

**ASSET ALLOCATION REVIEW**

**Action Requested:** Recommend that the Board approve the asset mix and ranges as illustrated in Wilshire Consulting's *Asset Allocation Review and Recommendation* (attached.)

**Executive Summary:** Periodically (at least every three to five years), Institutional staff and Board Office staff complete an asset allocation review with the assistance of Wilshire Consulting. Changes must be approved by the Board.

At its August 8, 2013, meeting, the Committee was informed that Wilshire was reviewing the entire asset allocation of all the university investment pools and that final recommendations would be presented for the Board's consideration in September.



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## *Asset Allocation Review and Recommendation*

*Mike Dudkowski, Managing Director*

*September 11, 2013*

# Asset Allocation Policy Recommendations



Asset Class	Diversified Operating Portfolio			Diversified Intermediate Term Portfolio			Endowment Portfolio		
	Policy %	Recommended Policy %	Recommended Range	Policy %	Recommended Policy %	Recommended Range	Policy %	Recommended Policy %	Recommended Range
U.S. Equity	8.0	5.0	2.5 - 7.5	10.0	10.0	7.5 - 12.5	25.0	25.0	20.0 - 30.0
Non-U.S. Equity	2.0	5.0	2.5 - 7.5	10.0	10.0	7.5 - 12.5	25.0	25.0	20.0 - 30.0
Private Equity	0.0	0.0	na	0.0	0.0	na	10.0	10.0	5.0 - 15.0
<b>Total Equity</b>	<b>10.0</b>	<b>10.0</b>	<b>5.0 - 15.0</b>	<b>20.0</b>	<b>20.0</b>	<b>15.0 - 25.0</b>	<b>60.0</b>	<b>60.0</b>	<b>55.0 - 65.0</b>
Core Fixed Inc	30.0	25.0	20.0 - 30.0	40.0	35.0	30.0 - 40.0	25.0	0.0	0.0 - 20.0
High Yield	5.0	5.0	0.0 - 10.0	5.0	5.0	0.0 - 10.0	5.0	5.0	0.0 - 10.0
Short-Term Fixed Inc	0.0	0.0	na	0.0	0.0	na	0.0	15.0	0.0 - 20.0
Bank Loans	0.0	5.0	0.0 - 10.0	0.0	5.0	0.0 - 10.0	0.0	5.0	0.0 - 10.0
Other Fixed Inc	0.0	0.0	0.0 - 10.0	0.0	0.0	0.0 - 10.0	0.0	0.0	0.0 - 10.0
Ex U.S. Bonds (incl EMD)	0.0	0.0	0.0 - 10.0	0.0	0.0	0.0 - 10.0	0.0	0.0	0.0 - 10.0
Private Credit Opportunities	0.0	0.0	0.0 - 10.0	0.0	0.0	0.0 - 10.0	0.0	0.0	0.0 - 10.0
<b>Total Fixed Income</b>	<b>35.0</b>	<b>35.0</b>	<b>30.0 - 40.0</b>	<b>45.0</b>	<b>45.0</b>	<b>40.0 - 50.0</b>	<b>30.0</b>	<b>25.0</b>	<b>20.0 - 30.0</b>
<b>Liquidity (incl cash)</b>	<b>40.0</b>	<b>40.0</b>	<b>35.0 - 40.0</b>	<b>15.0</b>	<b>15.0</b>	<b>10.0 - 20.0</b>	<b>0.0</b>	<b>0.0</b>	<b>na</b>
Real Assets - Public	15.0	15.0	10.0 - 20.0	20.0	20.0	15.0 - 25.0	0.0	0.0	0.0 - 10.0
U.S. REITs	5.0	0.0	na	10.0	0.0	na	0.0	0.0	0.0 - 10.0
Global REITs (U.S. and non-U.S.)	0.0	7.5	5.0 - 10.0	0.0	10.0	7.5 - 12.5	0.0	0.0	0.0 - 10.0
TIPS	10.0	7.5	5.0 - 10.0	10.0	10.0	7.5 - 12.5	0.0	0.0	0.0 - 10.0
MLPs	0.0	0.0	0.0 - 10.0	0.0	0.0	0.0 - 10.0	0.0	0.0	0.0 - 10.0
Real Assets - Private	0.0	0.0	na	0.0	0.0	na	10.0	15.0	5.0 - 20.0
Real Estate	0.0	0.0	na	0.0	0.0	na	not specified	not specified	0.0 - 10.0
Natural Resources	0.0	0.0	na	0.0	0.0	na	not specified	not specified	0.0 - 10.0
<b>Total Real Assets</b>	<b>15.0</b>	<b>15.0</b>	<b>10.0 - 20.0</b>	<b>20.0</b>	<b>20.0</b>	<b>15.0 - 25.0</b>	<b>10.0</b>	<b>15.0</b>	<b>5.0 - 20.0</b>
<b>TOTAL PORTFOLIO</b>	<b>100.0</b>	<b>100.0</b>	<b>na</b>	<b>100.0</b>	<b>100.0</b>	<b>na</b>	<b>100.0</b>	<b>100.0</b>	<b>na</b>
Expected Return (%)	3.32	3.49		4.43	4.51		7.17	7.32	
Expected Risk (%)	3.32	3.45		5.38	5.39		11.77	11.86	
Return/Risk	1.00	1.01		0.82	0.84		0.61	0.62	

Green = Approval at August 2013 Board meeting

- The following recommendations apply to all three diversified portfolios:
  - No changes to the four broad asset class targets (except for Real Assets in the long term endowments which increases by 5% with a commensurate decrease to Fixed Income).
  - Definition of a “Liquidity” allocation to enhance ability to manage yield while preserving principal. We believe such definition is important in light of potential changes to money market regulation which could include floating NAVs. Liquidity allocation definition:
    - Cash and cash equivalents (e.g. money market mutual funds)
    - Very short-term instruments, vehicles, and strategies maintaining overall duration of 1 year or less (e.g. CDs and banking products, ultrashort bond mutual funds, commingled or separate accounts)
    - Strategies may be global in nature subject to prudent risk management
  - Specification of allowable ranges, including for sub-classes that could be used in the future (i.e. current target is zero)
  - Addition of bank loans with a 5% allocation (*approved at August 2013 meeting*)

## Summary of Recommendations (cont'd)

- The following recommendations apply to the Diversified Operating Portfolios:
  - Removal of home country bias within equities
  - Removal of home country bias within REITs
  - Increase in REITs from 5.0% to 7.5%; Decrease in TIPS from 10.0% to 7.5%
- The following recommendations apply to the Diversified Intermediate Portfolios:
  - Removal of home country bias within REITs
- The following recommendations apply to the Endowment/Long-term Portfolios:
  - Reduction in interest rate exposure by changing core fixed income manager benchmarks to short duration benchmarks (*approved at August 2013 meeting*)
  - Addition of real assets exposure (5% increase with commensurate decrease to fixed income)

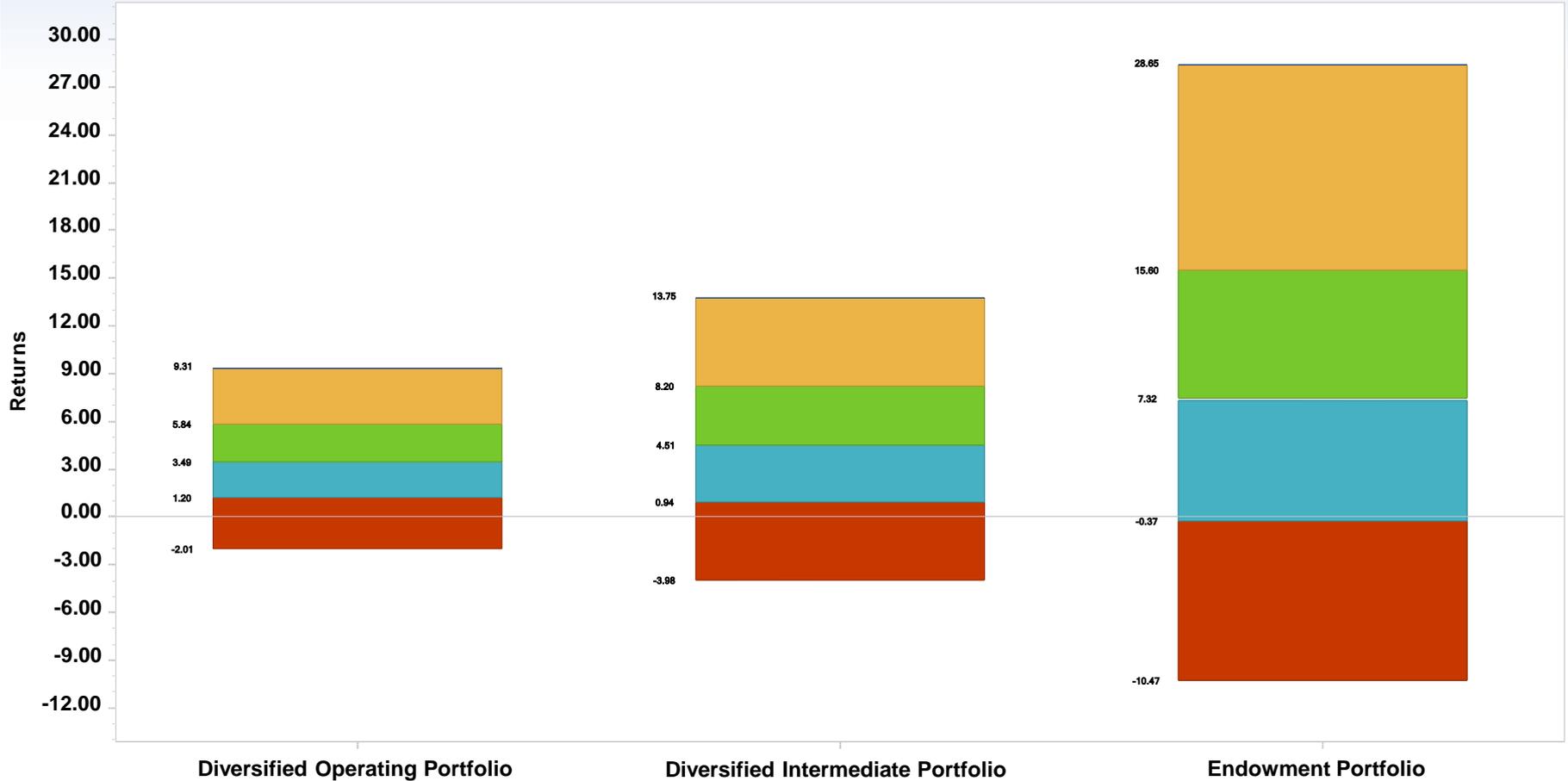
# Recommended Asset Allocation Policies

## 1-Year Distribution of Expected Returns



Distribution of Returns  
1 Year Time Horizon

Return Distribution Input: Log Normal Median  
Percentiles: 5, 25, 50, 75, 95



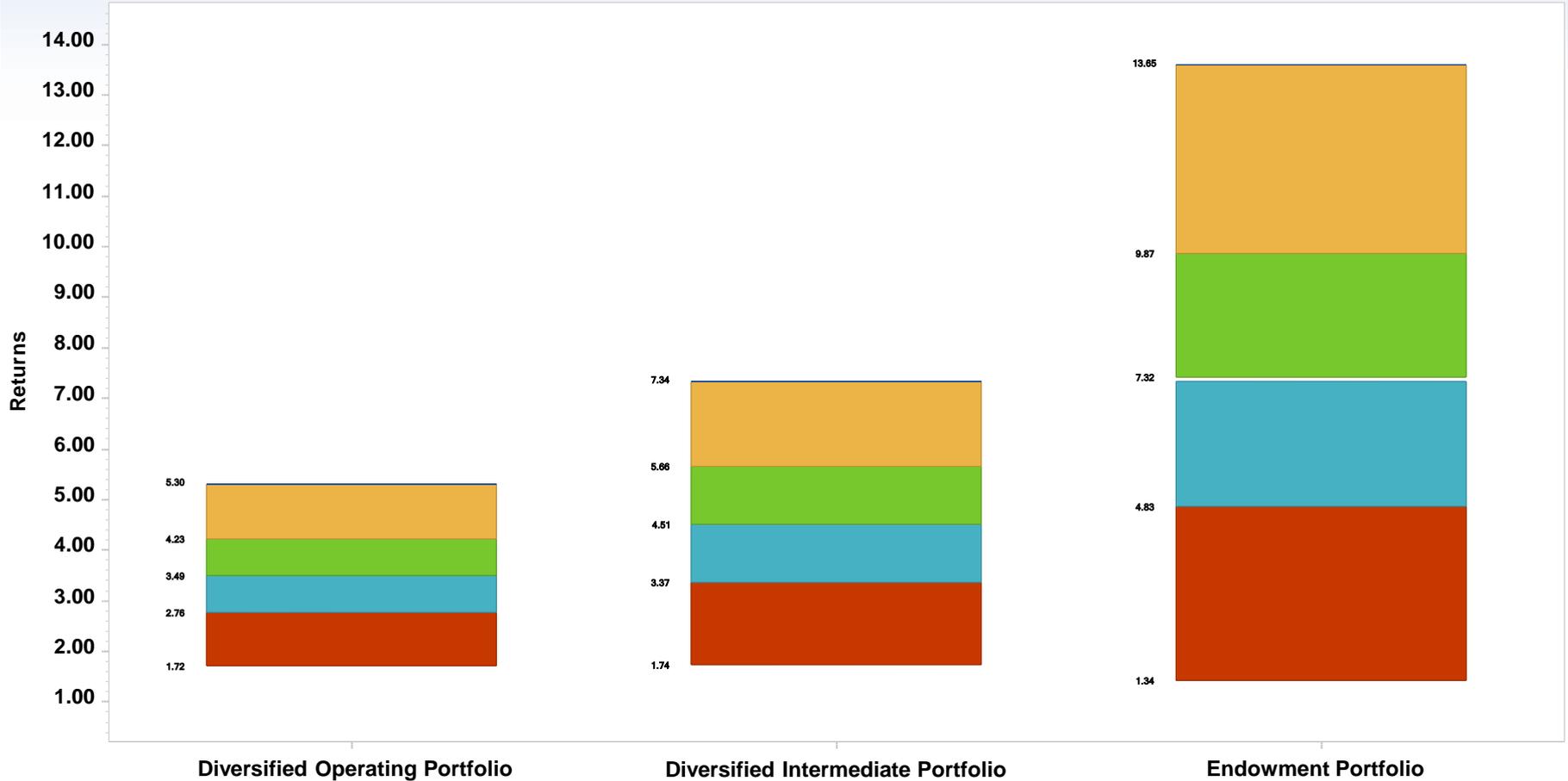
# Recommended Asset Allocation Policies

## 10-Year Distribution of Expected Returns



Distribution of Returns  
10 Year Time Horizon

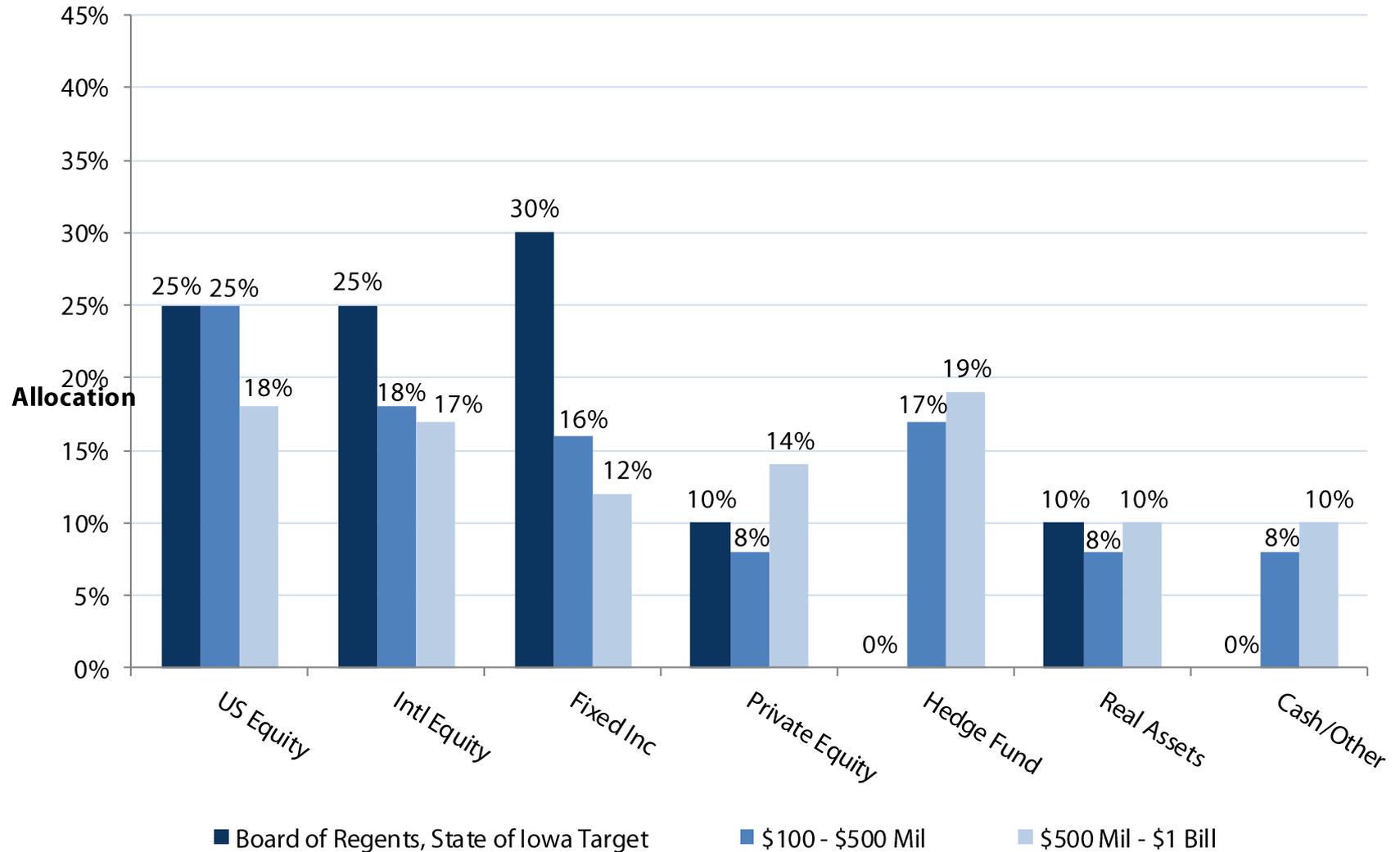
Return Distribution Input: Log Normal Median  
Percentiles: 5, 25, 50, 75, 95



# Long Term Endowment Pool Asset Allocation Policy vs. NACUBO<sup>1</sup> Universe



**Board of Regents, State of Iowa vs. NACUBO Dollar Weighted Universe as of 6/30/2012**



<sup>1</sup>National Association of College and University Business Officers

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***Appendix:***  
***Asset Allocation Inputs***

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# Asset Allocation Inputs



- Forward looking return expectations intended to cover a long-term horizon, generally 10+ years
- Historical risk and correlation, adjusted to incorporate recent trends
- “Beta” or market returns; “Alpha” or value added from active management not included

	Equity			Real Assets		Fixed Income				
	U.S. Equity	Non-U.S. Equity	Private Equity	Private Real Assets	REITs	Core Fixed Income	High Yield Fixed Income	Cash	Bank Loans	Short-Term Fixed Income
<b>Expected Return (%)</b>	7.50	7.75	10.45	7.50	5.25	3.25	5.00	1.50	4.80	2.30
<b>Expected Risk (%)</b>	17.00	18.80	27.50	10.00	15.00	5.00	10.00	1.25	6.00	3.50
<b>Correlations:</b>										
<b>U.S. Equity</b>	1.00									
<b>Non-U.S. Equity</b>	0.84	1.00								
<b>Private Equity</b>	0.74	0.68	1.00							
<b>Private Real Assets</b>	0.32	0.32	0.32	1.00						
<b>REITs</b>	0.40	0.32	0.41	0.62	1.00					
<b>Core Fixed Income</b>	0.29	0.09	0.32	0.18	0.15	1.00				
<b>High Yield Fixed Income</b>	0.54	0.45	0.34	0.45	0.45	0.24	1.00			
<b>Cash</b>	-0.05	-0.08	0.00	-0.01	-0.05	0.20	-0.10	1.00		
<b>Bank Loans</b>	0.49	0.45	0.21	0.48	0.50	-0.09	0.63	0.00	1.00	
<b>Short-Term Fixed Income</b>	0.21	0.01	0.23	0.10	0.09	0.96	0.20	0.30	-0.07	1.00

# Wilshire Asset Class Assumptions: Q1 2013



	Total Return (%)			Risk (%)
	2013 ACA	Q1 2013	Change vs. YE	2013 ACA
<b><u>Investment Categories:</u></b>				
U.S. Stocks	7.75	7.50	(0.25)	17.00
Dev ex-U.S. Stocks	7.75	7.50	(0.25)	18.00
Emerging Mkt Stocks	7.75	7.50	(0.25)	26.00
Global ex-U.S. Stocks	8.00	7.75	(0.25)	18.80
Private Markets	10.75	10.45	(0.30)	27.50
Cash Equivalents	1.55	1.50	(0.05)	1.25
Core Bonds	3.25	3.25	0.00	5.00
LT Core Bonds	3.10	3.50	0.40	10.00
TIPS	2.60	2.70	0.10	6.00
High Yield Bonds	5.15	5.00	(0.15)	10.00
Short-Term Bonds	2.30	2.30	0.00	3.50
U.S. RE Securities	5.30	5.25	(0.05)	15.00
Bank Loans	4.85	4.80	(0.05)	6.00
Private Real Assets	6.05	7.50	1.45	10.00
Commodities	4.55	4.50	(0.05)	13.00
<b><u>Inflation:</u></b>	2.55	2.50	(0.05)	1.75
<b><u>Returns minus Inflation:</u></b>				
U.S. Stocks	5.20	5.00	(0.20)	
U.S. Bonds	0.70	0.75	0.05	
Cash Equivalents	(1.00)	(1.00)	0.00	
<b><u>Stocks minus Bonds:</u></b>	4.50	4.25	(0.25)	
<b><u>Bonds minus Cash:</u></b>	1.70	1.75	0.05	

\* The 2013 assumptions are shown including the roll component, which was not explicitly part of the 2012 methodology.