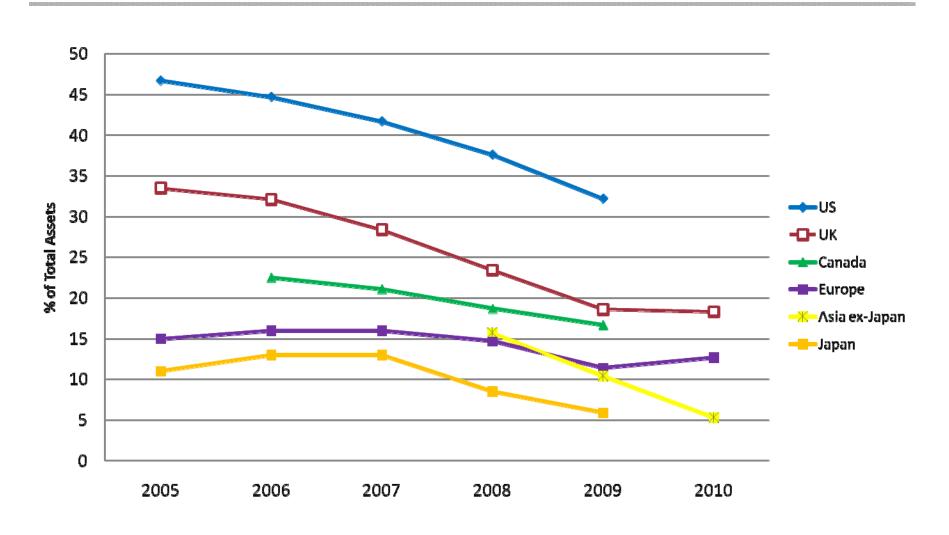
Asset Allocation by Institutional Investors after the Recent Financial Crisis

Betsy Palmer

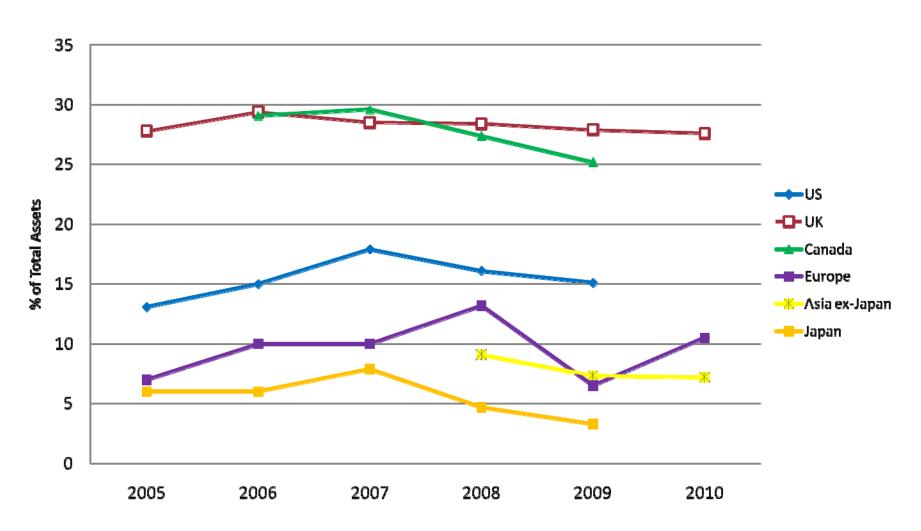
Senior Managing Director MFS Investment Management®

October 15, 2010

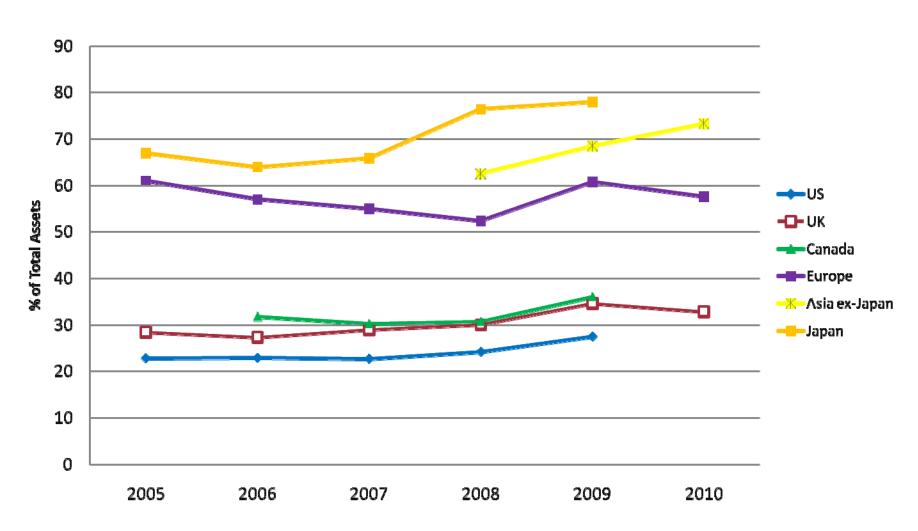
Domestic equity allocation trends across regions 2005 – 2010



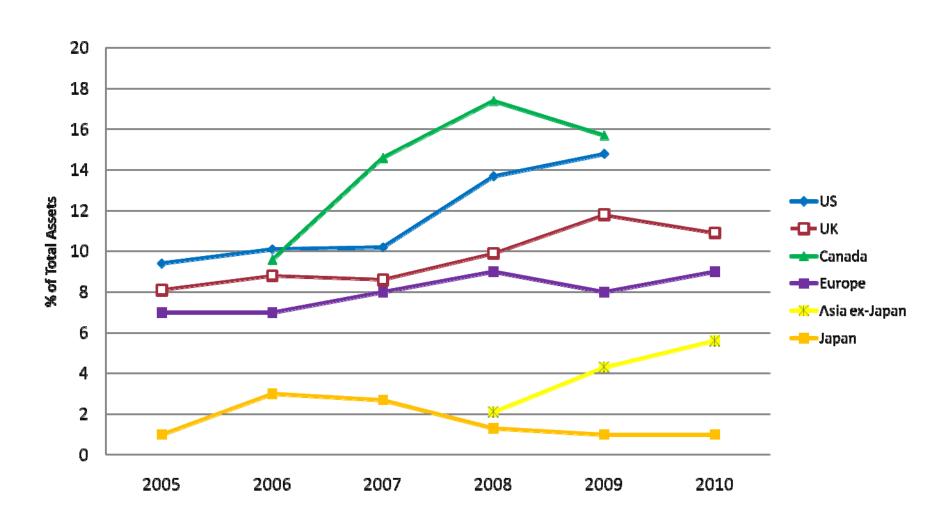
Global/International equity allocation trends across regions 2005 – 2010



Fixed income allocation trends across regions 2005 – 2010



Alternatives allocation trends across regions 2005 – 2010 (Private equity + Hedge funds + Real estate)



Evaluation of the trends Declining equity exposure

- Decrease in overall equity allocation
 - More going to international/global
 - Less home country exposure
- Market crash accelerated decline in equity allocation
- Diversification did not help during the crash

Correlation Matrix Ten Yrs. ending December 2007

	S&P 500	MSCI World ex U.S.	Emerging Market Equity	Barclays Aggregate	Barclays High Yield	Barclays 3-5 Yr Treasury	Barclays Long Treasury
S&P 500	1.00						
MSCI World ex. U.S.	0.83	1.00					
Emerging Market Equity	0.72	0.78	1.00				
Barclays Aggregate	-0.22	-0.19	-0.22	1.00			
Barclays High Yield	0.49	0.49	0.53	0.07	1.00		
Barclays 3-5 Yr Treasury	-0.34	-0.32	-0.33	0.93	-0.18	1.00	
Barclays Long Treasury	-0.29	-0.25	-0.28	0.94	-0.03	0.87	1.00

Source: Datastream and Barclay's Capital

Evaluation of the trends Declining equity exposure (Cont'd)

Correlation Matrix April 2008 through March 2009

	S&P 500	MSCI World ex U.S.	Emerging Market Equity	Barclays Aggregate	Barclays High Yield	Barclays 3-5 Yr Treasury	Barclays Long Treasury
S&P 500	1.00						
MSCI World ex. U.S.	0.94	1.00					
Emerging Market Equity	0.89	0.96	1.00				
Barclays Aggregate	0.46	0.61	0.55	1.00			
Barclays High Yield	0.71	0.78	0.82	0.38	1.00		
Barclays 3-5 Yr Treasury	-0.20	-0.21	-0.28	0.50	-0.52	1.00	
Barclays Long Treasury	0.28	0.37	0.28	0.87	-0.05	0.75	1.00

Correlation Matrix April 2009 through March 2010

	S&P 500	MSCI World ex U.S.	Emerging Market Equity	Barclays Aggregate	Barclays High Yield	Barclays 3-5 Yr Treasury	Barclays Long Treasury
S&P 500	1.00						
MSCI World ex. U.S.	0.88	1.00					
Emerging Market Equity	0.83	0.94	1.00				
Barclays Aggregate	0.04	0.04	-0.04	1.00			
Barclays High Yield	0.65	0.81	0.84	0.00	1.00		
Barclays 3-5 Yr Treasury	-0.23	-0.36	-0.41	0.84	-0.45	1.00	
Barclays Long Treasury	-0.33	-0.46	-0.53	0.76	-0.54	0.88	1.00

Source: Datastream and Barclay's Capital

Evaluation of the trends Increases in fixed income

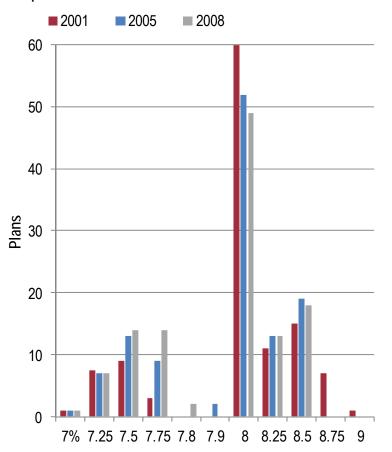
- Modest increases in fixed income exposure over the recent past
- "Flight to quality" in 2008
- Locking in deficits at low point in interest rate cycle inconsistent with return assumptions
- Silver lining to black cloud of higher interest rates



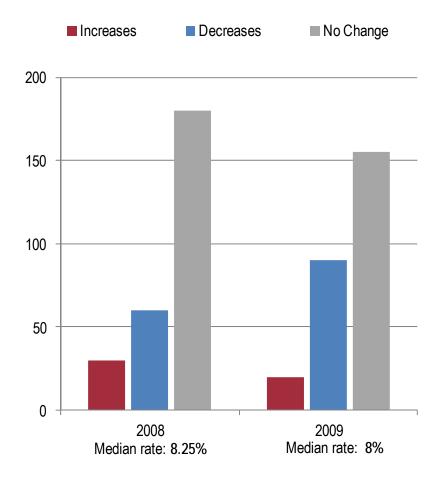
Source: Board of Governors of the Federal Reserve System

Evaluation of the trends Increases in fixed income

Expected investment return rates for public pension plans, by number of plans reporting particular levels



Changes to return assumptions reported by S&P 500 companies with pension plans



Evaluation of the trends Increases in alternatives

Hedge fund return vs. other equity indices					
	2008	2009			
Hedge Fund Index*	-19.03%	19.98%			
S&P 500	-37.45%	25.55%			
MSCI AC World	-42.19%	34.63%			

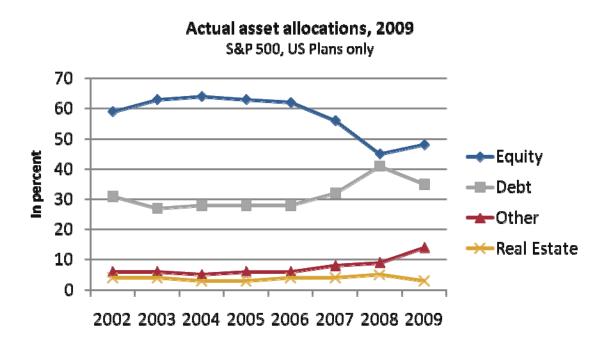
- Performance
- Fees
- Liquidity
- Enduring appeal

^{*}Source: HFRI (Hedge Fund Research Index) returns are constructed from over 2,000 self-reported hedge fund manager returns. Returns are net of all fees and the index is equal weighted.

Asset Allocation Trends by Type of Investor Corporate Pension

- Many DB plans frozen/closed
- Shift from DB to DC
- Funded status impacted by declining equities and lower interest rates
 - -2007 107%, 2008 79%, 2009 82%, 2010(E) 75%
- Current deficit for S&P 500 companies est. 2010 \$316 billion*

Asset Allocation Trends by Type of Investor Corporate Pension



- Shift from equity to fixed income
- De-risking vs. interest rate risk
- Scenarios where shift to bonds make sense

Asset Allocation Trends by Type Public Pension

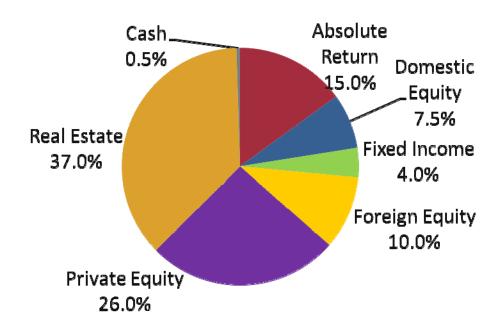
- Ongoing liability of states and municipalities
- Little DB to DC movement
- "The Trillion Dollar Gap" Pew report
 - \$2.8 trillion liabilities
 - 82% funded
 - 8 states below 66%
- Understated funding shortfall
 - FY 2008 data
 - Accounting methodology

Asset Allocation Trends by Type Public Pension

- Shoot the Moon
 - Increase international/global
 - Increase alternatives
 - Decrease fixed income
- Aggressive alpha projections
 - 132 bp in 2008
 - 160 bp in 2009

Asset Allocation Trends by Type Endowment and Foundation

- Goal: to deliver return in perpetuity
- Greater use of alternatives, less to traditional stocks and bonds
- The Yale model, 2009 target asset allocation



Source: Yale University Website

Asset Allocation Trends by Type Endowment and Foundation

- Heavy allocations to alternatives did not provide shelter during the crash
 - Endowment average return FY 2009 -19%
 - Foundation average return 2009 -26%
- Little reason to pursue LDI strategies
- Larger Endowment and Foundations ——— greater reliance on alternatives

Endowment and Foundations, Asset Allocation for key categories, June 30, 2009							
	Endowments Under \$1 billion	Endowments Over \$1 billion	Foundations Under \$1 billion	Foundations Over \$1 billion			
US Equities	20.9%	14.1%	22.4%	18.8%			
Global ex US	14.4%	9.9%	15.5%	10.6%			
US Bonds	16.1%	8.4%	15.9%	9.1%			
Hedge Funds	12.1%	15.9%	10.2%	12.7%			

Source: Cambridge Associates

Conclusions

- Financial crisis did not lead to radical changes for most institutional investors' asset allocation policy
- Three trends already underway
 - Decreasing commitment to equity, with international/global becoming a larger part of overall allocation
 - Increasing fixed income allocation
 - Increasing use of alternatives
- Hope springs eternal!
 - Optimistic return assumptions
 - Can alternatives deliver?