Private Equity Update

Investment Advisory Committee

September 21, 2011

Agenda

I. Current Portfolio Review

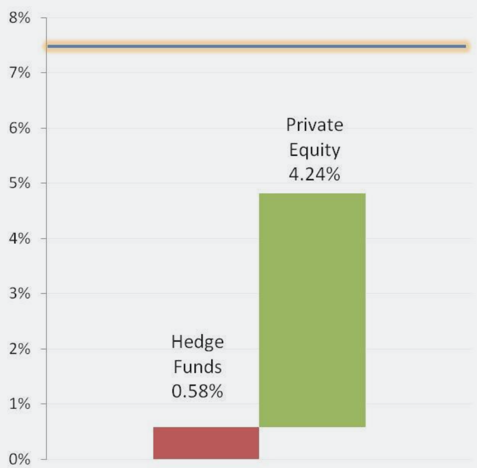
II. Allocation Increase

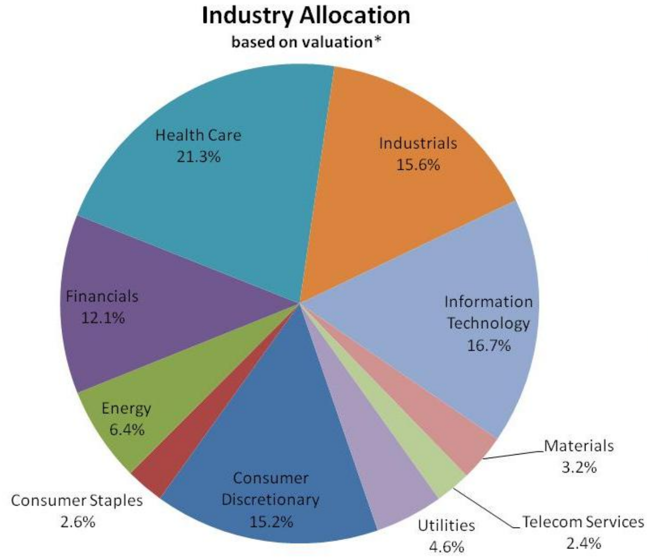
III. Historical Cash Flows

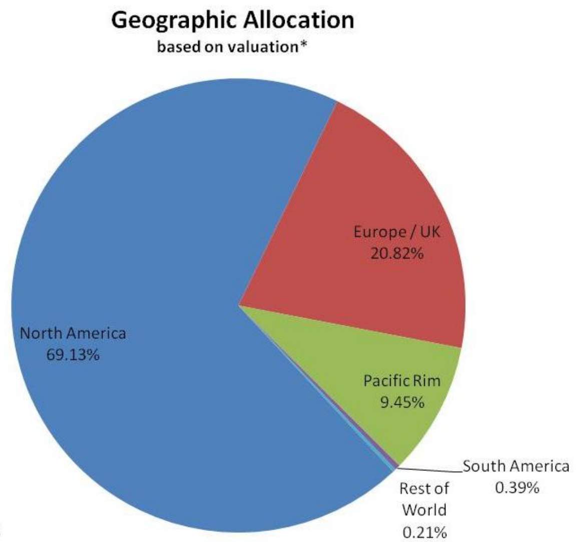
IV. Current Areas of Focus

Current Portfolio / Allocation

As of 6/30/2011, Alternatives represented 4.82% of the NCRS portfolio – within its 7.5% Legislative Cap.



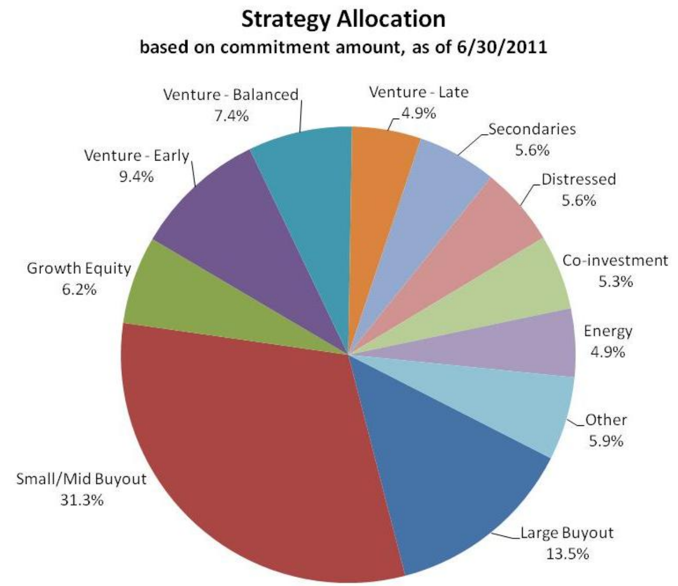




*valuation based on latest available data.

Policy Targets relative to Actual Portfolio weights

Strategy	MIN	TARGET	MAX	Actual
Buyouts	40.0%	50.0%	60.0%	44.7%
Growth Equity	5.0%	10.0%	15.0%	6.2%
Venture	10.0%	20.0%	25.0%	21.7%
Special Situations	5.0%	20.0%	35.0%	27.3%



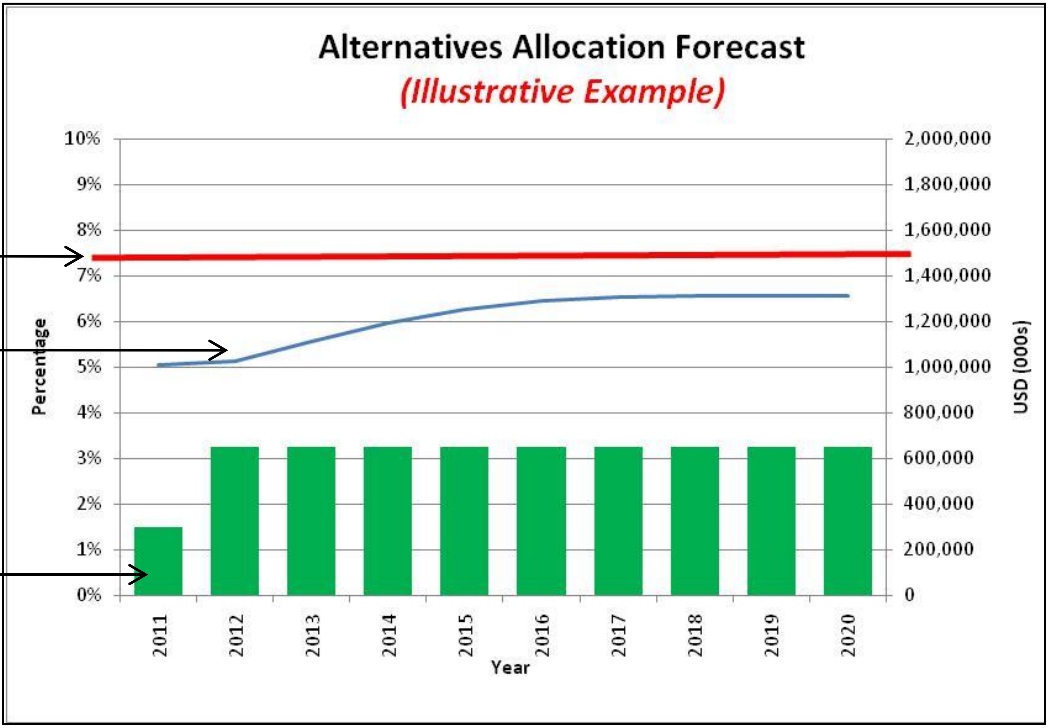
Allocation Increase: managing the portfolio with additional flexibility

- In Q3 2011, the Alternatives allocation was increased to 7.5% of the Total Plan, up from its prior level of 5.0%
- The team developed a model to monitor existing, and plan future, fund commitments within the Alternatives portfolio that support strategic goals and maintain compliance with policy mandates
- New Commitments are forecast across strategies (Buyout, Growth Equity, Venture and Special Situations) at a level that maintains FMV of the portfolio without breaching the 7.5% legislative cap
- Each strategy has unique characteristics in terms of cash flows, return potential, and lifespan that will affect the Fair Market Value (FMV) of a commitment to that strategy

Red line represents Legislative Cap of 7.5%

Blue line represents Alternatives FMV ÷ Total Plan FMV

Green bars represent planned commitments by calendar year



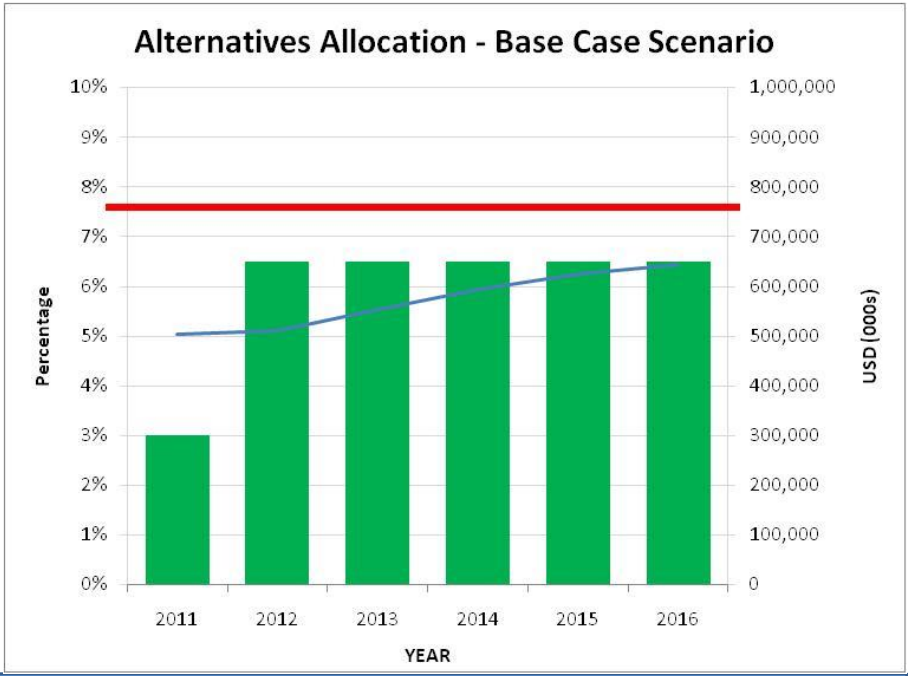
Allocation Model | *Forecasting Alternatives and Plan FMV*

Alternatives **Fair Market Value (FMV)**	We forecast the FMV of existing and projected private equity fund relationship by applying the following key drivers to each capital commitment: ➢ Fund term ➢ Return profile ➢ Timing of cash flows We aggregate all fund-level valuations to forecast the FMV of the total Alternatives portfolio
Total Plan **Fair Market Value (FMV)**	We consider the following factors to forecast the FMV of Total Plan assets: ➢ Member and State Contributions ➢ Benefit Payments ➢ Investment Rate of Return ➢ Downside Scenario Shock

Sensitivity Analysis: budgeting capital commitments based on varying market conditions

Base Case Scenario

- Return = 5.0% for Total Plan
- Achieves approximately 6.5% Alternatives allocation



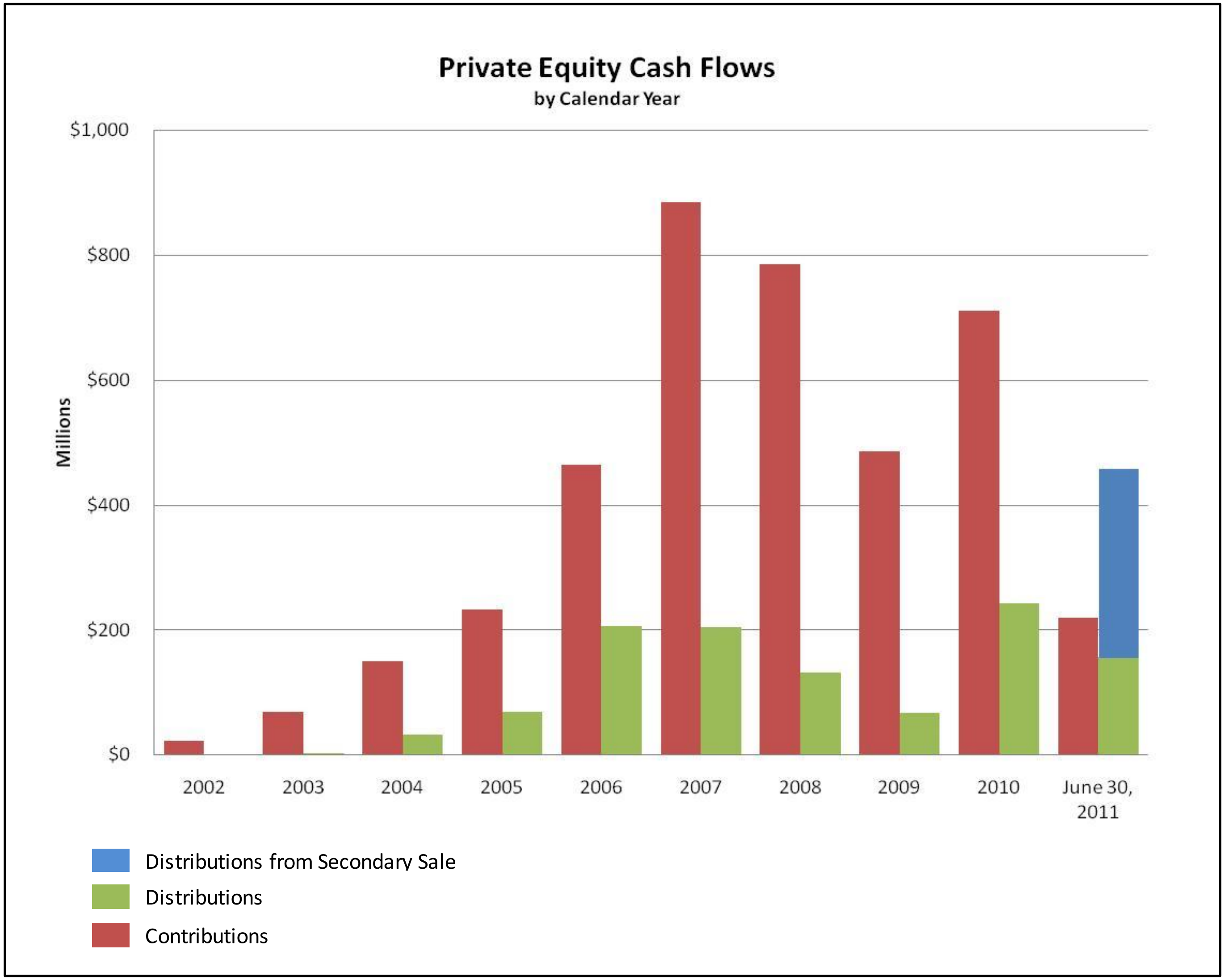
Stress Test Scenarios

- Stressed Year (Y1) = Total Plan AUM decline of 26%
- Y1 + 1 year = Total Plan AUM increase of 13%
- Return in other years= 5.0% for Total Plan
- **<u>Maintains compliance with Legislative cap</u>**

Alternatives as % of Total Plan

Stressed Year	2011	2012	2013	2014	2015	2016
2011	n/a	n/a	n/a	n/a	n/a	n/a
2012	5.04%	6.94%	6.59%	6.81%	6.88%	6.79%
2013	5.04%	5.00%	7.27%	6.77%	6.83%	6.74%
2014	5.04%	5.00%	5.24%	7.46%	6.78%	6.69%
2015	5.04%	5.00%	5.24%	5.37%	7.47%	6.64%
2016	5.04%	5.00%	5.24%	5.37%	5.38%	7.32%
Commitments ***USD 000s***	***$300***	***$400***	***$400***	***$400***	***$400***	***$400***

Historical Cash Flows



Unfunded = $2.05 billion

Market Value = $3.18 billion

as of 6/30/2011

Current Areas of Focus

- **Re-ups**
  Continue to back strongest funds
  rationale: first-hand knowledge of manager, strategy and track record built over multi-year period

- **Opportunistic**
  Research distressed strategies in U.S. and Europe
  Consider select Co-investments
  rationale: top managers may have the ability to deliver outsized returns in periods of economic volatility

- **International Opportunities**
  Explore geographic diversification
  rationale: portfolio showing signs of home country bias

- **Venture Capital**
  Evaluate top quartile managers
  rationale: "Survival of the Fittest"- Fewer dollars implies only better deals supported, with less market competition for funded portfolio companies

- **Middle Market Buyout Funds**
  Identify Funds that would complement existing buyout portfolio
  rationale: Opportunity to capture outsized returns by capitalizing on market inefficiencies