

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

BUSINESS MEETING

March 16, 2015

AGENDA

PLACE: Ventura County Employees' Retirement Association
Second Floor Boardroom
1190 South Victoria Avenue
Ventura, CA 93003

TIME: 9:00 a.m.

ITEM:

	Master Page No.
I. <u>CALL TO ORDER</u>	
II. <u>APPROVAL OF AGENDA</u>	1 – 3
III. <u>APPROVAL OF MINUTES</u>	
A. Disability Meeting of March 2, 2015.	4 – 8
IV. <u>CONSENT AGENDA</u>	
A. Approve Regular and Deferred Retirements and Survivors Continuances for the Month of February 2015	9 – 10
B. Receive and File Report of Checks Disbursed in February 2015	11 – 20
C. Receive and File Statement of Fiduciary Net Position, Statement of Changes in Fiduciary Net Position, Investments and Cash Equivalents, and Schedule of Investment Management Fees for the Period Ending January 31, 2015	21 – 26
D. Receive and File Budget Summary for FY 2014-15 Month Ending February 28, 2015	27

V. INVESTMENT MANAGER PRESENTATIONS

- | | |
|--|----------|
| A. Receive Annual Investment Presentation, HarbourVest, Brett Gordon, Managing Director and Aris Hatch, Principal (30 Minutes) | 28 – 66 |
| B. Receive Annual Investment Presentation, Adams Street, Scott Hazen, Partner and Kathy Wanner, Partner (30 Minutes) | 67 – 97 |
| C. Receive Annual Investment Presentation, Pantheon, Matt Garfinkle, Partner and Sprague Von Stroh, Vice President | 98 – 122 |

VI. INVESTMENT INFORMATION

- | | |
|--|-----------|
| A. NEPC – Allan Martin, Partner, and Dan LeBeau, Consultant. | |
| 1. Asset Allocation Ranges and Benchmarks Recommendation
RECOMMENDED ACTION: Approve. | 123 – 124 |
| 2. Implementation of Asset Allocation Work Plan
RECOMMENDED ACTION: Approve. | 125 – 150 |
| 3. Preliminary Performance Report Month Ending February 28, 2015
RECOMMENDED ACTION: Receive and file. | 151 – 158 |

VII. NEW BUSINESS

- | | |
|---|-----------|
| A. Recommendation to Approve PEPRA Annual Compensation Limit | |
| 1. Staff Letter | 159 |
| 2. California Actuarial Advisory Panel PEPRA Pension Compensation Limits for the Calendar Year 2015 | 160 – 163 |
| B. Appointment of SACRS Voting Proxy for Spring 2015 Conference | |
| 1. Staff Letter | 164 |

VII. NEW BUSINESS (continued)

- C. Oral Update from the Personnel Review Committee on VCERA's Chief Investment Officer Recruitment
- D. Ventura County Employees' Retirement Information System (VCERIS) Pension Administration Project
 - 1. VCERIS Project Monthly Status Report 165
RECOMMENDED ACTION: Receive and file.
- E. CALAPRS Advanced Principles of Pension Management for Trustees Report, Submitted by Trustee Johnston 166 – 167
RECOMMENDED ACTION: Receive and file.

VIII. INFORMATIONAL

- A. Save the Date - NEPC's 20th Annual Investment Conference; May 19 – 20, 2015; Boston, MA 168
- B. Nossaman LLP's Public Pensions and Investments Fiduciaries' Forum; September 24 – 25, 2015, San Francisco, CA 169
- C. SACRS 2015 Spring Conference; May 12 – 15, 2015; Anaheim, CA 170
- D. Memo from John Kelly, SACRS Vice President 171 – 172
- E. Candidate Statements Provided to the SACRS Nomination Committee 173 – 180

IX. PUBLIC COMMENT

X. STAFF COMMENT

XI. BOARD MEMBER COMMENT

XII. ADJOURNMENT

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

BOARD OF RETIREMENT

DISABILITY MEETING

March 2, 2015

MINUTES

DIRECTORS Tracy Towner, Chair, Alternate Safety Employee Member
PRESENT: William W. Wilson, Vice Chair, Public Member
Steven Hintz, Treasurer-Tax Collector
Joseph Henderson, Public Member
Mike Sedell, Public Member
Deanna McCormick, General Employee Member
Craig Winter, General Employee Member
Chris Johnston, Safety Employee Member
Arthur E. Goulet, Retiree Member
Will Hoag, Alternate Retiree Member

DIRECTORS Peter C. Foy, Public Member
ABSENT:

STAFF Linda Webb, Retirement Administrator
PRESENT: Lori Nemiroff, Assistant County Counsel
Stephanie Caiazza, Program Assistant
Julie Stallings, Chief Operations Manager
Donna Edwards, Retirement Benefits Specialist
Chantell Garcia, Retirement Benefits Specialist

PLACE: Ventura County Employees' Retirement Association
Second Floor Boardroom
1190 South Victoria Avenue
Ventura, CA 93003

TIME: 9:00 a.m.

ITEM:

I. CALL TO ORDER

Chair Towner called the Disability Meeting of March 2, 2015, to order at 9:00 a.m.

II. APPROVAL OF AGENDA

MOTION: Approve.

Moved by Hintz, seconded by Henderson.

Vote: Motion carried

Yes: Goulet, Johnston, Sedell, Winter, Hintz, Henderson, McCormick, Wilson

No: -

Absent: Foy

III. APPROVAL OF MINUTES

A. Business Meeting of February 23, 2015.

MOTION: Approve.

Moved by Hintz, seconded by McCormick.

Vote: Motion carried

Yes: Goulet, Johnston, Sedell, Winter, Hintz, Henderson, McCormick, Wilson

No: -

Absent: Foy

IV. RECEIVE AND FILE PENDING DISABILITY APPLICATION STATUS REPORT

MOTION: Receive and file.

Moved by Hintz, seconded by Henderson.

Vote: Motion carried

Yes: Goulet, Johnston, Sedell, Winter, Hintz, Henderson, McCormick, Wilson

No: -

Absent: Foy

V. CLOSED SESSION

A. CONFERENCE WITH LEGAL COUNSEL – EXISTING LITIGATION (Gov. Code section 54956.9) PURSUANT TO GOVERNMENT CODE SECTION 54956.9, SUBDIVISION (d)(1): NAME OF CASE: Wheat v. Board of

Retirement; Ventura County Superior Court Case No. 56-2013-00440045-CU-WM-VTA

Upon returning to open session, Ms. Nemiroff announced that the Board had taken no reportable action.

VI. OLD BUSINESS

A. Review and Approval of Corrected Fee Schedule and Amendment to Section 2.6 of the Previously Approved Contract for Custodial Services with State Street Bank and Trust.

1. Staff letter
2. Amended Fee Schedule
3. Amended Section 2.6 (Redline)

MOTION: Approve the corrected Fee Schedule and Amendment to Section 2.6 of the Custodial Services Contract with State Street Bank and Trust.

Moved by Wilson, seconded by Winter.

Vote: Motion carried

Yes: Goulet, Johnston, Sedell, Winter, Hintz, Henderson, McCormick, Wilson

No: -

Absent: Foy

VII. NEW BUSINESS

A. Review and Approval of Amended Conflict of Interest Code

1. Staff letter
2. 2014 Amended Conflict of Interest Code
3. 2014 Amended Conflict of Interest Code (Redline)

Ms. Webb reviewed the proposed changes to the 2014 Amended Conflict of Interest Code. Ms. Webb recommended adopting the redline version provided, with the additional changes of correcting the date and changing the reference regarding reviewing the code every two "(2) years" to every three "(3) years".

Trustee Goulet proposed the additional change to remove the date from the title and list the date of approval at the bottom of the document instead.

After discussion by the Board and staff, the following motion was made:

MOTION: Approve the Amended Conflict of Interest Code with the proposed changes.

Moved by Goulet, seconded by Wilson.

Vote: Motion carried

Yes: Goulet, Johnston, Sedell, Winter, Hintz, Henderson, McCormick,
Wilson

No: -

Absent: Foy

- B. Request from Retirement Administrator Webb to Attend the CALAPRS General Assembly in Monterey, CA, March 7 – 10, 2015.

MOTION: Approve.

Moved by Wilson, seconded by Johnston.

Vote: Motion carried

Yes: Goulet, Johnston, Sedell, Winter, Hintz, Henderson, McCormick,
Wilson

No: -

Absent: Foy

- C. Distribution of Recommended Ballot; SACRS Election – 2015 Spring Conference.

MOTION: Approve.

Moved by Hintz, seconded by Sedell.

Vote: Motion carried

Yes: Goulet, Johnston, Sedell, Winter, Hintz, Henderson, McCormick,
Wilson

No: -

Absent: Foy

VIII. INFORMATIONAL

A. SACRS Memo dated February 24, 2015

IX. PUBLIC COMMENT

None.

X. STAFF COMMENT

None.

XI. BOARD MEMBER COMMENT

Chair Towner informed the Board that Schott & Lites Advocates, LLC authored AB 1291 for VCERA and will move forward with the legislation.

XII. ADJOURNMENT

The meeting was adjourned at 9:31 a.m.

Respectfully submitted,



LINDA WEBB, Retirement Administrator

Approved,

William Wilson, Vice Chairman

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
REPORT OF REGULAR AND DEFERRED RETIREMENTS AND SURVIVORS CONTINUANCES**

FEBRUARY 2015

FIRST NAME	LAST NAME	G/S	DATE OF MEMBERSHIP	TOTAL SERVICE	OTHER SERVICE	DEPARTMENT	EFFECTIVE DATE
REGULAR RETIREMENTS:							
Kathryn B.	Barraza-Lee	G	12/26/1999	7.90		Human Services Agency	01/09/15
Melva	Becraft	G	10/29/2000	4.10		Health Care Agency (Deferred)	01/12/15
Kenneth H.	Besnia	G	2/3/1991	1.30 *	C=27.7590	Public Works (Deferred)	12/31/14
Lisa	Boyer	G	7/18/1993	4.30 *	C=17.293	Public Works (Deferred)	12/02/14
Mary	Burns	G	10/20/1996	0.50 *	C=17.7654	Human Services Agency (Deferred)	01/18/15
Lucia I.	Ceron	G	3/21/1999	14.80		Human Services Agency	01/31/15
Patricia L.	Compton	S	11/12/2000	14.20		Probation Agency	01/18/15
Michelle C.	Deleu	G	07/03/1983	35.00	A=2.52740 B=0.7070 D=0.3674	Health Care Agency	01/10/15
Sally A.	Doyle	G	06/05/1983	1.70 *	C=30.891	Superior Court (Deferred)	12/31/14
Angela M.	Fajardo	G	09/20/1987	25.00		Public defender	12/22/14
Ramon D.	Francisco	G	08/27/1995	19.30		Information Services Department	01/23/15
Patrick E.	Gallagher	G	06/11/1989	11.80		Information Services Department (Deferred)	01/02/15
Gail A.	Griffin	G	10/02/1988	1.00 *	C=25.462	Superior Court (Deferred)	12/31/14
Jennie	Hernandez	G	03/29/1996	32.80	A=10.685	Human Services Agency (Marin Conversion)	01/31/15
Delia	Herrera	G	10/10/1993	20.50		Information Services Department	01/03/15
Stella D.	Herrera	G	07/05/1992	22.00	B=0.1151	Child Support Services (Deferred)	01/02/15
Suzanne	Hidalgo	G	02/28/1993	22.00	B=0.1112	Child Support Services	01/31/15
Patricia A.	Lawrence	G	03/14/1982	31.40		Treasurer-Tax Collector	01/01/15
Jean-Kathrina M.	Less	G	01/20/1991	11.70	B=0.0484	Health Care Agency (Deferred)	01/05/15
John J.	Nicholas	G	10/15/1989	25.30	B=0.1162	Air Pollution Control District	01/03/15
Nancy L.	Parker	G	01/08/1989	25.70	B=0.086	Airports	01/03/15
Maria A.	Quijada	G	03/04/1990	24.80		Sheriff's Department	01/31/15
Judith	Rich	G	09/13/1999	6.60 *	C=8.6	Assessor (Deferred)	12/27/14
Alex J.	Sanchez	S	10/02/1978	36.30		Fire Protection	01/31/15
Pio C.	Valenzuela	G	04/09/1995	19.60		Sheriff's Department	01/01/15
Glenda S.	Valles	G	07/30/2006	10.20	A=1.6831	Health Care Agency	01/10/15
John H.	Weishaar	G	10/12/1980	34.20		Public Works	01/04/15
Colleen M.	White	G	07/05/1992	22.20		Library Services Agency	01/03/15
Kimberly M.	Urango	G	03/21/1999	9.80		Health Care Agency	06/01/13

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
REPORT OF REGULAR AND DEFERRED RETIREMENTS AND SURVIVORS CONTINUANCES**

FEBRUARY 2015

FIRST NAME	LAST NAME	G/S	DATE OF MEMBERSHIP	TOTAL SERVICE	OTHER SERVICE	DEPARTMENT	EFFECTIVE DATE
Penelope A.	Zavala	G	11/02/1986	26.30		Sheriff's Department	01/17/15

DEFERRED RETIREMENTS:

Samantha	Costanzo	G	12/07/2003	9.68		Human Services Agency	02/12/15
Jennifer	Dayrit	G	05/20/2007	5.74		Health Care Agency	11/23/2013
Sandra M.	Fay	G	06/04/2006	5.65		Health Care Agency	01/26/2015
Linda	Johnson	G	07/06/2008	6.59		Health Care Agency	02/13/2015
Mirella	Lemus	G	05/04/2008	5.45		Health Care Agency	02/04/2015
Sheila	McClendon	G	01/23/2001	12.26		Health Care Agency	02/06/2015
Kelli	Pontis	G	03/17/2002	11.56		Health Care Agency	02/07/2015
Yvonne	Segura	G	11/02/2008	5.91		Health Care Agency	02/08/2015
Kyle A.	Smith	S	11/07/2010	3.94 *		Sheriff's Department	11/06/2014

SURVIVORS' CONTINUANCES:

Donald E.	Ashley
Roberto	Lopez
Anne W.	Mitchell
Dorothy J.	Nichols
Judith L.	Youman-Taylor

*** = Member Establishing Reciprocity**
A = Previous Membership
B = Other County Service (eg Extra Help)
C = Reciprocal Service
D = Public Service

Date: Tuesday, March 10, 2015
 Time: 08:28: AM
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 Company: VCERA

Check Register - Standard Period: 08-15 As of: 3/10/2015

Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Period To Post	Ref Closed	Doc Nbr	Invoice Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid
Company: VCERA											
Acct / Sub:	1002		00								
024417	VC	2/26/2015	WALTER BNY MELLON INV MGMNT CAYM	08-15	08-15	019286	VO	INVESTMENT FEES	11/5/2014	0.00	-208,146.70
										Check Total	-208,146.70
024418	-	24755	Missing								
024756	CK	2/2/2015	105377 KATHRYN B. BARRAZA-LEE	07-15		019623	VO	REFUND T2 COL	2/2/2015	0.00	7,224.12
024757	CK	2/4/2015	103775 MICHAEL DREWRY	07-15		019624	VO	REFUND CONTRIB	2/4/2015	0.00	32,205.71
024758	CK	2/4/2015	103775R VENTURA COUNTY CREDIT UNIC	07-15		019625	VO	ROLLOVER	2/4/2015	0.00	78,035.65
024759	CK	2/4/2015	105105 JOSEFINA CORRAL	07-15		019626	VO	REFUND T2 COL	2/4/2015	0.00	11,940.32
024760	CK	2/4/2015	116121R MORGAN STANLEY FBO BREND	07-15		019627	VO	ROLLOVER	2/4/2015	0.00	13,020.77
024761	CK	2/4/2015	116600 OKIEMUTE C. ODEGHE	07-15		019628	VO	REFUND CONTRIB	2/4/2015	0.00	23,331.45
024762	CK	2/4/2015	118366 MYRA LUZ DONDONAYOS ARRO	07-15		019629	VO	REFUND CONTRIB	2/4/2015	0.00	10,942.50
024763	CK	2/4/2015	119502 CHRISTINA J. HARPER	07-15		019630	VO	REFUND CONTRIB	2/4/2015	0.00	21,764.64
024764	CK	2/4/2015	120654R MORGAN STANLEY - MSSB	07-15		019631	VO	ROLLOVER	2/4/2015	0.00	13,542.45
024765	CK	2/4/2015	120903 SIMON C. MATA	07-15		019632	VO	REFUND CONTRIB	2/4/2015	0.00	11,385.28
024766	CK	2/4/2015	120928 FREDRICK R. STRANGE	07-15		019633	VO	REFUND CONTRIB	2/4/2015	0.00	446.61
024767	CK	2/4/2015	123998 LAUREN D. BROOKSHIRE	07-15		019634	VO	REFUND CONTRIB	2/4/2015	0.00	938.81

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Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Period To Post	Ref Closed	Doc Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid
024768	CK	2/4/2015	124468R SCOTTRADE	07-15	019635	VO	ROLLOVER	2/4/2015	0.00	837.18
024769	CK	2/4/2015	F0201B1 JETTA DOWLER	07-15	019636	VO	DEATH BENEFIT	2/4/2015	0.00	242.86
024770	CK	2/4/2015	F1668 ETHEL ROBNETT	07-15	019637	VO	PENSION PAYMENT	2/4/2015	0.00	780.44
024771	CK	2/4/2015	F1928S JUDITH L. YOUMAN-TAYLOR	07-15	019638	VO	DEATH BENEFIT	2/4/2015	0.00	6,161.66
024772	CK	2/4/2015	F2649S BARBARA BAUMAN	07-15	019639	VO	DEATH BENEFIT	2/4/2015	0.00	3,070.50
024773	CK	2/4/2015	F2911S ROBERTO LOPEZ	07-15	019640	VO	DEATH BENEFIT	2/4/2015	0.00	3,573.52
024774	CK	2/4/2015	F3418S ROBERT L. GREGORY	07-15	019641	VO	DEATH BENEFIT	2/4/2015	0.00	3,831.06
024775	CK	2/4/2015	F3626B1 LAWRENCE H. WILLIAMS	07-15	019642	VO	DEATH BENEFIT	2/4/2015	0.00	4,457.22
024776	CK	2/4/2015	990002 ARTHUR E. GOULET	07-15	019643	VO	TRAVEL REIMB	2/4/2015	0.00	1,030.68
024777	CK	2/4/2015	990007 DEANNA MCCORMICK	07-15	019644	VO	TRAVEL REIMB	2/4/2015	0.00	617.64
024778	CK	2/4/2015	102661 LORI NEMIROFF	07-15	019645	VO	TRAVEL REIMB	2/4/2015	0.00	300.70
024779	CK	2/4/2015	ADP ADP LLC	07-15	019646	VO	ADMIN EXP	2/4/2015	0.00	2,633.23
024780	CK	2/4/2015	COMPUWAVE COMPUWAVE	07-15	019647	VO	IT	2/4/2015	0.00	396.00
024781	CK	2/4/2015	CPS COOPERATIVE PERSONNEL SER	07-15	019648	VO	ADMIN EXP	2/4/2015	0.00	5,000.00

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Check Nbr	Check Type	Check Date	Vendor ID Vendor Name	Period To Post	Ref Closed	Doc Type	Invoice Number	Invoice Date	Discount Taken	Amount Paid	
024782	CK	2/4/2015	INCENTIVE INCENTIVE SERVICES	07-15		019649	VO	ADMIN EXP	2/4/2015	0.00	134.38
024783	CK	2/4/2015	MF M.F. DAILY CORPORATION	07-15		019650	VO	ADMIN EXP	2/4/2015	0.00	1,066.43
024784	CK	2/4/2015	TORTOISE TORTOISE CAPITAL ADVISORS	07-15		019651	VO	INVESTMENT FEES	2/4/2015	0.00	223,848.58
024785	CK	2/4/2015	VOLT VOLT	07-15		019652	VO	ADMIN EXP/PAS	2/4/2015	0.00	1,791.72
024786	CK	2/4/2015	WEST WEST COAST AIR CONDITIONING	07-15		019653	VO	IT	2/4/2015	0.00	75.00
024787	CK	2/4/2015	123818 CURTIS SWEET	07-15		018562	VO	REFUND	5/15/2014	0.00	351.86
024788	CK	2/11/2015	101592 ANGELA M. FAJARDO	08-15		019654	VO	REFUND T2 COL	2/11/2015	0.00	11,439.02
024789	CK	2/11/2015	101856 NANCY L. PARKER	08-15		019655	VO	REFUND T2 COL	2/11/2015	0.00	5,788.15
024790	CK	2/11/2015	102847 STELLA D. HERRERA	08-15		019656	VO	REFUND T2 COL	2/11/2015	0.00	11,895.01
024791	CK	2/11/2015	102852 COLLEEN M. WHITE	08-15		019657	VO	REFUND T2 COL	2/11/2015	0.00	22,404.11
024792	CK	2/11/2015	108603 GLENDA S. VALLES	08-15		019658	VO	REFUND T2 COL	2/11/2015	0.00	11,741.20
024793	CK	2/11/2015	118768 JOHN B. DUNCAN	08-15		019659	VO	REFUND CONTRIB	2/11/2015	0.00	345.61
024794	CK	2/11/2015	123402 LAWRENCE VICTOR TOMANEK	08-15		019660	VO	REFUND CONTRIB	2/11/2015	0.00	9,040.42
024795	CK	2/11/2015	123650R FIDELITY MANAGEMENT TRUST	08-15		019661	VO	ROLLOVER	2/11/2015	0.00	5,272.18

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024796	CK	2/11/2015	123861R VANGUARD FTC	08-15	019662	VO	ROLLOVER	2/11/2015	0.00	2,855.29
024797	CK	2/11/2015	F2196B1 CATHY LEE PEREIRA	08-15	019663	VO	DEATH BENEFIT	2/11/2015	0.00	1,170.14
024798	CK	2/11/2015	F2196B2 KAREN L. ZIEGLER	08-15	019664	VO	DEATH BENEFIT	2/11/2015	0.00	1,265.03
024799	CK	2/11/2015	F2572B1 LAURIE LYNN HAYWOOD	08-15	019665	VO	DEATH BENEFIT	2/11/2015	0.00	4,484.95
024800	CK	2/11/2015	F2713B1 LINDA C. FIERROZ	08-15	019666	VO	DEATH BENEFIT	2/11/2015	0.00	823.03
024801	CK	2/11/2015	F2713B2 KATHY A. SALAZAR	08-15	019667	VO	DEATH BENEFIT	2/11/2015	0.00	823.03
024802	CK	2/11/2015	F2713B3 EDWARD CASTILLO III	08-15	019668	VO	DEATH BENEFIT	2/11/2015	0.00	823.04
024803	CK	2/11/2015	F2713B4 HELEN M. MARTINEZ	08-15	019669	VO	DEATH BENEFIT	2/11/2015	0.00	823.04
024804	CK	2/11/2015	F3553B1 JOHN ROBERT THORNGREN	08-15	019670	VO	DEATH BENEFIT	2/11/2015	0.00	72.95
024805	CK	2/11/2015	F4652B1 DANIEL S. BUCKLEY	08-15	019671	VO	DEATH BENEFIT	2/11/2015	0.00	566.11
024806	CK	2/11/2015	F4652B2 SARAH M. PONCE	08-15	019672	VO	DEATH BENEFIT	2/11/2015	0.00	566.11
024807	CK	2/11/2015	100748 CHRIS JOHNSTON	08-15	019673	VO	MILEAGE REIMB	2/11/2015	0.00	123.85
024808	CK	2/11/2015	124247 NANCY JENSEN	08-15	019674	VO	ADMIN EXP	2/11/2015	0.00	49.68
024809	CK	2/11/2015	BARNEY ABU COURT REPORTING INC	08-15	019675	VO	ADMIN EXP	2/11/2015	0.00	915.00

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024810	CK	2/11/2015	HARRIS HARRIS WATER CONDITIONING I	08-15		019676	VO	ADMIN EXP	2/11/2015	0.00	124.50
024811	CK	2/11/2015	HEXAVEST HEXAVEST INC	08-15		019677	VO	INVESTMENT FEES	2/11/2015	0.00	91,617.15
024812	CK	2/11/2015	LINEA LINEA SOLUTIONS	08-15		019678	VO	PAS/IT	2/11/2015	0.00	65,235.00
024813	CK	2/11/2015	REAMS REAMS ASSET MANAGEMENT	08-15		019679	VO	INVESTMENT FEES	2/11/2015	0.00	124,584.00
024814	CK	2/11/2015	SPRUCE SPRUCEGROVE INVESTMENT M	08-15		019680	VO	INVESTMENT FEES	2/11/2015	0.00	57,147.73
024815	CK	2/11/2015	TRI TRI COUNTY OFFICE FURNITURE	08-15		019681	VO	ADMIN EXP	2/11/2015	0.00	2,290.09
024816	CK	2/11/2015	VITECH VITECH SYSTEMS GROUP INC	08-15		019682	VO	PAS	2/11/2015	0.00	28,250.00
024817	CK	2/11/2015	VOLT VOLT	08-15		019683	VO	ADMIN EXP/PAS	2/11/2015	0.00	1,500.22
024818	CK	2/11/2015	VSG VSG HOSTING, INC	08-15		019684	VO	PAS	2/11/2015	0.00	19,500.00
024819	CK	2/18/2015	100664 JOHN H. WEISHAAR	08-15		019685	VO	REFUND T2 COL	2/18/2015	0.00	19,140.29
024820	CK	2/18/2015	102955 SUZANNE HIDALGO	08-15		019686	VO	REFUND T2 COL	2/18/2015	0.00	15,149.79
024821	CK	2/18/2015	103075 DELIA HERRERA	08-15		019687	VO	REFUND T2 COL	2/18/2015	0.00	13,684.05
024822	CK	2/18/2015	103272 RAMON D. FRANCISCO	08-15		019688	VO	REFUND T2 COL	2/18/2015	0.00	27,178.77
024823	CK	2/18/2015	F1372S ANNE W. MITCHELL	08-15		019689	VO	DEATH BENEFIT	2/18/2015	0.00	3,566.09

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				To Post	Closed						
024824	CK	2/18/2015	F1748B1 SUSAN SCHUMACHER VOSS	08-15		019690	VO	DEATH BENEFIT	2/18/2015	0.00	4,240.62
024825	CK	2/18/2015	F3729B1 KEVIN SHEPHARD	08-15	09-15	019691	VO	DEATH BENEFIT	2/18/2015	0.00	5,365.90
024826	CK	2/18/2015	F7394B1 BLYTHE M. ALAPA	08-15		019692	VO	DEATH BENEFIT	2/18/2015	0.00	1,738.40
024827	CK	2/18/2015	F8415B1 JESSICA CAMPO	08-15		019693	VO	DEATH BENEFIT	2/18/2015	0.00	3,564.65
024828	CK	2/18/2015	F8739 RUSSELL N. LEE	08-15		019694	VO	PENSION PAYMENT	2/18/2015	0.00	422.94
024829	CK	2/18/2015	F8985 MARIE S. REESE	08-15		019695	VO	PENSION PAYMENT	2/18/2015	0.00	4,679.79
024830	CK	2/18/2015	124415 VICTORIA P. WILLIAMS	08-15		019696	VO	TRAVEL REIMB	2/18/2015	0.00	281.27
024831	CK	2/18/2015	124709 LINDA WEBB	08-15		019697	VO	TRAVEL REIMB	2/18/2015	0.00	322.70
024832	CK	2/18/2015	ACCESS ACCESS INFORMATION MANAGE	08-15		019698	VO	ADMIN EXP	2/18/2015	0.00	328.72
024833	CK	2/18/2015	BOFA BUSINESS CARD	08-15		019699	VO	ADMIN EXP/PAS	2/18/2015	0.00	3,886.29
024834	CK	2/18/2015	CDW GOVERN CDW GOVERNMENT	08-15		019700	VO	IT	2/18/2015	0.00	256.44
024835	CK	2/18/2015	CINTAS CINTAS CORP	08-15		019701	VO	ADMIN EXP	2/18/2015	0.00	130.40
024836	CK	2/18/2015	CMP CMP & ASSOCIATES, INC	08-15		019702	VO	IT/PAS	2/18/2015	0.00	31,791.25
024837	CK	2/18/2015	COMPUWAVE COMPUWAVE	08-15		019703	VO	IT	2/18/2015	0.00	1,428.00

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024838	CK	2/18/2015	CORPORATE STAPLES ADVANTAGE	08-15	019704	VO	ADMIN EXP	2/18/2015	0.00	284.24
024839	CK	2/18/2015	LOOMIS LOOMIS, SAYLES & CO., LP	08-15	019705	VO	INVESTMENT FEES	2/18/2015	0.00	183,810.01
024840	CK	2/18/2015	MEGAPATH MEGAPATH	08-15	019706	VO	IT/PAS	2/18/2015	0.00	638.46
024841	CK	2/18/2015	NOVANIS NOVANIS	08-15	019707	VO	PAS	2/18/2015	0.00	27,570.00
024842	CK	2/18/2015	PIMCO PACIFIC INVESTMENT MGMT CO	08-15	019708	VO	INVESTMENT FEES	2/18/2015	0.00	106,693.35
024843	CK	2/18/2015	TOWERS TOWERS WATSON DELAWARE IT	08-15	019709	VO	ADMIN EXP	2/18/2015	0.00	16,000.00
024844	CK	2/18/2015	VOLT VOLT	08-15	019710	VO	ADMIN EXP/PAS	2/18/2015	0.00	933.12
024845	CK	2/25/2015	ADP ADP LLC	08-15	019711	VO	ADMIN EXP	2/25/2015	0.00	8,916.40
024846	CK	2/25/2015	AT&T AT & T MOBILITY	08-15	019712	VO	IT	2/25/2015	0.00	293.66
024847	CK	2/25/2015	BARNEY ABU COURT REPORTING INC	08-15	019713	VO	ADMIN EXP	2/25/2015	0.00	315.00
024848	CK	2/25/2015	CLIFTON PARAMETRIC PORTFOLIO ASSC	08-15	019714	VO	INVESTMENT FEES	2/25/2015	0.00	21,866.00
024849	CK	2/25/2015	CORPORATE STAPLES ADVANTAGE	08-15	019715	VO	ADMIN EXP	2/25/2015	0.00	184.13
024850	CK	2/25/2015	COUNTY COUNTY COUNSEL	08-15	019716	VO	ADMIN EXP	2/25/2015	0.00	26,358.00
024851	CK	2/25/2015	CUSTOM CUSTOM PRINTING	08-15	019717	VO	ADMIN EXP	2/25/2015	0.00	205.20

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024852	CK	2/25/2015	MBS MANAGED BUSINESS SOLUTION	08-15	019718	VO	PAS	2/25/2015	0.00	4,933.75
024853	CK	2/25/2015	MF M.F. DAILY CORPORATION	08-15	019719	VO	ADMIN EXP	2/25/2015	0.00	16,536.92
024854	CK	2/25/2015	TWC TIME WARNER CABLE	08-15	019720	VO	IT	2/25/2015	0.00	481.97
024855	CK	2/25/2015	VITECH VITECH SYSTEMS GROUP INC	08-15	019721	VO	PAS	2/25/2015	0.00	16,400.00
024856	CK	2/25/2015	VOLT VOLT	08-15	019722	VO	ADMIN EXP/PAS	2/25/2015	0.00	2,442.96
024857	CK	2/25/2015	WALTER BNY MELLON INV MGMNT CAYM,	08-15	019723	VO	INVESTMENT FEES	2/25/2015	0.00	204,042.55
024858	CK	2/25/2015	WESTERN WESTERN ASSET MANAGEMENT	08-15	019724	VO	INVESTMENT FEES	2/25/2015	0.00	189,008.11
024859	CK	2/25/2015	CA SDU CALIFORNIA STATE	08-15	019725	VO	CRT ORDERED PMT	2/25/2015	0.00	1,052.47
024860	CK	2/25/2015	CALPERS CALPERS LONG-TERM	08-15	019726	VO	INSURANCE	2/25/2015	0.00	18,263.04
024861	CK	2/25/2015	CHILD21 OREGON DEPT OF JUSTICE	08-15	019727	VO	CRT ORDERED PMT	2/25/2015	0.00	171.74
024862	CK	2/25/2015	CHILD5 STATE DISBURSEMENT UNIT (SC	08-15	019728	VO	CRT ORDERED PMT	2/25/2015	0.00	511.00
024863	CK	2/25/2015	CHILD9 SHERIDA SEGALL	08-15	019729	VO	CRT ORDERED PMT	2/25/2015	0.00	260.00
024864	CK	2/25/2015	CVMP COUNTY OF VENTURA	08-15	019730	VO	INSURANCE	2/25/2015	0.00	581,053.80
024865	CK	2/25/2015	FTBCA3 FRANCHISE TAX BOARD	08-15	019731	VO	GARNISHMENT	2/25/2015	0.00	137.26

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024866	CK	2/25/2015	IRS6 INTERNAL REVENUE SERVICE	08-15	019732	VO	GARNISHMENT	2/25/2015	0.00	321.00
024867	CK	2/25/2015	IRS7 INTERNAL REVENUE SERVICE	08-15	019733	VO	GARNISHMENT	2/25/2015	0.00	500.00
024868	CK	2/25/2015	REAVC RETIRED EMPLOYEES' ASSOCIA	08-15	019734	VO	DUES	2/25/2015	0.00	4,287.00
024869	CK	2/25/2015	SEIU SEIU LOCAL 721	08-15	019735	VO	DUES	2/25/2015	0.00	295.50
024870	CK	2/25/2015	SPOUSE2 KELLY SEARCY	08-15	019736	VO	CRT ORDERED PMT	2/25/2015	0.00	1,874.00
024871	CK	2/25/2015	SPOUSE3 ANGELINA ORTIZ	08-15	019737	VO	CRT ORDERED PMT	2/25/2015	0.00	250.00
024872	CK	2/25/2015	SPOUSE4 CATHY C. PEET	08-15	019738	VO	CRT ORDERED PMT	2/25/2015	0.00	550.00
024873	CK	2/25/2015	SPOUSE5 SUZANNA CARR	08-15	019739	VO	CRT ORDERED PMT	2/25/2015	0.00	829.00
024874	CK	2/25/2015	SPOUSE6 BARBARA JO GREENE	08-15	019740	VO	CRT ORDERED PMT	2/25/2015	0.00	675.00
024875	CK	2/25/2015	SPOUSE7 MARIA G. SANCHEZ	08-15	019741	VO	CRT ORDERED PMT	2/25/2015	0.00	104.00
024876	CK	2/25/2015	VCDSA VENTURA COUNTY DEPUTY	08-15	019742	VO	INSURANCE	2/25/2015	0.00	245,981.36
024877	CK	2/25/2015	VCPFF VENTURA COUNTY PROFESSION	08-15	019743	VO	INSURANCE	2/25/2015	0.00	72,127.76
024878	CK	2/25/2015	VRSD VENTURA REGIONAL	08-15	019744	VO	INSURANCE	2/25/2015	0.00	8,278.43
024879	CK	2/25/2015	VSP VISION SERVICE PLAN - (CA)	08-15	019745	VO	INSURANCE	2/25/2015	0.00	10,227.12

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024880	CK	2/26/2015	WALTER BNY MELLON INV MGMNT CAYM	08-15	019286	VO	INVESTMENT FEES	11/5/2014	0.00	208,146.70

Check Count: 126

Acct Sub Total: 3,089,480.98

Check Type	Count	Amount Paid
Regular	125	3,089,480.98
Hand	0	0.00
Electronic Payment		0.00
Void	1	-208,146.70
Stub	0	0.00
Zero	0	0.00
Mask	0	0.00
Total:	126	2,881,334.28

Company Disc Total	0.00	Company Total	3,089,480.98
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**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENT OF FIDUCIARY NET POSITION
JANUARY 31, 2015**

ASSETS

CASH & CASH EQUIVALENTS **\$57,848,159**

RECEIVABLES

ACCRUED INTEREST AND DIVIDENDS	4,170,367
SECURITY SALES	41,589,207
MISCELLANEOUS	5,101
TOTAL RECEIVABLES	45,764,675

INVESTMENTS AT FAIR VALUE

DOMESTIC EQUITY SECURITIES	120,058,824
DOMESTIC EQUITY INDEX FUNDS	1,222,737,378
INTERNATIONAL EQUITY SECURITIES	348,909,802
INTERNATIONAL EQUITY INDEX FUNDS	248,712,418
GLOBAL EQUITY	425,132,406
PRIVATE EQUITY	109,921,391
DOMESTIC FIXED INCOME - CORE PLUS	612,984,920
DOMESTIC FIXED INCOME - U.S. INDEX	142,169,749
GLOBAL FIXED INCOME	259,625,889
REAL ESTATE	322,351,195
ALTERNATIVES	410,803,076
CASH OVERLAY - CLIFTON	2,905
TOTAL INVESTMENTS	4,223,409,955

PENSION SOFTWARE DEVELOPMENT COSTS **6,459,436**

TOTAL ASSETS **4,333,482,225**

LIABILITIES

SECURITY PURCHASES PAYABLE	46,413,272
ACCOUNTS PAYABLE	1,995,380
PREPAID CONTRIBUTIONS	58,281,949
	106,690,601

TOTAL LIABILITIES **106,690,601**

NET POSITION RESTRICTED FOR PENSIONS **\$4,226,791,625**

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2015**

ADDITIONS

CONTRIBUTIONS

EMPLOYER	\$96,013,951
EMPLOYEE	34,236,696
TOTAL CONTRIBUTIONS	<u>130,250,646</u>

INVESTMENT INCOME

NET APPRECIATION IN FAIR VALUE OF INVESTMENTS	(77,393,507)
INTEREST INCOME	8,558,478
DIVIDEND INCOME	27,365,653
REAL ESTATE OPERATING INCOME, NET	7,805,020
SECURITY LENDING INCOME	80,706
TOTAL INVESTMENT INCOME	<u>(33,583,650)</u>

LESS INVESTMENT EXPENSES

MANAGEMENT & CUSTODIAL FEES	7,284,157
SECURITIES LENDING BORROWER REBATES	(2,862)
SECURITIES LENDING MANAGEMENT FEES	28,077
TOTAL INVESTMENT EXPENSES	<u>7,309,372</u>

NET INVESTMENT INCOME **(40,893,022)**

TOTAL ADDITIONS **89,357,624**

DEDUCTIONS

BENEFIT PAYMENTS	131,562,243
MEMBER REFUNDS	2,615,615
ADMINISTRATIVE EXPENSES	3,274,005
TOTAL DEDUCTIONS	<u>137,451,863</u>

NET INCREASE/(DECREASE) **(48,094,239)**

NET POSITION RESTRICTED FOR PENSIONS

BEGINNING OF YEAR 4,274,885,864

ENDING BALANCE \$4,226,791,625

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
INVESTMENTS AND CASH EQUIVALENTS
JANUARY 31, 2015

EQUITY		
DOMESTIC EQUITY		
WESTERN ASSET INDEX PLUS	\$120,058,824	\$17,550,241
TOTAL DOMESTIC EQUITY	120,058,824	17,550,241
DOMESTIC INDEX FUNDS		
BLACKROCK - US EQUITY MARKET	1,177,025,217	0
BLACKROCK - EXTENDED EQUITY	45,712,161	1
TOTAL EQUITY INDEX FUNDS	1,222,737,378	1
INTERNATIONAL EQUITY		
SPRUCEGROVE	179,925,988	0
HEXAVEST	77,613,666	0
WALTER SCOTT	91,370,149	0
TOTAL INTERNATIONAL EQUITY	348,909,802	0
INTERNATIONAL INDEX FUNDS		
BLACKROCK - ACWIXUS	248,712,418	0
TOTAL INTERNATIONAL INDEX FUNDS	248,712,418	0
GLOBAL EQUITY		
GRANTHAM MAYO AND VAN OTTERLOO (GMO)	206,147,021	0
BLACKROCK - GLOBAL INDEX	218,985,385	0
TOTAL GLOBAL EQUITY	425,132,406	0
PRIVATE EQUITY		
ADAMS STREET	71,314,418	0
PANTHEON	7,168,286	0
HARBOURVEST	31,438,687	0
TOTAL PRIVATE EQUITY	109,921,391	0
FIXED INCOME		
DOMESTIC		
LOOMIS SAYLES AND COMPANY	69,911,710	2,227,129
REAMS	277,753,953	0
WESTERN ASSET MANAGEMENT	265,319,257	9,248,143
TOTAL DOMESTIC	612,984,920	11,475,272
DOMESTIC INDEX FUNDS		
BLACKROCK - US DEBT INDEX	142,169,749	0
TOTAL DOMESTIC INDEX FUNDS	142,169,749	0
GLOBAL		
LOOMIS SAYLES AND COMPANY	91,966,539	0
LOOMIS ALPHA	42,354,175	0
PIMCO	125,305,175	1,109,769
TOTAL GLOBAL	259,625,889	1,109,769

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF INVESTMENT MANAGEMENT FEES
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2015**

EQUITY MANAGERS

DOMESTIC

BLACKROCK - US EQUITY	\$123,220
BLACKROCK - EXTENDED EQUITY	9,071
WESTERN ASSET INDEX PLUS	126,755
TOTAL	259,046

INTERNATIONAL

BLACKROCK - ACWIXUS	130,440
SPRUCEGROVE	409,287
HEXAVEST	185,830
WALTER SCOTT	412,189
TOTAL	1,137,746

GLOBAL

GRANTHAM MAYO VAN OTTERLOO (GMO)	699,880
BLACKROCK - GLOBAL INDEX	44,853
TOTAL	744,733

PRIVATE EQUITY

ADAMS STREET	821,608
HARBOURVEST	183,456
PANTHEON	75,000
TOTAL	1,080,064

FIXED INCOME MANAGERS

DOMESTIC

BLACKROCK - US DEBT INDEX	47,558
LOOMIS, SAYLES AND COMPANY	142,503
REAMS ASSET MANAGEMENT	358,138
WESTERN ASSET MANAGEMENT	247,911
TOTAL	796,111

GLOBAL

LOOMIS, SAYLES AND COMPANY	142,414
LOOMIS ALPHA	84,438
PIMCO	213,961
TOTAL	440,813

REAL ESTATE

PRUDENTIAL REAL ESTATE ADVISORS	396,586
RREEF	69,094
UBS REALTY	982,634
TOTAL	1,448,314

ALTERNATIVES

BRIDGEWATER	547,561
TORTOISE	467,609
TOTAL	1,015,169

CASH OVERLAY - CLIFTON

53,911

**VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
SCHEDULE OF INVESTMENT MANAGEMENT FEES
FOR THE SEVEN MONTHS ENDED JANUARY 31, 2015**

SECURITIES LENDING	
BORROWERS REBATE	(2,862)
MANAGEMENT FEES	28,077
TOTAL	<u>25,215</u>
OTHER	
INVESTMENT CONSULTANT	138,826
INVESTMENT CUSTODIAN	169,424
TOTAL	<u>308,250</u>
TOTAL INVESTMENT MANAGEMENT FEES	<u><u>\$7,309,372</u></u>

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
BUDGET SUMMARY FISCAL YEAR 2014-2015
February 2015 - 67% of Fiscal Year Expended

EXPENDITURE DESCRIPTIONS	Adopted 2014/2015 Budget	Adjusted 2014/2015 Budget	Feb-15	Year to Date Expended	Available Balance	Percent Expended
Salaries & Benefits:						
Salaries	\$ 1,842,500.00	\$ 1,842,500.00	\$ 141,710.71	\$ 986,048.42	\$ 856,451.58	53.52%
Extra-Help	62,600.00	62,600.00	6,668.02	51,987.96	10,612.04	83.05%
Overtime	1,000.00	1,000.00	164.84	2,116.66	(1,116.66)	211.67%
Supplemental Payments	59,600.00	59,600.00	4,339.60	29,421.77	30,178.23	49.37%
Vacation Redemption	102,500.00	102,500.00	0.00	47,000.56	55,499.44	45.85%
Retirement Contributions	366,000.00	366,000.00	28,303.52	201,704.00	164,296.00	55.11%
OASDI Contributions	115,600.00	115,600.00	8,875.06	60,648.65	54,951.35	52.46%
FICA-Medicare	29,100.00	29,100.00	2,075.63	15,070.00	14,030.00	51.79%
Retiree Health Benefit	13,300.00	13,300.00	1,447.20	15,477.20	(2,177.20)	116.37%
Group Health Insurance	182,100.00	182,100.00	13,662.00	96,749.40	85,350.60	53.13%
Life Insurance/Mgmt	1,100.00	1,100.00	79.58	603.44	496.56	54.86%
Unemployment Insurance	2,300.00	2,300.00	171.31	1,192.03	1,107.97	51.83%
Management Disability Insurance	4,500.00	4,500.00	1,021.42	4,896.19	(396.19)	108.80%
Worker' Compensation Insurance	13,400.00	13,400.00	1,125.80	7,835.54	5,564.46	58.47%
401K Plan Contribution	33,100.00	33,100.00	2,287.76	15,944.21	17,155.79	48.17%
Transfers In	150,700.00	150,700.00	7,848.47	52,892.73	97,807.27	35.10%
Transfers Out	(150,700.00)	(150,700.00)	(7,848.47)	(52,892.73)	(97,807.27)	35.10%
Total Salaries & Benefits	\$ 2,828,700.00	\$ 2,828,700.00	\$ 211,932.45	\$ 1,536,696.03	\$ 1,292,003.97	54.33%
Services & Supplies:						
Telecommunication Services - ISF	\$ 37,800.00	\$ 37,800.00	\$ 3,622.24	\$ 25,471.73	\$ 12,328.27	67.39%
General Insurance - ISF	12,200.00	12,200.00	0.00	6,104.00	6,096.00	50.03%
Office Equipment Maintenance	1,000.00	1,000.00	171.39	441.29	558.71	44.13%
Membership and Dues	9,500.00	9,500.00	0.00	8,244.00	1,256.00	86.78%
Education Allowance	10,000.00	10,000.00	0.00	4,000.00	6,000.00	40.00%
Cost Allocation Charges	(35,400.00)	(35,400.00)	(17,498.00)	(17,498.00)	(17,902.00)	49.43%
Printing Services - Not ISF	3,000.00	3,000.00	205.20	2,275.47	724.53	75.85%
Books & Publications	2,500.00	2,500.00	0.00	1,078.04	1,421.96	43.12%
Office Supplies	20,000.00	20,000.00	575.95	8,141.38	11,858.62	40.71%
Postage & Express	59,700.00	59,700.00	49.68	36,137.64	23,562.36	60.53%
Printing Charges - ISF	10,000.00	10,000.00	4.40	11,092.93	(1,092.93)	110.93%
Copy Machine Services - ISF	6,500.00	6,500.00	0.00	291.15	6,208.85	4.48%
Board Member Fees	12,000.00	12,000.00	2,000.00	7,800.00	4,200.00	65.00%
Professional Services	1,074,000.00	1,091,500.00	61,468.78	606,079.71	485,420.29	55.53%
Storage Charges	5,500.00	5,500.00	328.72	2,705.18	2,794.82	49.19%
Equipment	0.00	0.00	0.00	8,277.50	(8,277.50)	#DIV/0!
Office Lease Payments	186,000.00	196,700.00	17,603.35	125,343.69	71,356.31	63.72%
Private Vehicle Mileage	9,000.00	9,000.00	1,156.63	3,738.49	5,261.51	41.54%
Conference, Seminar and Travel	63,000.00	63,000.00	2,266.06	31,390.85	31,609.15	49.83%
Furniture	5,000.00	5,000.00	2,290.09	2,802.20	2,197.80	56.04%
Facilities Charges	3,900.00	3,900.00	225.00	3,703.47	196.53	94.96%
Transfers In	16,000.00	16,000.00	833.47	5,616.96	10,383.04	35.11%
Transfers Out	(16,000.00)	(16,000.00)	(833.47)	(5,616.96)	(10,383.04)	35.11%
Total Services & Supplies	\$ 1,495,200.00	\$ 1,523,400.00	\$ 74,469.49	\$ 877,620.72	\$ 645,779.28	57.61%
Total Sal, Ben, Serv & Supp	\$ 4,323,900.00	\$ 4,352,100.00	\$ 286,401.94	\$ 2,414,316.75	\$ 1,937,783.25	55.47%
Technology:						
Computer Hardware	\$ 32,600.00	\$ 32,600.00	\$ 256.44	1,157.25	\$ 31,442.75	3.55%
Computer Software	193,000.00	193,000.00	1,824.00	47,117.27	145,882.73	24.41%
Systems & Application Support	670,200.00	670,200.00	61,166.14	319,313.08	350,886.92	47.64%
Pension Administration System	1,621,400.00	1,972,800.00	140,263.14	1,111,362.78	861,437.22	56.33%
Total Technology	\$ 2,517,200.00	\$ 2,868,600.00	\$ 203,509.72	\$ 1,478,950.38	\$ 1,389,649.62	51.56%
Contingency	\$ 615,200.00	\$ 235,600.00	\$ -	\$ -	\$ 235,600.00	0.00%
Total Current Year	\$ 7,456,300.00	\$ 7,456,300.00	\$ 489,911.66	\$ 3,893,267.13	\$ 3,563,032.87	52.21%

Ventura County Employees Retirement Association

MARCH 2015

HarbourVest Representatives



BRETT GORDON

Managing Director, HarbourVest Partners, LLC (Boston)

Brett Gordon is a member of HarbourVest's secondary investment team. Brett focuses on the purchase of U.S. and non-U.S. investments in limited partnerships and portfolios of direct investments. He joined HarbourVest in 1998 after receiving his MBA. Brett currently serves on the advisory boards of partnerships managed by American Capital Equity Management, Jerusalem Global Ventures, Macquarie Advanced Investment Partners, MidOcean Partners, Tenaya Capital, Vitalife Partners, and the valuation committees of EnerTech Capital and TL Ventures. He also serves on the Babson College Board of Trustees. Brett's previous experience includes serving as a vice president for The Princeton Review of Boston, Inc., where he managed all operational functions of the organization and was responsible for long range strategic planning. He received a BS in Management (magna cum laude) from Boston University in 1990 and an MBA (summa cum laude) from Babson College in 1998.



ARIS HATCH

Principal, Client and Consultant Relations, HarbourVest Partners, LLC (Boston)

Aris Hatch joined HarbourVest's client relations team in 2008. She leads the Firm's development of customized separate account solutions and focuses on coordinating, monitoring, and enhancing relationships with new and existing investors and consultants. Aris joined the Firm from Rock Maple Funds, a New York-based asset manager and fund of hedge funds, where she served as vice president and chief administrative officer of the client service group responsible for global investor relations and development. Prior to that, she spent four years with Advent International in Boston, where she was responsible for relationship management and fundraising in North America. Aris began her career as a market strategy consultant at Ernst & Young. She received a BA (cum laude) in English from Wellesley College in 1999. Aris speaks Spanish and Greek.

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- I. HarbourVest Overview
- II. Client Update
- III. Dover Program Overview
- IV. Dover VIII Update

Appendix

-Case Studies

-Secondary Market Overview

This document has been prepared for Ventura County Employees Retirement Association, March 2015. It has been prepared on the basis that you are an investment professional, is for the sole use of your organization, and should not be shared with any other parties.

These materials do not constitute an offer to sell or the solicitation of an offer to buy interests in any Fund (the "Fund") or any other investment sponsored by HarbourVest Partners L.P. or its affiliates. Any offering of interests in any Fund will be made solely pursuant to the Private Placement Memorandum of the Fund and subscriptions will be accepted solely pursuant to definitive documentation. Offers and sales of interests in the Fund will not be registered under the laws of any jurisdiction and will be made solely to "qualified purchasers" as defined in the U.S. Investment Company Act of 1940, as amended. These materials are highly confidential and must be read in conjunction with the Private Placement Memorandum of the Fund. These materials do not purport to contain all the information relevant to evaluating an investment in the Fund. See final pages for additional notes.



HarbourVest Overview

HarbourVest overview

Established Firm

- Team formed in 1982
- More than \$40 billion committed to investments over three decades
- Registered investment adviser with the U.S. Securities and Exchange Commission*
- Independent, employee owned

Experienced & Stable Team

- Deep team of more than 300 employees
- 31 managing directors with an average firm tenure of 16 years
- More than 80 investment professionals in Boston, Hong Kong, London, Tokyo, Bogotá, and Beijing

Focus on Private Markets

- Global expertise across primary partnerships, secondary investments, direct co-investments
- Comprehensive and specialized programs

Proven Track Record

- One of the longest track records in the industry
- Demonstrated performance across all strategies
- Consistent approach to portfolio construction

Superior Client Service

- Distinguished global investor base
- Responsive to client needs
- Broad infrastructure – accounting, treasury, tax, trading, investor relations

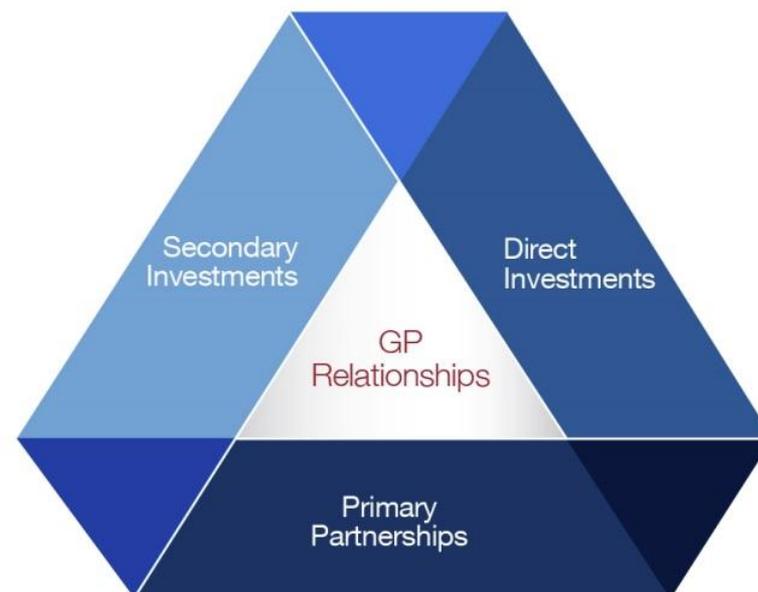
Strong Risk Controls

- SOC 1 reports on controls available to clients and their auditors

* This does not indicate approval or endorsement of HarbourVest by the U.S. SEC

The HarbourVest platform – An integrated approach

- Consistent approach for three decades
- Integrated investment platform provides significant advantages
 - Overlapping knowledge base
 - Strong relationships across the industry
 - Collaborative environment
 - Enhanced deal flow, evaluation, and monitoring



Private equity solutions for varied investor needs

- Helping clients access investment opportunities to reach their goals
- Comprehensive and specialized private markets solutions allow for a modular approach





Client Summary

Dover Street VIII L.P. – Investment Guidelines

- Primary objective is to provide compelling investment returns through a selected portfolio of private equity investments
- Intends to invest in secondary transactions in venture capital, leveraged buyout, and other private equity assets
 - May invest up to 10% of its capital in strategic primaries
 - May invest up to 5% of its capital in secondary purchases of real estate and infrastructure assets, and debt
- Considers many different types of transactions: traditional limited partner interests, portfolios of direct investments (secondary directs), and structured transactions
- As a result of its investment strategy, the Fund expects to be diversified by geography, stage, industry, vintage year, and type, as appropriate
- Dover VIII makes investments in accordance with its Limited Partnership Agreement
 - HarbourVest has procedures in place to ensure adherence to the Limited Partnership Agreement
 - Designates a senior investment professional as a fund manager for each fund
 - Incorporates a senior investment professional peer review process for each investment
 - Reviews compliance with certain key terms and conditions semi-annually

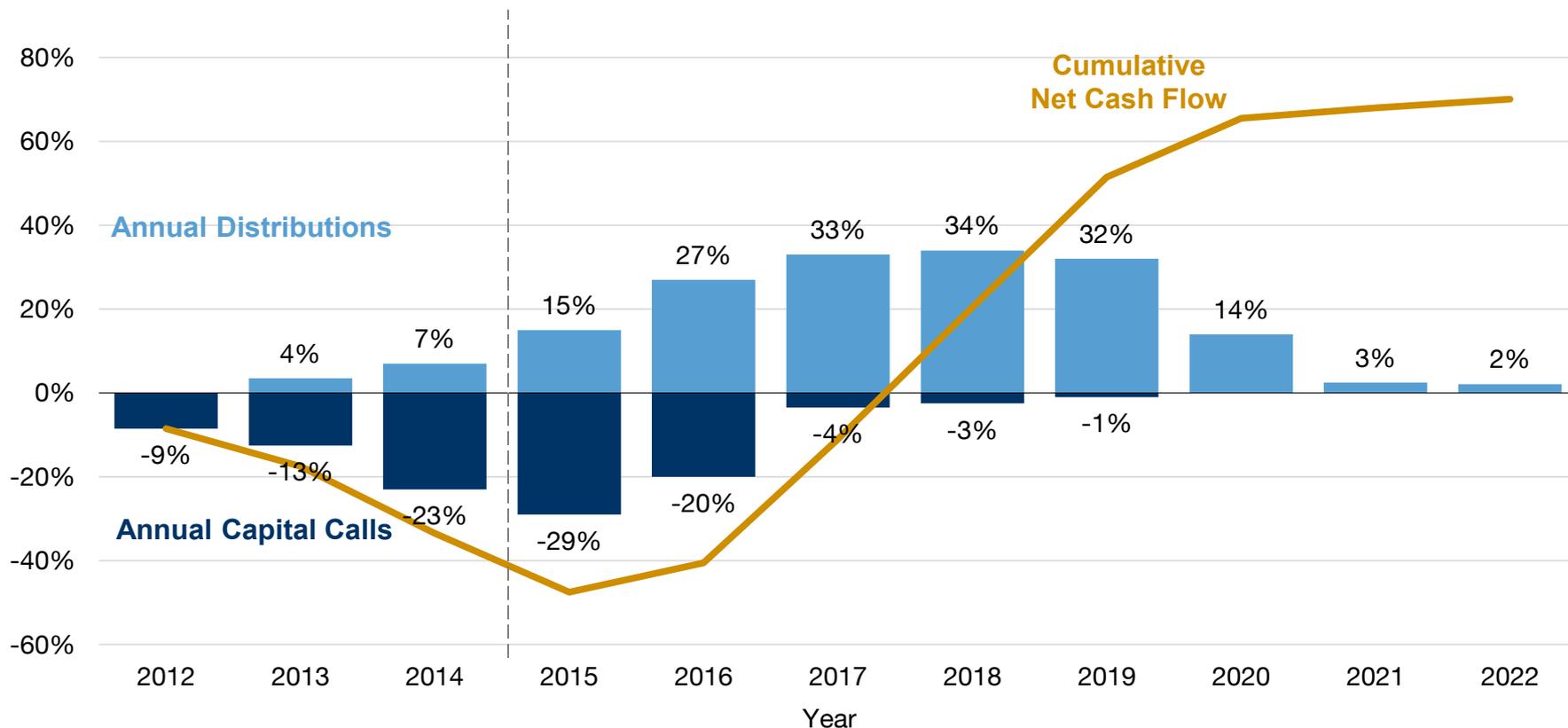
Ventura County Employees' Retirement Association

Assets Managed by HarbourVest as of December 31, 2014

Funds	NAV Date	Year	Committed Capital	Contributed Capital	Cumulative Distributions	NAV	Total Value	TV/C	Net LP IRR Since Incept	1 YR
Secondary Funds										
Dover VIII	09/30/14	2011	\$ 67,500,000	29,700,000	7,065,154	31,438,688	38,503,842	1.3x	60.6%	27.3%

Grand Totals are based on historic exchange rates on date of actual cash flow. All funds include related AIVs.
 NAV and Total Value reflect values as of NAV Date, updated for capital calls and distributions through the As of Date. Investor IRRs are as of NAV Date.
 Grand Total IRR: Since Inception includes each fund as of its NAV Date. 1 year, 3 year and 5 year IRRs are based on the earliest NAV Date.

Ventura County Employees Retirement Association's Historical and Projected Cash Flows



Note: We have provided this information solely as an example of the pace at which capital may be called by the fund(s). Underlying assumptions regarding the pace of cash flows and the fund's ultimate performance described below are not meant to be used as independent considerations in determining whether to invest. Investors and prospective investors should bear in mind this is a hypothetical model and, as such, does not reflect actual timing or underlying investment performance and should not be construed as predicting the future. Hypothetical assumptions are based on experience of prior funds, current market conditions, and current fund expectations. The actual pace and timing of cash flows is likely to be different and will be highly dependent on the fund's commitment pace, the types of investments made by the fund, the investment pace of the underlying partnerships, and market conditions. Market conditions have a strong impact on investments and realizations and could materially lower these projections. These projections should be used solely as a guide to possible cash flow timing and should not be relied upon to manage your investments or make investment decisions. Past performance is not necessarily indicative of future results, and there can be no assurance that future funds will achieve comparable results.



Dover Program Overview

HarbourVest secondary strategy

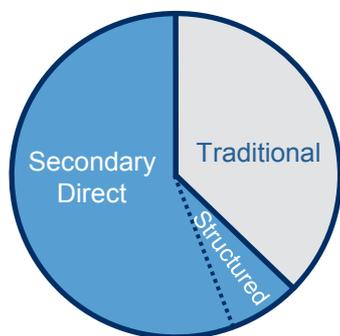
Execute value add investment approach	<ul style="list-style-type: none">■ Focus on less efficient market subsets■ Seek to generate outperformance through identifying hidden value, transaction structuring, and pricing discipline■ Diversify by geography, stage, industry, vintage year, and type, which limits downside risk relative to more concentrated strategies
Capitalize on experience	<ul style="list-style-type: none">■ Employ 25 years of experience providing sellers with innovative and timely liquidity solutions■ Executed nearly 400 transactions■ 18 senior team members with average tenure of more than 11 years
Leverage HarbourVest platform	<ul style="list-style-type: none">■ Leverage relationships with general partners and limited partners to generate proprietary deal flow and information advantage■ Team of 27 dedicated professionals complemented by an additional 50 investment professionals■ Potential source of primary and co-investment capital makes HarbourVest an attractive partner

Strive to deliver top quartile rates of return while assuming less risk

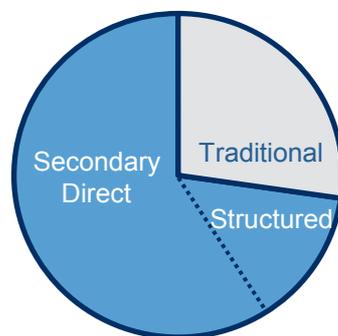
Secondary transaction types

	Traditional	Secondary Direct	Structured
Definition	<ul style="list-style-type: none"> LP interests in existing private equity funds 	<ul style="list-style-type: none"> Newly-formed partnerships created to purchase direct portfolios 	<ul style="list-style-type: none"> New entity formed to provide customized liquidity solution for seller
Examples	<ul style="list-style-type: none"> Buyout, venture, mezzanine, distressed 	<ul style="list-style-type: none"> Management spin-outs, orphaned corporate portfolios, tail-end portfolios 	<ul style="list-style-type: none"> Joint ventures, option on unfunded, preferred investment in portfolios
HarbourVest advantage	<ul style="list-style-type: none"> Capitalize on strong information access and deal flow Leverage primary group resources to source and perform manager evaluation 	<ul style="list-style-type: none"> Leverage experience in complex, high profile deals Use primary capabilities as strategic differentiator Use primary and direct teams to support due diligence 	<ul style="list-style-type: none"> Use skill set and deep resources to develop unique transaction structures Leverage reputation as pioneer in this space
HarbourVest experience	<ul style="list-style-type: none"> First transaction in 1986 Over 850 interests purchased in over 360 managers 	<ul style="list-style-type: none"> First transaction in 1995 Over 900 companies purchased through 48 transactions 	<ul style="list-style-type: none"> First transaction in 2003 Over \$1.9 billion committed to 12 transactions involving over 300 fund interests
HarbourVest approach	<ul style="list-style-type: none"> Given competitive dynamic, act small 	<ul style="list-style-type: none"> Size, scale, and experience critical to success 	<ul style="list-style-type: none"> Size, scale, and experience critical to success

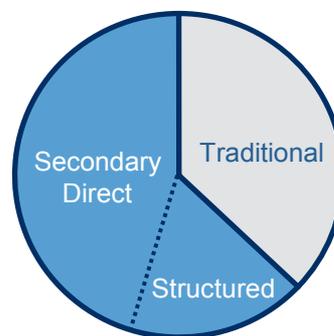
Differentiated approach to portfolio construction



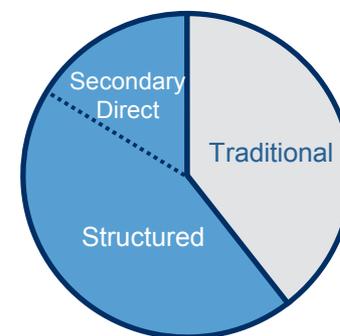
Dover V



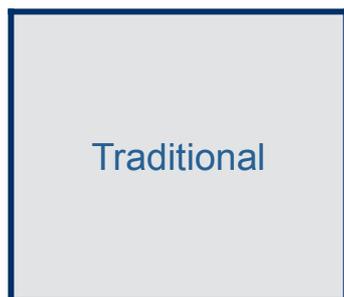
Dover VI



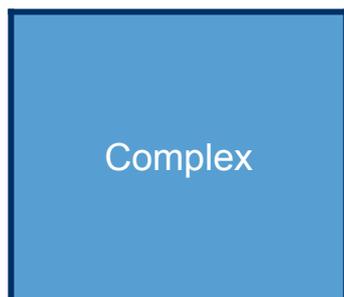
Dover VII



Dover VIII



- Leverage primary relationships and strategic value to general partners
- Be selective, exercise pricing discipline, and focus on higher quality managers
- HarbourVest is a market pioneer
 - \$6.1 billion invested across 900 funds since 1986
- Gross performance of 1.6x and 19.3% IRR



- Focus on less-efficient subset given experience, skills, and resources required to execute
- Leverage HarbourVest platform to enhance competitive positioning
- HarbourVest is a market leader
 - \$5.5 billion invested across 60 deals since 1995
- Gross performance of 1.7x and 26.3% IRR

This performance is presented on a gross basis. It reflects the fees, expenses, and carried interest of the underlying partnership investments, but does not reflect management fees, carried interest, and other expenses borne by investors in the HarbourVest Funds, which will reduce returns.

Secondary program performance summary

\$12.1 billion committed to secondary investments since 1986

Aggregate gross IRR for all secondary investments of 20.6%*

As of September 30, 2014

	Dover Ia	Dover Ib	Dover II	Dover III	Dover IV	Dover V	Dover VI	Dover VII	Secondary Overflow	Dover VIII	Secondary Overflow 2011
Date Formed	August 1991	May 1992	August 1994	August 1996	March 1999	May 2002	Sept. 2005	Dec. 2007	Sept. 2008	Nov. 2011	Dec. 2011
Status	Liquidated	Liquidated	Liquidated	Liquidated	Liquidated	Liquidating	Maturing	Developing	Developing	Investing	Investing
Investment Performance											
Gross Distributions/Contributed	2.5x	2.0x	1.8x	2.4x	1.6x	1.6x	0.9x	0.8x	0.8x	0.2x	0.5x
Gross Total Value/Contributed	2.5x	2.0x	1.8x	2.4x	1.6x	1.7x	1.5x	1.6x	1.7x	1.4x	1.4x
Gross IRR	42.6%	25.7%	33.2%	48.4%	13.1%	28.9%	9.0%	16.7%	20.3%	NM	NM
Fund Performance											
Net L.P. Distributions/Contributed	2.2x	1.7x	1.7x	2.1x	1.4x	1.4x	0.7x	0.7x	0.7x	0.3x	0.4x
Net L.P. Total Value/Contributed	2.2x	1.7x	1.7x	2.1x	1.4x	1.5x	1.3x	1.5x	1.5x	1.4x	1.3x
Net L.P. IRR	31.5%	19.0%	24.0%	31.6%	8.2%	18.7%	5.6%	13.1%	16.7%	NM	NM
Public Market Comparison⁸											
MSCI AC World	10.6%	N/A	12.8%	9.1%	2.2%	7.9%	1.1%	7.5%	10.4%	NM	NM
S&P 500	11.8%	N/A	22.2%	13.3%	0.6%	6.3%	3.5%	12.5%	16.2%	NM	NM

Aggregate outperformance of 4.6% compared to S&P 500 and 7.8% compared to MSCI AC World since inception**

* As of September 30, 2014. Reflects all secondary investments including those made by the Dover Street Program and by HarbourVest's comingled fund-of-funds. This performance is presented on a gross basis. It reflects the fees, expenses, and carried interest of the underlying partnership investments, but does not reflect management fees, carried interest, and other expenses borne by investors in the HarbourVest Funds, which will reduce returns. See Note 2 for additional information.

** Reflects performance of Dover Ia and II-VII, in aggregate, as compared to the public indices as of September 30, 2014.

Past performance is no guarantee of future returns.

See Note 8 for Public Market Comparison explanation

See final pages for additional notes



Dover VIII Update

Dover Street VIII

February 2015

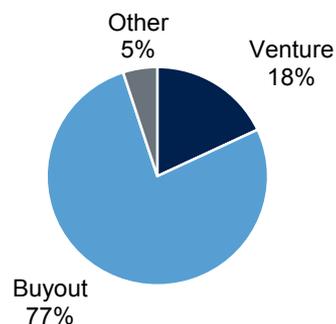
Portfolio Update

- 66% committed to 23 deals
- Overall portfolio performing on or ahead of plan
- \$223 million gain during Q1-Q3 2014, driven by Project Charlotte and Project Hornets
- \$383 million distributed to partners

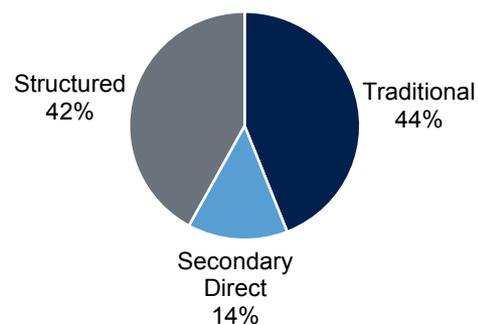
\$ Millions

As of	Sep 30	Jan 31
Committed to Investments	53%	66%
Committed Capital	\$3,591.5	\$3,591.5
Contributed Capital	\$1,114.3	\$1,556.5
% Called	32%	44%
Distributions	\$287.1	\$382.6
Total Value	\$1,656.9	
Net Total Value / Contributed	1.4x	
Net L.P. IRR	NM	

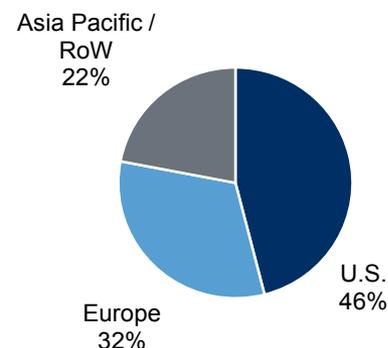
Stage



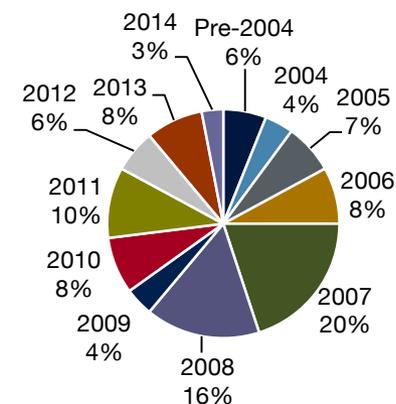
Transaction Type



Geography



Investment Year



Dover Street VIII current portfolio

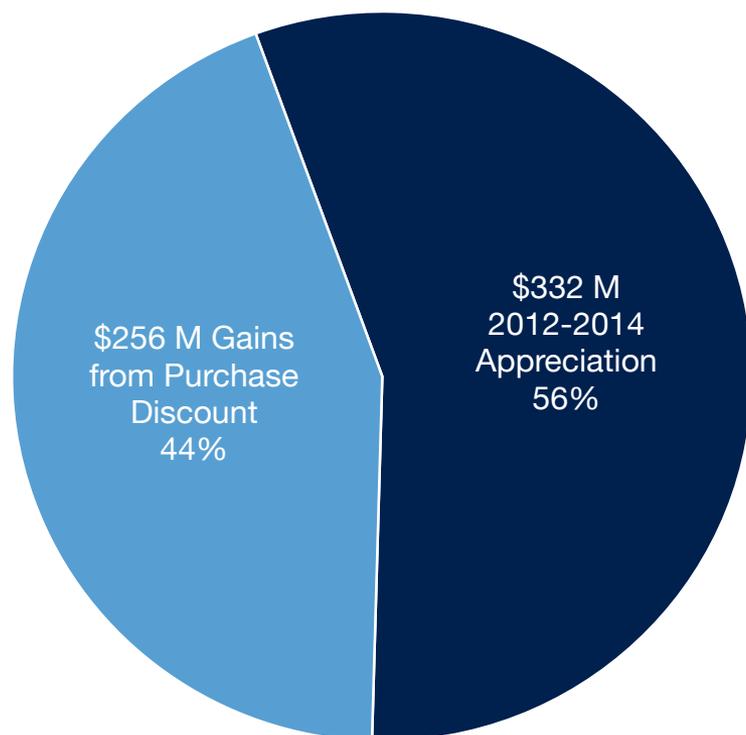
Deal	Vintage	Stage	Geography	Type	Commitment	D/F	TV/F
Project Charlotte	2012	Buyout	U.S.	Structured	\$400	0.5x	1.7x
Masthead Venture Partners Capital, L.P.	2012	Venture	U.S.	Structured	\$32	0.0x	1.5x
Project Panama	2012	Buyout	Europe	Traditional	\$43	0.9x	2.8x
Project Unison	2013	Buyout	Europe	Structured	\$131	0.5x	1.4x
Rockwood Fund I	2013	Buyout	RoW	Secondary Direct	\$131	0.0x	1.0x
Project Beijing	2013	Venture	Asia	Secondary Direct	\$75	0.0x	1.3x
Project Wildcat	2013	Buyout	U.S.	Secondary Direct	\$62	0.0x	0.7x
Project Bell	2013	Buyout	Europe	Traditional	\$249	0.2x	1.0x
Project Freedom	2013	Buyout	U.S.	Traditional	\$48	0.0x	1.4x
Magnum Capital, L.P.	2013	Buyout	Europe	Traditional	\$15	0.4x	1.6x
Project Fort	2013	Buyout	U.S.	Traditional	\$12	0.0x	1.9x
Project Laguna	2014	Buyout	U.S.	Structured	\$207	N/A	N/A
Project Hornets	2014	Buyout	U.S.	Structured	\$120	0.0x	1.7x
Project Cava	2014	Buyout	Europe	Structured	\$87	N/A	N/A
Project Duet	2014	Buyout	Europe	Traditional	\$120	N/A	N/A
Project Pam	2014	Buyout	U.S.	Traditional	\$91	0.0x	1.3x
Project Boulder	2014	Buyout	U.S.	Traditional	\$85	0.0x	1.2x
Project Kona	2014	Buyout	Asia	Traditional	\$32	0.1x	1.3x
Project Derby	2014	Venture	US	Structured	\$35	0.0x	1.6x
Project Partridge	2014	Venture	US	Traditional	\$166	N/A	N/A
TPG Asia V	2014	Buyout	Asia	Traditional	\$99	0.0x	1.0x
Project Boot	2014	Venture	RoW	Secondary Direct	\$53	N/A	N/A

Total at December 31, 2014

\$2,291.0M **0.2x** **1.6x**
MASTER PAGE NO. 16x

Dover Street VIII – Sources of gains

\$588 Million in Cumulative Portfolio Gains



Notable Gains in 2014 (Millions)

Projects / Partnerships	2014 Gain	Companies
Project Hornets (71 underlying funds)	\$81	Purchase discount and post record date appreciation
Project Charlotte (Thomas H. Lee VI, Apollo VII, KKR 2006, Carlyle V)	\$47	The Servicemaster Company, Financiere Spie SA, Acosta Sales & Marketing, Healogics, Biomet, Jetro Cash & Carry
Project Unison (BDC LP)	\$17	Pulsant, Energy Solutions Group, Compagnie Stephanoise de Sante
Project Derby (Chrysalis Ventures II)	\$15	Purchase discount and post record date appreciation
Project Pam (Pamlico II)	\$12	Hosting.com, Clear Link Technologies, Lighttower Fiber Networks
Project Boulder (Madison Dearborn V & VI, Hellman and Friedman VI)	\$12	NEW Assurion Corporation, Fieldglass, Sage Products, Kronos
Project Fort (Fortress Investment Fund V)	\$9	Springleaf Financial Services, Flagler Development Group, Florida East Coats Railway

Current Dover Street pipeline

Over \$18 billion in opportunities consisting of more than 30 sellers and over 300 interests

Deal	Size (M)	Type	Status	HarbourVest Angle
Project Legacy	\$100	Portfolio of LP Interests	Under LOI	Primary platform essential to cultivating the relationship, high portfolio overlap, limited competition
Project Leaf	\$900	Secondary Direct Portfolio	Active Due Diligence	Prior relationship with GP through co-investment, experience in whole fund liquidity solutions, and primary platform
Project Button	€ 450	Secondary Direct Portfolio	Active Due Diligence	Proprietary opportunity developed from long term relationship with GP, overlap with HarbourVest portfolio, and experience in complex whole fund solutions
Project Hightower	\$250	Portfolio of LP Interests	Active Due Diligence	Experience in highly complex structured solutions, no competition
Project Lightsaber	\$200	Secondary Direct Portfolio	Active Due Diligence	Prior secondary investment with GP, experience in whole fund liquidity solutions, and primary platform
Project Pluto	\$100	Secondary Direct Portfolio	Active Due Diligence	Relationship cultivated with GP, experience in whole fund liquidity solutions, and primary platform
Project Founder	\$54	Single LP Interest	Active Due Diligence	Prior transaction history with seller and strong relationship with GP.
Project Bunker	\$1,000	Portfolio of LP Interests	Early Stages	Potential to pre-empt broad auction process and overlap with HarbourVest portfolio
Project Brew	\$350	Portfolio of LP Interests	Early Stages	Overlap with HarbourVest portfolio and experience in transferring large portfolios
Project Missile	\$300	Portfolio of LP Interests	Early Stages	HarbourVest overlap and experience in complex situations
Project Gaffney	\$230	Structured transaction	Early Stages	Experience in highly complex structured solutions and overlap with HarbourVest portfolio
Project Mustard	£100	Secondary Direct Portfolio	Early Stages	Relationship with the seller and experience in complex secondary direct transactions

Represents pipeline of investment opportunities as of March 1, 2015. Shown for illustrative purposes only, subject to change. Specific deals may not be available at time of portfolio construction.



Appendix



Case Studies

Project Panama

Deal Size	\$49 million
Closed	August 2012
Type	Traditional
Seller	Listed private equity vehicle

Transaction Dynamic	Transaction Structure	HarbourVest Advantage
<ul style="list-style-type: none"> ■ Seller under pressure to generate liquidity for shareholders but highly sensitive to confidentiality given listed nature ■ HarbourVest was lead investor in original transaction completed in 2006 and is largest investor in fund ■ Given complexity of fund, limited number of potential buyers ■ Due to complicated nature of vehicle and our existing knowledge of assets and structure, HarbourVest was in unique position 	<ul style="list-style-type: none"> ■ Capitalized on seller's willingness to accept deferred payment structure ■ Complex transfer process 	<ul style="list-style-type: none"> ■ Existing relationship with seller ■ Largest investor in fund having led structuring of original deal ■ Existing general partner relationships facilitated our ability to diligence portfolio of 33 private equity funds ■ Detailed knowledge of complex structure allowed us to make firm offer quickly ■ Demonstrated experience and reputation for deal execution within accelerated time frame was key to securing exclusivity

Project Timber

Deal Size	\$110 million
Closed	December 2010
Type	Secondary direct
Seller	German corporation

Transaction Dynamic	Transaction Structure	HarbourVest Advantage
<ul style="list-style-type: none"> ■ German publishing business funded digital media in-house team for 10+ years ■ Team approached HarbourVest in Q4 2009 on a proprietary basis to finance a spinout ■ HarbourVest reached agreement with the corporate parent, Verlagsgruppe Georg von Holtzbrinck, to jointly back the general partner 	<ul style="list-style-type: none"> ■ New joint venture vehicle, HV Holtzbrinck Ventures IV, formed to purchase a 50% interest in a portfolio of 47 direct company interests ■ Significant general partner commitment to transaction ■ Downside protection through disproportionate sharing of initial proceeds ■ Attractive pricing given transaction dynamics 	<ul style="list-style-type: none"> ■ Demonstrated experience leading transactions of this type and complexity ■ Clear track record of investing in and supporting growth portfolios ■ Proprietary transaction given long-standing relationship with team ■ Manager attracted by HarbourVest's primary platform

Project Charlotte

Deal Size	\$746 million
Closed	December 2012
Type	Structured
Seller	Conversus Capital, L.P.

Transaction Dynamic	Transaction Structure	HarbourVest Advantage
<ul style="list-style-type: none"> ■ Conversus Capital L.P. (“CCAP”), Euronext-listed private equity vehicle, owned diversified portfolio of over 200 high quality funds well known to HarbourVest ■ CCAP adopted permanent harvesting strategy in late 2011 and announced it would explore strategic alternatives to enhance unit holder value in early 2012 ■ HarbourVest agreed to purchase investment portfolio of CCAP at 15% discount to June 30, 2012 NAV ■ Board of CCAP accepted HarbourVest offer as solution that addressed needs of diverse unit holder base 	<ul style="list-style-type: none"> ■ Up to 49.9% of existing CCAP unit holders can remain invested in portfolio through an interest in HarbourVest acquisition vehicle ■ Guernsey acquisition vehicle structured to acquire assets in tax efficient way and to accommodate rolling CCAP unit holders ■ HarbourVest will acquire eight holding partnerships, which hold CCAP investment portfolio, and thus gain an indirect interest in over 200 underlying funds ■ HarbourVest will manage run-off of portfolio on behalf of our funds and rolling CCAP unit holders 	<ul style="list-style-type: none"> ■ Demonstrated experience in listed private equity sector following 2011 acquisition of Absolute Private Equity (previously listed on Swiss SIX exchange) ■ Existing general partner relationships facilitated our ability to diligence large, diversified portfolio in short time frame ■ Board supported HarbourVest’s offer and recognized our extensive experience and knowledge of private equity

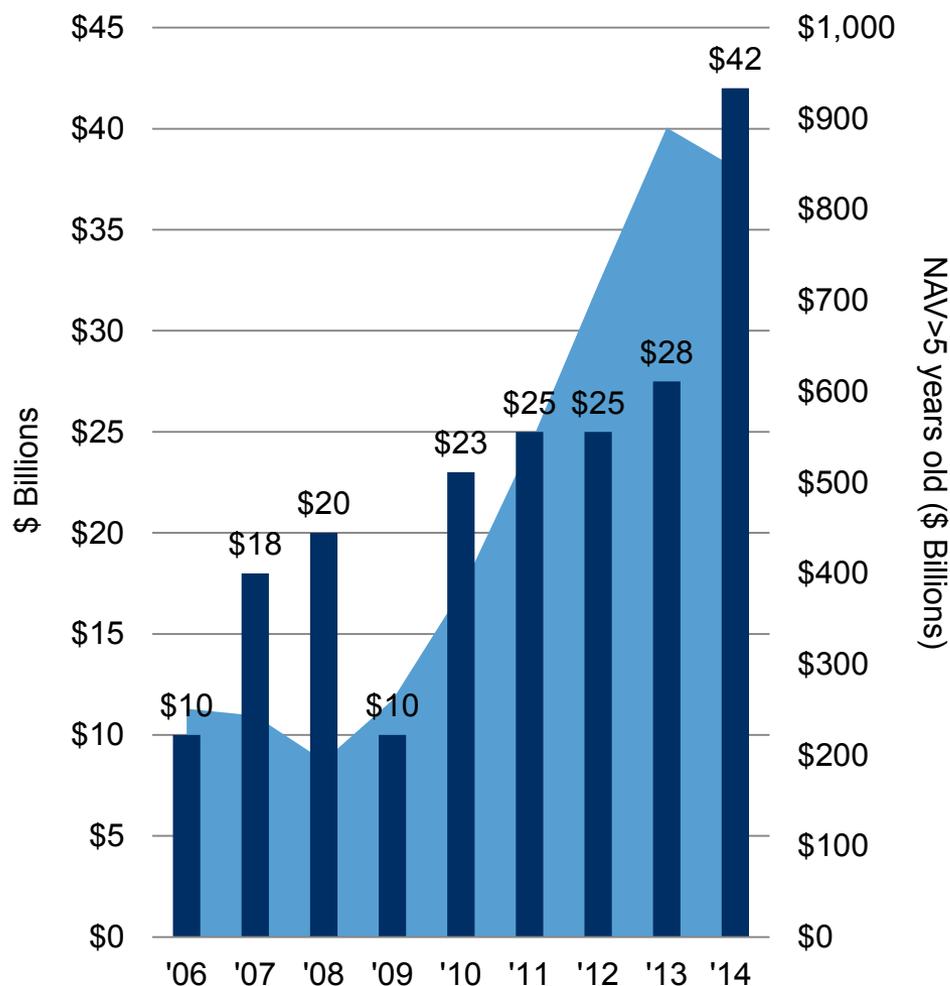


Secondary Market Overview

Size of private equity secondary market

Deal Volume

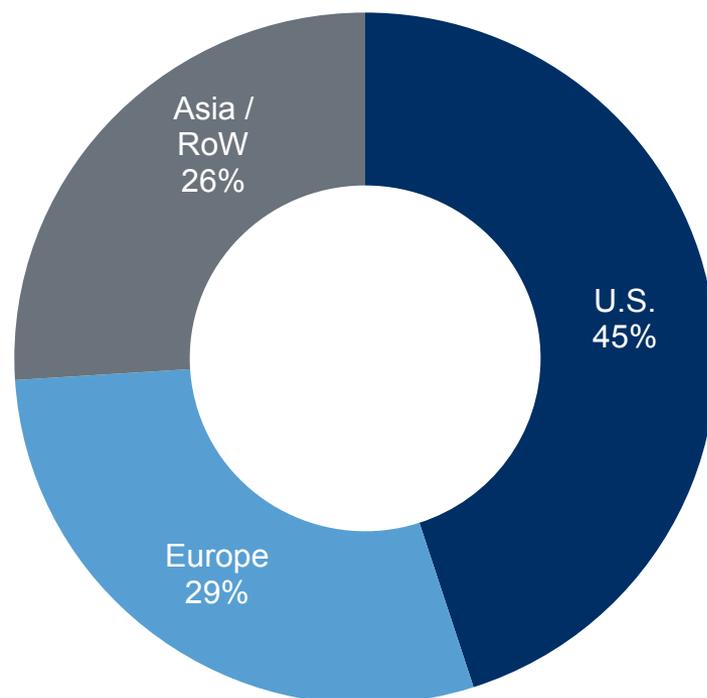
■ PE NAV > 5 years old



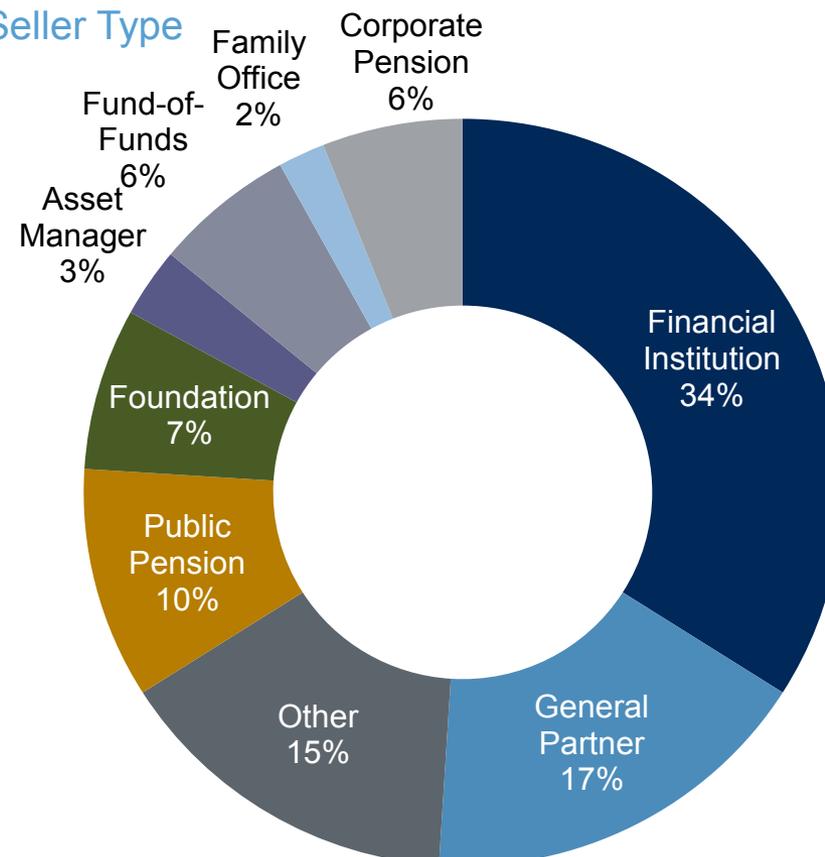
- Underpinned by deep base of mature private equity assets, of which 2-4% typically trade per annum
 - Significant room for increased secondary activity
 - Additional \$800 billion in capital commitments raised in last 5 years
- More than 540 sellers approached the market in 2014
- Most SWFs have not yet sold meaningful amount of assets but likely will at some point

Sellers in today's secondary market

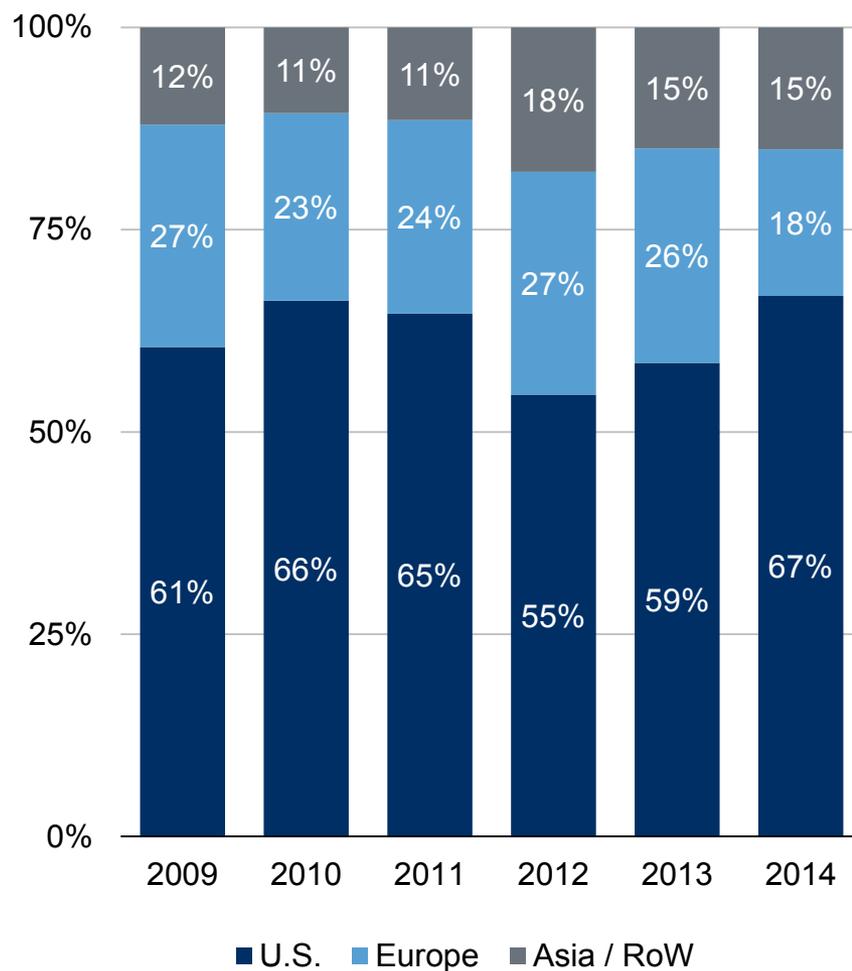
Seller Geography



Seller Type

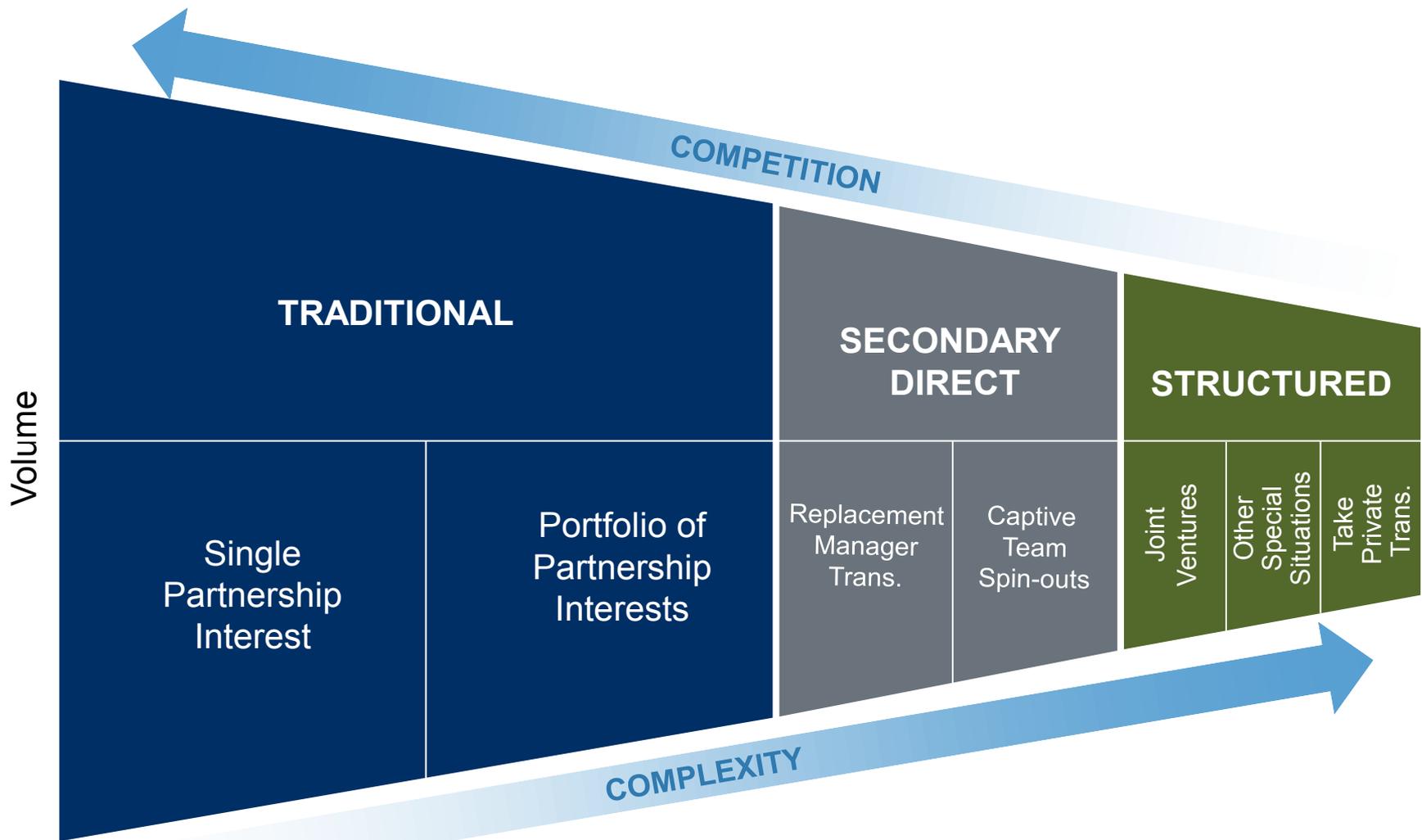


Profile of assets for sale



- Secondaries remain function of primary market
- Increased activity and strong economic environment in U.S. driving deal flow
- Global presence is critical to originate and evaluate entire secondary market

Secondary market landscape

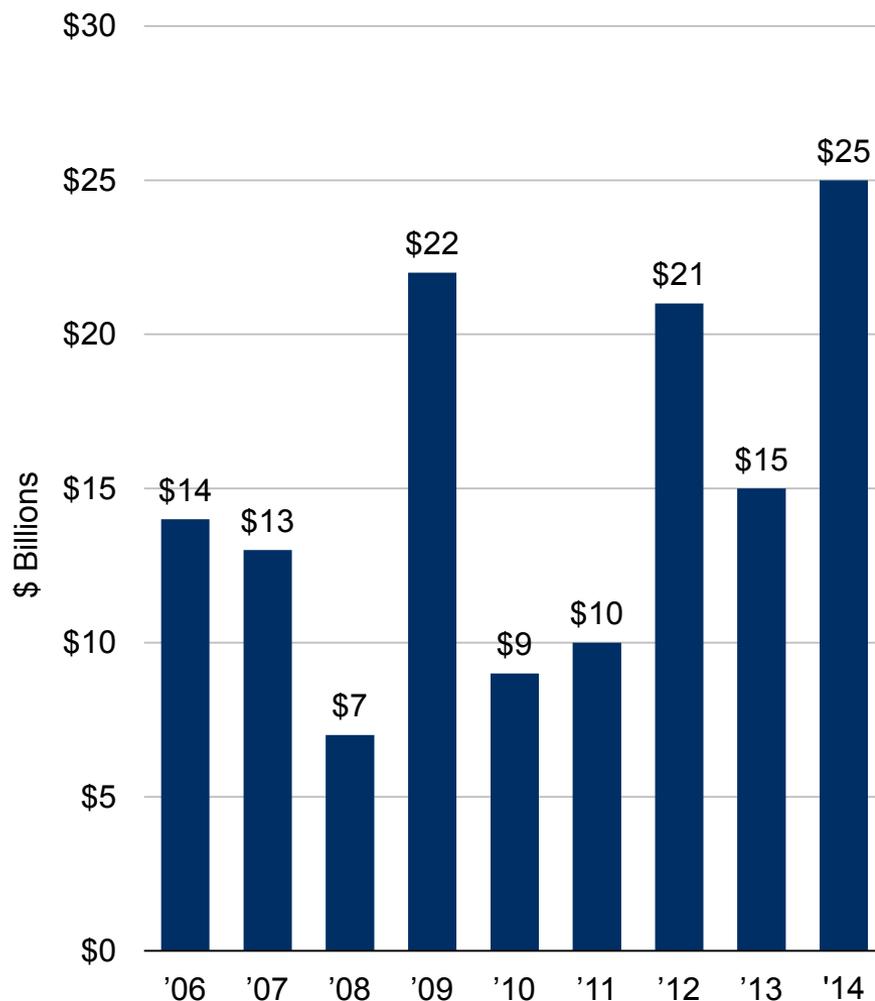


Deal Flow Volume* (\$ Billions)	\$57.9	\$22.1	\$4.8
Number of Sellers	390	68	20

* HarbourVest deal flow statistics from 2014

Secondary fundraising

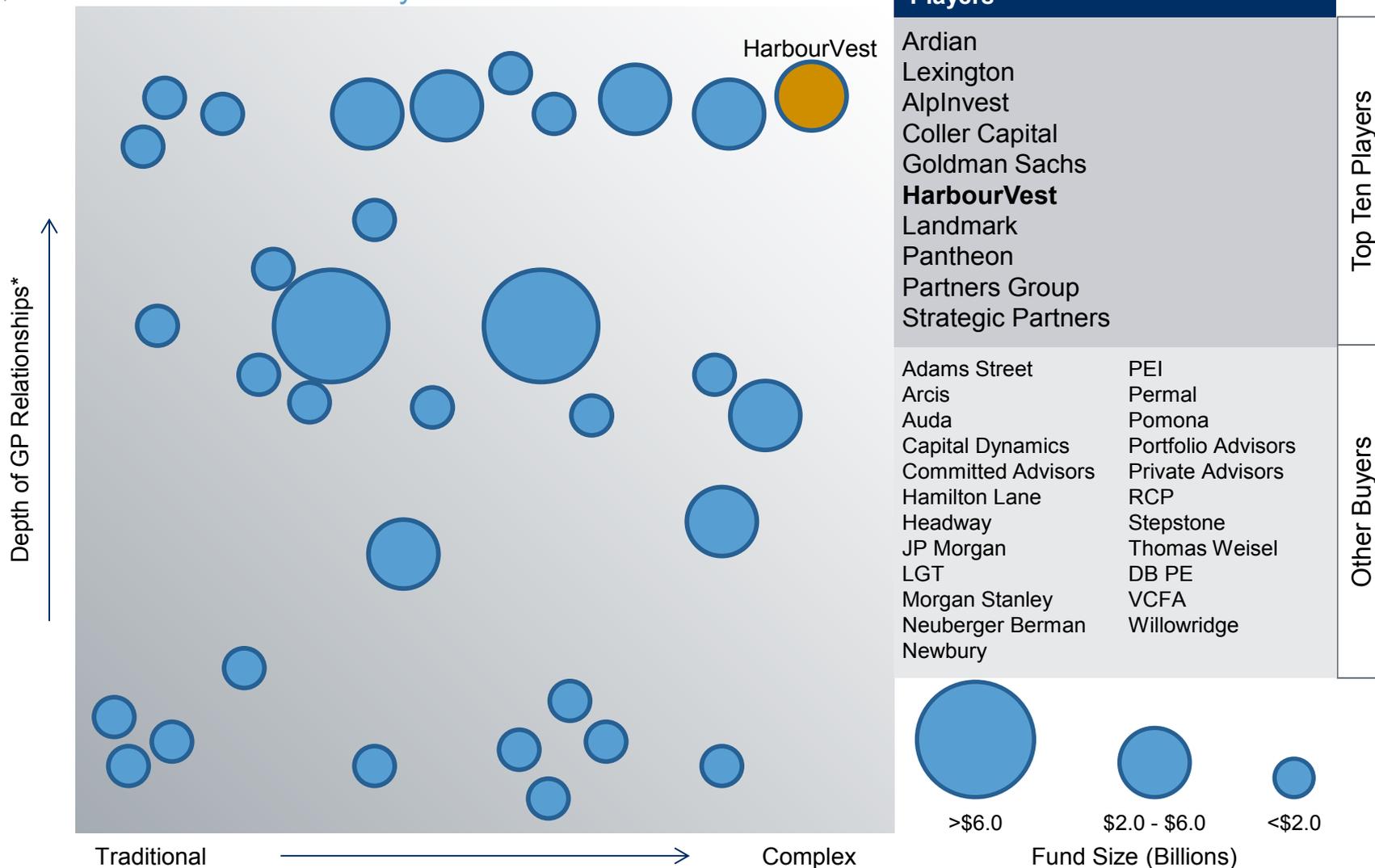
Secondary Fundraising Activity



- Overall strong fundraising environment for secondary funds
 - Demand from limited partners
 - Macro environment contributing to performance
- Some managers oversubscribed while others struggling to raise capital
 - Implies greater selectivity by limited partners
- \$80 billion in funds raised over the last 5 years compared to \$143 billion in deals executed

Secondary buyer landscape

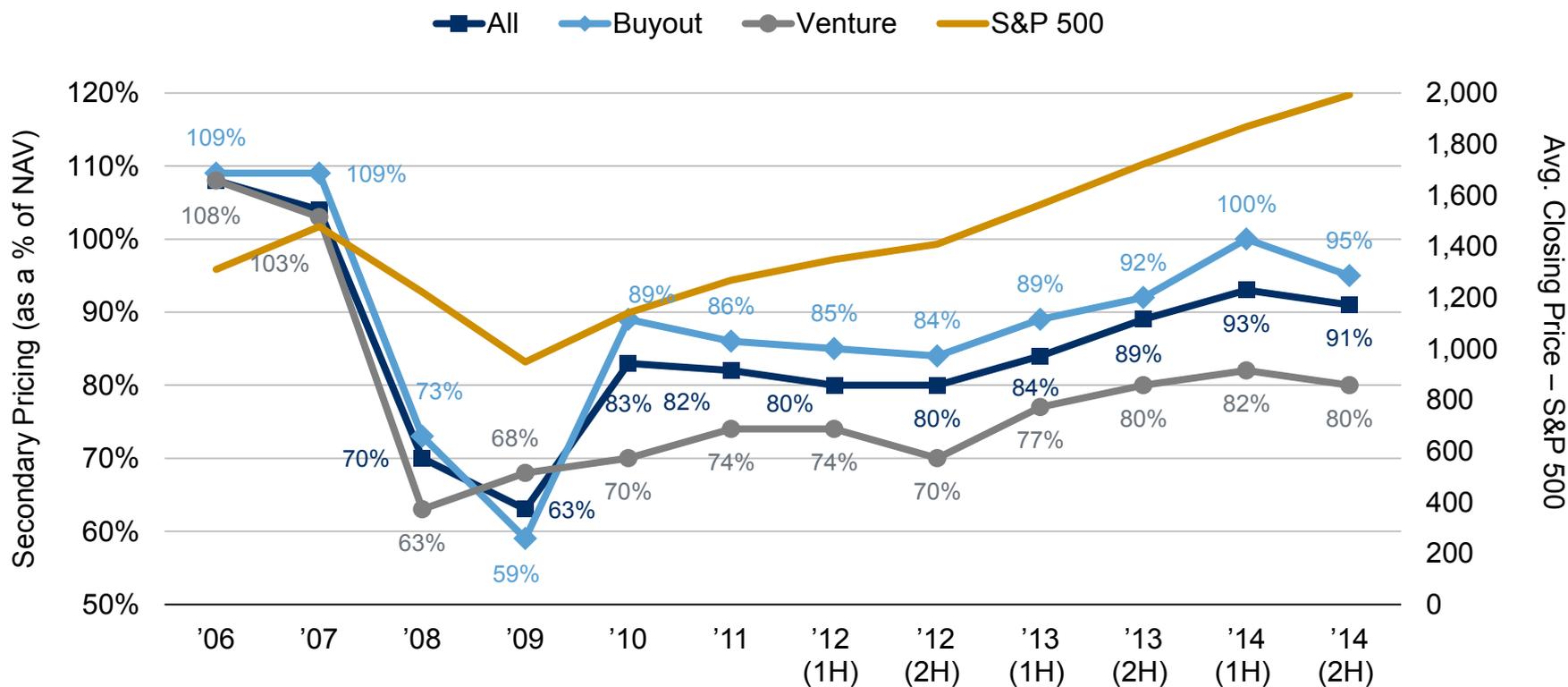
\$30 Billion Global Secondary Market



* HarbourVest Analysis

Secondary market pricing

- Prices are high on a historical basis
- Well established delta between buyout and venture fund pricing



Strong global team

PRIMARY PARTNERSHIPS

George Anson, Managing Director
Kathleen Bacon, Managing Director
Tatsuya Kubo, Managing Director
Hemal Mirani, Managing Director
John Morris, Managing Director
Julie Ocko, Managing Director
Sally Shan, Managing Director
Greg Stento, Managing Director
Michael Taylor, Managing Director
Sebastian van den Berg, Managing Dir.
Scott Voss, Managing Director
Till Burges, Principal
Carolina Espinal, Principal
Ryan Gunther, Principal
Haide Lui, Principal
Mark Nydam, Principal
Amanda Outerbridge, Principal
Chris Walker, Principal
Francisco Arboleda, Vice President
Alex Barker, Vice President
Minjun Chung, Vice President
Shumin Gong, Vice President
Mac Grayson, Vice President
Jaganath Swamy, Vice President
Kanji Takenaka, Vice President
Stephen Tamburelli, Vice President
Alex Wolf, Vice President
Jesse Andrews, Associate
Angela Chang, Associate
Dawan Koo, Associate
John Pollock, Associate
Alice Song, Associate
Chang Liu, Analyst

SECONDARY INVESTMENTS

David Atterbury, Managing Director
Tim Flower, Managing Director
Brett Gordon, Managing Director
Jeff Keay, Managing Director
Fred Maynard, Managing Director
Mike Pugatch, Managing Director
John Toomey, Managing Director
Kevin Warn-Schindel, Managing Director
Peter Wilson, Managing Director
Michael Dean, Principal
Valérie Handal, Principal
Edward Holdsworth, Principal
Rajesh Senapati, Principal
Greg Ciesielski, Vice President
John Fiato, Vice President
Dominic Goh, Vice President
Matt Souza, Vice President
Dustin Willard, Vice President
Thomas Joly, Senior Associate
Justin Lane, Senior Associate
Martin Yung, Senior Associate
Nick Bellisario, Associate
Elliott Campbell, Associate
Kyle Dowd, Associate
Victor Ko, Associate
Alexander Mackinger, Associate
Jonas Meister, Associate
CLIENT RELATIONS
Olav König, Managing Director
Nate Bishop, Principal
Aris Hatch, Principal
Simon Lund, Principal
Laura Thaxter, Principal
Hannah Tobin, Principal

DIRECT INVESTMENTS

Corentin du Roy, Managing Director
Bill Johnston, Managing Director
Ian Lane, Managing Director
Peter Lipson, Managing Director
Ofer Nemirovsky, Managing Director
Alex Rogers, Managing Director
Rob Wadsworth, Managing Director
Alun Lewis, Principal
Kelvin Yap, Principal
Matthew Cheng, Vice President
Joel Hwang, Vice President
Ryan Jones, Vice President
Craig MacDonald, Vice President
Rodrigo Patino, Vice President
Jacqueline Zider, Vice President
David Zug, Vice President
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Nelly Markova, Senior Associate
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Lenny Li, Associate
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Tiffany Rong, Associate
Daniel Soli, Associate
Wiley Wilson, Associate
HVPE
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Billy Macaulay, Sr. Portfolio Associate
Oren Laufer, Vice President
Nhora Otálora, Vice President
Fran Peters, Vice President
Deirdre Whann, Vice President
Nadine Rumble, Senior Associate

SENIOR MANAGEMENT

Brooks Zug, Senior Managing Director
FINANCE AND ADMINISTRATION
Julie Eiermann, MD, Chief Information Officer
Karin Lagerlund, Managing Director CFO
Mary Traer, Managing Director CAO
Greg Pusch, SVP, CCO
Jack Wagner, SVP, Treasurer
Monique Austin, VP, U.S. Counsel
Ellen Christy, VP, Director of IT
Tony Cobuzzi, VP, Fund Controller
Cory Cook, VP, Fund Controller
Nick du Cros, VP, U.K. Legal/CO
Kelli Finnegan, VP, Fund Controller
Danielle Green, VP, Compliance Officer
Kapil Kirpalani, VP, Legal & Compliance
John Nelson, VP, Fund Controller
Sandra Pasquale, VP, Asst. Treasurer
Bruce Pixler, VP, Director of Tax
Igor Rudfeld, Vice President, Dir. Inv. Cont.
Dave Stepanis, VP, Portfolio Analytics
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Additional information

On January 29, 1997, the management team of Hancock Venture Partners, Inc. (HVP Inc.) formed a new management company known as HarbourVest Partners, LLC (HarbourVest). Concurrently with the formation of HarbourVest, all of the employees of HVP Inc. became owners and/or employees of HarbourVest. In addition, concurrently with the formation of HarbourVest, HVP Inc. engaged HarbourVest as sub-manager to carry out the terms of its management agreements with the partnerships formed when the management team was employed by HVP Inc. Other than the sub-management agreement, no relationship exists between HarbourVest and HVP Inc. For purposes of this presentation, historical data includes both partnerships managed directly by HarbourVest and its affiliates and partnerships currently managed by HarbourVest as sub-manager to HVP Inc. In addition, historical data includes periods when the partnerships were managed by the management team of HarbourVest when they were employees of HVP Inc.

In considering the prior performance information contained herein, prospective investors should bear in mind that past performance is not necessarily indicative of future results, and there can be no assurance that the Fund will achieve comparable results or be able to implement its investment strategy.

The foregoing performance information includes realized and unrealized investments. Unrealized investments are valued by the applicable general partner in accordance with the valuation guidelines contained in the applicable partnership agreement. Actual realized returns on unrealized investments will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale, all of which may differ from the assumptions on which the valuations used in prior performance data contained herein are based. Accordingly, the actual realized returns on these unrealized investments may differ materially from returns indicated herein.

1. Net L.P. Internal Rate of Return through the applicable date is the annualized return to limited partners after all fees, operating expenses and carried interest calculated using monthly cash flows to and from limited partners. In this calculation, the final cash flow to limited partners is the fair market value of the limited partners' capital accounts at the applicable date as determined by the General Partner in accordance with the valuation policies in the applicable Partnership Agreement.
2. Gross Portfolio IRR represents the annual return calculated using monthly cash flows from the funds managed by HarbourVest to and from the various partnerships in which the HarbourVest funds invested during the period specified, after the fees, expenses, and carried interest of the underlying partnership investments, but before the fees, expenses, and carried interest charged the HarbourVest Funds. HarbourVest vintage classification is based on year in which capital was first funded to each underlying fund (for primary fund investments) or the year of HarbourVest's purchase (for secondary investments).
For the purposes of comparing HarbourVest's gross return on European partnership investments to private equity benchmarks on a like basis, IRRs for European investments were calculated by converting U.S. \$ denominated cash flows to euro at historic daily exchange rates. The euro-based IRR is a hypothetical return since certain of the partnership investments were denominated in currencies other than the euro. The IRR calculated based on U.S. \$ cash flows is 15.7%. Non-U.S. / non-European partnership investments are not included because no relevant private equity benchmarks exist. If all non-U.S. partnership investments were included, the HarbourVest Portfolio return would be 13.8% in U.S. dollars. These returns do not represent the returns to limited partners or the aggregate returns of any specific fund.
3. A direct comparison of private equity returns with public index total returns may not be meaningful because the returns presented for venture capital and buyout funds are IRRs (dollar-weighted), while the public index returns are geometric mean returns (time-weighted). Specifically, dollar-weighted returns are affected by the time value of money by application of a discount rate (the IRR), while time-weighted returns are simply the geometric mean of various holding period returns. Public market comparison represents performance if the respective index had been purchased and sold at the time of the limited partners' capital calls and distributions, with the remainder held at the date noted. Dividends are not reinvested. The securities comprising the public market benchmarks have substantially different characteristics than the investments held by the HarbourVest funds, and accordingly a direct comparison may not be meaningful.
4. Europe Composite Criteria: Includes all European partnership investments (primary and secondary) made by HarbourVest and/or by HVP Inc. through HIPEP I, II, III, IV, and V, their companion funds, Global Select, and Dover II, III, IV, V, and VI for the period specified. Investments made after 2007 are not included because they are still actively investing and performance is generally not meaningful during a partnership's early development. If the performance of investments made after 2006 was included, the HarbourVest Portfolio gross IRR would be the same.
U.S. Composite Criteria: Includes all U.S. partnership investments (primary and secondary) made by HarbourVest and/or by HVP Inc. through Fund III, IV, V, VI, VII, and VIII, their companion funds, and Dover Ia, II, III, IV, V, and VI for the period specified. Investments made after 2007 are not included because they are still actively investing and performance is generally not meaningful during a partnership's early development. If the performance of investments made after 2007 was included, the HarbourVest Portfolio gross IRR would be higher.
5. Vintage years 1993-2007: The ThomsonReuters Database is comprised of 1,381 U.S. private equity partnerships. The HarbourVest portfolio is comprised of 441 U.S. partnerships.
6. Vintage years 1993-2007: The ThomsonReuters Database is comprised of 978 European partnerships. The HarbourVest portfolio is comprised of 238 European partnerships.

Continued on next page.

Additional information

7. Net Portfolio IRR represents the annualized return calculated using monthly cash flows from the fund managed by HarbourVest to and from the various partnerships or companies in which the HarbourVest fund invested after all fees, expenses, and carried interest of the HarbourVest fund and any partnerships investments. The fees and expenses of the HarbourVest fund reflect a pro-rata share of the fund's actual fees and expenses, based on the amount that was committed to partnership or direct investments. The direct Net Portfolio IRR reflects deduction of the actual carried interest of the direct investments. The Net Portfolio IRR does not reflect the actual cash flow experience of limited partners; it does not represent the actual net performance of any specific fund or the return to limited partners of such fund. It should be noted that these funds called capital in set increments and/or on set schedules, which was industry standard at the time, and therefore held more cash than is customary today, creating a drag on the Net L.P. IRR.
8. Public market comparison represents performance if the respective index had been purchased and sold at the time of the limited partners' capital calls and distributions, with the remainder held at the date noted. Dividends are not reinvested. The securities comprising the public market benchmarks have substantially different characteristics than the investments held by the HarbourVest funds, and accordingly a direct comparison may not be meaningful.
9. The Net L.P. IRRs of HarbourVest's prior secondary funds as of September 30, 2014 (or their date of liquidation) are: Dover Ia 31.5%, Dover Ib 19.0%, Dover II 24.0%, Dover III 31.6%, Dover IV 8.2%, Dover V 18.7%, Dover VI 5.6%, and Dover VII 13.1%.
The Net L.P. IRRs of HarbourVest's prior direct funds as of September 30, 2014 are as follows: 2004 Direct Fund 10.6%, 2007 Direct Fund 9.9%, Fund IV Direct 5.6%, Fund V Direct -3.4%, Fund VI Direct 0.5%, HIPEP II Direct 19.8%, HIPEP III Direct -4.0%, HIPEP IV Direct 13.8%, HIPEP V Direct 3.6%.

The information contained herein is highly confidential and is being provided to you at your request for informational purposes only and is not, and may not be relied on in any manner as, legal, tax or investment advice or as an offer to sell or a solicitation of an offer to buy an interest in any investment sponsored by HarbourVest Partners L.P. or its affiliates (the "Fund"). A private offering of interests in the Fund will only be made pursuant to a confidential private placement memorandum (the "Memorandum") and the Fund's partnership agreement and subscription documents, which will be furnished to qualified investors on a confidential basis at their request for their consideration in connection with such offering. The information contained herein will be superseded by, and is qualified in its entirety by reference to, the Memorandum, which will contain information about the investment objective, terms and conditions of an investment in the Fund and will also contain tax information and risk disclosures that are important to any investment decision regarding the Fund. No person has been authorized to make any statement concerning the Fund other than as will be set forth in the Memorandum and any such statements, if made, may not be relied upon. The information contained herein must be kept strictly confidential and may not be reproduced or redistributed in any format without the express written approval of HarbourVest Partners L.P. (together with its affiliates, "HarbourVest").

Investment in the Fund will involve significant risks, including loss of the entire investment. Before deciding to invest in the Fund, prospective investors should pay particular attention to the risk factors contained in the Memorandum. Prospective investors should make their own investigations and evaluations of the information contained herein. Prior to the closing of a private offering of interests in the Fund, HarbourVest will give investors the opportunity to ask questions and receive additional information concerning the terms and conditions of such offering and other relevant matters. Each prospective investor should consult its own attorney, business advisor and tax advisor as to legal, business, tax and related matters concerning the information contained herein and such offering.

Certain information contained herein (including financial information and information relating to investments) has been obtained from published and non-published sources. Such information has not been independently verified by HarbourVest. Except where otherwise indicated herein, the information provided herein is based on matters as they exist as of the date of preparation and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available, or circumstances existing or changes occurring after the date hereof.

In considering any performance data contained herein, you should bear in mind that past performance is not indicative of future results. Certain information contained herein constitutes forward-looking statements, which can be identified by the use of terms such as "may", "will", "should", "expect", "anticipate", "project", "estimate", "intend", "continue" or "believe" (or the negatives thereof) or other variations thereof. Due to various risks and uncertainties, including those discussed above, actual events or results or actual performance of the Fund may differ materially from those reflected or contemplated in such forward-looking statements. As a result, investors should not rely on such forward-looking statements in making their investment decisions.

None of the information contained herein has been filed with the Securities and Exchange Commission, any securities administrator under any state securities laws or any other governmental or self-regulatory authority. No governmental authority has passed on the merits of the offering of interests in the Fund or the adequacy of the information contained herein. Any representation to the contrary is unlawful.

Additional information

- A. The foregoing performance information is presented on a “gross” basis. It does not reflect management fees, carried interests and other expenses to be borne by investors in the Fund, which will reduce returns. The gross portfolio internal rate of return (“Gross Portfolio IRR”) is calculated using monthly cash flows to and from the direct co-investments managed by HarbourVest and/or HVP Inc. Cash flows for investments made by HIPEP V Direct, which is denominated in euros, are converted to U.S. \$ cash flows at historic daily exchange rates. These returns do not represent the performance of any specific fund or the return to limited partners. Realized companies only include companies that have been substantially realized. Partial realizations are not included in the “Gross Portfolio IRR (Realized Investments).
- B. For purposes of this presentation, co-investments are defined as (i) buyout, recapitalization, and special situation investments, (ii) expansion capital, growth equity, or other venture capital investment in companies with greater than \$7.5 million in trailing twelve month revenues at the time of investment, or (iii) mezzanine investments. The performance shown includes all such investments made since January 1, 1989, with all unrealized investments valued as of the date shown. Includes all investments managed either directly by HarbourVest or by HarbourVest as sub-manager to HVP Inc., and managed by the management team of HarbourVest when they were employees of HVP Inc. Over the past two decades, HarbourVest made direct investments from multiple pools of capital – both through fund-of-funds products and through dedicated direct or co-investment funds. To show a comprehensive track record, the investments have been grouped into six portfolios according to year of investment. Portfolios 5 and 6 correspond to the time period of the 2004 Direct and 2007 Direct Fund respectively. The investments included in each of the portfolios are actual investments made by various HarbourVest managed funds and do not reflect the investment performance of specific HarbourVest-managed funds or the return to limited partners. A list of the individual investments is available upon request.
- C. The pro-forma performance information is presented on a hypothetical net basis, including estimated organizational costs and other fund level operating expenses. The pro-forma net returns (IRR and multiple) are calculated using monthly cash flows to and from the direct co-investments managed by HarbourVest and/or HVP Inc. net of management fees and general partner carried interest under the 2013 Direct Fund terms. These returns do not represent the performance of any specific fund or the return to limited partners. Assumes the following management fee structure: 1.0% of called capital in each of years one through five and declining by 20% each year thereafter. Assumes that the Fund concludes after year ten and no further management fee is charged. Called capital is assumed to be equal to invested capital (cumulative cost of investments made) plus management fees. Includes carried interest on net investment profits of 10%, subject to 8% preferred return, increasing to 20% after a 2.0 times return of called capital to the Limited Partners. Other profits and losses are allocated to all Partners in proportion to their respective sharing percentages. The carried interest is paid to the General Partner once capital is returned to the Limited Partners.
- D. The Net L.P. IRRs of HarbourVest’s prior direct funds as of September 30, 2014 (or the date of liquidation) are as follows: 2004 Direct Fund (10.6%, 2004-2007), 2007 Direct Fund (9.9%, 2007-2012), Fund IV Direct (5.6%, 1993-1996), Fund V Direct (-3.4%, 1996-1999), Fund VI Direct (0.5%, 1999-2005), HIPEP II Direct (19.8%, 1995-1998), HIPEP III Direct (-4.0%, 1998-2001), HIPEP IV Direct (13.8%, 2001-2005), HIPEP V Direct (3.6%, 2005-2011). Net L.P. Internal Rate of Return through the applicable date is the annualized return to limited partners after all fees, operating expenses and carried interest calculated using monthly cash flows to and from limited partners. In this calculation, the final cash flow to limited partners is the fair market value of the limited partners’ capital accounts at the applicable date as determined by the General Partner in accordance with the valuation policies in the applicable Partnership Agreement.
- E. Public market comparison represents performance if the respective index had been purchased and sold at the time of the limited partners’ capital calls and distributions, with the remainder held at the date noted. Dividends are not reinvested. The securities comprising the public market benchmarks have substantially different characteristics than the investments held by the HarbourVest funds, and accordingly a direct comparison may not be meaningful.

Ventura County Employees' Retirement Association



March 16, 2015 | Presented by Scott Hazen, CFA and Kathy Wanner

Confidentiality Statement and Other Important Considerations

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Statements in the Presentation are made as of the date of the Presentation unless stated otherwise, and there is no implication that the information contained herein is correct as of any time subsequent to such date. All information with respect to primary and secondary investments of Adams Street Partners funds (the “Funds”) or Adams Street Partners’ managed accounts (collectively, the “Investments”), the Investments’ underlying portfolio companies, Fund portfolio companies, and industry data has been obtained from sources believed to be reliable and current, but accuracy cannot be guaranteed.

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The internal rate of return (IRR) data and multiples provided in the Presentation are calculated as indicated in the applicable notes to the Presentation, which notes are an important component of the Presentation and the performance information contained herein. IRR performance data may include unrealized portfolio investments; there can be no assurance that such unrealized investments will ultimately achieve a liquidation event at the value assigned by Adams Street Partners or the General Partner of the relevant Investment, as applicable. References to the Investments and their underlying portfolio companies and to the Funds should not be considered a recommendation or solicitation for any such Investment, portfolio company, or Fund.

Past performance is not a guarantee of future results. Projections or forward looking statements contained in the Presentation are only estimates of future results or events that are based upon assumptions made at the time such projections or statements were developed or made. There can be no assurance that the results set forth in the projections or the events predicted will be attained, and actual results may be significantly different from the projections. Also, general economic factors, which are not predictable, can have a material impact on the reliability of projections or forward looking statements.

Adams Street Partners

Adams Street Partners is an employee-owned private equity firm structured to generate exceptional investment returns on a consistent basis. Adams Street operates as one cohesive global team, integrating expertise in three disciplines: primary, secondary and direct investments. As a firm with a long history and a multidisciplinary global platform, we understand the entire private equity landscape and can access the most attractive opportunities. On the following pages, we offer a snapshot of our capabilities — not only as private equity managers but also as professionals dedicated to excellence in serving our investors.

Topics for Discussion

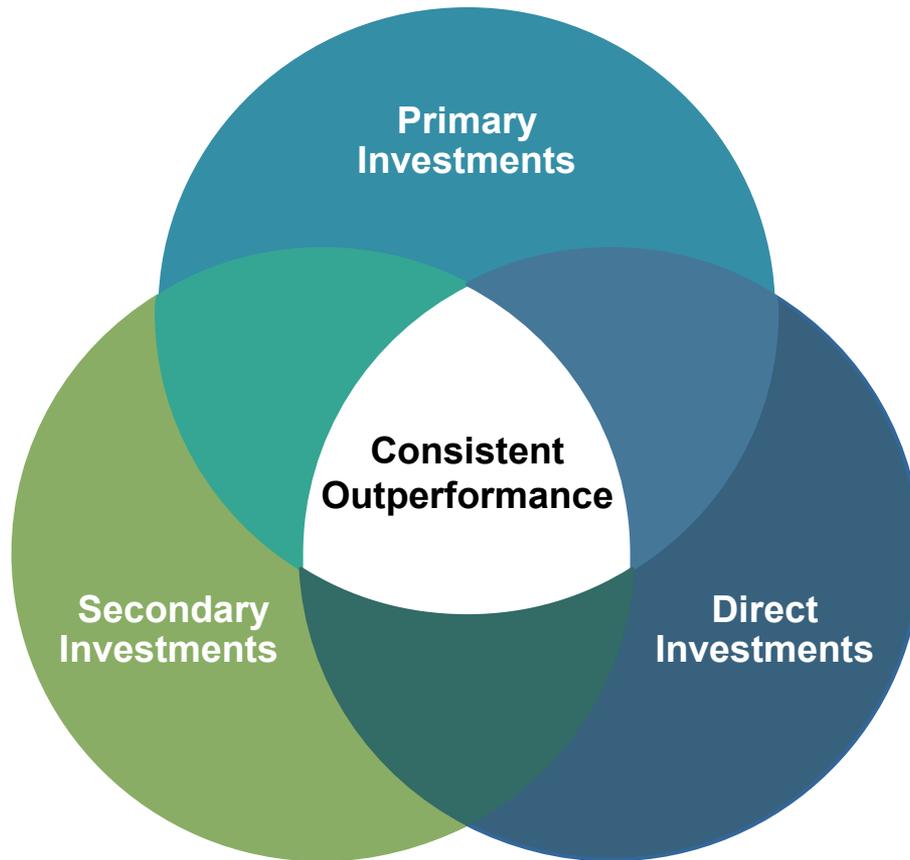
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VCERA Portfolio Review	9
Adams Street 2015 Global Program	23
Appendix	27



Adams Street Update

Adams Street Partners

A Proven Track Record Since 1972



- Shared insights across three global teams = better deal flow, due diligence and portfolio monitoring
- \$27 billion* in assets under management:
 - 850+ fund investments
 - 230+ venture/growth investments
 - 75+ co-investments
 - 160+ secondary transactions
 - 290+ General Partner relationships
 - 320+ current advisory board seats
- Independent and 100% employee-owned with broad alignment of interests
- Signatory to the United Nations Principles for Responsible Investments (UNPRI)

Recent Organization Announcements

April 2014 – March 2015

- **Hanneke Smits**, announced in July 2014 that she had decided to leave the firm at year end 2014
- **Jeff Diehl**, Partner on the Direct Venture/Growth Team since 2000, joined our Executive Committee and was named Head of Investments
- **Kelly Meldrum**, Partner on the Primary Team since 2005 , was named Head of Primary Investments
- In January 2015, **Bon French**, Chairman and CEO, announced Adams Street's vision for leadership transition over the course of the next few years leading up to his planned retirement at the end of **2017**.
 - **Jeff Diehl** will assume the role of Managing Partner effective July 1, 2015
 - Bon will be Chairman of the firm and remain actively involved in all parts of ASP's investment process and management through year end 2017
 - Bon and Jeff will work closely over the next three years to ensure an orderly transition of duties



VCERA Portfolio Review

- **Recent private equity performance is strong**
- **Exit markets, and particularly the IPO market, are robust and open**
 - Abundant liquidity being generated by GPs in many subclasses on a global basis
- **High valuation environment persists, in both the venture and buyout spaces, but GPs exercising caution**
 - Anticipating an eventual increase in interest rates and/or a public market correction
- **Credit markets are robust, but thoughtful**
 - Many key buyout metrics near pre-crisis levels
- **Fundraising is at a healthy level, but continues to be bifurcated across firms**
- **Secondary market volume up, but pricing frothy; challenging environment for new deals**
- **In more advanced emerging economies, private equity is growing in depth and breadth**
 - Expanding middle class driving growth, and disruptive new business models abound

Adams Street Partners

An Integrated Global Offering

Ventura County Employees' Retirement Association
2010 Global Program - \$85 million
2013 Global Fund - \$75 million

	US Fund	Developed Markets Fund	Emerging Markets Fund	Direct Fund
Allocation	\$42.5m (2010) \$37.5m (2013)	\$25.5m (2010) \$18.75m (2013)	\$8.5m (2010) \$11.25m (2013)	\$8.5m (2010) \$7.5m (2013)
Geography	US and Canada	Developed Europe and Developed Asia	Asia, Developing Europe, Russia, Latin America, Africa and the Middle East	Predominantly US
Secondary & Co-Investments*	Target 20-25%	Target 10-15%	Target 5-10%	n/a

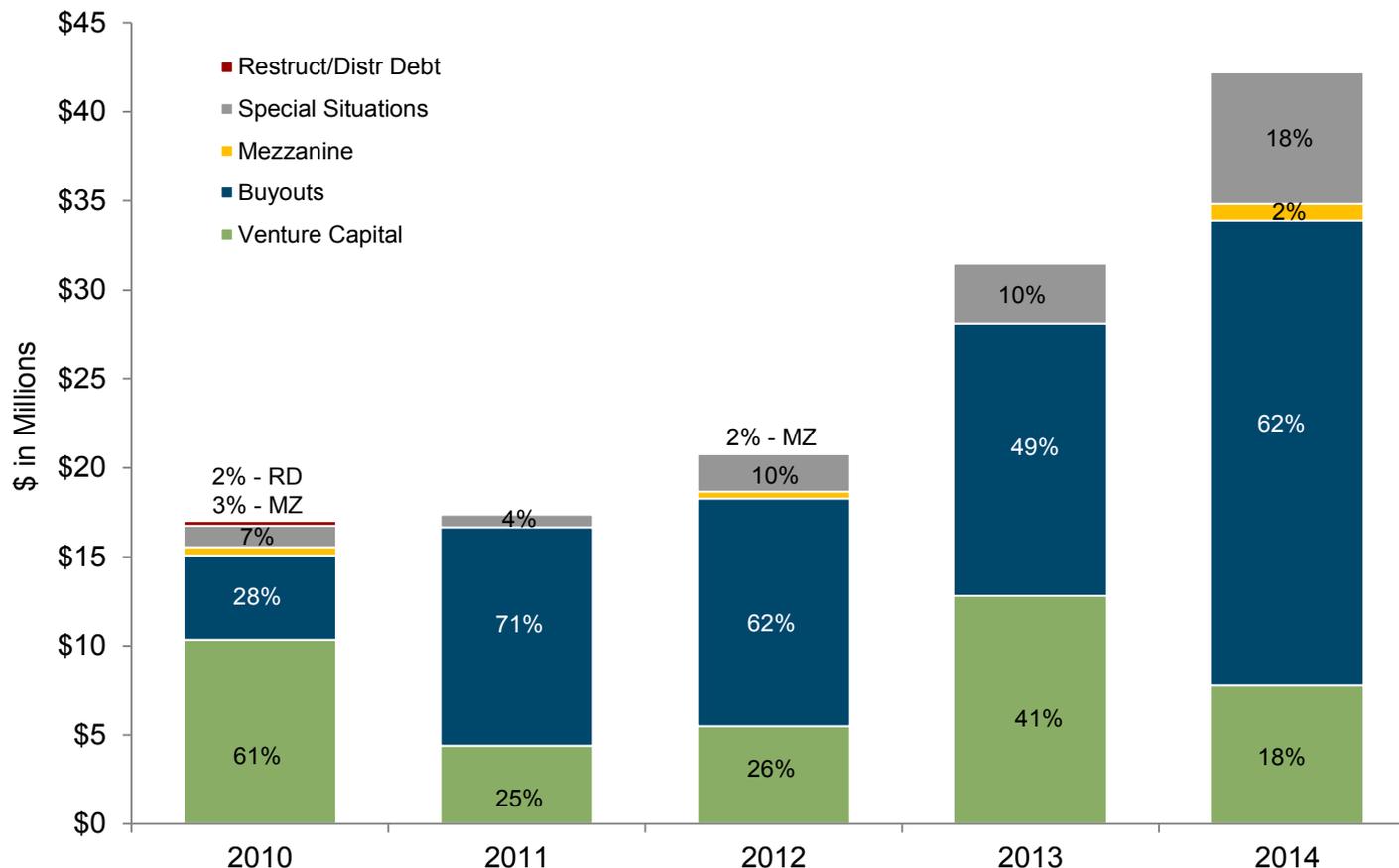
- Annual Program allowing investors flexibility in planning their commitments
- Access to top-performing investments across the entire global private equity opportunity set
- Diversification across five dimensions — strategy (primary, secondary, co-investments and direct venture / growth), time, manager, subclass and geography

Global program allocation can be adjusted to meet specific investor goals and preferences

* Targets based on 2013 Global Program

Ventura County Employees' Retirement Association

Diversification of Underlying Investment Commitments by Vintage Year
Total Portfolio as of September 30, 2014



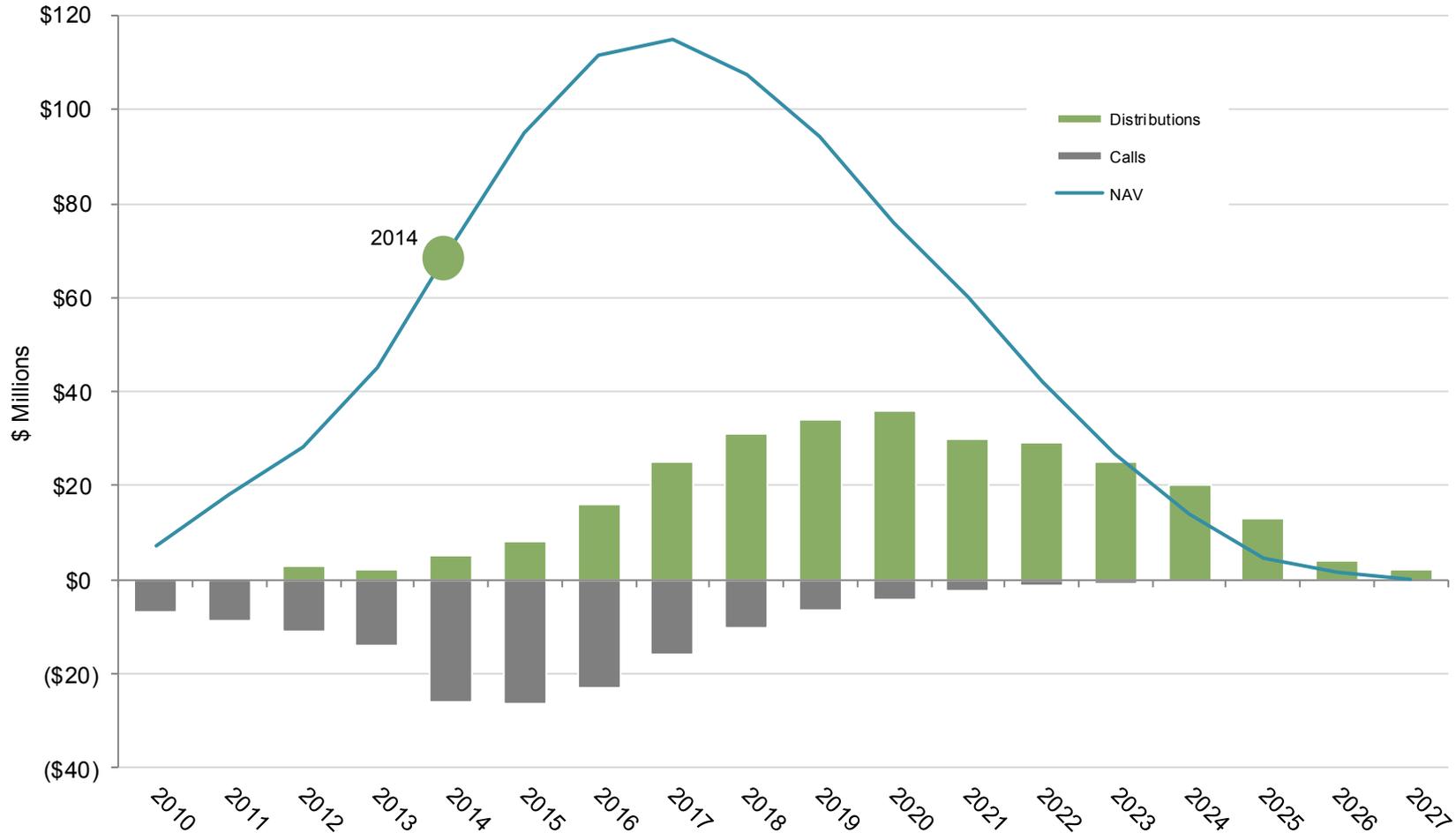
Partnership IRR @ 9/30/14	19.7%	20.3%	18.1%	N/A	N/A
PE Quartile*	1 st	1 st	2 nd	N/A	N/A

* The Burgiss data presented here includes a global set of funds which are invested on a primary basis in venture capital, buyout, and other strategies and excludes secondary investments. Numbers are subject to updates by Burgiss. Burgiss is a recognized source of private equity data, and the Burgiss Manager Universe includes funds representing the full range of private capital strategies; it may not include all private equity funds and may include some funds which have investment focuses that Adams Street Partners does not invest in. Data and calculations by Burgiss, sourced on January 7, 2015.

Ventura County Employees' Retirement Association

Net Asset Value, Capital Calls and Distributions (Actual and Projected)

Represents existing 2010 and 2013 Global Programs, assuming no new investments



NAV should build through 2017, then decline as distributions increase and calls decrease

Estimate/Projected
\$280M distributed
\$160M called

Ventura County Employees' Retirement Association

Subscriptions to ASP Global Programs: \$160,000,000

Total Portfolio as of September 30, 2014

	Subscription	Investment Commitments	Amount Drawn	Market Value (NAV)	Distributions Received (D)	Total Value (NAV + D)	Net IRR 1-Year	Net IRR Since Inception	Total Value / Amount Drawn	Inception Date
ASP 2010 Global Program	\$85,000,000	\$85,002,471	\$45,181,750	\$50,575,332	\$7,460,938	\$58,036,270	18.52%	13.13%	1.28x	5/2010
- 2010 US Fund	\$42,500,000	\$42,544,451	\$21,037,500	\$24,105,324	\$4,710,295	\$28,815,619	20.46%	15.55%	1.37x	5/2010
- 2010 Non-US Developed Fund	\$25,500,000	\$25,723,774	\$12,048,750	\$12,007,646	\$1,887,946	\$13,895,592	8.80%	7.87%	1.15x	5/2010
- 2010 Emerging Markets Fund	\$8,500,000	\$8,234,246	\$4,573,000	\$4,938,914	\$0	\$4,938,914	21.49%	5.63%	1.08x	1/2011
- 2010 Direct Fund	\$8,500,000	\$8,500,000	\$7,522,500	\$9,523,448	\$862,697	\$10,386,145	25.74%	15.67%	1.38x	5/2010
ASP 2013 Global Fund	\$75,000,000	\$49,711,421	\$13,012,500	\$13,502,937	\$0	\$13,502,937	10.49%	6.02%	1.04x	6/2013
ASP Program Total	\$160,000,000	\$134,713,892	\$58,194,250	\$64,078,269	\$7,460,938	\$71,539,207	17.26%	12.65%	1.23x	

Thru 9/30/2014	Committed / Subscription	Drawn / Committed	Distributed / Drawn
2010 Subscription	100%	53%	17%
2013 Subscription	66%	26%	0%
Total	84%	43%	13%

Activity Since 9/30/2014 (10/1/2014 - 2/28/2015)
Commitments*: \$3,145,100
Draws: \$11,709,500
Distributions: \$2,298,351

**Though early in its lifecycle,
the ASP Global Program has generated positive returns, and
has already begun returning capital to VCERA**

* Q4 2014 Commitments

Performance early in a fund's life is not generally meaningful due to fee drag and immature investments.

A Unique Platform with Multiple Strategies

A complete list of portfolio investments is available upon request.

Primary

US

ANDREESSEN
HOROWITZ

BENCHMARK

THE
ENERGY & MINERALS
GROUP



INDUSTRIAL
OPPORTUNITY
PARTNERS

ABRY
PARTNERS

Berkshire Capital

ODYSSEY INVESTMENT PARTNERS, LLC

Non-US

Index
Ventures

ACCEL
INDIA

HITECVISION



LATOR
CAPITAL



OAKLEY
CAPITAL



G SQUARE
HEALTHCARE PRIVATE EQUITY

Secondary

GP-constrained Process

Project Racer – 2014

\$76m total purchase of 3 fund interests managed by same GP who accommodated seller's desire for efficient, confidential process by working exclusively with ASP on diligence and transfer.

Growth and Low Leverage

Project Tape – 2013

EUR23m purchase of European growth equity fund with attractive portfolio of high-growth, market-leading businesses.

Undervalued Assets

Project Henry – 2012

\$80m purchase with attractive LT demand drivers for underlying assets and embedded reserves well above GP values.

Unique Portfolio Play

Project Newgrange – 2011/2012

€130m purchase of 7 fund interests managed by 6 GPs "cherry-picked" from seller's portfolio in consultative negotiation to achieve overlap with target secondary funds for ASP and attractive price for buyer and seller.

Direct VC and Co-Investment



SPICEWORKS



Sabre Holdings



AMERICAN ENERGY
UTICA



Performance Contributors and Detractors to Date

Total Portfolio (2010 and 2013 Global Programs) as of September 30, 2014

■ Contributors

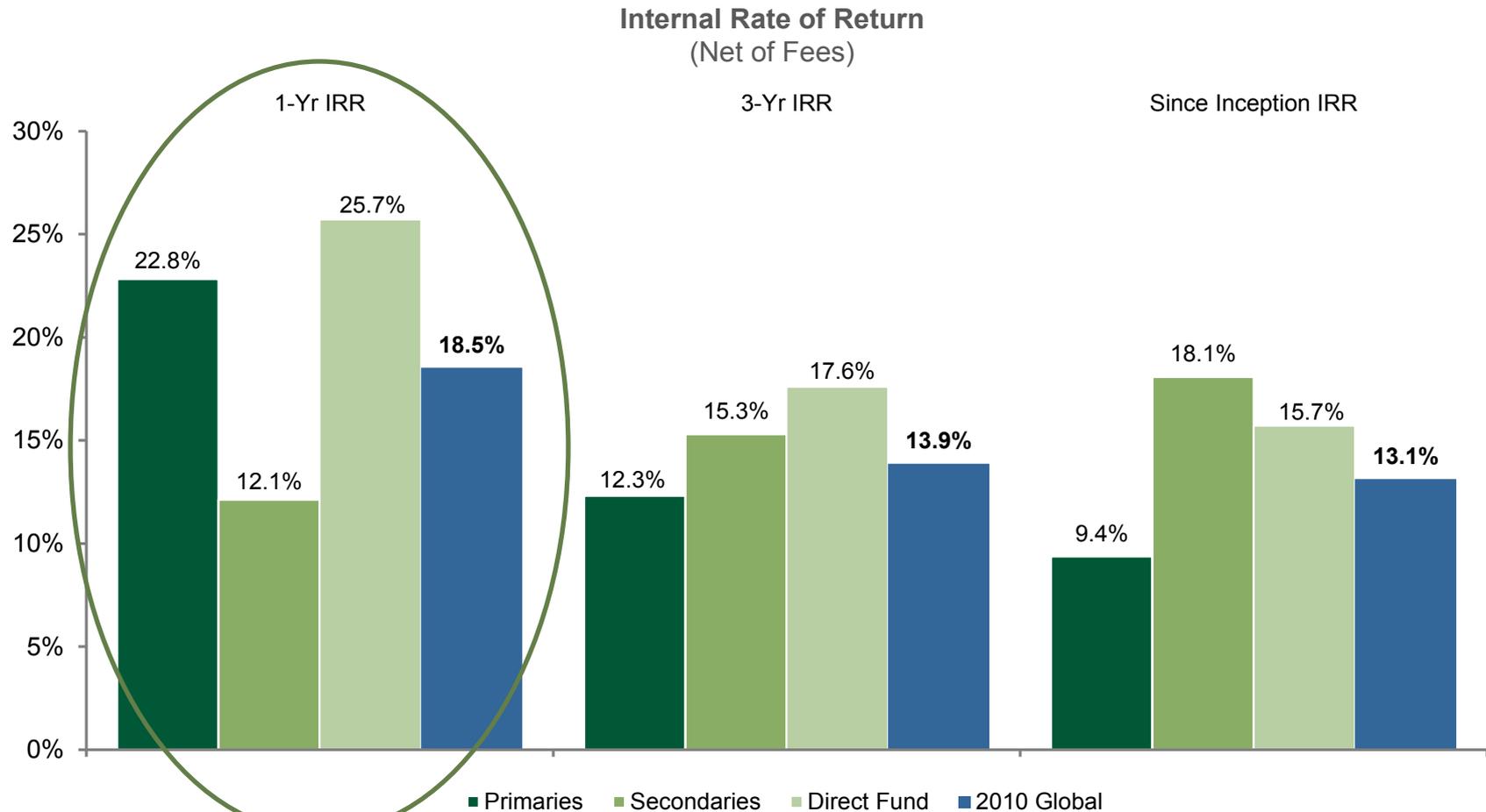
- **Secondary investments** – mature, high quality assets purchased at discount relative to prevailing valuations have performed strongly and are generating early liquidity **(+24.2% IRR)**
- **Primary investments in venture capital funds** - strong returns in early stage IT focused venture funds have taken advantage of attractive purchase prices, followed by improved exit markets and receptive public markets **(+22.8% IRR)**
- **Direct Funds** - mix of multi-stage IT and healthcare venture investments made to date are performing well, with some early exits via IPO and strategic acquisitions driving early distributions **(+14.2% IRR)**

■ Detractors

- **Primary investments in buyout funds** – although posting a strong last twelve months (+17.4%), buyouts got off to slower start than other areas of the portfolio. Investments are in earlier stages of lifecycle than other areas of the portfolio, but are beginning to mature and drive value **(+10.5% IRR)**
- **Emerging Market Funds** – Posted a strong last twelve months (+21.5%), but EM allocation started more slowly than other areas of portfolio. Investments are now maturing and have made their way through the j-curve. **(+5.6% IRR)**

Ventura County Employees' Retirement Plan

Complementary strategies drive long term value creation
2010 Global Program as of September 30, 2014



As Global Program matures, performance drivers shift from secondaries to primaries and Direct Fund

ASP is looking for managers with the skills and experience to navigate through and invest successfully in changing and maturing markets.

US Themes

- ✓ Global Innovation in Technology Markets
- ✓ Healthcare 2020
- ✓ Re-Industrialization of US and Shale Boom
- ✓ Changing Preferences of Consumers

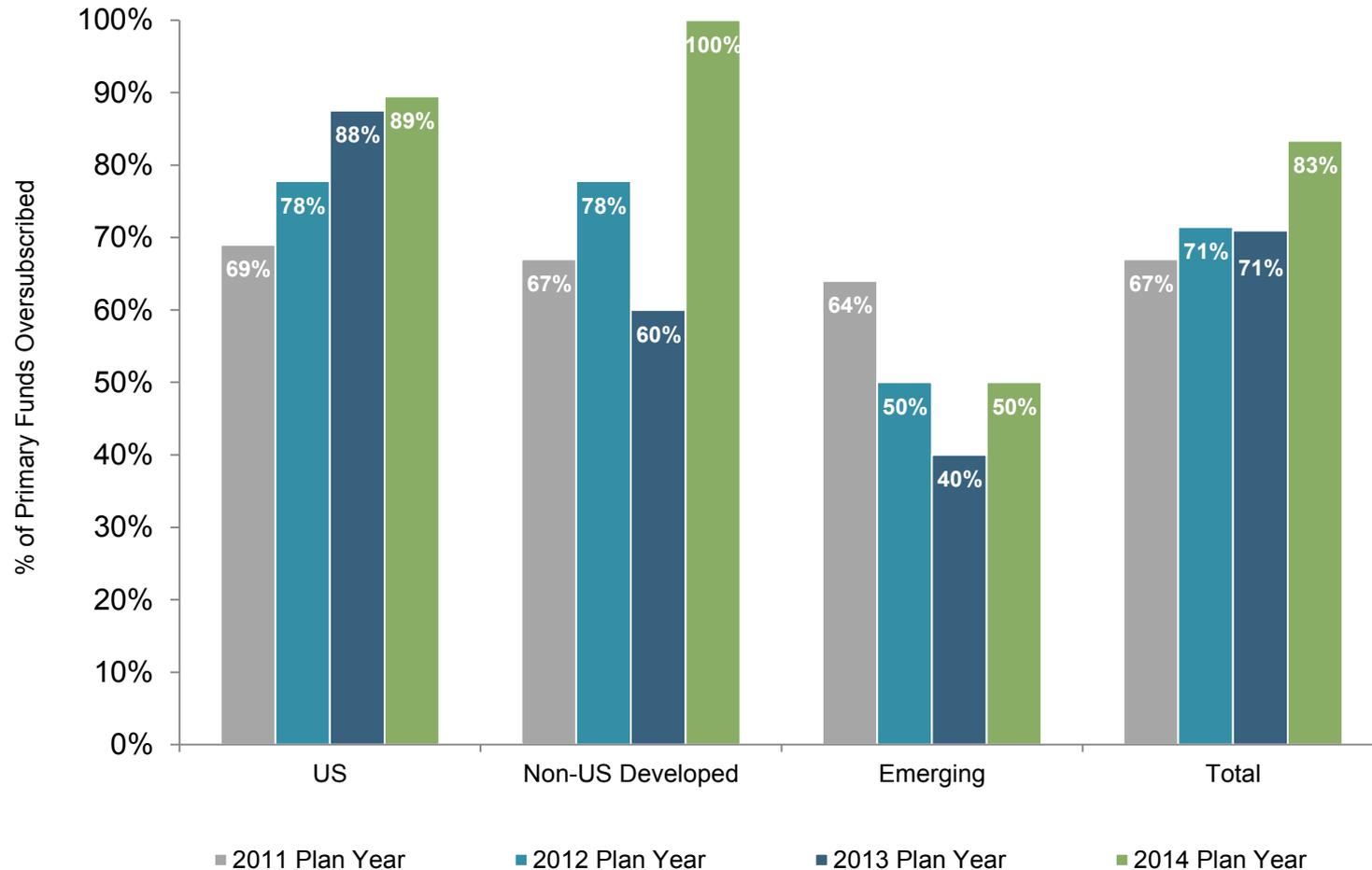
Non-US Themes

- ✓ Secular Growth
- ✓ Healthy Economies
- ✓ Globalization / Internationalization

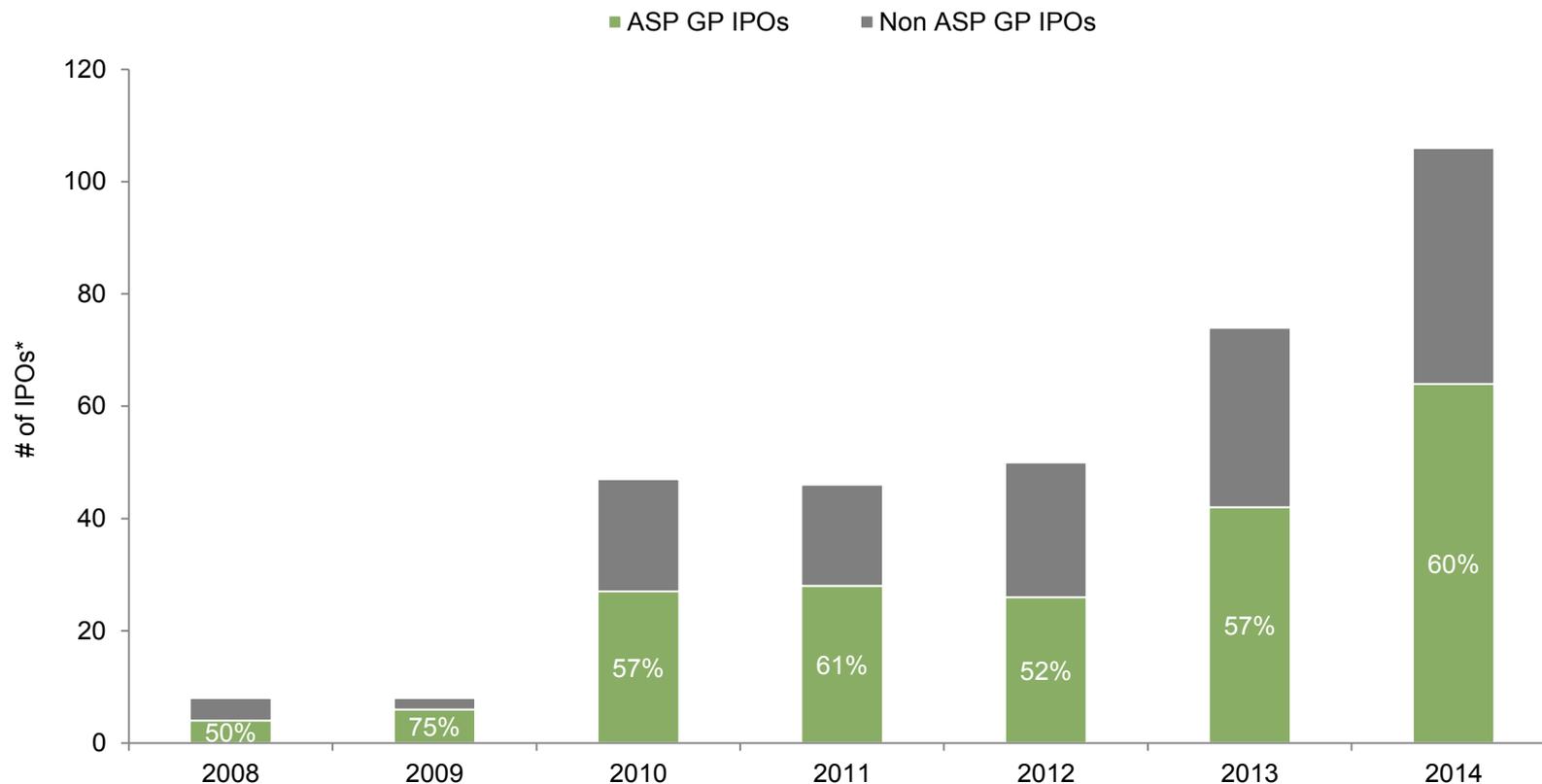
Differentiated Value Creation

ASP Primary Commitments

Access to Best Funds is Important



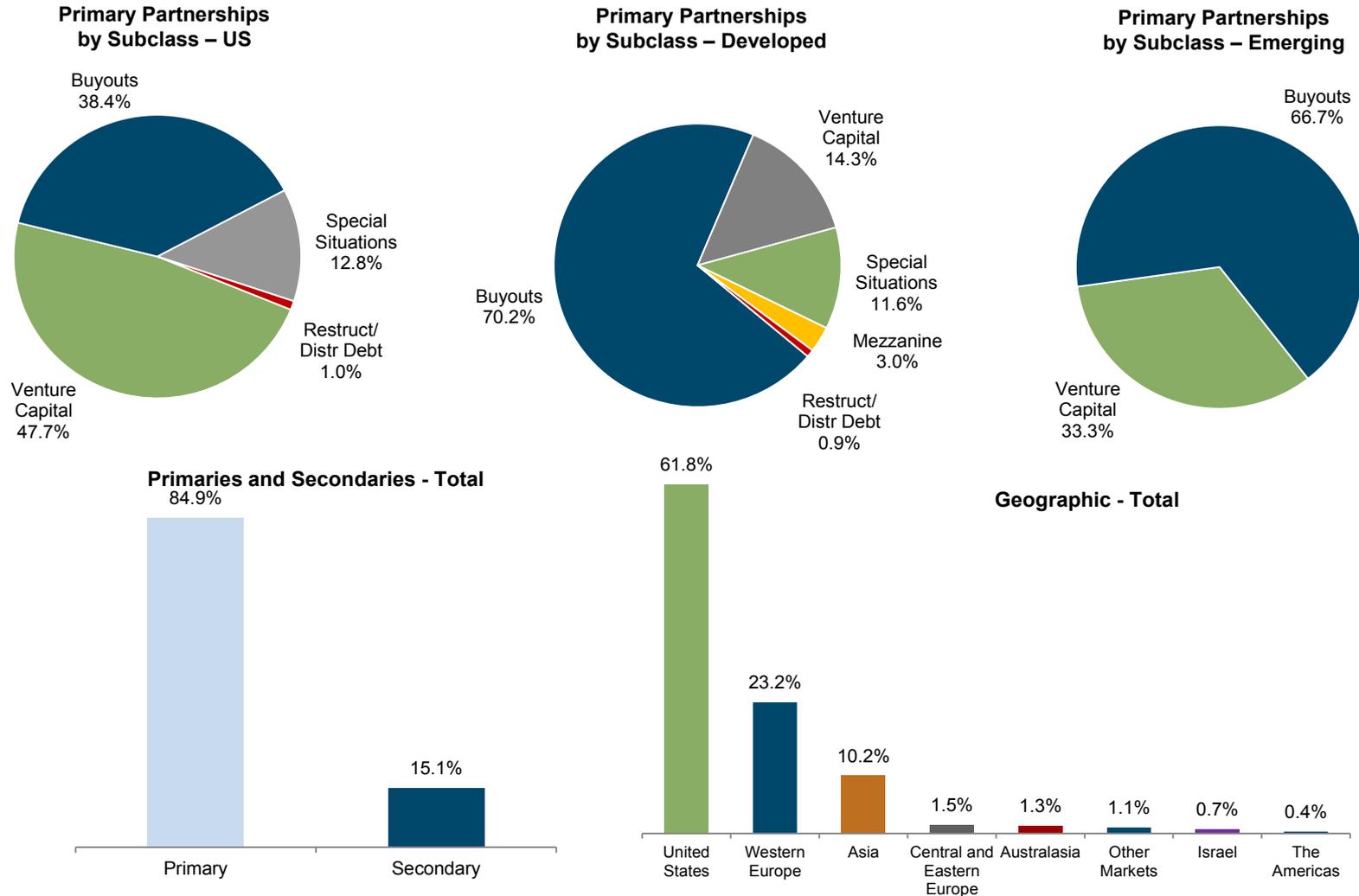
Adams Street Has Strong Share of Venture-Backed US IPOs¹



Adams Street has captured more than 50% of the US venture-backed IPOs while having only invested in ~5% of the venture funds raised

* All IPOs of US-based companies going public on any exchange, including exchanges outside the United States, owned by venture capital funds in which Adams Street Partners' Core Portfolios invested on a primary basis. "Core Portfolios" are funds and separate accounts (excluding special mandate funds and non-discretionary separate accounts) of which Adams Street Partners is the general partner, manager or investment adviser (as applicable) and for which Adams Street Partners makes discretionary investments in private equity funds. Core Portfolios include separate accounts no longer with Adams Street Partners.

Diversification of Investment Commitments* Total Portfolio as of September 30, 2014



* Calculated by applying the participant's respective ownership percentage to the underlying investment commitments.

Confirmation of Compliance

Ventura County Employees' Retirement Association is an investor in Adams Street US Fund 2010 LP, Adams Street Non-US Developed Fund 2010 LP, Adams Street Emerging Markets Fund 2010 LP, Adams Street Direct Fund 2010 LP and Adams Street Global Fund 2013 LP (the "Funds"). The Funds' general partner, Adams Street Partners, LLC, hereby certifies that, to the best of its knowledge, the Funds are in compliance in all material respects with the terms of their respective limited partnership agreements and applicable rules and regulations throughout the year ended December 31, 2014.



Adams Street 2015 Global Program

Adams Street Partners

2015 Global Private Equity Program

2015 Global Fund			
	US Fund	Non-US Fund	Direct Fund
Allocation	55%	35%	Up to 10%
Geography	US and Canada	Developed and Emerging	Predominantly US
Secondary & Co-Investments	Target 25-30%	Target 25-30%	n/a

- Annual Program offered since 1996 allowing investors flexibility in planning their commitments
- Access to top-performing investments across the entire global private equity opportunity set
- Diversification across five dimensions — strategy (primary, secondary, co-investments and direct venture / growth), time, manager, subclass and geography
- Global fund offering established for administrative convenience

Global program allocation can be adjusted to meet specific investor goals and preferences

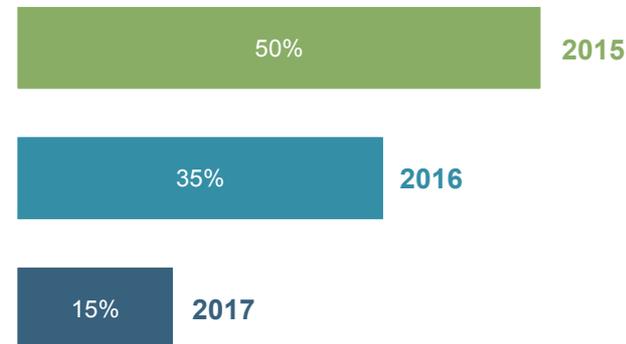
* This is the global investment portfolio recommended by Adams Street Partners and chosen by a majority of our investors. This global program allocation, however, can be adjusted to meet specific investor goals and preferences.

2015 Global Private Equity Program

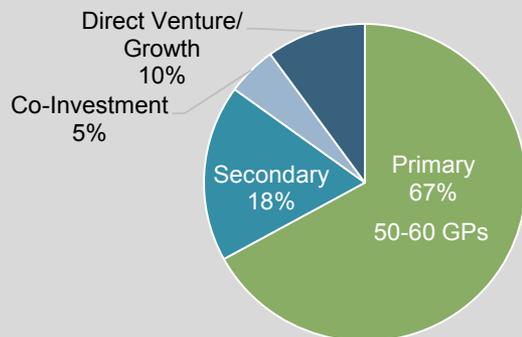
Global Fund Projected Allocations*



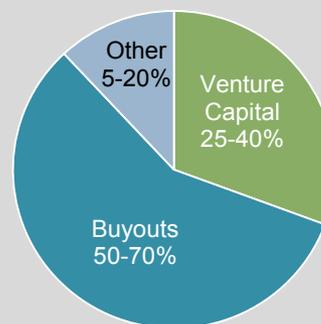
Commitment Pace



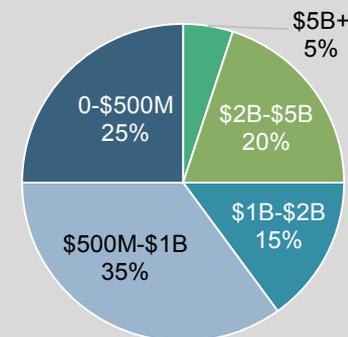
Strategy Type



Subclass



Primary Buyout Fund Sizes



*Actual allocations will differ once the Program is fully invested.

Key Terms and Conditions

Adams Street 2015 Global Fund LP*

Target Commitment Period	3 years	
Investment Mix	Expected portfolio ranges: 60-75% primaries; 20%-30% secondaries and co-investments; up to 10% direct venture/growth equity	
Partnership Fund** Management Fees	<u>Subscription Amount</u>	<u>Average Annual Fee***</u>
	First \$25 million	69 basis points
	Over \$25 million up to \$50 million	62
	Over \$50 million up to \$100 million	52
	Over \$100 million up to \$150 million	34
	Amounts Over \$150 million	28
	During the first three years of the Fund, fees are based on <i>the actual amount of capital</i> committed to underlying investments, and fees decline in the later years of the Fund.	
Credit for Prior Subscriptions	A credit amount for prior subscriptions (including other Adams Street offerings) may be applied towards the management fee schedule.	
Carried Interest	10% on secondary and co-investments; no carried interest on primary investments.	
Direct Fund Management Fees	The portion of a participant's subscription that is allocated to the Direct Fund will be assessed an annual fee of 2% and 20% carried interest.	

* Adams Street 2015 Global Fund LP solely invests in the Adams Street 2015 US Fund LP, the Adams Street 2015 Non-US Fund LP and the Adams Street 2015 Direct Fund LP.

** The term Partnership Fund refers to the Adams Street US Fund LP and Adams Street 2015 Non-US Fund LP.

*** Average Annual Fee refers to the rate charged on subscription amount, assumes a 15-year life and a commitment pace of 28% year one, 42% year two, 24% year three, and 6% in year four. For example, an investor committing \$50 million would have an average Annual Fee of 69 bps on the first \$25 million and 62 bps on the second \$25 million.



Appendix

Investment Professionals

As of February 18, 2015

Name	Office	Title	Years of Private Equity Experience	Degrees and Professional Certifications	Languages
Executive Committee Members					
T. Bondurant French	Chicago	Chairman and Chief Executive Officer	32	BA, MBA, CFA	
Jeffrey Diehl	Chicago	Partner, Head of Investments	14	BS, MBA	
Terry Gould	Chicago	Partner, Head of Direct Investments	26	BA, MBA	
Primary Investment Team					
David Arcauz	London	Partner	15	BA, LL.M., CFA	French, German
Jeffrey Burgis	Chicago	Partner	13	BA, MBA, CPA	
Adam Chenoweth	Chicago	Senior Associate	7	BS, CFA	
Arnaud de Cremiers	London	Partner	13	MA, MS	French
Thomas Gladden	Chicago	Partner	14	BA, MS	
Doris Yiyang Guo	Beijing	Principal	7	BE, CICPA	Mandarin
James Korczak	Chicago	Partner	15	BBA, MBA, CPA	
Kelly Meldrum	Menlo Park	Partner, Head of Primary Investments	24	BS, CFA	
Sunil Mishra	Singapore	Partner	7	BE, MBA	Hindi
Ross Morrison	London	Principal	13	BS, ACA	
Sergey Sheshuryak	London	Partner	16	MBA, MS	German, Russian
Yar-Ping Soo	Singapore	Partner	18	BCom, MBA, CFA, CPAA	Cantonese, Hokkien, Malay, Mandarin
Piau-Voon Wang	Singapore	Partner	19	BAcc, CFA	Cantonese, Hakka, Malay, Mandarin
Katherine Wanner	Chicago	Partner	18	BS, MBA	
Morgan Webber	Boston	Principal	7	BA, MBA	
Secondary Investment Team					
Jeffrey Akers	Chicago	Partner	12	BS, MBA	
Troy Barnett	Chicago	Partner	13	BS, MBA, CFA	
Charles Denison	Chicago	Principal	6	BS, MBA	
Joseph Goldrick	Chicago	Principal	9	BBA, MBA	
Jason Gull	Chicago	Partner, Head of Secondary Investments	18	BA, MBA, CFA	French
Gregory Holden	London	Partner	12	BBA, MBA, CPA	
Eva Chongshan Huang	Singapore	Senior Associate	6	BS	Mandarin
Pinal Nicum	London	Partner	14	BSc, ACA	Hindi, Marathi
Joel Niekamp	Chicago	Senior Associate	4	BS	

Investment Professionals

As of February 18, 2015

Name	Office	Title	Years of Private Equity Experience	Degrees and Professional Certifications	Languages
Direct Investment Team					
Thomas Bremner	Chicago	Principal	6	BS, MBA, CFA	Spanish
Robin Murray	Menlo Park	Partner	17	BS, MBA, ACA	
David Welsh	Menlo Park	Partner	15	BA, JD	
Michael Zappert	Menlo Park	Principal	8	BA, MS	
Co-Investment Team					
David Brett	Chicago	Partner, Head of Co-Investments	27	BS, MBA, CPA	
Sachin Tulyani	London	Partner	15	BE, MBA, CAIA, CFA	Hindi
Benjamin Wallwork	London	Principal	<1		
Craig Waslin	Chicago	Partner	17	BA, MBA, CFA	
Strategy Team					
Miguel Gonzalo	Chicago	Partner, Head of Investment Strategy	14	BA, MBA, CFA	
Associates					
Alexandros Bozoglou	London	Associate	<1	BA	Greek
Nicolo Colombo	London	Associate	1	BSc, MSc	Italian
Brian Dudley	Menlo Park	Associate	2	BS	
Sarah Finneran	Chicago	Associate	3	BS	
Eric Klen	Chicago	Associate	<1	BS, Series 63	
Dominic Maier	London	Associate	3	BS, ACA	Croatian, Swedish
Chin Bock Seng	Singapore	Associate	1	BAcc	Mandarin
Samuel Shanley	Chicago	Associate	<1	BBA	
Michael Taylor	Chicago	Associate	3	BA	
Kristof Van Overloop	London	Associate	3	BS, MA, MA	Dutch, French
Michaela Venuti	Menlo Park	Associate	<1		
Jared White	Chicago	Associate	2	BA	
Ling-Jen Wu	Singapore	Associate	5	BS	Hokkien, Mandarin
Investment Analytics					
Raymond Chan	Chicago	Partner, Head of Risk Management and Advanced Analytics	12	BS, MS, CFA, FRM	Cantonese, Mandarin
Earl Richardson	Chicago	Partner	11	BBA, MS, CFA	
Tobias True	Chicago	Principal	3	BS, MBA, CFA, FRM	
Jian Zhang	Chicago	Principal	2	BS, MS, PhD	Mandarin, Norwegian

Scott Hazen, CFA

Partner, Chicago



EDUCATION:

University of Notre Dame,
magna cum laude, BBA

University of Chicago, MBA

**YEARS OF INVESTMENT/
OPERATIONAL EXPERIENCE:**

22

- Scott is a Partner and member of the Client Service team. He works closely with clients in the management of their portfolios, including providing assistance in the development and monitoring of their private equity programs. Additionally, he is actively involved in the portfolio construction and ongoing monitoring of the various fund of funds programs and separate accounts. Scott is also involved in the tracking and analysis of portfolio performance measurement and in the development of consultant relationships.
- Prior to joining the Firm, Scott was an Executive Director and US Equity Strategist with UBS Global Asset Management focusing on portfolio management and client communication responsibilities.
- Prior to this, Scott was an Executive Director and Institutional Client Advisor with UBS Global Asset Management focusing on business development and client relationship management.
- Scott is a member of the CFA Institute and the CFA Society of Chicago.

Katherine Wanner

Partner, Chicago



EDUCATION:

University of New York at
Binghamton, BS

Northwestern University,
Dean's List, MBA

**YEARS OF INVESTMENT/
OPERATIONAL EXPERIENCE:**

27

- Kathy is a Partner and serves on the Adams Street Partners Primary Investment Committee, which is responsible for implementing strategy and approving all primary portfolio investments. She focuses on the US portfolio and is responsible for managing relationships with several of Adams Street's managers including Battery Ventures, Cortec, Water Street and Warburg Pincus. Kathy sits on advisory boards for seven private equity firms within the Adams Street Partners portfolio.
- Kathy joined the Private Equity Group in 1998 after five years with the Brinson Partners Financial group, where she was responsible for the revenue cycle, statistical analysis and market research. In addition, she has five years' experience in statistical modeling, reporting, tracking and analysis as a Senior Financial Analyst with Frontier Risk Management/Range Wise, Inc. in Chicago and Morgan Stanley & Company in New York.



Pantheon Update

Prepared for Ventura County Employees' Retirement Association

March 16, 2015

Presenting to you today



Matt Garfinkle, Partner (joined 1999, 17 years of private equity experience)

Matt leads Pantheon's San Francisco secondary team and is a member of the Global Secondary Investment Committee as well as the Global Infrastructure Committee. Matt assists in the sourcing, evaluation, structuring, execution and monitoring of North American secondary investment opportunities. He also participates in fund monitoring, firm marketing and client reporting. Matt joined Pantheon in July 1999, having worked the previous three years with Cambridge Associates in their Boston and Menlo Park offices. Matt received a BA in history and economics from Brown University, and is a CFA charterholder. Matt is based in San Francisco.

matt.garfinkle@pantheon.com



Sprague Von Stroh, Vice President (joined 2007, 8 years of private equity experience)

Sprague focuses on client servicing and marketing efforts in North America. Previously, Sprague was an associate at Grosvenor Capital Management, L.P., a hedge fund of funds in Chicago. Prior to that, Sprague was an institutional sales associate at Fulcrum Global Partners, L.P., a sell-side research and brokerage firm in Chicago, where she worked on the sales and trading desk. Sprague held internship positions at Prudential Securities, Bourgeon Capital Management, LLC, and Fulcrum Global Partners, L.P. while attending Colgate University, where she received a BA in psychology with an emphasis in research. Sprague is based in San Francisco.

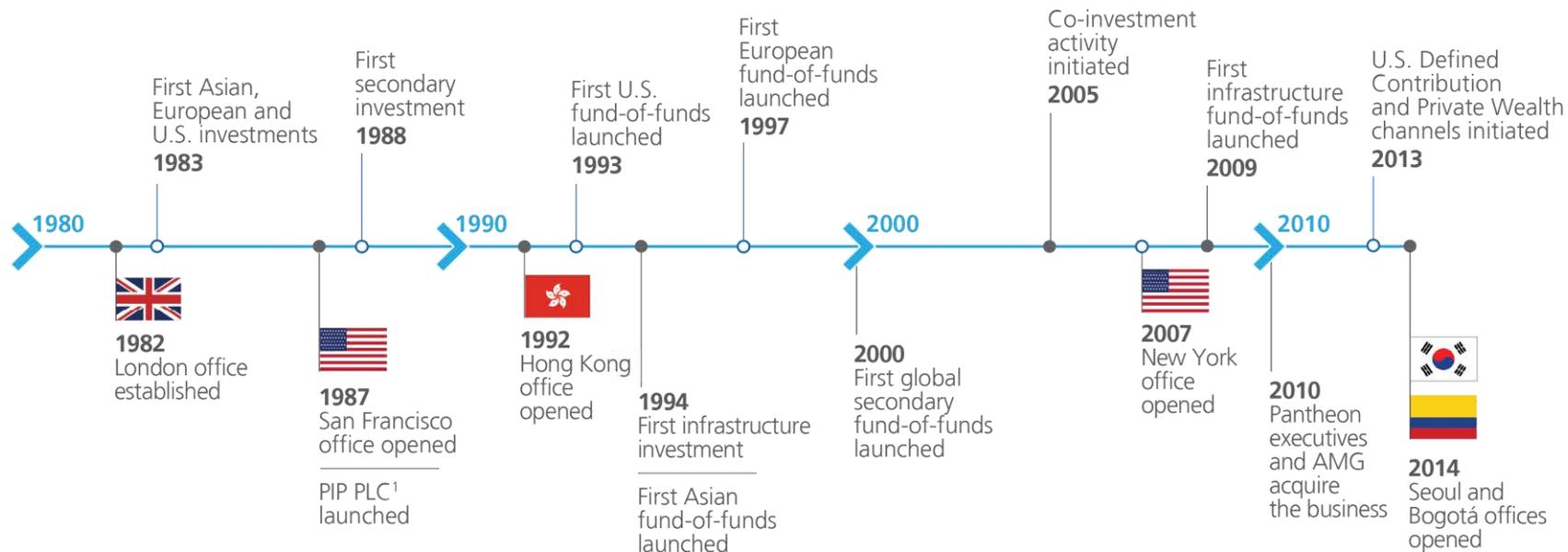
sprague.vonstroh@pantheon.com

Agenda

- > Pantheon Overview
- > Summary of Commitments
- > Market Update
- > Pantheon Global Secondary Fund Updates
- > Appendix
 - Track Record

Pantheon Overview

Investing in private markets assets for over 30 years



72 investment professionals²

\$31.4bn funds under management³

8,000 GPs in Pantheon's database

Pantheon holds over **285** advisory board seats

Over **370** individual institutional clients globally

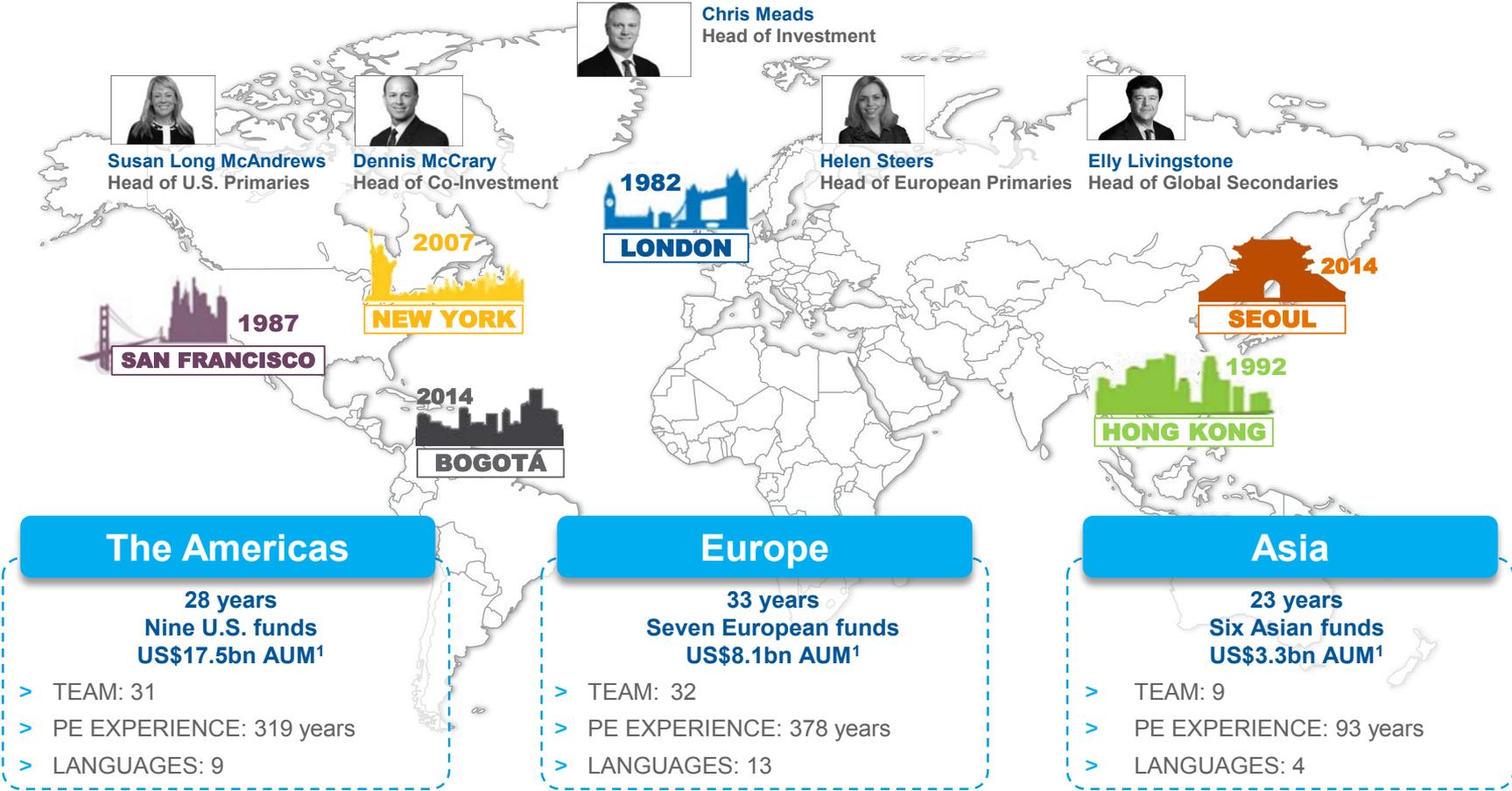
30 years of investment experience covering global private markets

¹ Pantheon International Participations PLC

² As of March 1, 2015

³ As of September 30, 2014. This figure includes assets subject to discretionary or non-discretionary management, advice or those limited to a reporting function

Global capabilities



As of March 1, 2015
¹ As of September 30, 2014

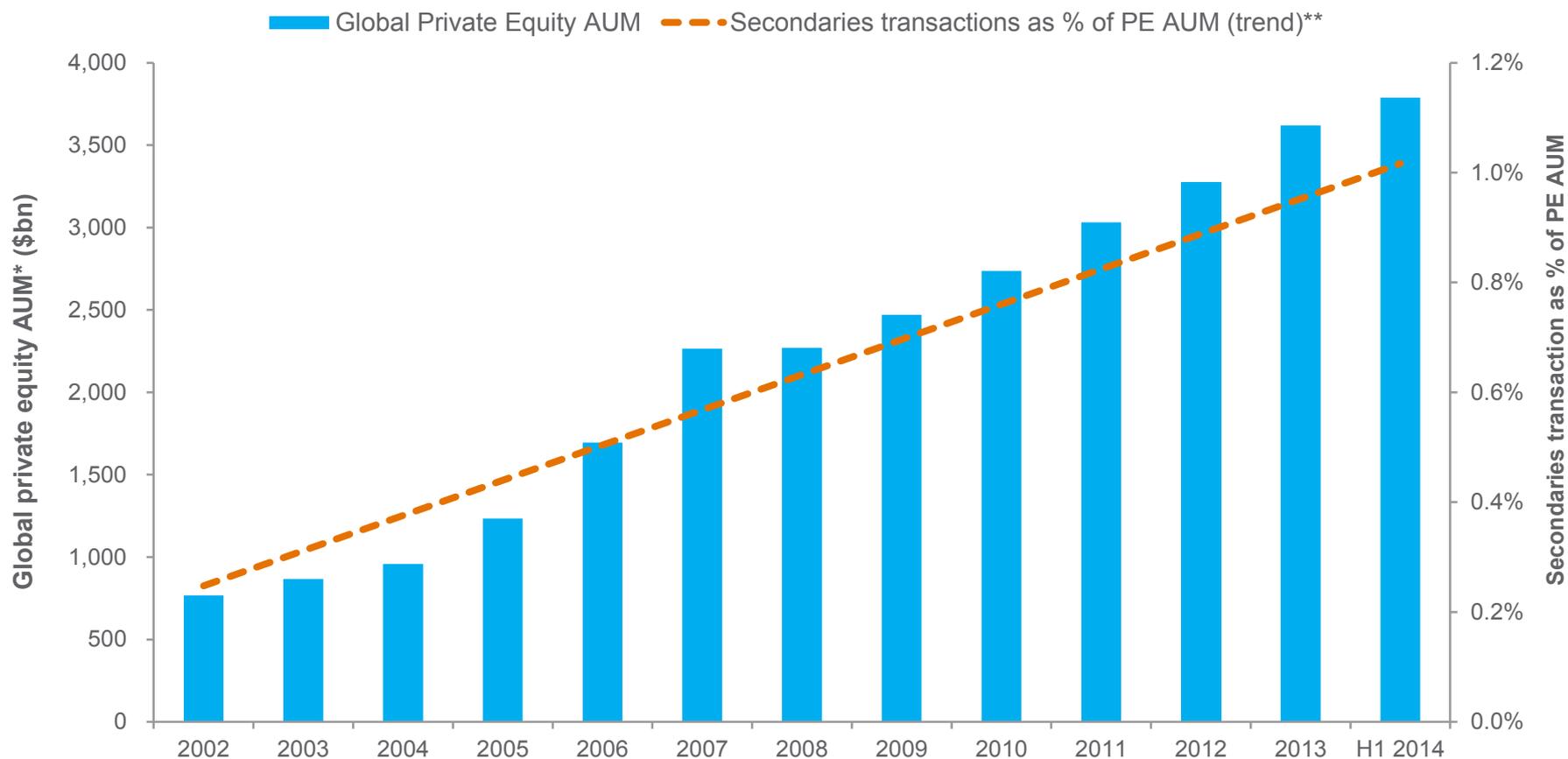
Summary of Commitments

Ventura County Employees' Retirement Association

- \$15.0 million in Pantheon Global Secondary Fund IV
- \$50.0 million in Pantheon Global Secondary Fund V

Market Update

Secondary market supply is growing...



Sources: *2015 Preqin Investor Network Global Alternatives Report, 2014 data as at June 30, 2014. PE AUM defined as unrealised value plus uncalled capital held by private equity funds at the calendar year end; **Cogent Partners – Secondary Market update, January 2015. Secondary PE Market volume: - 2002: \$1.9bn, 2003: \$5.0bn, 2004: \$7.0bn, 2005: \$6.7bn, 2006: \$10.0bn, 2007: \$18.0bn, 2008: \$20.0bn, 2009: \$10.0bn, 2010: \$22.5bn, 2011: \$23.0bn, 2012: \$22.5bn, 2013: \$24.5bn, 2014: \$38.0bn.

...but the opportunity requires navigation

PGSF V investment period (2015 – 2017)

- > QE unwinding in the U.S.
- > Implementation of financial regulations
- > Pensions and financial institutions dominate seller universe
- > Duration of Private Equity funds increasing
- > Concentrated value opportunities



Factors for success

- > Global origination
- > Deep General Partner relationships
- > Targeted investment strategy
- > Information edge to identify undervalued assets
- > Ability to structure and execute
- > Speed

Pantheon Global Secondary Fund Updates

Summary of Commitments

Ventura County Employees' Retirement Association

Fund	Vintage	Commitments (million)	Contributions since inception (million)	Distributions since inception (million)	Net IRR	Net Multiple
PGSF IV L.P. ¹	2010	\$15.0	\$9.9	\$4.3	20.5%	1.45x
PGSF V L.P.	2014	\$50.0 ²	\$7.5 ³	-	-	-

¹Data as of September 30, 2014. ²Commitment made on February 6, 2015. ³Contribution made on February 26, 2015.

Note: The figures in this table are subject to rounding

Estimated Net Asset Value (Roll Forward)

Ventura County Employees' Retirement Association

Fund	Q3 2014 NAV (million)	Contributions since Q3 (million)	Distributions since Q3 (million)	Estimated NAV as of 2-28-2015 (million)
PGSF IV L.P.	\$10.0	\$0.1	\$2.9	\$7.2
PGSF V L.P.	-	\$7.5 ¹	-	-

¹Contribution made on February 26, 2015

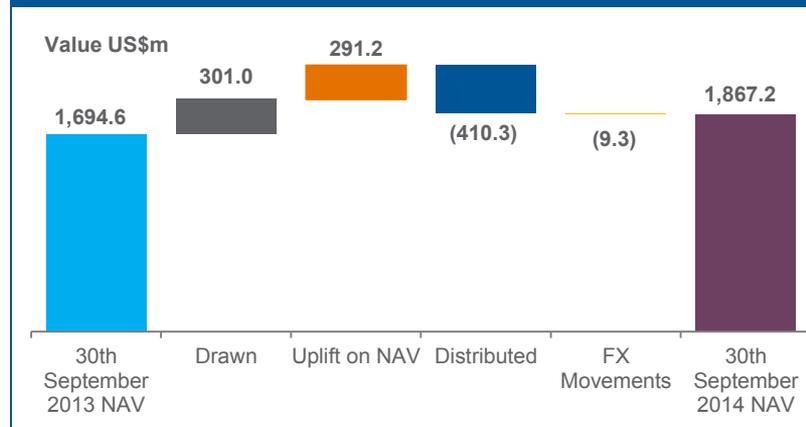
Note: The figures in this table are subject to rounding

PGSF IV LP (2010)

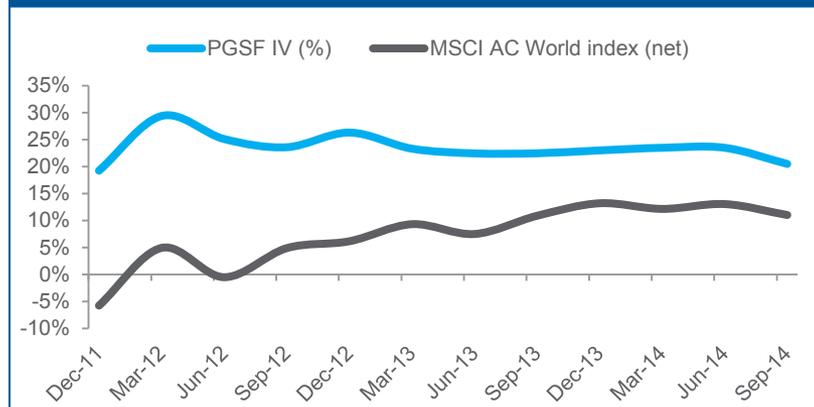
Performance valuation, 30th September 2014

Fund size	US\$2,156.5m	
	Q214	Q314
Net multiple	1.47 x	1.45 x
Net IRR	23.5%	20.5%
Drawn from investors	66.0%	66.0%
Distributed to paid in ratio	0.37 x	0.43x
Calls Q4 2014	0.2%	
Distributions Q4 2014	13.1%	

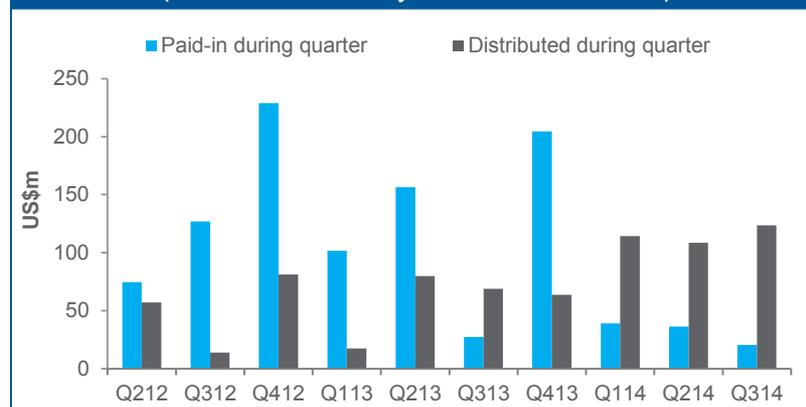
Recent portfolio progress



Net IRR progression



Quarterly calls and distributions (over recent history at investment level)

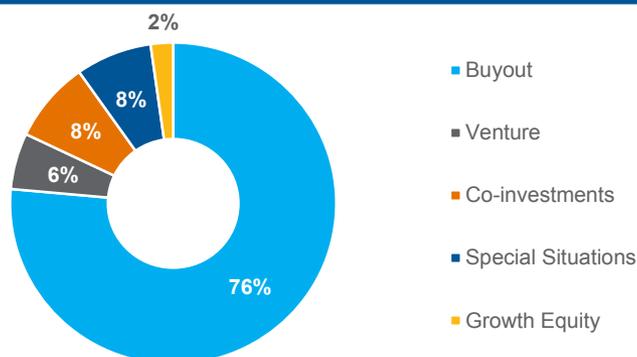


PGSF IV LP – underlying exposures

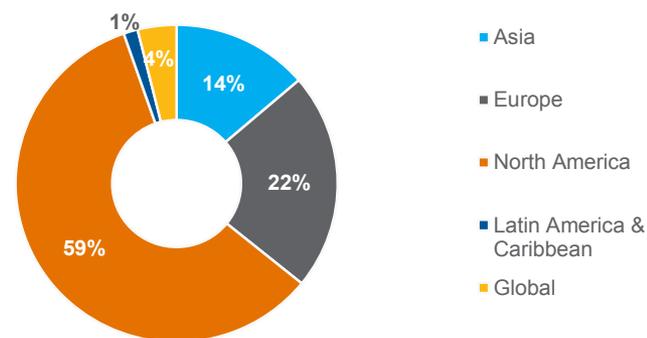
Top five exposures by NAV¹

Company Name	Vintage	GP	Sector	Country	NAV (\$m)	% NAV
CPI Card Group	2007	Tricor Pacific	Industrials	U.S.	57.7	3.1%
Expro International	2008	Arle	Energy	UK	41.8	2.2%
Standard Pacific	2007	MatlinPatterson	Consumer Discretionary	U.S.	35.3	1.9%
Nien Made	2007	CVC Asia Pacific	Consumer Discretionary	China	25.1	1.3%
IMS Health	2010	Texas Pacific Group	Health Care	U.S.	19.1	1.0%
Total					179.0	9.5%

Allocation by stage (actual commitment %)¹



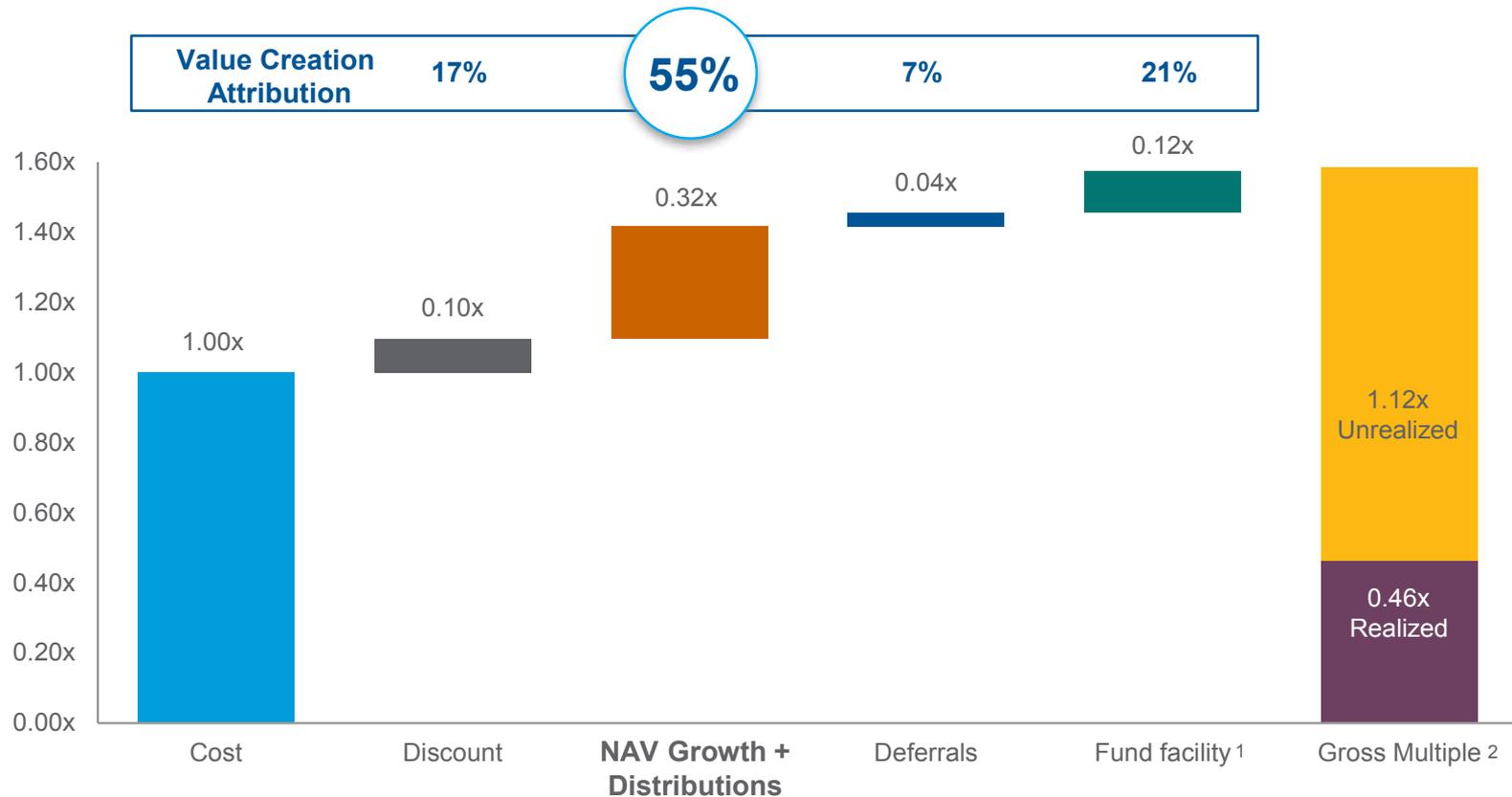
Allocation by geography (actual commitment %)¹



¹ As at 30th September 2014

Performance is driven by portfolio growth

PGSF IV value creation



Data as of 30th June 2014

¹ Structuring includes deferred payments and the impact of the fund facility

² Gross multiple includes the use of facility at the fund level

Past performance is no guarantee of future results. Future returns are not guaranteed and a loss of principal may occur. Source: Pantheon

PGSF IV – summary

Portfolio

- > Numerous “thoughtfully selected” deals
- > Mix of fund portfolios and direct
- > Selecting concentrated exposures
- > US- and buyout- weighted portfolio
- > Venture exposure limited to late stage

Status update

- > PGSF IV commitment program now complete at 110% committed¹
- > Focus on portfolio monitoring for PGSF IV and new deal activity for PGSF V

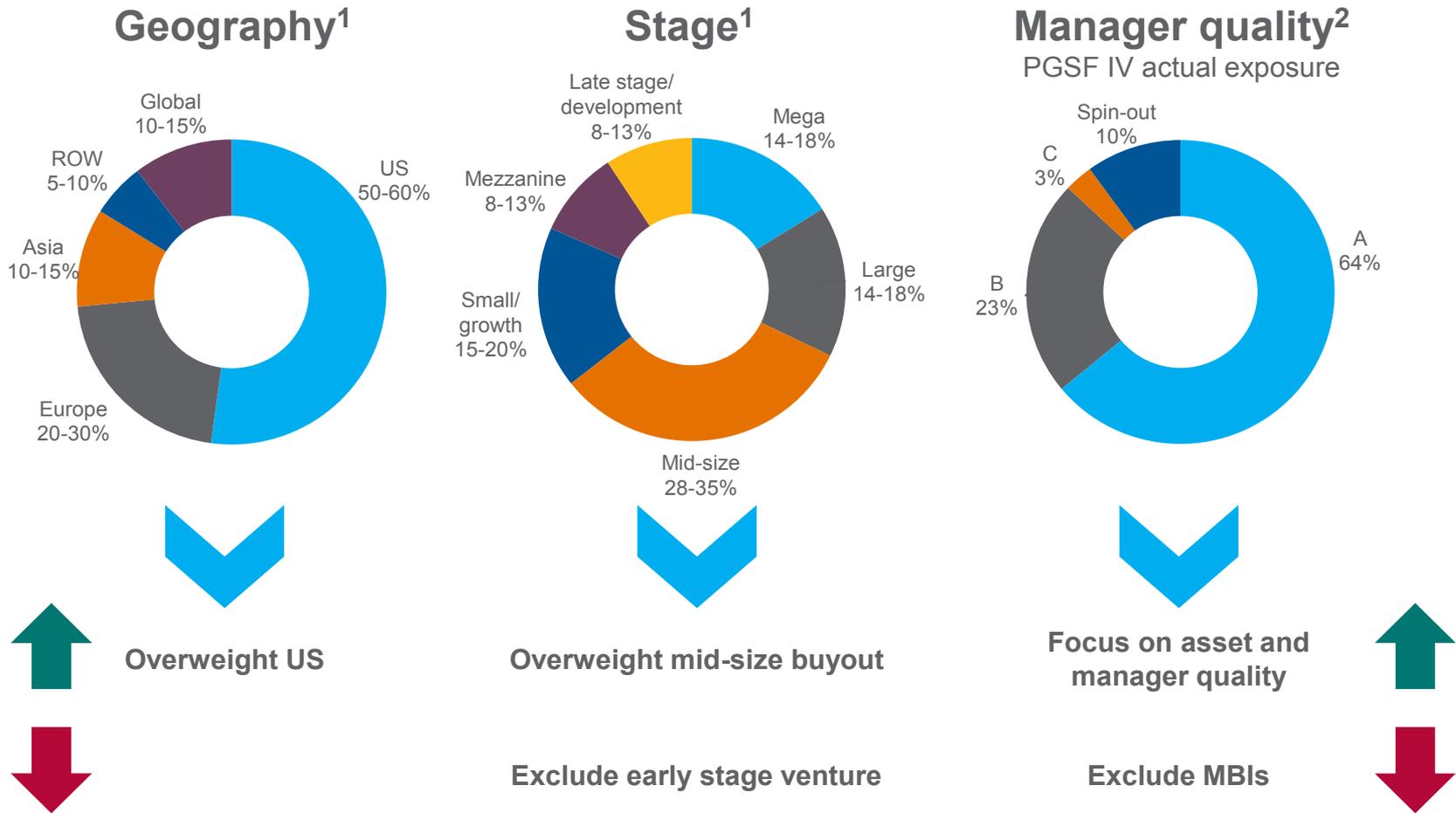
PGSF IV Fund Profile

- > 40 secondary transactions¹
- > Average discount 7.3%
- > Average % funded at close 83%

¹ As of March 31, 2014.

Note: past performance is not necessarily indicative of future results. Future results is not guaranteed and loss of principal may occur.

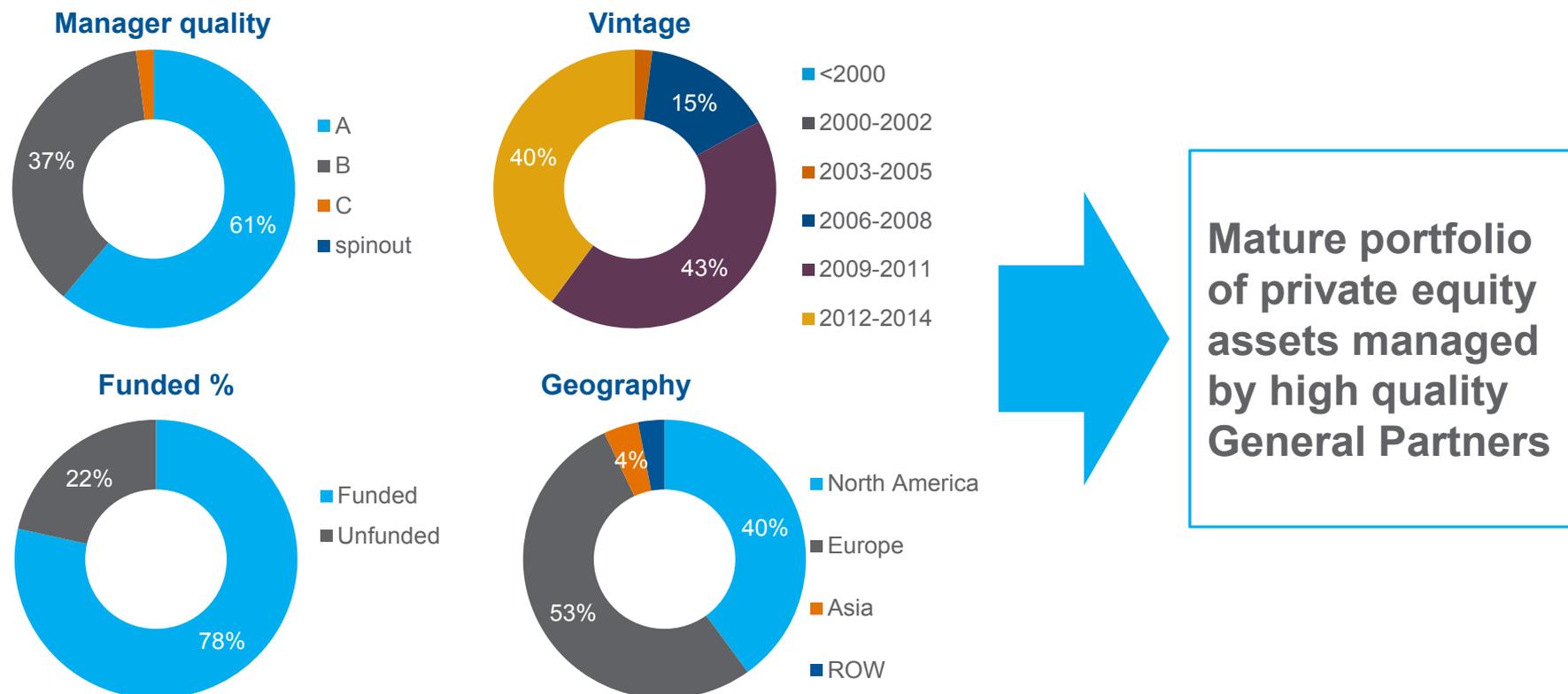
PGSF V targeted portfolio construction



¹ Illustrative percentage, actual split for PGSF V may vary. ² Illustrative percentage, split is actual for PGSF IV as at Q1 2014.

PGSF V investment update

- > Continuation of our strategy of leveraging Pantheon's unique global platform to identify undervalued private equity assets



As at 15th December 2014. Diversification charts represent company level exposures by PGSF V investment.

Note: **past performance is not necessarily indicative of future results. Future results is not guaranteed and loss of principal may occur.**

PGSF V deals: on strategy and performing to plan

Deal profile	Closing date	Investment thesis
European small buyout funds portfolio	March 14	Two European buyout funds, deep value play on Spain, companies driven by export revenues
Co-investment	April 14	A market-leading offshore oil-field services business in Asia
U.S. energy portfolio	June 14	Two funds: a top-tier U.S. energy manager, primarily unconventional upstream exploration and production assets
European large cap buyout fund	July 14	Concentrated play on a portfolio of high quality European large cap buyouts invested post-crisis; strong portfolio, significant uplifts and early liquidity
European mid-market buyout portfolio	July 14	Three mid-market buyout funds managed by quality European GP, early liquidity plus high growth assets invested post crisis
U.S. buyout portfolio	August 14	US lower mid-market buyouts, good growth prospects, significant early uplift, deep value play
European buyout fund	August 14	Nordic mid-market fund, managed by a top-tier, restricted access GP
Emerging markets buyout fund	October 14	High quality pan-regional Latin American fund
U.S. large buyout fund	December 14	Concentrated interest in a high quality U.S. manager focused on growth-oriented investments
U.S. growth fund	January 15	High quality U.S. manager investing in mid-size technology growth assets
Global buyout portfolio	January 15	Structured transaction gaining access to a high quality buyout portfolio, primarily focused on North American buyout strategies

Includes all deals signed and closed as at January 7, 2015. The above Investment Thesis rationale is not indicative of any future performance and represents Pantheon opinion.

Appendix: Track Record

Track record built over 25 years

As at 30th September 2014

	PGSF 88-99 ¹	PGSF I	PGSF II	PGSF III	PGSF IV
Vintage	1988 – 1999 ²	2000	2004	2006	2010
Size (US\$ m)³	318	418	909	2,020	2,157
Committed (US\$ m)³	318	423	896	1,997	2,369
Drawn down (% of committed)³	100%	96%	94%	95%	79%
Returned (% of drawn capital)³	188%	171%	114%	72%	45%
Gross multiple⁴	1.91x	1.78x	1.38x	1.19x	1.44x
Net multiple⁵	1.73x	1.67x	1.27x	1.10x	1.45x
Net Cash on Cash multiple⁶	2.14x	1.91x	1.40x	1.13x	1.61x
Net multiple of Capital at Risk⁷	8.04x	2.35x	2.39x	1.41x	2.05x
Gross IRR	24.0%	18.9%	10.6%	4.3%	20.6%
Net IRR	20.5%	15.2%	7.0%	2.1%	20.5%

¹ PGSF 88–99. Prior to 2000, Pantheon made secondary investments on a separate account basis rather than through separate investment funds. For periods prior to 2000 Pantheon has created nominal pools of capital, each representing a three-year time period to replicate the commitment period of a Pantheon secondaries fund, each comprising the secondary investments made by Pantheon on behalf of its discretionary investment management clients during such period, measured by date of purchase, excluding single fund secondaries. PGSF 88–99 represents the combined performance of these nominal three year funds for investments during the years 1988–1999 (plus certain transactions that took place in 2000 prior to the formation of PGSF I). As the fee structures varied among clients during these periods, net IRR and net multiple is calculated by applying the fee structure applicable to PGSF V. PGSF 88–99 results are illustrative and do not represent actual historical results achieved by any client. Pro-forma net performance has been calculated without taking into account fund organizational and administrative expenses.

² Includes pre-PGSF I deals which took place in 2000.

³ Reflects capital invested, drawn or returned by underlying portfolio funds. With respect to PGSF 88-99, which is not an actual fund, “Size” and “Committed” represent the amount of capital invested by Pantheon on behalf of its clients to underlying portfolio funds.

⁴ Gross Returns / Gross IRR. The calculation of gross cumulative IRR is based upon the performance of the fund’s investments and does not take into account the effect of Pantheon fees and other organizational and operational expenses, but includes the fees and other expenses of the underlying portfolio funds. The multiple is calculated as the (NAV + Distribution) / Drawdown.

⁵ Net PGSF Returns / Net IRR is the internal rate of return (“IRR”) as calculated for each of the listed funds. The measure presented for each of the funds (other than PGSF 88–89) is net of Pantheon management fees and administrative costs and expenses of the fund. The pro forma results of PGSF 88–99 do not account for administration costs or any expenses of the fund, as discussed above.

⁶ Cash-on-cash multiple is calculated as per footnote 4, but only reflects the net cash amounts which are actually transacted between Pantheon and our investors. For instance, when a call and distribution take place on the same day, only the net amount is included in the calculation (as a call if the net amount is a negative number, or as a distribution if the net amount is a positive number). Investment level cash flows are netted on a monthly basis to generate the actual cash flow profile that an investor would experience.

⁷ Net Capital at Risk is calculated as (NAV + Distributions) / Maximum drawdown, where Maximum Drawdown is the point at which the cumulative cash flow amount reaches its most negative position. This is a metric that we have seen used by some competitors in their illustration of performance. We believe this to be less appropriate than the net multiples and net cash-on-cash multiples above.

Gross IRR. The calculation of gross cumulative IRR is based upon the performance of the fund’s investments and does not take into account the effect of Pantheon fees and other organizational and operational expenses, but includes the fees and other expenses of the underlying portfolio funds.

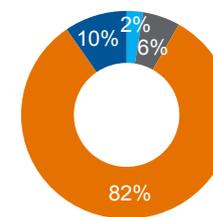
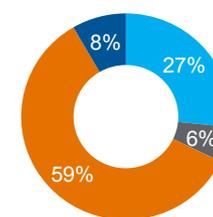
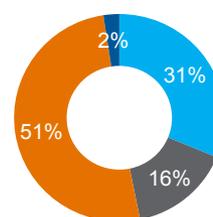
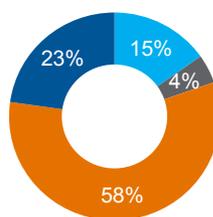
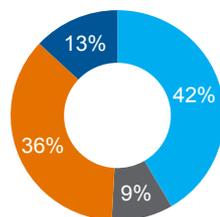
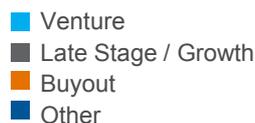
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In considering the performance included above and throughout this material, prospective investors should bear in mind that past or expected performance is not necessarily indicative of future results and there can be no assurance that PGSF V will achieve similar returns or that expected returns will actually be achieved. Past performance is not indicative of future results. Future returns are not guaranteed and a loss of principal may occur. Source: Pantheon

Track record by investment stage

		PGSF 88-99 ¹	PGSF I	PGSF II	PGSF III	PGSF IV
Buyout	IRR ²	18.7%	28.7%	16.4%	6.2%	21.4%
	Gross multiple ²	1.63x	2.02x	1.47x	1.28x	1.40x
Growth Equity / Late Stage Venture	IRR ²	36.9%	15.0%	17.1%	1.3%	51.2%
	Gross multiple ²	1.96x	1.84x	1.77x	1.05x	1.91x
Venture	IRR ²	24.5%	10.8%	2.3%	2.5%	25.9%
	Gross multiple ²	2.16x	1.57x	1.10x	1.11x	1.62x
Other	IRR ²	18.8%	8.4%	42.1%	6.1%	28.6%
	Gross multiple ²	1.89x	1.36x	1.66x	1.26x	1.45x
Total	IRR ²	24.0%	19.5%	11.5%	4.9%	23.5%
	Gross multiple ²	1.91x	1.79x	1.40x	1.22x	1.44x

Committed capital³



¹ Prior to 2000, Pantheon made secondary investments on a separate account basis rather than through the Predecessor Funds. PGSF 88-99 represents the pro forma performance of secondary portfolio investments selected and made by Pantheon on behalf of its discretionary investment management clients. This is not an actual structured fund-of-funds, but the aggregated performance of Pantheon's secondary portfolio investments during the years 1988-1999 and includes pre-PGSF I deals which took place in 2000. Single fund secondary investments are not included.

² The multiple is calculated as the (NAV + Distributions) / Drawn Down. Gross multiple and IRR are based upon the performance of the fund's investments and do not take into account the effect of Pantheon's fees and other operational expenses, but include the fees and other expenses of the underlying portfolio funds. The Gross multiple and IRR also exclude any cash inefficiencies that may exist within the underlying investment SPVs and the deduction of such fees would decrease returns. The gross multiple including the SPV costs for PGSF 88-99, PGSF I, PGSF II, PGSF III and PGSF IV is 1.91x, 1.78x, 1.39x, 1.22x and 1.47x, respectively.

³ Reflects capital committed by underlying portfolio funds. With respect to PGSF 88-99, which is not an actual fund, "Committed" represent the amount of capital committed by Pantheon on behalf of its clients to underlying portfolio funds. **Past performance is no guarantee of future results. Future returns are not guaranteed and a loss of principal may occur.** As at June 30, 2014. This slide must be read in conjunction with slide 22 showing net performance and the footnote thereon. Source: Pantheon

Notes on presentation

Investment performance (slide 22)

PGSF 88–99. Prior to 2000, Pantheon made secondary investments on a separate account basis rather than through separate investment funds. For periods prior to 2000 Pantheon has created nominal pools of capital, each representing a three-year time period to replicate the commitment period of a Pantheon secondaries fund, each comprising the secondary investments made by Pantheon on behalf of its discretionary investment management clients during such period, measured by date of purchase, excluding single fund secondaries. PGSF 88–99 represents the combined performance of these nominal three year funds for investments during the years 1988–1999 (plus certain transactions that took place in 2000 prior to the formation of PGSF I). As the fee structures varied among clients during these periods, net IRR and net multiple is calculated by applying the fee structure applicable to PGSF V. PGSF 88–99 results are illustrative and do not represent actual historical results achieved by any client. Pro forma net performance has been calculated without taking into account fund organizational and administrative expenses.

Includes pre-PGSF I deals which took place in 2000.

Reflects capital invested, drawn or returned by underlying portfolio funds. With respect to PGSF 88-99, which is not an actual fund, “Size” and “Committed” represent the amount of capital invested by Pantheon on behalf of its clients to underlying portfolio funds.

Gross Returns / Gross IRR. The calculation of gross cumulative IRR is based upon the performance of the fund’s investments and does not take into account the effect of Pantheon fees and other organizational and operational expenses, but includes the fees and other expenses of the underlying portfolio funds. The multiple is calculated as the (NAV + Distribution) / Drawdown.

Net PGSF Returns / Net IRR is the internal rate of return (“IRR”) as calculated for each of the listed funds. The measure presented for each of the funds (other than PGSF 88–89) is net of Pantheon management fees and administrative costs and expenses of the fund. The pro forma results of PGSF 88–99 do not account for administration costs or any expenses of the fund, as discussed above.

Cash-on-cash multiple is calculated as per footnote 4, but only reflects the net cash amounts which are actually transacted between Pantheon and our investors. For instance, when a call and distribution take place on the same day, only the net amount is included in the calculation (as a call if the net amount is a negative number, or as a distribution if the net amount is a positive number). Investment level cash flows are netted on a monthly basis to generate the actual cash flow profile that an investor would experience.

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In considering the performance included above and throughout this material, prospective investors should bear in mind that past or expected performance is not necessarily indicative of future results and there can be no assurance that PGSF V will achieve similar returns or that expected returns will actually be achieved. Past performance is not indicative of future results. Future returns are not guaranteed and a loss of principal may occur. Source: Pantheon

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PVL 6046



To: Ventura County Employees' Retirement Association ("VCERA") Board
From: Dan LeBeau, Allan Martin and Tony Ferrara, CAIA
Date: March 6, 2015
Subject: VCERA Asset Allocation Ranges and Benchmarks

Recommendation

NEPC recommends the Ventura County Employees' Retirement Association ('VCERA' or the 'Plan') approve the Asset Allocation Ranges and Benchmarks below.

	<u>Target Weight</u>	<u>Range</u>	<u>Benchmark</u>
U.S. Equity	26.0%	21.0% - 31.0%	DJ U.S. Total Stock Market Index
Non-U.S. Equity	13.0%	10.0% - 16.0%	MSCI ACWI ex-U.S. Index (Net) (50% Hedged)
Global Equity	10.0%	7.0% - 13.0%	MSCI ACWI Index (Net) (50% Hedged)
Private Equity	5.0%	2.0% - 7.0%	DJ U.S. Total Stock Market Index + 3%
U.S. Fixed Income	14.0%	10.0% - 18.0%	Barclays Capital U.S. Aggregate Bond Index
Private Debt	5.0%	0.0% - 7.0%	S&P/LSTA Leveraged Loan Index + 2%
Real Estate	7.0%	4.0% - 10.0%	NCREIF ODCE Index
GTAA	10.0%	7.0% - 13.0%	LIBOR + 4%
Liquid Alternatives	10.0%	7.0% - 13.0%	CPI + 4%
Cash	0.0%	0.0% - 3.0%	90 day T-bills

Note: Recommended benchmarks are based on intended role of each asset class within the Total Plan. Managers selected to implement allocations above could have benchmarks that differ from what is shown above, but Total Plan attribution will be measured against the benchmarks shown above.

Background

At the February 2015 meeting, the VCERA Board adopted new asset allocation targets, ranges and benchmarks. After further review internally, we have made some slight modifications to the original recommendation, which are detailed below.

1. U.S. Equity – Benchmark changed back to DJ U.S. Total Stock Market Index from Russell 3000; Range increased from +/- 4% to +/- 5%
2. Global Equity – Benchmark changed to 50% Hedged
3. Private Equity – Range changed from 0-7% to 2-7%



4. Private Debt – Range changed from 0-10% to 0-7%
5. GTAA – Benchmark changed from LIBOR + 5% to LIBOR + 4%; Range changed from 5-15% to 7-13%
6. Liquid Alternatives – Range changed from 5-15% to 7-13%



NEPC, LLC

To: Ventura County Employees' Retirement Association ("VCERA") Board
From: Dan LeBeau, Allan Martin and Tony Ferrara, CAIA
Date: March 9, 2015
Subject: VCERA Asset Allocation Implementation

Recommendation

NEPC recommends the Ventura County Employees' Retirement Association ('VCERA' or the 'Plan') approve the recommended implementation plan described herein to implement the new asset allocation targets.

1. Direct VCERA's current overlay manager, Parametric Portfolio Associates ('Parametric', formerly the Clifton Group), to implement a currency overlay program aimed at hedging 50% of VCERA's non-U.S. developed markets currency exposure.
2. Conduct a search to hire up to three Global Tactical Asset Allocation ("GTAA") managers using NEPC's Focused Placement List ('FPL') to fill the targeted 10% allocation to GTAA, with 5% reallocated from U.S. and non-U.S. equities and 5% reallocated from global fixed income.
3. Conduct a search to hire up to two U.S. Senior Direct Lending managers who are currently calling capital using NEPC's FPL to fill the targeted 5% allocation to Private Debt, with 5% reallocated from U.S. fixed income. It is possible that a third manager focusing on non-U.S. Senior Direct Lending could be recommended as part of the Private Debt allocation in the future.

Note that the recommendations above are in the order in which we believe the changes should be implemented.

Summary

Implementation of the recently adopted asset allocation targets requires up to three potential searches. The recommendations detailed on the following pages seek to implement the adopted changes in the most cost conscious and efficient manner, recognizing current limitations of VCERA staff resources and the desire to implement in a timely manner. We are aware that the Plan is currently in the process of identifying candidates for the position of Chief Investment Officer ('CIO'), and should the Plan hire a CIO while the proposed plan is being implemented, we will work with the new CIO and adjust accordingly.

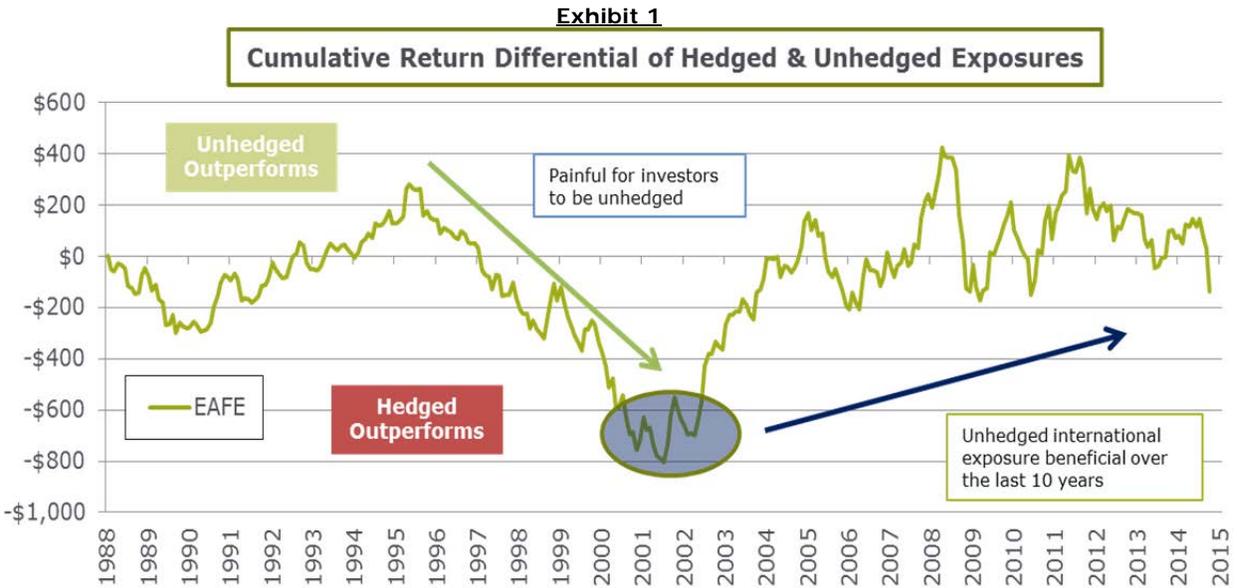
Currency Overlay Program Recommendation

1. Direct VCERA's current overlay manager, Parametric, to implement a currency overlay program aimed at hedging 50% of VCERA's non-U.S. developed markets currency exposure.

Foreign currency exposure adds volatility to a portfolio over the long-term, without commensurate return, as illustrated in Exhibit 1 on the following page. From 1988-2014,



the cumulative return of an unhedged portfolio versus a hedged portfolio of non-U.S. developed markets stocks were essentially the same, although there were substantial sub-periods during which performance deviated meaningfully.

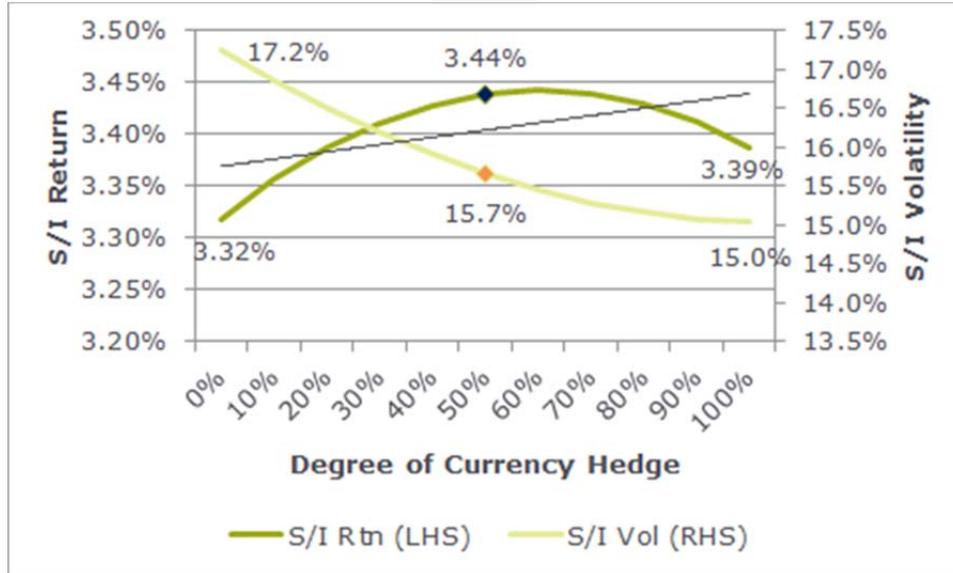


Source: Bloomberg, Ibbotson, NEPC

Once you have determined that currency hedging is appropriate, you must then evaluate the appropriate size of the hedge. Historically, hedging 50%-70% of non-U.S. developed markets equity exposure appears to be most attractive for equities, maximizing return while significantly reducing volatility (see Exhibit 2 on the following page). Since 1988, a 50% hedge on the MSCI EAFE Index would have produced a Sharpe Ratio, or risk-adjusted return, very similar to the index with a 70% hedge.



Exhibit 2



Source: Bloomberg, NEPC, MSCI EAFE Index from January 1988 – October 2014; assumes 10 bps annual transaction costs for fx hedging.

Currently, there are three options available to implement currency hedging:

1. Direct the Plan's existing overlay manager, Parametric, to implement the hedge (*recommended*)
2. Conduct a search to identify a new overlay manager to implement the hedge
3. Conduct a search to identify one or more non-U.S. developed markets equity managers that manage hedged portfolios

Parametric is currently managing a cash equitization program on behalf of the Plan. The goals of the current overlay program are to maintain portfolio exposures and risk targets, reduce cash drag for the broad investment program, and provide consistent levels of liquidity while maintaining market exposure. In addition to the services that are currently provided, Parametric also provides currency hedging services and they could implement a currency hedging program for the Plan very easily from an administrative standpoint, with minimal additional costs. Currently, the Plan pays Parametric a fee on the notional value of assets and not physical assets, which is consistent with other overlay managers, based on the fee schedule below:

- 0.15% on the first \$25 million of notional exposure;
- 0.10% on the next \$75 million of notional exposure;
- 0.04% on notional exposure over \$100 million.

At the end of February 2015, the overlay program had approximately \$94 million of notional exposure, which equates to an annual fee of approximately \$105,000, or less than 0.01% of Total Plan assets. Including currency hedging in the overlay program could potentially result in an additional \$100,000 in annual fees, which when added to the current program, keeps fees below 0.01% of Total Plan assets (approximately ½ a basis point all in).



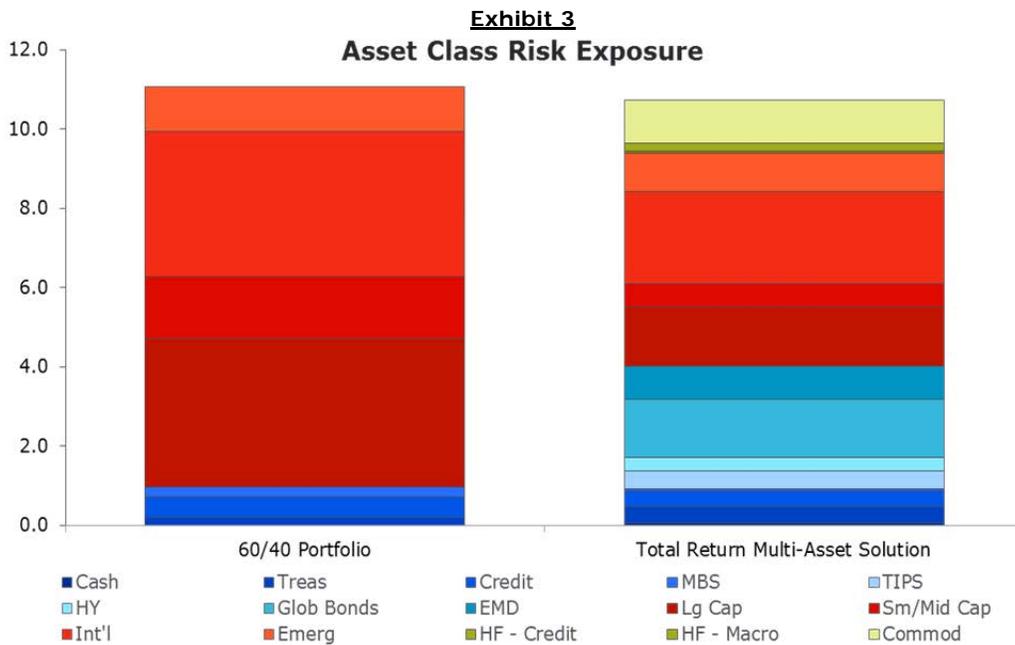
While consideration of a new overlay manager could be an option, we do not recommend that at this time. There are a limited number of overlay managers in the market and we believe it is unlikely that a search would result in a different conclusion. Additionally, Parametric is currently on NEPC's FPL for overlay managers. Please see Appendix B for a description of NEPC's process for identifying Focused Placement List strategies.

Lastly, identification of one or more non-U.S. developed markets equity managers that manage hedged portfolios would require a search. It has been our experience that there are not a lot of existing products available in the market, and while several managers have expressed a desire to work with us to implement hedged portfolios, we believe that would be cost prohibitive for VCERA and we do not recommend this course of action at this time.

GTAA Manager Selection Recommendation

1. Conduct a search to hire up to three Global Tactical Asset Allocation ("GTAA") managers using NEPC's FPL to fill the targeted 10% allocation to GTAA, with 5% reallocated from U.S. and non-U.S. equities and 5% reallocated from global fixed income.

GTAA strategies add value by taking advantage of asset class mispricings and exploiting relationships across global markets in equities, fixed income, currencies and commodities. Strategy returns are highly reliant upon manager skill and reduced constraints. Manager skill is the ability to tactically allocate portfolio exposures across markets as relative value changes over time. The approach of tactical strategies allows for participation in rising markets, while maintaining a defensive position when markets correct. We believe a diversified portfolio of GTAA managers should result in an allocation with a volatility target similar to or less than a "traditional" portfolio allocation with less equity risk (See Exhibit 3).





Currently, there are two options available to implement the GTAA allocation:

1. Conduct a search using NEPC's FPL to identify managers to fill the 10% target allocation (*recommended*)
2. Conduct a search to identify managers using a publicly-advertised search process

NEPC's FPL strategies are those strategies that have been fully vetted by the respective research analyst/consultant and NEPC's Due Diligence Committee, and subsequently approved for broad application across NEPC's client base. FPL strategies represent the highest conviction managers whom we have thoroughly reviewed and believe have investment theses that present a competitive advantage in their respective areas of opportunity. Note that NEPC does not receive any compensation from investment managers as a result of their inclusion on our FPL, nor does inclusion on the FPL guarantee that the investment manager will ultimately be awarded a mandate with an NEPC client. FPLs are continuously monitored throughout the year, and officially updated once per year. The GTAA FPL was last updated in the fourth quarter of 2014. Approximately 150 Global Balanced/GTAA strategies were evaluated, and currently, 9 managers representing 14 different strategies are on our FPL for GTAA strategies. Please see Appendix B for a description of NEPC's process for identifying Focused Placement List strategies.

Should the Board be comfortable with employing a process in which we evaluate our current FPL for GTAA strategies, we anticipate recommending an appropriate mix of 2-3 managers. The anticipated fees for the GTAA allocation are 0.80% - 1.00% per annum. On a 10% allocation, this equates to \$3.87 million using the midpoint of 0.90%, or approximately 0.09% on Total Plan assets. Recall that we are reallocating 5% from U.S. and non-U.S. equities and 5% from global fixed income to fund the GTAA mandates. The reduction in U.S. and non-U.S. equities results in a fee reduction of approximately \$91,000 (relatively small as we're assuming a reduction in low cost, passive investment options), and the reduction in global fixed income results in a fee reduction of approximately \$705,000, resulting in a net overall increase in fees at the Total Plan level of approximately \$3.07 million, or 0.07% on Total Plan assets.

The second option is to conduct a publicly-advertised search, which typically takes 3-4 months to complete and is done in tandem with investment staff. Publicly-advertised searches can vary in process, but generally consist of placing an ad with an industry publication to announce the search. The ad would include a description of the search and minimum criteria that investment managers/strategies would have to meet in order to be considered. Once the proposals are submitted, NEPC reviews them at length, runs an initial set of extensive analytics, and creates a scoring matrix in order to score and rank the proposed strategies based on both quantitative and qualitative factors. This initial review is intended to narrow the initial list to a more manageable number of strategies for further evaluation and due diligence.

Once a subset of managers has been identified for further evaluation, we conduct meetings (either in person or via conference call) with the various managers to conduct additional due diligence. After completion of additional due diligence, it is anticipated that a short list of managers will be identified for recommendation, and NEPC and investment staff may conduct on-site visits if appropriate. After completion of the entire process, a recommendation can be rendered and made to the full Board.



Conducting a publicly-advertised search is an inclusive process that can be customized to the Plan's specific needs. While it does take additional time, it can uncover new strategies that may be screened out through traditional universe screens, such as assets under management. However, given limited investment staff and the fact that we have a fully vetted FPL for GTAA strategies, we do not recommend conducting a publicly-advertised search at this time as we do not believe the process will result in a materially different conclusion than using our FPL.

One final consideration when considering the addition of new managers/strategies and termination/liquidation of existing managers/strategies is whether or not to employ a transition manager to transition the assets in an effort to reduce transaction costs. There are a number of firms that offer transition management services (dedicated transition management firms and custodian banks, for example), and NEPC currently has a list of transition managers that we could reference and potentially recommend to the Plan should it be determined that a transition manager is required, including VCERA's current custodian bank, State Street. The decision to use a transition manager will depend on the assets that need to be traded, the investment vehicles employed (separately managed accounts vs. commingled investment vehicles), and our analysis as to whether or not using a transition manager is beneficial from a cost standpoint.

In addition to the recommendation to conduct a search using NEPC's FPL to identify GTAA managers, we are also requesting the Board delegate selection of a transition manager to NEPC and VCERA staff, should it be deemed necessary to use a transition manager.

Private Debt Recommendation

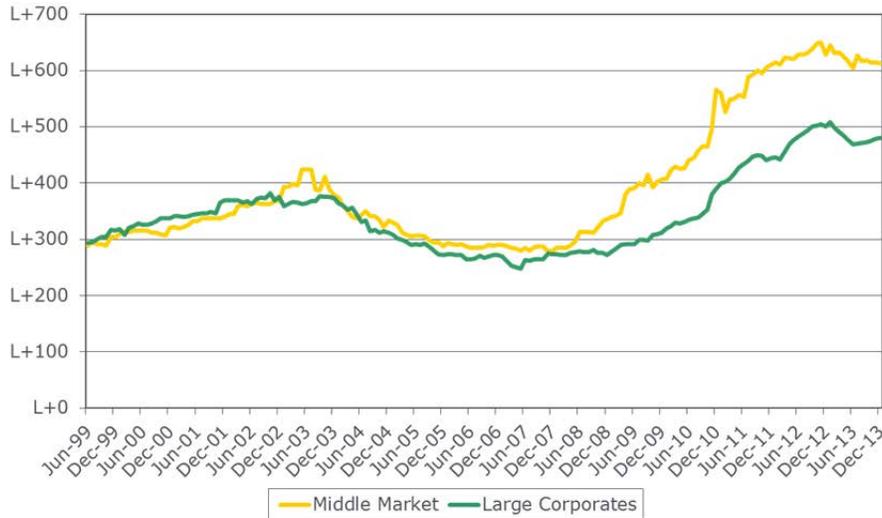
1. Conduct a search to hire up to two U.S. Senior Direct Lending managers who are currently calling capital using NEPC's FPL to fill the targeted 5% allocation to Private Debt, with 5% reallocated from U.S. fixed income. It is possible that a third manager focusing on non-U.S. Senior Direct Lending could be recommended as part of the Private Debt allocation in the future.

Private Debt can be characterized in a number of different ways, but for the Plan, we envision the allocation being largely comprised of U.S. Senior Direct Lending strategies. Use of non-U.S. Senior Direct Lending strategies may be considered in the future. Senior secured floating rate debt yields remain relatively attractive (5.75% - 8.5%) compared to traditional fixed income, but credit underwriting standards are loosening as more capital is raised for lending funds. Borrowers are typically seasoned, healthy, growing companies that have limited access to capital, especially middle market companies in both the U.S. and Europe.

Middle market loans generally compare favorably to broadly syndicated loans as these loans have wider spreads (See Exhibit 4 on the following page), lower leverage, and tighter covenants.



Exhibit 4



Source: S&P LCD. NEPC, LLC and The Newport Group

Loans of this size have traditionally provided protection of principal. Lower-middle market and middle market loans have historically demonstrated default rates that have been lower than their large market peers with higher recovery rates. (See Exhibits 5 & 6).

Exhibit 5

Senior Loan Default Rates by Loan Size*

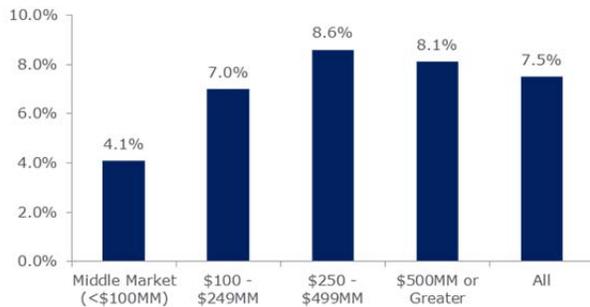
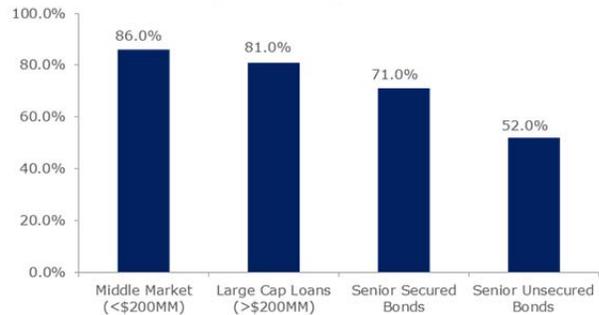


Exhibit 6

Recovery Rate by Loan Class**



Source: S&P LCD. *Cumulative institutional loan default rates by deal size from 1995 to 2009. **Reflects ultimate recovery rates for period 1989 to 2009. NEPC, LLC and The Newport Group

Similar to GTAA, currently, there are two options available to implement the Private Debt allocation:

1. Conduct a search using NEPC's FPL to identify managers to fill the 5% target allocation (*recommended*)
2. Conduct a search to identify managers using a publicly-advertised search process



While a publicly-advertised search process is an option, we do not recommend that at this time. Private debt strategies are different than GTAA in that these strategies are not offered continuously (i.e. there are fundraising cycles, similar to private equity). In addition, we have done a considerable amount of work in the Senior Secured Direct Lending space, and we do not believe that a public search will result in a materially different conclusion than using our FPL.

Should the Board be comfortable with employing a process in which we evaluate our current FPL for Senior Secured Direct Lending strategies, we anticipate recommending an appropriate mix of 2-3 managers. The anticipated fees for the Private Debt allocation are 1.00% - 1.50% management fee per annum on invested capital, plus a performance fee. It is difficult to estimate fees for this allocation as it is largely dependent on the pace at which the managers call and invest capital, but assuming the entire 5% allocation could be funded on day 1, management fees are estimated to be \$2.69 million using the midpoint of 1.25%, or approximately 0.06% on Total Plan assets. Recall that we are reallocating 5% from U.S. fixed income to fund the private debt mandates. The reduction in U.S. fixed income results in a fee reduction of approximately \$200,000 (relatively small as we're assuming a significant portion of the reduction would come from low cost, passive investment options), resulting in a net overall increase in fees at the Total Plan level of approximately \$2.49 million, or 0.06% on Total Plan assets.

Conclusion

NEPC recommends the VCERA approve the recommended implementation plan as described herein.

1. Direct VCERA's current overlay manager, Parametric Portfolio Associates ('Parametric', formerly the Clifton Group), to implement a currency overlay program aimed at hedging 50% of VCERA's non-U.S. developed markets currency exposure.

Parametric to attend April Board meeting with implementation proposal.

2. Conduct a search to hire up to three Global Tactical Asset Allocation ("GTAA") managers using NEPC's Focused Placement List ('FPL') to fill the targeted 10% allocation to GTAA, with 5% reallocated from U.S. and non-U.S. equities and 5% reallocated from global fixed income.

NEPC to conduct analysis and recommend investment managers at the April Board meeting. Recommended managers will also attend April Board meeting for presentations to the Board.

3. Conduct a search to hire up to two U.S. Senior Direct Lending managers who are currently calling capital using NEPC's FPL to fill the targeted 5% allocation to Private Debt, with 5% reallocated from U.S. fixed income. It is possible that a third manager focusing on non-U.S. Senior Direct Lending could be recommended as part of the Private Debt allocation in the future.



NEPC to conduct analysis and recommend investment managers at the May Board meeting. Recommended managers will also attend May Board meeting for presentations to the Board.



Appendix A Estimated Number of Investment Managers

	Market Value	Current Weight in Fund	Previous Target Weight	Over/Under (%)	Current Number of Managers	Current Weight in Fund	New Target Weight	Over/Under (%)	Anticipated Number of Managers
Total Plan Composite	\$4,290,124,629	100.0%	100.0%	0.0%	25	100.0%	100.0%	0.0%	27-29
U.S. Equity	\$1,357,748,514	31.6%	30.0%	1.6%	3	31.6%	26.0%	5.6%	3
Non-U.S. Equity	\$597,622,221	13.9%	14.0%	-0.1%	4	13.9%	13.0%	0.9%	4
Global Equity	\$425,132,406	9.9%	10.0%	-0.1%	2	9.9%	10.0%	-0.1%	2
Total Private Equity	\$111,655,059	2.6%	5.0%	-2.4%	3	2.6%	5.0%	-2.4%	3
U.S. Fixed Income	\$765,249,683	17.8%	19.0%	-1.2%	4	17.8%	14.0%	3.8%	5
Global Fixed Income	\$261,194,907	6.1%	5.0%	1.1%	3	6.1%	0.0%	6.1%	0
Total Private Debt	\$0	0.0%	0.0%	0.0%	0	0.0%	5.0%	-5.0%	2-3
Total Real Estate	\$322,351,194	7.5%	7.0%	0.5%	3	7.5%	7.0%	0.5%	3
Total GTAA	\$0	0.0%	0.0%	0.0%	0	0.0%	10.0%	-10.0%	2-3
Total Liquid Alternatives	\$421,353,085	9.8%	10.0%	-0.2%	2	9.8%	10.0%	-0.2%	2
Total Overlay/Cash	\$27,817,560	0.6%	0.0%	0.6%	1	0.6%	0.0%	0.6%	1

Note: Market value and current weights as of January 31, 2015.



Appendix B

NEPC's Focused Placement List Process

NEPC seeks to identify top tier investment managers through the ongoing work of our experienced and dedicated research staff of more than 40 investment professionals. In other words, our search for a manager does not begin with the client assignment. It is a thorough, vetted and continuous process and is detailed below.

1. NEPC's search process begins with our research team screening both our proprietary internal databases and external databases for candidate managers that meet the Client's/NEPC's internally developed minimum criteria. The parameters take into account the uniqueness of each asset class along with the type of managers our clients may possibly require. If a manager meets the initial screens, our analysts consult both the SEC database and our internal due diligence database to identify whether there are any outstanding issues with the manager. From there we can identify how many managers will qualify for a given criteria set.
2. Next, our asset class specialists conduct a performance review utilizing our internally-developed Performance Analytics Statistical Software (PASS), eVestment Alliance and StyleAdvisor. The PASS system allows NEPC to compare investment returns across the full spectrum of investment styles including fund of funds, direct funds and traditional investment managers. Importantly, the system allows for the examination of each candidate manager's excess return stream, or "alpha", over time. PASS allows us to contrast each manager's true, embedded beta to a variety of market factors and helps rank managers according to an array of customizable criteria.
3. Once we have isolated a set of managers for further analysis, the asset class specialists meet with the managers to assess the investment team, understand the firm's business focus, review investment philosophy, determine consistency of investment style, verify return attribution and liquidity, and dissect the investment process. If the manager meets all the established criteria to this point in the process, our asset class specialists document the investment thesis for the manager.
4. The specialist then brings the manager to NEPC's centralized Due Diligence Committee for vetting. The Due Diligence Committee is made up of senior members of the firm, including Partners and Senior Consultants. Any outstanding issues/questions from the vetting session are pursued by the research analyst and readdressed to the Committee. All successfully vetted investment managers are considered research-qualified and added to a Focused Placement List (FPL) at the research analyst's discretion.

Vetted managers are recommended based on their fit with the client's goals and objectives, which are determined through the interactions with the client, and can be supported through our active risk budgeting tool, which helps size the managers within the context of the overall portfolio.

Our criteria for including investment managers in a search include return expectations and risk tolerance, liquidity needs, legal and or regulatory constraints, and fit within the client's investment program.



The criteria we use to evaluate managers are based on what we refer to as the Five P's. They are:

- **People:** We want to be very comfortable not only with the key individuals responsible for an investment product, but also the organization that holds them together. Our belief is that organizations that lend themselves to stability and high levels of career satisfaction have a higher likelihood of outperformance. Ownership, incentives and overall professional stability, among others, are examined in considerable detail.
- **Philosophy:** We believe it is important to understand the basic thesis that drives a manager's investment process. For example, we want to know if the manager fundamentally believes in growth, value, bottom-up or top-down investing, and whether or not that philosophy is consistent with their actual implementation.
- **Process:** This is the most in-depth part of our research. We conduct considerable qualitative and quantitative analysis on the process(es) of each investment product of each firm we recommend to our clients. We are thoroughly familiar with the research, buy decision, portfolio construction and sell decision, and we compare each manager on a consistent basis.
- **Performance:** The performance phase of our analysis takes place after the firm's people, philosophy and process pass muster. Strong performance is irrelevant without a stable organization, an investment philosophy that makes sense, and a well-documented, repeatable investment process. When analyzing performance, we look at up-market and down-market performance, as well as correlations between each candidate manager's performance and the risk and return characteristics of the managers remaining in the client's investment program. This final step ensures that all serious candidates will "fit" well with the residual program.
- **Price:** As a final part of our due diligence, we carefully analyze managers' fee structures. We track all components of the fees our clients can be expected to pay, including management fees, entry/exit fees, performance fees, minimum fees, custody fees, and any other fees that may apply. We also determine whether or not most favored nations fees are offered, and the degree to which managers are willing to negotiate. As with performance, our due diligence is designed to ensure that all candidate managers are evaluated on a consistent basis.

The culmination of our evaluation process resides in the investment thesis that we develop for every manager profiled. We believe that, similar to stocks or bonds evaluated by active investment managers, we should have levels of conviction about managers and their ability to outperform. The evaluation process outlined above, coupled with the interviews and due diligence we conduct with/on investment managers, allows us to form opinions about the managers with whom our clients work, opinions that we believe are important to share with our clients.

For managers that prove favorable based on the five P's, prior to recommending a manager for a portfolio, we will ensure that they match our return expectations and risk tolerance, liquidity needs, legal and or regulatory constraints, and are a "fit" within the Fund's investment program.



While data analysis is important, we feel one of our value-adds to the investment process is our experience, which includes knowing how heavily to weight the qualitative factors. With every manager decision we consider both quantitative and qualitative factors. Likewise, as we continue to monitor the managers, we include quantitative and qualitative inputs in the assessment. Most importantly, given fluid events in the markets, the managers and the Fund, we ask ourselves, “Would we recommend the manager today?” The answer is based on both qualitative and quantitative factors and we continually assess and share our analysis of each.

Our Due Diligence Committee consists of research professionals, senior members of the consulting practice, and partners in both research and consulting. The Committee meets every other week to review the events of the preceding two weeks as they relate to the investment management community. The Committee vets each Focused Placement List of managers to ensure high standards and consistency in client searches. The Due Diligence Committee's firm-wide policy includes examining investment managers to confirm that they are in compliance with all regulatory bodies, including the SEC.

MANAGING DEVELOPED COUNTRY CURRENCY RISK - A PROACTIVE APPROACH

Timothy F. McCusker, FSA, CFA, CAIA
Partner, Director of Traditional Research

INTRODUCTION

Currencies are volatile. Most US institutional investors have traditionally ignored this volatility in their portfolios, leaving a meaningful risk exposure unhedged. This practice puts American institutional investors five to ten years behind UK, European, and Canadian investors, who have generally managed foreign-currency risk proactively through hedging (given significantly smaller home country market capitalizations). Despite increasing sophistication, as US institutional investors have embraced alternatives, utilized risk budgeting, and generally raised allocations to foreign investments, currency exposure has largely been ignored, resulting in a meaningful risk allocation without positive return expectations.

A risk budgeting approach can identify sources of risk within a portfolio. When foreign asset classes and their underlying currency exposure are separated, risk budgeting reveals that developed foreign currencies are a volatile exposure within a diversified portfolio, adding risk without any increase in return expectations.

We believe that the decision of how much explicit foreign currency¹ to hold should be proactive and integrated within the asset allocation process, rather than a default outcome of the chosen capital allocation to foreign asset classes. Investors should understand how much explicit non-dollar exposure exists in their portfolios and the risk impact of maintaining long exposure to foreign currency by leaving positions unhedged.

This paper explores the following:

- The impact of foreign-currency exposure
- An analytical framework for evaluating foreign-currency risk

- Key considerations in addressing foreign-currency exposure

We recognize that the evaluation of foreign-currency risk through quantitative analysis must be synthesized with practical considerations. Each investor's asset allocation, resources, and governance will lead to unique solutions for addressing currency risk. These solutions can range from fully hedged to completely unhedged foreign-currency exposure.² Sophisticated investors who have utilized risk budgeting to build risk-balanced, globally diversified portfolios will find that developed

DEVELOPED COUNTRY CURRENCY EXPOSURE RESULTS IN A MEANINGFUL RISK WITHOUT POSITIVE RETURN EXPECTATIONS

currency risk is a small but meaningful risk allocation in their portfolio risk budget. Understanding this exposure and considering solutions to manage or minimize this risk can lead to more efficient portfolio solutions, enhancing the ability of the portfolio to meet the investment program's long-term objectives.

THE IMPACT OF FOREIGN CURRENCY EXPOSURE

Return Impact of Foreign Currency Exposure

As sophisticated institutional investors have built more efficient investment programs, they have increasingly sought the diversification benefits of asset classes outside of the US. These include: international, developed equities; international, developed, sovereign and corporate bonds; as well as smaller but growing allocations to emerg-

¹ By explicit foreign currency exposure, we are referring to dedicated non-dollar investments. We recognize that foreign currency can also have an impact on the performance of domestic companies with multi-national sources of revenue but do not incorporate that in this analysis.

² Our analysis and conclusions focus on a framework for US investors; however, the framework for understanding and addressing foreign currency exposure can be easily translated and applied for non-US investors though results will likely differ depending on the level of foreign currency exposure.

ing country equities and debt.³ All of these asset classes have foreign-currency exposure. In our analysis, we focus on developed markets currency as an uncompensated risk in investment programs. Please see the sidebar below for our view on maintaining unhedged exposure to emerging-market currencies.

Emerging Currencies - Desirable Risk Premia

While our analysis suggests that exposure to developed market currencies is a risk that is not compensated with a positive expected return. We draw a critical distinction when considering the role of emerging market currencies in a diversified portfolio. The pressures that have built up due to pegged currency policies, and the resistance of emerging countries' policymakers to allow their currencies to appreciate, leave emerging currencies poised for robust risk-adjusted returns. We feel strongly that investors should maintain unhedged exposure to emerging currencies because of the positive expected return over a secular time horizon. Emerging currency exposure is expected to be volatile as these countries experience growing pains, however, we expect that long-term holders of these currencies will benefit with a positive return.

Trading costs and size also play a role in the decision to hedge. Transaction costs have improved in emerging currency markets, but those costs are still meaningfully higher than the low costs of trading the currencies of developed countries. Emerging currencies generally benefit from much higher interest rates than developed countries, including the United States, leading to high carry costs for those choosing to hedge emerging currencies back to the dollar. Finally, the size of emerging currency exposure is still relatively small in diversified portfolios. The impact of hedging these exposures would be very small, though we would expect exposure to these markets to grow and the impact to be more meaningful over time.

Generally, US investors hold foreign asset classes in an unhedged fashion, receiving a total return on investment that is a combination of: the underlying asset's return in local (foreign) currency terms; and return from the change in value of the foreign currency relative to the investor's home currency. The foreign-currency impact is volatile and can be positive or negative depending on the direction of the basket of foreign currencies held relative to the US dollar. A relatively strong dollar means that foreign currencies have depreciated, resulting in a negative impact on foreign-asset returns. Conversely, a relatively weak dollar means that

foreign currencies have appreciated, resulting in a positive impact on foreign-asset returns.

Analyzing only total returns of unhedged foreign investments – rather than asset returns and currency returns separately – masks the impact that changes in foreign currencies have on the performance of these assets. These two parts of a foreign security's total return can be separated. Deep, liquid markets exist to accommodate that separation at low cost in developed-market currencies (through the trading of currency forwards). Moreover, the decision of whether to take on risk to each of those exposures (foreign assets and foreign currency) should be separated as well.

Determining the role of foreign-currency exposures in a portfolio should include reflection on the premium that one expects for bearing currency risk. In other words, can one expect to be rewarded with a positive, long-term return? Academic research and empirical evidence indicate that such a risk premium does not exist – that the expected return for bearing currency risk is zero.

By holding foreign currency, an investor is selling US dollars, while the investor on the opposite side of the transaction is selling foreign currency and buying US dollars. Based on the mechanics, in order for a risk premium to exist, one must believe that the investor selling foreign currency is willing to pay a premium to buy US dollars. While we do not expect a risk premium for holding foreign currencies over the long-term, we do recognize that a premium can exist for holding one currency versus another, including the dollar, over certain periods of time. We believe this opportunity is best accessed through active currency management or through broader GTAA/global macro strategies and not through passive, long exposure to foreign currencies.

Figure 1 illustrates the cumulative differential since 1988 for an initial investment of \$1,000 in non-US equities (based on the MSCI EAFE index) or global fixed income (based on the Citigroup World Government Bond Index) in hedged-currency terms, versus leaving the positions unhedged.⁴ Coincidentally, the impact of currency does approximately balance out over this particular period. A \$1,000 investment in the Citigroup WGBI index in January 1988 would be worth roughly \$3,000, with very little difference between hedged and unhedged currency exposure. Similarly, an investment in the MSCI EAFE index in January 1988 would be worth approximately \$4,500, again with the hedging decision having minimal impact on the total value of the invest-

³ Emerging market debt is often issued in US Dollars or Euros limiting the amount of foreign currency exposure, though local currency debt markets have expanded and are expected to increase in importance in global capital markets.

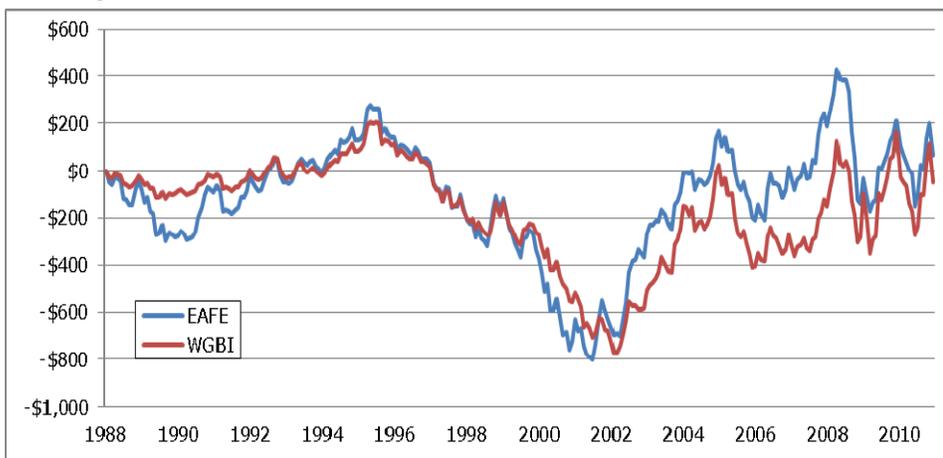
⁴ We chose January 1988 as a starting point since hedged index price data for both equities and fixed income are readily available back to this point. MSCI publishes a currency-hedged price index. We constructed a total return index using historical dividends from the unhedged MSCI EAFE index.



ment. If the time period in this example – 23 years – can be said to adequately define the “long term,” it may be possible to move the discussion forward to whether currencies should be held for diversification.

However, examining another time horizon uncovers starkly different results. If one performs the same analysis of cumulative return differentials in 2002 (14 years of investment instead of the full 23 year horizon), this same investor with \$1,000 invested in 1988, would have \$700-800 less than a hedged investor by ignoring the risk of currencies in the portfolio.

Figure 1 - Cumulative Return Differential (\$1,000 Starting Investment)



Source: Bloomberg and NEPC

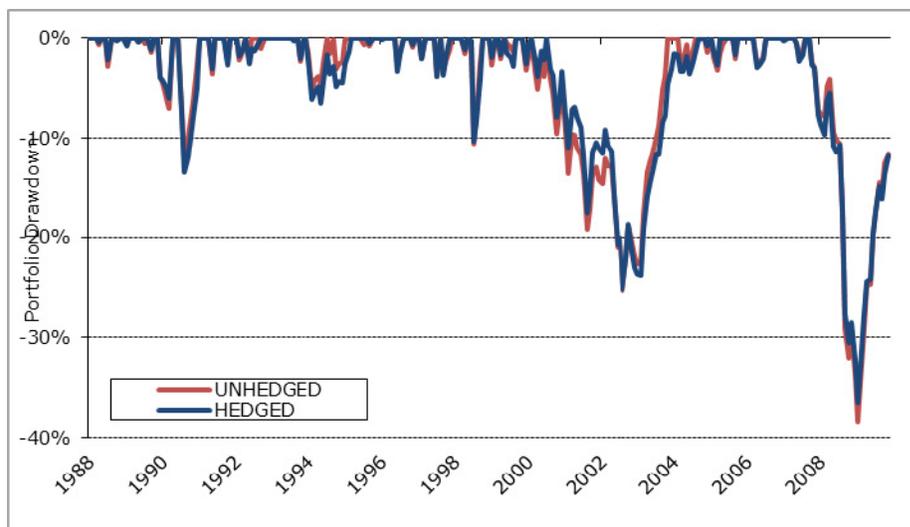
The goal of this analysis is not to “cherry pick” particular points in time when currency hedging outperformed materially. Clearly, one could choose a different starting point (such as 2001) when the cumulative benefit of hedging was most magnified and suggest that there is strong evidence that unhedged currency exposure is beneficial. This exercise illustrates the mostly uncertain and wide-ranging time frame that defines “long-term,” and the large impact that currency can have on the total returns of a foreign asset. Taking on that volatility for diversification can lead to meaningful realized underperformance relative to the proactive decision to hedge foreign-currency exposure.

This analysis focuses on the meaningful impact that currency can have on individual asset classes with explicit foreign-currency exposure. It is also important to consider currency in a total-portfolio context. We must give some thought to whether holding currency during periods where the exposure creates a cumulative drag on performance might be a necessary trade-off in order to gain diversification and protection at other times. Can investors expect currency exposure to provide some downside protection when the portfolio experiences a significant drawdown, cushioning portfolio losses by delivering a positive return?

Later in this paper, we illustrate why currency exposure is additive to risk, and not diversifying.

First, in Figure 2, we investigate the portfolio-level impact in the context of portfolio drawdowns, using an allocation of 65% equity and 35% fixed income.⁵ This analysis reveals that asset allocation is the primary driver of exposure to drawdowns. Long foreign-currency exposure does little to mitigate this risk, adding volatility to total portfolio returns with little benefit in adverse economic environments.

Figure 2 - Total Portfolio Drawdown Exposure (Hedged vs. Unhedged)



Source: Bloomberg and NEPC

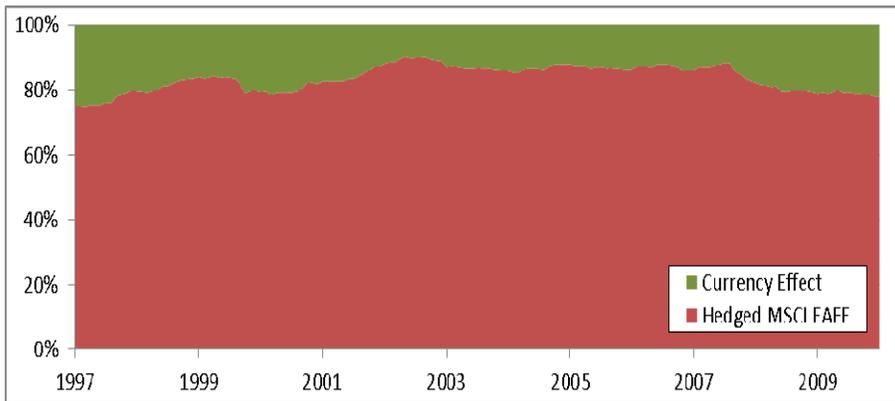


⁵ We used this allocation as a proxy for a portfolio that will be utilized throughout this analysis of 55% equity, 35% fixed income, and 10% alternatives. We replaced the 10% alternatives exposure with equities for this analysis in order to utilize data back to 1988, for which hedge fund or private equity data were not readily available. Within these broad asset classes, we assumed: for the 65% equity allocation – 32% US large cap equity, 8% US small cap equity, 20% developed international equity, 5% emerging equity and for the 35% bond allocation – 20% core bonds, 10% global bonds, 5% US high yield bonds.

Risk Impact of Foreign Currency Exposure

Currency exposure adds volatility to the return profile of foreign asset classes. Figures 3 and 4 quantify the contribution to volatility for the MSCI EAFE and Citigroup WGBI from both foreign currencies and the underlying security. When combined, these two exposures represent the unhedged investment in each foreign asset class. The impact of currency on developed equities (MSCI EAFE) is relatively consistent, ranging between 10%-25% of total volatility, with equity volatility overwhelming the risk contribution from currency.

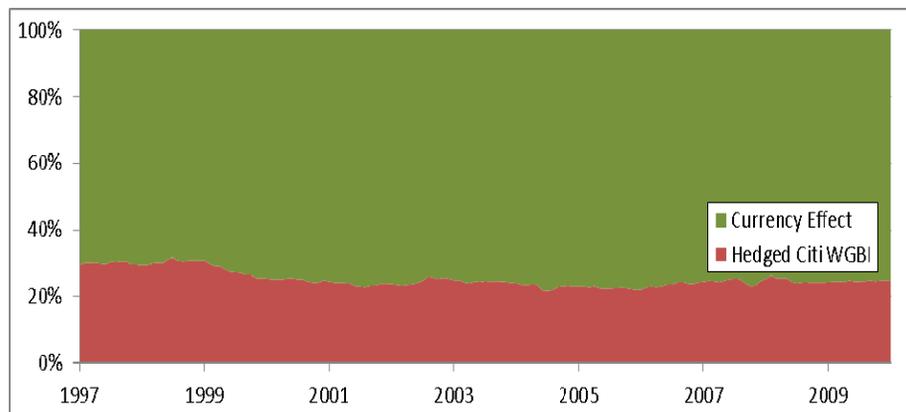
Figure 3 - Contribution to Total Volatility (MSCI EAFE - Rolling 10 year Volatility)



Source: Bloomberg and NEPC

For global bonds (Citigroup WGBI), the contribution to total risk from currency is also consistent, but much more meaningful, averaging close to 75% of total risk. In fact, it appears that investors hoping to gain exposure to global interest rates with some residual currency exposure are holding mostly exposure to foreign currencies, with some interest rate/sovereign bond exposure left over.

Figure 4 - Contribution to Total Volatility (Citigroup WGBI - Rolling 10 year Volatility)



Source: Bloomberg and NEPC

Clearly, foreign currency exposure adds volatility to these asset classes. The underlying index exposure (hedged to the US dollar) is less volatile than unhedged exposure with currency risk embedded in the total returns. This is despite the low correlation characteristics of foreign currency exposure to the underlying asset classes. Some argue that, because of this low correlation, holding foreign currencies in a portfolio improves diversification. This argument is often extended further, suggesting that the currency exposure's low correlation is diversifying to other asset classes in the portfolio. We find that, for most relationships across risky asset classes, correlations change very little whether currency exposure is hedged or unhedged.⁶ Leaving currency exposure unhedged only magnifies the volatility of the underlying allocation – it generally does not alter the correlations of foreign assets to other exposures in the portfolio. This adds risk to the total portfolio rather than reducing risk through additional diversification.

The argument for additional diversification through currency exposure ignores an important differentiation in analyzing how currency fits within a portfolio. While modern portfolio theory indicates that including an uncorrelated asset in a portfolio will improve diversification, this requires the substitution of part of the existing asset allocation for this uncorrelated asset, to maintain a total exposure of 100%. However, currency exposure is an additional risk exposure over and above 100% of invested capital across asset classes. Because the exposure to currency is additive, it generally adds risk to the overall portfolio, despite being uncorrelated.

Hedging a portion (or all) of the foreign-currency exposure can reduce the total volatility of foreign asset classes. The return volatility of a basket of currencies held through MSCI EAFE has historically been approximately 8% since 1988 (a similar level applies to bond exposure through the Citigroup WGBI). We expect elevated volatility across developed countries as these countries address structural government balance sheets, deficit chal-

lenges, and aging populations. The return volatility of a basket of currencies held through MSCI EAFE has historically been approximately 8% since 1988 (a similar level applies to bond exposure through the Citigroup WGBI). We expect elevated volatility across developed countries as these countries address structural government balance sheets, deficit chal-

lenges, and aging populations. The return volatility of a basket of currencies held through MSCI EAFE has historically been approximately 8% since 1988 (a similar level applies to bond exposure through the Citigroup WGBI). We expect elevated volatility across developed countries as these countries address structural government balance sheets, deficit chal-



⁶ Global bonds are an exception to this as the composition of the risk changes significantly from largely currency risk to interest rate risk. For more detail on our analysis of correlations of hedged and unhedged asset classes, please refer to the appendix.

allenges, and continued deleveraging. There also may be a case for persistence in the modest increase in correlation between currency exposure and underlying securities that we have recently witnessed as global economies move more in unison in an effort to stimulate a continued recovery from the financial crisis. Increased volatility and correlations from currency exposure can lead to a larger risk contribution from currencies and, therefore, increased total portfolio volatility. Please see the sidebar on global currency dynamics for a view on the future of global currencies.

Currency Regimes - A Longer View

One caution to keep in mind when considering currency hedging is that the existing US dollar-based system is unlikely to stay in place forever. Throughout history, economic growth, national debts, and inflation have helped determine the relative strength of currencies. The current system of free-floating currencies arose after several years of turmoil following the collapse of the previous "Bretton Woods" regime in 1971—which had hard pegs for all currencies relative to the dollar, backed by US gold reserves. Today's system was founded on the legacy of the US's historical role and Paul Volcker's ability to restore the dollar's value in the 1980s, and continues to rely on the strength of the US as the world's largest economy.

Looking forward, it is hard to imagine that the US dollar will hold its preeminent role for the long term. Many emerging countries have higher growth rates and stronger balance sheets than the US and the rest of the developed world. Increasingly, central bankers are having conversations about moving reserves towards a market basket of currencies. Should such a change take place, the US dollar would still be expected to represent the majority of reserve requirements, but the significant reduction in demand would reduce the relative value of the dollar, strengthening other currencies in the basket. While a smooth transition would be favored by investors, history suggests that a shift could be swift and traumatic.

Since most U.S. institutional investors pay commitments in dollars, NEPC believes that concerns over currency regime change are best addressed using the risk-management tools outlined in this paper. Clients should seek currency implementations that have some mix of long-term risk management and/or manager ability to shift exposure during any potential upheaval.

ANALYTICAL FRAMEWORK FOR EVALUATING FOREIGN CURRENCY RISK

Exposure to foreign currency should be evaluated within the same asset allocation framework used in developing a diversified, efficient portfolio. The return, risk, correlations, and unique attributes of each asset class should be considered. This integrated asset allocation process should include a decision about how much exposure to foreign currencies is appropriate for a given asset allocation.

Risk budgeting can help investors understand the total risk profile of an asset allocation as well as the contribution of risk from each asset class. By focusing on the risk contribution of each asset class and avoiding concentration in any one exposure, investors are able to build more diversified and balanced portfolios. We believe that this risk-budgeting framework can be extended to develop a more comprehensive understanding of currency risk. This analysis can lead to decisions on how to address and manage that exposure within a portfolio. This approach is very flexible and can be used to inform currency decisions for most asset allocations. For illustration, we rely on a traditional portfolio allocation of 55% equity, 35% fixed income, and 10% alternatives.⁷

Currency Notional Exposure

In Figure 5, the capital allocation for this traditional portfolio appears on the left. The middle column illustrates how that capital allocation maps into exposures to the US dollar, developed currencies, emerging currencies, and alternatives.⁸ In the right column, specific underlying exposures are shown for developed and emerging currencies in the portfolio.

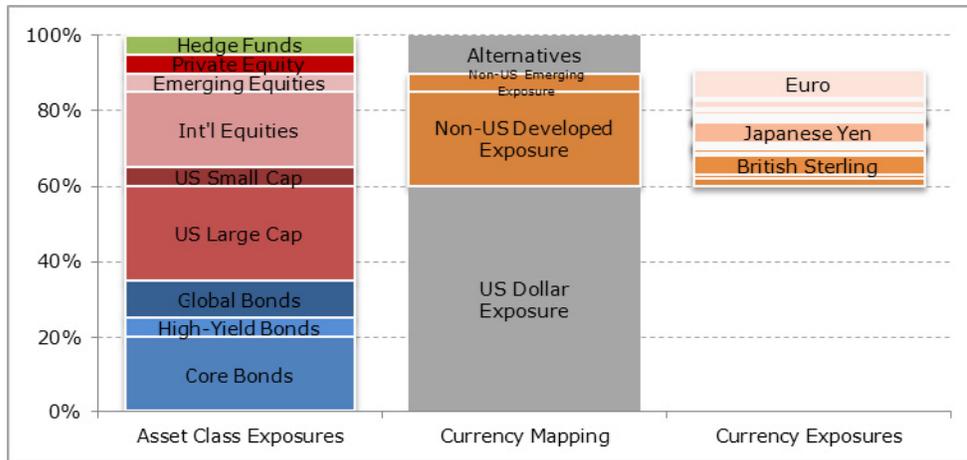
In this portfolio, the euro (8.4% of the total), the Japanese yen (5.1%), and the British sterling (4.9%) are meaningful positions at the portfolio level. With annualized volatility of 10%–12% each, these currencies are potentially the three largest single exposures in an investor's diversified portfolio. These large exposures are likely a fallout of asset allocation decisions rather than a conscious bet with a view toward the value of those currencies relative to the US dollar. This is especially problematic when considering that these exposures likely do not have a positive, long-term, expected return.

⁷ Within these broad asset classes, we assumed: for the 55% equity allocation – 25% US large cap equity, 5% US small cap equity, 20% developed international equity, 5% emerging equity; for the 35% bond allocation – 20% core bonds, 10% global bonds, 5% US high yield bonds; and for the 10% alternatives allocation – 5% hedge funds, 5% private equity. We assume that country level exposure is index based and ignore any potential impact of active country allocations by active managers.

⁸ In this analysis we will not focus on explicit foreign currency exposure in alternatives, making the assumption that any illiquid vehicles are domestically based and any hedge fund strategy takes active views on currencies. Certainly, many alternative investments will have explicit foreign currency exposure such as illiquid non-US investments. In those cases, those investments should be incorporated into the aggregation of foreign currency exposures.



Figure 5 - Notional Allocation to Asset Classes and Currencies



Source: NEPC

Currency Risk Exposures

By separating exposure to foreign investments from their embedded currency exposure, we can isolate the risk impact from both the underlying asset class and its foreign-currency exposure. In order to evaluate currency exposure through risk budgeting, we have developed assumptions for currency-hedged asset classes.⁹

We use annualized standard deviation and correlation estimates to develop a covariance matrix as our proxy for risk. We recognize, however, that these inputs do not provide a comprehensive view of risk and likely understate the impact that currency can have on the portfolio. As noted earlier in Figure 1, the performance differential due to currency exposure (relative to hedging foreign currencies to the US dollar) can be significant – multiples of the calculated volatility of non-US currency exposure embedded in foreign indices. Exposure to extremely negative, left-tail outcomes is likely magnified for US investors given the dollar’s legacy status as a safe-haven currency. When stress appears in the capital markets,

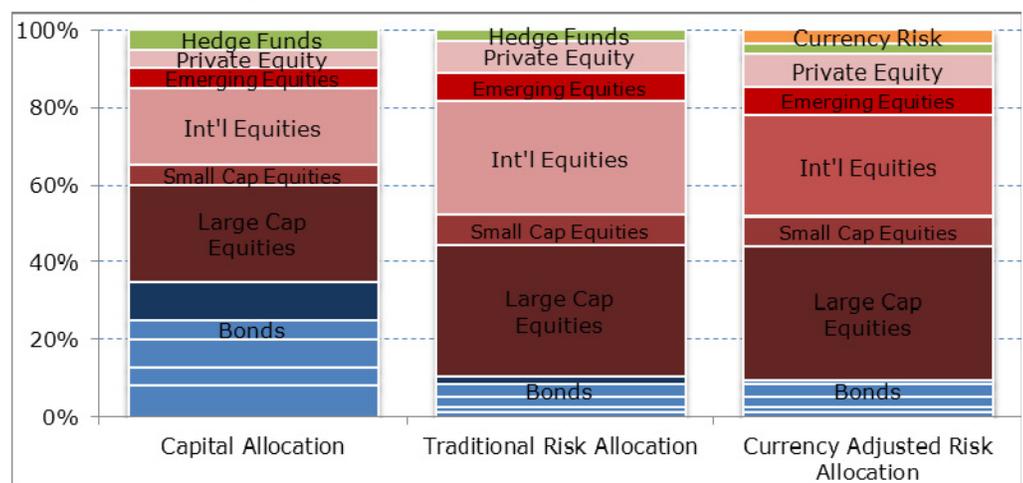
money flows into the dollar, bidding up its price while placing downward pressure on other developed foreign currencies.

Volatility can still be an important metric in understanding risk exposures; however, it is not a conclusive measure of risk. Common sense should be applied, and decisions about sizing exposures, including the exposure to foreign currency, should take into account factors not captured through standard

deviation measures (e.g., non-normal distributions, unstable correlations, etc.).

In Figure 6, the capital allocation for our traditional portfolio appears in the first column. The second column illustrates the allocation of risk, considering risk contribution from foreign asset classes as a combined exposure to both underlying asset class volatility and to currency volatility (as traditionally viewed by investors in a portfolio-risk-budgeting exercise). The third column produces an adjusted risk allocation that explicitly separates currency exposure from underlying foreign asset classes. Currency risk is 4% of total portfolio volatility¹⁰ – an allocation of risk that can be minimized through currency hedging. By hedging this exposure, investors can improve the efficiency of the total portfolio.

Figure 6 - Risk Budgeting Results When Separating Currency Risk Exposure



Source: NEPC

⁹ Please see the appendix for our methodology.

¹⁰ For more risk balanced and globally diversified portfolios, with larger volatility contributions from bonds, currency risk may have larger impact than in this example. We have encouraged investors to embrace Risk Parity as an investment approach, often implementing this concept in a portion of the asset allocation by hiring a Risk Parity manager. We find that, in general, our preferred Risk Parity managers choose not to take on systematic developed foreign currency exposure, finding there are more efficient ways to allocate their risk budget elsewhere in the portfolio.



Table 1 - Expectations at Various Hedge Ratios

	Current Allocation	Developed Currency - Full Hedge	Developed Currency - 50% Hedged
Expected Return (Geometric)	6.5%	6.5%	6.5%
Standard Deviation	12.3%	11.9%	12.0%
Sharpe Ratio	0.37	0.38	0.38

Source: NEPC

Improvements in Portfolio Efficiency

Table 1 highlights the improved portfolio efficiency that can be achieved through a reduction in currency risk for a traditional asset allocation. We believe that more efficient management of that risk can lead to improvements in portfolio efficiency. The table shows that meaningful risk reduction benefits can be achieved by hedging half of this exposure. These hedged allocations maintain portfolio expected returns at a reduced level of expected volatility. Investors choosing to maintain the same level of expected volatility as their current strategic portfolio would have increased flexibility to take on more diversified beta exposure or to invest in active strategies – adding additional expected return at the same level of current volatility.

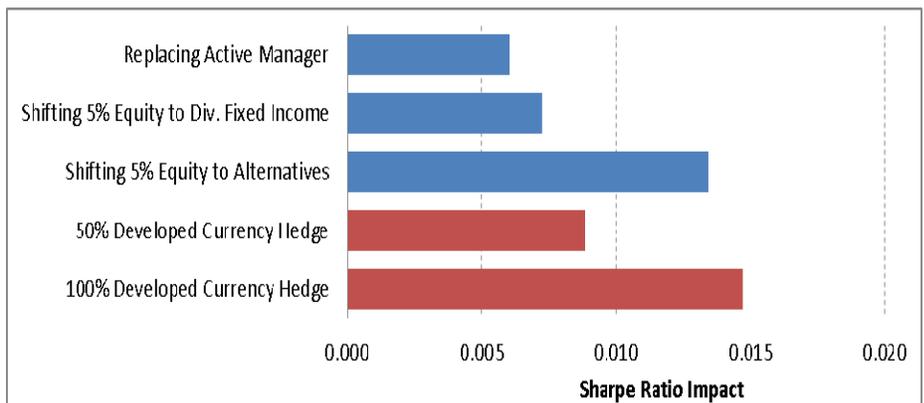
An obvious question emerges from this analysis: Is focusing on currency exposure (and potentially addressing this uncompensated risk through significant changes to the portfolio) really worth the effort in exchange for less than 10% of total portfolio volatility and potential Sharpe ratio improvement of just a few basis points? If we consider other potential decisions for an institutional investor, we find that hedging a portion or all of a portfolio’s notional exposure to currency is a highly effective decision, potentially one of the highest-impact decisions an investor can make without significantly altering the strategic asset allocation.

Figure 7 illustrates potential changes to our sample portfolio. Items that often take up hours of investment research and investment committee

focus – such as replacing a manager with a 5% allocation with a higher-information ratio strategy, adding more diversification into other asset classes, or increasing targets to alternatives – all have the potential to improve the Sharpe Ratio of an investment program.

Hedging 50% or 100% of developed currency can reduce or minimize a risk exposure, improving portfolio efficiency, while otherwise not changing the existing asset allocation, leading to a similar or perhaps even greater impact than other asset allocation decisions. Investors should evaluate a portfolio’s exposure to developed foreign currency as part, understand the impact of this exposure, and integrate this understanding with the ongoing management of an investment program.

Figure 7 - Illustration of Improvements in Sharpe Ratio Due to Changes in Portfolio Structure¹¹



Source: NEPC

KEY CONSIDERATIONS IN ADDRESSING FOREIGN CURRENCY EXPOSURE

We recognize that, despite illustration of the sub-optimal results of maintaining passive unhedged exposure to foreign currencies, practical challenges exist in implementing solutions to better manage this risk. While we believe that currency has a meaningful risk contribution in globally diversified portfolios, we recognize that there will be many trade-offs in addressing that risk and that those challenges must be taken into account before developing a clear plan on exactly how to proceed.

Investors who find that foreign-currency exposure has a minimal impact on total portfolio risk may instead choose to focus on higher value-add deci-



¹¹ All of this analysis relied on the 55% equity, 35% fixed income, 10% alternatives portfolio illustrated throughout this paper. In the first illustration, an active strategy (with a 5% allocation), is replaced improving alpha expectations by approximately 2.5% for that allocation while keeping tracking error roughly the same. In the second illustration, 5% of US Large Cap Equity and 5% of Developed International Equity is shifted to 5% TIPS and 5% Emerging Market Debt. In the third illustration, 5% of US Large Cap Equity and 5% of Developed International Equity is shifted to 5% Hedge Funds and 5% Private Equity.

sions for the portfolio. However, the process of quantifying and understanding the impact of foreign currency on total portfolio volatility will still be beneficial to those investors because improved insight into the portfolio's exposure to currency risk will inform future asset allocation decisions – facilitating an improved decision framework for evaluating the impact of foreign currency on future portfolio outcomes. Once the contribution of developed-currency risk has been quantified, investors face a series of important questions before they can determine action steps. Some of these considerations are described below.

HEDGING DEVELOPED COUNTRY CURRENCY REDUCES A RISK, IMPROVING PORTFOLIO EFFICIENCY

How much of the currency exposure should be hedged?

An investor could perform an exhaustive optimization exercise to determine the ideal currency hedge ratio – anywhere between 0% and 100%. We find that this approach pursues an unrealistic degree of precision. Consideration of just three possible hedge ratios – 0%, 50%, and 100% – can provide the appropriate range of differentiated solutions to meet an investor's desire to maintain, reduce, or minimize the volatility impact of developed foreign currency. A starting point for evaluating these three potential hedge ratios is analysis of the expected risk, return, and Sharpe Ratio, as well as the resulting risk impact of currency. As shown with our illustrative portfolio, a 50% developed-currency hedge can provide more than two-thirds of the risk reduction benefits of a 100% hedge.

Additionally, for cost-effectiveness, an investor could consider hedging just three or four major foreign currencies to capture the majority of currency risk.¹² As investors develop more sophisticated insights into the role of currency in a portfolio, they may consider different hedging levels for each currency. However, as a first step into currency hedging, investors may choose to set a consistent hedge ratio across all currencies, building out the analysis of individual currencies over time.

How should the currency-hedging program be implemented?

Investors must consider the internal resources

available to manage a currency-hedging program and the costs associated with setting up that program. The time and costs needed to support this effort must be compared to the costs of hiring an external manager to hedge currency exposure and monitoring the effectiveness of the external manager. For the majority of investors, management of a hedging program involving currency derivatives is best implemented through an external expert. One solution would be a dedicated overlay manager. The selection process for identifying the appropriate manager would be similar to the process employed when selecting other strategies in the investment program with appropriate due diligence conducted on the manager's investment professionals, trading discipline, risk controls, counterparty management, and other characteristics.

Another solution is to hire external foreign-equity or foreign-bond strategies benchmarked to a currency-hedged index, in place of the unhedged mandates currently offered in the marketplace.¹³ This would require leadership from US investors as managers of non-US and global asset classes have traditionally offered unhedged products in the US to meet the demand from institutional clients for unhedged exposure. Currently, while we find many skilled global-bond managers with both hedged and unhedged offerings, the universe for currency-hedged, international, or global-equity products is less robust. Many of the managers offering unhedged products in the US have a global client base and have demonstrated currency-hedging capabilities through their currency-hedged products, or share classes hedged to a particular currency, utilized by investors in other countries. This universe could grow if some US investors are willing to lead in demanding currency-hedged products. This approach would free an investor from managing the cash needs of a currency-hedging program alongside total portfolio liquidity, delegating liquidity management of currency derivatives to the program's foreign-asset-class manager.

While active portfolio managers of foreign allocations may adjust country exposures, a view on each currency relative to the investor's domestic currency is likely no more than secondary part of the investment process. This is especially true for active managers with a bottom-up focus. These managers are probably capable of generating similar levels of alpha at reduced levels of volatility (both of total returns and tracking error) through a currency-hedged mandate, delivering more efficient results to the investor.



¹² These currencies would be the UK Sterling, the euro, the Japanese yen, and perhaps the Swiss franc.

¹³ These strategies could employ active or passive investment processes depending on the philosophy of the investor and portfolio construction considerations.

How much liquidity is needed to maintain the hedge?

Most hedging programs will likely be implemented in the deep and liquid currency-forwards market. These derivatives are a straight-forward, low-cost way to hedge away currency risk. They require regular marking-to-market to minimize counterparty risk in either direction.

The process of posting collateral can work for or against the investor and, technically, will be offset by gains or losses on the long foreign-currency positions held in the portfolio. Issues can emerge in managing collateral movements if the total portfolio does not have appropriate liquidity to

A COMPREHENSIVE REVIEW OF LIQUIDITY SHOULD BE CONDUCTED IF IMPLEMENTING AN OVERLAY

support the regular cash-flow needs. When foreign currencies are appreciating relative to the domestic currency, the underlying foreign asset class positions will experience currency gains. At the same time, the currency-hedging program will post collateral as short currency positions experience losses.

For those investors implementing currency hedging through an international equity or bond manager's product, decisions around liquidity levels for currency-hedging activity are minimized. The management of margin levels to maintain currency forwards is embedded within the fund or separate account and controlled by the individual manager. For investors who choose to implement a hedging program at the portfolio level (either internally or through an external overlay manager), further scrutiny and rigor is required. Unfortunately, the redemption frequency of the underlying allocation may make synchronizing the actual cash returns between the two difficult. The currency forwards may require daily marking-to-market, while the investment in the foreign exposure (the target of the hedge) may be through a fund that offers only monthly liquidity. As a result, other sources of liquidity will be needed.

A comprehensive review of all sources of liquidity should be conducted as part of implementing any overlay structure that can demand capital in order to mark synthetic positions to market. This highlights the importance of integrating any solutions for managing currency within the overall asset allocation process and with a clear understanding of the overall portfolio liquidity profile.

Investors with a significant portion of their portfolio in illiquid asset classes, or asset classes that could potentially become less liquid¹⁴, may consider hedging a lower percentage of currency exposure.

Should the currency hedge be managed actively or passively?

We believe that currency markets are inefficient, and many investors seek currency alpha through broader mandates like global tactical allocation or global macro strategies. Liquidity constraints may also be addressed through active management of currency exposures. An active currency approach could minimize cash outflows to cover losses on currency forwards if the active manager is able to effectively time exposure to various currency markets. An active approach to currency exposures would be implemented at the portfolio level, with some baseline currency exposure set at the strategic hedge ratio. An active strategy would be employed to express views on the direction of currencies, attempting to hedge higher levels of individual currencies that are expected to depreciate and lower levels of individual currencies that are expected to appreciate.

After minimizing the contribution to portfolio risk from foreign currency through hedging, the investor could replace this portion of the risk budget with the active risk of a skilled active currency strategy. The investor can target a strategic currency hedge that benefits overall portfolio efficiency while adding a potential alpha source that can potentially reduce losses from currency hedging when the home currency is appreciating. At the same time, the investor takes on the risk that the active decisions of the manager will detract from performance – negatively impacting the risk-reducing benefits of hedging currency. A thorough due diligence process to develop conviction in highly skilled strategies can minimize this risk over the long term.

How should behavioral challenges be addressed?

Deciding to reduce or minimize explicit currency exposure will be a significant change for many investors. It will differ from the way they have historically managed their portfolios and the approaches of many other investors. In cases like this, a long-term strategic asset allocation decision can feel like the expression of a directional view. Investors will sense that they have taken a strong position against foreign currencies by hedging some or all of that exposure away.

In addition, the hedging of currency exposure will cause the investor's portfolio to behave differently from those of their peers. The impact of foreign

¹⁴ This can include areas of capital markets that function in fairly liquid fashion during "normal times" but could become distressed in times of market crisis.



-currency exposure on major developed market indices, such as the MSCI EAFE and Citigroup WGBI, has been as high as 20% – both positive and negative – over rolling annual periods. For a portfolio with 25% allocated to foreign assets, this would flow through to a 5% difference in total portfolio returns. It is important for investors to be prepared for differences in returns and peer rankings as a result of currency hedging. Given the potential for meaningful return differences, it is also critical that investors view outcomes in terms of risk-adjusted returns, given the lower overall volatility of portfolios with currency hedging in place.

THE DECISION OF HOW MUCH FOREIGN CURRENCY TO HOLD SHOULD BE PROACTIVE

Because of the tendency to view decisions through a short-term lens, it will be extremely important to develop a road map for implementing and monitoring a change in approach to currency exposure. A clear plan with sound reasoning for the level of currency risk in the portfolio will help to minimize regret. Investors should be able to easily reference both the long-term portfolio risk reduction and improved efficiency through a risk-budgeting framework. A thorough understanding of the reasoning for the long-term decision will serve to minimize second-guessing.

Hedging currency exposure is a long-term strategic decision and should be evaluated over a time period sufficient to understand the effectiveness of the strategic shift. Looking back over a quarter, a year, or even several years will undermine the decision-making process. Once sufficient time has passed, investors should consider a more robust set of metrics – such as relative volatility of hedged exposures, improvements in portfolio Sharpe Ratio, and exposure to drawdowns – rather than simply taking the differential of hedged and unhedged asset classes as the signal of a right or wrong decision.

CONCLUSION

For many forward-thinking investors, foreign-currency positions have grown as they have moved to more globally diversified portfolios. As a result, foreign currency's contribution to the overall risk profile of these portfolios has increased. Because foreign currency is an additional exposure in a diversified portfolio (i.e., it does not replace another exposure), it amplifies portfolio volatility despite being uncorrelated. In general, that added volatility is not compensated through a reliable expected return.

Investors should attempt to understand the magnitude of currency risk in their investment programs, the potential benefits of reducing that risk, and the associated challenges in implementing solutions. Rather than a default decision resulting from other desired asset class exposures, the decision of how much foreign currency to hold and how to manage that exposure should be a proactive, integrated decision within the asset allocation process.

A risk-budgeting framework can be used to separate the risk contributions of underlying asset classes and the risk contribution from foreign-currency exposure. By separating currency risk from the underlying asset classes, investors can determine the impact of foreign-currency exposure on total portfolio volatility. This approach can also be utilized to consider implementation solutions for reducing currency risk.

Solutions can include a passive currency overlay, an active currency strategy that attempts to add alpha above a currency-hedged baseline, or shifting active foreign stock and bond managers from unhedged to currency-hedged mandates. Any decision to implement one of these solutions should be integrated with practical considerations such as overall risk tolerance, portfolio liquidity requirements, and behavioral considerations such as deviating from the strategies of their peers and regretting risk.

Investors should integrate explicit analysis of foreign currency exposure into the asset allocation process and develop a strategy for managing and monitoring that exposure. Those who choose to reduce exposure to developed-markets currency through currency hedging will introduce long-term portfolio benefits – maintaining return expectations while reducing portfolio volatility. By minimizing developed-currency risk in the total portfolio-risk budget, the portfolio's risk allocations will be more efficiently distributed, increasing the likelihood of meeting long-term portfolio objectives.



APPENDIX

Assumptions for Risk Analysis

Guided by historical relationships between currency exposure and hedged foreign asset classes, along with our five- to seven-year forecast for unhedged international asset classes, we can construct risk, return, and correlation forecasts for hedged asset classes. Despite the shortcomings of static risk, return, and correlation assumptions, this analysis is a critical starting point for understanding portfolio dynamics, including the impact and magnitude of currency volatility on the overall portfolio.

Table A1 - 2011 5-7 Year Assumptions

Asset Class	Arithmetic Return	Geometric Return	Standard Deviation
Global Bonds (Unhedged)	2.14%	1.75%	9.00%
Global Bonds (Hedged)	2.04%	1.92%	5.00%
Int'l Equities (Unhedged)	8.99%	7.00%	21.00%
Int'l Equities (Hedged)	8.89%	7.25%	19.00%

Table A1 compares our 2011 risk and return assumptions for international equities and global bonds in both hedged and unhedged terms. We assume that hedged asset classes will have the same expected arithmetic return (less 10 basis points for hedging costs). Analysis of the historical contribution to volatility from the underlying asset class (equities or bonds) and from currencies was used to determine the expected reduced volatility of hedged asset classes.

Perhaps most interesting is the impact of hedging on geometric expected returns. Geometric forecasts adjust for the challenges of compounding returns for a volatile asset over time. By reducing the asset class volatility, while sacrificing just the cost of hedging in the expected return, the compounded return forecast is increased. Hedging currency exposure creates more efficient underlying asset classes.

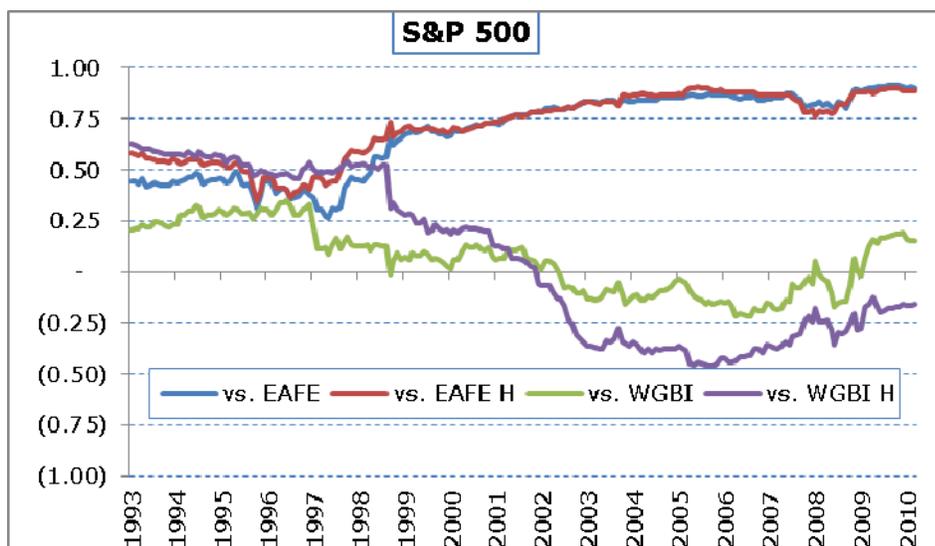
Fundamentally, it makes sense that minimizing a specific risk exposure embedded in an asset class should reduce the overall volatility of the return stream. However, expected correlations of

hedged foreign asset classes to other asset classes are much less intuitive and require further analysis. We analyzed rolling five-year correlations of both hedged and unhedged MSCI EAFE and Citigroup WGBI indices against the following major indices:

- S&P 500 Index
- Russell 2000 Index
- MSCI Emerging Markets Equity Index
- Barclays Capital Aggregate Bond Index
- Barclays Capital High Yield Index
- Barclays Capital Emerging Market Debt Index
- Goldman Sachs Commodity Index
- Credit Suisse/Dow Jones Hedge Fund Index.

While each of these indices provides exposure to unique parts of the capital markets, some consistencies did emerge when comparing the correlations of hedged and unhedged foreign index exposure. Figures A1 and A2 show the rolling five-year correlations for the S&P 500 and the Barclays Capital Aggregate Bond Index to MSCI EAFE and Citigroup WGBI, each both hedged and unhedged. These results are representative of results obtained for other asset classes.

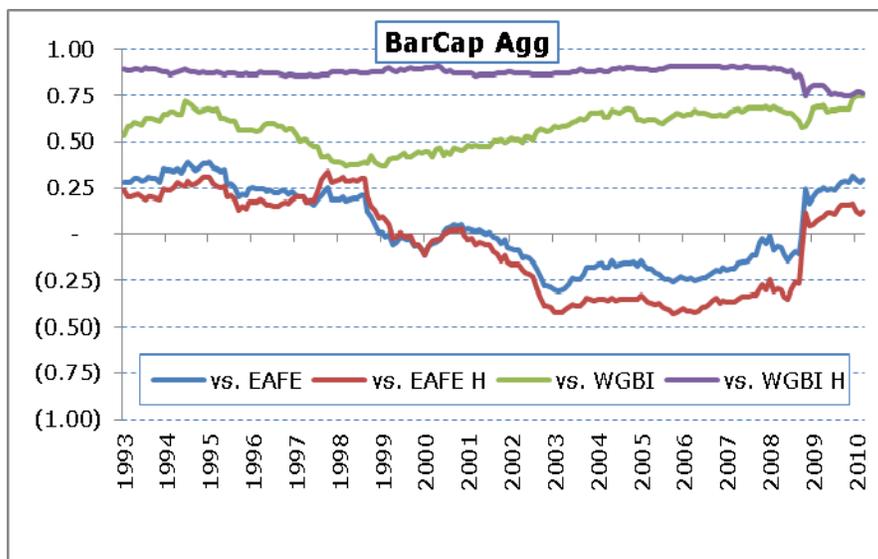
Figure A1 - Rolling Correlations of the S&P 500



Source: NEPC



Figure A2 – Rolling Correlations of the Barclays Capital Aggregate Index



Source: NEPC

This analysis leads us to several conclusions:

1. While many argue that currency exposure is diversifying within a portfolio, the inclusion or exclusion of currency exposure makes little difference in the correlation across asset classes when the underlying asset class has relatively high volatility. Relative to equity indices, highly credit-sensitive indices, and commodities, unhedged EAFE has very similar correlation characteristics as hedged EAFE.
2. Although a more significant differential exists in the rolling correlations of hedged and unhedged WGBI exposure to other asset classes, the relationship has been inconsistent. In earlier observations, leaving currency exposure unhedged appears to provide correlation benefits to many asset classes including equities (though it is unlikely that the correlation benefit is enough to offset doubling the volatility of the foreign-bond exposure). However, in the late 1990s and early 2000s, a shift occurred – causing the correlation to hedged WGBI exposure to be consistently lower than unhedged exposure. The lack of a persistent difference in correlations or an intuitive explanation for why unhedged and hedged asset classes should be significantly different – combined with the full history back to 1988 showing similar results – leads us to leave these correlations unchanged as well.
3. The significant risk impact of currency exposure on unhedged WGBI exposure, causes its relationship with other less-risky asset classes

to change when currency exposure is minimized. In particular, the correlation between the Barclays Capital Aggregate Bond Index and WGBI increases significantly when WGBI exposure is hedged. By minimizing currency risk through hedging, the WGBI exposure behaves much more like an interest-rate-sensitive portfolio, increasing its similarities and thus correlation to other interest-rate-sensitive asset classes like the Barclays Aggregate.

4. Many of these relationships across asset classes are just as inconsistent as any other set of correlations. The correlation between many asset classes and foreign asset classes appears to change meaningfully over time whether the foreign asset class has hedged or unhedged foreign-currency exposure.

Based on this analysis, we chose to leave most of our correlation assumptions for international asset classes unchanged. We adjusted correlations based on significant correlation differences between hedged and unhedged foreign exposure. Since hedged global bonds behave more like an interest-rate-sensitive asset class than a currency-sensitive asset class, we increased correlations of hedged global bonds to many fixed income asset classes. In addition, we built correlation estimates for international equity and global bonds across hedged and unhedged exposures to allow for the flexibility to blend allocations of hedged and unhedged asset classes and estimate the impact of partial hedging.



References

Black, Fischer (1995). "Universal Hedging: Optimizing Currency Risk and Reward in International Equity Portfolios." *Financial Analysts Journal/January-February 1995*

Bridgewater Associates (2005). "Hedging Currency Risk." Bridgewater Associates

Gastineau, Gary L. (1995). "The Currency Hedging Decision: A Search for Synthesis in Asset Allocation." *Financial Analysts Journal/May-June 1995*

Gorman, Stephen A. (1998). The International Equity Commitment. The Institute of Chartered Financial Analysts.

Liesching, Ronald (2010). "FX: The Mother of All Markets." *Currency Matters*, September 2010. Mountain Pacific Group, LLC.

Liesching, Ronald (2009). "Currency Hedging Programs." Mountain Pacific Group, LLC.

Perold, André F. & Schulman, Evan C. (1988). "The Free Lunch in Currency Hedging: Implications for Investment Policy and Performance Standards." *Financial Analysts Journal/May-June 1988*





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Ventura County Employees' Retirement Association

**Performance Report
Month Ending February 28, 2015**

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Ventura County Employees' Retirement Association

Total Fund Performance Detail Net of Fees

Performance Summary

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Fund	4,411,155,841	100.0	100.0	3.3	1.8	2.6	2.4	7.7	11.0	11.2	6.7	8.3	Apr-94
<i>Policy Index</i>				<u>3.1</u>	<u>1.8</u>	<u>2.3</u>	<u>3.4</u>	<u>7.9</u>	<u>10.5</u>	<u>10.6</u>	<u>6.8</u>	<u>8.3</u>	<i>Apr-94</i>
Over/Under				0.2	0.0	0.3	-1.0	-0.2	0.5	0.6	-0.1	0.0	
Total Fund ex Parametric	4,353,033,109	98.7	--	3.2	1.8	2.6	2.5	7.7	10.9	11.1	6.6	8.3	Apr-94
Total Fund ex Private Equity	4,291,008,025	97.3	--	3.4	1.8	2.6	2.3	7.4	10.2	--	--	12.0	Jan-12
<i>Policy Index</i>				<u>3.1</u>	<u>1.8</u>	<u>2.3</u>	<u>3.4</u>	<u>7.9</u>	<u>10.5</u>	<u>10.6</u>	<u>6.8</u>	<u>12.4</u>	<i>Jan-12</i>
Over/Under				0.3	0.0	0.3	-1.1	-0.5	-0.3			-0.4	
Total US Equity	1,374,463,190	31.2	30.0	5.8	2.9	2.9	8.2	14.1	18.3	16.7	7.9	9.2	Dec-93
<i>Total U.S. Equity Benchmark</i>				<u>5.8</u>	<u>2.9</u>	<u>2.9</u>	<u>8.1</u>	<u>13.9</u>	<u>17.9</u>	<u>16.4</u>	<u>8.4</u>	<u>9.6</u>	<i>Dec-93</i>
Over/Under				0.0	0.0	0.0	0.1	0.2	0.4	0.3	-0.5	-0.4	
BlackRock Equity Market Fund	1,183,186,091	26.8		5.8	2.9	2.9	8.2	14.1	18.0	16.4	--	7.9	Dec-07
<i>Dow Jones U.S. Total Stock Market</i>				<u>5.8</u>	<u>2.8</u>	<u>2.9</u>	<u>8.2</u>	<u>14.0</u>	<u>17.9</u>	<u>16.4</u>	<u>8.5</u>	<u>7.9</u>	<i>Dec-07</i>
Over/Under				0.0	0.1	0.0	0.0	0.1	0.1	0.0		0.0	
Western U.S. Index Plus	142,806,196	3.2		5.8	2.1	2.6	8.8	15.8	19.4	18.3	--	3.8	May-07
<i>S&P 500</i>				<u>5.7</u>	<u>2.3</u>	<u>2.6</u>	<u>8.8</u>	<u>15.5</u>	<u>18.0</u>	<u>16.2</u>	<u>8.0</u>	<u>6.5</u>	<i>May-07</i>
Over/Under				0.1	-0.2	0.0	0.0	0.3	1.4	2.1		-2.7	
BlackRock Extended Equity Index	48,470,904	1.1		6.0	5.0	4.0	5.4	8.2	17.9	17.4	9.9	12.8	Oct-02
<i>Dow Jones U.S. Completion Total Stock Market</i>				<u>6.0</u>	<u>5.0</u>	<u>4.0</u>	<u>5.4</u>	<u>8.1</u>	<u>17.7</u>	<u>17.1</u>	<u>9.9</u>	<u>12.7</u>	<i>Oct-02</i>
Over/Under				0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.0	0.1	

Policy Index: Uses an estimated CPI+4% index due to CPI monthly lag

Policy Index: Currently, 30% Total U.S. Equity Benchmark, 19% Barclays Aggregate, 14% MSCI ACWI ex U.S., 10% MSCI ACWI, 5% Barclays Global Aggregate, 5% DJ U.S. Total Stock Market Index + 3%, 10% CPI+4% Index, and 7% NCREIF ODCE Real Estate Index

Total U.S. Equity Benchmark: The Benchmark is a dynamic hybrid using the respective managers' market value weights within the U.S. Equity component toward their benchmark. Prior to May 2013, the Dow Jones U.S. Total Stock Market Index. Prior to May 2007, the Russell 3000 Index

CPI+4% is estimated for latest month.

Ventura County Employees' Retirement Association

Total Fund Performance Detail Net of Fees

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Non-US Equity	628,150,189	14.2	14.0	5.1	1.8	5.0	-3.8	1.1	7.3	7.3	5.4	6.7	Mar-94
<i>Total Non-US Equity Benchmark</i>				<u>5.3</u>	<u>1.4</u>	<u>5.2</u>	<u>-4.2</u>	<u>0.9</u>	<u>6.5</u>	<u>6.6</u>	<u>5.3</u>	<u>5.5</u>	<i>Mar-94</i>
Over/Under				-0.2	0.4	-0.2	0.4	0.2	0.8	0.7	0.1	1.2	
BlackRock ACWI ex-U.S. Index	262,062,994	5.9		5.4	1.7	5.2	-4.4	0.6	6.8	6.9	--	2.0	Mar-07
<i>MSCI ACWI ex USA</i>				<u>5.3</u>	<u>1.4</u>	<u>5.2</u>	<u>-4.2</u>	<u>0.9</u>	<u>6.5</u>	<u>6.6</u>	<u>5.3</u>	<u>1.6</u>	<i>Mar-07</i>
Over/Under				0.1	0.3	0.0	-0.2	-0.3	0.3	0.3		0.4	
Sprucegrove	189,037,387	4.3		5.0	1.8	4.8	-4.3	1.0	7.9	8.7	5.8	8.3	Mar-02
<i>MSCI EAFE</i>				<u>6.0</u>	<u>2.8</u>	<u>6.5</u>	<u>-3.3</u>	<u>0.0</u>	<u>9.4</u>	<u>7.8</u>	<u>4.8</u>	<u>6.6</u>	<i>Mar-02</i>
Over/Under				-1.0	-1.0	-1.7	-1.0	1.0	-1.5	0.9	1.0	1.7	
<i>MSCI ACWI ex USA</i>				<u>5.3</u>	<u>1.4</u>	<u>5.2</u>	<u>-4.2</u>	<u>0.9</u>	<u>6.5</u>	<u>6.6</u>	<u>5.3</u>	<u>7.3</u>	<i>Mar-02</i>
Hexavest	81,772,863	1.9		5.3	1.5	5.6	-2.6	0.8	7.9	--	--	5.4	Dec-10
<i>MSCI EAFE</i>				<u>6.0</u>	<u>2.8</u>	<u>6.5</u>	<u>-3.3</u>	<u>0.0</u>	<u>9.4</u>	<u>7.8</u>	<u>4.8</u>	<u>6.1</u>	<i>Dec-10</i>
Over/Under				-0.7	-1.3	-0.9	0.7	0.8	-1.5			-0.7	
Walter Scott	95,276,945	2.2		4.2	2.1	4.3	-1.8	3.0	6.6	--	--	5.1	Dec-10
<i>MSCI ACWI ex USA</i>				<u>5.3</u>	<u>1.4</u>	<u>5.2</u>	<u>-4.2</u>	<u>0.9</u>	<u>6.5</u>	<u>6.6</u>	<u>5.3</u>	<u>4.0</u>	<i>Dec-10</i>
Over/Under				-1.1	0.7	-0.9	2.4	2.1	0.1			1.1	
Total Global Equity	449,912,822	10.2	10.0	5.8	1.9	4.6	-0.2	5.7	10.9	10.4	--	5.9	May-05
<i>MSCI ACWI</i>				<u>5.6</u>	<u>1.9</u>	<u>3.9</u>	<u>1.9</u>	<u>7.6</u>	<u>11.6</u>	<u>10.7</u>	<u>6.4</u>	<u>7.0</u>	<i>May-05</i>
Over/Under				0.2	0.0	0.7	-2.1	-1.9	-0.7	-0.3		-1.1	
BlackRock MSCI ACWI Equity Index	231,256,880	5.2		5.6	2.0	4.0	2.1	8.0	--	--	--	--	May-12
<i>MSCI ACWI</i>				<u>5.6</u>	<u>1.9</u>	<u>3.9</u>	<u>1.9</u>	<u>7.6</u>	<u>11.6</u>	<u>10.7</u>	<u>6.4</u>	<u>16.8</u>	<i>May-12</i>
Over/Under				0.0	0.1	0.1	0.2	0.4					
GMO Global Equity	218,655,943	5.0		6.1	1.8	5.2	-2.5	3.4	10.2	10.2	--	7.1	Apr-05
<i>MSCI ACWI</i>				<u>5.6</u>	<u>1.9</u>	<u>3.9</u>	<u>1.9</u>	<u>7.6</u>	<u>11.6</u>	<u>10.7</u>	<u>6.4</u>	<u>7.0</u>	<i>Apr-05</i>
Over/Under				0.5	-0.1	1.3	-4.4	-4.2	-1.4	-0.5		0.1	

Total Non-U.S. Equity Benchmark: MSCI ACWI ex US Free, prior to May 2002, the MSCI EAFE

Ventura County Employees' Retirement Association

Total Fund Performance Detail Net of Fees

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total US Fixed Income	767,375,879	17.4	19.0	0.3	0.6	1.0	1.0	2.5	3.4	5.7	6.0	6.3	Feb-94
<i>Barclays Aggregate</i>				<u>-0.9</u>	<u>1.2</u>	<u>1.1</u>	<u>3.1</u>	<u>5.1</u>	<u>2.8</u>	<u>4.3</u>	<u>4.8</u>	<u>5.8</u>	<i>Feb-94</i>
Over/Under				1.2	-0.6	-0.1	-2.1	-2.6	0.6	1.4	1.2	0.5	
BlackRock U.S. Debt Fund	140,868,095	3.2		-0.9	1.3	1.2	3.2	5.2	2.8	4.4	4.9	5.7	Nov-95
<i>Barclays Aggregate</i>				<u>-0.9</u>	<u>1.2</u>	<u>1.1</u>	<u>3.1</u>	<u>5.1</u>	<u>2.8</u>	<u>4.3</u>	<u>4.8</u>	<u>5.7</u>	<i>Nov-95</i>
Over/Under				0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	
Western	270,969,459	6.1		-0.6	1.7	1.7	3.4	6.4	4.9	6.6	5.7	6.7	Dec-96
<i>Barclays Aggregate</i>				<u>-0.9</u>	<u>1.2</u>	<u>1.1</u>	<u>3.1</u>	<u>5.1</u>	<u>2.8</u>	<u>4.3</u>	<u>4.8</u>	<u>5.7</u>	<i>Dec-96</i>
Over/Under				0.3	0.5	0.6	0.3	1.3	2.1	2.3	0.9	1.0	
Reams	281,987,959	6.4		1.5	-0.9	-0.1	-2.5	-3.4	1.8	4.8	6.1	5.9	Sep-01
<i>Reams Custom Index</i>				<u>0.0</u>	<u>0.1</u>	<u>0.0</u>	<u>0.2</u>	<u>0.2</u>	<u>1.0</u>	<u>3.2</u>	<u>4.3</u>	<u>4.6</u>	<i>Sep-01</i>
Over/Under				1.5	-1.0	-0.1	-2.7	-3.6	0.8	1.6	1.8	1.3	
<i>Barclays Aggregate</i>				<u>-0.9</u>	<u>1.2</u>	<u>1.1</u>	<u>3.1</u>	<u>5.1</u>	<u>2.8</u>	<u>4.3</u>	<u>4.8</u>	<u>5.0</u>	<i>Sep-01</i>
Loomis Sayles Multi Strategy	73,550,365	1.7		1.1	1.6	2.4	1.8	5.9	6.9	8.4	--	7.4	Jul-05
<i>Loomis Custom Index</i>				<u>0.1</u>	<u>1.2</u>	<u>1.7</u>	<u>2.0</u>	<u>4.1</u>	<u>4.1</u>	<u>5.7</u>	--	<u>5.8</u>	<i>Jul-05</i>
Over/Under				1.0	0.4	0.7	-0.2	1.8	2.8	2.7		1.6	
<i>Barclays Aggregate</i>				<u>-0.9</u>	<u>1.2</u>	<u>1.1</u>	<u>3.1</u>	<u>5.1</u>	<u>2.8</u>	<u>4.3</u>	<u>4.8</u>	<u>4.9</u>	<i>Jul-05</i>
Total Global Fixed Income	260,172,055	5.9	5.0	-0.4	-0.5	0.0	-2.9	-0.6	--	--	--	1.0	Jun-12
<i>Barclays Global Aggregate</i>				<u>-0.8</u>	<u>-1.6</u>	<u>-1.0</u>	<u>-5.1</u>	<u>-2.8</u>	<u>-0.1</u>	<u>2.3</u>	<u>3.6</u>	<u>-0.1</u>	<i>Jun-12</i>
Over/Under				0.4	1.1	1.0	2.2	2.2				1.1	
Loomis Sayles Global Fixed Income	91,444,002	2.1		-0.6	-1.6	-0.8	-5.2	-2.7	--	--	--	0.4	Jun-12
<i>Barclays Global Aggregate</i>				<u>-0.8</u>	<u>-1.6</u>	<u>-1.0</u>	<u>-5.1</u>	<u>-2.8</u>	<u>-0.1</u>	<u>2.3</u>	<u>3.6</u>	<u>-0.1</u>	<i>Jun-12</i>
Over/Under				0.2	0.0	0.2	-0.1	0.1				0.5	
PIMCO Global Fixed Income	125,958,271	2.9		-0.8	-0.4	0.1	-2.8	-0.4	--	--	--	-0.7	Sep-12
<i>Barclays Global Aggregate</i>				<u>-0.8</u>	<u>-1.6</u>	<u>-1.0</u>	<u>-5.1</u>	<u>-2.8</u>	<u>-0.1</u>	<u>2.3</u>	<u>3.6</u>	<u>-1.4</u>	<i>Sep-12</i>
Over/Under				0.0	1.2	1.1	2.3	2.4				0.7	
Loomis Strategic Alpha	42,769,783	1.0		0.9	1.5	1.8	2.2	3.9	--	--	--	3.6	Jul-13
<i>Barclays Global Aggregate</i>				<u>-0.8</u>	<u>-1.6</u>	<u>-1.0</u>	<u>-5.1</u>	<u>-2.8</u>	<u>-0.1</u>	<u>2.3</u>	<u>3.6</u>	<u>0.4</u>	<i>Jul-13</i>
Over/Under				1.7	3.1	2.8	7.3	6.7				3.2	

Reams Custom Index: Merrill Lynch 3 Month Libor Constant Maturity Index, prior to February 2013 the Barclays Aggregate

Loomis Custom Index: 65% Barclays Aggregate, 30% Citigroup High Yield Market Index and 5% JPM Non-US Hedged Bond Index

Ventura County Employees' Retirement Association

Total Fund Performance Detail Net of Fees

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Total Real Estate	322,351,195	7.3	7.0	0.0	3.1	0.0	6.2	11.6	10.4	12.2	5.0	7.7	Mar-94
<i>Total Real Estate Benchmark</i>				<u>0.0</u>	<u>3.3</u>	<u>0.0</u>	<u>6.6</u>	<u>12.5</u>	<u>12.4</u>	<u>13.9</u>	<u>7.0</u>	<u>8.8</u>	<i>Mar-94</i>
Over/Under				0.0	-0.2	0.0	-0.4	-0.9	-2.0	-1.7	-2.0	-1.1	
Prudential Real Estate	107,886,266	2.4		0.0	3.8	0.0	6.9	12.7	11.7	14.0	6.0	5.1	Jun-04
<i>NCREIF-ODCE</i>				<u>0.0</u>	<u>3.3</u>	<u>0.0</u>	<u>6.6</u>	<u>12.5</u>	<u>12.4</u>	<u>13.9</u>	<u>7.1</u>	<u>7.3</u>	<i>Jun-04</i>
Over/Under				0.0	0.5	0.0	0.3	0.2	-0.7	0.1	-1.1	-2.2	
UBS Real Estate	208,224,343	4.7		0.0	2.8	0.0	5.8	10.6	9.6	11.4	6.6	7.2	Mar-03
<i>NCREIF-ODCE</i>				<u>0.0</u>	<u>3.3</u>	<u>0.0</u>	<u>6.6</u>	<u>12.5</u>	<u>12.4</u>	<u>13.9</u>	<u>7.1</u>	<u>7.7</u>	<i>Mar-03</i>
Over/Under				0.0	-0.5	0.0	-0.8	-1.9	-2.8	-2.5	-0.5	-0.5	
RREEF	6,240,585	0.1		0.0	1.9	0.0	7.3	25.9	21.4	24.2	--	-6.4	Sep-07
<i>NCREIF-ODCE</i>				<u>0.0</u>	<u>3.3</u>	<u>0.0</u>	<u>6.6</u>	<u>12.5</u>	<u>12.4</u>	<u>13.9</u>	<u>7.1</u>	<u>2.9</u>	<i>Sep-07</i>
Over/Under				0.0	-1.4	0.0	0.7	13.4	9.0	10.3	--	-9.3	
Total Liquid Alternatives	430,459,962	9.8	10.0	2.1	0.6	3.1	-1.2	9.2	--	--	--	13.5	Apr-13
<i>CPI + 4% (Unadjusted)</i>				<u>-0.1</u>	<u>-0.5</u>	<u>-0.3</u>	<u>0.2</u>	<u>3.0</u>	<u>4.7</u>	<u>5.5</u>	<u>6.0</u>	<u>4.0</u>	<i>Apr-13</i>
Over/Under				2.2	1.1	3.4	-1.4	6.2	--	--	--	9.5	
Bridgewater All Weather Fund	285,579,042	6.5		1.2	2.0	4.1	2.3	8.3	--	--	--	10.3	Aug-13
<i>CPI + 5% (Unadjusted)</i>				<u>-0.1</u>	<u>-0.3</u>	<u>-0.1</u>	<u>0.8</u>	<u>4.0</u>	<u>--</u>	<u>--</u>	<u>--</u>	<u>4.6</u>	<i>Aug-13</i>
Over/Under				1.3	2.3	4.2	1.5	4.3	--	--	--	5.7	
Tortoise Energy Infrastructure	144,880,920	3.3		4.0	-2.0	1.0	-7.6	11.0	--	--	--	16.0	Apr-13
<i>Wells Fargo MLP Index</i>				<u>3.3</u>	<u>-5.2</u>	<u>-0.1</u>	<u>-10.0</u>	<u>4.7</u>	<u>10.5</u>	<u>--</u>	<u>--</u>	<u>6.6</u>	<i>Apr-13</i>
Over/Under				0.7	3.2	1.1	2.4	6.3	--	--	--	9.4	

Total Real Estate Benchmark: NCREIF ODCE; prior to January 2006, the NCREIF Property Index

Real Estate managers and NCREIF ODCE are valued on a quarterly basis. Performance is not applicable in mid-quarter months, therefore 0% return is shown.

Total Liquid Alternatives index, the CPI+4% is estimated by carrying the last available month forward

CPI+5% and CPI+4% are estimated by carrying the last available month forward

Real Estate Valuation is as of 12/31/2014

Ventura County Employees' Retirement Association

Total Fund Performance Detail Net of Fees

	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Return (%)	Since
Overlay	58,122,732	1.3	0.0										
Parametric	58,122,732	1.3											
Total Private Equity	120,147,816	2.7	5.0	0.0	2.7	2.2	9.9	21.7	15.1	--	--	--	Jul-10
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>6.0</u>	<u>3.6</u>	<u>3.4</u>	<u>10.3</u>	<u>17.4</u>	<u>21.4</u>	<u>19.8</u>	--	<u>21.2</u>	<i>Jul-10</i>
Over/Under				-6.0	-0.9	-1.2	-0.4	4.3	-6.3				
Adams Street Partners	73,489,424	1.7		0.0	1.0	0.0	7.1	19.6	13.6	--	--	--	Jul-10
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>6.0</u>	<u>3.6</u>	<u>3.4</u>	<u>10.3</u>	<u>17.4</u>	<u>21.4</u>	<u>19.8</u>	--	<u>21.2</u>	<i>Jul-10</i>
Over/Under				-6.0	-2.6	-3.4	-3.2	2.2	-7.8				
Panteon Ventures	14,663,333	0.3		0.1	-2.2	0.1	3.4	16.8	11.3	--	--	--	Aug-10
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>6.0</u>	<u>3.6</u>	<u>3.4</u>	<u>10.3</u>	<u>17.4</u>	<u>21.4</u>	<u>19.8</u>	--	<u>22.9</u>	<i>Aug-10</i>
Over/Under				-5.9	-5.8	-3.3	-6.9	-0.6	-10.1				
Harbourvest	31,995,060	0.7		-0.1	7.9	7.9	19.1	28.3	--	--	--	--	May-13
<i>DJ U.S. Total Stock Market Index + 3%</i>				<u>6.0</u>	<u>3.6</u>	<u>3.4</u>	<u>10.3</u>	<u>17.4</u>	<u>21.4</u>	<u>19.8</u>	--	<u>21.5</u>	<i>May-13</i>
Over/Under				-6.1	4.3	4.5	8.8	10.9					

Please Note:

Private Equity performance is shown on a time-weighted return basis. Values are cash adjusted with current month cash flows.

Ventura County Employees' Retirement Association

Total Fund

Cash Flow Summary

Month Ending February 28, 2015

	Beginning Market Value	Withdrawals	Contributions	Net Cash Flow	Fees	Net Investment Change	Ending Market Value
Adams Street Partners	\$71,314,433	\$0	\$2,175,000	\$2,175,000	\$0	-\$9	\$73,489,424
BlackRock ACWI ex-U.S. Index	\$248,712,418	\$0	\$0	\$0	-\$23,505	\$13,350,576	\$262,062,994
BlackRock Equity Market Fund	\$1,177,025,217	-\$62,000,000	\$0	-\$62,000,000	-\$21,803	\$68,160,873	\$1,183,186,091
BlackRock Extended Equity Index	\$45,712,161	\$0	\$0	\$0	-\$3,231	\$2,758,742	\$48,470,904
BlackRock MSCI ACWI Equity Index	\$218,985,385	\$0	\$0	\$0	-\$9,375	\$12,271,495	\$231,256,880
BlackRock U.S. Debt Fund	\$142,169,750	\$0	\$0	\$0	-\$8,029	-\$1,301,655	\$140,868,095
Bridgewater All Weather Fund	\$282,096,536	\$0	\$0	\$0	-\$92,829	\$3,482,506	\$285,579,042
GMO Global Equity	\$206,147,021	\$0	\$0	\$0	-\$100,217	\$12,508,921	\$218,655,943
Harbourvest	\$33,172,339	-\$1,127,675	\$0	-\$1,127,675	\$0	-\$49,605	\$31,995,060
Hexavest	\$77,613,666	\$0	\$0	\$0	-\$31,424	\$4,159,198	\$81,772,863
Loomis Sayles Global Fixed Income	\$91,966,539	\$0	\$0	\$0	-\$22,861	-\$522,537	\$91,444,002
Loomis Sayles Multi Strategy	\$72,733,195	\$0	\$0	\$0	-\$24,221	\$817,171	\$73,550,365
Loomis Strategic Alpha	\$42,354,175	\$0	\$0	\$0	-\$14,257	\$415,607	\$42,769,783
Panteon Ventures	\$7,168,287	\$0	\$7,486,552	\$7,486,552	\$0	\$8,494	\$14,663,333
Parametric	\$21,034,343	-\$2,447,377	\$41,074,552	\$38,627,175	-\$5,885	-\$1,538,785	\$58,122,732
PIMCO Global Fixed Income	\$126,874,193	\$0	\$0	\$0	-\$35,656	-\$915,922	\$125,958,271
Prudential Real Estate	\$107,886,266	\$0	\$0	\$0	\$0	\$0	\$107,886,266
Reams	\$277,753,953	\$0	\$0	\$0	-\$41,498	\$4,234,006	\$281,987,959
RREEF	\$6,240,585	\$0	\$0	\$0	\$0	\$0	\$6,240,585
Sprucegrove	\$179,925,988	\$0	\$0	\$0	-\$58,966	\$9,111,399	\$189,037,387
Tortoise Energy Infrastructure	\$139,256,549	\$0	\$0	\$0	-\$85,875	\$5,624,371	\$144,880,920
UBS Real Estate	\$208,224,343	\$0	\$0	\$0	\$0	\$0	\$208,224,343
Walter Scott	\$91,370,149	\$0	\$0	\$0	-\$69,513	\$3,906,797	\$95,276,945
Western	\$272,592,785	\$0	\$0	\$0	-\$46,371	-\$1,623,325	\$270,969,459
Western U.S. Index Plus	\$135,011,136	\$0	\$0	\$0	-\$30,351	\$7,795,060	\$142,806,196
Total	\$4,283,341,413	-\$65,575,052	\$50,736,104	-\$14,838,948	-\$725,870	\$142,653,376	\$4,411,155,841

Information Disclaimer and Reporting Methodology

Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may not be available from the source or may be preliminary and subject to change.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodial bank. Information on market indices and security characteristics is received from other sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- This report is provided as a management aid for the client's internal use only. Performance contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of Return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.

VENTURA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

1190 South Victoria Avenue, Suite 200
Ventura, CA 93003-6572
(805) 339-4250 • Fax: (805) 339-4269
<http://www.ventura.org/vcera>

March 16, 2015

Board of Retirement
Ventura County Employee Retirement Association
1190 South Victoria Avenue
Ventura, CA 93003

SUBJECT: PEPRA ANNUAL COMPENSATION LIMIT FOR 2015

Dear Board Members,

The California Public Employees' Pension Reform Act (PEPRA) limits the pensionable compensation used in the calculation of retirement benefits. Specifically, the PEPRA statues set an initial limit of the Social Security maximum, or 120% of the maximum for member plans not integrated with Social Security. VCERA General member plans are integrated with Social Security, while the Safety member plans are not. Additionally, PEPRA instructs "retirement systems" to adjust the compensation limit annually for inflation based upon annual changes to the Consumer Price Index for All Urban Consumers.

As an advisory organization, the California Actuarial Advisory Panel (CAAP) issues a letter annually for California public retirement systems, detailing its calculation of the PEPRA compensation limits.

In March of 2014, the VCERA Board of Retirement:

- 1) Adopted the CAAP-published compensation limits of \$115,064 and \$138,077 for General Members and Safety Members, respectively; and
- 2) Directed staff to identify the annual adjustments to the PEPRA compensation limits and submit them to the Board for approval.

In November 2014, CAAP again calculated the compensation limit amounts using the required criteria, with the following result:

- \$117,020 (integrated with Social Security)
- \$140,424 (not integrated with Social Security)

The calculation steps are detailed in the full published letter, which is attached.

RECOMMENDED ACTION: ADOPT THE 2015 PEPRA COMPENSATION LIMITS OF \$117,020 AND \$140,424 AS CALCULATED BY THE CALIFORNIA ACTUARIAL ADVISORY PANEL (CAAP).

I would be pleased to respond to any questions on this matter at our March 16, 2015 meeting.

Sincerely,



Linda Webb
Retirement Administrator

Attachment

California Actuarial Advisory Panel



Leslie P. Finertie
Senior Actuary
MyVal Center
Chairperson

Paul Angelo
Senior Vice President
and Actuary
The Segal Company
Vice Chairperson

Ian Altman
Managing Partner
Altman and Cronin Benefit
Consultants, LLC

John Bartel
President
Bartel Associates

Harold A. Loeb
Retired Principal and
Consulting Actuary
Buck Consultants

Alan Milligan
Chief Actuary
California Public Employees'
Retirement System

Rick Reed
System Actuary
California State Teachers'
Retirement System

Graham Schmidt
Senior Vice President
Cheiron

November 7, 2014

RE: PEPRA Pension Compensation Limit (Code
Section 7522.10)

To Whom It May Concern:

Pursuant to a request from a Public Agency, the California Actuarial Advisory Panel (the Panel) is publishing this letter to provide a calculation of the Pension Compensation Limits for the Calendar Year 2015.

Background:

Pursuant to Government Code section 7507.2(b), the responsibilities of the Panel include "Replying to policy questions from public retirement systems in California" and "Providing comment upon request by public agencies". In 2013, members of the Panel received a request from a public retirement system (the San Joaquin County Employees' Retirement Association) to compute and publish the annual compensation limit prescribed by the California Public Employees' Pension Reform Act of 2013 (PEPRA), as amended by Senate Bill No. 13 (SB 13). This request was made to address a concern that minor calculation or rounding differences could result in different systems calculating slightly different pension compensation limits.

The Panel agreed to calculate the dollar amounts of the pension compensation limits for 2014 and future years, as we believe that the use of a uniform compensation limit will provide administrative benefits to California's public retirement systems. However, as the Panel is an advisory body only (Government Code section 7507.2(e) states that "The opinions of the California Actuarial Advisory Panel are nonbinding and advisory only"), the Panel encourages each system to independently review the calculation of the pension compensation limits contained in this letter.

State Controller's Office
Division of Accounting and Reporting
P.O. Box 942850, Sacramento, CA 94250
Phone: 916-327-4144 Fax: 916-323-4807

California Actuarial Advisory Panel



Leslie P. Finertie
Senior Actuary
MyVal Center
Chairperson

Paul Angelo
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California Public Employees'
Retirement System

Rick Reed
System Actuary
California State Teachers'
Retirement System

Graham Schmidt
Senior Vice President
Cheiron

Analysis:

SB 13 amended section 7522.10 of the Government Code as follows:

7522.10. (a) On and after January 1, 2013, each public retirement system shall modify its plan or plans to comply with the requirements of this section for each public employer that participates in the system.

(b) Whenever pensionable compensation, as defined in Section 7522.34, is used in the calculation of a benefit, the pensionable compensation shall be subject to the limitations set forth in subdivision (c).

(c) The pensionable compensation used to calculate the defined benefit paid to a new member who retires from the system shall not exceed the following applicable percentage of the contribution and benefit base specified in Section 430(b) of Title 42 of the United States Code on January 1, 2013:

(1) One hundred percent for a member whose service is included in the federal system.

(2) One hundred twenty percent for a member whose service is not included in the federal system.

(d) (1) The retirement system shall adjust the pensionable compensation described in subdivision (c) based on the annual changes to the Consumer Price Index for All Urban Consumers: U.S. City Average, calculated by dividing the Consumer Price Index for All Urban Consumers: U.S. City Average, for the month of September in the calendar year preceding the adjustment by the Consumer Price Index for All Urban Consumers: U.S. City Average, for the month of September of the previous year rounded to the nearest thousandth. The adjustment shall be effective annually on January 1, beginning in 2014.

The annual compensation pensionable compensation limit computed by the Panel for 2014 was \$115,064 for those included in the federal Social Security system and \$138,077 for those not included.)

California Actuarial Advisory Panel



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Senior Vice President
Cheiron

The Consumer Price Indices for All Urban Consumers (CPI-U) U.S. City Average for the months of September 2013 and 2014 are as follows¹:

- September, 2014: 238.031
- September, 2013: 234.149

The annual change, computed by dividing the 2014 Index by the 2013 Index, rounded to the nearest thousandth is as follows:

- $238.031 \div 234.149 = 1.017$

Applying this annual adjustment to the 2014 limits yields the following limits for calendar year 2015:

- $\$115,064 \times 1.017 = \$117,020$ (included in federal system)
- $\$138,077 \times 1.017 = \$140,424$ (not included in federal system)

The indexation of the maximum compensation to be used by CalSTRS using the February CPI-U, based on AB 1381 passed by the legislature in 2013, is not addressed in this letter.

¹ <http://data.bls.gov/timeseries/CUUR0000SA0>

California Actuarial Advisory Panel



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Graham Schmidt
Senior Vice President
Cheiron

Conclusion:

The calculations described above indicate the use of a compensation limit for new PEPPRA members for Calendar Year 2015 of \$117,020 for members participating in the federal system (7522.10(c)(1) limit) and \$140,424 for members not participating in the federal system (7522.10(c)(2) limit). The Panel intends to provide similar calculations in future years. The contents of this letter are nonbinding and advisory only, and we encourage each public retirement system to independently evaluate these calculations.

Sincerely,

Leslie P. Finertie
Chair, California Actuarial Advisory Panel

cc: Panel members:
Paul Angelo, Vice Chair
Ian Altman
John E. Bartel
Harold A. Loeb
Alan Milligan
Rick Reed
Graham Schmidt

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March 16, 2015

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003

SUBJECT: SACRS VOTING DELEGATE

Dear Board Members:

Staff recommends the appointment of a voting delegate and alternate voting delegate for the Spring 2015 SACRS (State Association of County Retirement Systems) conference.

As you are aware, each member retirement system is expected to participate and vote at the SACRS Business Meeting. Staff will provide the voting proxy form to SACRS to reflect Board's direction.

Sincerely,



Linda Webb
Retirement Administrator



**Ventura County Employees' Retirement
Information System
Project Status Report
Month Ending: February 2015**



Reporting to: Board of Retirement
Written by: Brian Colker

Report Date:

03/10/15

PROJECT STATUS SUMMARY

Actual Percentage Complete: 68.09%*
Planned Percentage Complete: 72.34%*

***Note: The updated Sprint Schedule went into effect with the approval of the change orders presented to the Board 01/05/2015. The completion percentages have been adjusted based on the new project schedule.*

Scope	Schedule	Cost	Risks	Quality
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Schedule

The project schedule still shows 4.25% behind schedule although the project team is confident that the project is on-track in actuality. The primary factor causing the temporary schedule impact is the absence of one of the key project resources. This resource returned to work on 02/06/15 and it is expected that the project activities will be back on schedule by the end of March.

Risks

There are two project risks that are being closely monitored.

- Plan sponsor payroll transmittal – Auditor-Controller continues to make progress with the transmittal file. Additional test files have been received, tested and issues reported. Auditor-Controller has indicated they will not meet the deadline for the first parallel file due to a system update scheduled by IT. They anticipate the file will be one to two weeks late. At present this delay will not impact the overall project schedule.
- VCERA staffing issues –The project team is adequately staffed with VCERA resources. It is expected all activities will be back on schedule by the end of March. The project team will continue to monitor progress and identify any potential impacts to the project schedule due to resource issues.

KEY ACCOMPLISHMENTS LAST MONTH

- Received additional test files from Auditor-Controller.
- Delivered additional functionality in:
 - Disability
 - Active Death Processing
 - Retired Death Processing
 - DRO Processing – Alt Payee
 - 1099R Processing
 - Annual Benefit Statements
 - Actuarial Extracts
 - Year-End Processing
- Wrote 103 test cases and executed 118 tests. There have been 2,637 tests executed to date and there are currently 311 defects in an open status – 26 high priority, 215 medium priority, 70 low priority.

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March 10, 2015

Board of Retirement
Ventura County Employees' Retirement Association
1190 South Victoria Avenue, Suite 200
Ventura, CA 93003-6572

Dear Board Members:

On the dates January 28 through January 30, 2015 I attended the CALAPRS "Advanced Principles of Pension Management for Trustees" course at the UCLA Anderson School of Management. The course was presented by Dr. Alfred E Osborne, Jr, Senior Associate Dean. The focus of Professor Osborne's lectures over three days were the characteristics of an effective retirement plan Board of Trustees. Guest speakers were scheduled to provide expert instruction in each area of the course. The course was well attended, not only by '37 Act trustees, but other city, county and state systems.

The following are the guest speakers and their presentations:

Edward E. Leamer, PhD., professor of Economics and Statistics, UCLA Anderson Forecast. Dr. Leamer provided a macroeconomic forecast and discussed the challenges to be expected in a low inflation investing environment.

Paul Angelo, Senior V.P. and Actuary, The Segal Company. Mr. Angelo's presentation was on Advanced Actuarial Principles. He reviewed the impact of the GASB 67 & 68 and discussed the pension regulatory environment, noting that California's laws are among the strongest in the U.S. He further discussed differences in funding methods, calculations and valuations.

Tom Iannucci, President of Cortex Applied Research, Inc. Mr. Iannucci's lecture was focused on the role of the Board in leadership development and succession planning.

Harry M. Keiley, Chair, CalSTRS. Mr. Keiley was both a participant and guest speaker. His interview/lecture was very informative as to status of CalSTRS, their positive results in resolving funding issues and the statutes that govern the same.

Hanno Lustig, PhD., professor of Finance, UCLA Anderson School. Dr. Lustig lectured on the aspects of new investments vehicles, focusing on size/performance, measuring performance, hidden risk/performance and fees/performance. A key take-away was the need to ask many questions when investing in hedge funds and private equity (especially fees) and then be wary of their reported returns.

Steven Romick, Managing Partner, First Pacific Advisors, LLC. Mr. Romick spoke of the challenges of being an investment manager, not allowing investors to drive the manager's investment style and the constant search and waiting for appropriate investments.

March 10, 2015

Page 2 of 2

The use of the UCLA Anderson School as a venue for the course proved very interesting and served as a sound learning environment.

Overall, I found the instruction and content to be very appropriate to support a pension trustee's on-going education and recommend future VCERA trustee attendance.

Chris Johnston

Save the Date!

May 19 - 20, 2015

NEPC's 20th Annual Investment Conference

The conference will be held at the
Boston Convention & Exhibition Center

415 Summer Street, Boston, MA

Keynote Speaker:

Liz Ann Sonders

Senior Vice President, Chair of the Investment Committee
Windhaven Investment Management, Inc.

Make your hotel reservations early!

Renaissance Boston Waterfront Hotel

606 Congress Street, Boston, MA

Call 1-877-901-6632 and be sure to reference the NEPC Conference.

The conference registration site is coming in March!

You will be able to access the site via www.nepc.com.

255 State Street | Boston, MA 02109 | TEL 617.374.1300 | www.nepc.com

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Nossaman LLP's Public Pensions and Investments Fiduciaries' Forum

September 24-25, 2015 | San Francisco, CA

You are invited to Nossaman's First Annual Public Pensions and Investments Fiduciaries' Forum!

Nossaman is pleased to announce the continuation of the **Public Pension Fiduciaries' Forum – a nearly decade-long tradition** – hosted by **Ashley Dunning** and **Michael Toumanoff**.

Please join us in San Francisco this September (details to follow this summer) to discuss current and emerging public pension topics of 2015 and 2016, including:

- Court cases on PEPPRA and vested rights
- Current trends in alternative investment documentation and diligence
- Employment issues in a civil service world
- A bird's eye view of real asset investing
- Lunchtime speaker to be announced

Sept. 24, 2015

Dinner Reception, guest speaker on
"What to expect from Sacramento in 2016"

Sept. 25, 2015

All-day Fiduciaries' Forum

Attendance is limited to trustees (less than a quorum), executive staff, and in-house counsel. Clients and prior participating plans have priority for registration. Conference is limited to 50 attendees.

Cost: \$250.00 per person (covers the cost of meals and incidentals).

For more information or to RSVP, please contact Jennifer Barry-Smith, jbarry-smith@nossaman.com, or 415.438.7232.

NOSSAMAN PRESENTERS



Ashley Dunning
Partner



Yuliya Oryol
Partner



Michael Toumanoff
Of Counsel



John Kennedy
Partner



David Kimport
Partner



Clothilde Hewlett
Partner



Danielle Gensch
Partner



SACRS Conference Info

[Main Conference Galleries Page](#)

[SACRS 2015 - 2016 Conference Schedule](#)

SACRS Spring Conference 2015



May 12 – 15, 2015
Anaheim Marriott
Anaheim, CA

[Online Registration](#)

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Room Reservation: [Click Here](#)
Room Rate: \$189 per night (not including tax & service fees)

[Click here to purchase specially-priced Disneyland® Resort Theme Park tickets.](#)

Tickets are valid from Friday, May 8, 2015 to Tuesday, May 19, 2015
These special ticket prices are not available once you arrive at the Resort.
Our ticket store closes at 9:00 PM PST on Monday, May 11, 2015.
Don't delay! Prices are subject to change without notice.

These specially priced tickets are intended only for guests that are participating in this Event. Only the registered attendee is allowed to purchase tickets from this discounted ticket store link and they can purchase up to 6 tickets maximum. We reserve the right to contact the ticket purchaser to request event registration confirmation. If it is discovered that the purchaser of the ticket is not participating or attending this event it will be considered a misuse of this offer and ticket, and the ticket(s) will be blocked and will not be eligible for a refund. In addition these tickets cannot be purchased for the purpose of being resold.

From: John Kelly [<mailto:investorscaddie@gmail.com>]
Sent: Wednesday, March 11, 2015 3:16 PM
To: Sulema Peterson
Subject: A SACRS Perspective

At best, it takes a village to achieve our worthwhile dreams. Over the years SACRS has grown to be an inspiration for our trustees, affiliates, staff and retirees. Our growth has been phenomenal. Yet, my experience in organizational development reminds me that we are at a pivotal point in our growth. Predictably organizations will either thrive or implode if vivid focus is not applied to our efforts and delivery.

Staff, affiliates, trustees and board members have tirelessly created inspiring programs which have helped us become more educated and fluent on many important issues.

Our progress has been excellent. We have a broad base of stakeholders to serve. We are, however, at a turning point in perfecting our vision. Our Mission Statement speaks to education, networking and communication. This must serve each of our constituents.

I come to you as an appointed volunteer seeking to create that vividly inspiring direction with the help of each of you. That is my sole purpose in requesting your support for president of SACRS. Our outcomes and impact are too vital to allow us to implode at this juncture.

You should be aware that I have served 23 years with The First Tee of Greater Sacramento; president 2005-2011. Four years as Trustee and National Representative for the Leukemia and Lymphoma Society. Volunteer Fund Development Officer, California State University, Sacramento and Rotarian for 20 years.

My career includes 12 years in fiscal policy roles under the Reagan and Brown administrations. For 33 years I have worked as an independent Registered Investment Adviser and CFP managing assets for individuals, corporations and nonprofit organizations across the state and nationwide. I am a credentialed college level instructor since 1982.

I began my private practice as a professional speaker (created the National Speakers Association, Sacramento Chapter in 1981) focusing on financial education and retirement planning. My resume reflects a passion for education and service.

I seek to help SACRS stay on track with its Mission Statement as it pertains to providing a forum for education, networking and communications. (as cited in SACRS Articles of Incorporation, Article II, Sections A and B and SACRS By-Laws, Article I, Sections 3 and 4).

I have a practical concern that we continue the pursuit of 'edu-tainment' as a means of continuing the quality of our conferences.

Thank you for your attention. I am available for questions or clarification at any time.

John B. Kelly, MPA, CFP
SACRS Vice President
916-296-9019
Investorscaddie@gmail.com

Sent from my iPad John B. Kelly, CFP

From: John Kelly [mailto:investorscaddie@gmail.com]
Sent: Thursday, March 12, 2015 10:10 AM
To: Sulema Peterson
Subject: Re: A SACRS Perspective

Dear colleagues,

I failed to mention one more item. I deeply appreciate the work staff and Sir Robert Palmer have contributed over the years to get SACRS to this level of excellence.

Roberts departure was the tripping point that convinced me to put my name in contention.

Should I be blessed by your endorsement, one of first endeavors would be to convince him to return in his role as Executive Director. Hopefully he will have an interest in continuing our quest.

Thank you again for your indulgence.

My best, John

Sent from my iPad John B. Kelly, CFP

February 9, 2015

To: SACRS Nomination Committee
 From: Ray McCray, SACRS Nomination Committee Chair
 Re: SACRS 2015-2016 BOD Elections – Names nominated

SACRS received the following names electronically/via email as nominations for the upcoming SACRS Board of Directors Elections 2015-2016.

Nominations for SACRS President:

- Yves Chery, Los Angeles CERA
- John Kelly, Sacramento CERA

Nominations for SACRS Vice President:

- Gabe Rodrigues, Contra Costa CERA

Nominations for SACRS Secretary:

- Zandra Cholmondeley, Santa Barbara CERS
- Art Goulet, Ventura CERA

Nominations for SACRS Treasurer:

- Dan McAllister, San Diego CERA

Resumes for each nominee are included.

Sulema will confirm a conference call for our meeting to discuss the recommended Nomination Committee Slate that is required to be distributed to the systems by

DEADLINE	DESCRIPTION
February 2, 2015	Nominating Committee receives nominations from SACRS membership
March 2, 2015	Nominating Committee submits its recommended ballot to each 1937 Act Board
March 25, 2015	Nominating Committee receives nominations from any 1937 Act Board
April 1, 2015	Nominating Committee submits final ballot to each 1937 Act Board – ballot consists of recommended ballot plus anybody else who is nominated but not recommended by the NC

May 15, 2015	Conduct elections during the SACRS Business Meeting (at end of the May 2015 conference)
May 15, 2015	Board of Directors take office for 1 year

I'd like to schedule a conference call as soon as possible. Please let me know what time and date works best for you the week of February 9- 13, 2015. Sulema will send out a conference call number as soon as we determine a date and time.

Thank you,

Ray McCray

Ray McCray,
 SACRS Nomination Committee Chair

Attach: resumes and messages

Continued

RESUMES AND MESSAGES

Nominations for SACRS President:

- **Yves Chery, Los Angeles CERA**

Yves Chery is a Deputy Probation Officer II with Los Angeles County Probation Department. His experience includes helping at-risk youths, along with nearly a quarter century of advocacy for working families as a labor leader. Mr. Chery currently chair's the Los Angeles County Employee Retirement Association Board (LACERA) and the Operations and Oversight Committee. Mr. Chery is a strong supporter of LACERA's Outreach Programs and Yves was instrumental in equipping Outreach Specialists at County worksite counseling seminars with LACERA's retirement calculators. Mr. Chery received a Bachelor of Arts Degree from California State University, Northridge (CSUN) and a Jurist Doctorate from Southern California Institute of Law.

Message from Yves:

I hope all is well. I wanted to inform the SACRS Nomination Committee of my interest to serve as SACRS President for the 2015-2016 year. It's been a tremendous honor and privilege serving as President for the past 8 months. I hope the Nomination Committee affords me the opportunity to continue serving as President of SACRS for another year. If you have any questions, I can be reached at (818) 989-4435.

- **John Kelly, Sacramento CERA**

I have served your neighbors for years as President of The First Tee of Sacramento, Greater Trustee and National Representative for the Leukemia and Lymphoma Society, Rotarian and as a volunteer Fund Development Officer for Sacramento State University. In 1996 the Sacramento Board of Supervisors appointed me as trustee for the Sacramento County Employees Retirement System.

Message from John:

Please consider this my notification of interest in running for President of SACRS for the 2015-16 term. Please advise your committee and thank them for consideration to the slate of officers.

I am an appointed trustee from Sacramento County, SCERS since 1995. I work as a Registered Investment Adviser and CFP managing assets for clients across the state and nationwide. I served in fiscal policy roles for the State of California, transitioning to private practice after 12 years, in 1981.

Additionally I am a credentialed college level designate since 1982. I began my private practice as a professional speaker focusing on financial education and retirement planning. I have shared my passion for 'edu-tainment' serving two decades with First Tee; six years as a National Delegate, fund ambassador to the Leukemia-Lymphoma Society and Fund Development Volunteer for CSU, Sacramento...to cite a few.

My résumé reflects a passion for education. I come to Board with no other agenda. I seek to assist the Association in staying on track with its Mission Statement as it pertains to providing a forum for networking, information sharing and education to its stakeholders.

I respectfully ask for your support as President in the 2015-16 term. I am available for review or questions by phone at 916-296-9019 or email at Investorscaddie@gmail.com.

Nominations for SACRS Vice President;

- **Gabe Rodrigues, Contra Costa CERA**

Gabe Rodrigues is a Deputy Sheriff with the Contra Costa County Office of the Sheriff. Gabe spent over two decades in the Food and Drug Industry prior to entering Law Enforcement. His titles included Financial Analyst, Database Analyst, Marketing Manager, and Account Executive. He spent the majority of this part of his career with two Fortune 500 companies before moving to a start-up company, ending his career as the Director of Sales for an international food manufacturing company. At the age of 48, Gabe followed his lifelong dream of becoming a Peace Officer. His work in Law Enforcement provides him with the satisfaction of helping the community that he is sworn to protect.

Gabe is the son of immigrant parents from Portugal who taught him to appreciate all America has to offer, but to never take our freedoms and rights for granted. Gabe chose to become a Retirement Board Trustee, allowing him the opportunity to use his business experience to protect and grow the assets of the pension plan that his fellow Contra Costa County employees depend on for their retirement. Gabe is available to all Sheriff Office employees, as well as all other County employees, to assist them with any questions or concerns they have about their pension plan.

Gabe earned his Bachelor of Arts in Management from Saint Mary's College in Moraga, California and his MBA in Marketing Management from California State University, Hayward. Gabe enjoys spending his time with his two children, their spouses, his grandson, and the rest of his family.

Message from Gabe:

I am Gabe Rodrigues, a Safety Trustee on the CCCERA Retirement Board. I would like to be considered for SACRS Vice President for the 2015 through 2016 term.

I have been a Trustee since 2012 and I have dedicated myself to learning about public pensions, especially our 1937 Act plans. I have attended numerous training programs, conferences and seminars based on pension laws, policies and investing. I believe in public pensions and I admire the work that SACRS does on behalf of the thousands of current and former public employees who depend or will be depending on their pensions to sustain them financially in their retirement.

Prior to becoming a Deputy Sheriff in 2006, I spent over two decades in the grocery industry at the corporate level working for two Fortune 500 companies along with a startup sales company. I ended my career as a Director of Sales for an International food manufacturing company overseeing sales in excess of \$100 million.

I would be honored to be the Vice President of such a well-respected organization and I believe my knowledge, experience and passion would be beneficial to SACRS.

Please feel free to contact me if you have any questions. My phone number is 925-997-5292.

Nominations for SACRS Secretary:

- **Zandra Cholmondeley, Santa Barbara CERS**
In November 2008, Zandra Cholmondeley was elected to represent County retirees as a trustee on the governing board of the Santa Barbara County Retirement System (SBCERS). She joined the Retirement Board in January 2009 and starting in January 2010, served two terms as Chair of the SBCERS Board. She has also served three terms as the President of the Retired Employees of Santa Barbara County (RESBC).

Zandra retired in July 2008 from her position as Principal Analyst for Santa Barbara County. As Principal Analyst, she was responsible for overseeing the development of the County's annual budget and performed numerous special projects for the County Executive Officer (CEO). Her budget responsibilities included working with County departments to ensure the accuracy of projections and overall preparation of the budget document. In this capacity, she was recognized by the CEO in 2006 for her insightful analytic ability and her commitment to the production of quality work by herself and others.

Zandra's special projects experience included implementing fiscal policy for the County Executive and oversight of internal service funds including the fleet and self-insurance funds. She represented the County Executive at meetings of the Santa Barbara County Board of Retirement and was tasked with analyzing how retirement issues affected the County's financial and human resource functions. Prior to joining the CEO's office, Zandra served as Clerk of the Board of Supervisors of Santa Barbara County.

Zandra is actively involved in her community and neighborhood; her personal interests include gardening, culinary arts and traveling.

Message from Zandra:

Please place my request to continue to serve as Secretary for the SACRS Board for the 2015-2016 term before the Nomination Committee.

During the past eight months, I have been honored to serve as Secretary of the SACRS organization. I believe that I have discharged my duties as a SACRS Board member and as SACRS Secretary with diligence and integrity. As a retiree I also bring the perspective of a retired member of the 1937 Act systems to the table, and I am hopeful that this perspective is helpful to the SACRS Board in serving our constituents.

I am asking that the Nomination Committee favorably consider my request to be placed in nomination to serve as Secretary for the coming year.

Thank you for your favorable consideration of my request.

- **Art Goulet, Ventura CERA**

Mr. Goulet is a Retired Member of the Ventura County Employees Retirement Association and the Immediate Past President of the Retired Employees Association of Ventura County (REAVC). Additionally, Mr. Goulet serves as the Legislative Chair for the California Retired County Employees Association (CRCEA) and is a member of the SACRS Legislative Committee.

Art has a Bachelor of Civil Engineering and Master of Public Administration Degrees, and varied public service and private consulting experience, including more than 22 years as a County Director of Public Works. He is married and lives in Camarillo with his wife Judy.

Message from Art:

I am the Retired Member Trustee of the Ventura County Employees Retirement Association, beginning my fourth term. Every time I have run for the position, I have run unopposed. I became the Immediate Past President of the Retired Employees Association of Ventura County (REAVC) on January 1, after having served 10 years as President. I was asked to serve as President again, but declined because I thought it was time for new leadership, and to give me the opportunity to undertake other responsibilities. I also serve as the Legislative Chair for the California Retired County Employees Association (CRCEA) and have been a member of the SACRS Legislative and Audit Committees for 10 and 3 years, respectively.

I have Bachelor of Civil Engineering and Master of Public Administration Degrees, and varied public service and private consulting experience, including more than 22 years as County Director of Public Works. While Director of Public Works, I progressed through the offices of the County Engineers Association of California (CEAC), culminating as President. I was also named County Engineer of the year during my career, and received the Circle of Service Award twice from the California State Association of Counties.

I have a reputation for hard work, doing my homework, and being prepared to make meaningful contributions. I would like to put that reputation to work as Secretary of SACRS.

Please submit my name to the Nominating Committee for consideration to be chosen as the nominee for the position of Secretary of SACRS.

Nominations for SACRS Treasurer:

- **Dan McAllister, San Diego CERA**

Dan McAllister was elected to the Office of the Treasurer-Tax Collector by the general public in November 2002 and took office in December 2002. He occupies the first seat on the Retirement Board and will hold this position on the Board of Retirement as long as he remains in office. Prior to his election, McAllister was a financial consultant and investment broker with a major national brokerage firm.

Message from Dan:

Thank you for your reminder regarding filing an official letter of interest to serve on the SACRS' 2015-2016 Board of Directors.

Please consider this my official expression of interest in continuing to serve as Treasurer for the SACRS Board for the 2015-2016 term. SACRS provides a valuable benefit and resource to the Trustees and stakeholders who serve the '37



Act pension systems throughout California and I am proud and honored to serve as a SACRS Board Member.

I am hopeful the Nomination Committee will again place my name in Nomination to serve as SACRS Treasurer for the coming year.

Thank you for your positive consideration of my request.