



# Rhode Island State Investment Commission

## ERSRI 2015 Performance Review

Presented by:

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# ASSET ALLOCATION : ERSRI BACKGROUND

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## General Characteristics of the Fund

- Plan is underfunded (approx. 60% funded).
- Plan is mature: Benefit payments > Employer + Employee contributions (approximately 5% net negative outflow per year)
  - Requires liquidity to pay benefits
- Underfunded status and negative cash flow reduce the Fund's ability to recover from a large negative market event (large drawdown – similar to 2008).
  - Also reduces management flexibility
- As a result, the Fund, though a long-term investor, has to also be concerned with performance outcomes in the near term.

# PORTFOLIO NEAR-TERM STRATEGY (Readopted in July 2015)

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- Continue to allocate towards strategic policy allocation targets
  - Equity Infrastructure (3%) in the Real Return Portfolio
  - Fund the Real Estate portfolio: Current allocation 6% (versus Policy allocation of 8%)

# ERSRI CHARACTERISTICS VS. MEDIAN PUBLIC PENSION FUND

## Median Public Fund

	Median Fund (2013)	ERSRI (2015)
Funding Level	73%	55.6%
Ratio Active to Retirees	1.55 : 1	1 : 1
Net <u>Negative</u> Cash Flow	2.7% p.a.	>5% p.a.
Median Actuarial Return Target	7.75%	7.50%

## Asset Allocation

	Median Fund (2013)	ERSRI (2015)
Public Equity	50%	47%
Fixed Income	24%	23%
Real Estate	7%	6%
Alternatives	15%	23%
Cash/Other	4%	1%
Total	100%	100%

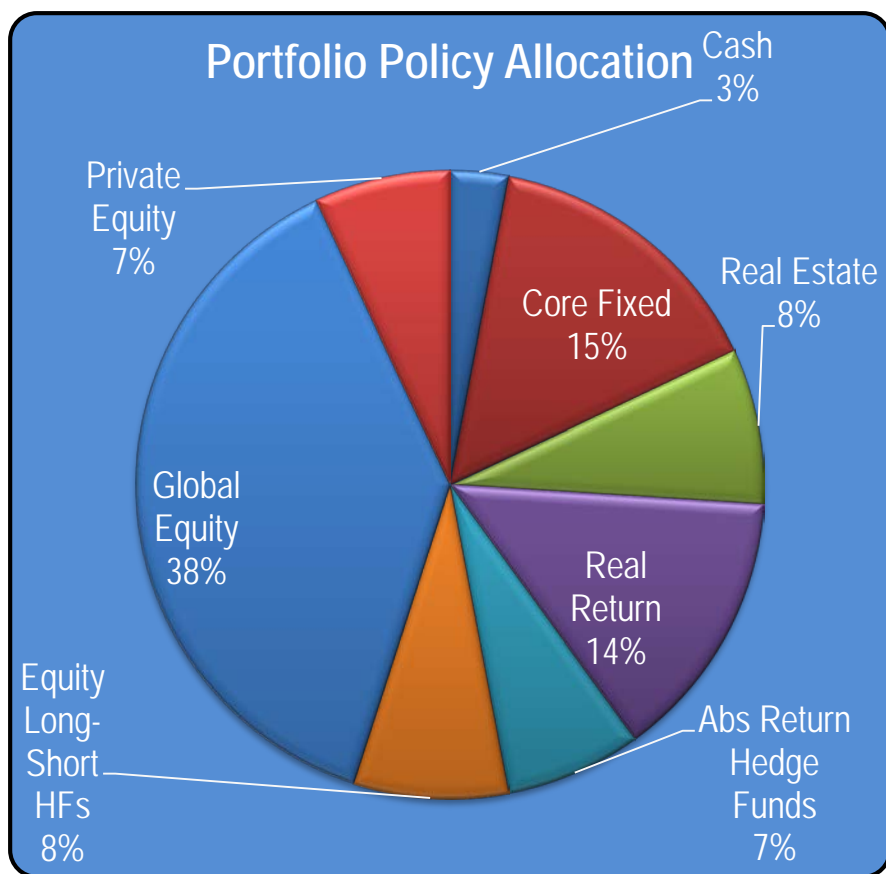
Note: Median Fund data source – NASRA 2013 data  
ERSRI data - 2015

# SOURCES OF PORTFOLIO RISK: CURRENT STRATEGIC POLICY

Expected 10 year risk and return \*

Portfolio Arithmetic Return: 7.2%  
 Portfolio Geometric Return: 6.6%  
 Portfolio Standard Deviation: 11.1%  
 Expected Sharpe Ratio: 0.39

Although portfolio is diversified among asset classes / strategies – Equity (growth) risk is still the largest portfolio risk



\* Based on PCA 2014 capital market assumptions

# ERSRI RISK MANAGEMENT PHILOSOPHY

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- Focus on portfolio risk and return efficiency – improve portfolio's Sharpe ratio
- Equity (growth) assets are the primary driver of total portfolio return and risk
- Portfolio diversifying assets / strategies
  - Hedge Fund Portfolios
    - Global Equity Hedge Funds
    - Absolute Return Hedge Funds
  - Core Fixed Income Portfolio
  - Core Real Estate Assets
  - U.S. TIPS Portfolio
  - Cash

# ROLE OF ASSETS

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- Each asset class has unique investment characteristics.
- Each asset can be used in portfolio construction to bring a specific risk, return or correlation characteristic to the portfolio.
- Individual asset can play several roles in the portfolio depending on how they are structured.
- Knowing the role an asset plays in the portfolio minimizes (but does not eliminate) negative return surprises.

<b>Asset Class</b>	<b>Role</b>	<b>Risk</b>
Core Fixed Income	Stability / Liquidity	Interest Rate
Absolute Return HFs	Stability / Diversification	Active management
Real Return	Inflation Protection	Credit / Growth
Real Estate	Income / Growth	Interest Rate
Equity HFs	Growth / Diversification	Active management
Global Equity	Growth / Liquidity	Equity (Growth)
Private Equity	Growth	Equity / Illiquidity

# CAPITAL MARKET RETURNS ENDING DECEMBER 2015

Indexes	1 Year	3 Year	5 Year	10 Year	20 Year
<b>Global Equity</b>					
MSCI All Country World	-1.8%	8.3%	6.7%	5.3%	6.4%
<b>Domestic Equity</b>					
S&P 500	1.4%	15.1%	12.6%	7.3%	8.2%
Russell 3000	0.5%	14.7%	12.2%	7.4%	8.3%
<b>International Equity</b>					
MSCI All Country World ex US	-5.3%	1.9%	1.5%	3.4%	5.0%
MSCI EAFE	-0.4%	5.5%	4.1%	3.5%	4.8%
MSCI Pacific	3.2%	6.0%	3.4%	2.6%	2.0%
MSCI Europe	-2.3%	5.1%	4.5%	4.0%	6.8%
MSCI EM (Emerging Markets)	-14.6%	-6.4%	-4.5%	4.0%	5.5%
<b>Fixed Income</b>					
BC Aggregate Bond	0.6%	1.4%	3.3%	4.5%	5.3%
BC Government	0.9%	1.0%	2.8%	4.1%	5.0%
BC Credit Bond	-0.8%	1.5%	4.4%	5.2%	5.8%
BC Mortgage Backed Securities	1.5%	2.0%	3.0%	4.6%	5.4%
BC High Yield Corporate Bond	-4.5%	1.7%	5.0%	7.0%	6.8%
<b>Real Estate</b>					
NCREIF (Private RE)	13.3%	12.0%	12.2%	7.8%	9.9%
NAREIT (Public RE)	2.3%	10.3%	11.6%	6.9%	10.3%
<b>Commodity Index</b>					
Bloomberg Commodity (formerly DJUBS)	-24.7%	-17.3%	-13.5%	-6.4%	1.0%

- Risk taking rewarded in the U.S. Equity and Real Estate markets over the past 5 years
- Non-U.S. Equity lags U.S. Equity; Emerging Equity Markets have negative returns over the past 5 years - Commodity markets partially responsible
- Credit risk rewarded in the long-term; however not in the past year



# ERSRI PORTFOLIO: RETURNS ENDING 12/31/2015

Net of Fees

## Total Fund Performance vs. Policy Benchmark

	1 Year	3 Year	5 Year
Total Portfolio	(0.28)	5.92	6.27
Policy Benchmark	(0.38)	6.21	6.35
<b>Excess Return</b>	<b>0.10</b>	<b>(0.29)</b>	<b>(0.08)</b>

Total fund returns similar to policy benchmark: 1% annual tracking error

## Perform. vs. Actuarial Rate

	1 Year	3 Year	5 Year	10 Year
Total Portfolio	(0.28)	5.92	6.27	5.05
Actuarial Rate	7.50	7.50	7.76	8.01
<b>Excess Return</b>	<b>(7.78)</b>	<b>(1.58)</b>	<b>(1.49)</b>	<b>(2.96)</b>

Capital market returns have been low for the past decade (page 8)

Source: BNY Mellon

# ERSRI PORTFOLIO: RETURN AND RISK

As of December 31, 2015

Return / Risk

## 5-Year Annualized Risk/Return



- Total portfolio has exhibited lower return volatility than the policy benchmark, 60/40 portfolio and the median public pension plan
- Capital market return volatility has been very low for this 5-year period

Source: BNY Mellon

# ERSRI PORTFOLIO: RETURNS

As of December 31, 2015

## Global Equity

Net of Fees

Manager	Mkt Value (\$000)	Asset Class	1 YR	3 YR
QVM Tilt	502,494	Customized Beta	---	---
<i>MSCI World Net Dividend Index</i>				
SSGA MSCI EAFE Index Fund	998,358	Index Fund	(0.59)	5.28
<i>MSCI EAFE Net Dividend Index</i>				
SSGA MSCI Canada Index Fund	96,804	Index Fund	(23.70)	(6.06)
<i>MSCI Canada Net Dividend Index</i>				
SSGA MSCI Emerging Markets Index Fund	308,407	Index Fund	(15.16)	(6.97)
<i>MSCI Emerging Markets Net Dividend</i>				
SSGA Russell 3000 Index Fund	1,477,020	Index Fund	0.60	14.77
<i>Russell 3000</i>				
Equity Hedge Funds	606,024	Hedge Funds-Global Equities	1.27	6.77
<i>HRFI Equity Hedge (Total) Index</i>				

Global Equity Portfolio is being managed consistent with expectations

- The role – beta exposure to growth
- Managers are meeting investment objectives / QVM Tilt recently funded outperforming benchmark
- Equity hedge fund portfolio is meeting investment objective

Source: BNY Mellon



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# ERSRI PORTFOLIO: RETURNS

As of December 31, 2015

## Real Estate Portfolio

Net of Fees

Asset Class	1 Year	3 Year	5 Year
Real Estate	14.22	10.20	11.44
<i>NFI-ODCE Index</i>	13.17	12.47	13.29

	Net Asset Value (\$ Millions)	% of Portfolio	Portfolio Policy Allocation Range <sup>3</sup>
ERSRI Core Portfolio	374.3	85.2%	70% - 85%
ERSRI Non-Core Portfolio	65.2	14.8%	15% - 30%
<b>ERSRI Total Portfolio</b>	<b>439.5</b>	<b>100.0%</b>	

Real Estate portfolio is being managed consistent with expectations

- The role in the portfolio – income / growth: focus on core Real Estate
- 2-5 year underperformance due to portfolio restructuring to current policy

Source: BNY Mellon

# ERSRI PORTFOLIO: RETURNS

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As of December 31, 2015

## Private Equity Portfolio

Net of Fees

<b>Asset Class</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>
Private Equity	7.02	9.80	10.70
<i>ILPA All Fds Custom BM 1Q Lag</i>	5.17	15.28	13.99

Private Equity portfolio is being managed consistent with expectations

- The role in the portfolio – return generation
- 3-5 year underperformance due to portfolio out of the market in 2009-2010

Source: BNY Mellon

# ERSRI PORTFOLIO: RETURNS

As of December 31, 2015

## Fixed Income

Net of Fees

Manager	Mkt Value (\$000)	Asset Class	1 YR	3 YR
Pyramis Global Advisors	537,350	Core Fixed Income	0.01	1.25
Mackay Shields, LLC	528,307	Core Fixed Income	0.48	1.51
<i>BC Aggregate</i>	---		0.55	1.44

Core Fixed Income Portfolio is being managed consistent with expectations

- Role in the portfolio - diversification and exposure to interest rate risk
- Managers are meeting investment objectives

Source: BNY Mellon

# ERSRI PORTFOLIO: RETURNS

As of December 31, 2015

## Real Return

Net of Fees

Manager	Mkt Value (\$000)	Asset Class	1 YR	3 YR
Brown Brothers Harriman	281,047	U.S. Treasury Inflation-linked Bonds	(0.26)	(1.23)
<i>BBH Inflation-Linked Custom BM</i>	---		0.14	(1.03)
PIMCO	206,342	High Yield and Bank Loans	1.13	
WAMCO	200,619	High Yield and Bank Loans	(3.69)	
<i>30% BoA 1-3 BB-B HY/70% CSLLI</i>			(0.18)	
Harvest Fund Advisor	56,055	MLP	(31.01)	
<i>Alerian MLP Index</i>			(32.59)	
Absolute Return Hedge Funds	518,385	Hedge Funds - Real Return	0.86	4.14
<i>HFRI Fund of Funds Composite Index</i>			(0.36)	3.92

Real Return Portfolio return is not consistent with expectations in the near term

- Role in the portfolio is to exceed inflation by 4% over a full market cycle
  - Many real return assets' returns are driven by factors other than inflation that can lead to underperformance of the investment objective in the near-term
- WAMCO is not performing to expectations – returns have lagged benchmark
- Hedge Funds are meeting expectations (page 16)

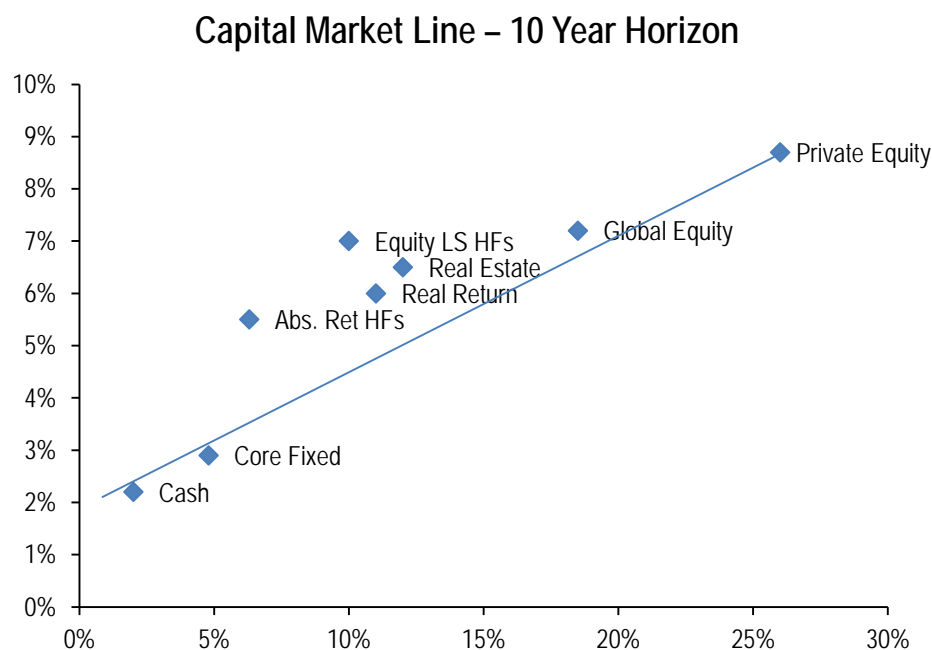
Source: BNY Mellon

# FOCUS ON HEDGE FUNDS: RISK / RETURNS (SINCE INCEPTION)

Hedge Fund portfolios have achieved their investment objectives

## Expectations

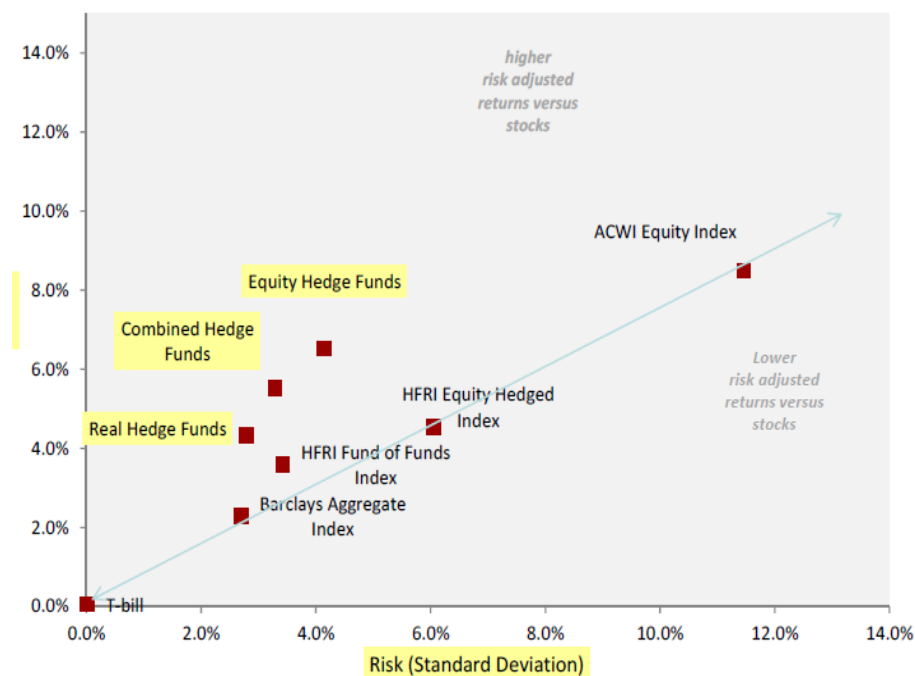
Asset Allocation Modeling Input (returns and risk)



Source: PCA

## Results

Return and Risk (Standard Deviation)  
(Nov 1, 2011 to Dec 31, 2015)



Source: Cliffwater

- Risk taking has been rewarded in the investment marketplace (upward sloping capital market line) since the inception of the Hedge Fund strategies
- Assets above the capital market line are more efficient (higher return per unit of risk) and improve the total portfolio efficiency



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