

Investment Performance Report as of June 30, 2018



Presented by:

Elizabeth B. A. Miller, CFA
Chief Investment Officer

Joint Committee on Pensions, Investments, and Benefits
October 29, 2018

Total Fund Performance through June 2018*

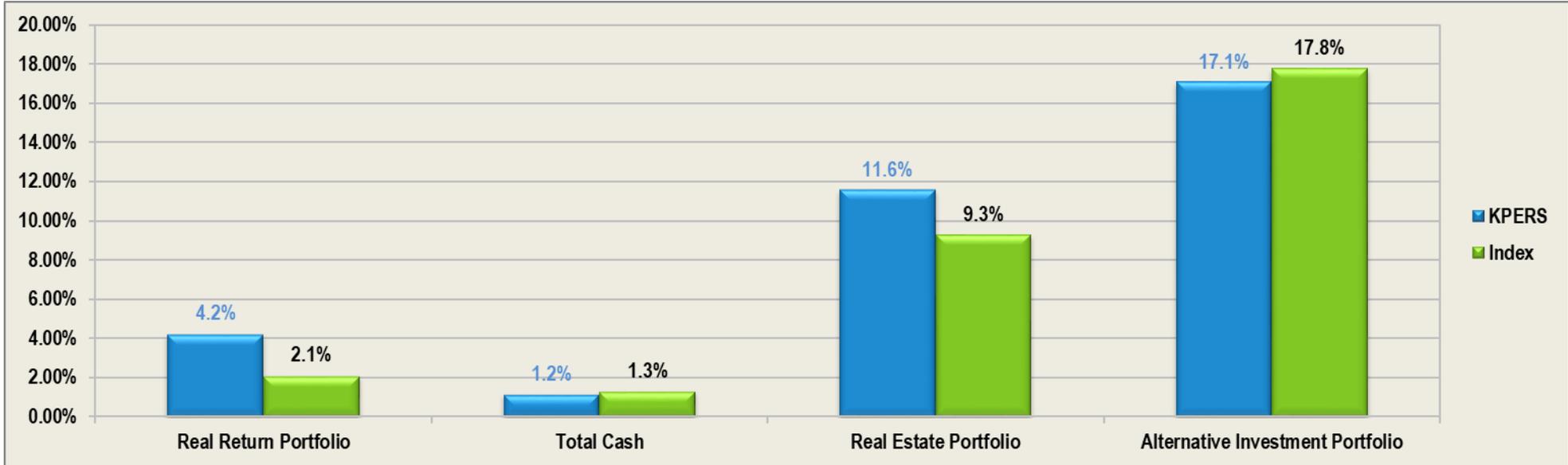
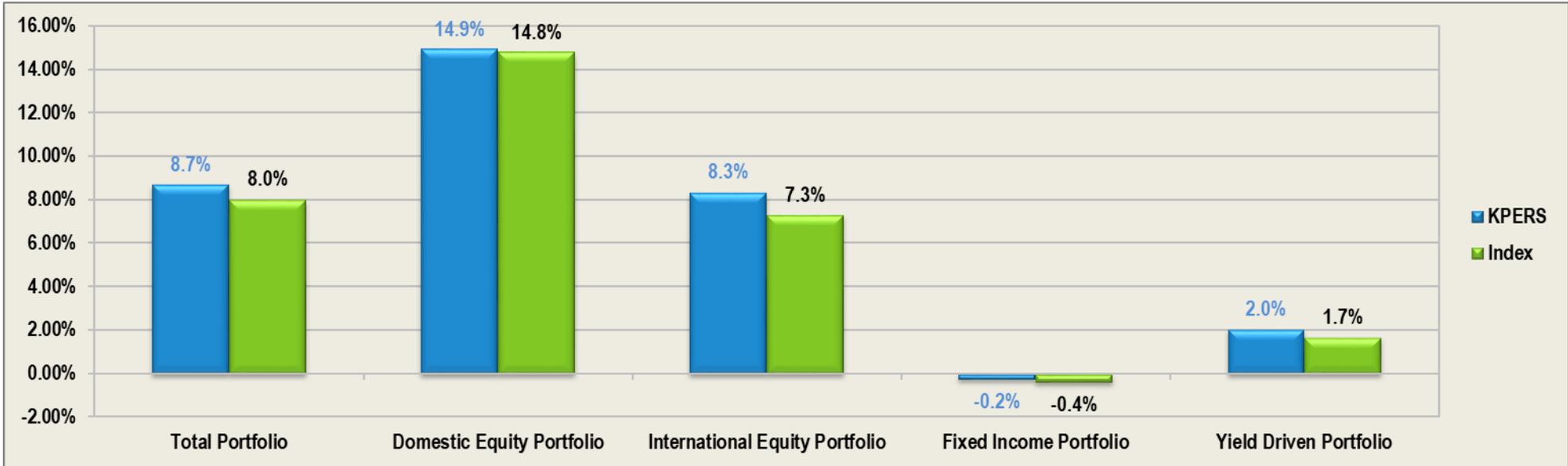
• Fiscal Year 2018	8.7%	[+0.7%]
• Trailing three years	7.2%	[+0.2%]
• Trailing five years	8.7%	[+0.5%]
• Trailing ten years	7.1%	[+0.4%]
• Trailing twenty-five years	8.2%	[+0.5%]

Best Performing Asset Classes (Fiscal Year 2018)

• Alternative Investments	17.1%	[-0.7%]
• Domestic Equity	14.9%	[+0.1%]
• Real Estate	11.6%	[+2.3%]

*Performance data as of June 30, 2018 represents gross total return. Performance results for time periods longer than one year represent average annualized total returns. [] = performance relative to Policy Index or asset class benchmark.

Fiscal Year 2018 Returns



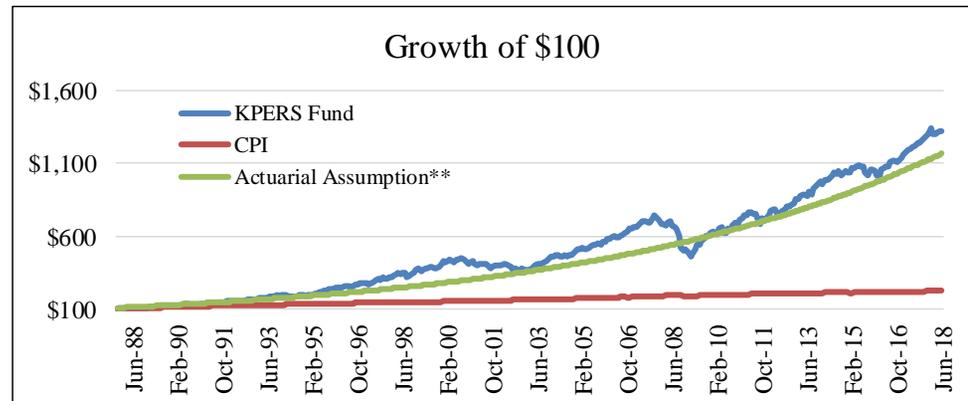
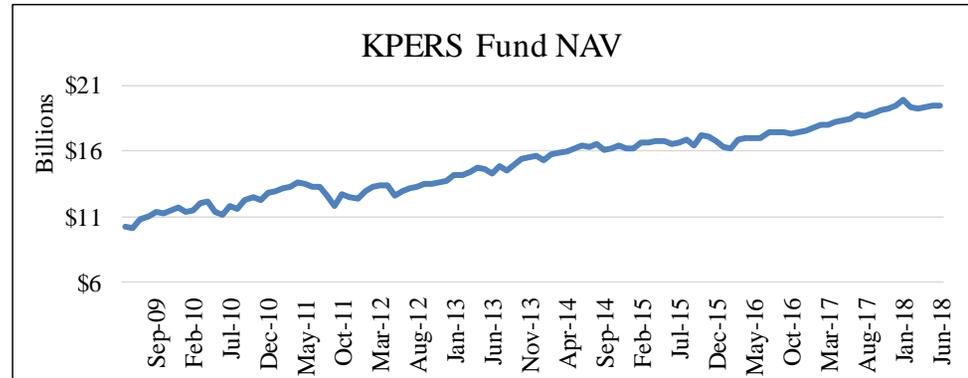
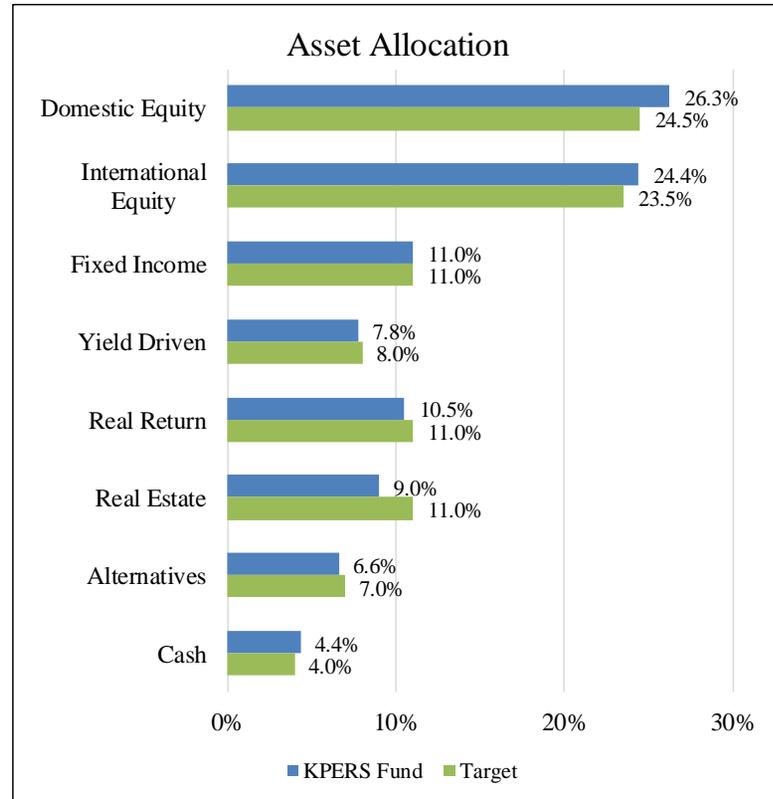
Performance data as of June 30, 2018 represent gross total returns.

Total Plan Performance



**KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM
INVESTMENT PERFORMANCE REPORT
June 30, 2018**

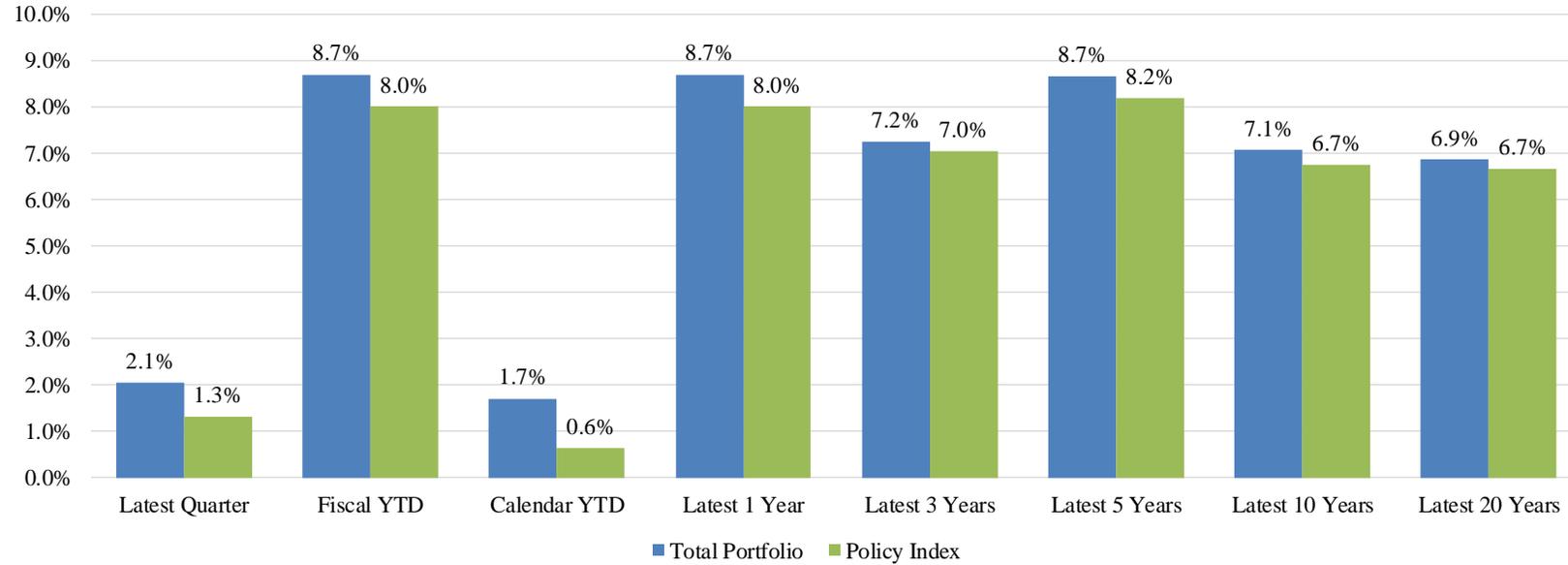
	June 30, 2018									
	Net Asset Value		Latest	Fiscal	Calendar	Latest 1	Latest 3	Latest 5	Latest 10	Latest 25
Time Weighted Total Return*	(Millions)		Quarter	YTD	YTD	Year	Years	Years	Years	Years
Total Portfolio	\$19,485.7		2.1%	8.7%	1.7%	8.7%	7.2%	8.7%	7.1%	8.2%
Policy Index			1.3%	8.0%	0.6%	8.0%	7.0%	8.2%	6.7%	7.7%
<i>Excess Return</i>			<i>0.8%</i>	<i>0.7%</i>	<i>1.1%</i>	<i>0.7%</i>	<i>0.2%</i>	<i>0.5%</i>	<i>0.4%</i>	<i>0.5%</i>



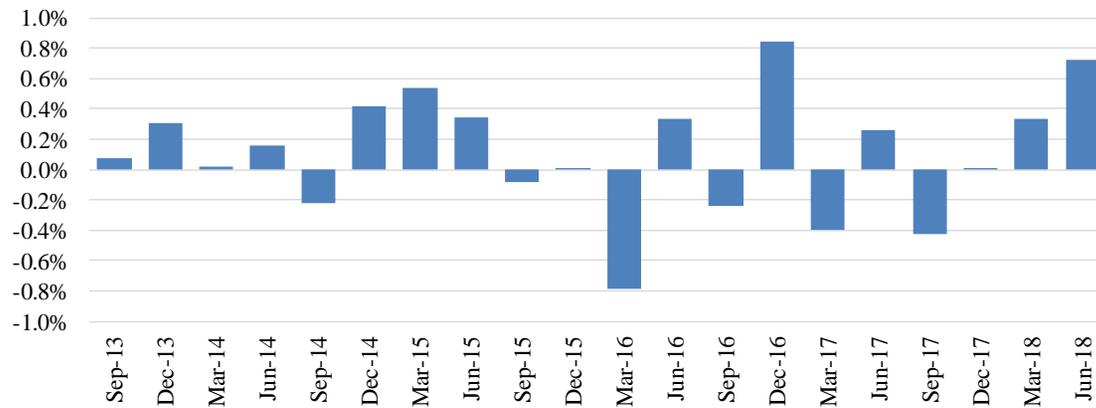
* Returns for time periods less than one year are not annualized.
 ** Actuarial assumption was 8% from 1986 through 2016; 7.75% currently.

Total Plan Performance

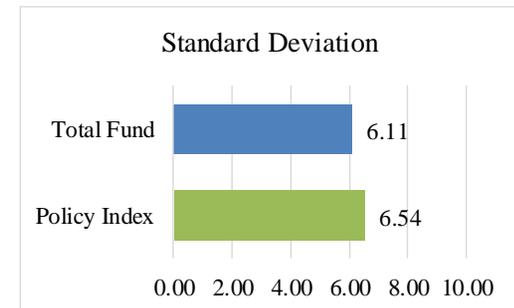
KANSAS PUBLIC EMPLOYEES RETIREMENT SYSTEM PLAN PERFORMANCE June 30, 2018



Rolling 3-Month Excess Return



Risk Statistics - Trailing 3 Years



	Fund
Standard Deviation	6.11
Sharpe Ratio	1.07

Current Investment Environment

- **Robust US economic growth**
- **Strong earnings growth for US corporations**
- **Tightening US monetary policy**
- **Stimulative US fiscal policy**
- **RISK FACTORS:**
 - **US Equity valuation levels are high**
 - **Earnings growth may moderate as tax cut effect fades**
 - **Inflationary pressures increasing in US (labor costs/energy/trade tariffs)**
 - **US interest rates rising; yield curve flattening => harbinger of recession?**
 - **Strong US dollar and rising US interest rates => weakness in Emerging Mkts.**
 - **US/China trade tariffs => slower economic growth globally?**
 - **Geopolitics: Brexit/Italy/Russia/North Korea/Iran**

Policy Response

- **Retain perspective of long-term institutional investor**
 - “Keep Calm and Carry On” Investing

- **Continue to use “Best Practices”:**
 - Recognize pervasiveness of equity/growth risk in the portfolio
 - Reduce exposure to uncompensated risks (i.e., currency hedging)
 - Focus on “risk factors” in well-diversified portfolio (i.e., yield driven and real return classes)
 - Utilize active management where alpha conviction is high (i.e., international equity)
 - Exercise strong oversight of external managers
 - Follow annual pacing plans for private equity & real estate
 - Employ disciplined approach to deploying capital across asset classes
 - Maintain disciplined rebalancing process and proactive cash flow management
 - Use disciplined and thoughtful approach to consideration of possible new investment strategies (Can we reduce risk/increase return? Deploy with existing resources?)
 - Periodic “stress testing” of investment portfolio

INVESTMENT EXPERTISE

Keenly Dedicated to Growing Assets for Members

Dedicated Fiduciary, First and Always

KPERS serves members as a fiduciary, holding assets in trust for them, growing those assets through investments and delivering promised benefits when the time comes.

The fiduciary standard is our driving force, particularly in investments. It is the highest standard of care and accountability. KPERS investments are made and managed for the sole purpose of providing benefits to our members and their beneficiaries.

Filling a Vital Role

Investment returns make up the largest source of income for paying benefits. They are a vital part of successful funding. Over the years, it is estimated that investment returns have paid for more than 50% of benefits.

Managing With Expertise and Experience

Managing KPERS' dynamic and diversified portfolio requires significant investment expertise and experience. KPERS' board of trustees has developed a three-way partnership to facilitate the investment returns needed to pay benefits, as well as to ensure that we honor our fiduciary commitment to members, consisting of:

1. KPERS internal investment professionals
2. External investment consultants
3. External investment managers

KPERS Internal Investment Professionals

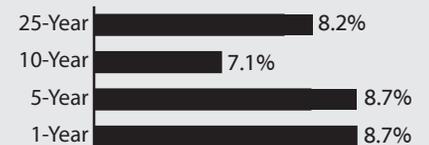
KPERS has a staff of nine investment professionals who provide oversight and management of the assets and the external investment managers retained by the System. Each asset class is overseen by at least one investment officer. Investment officers are supported by a team of investment analysts who provide research and assistance in managing the portfolios. KPERS investment team is managed by the chief investment officer.

KPERS Investments at a Glance

Total Assets	\$19.49 billion (as of 6/30/18)
Investment Return Target	7.75%
1-yr Investment Returns	8.7% (FY 2018)
25-yr Investment Return Average	8.2% (ending 6/30/18)
Investment Asset Classes	Allocation Target
• Domestic equity	24.5%
• International equity	23.5%
• Fixed income	11%
• Yield driven	8%
• Real return	11%
• Real estate	11%
• Alternatives (Private Equity)	7%
• Cash equivalents	4%

KPERS Returns Over Time

(as of 6/30/18)



KPERS' team has over 100 years of combined investment management experience. Three of the five officers and one investment analyst have earned their Chartered Financial Analyst (CFA) designations. One officer is a CFA Level III candidate. One officer is a CFA Level II candidate. One analyst is a CFA Level I candidate. The CFA designation is globally recognized as the standard by which to measure investment professionals. Another analyst is a Level II candidate for the Chartered Alternative Investment Analyst (CAIA) designation.

KPERS Investment Consultants

Pension Consulting Alliance, LLC, is KPERS' general investment consulting firm. They are an independent, full-services investment consulting firm.

- 32 clients representing \$1.3 trillion in institutional investor assets
- 10 senior general consulting staff members (19 senior consulting staff members in total) with offices in Portland, OR, and New York, NY
- Hired by KPERS in 1998

Pavilion Alternatives Group, a Pavilion company, is a full-service investment consulting firm that provides a broad range of investment advisory services focused on alternative assets including investment strategy and pacing, manager sourcing and screening, due diligence, portfolio monitoring and results reporting, in-depth market research and educational sessions.

- \$94 billion in private equity assets under advisement for 70 clients, including 12 state pension plans
- 80 employees who serve clients across eight offices in North America, Europe and Asia
- Has worked with KPERS since 2008

The Townsend Group provides investment sourcing and underwriting, investment pacing, advisory board representation, results reporting and board education relating to real estate, timber and infrastructure investments.

- \$202 billion in real estate assets under advisement/management
- 115 employees who serve clients out of Cleveland and San Francisco, as well as international offices in London and Hong Kong
- Has worked with KPERS since 2008

External Investment Managers

Through a competitive hiring process, KPERS carefully selects qualified investment managers to construct and manage asset class portfolios that work together. KPERS currently utilizes 25 investment managers.

Our internal investment officers maintain a close relationship with each external manager. In partnership, they carefully monitor the asset portfolios, making adjustments as needed to benefit the trust fund. Active managers add value, not only for what investments they select, but also for those issues they avoid.

What Guides Our Investing

Our diversified assets are invested according to the "prudent expert standard of care" for the sole purpose of providing benefits to our members.

KPERS' disciplined investment strategy is designed to withstand short-term market volatility and economic downturns, as well as to benefit from strong market and economic environments.

Statement of Investment Policy

KPERS' board has adopted a Statement of Investment Policy, Objectives and Guidelines, which serves as a guide to implement KPERS' broad investment objectives. The Statement complements KPERS' statutes and documents the principles and standards that guide the management of System assets. It is binding for all persons with authority over the assets, including investment managers, custodians, consultants, staff and the board of trustees.

Among other things, the Statement establishes the criteria against which investment managers are measured. It also serves as a review document to guide ongoing investment oversight as a yardstick of compliance with the KPERS Retirement Act. The Statement is reviewed and updated annually.

Asset Allocation

Every three years the board of trustees undertakes an asset/liability study. With the guidance of the System's investment consultant, the board reviews projections of liabilities (future benefits) and return assumptions for different asset classes, then assesses the System's risk tolerance level.

The objective of the study is to determine the asset allocation that most effectively and efficiently supports the future payment of benefits when combined with future contributions. The results of each study are used to set the target asset allocation mix.

Potential investments are grouped by asset class. Each asset class represents an opportunity for return and risk. Risk is measured as the variability of the expected return. The System's long-term target asset allocation is 23.5% domestic equities, 23.5% international equities, 11% fixed income, 8% yield-driven, 11% real return, 11% real estate, 8% alternative (private equity) investments and 4% cash.