

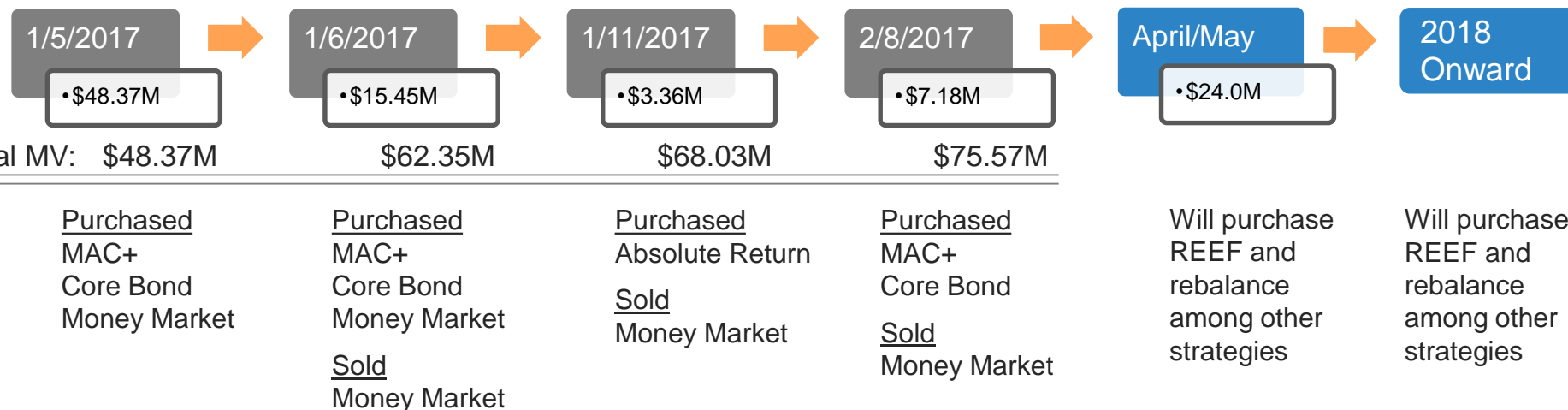
# Asset Transition: Working towards the final allocation

## NSHE - Endowment Pool

	Target Weight *	Rebalancing Range
<b>Growth</b>	68%	
RIIFL Multi-Asset Core Plus Fund	58%	+/- 2%
Russell Managed Private Capital	10%	TBD
<b>Diversifiers</b>	12%	
Russell Managed Hedge Funds	12%	+/- 2%
<b>Real Assets</b>	5%	
RIIFL Private Real Estate Fund	5%	+/- 2%
<b>Fixed Income &amp; Cash</b>	15%	
RIIFL Core Bond Fund	10%	+/- 2%
RIIFL Absolute Return Fixed Income	5%	+/- 2%

# Asset Transition: Working towards a target NSHE - Endowment Pool

## Cash flows to Russell Investments



Implementation Timeline	1/5/2017	1/6/2017	1/11/2017	1/31/2017	2/8/2017	3/31/2017 Targets	Final Targets
<b>Growth</b>							
RIIFL Multi-Asset Core Plus Fund	53.2%	73.0%	73.0%	73.3%	74.5%	68.0%	58.0%
Russell Managed Private Capital	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	10.0%
<b>Diversifiers</b>							
Russell Managed Hedge Funds	0.0%	0.0%	0.0%	11.8%	10.6%	12.0%	12.0%
<b>Real Assets</b>							
RIIFL Private Real Estate Fund (REEF)	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	5.0%
<b>Fixed Income &amp; Cash</b>							
RIIFL Core Bond Fund	7.3%	10.0%	10.0%	9.9%	10.4%	10.0%	10.0%
RIIFL Absolute Return Fixed Income	0.0%	0.0%	5.0%	4.9%	4.4%	5.0%	5.0%
Money Market	39.5%	17.0%	12.0%	0.1%	0.1%	0.0%	0.0%

# NSHE – Endowment Pool

## Portfolio Simulations: 10-Year Capital Markets as of December 2016

	2/1/2017 Targets	3/31/2017 Targets	Final Targets
RIIFL Multi-Asset Core Plus Fund	73%	68%	58%
Russell Investments Managed Private Capital	--	--	10%
Russell Investments Managed Hedge Funds	12%	12%	12%
RIIFL Private Real Estate Fund	--	5%	5%
RIIFL Core Bond Fund	10%	10%	10%
RIIFL Absolute Return Fixed Income	5%	5%	5%
Total Annualized Return Assumption - Gross	8.0%	7.9%	8.2%
Total Annualized Return Assumption - Net	7.3%	7.2%	7.5%
Real Annualized Return Assumption - Net	5.2%	5.1%	5.4%
Total Standard Deviation Assumption	12.3%	11.9%	11.9%

Fund alpha targets are excess return and risk goals developed by Russell Investments Strategy and Research management to help measure our skill in managing managers and the general success of your funds against their stated objectives. Targets for multi-manager funds are based on targets received from underlying managers, historical data and Russell's qualitative assessment of the prospects for managers in a multi-manager portfolio and various other factors. We believe our methodology is reasonable for its purpose, but targets are not intended to predict the performance of Russell funds and we expect that actual performance will vary considerably. Fund targets may be changed by Russell Investments at any time and without notice. Additional information regarding Russell Investments' basis for fund targets is available on request.

Please note all information shown is based on Russell Investments' U.S. 10-year asset allocation input assumptions noted above and in the Russell Investments' Capital Market Assumptions (December 2016)

Expected returns employ proprietary projections of the returns of each asset class. We estimate the performance of an asset class or strategy by analyzing current economic and market conditions and historical market trends. It is likely that actual returns will vary considerably from these assumptions, even for a number of years. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve.

Net of fees returns assume \$100-\$150M invested in actively-managed Russell Investment funds,

# NSHE – Endowment Pool

## Portfolio Simulations: 20-Year Capital Markets as of December 2016

	2/1/2017 Targets	3/31/2017 Targets	Final Targets
RIIFL Multi-Asset Core Plus Fund	73%	68%	58%
Russell Investments Managed Private Capital	--	--	10%
Russell Investments Managed Hedge Funds	12%	12%	12%
RIIFL Private Real Estate Fund	--	5%	5%
RIIFL Core Bond Fund	10%	10%	10%
RIIFL Absolute Return Fixed Income	5%	5%	5%
Total Annualized Return Assumption - Gross	8.5%	8.3%	8.6%
Total Annualized Return Assumption - Net	7.8%	7.6%	7.9%
Real Annualized Return Assumption - Net	5.5%	5.3%	5.6%
Total Standard Deviation Assumption	12.6%	12.3%	12.6%

Fund alpha targets are excess return and risk goals developed by Russell Investments Strategy and Research management to help measure our skill in managing managers and the general success of your funds against their stated objectives. Targets for multi-manager funds are based on targets received from underlying managers, historical data and Russell's qualitative assessment of the prospects for managers in a multi-manager portfolio and various other factors. We believe our methodology is reasonable for its purpose, but targets are not intended to predict the performance of Russell funds and we expect that actual performance will vary considerably. Fund targets may be changed by Russell Investments at any time and without notice. Additional information regarding Russell Investments' basis for fund targets is available on request.

Please note all information shown is based on Russell Investments' U.S. 20-year asset allocation input assumptions noted above and in the Russell Investments' Capital Market Assumptions (December 2016)

Expected returns employ proprietary projections of the returns of each asset class. We estimate the performance of an asset class or strategy by analyzing current economic and market conditions and historical market trends. It is likely that actual returns will vary considerably from these assumptions, even for a number of years. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve.

Net of fees returns assume \$100-\$150M invested in actively-managed Russell Investment funds,



## Nevada System of Higher Education

**March 2, 2017**

OCIO Update

CAMBRIDGE



ASSOCIATES

Nevada System of Higher Education  
March 2, 2017  
OCIO Update

Wendy Walker, CFA  
Lindsay Van Voorhis, CFA  
David Breiner  
Maddie Ripley  
Alagan Mohan

Copyright © 2017 by Cambridge Associates LLC. All rights reserved.

This report may not be displayed, reproduced, distributed, transmitted, or used to create derivative works in any form, in whole or in portion, by any means, without written permission from Cambridge Associates LLC (“CA”). Copying of this publication is a violation of US and global copyright laws (e.g., 17 U.S.C. 101 et seq.). Violators of this copyright may be subject to liability for substantial monetary damages. The information and material published in this report is nontransferable. Therefore, recipients may not disclose any information or material derived from this report to third parties, or use information or material from this report, without prior written authorization. This report is provided for informational purposes only. The information presented is not intended to be investment advice. Any references to specific investments are for illustrative purposes only. The information herein does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. This research is not an offer to sell or the solicitation of an offer to buy any security in any jurisdiction. Some of the data contained herein or on which the research is based is current public information that CA considers reliable, but CA does not represent it as accurate or complete, and it should not be relied on as such. Nothing contained in this report should be construed as the provision of tax or legal advice. Past performance is not indicative of future performance. Broad-based securities indexes are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index. Any information or opinions provided in this report are as of the date of the report, and CA is under no obligation to update the information or communicate that any updates have been made. Information contained herein may have been provided by third parties, including investment firms providing information on returns and assets under management, and may not have been independently verified.

Cambridge Associates, LLC is a Massachusetts limited liability company with offices in Arlington, VA; Boston, MA; Dallas, TX; and Menlo Park, CA. Cambridge Associates Fiduciary Trust, LLC is a New Hampshire limited liability company chartered to serve as a non-depository trust company, and is a wholly-owned subsidiary of Cambridge Associates, LLC. Cambridge Associates Limited is registered as a limited company in England and Wales No. 06135829 and is authorised and regulated by the Financial Conduct Authority in the conduct of Investment Business. Cambridge Associates Limited, LLC is a Massachusetts limited liability company with a branch office in Sydney, Australia (ARBN 109 366 654). Cambridge Associates Asia Pte Ltd is a Singapore corporation (Registration No. 200101063G). Cambridge Associates Investment Consultancy (Beijing) Ltd is a wholly owned subsidiary of Cambridge Associates, LLC and is registered with the Beijing Administration for Industry and Commerce (Registration No. 110000450174972).





## Contents

---

1. OCIO Guideline Compliance & Implementation Update	1
2. Appendix: Materials from December 2016 Policy Setting Meeting	8
3. Supplemental Materials	19





## 1. OCIO Guideline Compliance & Implementation Update



## Blended Total Endowment Policy Adopted in December 2016

	Former Policy Targets (%)	Proposals by each Fund Manager		Blended Total Assets Policy	
		CA Capital	Russell	Blended Total Assets	
		Proposed Long-Term Targets (%)	Proposed Portfolio (%)	Proposed Policy Targets (%)	Proposed Policy Ranges (%)
<b>Growth</b>	<b>58.0%</b>	<b>62.0%</b>	<b>61.0%</b>	<b>61.5%</b>	50% - 70%
Public Growth	48.0%	45.0%	51.0%	48.0%	
Private Growth*	10.0%	17.0%	10.0%	13.5%	
Less: Legacy Private Growth		-8.8%	-15.3%		
<b>Total <u>Managed</u> Growth</b>		<b>53.2%</b>	<b>45.7%</b>		
<b>Diversifiers</b>	<b>14.0%</b>	<b>18.0%</b>	<b>12.0%</b>	<b>15.0%</b>	5% - 25%
Diversifiers with liquidity within 3 years	14.0%	13.0%	12.0%	12.5%	
Private Diversifiers*	0.0%	5.0%	0.0%	2.5%	
Less: Legacy Liquidating Sidepockets		-1.2%	-2.1%		
<b>Total <u>Managed</u> Diversifiers</b>		<b>16.8%</b>	<b>9.9%</b>		
<b>Real Assets</b>	<b>8.0%</b>	<b>10.0%</b>	<b>12.0%</b>	<b>11.0%</b>	5% - 20%
Public Real Assets	6.0%	2.0%	7.0%	4.5%	
Private Real Assets*	2.0%	8.0%	5.0%	6.5%	
Less: Legacy Private Real Assets		-2.2%	-4.5%		
<b>Total <u>Managed</u> Real Assets</b>		<b>7.8%</b>	<b>7.5%</b>		
<b>Fixed Income &amp; Cash</b>	<b>20.0%</b>	<b>10.0%</b>	<b>15.0%</b>	<b>12.5%</b>	5% - 25%
Less: Cash reserved for Legacy Assets		-0.5%	-1.1%		
<b>Total <u>Managed</u> Fixed Income</b>		<b>9.5%</b>	<b>13.9%</b>		
<b>TOTAL ENDOWMENT</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	

Note: For the purposes of gauging compliance with asset allocation policy ranges and liquidity guidelines, 50% of Legacy Assets shall be attributed to each Fund Manager's portfolio.

\*Liquidity Guidelines: No new Private Investment (PI) commitments while:

- (1) Total PI NAV > 1.3x respective Fund Manager's PI target
- (2) Total PI NAV + unfunded commitments > 1.8x respective Fund Manager's PI target



## Endowment Asset Allocation Is Well Within Policy Ranges

Portfolio Role	1/31/2017 Asset Allocation	Total Assets Long- Term Policy Targets	Total Assets Allowable Range
<b>Growth</b>	<b>58.3%</b>	<b>61.5%</b>	<b>50% - 70%</b>
Public Growth	49.3%	48.0%	
Private Growth	9.0%	13.5%	
<b>Diversifiers</b>	<b>11.5%</b>	<b>15.0%</b>	<b>5% - 25%</b>
Liquid Diversifiers (liquidity w/in 3 years)	11.5%	12.5%	
Private Diversifiers	0.0%	2.5%	
<b>Real Assets</b>	<b>11.0%</b>	<b>11.0%</b>	<b>5% - 20%</b>
Public Real Assets	6.2%	4.5%	
Private Real Assets	4.8%	6.5%	
<b>Fixed Income &amp; Cash</b>	<b>19.2%</b>	<b>12.5%</b>	<b>5% - 25%</b>
Fixed Income	8.6%	12.5%	
Cash	10.6%	0.0%	

Notes: Russell Multi-Asset Core Plus Fund (MAC+) exposures estimated using 1/31/17 asset allocation provided by Russell Investments.  
Totals may not sum due to rounding.



## Portfolio Liquidity Is Well Within Guidelines

### Endowment Portfolio Liquidity Summary – Market Values as of 1/31/2017

Managers	Pro Forma (\$ mm)	Exit Terms	Dollar Liquidity				
			Daily	1 - 4 Weeks	Quarterly	6-15 months	Illiquid
<b>U.S. Equity</b>	<b>37.2</b>		<b>3.4</b>		<b>33.8</b>		
C A U.S. Equity	37.2	Daily; quarterly	3.4		33.8		
<b>Global Equity</b>	<b>49.5</b>		<b>36.3</b>	<b>13.2</b>			
C A Global Equity	13.2	Weekly; monthly		13.2			
<i>RIFL Multi-Asset Core+ Fund - Growth *</i>	<i>36.3</i>	<i>Daily</i>	<i>36.3</i>				
<b>International Developed Equity</b>	<b>19.9</b>		<b>15.9</b>	<b>4.0</b>			
C A International Developed Equity	19.9	Daily; monthly	15.9	4.0			
<b>Emerging Markets Equity</b>	<b>7.2</b>		<b>1.6</b>	<b>5.7</b>			
C A Emerging Markets Equity	7.2	Daily; monthly	1.6	5.7			
<b>Diversifiers</b>	<b>26.6</b>			<b>2.0</b>	<b>17.1</b>	<b>6.2</b>	<b>1.3</b>
C A Diversifiers	15.7	4/1/17 full redemption (Maverick); 10% audit holdback received 2Q 2018			14.1	1.6	
<i>Russell Hedge Funds*</i>	<i>8.0</i>	<i>37.5% quarterly, with 90 days' notice (hard lock expires early 2018);</i> <i>37.5% quarterly, with 60 days' notice; 25% monthly, with 30 days'</i>		<i>2.0</i>	<i>3.0</i>	<i>3.0</i>	
Farallon Capital Illiquid Sidepocket**	1.1	Illiquid					1.1
Forester Audit Holdback	1.6	Audit Holdback				1.6	
Och-Ziff Overseas Illiquid Sidepocket**	0.2	Illiquid					0.2
<b>Private Growth</b>	<b>20.7</b>	<b>Illiquid</b>					<b>20.7</b>
C A Private Growth	0.0	Illiquid					0.0
<i>Russell Private Growth*</i>	<i>0.0</i>	<i>Illiquid</i>					<i>0.0</i>
<b>Legacy Private Growth**</b>	<b>20.7</b>						<b>20.7</b>
<b>Real Assets</b>	<b>25.4</b>		<b>14.1</b>	<b>4.5</b>	<b>6.8</b>		
C A Real Assets	10.8	Daily; monthly	6.4	4.5			
Legacy Private Real Assets**	4.3	Daily	4.3				
<i>RIFL Multi-Asset Core+ Fund - Real Assets*</i>	<i>3.4</i>	<i>Daily</i>	<i>3.4</i>				
<i>Russell Private Real Assets Allocation*</i>	<i>6.8</i>	<i>Quarterly, with 110 days' notice</i>			<i>6.8</i>		
<b>Fixed Income and Credit</b>	<b>19.9</b>		<b>17.8</b>	<b>2.0</b>			
C A Fixed Income and Credit	9.7	Daily; monthly	7.7	2.0			
<i>RIFL Core Bond Fund*</i>	<i>6.8</i>	<i>Daily</i>	<i>6.8</i>				
<i>RIFL Absolute Return Fixed Income Fund*</i>	<i>3.4</i>	<i>Daily, with 3 days' notice</i>	<i>3.4</i>				
<b>Cash and Cash Equivalents</b>	<b>24.4</b>	<b>Daily</b>	<b>24.4</b>				
<b>TOTAL ASSETS</b>	<b>230.8</b>		<b>113.5</b>	<b>31.3</b>	<b>57.8</b>	<b>6.2</b>	<b>22.0</b>
<b>PERCENT OF TOTAL ASSETS</b>	<b>100%</b>		<b>49%</b>	<b>14%</b>	<b>25%</b>	<b>3%</b>	<b>10%</b>
<i>Unfunded PI Commitments as % of Total Assets</i>							<i>11%</i>
<b>Total Illiquids + Unfunded PI Commitments</b>							<b>20%</b>

Liquidity Guidelines:	Guideline Compliance?
No new commitments while:	
(1) Private Investment NAV > 1.3x respective Fund Manager's PI target	Yes
(2) Private Investment NAV + Unfunded Commitments > 1.8x respective Fund Manager's PI target	Yes

\* *Italicized assets are excluded from C|A mandate.*

\*\* *Legacy assets are excluded from OCIO performance but are attributed 50/50 to each OCIO for purposes of asset allocation & guideline compliance.*



## Portfolio Transition Is Proceeding According to Plan



### Policy Setting and Investment Agreement (C|A & NSHE)

- Investment team drafts new Investment Policy Statement in collaboration with NSHE staff (*approved by IC on December 1*)
- Investment Management Agreement negotiated (*executed effective December*)

### Operational Onboarding (C|A & NSHE Staff)

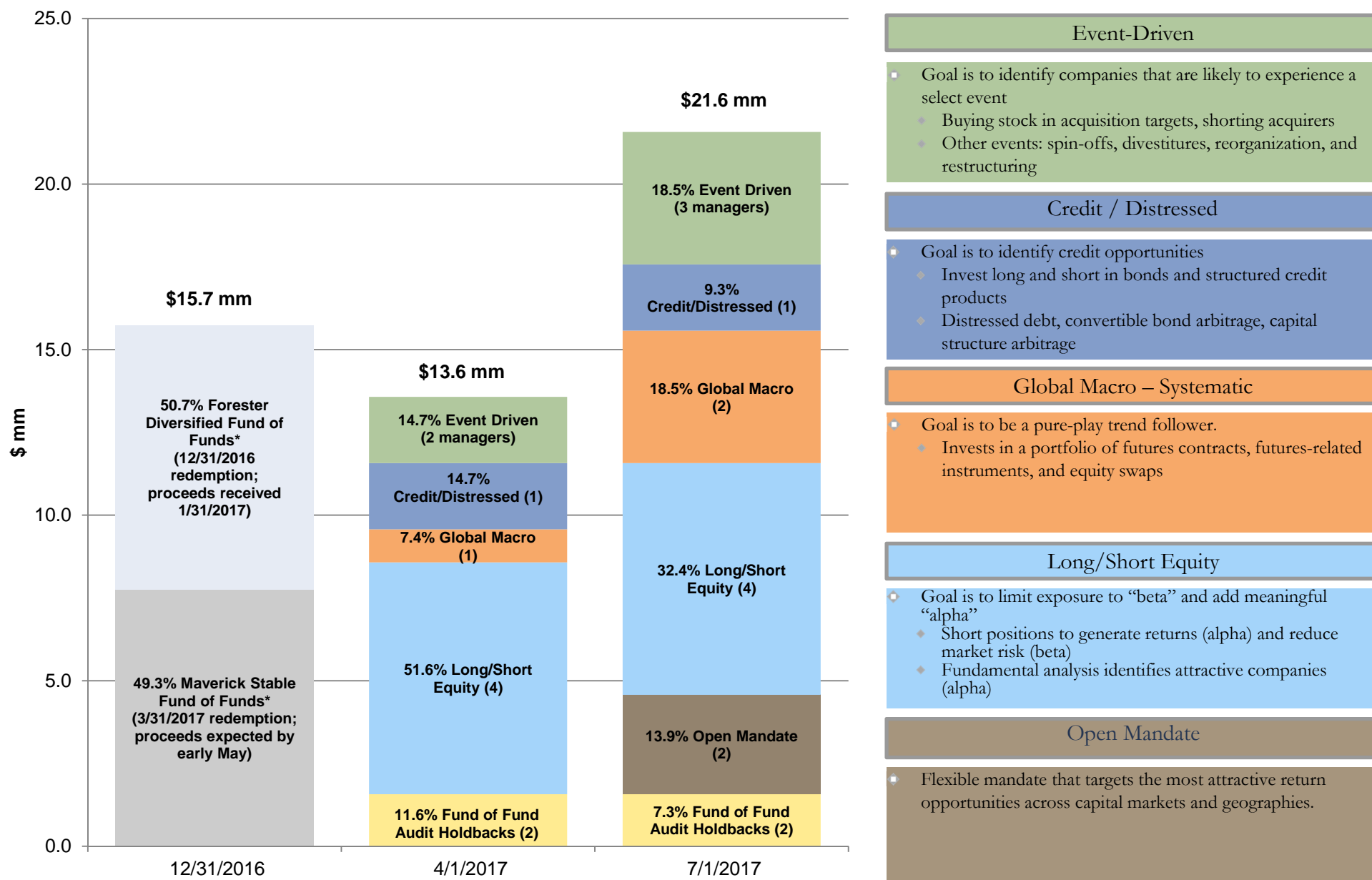
- C|A Operations contacts all managers to compile requirements for discretionary mandate
  - *Dec. 22:* US Bank agreement completed and custody account opened
  - *Late Dec./early Jan:* C|A submits redemption notices to Adage & Maverick effective March 31
    - *Dec. 30:* C|A executes 50% trims from liquid managers to fund Russell mandate
    - *Jan. 5:* \$67.18mm cash sent to Russell Investments
      - *Feb. 1:* C|A assumes Legacy Assets capital call and distribution responsibilities
        - *Feb. 8:* \$0.96mm cash sent to Russell Investments
      - *Throughout February:* C|A transfers all mutual fund holdings to custody account at US Bank

### Portfolio Management (C|A)

- *December 1:* C|A assumes OCIO responsibilities for C|A sleeve of NSHE Endowment
- C|A begins transitioning C|A sleeve toward new policy targets; new liquid managers implemented between Jan. 1 & Feb. 1
  - *Feb. 3:* Forester proceeds received; redeployed between Mar. 1 & Apr. 1
    - Adage/Maverick proceeds are received for redeployment by OCIOs
    - *April 1:* OCIO track records formally begin
- *Ongoing:* C|A manages C|A sleeve of Endowment according to approved guidelines and provides updates to NSHE as desired
- *Ongoing:* C|A investment team monitors Legacy Assets and provides updates to NSHE as desired
- *Ongoing:* C|A reports to NSHE on guideline compliance of consolidated Endowment (C|A, Russell & Legacy Assets)
- *Ongoing:* NSHE Staff & IC communicate any changes that may impact investment policy
- *Ongoing:* IC oversees OCIO & evaluates OCIO performance



## C|A Diversifiers Implementation Is On Track



\*Represents 50% of total exposure to be redeployed in C|A OCIO Mandate.



## C|A Private Investments Implementation Is on Track

As of January 31, 2017

Current Allocation (\$mm) as of January 31, 2017 <sup>1</sup>						
	NAV		Unfunded		Total	
	(\$)	(%)	(\$)	(%)	(\$)	(%)
Venture / Growth Capital	3.6	3.1%	2.7	2.3%	6.3	5.4%
Private Equity / Distressed	6.7	5.7%	5.0	4.3%	11.7	10.0%
<b>Total VC &amp; PE</b>	<b>\$10.4</b>	<b>8.9%</b>	<b>\$7.7</b>	<b>6.6%</b>	<b>\$18.0</b>	<b>15.4%</b>
<b>Total Private Diversifiers</b>	<b>\$0.0</b>	<b>0.0%</b>	<b>\$0.0</b>	<b>0.0%</b>	<b>\$0.0</b>	<b>0.0%</b>
Private Real Estate	0.0	0.0%	0.0	0.0%	0.0	0.0%
Private Natural Resources	2.2	1.9%	3.4	2.9%	5.6	4.8%
<b>Total Private RE &amp; NR</b>	<b>\$2.2</b>	<b>1.9%</b>	<b>\$3.4</b>	<b>2.9%</b>	<b>\$5.6</b>	<b>4.8%</b>
<b>Total</b>	<b>\$12.5</b>	<b>10.7%</b>	<b>\$11.1</b>	<b>9.5%</b>	<b>\$23.6</b>	<b>20.2%</b>

Target Commitment by Strategy (\$mm)					
Annual Targets	Annual Range		2017 Actual Commitments	Long-Term Targets	
(\$)	(\$)		(\$)	(%)	
2.0	\$0 - \$4		---	7.0%	
2.5	\$0 - \$5		---	10.0%	
<b>\$4.5</b>	<b>\$0 - \$9</b>		<b>---</b>	<b>17.0%</b>	
<b>\$1.5</b>	<b>\$0 - \$3</b>		<b>\$2.0</b>	<b>5.0%</b>	
1.0	\$0 - \$3		1.0	4.0%	
1.0	\$0 - \$3		2.0	4.0%	
<b>\$2.0</b>	<b>\$0 - \$6</b>		<b>\$3.0</b>	<b>8.0%</b>	
<b>\$8.0</b>	<b>\$0 - \$18</b>		<b>\$5.0</b>	<b>30.0%</b>	

<sup>1</sup> Current allocation based on net asset values (NAV) as of 9/30/16 and adjusted for capital calls and distributions through 1/31/17.

Asset allocation percentages incorporate C|A Managed Assets (\$104.2mm), plus 50% of Legacy Private Investments (\$12.5mm) as of 1/31/17, pro forma for pending Legacy Assets distributions through May 2017.

Asset Class	1999-2006 (Legacy)		2010-2014 (Legacy)		2015 (Legacy)		2017 (C A Capital)	
	Fund	Commit Amt. (\$mm)	Fund	Commit Amt. (\$mm)	Fund	Commit Amt. (\$mm)	Fund	Commit Amt. (\$mm)
Venture / Growth Capital	Endowment Venture IV	\$5.0	Commonfund VC X	\$5.0				
	Endowment Venture V	\$2.6	Commonfund VC XI	\$5.0				
<b>Sub-Total</b>		<b>\$7.6</b>		<b>\$10.0</b>				
Private Equity / Distressed	Dover Street IV	\$8.0	Dover Street VIII	\$5.0	Dover Street IX	\$5.0		
	Endowment Private Equity IV	\$5.0	Blackstone Strategic VI	\$5.0				
	Commonfund Int'l IV	\$4.0						
	Commonfund PE V	\$4.0						
	Drum Capital SS II	\$10.0						
<b>Sub-Total</b>		<b>\$31.0</b>		<b>\$10.0</b>		<b>\$5.0</b>		
<b>Total VC &amp; PE</b>		<b>\$38.6</b>		<b>\$20.0</b>		<b>\$5.0</b>		
Private Diversifiers							NEC Infrast. Credit	\$2.0
<b>Total Private Diversifiers</b>								<b>\$2.0</b>
Private Real Estate							HIG Realty III	\$1.0
<b>Sub-Total</b>								<b>\$1.0</b>
Private Natural Resources	Endowment Energy IV	\$4.0	Commonfund NR IX	\$5.0	Commonfund NR X	\$5.0	EnCap XI	\$2.0
<b>Sub-Total</b>		<b>\$4.0</b>		<b>\$5.0</b>		<b>\$5.0</b>		<b>\$2.0</b>
<b>Total Private RE &amp; NR</b>		<b>\$4.0</b>		<b>\$5.0</b>		<b>\$5.0</b>		<b>\$3.0</b>
<b>Total Privates</b>		<b>\$42.6</b>		<b>\$25.0</b>		<b>\$10.0</b>		<b>\$5.0</b>



## 2. Appendix: Materials from December 2016 Policy Setting Meeting







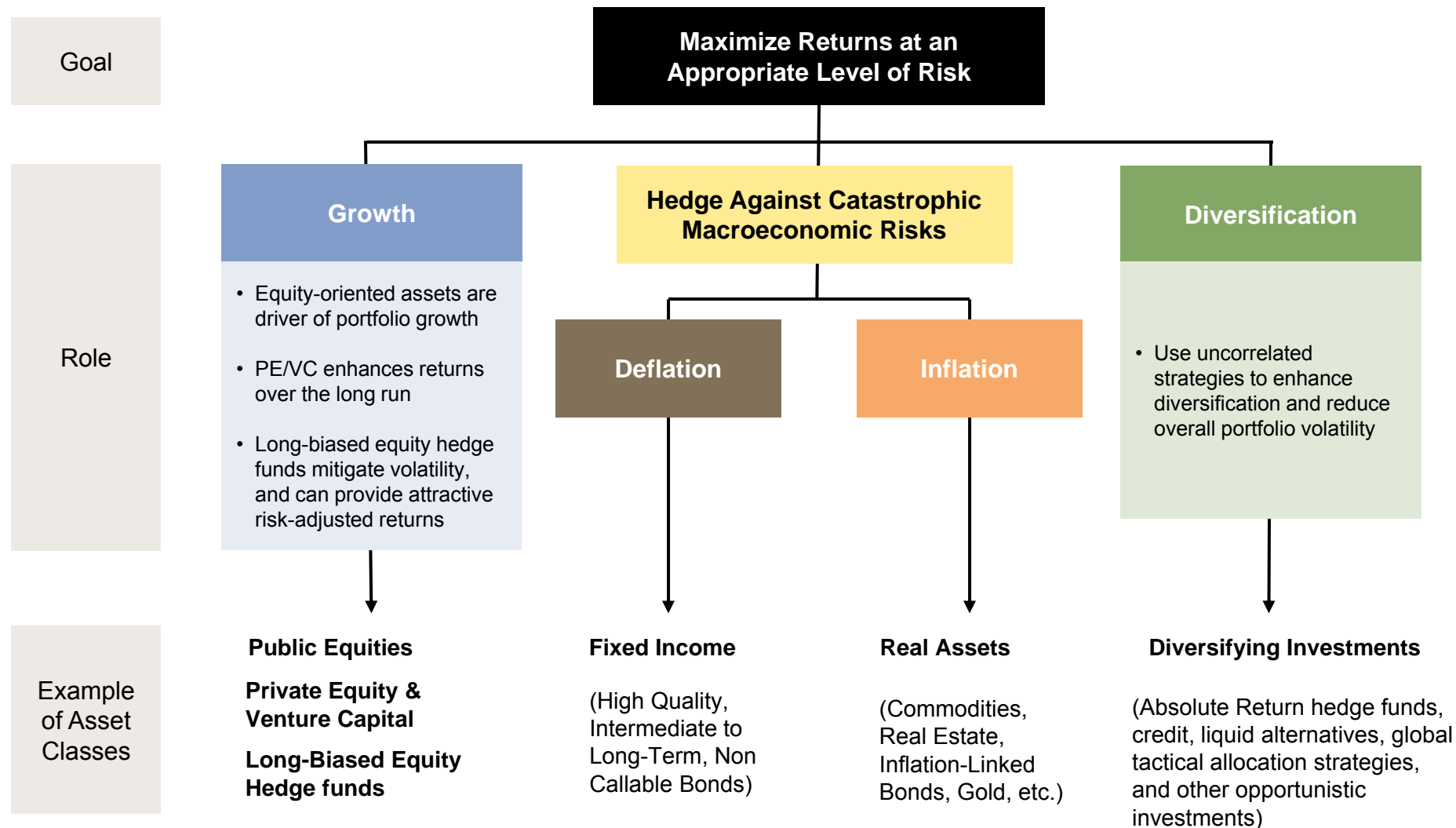
## Investment Philosophy

Our philosophy is based on NSHE's dual financial objectives to 1) provide a relatively stable stream of distributions to campuses and 2) preserve the real purchasing power of the corpus and distributions

- ◆ **Maximize allocation to growth assets** (typically equity-oriented)
  - ◆ Equity-oriented assets (public and private) have historically outperformed other asset classes, providing the overall portfolio a “growth engine” to meet long-term return objectives
- ◆ **Insure against the risk of ruin (hedge against deflation and inflation)** to avoid selling growth engine assets at depressed prices
  - ◆ Prolonged economic contractions (or investors' collective fear of such events) can be mitigated with an allocation to high-quality, non-callable sovereign bonds
  - ◆ An unexpected spike in inflation may be mitigated by investing in a basket of “real assets” which should appreciate in line with rising inflation
- ◆ **Mitigate volatility through diversifying investments** in strategies with lower correlations
- ◆ **Focus on the long-term**, and avoid trying to time the market
  - ◆ Consider valuation-based tactical moves in the event of dislocations
- ◆ **Rebalance to control risk** in a diversified portfolio
  - ◆ Maintain a disciplined and long-term view when hiring and firing managers



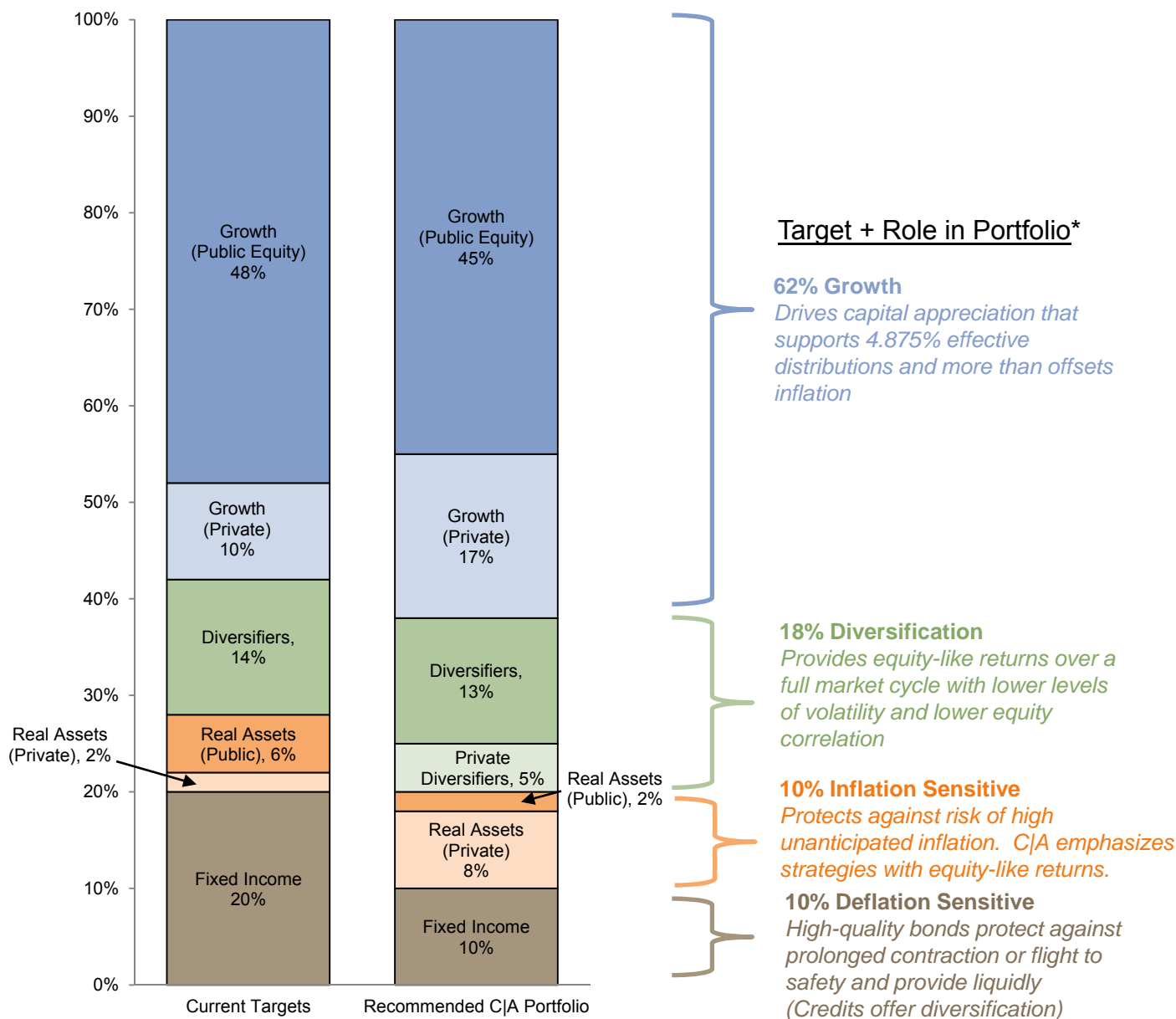
## Asset Allocation: We Focus on the Role of Each Investment in Portfolio



Note: The delineation of asset classes and their roles can be blurred, with some investments serving multiple roles in the portfolio.



## Proposed Long-Term Asset Allocation Policy– C|A Portfolio

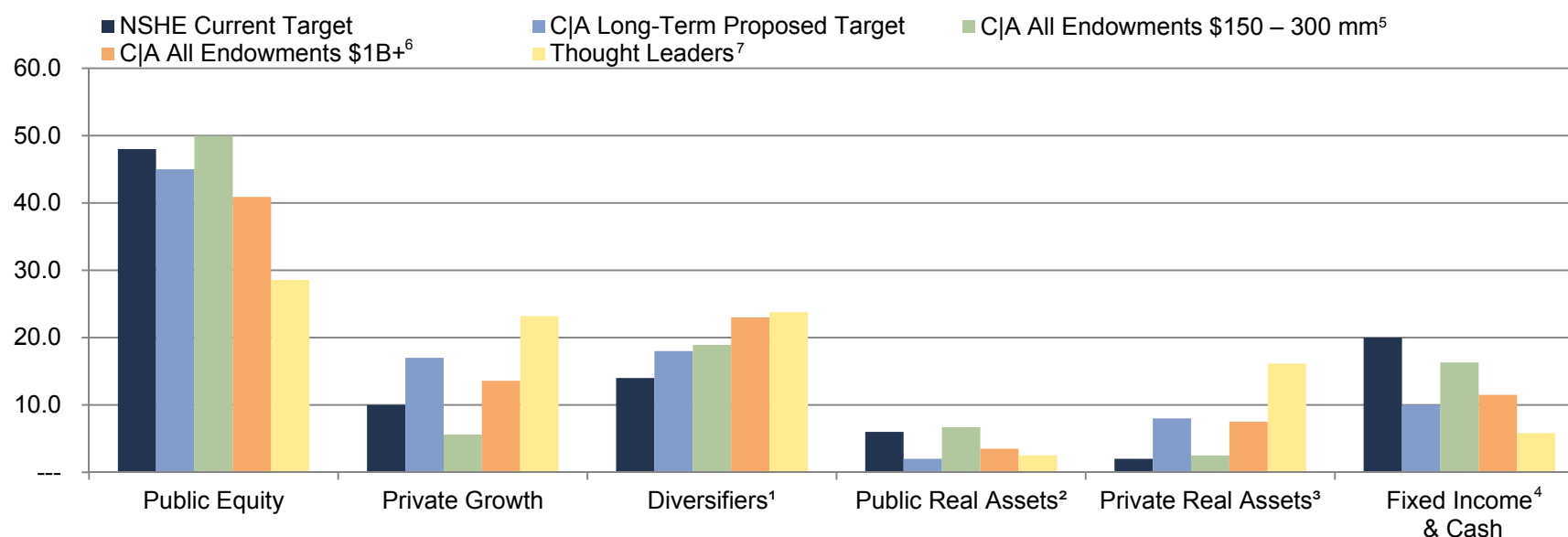


- ◆ Long-term targets oriented around strategic roles in portfolio
- ◆ Majority of portfolio in equity-oriented Growth strategies to drive capital appreciation
- ◆ Meaningful exposure to diversifiers (e.g., marketable alternatives) and private investments
- ◆ Opportunistic approach to private investments based on compelling valuations and managers – not an exercise in ‘filling buckets’
- ◆ Target exposures to Private Growth, Private Diversifiers and Private Real Assets will be built gradually over multiple years
- ◆ Illiquidity constraint would drive potential / maximum allocation to private investments
- ◆ Allowable ranges provide discipline around rebalancing and tactical positioning

\* The delineation of asset classes and their roles can be blurred, with some investments serving multiple roles in the portfolio.



## Comparative Asset Allocation – Peer Endowments



	Public Growth	Private Growth	Diversifiers <sup>1</sup>	Public Real Assets <sup>2</sup>	Private Real Assets <sup>3</sup>	Fixed Income & Cash <sup>4</sup>
<b>NSHE Current Target</b>	<b>48.0</b>	<b>10.0</b>	<b>14.0</b>	<b>6.0</b>	<b>2.0</b>	<b>20.0</b>
<b>C A Long-Term Proposed Target</b>	<b>45.0</b>	<b>17.0</b>	<b>18.0</b>	<b>2.0</b>	<b>8.0</b>	<b>10.0</b>
C A All Endowments \$150 – 300 mm <sup>5</sup>	49.9	5.6	18.9	6.7	2.5	16.3
C A All Endowments \$1B+ <sup>6</sup>	40.9	13.6	23.0	3.5	7.5	11.5
Thought Leaders <sup>7</sup>	28.6	23.2	23.8	2.5	16.1	5.8

<sup>1</sup> Diversifiers include equity hedge funds, distressed securities, arbitrage, liquidating managers, other marketable alternatives and others.

<sup>2</sup> Public Real Assets includes public real estate, inflation-linked bonds, commodities.

<sup>3</sup> Private Real Assets includes private real estate, oil & gas partnerships, timber.

<sup>4</sup> Fixed Income include U.S. bonds, global ex U.S. bonds, emerging markets bonds, and high-yield bonds.

<sup>5</sup> C|A All Endowments \$150 – 300 mm universe includes 68 institutions with assets ranging between \$153.5 mm and \$297.1 mm. Results are preliminary as of 9/30/2016.

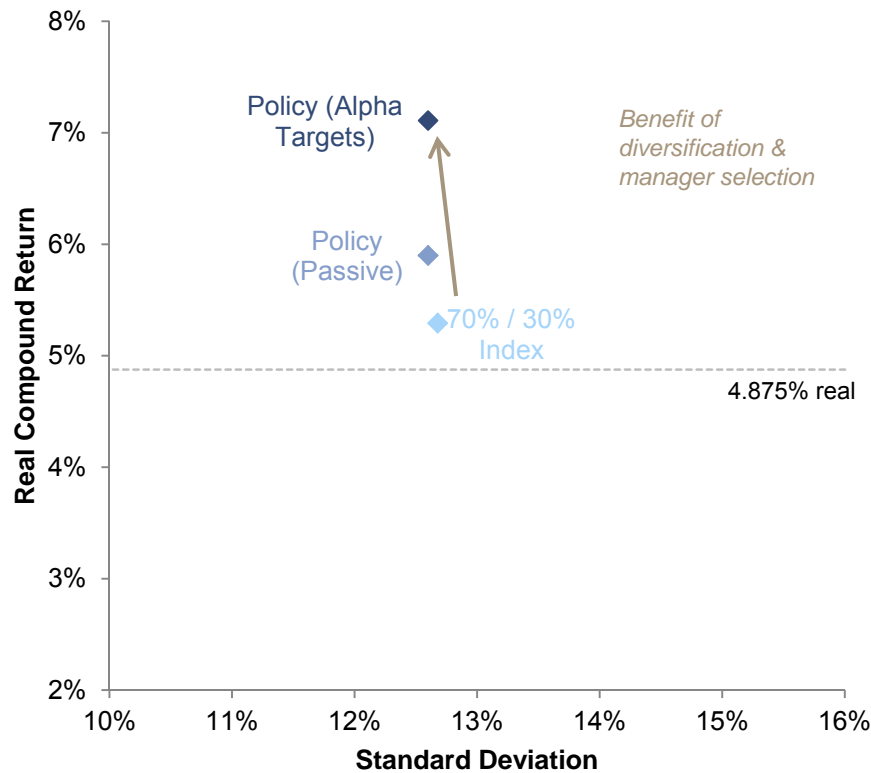
<sup>6</sup> C|A All Endowments \$1B+ universe includes 30 institutions with assets ranging between \$1.0B and \$18.5B. Results are preliminary as of 9/30/2016.

<sup>7</sup> Thought Leaders reflects the mean allocation of 9 institutions: Columbia University, Dartmouth University, MIT Investment Management Company, Duke University, Yale University, University of Pennsylvania, Princeton University, Harvard Management University, and Stanford University. Data for Stanford is as of 6/30/2015. Data for all other institutions is as of 6/30/2016.

## Proposed C|A Portfolio – Risk/Return Characteristics

Proposed policy offers superior returns to a simple 70/30 stock/bond portfolio with lower volatility

### Long-Term Real Risk/Return Projections



### Summary Statistics – Real Returns

	Proposed C A Portfolio - Alpha Targets	Proposed C A Portfolio	70% / 30% Index
Estimated Long-Term Real Compound Return	7.1%	5.9%	5.3%
Estimated Range of Returns (25th-75th %ile)	4.7 - 8.0%	3.7 - 7.1%	3.6 - 7.0%
Estimated Volatility (Standard Deviation)	12.6%	12.6%	12.7%
Estimated Beta to Global Equity	0.68	0.68	0.70
<b>Long-Term Risk:</b> Estimated Probability of Not Achieving 4.875% Real Compound Return Over 25 Years	28%	37%	43%
<b>Short-Term Risk:</b> Estimated Cumulative Decline, 2008 Financial Crisis	-34%* -\$34mm*	-34% -\$34mm	-37% -\$37mm

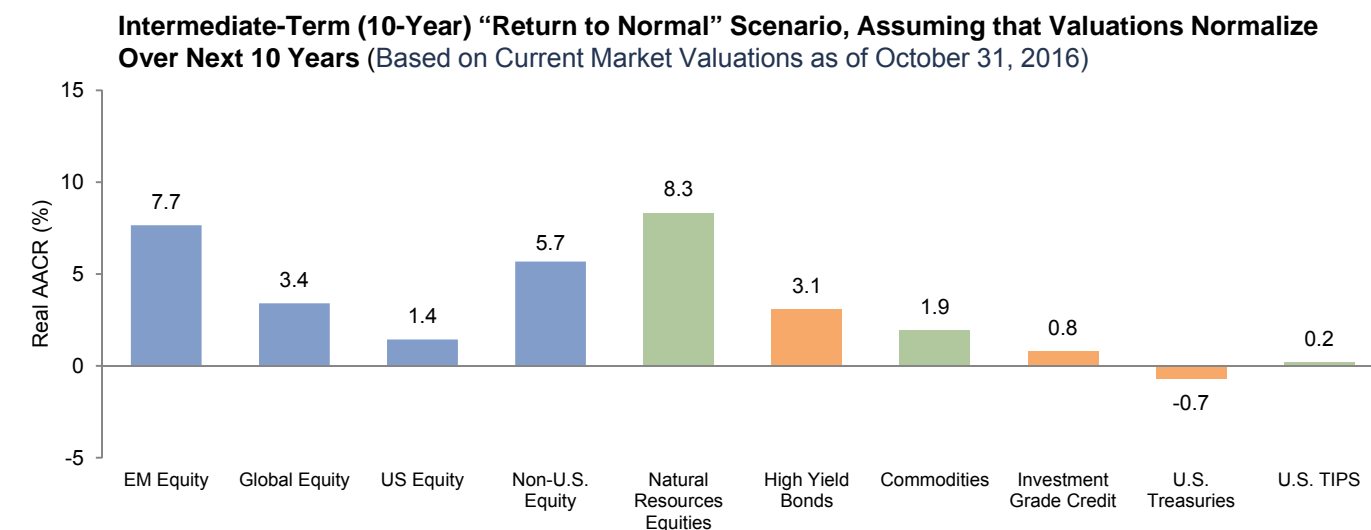
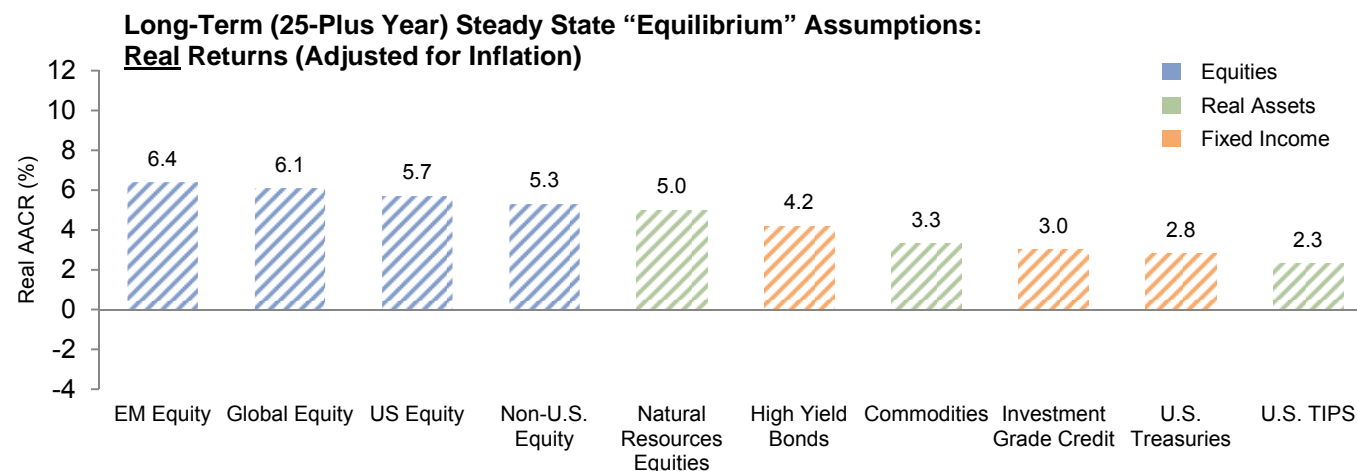
\* Assumes no positive or negative alpha from active management.

Notes: "Proposed C|A Portfolio– Alpha Targets" portfolio assumes alpha for each portfolio role over its given benchmark of: 50-150 bps from public equity, 300-500 bps from private investments, and 250-350 bps from hedge funds. Alpha is net of C|A fees. Decline statistics assume beginning market value of \$100mm (C|A mandated portfolio) and use real cumulative asset class returns from November 1, 2007 to February 28, 2009.

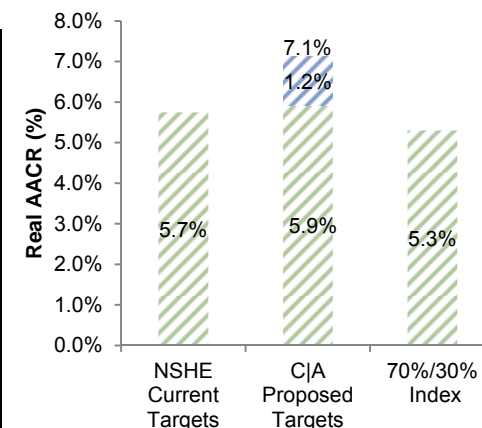


## Valuations Will Challenge Intermediate-Term Market Returns: Alpha is not Optional

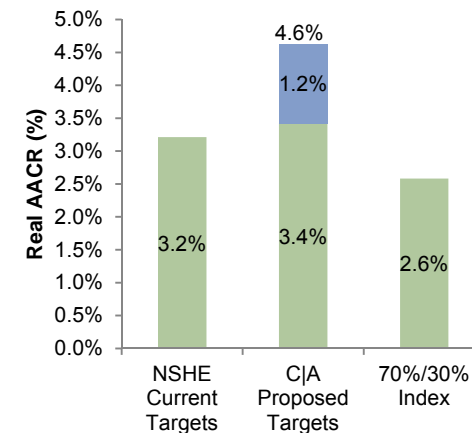
As Private Investment allocations are ramping up toward long-term targets, results may fall short of long-term expectations



### Long-Term Real Return



### Intermediate-Term Real Return



**Blue bars denote targeted value added from manager selection**

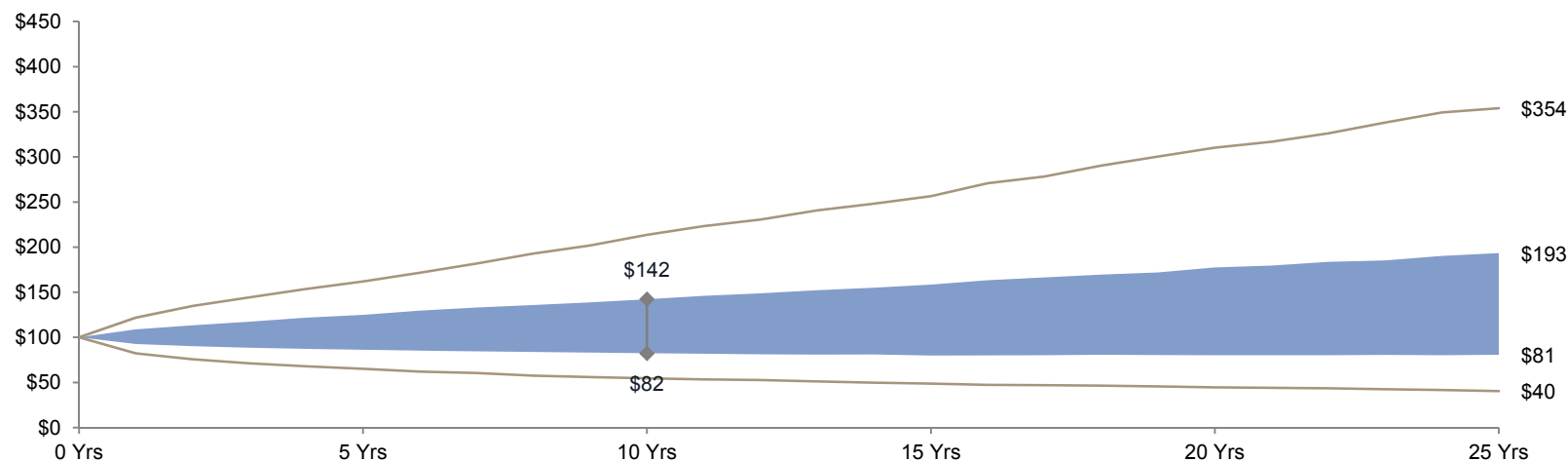
**Key Assumptions:** Inflation: 3%; Real EPS Growth: 2% for US and Dev ex US, 3% for EMs; Ending 10-Yr US Treasury Yield: 5.0%, Ending 10-Yr US TIPS yield: 2.0%

Sources: Barclays, Cambridge Associates LLC, Global Financial Data, Inc., MSCI Inc., and Thomson Reuters Datastream. MSCI data provided “as is” without any express or implied warranties.  
Notes: Policy allocations assume alpha for each portfolio role over its given benchmark of: 100 bps from public equity, 400 bps from private investments, and 300 bps from hedge funds. Alpha is net of C|A fees.

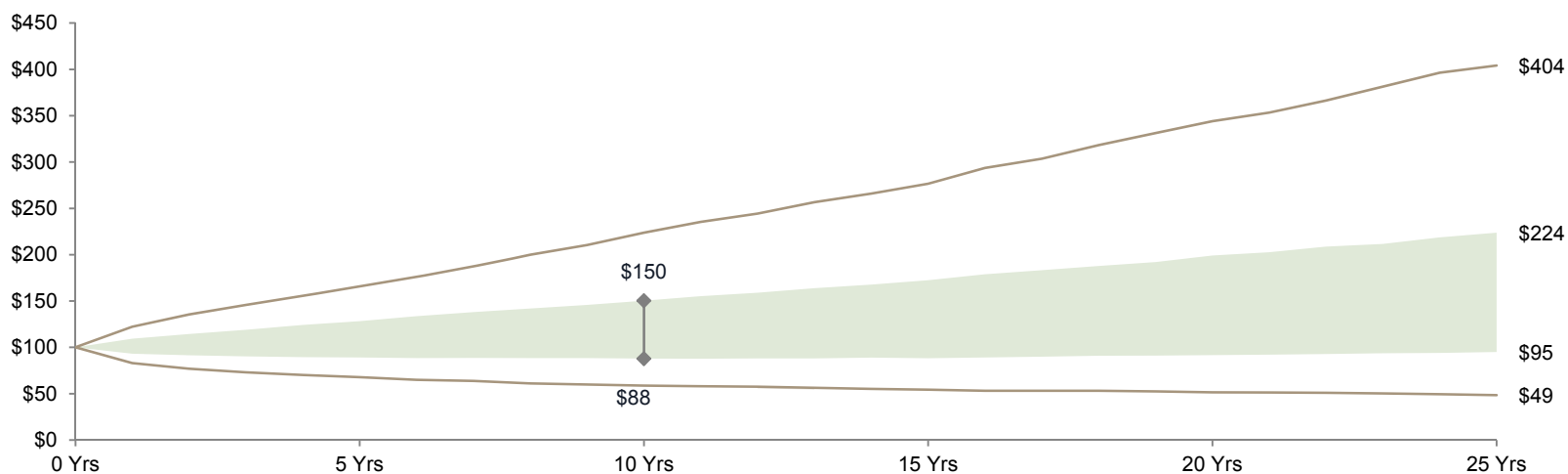


## Proposed Targets Increase the Range of Potential Upside over the Long Term

### Current NSHE Targets – Real Endowment Value after Distributions



### Proposed C|A Portfolio incl. Alpha Targets– Real Endowment Value after Distributions

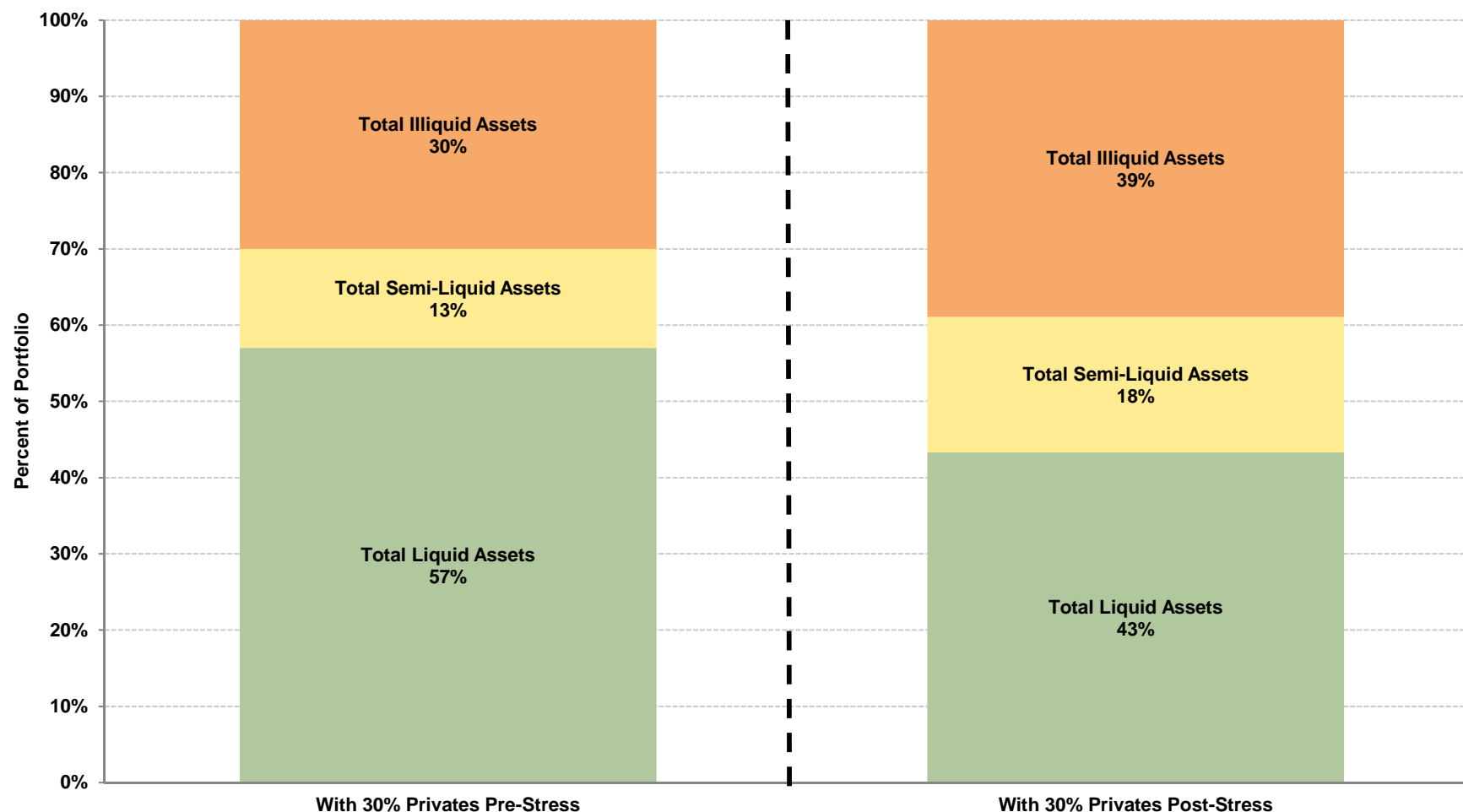


Note: Based on Long-Term Equilibrium Assumptions. Range includes 50 percent of the distribution (25<sup>th</sup> to 75<sup>th</sup> percentile). Model employs 4.875% of the average ending portfolio market value over the trailing twenty quarters as the spending assumption.



## C|A Portfolio Can Support 4.875% Payout and Maintain Liquidity Even in Market Stress

We use the Global Financial Crisis as an illustrative example of market stress, when equities fell >50%



### Assumptions:

1. The stress scenario uses real cumulative asset class returns from November 1, 2007 to February 28, 2009 global financial crisis, e.g. -51.9% MSCI U.S. Index, -57.3% MSCI World ex U.S. Index, etc.
2. C|A Long-Term Policy includes "Liquid Assets": global equities (45%), public inflation sensitive strategies (2%) and deflation sensitive strategies (10%); "Semi-Liquid Assets": diversifying (13%); and "Illiquid Assets": private growth (17%), private diversifiers (5%), private real assets (8%). 4.875% annual spending is removed from liquid assets.





## Measuring Results: Proposed C|A Portfolio Benchmarks

Several benchmarks assess different measures of performance and risk

	Benchmark	Description	Question Answered	Expectation	Evaluation Period
1	<b>Policy Benchmark</b>  <i>See next page</i>	Weighted blend of benchmarks for each role in portfolio category	Have manager selection and tactical asset allocation been additive relative to the strategic target policy?	Outperform with comparable volatility	Rolling 3-year periods
2	<b>Simple Risk-Equivalent Benchmark</b>  70% MSCI ACWI Index (net) / 30% Bloomberg Barclays Aggregate	Weighted blend of global equities (MSCI All Country World Index) and U.S. fixed income (Bloomberg Barclays Aggregate Bond Index)	Have asset allocation and implementation been additive relative to simple, passive alternatives; has risk profile been consistent with expectations?	Outperform with equal or less volatility	Rolling 5- to 10-year periods <i>(full equity market cycle)</i>
3	<b>Long-Term Objective</b>  All-in Distribution Policy (4.875%) + Inflation (CPI-U)	Static benchmark not directly related to market performance	Is the portfolio meeting NSHE's financial objectives to support a 4.875% payout and maintain purchasing power?	Outperform	Rolling 10-year periods



## Proposed C|A Policy Benchmark & Liquidity Guidelines

Portfolio Role	C A Portfolio Policy Target	Portfolio Role Benchmarks
Growth	62%	MSCI All Country World Index (net), adjusted for Private Investments*
Diversifiers	18%	0.3 beta-adjusted MSCI ACWI (net), adjusted for Private Investments*
Real Assets	10%	25% S&P NA Natural Resources Index/25% S&P GSCI/ 25% Alerian MLP Index/25% FTSE EPRA-NAREIT Global RE Index, adjusted for Private Investments*
Fixed Income	10%	Bloomberg Barclays Aggregate Index
<b>CA Portfolio Benchmark</b>	<b>100%</b>	<b>Weighted Average of Portfolio Role Benchmarks</b>

Liquidity Guidelines	Comment
<p>No new commitments while:</p> <p>(1) Total Private Investment NAV &gt; 39% of total CA Portfolio (1.3x Total PI Target)</p> <p>(2) Total Private Investment NAV + unfunded commitments &gt; 54% of total CA Portfolio (1.8x Total PI Target)</p> <p>For the purpose of gauging compliance with these liquidity guidelines, 50% of NSHE Legacy Assets shall be attributed to the CA Portfolio.</p>	<ul style="list-style-type: none"> <li>Long-term blended target exposure to Private Investments is 30% of Total Assets: 17% to Private Growth, 5% to Private Diversifiers and 8% to Private Real Assets</li> <li>Actual exposure will be function of conviction / opportunity set</li> <li>Liquidity guidelines provide ‘cushion’ in severe environments</li> </ul>

\* For the portion of the portfolio that is allocated to illiquid private investments, each investment will be self-benchmarked for the first 5 years of its life. This is to address the “J-curve” inherent in private investments. After each investment’s fifth year of life, it will be retroactively benchmarked to the relevant public market index to reflect any value that has been added over this timeframe.



### 3. Supplemental Materials

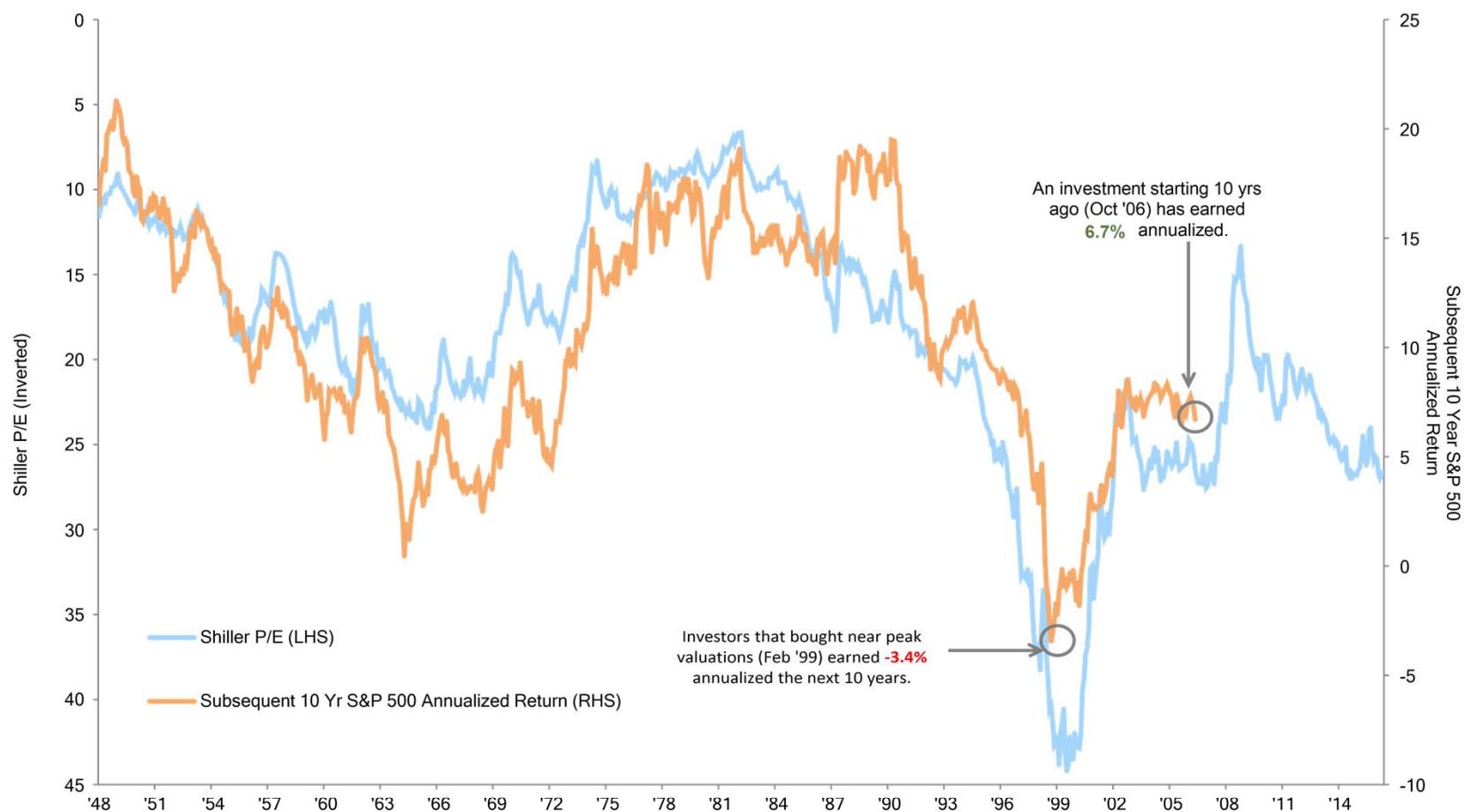




## The importance of alpha: Valuations suggest disappointing outlook for equity beta

### Shiller (Cyclically Adjusted 10 Yr) PE vs. Subsequent S&P 10 Year Nominal Returns

June 30, 1948 – October 31, 2016



Sources: Robert J. Shiller and Standard & Poor's.

Note: Normalized real P/E ratios (Shiller P/E ratio) for the S&P 500 Index are calculated by dividing the current index value by the rolling ten-year average of inflation-adjusted earnings.

2074m



## The importance of alpha today: Bonds likewise look priced to disappoint

### US Aggregate Bond Index

January 1, 1976 – October 31, 2016 • Percent (%)



Sources: Barclays, Bloomberg L.P., and Thomson Reuters Datastream.

Notes: Data are monthly. The last full five-year period was November 1, 2011 to October 31, 2016. The October 31, 2016 yield-to-maturity of 2.12% on the Barclays Aggregate Bond Index implies low nominal returns at best.

6002m



## Cambridge Associates Current Valuations Summary\*

February 7, 2017 (updated subsequent to December 2016 policy setting meeting)

Very Overvalued	Overvalued	Fairly Valued	Undervalued	Very Undervalued
US Small-Cap Equities Euro-Denominated Credits Core EMU Sovereign Bonds <i>US Venture Capital (late stage)</i> <i>US Private Equity</i> <i>European Private Equity</i>	Developed ex US Small-Cap Equities <b>US Equities</b> US Growth Equities US Value Equities US High-Quality Equities UK Sterling-Denominated Credits Leveraged Loans <b>US Bonds**</b> US High-Yield Bonds US Corporate Bonds Global Inflation-Linked Bonds US Inflation-Linked Bonds UK Gilts Canadian Govt Bonds Australian Govt Bonds US REITs Distressed Investing (Non-Control) USD vs DM Currencies <i>US Private Property</i> <i>UK Private Property</i> <i>Developed Asian Private Property</i> <b>US Venture Capital</b> <i>US Venture Capital (expan stage)</i>	<b>Developed Markets Equities</b> <b>Developed ex US Equities</b> UK Equities Europe ex UK Equities EMU Equities Japanese Equities Canadian Equities Australian Equities New Zealand Equities EM Small-Cap Equities EM Equities Latin America Chinese A-Share Equities Frontier Markets Equities EM Debt (Local Currency)*** EM Debt (USD Corporate) EM Debt (USD Sovereign) US Treasuries US Tax-Exempt Bonds New Zealand Govt Bonds Commodities Natural Resources Equities Energy Master Limited Partnerships Developed Market Property Securities Convertible Arbitrage Event-Driven Investing Emerging Markets Currencies (<) <i>Europe ex UK Private Property</i> <i>Emerging Asian Private Property</i> <i>Private Oil, Gas, &amp; Other Energy</i> <i>US Venture Capital (early stage)</i> <i>European Venture Capital</i> <i>Asian Private Equity</i> <i>Latin American Private Equity</i>	Asia ex Japan Equities <b>Emerging Markets Equities</b> EM Equities Asia EM Equities EMEA <i>Private Metals and Mining</i>	

Notes: Data on fundamental valuations do not provide forecasts of expected returns; they reflect the vulnerability of a given asset class to disappointing economic and profit developments. Therefore, valuations may not necessarily correspond to short-term or even intermediate-term returns. For example, asset classes and investment strategies can be fairly valued yet still retain a negative outlook due to deteriorating fundamentals. Asset class and investment strategy valuations do not reflect currency valuations. Bold type represents the **aggregate** of asset classes for which we show valuation ratings for underlying strategies. Italic type represents *non-marketable asset classes*. Valuations of such investments are based on our views on prospects for new commitments made today, which are informed by recent transactions, as well as consideration of near-term trends and intermediate-term expectations such as supply and demand factors, exit opportunities, and expectations of conditions that will influence risk and return over the life of a fund. Private equity includes buyouts and growth equity. (<) Indicates a recent move in the direction of more overvalued. (>) Indicates a recent move in the direction of more undervalued.

\* For more detail on our views, read our monthly Asset Class Views, available on our client website.

\*\* Reflects a broad-based US bonds allocation similar to the Bloomberg Barclays Aggregate Bond Index.

\*\*\* Currency is considered against the US dollar.

044x



## How We Evaluate Managers

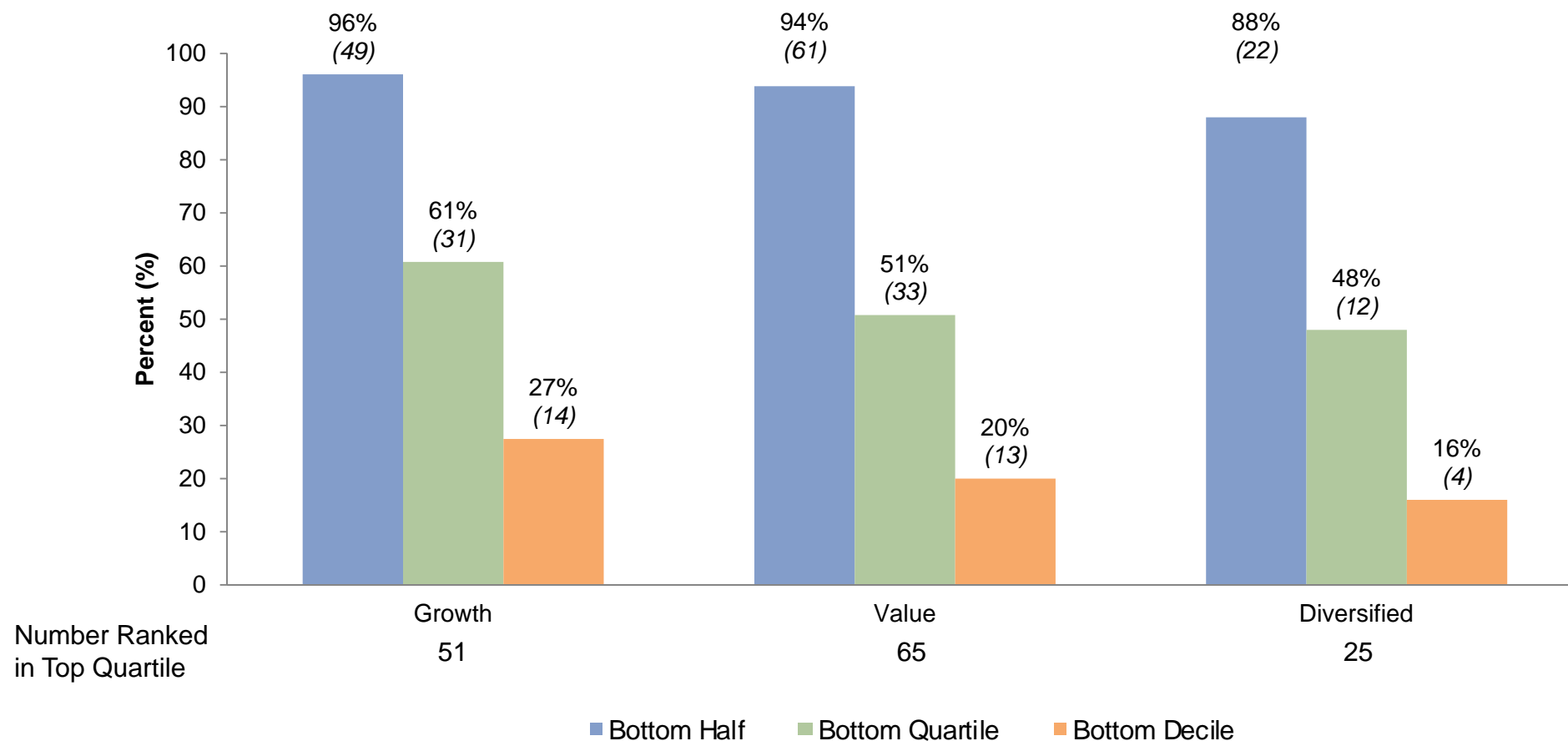
<i>Organization</i>	<i>Alignment</i>	<i>Strategy</i>	<i>Performance</i>	<i>Market Environment</i>
Partners' financial/ operational experience	Ownership and economic distribution among firm employees	Experience investing or operating in the sector	Performance attribution, if track record available	Value drivers
Networks of senior professionals and deal sourcing capabilities	GP commitment	Sourcing advantage/ industry relationships	Applicability of the track record	Valuation
Spin-out?	Performance-based compensation	Value creation strategy	Seed investments	Competitiveness
Team cohesion	LP-friendly terms	Underwriting discipline		Economies of scale
Junior and back office support		Planned exits— in-place strategic relationships		Supply/demand dynamics



## Patience is Key – Even Top Performing Managers Have Weak Stretches

Percentage (Number) of Top Managers Whose Rolling 12-Quarter Ranking Fell at Least Once into the Bottom of the Managers' Respective Distribution

### Top Quartile Over Ten Years



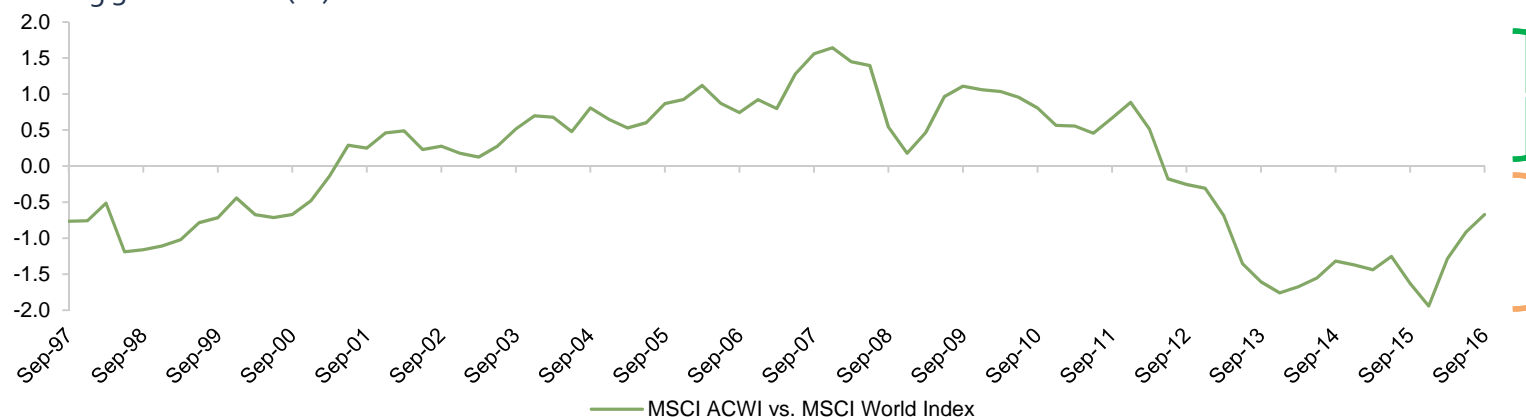
Source: Cambridge Associates LLC Investment Manager Database. Data as of 9/30/2016.  
575q





## Likewise, Asset Classes Often Exhibit Cyclical Patterns of Out-/Underperformance

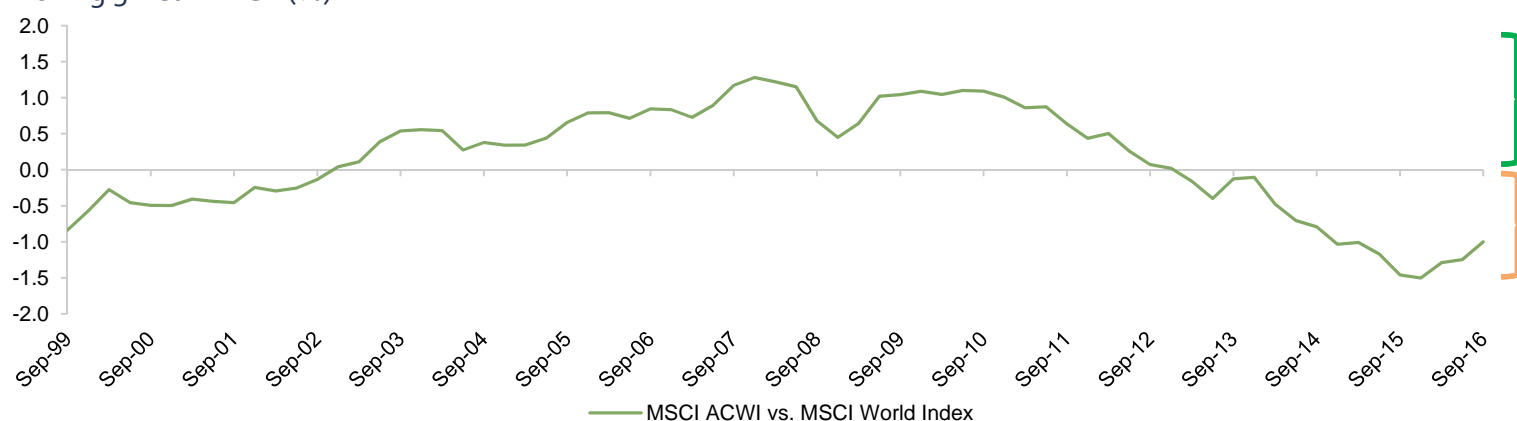
Rolling 3-Year AACR (%)



Global equities including  
EM have outperformed  
the majority of the time

Global equities including  
EM underperformed  
during Asian currency  
crisis & in recent years

Rolling 5-Year AACR (%)



Global equities including  
EM have outperformed  
the majority of the time

Global equities including  
EM underperformed  
during Asian currency  
crisis & in recent years

OUTPERFORMANCE: MSCI ALL COUNTRY WORLD (INCLUDING EM) VS. MSCI WORLD INDEX (DEVELOPED MARKETS ONLY)		
	<u>Periods</u>	<u>%</u>
Rolling 3-year periods	44/77	57.1%
Rolling 5-year periods	41/69	59.4%



## Accessing Alpha: Hedge Fund Managers

Universe of approximately 11,000 hedge fund managers\*

Over 3,700 funds and more than 1,900 managers tracked in our proprietary manager database\*

More than 500 proposals reviewed annually\*\*

More than 1,500 meetings per year\*

...Nearly 3,200 written comments\*

**109** due diligence reports\*

\*Compiled from calendar year 2014

\*\*Compiled from calendar year 2013

Note: Given that we make customized recommendations to each client based on that client's individual investment goals, circumstances, and risk tolerances, investment directors may rely on their own research in making recommendations.



## Accessing Alpha: Private Investment Managers

We track **19,700** partnerships

There's **2,685** open and future opportunities on our Forward Calendar

We write almost **2,440** comments...

Conduct more than **2,190** meetings...

...and review **500+** proposals a year

**210** due diligence reports

All data as of December 31, 2015

Note: Given that we make customized recommendations to each client based on that client's individual investment goals, circumstances, and risk tolerances, investment directors may rely on their own research in making recommendations.

## Private Investments Program Strategy

*Goal: 300-500 basis points of excess return over global equity markets*

### ◆ Why?

- > Superior historical and expected performance vs. public markets
- > Access differentiated exposures outside of public markets
- > Bigger “tool kit” (e.g., turnarounds, cap structure optimization, sector expertise, innovation/disruption)
- > Higher expected returns in low-return environment
- > CA has deep resources and relationships to identify and access top performers

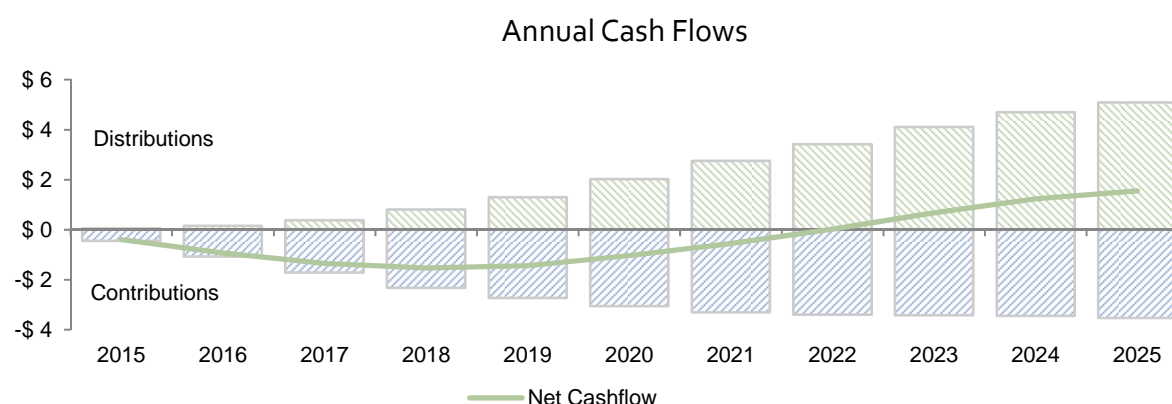
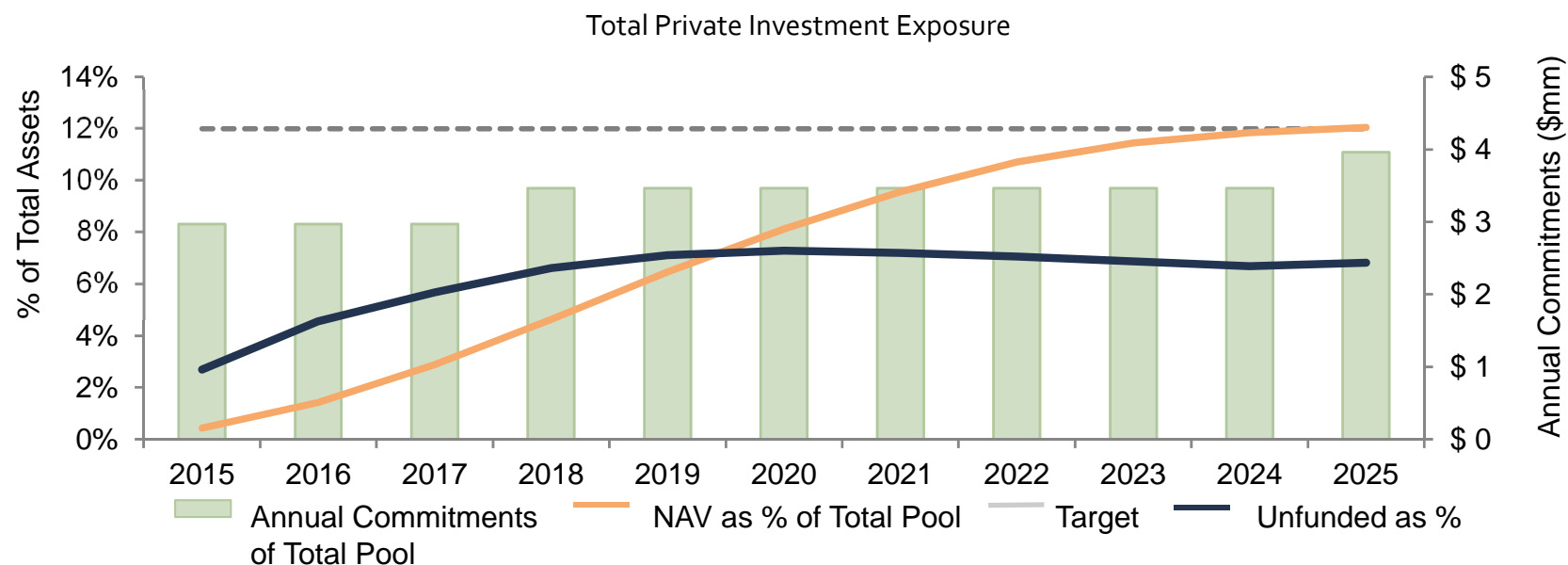
### ◆ How?

- > “Best ideas portfolio”: highest conviction managers in most compelling strategies
- > Do not fill a bucket
- > Pursue best-in-class direct managers, supplemented by secondary funds
- > Focus on funds in \$300-\$700 million range

**Target 30% Allocation (17% Private Growth + 5% Private Diversifiers + 8% Private Real Assets)**



## Illustrative 17% Private Growth Target Allocation – How We Get There



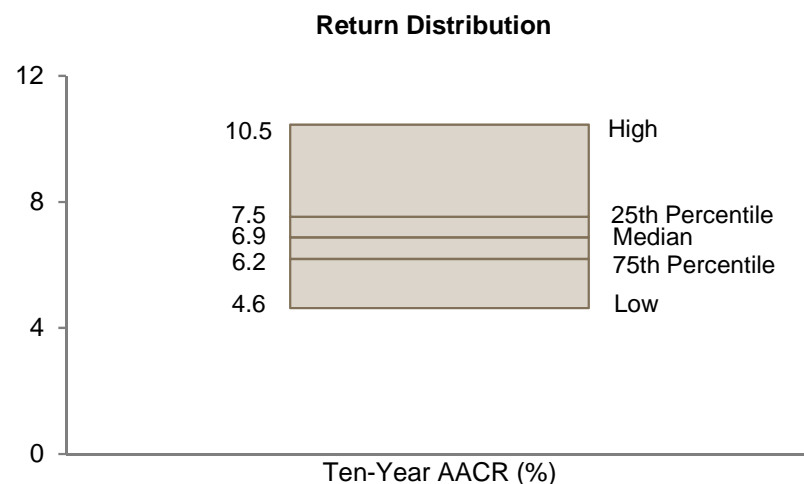
	Commitment Pace (\$mm)	NAV as % of Total Assets
2015	3.0	0.4
2016	3.0	1.4
2017	3.0	2.9
2018	3.5	4.6
2019	3.5	6.5
2020	3.5	8.1
2021	3.5	9.6
2022	3.5	10.7
2023	3.5	11.5
2024	3.5	11.8
2025	4.0	12.0

The information provided in these exhibits is illustrative and representative of recent commitments recommended by Cambridge Associates and does not constitute investment advice. Actual implementation of MOCA's portfolio will be influenced by our findings from a thorough enterprise review as well as availability of managers at the time of implementation.



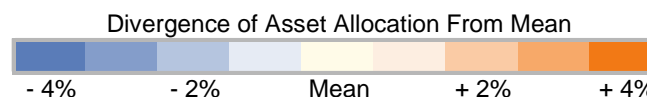
## Top-Performing Endowments Have Had Highest Exposure to Private Investments

Trailing Ten-Year Returns and Asset Allocation of Top and Bottom Performers as of June 30, 2015



**Mean Asset Allocation by Performance Quartile (%): June 30, 2005, to June 30, 2015**

Quartile	US Equity	DM ex US Equity	EM Equity	Bonds	Hedge Funds	PE & VC	Private RA	Public RA & ILBs	Cash	Other
Top Quartile	18.0	12.4	6.0	10.1	21.9	14.0	10.1	4.1	3.1	0.2
2nd Quartile	21.2	13.7	6.0	11.4	24.8	8.7	4.5	5.4	3.9	0.4
3rd Quartile	24.4	14.9	5.9	13.4	20.0	6.6	3.8	7.1	3.5	0.5
Bottom Quartile	26.6	16.4	5.0	19.2	16.6	4.1	1.9	6.6	3.2	0.3
US E&F Mean	22.5	14.4	5.7	13.5	20.8	8.3	5.1	5.8	3.4	0.4



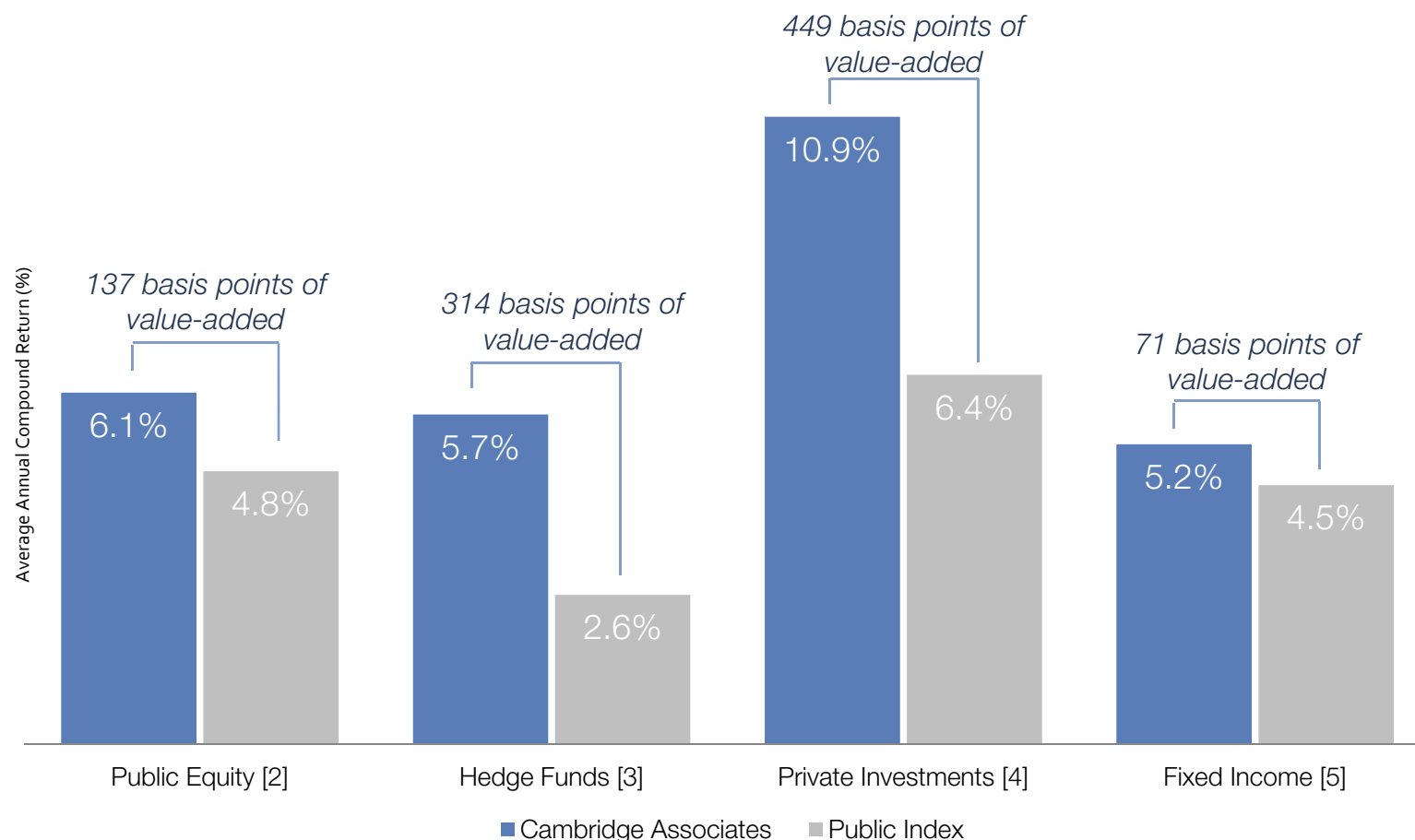
Source: Endowment and foundation data as reported to Cambridge Associates LLC.

Notes: Performance quartiles are based on the trailing ten-year return as of June 30, 2015. Mean allocations are for the eleven June 30 periods from 2005 and 2015. Analysis includes data for 242 institutions.



## Manager selection has allowed us to deliver value-added across asset classes

*Value-added from manager selection: 10-year annualized returns<sup>[1]</sup>*



Note: This exhibit is incomplete without the disclosures provided in Disclosures section at the end of this presentation

[1] Private Investment performance is shown as of June 30, 2015 as Private Investment performance data is reported semi-annually and on a quarterly lag. Performance data for Public Equity, Hedge Funds, and Fixed Income is reported quarterly and is shown as of December 31, 2015.

[2] Public Index: MSCI All Country World Net

[3] Public Index: Beta-adjusted MSCI All Country World comprised of 30% MSCI All Country World Index (Net) and 70% 91-Day T-Bills.

[4] Public Index: MSCI World PME. Public Market Equivalent (mPME) Analysis contains tools that enable benchmarking of any PI data set (from fund-level to entire client portfolios) against public markets, providing context on what performance would have been had the PI cash flows been subject to public returns. mPME assumes that private contributions are invested in the relevant index and that distributions are taken out in the same proportion as in the private investment. It attempts to evaluate what performance would have been had the private investment manager's return-earning skills been replaced with public returns. Proprietary CA methodology that uses cash flows in and out of the private investment portfolio to determine the timing of purchases and sales of an equity index. Performance is then compared to that of the private investment.

[5] Public Index: Barclays Aggregate Bond Index

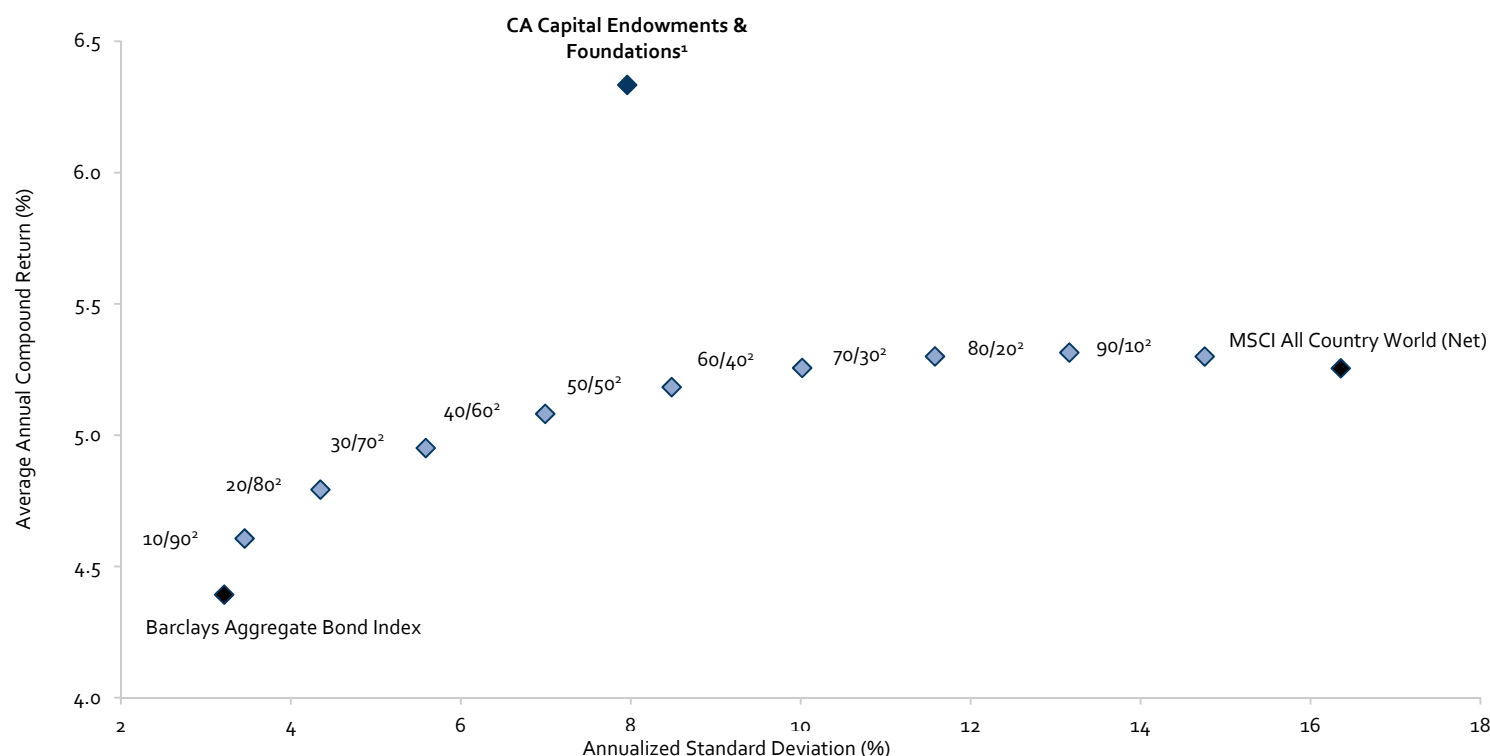
Sources: Barclays, MSCI Inc. and Cambridge Associates LLC. MSCI data provided "as is" without any express or implied warranties.

Copyright © 2016 by Cambridge Associates LLC. All rights reserved. Last Updated April 15, 2016



## C|A Capital endowments and foundations composite

*Risk vs. return analysis since inception: March 1, 2006 – December 31, 2015*



Note: This exhibit is incomplete without the disclosures provided at the end of this presentation.

[1] Client returns are net of the management fee paid to Cambridge Associates and fees paid to underlying investment managers. CA Discretionary E&F Composite includes 27 total portfolio discretionary endowment and foundation clients of Cambridge Associates Group as of December 31, 2015. Client returns are reported in the currency for which performance is reported. Discretionary E&F clients include nonprofit endowment and foundation institutions. At the start of the 10 year timeframe covered in this exhibit, CA had one discretionary client in the sample. Clients are added to the sample over time based on their contract start date or, when applicable, the mutually agreed date on which the client measures investment team performance. Clients are included for those periods during which they are discretionary clients. To date, two discretionary E&F clients have reduced their discretionary services. Annualized mean returns are calculated based on a monthly asset-weighted client composite mean return. Mean returns are calculated using clients' annualized average annual compound return (AACR) for each time period reflected in the exhibit. Private investment returns are only calculated on a quarterly basis. To include these returns in the monthly data, for a given quarter, the actual quarterly return is used in one of the months and a 0% return is used in the other months. As private investments report on a quarter lag, the performance for these assets are estimated for the most recent period by scaling the S&P 500 return by a 0.5 beta.

"The Cambridge Associates Group" (herein referred to as "Cambridge Associates") comprises five investment consulting affiliates that were established for the sole purpose of providing our consulting, research, and performance monitoring services in various regulatory jurisdictions around the globe: Cambridge Associates LLC, Cambridge Associates Asia Pte Ltd., Cambridge Associates Investment Consultancy (Beijing) Ltd., Cambridge Associates Limited LLC, and Cambridge Associates Limited. These entities serve our clients from our U.S., Singapore, Beijing, Sydney, and London office locations, respectively. All clients in this sample are served by Cambridge Associates LLC. Each of the affiliates has full access to all of CA's research and consulting resources.

[2]The global equity/investment grade bond blend consists of MSCI All Country World Index (Net) and Barclays Aggregate Bond Index.

Sources: Barclays Capital, MSCI Inc., and Cambridge Associates LLC. MSCI data provided "as is" without any express or implied warranties.  
Copyright © 2016 by Cambridge Associates LLC. All rights reserved. Last Updated: April 11, 2016





## The Nevada System of Higher Education Outsourced Investment Office

INVESTMENT TEAM



Wendy Walker  
*Chief Investment Officer*



Lindsay Van Voorhis  
*Director, Portfolio Strategy  
& Private Investments*



David Breiner  
*Director,  
Hedge Funds*



Jeff Wilson  
*Director,  
Portfolio Operations*



Maddie Ripley  
*Senior Investment Associate*

Alagan Mohan  
*Investment Analyst*

OPERATIONS TEAM

Matt Dowgert  
*Legal Review*

Sarah Roeder  
*Onboarding*

Kara Paluch  
*Portfolio Administration*

Graham Landrith  
*Reporting Analyst*

Sean Hanna  
*Compliance*

RESEARCH PLATFORM

Global Investment  
Manager Research  
*115 Professionals*

Business  
Risk Management  
*16 Professionals*

Capital Markets  
Research  
*25 Professionals*



## The Nevada System of Higher Education Outsourced Investment Office

Wendy Walker, CFA  
*Chief Investment Officer*  
650.233.5209 office  
510.397.9368 cell  
wwalker@cambridgeassociates.com

### Focus and Experience

Wendy is a Managing Director and Chief Investment Officer in CA Capital Management, Cambridge Associates' outsourced investment office business. Wendy has nine years of investment experience and currently serves eight clients. She works with a number of museum, university, hospital and other nonprofit institutions. Wendy is also a member of the firm's Mission Related Investing group.

Prior to joining Cambridge Associates, Wendy worked on the investment teams at Imprint Capital Advisors, focusing on socially responsible and environmental-themed investment managers, and at Parnassus Investments, conducting industry and company-specific research. Before graduate school, Wendy was a securities analyst at Argus Research, where she co-managed four model portfolios and published equity research on media and business service companies. She also previously performed fiduciary and tax accounting at McLaughlin & Stern, LLP. Wendy is a former vice chair of the Sustainable Investing Committee of the New York Society of Security Analysts.

### Education

- ◆ CFA Charterholder
- ◆ MBA (with Honors), Walter A. Haas School of Business, University of California at Berkeley
- ◆ BA (cum laude) in Comparative Literature with Theater Studies, Yale University



## The Nevada System of Higher Education Outsourced Investment Office

Lindsay Van Voorhis, CFA

*Director of Portfolio Strategy and*

*Private Investments*

650.233.5211 office

650.387.3041 cell

lvanvoorhis@cambridgeassociates.com

### Focus and Experience

Lindsay is a Managing Director and Director of Private Investments in CA Capital Management, Cambridge Associates' outsourced investment office business. Lindsay advises a number of universities, colleges, foundations, private clients, and pension plans in the U.S. ranging in size from \$50 million to over \$5 billion. He serves as both a generalist and specialist investment director focused on private investments. Lindsay serves on the firm's research committees for private equity and hard assets.

Prior to joining Cambridge Associates in 1995, Lindsay performed equity research on technology stocks at Volpe, Welty. Previously, he was the Director of Client Services and Technical Development at Securities Data Company for six years. In this role, he also managed the research effort of the firm's public and private securities offering databases.

### Education

- ◆ CFA Charterholder
- ◆ MBA, Stanford Graduate School of Business
- ◆ BA in Economics (magna cum laude), Duke University

## The Nevada System of Higher Education Outsourced Investment Office

David Breiner

*Director of Diversifiers*

650.233.5265 office

650.799.9272 cell

dbreiner@cambridgeassociates.com

### Focus and Experience

David is a Managing Director and Director of Diversifiers in CA Capital Management, Cambridge Associates' outsourced investment office business. David works with a number of universities, foundations, and other non-profits in the U.S., ranging in size from \$120 million to \$900 million. He serves as both a generalist and a specialist investment director focused on hedge fund assets. David is also a regular contributor to hedge fund manager research and has co-authored a paper on manager fees.

David's background includes ten years in the equity research field, where he served institutional hedge and mutual fund clients in the U.S. and Europe. Before David joined Cambridge Associates in 2006, he served as Director of Research with Primary Global Research, LLC, a boutique provider of proprietary research services for institutional managers active in the technology sector. Prior to that, he served as a Managing Director with Bear Stearns, where he was responsible for analysis and stock recommendations in the enterprise software sector. Previously, he was a Vice President with Prudential Securities and a research associate with Robertson Stephens and Montgomery Securities.

### Education

- ◆ MBA, Stanford Graduate School of Business
- ◆ BS, Stanford University



## The Nevada System of Higher Education Outsourced Investment Office

Jeff Wilson

*Director of Portfolio Operations*

jwilson@cambridgeassociates.com

### Focus and Experience

Jeff is a Director of Portfolio Operations in CA Capital Management, Cambridge Associates' outsourced investment office business. Jeff has more than a 12 years of investment operations experience. Additionally, Jeff is involved with several internal projects and initiatives focusing on best practices, operational improvements, and client service.

Prior to joining Cambridge Associates in 2015, Jeff was a New Business Implementation Officer at State Street Global Advisors. Prior to that, he had many years experience at Brown Brothers Harriman and began his career as a Corporate Actions Analyst at State Street Global Advisors

### Education

- > BA, Hamilton College
- > MBA, Northeastern University



## Passive portfolio risk return assumptions

---

We used CA's standard equilibrium asset class assumptions, which we've included on the next slide, in the following manner:

- ◆ Global Public Equities – 50% U.S., 40% Developed ex. U.S., and 10% Emerging Markets Equities (which roughly reflects the geographic weightings in the MSCI ACWI global public equity index)
- ◆ Marketable Alternatives– 30% Global Public Equities (as defined above) / 70% Cash, which approximates the 0.3 equity beta of a 'typical' diversifiers portfolio
- ◆ Private Equity / Venture Capital – Same assumption used for Global Public Equities
- ◆ Cash (standard assumption)
- ◆ U.S. Government Bonds (standard assumption)
- ◆ U.S. Core Bonds (50% U.S. Government Bonds / 50% Investment Grade Corporate Bonds)



## Value-added from manager selection: public equity

### *Exhibit disclosures*

The exhibit shows returns for the global equity allocations of CA's discretionary clients. In keeping with SEC guidelines, it is important to evaluate this information with the following facts in mind:

- ◆ The return figures are provided from the date that CA began managing each clients' portfolio and may or may not reflect investments made by clients prior to joining CA.
- ◆ The size of each client's total investment portfolio varies considerably, and each client may have different risk tolerances.
- ◆ Past performance is not necessarily a guide to future performance.
- ◆ The performance data is net of investment managers' fees but has not been adjusted to reflect CA's management fees and other expenses that a client may incur. A client's return will be reduced by the amount of such fees and expenses which are described in Part II of CA's Form ADV. The following example demonstrates the effect, using a model fee, of compounded management fees over a period of years on the value of a client's portfolio:

A hypothetical portfolio with a beginning value of \$100 million, experiencing an annual return of 6.1% per annum, would grow to \$180.78 million after ten years, assuming no fees were paid. Accounting for an annual fee payable in advance to CA of 30 bps (0.30%), the same portfolio earning an annual return of 6.1% would only grow to \$175.43 million after ten years. The annualized returns over the ten-year time period are 6.1% (gross of CA's fees) and 5.8% (net of CA's fees). Actual fees could be higher or lower depending on services provided.

Copyright © 2016 by Cambridge Associates LLC. All rights reserved.



## Value-added from manager selection: hedge funds

### *Exhibit disclosures*

---

The exhibit shows returns for all discretionary clients who have dedicated hedge fund programs. In keeping with SEC guidelines, it is important to evaluate this information with the following facts in mind:

- ◆ The return figures are provided from the date each client joined CA and may or may not reflect investments made by clients prior to joining CA.
- ◆ The size of each client's total investment portfolio varies considerably, and each client may have different risk tolerances.
- ◆ Past performance does not guarantee future returns.
- ◆ The performance data is net of investment managers' fees but has not been adjusted to reflect CA's management fees and other expenses that a client may incur. A client's return will be reduced by the amount of such fees and expenses which are described in Part II of CA's Form ADV. The following example demonstrates the effect, using a model fee, of compounded management fees over a period of years on the value of a client's portfolio:

A hypothetical portfolio with a beginning value of \$100 million, experiencing an annual return of 5.7% per annum, would grow to \$174.08 million after ten years, assuming no fees were paid. Accounting for an annual management fee payable in advance to CA of 30 bps (0.30%), the same portfolio earning an annual return of 5.7% would only grow to \$168.93 million after ten years. The annualized returns over the 10-year time period are 5.7% (gross of CA's fees) and 5.4% (net of CA's fees). Actual fees could be higher or lower depending on services provided.

Copyright © 2016 by Cambridge Associates LLC. All rights reserved.





## Value-added from manager selection: private investments

### *Exhibit disclosures*

This exhibit shows the private investment returns of Cambridge Associates' clients relative to public market equivalents. In keeping with SEC guidelines, it is important to evaluate this information with the following facts in mind:

- ❖ Because of the private nature of the investments included in this analysis, CA is unable to track and include portfolios for clients that have terminated their services with CA. The data does not include investments made by Cambridge Associates' clients prior to their becoming a client.
- ❖ The experience of individual clients of CA will differ from the returns shown in this exhibit due to the size and composition of each client's portfolio of partnerships.
- ❖ All CA client returns are net of management fees, expenses, and carried interest but do not account for CA's fees.
- ❖ The performance of CA clients may be attributable to factors other than CA's advice because CA clients may or may not follow this advice. As a result, the experience of a client that follows CA's advice may differ materially from the performance presented.
- ❖ Past performance does not guarantee future returns.
- ❖ The performance data provided by CA's clients has not been adjusted to reflect CA's fees and other expenses that a client would incur. A client's return will be reduced by the amount of such fees and expenses which are described in Part 2A of CA's Form ADV. The following example demonstrates the effect, using a model fee, of compounded advisory fees over a period of years on the value of a client's portfolio:

A hypothetical portfolio with a beginning value of \$100 million, experiencing an annual return of 10.9% per annum, would grow to \$281.39 million after ten years, assuming no fees were paid. Accounting for an annual fee payable in advance to CA Capital of 30 bps (0.30%), the same portfolio earning an annual return of 10.9% would only grow to \$273.07 million after ten years. The annualized returns over the ten-year time period are 10.9% (gross of CA's fees) and 10.6% (net of CA's fees). Actual fees could be higher or lower depending on services provided.



## Value-added from manager selection: fixed income markets

### *Exhibit disclosures*

The exhibit shows returns for the fixed income allocations of CA's discretionary clients. In keeping with SEC guidelines, it is important to evaluate this information with the following facts in mind:

- ◆ The return figures are provided from the date that CA began managing each clients' portfolio and may or may not reflect investments made by clients prior to joining CA.
- ◆ The size of each client's total investment portfolio varies considerably, and each client may have different risk tolerances.
- ◆ Past performance is not necessarily a guide to future performance.
- ◆ The performance data is net of investment managers' fees but has not been adjusted to reflect CA's management fees and other expenses that a client may incur. A client's return will be reduced by the amount of such fees and expenses which are described in Part II of CA's Form ADV. The following example demonstrates the effect, using a model fee, of compounded management fees over a period of years on the value of a client's portfolio:

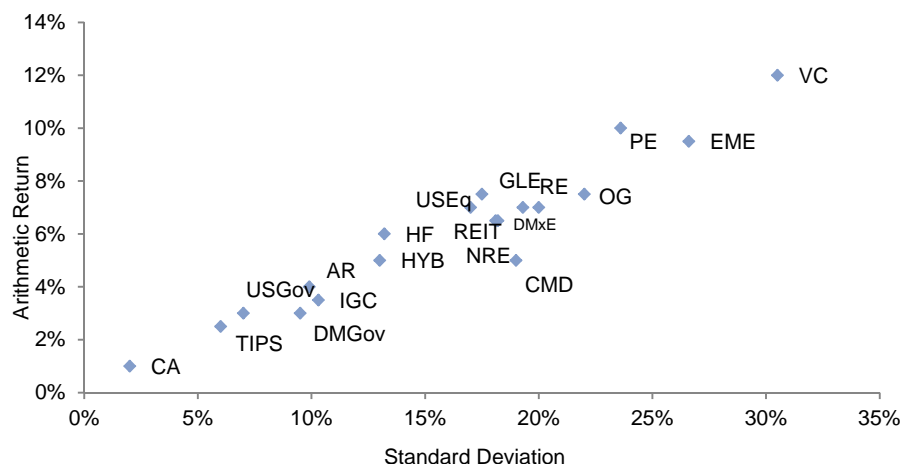
A hypothetical portfolio with a beginning value of \$100 million, experiencing an annual return of 5.2% per annum, would grow to \$166.02 million after ten years, assuming no fees were paid. Accounting for an annual fee payable in advance to CA of 30 bps (0.30%), the same portfolio earning an annual return of 5.2% would only grow to \$161.10 million after ten years. The annualized returns over the ten-year time period are 5.2% (gross of CA's fees) and 4.9% (net of CA's fees). Actual fees could be higher or lower depending on services provided.

Copyright © 2016 by Cambridge Associates LLC. All rights reserved.



## C|A's Standard Equilibrium Assumptions

	Real Arithmetic Return	Standard Deviation	Range Contains 50% of 25-Year Periods <sup>1</sup>	Implied Real Compound Return
U.S. Equity	7.0	17.0	4.8 - 9.2	5.7
Developed Market ex U.S. Equity	7.0	19.3	4.5 - 9.5	5.3
Emerging Market Equity	9.5	26.6	6.2 - 12.9	6.4
Global Equity	7.5	17.5	5.2 - 9.8	6.1
Absolute Return	4.0	9.9	2.7 - 5.3	3.5
Equity Hedge Funds	6.0	13.2	4.3 - 7.8	5.2
Venture Capital	12.0	30.5	8.3 - 15.9	8.1
Private Equity	10.0	23.6	7.0 - 13.1	7.6
Commodities	5.0	19.0	2.6 - 7.5	3.3
Natural Resource Equity	6.5	18.2	4.2 - 8.9	5.0
Real Estate Securities	6.5	18.1	4.2 - 8.9	5.0
Real Estate	7.0	20.0	4.4 - 9.6	5.2
Oil & Gas	7.5	22.0	4.7 - 10.4	5.3
U.S. Government Bonds	3.0	7.0	2.1 - 3.9	2.8
U.S. TIPS	2.5	6.0	1.7 - 3.3	2.3
Developed Market Government Bonds	3.0	9.5	1.7 - 4.3	2.6
Investment Grade Credit	3.5	10.3	2.1 - 4.9	3.0
High Yield Bonds	5.0	13.0	3.3 - 6.7	4.2
Cash	1.0	2.0	0.7 - 1.3	1.0



	USEq	DMxE	EME	GLE	AR	HF	VC	PE	CMD	NRE	REIT	RE	OG	USGov	TIPS	DMGov	IGC	HYB	CA
USEq	1.0																		
DMxE	0.7	1.0																	
EME	0.6	0.7	1.0																
GLE	0.9	0.9	0.8	1.0															
AR	0.4	0.6	0.4	0.5	1.0														
HF	0.7	0.8	0.6	0.8	0.5	1.0													
VC	0.6	0.6	0.5	0.6	0.4	0.5	1.0												
PE	0.6	0.7	0.5	0.7	0.4	0.6	0.5	1.0											
CMD	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0										
NRE	0.5	0.7	0.6	0.7	0.4	0.6	0.4	0.5	0.4	1.0									
REIT	0.7	0.7	0.6	0.8	0.5	0.7	0.5	0.6	0.1	0.6	1.0								
RE	0.4	0.5	0.3	0.5	0.3	0.4	0.3	0.3	0.0	0.4	0.6	1.0							
OG	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.5	0.5	0.2	0.2	1.0						
USGov	0.0	0.0	-0.1	0.0	0.1	0.0	0.0	0.0	-0.2	-0.1	0.1	0.0	-0.1	1.0					
TIPS	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0				
DMGov	0.1	0.3	0.0	0.2	0.4	0.3	0.2	-0.2	0.1	0.3	0.2	0.1	0.7	0.3	1.0				
IGC	0.3	0.5	0.2	0.4	0.5	0.5	0.3	0.4	-0.1	0.3	0.5	0.4	0.2	0.7	0.3	0.9	1.0		
HYB	0.6	0.6	0.5	0.7	0.5	0.7	0.4	0.5	0.0	0.5	0.7	0.4	0.2	0.1	0.1	0.4	0.7	1.0	
CA	0.0	0.0	-0.1	-0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.2	0.0	1.0