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Legacy and Budget Stabilization Fund Advisory Board

October 27, 2011

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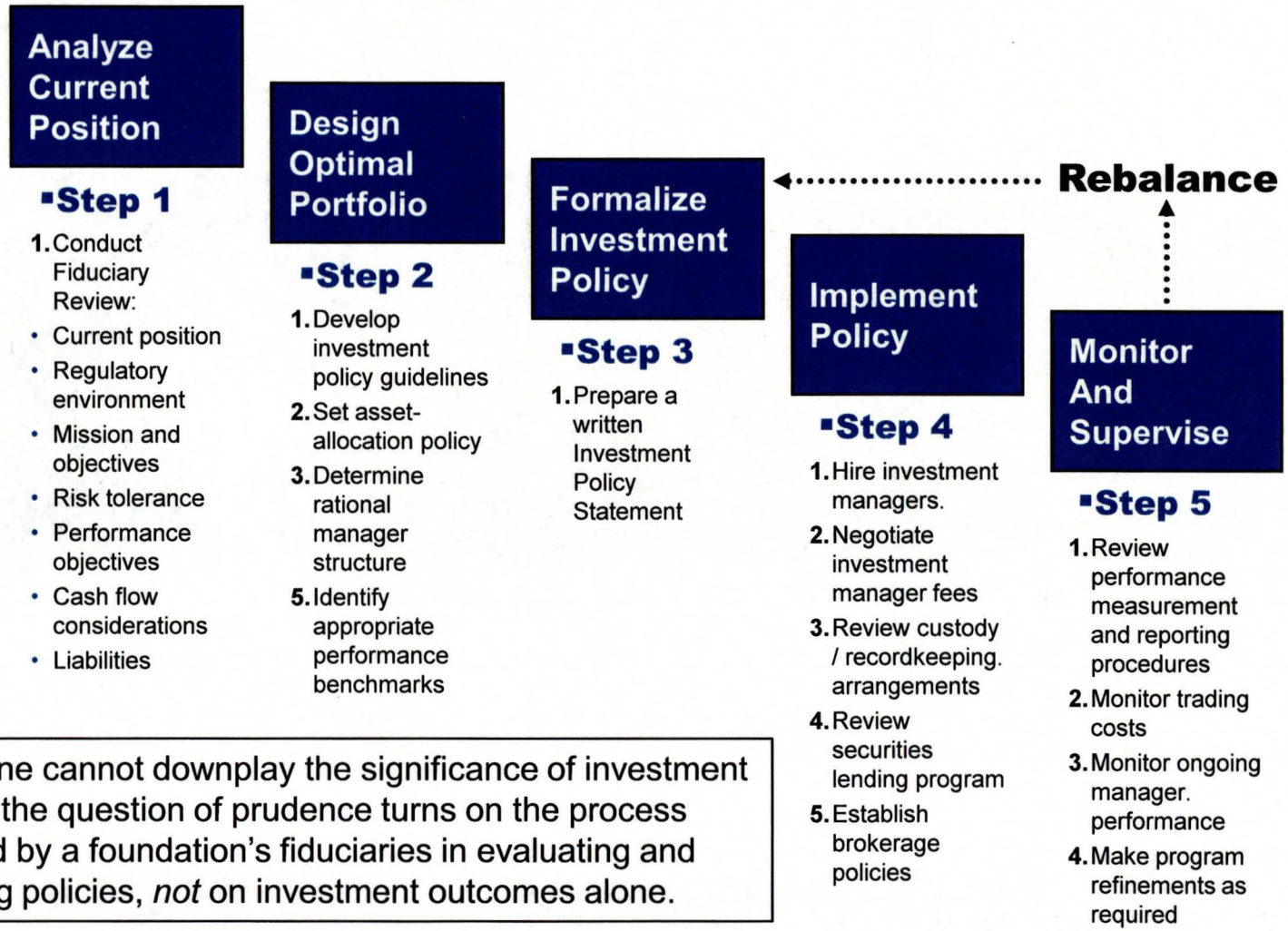
Today's discussion agenda

- **Investment process and the utilization of investment managers**
  - Asset allocation as the primary driver of performance.
  - Implementation – the use of active or passive strategies or "style" based strategies – influences results at the margin, but it can make a difference.
  - Certain asset classes offer a higher probability of success for active managers than others.
  - Most large institutional investors employ a blend of active and passive strategies.
  - The long-term potential impact of a well-managed active/passive implementation on funded status.
- **Analysis of costs incurred in the investment process**
- **An assessment of budget stabilization fund investment managers' performance**
- **Potential risks and returns of investment options**
- **Suggested risk tolerance level and asset mix to comply with the Legacy Fund mission of principal preservation while maximizing total return**

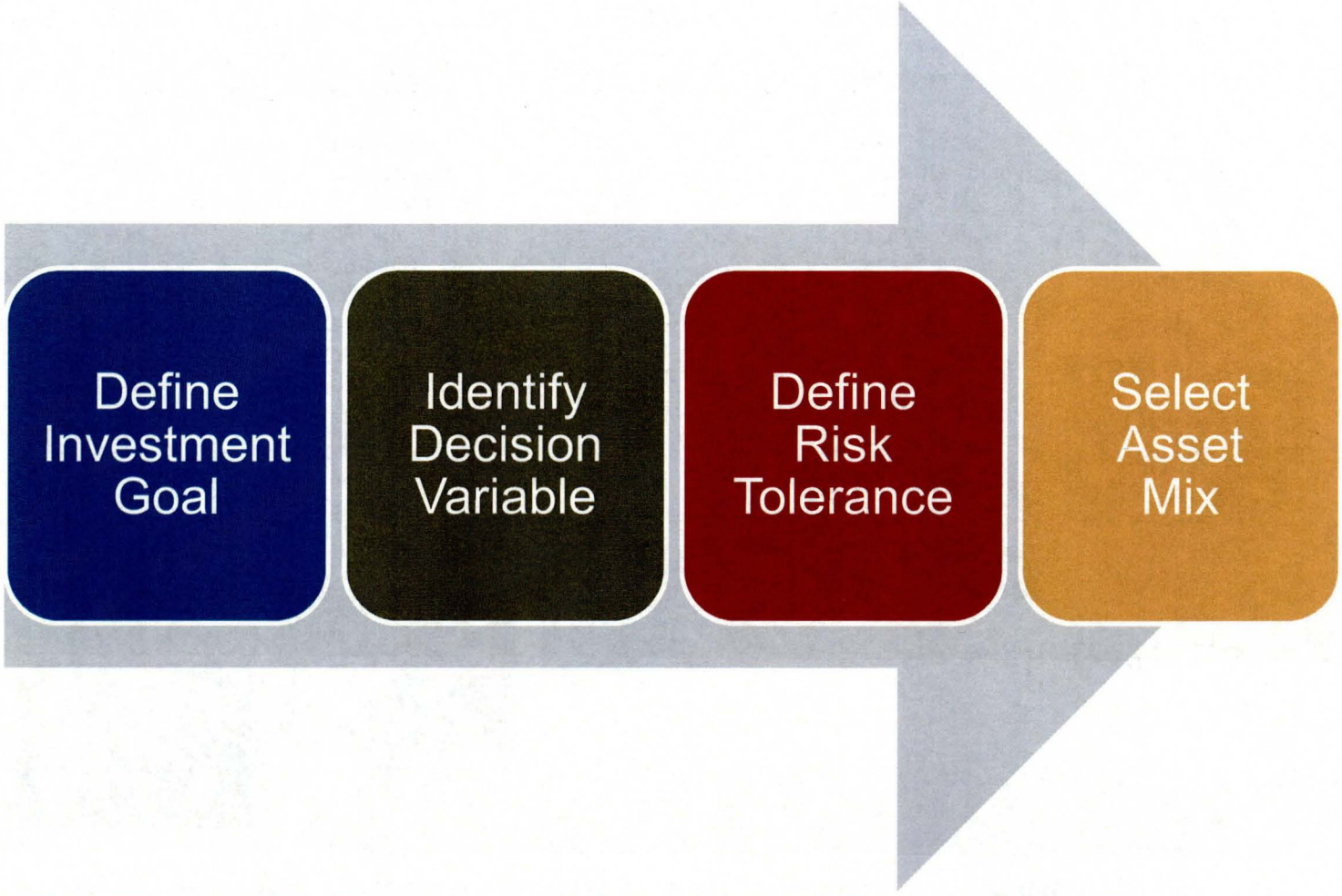
"Prudence" is defined by process

A Recommended Fiduciary Process for all Types of Funds



While one cannot downplay the significance of investment results, the question of prudence turns on the process followed by a foundation's fiduciaries in evaluating and adopting policies, *not* on investment outcomes alone.

Investment goals come first



The investment goal and risk tolerance must be compatible.

That is, the level of return an investor can achieve is inversely proportional to the amount of risk the investor can tolerate.

Understanding the Tradeoffs

- The most appropriate investment strategy will be guided by the priority and nature of your spending goals and risk objectives

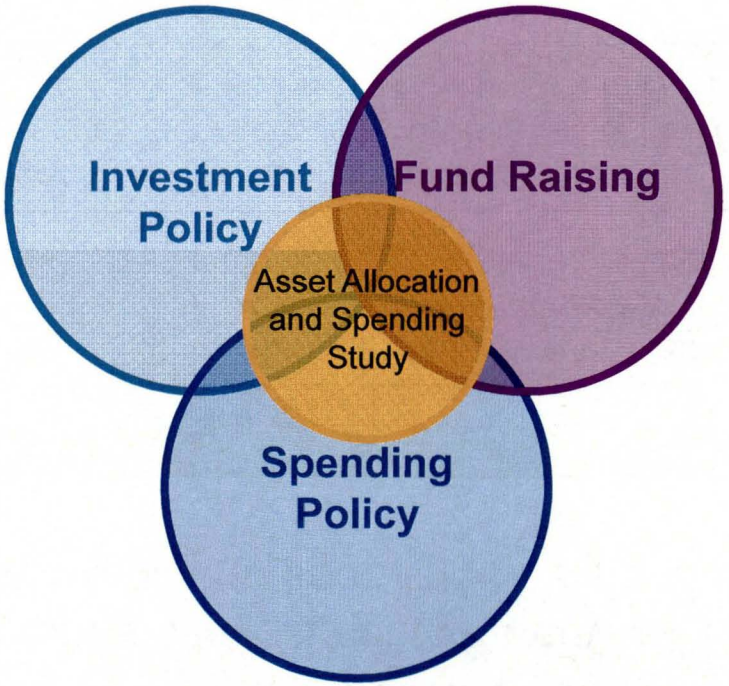
Metric	*Tradeoff*
Investment Goals:	• Reduce market value volatility • Limit net investment costs • Income generation for liquidity
Investment Time Horizon:	• Short term vs. Long term • Liquidity Needs Until 6/17 – Low • Liquidity Needs After 6/17 – Moderate
Risk Tolerance:	Define key risk metrics: • Annual return volatility • Spending flexibility • Contributions
Acceptable Assets:	• To be determined • Peer Comparisons
Constraints:	• Statutory • Public scrutiny

Determination of an investment policy

The investor should evaluate the interaction of the three key policies that govern the endowment in order to identify an appropriate investment policy

Investment Policy

- How will the assets supporting the spending be invested?
- What are the risk/return objectives?
- How to manage cash flows?



Funding Policy

- Revenue expectation
- Near-term policies?
- Consistency of policy and amounts derived thereof?

Spending Policy

- What are the objectives of the distribution policy?
- What level of spending?
- Expectations for fees?

Portfolio Optimization

Summary of Callan's Long-Term Capital Market Projections (2011 - 2020)

Asset Class	Index	Projected Return: Single-Period Arithmetic	Projected Return: 10-year Geometric *	Projected Return: Real	Projected Risk: Standard Deviation	Projected Risk: Projected Yield	2010 10-year: Geo Return	2010 10-year: St Dev
Equities								
Broad Domestic Equity	Russell 3000	9.35%	8.00%	5.50%	18.10	2.00	8.50%	17.30
Large Cap	S&P 500	9.05%	7.85%	5.35%	17.25	2.20	8.30%	16.00
Small/Mid Cap	Russell 2500	10.55%	8.25%	5.75%	23.00	1.20	9.00%	23.00
International Equity	MSCI EAFE	9.50%	7.85%	5.35%	19.75	2.00	8.30%	19.30
Emerging Markets Equity	MSCI EMF	11.75%	8.35%	5.85%	27.50	0.00	8.80%	27.00
Global ex-US Equity	MSCI ACWI ex-US	10.05%	8.20%	5.70%	20.90	1.70	8.70%	19.80
Fixed Income								
Defensive	BC Gov't 1-3 Year	3.25%	3.25%	0.75%	2.50	3.20	3.75%	3.00
Domestic Fixed	BC Aggregate	3.80%	3.75%	1.25%	4.50	3.80	4.50%	4.50
Long Duration	BC Long Gov't/Credit	4.55%	4.00%	1.50%	11.15	4.55	5.00%	9.90
TIPS	BC TIPS	3.60%	3.50%	1.00%	5.90	3.60	4.20%	6.00
High Yield	CSFB High Yield	6.15%	5.60%	3.10%	11.55	6.15	6.10%	11.25
Non-US$ Fixed	Citi Non-US Gov't	3.75%	3.35%	0.85%	9.70	3.75	4.00%	9.60
Other								
Real Estate	Callan Real Estate	7.85%	6.75%	4.25%	16.35	5.00	6.80%	16.10
Private Equity	VE Post Venture Cap	13.10%	9.05%	6.55%	30.00	0.00	9.65%	38.00
Absolute Return	Callan Hedge FoF	6.25%	5.90%	3.40%	10.00	0.00	6.10%	10.00
Commodities	GSCI	6.50%	3.75%	1.25%	24.00	3.00	4.40%	22.50
Cash Equivalents	90-Day T-Bill	3.00%	3.00%	0.50%	0.90	3.00	3.00%	0.80
Inflation	CPI-U	2.50%	2.50%		1.40		2.75%	1.40

** Geometric returns are derived from arithmetic returns and the associated risk (standard deviation).*

Correlation	Broad	Lg Cap	Sm/Mid	Int'l Eq	Emerg	Glob xUS	Defensive	Dom Fix	Long Dur	TIPS	Hi Yield	NUS Fix	Real Est	Pvt Eq	Abs Ret	Comm	T-Bill
Broad Dom Eq	1.000																
Large Cap	0.995	1.000															
Small/Mid Cap	0.954	0.920	1.000														
Int'l Equity	0.802	0.800	0.760	1.000													
Emerging Mkts	0.838	0.830	0.810	0.830	1.000												
Global ex-US Eq	0.845	0.841	0.806	0.983	0.918	1.000											
Defensive	-0.109	-0.100	-0.130	-0.080	-0.120	-0.096	1.000										
Domestic Fixed	0.010	0.020	-0.020	0.000	-0.030	-0.010	0.820	1.000									
Long Duration	0.164	0.168	0.145	0.125	0.094	0.120	0.760	0.913	1.000								
TIPS	-0.103	-0.095	-0.120	-0.090	-0.115	-0.102	0.460	0.660	0.610	1.000							
High Yield	0.612	0.610	0.580	0.530	0.530	0.551	0.050	0.160	0.230	0.060	1.000						
Non-US$ Fixed	-0.071	-0.060	-0.100	0.050	-0.090	0.006	0.420	0.430	0.350	0.300	0.000	1.000					
Real Estate	0.736	0.730	0.710	0.640	0.620	0.658	0.000	0.080	0.191	-0.020	0.540	0.000	1.000				
Private Equity	0.947	0.940	0.910	0.870	0.890	0.910	-0.160	-0.070	0.114	-0.160	0.600	-0.070	0.730	1.000			
Absolute Return	0.741	0.740	0.700	0.680	0.670	0.703	0.050	0.230	0.340	0.100	0.510	0.000	0.560	0.710	1.000		
Commodities	0.221	0.220	0.210	0.210	0.210	0.218	-0.150	-0.020	-0.094	0.140	0.120	-0.050	0.180	0.190	0.200	1.000	
T-Bills	-0.043	-0.030	-0.080	-0.010	-0.100	-0.040	0.350	0.100	0.043	0.070	-0.110	0.000	-0.060	-0.150	0.150	0.070	1.000

U.S. Equity Projections:

8% Return

18.1% Risk

U.S. Fixed Income Projections:

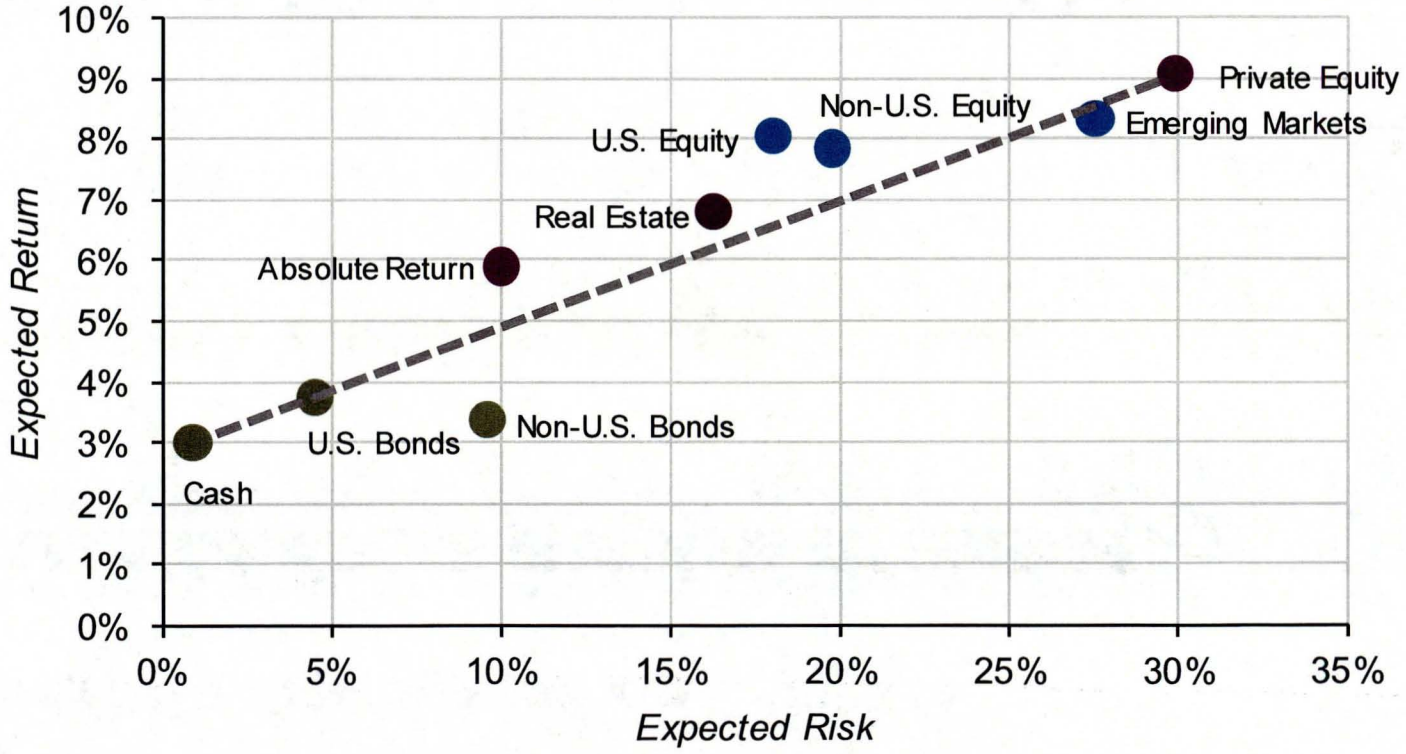
3.75% Return

4.5% Risk

- **Required Inputs to calculate an efficient frontier:**
  - 1) Projected return, 2) projected standard deviation, 3) projected correlation of asset classes.
- **The results are only as robust as the inputs used to create it.**

Key Relationship: Risk and Return

- **Modern portfolio theory assumes investors are risk averse.**
  - Given a choice between two assets with the same level of return, an investor will select the asset with a lower level of risk.
  - The risk premium demanded by investors provides evidence of risk aversion.
    - For example, investors demand a greater return from private equity over public equity for the increased risk they are assuming.



Issues affecting investment structure

- **Use of Index Funds** - **which market subsectors are most efficient, and in what percentages should passive allocations be made?**
- **Types (Styles) of Managers** - **specialists (e.g., growth and value managers) or generalists (e.g., core manager)?**
- **Number of Managers** - **driven by first two decisions and Fund's size.**
- **Types of Vehicles** - **separately managed portfolio, commingled/mutual fund or manager of managers?**
- **Cost Effectiveness** - **there is little or no value in building a "theoretical" structure that is too expensive to implement.**

  - Transition costs
  - Management fees
  - Monitoring costs
  - Legal costs of contract review

Active management in large cap: tough

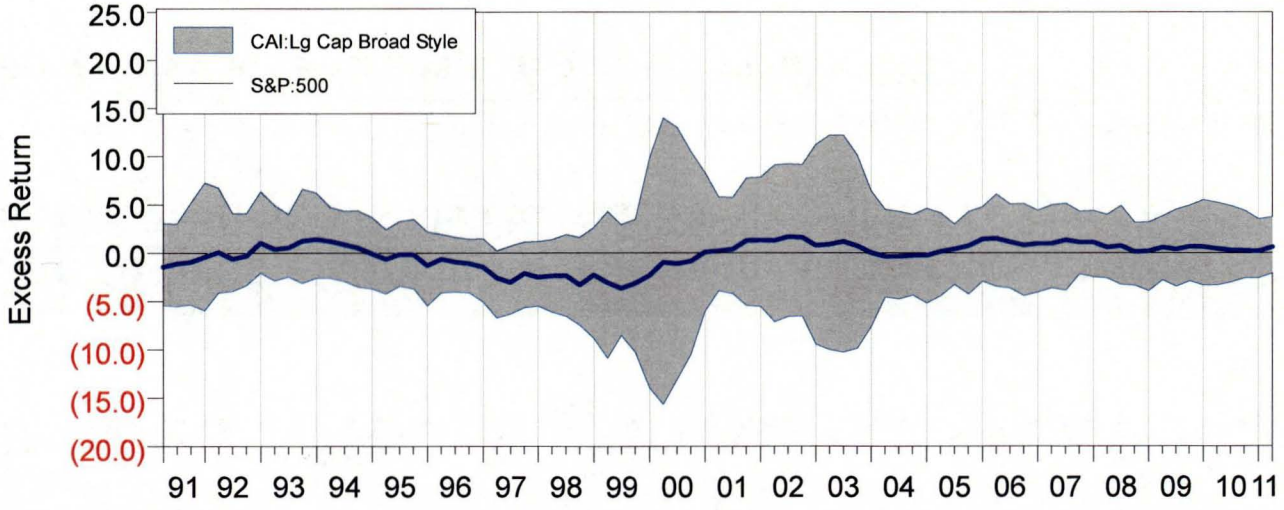
Active Management Premiums: Large Cap Core

Percent of Three-Year Periods where Manager Beat Benchmark by More than Hurdle - by Percentile

Hurdle	0.20%	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%
Median	40%	40%	39%	39%	38%	36%	35%	35%	33%	31%
45th Percentile	55%	54%	51%	45%	45%	45%	45%	45%	43%	40%
40th Percentile	66%	66%	66%	65%	65%	65%	65%	61%	61%	56%
35th Percentile	69%	69%	69%	69%	68%	68%	68%	68%	68%	66%
30th Percentile	78%	76%	76%	74%	74%	74%	71%	70%	69%	69%
25th Percentile	83%	83%	81%	81%	80%	80%	80%	80%	78%	78%

Average Annualized Excess Return - Median Manager: -0.28%

Rolling 12 Quarter Excess Return Relative To S&P:500
for 20 Years Ended March 31, 2011



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Active management in small cap: yes!

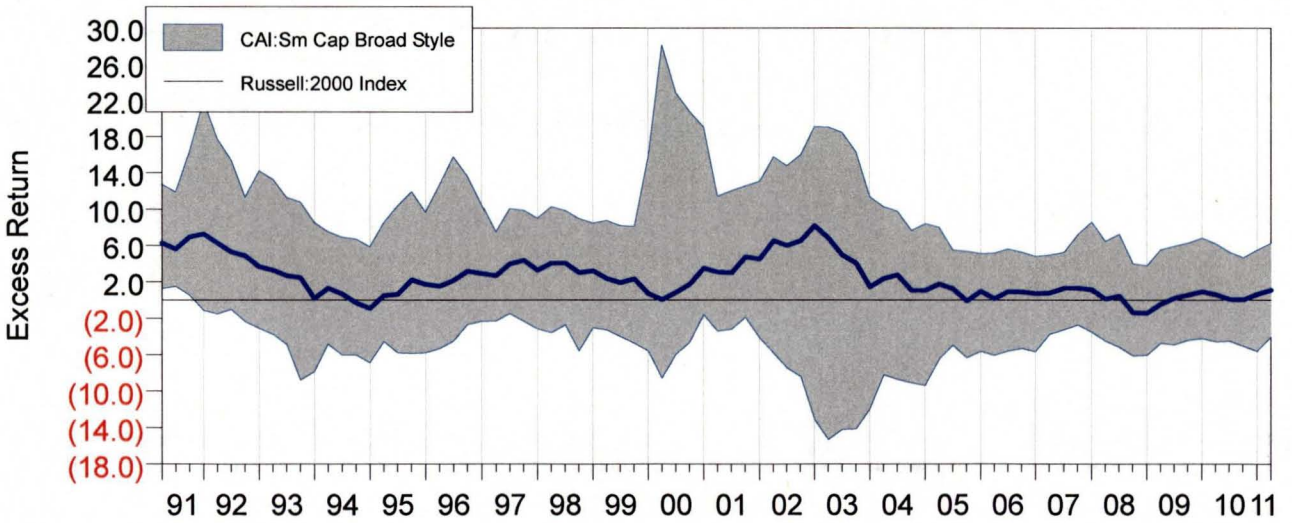
Active Management Premiums: Small Cap Core

Percent of Three-Year Periods where Manager Beat Benchmark by More than Hurdle - by Percentile

Hurdle	0.20%	0.25%	0.30%	0.35%	0.40%	0.45%	0.50%	0.55%	0.60%	0.65%
Median	89%	89%	88%	86%	85%	85%	85%	85%	85%	84%
45th Percentile	96%	96%	96%	96%	96%	95%	94%	94%	93%	91%
40th Percentile	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
35th Percentile	98%	98%	98%	98%	98%	98%	98%	98%	98%	98%
30th Percentile	100%	99%	99%	99%	98%	98%	98%	98%	98%	98%
25th Percentile	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Average Annualized Excess Return - Median Manager: 2.81%

Rolling 12 Quarter Excess Return Relative To Russell:2000 Index
for 20 Years Ended March 31, 2011



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There is no single "Best" structure

Factors to consider in the design of an investment program structure

- **Financial Theory (academic literature)**
- **Empirical Evidence (capital market observations)**
- **Fund Sponsor Risk Tolerance**
  - Time horizon
  - Liquidity considerations (contributions and distributions)
  - Total Portfolio vs. individual manager focus
  - Understanding and support for specific styles of management
  - Time and professional resources available to monitor program

Observations from the Callan Investments Institute's 2009 "Cost of Doing Business" survey[1]

- Factors that influence total Fund expenses include fund size, percentages invested in active and passive management, number of managers, mandate sizes and allocations (if any) to alternative assets.
- A fund's cost of doing business—or total fund expenses—generally includes investment management fees, external advisor fees, staff compensation and custody costs.
- The costs associated with institutional pools of capital have increased through time, from an average of 41.5 basis points of Total Fund market values in 2004 to 47 basis points in 2008. Across the universe of survey respondents, the rise in investment costs was largely attributable to larger allocations in higher fee alternative investments.
- Since external management fees make up the majority of costs (nearly 88% of total fund expenses), the asset classes, allocation sizes and types of strategies will substantially influence total Fund expenses.
- Smaller funds incur expense premiums relative to mid-sized and larger funds of 15% and 50%, respectively.

[1] The "Callan Investments Institute " is the educational division of Callan Associates Inc. The "2009 Cost of Doing Business Survey" reflects survey responses from 55 funds and trusts, including endowments, foundations, and pension funds from across the US.

Investment-Related Expenses

Funds/trusts spend over 0.47% annually, on average, of total assets to operate or manage their funds, up 14% relative to 2004 and 20% since 2001.

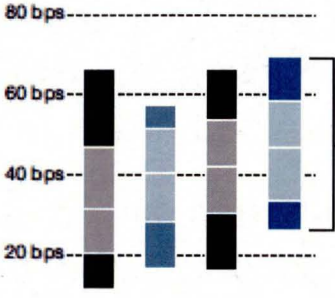
External investment management fees represent nearly 88% of total fund expenses—4% higher than 1998 when Callan first conducted this survey. As management fees make up the majority of total expenses, an increase in these fees can substantially affect total investment-related expenses. Investment management fees have generally risen across all major asset categories, as shown later in this report, and are the driving factor behind the increase in total expenses. The second largest expense allocation is non-investment manager external advisor fees at 6% (up 2% since 1998).

A portion of the increase in total investment-related expenses is due to heightened regulations. Thirty-six percent of respondents (largely corporate funds) report that compliance with the Pension Protection Act of 2006, FAS 158 and other state and federal regulations have led to increased operational expenses.

Many factors influence expenses, including fund size, percent invested in active versus passive management, the number of managers and their mandate sizes and percent allocated to alternative assets. In this report we present several of these factors in isolation to highlight what impact, if any, they might have on total expenses.

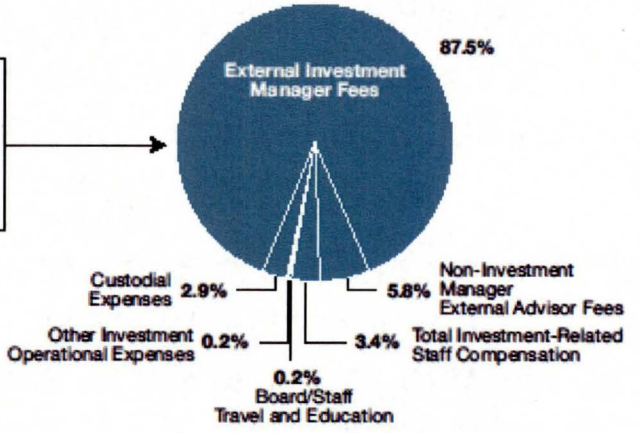
Where does all of the money go?

Total Expenses[A]

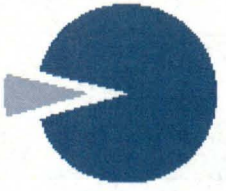


	1998	2001	2004	2008
10th Percentile	66.4	57.5	66.6	69.9
25th Percentile	46.8	51.8	53.6	58.6
Median	**31.7**	**40.7**	**41.9**	**46.7**
75th Percentile	20.3	28.2	30.2	33.9
90th Percentile	11.2	16.5	16.1	26.0
Average	**35.6**	**39.4**	**41.5**	**47.3**
# of Observations	49	53	50	47

Major Expense Categories 2008 Median Responses[A]



Where does the money come from?

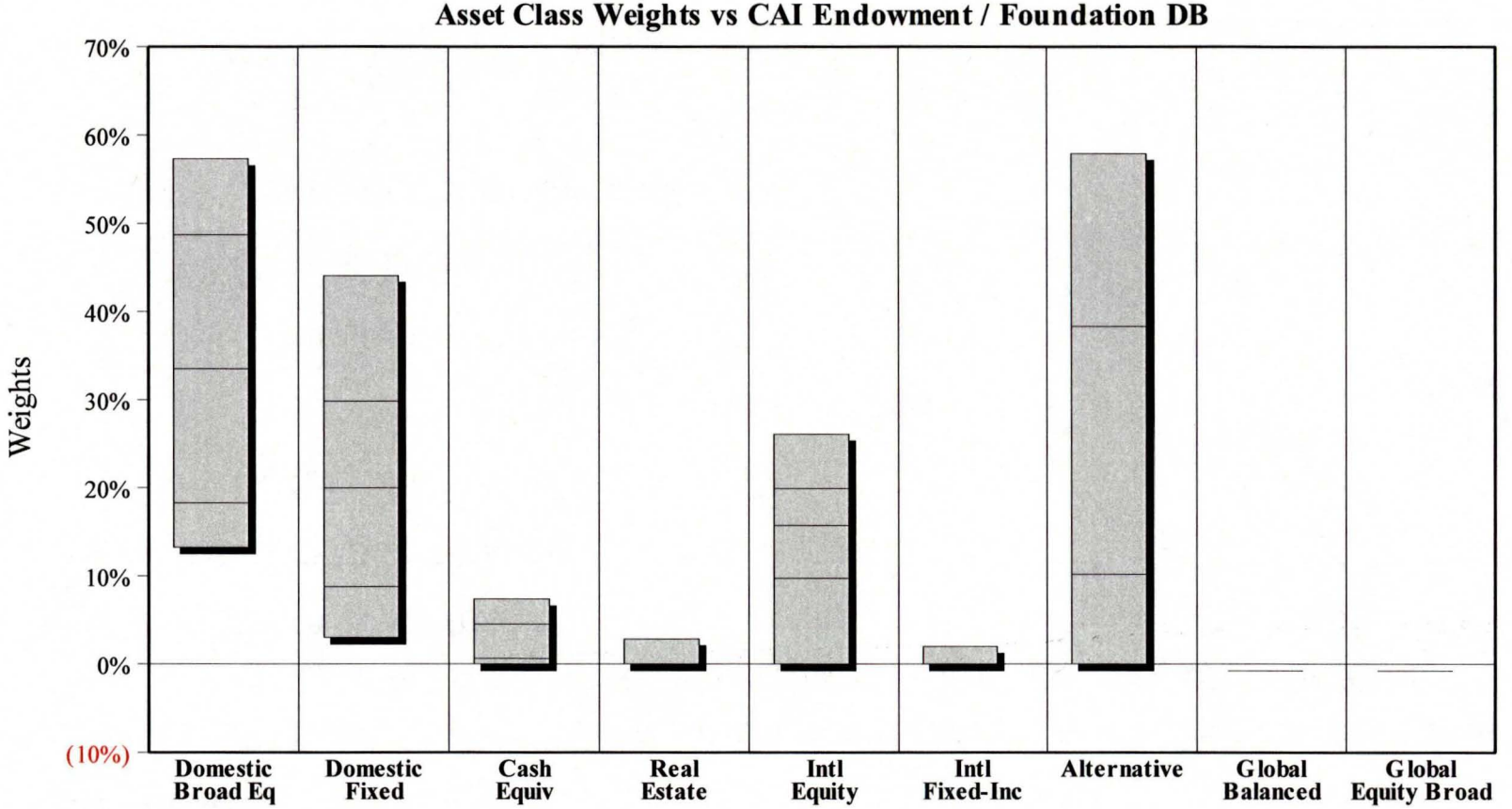


92% of total expenses are paid directly from the fund/trust, with the remainder paid from soft dollars or directly by the organization.

[A] Includes only those responses with complete information on all major expense categories.

Callan Source: Callan Investments Institute "2009 Cost of Doing Business Survey", page 9

Endowment and foundation funds employ a variety of asset classes



	Domestic Broad Eq	Domestic Fixed	Cash Equiv	Real Estate	Intl Equity	Intl Fixed-Inc	Alternative	Global Balanced	Global Equity Broad
10th Percentile	57.31	44.08	7.37	2.84	26.09	1.98	57.90	0.00	0.00
25th Percentile	48.69	29.84	4.53	0.00	19.92	0.00	38.30	0.00	0.00
Median	33.52	19.98	0.64	0.00	15.72	0.00	10.17	0.00	0.00
75th Percentile	18.28	8.78	0.00	0.00	9.74	0.00	0.00	0.00	0.00
90th Percentile	13.25	3.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
% Group Invested	98.96%	91.58%	56.25%	15.63%	87.50%	14.58%	57.29%	3.13%	7.29%

Source: Callan Associates Inc. As of June 30, 2011 includes 134 Endowments and Foundations..

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Objectives and Considerations

Objective:

- Determine the risk and return objectives for the Endowment and identify a broad asset allocation target that is appropriate for those parameters

Key Considerations:

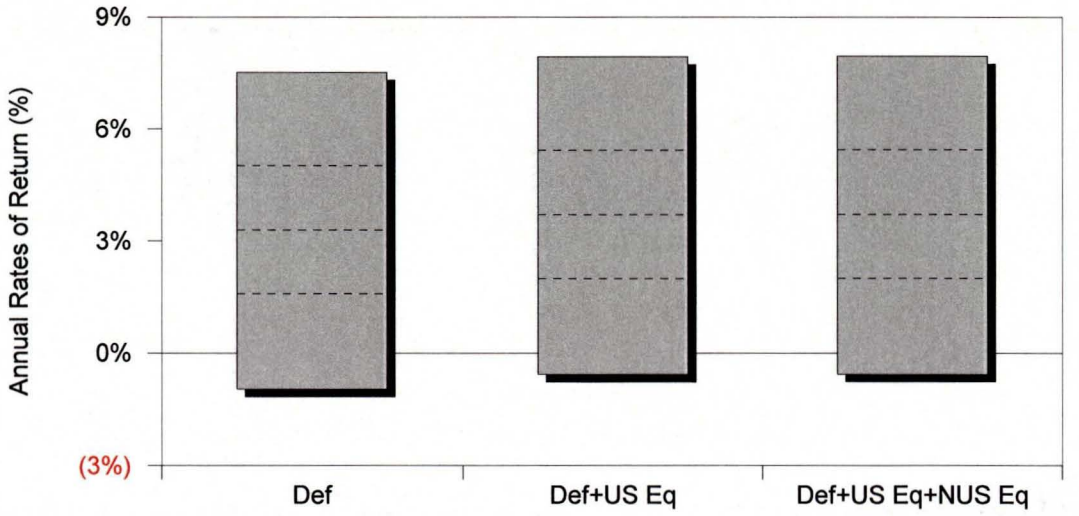
- Purpose of assets
- Short-term and long-term objectives
- Liquidity needs
- Diversification
- Tolerance for downside risk

An illustration of asset mix comparisons

Asset Mix Alternatives

Portfolio Component	Def	Def+US Eq	Def+US Eq+NUS Eq
Broad Domestic Equity	0.0%	6.5%	5.0%
Global (ex-US) Equity	0.0%	0.0%	1.5%
Defensive	100.0%	93.5%	93.5%
Totals	100.0%	100.0%	100.0%
5 Yr. Geometric Mean Return	3.3%	3.7%	3.7%
Projected Standard Deviation	2.5%	2.5%	2.5%

Range of Projected Rates of Return
Projection Period: 1 Year



	Def	Def+US Eq	Def+US Eq+NUS Eq
5th Percentile	7.5%	7.9%	8.0%
25th Percentile	5.0%	5.4%	5.4%
Median	3.3%	3.7%	3.7%
75th Percentile	1.6%	2.0%	2.0%
95th Percentile	(1.0%)	(0.6%)	(0.6%)

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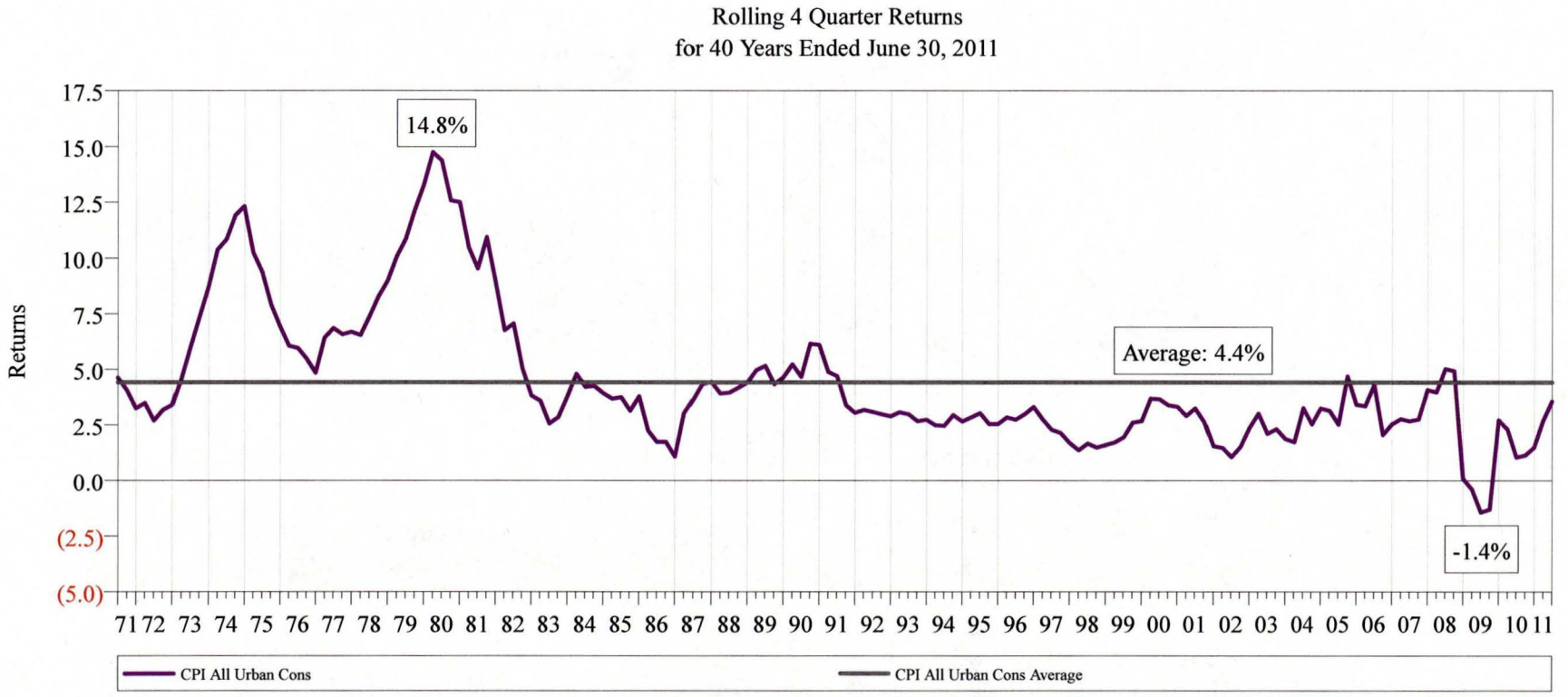
A potential risk to any investment is inflation: can *real* returns keep pace?



- While inflation has been below historical averages for the last two decades, it is imperative for investors to consider the trade-offs of implementing or failing to implement inflation-protection strategies.
- The three key policies—spending, funding, and investments—should be determined in a coordinated fashion so they all work together.

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