

# *Employees Retirement System of Rhode Island*

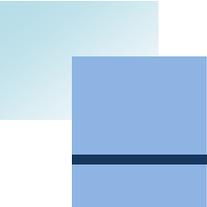
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Presented by:

Allan Emkin

Pension Consulting Alliance, Inc.

October 24, 2011



## *Pension Consulting Alliance, Inc. (PCA)*

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**Pension Consulting Alliance, Inc. (PCA)** is a boutique consulting firm that provides a comprehensive range of services to clients across all major asset classes. Our clients include several of the largest plan sponsors in the United States. In total, our 28 clients represent approximately \$970 billion in plan sponsor investment assets.

Founded in 1988, PCA is built on the philosophy that consulting is a problem-solving process, not a commodity. We design our services to meet the client's specific needs in a cost effective manner. PCA generates all of its revenue from a single source of business – investment consulting services. The firm does not engage in other business services that might raise conflicts of interest.

Over time, PCA has structured itself as a firm of senior consultants that is supported by several specialist consulting firms representing a variety of unique disciplines. Through these alliances, PCA retrieves any necessary specialist resources from experts and tailors the consulting product to the specific needs of each client.

PCA ranked in the Top 10 by Pension and Investments (2010) and is highly appreciated for its ability to provide proactive advice and advice on long-term asset allocation and has high credibility with the investment committee with particular strength in understanding of client goals and objectives according to Greenwich Associates (Evaluations by U.S. Institutional Investors 2010).

# PCA Client List

Name	General/ Alternatives/ Real Estate	Relationship Type	Client Type	Years as Client	Year of Inception	Total Market Value as of as of 6/30/11 (in Millions)
Alabama CollegeCounts 529 Fund	GEN	Retainer	Other (529)	<1	2010	\$780
California Public Employees' Retirement System	GEN, AI, RE	Retainer	Public	16	1995	\$240,100
California State Teachers' Retirement System	GEN, AI	Retainer	Public	21	1990	\$154,300
City of Hartford	AI	Retainer	Public	10	2001	\$960
Colorado CollegeInvest 529 College Savings Plan	GEN	Retainer	Other (529)	1	2010	\$4,100
Colorado Fire & Police Pension Association	GEN	Retainer	Public	18	1993	\$3,200
Directors Guild of America	GEN, AI	Retainer	Taft-Hartley	8	2003	\$2,400
East Bay Municipal Utility District	GEN, RE	Retainer, Project	Public	6	2005	\$970
Fresno County Treasurer's Cash Pool	GEN	Retainer	Public	12	1999	\$2,000
Hawaii Employer-Union Health Benefits Trust Fund	GEN	Retainer	Other (Union)	<1	2011	\$150
Kansas Public Employees' Retirement System	GEN	Retainer	Public	13	1998	\$13,300
Los Angeles Department of Water and Power	GEN, AI	Retainer	Public	9	2002	\$8,600
Maryland State Retirement and Pension System	RE	Retainer	Public	1	2010	\$37,500
Minnesota State Board of Investment	GEN	Retainer	Public	17	1994	\$61,600
Nevada 529 College Savings Plans	GEN	Retainer	Other (529)	<1	2011	\$8,200
New Mexico Education Trust Board*	GEN	Retainer	Other (529)	<1	2011	\$2,000
New York State Common Retirement Fund	AI, RE	Project	Public	2	2009	\$146,500
Oakland Police and Fire Retirement System	GEN	Retainer	Public	7	2004	\$290
Oregon Public Employees' Retirement System	GEN	Retainer	Public	19	1992	\$58,600
Pacific Maritime Association	GEN, RE	Retainer, Project	Taft-Hartley	2	2009	\$2,600
Rhode Island State Investment Commission	GEN	Retainer	Public	3	2008	\$7,500
Santa Barbara County Employees' Retirement System	GEN	Retainer	Public	21	1990	\$2,000
ScholarShare Investment Board of California	GEN	Retainer	Other (529)	11	2000	\$4,300
Seattle City Employees' Retirement System	GEN, AI, RE	Retainer	Public	4	2007	\$1,900
State of Hawaii Employees' Retirement System	GEN	Retainer	Public	5	2006	\$11,600
State of New Jersey Retirement System	AI	Project	Public	3	2008	\$75,000
TriMet Pension Trust Funds	GEN	Retainer	Public	1	2010	\$360
UAW Retiree Medical Benefits Trust	GEN	Retainer	Other (Union)	<1	2010	\$57,800
Washington State Investment Board	GEN	Project	Public	8	2003	\$62,300

# PCA Client List - Projects

Name	General/ Alternatives/ Real Estate	Relationship Type	Client Type
Building Service 32 BJ	GEN	Project	Union
International Foundation of Employee Benefits	GEN	Project	Education
SEIU Pension	GEN	Project	Union
South Carolina Retirement System	GEN	Project	Public
United Nations	GEN	Project	Supranational

# Biography



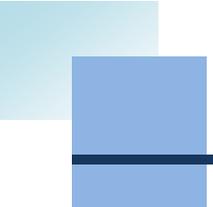
**Allan Emkin**  
**Founder & Managing Director**  
**Los Angeles, CA**

Allan Emkin founded Pension Consulting Alliance, Inc. in 1988, with offices in Los Angeles, Chicago, New York City, and Portland, Oregon.

Long a member of the consulting community, Mr. Emkin has twenty-five years of general consulting experience emphasizing public plan administration and investment policy, as well as international, global, and real estate investments.

Mr. Emkin was a Vice President at Wilshire Associates before forming PCA in 1988. Prior to his work in the consulting field, Mr. Emkin worked in the California Governor's office in the Pension Investment Unit. Before joining the Brown administration, he was a registered lobbyist for ten years specializing in affordable housing and other matters affecting low-income families.

Mr. Emkin is a frequent speaker at various conferences and educational seminars and has long standing relationships with Liberty Hill Foundation in Santa Monica, California as well as The Labor and Worklife Program at Harvard University.



# *DB Contribution Volatility*

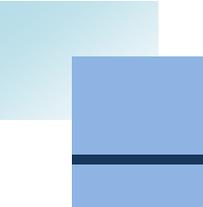
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## 2012 Asset Liability Study Results:

- If returns exceed expectations over the next decade (top quartile: 1 in 4 chance), projected cost as a percent of payroll will decline to 31% from 41%.
- If returns are below expectations over the next decade (bottom quartile: 1 in 4 chance), projected cost as a percent of payroll will increase to 51% from 41%.

# Return Impact on Cost as % Active Payroll

		Highest Returns		7.5%	Lowest Returns	
	Portfolio	5th Pct	25th Pct	Average	75th Pct	95th Pct
1st Year	Current Policy	38%	38%	38%	39%	39%
3rd Year	Current Policy	40%	42%	44%	45%	49%
5th Year	Current Policy	35%	40%	44%	48%	54%
10th Year	Current Policy	17%	31%	41%	51%	62%



# *Changed Investment Landscape*

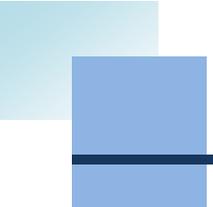
RECENT MARKET DYNAMICS

## THE WORLD HAS CHANGED FOR LONG-TERM INVESTORS:

Factors that provided a tailwind in the past are expected to present a headwind

- Lower interest rate environment
- Debt levels are higher
  - Government: to finance operations
  - Consumer: to fund purchases of housing and consumer goods
- Growing capital flows increase the potential for global capital market volatility
- Other influences

**Take-away:** Powerful secular trends have the potential to influence the investment landscape in a negative way for the next decade and possibly beyond



# *Changed Investment Landscape*

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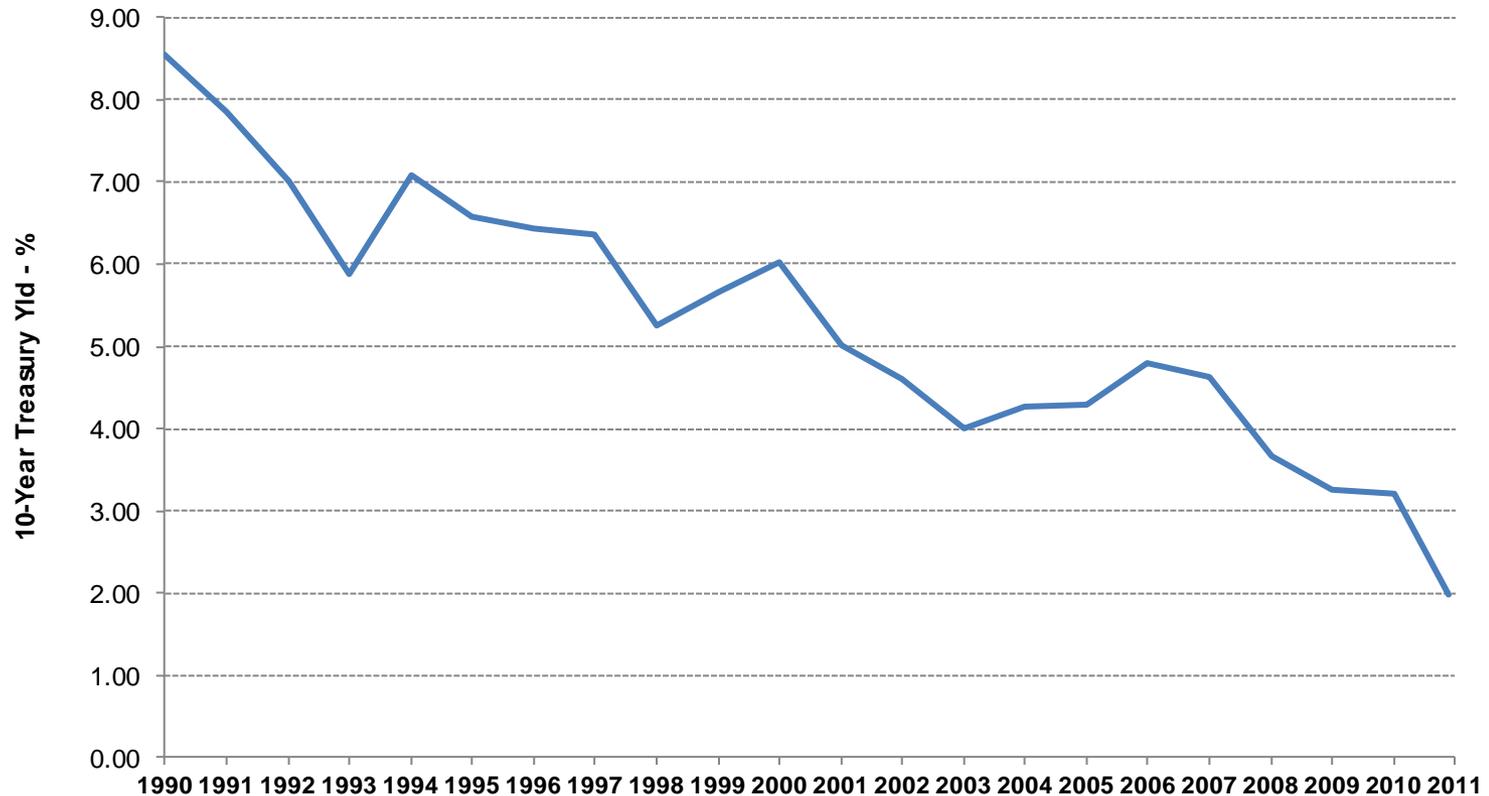
## LOWER INTEREST RATE ENVIRONMENT:

- Indicates that future expected returns from Fixed Income will be lower than in the past
- Future Fixed Income market returns are relatively easy to estimate
  - Today's 10-year Treasury note's Yield-to-Maturity is a good predictor of a 10-year holding period return

**Take-away:** Rhode Island can expect a 3.0% – 3.25% return on 20%+ of the investment portfolio over the next decade

# Declining Interest Rates

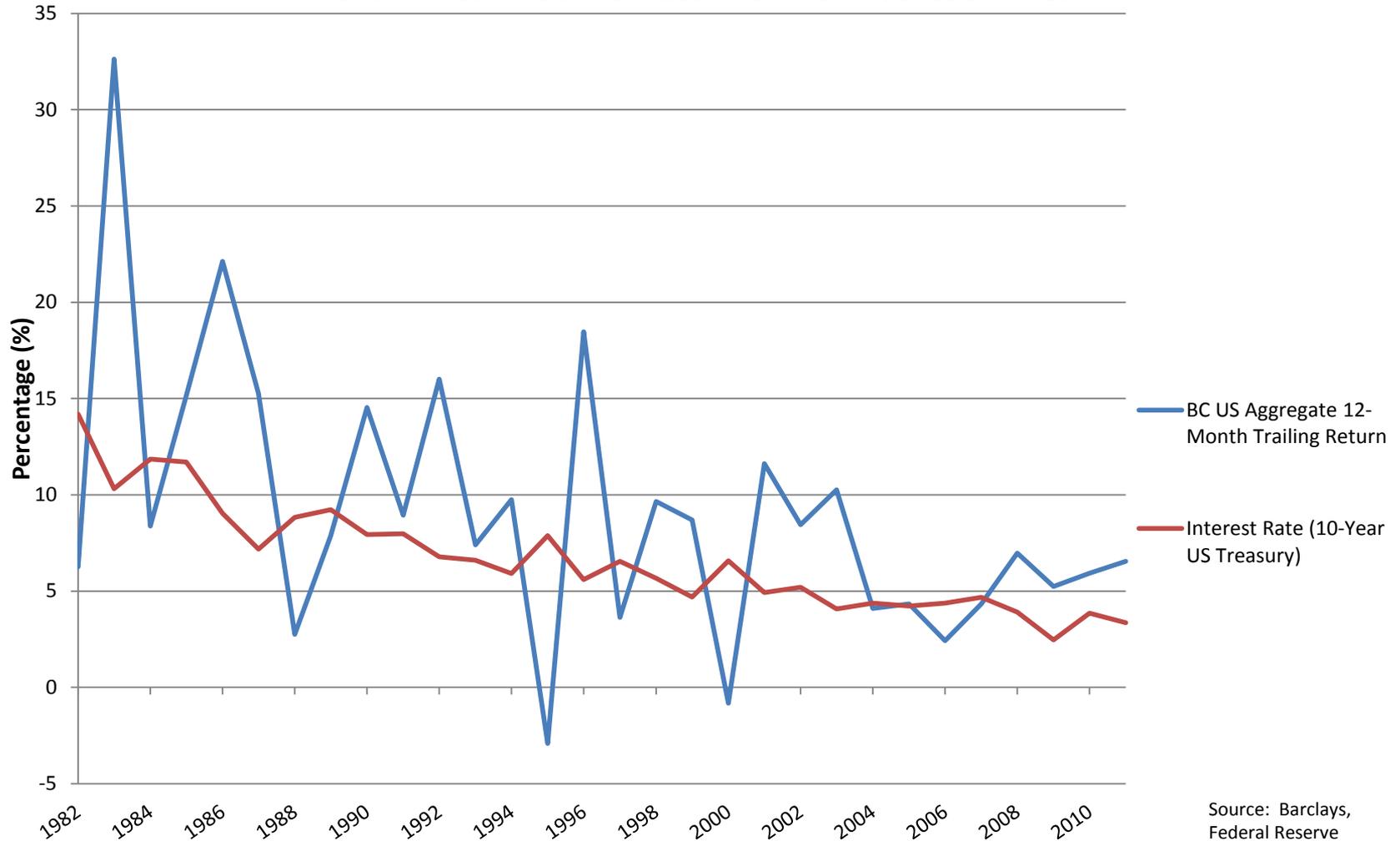
10-Year Treasury Yields less than ¼ of What They Were in 1990



- Expected returns for bonds are low

# Declining Interest Rates: Fixed Income Tailwind

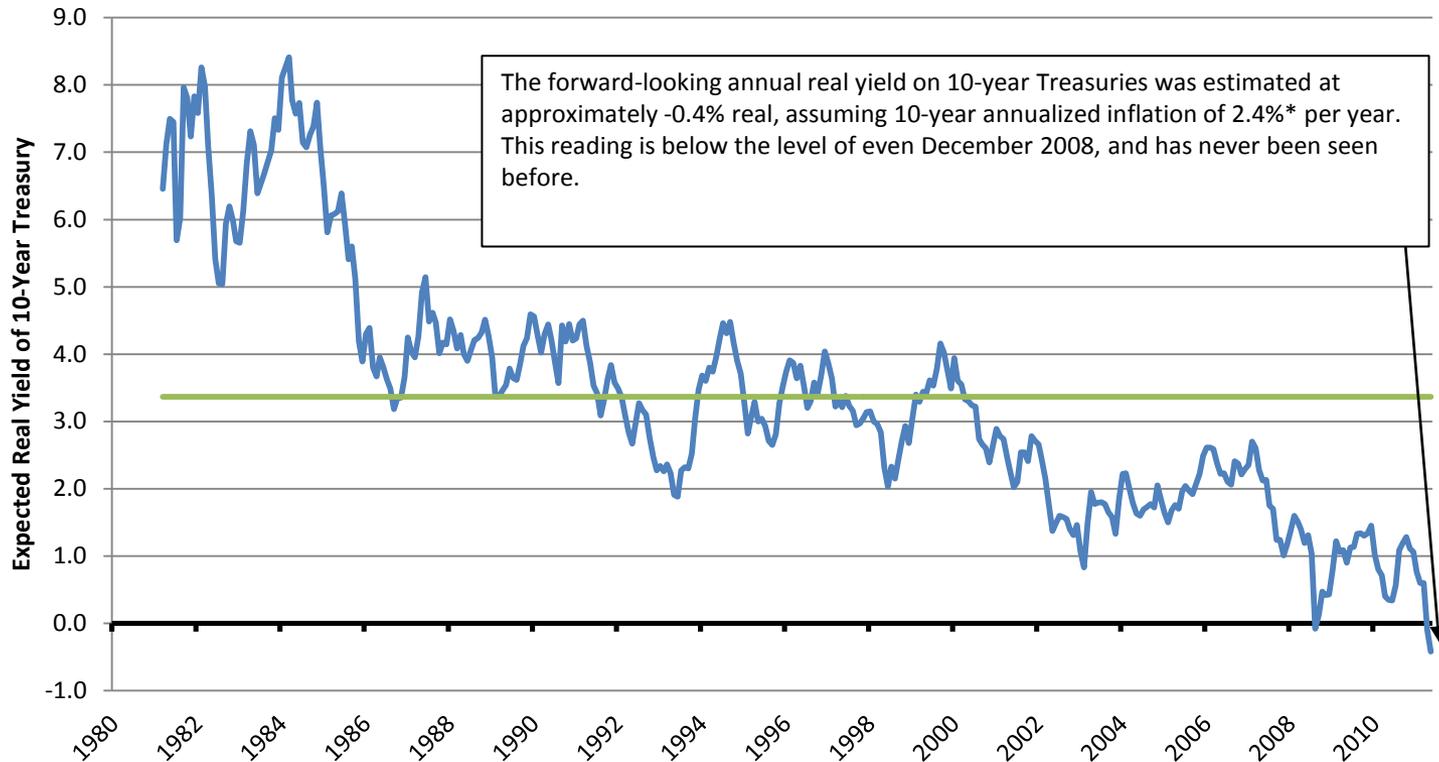
## U.S. Fixed Income Returns and Interest Rates



Source: Barclays, Federal Reserve

# Real Yields Are At Historic Lows

## Estimate of 10-Year Treasury Forward-Looking Real Yield



Sources: [www.ustreas.gov](http://www.ustreas.gov) for 10-year constant maturity rates

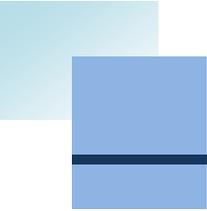
\*Federal Reserve Bank of Philadelphia survey of professional forecasts for inflation estimates

# Changed Investment Landscape

## DEBT LEVELS ARE HIGHER:

- The European Union is facing a sovereign debt crisis as debt levels are unsustainable in several countries. Default threatens the solvency of the European financial system and the future of the Euro.
- The U.S. Government and the citizenry have over-extended their debt burdens. Japan also has heavy debt loads.
- When debt reaches high levels it can act as a brake on economic growth
  - Interest payments and debt repayment can crowd out future purchases and economic projects
- Delevering is required to restore fiscal stability. Delevering is a brake on economic activity.

**Take-away:** Debt financing burdens and subsequent delevering point to lower economic growth prospects and potentially lower Equity market returns



# *Changed Investment Landscape*

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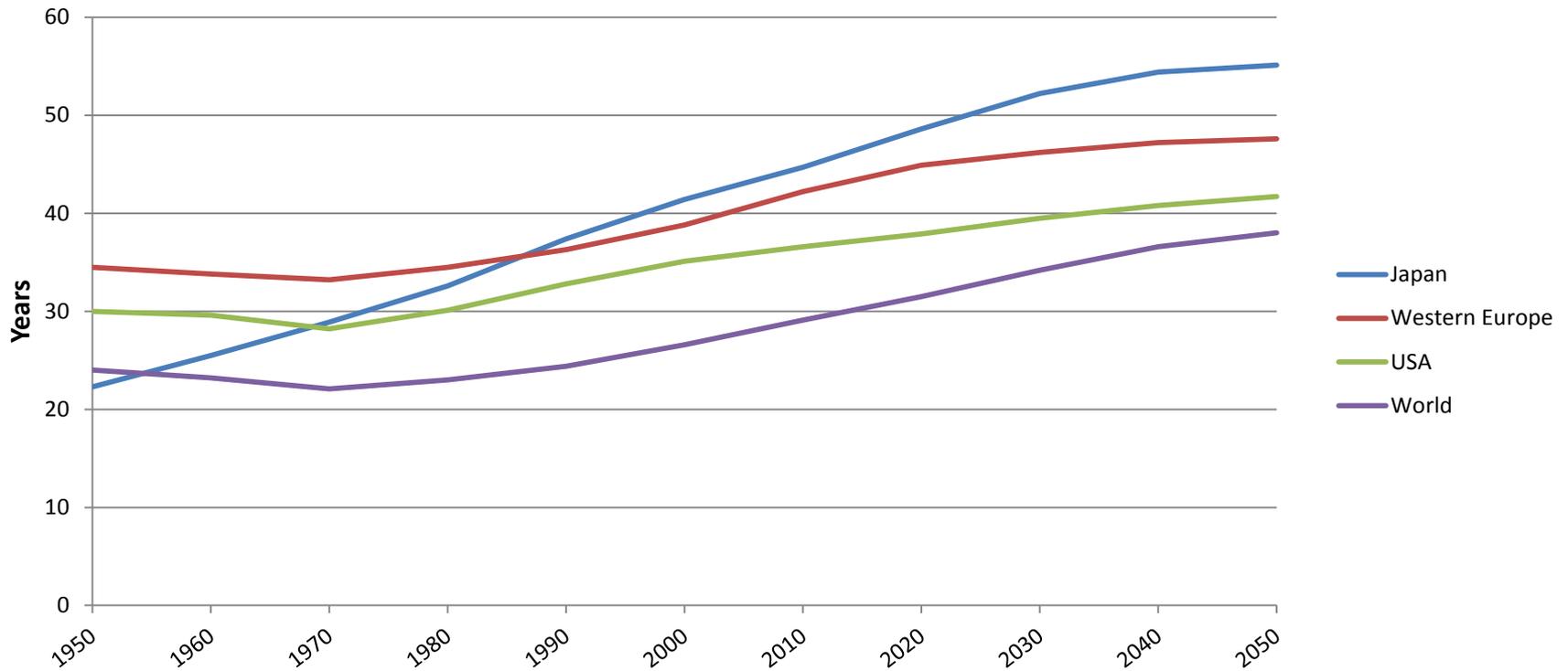
## ADDITIONAL FACTORS CONTRIBUTING TO LOWER ECONOMIC GROWTH PROSPECTS IN THE DEVELOPED ECONOMIES:

- Aging populations
- Slowing population growth
  - As a result Economic Growth is expected to be lower in the developed market economies

**Take away:** Lower economic growth prospects in the developed markets point to lower Equity market returns

# Changed Investment Landscape

## Median Ages



**Take-away:** Aging population points to lower economic growth

# Equity Market Expectations

## Equity Market Return Expectations are Challenged:

Over long term:

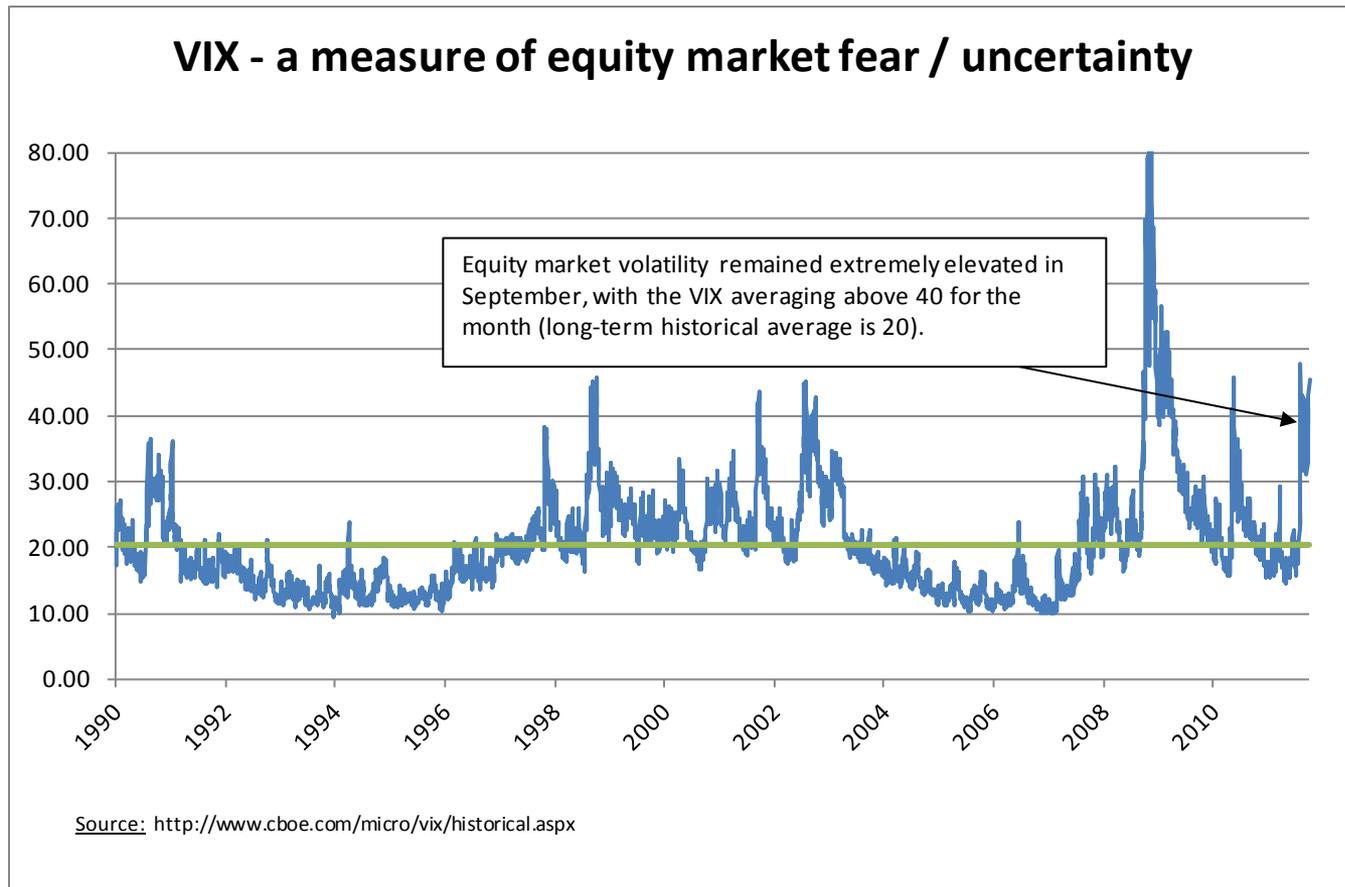
Equity Market Return =

Dividend Yield of market + economic growth  $\pm$  p/e multiple change

Today:	Dividend Yield =	2.1%	(historically low yield level)
	Economic Growth =	2.0%	(lower growth than historic levels)
	p/e multiple change =	13.4X	(reasonable multiple – modest chance of future multiple expansion)

**Take-away:** Historically low dividend yield, lower economic growth expectations and a fairly priced equity market are not predictive of strong equity market returns

# Market Volatility Has Returned



# PCA 10 Year Expected Returns: Arithmetic and Geometric

	Expected Avg. Arithmetic Annual Return	Expected Geometric (Compound) Annual Return
Cash	3.00	3.00
Treasury Infl. Protected Securities	3.75	3.60
Domestic US Fixed Income	3.30	3.20
International Fixed Income	3.30	2.80
Global Fixed Income	3.30	3.00
Core Real Estate	7.00	6.50
Real Return	6.50	6.20
Domestic Equity	8.75	7.30
International Equity	9.00	7.00
Global Equity	8.90	7.40
Hedged International Equity	8.90	7.10
Private Equity/Venture Capital	12.00	8.90
Inflation	2.75	2.75

- Arithmetic return – average return you can expect in any year
- Geometric return – average compounded return
  - Incorporates return volatility
  - Geometric returns are lower than arithmetic returns

# Expected Return Assumptions Comparison

## 10 Year Arithmetic Returns %

	PCA	Russell	Ennis Knupp	Callan	Cliffwater	Wilshire	Average	Average not including PCA
<b>Cash</b>	3.00	3.40	2.75	3.00	2.50	2.50	2.9	2.8
<b>TIPS</b>	3.75	3.90	3.90	3.60	3.50	3.50	3.7	3.7
<b>U.S. Core Fixed Income</b>	3.30	4.40	4.50	3.80	3.10	4.00	3.9	4.0
<b>Core Real Estate</b>	7.00	6.70	6.80	7.85	8.90	6.50	7.3	7.4
<b>Real Return</b>	6.50	6.70		6.50	4.50	6.50	6.1	6.1
<b>U.S. Equity</b>	8.75	7.30	8.70	9.35	9.10	8.25	8.6	8.5
<b>Non-U.S. Equity</b>	9.00	7.40	8.90	9.50	9.20	8.50	8.8	8.7
<b>Private Equity</b>	12.00	9.60	15.10	13.10	12.90	12.50	12.5	12.6
<b>Inflation</b>	2.75	2.50	2.40	2.50	2.30	2.25	2.5	2.4

Note: Real Return for Callan and Cliffwater are Commodities

# Expected Return Assumptions Comparison

## 10 Year Arithmetic Returns %

	PCA	Consultant Average	Average not including PCA
Cash	3.00	2.9	2.8
TIPS	3.75	3.7	3.7
U.S. Core Fixed Income	3.30	3.9	4.0
Core Real Estate	7.00	7.3	7.4
Real Return	6.50	6.1	6.1
U.S. Equity	8.75	8.6	8.5
Non-U.S. Equity	9.00	8.8	8.7
Private Equity	12.00	12.5	12.6
Inflation	2.75	2.5	2.4

- PCA core fixed income assumption lower than the average
- PCA inflation assumption higher than the average

## ERSRI Portfolio: Expected Return

Based on approved ERSRI asset allocation policy and PCA 2011 Ten-year capital market assumptions the expected compound return is 6.8%

The probability of ERSRI's current policy portfolio achieving the following compound return thresholds over the 10 year investment horizon are calculated to be as follows:

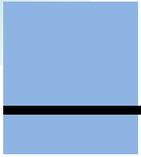
<b>Compound Return Threshold</b>	6.75%	7.00%	7.25%	7.50%	7.75%	8.00%
<b>Probability of Exceeding Threshold</b>	<b>50.3%</b>	<b>47.6%</b>	<b>44.8%</b>	<b>42.2%</b>	<b>39.5%</b>	<b>36.9%</b>

The compound returns are net of fees, but do not assume any potential added value from active management.

In addition, these compound returns do not include ERSRI's administrative expenses, which are likely to be between 5bp-10bp of plan assets.

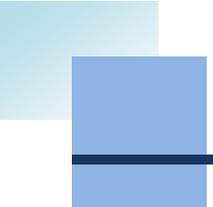
**Take-away:** Given the PCA capital market return assumptions and the current portfolio policy asset mix:

- The probability of achieving at least a 7.5% compounded return is 42.2%
- The probability of achieving a compounded return below 7.5% is 57.8%



# *CONCLUSION*

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# CONCLUSION

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Powerful secular trends are likely to restrain capital market rates of return for the next decade and possibly beyond

1. The Rhode Island portfolio can expect a 3.0 – 3.25% return from Fixed Income, which represents 20%+ of the investment portfolio, over the next decade
2. Moderate economic growth prospects in the developed markets point to lower Equity market returns

*Over the next decade long-term investors should expect lower capital market returns than historical averages.*

## ERSRI Performance Year-to-Date – ending September 30, 2011

Asset Class	Return
U.S. Fixed Income	6.7%
U.S. Equity	-9.9%
Non-U.S. Equity	-16.5%
Real Estate	13.8%
Private Equity	16.1%
<b>Total Fund</b>	<b>-3.3%</b>
<b>State Street Public Fund Median</b>	<b>-3.3%</b>