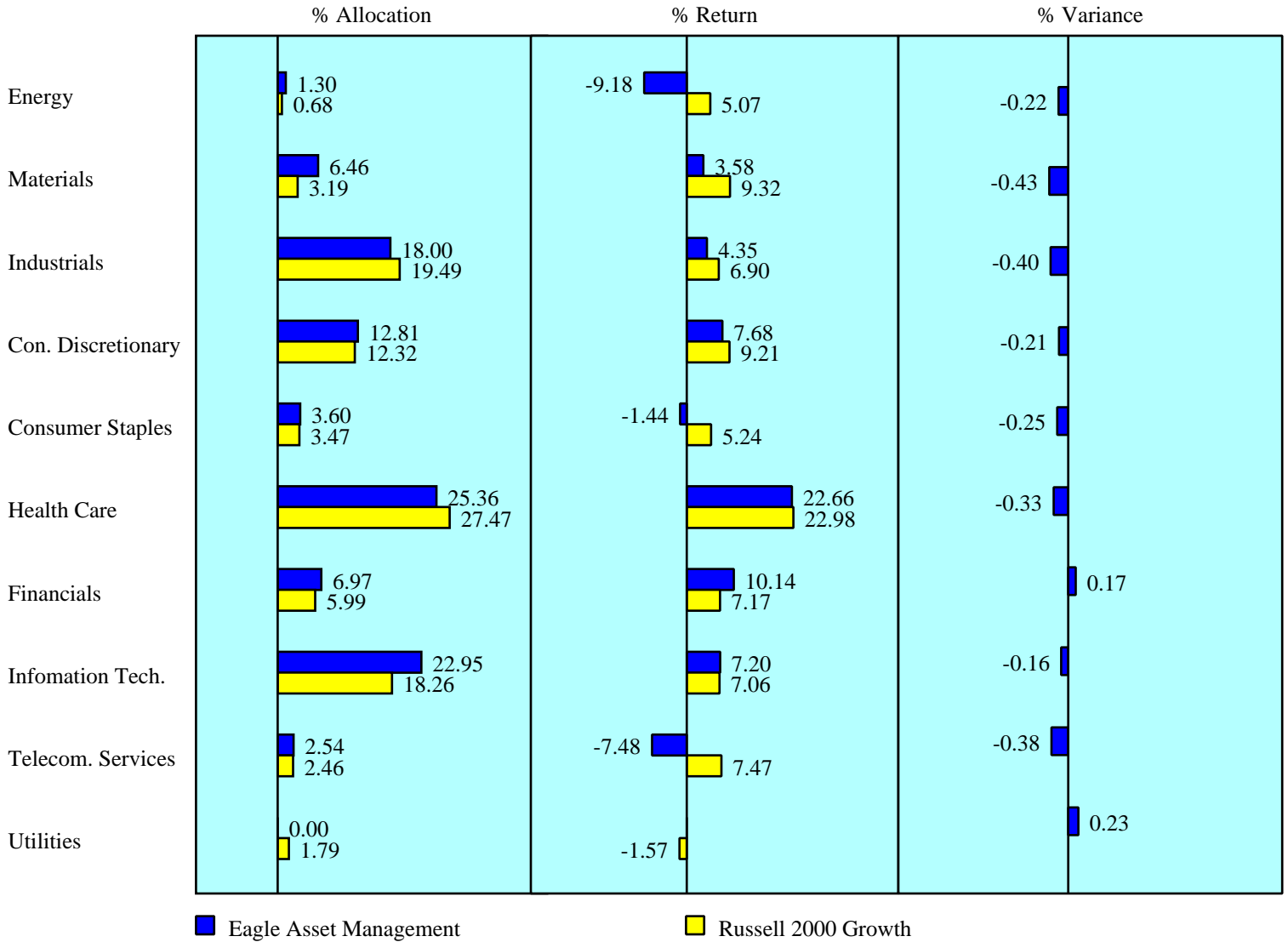
Sector Selection Return Attribution

[ Portfolio Sector Percentage - Index Sector Percentage ] \* [ Index Sector Return - Index Total Return ]

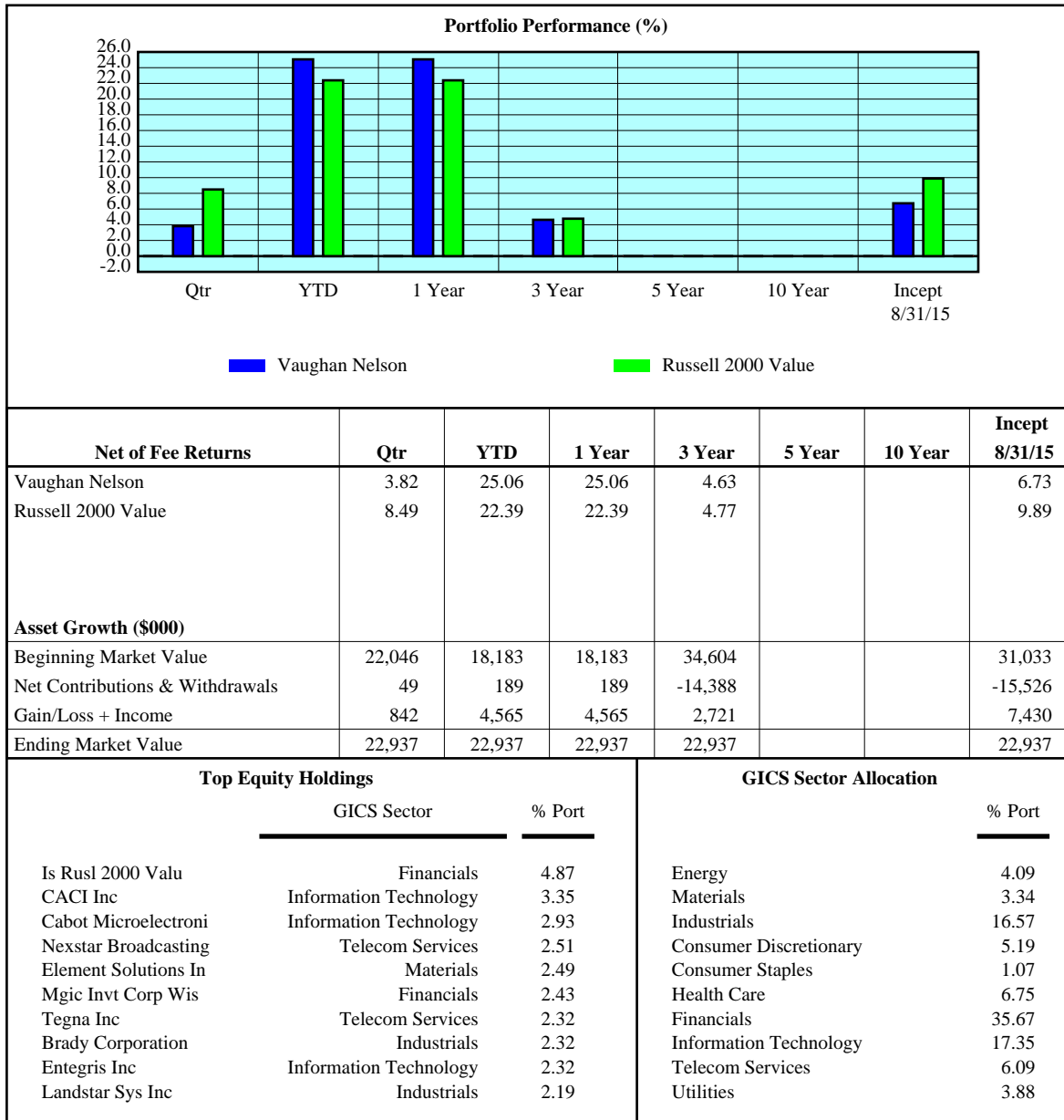
Trading Effect -0.18%

[ Actual Return 9.56% ] - [ Buy Hold Return 9.74% ]

# City of Fort Lauderdale Police and Fire Equity Sector Attribution Chart Eagle Asset Management Quarter Ending 12/19

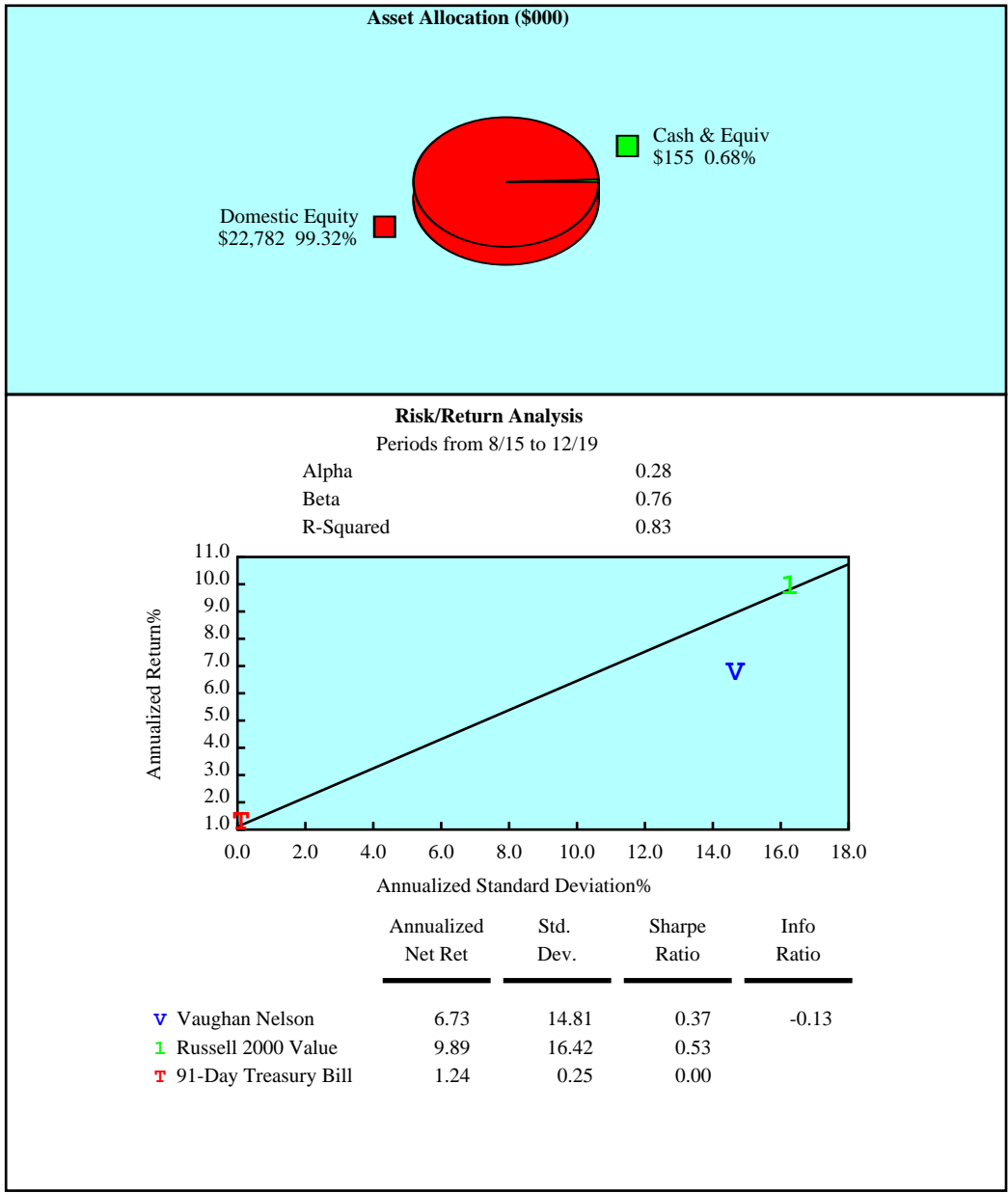


# City of Fort Lauderdale Police and Fire Vaughan Nelson as of 12/31/19





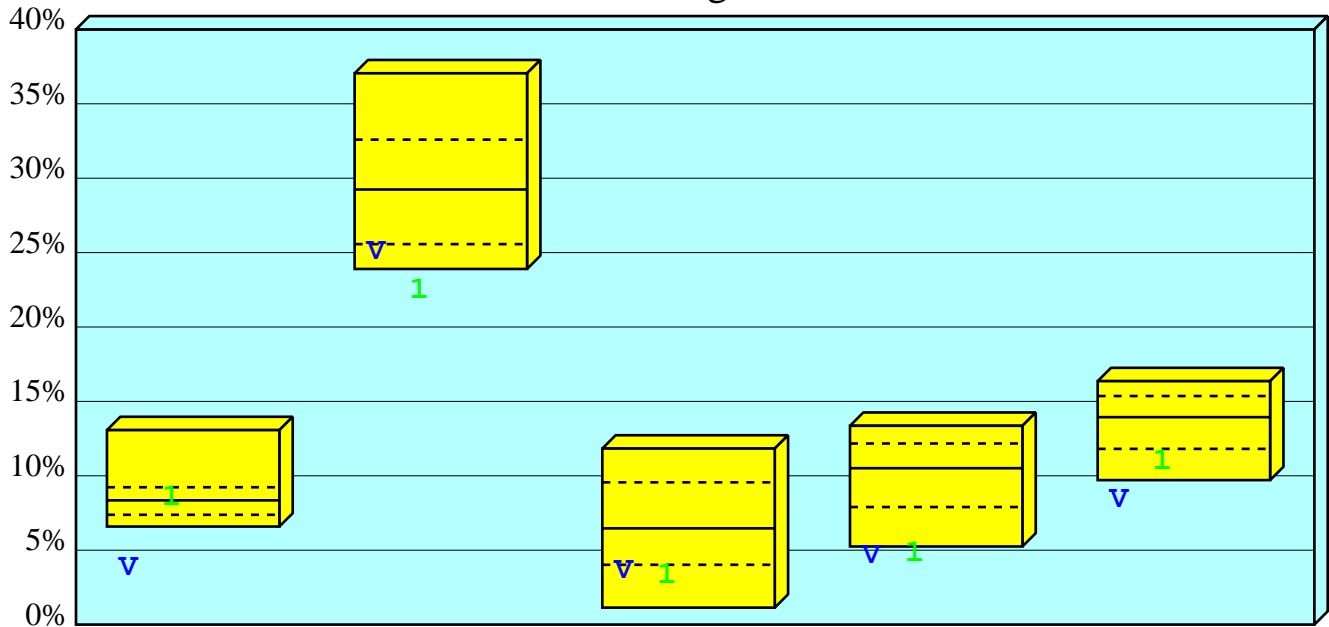
# City of Fort Lauderdale Police and Fire Vaughan Nelson as of 12/31/19



City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Vaughan Nelson  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	1	3	4			3	4
Positive Periods	4	3	9	8			14	13
Up Market Capture	1.00		0.86				0.76	
Down Market Capture	-2.93		0.83				0.83	
Batting Average	0.75		0.67				0.47	
Worst Quarter	1.68	-0.57	-17.93	-18.67			-17.93	-18.67
Best Quarter	15.07	11.93	15.07	11.93			15.07	14.07
Worst 4 Quarters	25.06	22.39	-14.14	-12.86			-14.14	-12.86
Best 4 Quarters	25.06	22.39	25.06	22.39			25.06	31.74
Standard Deviation	12.38	11.77	14.89	15.36			13.13	14.47
Beta	0.91		0.91				0.85	
Alpha	1.00		0.04				-0.28	
R-Squared	0.74		0.89				0.88	
Sharpe Ratio	1.84	1.71	0.20	0.20			0.54	0.67
Treynor Ratio	25.04		3.25				8.30	
Tracking Error	7.11		5.20				5.02	
Information Ratio	0.30		-0.07				-0.56	

# City of Fort Lauderdale Police and Fire Small Neutral Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years
High	13.07	37.05	11.83	13.36	16.36
1st Qt	9.23	32.59	9.56	12.17	15.36
Median	8.35	29.24	6.47	10.51	13.94
3rd Qt	7.38	25.57	4.02	7.90	11.81
Low	6.59	23.90	1.14	5.25	9.71

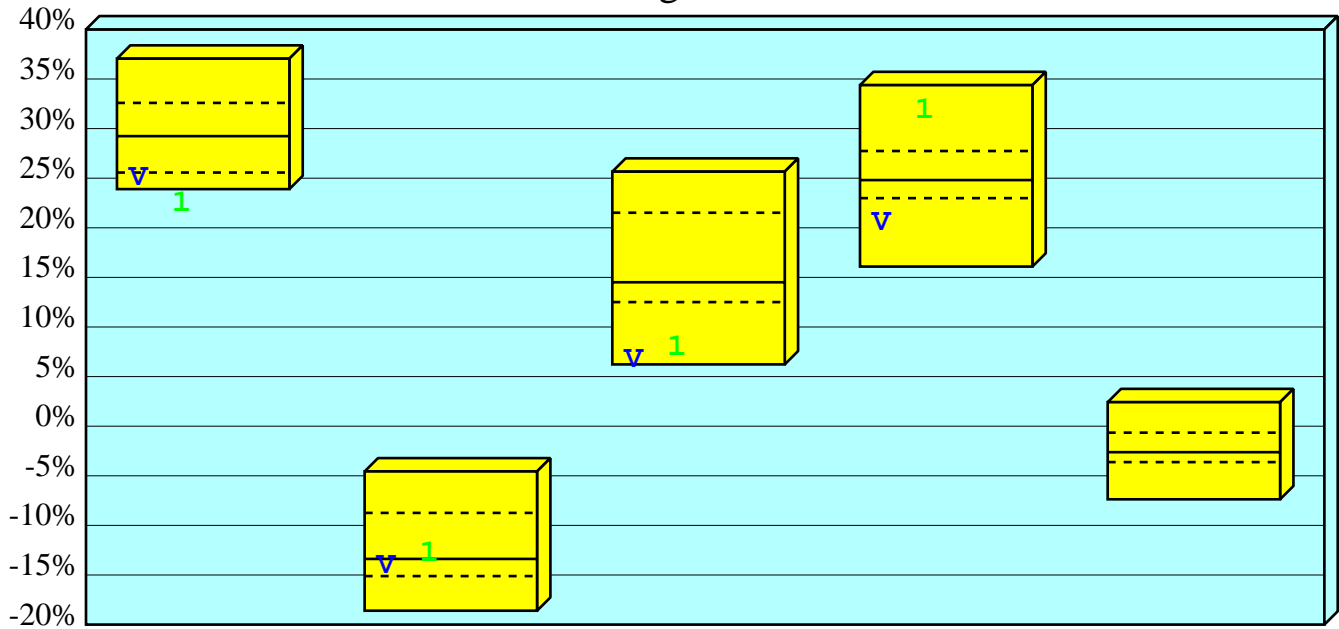
**v** Vaughan Nelson

Net Ret	3.82	25.06	3.62	4.63	8.39
Rank	99	81	81	99	99

**1** Russell 2000 Value

Net Ret	8.49	22.39	3.27	4.77	10.95
Rank	41	99	81	99	75

## City of Fort Lauderdale Police and Fire Small Neutral Consecutive Performance Comparisons Total Returns of Equity Portfolios Years Ending December



	2019	2018	2017	2016	2015
High	37.05	-4.56	25.66	34.38	2.42
1st Qt	32.59	-8.74	21.52	27.74	-0.65
Median	29.24	-13.38	14.51	24.81	-2.62
3rd Qt	25.57	-15.11	12.51	22.99	-3.62
Low	23.90	-18.60	6.23	16.09	-7.37

**v** Vaughan Nelson

Net Ret	25.06	-14.14	6.68	20.48
Rank	81	62	93	83

**1** Russell 2000 Value

Net Ret	22.39	-12.86	7.84	31.74
Rank	99	46	91	5

City of Fort Lauderdale Police and Fire  
Equity Summary Statistics  
Vaughan Nelson  
Period Ending 12/19

	<u>Portfolio</u>	<u>Russell 2000 Value</u>
Total Number Of Securities	66	1,401
Equity Market Value	22,781,839	
Average Capitalization \$(000)	3,951,581	2,185,312
Median Capitalization \$(000)	2,992,655	724,214
Equity Segment Yield	1.52	2.05
Equity Segment P/E - Average	20.59	30.58
Equity Segment P/E - Median	19.92	13.34
Equity Segment Beta	1.10	1.11
Price/Book Ratio	2.38	1.25
Debt/Equity Ratio	54.91	59.84
Five Year Earnings Growth	14.16	3.86

Ten Largest Holdings	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Is Rusl 2000 Valu	1,109,003	4.87	8.36
CACI Inc	762,470	3.35	8.10
Cabot Microelectroni	667,480	2.93	2.83
Nexstar Broadcasting	571,594	2.51	15.11
Element Solutions In	566,480	2.49	14.73
Mgic Invt Corp Wis	553,693	2.43	13.13
Tegna Inc	528,239	2.32	7.96
Brady Corporation	528,224	2.32	8.39
Entegris Inc	527,197	2.32	6.61
Landstar Sys Inc	498,181	2.19	1.31

Ten Best Performers	<u>Quarterly Ret</u>	Ten Worst Performers	<u>Quarterly Ret</u>
Scientific Games Cor	31.60	Lantheus Hldgs Inc	-18.17
Gray Television Inc	31.37	Newpark Res Inc	-17.72
Insight Enterprises	26.22	Southwest Gas Corp	-15.96
Tower Semiconductor	25.05	Albany Intl Corp	-15.59
Fabrinet	23.98	Selective Ins Group	-13.00
Franklin Elec Inc	20.21	Firstcash Inc	-11.75
Nova Measuring Instr	19.07	Mercury Genl Corp Ne	-11.66
Enterprise Finl Svcs	18.75	Aaron Rents Inc	-11.07
Cyberark Software Lt	16.79	M D C Corp Colo	-10.78
Nexstar Broadcasting	15.11	Graftech Intl Ltd	-8.69

City of Fort Lauderdale Police and Fire  
Equity Contribution to Return  
Vaughan Nelson  
Period Ending 12/19

	<u>Portfolio</u>	<u>Russell 2000 Value</u>
Total Number Of Securities	66	1,401
Equity Market Value	22,781,839	
Average Capitalization \$(000)	3,951,581	2,185,312
Median Capitalization \$(000)	2,992,655	724,214
Equity Segment Yield	1.52	2.05
Equity Segment P/E - Average	20.59	30.58
Equity Segment P/E - Median	19.92	13.34
Equity Segment Beta	1.10	1.11
Price/Book Ratio	2.38	1.25
Debt/Equity Ratio	54.91	59.84
Five Year Earnings Growth	14.16	3.86

Ten Best Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Fabrinet	388,392	1.71	23.98
Is Rusl 2000 Valu	1,109,003	4.87	8.36
Gray Television Inc	287,296	1.26	31.37
Nexstar Broadcasting	571,594	2.51	15.11
Element Solutions In	566,480	2.49	14.73
Franklin Elec Inc	385,477	1.69	20.21
Mgic Invt Corp Wis	553,693	2.43	13.13
Enterprise Finl Svcs	367,601	1.61	18.75
Webster Finl Corp Co	421,544	1.85	14.78
CACI Inc	762,470	3.35	8.10

Ten Worst Contributors	<u>Market Value</u>	<u>% of Portfolio</u>	<u>Quarterly Ret</u>
Southwest Gas Corp	436,828	1.92	-15.96
Selective Ins Group	402,548	1.77	-13.00
Aaron Rents Inc	399,770	1.76	-11.07
Lantheus Hldgs Inc	210,966	0.93	-18.17
Firstcash Inc	314,457	1.38	-11.75
Mercury Genl Corp Ne	272,888	1.20	-11.66
Albany Intl Corp	199,290	0.88	-15.59
Kosmos Energy Ltd	322,478	1.42	-7.96
M D C Corp Colo	237,546	1.04	-10.78
Graftech Intl Ltd	265,227	1.16	-8.69

City of Fort Lauderdale Police and Fire  
Equity Sector Attribution Analysis  
Vaughan Nelson  
Quarter Ending 12/19

GICS Sectors	Weight		Return		Selection		
	Portfolio	Index	Portfolio	Index	Stock	Sector	Total
Energy	2.95	5.94	-7.19	7.38	-0.43	0.02	-0.41
Materials	2.13	4.48	14.73	13.01	0.04	-0.12	-0.08
Industrials	15.77	12.64	3.40	9.40	-0.95	0.04	-0.91
Consumer Discretionary	5.01	9.84	-7.61	7.74	-0.77	0.02	-0.75
Consumer Staples	2.30	2.57	11.89	9.44	0.06	-0.00	0.05
Health Care	8.07	4.90	1.45	17.49	-1.29	0.30	-1.00
Financials	32.65	30.51	5.40	7.32	-0.63	-0.02	-0.64
Information Technology	21.18	8.63	5.27	21.17	-3.37	1.64	-1.73
Telecom. Services	5.28	2.43	15.01	2.93	0.64	-0.15	0.49
Utilities	4.65	6.48	-10.26	-1.65	-0.40	0.18	-0.22
	100.00	100.00	3.84	8.10	-7.11	1.91	-5.19

Index - Russell 2000 Value

Stock Selection Return Attribution

[ Portfolio Market Value Sector Percentage ] \* [ Portfolio Sector Return - Index Sector Return ]

Sector Selection Return Attribution

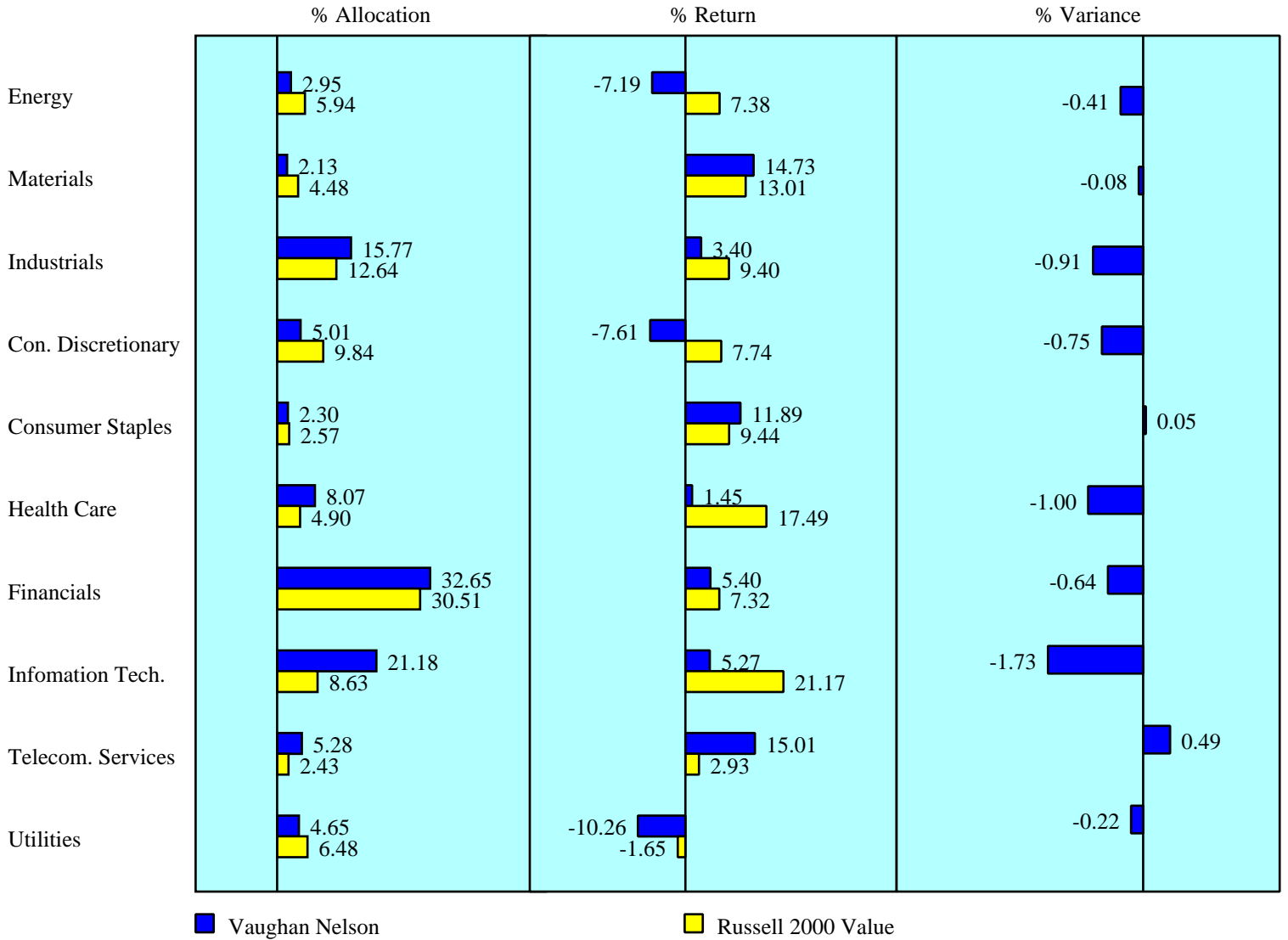
[ Portfolio Sector Percentage - Index Sector Percentage ] \* [ Index Sector Return - Index Total Return ]

Trading Effect 0.26%

[ Actual Return 4.10% ] - [ Buy Hold Return 3.84% ]

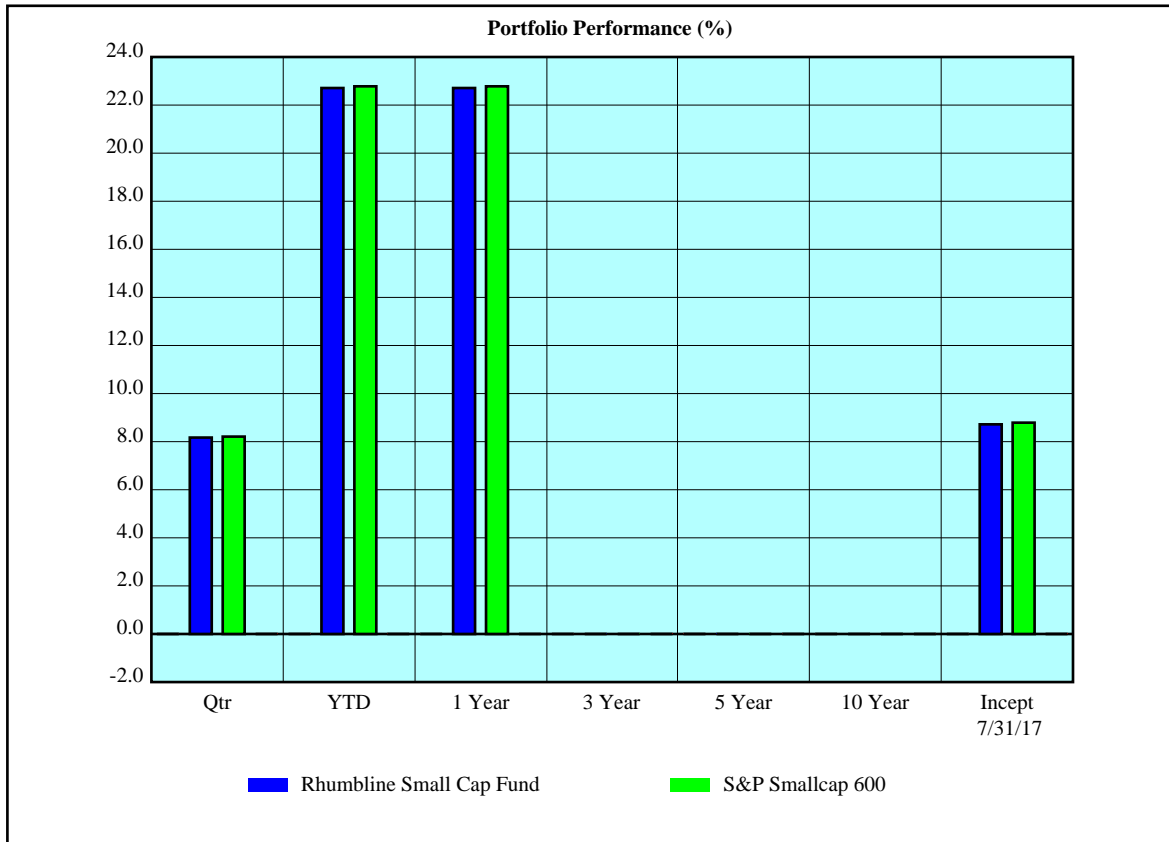
# City of Fort Lauderdale Police and Fire Equity Sector Attribution Chart

Vaughan Nelson  
Quarter Ending 12/19



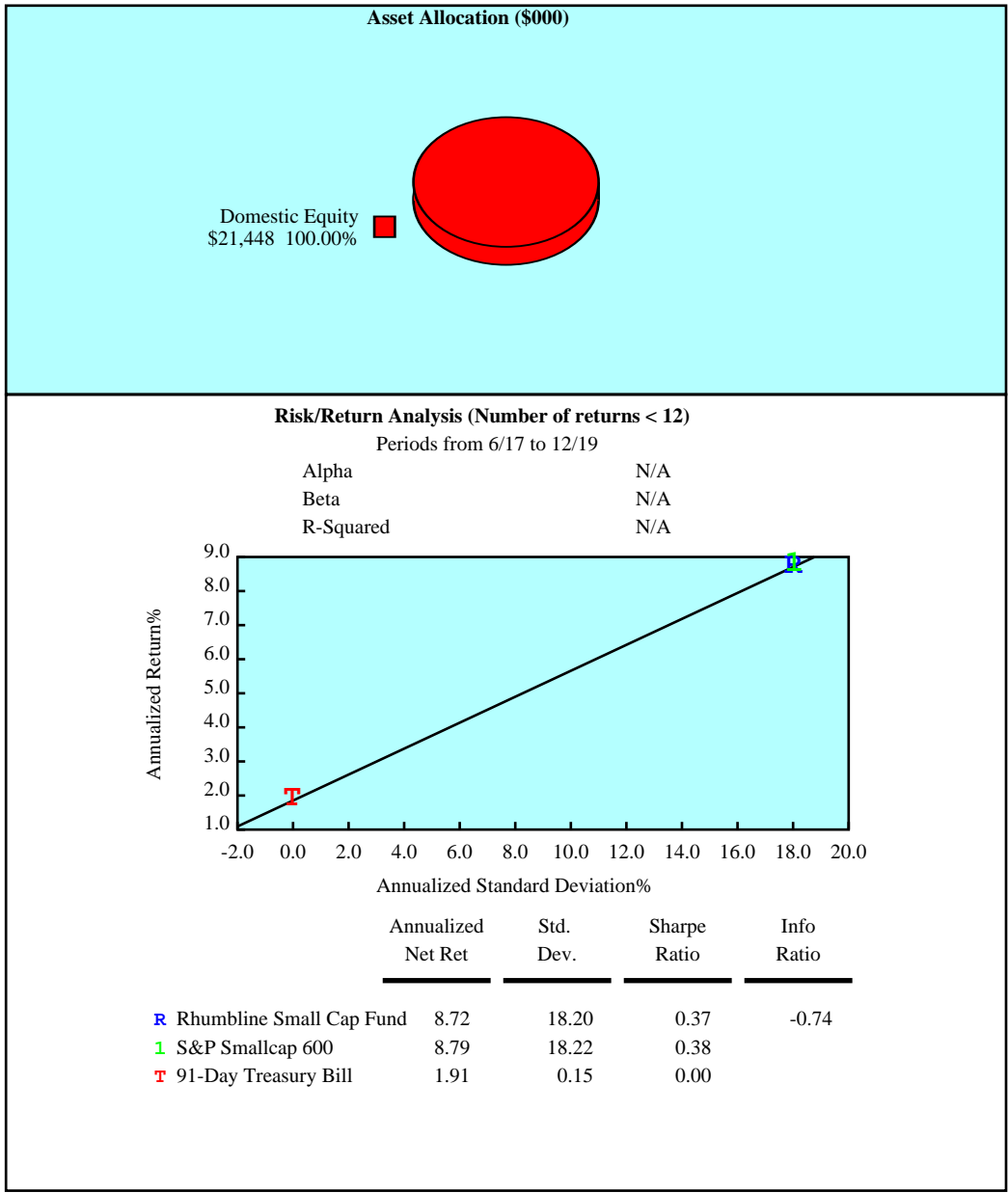


## City of Fort Lauderdale Police and Fire Rhumble Small Cap Fund as of 12/31/19

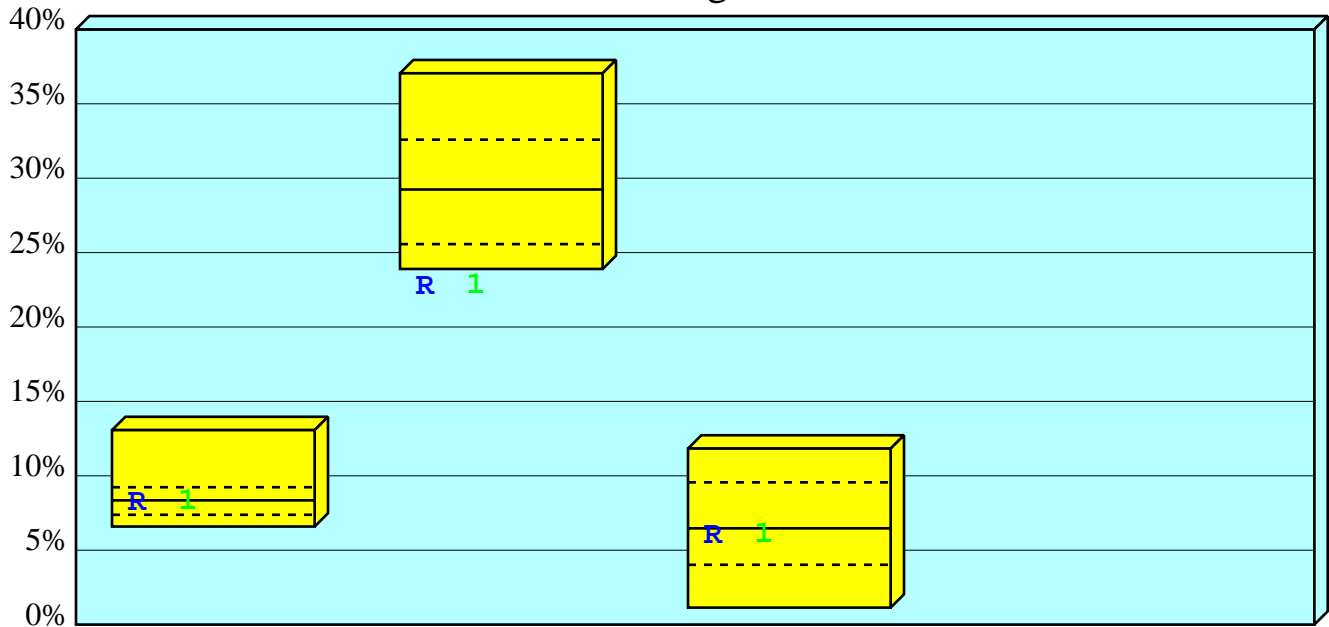


Net of Fee Returns	Qtr	YTD	1 Year	3 Year	5 Year	10 Year	Incept 7/31/17
Rhumblin Small Cap Fund	8.17	22.71	22.71				8.72
S&P Smallcap 600	8.21	22.78	22.78				8.79
<b>Asset Growth (\$000)</b>							
Beginning Market Value	19,826	17,474	17,474				17,511
Net Contributions & Withdrawals	2	6	6				15
Gain/Loss + Income	1,620	3,968	3,968				3,922
Ending Market Value	21,448	21,448	21,448				21,448

# City of Fort Lauderdale Police and Fire Rhumbline Small Cap Fund as of 12/31/19



# City of Fort Lauderdale Police and Fire Small Neutral Cumulative Performance Comparisons Total Returns of Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years
High	13.07	37.05	11.83
1st Qt	9.23	32.59	9.56
Median	8.35	29.24	6.47
3rd Qt	7.38	25.57	4.02
Low	6.59	23.90	1.14

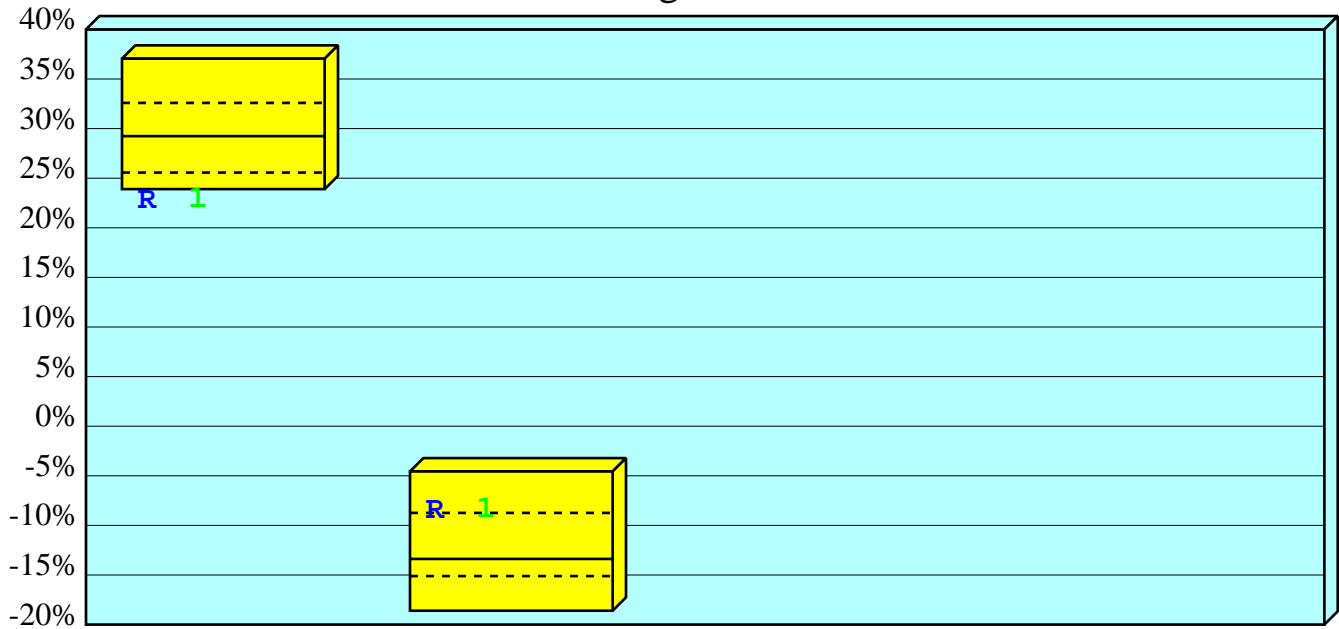
**R** Rhumbline Small Cap Fund

Net Ret	8.17	22.71	5.95
Rank	55	99	53

**1** S&P Smallcap 600

Net Ret	8.21	22.78	6.00
Rank	55	99	53

City of Fort Lauderdale Police and Fire  
 Small Neutral Consecutive Performance Comparisons  
 Total Returns of Equity Portfolios  
 Years Ending December



	2019	2018
High	37.05	-4.56
1st Qt	32.59	-8.74
Median	29.24	-13.38
3rd Qt	25.57	-15.11
Low	23.90	-18.60

**R** Rhumbline Small Cap Fund

Net Ret	22.71	-8.52
Rank	99	23

**1** S&P Smallcap 600

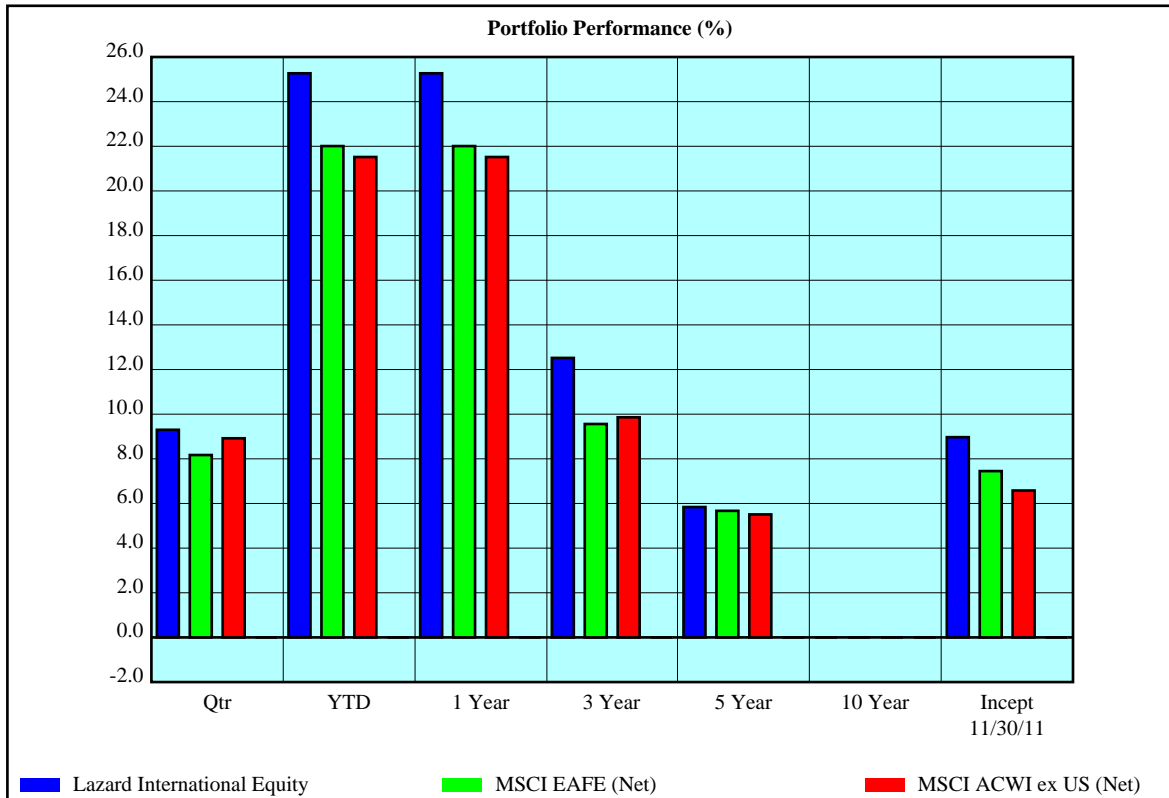
Net Ret	22.78	-8.48
Rank	99	23

City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Rhumbline Small Cap Fund  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	1	1					2	2
Positive Periods	3	3					8	8
Up Market Capture	1.00						0.97	
Down Market Capture	0.98						1.00	
Batting Average	0.25						0.10	
Worst Quarter	-0.20	-0.20					-20.11	-20.10
Best Quarter	11.58	11.61					11.58	11.61
Worst 4 Quarters	22.71	22.78					-9.37	-9.34
Best 4 Quarters	22.71	22.78					22.71	22.78
Standard Deviation	10.94	10.97					17.51	17.59
Beta	1.00						0.99	
Alpha	-0.00						-0.09	
R-Squared	1.00						1.00	
Sharpe Ratio	1.87	1.87					0.38	0.40
Treynor Ratio	20.49						6.63	
Tracking Error	0.04						0.58	
Information Ratio	-1.64						-0.74	

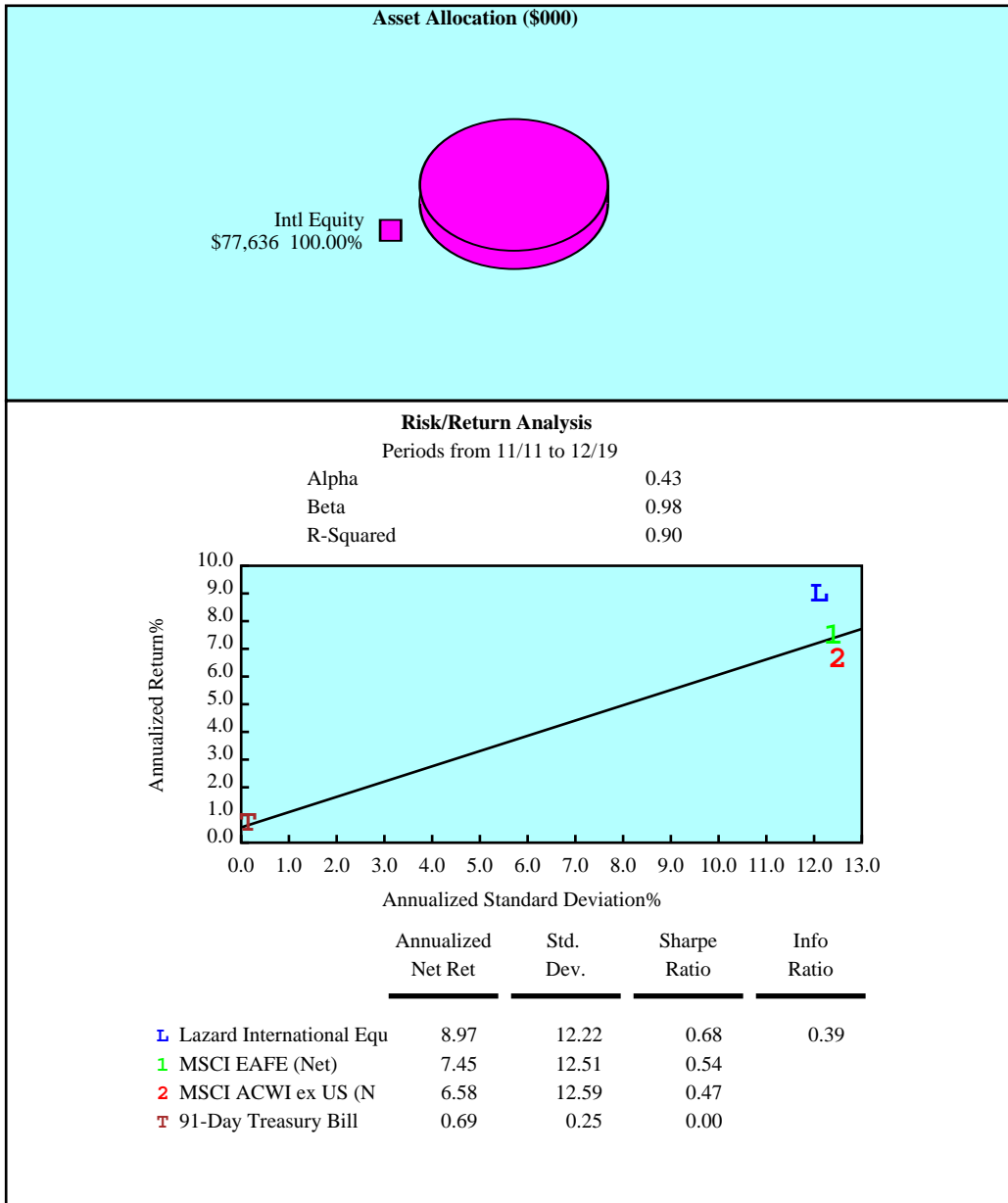


## City of Fort Lauderdale Police and Fire Lazard International Equity as of 12/31/19



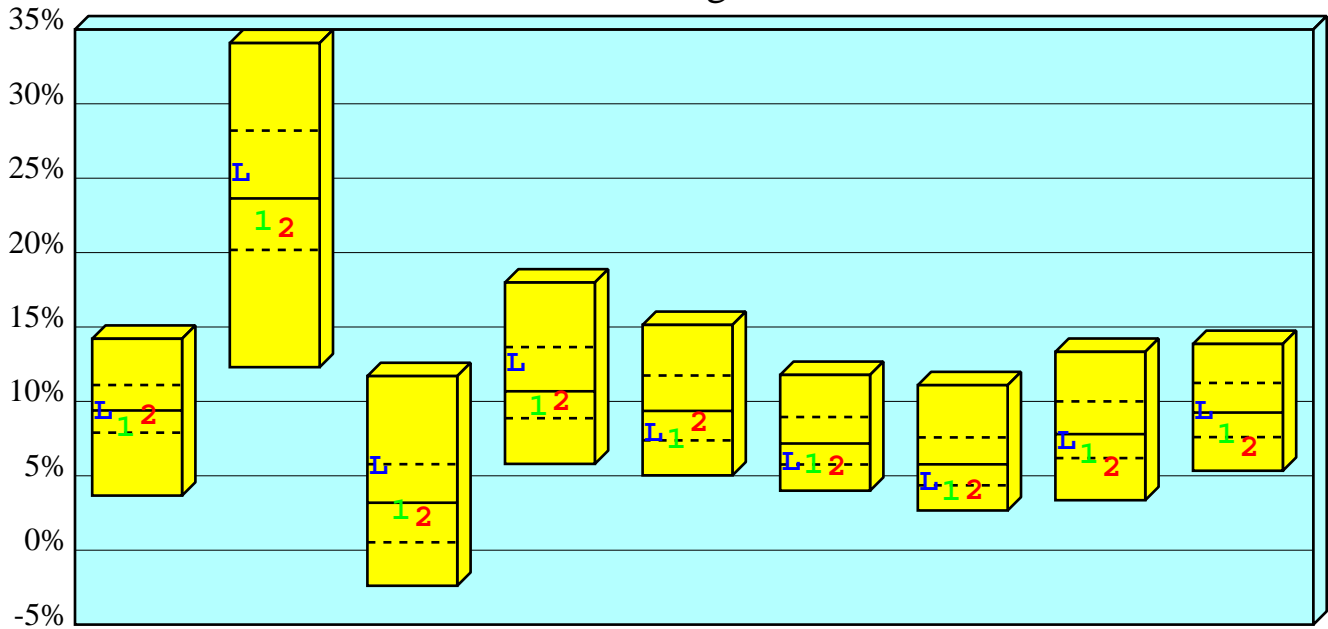
<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 11/30/11</b>
Lazard International Equity	9.30	25.27	25.27	12.52	5.84		8.97
MSCI EAFE (Net)	8.17	22.01	22.01	9.56	5.67		7.45
MSCI ACWI ex US (Net)	8.92	21.52	21.52	9.86	5.51		6.58
<b>Asset Growth (\$000)</b>							
Beginning Market Value	70,907	61,542	61,542	53,871	57,794		23,225
Net Contributions & Withdrawals	136	509	509	802	798		14,798
Gain/Loss + Income	6,593	15,585	15,585	22,963	19,044		39,612
Ending Market Value	77,636	77,636	77,636	77,636	77,636		77,636

# City of Fort Lauderdale Police and Fire Lazard International Equity as of 12/31/19





## City of Fort Lauderdale Police and Fire Cumulative Performance Comparison Total Returns of International Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years
High	14.21	34.08	11.70	17.99	15.14	11.78	11.09	13.33	13.86
1st Qt	11.10	28.20	5.78	13.65	11.74	8.95	7.58	10.00	11.24
Median	9.39	23.64	3.19	10.68	9.36	7.17	5.77	7.80	9.25
3rd Qt	7.90	20.18	0.53	8.87	7.38	5.76	4.36	6.19	7.60
Low	3.67	12.30	-2.39	5.80	5.03	4.00	2.67	3.36	5.34

**L** Lazard International Equity

Net Ret	9.30	25.27	5.56	12.52	7.81	5.84	4.53	7.24	9.25
Rank	52	41	26	33	70	73	71	58	50

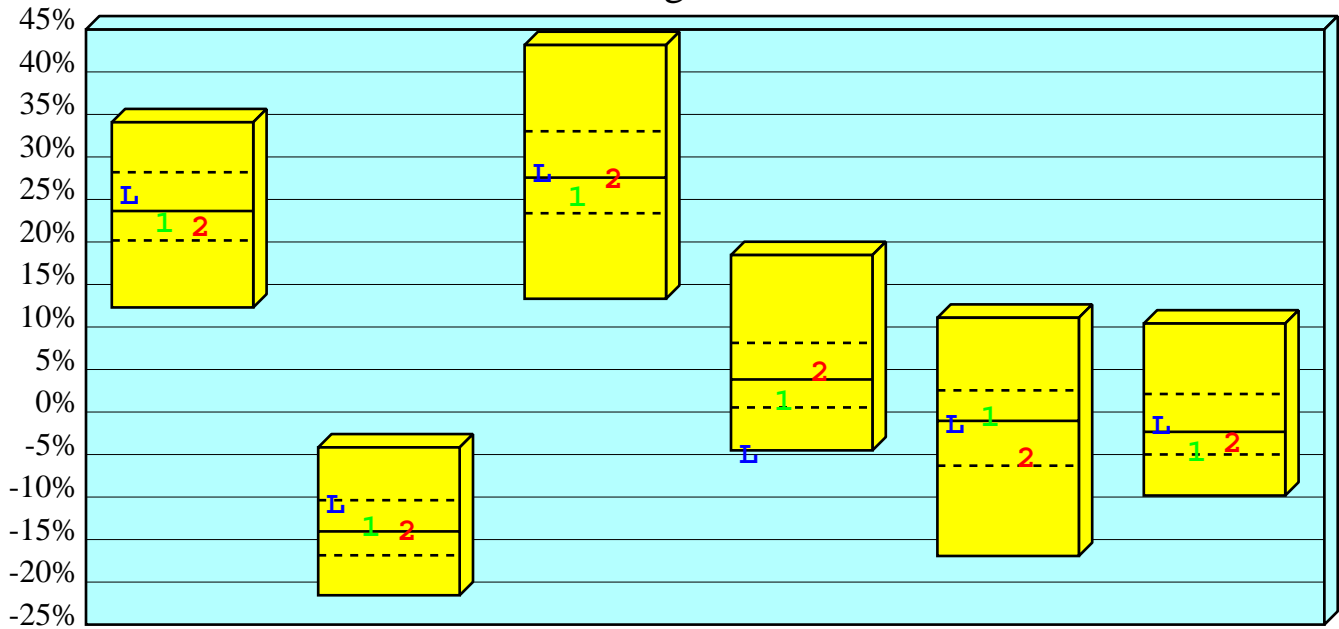
**1** MSCI EAFE (Net)

Net Ret	8.17	22.01	2.56	9.56	7.36	5.67	3.83	6.35	7.66
Rank	70	62	57	67	75	76	84	72	74

**2** MSCI ACWI ex US (Net)

Net Ret	8.92	21.52	2.11	9.86	8.50	5.51	3.88	5.44	6.80
Rank	59	67	63	62	60	79	84	84	84

## City of Fort Lauderdale Police and Fire Calendar Year Performance Comparison Total Returns of International Equity Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014
High	34.08	-4.16	43.16	18.46	11.09	10.41
1st Qt	28.20	-10.37	33.02	8.13	2.55	2.12
Median	23.64	-14.04	27.57	3.83	-1.04	-2.33
3rd Qt	20.18	-16.85	23.38	0.54	-6.31	-4.99
Low	12.30	-21.55	13.32	-4.51	-16.93	-9.82

**L** Lazard International Equity

Net Ret	25.27	-11.04	27.85	-5.17	-1.70	-1.79
Rank	41	28	47	96	54	46

**1** MSCI EAFE (Net)

Net Ret	22.01	-13.79	25.03	1.00	-0.81	-4.90
Rank	62	47	67	72	47	74

**2** MSCI ACWI ex US (Net)

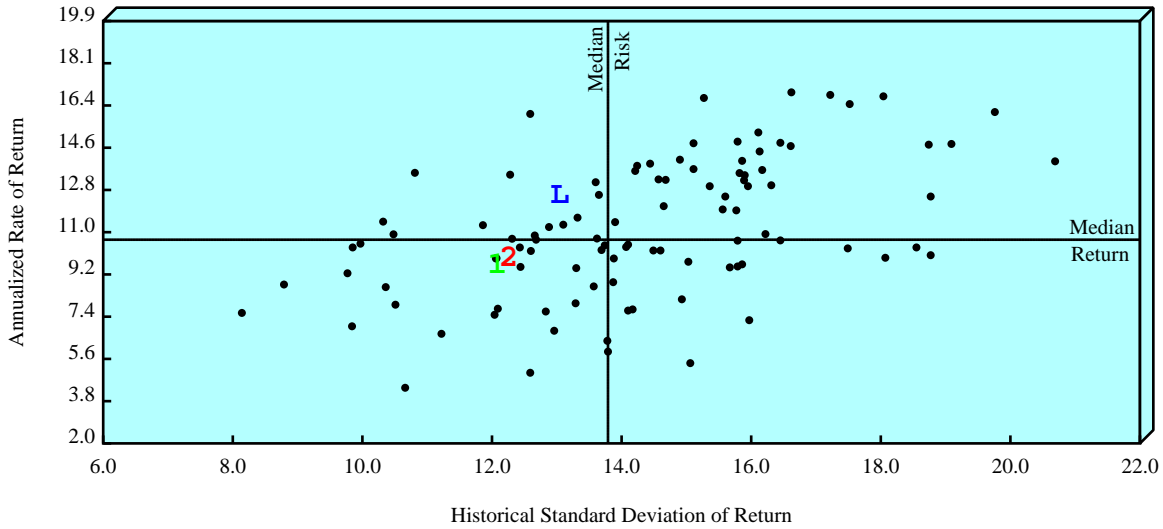
Net Ret	21.52	-14.20	27.19	4.50	-5.66	-3.87
Rank	67	51	53	46	73	62

# City of Fort Lauderdale Police and Fire

## Return vs Risk

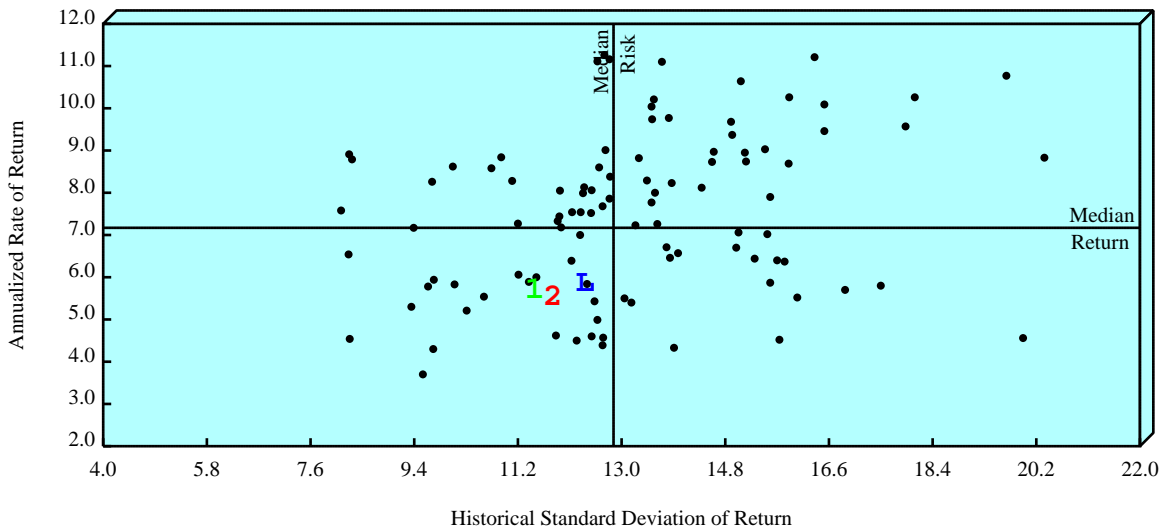
### Total Returns of International Equity Portfolios

3 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
L	Lazard International Equity	12.52	33	13.13	40
1	MSCI EAFE (Net)	9.56	67	12.16	22
2	MSCI ACWI ex US (Net)	9.86	62	12.33	25
	Median	10.68		13.79	

5 Years Ending 12/31/19

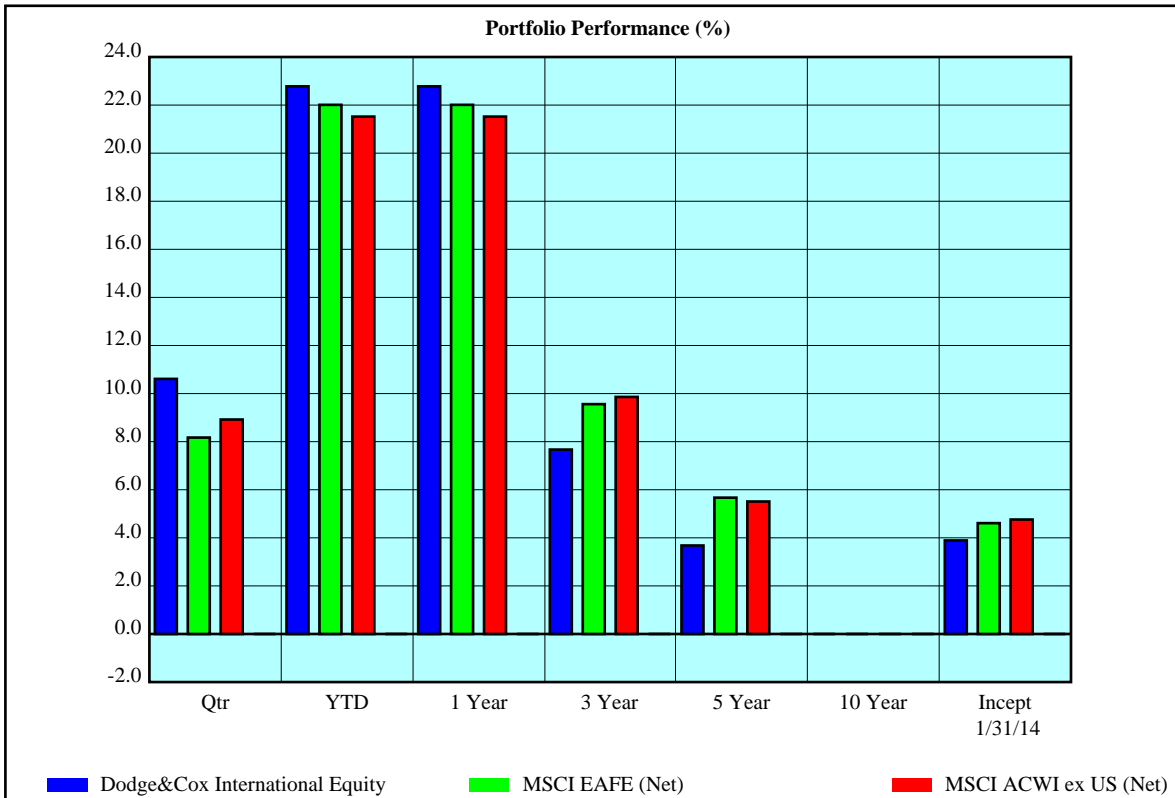


		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
L	Lazard International Equity	5.84	73	12.46	43
1	MSCI EAFE (Net)	5.67	76	11.58	25
2	MSCI ACWI ex US (Net)	5.51	79	11.89	30
	Median	7.17		12.86	

City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Lazard International Equity  
Quarterly Periods Ending 12/31/19

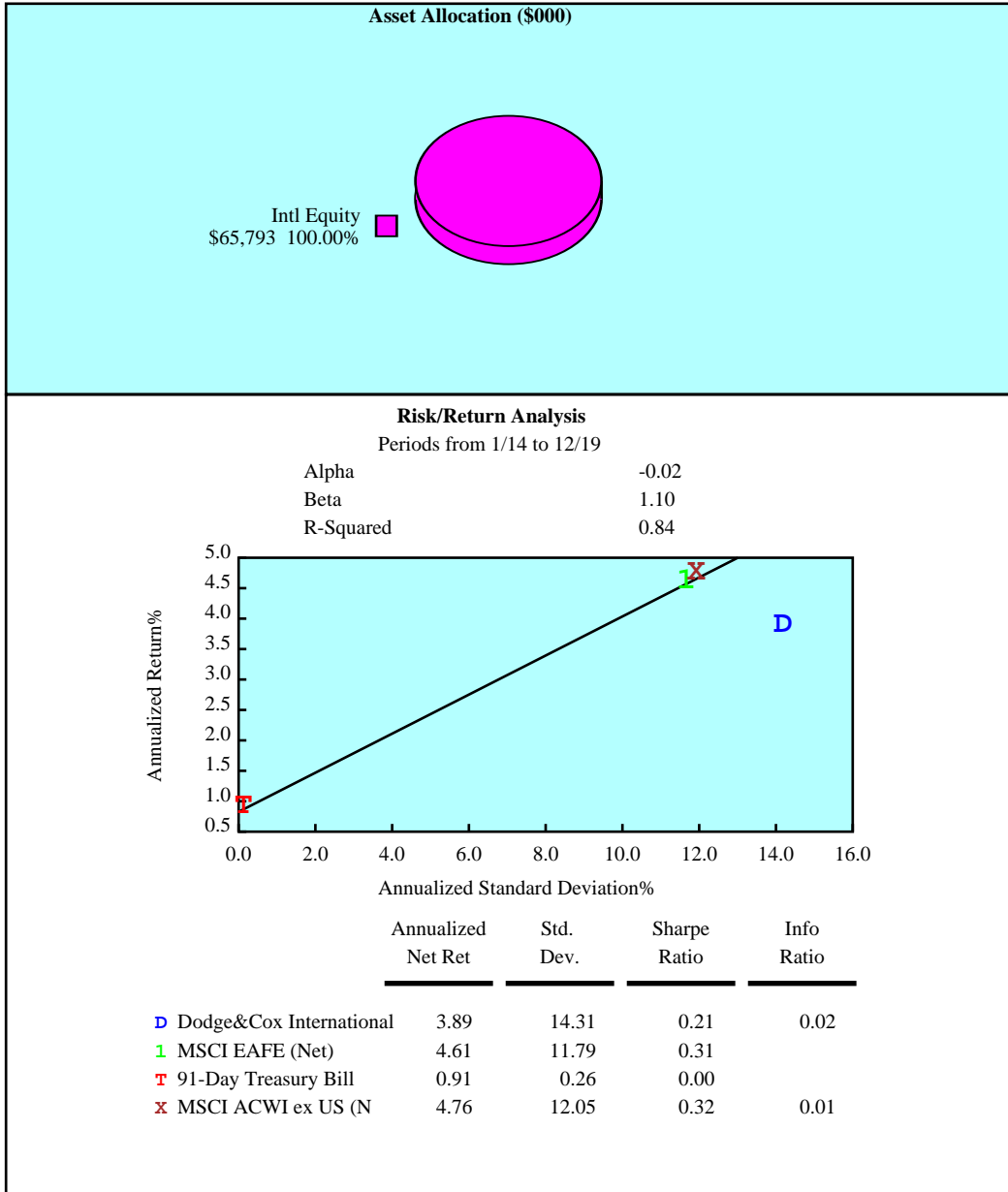
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	1	1	3	4	7	8	10	12
Positive Periods	3	3	9	8	13	12	22	20
Up Market Capture	1.22		1.14		1.02		1.05	
Down Market Capture	2.33		0.88		1.01		0.88	
Batting Average	0.75		0.67		0.60		0.69	
Worst Quarter	-2.50	-1.07	-12.09	-12.54	-12.09	-12.54	-12.09	-12.54
Best Quarter	12.97	9.98	12.97	9.98	12.97	9.98	12.97	11.56
Worst 4 Quarters	25.27	22.01	-11.04	-13.79	-11.04	-13.79	-11.04	-13.79
Best 4 Quarters	25.27	22.01	27.85	25.03	27.85	25.03	27.85	25.03
Standard Deviation	13.44	9.88	13.13	12.16	12.46	11.58	12.09	11.75
Beta	1.31		1.05		1.01		0.98	
Alpha	-0.67		0.61		0.06		0.43	
R-Squared	0.99		0.94		0.88		0.90	
Sharpe Ratio	1.71	2.00	0.83	0.65	0.38	0.40	0.71	0.59
Treynor Ratio	17.53		10.37		4.74		8.75	
Tracking Error	3.67		3.35		4.33		3.80	
Information Ratio	0.83		0.84		0.04		0.39	

## City of Fort Lauderdale Police and Fire Dodge&Cox International Equity as of 12/31/19

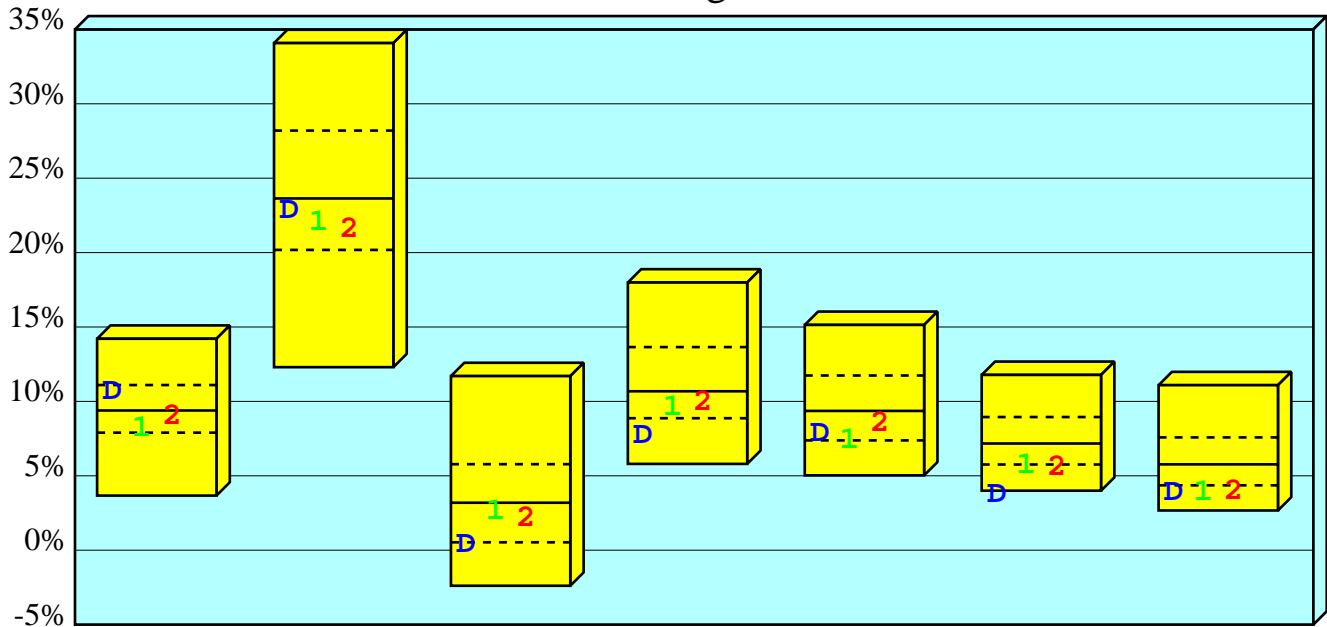


<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 1/31/14</b>
Dodge&Cox International Equity	10.61	22.78	22.78	7.67	3.68		3.89
MSCI EAFE (Net)	8.17	22.01	22.01	9.56	5.67		4.61
MSCI ACWI ex US (Net)	8.92	21.52	21.52	9.86	5.51		4.76
<b>Asset Growth (\$000)</b>							
Beginning Market Value	59,482	53,587	53,587	52,715	54,929		52,502
Net Contributions & Withdrawals	0	0	0	0	0		0
Gain/Loss + Income	6,311	12,206	12,206	13,078	10,864		13,291
Ending Market Value	65,793	65,793	65,793	65,793	65,793		65,793

# City of Fort Lauderdale Police and Fire Dodge&Cox International Equity as of 12/31/19



## City of Fort Lauderdale Police and Fire Cumulative Performance Comparison Total Returns of International Equity Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years
High	14.21	34.08	11.70	17.99	15.14	11.78	11.09
1st Qt	11.10	28.20	5.78	13.65	11.74	8.95	7.58
Median	9.39	23.64	3.19	10.68	9.36	7.17	5.77
3rd Qt	7.90	20.18	0.53	8.87	7.38	5.76	4.36
Low	3.67	12.30	-2.39	5.80	5.03	4.00	2.67

### **D** Dodge&Cox International Equity

Net Ret	10.61	22.78	0.35	7.67	7.82	3.68	3.83
Rank	31	57	76	85	70	96	84

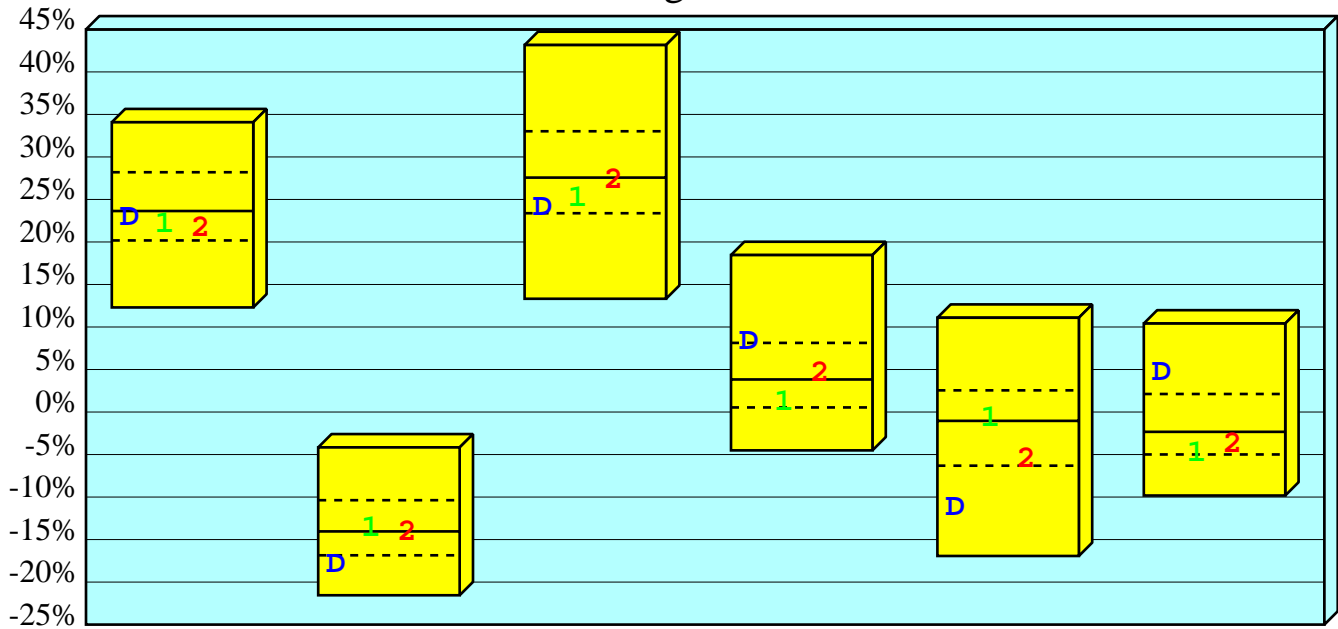
### **1** MSCI EAFE (Net)

Net Ret	8.17	22.01	2.56	9.56	7.36	5.67	3.83
Rank	70	62	57	67	75	76	84

### **2** MSCI ACWI ex US (Net)

Net Ret	8.92	21.52	2.11	9.86	8.50	5.51	3.88
Rank	59	67	63	62	60	79	84

## City of Fort Lauderdale Police and Fire Calendar Year Performance Comparison Total Returns of International Equity Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014
High	34.08	-4.16	43.16	18.46	11.09	10.41
1st Qt	28.20	-10.37	33.02	8.13	2.55	2.12
Median	23.64	-14.04	27.57	3.83	-1.04	-2.33
3rd Qt	20.18	-16.85	23.38	0.54	-6.31	-4.99
Low	12.30	-21.55	13.32	-4.51	-16.93	-9.82
<b>D</b> Dodge&Cox International Equity						
Net Ret	22.78	-17.98	23.94	8.26	-11.35	4.62
Rank	57	83	72	24	85	16
<b>1</b> MSCI EAFE (Net)						
Net Ret	22.01	-13.79	25.03	1.00	-0.81	-4.90
Rank	62	47	67	72	47	74
<b>2</b> MSCI ACWI ex US (Net)						
Net Ret	21.52	-14.20	27.19	4.50	-5.66	-3.87
Rank	67	51	53	46	73	62

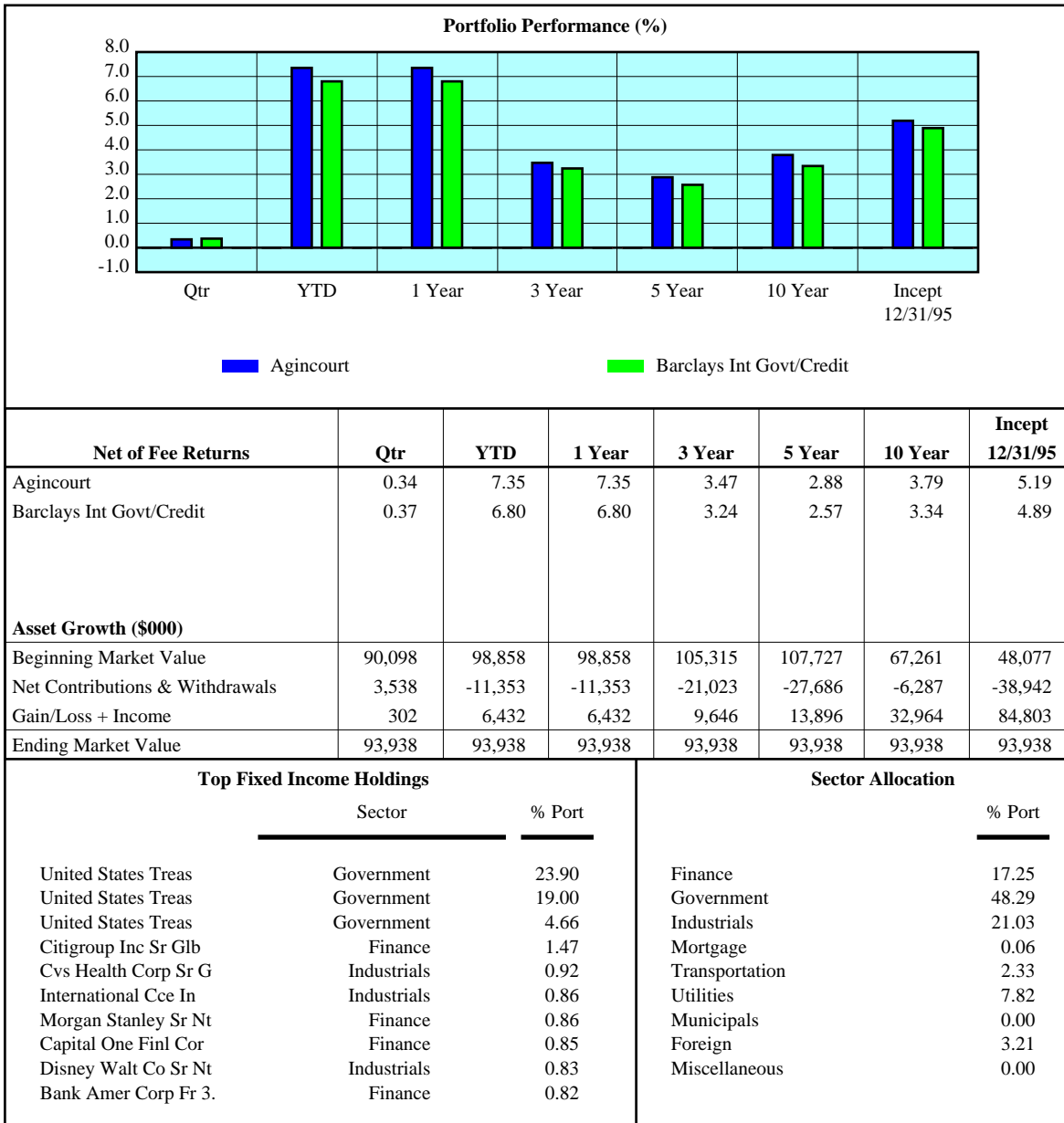


City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Dodge&Cox International Equity  
Quarterly Periods Ending 12/31/19

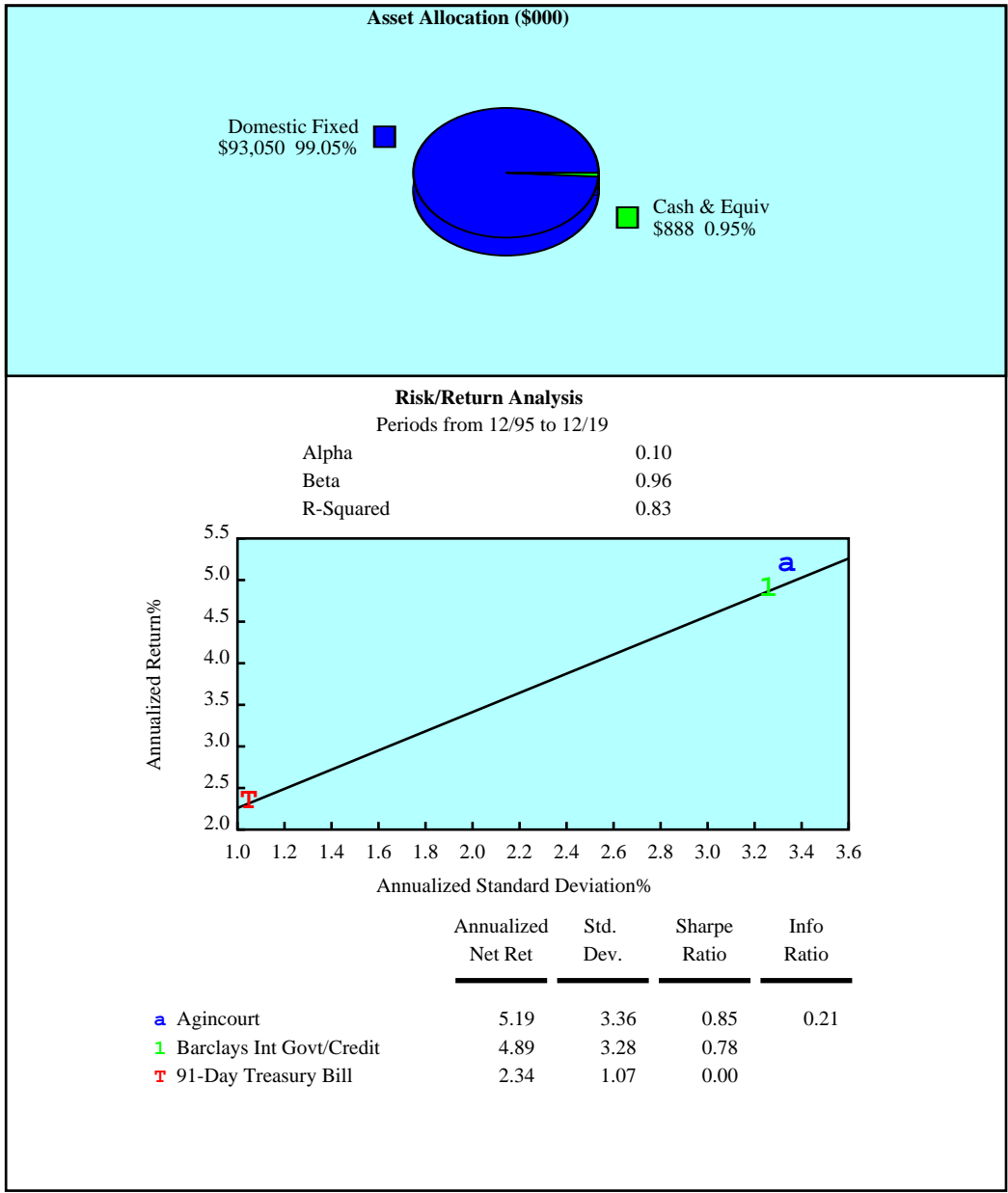
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	1	1	4	4	8	8	10	10
Positive Periods	3	3	8	8	12	12	14	14
Up Market Capture	1.06		1.00		0.96		1.09	
Down Market Capture	1.55		1.26		1.20		1.11	
Batting Average	0.25		0.33		0.35		0.42	
Worst Quarter	-1.66	-1.07	-12.39	-12.54	-15.38	-12.54	-15.38	-12.54
Best Quarter	10.61	9.98	10.61	9.98	10.61	9.98	10.61	9.98
Worst 4 Quarters	22.78	22.01	-17.98	-13.79	-18.86	-13.79	-18.86	-13.79
Best 4 Quarters	22.78	22.01	23.94	25.03	30.37	25.03	30.37	25.03
Standard Deviation	11.71	9.88	13.63	12.16	13.93	11.58	13.35	11.19
Beta	1.13		1.08		1.13		1.10	
Alpha	-0.41		-0.56		-0.58		-0.02	
R-Squared	0.96		0.93		0.89		0.84	
Sharpe Ratio	1.75	2.00	0.44	0.65	0.19	0.40	0.22	0.26
Treynor Ratio	18.11		5.57		2.29		2.68	
Tracking Error	3.05		3.74		4.84		5.47	
Information Ratio	0.25		-0.45		-0.36		0.02	



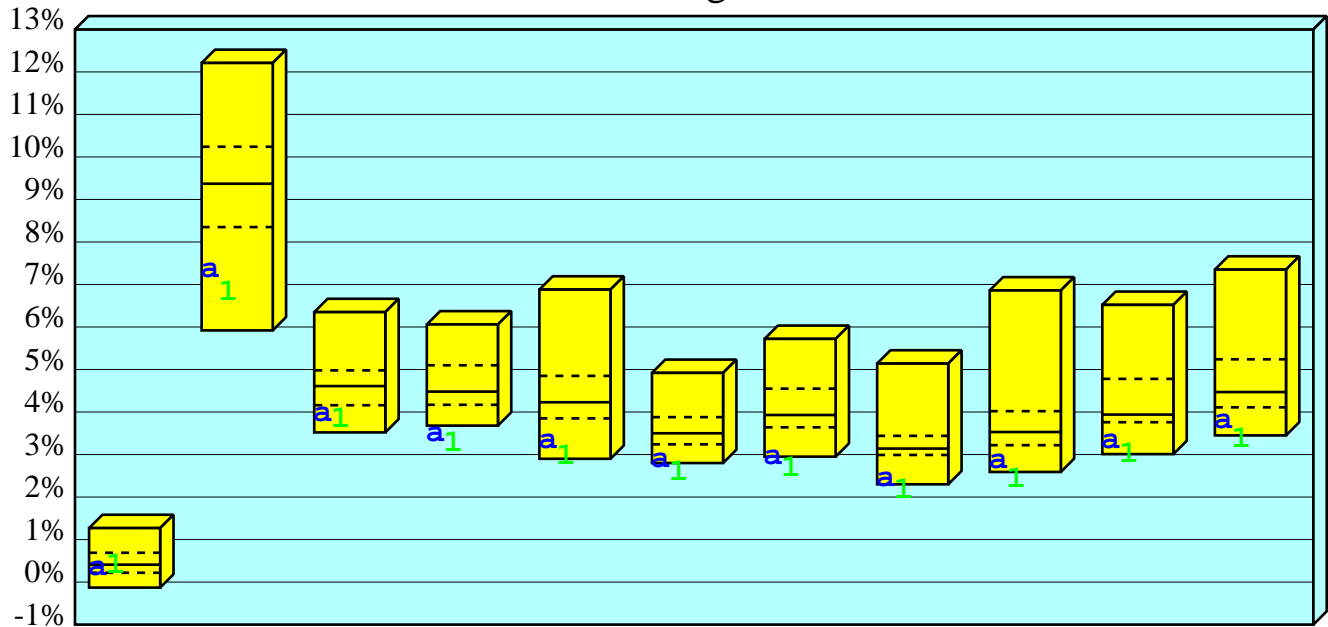
## City of Fort Lauderdale Police and Fire Agincourt as of 12/31/19



# City of Fort Lauderdale Police and Fire Agincourt as of 12/31/19



# City of Fort Lauderdale Police and Fire Fixed Income Core Cumulative Performance Comparisons Total Returns of Fixed Income Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years	Last 9 Years	Last 10 Years
High	1.27	12.21	6.35	6.06	6.88	4.92	5.72	5.14	6.86	6.52	7.35
1st Qt	0.69	10.24	4.98	5.10	4.85	3.88	4.55	3.44	4.02	4.78	5.24
Median	0.41	9.37	4.61	4.48	4.23	3.50	3.93	3.14	3.53	3.94	4.47
3rd Qt	0.22	8.35	4.16	4.17	3.85	3.24	3.64	2.99	3.22	3.76	4.11
Low	-0.13	5.92	3.52	3.68	2.90	2.80	2.95	2.30	2.59	3.01	3.45

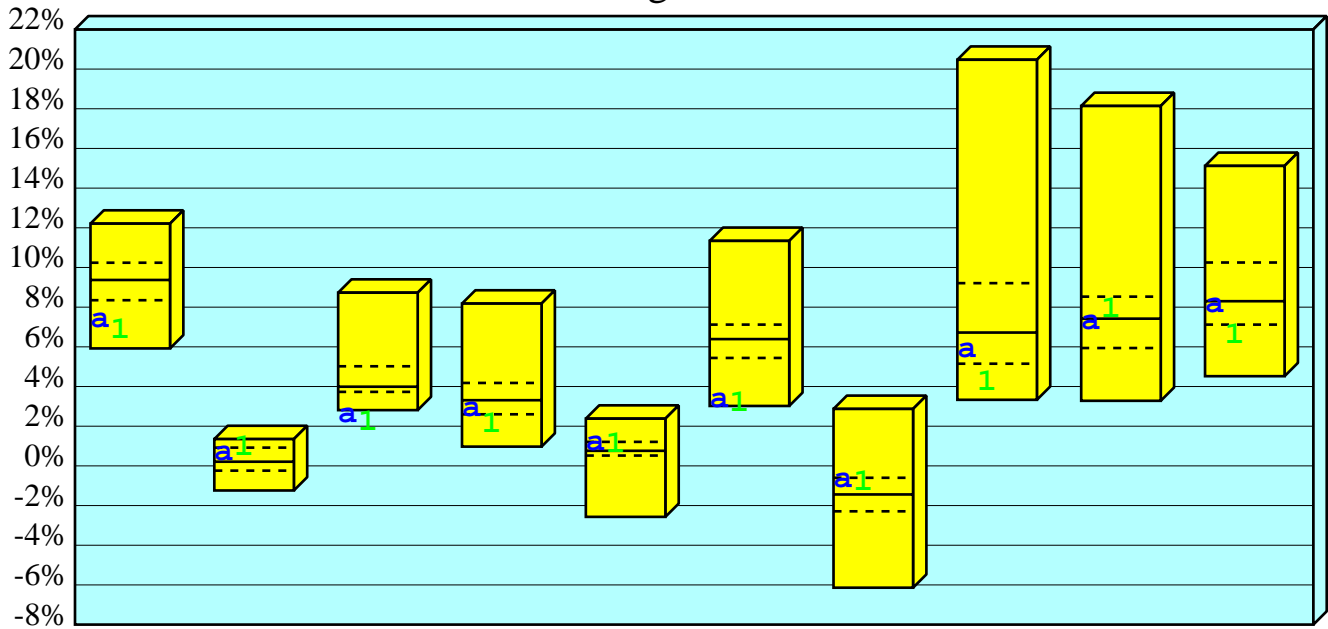
**a** Agincourt

Net Ret	0.34	7.35	3.95	3.47	3.32	2.88	2.95	2.42	2.84	3.32	3.79
Rank	54	87	87	96	91	91	96	93	88	85	83

**1** Barclays Int Govt/Credit

Net Ret	0.37	6.80	3.80	3.24	2.95	2.57	2.66	2.15	2.40	2.99	3.34
Rank	54	89	87	99	94	99	99	99	99	95	95

# City of Fort Lauderdale Police and Fire Fixed Income Core Consecutive Performance Comparisons Total Returns of Fixed Income Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
High	12.21	1.35	8.73	8.18	2.38	11.34	2.87	20.47	18.14	15.12
1st Qt	10.24	0.92	5.02	4.18	1.21	7.12	-0.60	9.21	8.53	10.25
Median	9.37	0.21	3.99	3.31	0.76	6.39	-1.44	6.72	7.42	8.30
3rd Qt	8.35	-0.24	3.73	2.60	0.52	5.44	-2.29	5.15	5.94	7.12
Low	5.92	-1.24	2.81	0.97	-2.57	3.02	-6.14	3.33	3.28	4.52

**a** Agincourt

Net Ret	7.35	0.65	2.54	2.86	1.14	3.30	-0.73	5.83	7.27	8.10
Rank	87	30	99	68	26	93	28	51	51	56

**1** Barclays Int Govt/Credit

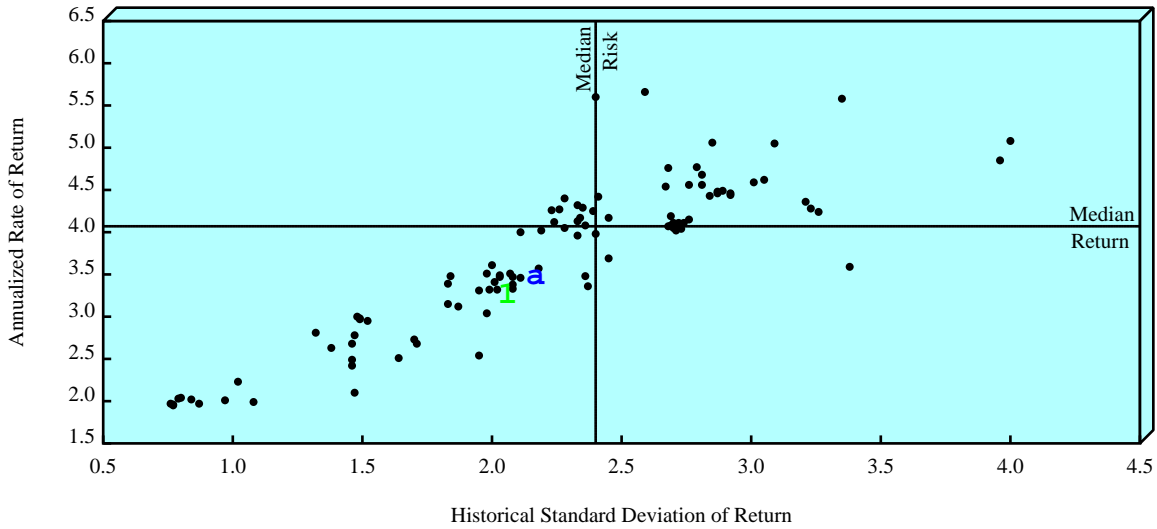
Net Ret	6.80	0.88	2.14	2.08	1.07	3.13	-0.86	4.17	7.84	6.54
Rank	89	26	99	85	28	93	32	91	42	89

# City of Fort Lauderdale Police and Fire

## Return vs Risk

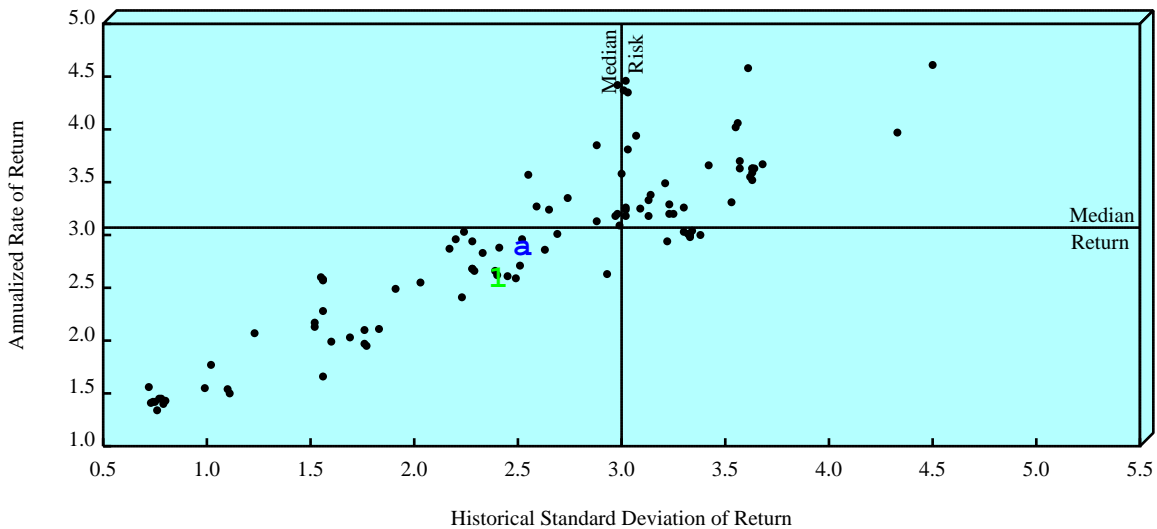
### Total Returns of Fixed Income Portfolios

3 Years Ending 12/31/19



	Annualized Net of Fee Return		Standard Deviation	
	Value	Rank	Value	Rank
a Agincourt	3.47	68	2.19	39
l Barclays Int Govt/Credit	3.24	76	2.08	33
Median	4.07		2.40	

5 Years Ending 12/31/19



	Annualized Net of Fee Return		Standard Deviation	
	Value	Rank	Value	Rank
a Agincourt	2.88	64	2.55	41
l Barclays Int Govt/Credit	2.57	78	2.43	36
Median	3.07		3.00	

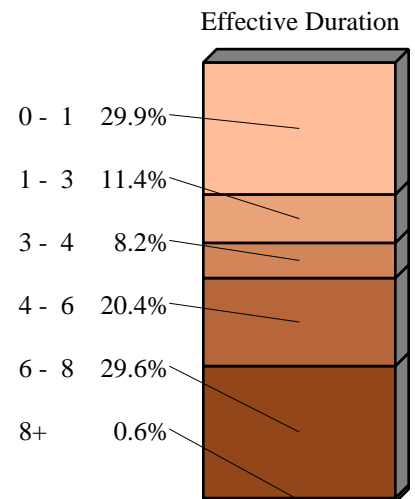
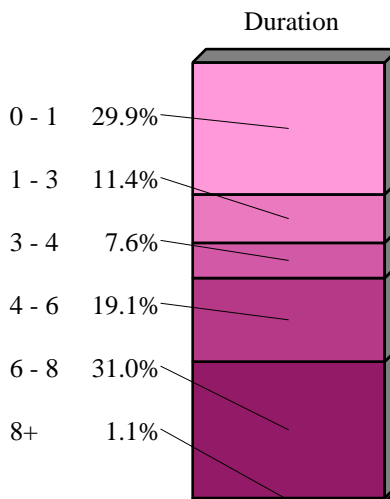
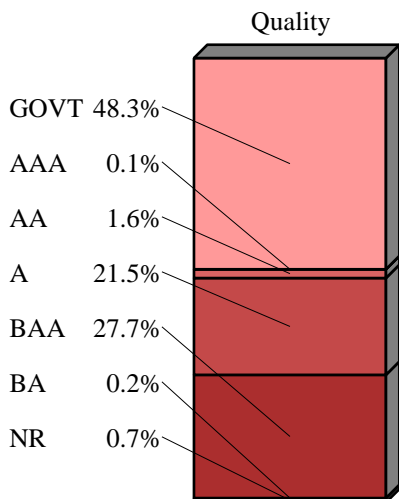
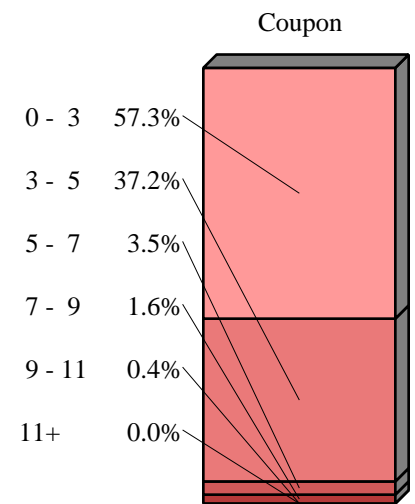
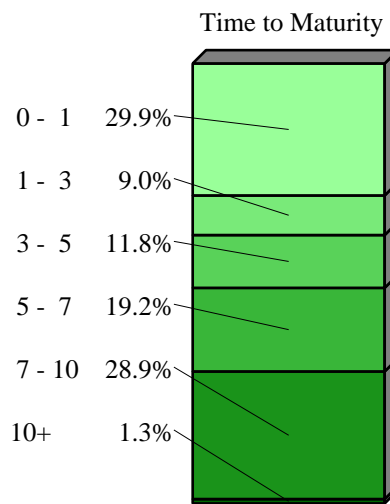
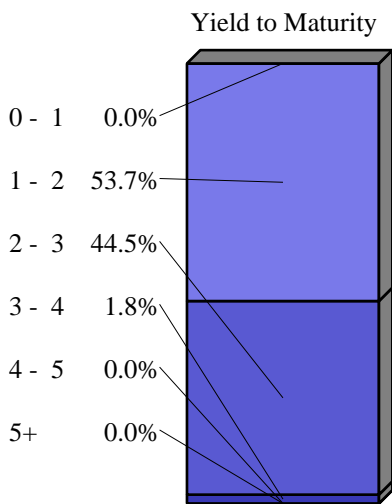
City of Fort Lauderdale Police and Fire  
 Risk Measure Summary  
 Agincourt  
 Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	2	2	5	5	21	23
Positive Periods	4	4	10	10	15	15	75	73
Up Market Capture	1.08		1.06		1.09		1.06	
Down Market Capture			1.00		1.00		1.01	
Batting Average	0.75		0.75		0.70		0.69	
Worst Quarter	0.34	0.37	-1.15	-0.98	-2.01	-2.07	-2.41	-2.44
Best Quarter	2.68	2.59	2.68	2.59	2.68	2.59	5.72	4.62
Worst 4 Quarters	7.35	6.80	-0.70	-0.96	-0.70	-0.96	-1.67	-0.96
Best 4 Quarters	7.35	6.80	8.40	8.17	8.40	8.17	15.10	12.95
Standard Deviation	2.25	2.01	2.19	2.08	2.55	2.43	3.36	3.28
Beta	1.12		1.04		1.05		0.96	
Alpha	0.00		0.04		0.06		0.10	
R-Squared	0.99		0.97		0.98		0.83	
Sharpe Ratio	2.26	2.25	0.82	0.75	0.71	0.62	0.85	0.78
Treynor Ratio	4.53		1.73		1.73		2.99	
Tracking Error	0.33		0.36		0.32		1.39	
Information Ratio	1.61		0.64		0.94		0.21	



# City of Fort Lauderdale Police and Fire Fixed Income, Mortgage and Municipals Summary Statistics Agincourt Quarter Ending 12/19

	Portfolio	Barclays Int Govt/Credit
Total Number Of Securities	140	4,911
Total Market Value	93,050,038	
Yield to Maturity	2.07	1.93
Time to Maturity	4.39	4.30
Current Coupon	3.04	2.64
Duration	3.97	3.94
Effective Convexity	0.25	0.19
Effective Duration	3.90	3.91
Effective Maturity	4.38	4.30



City of Fort Lauderdale Police and Fire  
Percent Invested by Sector and Quality  
Agincourt  
As of 12/31/19

Name	Moody's Quality Ratings								Total
	Aaa	Aa	A	Baa	Ba	B	Other	NR	
<b>Government</b>	48.29	---	---	---	---	---	---	---	48.29
Treasury	48.29	---	---	---	---	---	---	---	48.29
Agency	---	---	---	---	---	---	---	---	---
<b>Corporate</b>	---	1.59	20.13	26.72	0.19	---	---	0.68	49.31
Industrial	---	1.03	6.53	12.61	0.19	---	---	0.67	21.03
Utility	---	0.24	1.21	6.36	---	---	---	---	7.81
Finance	---	---	12.39	4.86	---	---	---	0.01	17.26
Yankee	---	0.31	---	2.90	---	---	---	---	3.21
<b>Transportation</b>	---	---	1.39	0.94	---	---	---	---	2.33
<b>Mortgage</b>	0.06	---	---	---	---	---	---	---	0.06
GNMA	---	---	---	---	---	---	---	---	---
FHLMC	0.02	---	---	---	---	---	---	---	0.02
FNMA	0.04	---	---	---	---	---	---	---	0.04
Other Mortgage	---	---	---	---	---	---	---	---	---
<b>Municipals</b>	---	---	---	---	---	---	---	---	---
<b>Cash</b>	---	---	---	---	---	---	---	---	---
<b>Other</b>	---	---	---	---	---	---	---	---	---
<b>Total</b>	48.36	1.59	21.52	27.67	0.19	---	---	0.68	100.00

City of Fort Lauderdale Police and Fire  
Fixed Income Sector Attribution Analysis  
Agincourt  
Quarter Ending 12/19

	Weight		Return		Selection		
	Portfolio	Index	Portfolio	Index	Security	Sector	Total
Finance	17.45	0.00	0.90	0.00	0.16	0.00	0.16
Government	48.36	0.00	-0.30	0.00	-0.14	0.00	-0.14
Industrials	20.77	17.29	0.97	0.00	0.20	0.00	0.20
Mortgage	0.09	0.00	1.30	0.00	0.00	0.00	0.00
Transportation	2.23	0.00	0.96	0.00	0.02	0.00	0.02
Utilities	7.78	1.51	0.90	0.00	0.07	0.00	0.07
Municipals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Foreign	3.32	0.00	1.57	0.00	0.05	0.00	0.05
Miscellaneous	0.00	0.00		0.00	0.00	0.00	0.00
	100.00	100.00	0.36	0.00	0.36	0.00	0.36

Index - Barclays Int Govt/Credit

Security Selection Return Attribution

[ Portfolio Market Value Sector Percentage ] \* [ Portfolio Sector Return - Index Sector Return ]

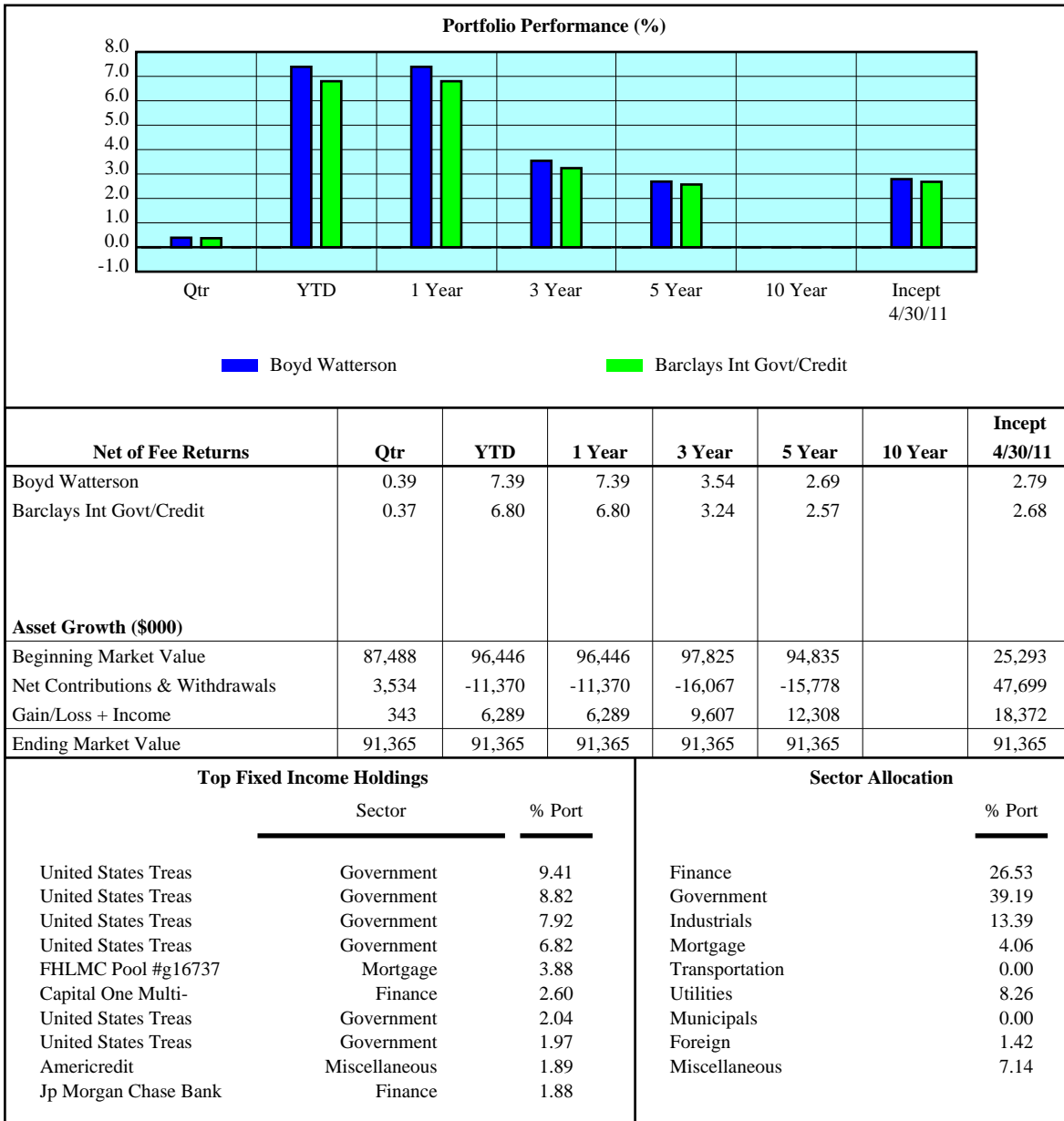
Sector Selection Return Attribution

[ Portfolio Sector Percentage - Index Sector Percentage ] \* [ Index Sector Return - Index Total Return ]

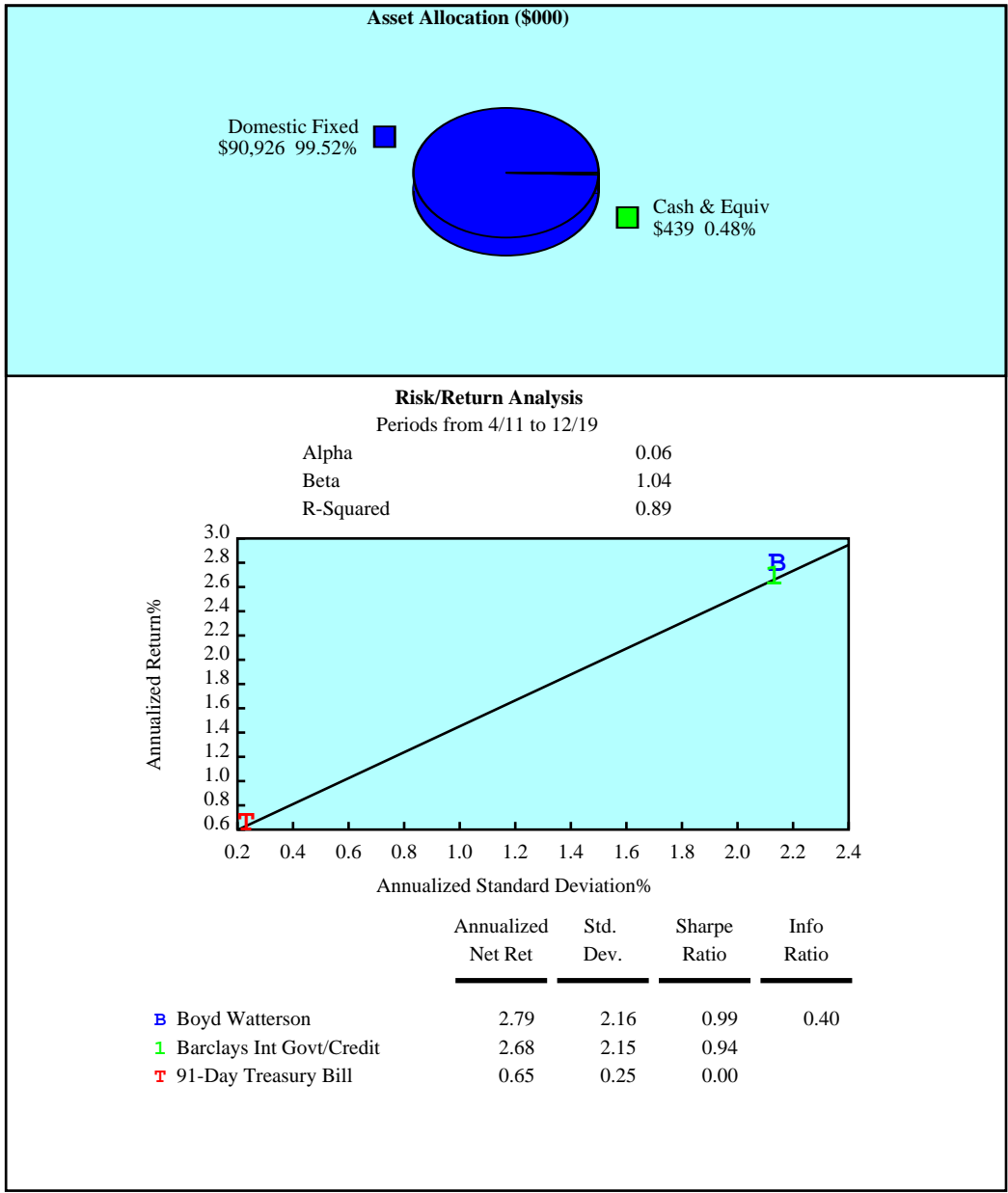
Trading Effect 0.01%

[ Actual Return 0.37% ] - [ Buy Hold Return 0.36% ]

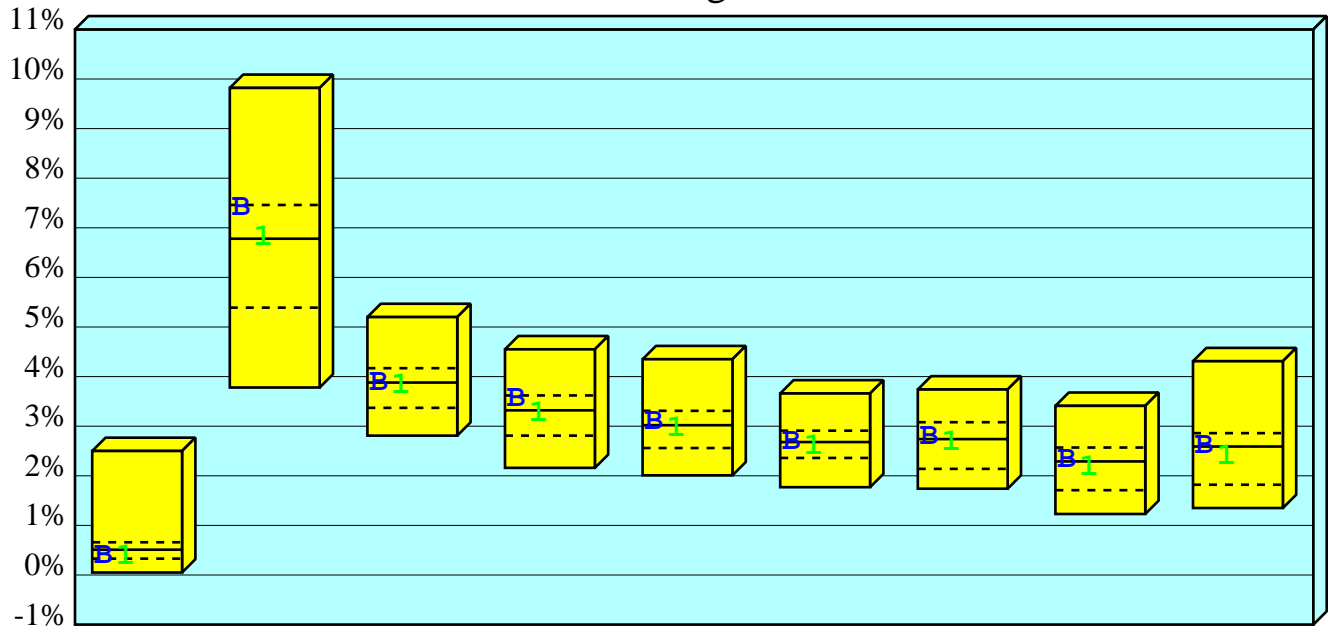
## City of Fort Lauderdale Police and Fire Boyd Watterson as of 12/31/19



# City of Fort Lauderdale Police and Fire Boyd Watterson as of 12/31/19



# City of Fort Lauderdale Police and Fire Intermediate Gov/Corp Cumulative Performance Comparisons Total Returns of Fixed Income Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years
High	2.50	9.82	5.20	4.55	4.35	3.66	3.74	3.41	4.31
1st Qt	0.66	7.46	4.17	3.62	3.31	2.91	3.08	2.57	2.86
Median	0.51	6.78	3.88	3.32	3.02	2.68	2.74	2.29	2.59
3rd Qt	0.33	5.39	3.37	2.81	2.56	2.36	2.14	1.71	1.82
Low	0.05	3.78	2.81	2.16	2.01	1.77	1.74	1.23	1.35

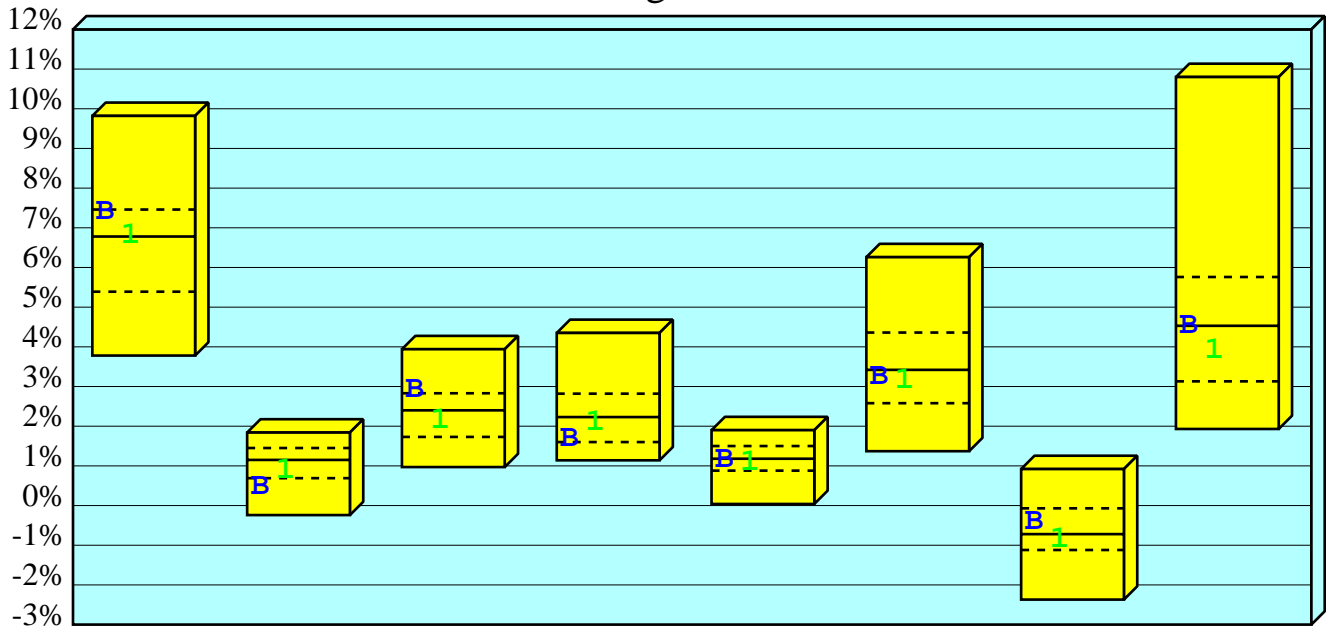
**B** Boyd Watterson

Net Ret	0.39	7.39	3.87	3.54	3.08	2.69	2.78	2.32	2.59
Rank	68	27	50	29	48	44	46	47	50

**1** Barclays Int Govt/Credit

Net Ret	0.37	6.80	3.80	3.24	2.95	2.57	2.66	2.15	2.37
Rank	70	48	51	53	58	60	55	54	54

# City of Fort Lauderdale Police and Fire Intermediate Gov/Corp Consecutive Performance Comparisons Total Returns of Fixed Income Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012
High	9.82	1.84	3.94	4.35	1.90	6.26	0.92	10.80
1st Qt	7.46	1.45	2.83	2.82	1.50	4.36	-0.07	5.76
Median	6.78	1.15	2.40	2.23	1.18	3.42	-0.72	4.53
3rd Qt	5.39	0.69	1.73	1.60	0.88	2.58	-1.12	3.13
Low	3.78	-0.24	0.97	1.14	0.04	1.37	-2.37	1.93

**B** Boyd Watterson

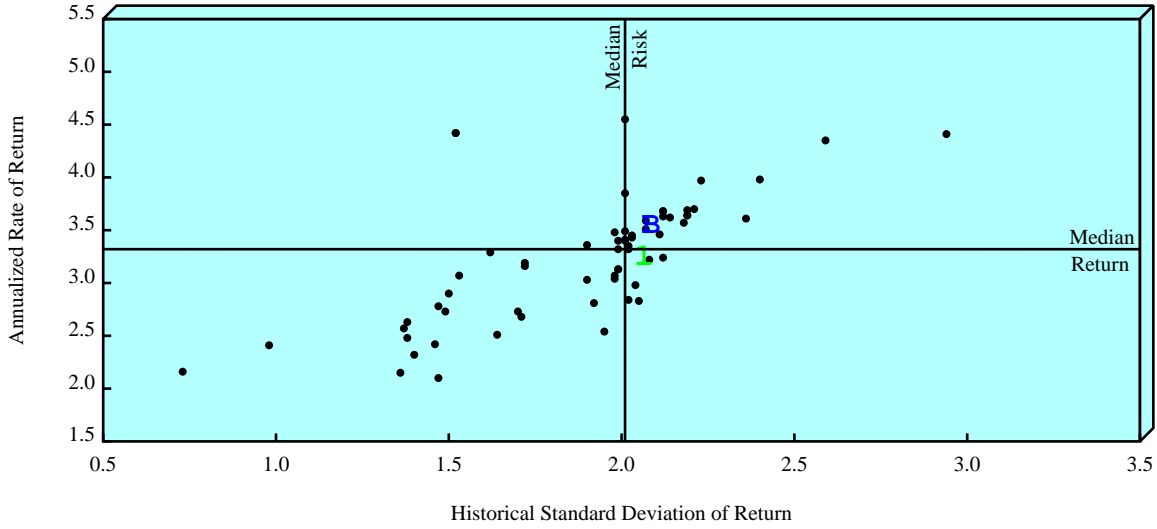
Net Ret	7.39	0.46	2.90	1.68	1.14	3.25	-0.42	4.53
Rank	27	87	23	71	53	61	37	50

**1** Barclays Int Govt/Credit

Net Ret	6.80	0.88	2.14	2.08	1.07	3.13	-0.86	3.89
Rank	48	62	58	57	63	65	61	58

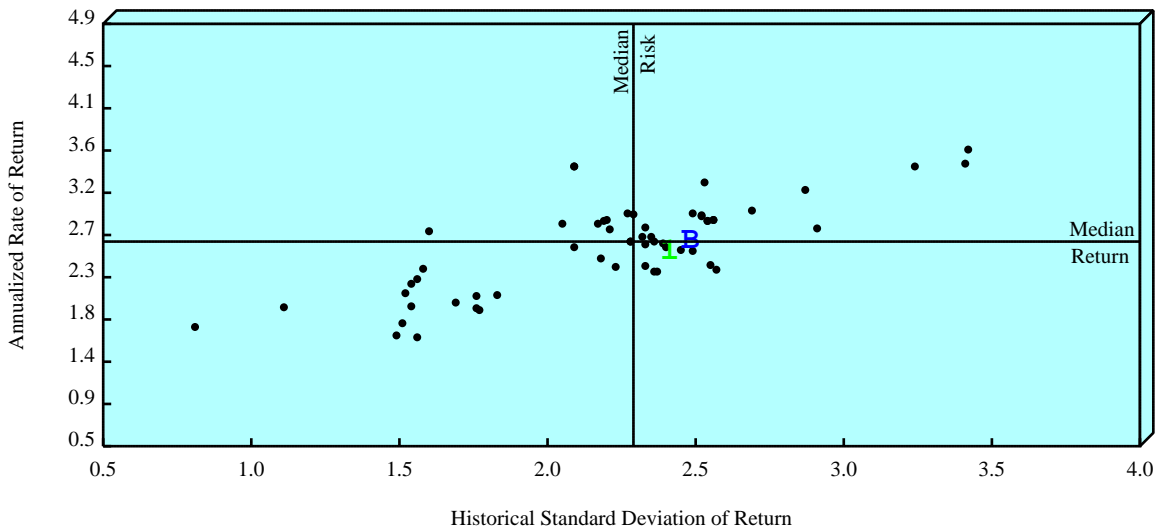
# City of Fort Lauderdale Police and Fire Return vs Risk Total Returns of Intermediate Gov/Corp Portfolios

3 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
B	Boyd Watterson	3.54	29	2.10	72
I	Barclays Int Govt/Credit	3.24	53	2.08	70
	Median	3.32		2.01	

5 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
B	Boyd Watterson	2.69	44	2.50	76
I	Barclays Int Govt/Credit	2.57	60	2.43	71
	Median	2.68		2.29	



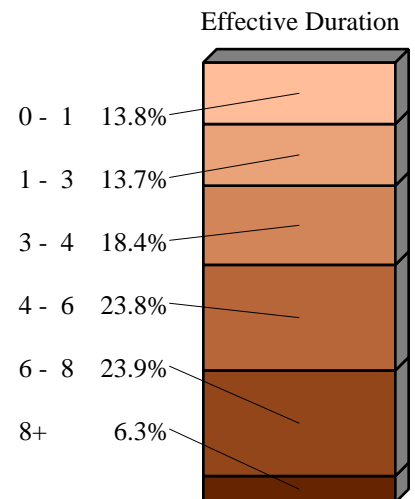
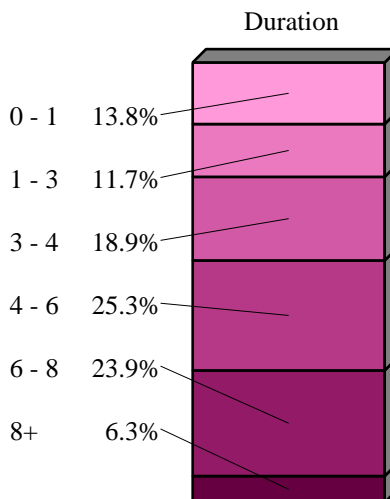
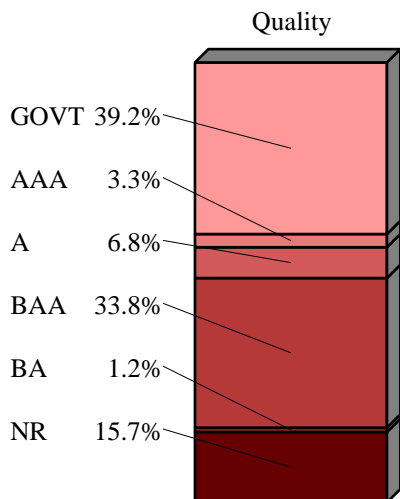
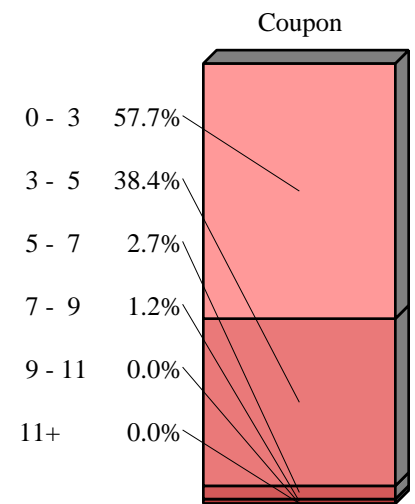
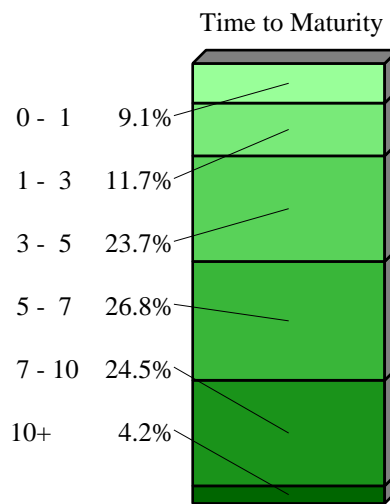
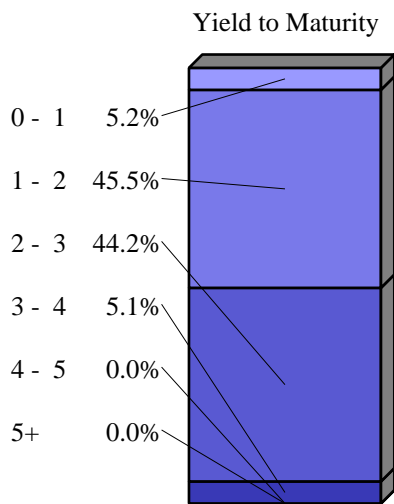
City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Boyd Watterson  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	1	2	4	5	5	8
Positive Periods	4	4	11	10	16	15	30	27
Up Market Capture	1.09		1.04		1.03		1.08	
Down Market Capture			0.64		0.98		0.95	
Batting Average	1.00		0.83		0.70		0.69	
Worst Quarter	0.39	0.37	-1.06	-0.98	-2.23	-2.07	-2.23	-2.07
Best Quarter	2.76	2.59	2.76	2.59	2.76	2.59	3.92	2.59
Worst 4 Quarters	7.39	6.80	-0.19	-0.96	-0.41	-0.96	-0.56	-0.96
Best 4 Quarters	7.39	6.80	8.00	8.17	8.00	8.17	8.00	8.17
Standard Deviation	2.24	2.01	2.10	2.08	2.50	2.43	2.44	2.22
Beta	1.12		0.97		1.00		1.04	
Alpha	0.01		0.09		0.03		0.06	
R-Squared	0.98		0.91		0.95		0.89	
Sharpe Ratio	2.28	2.25	0.89	0.75	0.65	0.62	1.01	0.97
Treynor Ratio	4.58		1.94		1.61		2.37	
Tracking Error	0.40		0.60		0.51		0.81	
Information Ratio	1.39		0.49		0.22		0.40	

# City of Fort Lauderdale Police and Fire Fixed Income, Mortgage and Municipals Summary Statistics

Boyd Watterson  
Quarter Ending 12/19

	Portfolio	Barclays Int Govt/Credit
Total Number Of Securities	47	4,911
Total Market Value	90,926,007	
Yield to Maturity	2.06	1.93
Time to Maturity	5.38	4.30
Current Coupon	2.96	2.64
Duration	4.70	3.94
Effective Convexity	0.31	0.19
Effective Duration	4.62	3.91
Effective Maturity	5.17	4.30



City of Fort Lauderdale Police and Fire  
Percent Invested by Sector and Quality  
Boyd Watterson  
As of 12/31/19

Name	Moody's Quality Ratings								Total
	Aaa	Aa	A	Baa	Ba	B	Other	NR	
<b>Government</b>	39.19	---	---	---	---	---	---	---	39.19
Treasury	39.19	---	---	---	---	---	---	---	39.19
Agency	---	---	---	---	---	---	---	---	---
<b>Corporate</b>	3.28	---	6.75	33.83	1.20	---	---	4.54	49.60
Industrial	---	---	1.94	11.45	---	---	---	---	13.39
Utility	---	---	---	8.26	---	---	---	---	8.26
Finance	3.28	---	4.81	12.70	1.20	---	---	4.54	26.53
Yankee	---	---	---	1.42	---	---	---	---	1.42
<b>Transportation</b>	---	---	---	---	---	---	---	---	---
<b>Mortgage</b>	0.04	---	---	---	---	---	---	4.02	4.06
GNMA	---	---	---	---	---	---	---	---	---
FHLMC	---	---	---	---	---	---	---	4.02	4.02
FNMA	---	---	---	---	---	---	---	---	---
Other Mortgage	0.04	---	---	---	---	---	---	---	0.04
<b>Municipals</b>	---	---	---	---	---	---	---	---	---
<b>Cash</b>	---	---	---	---	---	---	---	---	---
<b>Other</b>	---	---	---	---	---	---	---	7.14	7.14
<b>Total</b>	42.51	---	6.75	33.83	1.20	---	---	15.70	100.00

City of Fort Lauderdale Police and Fire  
Fixed Income Sector Attribution Analysis  
Boyd Watterson  
Quarter Ending 12/19

	Weight		Return		Selection		
	Portfolio	Index	Portfolio	Index	Security	Sector	Total
Finance	26.25	0.00	0.86	0.00	0.23	0.00	0.23
Government	38.29	0.00	-0.56	0.00	-0.22	0.00	-0.22
Industrials	13.54	17.29	1.29	0.00	0.17	-0.00	0.17
Mortgage	4.65	0.00	1.01	0.00	0.05	0.00	0.05
Transportation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utilities	8.17	1.51	0.62	0.00	0.05	0.00	0.05
Municipals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Foreign	1.39	0.00	0.69	0.00	0.01	0.00	0.01
Miscellaneous	7.70	0.00		0.00	0.00	0.00	0.00
	100.00	100.00	0.29	0.00	0.29	0.00	0.29

Index - Barclays Int Govt/Credit

Security Selection Return Attribution

[ Portfolio Market Value Sector Percentage ] \* [ Portfolio Sector Return - Index Sector Return ]

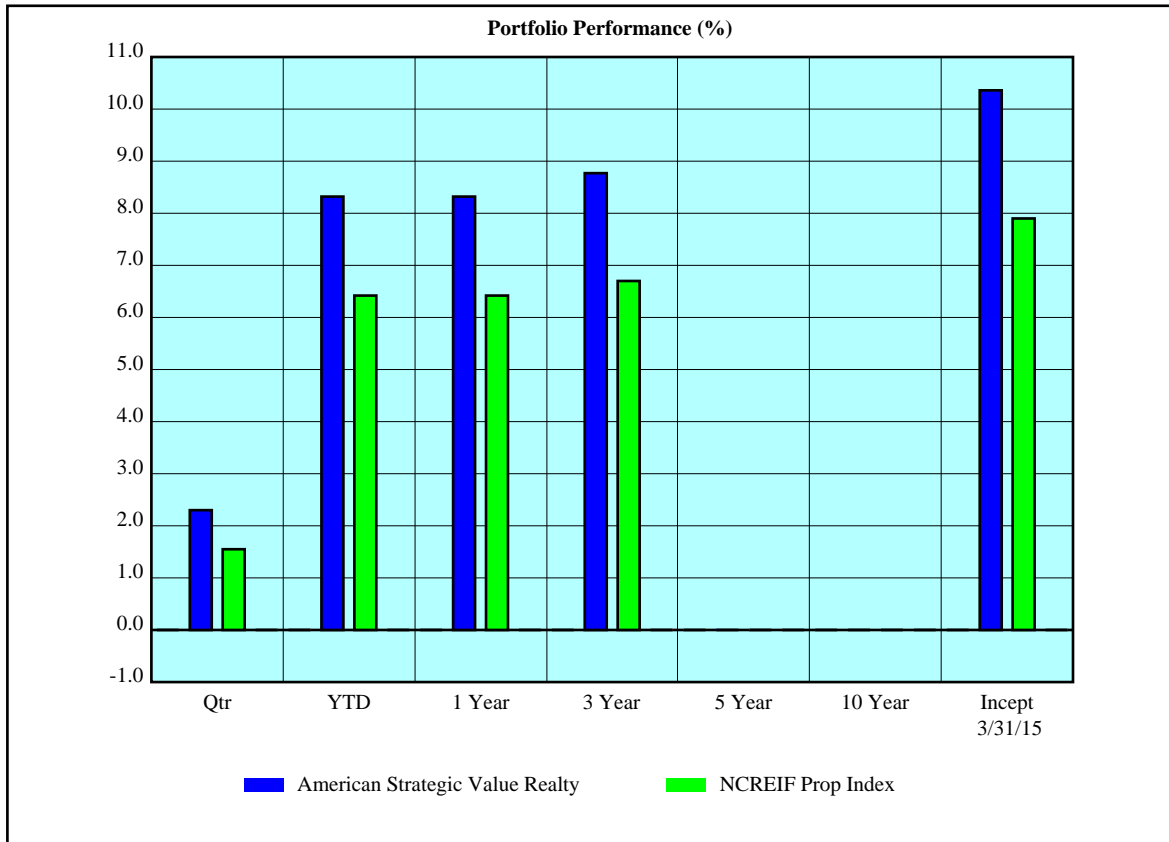
Sector Selection Return Attribution

[ Portfolio Sector Percentage - Index Sector Percentage ] \* [ Index Sector Return - Index Total Return ]

Trading Effect 0.14%

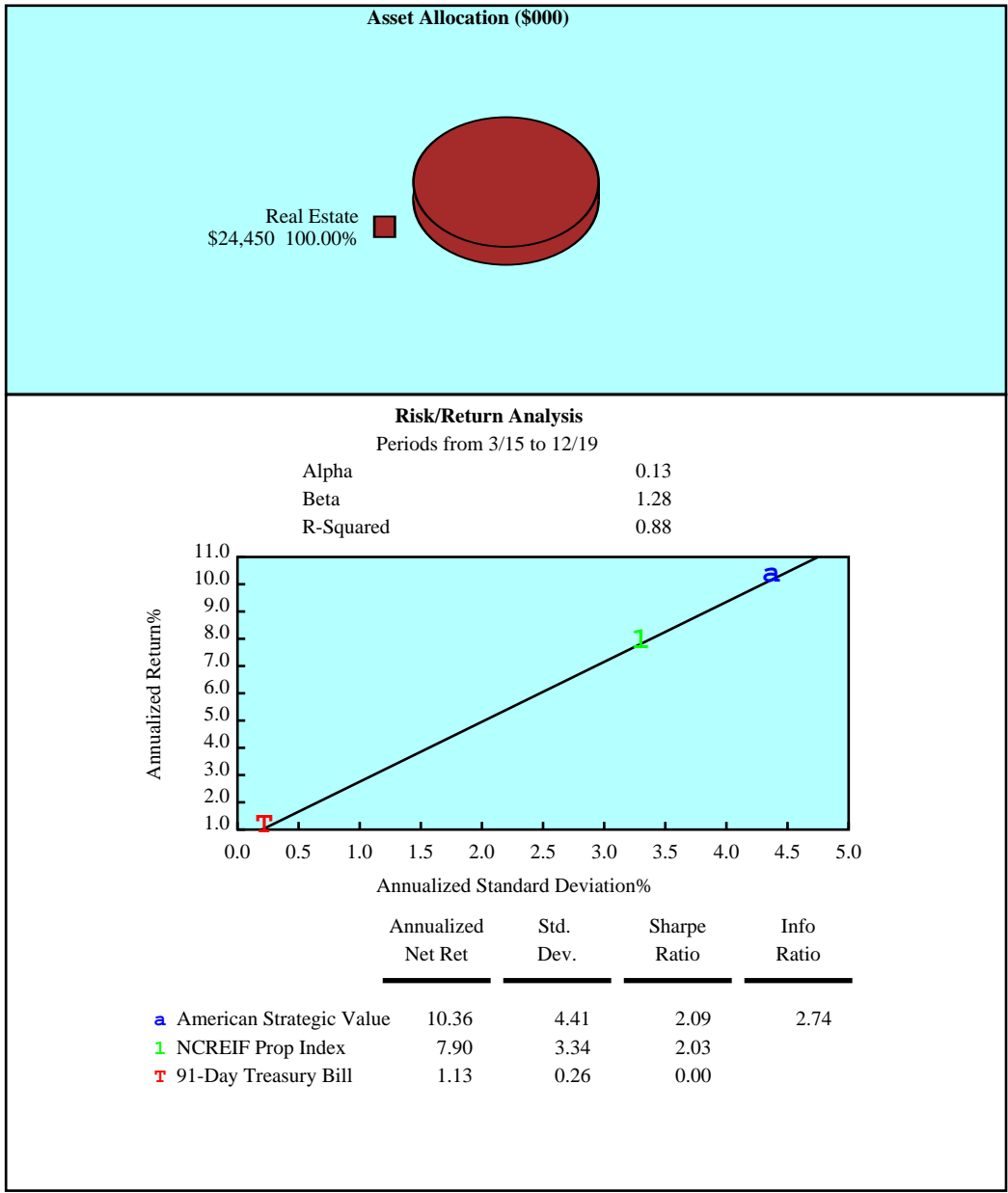
[ Actual Return 0.43% ] - [ Buy Hold Return 0.29% ]

## City of Fort Lauderdale Police and Fire American Strategic Value Realty as of 12/31/19

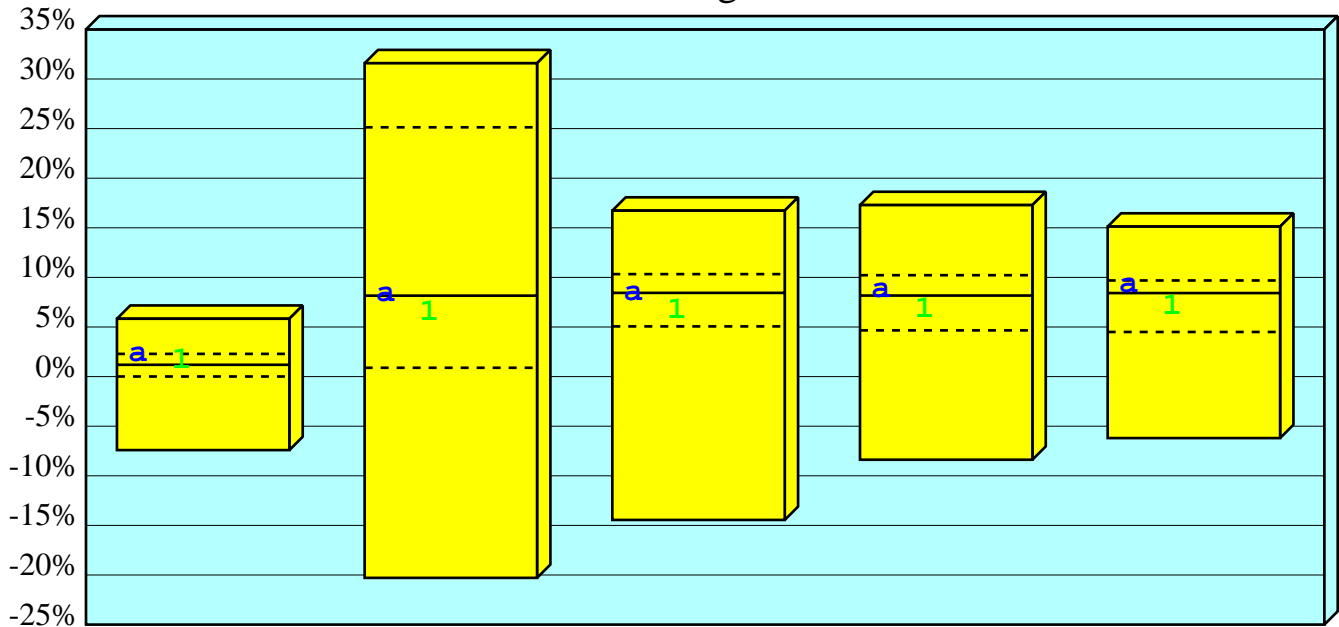


<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 3/31/15</b>
American Strategic Value Realty	2.30	8.32	8.32	8.77			10.36
NCREIF Prop Index	1.55	6.42	6.42	6.70			7.90
<b>Asset Growth (\$000)</b>							
Beginning Market Value	23,901	22,572	22,572	8,654			1,464
Net Contributions & Withdrawals	-77	-276	-276	10,806			17,384
Gain/Loss + Income	626	2,153	2,153	4,990			5,602
Ending Market Value	24,450	24,450	24,450	24,450			24,450

# City of Fort Lauderdale Police and Fire American Strategic Value Realty as of 12/31/19



## City of Fort Lauderdale Police and Fire Cumulative Performance Comparison Total Returns of Real Estate Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years
High	5.83	31.59	16.73	17.29	15.12
1st Qt	2.29	25.13	10.33	10.22	9.69
Median	1.19	8.16	8.44	8.17	8.42
3rd Qt	0.01	0.89	5.06	4.66	4.50
Low	-7.41	-20.29	-14.45	-8.38	-6.20

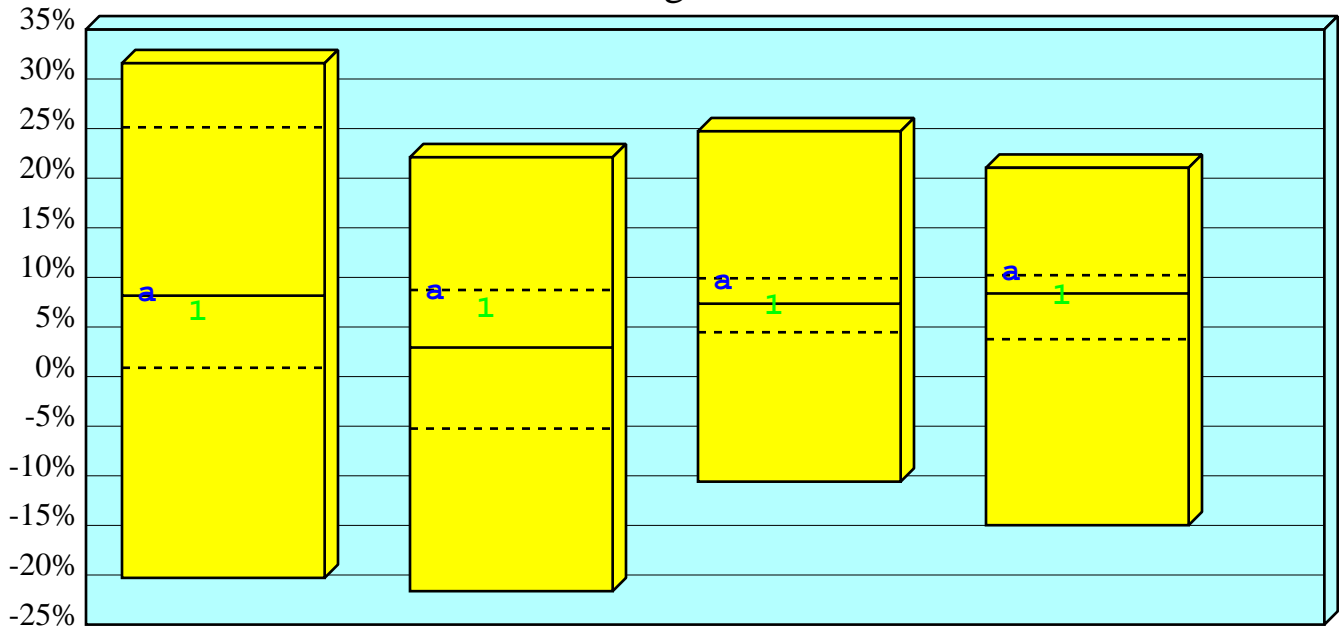
**a** American Strategic Value Realty

Net Ret	2.30	8.32	8.41	8.77	9.18
Rank	24	49	50	43	38

**1** NCREIF Prop Index

Net Ret	1.55	6.42	6.57	6.70	7.02
Rank	44	54	62	65	68

## City of Fort Lauderdale Police and Fire Calendar Year Performance Comparison Total Returns of Real Estate Portfolios Years Ending December



	2019	2018	2017	2016
High	31.59	22.11	24.73	21.05
1st Qt	25.13	8.73	9.91	10.22
Median	8.16	2.93	7.35	8.38
3rd Qt	0.89	-5.24	4.47	3.77
Low	-20.29	-21.63	-10.59	-14.98

**a** American Strategic Value Realty

Net Ret	8.32	8.51	9.49	10.41
Rank	49	27	28	23

**1** NCREIF Prop Index

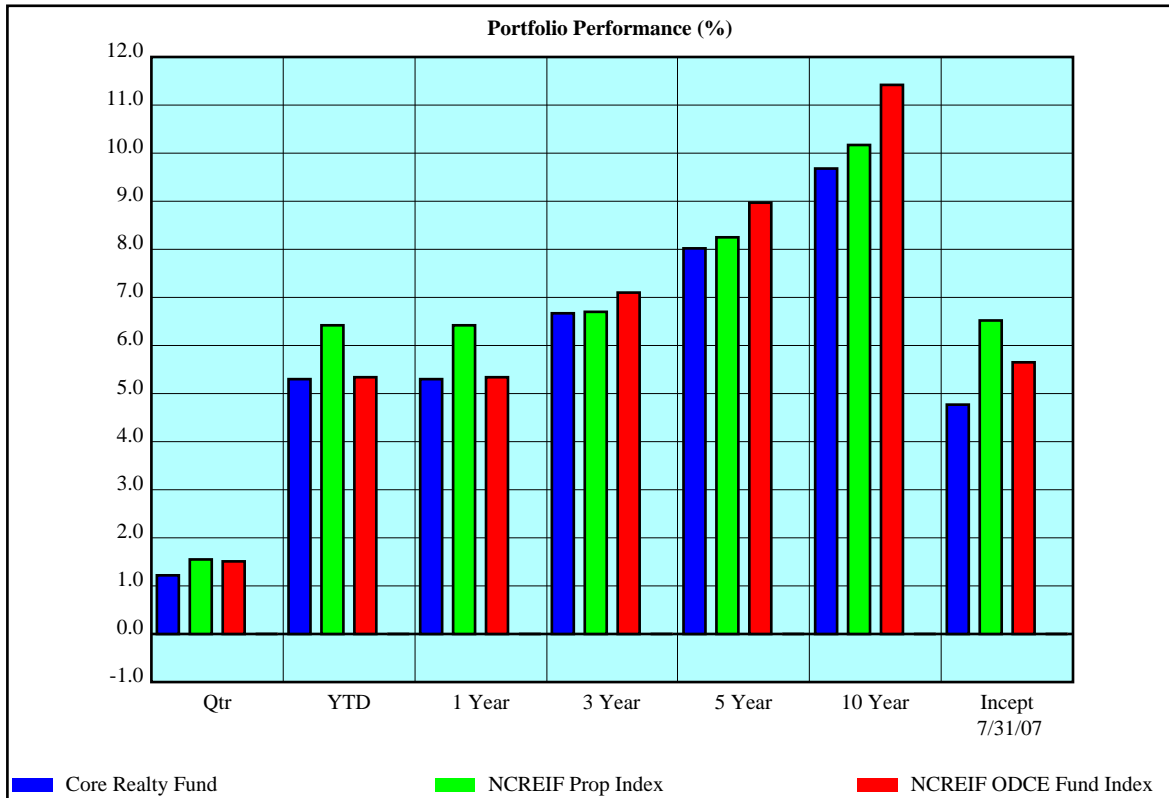
Net Ret	6.42	6.71	6.98	7.97
Rank	54	43	54	55



City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
American Strategic Value Realty  
Quarterly Periods Ending 12/31/19

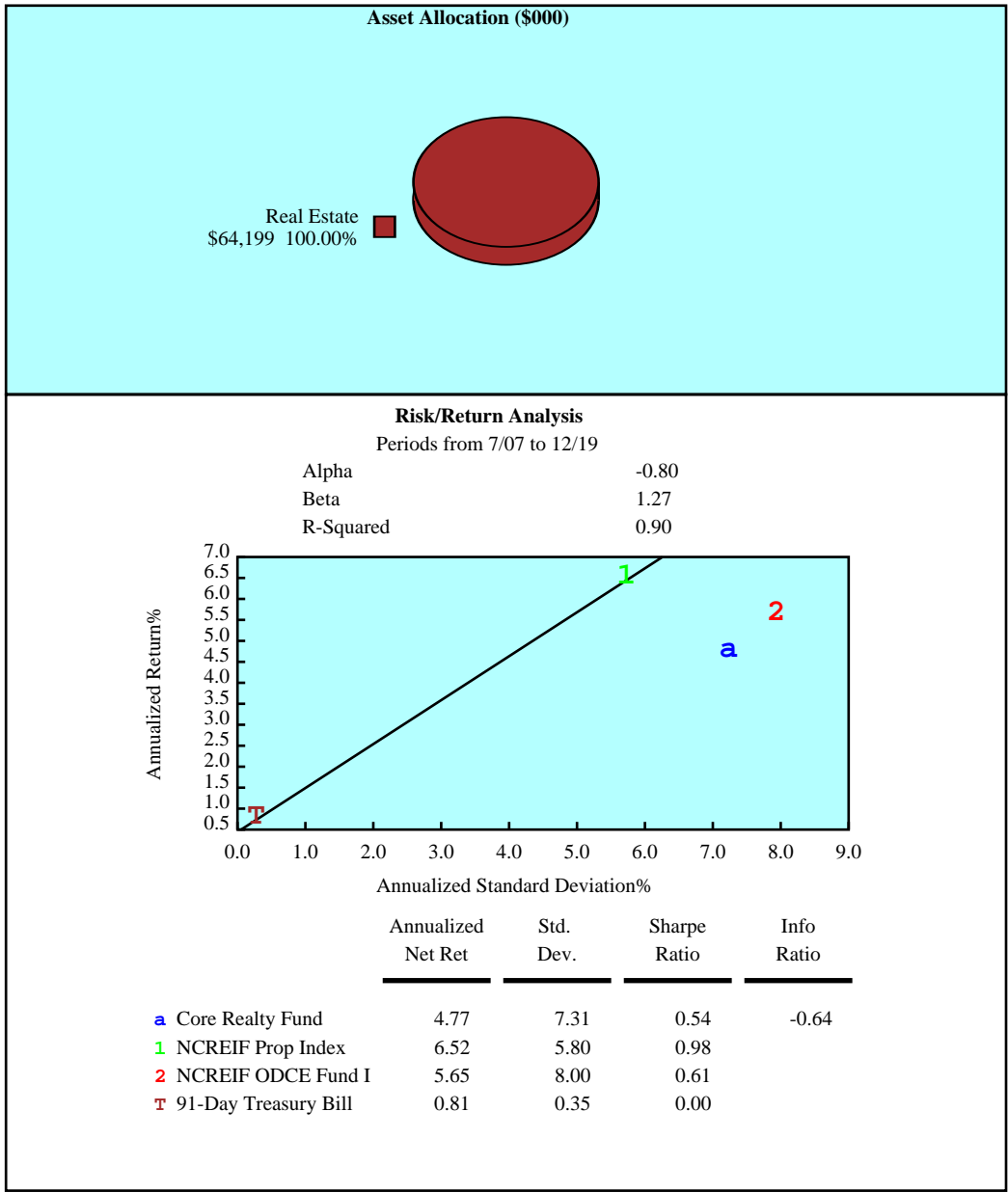
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	0	0			0	0
Positive Periods	4	4	12	12			19	19
Up Market Capture	1.49		1.55				1.48	
Down Market Capture								
Batting Average	1.00		1.00				1.00	
Worst Quarter	1.88	1.41	1.83	1.37			1.83	1.37
Best Quarter	2.62	1.80	3.43	1.81			4.56	3.14
Worst 4 Quarters	9.58	6.42	8.53	6.23			8.53	6.23
Best 4 Quarters	9.58	6.42	11.45	7.20			16.16	11.84
Standard Deviation	0.72	0.33	1.03	0.31			1.54	1.08
Beta	1.76		1.75				1.21	
Alpha	-0.02		-0.05				0.54	
R-Squared	0.95		0.80				0.78	
Sharpe Ratio	10.17	12.48	8.49	16.40			6.83	6.28
Treynor Ratio	4.14		4.98				8.73	
Tracking Error	0.58		0.92				1.00	
Information Ratio	5.24		3.85				3.55	

## City of Fort Lauderdale Police and Fire Core Realty Fund as of 12/31/19

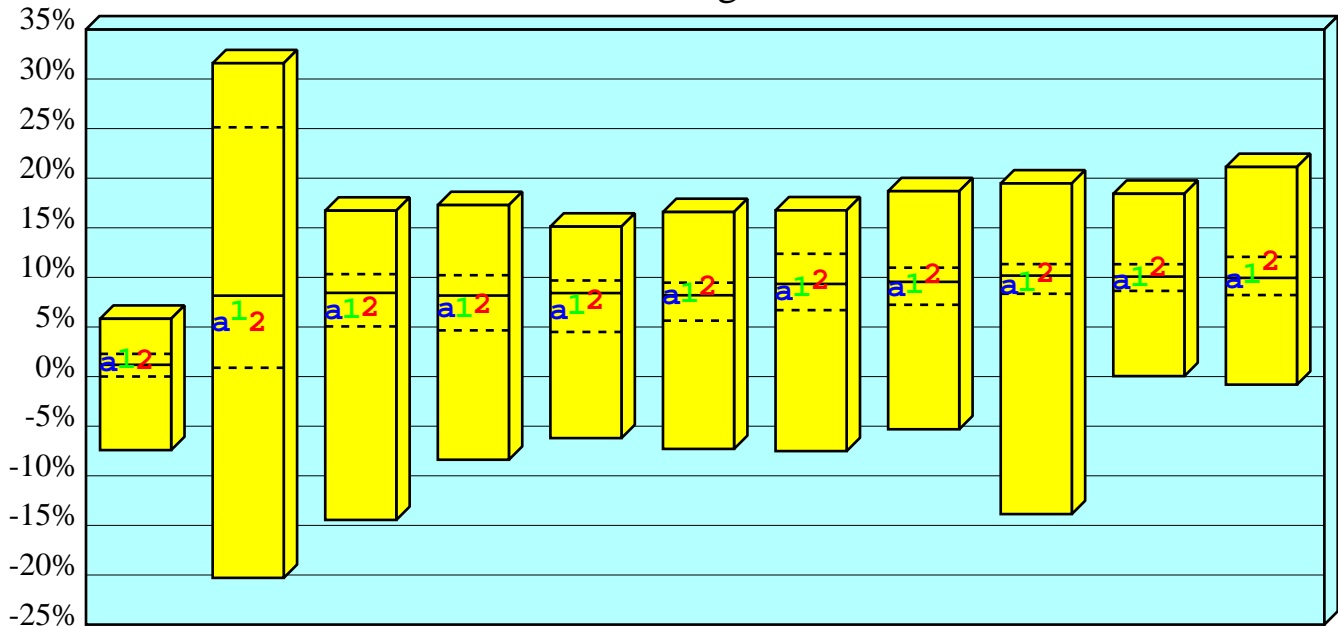


Net of Fee Returns	Qtr	YTD	1 Year	3 Year	5 Year	10 Year	Incept 7/31/07
Core Realty Fund	1.22	5.30	5.30	6.67	8.02	9.68	4.77
NCREIF Prop Index	1.55	6.42	6.42	6.70	8.25	10.17	6.52
NCREIF ODCE Fund Index	1.51	5.34	5.34	7.10	8.97	11.42	5.65
<b>Asset Growth (\$000)</b>							
Beginning Market Value	64,224	64,089	64,089	60,641	50,023	17,428	24,999
Net Contributions & Withdrawals	-952	-3,799	-3,799	-10,122	-10,258	5,583	5,251
Gain/Loss + Income	927	3,908	3,908	13,680	24,434	41,187	33,949
Ending Market Value	64,199	64,199	64,199	64,199	64,199	64,199	64,199

# City of Fort Lauderdale Police and Fire Core Realty Fund as of 12/31/19



## City of Fort Lauderdale Police and Fire Cumulative Performance Comparison Total Returns of Real Estate Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years	Last 9 Years	Last 10 Years
High	5.83	31.59	16.73	17.29	15.12	16.59	16.76	18.69	19.47	18.43	21.13
1st Qt	2.29	25.13	10.33	10.22	9.69	9.47	12.38	10.98	11.34	11.33	12.07
Median	1.19	8.16	8.44	8.17	8.42	8.20	9.34	9.55	10.18	10.08	9.95
3rd Qt	0.01	0.89	5.06	4.66	4.50	5.64	6.70	7.24	8.35	8.64	8.22
Low	-7.41	-20.29	-14.45	-8.38	-6.20	-7.29	-7.51	-5.31	-13.86	0.05	-0.81

### **a** Core Realty Fund

Net Ret	1.22	5.30	6.48	6.67	6.52	8.02	8.44	8.84	9.01	9.54	9.68
Rank	49	60	62	65	70	55	63	60	71	63	56

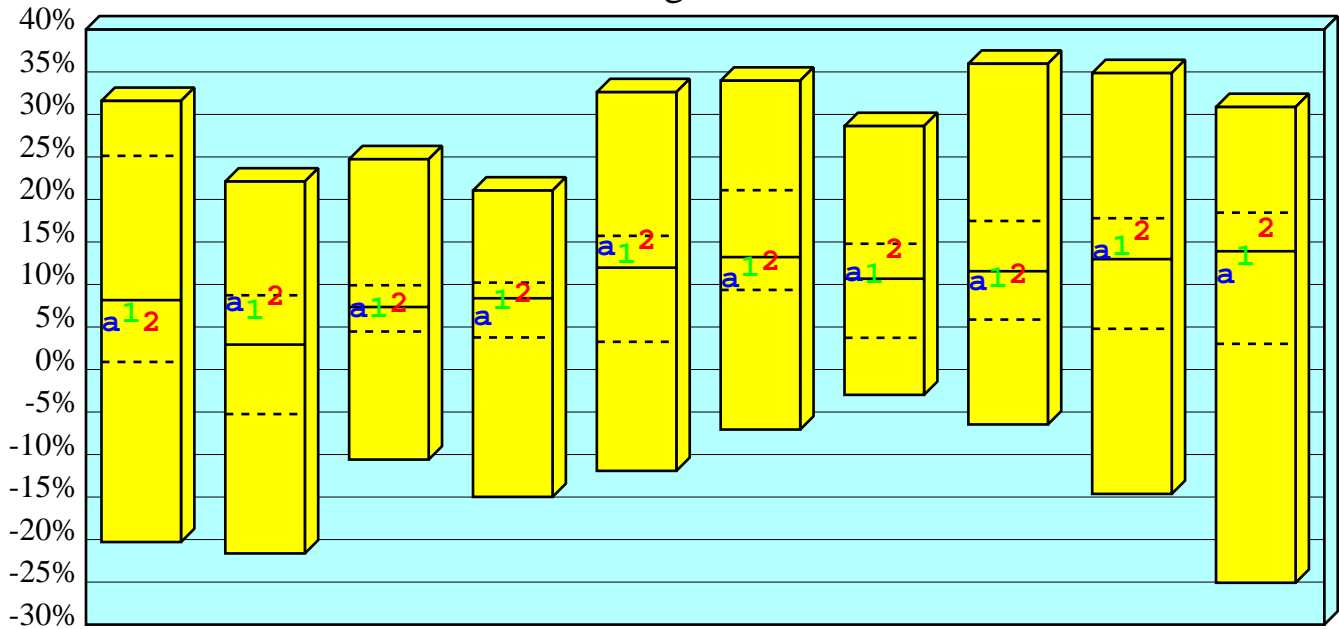
### **1** NCREIF Prop Index

Net Ret	1.55	6.42	6.57	6.70	7.02	8.25	8.84	9.14	9.31	9.85	10.17
Rank	44	54	62	65	68	48	60	56	65	51	47

### **2** NCREIF ODCE Fund Index

Net Ret	1.51	5.34	6.84	7.10	7.51	8.97	9.55	10.17	10.26	10.88	11.42
Rank	44	60	61	64	61	28	46	35	47	32	31

## City of Fort Lauderdale Police and Fire Calendar Year Performance Comparison Total Returns of Real Estate Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
High	31.59	22.11	24.73	21.05	32.62	33.97	28.63	35.96	34.86	30.87
1st Qt	25.13	8.73	9.91	10.22	15.72	21.09	14.79	17.47	17.79	18.45
Median	8.16	2.93	7.35	8.38	11.98	13.22	10.68	11.56	12.98	13.91
3rd Qt	0.89	-5.24	4.47	3.77	3.26	9.36	3.73	5.87	4.79	3.02
Low	-20.29	-21.63	-10.59	-14.98	-11.92	-7.06	-2.98	-6.46	-14.63	-25.08

### **a** Core Realty Fund

Net Ret	5.30	7.68	7.04	6.07	14.25	10.54	11.28	10.22	13.85	10.99
Rank	60	38	53	66	36	70	47	58	43	62

### **1** NCREIF Prop Index

Net Ret	6.42	6.71	6.98	7.97	13.33	11.81	10.99	10.54	14.26	13.11
Rank	54	43	54	55	41	59	48	58	40	53

### **2** NCREIF ODCE Fund Index

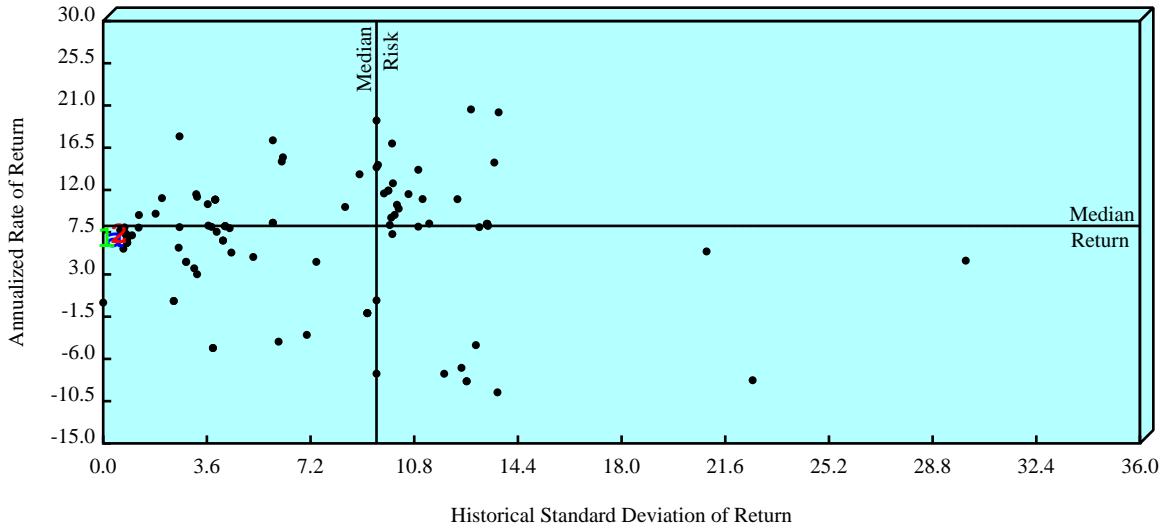
Net Ret	5.34	8.35	7.62	8.76	15.01	12.49	13.94	10.94	15.99	16.36
Rank	60	29	48	42	32	56	29	55	30	35

# City of Fort Lauderdale Police and Fire

## Return vs Risk

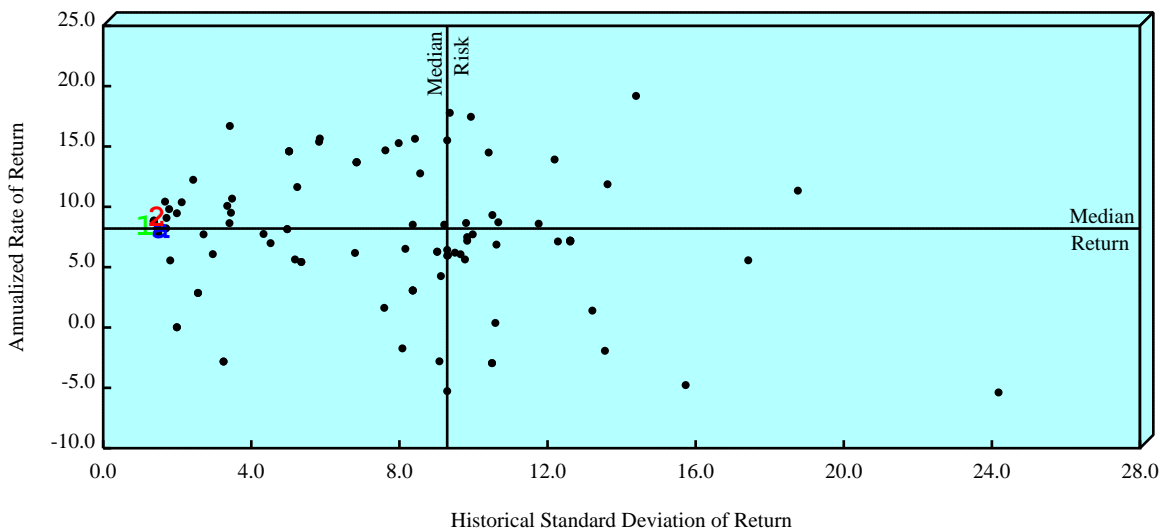
### Total Returns of Real Estate Portfolios

3 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
a	Core Realty Fund	6.67	65	0.59	2
1	NCREIF Prop Index	6.70	65	0.31	2
2	NCREIF ODCE Fund Index	7.10	64	0.72	3
	Median	8.17		9.49	

5 Years Ending 12/31/19

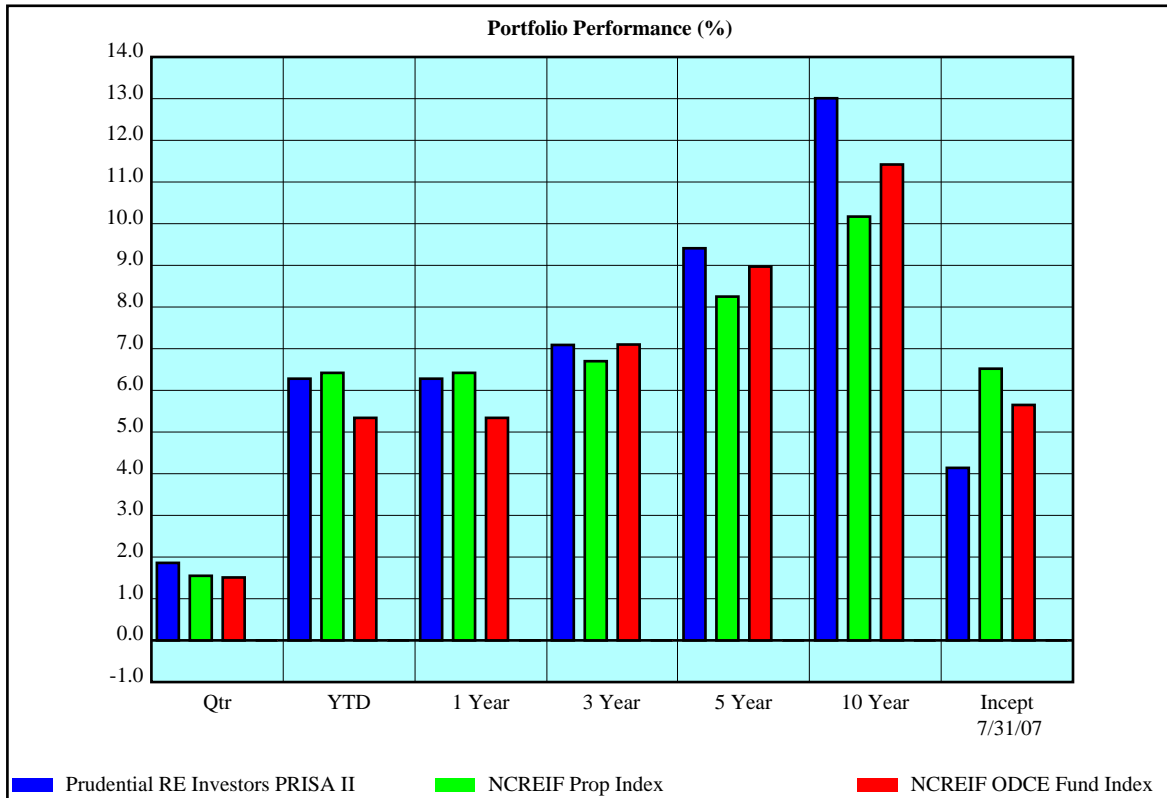


		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
a	Core Realty Fund	8.02	55	1.70	9
1	NCREIF Prop Index	8.25	48	1.28	1
2	NCREIF ODCE Fund Index	8.97	28	1.57	8
	Median	8.20		9.29	

City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Core Realty Fund  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	0	0	0	0	7	6
Positive Periods	4	4	12	12	20	20	43	44
Up Market Capture	0.98		1.12		1.04		1.00	
Down Market Capture							1.54	
Batting Average	0.50		0.67		0.60		0.44	
Worst Quarter	1.44	1.41	1.44	1.37	0.96	1.37	-12.88	-8.29
Best Quarter	1.74	1.80	2.22	1.81	4.20	3.57	4.68	4.62
Worst 4 Quarters	6.31	6.42	6.31	6.23	5.69	6.23	-32.60	-22.11
Best 4 Quarters	6.31	6.42	8.70	7.20	14.52	13.33	17.00	16.73
Standard Deviation	0.27	0.33	0.54	0.31	1.63	1.28	7.08	5.18
Beta	0.95		1.08		1.04		1.28	
Alpha	0.02		0.09		0.02		-0.72	
R-Squared	0.99		0.77		0.84		0.90	
Sharpe Ratio	14.82	12.48	10.79	16.40	4.60	5.60	0.59	1.09
Treynor Ratio	4.23		5.39		7.24		3.24	
Tracking Error	0.12		0.53		0.83		2.70	
Information Ratio	-0.91		1.47		0.38		-0.50	

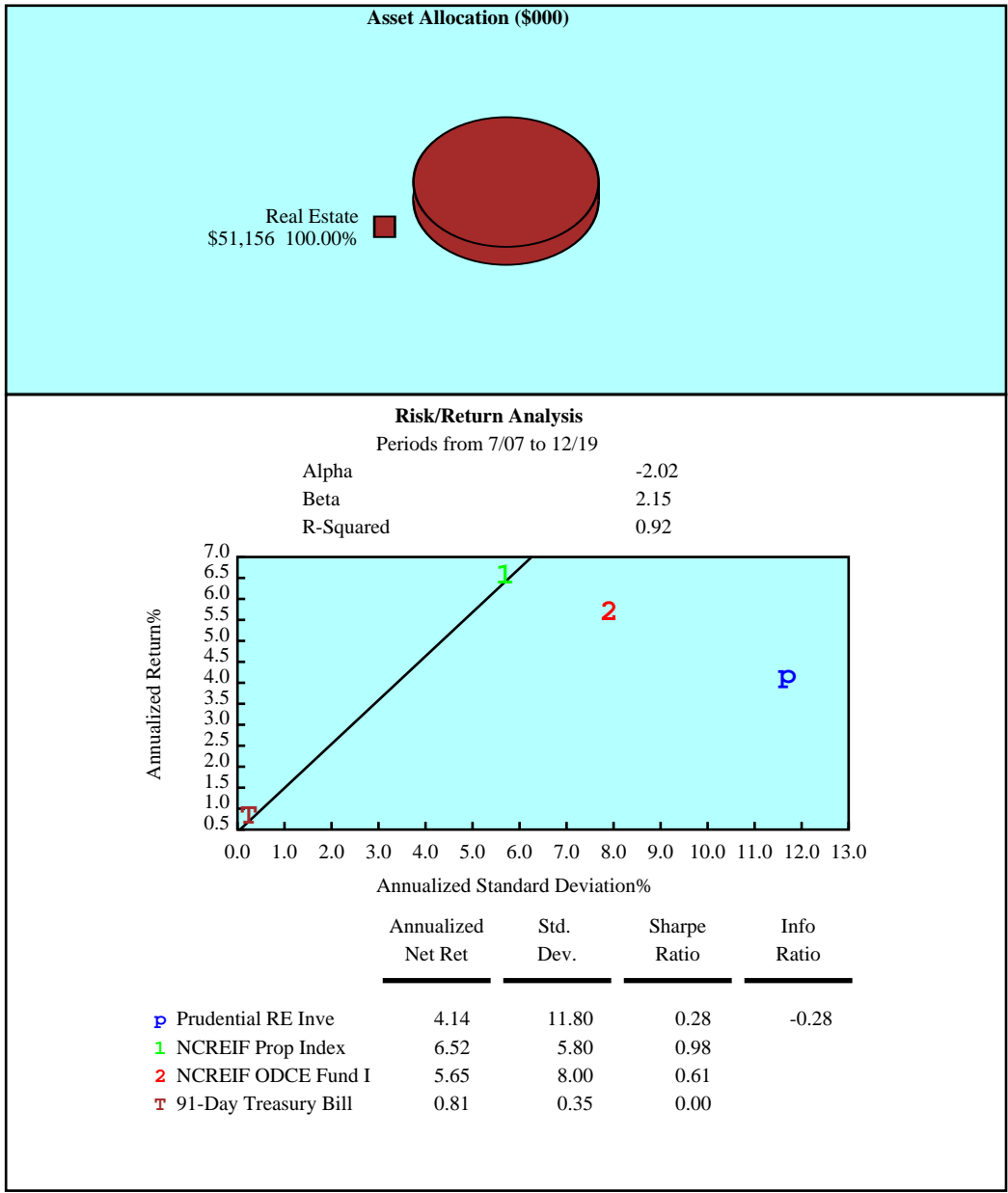
## City of Fort Lauderdale Police and Fire Prudential RE Investors PRISA II as of 12/31/19



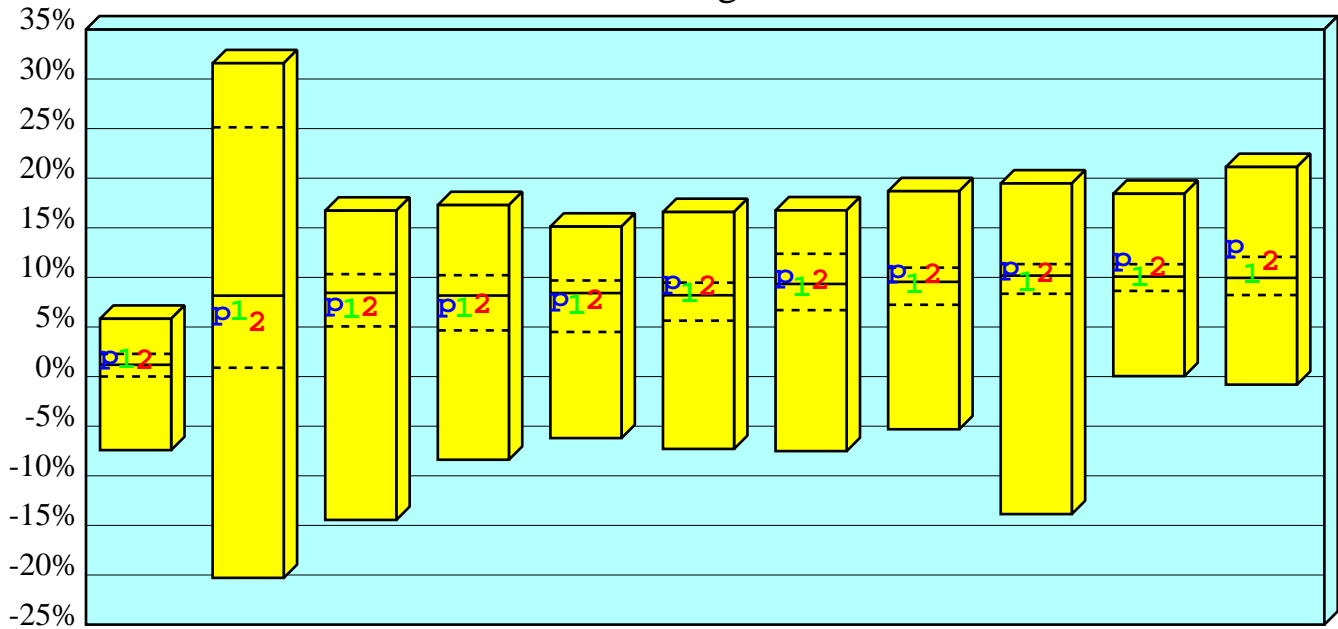
<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 7/31/07</b>
Prudential RE Investors PRISA II	1.86	6.28	6.28	7.09	9.41	13.01	4.14
NCREIF Prop Index	1.55	6.42	6.42	6.70	8.25	10.17	6.52
NCREIF ODCE Fund Index	1.51	5.34	5.34	7.10	8.97	11.42	5.65
<b>Asset Growth (\$000)</b>							
Beginning Market Value	50,649	49,808	49,808	45,319	32,599	7,391	3,000
Net Contributions & Withdrawals	-581	-2,328	-2,328	-5,871	-2,811	10,224	20,675
Gain/Loss + Income	1,088	3,677	3,677	11,707	21,368	33,541	27,481
Ending Market Value	51,156	51,156	51,156	51,156	51,156	51,156	51,156



# City of Fort Lauderdale Police and Fire Prudential RE Investors PRISA II as of 12/31/19



## City of Fort Lauderdale Police and Fire Cumulative Performance Comparison Total Returns of Real Estate Portfolios Periods Ending 12/19



	Last Qtr	Last Year	Last 2 Years	Last 3 Years	Last 4 Years	Last 5 Years	Last 6 Years	Last 7 Years	Last 8 Years	Last 9 Years	Last 10 Years
High	5.83	31.59	16.73	17.29	15.12	16.59	16.76	18.69	19.47	18.43	21.13
1st Qt	2.29	25.13	10.33	10.22	9.69	9.47	12.38	10.98	11.34	11.33	12.07
Median	1.19	8.16	8.44	8.17	8.42	8.20	9.34	9.55	10.18	10.08	9.95
3rd Qt	0.01	0.89	5.06	4.66	4.50	5.64	6.70	7.24	8.35	8.64	8.22
Low	-7.41	-20.29	-14.45	-8.38	-6.20	-7.29	-7.51	-5.31	-13.86	0.05	-0.81

**p** Prudential RE Investors PRISA II

Net Ret	1.86	6.28	7.24	7.09	7.72	9.41	10.02	10.57	10.88	11.78	13.01
Rank	37	56	58	64	57	25	43	28	36	18	17

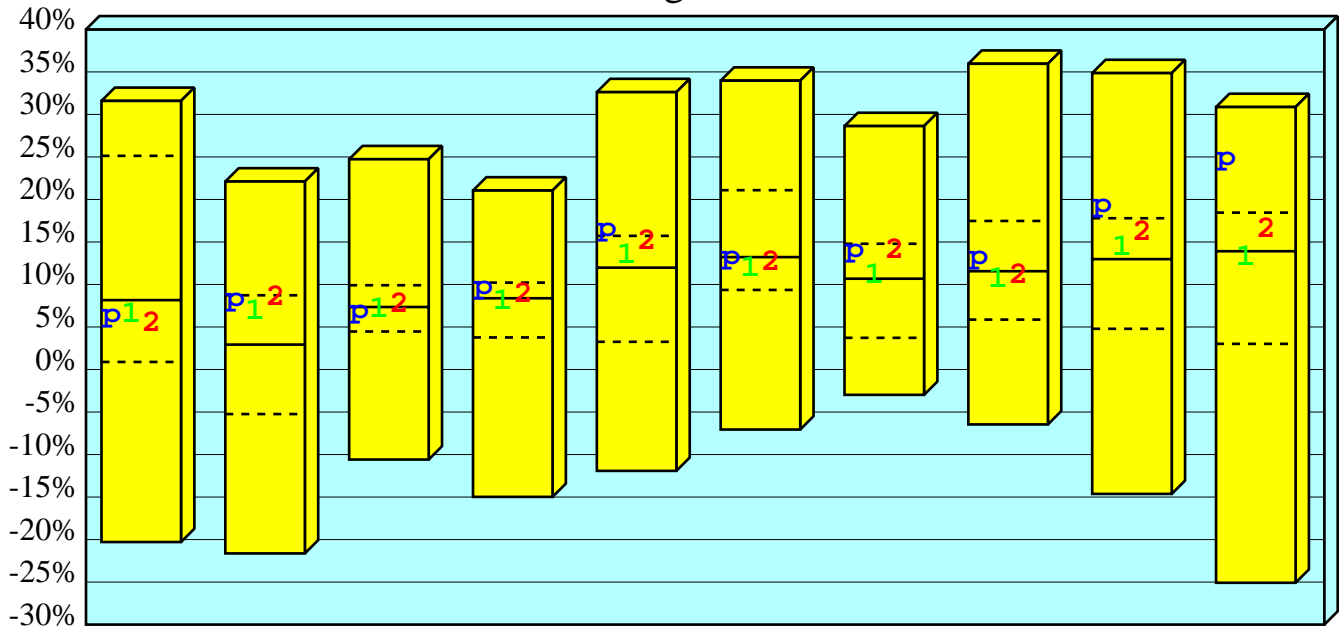
**1** NCREIF Prop Index

Net Ret	1.55	6.42	6.57	6.70	7.02	8.25	8.84	9.14	9.31	9.85	10.17
Rank	44	54	62	65	68	48	60	56	65	51	47

**2** NCREIF ODCE Fund Index

Net Ret	1.51	5.34	6.84	7.10	7.51	8.97	9.55	10.17	10.26	10.88	11.42
Rank	44	60	61	64	61	28	46	35	47	32	31

# City of Fort Lauderdale Police and Fire Calendar Year Performance Comparison Total Returns of Real Estate Portfolios Years Ending December



	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
High	31.59	22.11	24.73	21.05	32.62	33.97	28.63	35.96	34.86	30.87
1st Qt	25.13	8.73	9.91	10.22	15.72	21.09	14.79	17.47	17.79	18.45
Median	8.16	2.93	7.35	8.38	11.98	13.22	10.68	11.56	12.98	13.91
3rd Qt	0.89	-5.24	4.47	3.77	3.26	9.36	3.73	5.87	4.79	3.02
Low	-20.29	-21.63	-10.59	-14.98	-11.92	-7.06	-2.98	-6.46	-14.63	-25.08

**p** Prudential RE Investors PRISA II

Net Ret	6.28	8.20	6.81	9.60	16.45	13.12	13.90	13.09	19.23	24.79
Rank	56	30	54	31	23	51	30	38	20	13

**1** NCREIF Prop Index

Net Ret	6.42	6.71	6.98	7.97	13.33	11.81	10.99	10.54	14.26	13.11
Rank	54	43	54	55	41	59	48	58	40	53

**2** NCREIF ODCE Fund Index

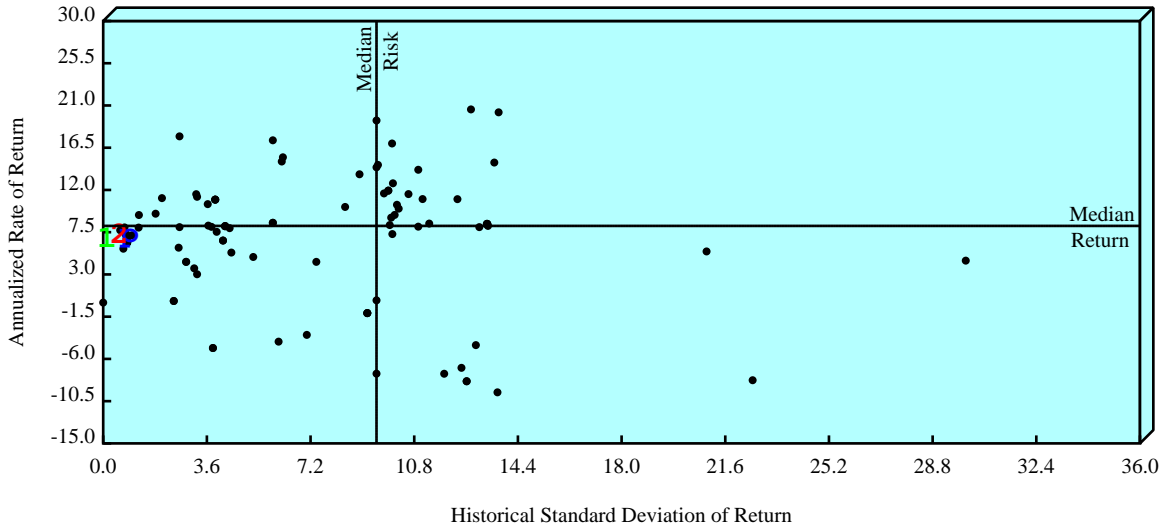
Net Ret	5.34	8.35	7.62	8.76	15.01	12.49	13.94	10.94	15.99	16.36
Rank	60	29	48	42	32	56	29	55	30	35

# City of Fort Lauderdale Police and Fire

## Return vs Risk

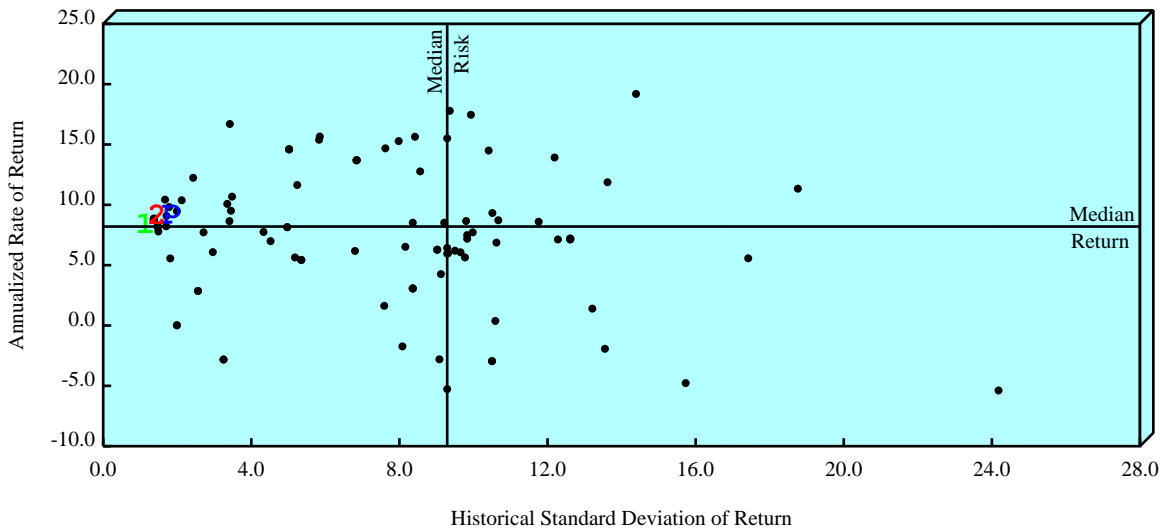
### Total Returns of Real Estate Portfolios

3 Years Ending 12/31/19



		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
p	Prudential RE Investors PRISA II	7.09	64	1.07	11
1	NCREIF Prop Index	6.70	65	0.31	2
2	NCREIF ODCE Fund Index	7.10	64	0.72	3
	Median	8.17		9.49	

5 Years Ending 12/31/19

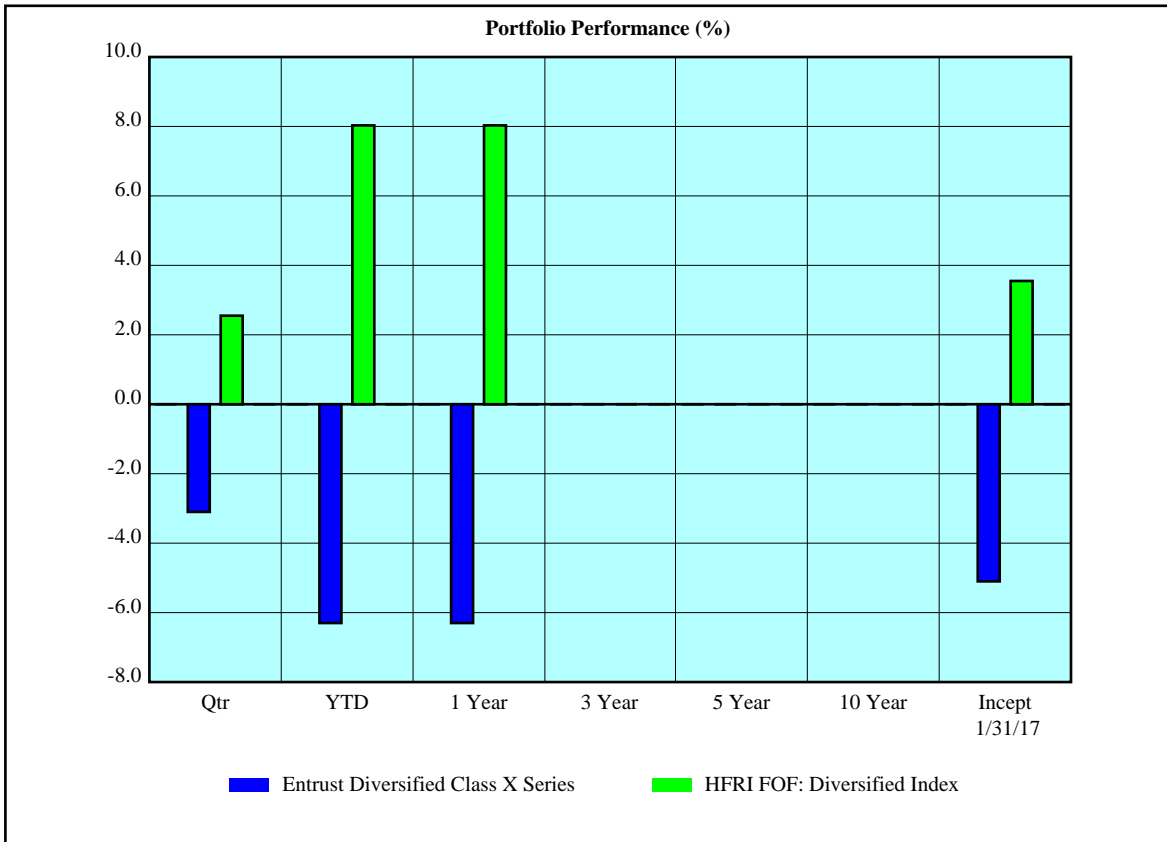


		Annualized Net of Fee Return		Standard Deviation	
		Value	Rank	Value	Rank
p	Prudential RE Investors PRISA II	9.41	25	1.98	13
1	NCREIF Prop Index	8.25	48	1.28	1
2	NCREIF ODCE Fund Index	8.97	28	1.57	8
	Median	8.20		9.29	

City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Prudential RE Investors PRISA II  
Quarterly Periods Ending 12/31/19

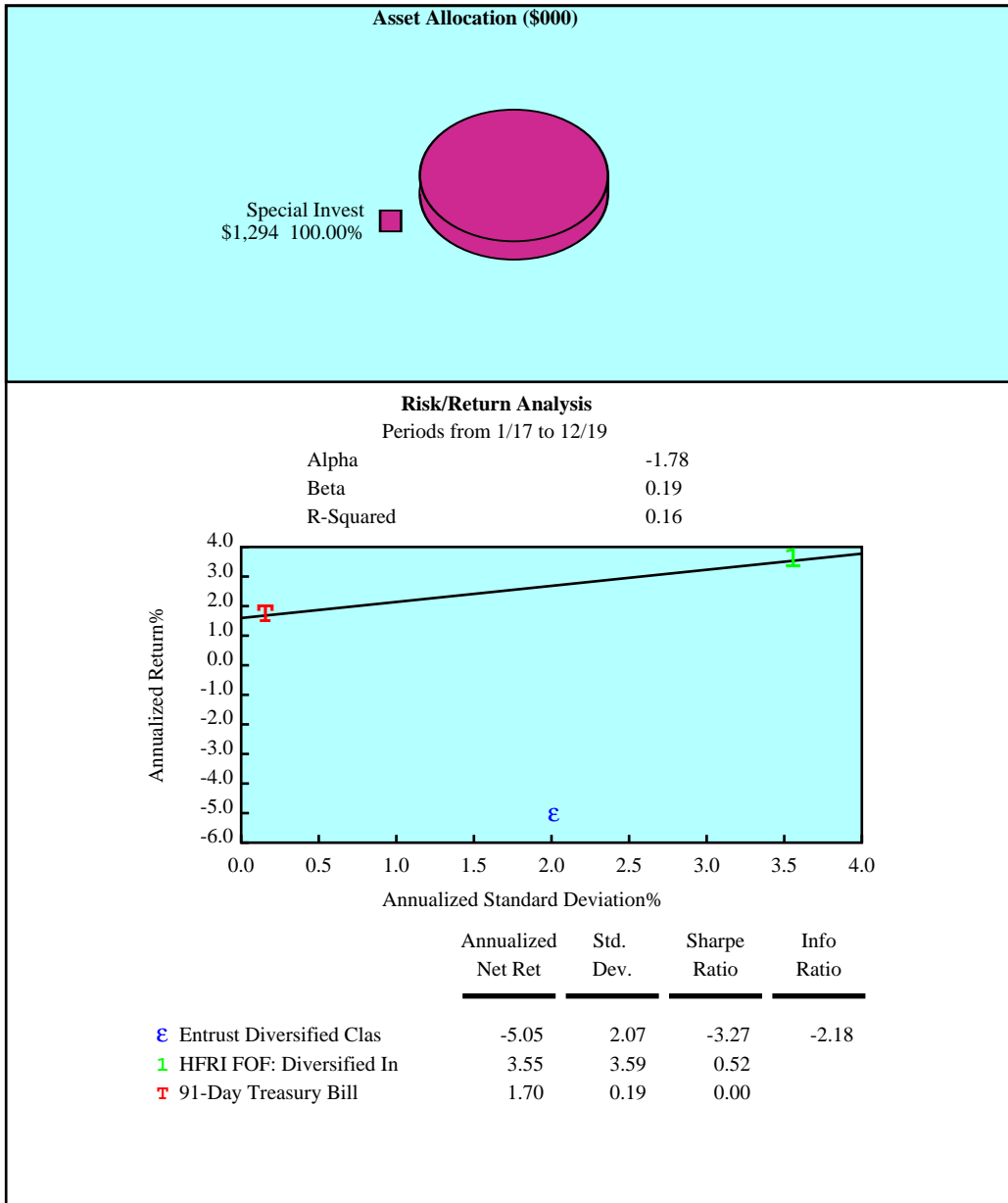
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	0	0	0	0	5	6
Positive Periods	4	4	12	12	20	20	45	44
Up Market Capture	1.17		1.24		1.25		1.27	
Down Market Capture							2.45	
Batting Average	0.75		0.83		0.85		0.72	
Worst Quarter	1.47	1.41	1.23	1.37	1.23	1.37	-24.78	-8.29
Best Quarter	2.15	1.80	3.14	1.81	4.70	3.57	8.23	4.62
Worst 4 Quarters	7.52	6.42	6.78	6.23	6.78	6.23	-51.17	-22.11
Best 4 Quarters	7.52	6.42	10.62	7.20	16.45	13.33	30.17	16.73
Standard Deviation	0.60	0.33	1.08	0.31	1.78	1.28	11.70	5.18
Beta	1.28		1.36		1.14		2.15	
Alpha	-0.02		-0.05		0.24		-1.95	
R-Squared	0.90		0.66		0.79		0.92	
Sharpe Ratio	8.77	12.48	6.20	16.40	5.17	5.60	0.31	1.09
Treynor Ratio	4.08		4.90		8.09		1.68	
Tracking Error	0.53		0.92		1.07		6.86	
Information Ratio	1.97		1.70		1.80		-0.23	

## City of Fort Lauderdale Police and Fire Entrust Diversified Class X Series as of 12/31/19



Net of Fee Returns	Qtr	YTD	1 Year	3 Year	5 Year	10 Year	Incept 1/31/17
Entrust Diversified Class X Series	-3.10	-6.27	-6.27				-5.05
HFRI FOF: Diversified Index	2.55	8.03	8.03				3.55
<b>Asset Growth (\$000)</b>							
Beginning Market Value	1,336	1,381	1,381				753
Net Contributions & Withdrawals	-1	-6	-6				730
Gain/Loss + Income	-40	-80	-80				-188
Ending Market Value	1,294	1,294	1,294				1,294

# City of Fort Lauderdale Police and Fire Entrust Diversified Class X Series as of 12/31/19

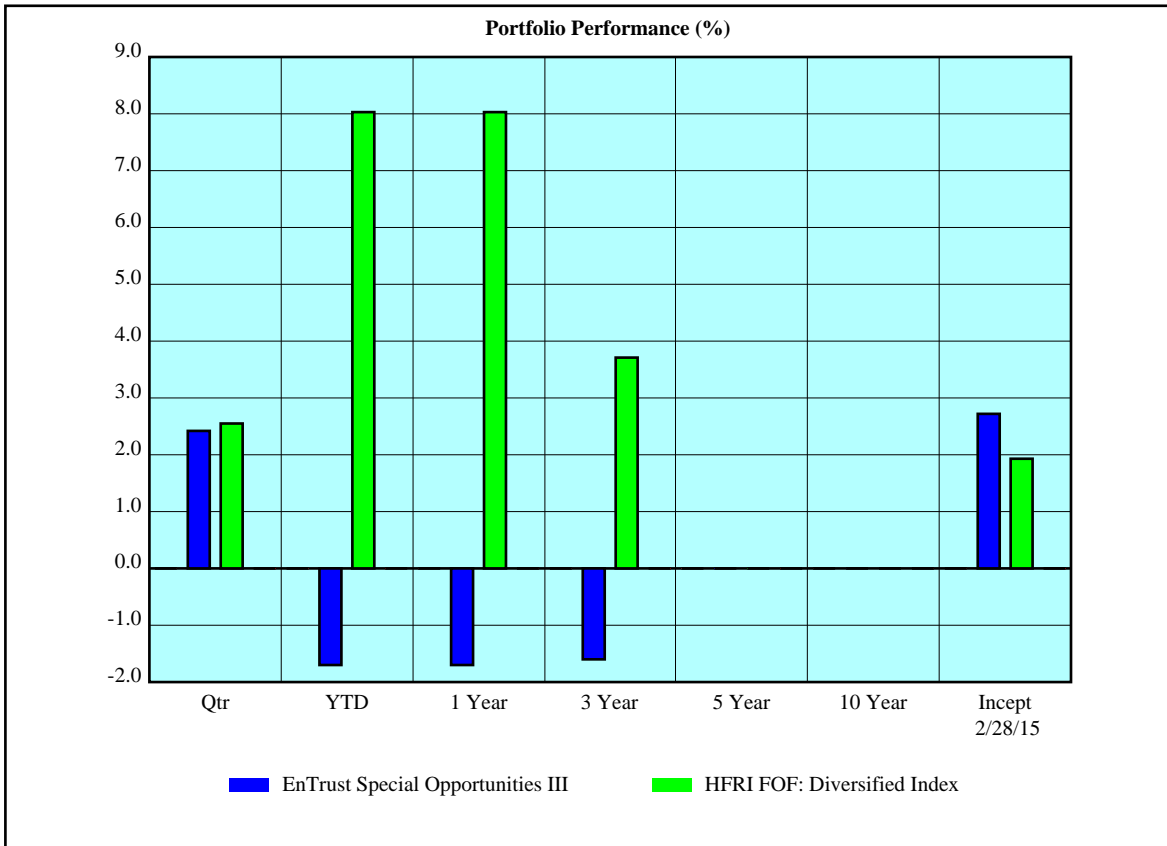


City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Entrust Diversified Class X Series  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	4	1					12	2
Positive Periods	0	3					0	10
Up Market Capture	-0.44						-0.53	
Down Market Capture	3.03						0.89	
Batting Average	0.00						0.08	
Worst Quarter	-3.02	-0.69					-3.02	-4.70
Best Quarter	-0.27	4.21					-0.27	4.21
Worst 4 Quarters	-5.84	8.03					-5.84	-3.38
Best 4 Quarters	-5.84	8.03					-2.70	8.03
Standard Deviation	2.59	4.07					1.84	4.43
Beta	-0.04						0.19	
Alpha	-1.99						-1.68	
R-Squared	0.00						0.16	
Sharpe Ratio	-3.14	1.41					-3.39	0.46
Treynor Ratio	194.38						-32.71	
Tracking Error	4.06						3.97	
Information Ratio	-3.24						-2.07	

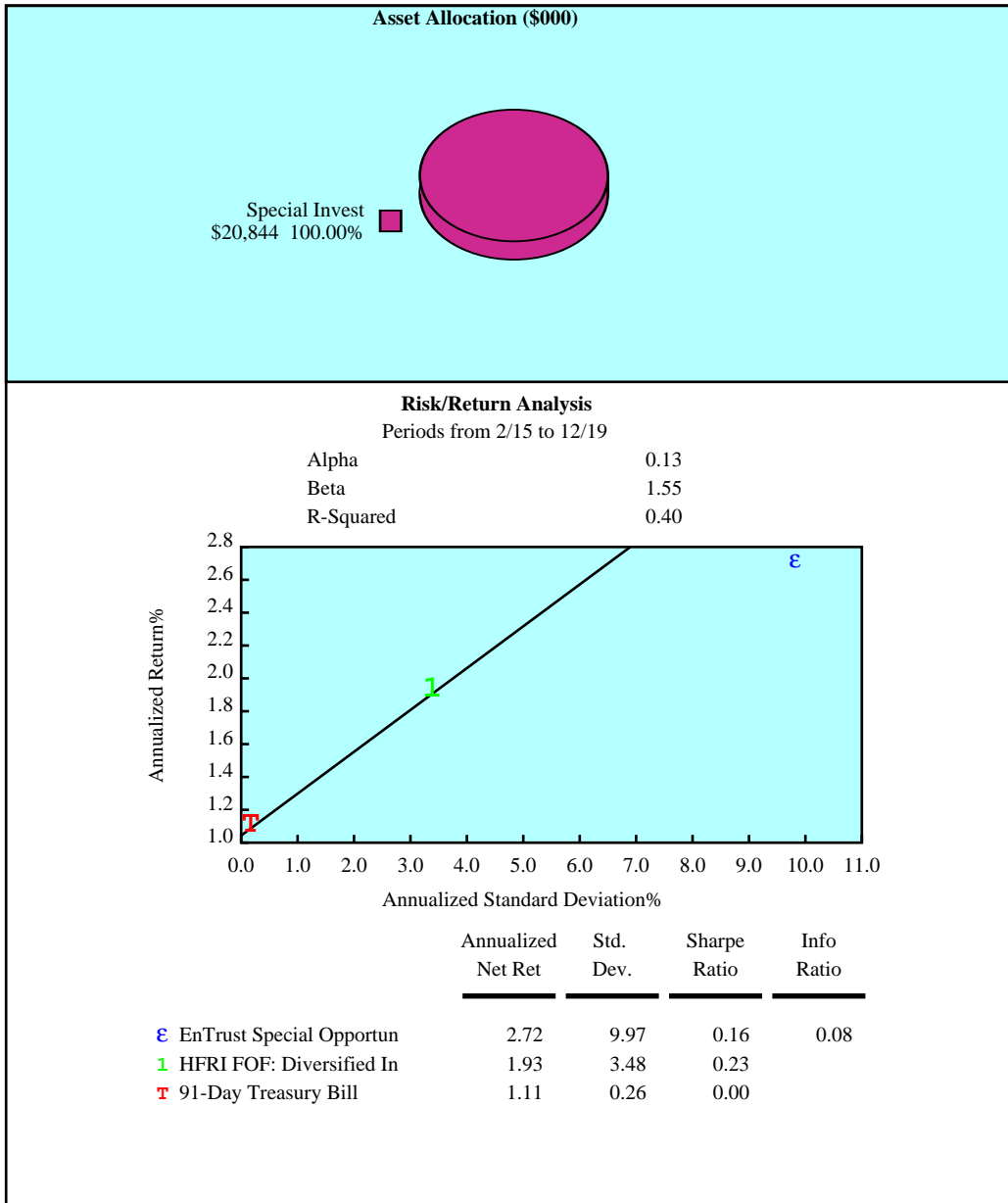


## City of Fort Lauderdale Police and Fire EnTrust Special Opportunities III as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 2/28/15</b>
EnTrust Special Opportunities III	2.42	-1.67	-1.67	-1.55			2.72
HFRI FOF: Diversified Index	2.55	8.03	8.03	3.71			1.93
<b>Asset Growth (\$000)</b>							
Beginning Market Value	24,456	30,358	30,358	21,684			2,031
Net Contributions & Withdrawals	-4,104	-9,383	-9,383	-528			15,581
Gain/Loss + Income	492	-131	-131	-311			3,232
Ending Market Value	20,844	20,844	20,844	20,844			20,844

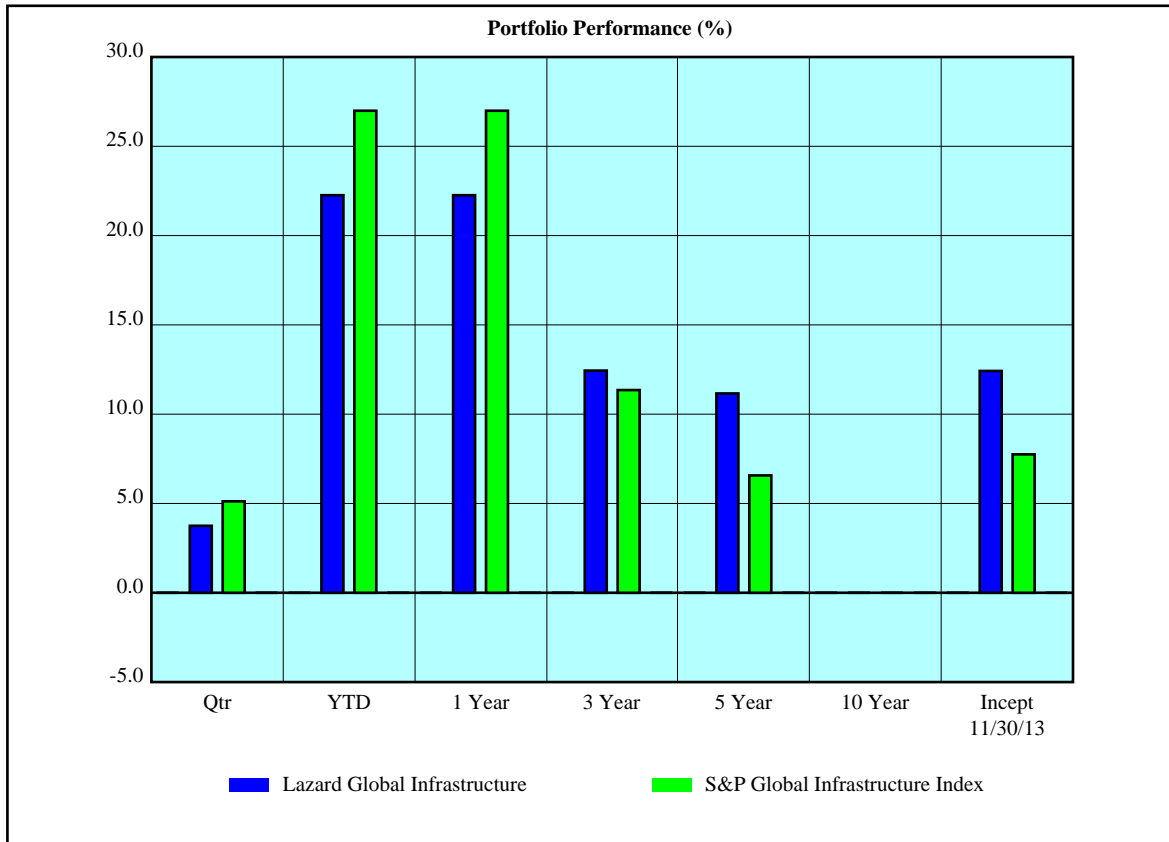
# City of Fort Lauderdale Police and Fire EnTrust Special Opportunities III as of 12/31/19



City of Fort Lauderdale Police and Fire  
 Risk Measure Summary  
 EnTrust Special Opportunities III  
 Quarterly Periods Ending 12/31/19

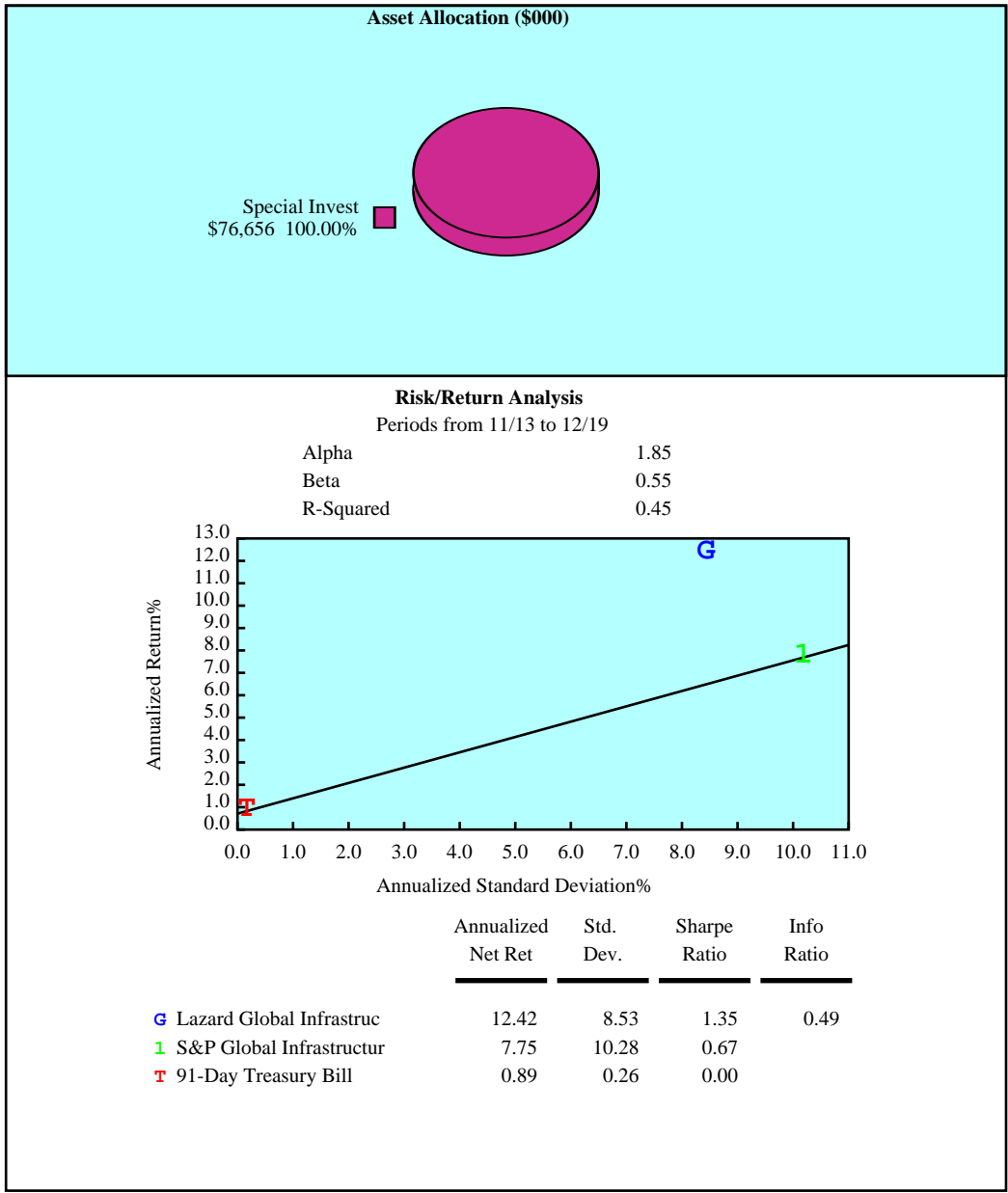
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	2	1	4	2	5	5	5	5
Positive Periods	2	3	8	10	14	14	14	14
Up Market Capture	1.29		1.33				2.01	
Down Market Capture	16.46		3.84				1.78	
Batting Average	0.25		0.42		0.58		0.58	
Worst Quarter	-11.33	-0.69	-11.33	-4.70	-11.33	-4.70	-11.33	-4.70
Best Quarter	10.73	4.21	10.73	4.21	10.73	4.21	10.73	4.21
Worst 4 Quarters	-1.27	8.03	-13.64	-3.38	-13.64	-5.49	-13.64	-5.49
Best 4 Quarters	-1.27	8.03	7.49	8.03	19.22	8.03	19.22	8.03
Standard Deviation	18.35	4.07	12.10	4.43			10.34	4.26
Beta	3.83		2.17				1.54	
Alpha	-5.92		-1.50				0.50	
R-Squared	0.83		0.65				0.38	
Sharpe Ratio	-0.19	1.41	-0.18	0.46			0.27	0.16
Treynor Ratio	-0.93		-0.98				1.78	
Tracking Error	14.31		8.94				8.56	
Information Ratio	-0.59		-0.43				0.25	

## City of Fort Lauderdale Police and Fire Lazard Global Infrastructure as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 11/30/13</b>
Lazard Global Infrastructure	3.75	22.26	22.26	12.44	11.16		12.42
S&P Global Infrastructure Index	5.12	26.99	26.99	11.35	6.57		7.75
<b>Asset Growth (\$000)</b>							
Beginning Market Value	73,885	62,701	62,701	47,680	42,853		21,984
Net Contributions & Withdrawals	0	0	0	6,500	3,197		18,197
Gain/Loss + Income	2,771	13,955	13,955	22,476	30,606		36,475
Ending Market Value	76,656	76,656	76,656	76,656	76,656		76,656

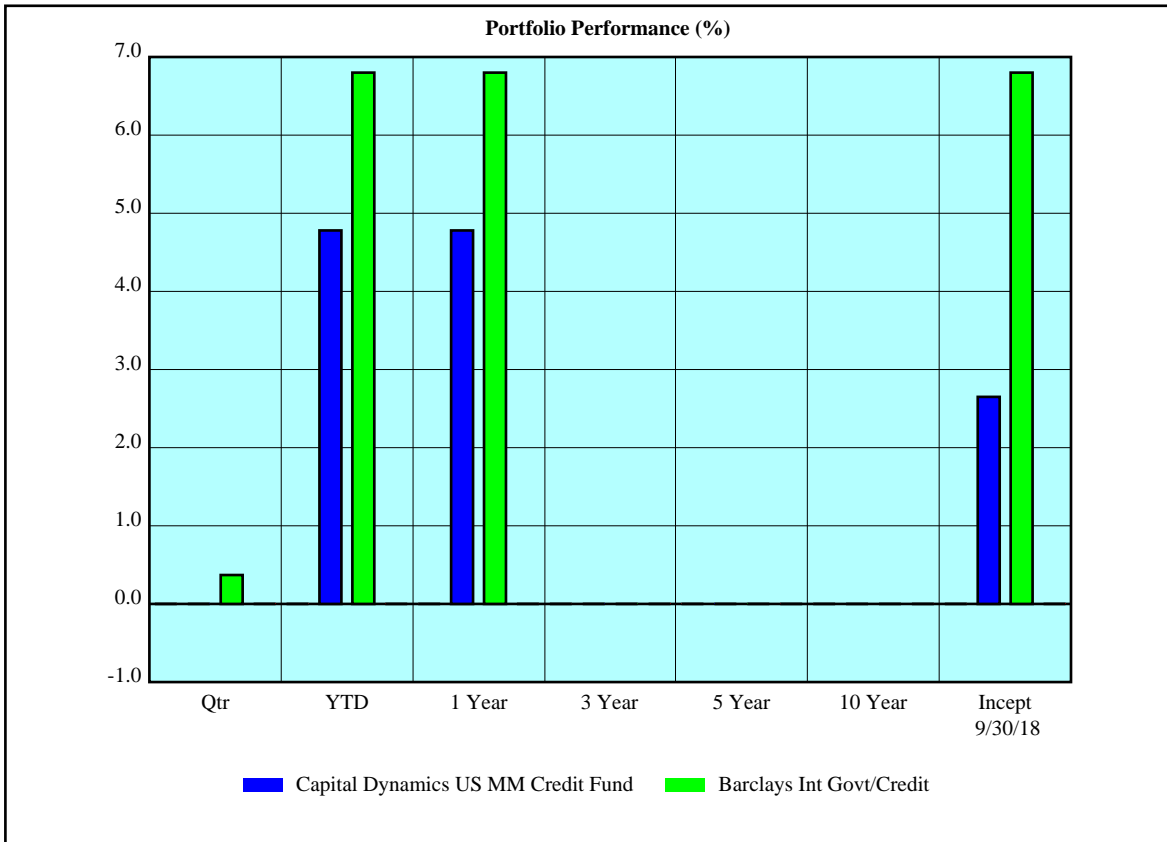
# City of Fort Lauderdale Police and Fire Lazard Global Infrastructure as of 12/31/19



City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Lazard Global Infrastructure  
Quarterly Periods Ending 12/31/19

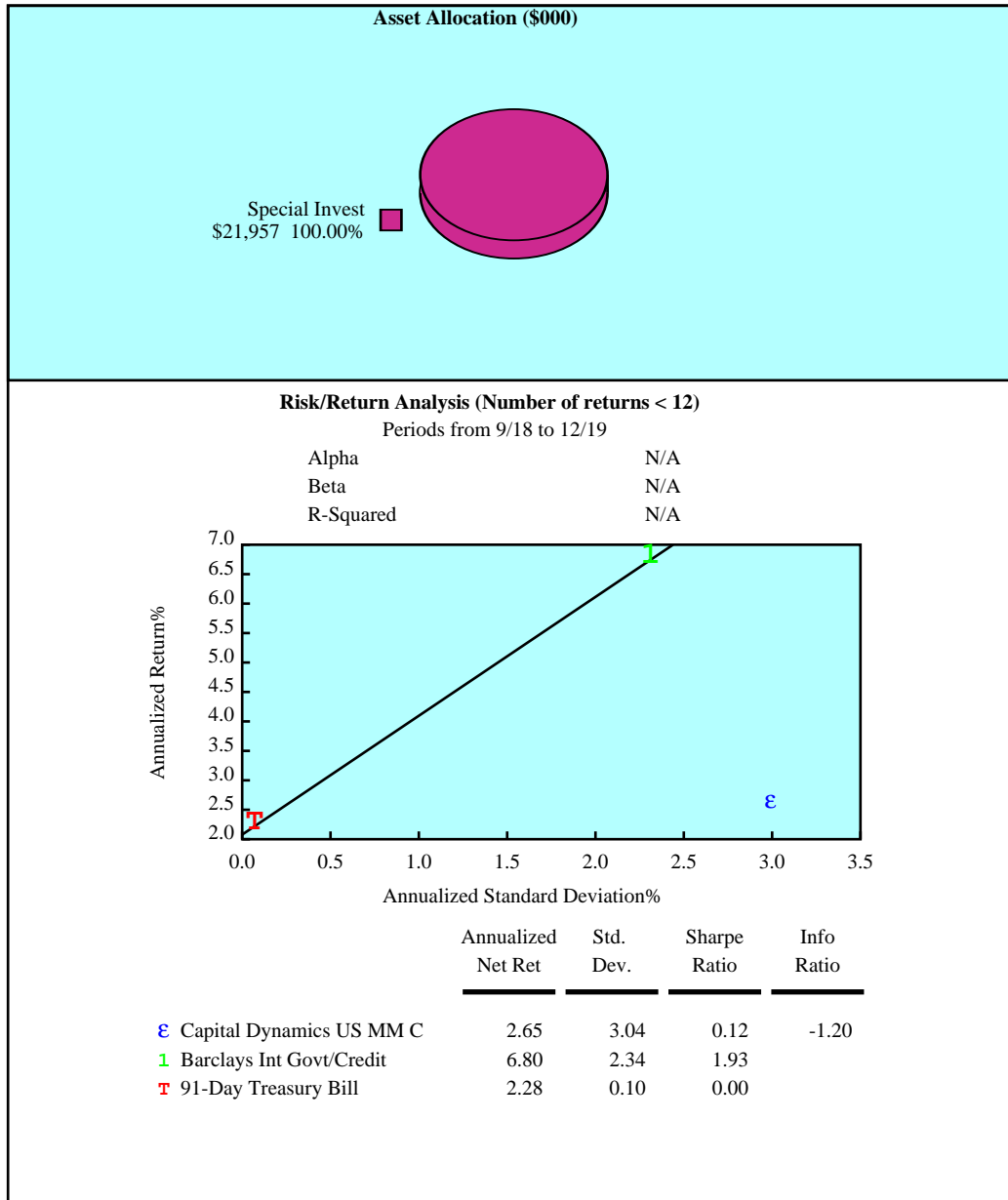
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	3	3	5	8	6	9
Positive Periods	4	4	9	9	15	12	18	15
Up Market Capture	0.82		1.01		0.83		0.89	
Down Market Capture			0.81		-0.06		-0.03	
Batting Average	0.25		0.50		0.55		0.58	
Worst Quarter	3.03	0.55	-5.69	-5.51	-5.69	-7.05	-5.69	-7.05
Best Quarter	9.47	14.06	10.52	14.06	10.52	14.06	10.52	14.06
Worst 4 Quarters	22.26	26.99	-3.73	-9.50	-3.73	-11.46	-3.73	-11.46
Best 4 Quarters	22.26	26.99	22.26	26.99	23.82	26.99	23.82	26.99
Standard Deviation	5.84	11.29	9.74	10.99	8.82	10.78	8.53	10.67
Beta	0.58		0.81		0.52		0.55	
Alpha	1.31		0.68		1.73		1.85	
R-Squared	0.92		0.83		0.40		0.45	
Sharpe Ratio	3.42	2.19	1.11	0.88	1.14	0.51	1.34	0.63
Treynor Ratio	34.48		13.26		19.22		20.95	
Tracking Error	5.78		4.62		8.57		8.02	
Information Ratio	-0.76		0.17		0.45		0.49	

## City of Fort Lauderdale Police and Fire Capital Dynamics US MM Credit Fund as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 9/30/18</b>
Capital Dynamics US MM Credit Fund	0.00	4.78	4.78				2.65
Barclays Int Govt/Credit	0.37	6.80	6.80				6.80
<b>Asset Growth (\$000)</b>							
Beginning Market Value	18,770	13,867	13,867				2,703
Net Contributions & Withdrawals	3,187	7,128	7,128				18,438
Gain/Loss + Income	0	963	963				816
Ending Market Value	21,957	21,957	21,957				21,957

# City of Fort Lauderdale Police and Fire Capital Dynamics US MM Credit Fund as of 12/31/19

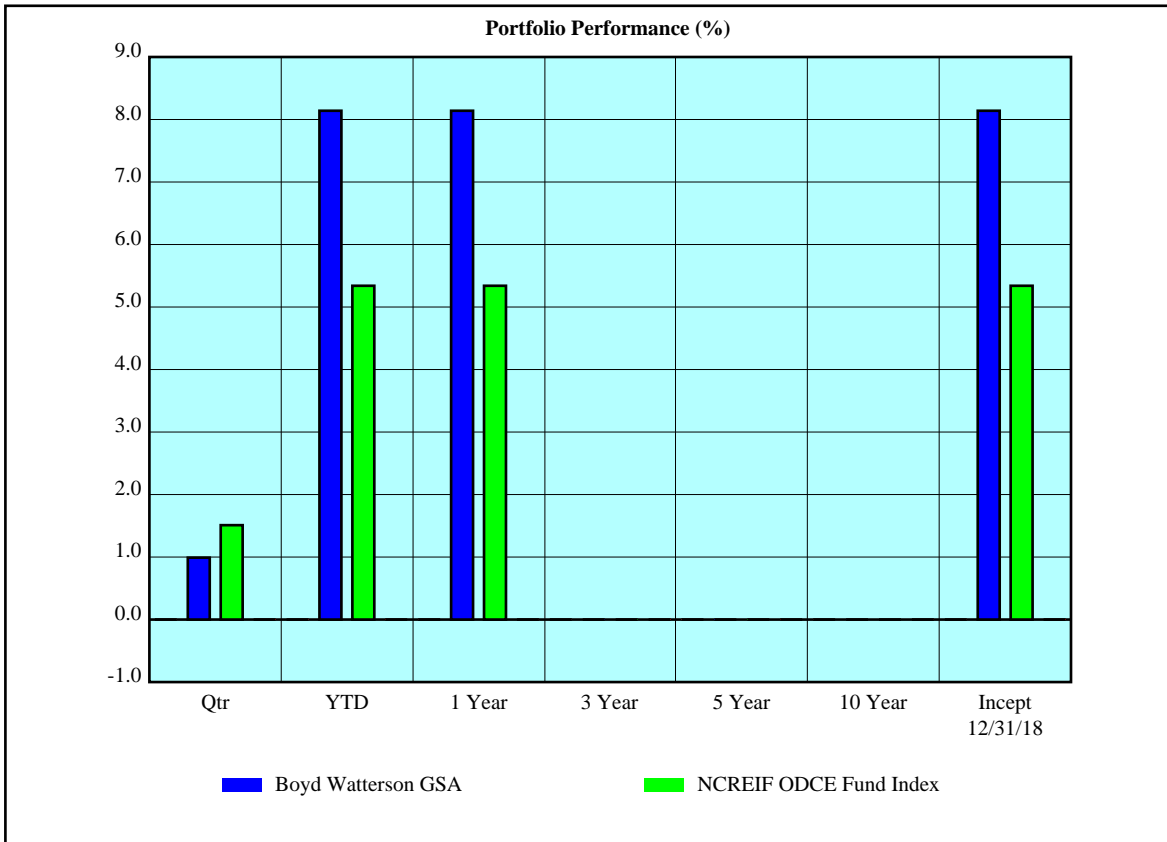




City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Capital Dynamics US MM Credit Fund  
Quarterly Periods Ending 12/31/19

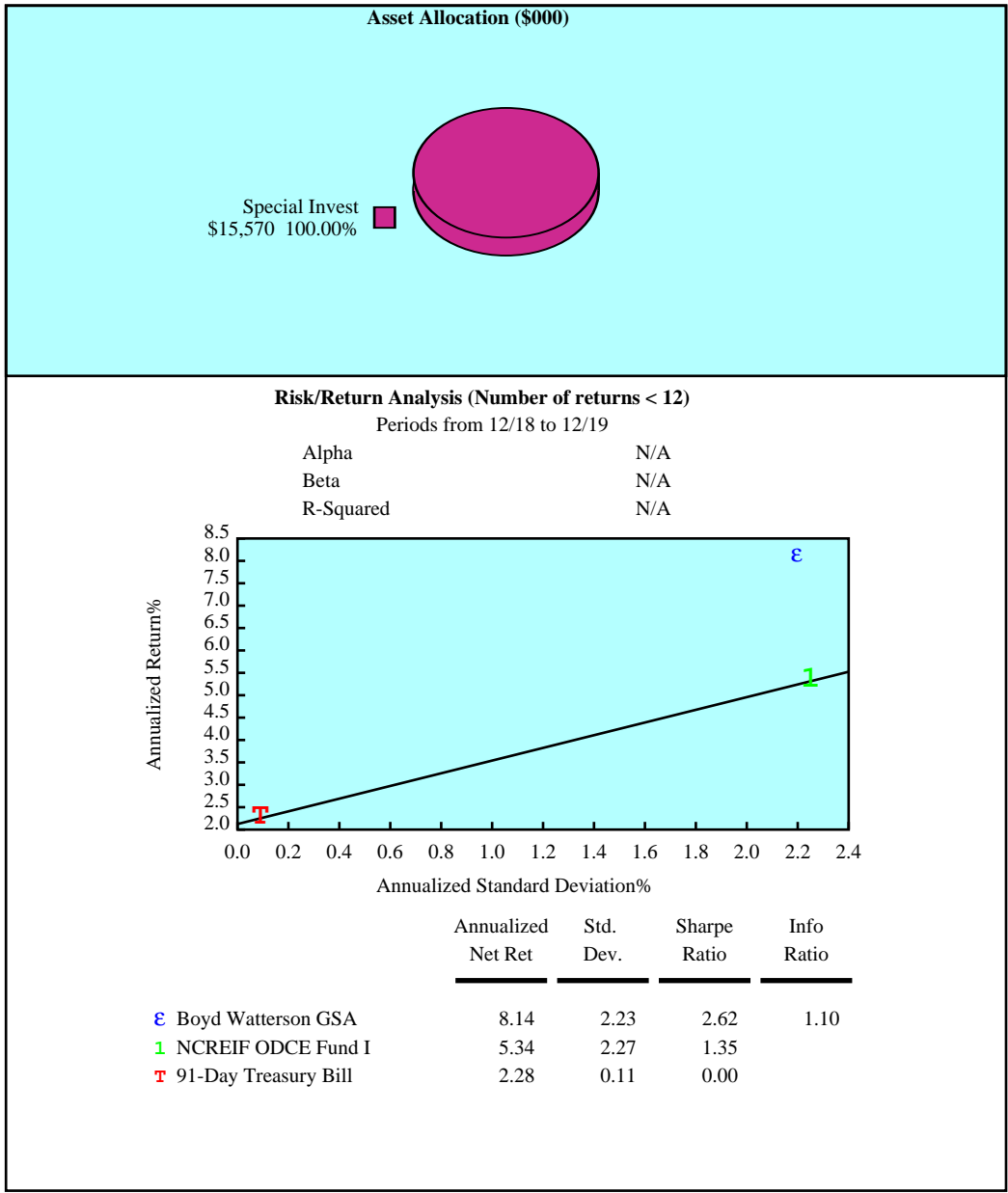
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0					1	0
Positive Periods	4	4					4	5
Up Market Capture	0.78						0.48	
Down Market Capture								
Batting Average	0.25						0.20	
Worst Quarter	0.00	0.37					-1.20	0.37
Best Quarter	3.00	2.59					3.00	2.59
Worst 4 Quarters	5.33	6.80					4.06	6.80
Best 4 Quarters	5.33	6.80					5.33	8.17
Standard Deviation	2.57	2.01					3.17	1.74
Beta	0.34						0.21	
Alpha	0.37						0.02	
R-Squared	0.08						0.02	
Sharpe Ratio	1.19	2.25					0.30	2.59
Treynor Ratio	8.87						4.64	
Tracking Error	2.92						3.38	
Information Ratio	-0.49						-1.01	

## City of Fort Lauderdale Police and Fire Boyd Watterson GSA as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 12/31/18</b>
Boyd Watterson GSA	0.99	8.14	8.14				8.14
NCREIF ODCE Fund Index	1.51	5.34	5.34				5.34
<b>Asset Growth (\$000)</b>							
Beginning Market Value	15,633	6,000	6,000				6,000
Net Contributions & Withdrawals	-218	8,479	8,479				8,479
Gain/Loss + Income	154	1,091	1,091				1,091
Ending Market Value	15,570	15,570	15,570				15,570

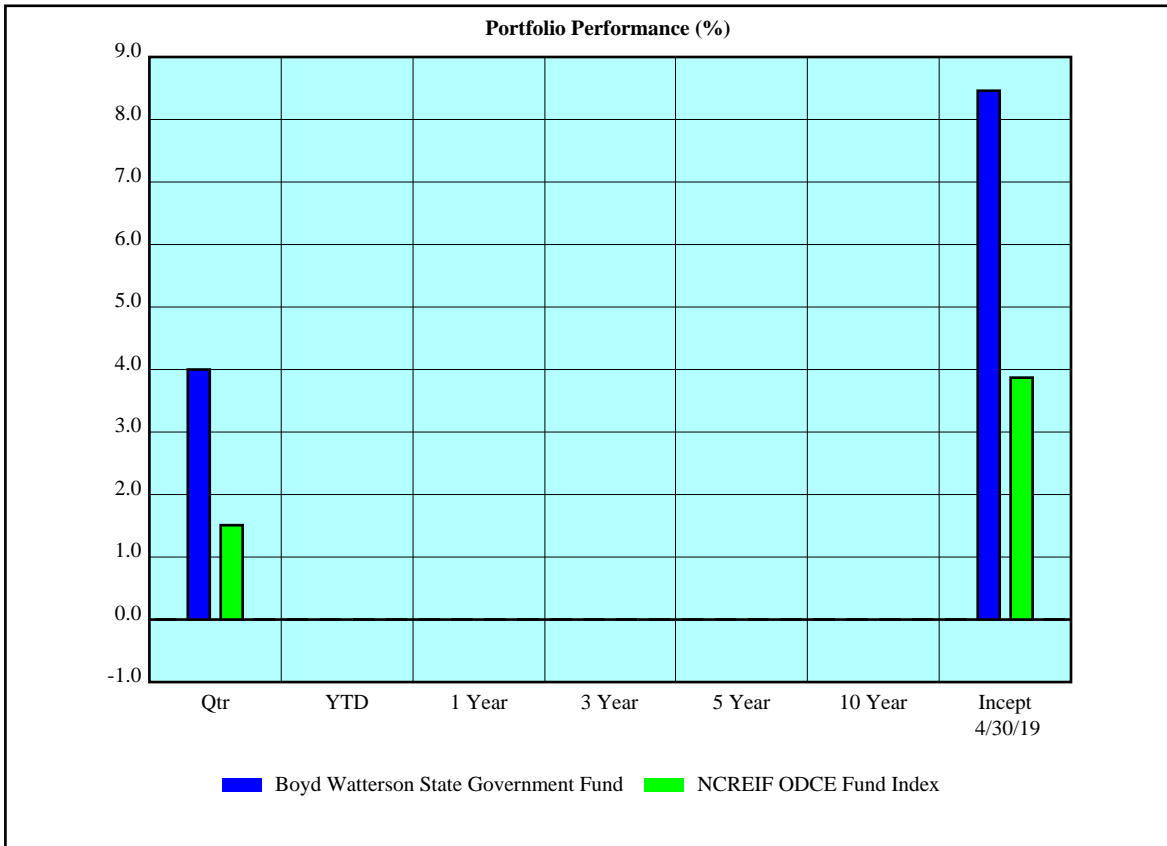
# City of Fort Lauderdale Police and Fire Boyd Watterson GSA as of 12/31/19



**City of Fort Lauderdale Police and Fire**  
**Risk Measure Summary**  
**Boyd Watterson GSA**  
**Quarterly Periods Ending 12/31/19**

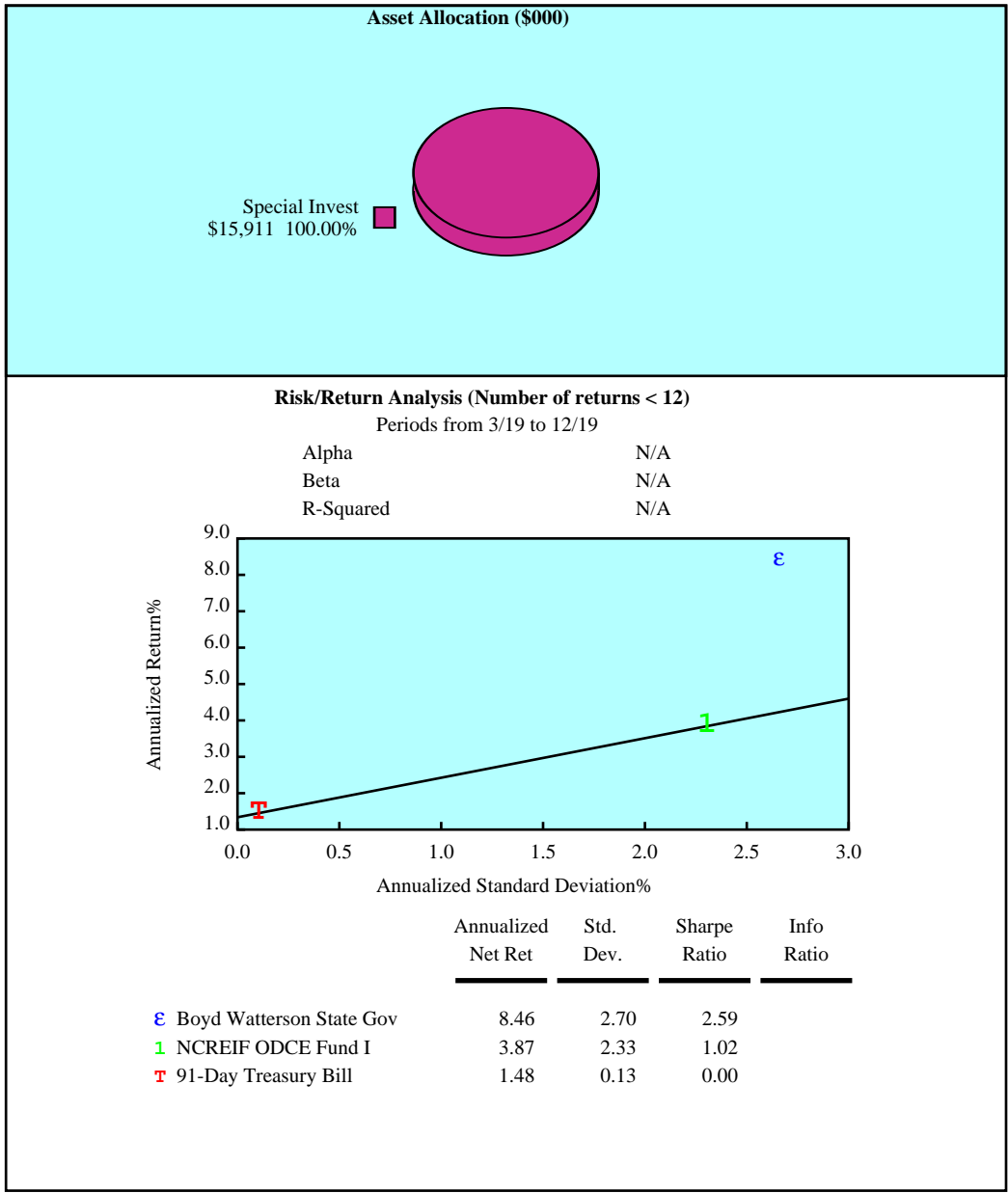
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0					0	0
Positive Periods	4	4					4	4
Up Market Capture	1.52						1.52	
Down Market Capture								
Batting Average	0.50						0.50	
Worst Quarter	0.99	1.00					0.99	1.00
Best Quarter	2.87	1.51					2.87	1.51
Worst 4 Quarters	8.14	5.34					8.14	5.34
Best 4 Quarters	8.14	5.34					8.14	5.34
Standard Deviation	2.07	0.44					2.07	0.44
Beta	0.51						0.51	
Alpha	1.03						1.03	
R-Squared	0.04						0.04	
Sharpe Ratio	2.84	6.89					2.84	6.89
Treynor Ratio	11.47						11.47	
Tracking Error	2.44						2.44	
Information Ratio	1.10						1.10	

## City of Fort Lauderdale Police and Fire Boyd Watterson State Government Fund as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 4/30/19</b>
Boyd Watterson State Government Fund	4.00						8.46
NCREIF ODCE Fund Index	1.51						3.87
<b>Asset Growth (\$000)</b>							
Beginning Market Value	15,519						15,000
Net Contributions & Withdrawals	-221						-343
Gain/Loss + Income	614						1,254
Ending Market Value	15,911						15,911

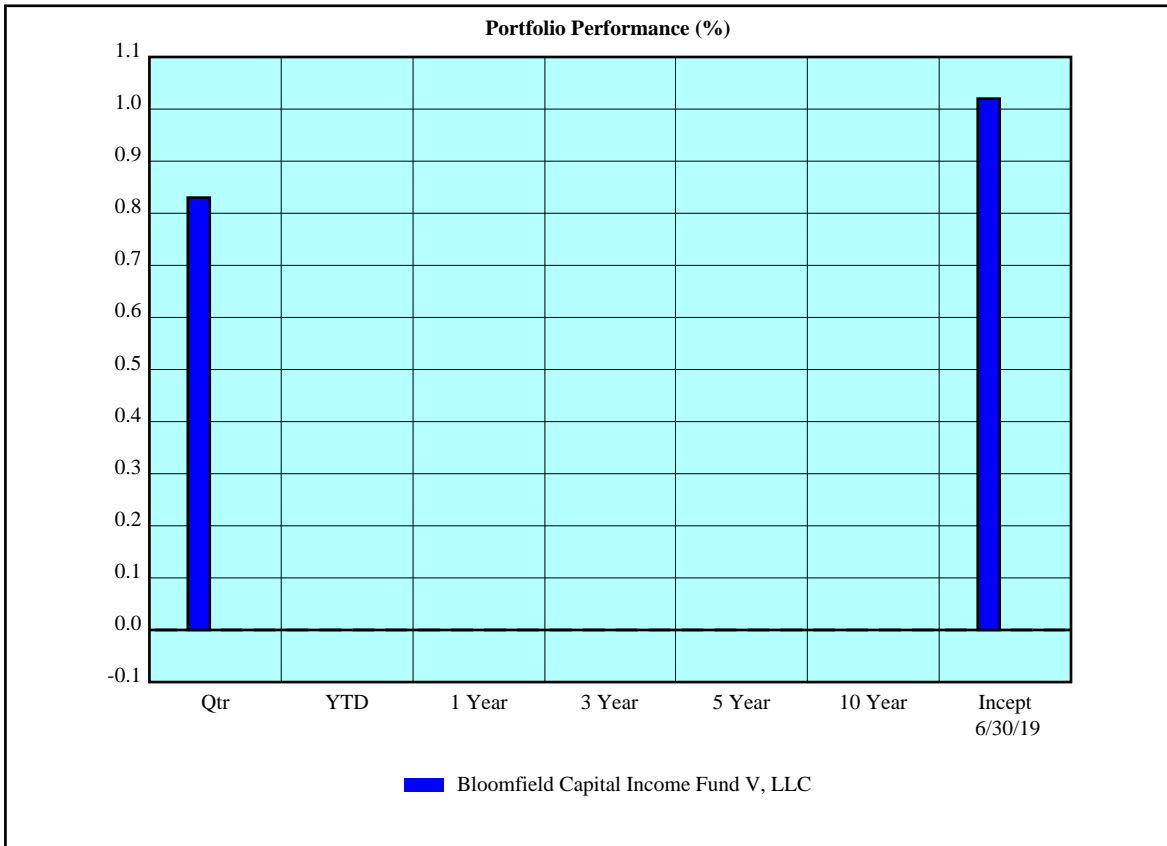
# City of Fort Lauderdale Police and Fire Boyd Watterson State Government Fund as of 12/31/19



**City of Fort Lauderdale Police and Fire**  
**Risk Measure Summary**  
**Boyd Watterson State Government Fund**  
**Quarterly Periods Ending 12/31/19**

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods							0	0
Positive Periods							3	3
Up Market Capture							2.19	
Down Market Capture								
Batting Average							1.00	
Worst Quarter							1.40	1.00
Best Quarter							4.00	1.51
Worst 4 Quarters								
Best 4 Quarters								
Standard Deviation								
Beta								
Alpha								
R-Squared								
Sharpe Ratio								
Treynor Ratio								
Tracking Error								
Information Ratio								

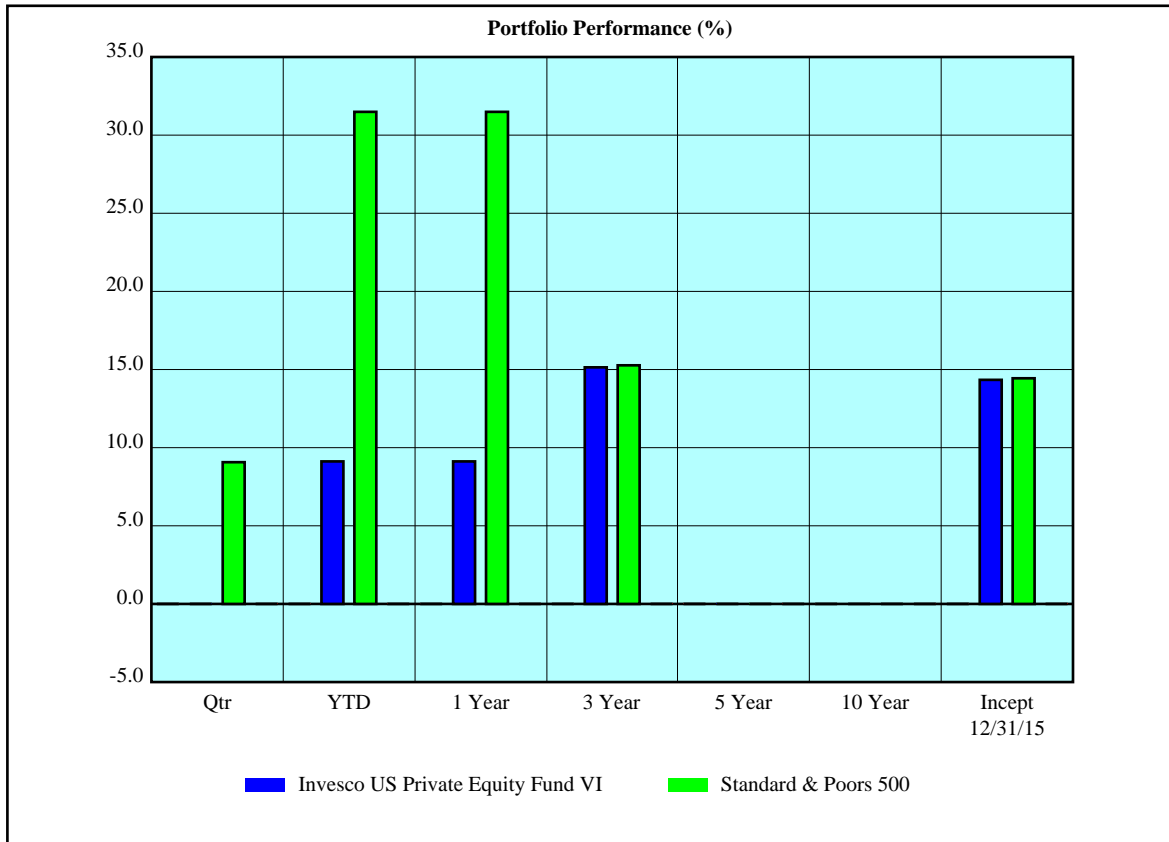
## City of Fort Lauderdale Police and Fire Bloomfield Capital Income Fund V, LLC as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 6/30/19</b>
Bloomfield Capital Income Fund V, LLC	0.83						1.02
<b>Asset Growth (\$000)</b>							
Beginning Market Value	7,463						2,910
Net Contributions & Withdrawals	941						5,451
Gain/Loss + Income	119						162
Ending Market Value	8,523						8,523

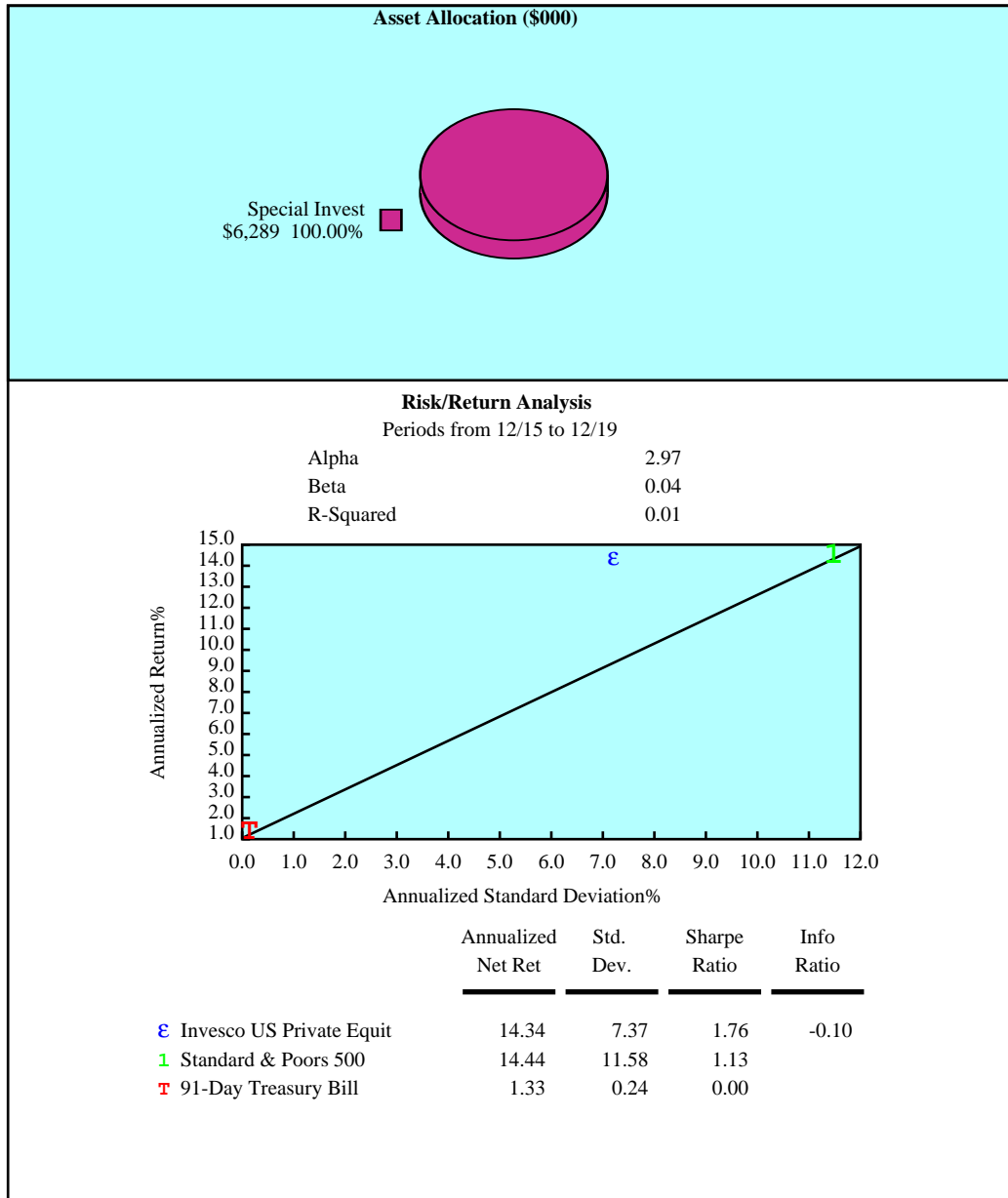


## City of Fort Lauderdale Police and Fire Invesco US Private Equity Fund VI as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 12/31/15</b>
Invesco US Private Equity Fund VI	0.00	9.12	9.12	15.14			14.34
Standard & Poors 500	9.07	31.49	31.49	15.27			14.44
<b>Asset Growth (\$000)</b>							
Beginning Market Value	6,289	5,771	5,771	3,916			2,893
Net Contributions & Withdrawals	0	0	0	211			844
Gain/Loss + Income	0	519	519	2,162			2,551
Ending Market Value	6,289	6,289	6,289	6,289			6,289

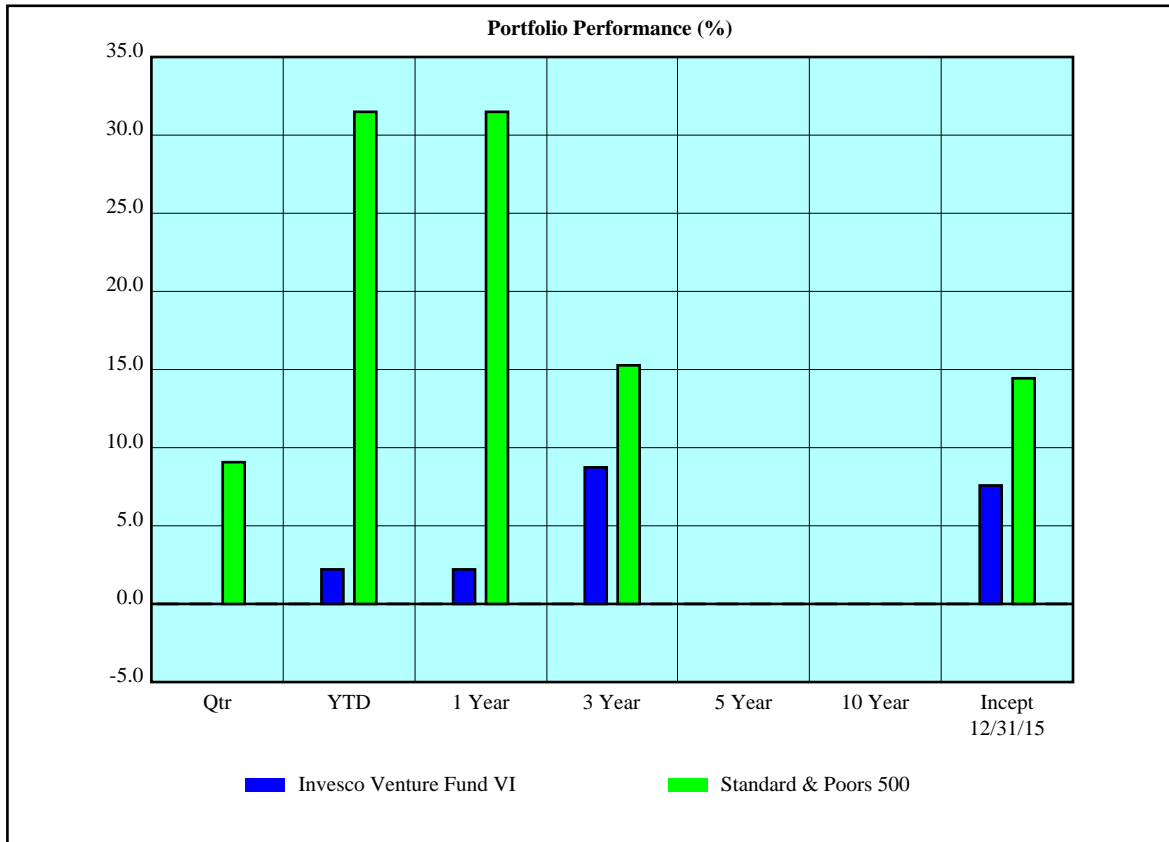
# City of Fort Lauderdale Police and Fire Invesco US Private Equity Fund VI as of 12/31/19



City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Invesco US Private Equity Fund VI  
Quarterly Periods Ending 12/31/19

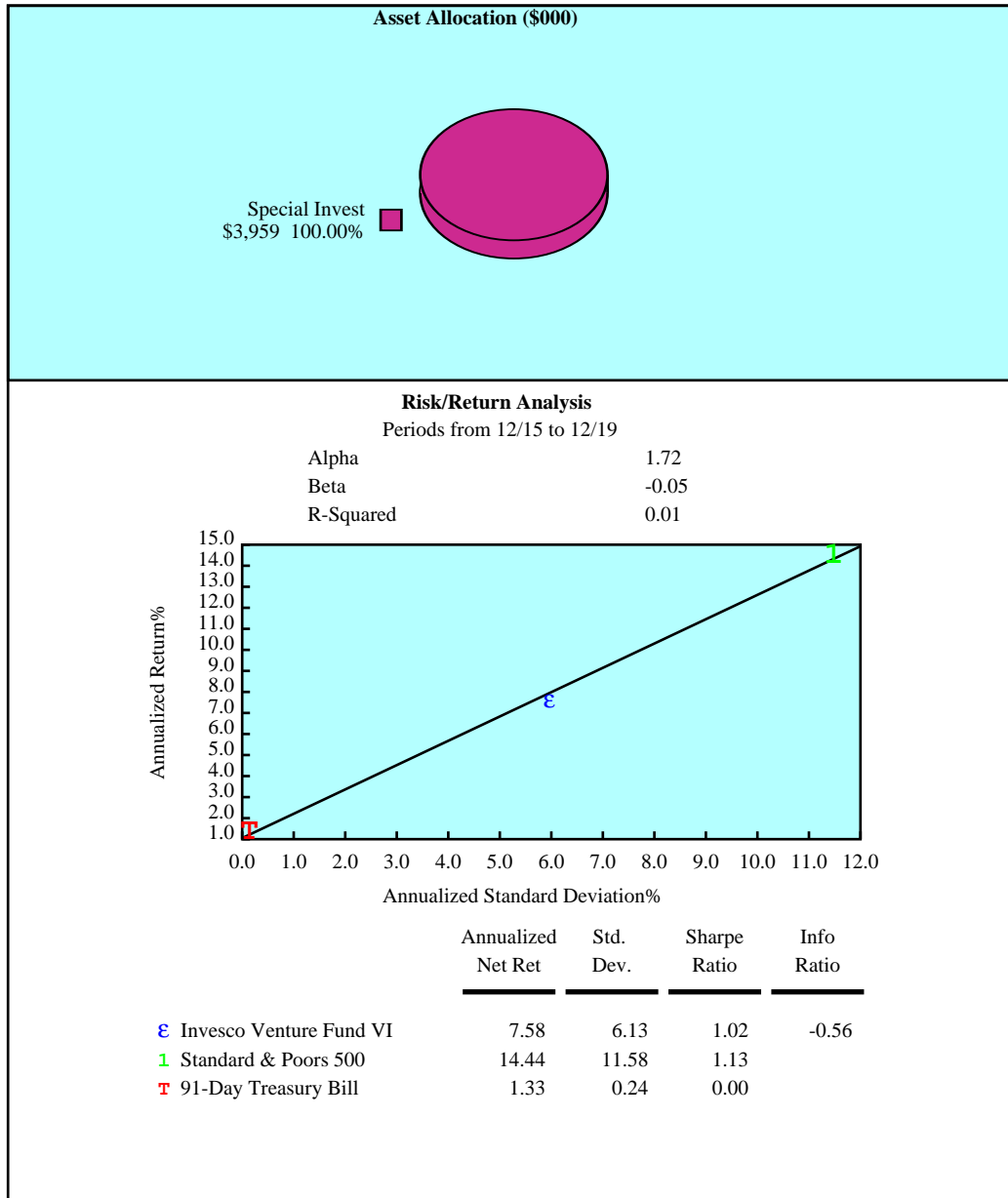
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	0	0	2			0	2
Positive Periods	4	4	12	10			16	14
Up Market Capture	0.29		0.59				0.66	
Down Market Capture			-0.46				-0.46	
Batting Average	0.25		0.50				0.44	
Worst Quarter	0.00	1.70	0.00	-13.52			0.00	-13.52
Best Quarter	4.82	13.65	8.36	13.65			8.36	13.65
Worst 4 Quarters	9.12	31.49	9.12	-4.38			9.12	-4.38
Best 4 Quarters	9.12	31.49	25.82	31.49			25.82	31.49
Standard Deviation	4.05	10.57	5.18	13.21			4.82	11.39
Beta	0.19		0.03				0.04	
Alpha	0.43		3.10				2.97	
R-Squared	0.30		0.00				0.01	
Sharpe Ratio	1.69	2.76	2.60	1.03			2.70	1.15
Treynor Ratio	36.93		454.71				316.35	
Tracking Error	9.69		14.17				12.19	
Information Ratio	-1.93		-0.12				-0.10	

## City of Fort Lauderdale Police and Fire Invesco Venture Fund VI as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 12/31/15</b>
Invesco Venture Fund VI	0.00	2.21	2.21	8.74			7.58
Standard & Poors 500	9.07	31.49	31.49	15.27			14.44
<b>Asset Growth (\$000)</b>							
Beginning Market Value	4,200	4,303	4,303	3,373			2,992
Net Contributions & Withdrawals	-241	-434	-434	-386			-145
Gain/Loss + Income	0	91	91	972			1,112
Ending Market Value	3,959	3,959	3,959	3,959			3,959

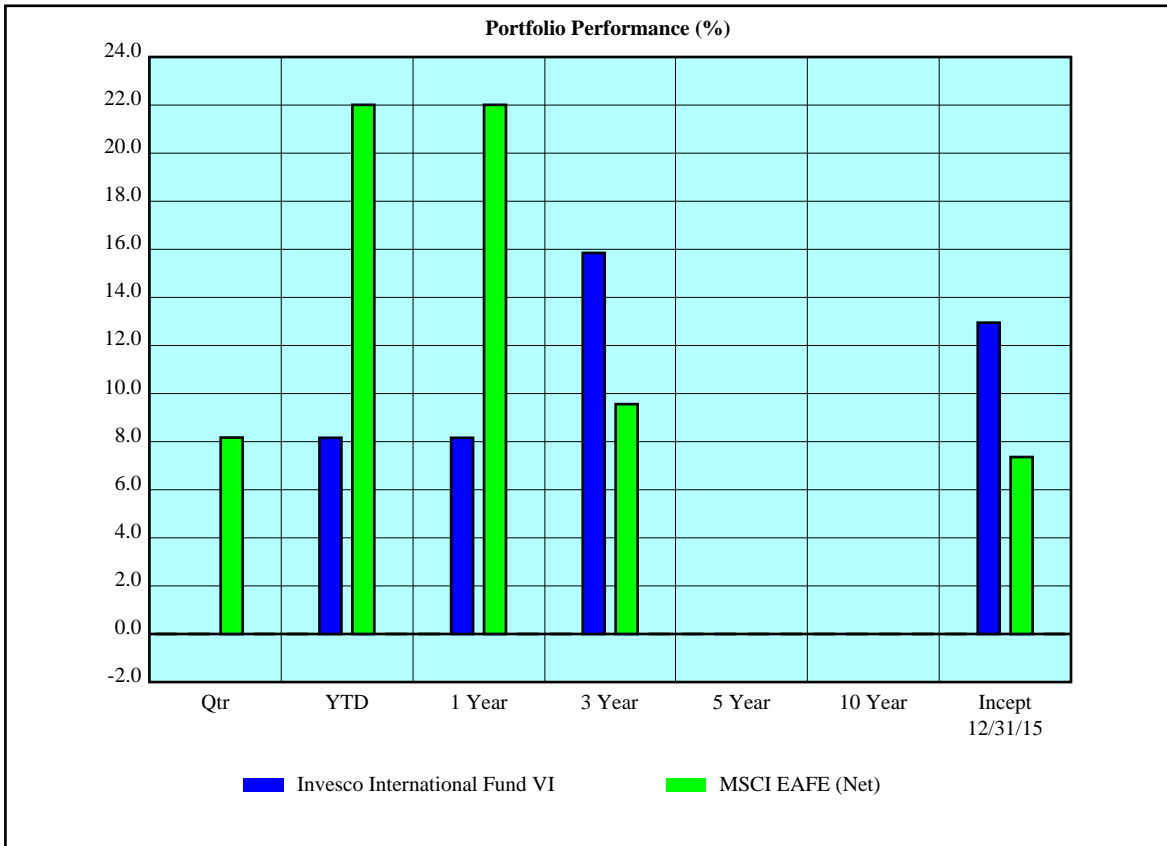
# City of Fort Lauderdale Police and Fire Invesco Venture Fund VI as of 12/31/19



City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Invesco Venture Fund VI  
Quarterly Periods Ending 12/31/19

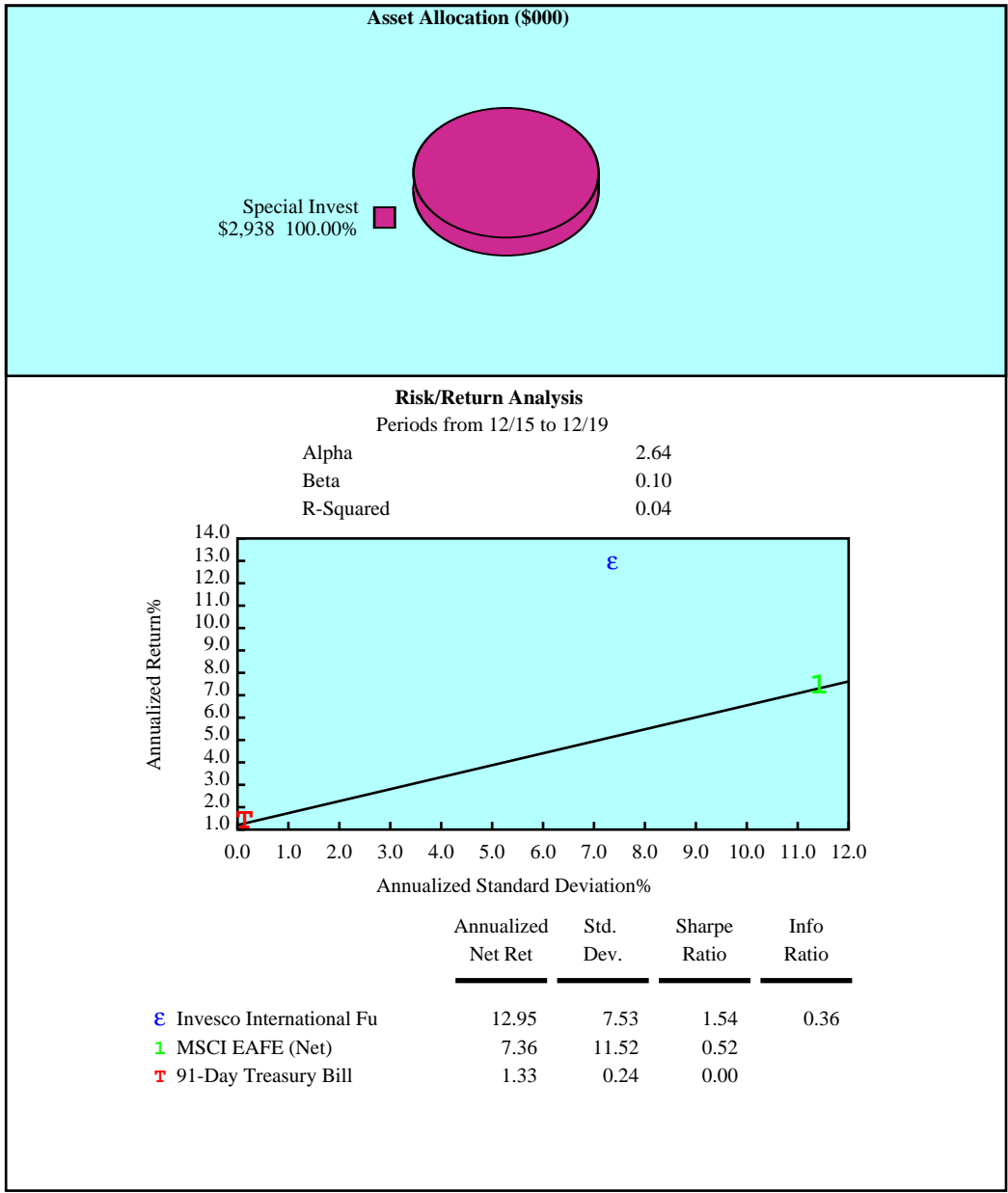
Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	2	0	2	2			3	2
Positive Periods	2	4	10	10			13	14
Up Market Capture	0.07		0.26				0.28	
Down Market Capture			-0.63				-0.63	
Batting Average	0.25		0.33				0.31	
Worst Quarter	-2.29	1.70	-2.29	-13.52			-3.76	-13.52
Best Quarter	4.63	13.65	5.94	13.65			5.94	13.65
Worst 4 Quarters	2.21	31.49	2.21	-4.38			2.21	-4.38
Best 4 Quarters	2.21	31.49	18.10	31.49			18.10	31.49
Standard Deviation	5.82	10.57	5.09	13.21			5.55	11.39
Beta	-0.01		-0.08				-0.05	
Alpha	0.07		2.01				1.72	
R-Squared	0.00		0.04				0.01	
Sharpe Ratio	-0.01	2.76	1.39	1.03			1.13	1.15
Treynor Ratio	8.88		-86.39				-116.14	
Tracking Error	12.17		15.36				13.34	
Information Ratio	-2.00		-0.49				-0.56	

## City of Fort Lauderdale Police and Fire Invesco International Fund VI as of 12/31/19



<b>Net of Fee Returns</b>	<b>Qtr</b>	<b>YTD</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>	<b>10 Year</b>	<b>Incept 12/31/15</b>
Invesco International Fund VI	0.00	8.16	8.16	15.85			12.95
MSCI EAFE (Net)	8.17	22.01	22.01	9.56			7.36
<b>Asset Growth (\$000)</b>							
Beginning Market Value	3,022	3,222	3,222	2,080			1,822
Net Contributions & Withdrawals	-84	-518	-518	-351			-184
Gain/Loss + Income	0	234	234	1,209			1,300
Ending Market Value	2,938	2,938	2,938	2,938			2,938

# City of Fort Lauderdale Police and Fire Invesco International Fund VI as of 12/31/19





City of Fort Lauderdale Police and Fire  
Risk Measure Summary  
Invesco International Fund VI  
Quarterly Periods Ending 12/31/19

Risk Measures	1 Year		3 Years		5 Years		Inception	
	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench	Portfolio	Bench
Negative Periods	0	1	0	4			1	7
Positive Periods	4	3	12	8			15	9
Up Market Capture	0.21		0.59				0.56	
Down Market Capture	-2.81		-1.13				-0.93	
Batting Average	0.25		0.67				0.69	
Worst Quarter	0.00	-1.07	0.00	-12.54			-0.90	-12.54
Best Quarter	3.01	9.98	8.57	9.98			8.57	9.98
Worst 4 Quarters	8.16	22.01	7.76	-13.79			4.68	-13.79
Best 4 Quarters	8.16	22.01	29.35	25.03			29.35	25.03
Standard Deviation	2.74	9.88	5.62	12.16			5.61	11.24
Beta	-0.06		0.06				0.10	
Alpha	1.72		3.25				2.64	
R-Squared	0.05		0.01				0.04	
Sharpe Ratio	2.14	2.00	2.52	0.65			2.07	0.54
Treynor Ratio	-92.62		257.01				118.91	
Tracking Error	11.78		13.13				11.67	
Information Ratio	-1.08		0.34				0.36	



# Investment Policy Statement

The Trustees of the Police & Fire Retirement System Pension Fund, in adopting the following Investment Policy Statement, intend its provisions to act as guidelines for the investment managers employed by the Fund. It shall be the responsibility of the investment managers to bring to the attention of the Trustees any term of the Statement, which the investment managers believe to inhibit or in any way affect their exercise of management discretion.

## I. PURPOSE OF STATEMENT

The Trustees are charged by law with the responsibility for the investment of assets of the Trust Fund. To discharge this function, the Trustees are authorized by law to engage the services of Investment Managers who possess the necessary specialized research facilities and skilled personnel to provide expertise with respect to investment of assets entrusted to them.

In performing its investment duties, the Trustee shall comply with the fiduciary standards set forth in the Employee Retirement Income Security Act of 1974, 29 U.S.C. §1104(a)(1)(A)-(C), meaning that the Trustee must discharge all duties with respect to the Plan solely in the interest of participants and beneficiaries and for the exclusive purpose of: (a) providing benefits to participants and their beneficiaries and (b) defraying reasonable expenses of administering the Plan; with the care, skill, prudence and diligence under circumstances then prevailing that a prudent man acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims; by diversifying investments of the Plan so as to minimize risk of large losses, unless under the circumstances it is clearly prudent not to do so. In the event of conflict with other provisions of law authorizing investments, the investment and fiduciary standards set forth in this section shall prevail.

In keeping with the duties of Chapter 20 of Fort Lauderdale Ordinances, this statement of investment goals and objectives is set forth.

Its purpose is to:

Determine the Trust's projected financial needs.

Express the Trustees' position with respect to the funds risk-volatility posture.

Formulate an appropriate set of goals and objectives for the Fund's assets.

## II. INVESTMENT OBJECTIVES

- A. Assets of the Fund shall be invested in a manner consistent with the fiduciary's acceptable standards of Chapter 112, Florida Statutes, namely:

1. The safeguards and diversity that a professional, prudent investment manager would adhere to must be present.
  2. All transactions undertaken on behalf of the Trust must be for the sole interest of Plan participants and their beneficiaries.
- B. The Fund shall be invested in a manner consistent with the primary emphasis upon consistency of performance to protect the Fund from excessive volatility in current market value.
- C. The Fund shall be invested with emphasis upon capital protection, i.e., the achievement of adequate investment growth so that the purchasing power of the principal amount of these assets is at least maintained and preferably increased.
- D. The Plan's total return will be expected to provide equal or superior results based on a five year investment horizon, relative to the objectives enumerated below. It is anticipated that achievement of this rate of return will raise the funded status of the plan and lower the contribution rate as a percent of payroll.
1. The Retirement System's annualized total return should equal or exceed the Retirement System's actuarial interest rate assumption, which is currently 7.50%. The Board will file with the City, the Department of Management Services, and the actuary the expected annual rate of return for the current year, for each of the next several years, and for the long term for each annual actuarial valuation.
  2. The Retirement System's total return should exceed the total return of an index composed as follows:
    - 26.25% S&P 500
    - 12.5% Russell 2500
    - 15% MSCI EAFE
    - 31.25% Barclays Capital Intermediate Government/Credit Bond Index
    - 15% NCREIF Index

Please note that the 12.5% target weight to Global Infrastructure and Multi-Strategy alternatives in the Total Plan performance benchmark has been split 70% to the S&P 500 Index and 30% to the Barclays Intermediate Government/Credit Bond Index, while the Alternative Income strategies are benchmarked against the Barclays Intermediate Government/Credit Bond Index.
  3. The Retirement System's total return should exceed the total return of the median plan in the consultant's peer group universe.

### III. INVESTMENT GUIDELINES

A. It shall be the policy of the Fund to invest the assets in accordance with the following asset allocation levels outlined below:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Minimum</u>	<u>Maximum</u>
Domestic Equity:			
<b>Large Cap Equity</b>	<b>17.5%</b>	<b>10%</b>	<b>30%</b>
<i>Large Cap Equity is further defined as:</i>			
Large Cap Core	8.5%	5.0%	12%
Large Cap Value	4.5%	2.5%	7.5%
Large Cap Growth	4.5%	2.5%	7.5%
<b>Mid/Small Cap Equity</b>	<b>12.5%</b>	<b>5%</b>	<b>20%</b>
<i>Mid/Small Cap Equity is further defined as:</i>			
Mid Cap Equity	5%	2.5%	7.5%
Small Cap Value	3.75%	0%	7.5%
Small Cap Growth	3.75%	0%	7.5%
International Equity	15%	10%	20%
Alternative Investments:			
Global Infrastructure	7%	4%	10%
Real Estate	15%	7.5%	22.5%
Multi-Strategy	5.5%	2.5%	12.5%
Alternative Income	7.5%	2.5%	12.5%
Fixed Income (incl. Cash)	20%	10%	30%

The Board of Trustees has adopted the asset allocation policy set forth above, which is expressed in terms of target levels and allocation ranges, as measured by market value of assets. Percentage allocations are intended to serve as guidelines; the Board will not be required to remain strictly within the designated ranges. Market conditions or an investment transition (asset class or manager) may require an interim investment strategy, and, therefore, a temporary imbalance in asset mix. At each quarterly meeting of the Fund's Board of Trustees, Staff and Consultant will review with the Board the asset allocation structure of the plan relative to the policy target allocations and acceptable ranges. Staff and Consultant are responsible for providing the Board with a recommendation relative to rebalancing the overall investment

portfolio based on predetermined target allocations, and the Fund's current allocation relative to those targets. The large cap, small/mid cap and international allocations are implemented through multiple managers utilizing both value and growth styles. It is intended that these allocations maintain relative style neutrality; therefore rebalancing reviews and recommendation shall also attempt to maintain a balance between growth and value.

This investment policy has been chosen to provide a high likelihood of meeting the objectives outlined above. The asset allocation established by this investment policy represents a long term perspective. As such rapid unanticipated shifts may cause the assets to temporarily fall outside the policy range. Any divergence should be of a short term nature. The Board demands that any such divergences shall be kept as brief as possible. The system administrator shall promptly notify the Board whenever divergences exist.

The Board shall periodically review the Investment Policy Statement and solicit the recommendations of the Investment Consultant with respect to any proposed changes. The Board may also solicit input from the investment managers during this process.

- B. Full discretion consistent with the guidelines described herein is granted to each investment manager in respect to the sector mix of the assets, the selection of securities and the timing of their transactions. Pooled funds or other commingled vehicles may be utilized that are invested in substantially the same manner and same investments as stated in this Investment Policy Statement. The manager of such pooled or commingled fund shall promptly advise the Board of any potential exceptions to or violations of the Investment Policy Statement which may arise for any reason.
- C. The investment managers shall not hold (without the Board's written consent) unsecured investments in a single company in a total amount exceeding 5% of the market value of the assets which they manage **(with the exception of the enhanced equity index and equity index manager, in which case investments in a single company are permitted to be +/-1% of that company's weight in the benchmark at time of rebalance)**, nor shall any investment manager hold investments in any one particular sector exceeding 40% of the equity portfolio or 130% of the S&P500 Sector Weighted, whichever is higher. Only securities issued by or guaranteed by the U.S. Government shall be considered "secured".

The market value basis of Foreign Securities shall not exceed 25% of the total market value of assets of the fund. A Foreign Security is defined as a security issued by a corporation or other issuer that is not organized under the laws of the United States Government, any U. S. state government, or the District of Columbia. Such Securities organized under the laws of foreign governments shall be considered foreign securities, regardless of whether they are traded on United States exchanges, regardless of the ownership of the foreign corporation and regardless of whether the security is denominated in United States dollars.

The Domestic Large Cap Value Equity manager is authorized to invest up to 15 % of its respective portfolio in ADR's or common stocks of non-U.S. companies listed on a major U.S exchange. Benefit-driven incorporations, such as a company headquartered outside the United States primarily for tax purposes, will not count toward the 15% maximum.

All other Domestic Equity managers are authorized to invest up to 7.5% of their respective portfolios in ADR's or common stocks of non-U.S. companies listed on a major U.S. exchange. Benefit-driven incorporations, such as a company headquartered outside the United States primarily for tax purposes, will not count toward the 7.5% maximum.

The specifically hired International Equity managers are expected to be invested primarily if not exclusively in non-U.S. securities.

The Global Infrastructure mutual fund in which the System is invested may invest in U.S. and Non-U.S. securities. The percentage of Non-U.S. securities will be monitored by the Investment Consultant and counted toward the 25% of the total funds market value limitation to Foreign Securities.

- E. The Board of Trustees will comply with the provisions of the Protecting Florida's Investment Act (PFIA) with respect to its investments. The Board shall not hold any direct securities of any scrutinized company appearing on the SBA website. The Board will review and monitor the SBA's quarterly update to the scrutinized company list to determine whether divestment of any direct holding is required. Each quarter the Board's Investment Consultant shall prepare a written report to the Board advising whether or not any divestment is required or whether any direct holding is on the scrutinized company list as defined by the SBA.
- F. In the event of a spin-off from a company currently held in the portfolio, which prior to the spin-off was a qualified investment, the manager should report on a quarterly basis with a recommendation as to whether we should continue to hold such spin-off. However, it is the intent for the spin-off to meet the Board's equity restrictions as soon as possible.
- G. The use of fixed income investments may include U.S. Government and agency obligations, marketable corporates, Ginny Mae's, U.S. Agency Collateralized Mortgage-backed securities, asset-backed securities, debentures, preferred stocks, commercial paper, certificates of deposit and other such instruments as deemed prudent by the investment manager. The bond manager (including any balanced fund manager with respect to the fixed-income segment of the portfolio) is authorized to invest up to 10% of their respective portfolios in issuers not domiciled in the U.S.
- H. Fixed-Income type securities shall be selected from among those rated within the top five major categories of any recognized bond rating service such as, (Moody's, Standard & Poors and Fitch's). In those cases in which the rating services give different ratings, the lowest rating shall apply. Notwithstanding anything herein to the contrary, **active bond managers are permitted to invest up to 15% of the market value of their portfolio in securities rated in the fifth major rating category by all recognized rating services, provided that such investments are consistent with the mandate of the manager. The overall portfolio quality of the active bond portfolios shall be maintained at A or higher.**
- I. Fixed-income type securities are to be selected and managed so as to assure appropriate balances in qualities and maturities consistent with current money market and economic conditions. Active bond management is encouraged **in instances of non-indexed management**, as deemed appropriate by the investment, although this is not intended to encourage excessive emphasis on short-term trading techniques.

- J. The real estate portfolio is designed as a core mandate with targeted value add exposures. Investments in real estate properties will be broadly diversified geographically, by property type, size of the property and number of properties. Income and appreciation are dual considerations; however more emphasis will be placed on high quality, and income-producing properties in the portfolio. It is expected that the income component will compromise the majority of the portfolio's total return. The manager should not assume excessive risk in terms of leverage utilized. The portfolio may be invested in commingled or partnership vehicles. The selection of properties/investments will be at the discretion of each manager.
- K. The dynamic, flexible management of the portfolio is both permitted and encouraged. Shifts of emphasis among equity, fixed income and cash equivalent sectors of the aggregate asset base are at the discretion of the investment manager. However, major restructuring would require prior consent of the Trustees.
- L. Cash equivalent securities should be viewed not only as avenues to meet the liquidity requirements of the Trust, but also as alternative investment vehicles. In either case, however, selection of particular investments should be determined primarily by the safety and liquidity of the investment and only secondarily by available yield.
- M. It is understood that the managers at any point in time may not be fully invested. While in fact the System's assets may be partially invested in cash equivalents, for asset allocation purposes these funds shall be considered invested in the asset classes of the respective managers. In turn, each manager's performance will be evaluated on the total amount of funds under their direct management.
- N. The Trustees recognize that market performance varies from period to period and that a 4.6% real rate of return may not be meaningful during some periods. Accordingly, relative performance benchmarks for the managers are set forth in Section V, Basis for Measurement.
- O. Certain Securities are deemed to be ineligible for inclusion among this Trust's asset base:

The following transactions would be prohibited:

1. A sale, exchange or lease of any property between the Plan and interested party (interested party being defined as a person rendering services to the Plan for which remuneration is received, i.e., stockbroker, real estate broker, etc.)
2. A direct loan or an extension of a line of credit between the Plan assets and any interested party.
3. A transfer of Plan assets to an interested party for the exclusive benefit or use of the interested party.
4. An acquisition of securities, which would exceed stated limitations, 5% in any one company. Any exceptions to the foregoing restrictions would require written Board approval with the specifics detailed.



5. Instrumentalities which are or may be deemed in violation of prohibitive transaction standards as may be specified in the Florida Statutes, specifically Chapters 112, 175 and 185.

P. Investments not classified as equities or fixed income will be designated as alternative investments. Alternative investments are typically (but not always) less liquid than traditional asset classes and will be expected to provide diversification from traditional capital market risk. Alternative investments that may be allocation to the Plan include real estate, tactical asset allocation mutual funds, global infrastructure, hedge funds (including fund-of-funds and long/short equity vehicles), private equities, commodities, and income-oriented alternatives (i.e. preferred stock, Master Limited Partnerships, multi-sector fixed income strategies).

#### **IV. MATURITY AND LIQUIDITY REQUIREMENTS**

The investment portfolio is structured in such a manner as to provide sufficient liquidity to pay obligations as they come due. The Plan will not be expected to maintain a significant cash balance but will rather raise cash to fund obligations on an as needed basis in accordance with the Plan's target asset allocation. Managers will be notified of any change in the foregoing circumstances.

#### **V. THIRD-PARTY CUSTODIAL AGREEMENTS**

All assets shall be held by a third party, and all securities purchased by, and all collateral obtained by, the Trustee shall be properly designated as an asset of the Plan. No withdrawal of assets, in whole or in part, shall be made except upon authorization by the Trustee. Securities transactions between a broker-dealer and the Custodian involving purchase or sale of securities by transfer of money or securities must be made on a "delivery vs. payment" basis to ensure that the Custodian will have the security or money, as appropriate, in hand at the conclusion of the transaction.

#### **VI. COMMUNICATIONS**

##### **A. Documentation**

Statements are to be supplied at least quarterly by each investment manager and/or bank custodian to the Trustees indicating:

1. The Fund composition, i.e., at book or original cost and at current market value (by sector, including equity, fixed income, cash equivalents, and "pure" cash balances);
2. Position, by individually named securities, showing their respective book and market values, the number of shares by date secured or sold;
3. All income cash transactions, including sources of all interest and dividends in sufficient descriptive detail. The investment manager is expected to provide written confirmation and documentation of all principal transactions, with the exception of cash equivalent trades, within one week of occurrence.

B. Meetings

Investment managers are expected to meet on a quarterly basis, or more often upon request, with the Trustees to review the portfolio and to discuss investment results in terms of these goals, objectives and policies.

**VII. BASIS FOR MEASUREMENT**

Performance of this Fund is to be measured, both currently and historically, in context with these goals and objectives. In order to ensure that investment opportunities available over a specific time period are fairly evaluated, the Trustees will use comparative performance statistics to evaluate investment results.

The Fund's investment performance results will be compared, on a time-weighted basis, with that of unmanaged market indices as well as with a universe of managed funds. Such comparative performance statistics shall be used for evaluation purposes.

In that context, then, the Fund's equity performance will be compared with the Standard & Poor's 500 and with a universe of managed equity funds. The performance of each investment manager, in turn, will be compared to the relevant index and a universe of peers categorized by investment style.

The Fund's fixed income performance will be compared with the total return of recognized bond indexes, e.g., Barclays Intermediate Government/Credit Bond Index or the Barclays Capital Aggregate Bond Index, as well as with a universe of similarly managed fixed income funds.

The Fund's real estate performance will be compared with the total return of the NCREIF Index as well as with a universe of core real estate funds.

The Fund's alternative investments will be compared against a performance benchmark consistent with their specific asset class, and will also generally be expected to outperform an absolute performance benchmark (i.e. CPI + 5%).

In addition, it is also recommended that a total Fund's investment performance be compared with a "composite" market consisting of the above unmanaged indices weighted in proportion to the Fund's actual per cent investment in each of these equivalent security classes. The total Fund will also be compared to a universe of local government funds. The fund's performance should also be compared with the annual percent change in the Consumer Price Index.

Consistency of performance results is to be given high priority and the degree will be determined by computing the mean absolute deviation of the total fund and the respective money managers' total rate of return from quarter to quarter and comparing this data with the same statistics measured for the "composite" market described above, with a goal of near or below market volatility.

### **VIII. VALUATION OF ILLIQUID INVESTMENTS**

Investments and assets for which a generally recognized market is not available or for which there is no consistent or generally accepted pricing mechanism are prohibited.

### **IX. MASTER REPURCHASE AGREEMENT**

All approved institutions and dealers transacting repurchase agreements shall execute and perform as stated in the Master Repurchase Agreement. All repurchase agreement transactions shall adhere to requirements of the Master Repurchase Agreement. This provision does not restrict or limit the terms of any such Master Repurchase Agreement.

### **X. BID REQUIREMENT**

All securities shall be competitively bid where feasible and appropriate. Except as otherwise required by law, the most economically advantageous bid must be selected. Executions must be made on a best-execution basis.

### **XI. INTERNAL CONTROLS**

As part of the City's annual financial audit the external CPA firm will review the internal controls of the Fund. The hiring or termination of all money managers, consultants or safekeeping custodians must be made by the Trustees. No individual associated with the Fund may authorize any movement of monies or securities without the approval of the Trustees. Trustee approval is not required for rebalancing of the portfolio. Internal controls will be designed to prevent losses of funds which might arise from fraud, error, and misrepresentation by third parties or imprudent actions by the Trustees or City employees.

### **XII. OTHER CONSIDERATIONS**

It is the intent of the Board of Trustees of the Police & Fire Retirement System Trust to revise this statement of goals and objectives to reflect modifications and revisions to the Trust, which may develop from time to time. It is also the policy of the Trustees to review these goals and objectives at least once per year and to communicate any material changes thereto to the Investment Managers and the Fund's custodian.

### **XIII. CONTINUING EDUCATION**

All trustees are encouraged and expected to attend continuing education seminars concerning matters related to investments and responsibilities of Board members. Attendance at two public pension fund seminars during each term of office is suggested.

### **XIV. REPORTING**

The Trustees shall submit periodic reports to the City of Fort Lauderdale, at least on an annual basis or more frequently if available. The report shall include investments in the portfolio by class or type, income earned and market value. The periodic report shall be available to the public.

### **XV. FILING OF INVESTMENT POLICY**

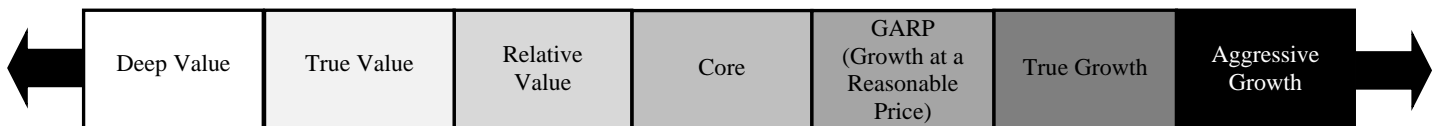
Upon adoption by the Trustee, this Investment Policy shall be promptly filed with the Florida Department of Management Services, the City of Fort Lauderdale, Florida, and the Actuary. The effective date of this Investment Policy, and any amendment hereto, shall be the 31st calendar day following the filing date with the City of Fort Lauderdale.

Approved November 2018

## EQUITY INVESTMENT STYLES

In an attempt to achieve diversification, investors may invest in a variety of asset classes. Different asset classes, such as small, mid, large and all capitalization, offer vastly different levels of risk and potential rewards, but so does investment style diversification. Growth and Value investments tend to go in and out of favor in a cyclical pattern. Dividing your portfolio among asset classes that do not respond to the same market environments the same way at the same time has the potential to help minimize the effects of market volatility, as well as help to maximize the chances of increased returns over time. Ideally, when investments in one class are performing poorly, the assets in another class are doing well. The gains in the latter would potentially offset the losses in the former, minimizing the overall effect on your portfolio. Note that one can diversify away much of the risks of holding a single investment, but one cannot diversify away the risks of simply being invested in the market.

Equity investment managers will typically fall into a particular "Style" category, purchasing stocks with either growth or value characteristics. Understanding the intricacies of the particular equity styles allows you to combine investment managers with complementary styles more efficiently. Or, if you select a single investment style, knowledge of the style categories may help you plan for the ups and downs associated with a particular style. Below are descriptions of the different investment styles.



### The Core Style

The philosophy behind a core investment style is to have no bias towards growth or value, only the quality of the position. Typically a core portfolio searches to buy shares in companies that an investment manager believes would perform well in all market environments. As a result, they tend to contain a mixture of both growth and value shares.

### The Value Style

A simple way to describe value investing is that it is an approach that seeks to buy companies that offer the best value for the money. Value managers look for companies with prices that are believed to be undervalued relative to the market. Undiscovered companies or stocks that have price movements that do not correspond to the company's long-term fundamentals are generally considered to be value investments.

**Relative value:** investment will employ a value-oriented strategy that is "diluted" in nature in comparison with the true value style. Relative value managers tend to outperform their deeper value peers during periods when growth is outperforming value, however tend to trail during market conditions that favor a deeper value posture. Relative value managers have a definite value emphasis, but often have some growth overlays in security selection.

**True value:** investment style exhibits characteristics similar to those of the Russell 1000 Value Index. We often times refer to true value as a "plain vanilla" value investment approach. This type of portfolio will hold many of the same positions as the Russell 1000 Value Index, or positions whose characteristics in aggregate are similar to the overall characteristics of the Index.

**Deep value:** investing is the extreme of the value-oriented styles. A deep value strategy will avoid stocks that are the latest market fad. A deep value manager will typically invest in companies or industries that are out of favor, with the anticipation that the tides will turn and the investment will pay off. Deep value managers tend to demonstrate performance volatility, as they usually outperform their less value -biased peers during periods when value is outperforming growth. The reverse takes place when growth is outperforming, the deeper value styles will generally underperform their relative and true value peers.

---

## **The Growth Style**

Investment managers who chose to implement a growth style search for companies that are growing their earnings at a rapid pace. The companies are expected to grow faster than the stock market average. A growth investor tends to aim for big gains over the long term and must be willing to withstand the ups and downs of the growth oriented market.

**Growth at a Reasonable Price ("GARP")** investing combines the search for sustainable earnings growth with an emphasis on valuation. GARP investing reflects the desire to find companies that could be undervalued, but have solid sustainable growth potential. A GARP investment has historically been favored when the economy begins to slow because the consistent earnings of high quality companies become increasingly attractive. GARP investment managers maintain, generally speaking, that over long periods of time, stocks go up for one reason - underlying earnings growth.

**True Growth:** A true growth portfolio will typically display characteristics similar to those of the Russell 1000 Growth Index. A manager who employs a true growth management style will purchase many of the same companies that are in the Russell 1000 Growth Index, or a portfolio of holdings whose characteristics are similar to those of the Index. They seek to purchase only companies that remain faithful to the category of a "growth" investment style.

**Aggressive Growth:** Investment managers that seek the highest of earnings growth, regardless of valuation, are considered aggressive growth managers. They seek aggressive and sometimes emerging growth stocks, and are often dramatically overweight traditional growth-oriented sectors like Technology, for example.

Which is the best style? Many investors buy into a particular investment style that experienced above- average performance results after those performance results were achieved, only to sell out of that particular style when it begins to suffer a more difficult performance run. We maintain that it is prudent for investors not only to seek out investment managers who have demonstrated consistency as it relates to people, philosophy/process and performance, but also to choose managers in whom they can maintain conviction over the long term, so as to avoid the untimely cost of switching styles. We believe that understanding the uniqueness of each investment style is key to staying the course.

*Source: Wells Fargo Advisors, LLC*

## IMPORTANT DISCLOSURES

This report has been compiled from sources believed to be reliable but are not guaranteed to be accurate or complete.

This material has been prepared solely for information purposes and is not a solicitation. Performance reports contain returns that are net of investment management fees but gross of CAPTRUST Advisory fees. Any depiction of account value/performance is not warranted to be accurate or complete. Please refer to your official monthly/quarterly custodial statements for verification. Past performance does not guarantee future results. CAPTRUST Financial Advisors does not render legal, accounting, or tax advice.

Please contact your CAPTRUST Financial Advisor if your Investment Objectives or your personal or financial situation has changed or if you want to place reasonable restrictions on the management of your investment account(s) or portfolio. You may call direct at 919.870.6822 or 800.216.0645 or email [compliance@captrustadvisors.com](mailto:compliance@captrustadvisors.com).