# Essex Regional Retirement System

## Performance Review June 2017

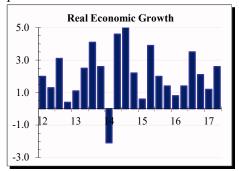




#### **ECONOMIC ENVIRONMENT**

#### **Mostly Rosy**

For another quarter, global economic growth continued, albeit at a slow pace. Several factors contributed to this positive trajectory, ranging from



diminished political uncertainty (e.g. Macron's election in France), lower energy prices, surprisingly strong domestic jobs growth, and generally positive corporate earnings. Even the shock of the European terrorist attacks failed to derail market confidence or the global economy.

- Q2 GDP (advance estimate) increased at a 2.6% annual rate, while the first quarter figure was revised down to 1.2%. While GDP increases have been modest, the economic details were encouraging. Corporate and individual fixed investment grew, and exports and personal consumption spending improved. The one major negative was reduced government spending at all levels.
- Second quarter jobs growth was a solid 180,000 per month and the month of June set the pace with 222,000 new hires. Job gains were concentrated in healthcare, finance, social services and mining. The unemployment rate held steady at 4.4%. There was an uptick in hours worked, especially in the manufacturing sector (40.8 hours per week). Further, the average hourly payroll has risen 2.5% year-over-year through June.
- Home prices increased 6.6% year-over-year through May (latest available), with a 1.2% price increase during May. Given the continued price increases and modest personal income gains, home affordability is eluding many potential buyers. Nonetheless, new and existing home sales were robust as the inventory of homes on the market was running at a low 5.3 months.

- Manufacturing activity expanded for the 97<sup>th</sup> consecutive month, as of June as evidenced by June's Production Index of 62.4, a significant 5.3% increase from May.
- Non-manufacturing sectors advanced for the 90<sup>th</sup> straight month through June. The Non-Manufacturing Index registered 57.4%, modestly higher than the prior month.
- The June Consumer Confidence Index now stands at 118.9, up moderately from May. However, the index' Present Situation component increased to 146.3, a 16-year high! The Expectation Index did slip from 102.3 in May to 100.6 in June, but remained upbeat.
- Commodity prices fell again during the past quarter. Energy tumbled 20% led by a decline in natural gas prices of almost 25%! Agricultural prices declined 3.4%, overall. Industrial metals rose in sync with increased manufacturing activity and precious metals climbed 6.3%.
- The virtual absence of CPI inflation continues to haunt the Fed and the June CPI offered no respite. Including food and energy, the monthly level remained unchanged from May and was up only 1.6% for the last 12-months.
- The Federal Reserve Board raised short-term rates again in the second quarter, citing jobs strength and steady economic growth, both domestically and internationally. While there is concern regarding the weak inflation numbers, the Fed expects higher inflation to rear its head sooner rather than later. The new Fed Funds rate as of mid-June is in the 1.0% 1.25% range.

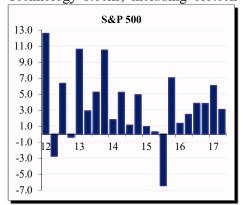
## DOMESTIC EQUITIES

## The Trump Bump Still in Effect

All of the major US stock indices were in the black as investors chose to disregard the political turmoil in the nation's capital. Congress's inability thus far to repeal/replace Obamacare, and to even begin work on infrastructure and tax reform, has not dampened investor enthusiasm.

Investor confidence was reflected in the NASDAQ Composite Index (+4.2%); the DJIA advance (+4.0%); and the S&P 500 (+3.1%). Across all market cap ranges, growth style bested value. For example, the Russell 1000 Growth Stock Index added 4.7% vs. 1.3% for the Russell 1000 Value Index. Similarly, the Russell 2000 Growth Stock Index rose 4.4%, while the Russell 2000 Value Stock Index nudged up 0.7%.

Among S&P sectors, only energy was a performance drag (-5.2%). Technology stocks, including biotech names, gained 8.6%. Consumer



service advanced 5.5% and computer technology added 4.6%. Buoyed by rising interest rates, financials grew 4.4%. REITs added a lesser 2.3% and utility stocks were flat, suggesting that investors, for the moment, have moved on from high dividends to more risk-on stock sectors. Notably, almost 60% of the S&P component companies have P/E ratios of 20

or more, indicating a richly priced large-cap market.

#### INTERNATIONAL EQUITIES

## **Political Stability Helped Developed Markets**

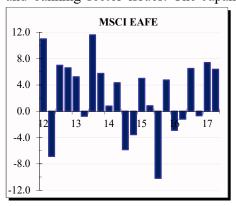
#### EM Benefited from Global Growth and a Weaker Dollar

Investors breathed a sigh of relief as the growing rise of populism was stopped in its tracks with Emmanuel Macron overwhelming election to President of France, over right-wing opponent Marie Le Pen. Europe (euro currency zone) drove the developed markets forward (+8.1%).

The EAFE Index gained 6.4%, substantially higher than US market returns. The French market carried the day, surging almost 10%. Italy was close behind, bolstered by a rising economy and a shoring up of its problematic banking system. Spanish stocks added 8.1%, reflecting reduced unemployment and a 19-year high in manufacturing activity.

Germany, almost always the dominant EU player, posted a 6.9% gain; its GDP remained highly positive and export-oriented. The Ireland component was up 3.8%, impacted by Brexit. The UK, not part of the Eurozone, climbed 4.7%. Even much smaller European economies participated in the gains, reflecting consumer confidence and GDP growth; Austria soared 22%; Denmark climbed 15.4% and Finland was up 14.4%.

Australian shares disappointed (-1.8%) because of slow economic growth and banking sector issues. The Japan Index fared well, gaining 5.2%,



largely due to a five-year high in industrial production. The Hong Kong market advanced 7.2%, helped by higher gaming revenue. Supported by an electronics boom, Singapore moved up 5.3%. Combined, Far Eastern markets gained 5.5%. Canadian shares, not part of EAFE, showed weakness (+0.8%) due to low energy prices, which had a negative impact on

its commodity-based economy.

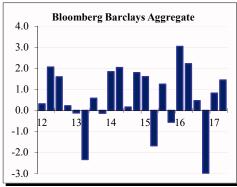
The MSCI Emerging Markets Index (EM) fully kept pace with the EAFE market, posting a 6.4% gain. Brazil lost 6.6% as its elected President has been indicted for corruption. Russia's situation was arguably worse, with a global oil glut and renewed EU sanctions leading to a 9.8% stock market drop. The Indian market was up a moderate 2.9%. The China economy was robust, rising 10.7% due to healthy global demand for its exports and President Xi Jinping's ongoing program to rein in corporate and municipal corruption.

There were many other strong performances across the EM index. Indonesia returned +8.8% and its sovereign credit rating got a boost to investment grade status. Korea shined (+10.3%) due to a construction blitz and tech outperformance. The Philippines was up 7.2%. Turkey posted an extraordinary 19.8%. Mexico gained 7.3%, mostly helped as NAFTA's fate seemed less imperiled. Finally, for the first time in recent memory, the Greek economy was in positive territory with a return of 34%.

#### BOND MARKET

## **Income plus Varying Appreciation**

Bond investors shrugged off a Fed Funds rate increase, political gridlock and a hot stock market. The short end of the Treasury yield curve moved



higher due to the Fed rate hike. The long end, however, actually fell due to subsiding inflation expectations. 1-to-10 year Treasuries returned 0.7%, while Treasuries maturing beyond 10 years earned 4%. Overall, longer maturity investors received both their income payments and a healthy slice of appreciation.

The Barclays Aggregate Index, of which Treasuries comprise 37%, returned slightly more than 1.4%. Investment grade corporates performed well, as recession was nowhere in sight. Utility bonds gained 3.0%, industrials were up 2.7%, and financials rose 2.1%. On the mortgage front, residential mortgage paper (MBS) grew 0.9%, but commercial mortgage bonds (CMBS) earned more (1.3%) in a strong commercial real estate marketplace. Asset-backed securities (ABS) returned a weak 0.6%.

Investors are still hunting for more income in the high yield market, as junk bonds have been on a tear since the Great Recession and have earned close to 13% in the latest 12 months. Still, investors have become a bit wary of a possible junk bond bubble. BB names (credit ratings just below investment grade) returned a robust 2.7%, but lower grades all returned less. For example, true junk credits (rated CC - D) gained 2.4%. The formula, "the higher the risk the greater the return", simply didn't apply this time.

G-6 countries' sovereign debt provided an average 2.2% in US dollars. The French, Italian and German sovereign debt gained 8.3%, 7.8% and 5.4%, respectively. Canada gained 3.0%, and the UK gained 2.5%. Only Japan bonds suffered a loss (-0.8%) as its currency fell against the dollar.

In a reversal from the prior quarter, emerging markets sovereigns turned in a 2.1% average return. Surprisingly, all EM sovereigns added value.

## **CASH EQUIVALENTS**

#### In Sync with Higher Fed Funds Rate

For the second straight quarter, there was an increase in short-term interest rates. Year-to-date, the Fed Funds rate has increased ½%. Accordingly, yields of ultra-short maturity Treasuries also climbed, but savers gained precious little, as the three-month bellwether T-bill returned a meager 0.2%. Even the 5-year Treasury added only 0.7%.

## **MARKET SUMMARY**

## **ECONOMIC STATISTICS**

	CURRENT QTR	LAST QTR
GDP	2.6	1.2
Unemployment	4.4	4.5
CPI All Items Year/Year	1.60	2.40
Fed Funds Rate	1.25	1.00
Industrial Capacity	76.6	75.8
US Dollars per Euro	1.14	1.07

## MAJOR INDEX QUARTER RETURNS

INDEX		PERFORMANCE
Russell 3000	3.0	
S&P 500	3.1	
Russell Mid	2.7	
Russell 2000	2.5	
MSCI EAFE	6.4	
MSCI Emg Mkts	6.4	
NCREIF ODCE	1.7	
Aggregate Index	1.4	
90 Day Tbills	0.2	

## **EQUITY RETURN DISTRIBUTIONS**

## **QUARTER**

	VAL	COR	GRO
LC	1.3	3.1	4.7
MC	1.4	2.7	4.2
SC	0.7	2.5	4.4

## TRAILING YEAR

	VAL	COR	GRO
LC	15.5	18.0	20.4
MC	15.9	16.5	17.0
SC	24.8	24.6	24.4

## MARKET SUMMARY

- \* GDP increased by 2.6% in Q2.
- \* Unemployment remained low at 4.4%
- \* CPI increased a modest 1.6% year over year.
- \* The dollar weakened relative to the euro.
- \* Grow style stocks beat their value style cousins across all market capitalizations. Larger names outperformed smaller ones.

#### INVESTMENT RETURN

On June 30th, 2017, the Essex Regional Retirement System's Essex Regional portfolio was valued at \$415,412,428, representing an increase of \$6,204,228 from the March quarter's ending value of \$409,208,200. Last quarter, the Fund posted withdrawals totaling \$8,772,087, which offset the portfolio's net investment return of \$14,976,315. Income receipts totaling \$8,920 plus net realized and unrealized capital gains of \$14,967,395 combined to produce the portfolio's net investment return.

For the cumulative period since June 2012, the fund has recorded net withdrawals totaling \$17.4 million and posted net investment gains of \$164.4 million. For the period since June 2012, if the total fund had returned a compound annual rate of 7.75% it would have been valued at \$375.1 million or \$40.3 million less than the actual value as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

In the second quarter, the Essex Regional portfolio gained 3.7%, which was 0.4% above the Custom Core Index's return of 3.3% and ranked in the 9th percentile of the Public Fund universe. Over the trailing year, the portfolio returned 12.7%, which was 1.3% greater than the benchmark's 11.4% performance, and ranked in the 37th percentile. Since June 2012, the portfolio returned 10.0% on an annualized basis and ranked in the 14th percentile. For comparison, the Custom Core Index returned an annualized 8.6% over the same period.

#### **PRIT Core**

The PRIT core portfolio returned 3.8% in the second quarter, 0.5% greater than the Custom Core Index's return of 3.3% and ranked in the 6th percentile of the Public Fund universe. Over the trailing

twelve-month period, the PRIT core portfolio returned 13.3%; that return was 1.9% greater than the benchmark's 11.4% return, and ranked in the 24th percentile. Since June 2012, this component returned 9.9% per annum and ranked in the 17th percentile. The Custom Core Index returned an annualized 8.6% over the same time frame.

## **Private Equity**

The Private Equity performance is based on the previous quarter's performance. As a result, a lagged version of the Cambridge Private Equity Index has been used to allow a more time-comparable comparison.

During the second quarter, the private equity segment returned 0.0%, which was 4.2% less than the Cambridge Private Equity (Lagged)'s return of 4.2%. Over the trailing year, this segment returned 2.5%, which was 15.1% below the benchmark's 17.6% return. Since June 2012, this component returned 8.5% annualized, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same time frame.

#### **Real Estate**

For the second quarter, the real estate component gained 0.7%, which was 1.0% below the NCREIF NFI-ODCE Index's return of 1.7%. Over the trailing twelve-month period, this segment returned 2.9%, which was 5.0% below the benchmark's 7.9% performance. Since June 2012, this component returned 18.5% on an annualized basis, while the NCREIF NFI-ODCE Index returned an annualized 11.8% over the same time frame.

## **EXECUTIVE SUMMARY**

I	PERFORMA	NCE SU	MMARY		
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	3.7	8.6	12.7	6.6	10.0
PUBLIC FUND RANK	(9)	(19)	(37)	(6)	(14)
Total Portfolio - Net	3.6	8.3	12.0	6.0	9.3
CUSTOM CORE IDX	3.3	7.6	11.4	5.4	8.6
PRIT Core - Gross	3.8	8.9	13.3	6.4	9.9
PUBLIC FUND RANK	(6)	(11)	(24)	(9)	(17)
CUSTOM CORE IDX	3.3	7.6	11.4	5.4	8.6
Private Equity - Gross	0.0	0.9	2.5	3.3	8.5
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5
Real Estate - Gross	0.7	-0.8	2.9	17.3	18.5
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8

ASSET A	ALLOCA	ATION
PRIT Core	96.5%	\$ 400,729,462
Private Equity	2.6%	10,878,955
Real Estate	0.2%	924,968
Cash	0.7%	2,879,043
Total Portfolio	100.0%	\$ 415,412,428

## INVESTMENT RETURN

 Market Value 3/2017
 \$ 409,208,200

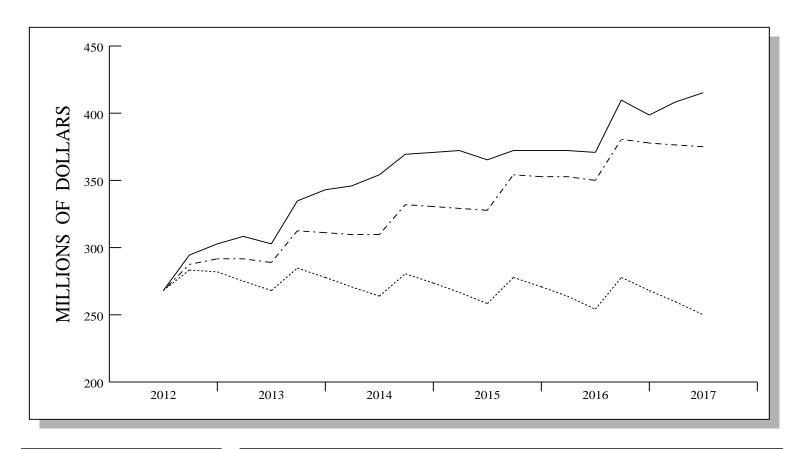
 Contribs / Withdrawals
 -8,772,087

 Income
 8,920

 Capital Gains / Losses
 14,967,395

 Market Value 6/2017
 \$ 415,412,428

## **INVESTMENT GROWTH**



------ ACTUAL RETURN
------ 7.75%
------ 0.0%

VALUE ASSUMING 7.75% RETURN \$ 375,112,320

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 409,208,200 - 8,772,087 \frac{14,976,315}{415,412,428}	\$ 268,454,929 - 17,400,296 164,357,795 \$ 415,412,428
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	8,920 14,967,395 14,976,315	25,664,017 138,693,778 164,357,795

Total Fund Assets \$ 415,412,428

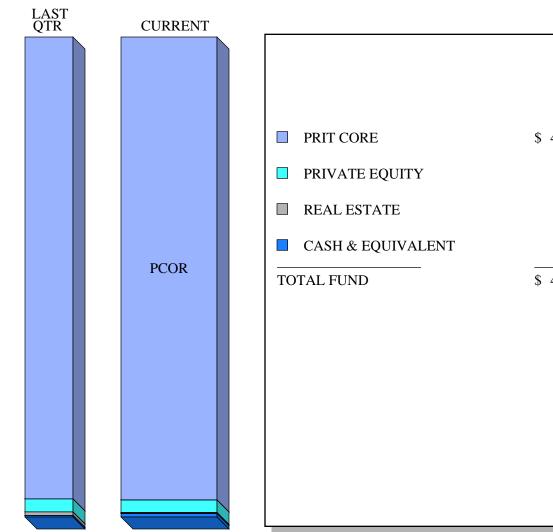
		Essex	Target				
	PRIT Fund Allocation	Allocation	Allocation	Target Dollars	Actual Dollars		+/- Dollars
PRIT Core Fund	100.00%	96.5%	90.0%	\$ 373,871,185	\$ 400,729,462	\$	26,858,277
Domestic Equity	20.1%	19.4%			\$ 80,706,914		
Int'l Equity	18.3%	17.6%			\$ 73,173,200		
E.M. Int'l Equity	7.8%	7.5%			\$ 31,136,679		
Core Fixed Income	12.1%	11.6%			\$ 48,287,900		
Value-Added Fixed Income*	8.2%	7.9%			\$ 33,020,108		
Real Estate	8.9%	8.5%			\$ 35,504,630		
Timber	3.8%	3.7%			\$ 15,187,647		
Private Equity	10.6%	10.2%			\$ 42,517,396		
Hedge Funds	8.0%	7.7%			\$ 31,938,138		
Liquidating Portfolio	0.4%	0.4%			\$ 1,522,772		
Risk Premia	0.9%	0.9%			\$ 3,566,492		
Cash Overlay	1.0%	1.0%			\$ 4,167,586		
Real Estate		0.2%	5.0%	\$ 20,770,621	\$ 924,968	\$	(19,845,653)
Intercontinental RE Fund IV		0.0%		-	\$ 28,061	-	
Principal Green Fund		0.0%			\$ 74,154		
Sentinel Realty Partners IV		0.0%			\$ 46,144		
TA Realty Associates Fund IX		0.2%			\$ 776,609		
Private Equity		2.6%	5.0%	\$ 20,770,621	\$ 10,878,955	\$	(9,891,666)
Ascent Venture Partner III		0.0%			\$ 111,862		
Ascent Venture Partner IV		0.1%			\$ 276,325		
Ascent Venture Partner V		0.8%			\$ 3,273,485		
Boston Milennia Partners I		0.0%			\$ 33,090		
Boston Milennia Partners II		0.1%			\$ 479,075		
BlackRock PEP IV		1.2%			\$ 5,190,201		
Levine Leichtman III		0.1%			\$ 612,229		
Levine Leichtman IV		0.2%			\$ 900,771		
Mass Tech Development		0.0%			\$ 1,917		
Cash Accounts		0.7%	0.0%	\$ -	\$ 2,879,043	\$	2,879,043
Depository Account		0.5%			\$ 1,970,952		
PRIT Cash		0.1%			\$ 502,653		
Pooled Funds Cash		0.1%			\$ 405,438		

\*Includes Distressed Debt

		Target		Ac	tual Allocation			
Essex Total Fund	Actual Allocation	Allocation	+/- Percent		(\$)	T	arget Allocation (\$)	+/- Dollars
Domestic Equity	19.4%	18.0%	1.4%	\$	80,706,914	\$	74,774,237	\$ 5,932,677
Int'l Equity	25.1%	26.0%	-0.9%	\$	104,309,879	\$	108,007,231	\$ (3,697,352)
Fixed Income	19.6%	23.0%	-3.4%	\$	81,308,008	\$	95,544,858	\$ (14,236,851)
Real Estate	3.9%	10.0%	-6.1%	\$	16,112,615	\$	41,541,243	\$ (25,428,628)
Timber	10.2%	4.0%	6.2%	\$	42,517,396	\$	16,616,497	\$ 25,900,899
Private Equity	11.2%	10.0%	1.2%	\$	46,383,585	\$	41,541,243	\$ 4,842,343
Hedge Funds	7.7%	9.0%	-1.3%	\$	31,938,138	\$	37,387,119	\$ (5,448,980)
Liquidating Portfolio	0.4%	0.0%	0.4%	\$	1,522,772	\$	-	\$ 1,522,772
Risk Premia	0.9%	0.0%	0.9%	\$	3,566,492	\$	-	\$ 3,566,492
Cash Overlay	1.0%	0.0%	1.0%	\$	4,167,586	\$	-	\$ 4,167,586
Cash	0.7%	0.0%	0.7%	\$	2,879,043	\$	<u>-</u>	\$ 2,879,043
	100.0%	100.0%		\$	415,412,428	\$	415,412,428	

# ESSEX REGIONAL RETIREMENT SYSTEM ALTERNATIVE ASSETS AS OF JUNE 30, 2017

Fund	Capital Balance	Capital Commitment	Paid-In Capital to Date	Distributions to Date	IRR Since Inception
Ascent Venture Partners III	\$111,862	\$2,000,000	\$1,860,000	\$2,262,543	4.0%
Ascent Venture Partners IV	\$276,325	\$2,000,000	\$2,000,000	\$311,176	-17.7%
Ascent Venture Partners V	\$3,273,485	\$3,500,000	\$3,080,000	\$1,994,242	10.9%
Boston Millennia Partners I	\$33,090	\$5,000,000	\$5,000,000	\$2,448,827	-8.0%
Boston Millennia Partners II	\$479,075	\$2,000,000	\$2,000,000	\$1,297,123	-1.4%
BlackRock PEP IV	\$5,190,201	\$8,000,000	\$7,040,000	\$4,849,859	8.1%
Levine Leichtman III	\$612,229	\$3,000,000	\$3,000,000	\$4,369,652	9.7%
Levine Leichtman IV	\$900,771	\$3,000,000	\$2,303,374	\$3,773,823	19.8%
Mass Tech	\$1,917	\$1,000,000	\$961,774	\$520,434	-13.6%
Intercontinental RE Fund III	\$28,061	\$2,000,000	\$2,000,000	\$3,219,779	6.4%
Principal Green Fund	\$74,154	\$5,500,000	\$5,129,788	\$8,019,858	15.2%
Sentinel Realty Partners IV	\$46,144	\$1,000,000	\$1,000,000	\$3,360,682	8.8%
TA Realty Associates Fund IX	\$776,609	\$4,500,000	\$4,500,000	\$4,364,246	10.5%



	VALUE	PERCENT	TARGET	DIFFERENCE _+ / -
■ PRIT CORE	\$ 400, 729, 462	96.5%	90.0%	6.5%
PRIVATE EQUITY	10, 878, 955	2.6%	5.0%	-2.4%
■ REAL ESTATE	924, 968	0.2%	5.0%	-4.8%
CASH & EQUIVALENT	2, 879, 043	0.7%	0.0%	0.7%
TOTAL FUND	\$ 415, 412, 428	100.0%		

## MANAGER PERFORMANCE SUMMARY - GROSS OF FEES

Composite         (Public Fund)         3.7 (9)         8.6 (19)         12.7 (37)         6.6 (6)         10.0 (14)         \$415,412,42           PRIT Core         (Public Fund)         3.8 (6)         8.9 (11)         13.3 (24)         6.4 (9)         9.9 (17)         \$400,729,46           Custom Core Idx         3.3         7.6         11.4         5.4         8.6            Ascent VP III         4.3         -8.8         -8.5         -16.6         4.6         \$111,86           Ascent VP IV         4.9         27.3         -49.0         -44.6         -24.4         \$276,32           Ascent VP V         1.2         4.0         10.3         8.5         15.7         \$32,073,48           BMP         1.0	96.5 0.0 0.1 0.8 0.0 0.1 1.2
Custom Core Idx       3.3       7.6       11.4       5.4       8.6          Ascent VP III       -4.3       -8.8       -8.5       -16.6       -4.6       \$111,86         Ascent VP IV       4.9       27.3       -49.0       -44.6       -24.4       \$276,32         Ascent VP V       1.2       4.0       10.3       8.5       15.7       \$3,273,48         BMP       0.0       0.0       0.0       80.5       50.6       \$33,09         BMP II       -5.0       -14.7       -13.8       3.2       3.6       \$479,07         BlackRock IV       0.0       1.8       5.7       6.0       9.2       \$5,190,20         Levine III       -6.0       -11.1       -12.0       3.0       4.9       \$612,22         Levine IV       2.0       0.2       4.5       10.2       13.8       \$900,77         Mass Tech       0.0       -10.5       52.3       -1.9       -27.7       \$1,91         Cambridge PE (Lag)       4.2       8.9       17.6       6.1       15.2       \$	0.0 0.1 0.8 0.0 0.1 1.2
Ascent VP III  Ascent VP IV  Ascent VP IV  Ascent VP V  1.2 4.0 10.3 49.0 44.6 24.4 \$276,32  Ascent VP V  1.2 4.0 10.3 8.5 15.7 \$3,273,48  BMP  0.0 0.0 0.0 0.0 80.5 50.6 \$33,09  BMP II  -5.014.713.8 3.2 3.6 \$479,07  BlackRock IV  0.0 1.8 5.7 6.0 9.2 \$5,190,20  Levine III  -6.011.112.0 3.0 4.9 \$612,22  Levine IV  2.0 0.2 4.5 10.2 13.8 \$900,77  Mass Tech  0.010.5 52.31.927.7 \$1,91  Cambridge PE (Lag)  4.2 8.9 17.6 10.3 15.2 \$28,060	0.0 0.1 0.8 0.0 0.1 1.2
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Ascent VP V	0.8 0.0 0.1 1.2
BMP       0.0	0.0 0.1 1.2
BMP II -5.014.713.8 3.2 3.6 \$479,070 BlackRock IV 0.0 1.8 5.7 6.0 9.2 \$5,190,200 Levine III -6.011.112.0 3.0 4.9 \$612,220 Levine IV 2.0 0.2 4.5 10.2 13.8 \$900,770 Mass Tech 0.010.5 52.31.927.7 \$1,910 Cambridge PE (Lag) 4.2 8.9 17.6 10.3 12.5 \$28,060 Minimals 1.0 \$2.1 \$2.1 \$2.1 \$2.1 \$2.1 \$2.2 \$2.	0.1 1.2
BlackRock IV       0.0       1.8       5.7       6.0       9.2       \$5,190,20         Levine III       -6.0       -11.1       -12.0       3.0       4.9       \$612,22         Levine IV       2.0       0.2       4.5       10.2       13.8       \$900,77         Mass Tech       0.0       -10.5       52.3       -1.9       -27.7       \$1,91         Cambridge PE (Lag)       4.2       8.9       17.6       10.3       12.5          Intercontinental       2.7       1.0       -2.1       6.1       15.2       \$28,06	1.2
Levine III       -6.0       -11.1       -12.0       3.0       4.9       \$612,22         Levine IV       2.0       0.2       4.5       10.2       13.8       \$900,77         Mass Tech       0.0       -10.5       52.3       -1.9       -27.7       \$1,91         Cambridge PE (Lag)       4.2       8.9       17.6       10.3       12.5          Intercontinental       2.7       1.0       -2.1       6.1       \$28,06	
Levine IV       2.0       0.2       4.5       10.2       13.8       \$900,77         Mass Tech       0.0       -10.5       52.3       -1.9       -27.7       \$1,91         Cambridge PE (Lag)       4.2       8.9       17.6       10.3       12.5          Intercontinental       2.7       1.0       -2.1       6.1       15.2       \$28,06	0.1
Mass Tech       0.0       -10.5       52.3       -1.9       -27.7       \$1,91         Cambridge PE (Lag)       4.2       8.9       17.6       10.3       12.5          Intercontinental       2.7       1.0       -2.1       6.1       15.2       \$28,06	0.1
Cambridge PE (Lag)       4.2       8.9       17.6       10.3       12.5          Intercontinental       2.7       1.0       -2.1       6.1       15.2       \$28,06	0.2
Intercontinental 2.7 1.0 6.1 \$28,06	0.0
Principal 5.0 4.5 12.0 46.4 \$74,15	0.0
	0.0
Sentinel Realty 8.9 8.5 2.5 18.0 \$46,14	0.0
TA Realty 0.11.4 2.3 10.4 \$776,60	0.2
NCREIF ODCE 1.7 3.5 7.9 11.3 11.8	
Depository Account \$1,970,95	0.5
PRIT Cash \$502,65	0.1
Pooled Funds Cash \$405,43	0.1
90 Day Tbills 0.2 0.4 0.6 0.3 0.2	

## MANAGER VALUE ADDED

## **Trailing Quarter**

Manager	Benchmark	Value Added Vs. Benchmark
PRIT Core	Custom Core Io	dx 0.5
Ascent VP III	Cambridge PE	(Lag) -8.5
Ascent VP IV	Cambridge PE	(Lag) 0.7
Ascent VP V	Cambridge PE	(Lag) -3.0
BMP	Cambridge PE	(Lag) -4.2
BMP II	Cambridge PE	(Lag) -9.2
BlackRock IV	Cambridge PE	(Lag) -4.2
Levine III	Cambridge PE	(Lag) -10.2
Levine IV	Cambridge PE	(Lag) -2.2
Mass Tech	Cambridge PE	(Lag) -4.2
Intercontinental	NCREIF ODC	E 1.0
Principal	NCREIF ODC	E 3.3
Sentinel Realty	NCREIF ODC	E 7.2
TA Realty	NCREIF ODC	E -1.6
Total Portfolio	<b>Custom Core</b>	<b>Idx</b> 0.4 <b>■</b>

## **Trailing Year**

Manager	Benchmark	Value Added Vs. Benchmark
PRIT Core	Custom Core Id	1.9 <b>[</b>
Ascent VP III	Cambridge PE	(Lag) -26.1
Ascent VP IV	Cambridge PE	(Lag) -66.6
Ascent VP V	Cambridge PE	(Lag) -7.3
BMP	Cambridge PE	(Lag) -17.6
BMP II	Cambridge PE	(Lag) -31.4
BlackRock IV	Cambridge PE	(Lag) -11.9
Levine III	Cambridge PE	(Lag) -29.6
Levine IV	Cambridge PE	(Lag) -13.1
Mass Tech	Cambridge PE	(Lag) 34.7
Intercontinental	NCREIF ODCE	-10.0
Principal	NCREIF ODCE	4.1
Sentinel Realty	NCREIF ODCE	-5.4
TA Realty	NCREIF ODCE	-5.6
<b>Total Portfolio</b>	<b>Custom Core I</b>	<b>dx</b> 1.3

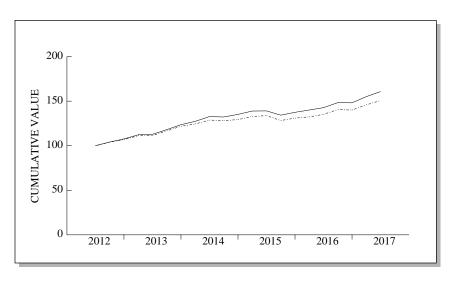
## MANAGER ALLOCATION SUMMARY

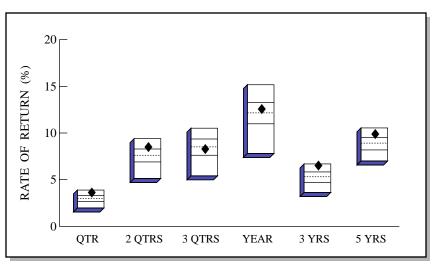
Prior Quarter Market Value	0/0	Fund Name	Style	Current Quarter Market Value	%
\$393,837,947	96.2	PRIT Core	(PCOR)	\$400,729,462	96.5
\$116,882	0.0	Ascent VP III	(PREQ)	\$111,862	0.0
\$263,378	0.1	Ascent VP IV	(PREQ)	\$276,325	0.1
\$3,165,287	0.8	Ascent VP V	(PREQ)	\$3,273,485	0.8
\$33,090	0.0	BMP	(PREQ)	\$33,090	0.0
\$505,307	0.1	BMP II	(PREQ)	\$479,075	0.1
\$5,390,201	1.3	BlackRock IV	(PREQ)	\$5,190,201	1.2
\$684,538	0.2	Levine III	(PREQ)	\$612,229	0.1
\$888,409	0.2	Levine IV	(PREQ)	\$900,771	0.2
\$1,917	0.0	Mass Tech	(PREQ)	\$1,917	0.0
\$27,331	0.0	Intercontinental	(REAL)	\$28,061	0.0
\$70,627	0.0	Principal	(REAL)	\$74,154	0.0
\$42,373	0.0	Sentinel Realty	(REAL)	\$46,144	0.0
\$2,948,289	0.7	TA Realty	(REAL)	\$776,609	0.2
\$324,948	0.1	Depository Account	(CASH)	\$1,970,952	0.5
\$2,215	0.0	PRIT Cash	(CASH)	\$502,653	0.1
\$905,461	0.2	Pooled Funds Cash	(CASH)	\$405,438	0.1
\$409,208,200	100.0	Composite		\$415,412,428	100.0

## INVESTMENT RETURN SUMMARY - ONE QUARTER

	Quarter Total	Market Value	Net	Net Investment	Market Value
Name	Return	March 31st, 2017	Cashflow	Return	June 30th, 2017
PRIT Core (PCOR)	3.8	393,837,947	-8,069,927	14,961,442	400,729,462
Ascent VP III (PREQ)	-4.3	116,882	0	-5,020	111,862
Ascent VP IV (PREQ)	4.9	263,378	0	12,947	276,325
Ascent VP V (PREQ)	1.2	3,165,287	70,000	38,198	3,273,485
BMP (PREQ)	0.0	33,090	0	0	33,090
BMP II (PREQ)	-5.0	505,307	0	-26,232	479,075
BlackRock IV (PREQ)	0.0	5,390,201	-200,000	0	5,190,201
Levine III (PREQ)	-6.0	684,538	-32,827	-39,482	612,229
Levine IV (PREQ)	2.0	888,409	-5,785	18,147	900,771
Mass Tech (PREQ)	0.0	1,917	0	0	1,917
Intercontinental (REAL)	2.7	27,331	0	730	28,061
Principal (REAL)	5.0	70,627	0	3,527	74,154
Sentinel Realty (REAL)	8.9	42,373	0	3,771	46,144
TA Realty (REAL)	0.1	2,948,289	-2,171,050	-630	776,609
Depository Account (CASH)		324,948	1,646,004	0	1,970,952
PRIT Cash (CASH)		2,215	493,269	7,169	502,653
Pooled Funds Cash (CASH)		905,461	-501,771	1,748	405,438
Total Portfolio	3.7	409,208,200	-8,772,087	14,976,315	415,412,428

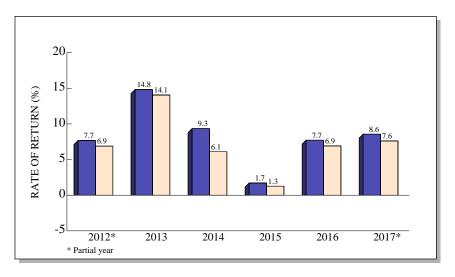
## TOTAL RETURN COMPARISONS





Public Fund Universe



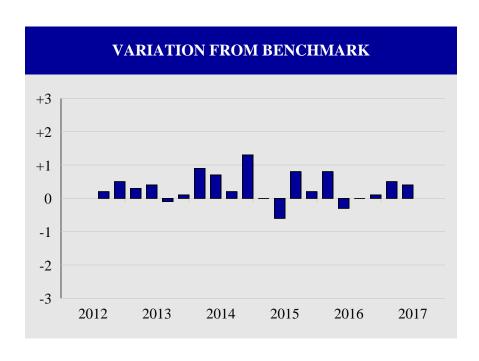


					ANNUA	ALIZED
	_QTR	2 QTRS	3 QTRS	YEAR_	3 YRS	5 YRS
RETURN	3.7	8.6	8.4	12.7	6.6	10.0
(RANK)	(9)	(19)	(54)	(37)	(6)	(14)
5TH %ILE	3.9	9.4	10.5	15.2	6.7	10.5
25TH %ILE	3.3	8.3	9.4	13.3	5.8	9.5
MEDIAN	3.0	7.6	8.5	12.2	5.3	8.9
75TH %ILE	2.6	6.9	7.6	11.0	4.7	8.2
95TH %ILE	2.0	5.1	5.4	7.8	3.6	7.0
PRIT Index	3.3	7.6	7.3	11.4	5.4	8.6

Public Fund Universe

## TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: CUSTOM CORE INDEX



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	17
<b>Quarters Below the Benchmark</b>	3
Batting Average	.850

RATES OF RETURN							
Date	Portfolio	Benchmark	Difference				
9/12	4.2	4.0	0.2				
12/12	3.3	2.8	0.5				
3/13	4.3	4.0	0.3				
6/13	0.5	0.1	0.4				
9/13	4.6	4.7	-0.1				
12/13	4.7	4.6	0.1				
3/14	3.0	2.1	0.9				
6/14	4.2	3.5	0.7				
9/14	-0.3	-0.5	0.2				
12/14	2.2	0.9	1.3				
3/15	2.7	2.7	0.0				
6/15	0.1	0.7	-0.6				
9/15	-3.4	-4.2	0.8				
12/15	2.4	2.2	0.2				
3/16	1.9	1.1	0.8				
6/16	1.9	2.2	-0.3				
9/16	3.9	3.9	0.0				
12/16	-0.2	-0.3	0.1				
3/17	4.7	4.2	0.5				
6/17	3.7	3.3	0.4				

## PRIT MANAGER RETURNS AND ALLOCATIONS AS OF JUNE 30, 2017

		A	ANNUALIZE	D	
PORTFOLIO	QTR	1 YEAR	3 YEARS	5 YEARS	% Allocation
<b>Domestic Equity</b>	3.0	18.6	8.8	14.4	19.8
SSgA S&P 500	3.1	18.0	9.5	14.6	15.5
Summit Creek	8.1	20.1	6.7		0.4
Frontier	-0.4	21.2	7.7		0.5
Huber	3.1	26.4	-2.0		0.4
RiverBridge	7.1	21.9	10.1		0.3
SSgA Russell 2500	2.1	20.0	7.0	13.9	2.7
S&P 500	3.1	17.9	9.6	14.6	
Russell 2500	2.1	19.8	6.9	14.0	
International Equity	6.9	20.2	2.6	9.9	18.0
SSgA World Ex-US	6.2	20.5	1.6	9.2	7.4
Marathon Asset Management	7.6	20.5	3.4	11.0	4.3
Baillie Gifford	9.0	21.2	4.4	10.8	3.4
Mondrian	3.9	15.0	1.5	9.2	1.4
FIS	7.4	16.9	2.7		0.2
Timesquare	10.4				0.4
Strategic Global Advisors	7.3				0.2
Acadian Intl Small Cap	6.9				0.5
LMCG	7.2				0.2
AQR Intl Small Cap	8.1				0.2
MSCI EAFE	6.4	20.8	1.6	9.2	
ACWI EX US	6.0	21.0	1.3	7.7	
<b>Emerging Markets Equity</b>	7.0	28.2	3.0	5.6	7.9
SSgA Emerging Markets	5.9	23.4	1.6	4.6	2.0
AQR Emerging	7.6	32.4			0.9
Baillie Gifford EMM	9.5	35.9			1.2
Driehaus Capital	8.2	21.5			1.1
Harding Loevner	7.2	24.5			0.8
Pzena	5.3	34.9			1.0
Acadian	5.1	31.7	6.0	14.6	0.3
Wasatch	9.4	15.2	2.5	5.1	0.2
Acadian Frontier	5.2	37.0			0.2
City of London	3.9	26.5			0.2
MSCI Emerging Markets	6.4	24.2	1.5	4.3	

## PRIT MANAGER RETURNS AND ALLOCATIONS AS OF JUNE 30, 2017

		A	ANNUALIZE	D	
PORTFOLIO	QTR	1 YEAR	3 YEARS	5 YEARS	% Allocation
<b>Core Fixed Income</b>	1.6	-4.4	4.7	3.9	12.0
Blackrock Passive	1.4	-0.5	2.4	2.2	1.7
PIMCO Core	1.7	1.5	2.8	2.8	1.3
Loomis Sayles Core	1.7	1.3	3.6	3.7	1.7
Community Capital Management	1.2	-0.2	2.4	2.3	0.0
AFL - CIO Housing Investment	1.4	-0.2	2.5	2.2	0.2
Access Capital - ETI	0.9	0.6	2.6	2.5	0.2
Progress Mgr of Mgrs	1.6	1.1			0.2
BlackRock STRIPS	6.1	-10.1	8.4		2.0
Blackrock TIPS	-0.4	-0.7	0.6	0.3	2.7
Blackrock ILBs	-0.5	2.2	3.9	3.1	2.0
Barclays Aggregate	1.4	-0.3	2.5	2.2	
Barclays STRIPS 20+Yrs	6.1	-10.3	8.3		
Barclays US TIPS	-0.4	-0.6	0.6	0.3	
Barclays ILB US Hedged	-0.4	1.9	4.2	3.0	
Barclays Aggregate A or Better	1.3	-0.9	2.3	1.9	
Value-Added Fixed Income	2.2	10.3	2.8	5.1	8.1
Fidelity	2.1	11.3	4.3	7.2	0.5
Loomis Sayles High Yield	2.2	12.2	4.3	7.6	0.6
Shenkman	2.1	10.3	3.9	5.8	0.5
Eaton Vance	1.0	7.9	4.0	4.6	1.2
Voya	0.6	6.3	3.9	5.2	1.2
Ashmore	2.8	12.3	6.0	6.3	0.7
PIMCO EMD	2.0	7.9	4.4	5.1	0.5
Investec	3.8	7.6	-2.7	-0.4	0.3
Pictet	3.4	5.0	-2.7	-1.0	0.5
Stone Harbor	3.5	7.5	-3.1	-1.5	0.2
Distressed Debt	2.9	17.8	5.0	9.5	1.8
ML Master High Yield	2.1	12.8	4.5	6.9	
JPM EMBI	2.2	6.0	5.4	5.7	

## PRIT MANAGER RETURNS AND ALLOCATIONS AS OF JUNE 30, 2017

		A	ANNUALIZE	D	
PORTFOLIO	QTR	1 YEAR	3 YEARS	5 YEARS	% Allocation
Private Equity	6.3	21.3	16.3	17.9	10.6
Total Special Equity	7.2	24.8	17.1	18.4	7.7
Total Venture Capital	4.4	13.7	15.5	18.2	2.5
Cambridge Private Equity (Lagged)	4.2	17.6	10.3	12.5	
Private Real Estate	2.3	8.6	11.8	12.4	6.7
Invesco Core	2.2	9.1	12.6	12.9	1.5
Lasalle	1.8	7.8	10.7	11.8	2.6
AEW	2.0	8.2	12.5	12.4	2.2
JP Morgan	2.3	2.0	6.8	7.4	1.0
AEW Core Transition	3.0	0.6			0.5
PRIM - Core Real estate	-0.7				0.1
Non-Core	2.9	17.8	19.3	17.9	0.7
New Boston Urban I	0.1	-3.7	0.7	2.6	0.0
Portfolio Debt					-1.8
NCREIF ODCE	1.7	7.9	11.3	11.8	
REITS	2.6	1.3	4.9	8.4	2.3
Invesco Global REIT	28.9	27.1	12.3	13.3	0.0
Centersquare Global REIT	2.8	0.7	5.3	8.8	1.3
Presima	2.8	0.8			0.2
Brookfield	2.7	4.3			0.8
Transition					0.0
NAREIT	2.3	0.2	8.9	9.9	
FTSE EPRA NAREIT	3.7	3.1	4.8	8.1	

## PRIT MANAGER RETURNS AND ALLOCATIONS AS OF JUNE 30, 2017

		A	ANNUALIZE	D	
PORTFOLIO	QTR	1 YEAR	3 YEARS	5 YEARS	% Allocation
Timber	2.3	8.3	6.1	7.4	3.7
Forest	0.4	5.3	5.6	7.2	1.9
The Campbell Group	4.4	11.5	6.5	7.2	1.8
NCREIF Timber	0.7	3.4	5.5	7.2	
Hedge Funds (Net)	1.4	9.4	2.4	6.0	8.4
PAAMCO	1.0	7.0	-0.1	5.3	1.4
Direct Hedge Funds	1.4	9.9	3.0	6.1	7.0
HFRI FOF	0.6	6.3	1.5	3.8	
Risk Premia	-2.3	-7.2			0.9
Real Assets	1.1	13.7			0.2
Overlay	2.1	6.8	3.5		1.0
Clifton	3.3	10.3	4.2		0.4
Overlay Cash					0.6
Portable Alpha Wind Down (Net)	19.6	17.7	2.0	0.4	0.0
Austin Capital	1.2	73.8	20.7	3.6	0.0
Crestline	97.1	89.7	17.9	10.0	0.0
Strategic	-1.9	-7.5	-5.6	-2.9	0.0
HFRI FOF	0.6	6.3	1.5	3.8	
Natural Resources - Private	-3.0	20.2			0.3

All sleeve-level returns include cash allocations; the sum of the manager allocations may not add up to the total.

Source: PRIM Board

## **APPENDIX - MAJOR MARKET INDEX RETURNS**

Economic Data	Style	QTR	YTD	1 Year	3 years	5 Years
Consumer Price Index	Economic Data	0.5	1.5	1.6	0.9	1.3
Domestic Equity	Style	QTR	YTD	1 Year	3 years	5 Years
Russell 3000	Broad Equity	3.0	8.9	18.5	9.1	14.6
S&P 500	Large Cap Core	3.1	9.3	17.9	9.6	14.6
Russell 1000	Large Cap	3.1	9.3	18.0	9.3	14.7
Russell 1000 Growth	Large Cap Growth	4.7	14.0	20.4	11.1	15.3
Russell 1000 Value	Large Cap Value	1.3	4.7	15.5	7.4	13.9
Russell Mid Cap	Midcap	2.7	8.0	16.5	7.7	14.7
Russell Mid Cap Growth	Midcap Growth	4.2	11.4	17.0	7.8	14.2
Russell Mid Cap Value	Midcap Value	1.4	5.2	15.9	7.5	15.1
Russell 2000	Small Cap	2.5	5.0	24.6	7.4	13.7
Russell 2000 Growth	Small Cap Growth	4.4	10.0	24.4	7.6	14.0
Russell 2000 Value	Small Cap Value	0.7	0.5	24.8	7.0	13.4
International Equity	Style	QTR	YTD	1 Year	3 years	5 Years
MSCI All Country World Ex US	Foreign Equity	6.0	14.5	21.0	1.3	7.7
MSCI EAFE	Developed Markets Equity	6.4	14.2	20.8	1.6	9.2
MSCI EAFE Growth	Developed Markets Growth	7.7	17.0	16.1	3.2	9.6
MSCI EAFE Value	Developed Markets Value	5.1	11.6	25.7	0.0	8.7
MSCI Emerging Markets	Emerging Markets Equity	6.4	18.6	24.2	1.5	4.3
Domestic Fixed Income	Style	QTR	YTD	1 Year	3 years	5 Years
Bloomberg Barclays Aggregate Index	Core Fixed Income	1.4	2.3	-0.3	2.5	2.2
Bloomberg Barclays Capital Gov't Bond	Treasuries	1.2	1.9	-2.2	2.0	1.3
Bloomberg Barclays Capital Credit Bond	Corporate Bonds	2.4	3.7	1.8	3.4	3.7
Intermediate Aggregate	Core Intermediate	0.9	1.6	-0.2	2.0	1.9
ML/BoA 1-3 Year Treasury	Short Term Treasuries	0.2	0.4	-0.1	0.7	0.5
Citi High Yield BB & B Index	High Yield Bonds	2.1	4.4	11.4	4.1	6.2
Alternative Assets	Style	QTR	YTD	1 Year	3 years	5 Years
Bloomberg Barclays Global Treasury Ex US	S International Treasuries	2.8	5.5	-5.8	-2.1	-0.8
NCREIF NFI-ODCE Index	Real Estate	1.7	3.5	7.9	11.3	11.8
HFRI FOF Composite	Hedge Funds	0.7	3.1	6.4	1.5	3.8

## **APPENDIX - DISCLOSURES**

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

For all periods through December 2010:

26.0% Russell 3000 20.0% MSCI EAFE 5.0% MSCI Emerging Markets

15.0% Barclays Aggregate 5.0% CSFB Hi Yield 10.0% Cambridge Private Equity (Lagged) 10.0% NCREIF NFI-ODCE 4.0% NCREIF Timber 5.0% HFRI Fund of Funds Composite

For all periods Since December 2010:

24.0% Russell 3000 20.0% MSCI EAFE 5.0% MSCI Emerging Markets

13.0% Barclays Aggregate6.0% CSFB Hi Yield10.0% Cambridge Private Equity (Lagged)10.0% NCREIF NFI-ODCE4.0% NCREIF Timber8.0% HFRI Fund of Funds Composite

For all periods from August 2011 through January 2014:

19.0% Russell 300017.0% MSCI EAFE7.0% MSCI Emerging Markets14.0% Barclays Aggregate6.0% CSFB Hi Yield10.0% Cambridge Private Equity

10.0% NCREIF NFI-ODCE 4.0% NCREIF Timber 10.0% HFRI Fund of Funds Composite

3.0% Barclays US TIPS

For all periods since February 2014:

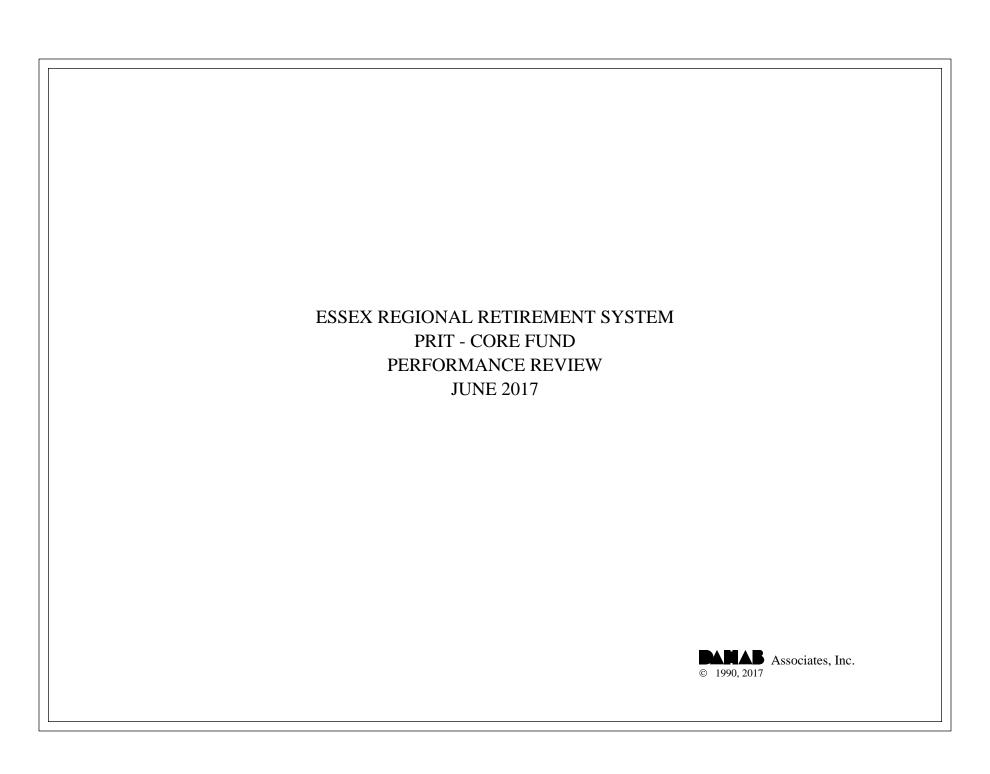
18.0% Russell 300016.0% MSCI EAFE6.0% MSCI Emerging Markets4.0% Barclays Aggregate6.0% CSFB Hi Yield10.0% Cambridge Private Equity

10.0% NCREIF NFI-ODCE 4.0% NCREIF Timber 9.0% HFRI Fund of Funds Composite

3.0% Barclays US TIPS 10.0% Barclays 5-10 Year Bond 4.0% MSCI All Country Ex-US

## **APPENDIX - DISCLOSURES**

- \* Dahab Associates utilizes data provided by a custodian and other vendors it believes are reliable. However, it cannot assume responsibility for errors and omissions therefrom.
- \* All returns were calculated on a time-weighted basis, and are gross of fees unless otherwise noted.
- \* All returns for periods greater than one year are annualized.
- \* Dahab Associates uses the modified duration measure to present average duration.
- \* All values are in US dollars.
- \* Returns for periods greater than one quarter incorporate performance figures sourced from Segal Rogerscasey. These figures have not been independently verified by Dahab Associates.



### **INVESTMENT RETURN**

On June 30th, 2017, the Essex Regional Retirement System's PRIT Core Fund was valued at \$400,729,462, representing an increase of \$6,891,515 from the March quarter's ending value of \$393,837,947. Last quarter, the Fund posted withdrawals totaling \$8,069,927, which offset the portfolio's net investment return of \$14,961,442. Since there were no income receipts for the second quarter, the portfolio's net investment return figure was the product of net realized and unrealized capital gains totaling \$14,961,442.

For the cumulative period since June 2012, the account has posted net contributions totaling \$18.3 million, and has recorded net investment gains totaling \$149.6 million. Since June 2012, if the portfolio had returned a compound annual rate of 7.75% it would have been valued at \$364.0 million or \$36.7 million less than its actual value as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Portfolio**

For the second quarter, the PRIT Core Fund returned 3.8%, which was 0.5% greater than the Custom Core Index's return of 3.3% and ranked in the 6th percentile of the Public Fund universe. Over the trailing year, the portfolio returned 13.3%, which was 1.9% above the benchmark's 11.4% performance, ranking in the 24th percentile. Since June 2012, the account returned 9.9% on an annualized basis and ranked in the 17th percentile. For comparison, the Custom Core Index returned an annualized 8.6% over the same period.

#### **PRIT Core**

The Core portfolio outperformed the benchmark in most of the invested sleeves in the second quarter, returning 3.9% compared to the benchmark's gain of 3.3%. International Equity holdings, which comprised 18.0% of the Core portfolio, returned 6.9%, or 70 basis points greater than the benchmark's 6.2% return. The Emerging

Markets, Hedge Funds, and Real Estate sleeves mirrored this margin of outperformance, beating their index counterparts by 0.9%, 0.8%, and 0.6%, respectively. Domestic Equity (19.8% allocation) – which represented the portfolio's most heavily weighted sleeve – edged out the benchmark by 10 basis points. The Core Fixed Income sleeve, conversely, underperformed by 10 basis points.

## **PRIT Domestic Equity**

The SSgA S&P 500 index fund (15.5% allocation) comprised more than three-quarters of the Domestic Equity sleeve, and returned 3.1%, predictably mirroring the performance of the benchmark on which it is based. Total Small/Smid Cap Equity segment (4.3% allocation) returned 2.8%, which was 60 basis points above the index's 2.2% gain.

Growth managers Summit Creek and Riverbridge delivered strong gains during the quarter, returning 8.1% and 7.1%, respectively. Frontier, one of the sleeve's Small Cap Value holdings, fared less well, losing 0.4%. The SSGA Russell 2500 index fund, which comprised 13.6% of the sleeve, gained 2.1%.

## **PRIT International Equity**

The International Equity sleeve (18.0%) outpaced the benchmark in the second quarter, gaining 6.9% against the custom index's 6.2% return. The sleeve returned 20.2%, 2.6%, and 9.9% for the one, three, and five-year periods.

The SSgA World Ex-US index fund – which comprised 41.1% of the sleeve – returned 6.2%, which was 30 basis points above the benchmark. International Equity Core holdings fared even better. Baillie Gifford (3.4% allocation) returned 9.0%, or 280 basis points ahead of the index, while Marathon-London returned 7.6%.

## **PRIT Emerging Markets Equity**

The Core segment of Emerging Markets managers was an area of great strength for the sleeve, as it gained 7.6% against the benchmark's 6.5% return. Baillie Gifford EMM rose 9.5%, and represented 15.2% of the sleeve's allocation, enlarging the positive effects. AQR and Driehaus also outperformed, gaining 7.6% and 8.2%, respectively. The SSgA Emerging Markets fund (25.3% sleeve weight) returned 5.9%, 10 basis points less than the benchmark.

For the one-year period, the sleeve gained 28.2% compared to the benchmark's 23.4% return, while the three- and five-year periods also outperformed.

## **PRIT Hedge Funds**

The HFRI Fund of Funds benchmark continued to offer a low performance hurdle in the second quarter, returning just 0.6%. For comparison, the Hedge Fund sleeve returned 1.4% over the same three-month period. Direct Hedge Funds (7.0% portfolio weight, or 83.3% of the sleeve) gained 1.4% for the quarter, and its significant allocation made it the determining factor of the sleeve's outperformance.

#### **PRIT Real Estate**

The PRIT Real Estate sleeve represented 9.1% of the PRIT portfolio (including 1.8% in debt), and returned 2.4% for the quarter, beating benchmark performance by 60 basis points. The Private Real Estate component – representing 73.6% of the sleeve – outpaced the NCREIF Property index (One quarter lag) by 70 basis points (2.3% vs. 1.6%), benefitting from a combination of outsized gains by Core and Non-Core positions. Invesco Core (1.5% allocation) returned 2.2%, which was 60 basis points higher than the index counterpart, while Lasalle (2.6% allocation) gained 1.8%. The Non-Core position was up 2.9%.

The sleeve's REIT component (2.3% combined allocation) underperformed the FTSE EPRA NAREIT Developed Net Total Return index (2.6% vs. 2.9%). For the one, three, and five-year periods, the REIT segment returned 1.3%, 4.9%, and 8.4%, outperforming the benchmark in each period.

#### **PRIT Fixed Income**

In the second quarter, the PRIT Core Fixed Income sleeve posted a 1.6% return, which was 10 basis points below the custom benchmark. Inflation-linked Bonds matched the custom index's 0.4% loss, and their 39.2% combined allocation made the segment a major tailwind to sleeve performance.

The sleeve's aggregate elements fared better, returning 1.6%, or 10 basis points greater than the Barclays Aggregate Index. The BlackRock STRIPS account, which represented 16.7% of the Core Fixed Income allocation, returned 6.1%, expectedly matching the Barclays US Treasury STRIPS 20+ Year Index for the quarter.

The Value-Added Fixed Income sleeve (8.1% portfolio allocation) delivered a strong performance in the second quarter, delivering a 2.1% gain compared to the benchmark's 1.0% return. Distressed Debt was the primary driver of outperformance: While the NYU Salomon Center Combined Defaulted Public Bond & Bank Loan index returned -2.3% in the second quarter, the portfolio's Distressed Debt position returned 2.8%, and its 22.2% sleeve weight enlarged the substantial performance surplus.

## **EXECUTIVE SUMMARY**

PERFORMANCE SUMMARY					
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	3.8	8.9	13.3	6.4	9.9
PUBLIC FUND RANK	(6)	(11)	(24)	(9)	(17)
Total Portfolio - Net	3.7	8.6	12.7	5.9	9.3
CUSTOM CORE IDX	3.3	7.6	11.4	5.4	8.6
PRIT Core - Gross	3.8	8.9	13.3	6.4	9.9
PUBLIC FUND RANK	(6)	(11)	(24)	(9)	(17)
CUSTOM CORE IDX	3.3	7.6	11.4	5.4	8.6

ASSET ALLOCATION			
PRIT Core	100.0%	\$ 400,729,462	
Total Portfolio	100.0%	\$ 400,729,462	

## INVESTMENT RETURN

 Market Value 3/2017
 \$ 393,837,947

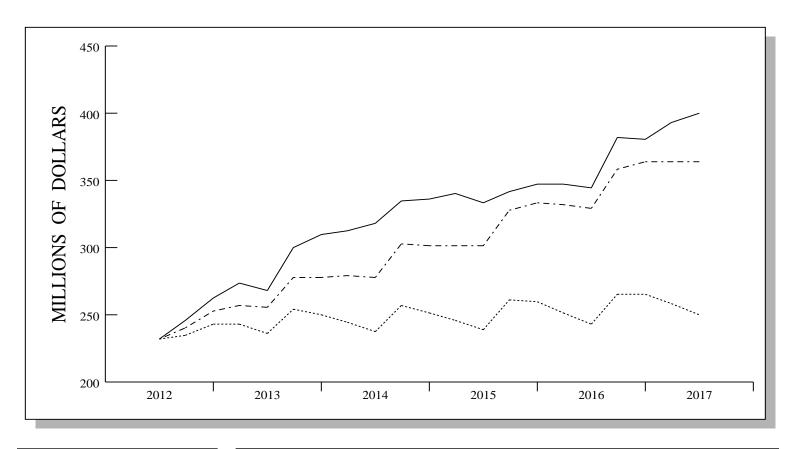
 Contribs / Withdrawals
 - 8,069,927

 Income
 0

 Capital Gains / Losses
 14,961,442

 Market Value 6/2017
 \$ 400,729,462

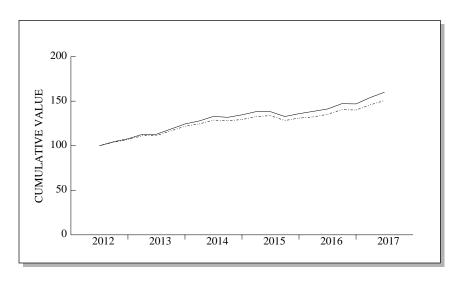
## **INVESTMENT GROWTH**

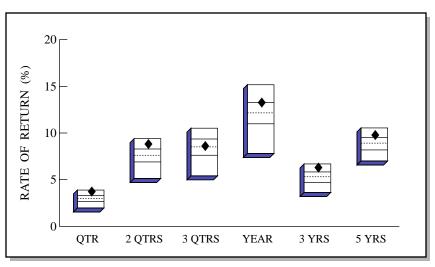


VALUE ASSUMING 7.75% RETURN \$ 363,990,251

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 393,837,947 - 8,069,927 \frac{14,961,442}{400,729,462}	\$ 232,824,662 18,338,737 149,566,063 \$ 400,729,462
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$ \begin{array}{r} 0 \\ \underline{14,961,442} \\ 14,961,442 \end{array} $	23,230,177 126,335,886 149,566,063

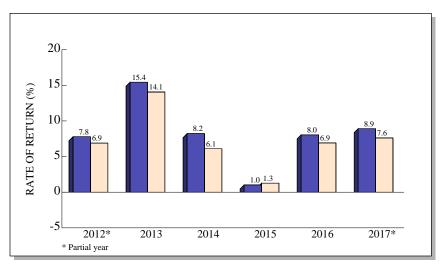
## TOTAL RETURN COMPARISONS





Public Fund Universe



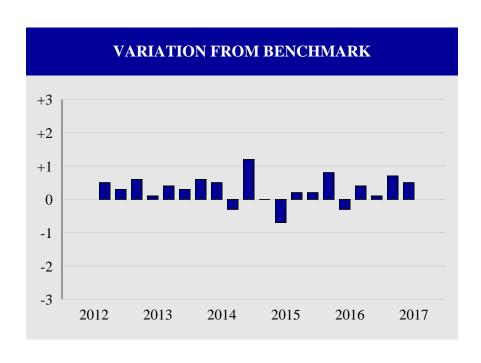


					ANNUA	ALIZED
	QTR	2 QTRS	3 QTRS	YEAR	3 YRS	5 YRS
RETURN	3.8	8.9	8.7	13.3	6.4	9.9
(RANK)	(6)	(11)	(41)	(24)	(9)	(17)
5TH %ILE	3.9	9.4	10.5	15.2	6.7	10.5
25TH %ILE	3.3	8.3	9.4	13.3	5.8	9.5
MEDIAN	3.0	7.6	8.5	12.2	5.3	8.9
75TH %ILE	2.6	6.9	7.6	11.0	4.7	8.2
95TH %ILE	2.0	5.1	5.4	7.8	3.6	7.0
PRIT Index	3.3	7.6	7.3	11.4	5.4	8.6

Public Fund Universe

## TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: CUSTOM CORE INDEX



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	17
<b>Quarters Below the Benchmark</b>	3
Batting Average	.850

RATES OF RETURN			
Date	Portfolio	Benchmark	Difference
9/12	4.5	4.0	0.5
12/12	3.1	2.8	0.3
3/13	4.6	4.0	0.6
6/13	0.2	0.1	0.1
9/13	5.1	4.7	
12/13	4.9	4.6	0.3
3/14	2.7	2.1	0.6
6/14	4.0	3.5	0.5
9/14	-0.8	-0.5	-0.3
12/14	2.1	0.9	0.0
3/15	2.7	2.7	
6/15	0.0	0.7	-0.7
9/15	-4.0	-4.2	0.2
12/15	2.4	2.2	0.2
3/16	1.9	1.1	0.8
6/16	1.9	2.2	-0.3
9/16	4.3	3.9	0.4
12/16	-0.2	-0.3	0.1
3/17	4.9	4.2	0.7
6/17	3.8	3.3	0.7

## **APPENDIX - DISCLOSURES**

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

26.0% Russell 3000	20.0% MSCI EAFE	5.0% MSCI Emerging Markets
15.0% Barclays Aggregate	5.0% CSFB Hi Yield	10.0% Cambridge Private Equity
10.0% NCREIF NFI-ODCE	4.0% NCREIF Timber	5.0% HFRI Fund of Funds Composite

## For all periods Since December 2010 through July 2011:

24.0% Russell 3000	20.0% MSCI EAFE	5.0% MSCI Emerging Markets
13.0% Barclays Aggregate	6.0% CSFB Hi Yield	10.0% Cambridge Private Equity
10.0% NCREIF NFI-ODCE	4.0% NCREIF Timber	8.0% HFRI Fund of Funds Composite

## For all periods from August 2011 through January 2014:

19.0% Russell 3000	17.0% MSCI EAFE	7.0% MSCI Emerging Markets
14.0% Barclays Aggregate	6.0% CSFB Hi Yield	10.0% Cambridge Private Equity
10.0% NCREIF NEL-ODCE	4 0% NCREIF Timber	10.0% HFRI Fund of Funds Composite

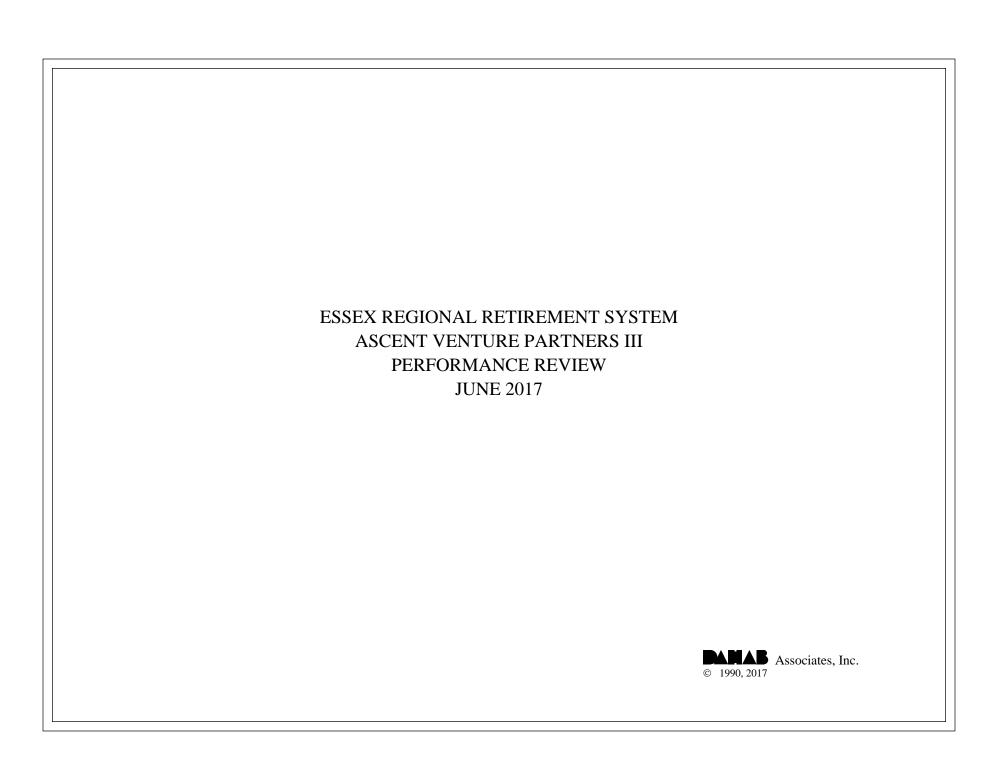
3.0% Barclays US TIPS

## For all periods since February 2014:

18.0% Russell 3000	16.0% MSCI EAFE	6.0% MSCI Emerging Markets
4.0% Barclays Aggregate	6.0% CSFB Hi Yield	10.0% Cambridge Private Equity
10.0% NCREIF NFI-ODCE	4.0% NCREIF Timber	9.0% HFRI Fund of Funds Composite
3.0% Barclays US TIPS	10.0% Barclays 5-10 Year Bond	4.0% MSCI All Country Ex-US

## For all periods since October 2015:

18.0% Russell 3000	16.0% MSCI EAFE	6.0% MSCI Emerging Markets
4.0% Barclays Aggregate	6.0% Citi BB & B Hi Yield	10.0% Cambridge Private Equity
10.0% NCREIF NFI-ODCE	4.0% NCREIF Timber	9.0% HFRI Fund of Funds Composite
3.0% Barclays US TIPS	10.0% Barclays 5-10 Year Bond	4.0% MSCI All Country Ex-US



#### INVESTMENT RETURN

On June 30th, 2017, the Essex Regional Retirement System's Ascent Venture Partners III portfolio was valued at \$111,862, a decrease of \$5,020 from the March ending value of \$116,882. Last quarter, the account recorded no net contributions or withdrawals, while recording a net investment loss for the quarter of \$5,020. Since there were no income receipts for the second quarter, net investment losses were the result of capital losses (realized and unrealized).

Since June 2012, the account has recorded net withdrawals totaling \$42,048, while posting net investment losses totaling \$29,594. Since June 2012, if the account had earned a compound annual rate of 7.75% it would have been valued at \$206,393 or \$94,531 more than the actual value as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

Performance was based on an Ascent Venture Partners statement that was unaudited and subject to revision. All stated returns carry a one-quarter lag.

For the second quarter, the Ascent Venture Partners III portfolio returned -4.3%, which was 8.5% below the Cambridge Private Equity (Lagged)'s return of 4.2%. Over the trailing year, the portfolio returned -8.5%, which was 26.1% below the benchmark's 17.6% return. Since June 2012, the portfolio returned -4.6% on an annualized basis, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same period.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Ascent Venture Partners' Fund III at the end of the quarter.

# Private Equity Investor Report Ascent Venture Partners III As of June 30, 2017

Market Value <sup>1</sup>	\$	111,862	Last Appraisal Date: 3/	31/2	2017
Initial Commitment	\$	2,000,000			
Paid-in Capital	\$	1,860,000	93.00%		
Remaining Commitment	\$	140,000	7.00%		
Net Gain/(Loss) <sup>2</sup>	\$	514,405			
Net IRR Since Inception <sup>2</sup>		4.0%			
Date	J	Paid-in Capital	% of Commitment	]	Distributions
1999	\$	-	0.00%	\$	-
2000	\$	760,000	38.00%	\$	-
2001	\$	360,000	18.00%	\$	-
2002	\$	220,000	11.00%	\$	-
2003	\$	200,000	10.00%	\$	(86,774)
2004	\$	60,000	3.00%	\$	(178,187)
2005	\$	140,000	7.00%	\$	(37,229)
2006	\$	100,000	5.00%	\$	(404,954)
2007	\$	20,000	1.00%	\$	(373,401)
2008	\$	-	0.00%	\$	(282,592)
1Q2009	\$	-	0.00%	\$	-
2Q2009	\$	-	0.00%	\$	-
3Q2009	\$	-	0.00%	\$	-
4Q2009	\$	-	0.00%	\$	(165,133)
1Q2010	\$	-	0.00%	\$	(580,334)
2Q2010	\$	-	0.00%	\$	-
3Q2010	\$	-	0.00%	\$	-
4Q2010	\$	-	0.00%	\$	(90,882)
1Q2011	\$	-	0.00%	\$	-
2Q2011	\$	-	0.00%	\$	-
3Q2011	\$	-	0.00%	\$	(21,009)
4Q2011	\$	-	0.00%	\$	-
1Q2012	\$	-	0.00%	\$	-
2Q2012	\$	-	0.00%	\$	(42,048)
Total	\$	1,860,000	93.00%	\$	(2,262,543)

<sup>1.</sup> Market Value as of last appraisal date, adjusted for any contributions and distributions since that time.

<sup>2.</sup> Values as of last appraisal date

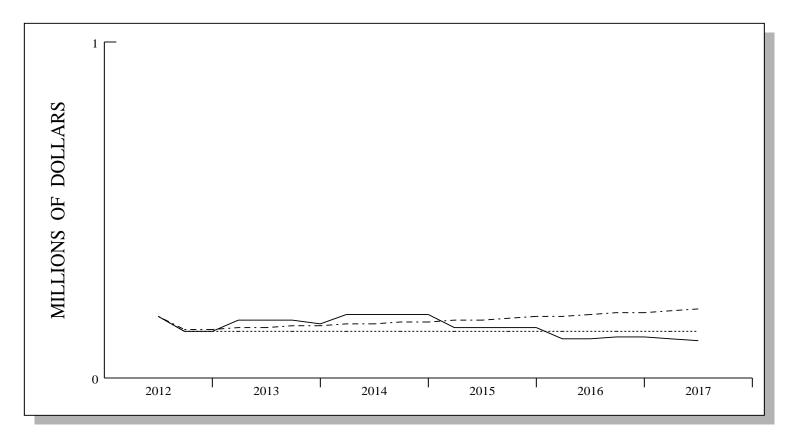
## **EXECUTIVE SUMMARY**

PERFORMANCE SUMMARY							
	Quarter	YTD	1 Year	3 Year	5 Year		
Total Portfolio - Gross	-4.3	-8.8	-8.5	-16.6	-4.6		
Total Portfolio - Net	-4.3	-8.8	-8.5	-16.6	-4.6		
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5		
Private Equity - Gross	-4.3	-8.8	-8.5	-16.6	-4.6		
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5		

ASSET ALLOCATION					
100.0%	\$ 111,862				
100.0%	\$ 111,862				
	100.0%				

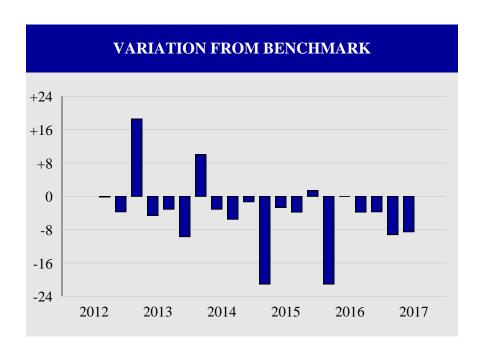
## INVESTMENT RETURN

Market Value 3/2017	\$ 116,882
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	- 5,020
Market Value 6/2017	\$ 111,862



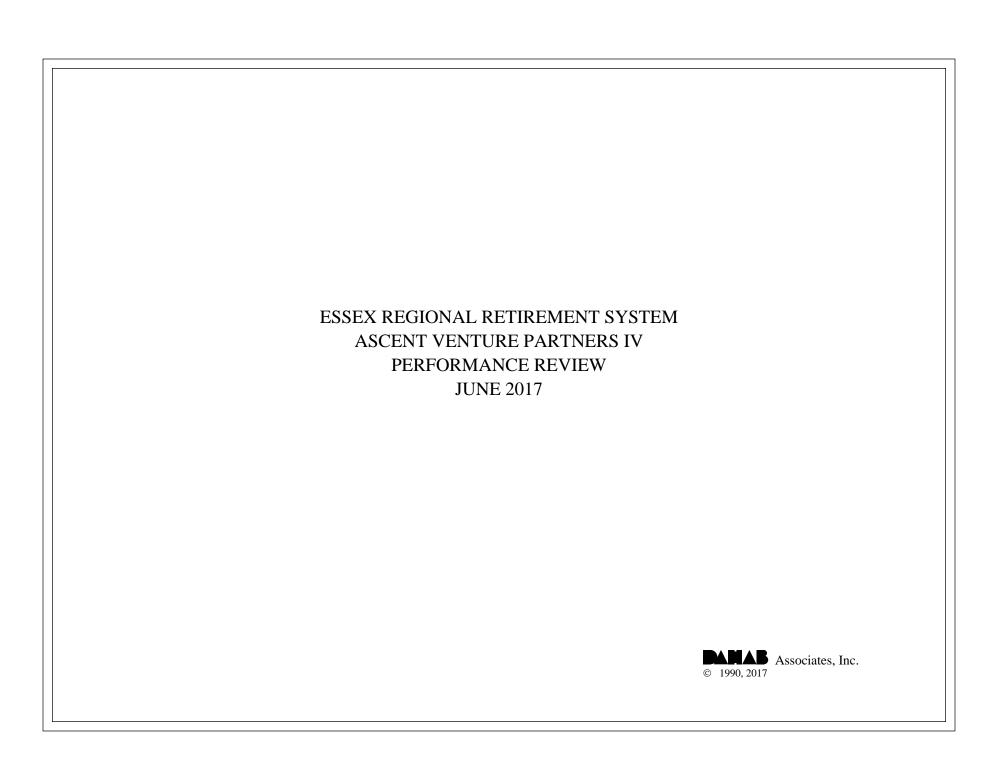
VALUE ASSUMING
7.75% RETURN \$ 206,393

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 116,882 0 -5,020 \$ 111,862	\$ 183,504 - 42,048 - 29,594 \$ 111,862
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	- 5,020 - 5,020	$ \begin{array}{r} 0 \\ -29,594 \\ -29,594 \end{array} $



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	4
Quarters Below the Benchmark	16
<b>Batting Average</b>	.200

RATES OF RETURN				
Date	Portfolio	Benchmark	Difference	
9/12	-0.2	0.0	-0.2	
12/12	0.0	3.7	-3.7	
3/13	22.3	3.7	18.6	
6/13	0.0	4.6	-4.6	
9/13	0.0	3.1	-3.1	
12/13	-4.7	5.0	-9.7	
3/14	17.0	7.0	10.0	
6/14	0.0	3.1	-3.1	
9/14	0.0	5.5	-5.5	
12/14	0.0	1.3	-1.3	
3/15	-20.2	0.9	-21.1	
6/15	0.0	2.7	-2.7	
9/15	0.1	3.9	-3.8	
12/15	-0.1	-1.5	1.4	
3/16	-20.6	0.5	-21.1	
6/16	0.1	0.1	0.0	
9/16	0.2	4.0	-3.8	
12/16	0.2	3.9	-3.7	
3/17	-4.7	4.5	-9.2	
6/17	-4.3	4.2	-8.5	



On June 30th, 2017, the Essex Regional Retirement System's Ascent Venture Partners IV portfolio was valued at \$276,325, representing an increase of \$12,947 from the March quarter's ending value of \$263,378. Last quarter, the Fund posted no net contributions or withdrawals, while posting \$12,947 in net investment returns. Since there were no income receipts for the second quarter, the portfolio's net investment return was the result of net realized and unrealized capital gains totaling \$12,947.

For the cumulative period since June 2012, the portfolio has posted net withdrawals totaling \$90,812, and net investment losses totaling \$943,225. For the period since June 2012, if the fund had returned a compound annual rate of 7.75% it would have been valued at \$1.8 million or \$1.5 million more than the actual value as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

Performance was based on an Ascent Venture Partners statement that was unaudited and subject to revision. All stated returns carry a one-quarter lag.

For the second quarter, the Ascent Venture Partners IV account gained 4.9%, which was 0.7% above the Cambridge Private Equity (Lagged)'s return of 4.2%. Over the trailing year, the account returned -49.0%, which was 66.6% less than the benchmark's 17.6% performance. Since June 2012, the Ascent Venture Partners IV portfolio returned -24.4% annualized, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same time frame.

#### ASSET ALLOCATION

The portfolio was fully invested in the Ascent Venture Partners' Fund IV at the end of the quarter.

# Private Equity Investor Report Ascent Venture Partners IV As of June 30, 2017

Market Value <sup>1</sup>	\$ 276,325	Last Appraisal Date: 3/31/2017
Initial Commitment	\$ 2,000,000	
Paid-in Capital	\$ 2,000,000	100.00%
Remaining Commitment	\$ -	0.00%
Net Gain/(Loss) <sup>2</sup>	\$ (1,412,499)	
Net IRR Since Inception <sup>2</sup>	-17.7%	

	% of				
Date	Pa	id-in Capital	Commitment	D	istributions
1Q2008	\$	1,200,000	60.00%	\$	(95,927)
2Q2008	\$	200,000	10.00%	\$	-
2Q2009	\$	100,000	5.00%	\$	-
3Q2009	\$	100,000	5.00%	\$	-
1Q2010	\$	-	-	\$	(60,961)
3Q2010	\$	140,000	7.00%	\$	-
1Q2011	\$	60,000	3.00%	\$	-
4Q2011	\$	100,000	5.00%	\$	-
4Q2012	\$	-	-	\$	(33,333)
4Q2014	\$	-	-	\$	(120,955)
3Q2015	\$	100,000	5.00%	\$	
Total	\$	2,000,000	100.00%	\$	(311,176)

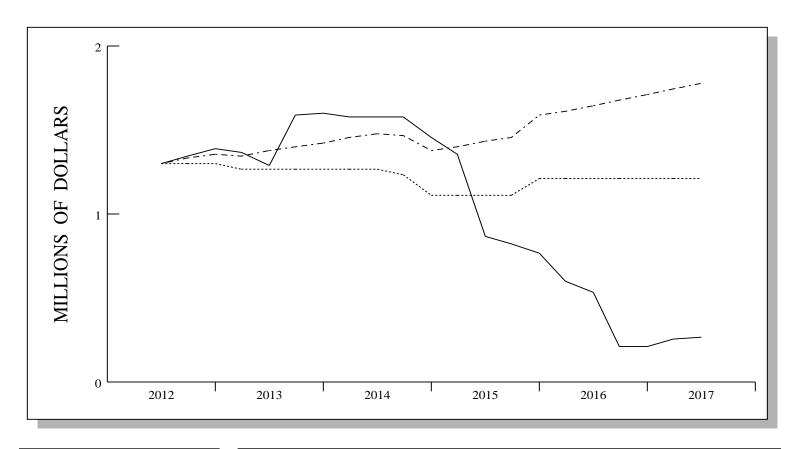
<sup>1.</sup> The Market Value reflects the last appraisal value adjusted for any contributions and distributions since that time.

<sup>2.</sup> Values as of last appraisal date

PERFORMANCE SUMMARY					
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	4.9	27.3	-49.0	-44.6	-24.4
Total Portfolio - Net	4.9	25.4	-53.1	-49.7	-30.9
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5
<b>Private Equity - Gross</b>	4.9	27.3	-49.0	-44.6	-24.4
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5

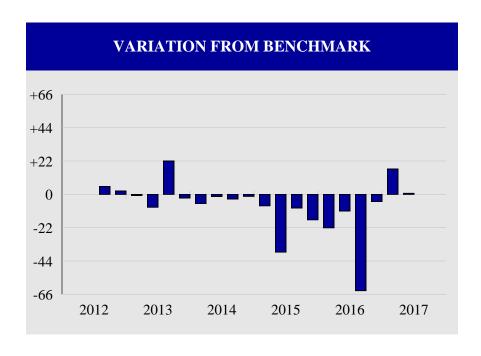
ASSET ALLOCATION				
Private Equity	100.0%	\$ 276,325		
Total Portfolio	100.0%	\$ 276,325		

Market Value 3/2017	\$ 263,378
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	12,947
Market Value 6/2017	\$ 276,325



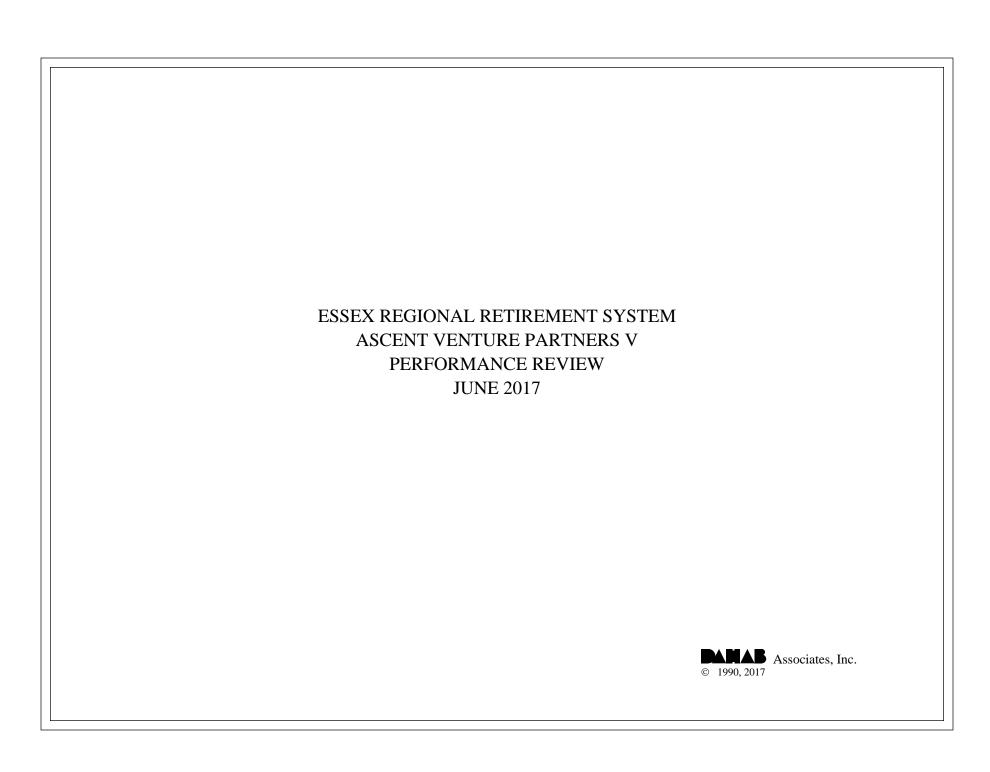
VALUE ASSUMING 7.75% RETURN \$ 1,778,236

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	$ \begin{array}{r} \$ 263,378 \\ 0 \\ 12,947 \\ \hline \$ 276,325 \end{array} $	\$ 1,310,362 - 90,812 -943,225 \$ 276,325
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$ \begin{array}{r} 0 \\ 12,947 \\ \hline 12,947 \end{array} $	$ \begin{array}{r} 0 \\ -943,225 \\ \hline -943,225 \end{array} $



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	5
<b>Quarters Below the Benchmark</b>	15
<b>Batting Average</b>	.250

RATES OF RETURN				
Date	Portfolio	Benchmark	Difference	
9/12	5.2	0.0	5.2	
12/12	6.0	3.7	2.3	
3/13	3.0	3.7	-0.7	
6/13	-3.9	4.6	-8.5	
9/13	25.2	3.1	22.1	
12/13	2.5	5.0	-2.5	
3/14	0.8	7.0	-6.2	
6/14	1.7	3.1	-1.4	
9/14	2.4	5.5	-3.1	
12/14	0.0	1.3	-1.3	
3/15	-6.7	0.9	-7.6	
6/15	-35.5	2.7	-38.2	
9/15	-5.2	3.9	-9.1	
12/15	-18.3	-1.5	-16.8	
3/16	-21.6	0.5	-22.1	
6/16	-11.0	0.1	-11.1	
9/16	-59.6	4.0	-63.6	
12/16	-0.9	3.9	-4.8	
3/17	21.3	4.5	16.8	
6/17	4.9	4.2	0.7	



On June 30th, 2017, the Essex Regional Retirement System's Ascent Venture Partners V portfolio was valued at \$3,273,485, representing an increase of \$108,198 from the March quarter's ending value of \$3,165,287. Last quarter, the Fund posted net contributions equaling \$70,000 plus a net investment gain equaling \$38,198. Since there were no income receipts during the quarter, the portfolio's net investment return was the result of net realized and unrealized capital gains totaling \$38,198.

Since June 2012, the account has posted net withdrawals totaling \$817,611 while recording net investment gains totaling \$2.0 million. Since June 2012, if the total portfolio had returned a compound annual rate of 7.75% it would have been valued at \$2.2 million or \$1.0 million less than the actual value as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

Performance was based on an Ascent Venture Partners statement that was unaudited and subject to revision. All stated returns carry a one-quarter lag.

For the second quarter, the Ascent Venture Partners V portfolio returned 1.2%, which was 3.0% below the Cambridge Private Equity (Lagged)'s return of 4.2%. Over the trailing year, the account returned 10.3%, which was 7.3% less than the benchmark's 17.6% performance. Since June 2012, the account returned 15.7% on an annualized basis, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same period.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Ascent Venture Partners' Fund V at the end of the quarter.

Private Equity Investor Report Ascent Venture Partners V As of June 30, 2017					
Market Value <sup>1</sup>	\$	3,273,485	Last Appraisal Date: 3/3	31/2	017
Initial Commitment	\$	3,500,000	00.000		
Paid-in Capital Remaining Commitment	\$ \$	3,080,000 420,000	88.00% 12.00%		
Net Gain/(Loss) <sup>2</sup>	\$ \$	2,187,727	12.00%		
Net IRR Since Inception <sup>2</sup>	φ	10.9%			
Date	Pa	id-in Capital	% of Commitment		Distributions
2008	\$	350,000	10.00%	\$	-
2009	\$	980,000	28.00%	\$	-
2010	\$	280,000	8.00%	\$	-
2Q2011	\$	(210,000)	-6.00%	\$	(44,147)
4Q2011	\$	350,000	10.00%	\$	-
1Q2012	\$	175,000	5.00%	\$	-
2Q2012	\$	(175,000)	-5.00%	\$	(32,183)
3Q2012	\$	245,000	7.00%	\$	-
2Q2013	\$	210,000	6.00%	\$	-
4Q2013	\$	210,000	6.00%	\$	-
4Q2014	\$	140,000	4.00%	\$	-
1Q2015	\$	-	0.00%	\$	(316,041)
2Q2015	\$	140,000	4.00%	\$	-
3Q2015	\$	245,000	7.00%	\$	(231,889)
1Q2016	\$	70,000	2.00%	\$	-
4Q2016	\$	-	0.00%	\$	(1,369,982)
1Q2017	\$	70,000	2.00%	\$	-

<sup>1.</sup> The Market Value reflects the last appraisal value adjusted for any contributions and distributions since that time.

**Total** 

3,080,000

88.00% \$

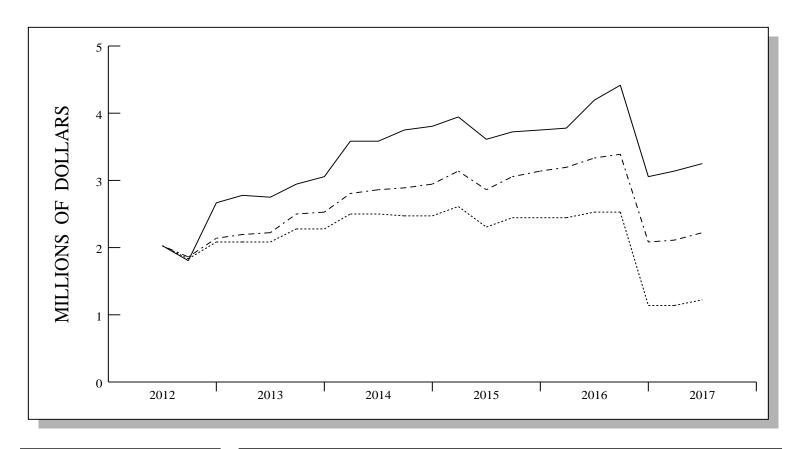
(1,994,242)

<sup>2.</sup> Values as of last appraisal date.

PERFORMANCE SUMMARY						
	Quarter	YTD	1 Year	3 Year	5 Year	
Total Portfolio - Gross	1.2	4.0	10.3	8.5	15.7	
Total Portfolio - Net	1.2	3.5	8.7	6.4	13.2	
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5	
Private Equity - Gross	1.2	4.0	10.3	8.5	15.7	
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5	

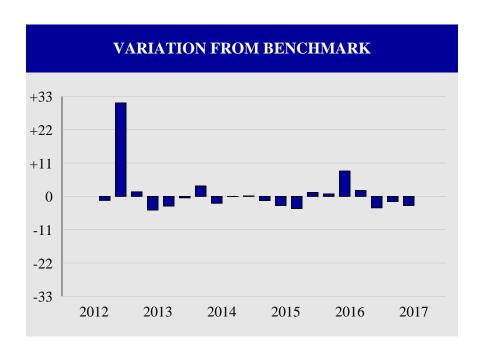
ASSET ALLOCATION					
Private Equity	100.0%	\$ 3,273,485			
Total Portfolio	100.0%	\$ 3,273,485			

Market Value 3/2017	\$ 3,165,287
Contribs / Withdrawals	70,000
Income	0
Capital Gains / Losses	38,198
Market Value 6/2017	\$ 3,273,485



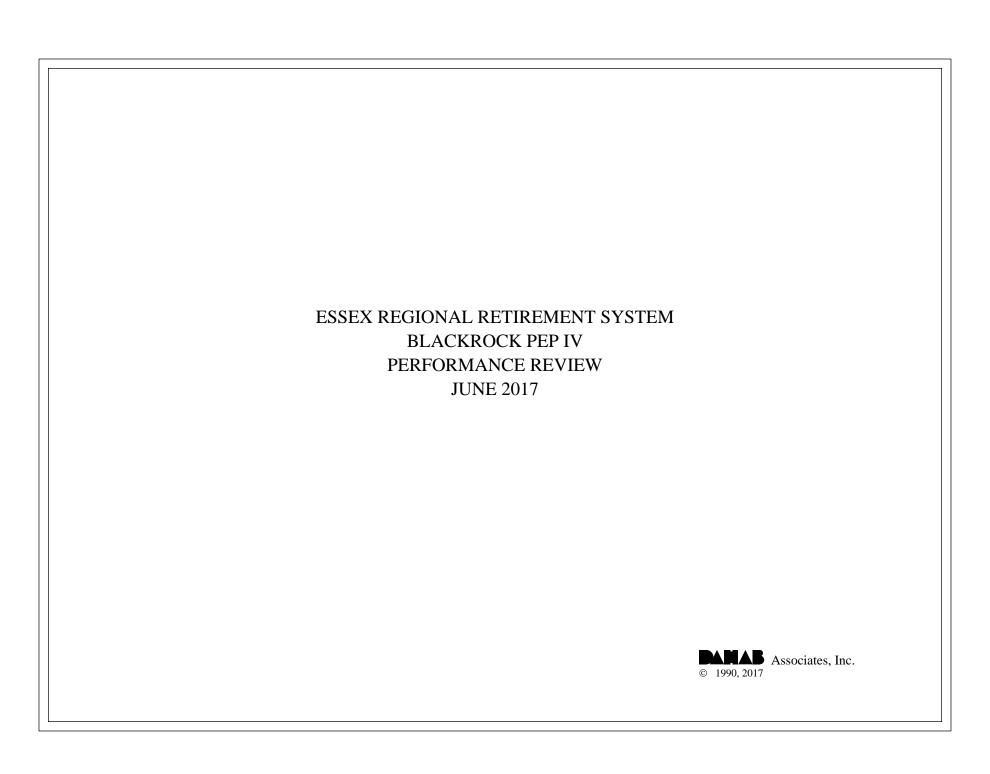
VALUE ASSUMING
7.75% RETURN \$ 2,245,122

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	$\begin{array}{c} \$ \ 3,165,287 \\ 70,000 \\ \hline 38,198 \\ \$ \ 3,273,485 \end{array}$	\$ 2,053,492 -817,611 2,037,604 \$ 3,273,485
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$\frac{0}{38,198} \\ \hline 38,198$	$ \begin{array}{c} 0 \\ 2,037,604 \\ \hline 2,037,604 \end{array} $



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	8
Quarters Below the Benchmark	12
Batting Average	.400

RATES OF RETURN					
Date	Portfolio	Benchmark	Difference		
9/12	-1.3	0.0	-1.3		
12/12	34.5	3.7	30.8		
3/13	5.2	3.7	1.5		
6/13	0.1	4.6	-4.5		
9/13	-0.1	3.1	-3.2		
12/13	4.5	5.0	-0.5		
3/14	10.4	7.0	3.4		
6/14	0.8	3.1	-2.3		
9/14	5.4	5.5	-0.1		
12/14	1.4	1.3	0.1		
3/15	-0.5	0.9	-1.4		
6/15	-0.4	2.7	-3.1		
9/15	-0.1	3.9	-4.0		
12/15	-0.2	-1.5	1.3		
3/16	1.3	0.5	0.8		
6/16	8.4	0.1	8.3		
9/16	5.9	4.0	1.9		
12/16	0.1	3.9	-3.8		
3/17	2.8	4.5	-1.7		
6/17	1.2	4.2	-3.0		



On June 30th, 2017, the Essex Regional Retirement System's BlackRock PEP IV portfolio was valued at \$5,190,201, a decrease of \$200,000 from the March ending value of \$5,390,201. Last quarter, the account recorded total net withdrawals of \$200,000 in contrast to flat net investment returns. Because there were no income receipts or capital gains or losses for the period, there were no net investment returns.

Since June 2012, the portfolio has posted net withdrawals totaling \$4.1 million and recorded \$3.1 million in net investment gains. For the period since June 2012, if the total fund had returned a compound annual rate of 7.75% it would have been worth \$4.5 million or \$727,603 less than its actual value as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

Performance was unavailable at the time of this report. A return of 0.0% was assumed.

Over the trailing year, the account returned 5.7%, which was 11.9% less than the benchmark's 17.6% performance. Since June 2012, the account returned 9.2% per annum, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same period.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the BlackRock Vesey Street Fund IV at the end of the quarter.

## Private Equity Investor Report BlackRock PEP IV As of June 30, 2017

Market Value <sup>1</sup>	\$ 5,190,201	Last Appraisal Date: 3/31/2017
Initial Commitment	\$ 8,000,000	
Paid-in Capital	\$ 7,040,000	88.00%
Remaining Commitment	\$ 960,000	12.00%
Net Gain (Loss) <sup>2</sup>	\$ 3,200,060	
IRR Since Inception <sup>2</sup>	8.1%	

	Paid-in	% of		ecallable		
Date	Capital	Commitment	Dis	stributions	D	istributions
4Q2007 - 4Q2008	\$ 2,320,000	29.00%	\$	-	\$	-
4Q2009	\$ 280,000	3.50%	\$	-	\$	-
1Q2010	\$ 280,000	3.50%	\$	-	\$	-
2Q2010	\$ 560,000	7.00%	\$	-	\$	-
3Q2010	\$ 320,000	4.00%	\$	-	\$	-
4Q2010	\$ 480,000	6.00%	\$	-	\$	-
1Q2011	\$ 400,000	5.00%	\$	-	\$	-
2Q2011	\$ 400,000	5.00%	\$	-	\$	-
4Q2011	\$ 640,000	8.00%	\$	-	\$	-
2Q2012	\$ 240,000	3.00%	\$	-	\$	-
3Q2013	\$ 80,000	1.00%	\$	-	\$	(329,859)
1Q2014	\$ 160,000	2.00%	\$	-	\$	(520,000)
2Q2014	\$ 320,000	4.00%	\$	-	\$	(560,000)
4Q2014	\$ 400,000	5.00%	\$	-	\$	(540,000)
1Q2015	\$ 160,000	2.00%	\$	-	\$	(500,000)
2Q2015	\$ -	0.00%	\$	-	\$	(340,000)
3Q2015	\$ -	0.00%	\$	-	\$	(580,000)
4Q2015	\$ -	0.00%	\$	-	\$	(300,000)
1Q2016	\$ -	0.00%	\$	-	\$	(460,000)
2Q2016	\$ -	0.00%	\$	-	\$	(280,000)
3Q2016	\$ -	0.00%	\$	-	\$	(240,000)
4Q2016	\$ -	0.00%	\$	-	\$	(200,000)
1Q2017	\$ -	0.00%	\$	-	\$	(200,000)
Total	\$ 7,040,000	88.00%	\$	-	\$	(5,049,859)

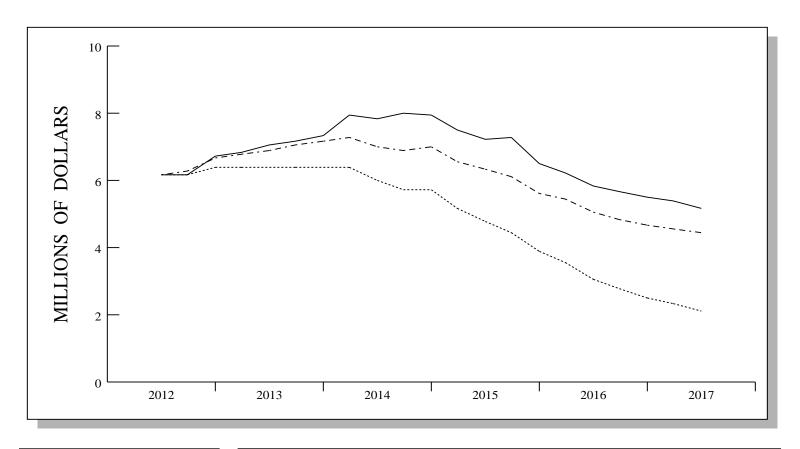
<sup>1.</sup> Market Value as of last appraisal date, adjusted for any contributions and distributions since that time.

<sup>2.</sup> Values as of last appraisal date

PERFORMANCE SUMMARY						
	Quarter	YTD	1 Year	3 Year	5 Year	
Total Portfolio - Gross	0.0	1.8	5.7	6.0	9.2	
Total Portfolio - Net	0.0	1.5	4.9	5.1	8.2	
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5	
<b>Private Equity - Gross</b>	0.0	1.8	5.7	6.0	9.2	
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5	

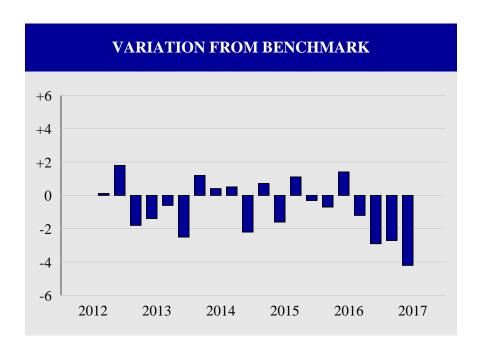
ASSET ALLOCATION					
Private Equity	100.0%	\$ 5,190,201			
Total Portfolio	100.0%	\$ 5,190,201			

Market Value 3/2017	\$ 5,390,201
Contribs / Withdrawals	-200,000
Income	0
Capital Gains / Losses	0
Market Value 6/2017	\$ 5,190,201



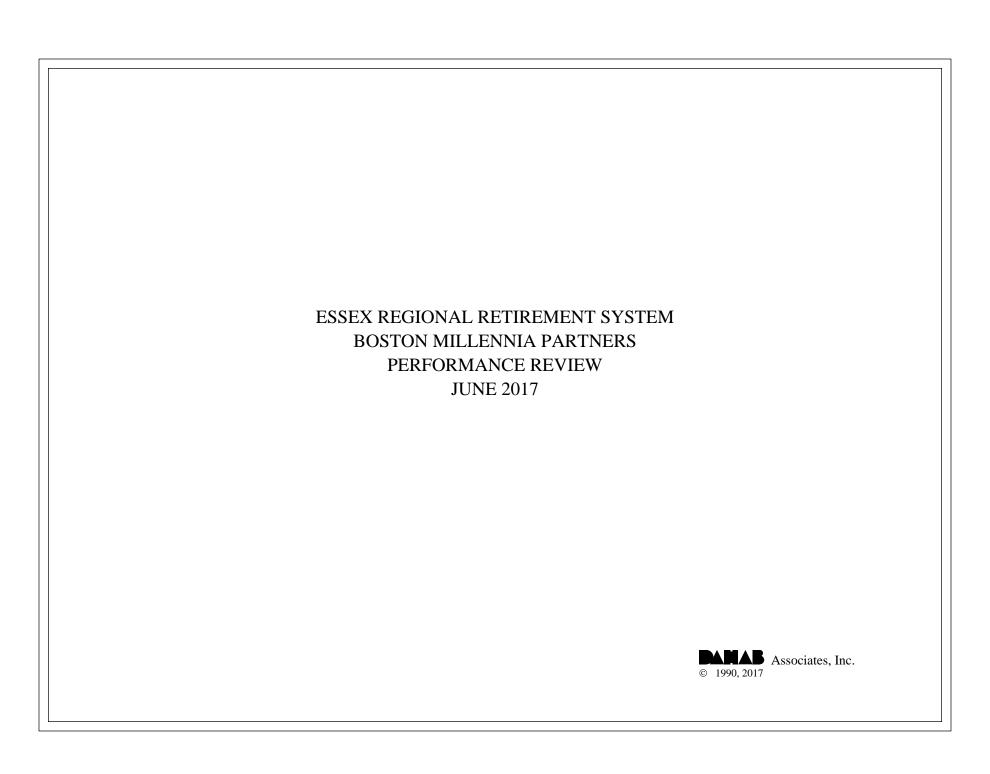
VALUE ASSUMING 7.75% RETURN \$ 4,462,598

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 5,390,201 -200,000 \frac{0}{\$ 5,190,201}	\$ 6,194,964 -4,060,084 <u>3,055,321</u> \$ 5,190,201
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	0 0	$ \begin{array}{r} 360 \\ 3,054,961 \\ \hline 3,055,321 \end{array} $



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	8
Quarters Below the Benchmark	12
Batting Average	.400

RATES OF RETURN							
Date	Portfolio	Benchmark	Difference				
9/12	0.1	0.0	0.1				
12/12	5.5	3.7	1.8				
3/13	1.9	3.7	-1.8				
6/13	3.2	4.6	-1.4				
9/13	2.5	3.1	-0.6				
12/13	2.5	5.0	-2.5				
3/14	8.2	7.0	1.2				
6/14	3.5	3.1	0.4				
9/14	6.0	5.5	0.5				
12/14	-0.9	1.3	-2.2				
3/15	1.6	0.9	0.7				
6/15	1.1	2.7	-1.6				
9/15	5.0	3.9	1.1				
12/15	-1.8	-1.5	-0.3				
3/16	-0.2	0.5	-0.7				
6/16	1.5	0.1	1.4				
9/16	2.8	4.0	-1.2				
12/16	1.0	3.9	-2.9				
3/17	1.8	4.5	-2.7				
6/17	0.0	4.2	-4.2				



On June 30th, 2017, the Essex Regional Retirement System's Boston Millennia Partners portfolio was valued at \$33,090.

For the cumulative period since June 2012, the portfolio has posted net withdrawals totaling \$715,382 in addition to net investment gains totaling \$576,178. For the period since June 2012, if the total account had earned a compound annual rate of 7.75% it would have been completely liquidated as of June 30th, 2017.

#### **RELATIVE PERFORMANCE**

#### **Total Fund**

The remaining funds in this account are being held for escrow to be released after an arbitration settlement has been reached with the buyer of PHT Corporation, the final underlying asset in the fund.

Since June 2012, the account returned 50.6% per annum, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same time frame.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Boston Millennia Partners Fund I at the end of the quarter.

Private Equity Investor Report Boston Millennia Partners I As of June 30, 2017										
Market Value <sup>1</sup> \$ 33,090 Last Appraisal Date: 12/31/2015										
Initial Commitment Paid-in Capital	\$ \$	5,000,000 5,000,000	100.00%							
Remaining Commitment	\$	-	0.00%							
Net Gains/(Loss) <sup>2</sup>	\$	(2,518,083)								
Net IRR Since Inception <sup>2</sup>		-8.0%								
			% of							
Date		Paid-in Capital	Commitment		<b>Distributions</b>					
2Q1998 - 4Q2006	\$	5,000,000	100.00%	\$	(1,630,519)					
2007	\$	-	0.00%	\$	(39,528)					
2008	\$	-	0.00%	\$	-					
4Q2009	\$	-	0.00%	\$	(63,712)					
2Q2013	\$	-	0.00%	\$	(55,043)					
2Q2015	\$		0.00%	\$	(660,025)					
Total	\$	5,000,000	100.00%	\$	(2,448,827)					

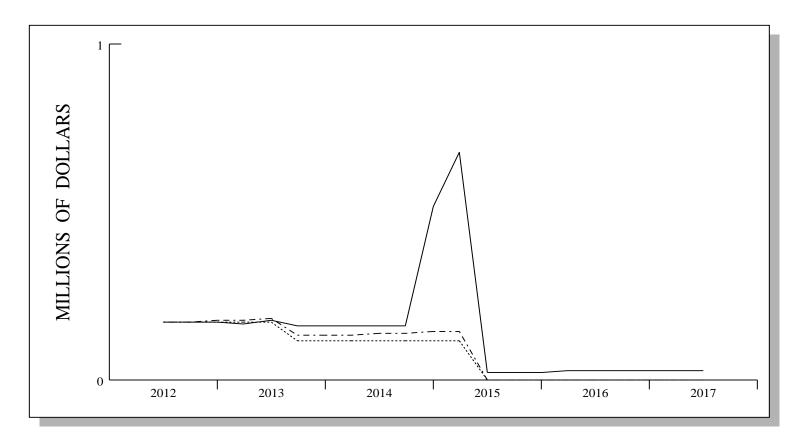
<sup>1.</sup> Market value as of last appraisal date, adjusted for any contributions and distributions since that time.

<sup>2.</sup> Values as of last appraisal date

PERFORMANCE SUMMARY								
Quarter YTD 1 Year 3 Year 5 Year								
Total Portfolio	0.0	0.0	0.0	80.5	50.6			
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5			
Private Equity	0.0	0.0	0.0	80.5	50.6			
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5			

ASSET ALLOCATION							
Private Equity	100.0%	\$ 33,090					
Total Portfolio	100.0%	\$ 33,090					

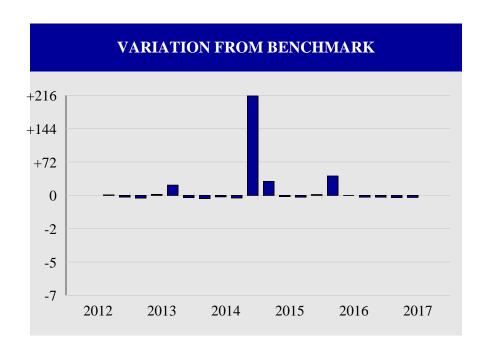
Market Value 3/2017	\$ 33,090
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	0
Market Value 6/2017	\$ 33,090



------ ACTUAL RETURN
------ 7.75%
------ 0.0%

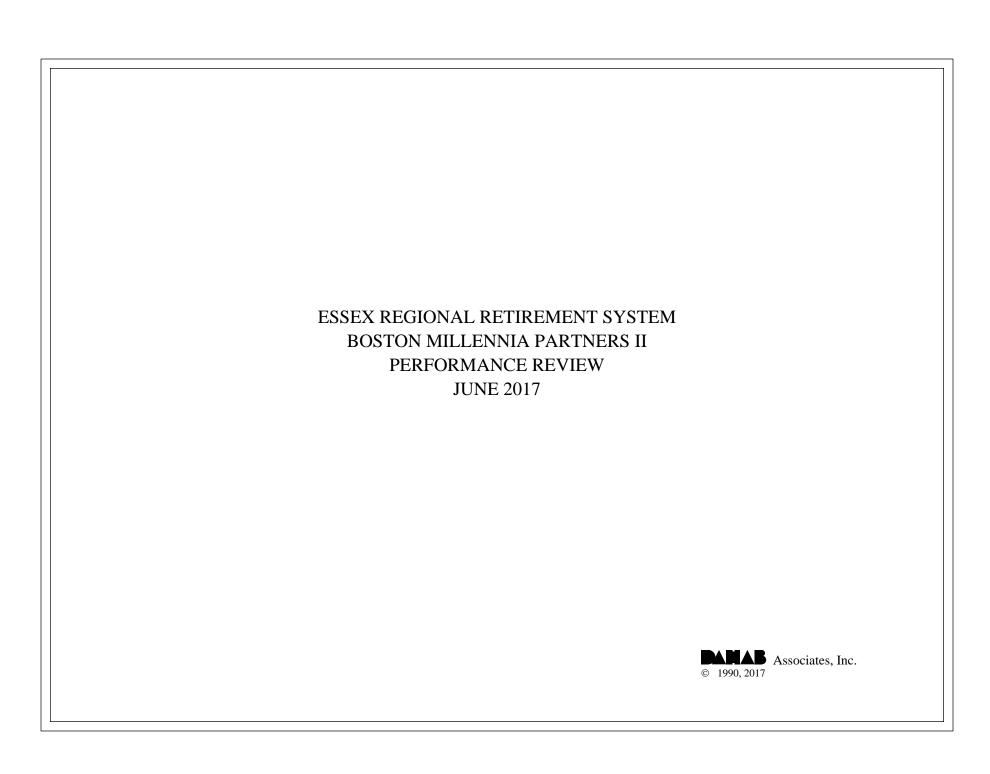
VALUE ASSUMING 7.75% RETURN \$ -597,147

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 33,090 0 0 \$ 33,090	\$ 172,294 -715,382 576,178 \$ 33,090
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$\begin{array}{c} 0 \\ 0 \\ 0 \end{array}$	576,178 576,178



Total Quarters Observed	20
Quarters At or Above the Benchmark	7
<b>Quarters Below the Benchmark</b>	13
Batting Average	.350

RATES OF RETURN							
Date	Portfolio	Benchmark	Difference				
9/12	1.0	0.0	1.0				
12/12	0.0	3.7	-3.7				
3/13	-2.0	3.7	-5.7				
6/13	6.6	4.6	2.0				
9/13	24.9	3.1	21.8				
12/13	0.0	5.0	-5.0				
3/14	0.0	7.0	-7.0				
6/14	0.0	3.1	-3.1				
9/14	0.0	5.5	-5.5				
12/14	215.6	1.3	214.3				
3/15	31.2	0.9	30.3				
6/15	0.0	2.7	-2.7				
9/15	0.0	3.9	-3.9				
12/15	0.0	-1.5	1.5				
3/16	42.0	0.5	41.5				
6/16	0.0	0.1	-0.1				
9/16	0.0	4.0	-4.0				
12/16	0.0	3.9	-3.9				
3/17	0.0	4.5	-4.5				
6/17	0.0	4.2	-4.2				



On June 30th, 2017, the Essex Regional Retirement System's Boston Millennia Partners II portfolio was valued at \$479,075, a decrease of \$26,232 from the March ending value of \$505,307. Last quarter, the account recorded no net contributions or withdrawals, while recording a net investment loss for the quarter of \$26,232. Since there were no income receipts for the second quarter, net investment losses were the result of capital losses (realized and unrealized).

Since June 2012, the account has recorded net withdrawals totaling \$498,582 while posting net investment gains totaling \$121,687. Since June 2012, if the account had earned a compound annual rate of 7.75% it would have been valued at \$657,985 or \$178,910 more than the actual value as of June 30th, 2017.

#### **RELATIVE PERFORMANCE**

#### **Total Fund**

Performance was based on a Boston Millenia Partners statement that was unaudited and subject to revision. All stated returns carry a one-quarter lag.

For the second quarter, the Boston Millennia Partners II portfolio returned -5.0%, which was 9.2% below the Cambridge Private Equity (Lagged)'s return of 4.2%. Over the trailing year, the portfolio returned -13.8%, which was 31.4% below the benchmark's 17.6% return. Since June 2012, the portfolio returned 3.6% on an annualized basis, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same period.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Boston Millennia Partners Fund II at the end of the quarter.

# Private Equity Investor Report Boston Millennia Partners II As of June 30, 2017

Market Value <sup>1</sup>	\$ 479,075	Last Appraisal Date: 3/31/2017
Initial Commitment	\$ 2,000,000	
Paid-in Capital	\$ 2,000,000	100.00%
Remaining Commitment	\$ -	0.00%
Net Gain/(Loss) <sup>2</sup>	\$ (223,802)	
Net IRR Since Inception <sup>2</sup>	-1.4%	

	Paid-in	% of	Re	callable		
Date	Capital	Commitment	Dist	ributions	D	istributions
1Q2000 - 4Q2006	\$ 1,680,000	84.00%	\$	-	\$	(502,054)
2007	\$ 160,000	8.00%	\$	-	\$	(8,023)
2008	\$ 60,000	3.00%	\$	-	\$	-
2009	\$ 30,000	1.50%	\$	-	\$	(230,259)
4Q2010	\$ 30,000	1.50%	\$	-	\$	(30,000)
2Q2012	\$ 40,000	2.00%	\$	-	\$	-
3Q2014	\$ -	0.00%	\$	-	\$	(257,808)
4Q2014	\$ -	0.00%	\$	-	\$	(147,603)
3Q2015	\$ -	0.00%	\$	-	\$	(54,784)
1Q2016	\$ -	0.00%	\$	-	\$	(59,231)
3Q2016	\$ -	0.00%	\$	-	\$	(7,361)
Total	\$ 2,000,000	100.00%	\$	-	\$	(1,297,123)

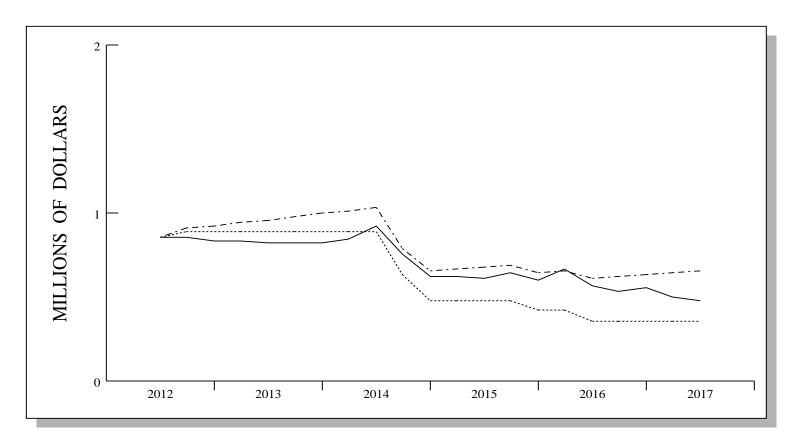
<sup>1.</sup> Market value as of last appraisal date, adjusted for any contributions and distributions since that time.

<sup>2.</sup> Values as of last appraisal date

PERFORMANCE SUMMARY								
Quarter YTD 1 Year 3 Year 5 Year								
Total Portfolio - Gross	-5.0	-14.7	-13.8	3.2	3.6			
Total Portfolio - Net	-5.2	-15.1	-14.5	2.1	2.1			
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5			
<b>Private Equity - Gross</b>	-5.0	-14.7	-13.8	3.2	3.6			
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5			

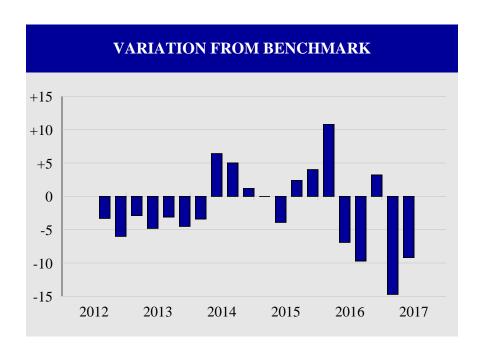
ASSET ALLOCATION				
Private Equity	100.0%	\$ 479,075		
Total Portfolio	100.0%	\$ 479,075		

Market Value 3/2017	\$ 505,307
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	- 26,232
Market Value 6/2017	\$ 479,075



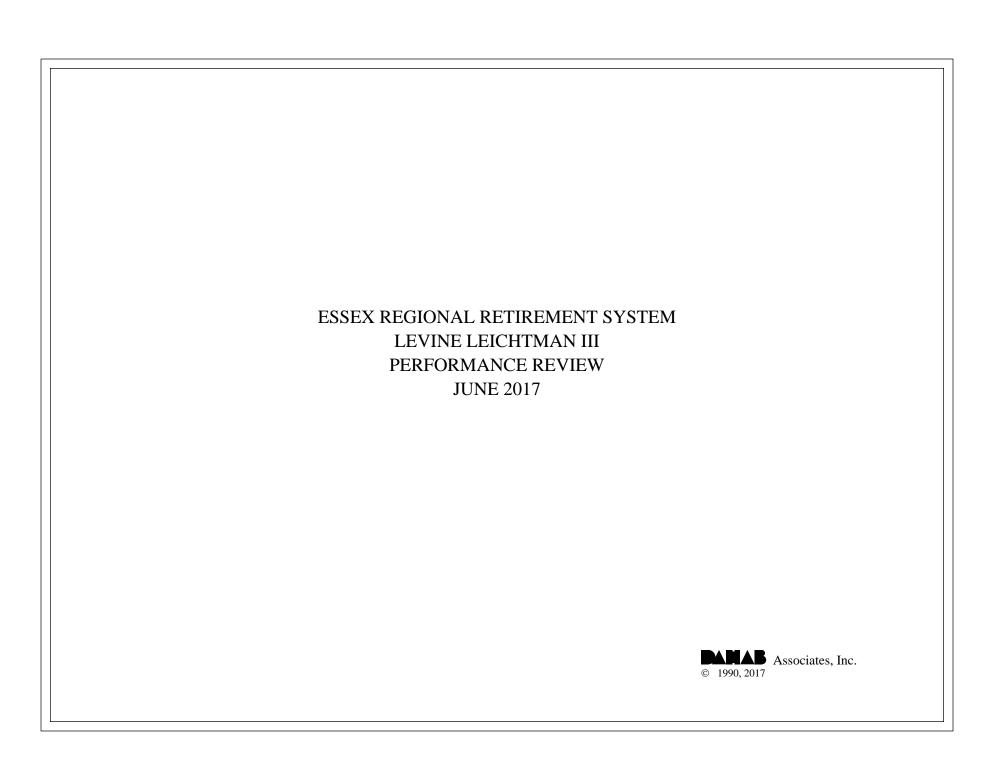
VALUE ASSUMING 7.75% RETURN \$ 657,985

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 505,307 0 - 26,232 \$ 479,075	\$ 855,970 -498,582 121,687 \$ 479,075
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$ \begin{array}{r} 0 \\ -26,232 \\ -26,232 \end{array} $	0 121,687 121,687



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	8
Quarters Below the Benchmark	12
Batting Average	.400

RATES OF RETURN					
Date	Portfolio	Benchmark	Difference		
9/12	-3.3	0.0	-3.3		
12/12	-2.3	3.7	-6.0		
3/13	0.8	3.7	-2.9		
6/13	-0.2	4.6	-4.8		
9/13	0.0	3.1	-3.1		
12/13	0.5	5.0	-4.5		
3/14	3.6	7.0	-3.4		
6/14	9.5	3.1	6.4		
9/14	10.5	5.5	5.0		
12/14	2.5	1.3	1.2		
3/15	0.9	0.9	0.0		
6/15	-1.2	2.7	-3.9		
9/15	6.3	3.9	2.4		
12/15	2.5	-1.5	4.0		
3/16	11.3	0.5	10.8		
6/16	-6.8	0.1	-6.9		
9/16	-5.7	4.0	-9.7		
12/16	7.1	3.9	3.2		
3/17	-10.2	4.5	-14.7		
6/17	-5.0	4.2	-9.2		



On June 30th, 2017, the Essex Regional Retirement System's Levine Leichtman III portfolio was valued at \$612,229, a decrease of \$72,309 from the March ending value of \$684,538. Last quarter, the account recorded total net withdrawals of \$32,827 in addition to \$39,482 in net investment losses. Because there were no income receipts during the second quarter, the portfolio's net investment losses were entirely made up of capital losses (realized and unrealized).

For the cumulative period since June 2012, the portfolio has posted net withdrawals totaling \$1.9 million and recorded net investment gains totaling \$600,633. For the period since June 2012, if the fund had returned a compound annual rate of 7.75% it would have been valued at \$616,746 or \$4,517 more than the actual value as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

Performance was based on a Levine Leichtman statement that was unaudited and subject to revision. All stated returns carry a one-quarter lag.

For the second quarter, the Levine Leichtman III account lost 6.0%, which was 10.2% below the Cambridge Private Equity (Lagged)'s return of 4.2%. Over the trailing year, the account returned -12.0%, which was 29.6% less than the benchmark's 17.6% performance. Since June 2012, the Levine Leichtman III portfolio returned 4.9% annualized, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same time frame.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Levine Leichtman Fund III at the end of the quarter.

## Private Equity Investor Report Levine Leichtman III As of June 30, 2017

Market Value <sup>1</sup>	\$ 612,229	Last Appraisal Date: 3/31/2017
Initial Commitment	\$ 3,000,000	
Paid-in Capital	\$ 3,000,000	100.00%
Remaining Commitment	\$ -	0.00%
Net Gain/(Loss)	\$ 1,096,646	
IRR Since Inception <sup>2</sup>	9.7%	

					Return of		
			% of	(	Contributed	% of	
Date	Pai	d-in Capital	Commitment		Capital	Commitment	Distributions
Inception - 4Q2007	\$	3,429,764	114.33%	\$	(651,320)	-21.71%	\$ (1,084,871)
2008	\$	149,048	4.97%	\$	(27,147)	-0.90%	\$ (696,889)
2009	\$	176,318	5.88%	\$	(93,973)	-3.13%	\$ (134,511)
2010	\$	75,513	2.52%	\$	(92,635)	-3.09%	\$ (316,676)
2011	\$	27,337	0.91%	\$	(20,160)	-0.67%	\$ (78,500)
1Q2012	\$	13,644	0.45%	\$	-	-	\$ (32,132)
2Q2012	\$	-	0.00%	\$	-	-	\$ (93,975)
3Q2012	\$	13,611	0.45%	\$	-	-	\$ (32,776)
4Q2012	\$	-	0.00%	\$	-	-	\$ (14,554)
1Q2013	\$	-	0.00%	\$	-	=	\$ (21,013)
2Q2013	\$	-	0.00%	\$	-	-	\$ (24,310)
3Q2013	\$	-	0.00%	\$	-	-	\$ (85,486)
4Q2013	\$	-	0.00%	\$	-	-	\$ (62,738)
1Q2014	\$	-	0.00%	\$	-	-	\$ (45,379)
2Q2014	\$	-	0.00%	\$	-	-	\$ (29,830)
3Q2014	\$	-	0.00%	\$	-	-	\$ (25,370)
4Q2014	\$	-	0.00%	\$	-	-	\$ (24,238)
1Q2015	\$	-	0.00%	\$	-	-	\$ (616,509)
2Q2015	\$	-	0.00%	\$	-	-	\$ (17,919)
3Q2015	\$	-	0.00%	\$	-	-	\$ (58,116)
4Q2015	\$	-	0.00%	\$	-	-	\$ (15,911)
1Q2016	\$	-	0.00%	\$	-	-	\$ (61,882)
2Q2016	\$	-	0.00%	\$	-	-	\$ (94,397)
3Q2016	\$	-	0.00%	\$	-	-	\$ (522,056)
4Q2016	\$	-	0.00%	\$	-	-	\$ (146,787)
1Q2017	\$	-	0.00%	\$	-	-	\$ (32,827)
Total	\$	3,885,235	129.51%	\$	(885,235)	-29.51%	\$ (4,369,652)

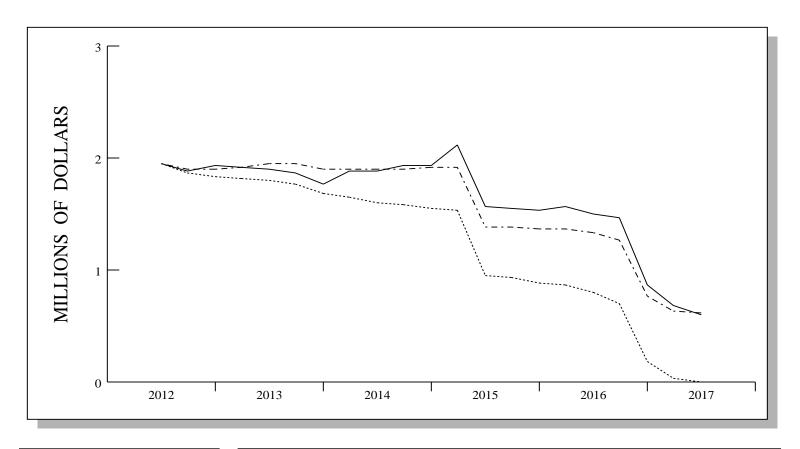
<sup>1.</sup> Market Value as of last appraisal date, adjusted for any contributions and distributions since that time.

<sup>2.</sup> IRR as of last appraisal date

PERFORMANCE SUMMARY					
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	-6.0	-11.1	-12.0	3.0	4.9
Total Portfolio - Net	-6.0	-11.1	-12.0	3.0	4.7
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5
Private Equity - Gross	-6.0	-11.1	-12.0	3.0	4.9
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5

ASSET ALLOCATION				
Private Equity	100.0%	\$ 612,229		
Total Portfolio	100.0%	\$ 612,229		

Market Value 3/2017	\$ 684,538
Contribs / Withdrawals	- 32,827
Income	0
Capital Gains / Losses	- 39,482
Market Value 6/2017	\$ 612,229

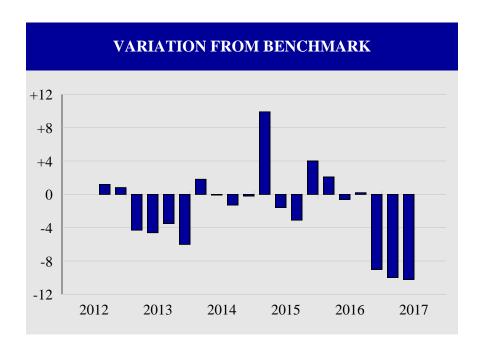


VALUE ASSUMING 7.75% RETURN \$ 616,746

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 684,538 - 32,827 - 39,482 \$ 612,229	\$ 1,961,176 -1,949,580 600,633 \$ 612,229
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$\frac{0}{-39,482} \\ -39,482$	48,431 552,202 600,633

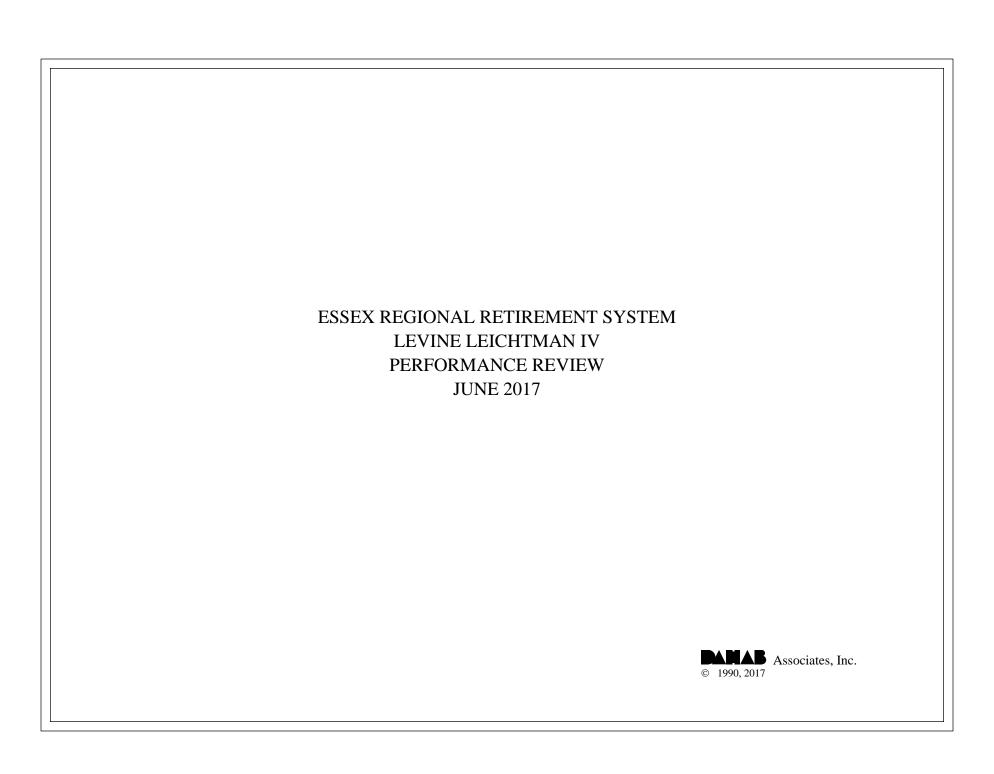
# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: CAMBRIDGE PRIVATE EQUITY (LAGGED)



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	7
<b>Quarters Below the Benchmark</b>	13
Batting Average	.350

RATES OF RETURN					
Date	Portfolio	Benchmark	Difference		
9/12	1.2	0.0	1.2		
12/12	4.5	3.7	0.8		
3/13	-0.6	3.7	-4.3		
6/13	0.0	4.6	-4.6		
9/13	-0.4	3.1	-3.5		
12/13	-1.0	5.0	-6.0		
3/14	8.8	7.0	1.8		
6/14	3.0	3.1	-0.1		
9/14	4.2	5.5	-1.3		
12/14	1.1	1.3	-0.2		
3/15	10.8	0.9	9.9		
6/15	1.1	2.7	-1.6		
9/15	0.8	3.9	-3.1		
12/15	2.5	-1.5	4.0		
3/16	2.6	0.5	2.1		
6/16	-0.5	0.1	-0.6		
9/16	4.2	4.0	0.2		
12/16	-5.1	3.9 4.5	-9.0		
3/17	-5.5	4.5	-10.0		
6/17	-6.0		-10.2		



#### INVESTMENT RETURN

On June 30th, 2017, the Essex Regional Retirement System's Levine Leichtman IV portfolio was valued at \$900,771, representing an increase of \$12,362 from the March quarter's ending value of \$888,409. Last quarter, the Fund posted withdrawals totaling \$5,785, which offset the portfolio's net investment return of \$18,147. Since there were no income receipts for the second quarter, the portfolio's net investment return figure was the product of net realized and unrealized capital gains totaling \$18,147.

For the cumulative period since June 2012, the account has posted net withdrawals totaling \$3.1 million and recorded net investment gains totaling \$1.5 million. Since June 2012, if the portfolio returned a compound annual rate of 7.75% it would have been completely liquidated as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

Performance was based on a Levine Leichtman statement that was unaudited and subject to revision. All stated returns carry a one-quarter lag.

In the second quarter, the Levine Leichtman IV portfolio gained 2.0%, which was 2.2% less than the Cambridge Private Equity (Lagged)'s return of 4.2%. Over the trailing twelve-month period, the portfolio returned 4.5%, which was 13.1% below the benchmark's 17.6% return. Since June 2012, the account returned 13.8% on an annualized basis, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same time frame.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Levine Leichtman Fund IV at the end of the quarter.

### Private Equity Investor Report Levine Leichtman IV As of June 30, 2017

Market Value <sup>1</sup>	\$ 900,771	Last Appraisal Date: 3/31/2017
Initial Commitment	\$ 3,000,000	
Paid-in Capital	\$ 2,303,374	76.78%
Remaining Commitment	\$ 696,626	23.22%
Net Gain/(Loss)	\$ 1,284,557	
IRR Since Inception <sup>2</sup>	19.8%	

			0/ 0	_	Return of	0/ 0		
<b>.</b>	_		% of	(	Contributed	% of	_	
Date		id-in Capital	Commitment		Capital	Commitment		Distributions
2008	\$	486,806	16.23%	\$	(89,887)	-3.00%	\$	(17,791)
2009	\$	231,775	7.73%	\$	(198,564)	-6.62%	\$	(4,785)
2010	\$	945,729	31.52%	\$	(90,383)	-3.01%	\$	-
1Q2011	\$	67,186	2.24%	\$	(49,498)	-1.65%	\$	-
2Q2011	\$	74,503	2.48%	\$	(150,727)	-5.02%	\$	(123,891)
3Q2011	\$	60,249	2.01%	\$	(50,766)	-1.69%	\$	(23,599)
4Q2011	\$	189,643	6.32%	\$	(72,596)	-2.42%	\$	(35,927)
1Q2012	\$	715,371	23.85%	\$	(169,013)	-5.63%	\$	(9,087)
2Q2012	\$	196,699	6.56%	\$	(100,666)	-3.36%	\$	(87,945)
3Q2012	\$	310,908	10.36%	\$	(11,320)	-0.38%	\$	(20,260)
4Q2012	\$	-	0.00%	\$	(57,372)	-1.91%	\$	(88,124)
1Q2013	\$	17,519	0.58%	\$	(8,566)	-0.29%	\$	(49,367)
2Q2013	\$	-	0.00%	\$	-	0.00%	\$	(97,390)
3Q2013	\$	14,950	0.50%	\$	(14,950)	-0.50%	\$	(467,895)
4Q2013	\$	_	0.00%	\$	-	0.00%	\$	-
1Q2014	\$	13,422	0.45%	\$	(22,355)	-0.75%	\$	(184,264)
2Q2014	\$	-	0.00%	\$	-	0.00%	\$	(449,501)
3Q2014	\$	37,928	1.26%	\$	-	0.00%	\$	(211,897)
4Q2014	\$	_	0.00%	\$	-	0.00%	\$	(653,790)
1Q2015	\$	8,148	0.27%	\$	-	0.00%	\$	(18,899)
2Q2015	\$	-	0.00%	\$	-	0.00%	\$	(57,791)
3Q2015	\$	9,798	0.33%	\$	-	0.00%	\$	(55,092)
4Q2015	\$	_	0.00%	\$	-	0.00%	\$	(43,095)
1Q2016	\$	9,403	0.31%	\$	-	0.00%	\$	(280,470)
2Q2016	\$	_	0.00%	\$	-	0.00%	\$	(94,396)
3Q2016	\$	_	0.00%	\$	-	0.00%	\$	(685,323)
4Q2016	\$	_	0.00%	\$	-	0.00%	\$	(7,459)
1Q2017	\$	_	0.00%	\$	-	0.00%	\$	(5,785)
Total	\$	3,390,037	113.00%		(1,086,663)	-36.22%	\$	(3,773,823)
								. , , ,

<sup>1.</sup> Market Value as of last appraisal date, adjusted for any contributions and distributions since that time.

<sup>2.</sup> IRR as of last appraisal date

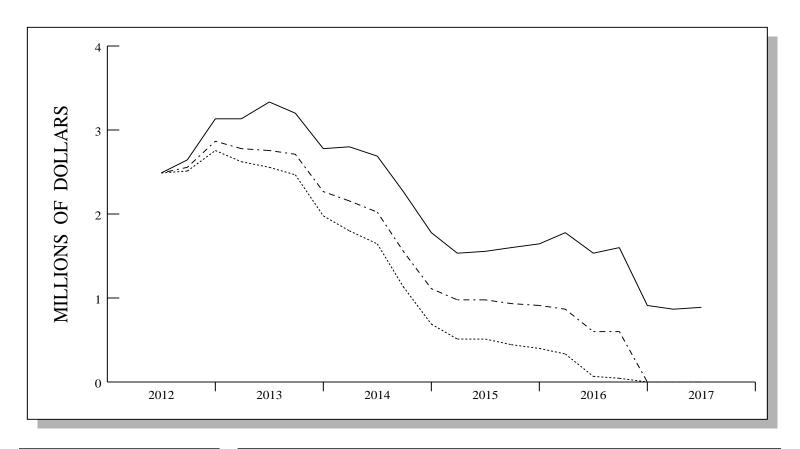
# **EXECUTIVE SUMMARY**

PERFORMANCE SUMMARY							
	Quarter	YTD	1 Year	3 Year	5 Year		
Total Portfolio - Gross	2.0	0.2	4.5	10.2	13.8		
Total Portfolio - Net	1.7	-0.3	3.7	8.9	12.5		
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5		
<b>Private Equity - Gross</b>	2.0	0.2	4.5	10.2	13.8		
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5		

ASSET ALLOCATION					
Private Equity	100.0%	\$ 900,771			
Total Portfolio	100.0%	\$ 900,771			

# INVESTMENT RETURN

Market Value 3/2017	\$ 888,409
Contribs / Withdrawals	- 5,785
Income	0
Capital Gains / Losses	18,147
Market Value 6/2017	\$ 900,771

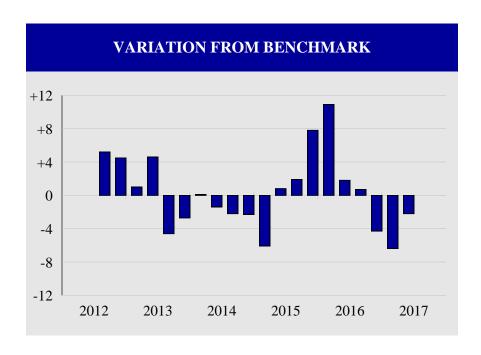


VALUE ASSUMING
7.75% RETURN \$ -79,252

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 888,409 - 5,785 18,147 \$ 900,771	\$ 2,503,836 - 3,142,674 1,539,609 \$ 900,771
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$\frac{0}{18,147}$ $18,147$	$ \begin{array}{r} 200,772 \\ 1,338,837 \\ \hline 1,539,609 \end{array} $

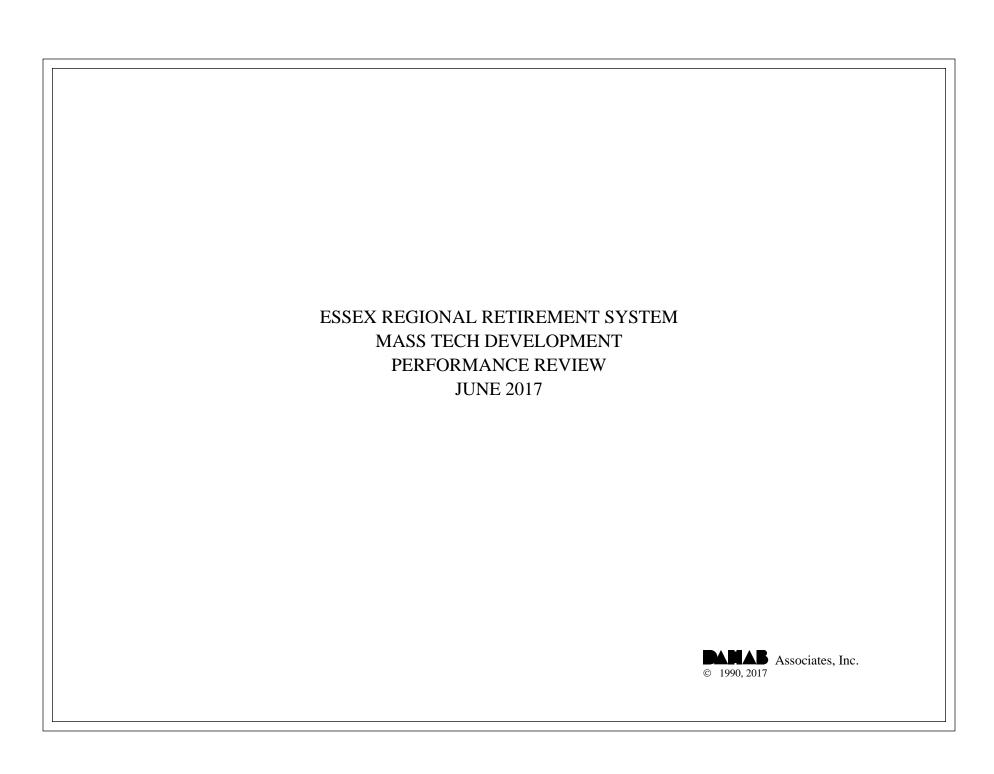
# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: CAMBRIDGE PRIVATE EQUITY (LAGGED)



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	11
<b>Quarters Below the Benchmark</b>	9
Batting Average	.550

RATES OF RETURN					
Date	Portfolio	Benchmark	Difference		
9/12	5.2	0.0	5.2		
12/12	8.2 4.7	3.7	4.5		
3/13 6/13	4.7 9.2	3.7 4.6	1.0 4.6		
9/13	-1.5	3.1	-4.6		
12/13	2.3	5.0	-2.7		
3/14 6/14	7.1 1.7	7.0 3.1	0.1 -1.4		
9/14	3.3	5.5	-2.2		
12/14 3/15	-1.0 -5.2	1.3 0.9	-2.3 -6.1		
6/15	3.5	2.7	0.8		
9/15	5.8	3.9	1.9		
12/15 3/16	6.3 11.4	-1.5 0.5	7.8 10.9		
6/16	11.4	0.3	1.8		
9/16	4.7	4.0	0.7		
12/16 3/17	-0.4 -1.9	3.9 4.5	-4.3 -6.4		
6/17	2.0	4.3	-0.4		



#### **INVESTMENT RETURN**

On June 30th, 2017, the Essex Regional Retirement System's Mass Tech Development portfolio was valued at \$1,917, equal to the March ending value.

For the cumulative period since June 2012, the portfolio has posted net withdrawals totaling \$13,926, compared with net investment losses totaling \$67,907. For the period since June 2012, if the total account had earned a compound annual rate of 7.75% it would have been valued at \$106,041 or \$104,124 more than the actual value as of June 30th, 2017.

#### **RELATIVE PERFORMANCE**

#### **Total Fund**

Performance was based on a Mass Tech statement that was unaudited and subject to revision. All stated returns carry a one-quarter lag.

In the second quarter, the Mass Tech Development portfolio returned 0.0%, which was 4.2% below the Cambridge Private Equity (Lagged)'s return of 4.2%. Over the trailing year, the portfolio returned 52.3%, which was 34.7% greater than the benchmark's 17.6% performance. Since June 2012, the Mass Tech Development portfolio returned -27.7% annualized, while the Cambridge Private Equity (Lagged) returned an annualized 12.5% over the same time frame.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Mass Tech Development Commonwealth Fund at the end of the quarter.

# Private Equity Investor Report Mass Ventures Commonwealth Fund II As of June 30, 2017

Market Value*	\$ 1,917	Last Appraisal	Da	te: 3/31/2017
Initial Commitment	\$ 1,000,000			
Paid-in Capital	\$ 961,774	96.18%		
Remaining Commitment	\$ 38,226	3.82%		
Net Gain/(Loss)	\$ (439,423)			
Net IRR Since Inception*	-13.6%			
	Paid-in	% of		
Date	Capital	Commitment		Distributions
3Q2000 - 4Q2007	\$ 887,283	88.73%	\$	(263,067)
1Q2008	\$ 10,000	1.00%	\$	(58,241)
2Q2008	\$ -	0.00%	\$	(58,900)
3Q2008	\$ 22,275	2.23%	\$	-
4Q2008	\$ 17,056	1.71%	\$	-
1Q2009	\$ -	0.00%	\$	(42,161)
2Q2009	\$ 1,876	0.19%	\$	(4,448)
3Q2009	\$ 734	0.07%	\$	(438)
1Q2010	\$ 11,306	1.13%	\$	(5,434)
2Q2010	\$ -	0.00%	\$	(3,983)
3Q2010	\$ -	0.00%	\$	(17,972)
4Q2010	\$ 10,224	1.02%	\$	-
1Q2011	\$ -	0.00%	\$	(35,479)
2Q2011	\$ -	0.00%	\$	(1,652)
4Q2011	\$ -	0.00%	\$	(9,423)
1Q2012	\$ 1,020	0.10%	\$	(5,310)
3Q2012	\$ -	0.00%	\$	(59)
1Q2013	\$ -	0.00%	\$	(480)
3Q2014	\$ -	0.00%	\$	(1,438)
2Q2015	\$ -	0.00%	\$	(5,206)
4Q2016	\$ -	0.00%	\$	(6,743)
Total	\$ 961,774	96.18%	\$	(520,434)

<sup>\*</sup>Values as of last appraisal date

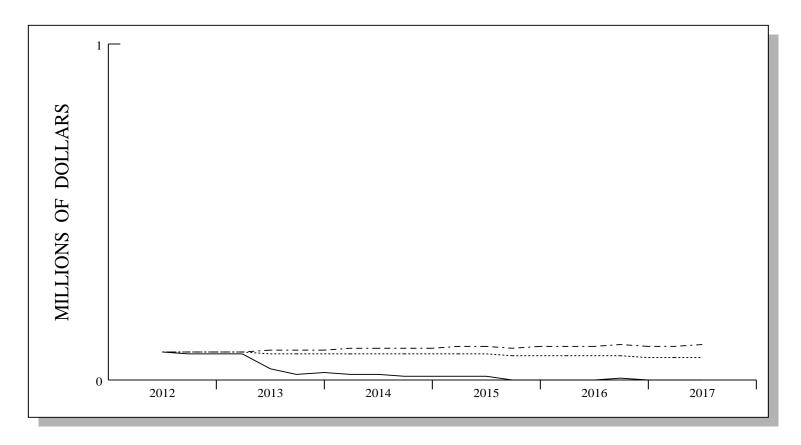
# **EXECUTIVE SUMMARY**

PERFORMANCE SUMMARY					
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	0.0	-10.5	52.3	-1.9	-27.7
Total Portfolio - Net	0.0	-10.5	52.3	-1.9	-27.9
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5
<b>Private Equity - Gross</b>	0.0	-10.5	52.3	-1.9	-27.7
CAMBRIDGE PE (LAG)	4.2	8.9	17.6	10.3	12.5

ASSET ALLOCATION				
Private Equity	100.0%	\$ 1,917		
Total Portfolio	100.0%	\$ 1,917		

# INVESTMENT RETURN

Market Value 3/2017	\$ 1,917
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	0
Market Value 6/2017	\$ 1,917

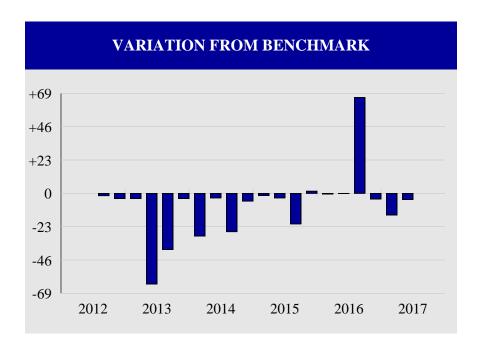


VALUE ASSUMING 7.75% RETURN \$ 106,041

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 1,917 0 0 \$ 1,917	\$ 83,750 - 13,926 - 67,907 \$ 1,917
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN		0 - 67,907 - 67,907

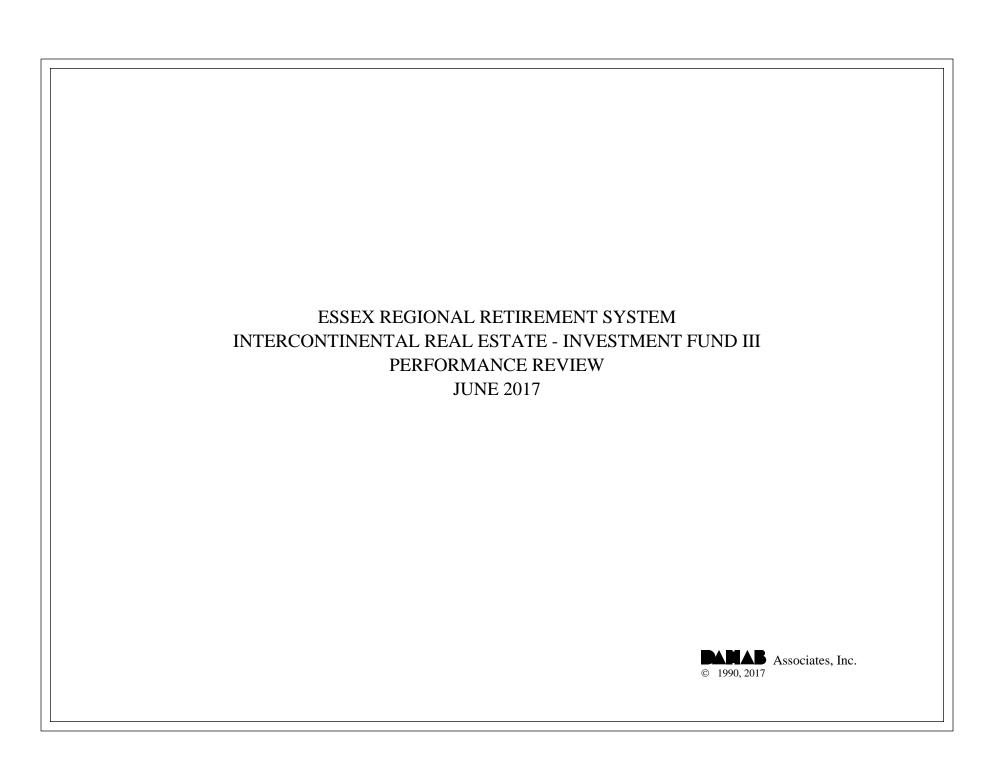
# TOTAL PORTFOLIO QUARTERLY PERFORMANCE SUMMARY

COMPARATIVE BENCHMARK: CAMBRIDGE PRIVATE EQUITY (LAGGED)



Total Quarters Observed	20
Quarters At or Above the Benchmark	2
<b>Quarters Below the Benchmark</b>	18
Batting Average	.100

RATES OF RETURN					
Date	Portfolio	Benchmark	Difference		
9/12	-1.7	0.0	-1.7		
12/12	0.1	3.7	-3.6		
3/13	0.0	3.7	-3.7		
6/13	-58.0	4.6	-62.6		
9/13	-35.7	3.1	-38.8		
12/13	1.4	5.0	-3.6		
3/14	-22.5	7.0	-29.5		
6/14	0.0	3.1	-3.1		
9/14	-21.0	5.5	-26.5		
12/14	-4.1	1.3	-5.4		
3/15	-0.7		-1.6		
6/15	-0.4	2.7	-3.1		
9/15	-17.2	3.9	-21.1		
12/15	0.0	-1.5	1.5		
3/16		0.5	-0.5		
6/16	0.0	0.1	-0.1		
9/16	70.1	4.0	66.1		
12/16	0.0	3.9	-3.9		
3/17	-10.5	4.5	-15.0		
6/17	0.0	4.2	-4.2		



#### INVESTMENT RETURN

On June 30th, 2017, the Essex Regional Retirement System's Intercontinental Real Estate Investment Fund III portfolio was valued at \$28,061, representing an increase of \$730 from the March quarter's ending value of \$27,331. Last quarter, the Fund posted no net contributions or withdrawals, while posting \$730 in net investment returns. Since there were no income receipts for the second quarter, the portfolio's net investment return was the result of net realized and unrealized capital gains totaling \$730.

For the cumulative period since June 2012, the portfolio has posted net withdrawals totaling \$3.2 million and recorded net investment gains totaling \$1.5 million. For the period since June 2012, if the fund had returned a compound annual rate of 7.75% it would have been completely liquidated as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

During the second quarter, the Intercontinental Real Estate Investment Fund III portfolio gained 2.7%, which was 1.0% greater than the NCREIF NFI-ODCE Index's return of 1.7%. Over the trailing twelve-month period, the portfolio returned -2.1%, which was 10.0% below the benchmark's 7.9% performance. Since June 2012, the Intercontinental Real Estate Investment Fund III portfolio returned 15.2% per annum, while the NCREIF NFI-ODCE Index returned an annualized 11.8% over the same time frame.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Intercontinental U.S. Real Estate Investment Fund III at the end of the quarter.

# Real Estate Investor Report Intercontinental Real Estate Investment Fund III As of June 30, 2017

Market Value	\$ 28,061	Last Appraisal Date: 6/30/2017
Initial Commitment	\$ 2,000,000	
Paid-in Capital	\$ 2,000,000	100.00%
Remaining Commitment	\$ -	0.00%
Net Gain/(Loss)	\$ 1,247,840	
Net IRR Since Inception	6.4%	

## % of

			/U UI		
Date	Pai	id-in Capital	Commitment	I	Distributions
3Q2007	\$	2,000,000	100.00%	\$	-
4Q2007	\$	-	0.00%	\$	(32,452)
1Q2008	\$	-	0.00%	\$	(21,442)
2Q2008	\$	-	0.00%	\$	(22,845)
3Q2008	\$	-	0.00%	\$	(29,663)
4Q2008	\$	-	0.00%	\$	(21,591)
4Q2012	\$	-	0.00%	\$	(12,494)
1Q2013	\$	-	0.00%	\$	(18,664)
2Q2013	\$	-	0.00%	\$	(18,619)
3Q2013	\$	-	0.00%	\$	(92,804)
4Q2013	\$	-	0.00%	\$	(18,325)
2Q2014	\$	-	0.00%	\$	(36,817)
3Q2014	\$	-	0.00%	\$	(330,523)
4Q2014	\$	-	0.00%	\$	(262,201)
1Q2015	\$	-	0.00%	\$	(928,541)
2Q2015	\$	-	0.00%	\$	(516,691)
4Q2015	\$	-	0.00%	\$	(166,079)
2Q2016	\$	-	0.00%	\$	(461,331)
1Q2017	\$	<u>-</u> _	0.00%	\$	(228,697)
Total	\$	2,000,000	100.00%	\$	(3,219,779)

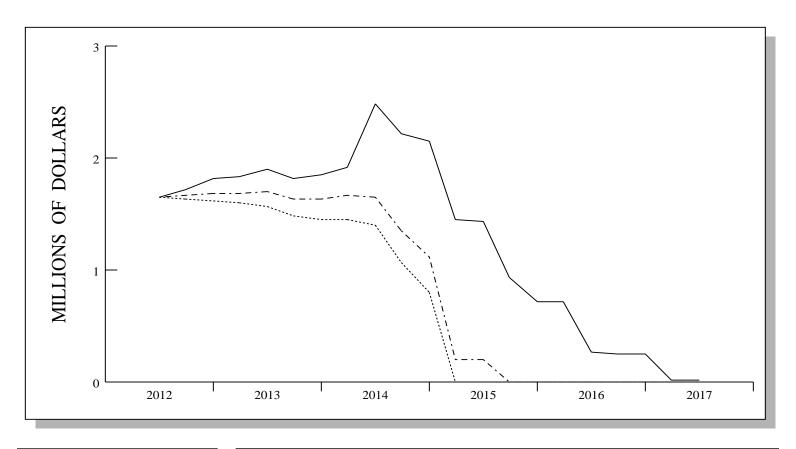
# **EXECUTIVE SUMMARY**

PERFORMANCE SUMMARY					
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	2.7	1.0	-2.1	6.1	15.2
Total Portfolio - Net	2.7	1.0	-2.5	5.4	14.3
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8
Real Estate - Gross	2.7	1.0	-2.1	6.1	15.2
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8

ASSET ALLOCATION				
Real Estate	100.0%	\$ 28,061		
Total Portfolio	100.0%	\$ 28,061		

# INVESTMENT RETURN

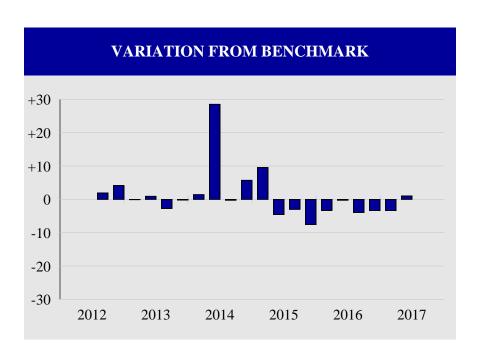
Market Value 3/2017	\$ 27,331
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	730
Market Value 6/2017	\$ 28,061



VALUE ASSUMING 7.75% RETURN \$ -1,274,964

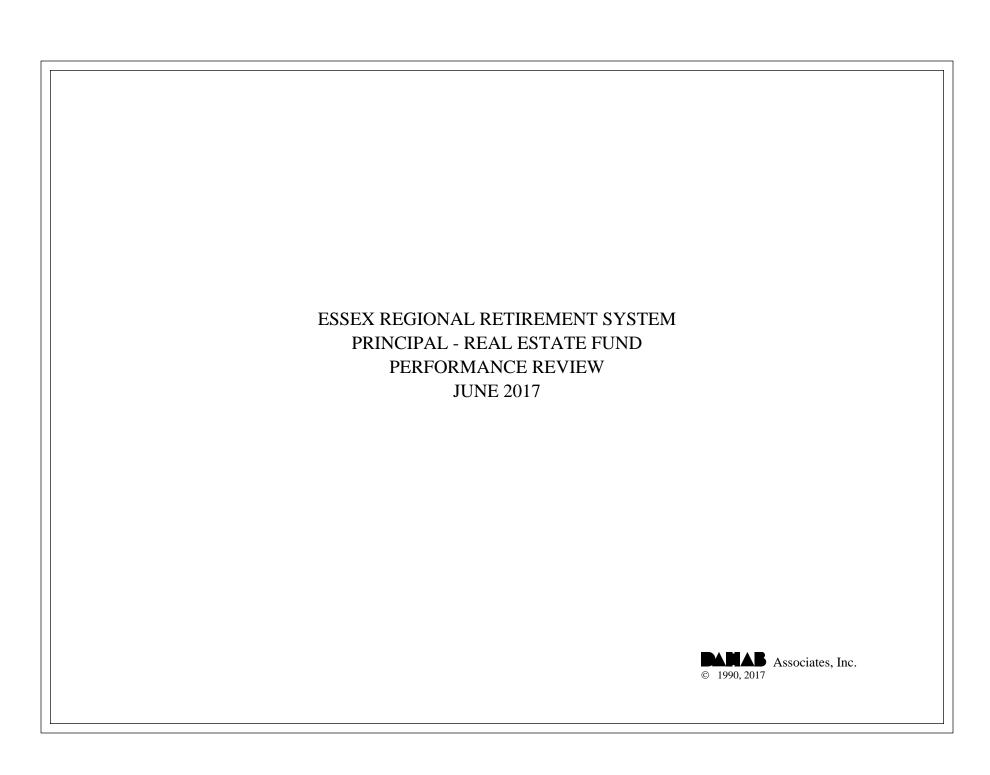
	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	$ \begin{array}{r} \$ 27,331 \\ 0 \\ 730 \\ \$ 28,061 \end{array} $	\$ 1,653,612 -3,152,783 1,527,232 \$ 28,061
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$   \begin{array}{r}     0 \\     730 \\     \hline     730   \end{array} $	$ \begin{array}{r} 152,464 \\ 1,374,768 \\ \hline 1,527,232 \end{array} $

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



Total Quarters Observed	20
Quarters At or Above the Benchmark	8
<b>Quarters Below the Benchmark</b>	12
Batting Average	.400

RATES OF RETURN					
Date	Portfolio	Benchmark	Difference		
9/12	4.7	2.8	1.9		
12/12	6.4	2.3	4.1		
3/13	2.6	2.7	-0.1		
6/13	4.8	3.9	0.9		
9/13	0.9	3.6	-2.7		
12/13	3.0	3.2	-0.2		
3/14	3.9	2.5	1.4		
6/14	31.4	2.9	28.5		
9/14	2.9	3.2	-0.3		
12/14	9.0	3.3	5.7		
3/15	12.9	3.4	9.5		
6/15	-0.8	3.8	-4.6		
9/15	0.7	3.7	-3.0		
12/15	-4.3	3.3	-7.6		
3/16	-1.1	2.2	-3.3		
6/16	1.8	2.1	-0.3		
9/16	-1.8	2.1	-3.9		
12/16	-1.3	2.1	-3.4		
3/17	-1.6	1.8	-3.4		
6/17	2.7	1.7	1.0		



#### INVESTMENT RETURN

On June 30th, 2017, the Essex Regional Retirement System's Principal Real Estate Fund was valued at \$74,154, representing an increase of \$3,527 from the March quarter's ending value of \$70,627. Last quarter, the Fund posted no net contributions or withdrawals, while posting \$3,527 in net investment returns. Since there were no income receipts for the second quarter, the portfolio's net investment return was the result of net realized and unrealized capital gains totaling \$3,527.

For the cumulative period since June 2012, the portfolio has posted net withdrawals totaling \$6.1 million and recorded net investment gains totaling \$3.5 million. For the period since June 2012, if the fund had returned a compound annual rate of 7.75% it would have been completely liquidated as of June 30th, 2017.

#### **RELATIVE PERFORMANCE**

#### **Total Fund**

During the second quarter, the Principal Real Estate Fund gained 5.0%, which was 3.3% greater than the NCREIF NFI-ODCE Index's return of 1.7%. Over the trailing twelve-month period, the portfolio returned 12.0%, which was 4.1% above the benchmark's 7.9% performance. Since June 2012, the Principal Real Estate Fund returned 36.4% per annum, while the NCREIF NFI-ODCE Index returned an annualized 11.8% over the same time frame.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Principal Real Estate Property Fund at the end of the quarter.

# Real Estate Investor Report Principal Green Property Fund I As of June 30, 2017

Market Value	\$ 74,154	Last Appraisal Date: 6/30/2017
Initial Commitment	\$ 5,000,000	
Additional Commitment	\$ 500,000	
Paid-in Capital	\$ 5,129,788	93.27%
Remaining Commitment	\$ 370,212	7.40%
Net Gain/(Loss)	\$ 2,925,398	
Net IRR Since Inception	15.2%	

Date	Paid-in Capital	% of Commitment	Distributions
1Q2008 - 4Q2008	\$ 522,502	10.45%	\$ -
2009	\$ 154,875	0.00%	\$ (31,240)
2010	\$ 550,385	0.00%	\$ (7,587)
2011	\$ 1,371,020	0.00%	\$ (338,100)
2012	\$ 922,645	0.00%	\$ -
1Q2013	\$ 245,106	4.90%	\$ (256,940)
2Q2013	\$ 508,886	10.18%	\$ -
3Q2013	\$ 210,091	4.20%	\$ (764,197)
4Q2013	\$ 107,380	2.15%	\$ (1,043,448)
1Q2014	\$ 221,762	4.44%	\$ (385,867)
2Q2014	\$ -	0.00%	\$ 38,826
3Q2014	\$ 23,343	0.47%	\$ -
4Q2014	\$ 233,434	4.67%	\$ (919,866)
1Q2015	\$ -	0.00%	\$ (377,553)
2Q2015	\$ 58,359	1.17%	\$ -
3Q2015	\$ -	0.00%	\$ (2,938,314)
4Q2015	\$ -	0.00%	\$ (423,212)
1Q2016	\$ -	0.00%	\$ (62,581)
3Q2016	\$ 	0.00%	\$ (470,953)
Total	\$ 5,129,788	102.60%	\$ (7,981,032)

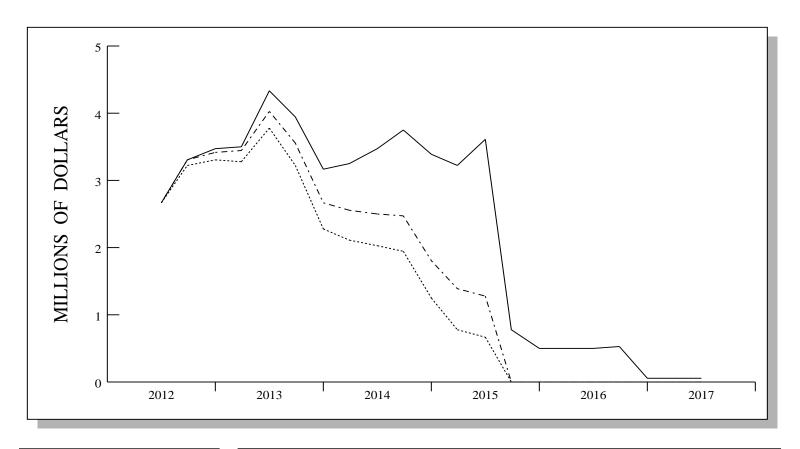
# **EXECUTIVE SUMMARY**

PERFORMANCE SUMMARY					
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	5.0	4.5	12.0	46.4	36.4
Total Portfolio - Net	3.7	3.4	9.5	31.4	26.8
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8
Real Estate - Gross	5.0	4.5	12.0	46.4	36.4
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8

ASSET ALLOCATION				
100.0%	\$ 74,154			
100.0%	\$ 74,154			
	100.0%			

# INVESTMENT RETURN

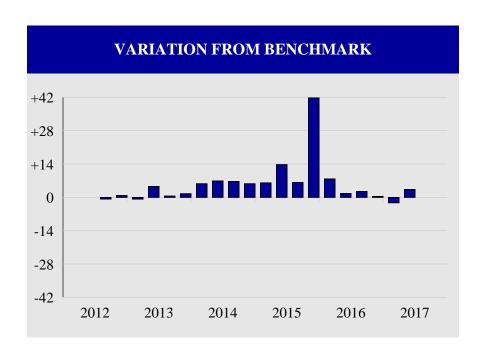
Market Value 3/2017	\$ 70,627
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	3,527
Market Value 6/2017	\$ 74,154



VALUE ASSUMING
7.75% RETURN \$ -3,075,374

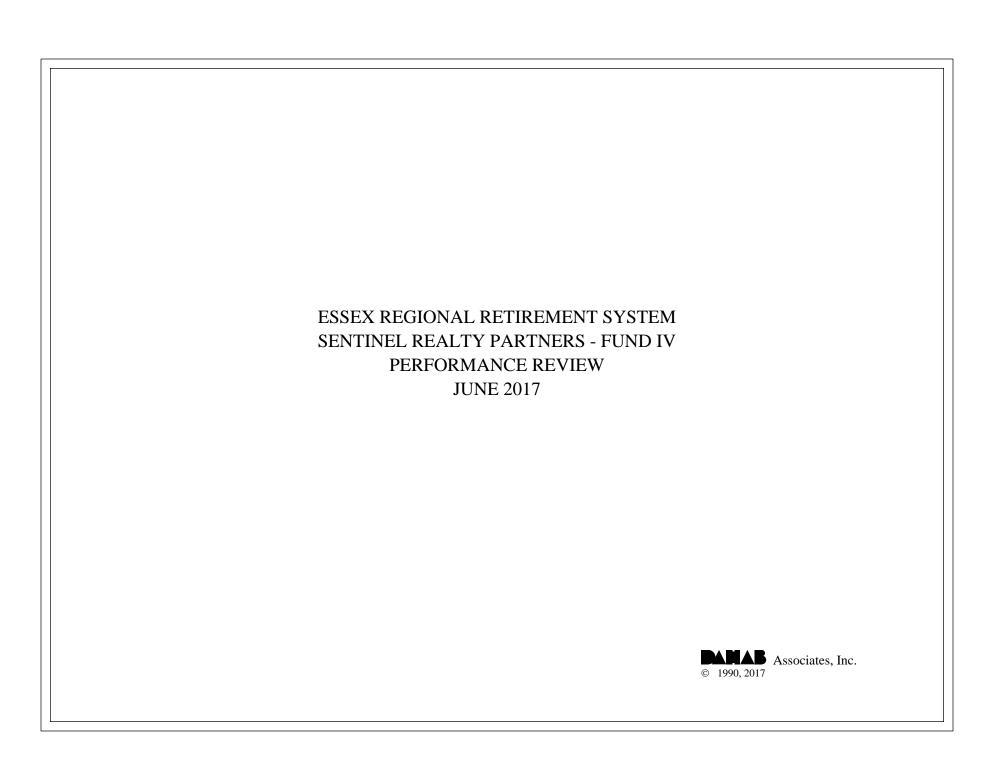
	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	$ \begin{array}{r}     \$70,627 \\     0 \\     \hline     3,527 \\     \$74,154 \end{array} $	\$ 2,693,833 -6,081,714 3,462,035 \$ 74,154
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$\frac{0}{3,527}$ 3,527	$ \begin{array}{r} 0 \\ 3,462,035 \\ \hline 3,462,035 \end{array} $

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



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	17
<b>Quarters Below the Benchmark</b>	3
<b>Batting Average</b>	.850

RATES OF RETURN					
Date	Portfolio	Benchmark	Difference		
9/12	2.1	2.8	-0.7		
12/12	3.0	2.3	0.7		
3/13	1.9	2.7	-0.8		
6/13	8.5	3.9	4.6		
9/13	4.1	3.6	0.5		
12/13	4.7	3.2	1.5		
3/14	8.2	2.5	5.7		
6/14	9.8	2.9	6.9		
9/14	9.9	3.2	6.7		
12/14	9.0	3.3	5.7		
3/15	9.5	3.4	6.1		
6/15	17.5	3.8	13.7		
9/15	9.9	3.7	6.2		
12/15	45.1	3.3	41.8		
3/16	9.9	2.2	7.7		
6/16	3.8	2.1	1.7		
9/16	4.6	2.1	2.5		
12/16	2.5	2.1	0.4		
3/17	-0.5	1.8	-2.3		
6/17	5.0	1.7	3.3		



#### INVESTMENT RETURN

On June 30th, 2017, the Essex Regional Retirement System's Sentinel Realty Partners Fund IV portfolio was valued at \$46,144, representing an increase of \$3,771 from the March quarter's ending value of \$42,373. Last quarter, the Fund posted no net contributions or withdrawals, while posting \$3,771 in net investment returns. Since there were no income receipts for the second quarter, the portfolio's net investment return was the result of net realized and unrealized capital gains totaling \$3,771.

For the cumulative period since June 2012, the portfolio has posted net withdrawals totaling \$3.4 million and recorded net investment gains totaling \$1.6 million. For the period since June 2012, if the fund had returned a compound annual rate of 7.75% it would have been completely liquidated as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

During the second quarter, the Sentinel Realty Partners Fund IV portfolio gained 8.9%, which was 7.2% greater than the NCREIF NFI-ODCE Index's return of 1.7%. Over the trailing twelve-month period, the portfolio returned 2.5%, which was 5.4% below the benchmark's 7.9% performance. Since June 2012, the Sentinel Realty Partners Fund IV portfolio returned 20.6% per annum, while the NCREIF NFI-ODCE Index returned an annualized 11.8% over the same time frame.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the Sentinel Realty Partners' Fund IV at the end of the quarter.

# Real Estate Investor Report Sentinel Realty Partners IV As of June 30, 2017

Market Value	\$ 46,144	Last Appraisal Date: 6/30/2017
Initial Commitment	\$ 1,000,000	
Paid-in Capital	\$ 1,000,000	100.00%
Remaining Commitment	\$ -	0.00%
Net Gain/(Loss)	\$ 2,406,826	
Net IRR Since Inception	8.8%	

% of

			/ U UL		
Date	Pai	id-in Capital	Commitment	Ι	Distributions
4Q2007	\$	1,000,000	100.00%	\$	_
4Q2012	\$	-	0.00%	\$	(122,796)
1Q2014	\$	-	0.00%	\$	(423,790)
4Q2014	\$	-	0.00%	\$	(254,872)
3Q2015	\$	-	0.00%	\$	(1,174,961)
4Q2015	\$	-	0.00%	\$	(379,366)
1Q2016	\$	-	0.00%	\$	(738,895)
3Q2016	\$	-	0.00%	\$	(266,002)
Total	\$	1,000,000	100.00%	\$	(3,360,682)

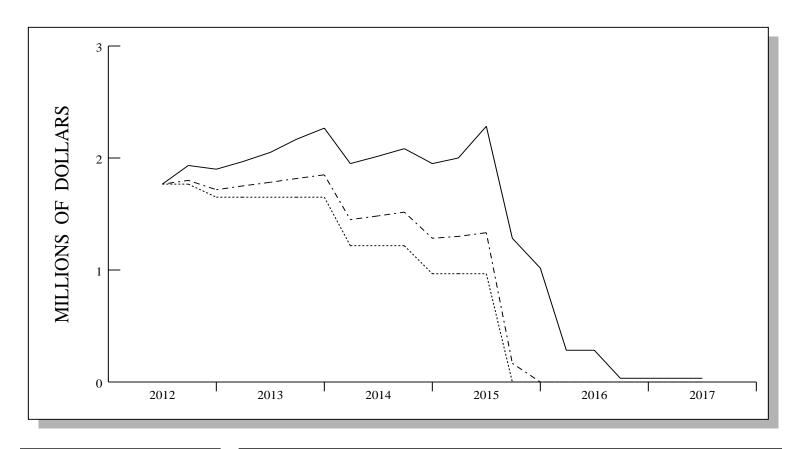
# **EXECUTIVE SUMMARY**

PERFORMANCE SUMMARY					
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	8.9	8.5	2.5	18.0	20.6
Total Portfolio - Net	8.9	8.5	2.3	17.1	18.9
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8
Real Estate - Gross	8.9	8.5	2.5	18.0	20.6
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8

ASSET ALLOCATION			
Real Estate	100.0%	\$ 46,144	
Total Portfolio	100.0%	\$ 46,144	

# INVESTMENT RETURN

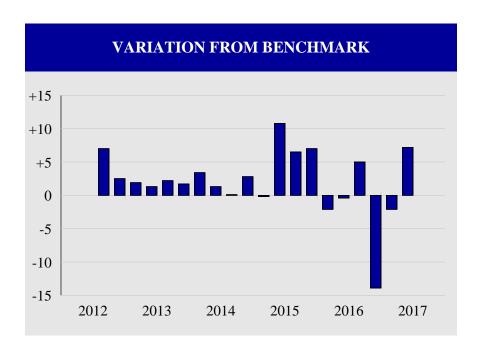
Market Value 3/2017	\$ 42,373
Contribs / Withdrawals	0
Income	0
Capital Gains / Losses	3,771
Market Value 6/2017	\$ 46,144



VALUE ASSUMING
7.75% RETURN \$ -1,324,091

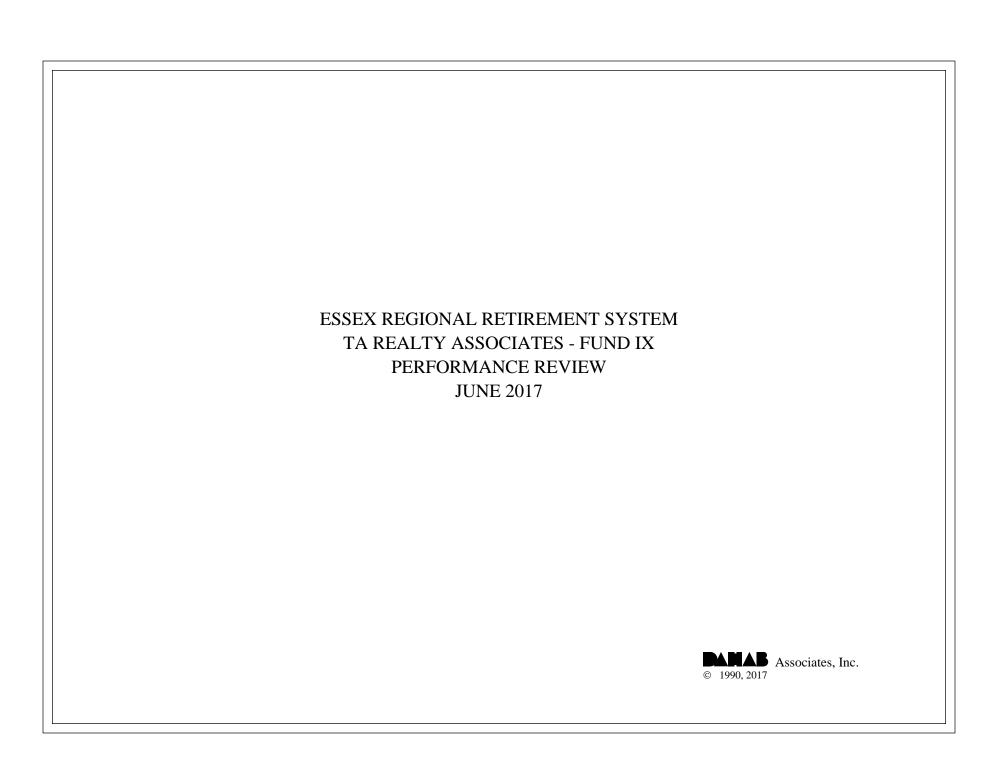
	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	\$ 42,373 0 3,771 \$ 46,144	\$ 1,774,109 -3,360,682 <u>1,632,717</u> \$ 46,144
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	$\frac{0}{3,771}$ 3,771	405,575 1,227,142 1,632,717

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



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

RATES OF RETURN				
Date	Portfolio	Benchmark	Difference	
9/12	9.8	2.8	7.0	
12/12	4.8	2.3	2.5	
3/13	4.6	2.7	1.9	
6/13	5.2	3.9	1.3	
9/13	5.8	3.6	2.2	
12/13	4.9	3.2	1.7	
3/14	5.9	2.5	3.4	
6/14	4.2	2.9	1.3	
9/14	3.3	3.2	0.1	
12/14	6.1	3.3	2.8	
3/15	3.2	3.4	-0.2	
6/15	14.6	3.8	10.8	
9/15	10.2	3.7	6.5	
12/15	10.3	3.3	7.0	
3/16	0.1	2.2	-2.1	
6/16	1.7	2.1	-0.4	
9/16	7.1	2.1	5.0	
12/16	-11.8	2.1	-13.9	
3/17	-0.3	1.8	-2.1	
6/17	8.9	1.7	7.2	



#### INVESTMENT RETURN

On June 30th, 2017, the Essex Regional Retirement System's TA Realty Associates Fund IX portfolio was valued at \$776,609, a decrease of \$2,171,680 from the March ending value of \$2,948,289. Last quarter, the account recorded total net withdrawals of \$2,171,050 in addition to \$630 in net investment losses. Because there were no income receipts during the second quarter, the portfolio's net investment losses were entirely made up of capital losses (realized and unrealized).

For the cumulative period since June 2012, the portfolio has posted net withdrawals totaling \$5.7 million and recorded net investment gains totaling \$1.8 million. For the period since June 2012, if the fund returned a compound annual rate of 7.75% it would have been valued at \$352,299 or \$424,310 less than the actual value as of June 30th, 2017.

#### RELATIVE PERFORMANCE

#### **Total Fund**

For the second quarter, the TA Realty Associates Fund IX account gained 0.1%, which was 1.6% below the NCREIF NFI-ODCE Index's return of 1.7%. Over the trailing year, the account returned 2.3%, which was 5.6% less than the benchmark's 7.9% performance. Since June 2012, the TA Realty Associates Fund IX portfolio returned 11.7% annualized, while the NCREIF NFI-ODCE Index returned an annualized 11.8% over the same time frame.

#### **ASSET ALLOCATION**

The portfolio was fully invested in the TA Realty Associates Fund IX at the end of the quarter.

# Real Estate Investor Report TA Realty Associates IX As of June 30, 2017

Market Value	\$	776,609	Last Appraisal	Date	e: 6/30/2017
Initial Commitment	\$	4,500,000			
Paid-in Capital	\$	4,500,000	100.00%		
Remaining Commitment	\$	-	0.00%		
Net Gain/(Loss)	\$	2,811,905			
Net IRR Since Inception <sup>2</sup>		10.5%			
			% of		
Date			Commitment		Distributions
2Q2010	\$	1,800,000	40.00%	\$	-
3Q2010	\$	675,000	15.00%	\$	(1,329)
4Q2010	\$ \$	-	0.00%	\$	(1,441)
1Q2011	\$ \$	675,000	15.00%	\$ \$	(1,290)
2Q2011	\$ \$	675,000	15.00%		(34,518)
3Q2011	\$ \$	315,000	7.00%	\$ \$	(30,143)
4Q2011 1Q2012	\$ \$	100,000	0.00%	\$ \$	(226,039)
_		180,000	4.00%		(60,307)
2Q2012	\$	-	0.00%	\$	(60,052)
3Q2012	\$	_	0.00%	\$	(112,920)
4Q2012	\$	_	0.00%	\$	(286,299)
1Q2013	\$	-	0.00%	\$	(111,500)
2Q2013	\$	180,000	4.00%	\$	(60,016)
3Q2013	\$	-	0.00%	\$	(112,944)
4Q2013	\$	-	0.00%	\$	(278,700)
1Q2014	\$	-	0.00%	\$	(131,116)
2Q2014	\$	=	0.00%	\$	(328,488)
3Q2014	\$	-	0.00%	\$	(418,913)
4Q2014	\$	-	0.00%	\$	(354,237)
1Q2015	\$	-	0.00%	\$	(78,359)
2Q2015	\$	-	0.00%	\$	(201,616)
3Q2015	\$	_	0.00%	\$	(60,040)
4Q2015	\$	_	0.00%	\$	(428,901)
1Q2016	\$	_	0.00%	\$	(135,594)
2Q2016	\$	_	0.00%	\$	(258,810)
3Q2016	\$	-	0.00%	\$	(388,861)
4Q2016	\$	-	0.00%	\$	(201,813)
2Q2017	\$	<u> </u>	0.00%	\$	(2,171,050)
Total	\$	4,500,000	100.00%	\$	(6,535,296)

## **EXECUTIVE SUMMARY**

PERFORMANCE SUMMARY					
	Quarter	YTD	1 Year	3 Year	5 Year
Total Portfolio - Gross	0.1	-1.4	2.3	10.4	11.7
Total Portfolio - Net	0.0	-1.8	1.3	7.6	8.8
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8
Real Estate - Gross	0.1	-1.4	2.3	10.4	11.7
NCREIF ODCE	1.7	3.5	7.9	11.3	11.8

ASSET ALLOCATION			
Real Estate	100.0%	\$ 776,609	
Total Portfolio	100.0%	\$ 776,609	

# INVESTMENT RETURN

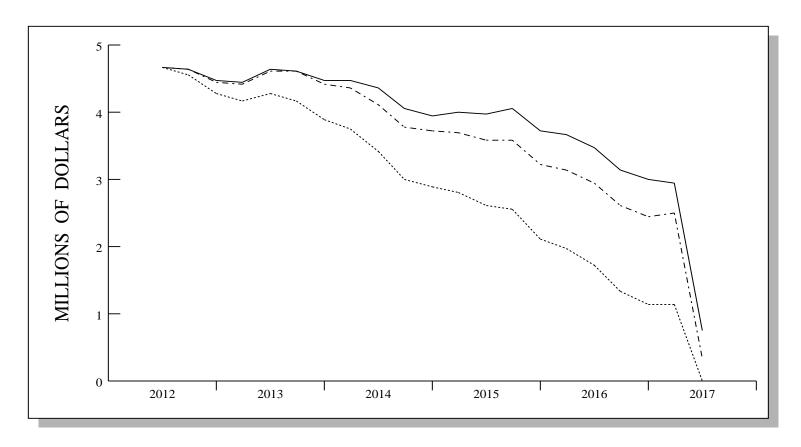
 Market Value 3/2017
 \$ 2,948,289

 Contribs / Withdrawals
 - 2,171,050

 Income
 0

 Capital Gains / Losses
 -630

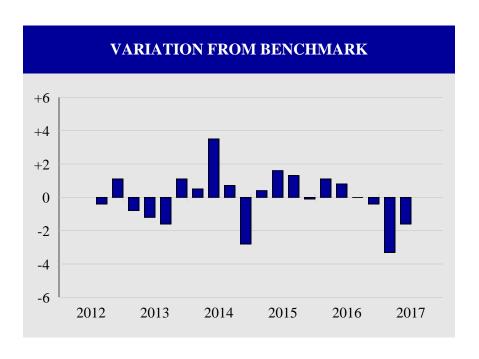
 Market Value 6/2017
 \$ 776,609



VALUE ASSUMING
7.75% RETURN \$ 352,299

	LAST QUARTER	FIVE YEARS
BEGINNING VALUE NET CONTRIBUTIONS INVESTMENT RETURN ENDING VALUE	$ \begin{array}{r} \$ 2,948,289 \\ -2,171,050 \\ \underline{-630} \\ \$ 776,609 \end{array} $	\$ 4,684,429 - 5,706,555 1,798,735 \$ 776,609
INCOME CAPITAL GAINS (LOSSES) INVESTMENT RETURN	-630 -630	$ \begin{array}{r} 1,576,440 \\ 222,295 \\ \hline 1,798,735 \end{array} $

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



<b>Total Quarters Observed</b>	20
Quarters At or Above the Benchmark	11
<b>Quarters Below the Benchmark</b>	9
Batting Average	.550

RATES OF RETURN				
Date	Portfolio	Benchmark	Difference	
9/12	2.4	2.8	-0.4	
12/12	3.4	2.3	1.1	
3/13	1.9	2.7	-0.8	
6/13	2.7	3.9	-1.2	
9/13	2.0	3.6	-1.6	
12/13	4.3	3.2	1.1	
3/14	3.0	2.5	0.5	
6/14	6.4	2.9	3.5	
9/14	3.9	3.2	0.7	
12/14	0.5	3.3	-2.8	
3/15 6/15	3.8	3.4	0.4	
	5.4	3.8	1.6	
9/15	5.0	3.7	1.3	
12/15	3.2	3.3	-0.1	
3/16 6/16	3.3 2.9	2.2 2.1	1.1	
9/16 12/16	2.9 2.1 1.7	2.1 2.1 2.1	0.0 -0.4	
3/17	-1.5	1.8	-3.3	
6/17	0.1	1.7	-1.6	

5