

# 2015 PRIVATE EQUITY PROGRAM REVIEW

Kentucky Retirement Systems

October 2015



PCA

PENSION  
CONSULTING  
ALLIANCE

# Agenda Items

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# Section 1: Private Equity Market Overview

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# Private Equity Market Overview

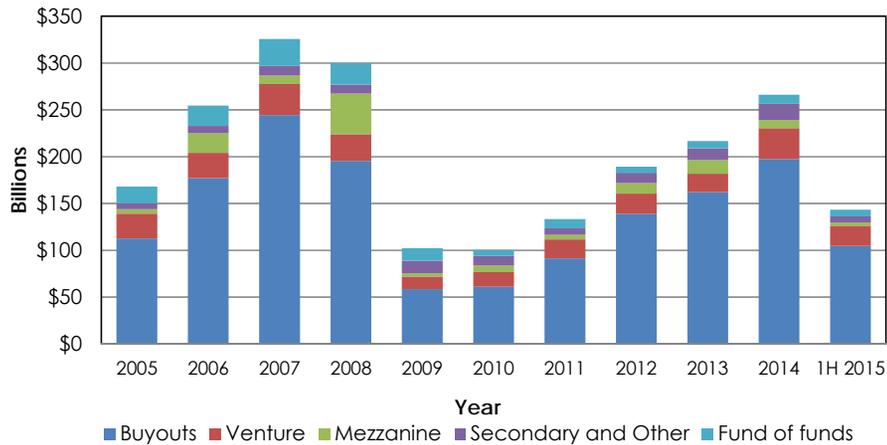
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## Industry Trends

- **Fundraising activity increased in the first half of 2015.** After \$266 billion of commitments were raised domestically in the 2014 calendar year, \$143.3 billion was raised in the first half of 2015 and is on pace to continue year-over-year increases since 2010. It continues to be an environment of the “haves” and the “have nots” as the most sought after managers are quickly achieving established hard caps. Buyouts continue to represent the largest proportion of commitments at approximately 73%.
- **Announced U.S. buyout deal volume in 1H 2015 exhibited volatility.** Total announced U.S. buyout deal volume was \$108.0 billion in Q1 2015, up from \$46.6 billion in the fourth quarter of 2014, but then declined to \$14.1 billion in Q2 2015. At \$207 billion in 2014, activity last year was the highest annual level over the past seven years.
- **Risk metrics in the leveraged buyout market remain high** as both purchase price multiples and debt multiples are above their ten-year averages. The average purchase price multiple in 1H 2015, at 10.1x, increased from 9.7x in 2014 and was well above the ten-year average of 8.8x. Debt multiples in 1H 2015 were at 5.5x, below the 5.8x level for the 2014 calendar year but still above the ten-year average of 5.0x.
- **Venture capital investment activity remains strong and increasing.** Approximately \$31.0 billion was invested across 2,237 companies in 1H 2015, on pace to exceed the \$49.7 billion invested across 4,399 companies in 2014 calendar year.
- **Exit activity for venture capital investments slowed in the first half of 2015.** The value of merger and acquisition (M&A) transactions decreased in the first half of 2015 after the 2014 calendar year activity more than doubled 2013 levels. The initial public offering (IPO) market also exhibited a slight decrease in the first half of 2015 and is on pace to slightly lag 2014 levels.
- **The outlook for distressed debt investment strategies continues to be mixed.** Debt pricing has dipped slightly but remains near par (according to the Leveraged Loan Index produced by the Loan Syndications and Trading Association), minimizing the near-term opportunity set for trading strategies. However, volatility has increased over recent periods. The high yield and leveraged loan markets are large, but default rates have remained low dampening the opportunity set for distressed-for-control opportunities.

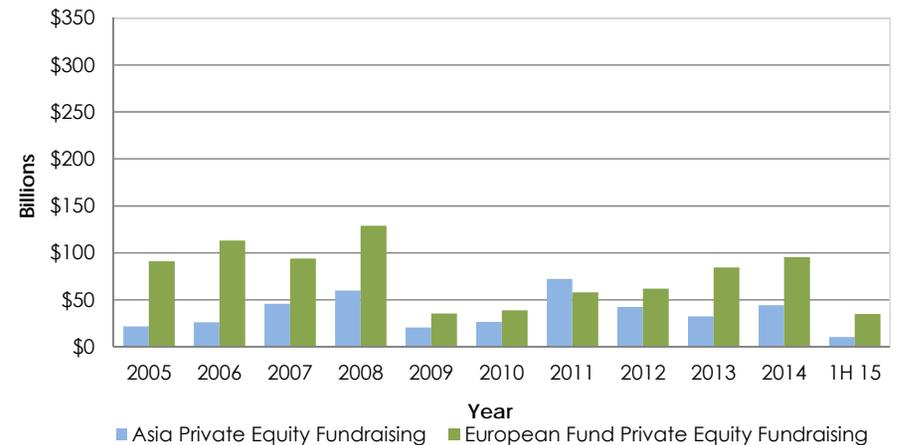
# Private Equity Market Overview

Commitments to U.S. Private Equity Partnerships



Source: *Private Equity Analyst* through June 2015

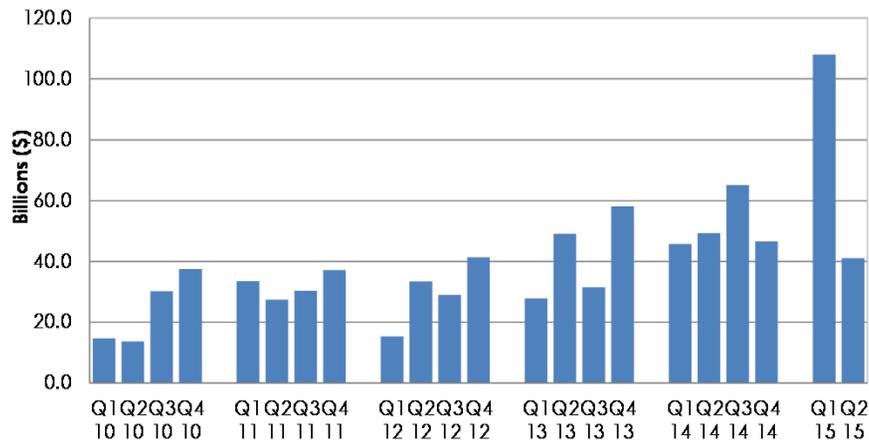
Commitments to Non-U.S. Private Equity



Source: Thomson Reuters, through June 2015

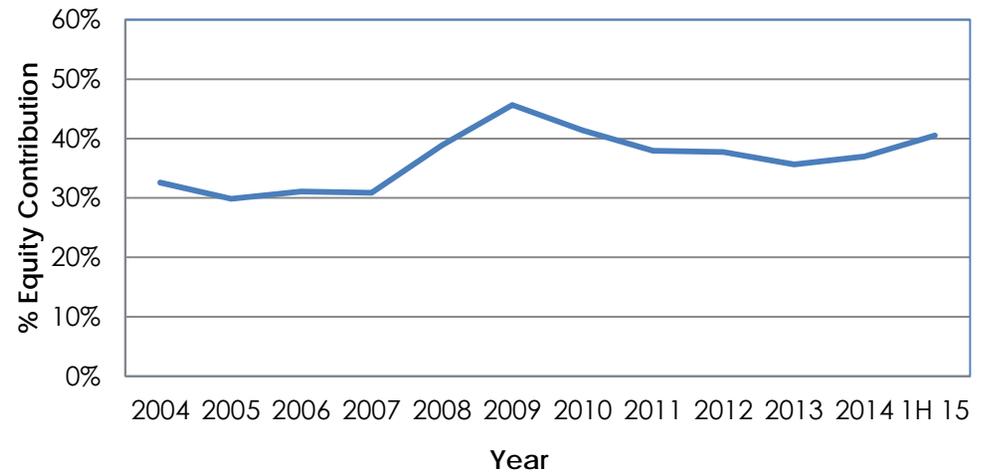
- *Fundraising activities below last year's pace YTD 2015.*

Announced and Disclosed U.S. Quarterly LBO Deal Value\*



\* Total deal size (both equity and debt).  
Source: Thomson Reuters Buyouts

Equity Contribution

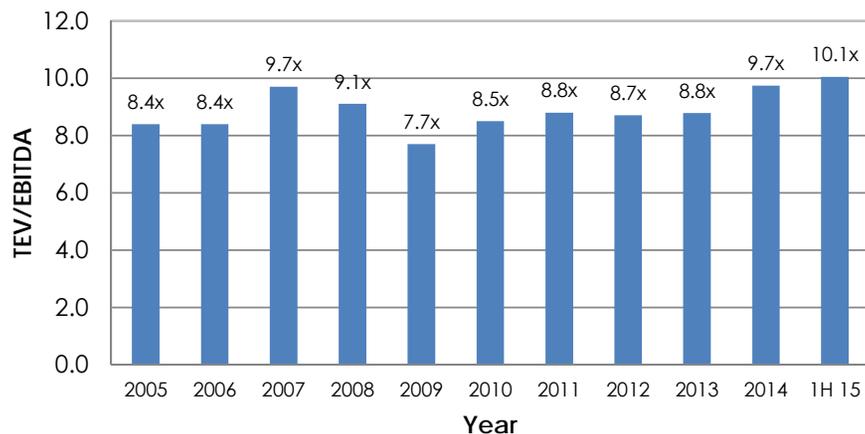


Source: S&P Capital IQ

- *Buyout transaction activity showing volatility with equity contributions rising.*

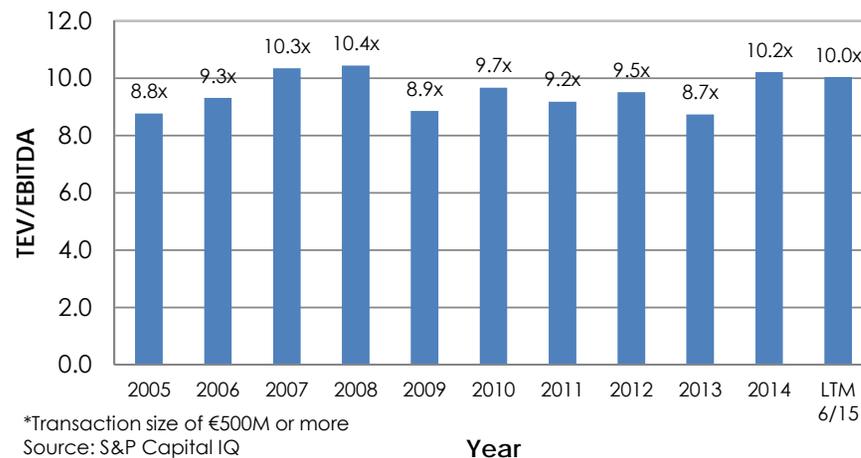
# Private Equity Market Overview

Average U.S. Purchase Price Multiples



Source: S&P Capital IQ

Average European Purchase Price Multiples

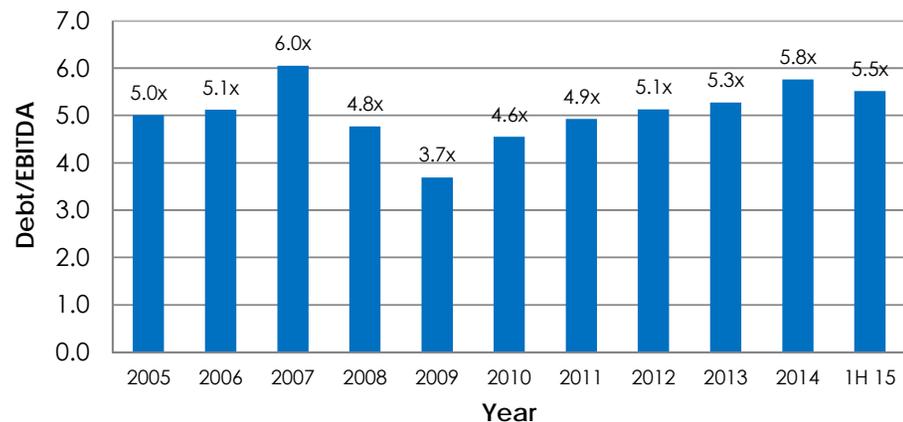


\*Transaction size of €500M or more

Source: S&P Capital IQ

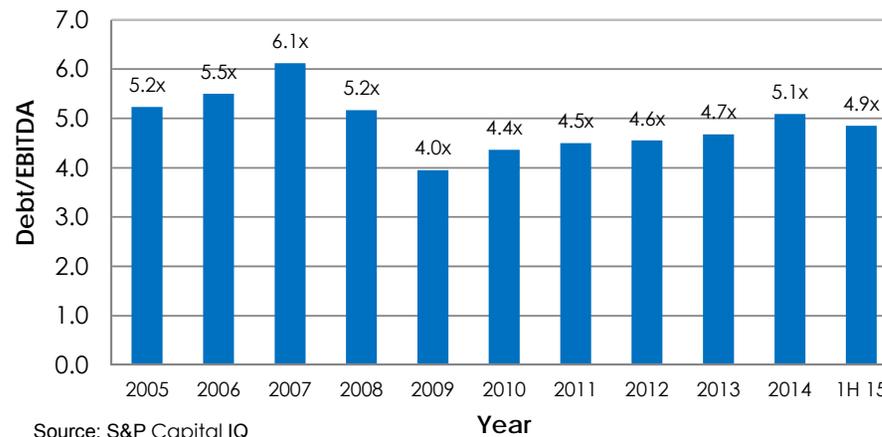
- *LBO transactions continue to be expensive, above pre-crisis levels...*

Average U.S. Debt Multiples



Source: S&P Capital IQ

Average European Debt Multiples

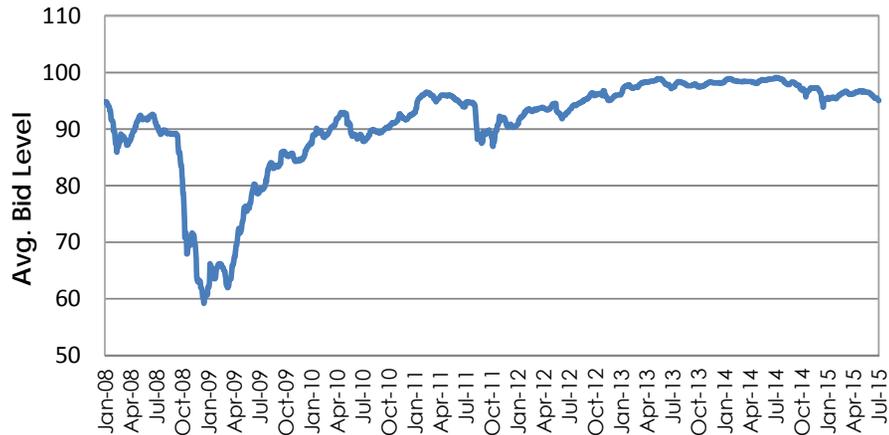


Source: S&P Capital IQ

- *...while use of leverage also continues to be high.*

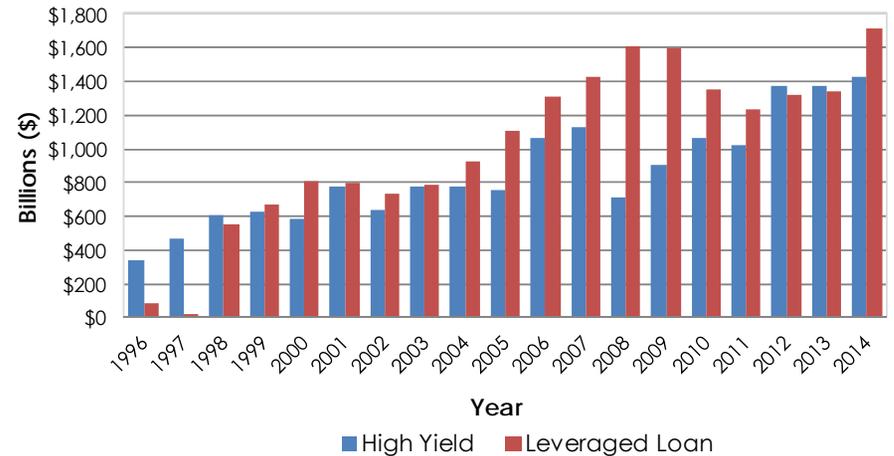
# Private Equity Market Overview

Leveraged Loan Index



Source: Loan Syndications and Trading Association (LSTA)

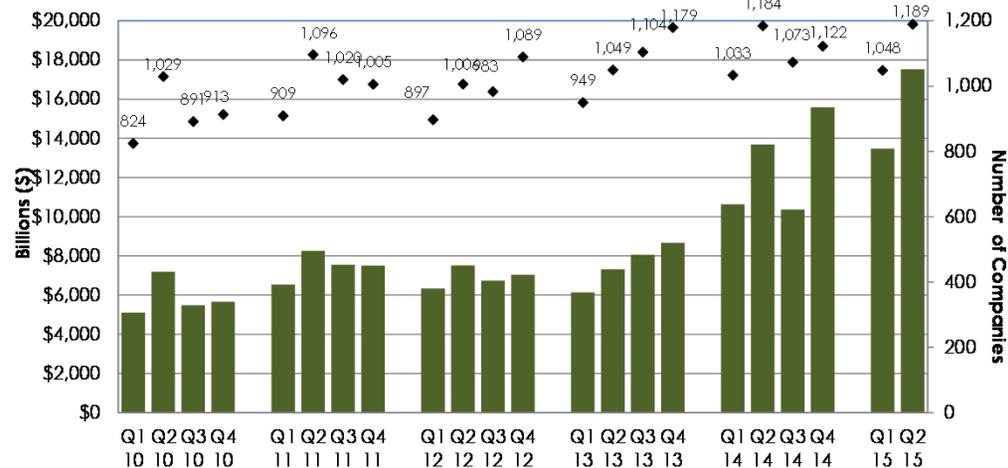
U.S. High-Yield and Leveraged Loan Market Size



Source: Thomson Reuters, Credit Suisse Leveraged Finance Market Update

- Opportunity for distressed investing continues to be mixed as the market continues to grow, but defaults remain low.

Quarterly U.S. Venture Capital Deal Volume\*

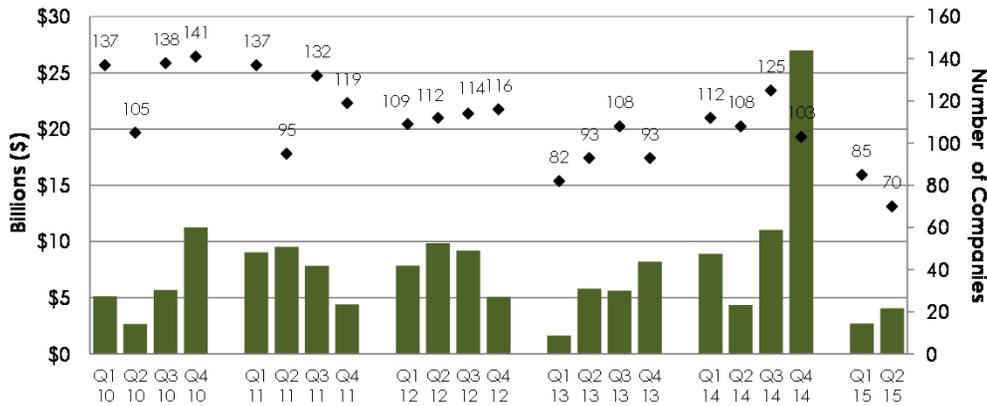


\* Only includes equity portion of deal value.  
Source: Thomson Reuters

- Venture capital investment activity increasing.

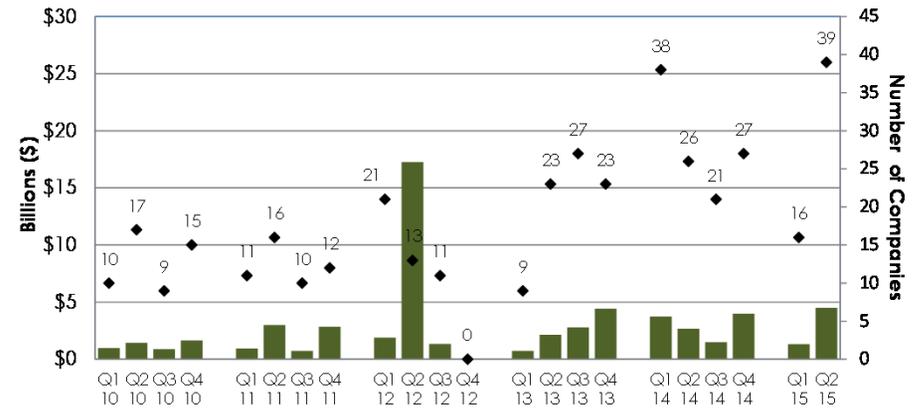
# Private Equity Market Overview

Quarterly U.S. Venture Capital M&A Activity



Source: Thomson Reuters

Quarterly U.S. Venture Capital IPO Activity



Source: Thomson Reuters

- Exit environment for venture capital slowed in 1H 2015.

Cambridge Associates Horizon Summary Report  
as of March 31, 2015

Fund Type	1 Yr	3 Yr	5 Yr	10 Yr	15 Yr	20 Yr
Venture Capital	22.4%	18.6%	17.2%	10.9%	3.8%	27.7%
Growth Equity	10.8%	13.0%	13.6%	12.8%	9.7%	14.8%
Buyout	7.7%	13.3%	14.3%	12.6%	10.9%	13.1%
Mezzanine	7.1%	10.9%	11.2%	10.8%	7.2%	10.0%
Distressed	5.7%	12.2%	11.4%	10.3%	11.0%	11.3%
Private Equity Energy	-6.4%	1.9%	7.8%	10.9%	12.8%	12.5%
Upstream Energy & Royalties	-20.7%	-5.2%	3.4%	9.0%	16.3%	14.5%
Timber	4.5%	7.2%	5.5%	4.9%	4.8%	5.1%
Real Estate	13.3%	12.7%	12.7%	5.5%	6.6%	7.0%
Fund of Funds	10.7%	11.9%	12.5%	9.7%	7.4%	9.2%
Secondary Funds	9.8%	12.0%	13.8%	11.8%	12.0%	13.2%
<b>Total</b>	<b>9.3%</b>	<b>12.7%</b>	<b>13.5%</b>	<b>10.9%</b>	<b>8.8%</b>	<b>12.9%</b>

Public Market Performance Comparison, as of March 31, 2015

Fund Type	1 Yr	3 Yr	5 Yr	10 Yr	20 Yr
All Private Equity	9.3%	12.7%	13.5%	10.9%	12.9%
Russell 3000	12.4%	16.4%	14.7%	8.4%	9.6%
Russell 2000	8.2%	16.3%	14.6%	8.8%	9.6%
MSCI EAFE	-0.5%	9.5%	6.6%	5.4%	5.6%
BC Aggregate	5.7%	3.1%	4.4%	4.9%	6.0%

- Private equity outperforming over longer time periods

- Venture capital was the strongest performing sector over latest year.

## Section 2: Pension Program Review

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# KRS Private Equity Pension Plan Overview

## One-Year Change: as of June 30, 2015

As of:	Active Partnerships	Active Commitments (\$M)	Contributed (\$M)	Distributed (\$M)	Market Value (\$M)	Investment Multiple	Since Inception IRR*
6/30/2014	53	2,095	2,184	1,875	1,219	1.42x	9.9%
6/30/2015	58	2,261	2,329	2,214	1,154	1.45x	10.0%
<b>One-Year Change</b>	<b>5</b>	<b>166</b>	<b>145</b>	<b>339</b>	<b>(65)</b>	<b>0.03x</b>	<b>0.1%</b>

\* Initial capital call made on August 20<sup>th</sup>, 2002

- Over the latest year, since inception results remained stable
  - portfolio continued to evolved with five new commitments
  - strong cash flow generation with \$194 million of net cash flows out of the portfolio

## Horizon Performance vs. Customized Benchmark: as of June 30, 2015

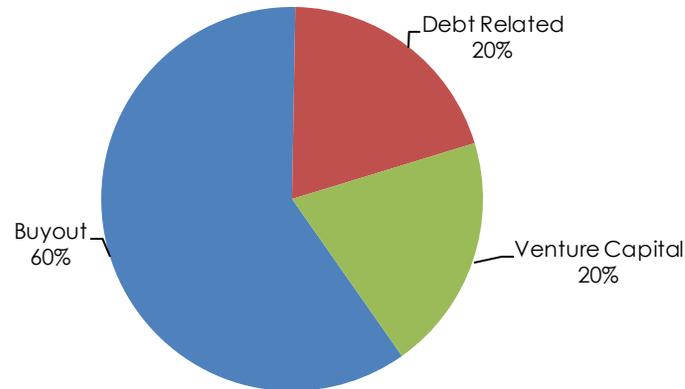
	One-Year	Three-Year	Five-Year	Ten-Year	Since Inception
KRS Pension Plan	11.1%	14.6%	13.3%	9.7%	10.0%
R3000 + 400 bps*	11.4%	21.2%	20.9%	11.1%	11.1 %
<b>Variance</b>	<b>(0.3%)</b>	<b>(6.6%)</b>	<b>(7.6%)</b>	<b>(1.4%)</b>	<b>(1.1%)</b>

- KRS Pensions results are below the customized benchmark over the long-term
  - challenging period to outperform a public market plus a premium benchmark
    - public equity returns have been above long-term expectations over the past five years
    - KRS' experience is consistent with institutional investors utilizing a similar benchmark
  - Pension Plan results materially dampened by secondary sale in 2011
    - while necessary, partnerships continued to rebound subsequent to secondary sale

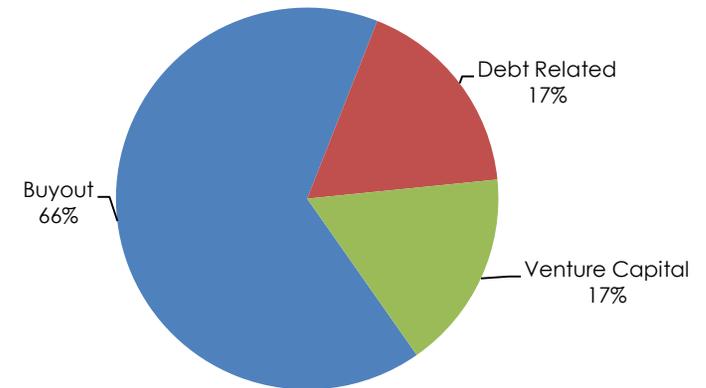
\* Customized benchmark assuming the portfolio cash flows were invested in/out of a Russell 3000 +400 basis point index.

# Sector Exposures and Targets

## Target Exposures

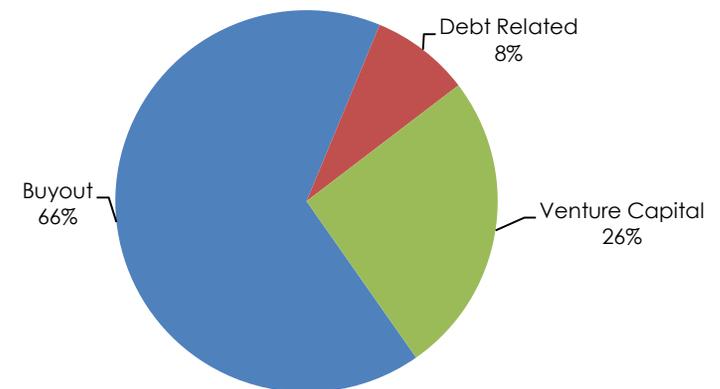


## Active Commitments (\$2,261 M)



- KRS Pension portfolio near target exposures by sub-sector
  - slightly above target for venture capital and buyout while below target in debt related, on a market value basis
  - allowing the venture capital exposure to decline over time while targeting a lower long-term venture capital allocation

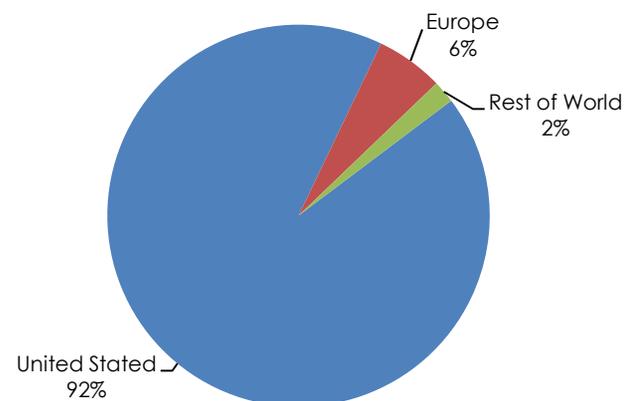
## Market Value (\$1,154 M)



# Geographic and Industry Exposure

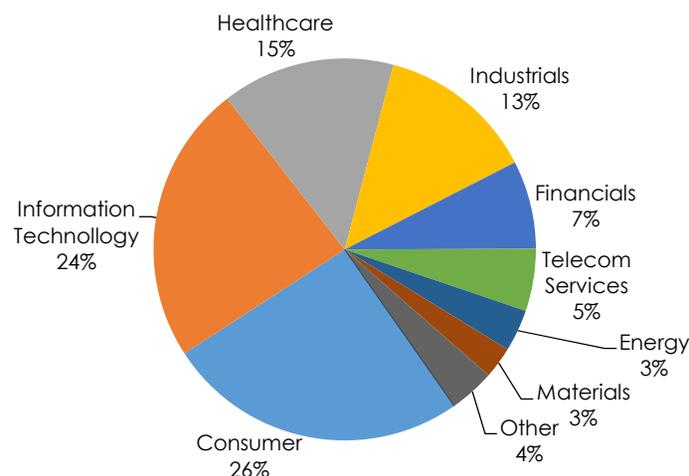
- Based on partnership geographic definitions, the KRS Pension portfolio is domestically-oriented at 92%.
  - many partnerships that are located in the U.S. invest globally, increasing the portfolio's actual non-U.S. exposure

Market Value\* (\$1,149 M)



- The KRS Pension portfolio is diversified across industry, led by consumer at 26%, information technology (24%), healthcare (15%), and industrials (13%).
  - the five largest industries in the Russell 3000 Index are consumer staples/discretionary (22%), financial services (20%), information technology (16%), healthcare (15%) and producer durables (11%)

Market Value\*\*



\* Geographic exposure defined by partnership strategy

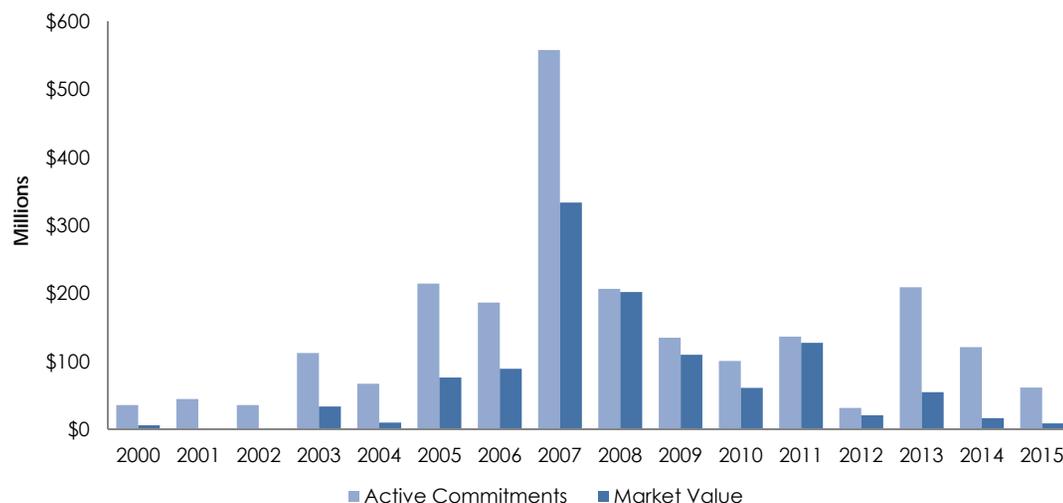
\*\* Industry exposure excludes fund of funds and distressed debt holdings

# Vintage Year Exposure

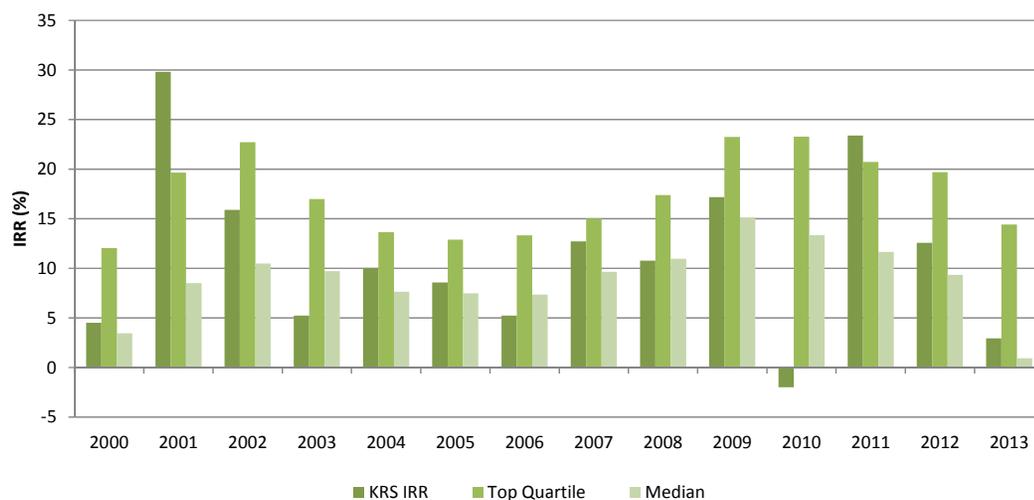
- Performance largely driven by commitments made in the 2005 to 2008 period
  - representing almost 52% of commitments and 61% of market value
  - continuing to diversify over time

- Pension Portfolio has placed above median in 10 of 14 vintage years and in the top quartile for two vintages\*.
  - performance of younger investments is less material

Active Commitments and Market Value by Vintage Year



Vintage Year IRR vs. Median and Top Quartile

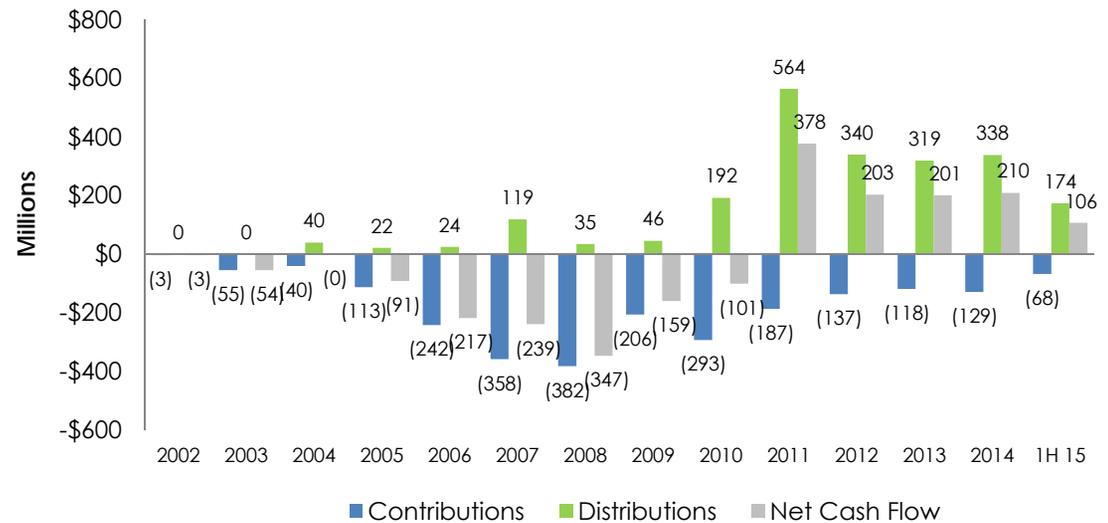


\* Source: Cambridge Associates Benchmark data (accessed via Thomson ONE) as of March 31, 2015 including Buyout & Growth Equity, Mezzanine & Distressed, and Venture Capital asset classes.

# Program Cash Flows

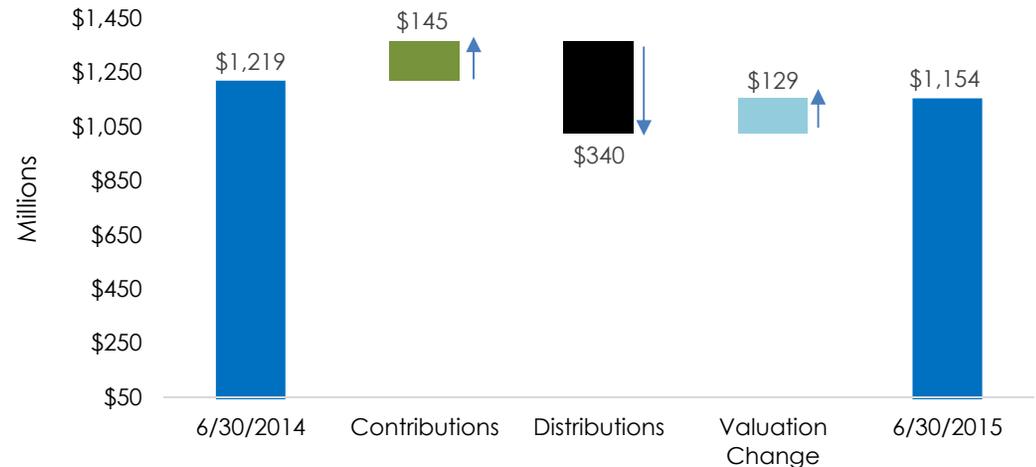
- KRS Pension Program has been cash flow positive since 2011
  - generating \$1.1 billion of net cash over the past four and a half years
  - increased distribution activity during the recovery
  - proceeds from secondary sale in 2011 categorized as distributions

Program Cash Flows by Calendar Year



- KRS Pension Portfolio value declined by \$65 million over the past year as distributions outpaced contributions and appreciation.
  - underlying holdings also appreciated by \$129 million over the past year

Annual Cash Flow Activity and Market Value



# Sector Horizon Performance

Horizon Performance by Sector: as of June 30, 2015

Sector	Sub Sector	Commitment	1 Year	3 Year	5 Year	10 Year	Inception
Buyout	Sub Total	1,485,556,652	13.1	16.3	16.6	11.5	11.3
	Large Buyout	240,761,048	5.4	19.8	13.2	N/A	7.0
	Upper Mid Buyout	687,931,839	13.7	17.3	19.3	13.4	13.0
	Lower Mid Buyout	123,500,000	28.7	23.3	20.2	N/A	20.1
	Small Buyout	85,000,000	27.2	18.9	19.7	N/A	17.8
	Fund of Funds	297,963,765	11.2	14.1	15.7	N/A	14.9
	Real Assets	27,000,000	11.0	(5.9)	(0.7)	N/A	(1.8)
	Secondary	23,400,000	(6.7)	(19.7)	(13.0)	N/A	(13.0)
Debt Related	Sub Total	394,272,000	(5.8)	10.4	6.7	7.0	8.5
	Distressed	367,272,000	(8.4)	10.3	6.1	6.8	8.5
	Mezzanine	27,000,000	18.9	10.8	13.7	8.8	8.5
Venture Capital	Sub Total	381,500,000	12.0	12.0	9.2	7.0	7.5
	Venture	336,500,000	9.6	11.1	8.7	6.7	7.2
	Fund of Funds	45,000,000	35.7	25.2	19.2	N/A	17.2
All	Total	2,261,328,652	11.1	14.6	13.3	9.7	10.0

- The Buyout sector has been the strongest performer over the long-term
  - representing the largest component of the portfolio
- Debt Related exposure has posted relatively stable results over longer periods
  - providing a stabilizing and complementary exposure to buyout and venture capital
  - underperforming over latest year
- Venture Capital generated stronger results over shorter periods
  - has underperformed over longer periods

# Largest Relationships

KRS Pension's Ten Largest Relationships: based on Market Value

Family	Sector	Commitment	Market Value	One Year	Three Year	Five Year	Since Inception
Duff Ackerman & Goodrich LLC	Venture Capital	152,000,000	145,916,797	10.4	11.4	9.3	6.8
Bay Hills Capital Management, LLC	Buyout	208,750,000	126,878,131	9.8	14.9	18.0	16.5
Leonard Green & Partners, L.P.	Buyout	189,500,000	117,640,621	8.9	18.2	22.4	13.8
Blackstone Group LP	Buyout	107,500,000	77,974,368	12.2	24.0	13.3	5.6
Crestview Partners	Buyout	106,500,000	62,246,233	3.4	12.9	15.2	14.0
Vista Equity Partners	Buyout	72,000,000	46,783,228	35.8	25.4	30.9	29.2
New Mountain Capital, LLC	Buyout	91,550,000	43,409,766	16.0	16.7	14.3	10.1
Wayzata Investment Partners, LLC	Debt Related	170,500,000	42,364,223	-12.1	11.5	11.3	11.9
Warburg, Pincus LLC	Buyout	88,750,000	41,972,626	-3.2	13.9	13.1	7.7
Harvest Partners, L.P.	Buyout	64,400,000	40,788,261	31.4	24.8	20.9	20.6

- Ten largest relationships represent approximately 65% of market value
  - representing \$1.3 billion of commitments across 26 partnerships
  - relationship level results primarily strong contributors to performance
    - with some near-term volatility

# Commitment Pacing/Future Activities

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- Target annual commitment pacing of approximately \$220 million in 2016 and 2017
  - ranging from \$175 million to \$265 million per year
    - targeting four to five commitments annually
  - allocations approximately 70% to the Pension Plan and 30% to the Insurance Plan
- Areas of further portfolio development should include:
  - continue disciplined investment pacing and commitment sizing
  - revisit KRS' approach to venture capital exposure
    - allow the venture capital exposure to decline over time
    - consider utilization of fund of funds for ongoing strategic exposure to the segment
  - Strive for higher returning strategies within the debt related segment
  - explore cost-effective approaches to deploying capital, such as co-investing
  - consider additional global exposure
    - committing to direct partnerships where appropriate and fund of funds as warranted

# Partnership Listing

## KRS Pension's Partnership Listing, as of June 30, 2015

Investment	Vintage	Sector	Commitment	Value (\$)	Multiple	IRR	Quartile*
Arbor Capital II, L.P.	2006	Buyout	22,500,000	4,101,359	2.4x	19.8%	First
Arcano KRS Fund I, L.P.	2010	Buyout	36,000,000	22,284,570	1.0x	1.3%	Fourth
Ares Special Situations Fund IV, L.P.	2015	Debt Related	26,192,000	6,348,115	0.9x	-9.2%	NA
Bay Hills Capital I, L.P.	2007	Buyout	67,500,000	56,330,578	2.0x	16.9%	First
Bay Hills Capital II, L.P.	2009	Buyout	90,000,000	71,554,654	1.4x	19.0%	Second
Bay Hills Capital III, L.P.	2013	Buyout	51,250,000	3,902,598	1.1x	3.2%	Second
BDCM Opportunity Fund IV, L.P.	2015	Debt Related	35,580,000	2,700,971	0.9x	-7.1%	NA
Blackstone Capital Partners V, L.P.	2006	Buyout	47,500,000	33,160,349	1.3x	4.8%	Third
Blackstone Capital Partners VI, L.P.	2011	Buyout	60,000,000	44,814,019	1.3x	13.5%	Second
Camelot Opportunities Fund, L.P.	2010	Buyout	23,400,000	12,411,277	0.6x	-13.0%	Fourth
Columbia Capital Equity Partners IV, L.P.	2005	Venture Capital	27,000,000	29,688,483	2.0x	11.5%	Second
Crestview Partners II, L.P.	2008	Buyout	67,500,000	57,529,472	1.5x	14.3%	Second
Crestview Partners III, L.P.	2014	Buyout	39,000,000	4,716,761	0.9x	-13.5%	Second
CVC European Equity Partners VI, L.P.	2014	Buyout	24,511,048	1,546,424	0.7x	-32.0%	Third
DAG Ventures II, L.P.	2006	Venture Capital	27,000,000	14,895,087	0.7x	-4.6%	Fourth
DAG Ventures III, L.P.	2007	Venture Capital	27,000,000	9,073,130	1.7x	10.4%	Third
DAG Ventures IV, L.P.	2008	Venture Capital	90,000,000	96,002,641	1.4x	6.7%	Third
DAG Ventures V, L.P.	2011	Venture Capital	8,000,000	25,945,939	3.7x	63.0%	First
DCM VI, L.P.	2010	Venture Capital	13,500,000	16,116,120	1.4x	12.9%	Third
Essex Woodlands Fund VIII, L.P.	2008	Venture Capital	22,500,000	23,386,511	1.2x	7.0%	Third
Green Equity Investors IV, L.P.	2003	Buyout	67,500,000	32,463,067	2.0x	11.5%	Third
Green Equity Investors V, L.P.	2007	Buyout	90,000,000	64,169,086	1.8x	18.3%	First
Green Equity Investors VI, L.P.	2012	Buyout	32,000,000	21,008,468	1.2x	12.6%	Second
GTCR Fund IX-A, L.P.	2006	Buyout	63,000,000	25,248,999	1.8x	14.2%	First
H.I.G. BioVentures II, L.P.	2011	Venture Capital	13,500,000	3,854,892	0.8x	-15.3%	Fourth
H.I.G. Capital Partner V, L.P.	2013	Buyout	13,100,000	2,087,187	1.0x	-2.7%	Third
H.I.G. Ventures II, L.P.	2005	Venture Capital	18,000,000	8,488,002	1.2x	4.0%	Third
Harvest Partners V, L.P.	2007	Buyout	36,000,000	15,107,689	1.8x	20.1%	First
Harvest Partners VI, L.P.	2011	Buyout	28,400,000	25,680,572	1.4x	22.9%	First

\* Source: Cambridge Associates Benchmark data (accessed via Thomson ONE) as of March 31, 2015 including Buyout & Growth Equity, Mezzanine & Distressed, and Venture Capital asset classes.

# Partnership Listing (continued)

## KRS Pension's Partnership Listing, as of June 30, 2015 (continued)

Investment	Vintage	Sector	Commitment	Value (\$)	Multiple	IRR	Quartile*
Hellman and Friedman Capital Partners VI, L.P.	2007	Buyout	20,000,000	6,791,154	1.3x	9.2%	Third
Horsley Bridge International Fund V, L.P.	2009	Venture Capital	45,000,000	38,600,108	1.4x	17.2%	Second
Institutional Venture Partners XII, L.P.	2007	Venture Capital	27,000,000	11,423,532	2.5x	27.2%	First
JW Childs Equity Partners III, L.P.	2002	Buyout	36,000,000	47,878	2.0x	15.9%	Third
Keyhaven Capital Partners Fund III, L.P.	2010	Buyout	28,213,765	10,656,126	1.0x	1.4%	Fourth
Levine Leichtman Capital Partners V, L.P.	2013	Buyout	46,000,000	15,919,197	1.1x	13.0%	Second
MatlinPatterson Global Opportunities Partners	2001	Debt Related	45,000,000	22,815	1.8x	29.8%	First
MatlinPatterson Global Opportunities Partners II	2003	Debt Related	45,000,000	1,705,181	0.6x	-24.3%	Fourth
MatlinPatterson Global Opportunities Partners III	2007	Debt Related	45,000,000	32,274,440	1.2x	5.7%	Third
Merit Mezzanine Fund IV, L.P.	2005	Debt Related	27,000,000	11,201,346	1.5x	8.5%	Second
Mill Road Capital I, L.P.	2008	Buyout	27,000,000	25,262,766	2.1x	16.6%	Second
New Mountain Partners II, L.P.	2005	Buyout	25,000,000	1,918,060	1.7x	11.7%	Second
New Mountain Partners III, L.P.	2007	Buyout	33,750,000	34,177,430	1.2x	7.5%	Third
New Mountain Partners IV, L.P.	2014	Buyout	32,800,000	7,314,276	1.1x	11.5%	First
Oak Hill Capital Partners II, L.P.	2004	Buyout	67,500,000	10,183,944	1.7x	10.0%	Third
Oak Hill Capital Partners III, L.P.	2007	Buyout	33,750,000	24,438,443	1.1x	3.0%	Fourth
Riverside Capital Appreciation Fund VI, L.P.	2013	Buyout	35,500,000	13,022,448	1.0x	0.7%	Second
Secondary Opportunities Fund III, L.P.	2014	Buyout	25,000,000	3,215,061	1.2x	59.4%	First
Tenaska Power Fund II, L.P.	2007	Buyout	27,000,000	9,564,347	0.9x	-1.8%	Fourth
Triton Fund IV, L.P.	2013	Buyout	28,131,839	11,956,198	1.0x	1.9%	Second
VantagePoint Venture Partners 2006, L.P.	2006	Venture Capital	27,000,000	12,050,409	0.5x	-14.0%	Fourth
VantagePoint Venture Partners IV, L.P.	2000	Venture Capital	36,000,000	6,492,903	1.3x	4.5%	First
Vista Equity Partners III, L.P.	2007	Buyout	45,000,000	19,516,294	2.5x	30.3%	First
Vista Equity Partners IV, L.P.	2011	Buyout	27,000,000	27,266,934	1.5x	20.5%	First
Warburg, Pincus Private Equity IX, L.P.	2005	Buyout	50,000,000	12,333,223	1.5x	8.2%	Second
Warburg, Pincus Private Equity X, L.P.	2007	Buyout	38,750,000	29,639,403	1.3x	6.3%	Third
Wayzata Opportunities Fund II, L.P.	2007	Debt Related	67,500,000	21,259,587	1.8x	16.7%	First
Wayzata Opportunities Fund III, L.P.	2013	Debt Related	35,500,000	8,197,853	0.9x	-9.4%	Fourth
Wayzata Opportunities Fund, L.P.	2005	Debt Related	67,500,000	12,906,783	1.5x	9.2%	First

\* Source: Cambridge Associates Benchmark data (accessed via Thomson ONE) as of March 31, 2015 including Buyout & Growth Equity, Mezzanine & Distressed, and Venture Capital asset classes.

## Section 3: Insurance Program Review

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# KRS Private Equity Insurance Plan Overview

## One-Year Change: as of June 30, 2015

As of:	Active Partnerships	Committed (\$M)	Contributed (\$M)	Distributed (\$M)	Market Value (\$M)	Investment Multiple	Since Inception IRR*
6/30/2014	59	506	316	216	243	1.45x	11.4%
6/30/2015	64	669	386	279	292	1.48x	12.0%
<b>One-Year Change</b>	<b>5</b>	<b>163</b>	<b>70</b>	<b>63</b>	<b>49</b>	<b>0.03x</b>	<b>0.6%</b>

\* Initial capital call made on August 20<sup>th</sup>, 2002

- Over the latest year, since inception performance has improved 60 basis points

## Horizon Performance vs. Customized Benchmark: as of June 30, 2015

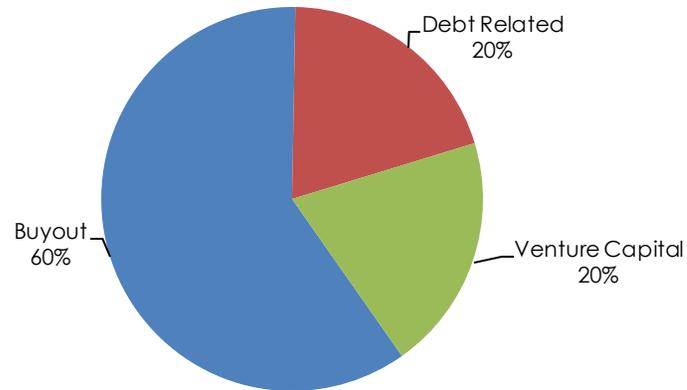
	One-Year	Three-Year	Five-Year	Ten-Year	Since Inception
KRS Insurance Trust	17.0%	17.6%	15.8%	11.7%	12.0%
Russell 3000 + 400 bps*	11.3%	20.7%	19.9%	11.9%	12.0%
<b>Variance</b>	<b>5.5%</b>	<b>(3.1%)</b>	<b>(4.1%)</b>	<b>(0.2%)</b>	<b>---</b>

- KRS Insurance results match the custom benchmark since inception
  - strong results over latest year
  - difficult to outperform a public market plus a premium benchmark over latest three and five years
    - public equity returns have been above long-term expectations over the past five years
    - KRS' experience is consistent with institutional investors utilizing a similar benchmark

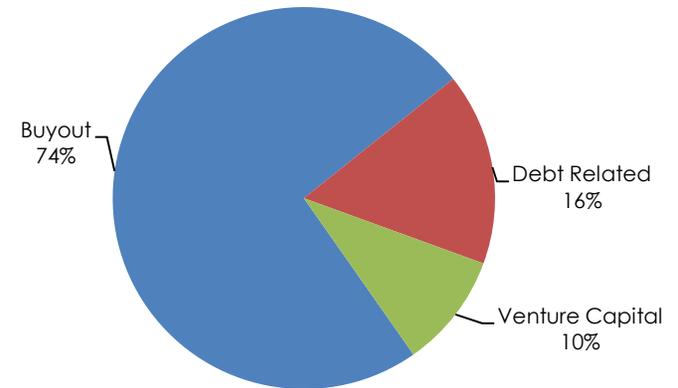
\* Customized benchmark assuming the portfolio cash flows were invested in/out of a Russell 3000 +400 basis point index.

# Sector Exposures and Targets

## Target Exposures

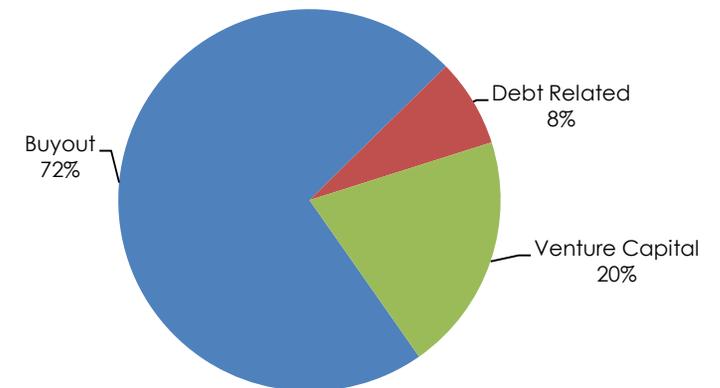


## Active Commitments (\$669 M)



- KRS Insurance portfolio near target exposures by sub-sector
  - overweight buyout while below target in debt related

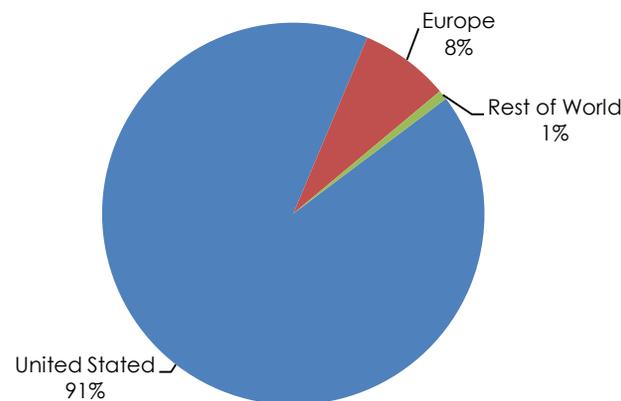
## Market Value (\$292 M)



# Geographic and Industry Exposure

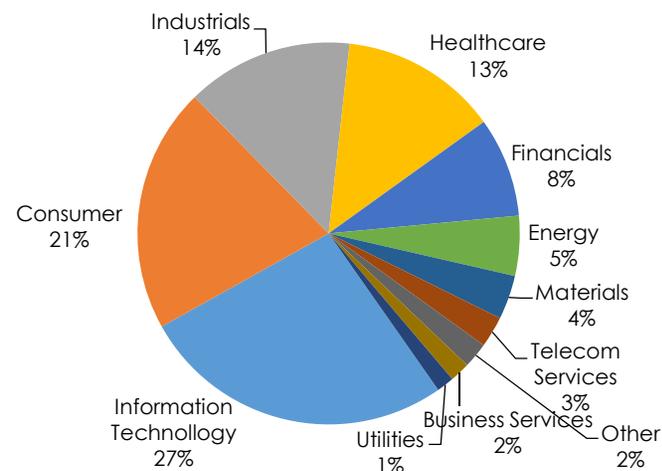
- Based on partnership geographic definitions, the KRS Insurance portfolio is domestically-oriented at 91%.
  - many partnerships that are located in the U.S. invest globally, increasing the portfolio's actual non-U.S. exposure

Market Value\* (\$292 M)



- The KRS Insurance portfolio is diversified across industry, led by information technology at 27%, consumer (21%), industrials (14%) and healthcare (13%).
  - the five largest industries in the Russell 3000 Index are consumer staples/discretionary (22%), financial services (20%), information technology (16%), healthcare (15%) and producer durables (11%).

Market Value\*\*



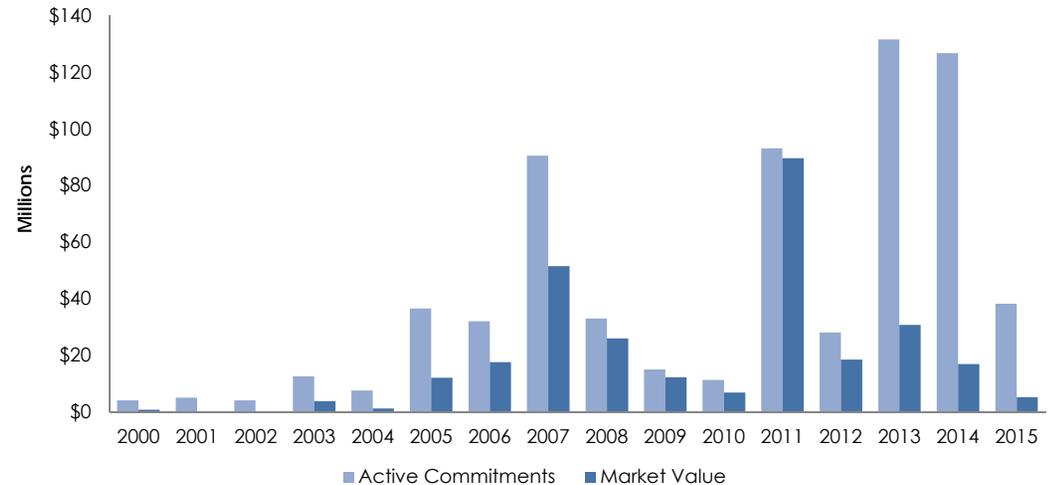
\* Geographic exposure defined by partnership strategy

\*\* Industry exposure excludes fund of funds and distressed debt holdings

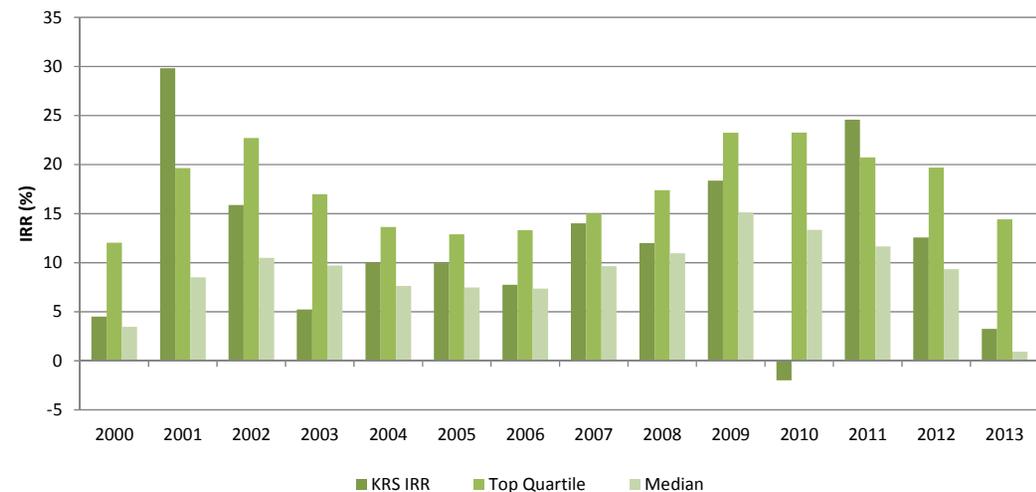
# Vintage Year Exposure

- Insurance Portfolio has exhibited some volatility in annual commitment activity
  - ceased 90/10 allocation between Retirement/Insurance in 2011
  - recent commitment peaks due to efforts to progress towards the 10% target allocation
  
- Insurance Portfolio has placed above median in 12 of 14 vintage years and in the top quartile for two vintages\*.
  - performance of younger investments is less material

Active Commitments and Market Value by Vintage Year



Vintage Year IRR vs. Median and Top Quartile

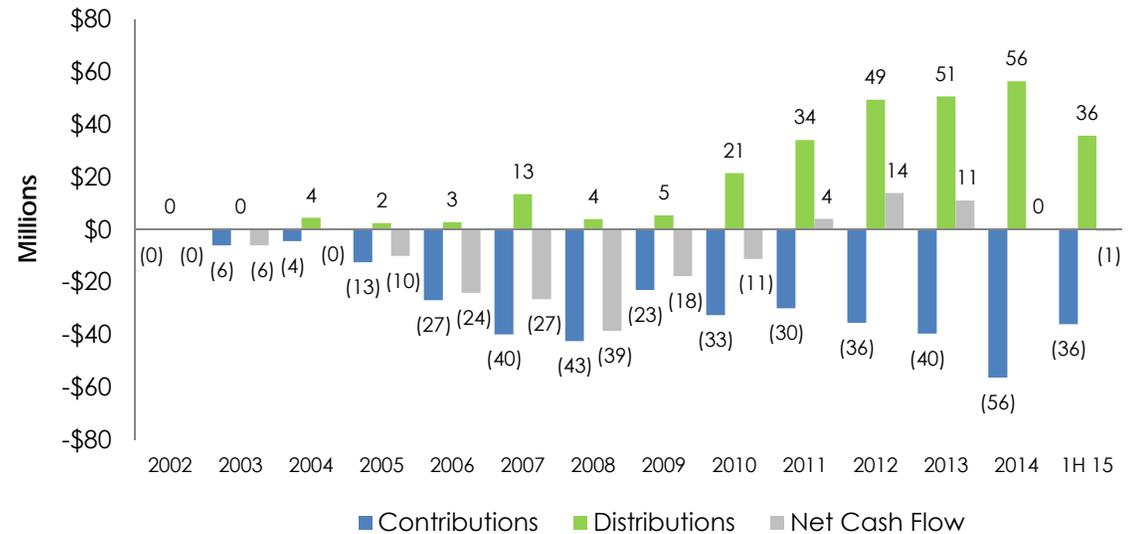


\* Source: Cambridge Associates Benchmark data (accessed via Thomson ONE) as of March 31, 2015 including Buyout & Growth Equity, Mezzanine & Distressed, and Venture Capital asset classes.

# Program Cash Flows

- KRS Insurance Program has been cash flow neutral for the past year and a half
  - increased distribution activity during the recovery offset by increased contribution activity due to larger relative commitments

Program Cash Flows by Calendar Year



- KRS Insurance Portfolio value increased by \$49 million over the past year as contributions plus appreciation outpaced distributions.

Annual Cash Flow Activity and Market Value



# Sector Horizon Performance

Horizon Performance by Sector: as of June 30, 2015

Sector	Sub Sector	Commitment	1 Year	3 Year	5 Year	10 Year	Inception
Buyout	Sub Total	494,896,924	15.7	17.5	17.1	12.8	12.7
	Large Buyout	91,030,026	6.2	20.3	15.3	N/A	10.0
	Upper Mid Buyout	179,173,534	17.6	17.4	19.0	14.2	13.9
	Lower Mid Buyout	46,500,000	28.4	21.2	19.8	N/A	19.7
	Small Buyout	24,212,500	23.9	15.3	17.6	N/A	16.4
	Fund of Funds	148,380,863	20.0	17.3	17.8	N/A	16.8
	Real Assets	3,000,000	11.0	(5.9)	(0.7)	N/A	(1.8)
	Secondary	2,600,000	(6.7)	(19.7)	(13.0)	N/A	(13.0)
Debt Related	Sub Total	108,940,500	(7.6)	9.7	10.9	8.8	10.2
	Distressed	105,940,500	(9.2)	9.7	10.7	8.8	10.3
	Mezzanine	3,000,000	18.9	10.8	13.7	8.8	8.5
Venture Capital	Sub Total	65,000,000	32.1	21.2	15.2	11.2	11.6
	Venture	60,000,000	31.9	21.0	15.0	11.0	11.5
	Fund of Funds	5,000,000	35.7	25.2	19.2	N/A	17.2
All	Total	668,837,424	17.0	17.6	15.8	11.8	12.0

- The Buyout sector has been the strongest performer over the long-term
  - representing the largest component of the portfolio
- Debt Related exposure has posted relatively consistent results
  - providing a stabilizing and complementary exposure to buyout and venture capital
  - underperforming over latest year
- Venture Capital generated the strongest one-year results
  - benefiting from larger commitments to more recent, and strong performers

# Largest Relationships

KRS Pension's Ten Largest Relationships: based on Market Value

Family	Sector	Commitment	Market Value	One Year	Three Year	Five Year	Since Inception
Blackstone Group LP	Buyout	52,500,000	38,601,082	10.0	22.0	14.8	9.7
Duff Ackerman & Goodrich LLC	Venture Capital	23,000,000	36,032,769	48.0	28.2	19.8	14.9
Leonard Green & Partners, L.P.	Buyout	45,500,000	29,119,314	9.8	16.8	20.8	13.7
Vista Equity Partners	Buyout	28,000,000	25,395,864	35.9	23.8	24.9	25.1
Bay Hills Capital Management, LLC	Buyout	66,250,000	17,977,395	14.8	16.3	18.8	17.3
Harvest Partners, L.P.	Buyout	15,600,000	12,167,888	33.7	24.2	21.6	21.4
New Mountain Capital, LLC	Buyout	29,700,000	11,814,125	15.5	16.5	16.9	12.4
Oak Hill Capital Management	Buyout	20,000,000	10,182,824	13.7	15.4	16.2	10.0
Deutsche Alternative Asset Manag	Buyout	75,000,000	9,645,182	N/A	N/A	N/A	59.3
Crestview Partners	Buyout	28,500,000	8,931,962	0.3	11.5	14.2	13.2

- Ten largest relationships represent approximately 68% of market value
  - representing \$384 million of commitments across 24 partnerships
  - relationship level results, in most part, strong contributors to performance

# Partnership Listing

## KRS Insurance's Partnership Listing, as of June 30, 2015

Investment	Vintage	Sector	Commitmen	Value (\$)	Multiple	IRR	Quartile*
Arbor Capital II, L.P.	2006	Buyout	2,500,000	455,707	2.4x	19.8%	First
Arcano KRS Fund I, L.P.	2010	Buyout	4,000,000	2,476,063	1.0x	1.3%	Fourth
Ares Special Situations Fund IV, L.P.	2015	Debt Related	13,808,000	3,346,624	0.9x	-9.4%	NA
Avenue Special Situations Fund V, L.P.	2007	Debt Related	7,500,000	34,218	1.3x	11.0%	Second
Bay Hills Capital I, L.P.	2007	Buyout	7,500,000	6,258,954	2.0x	16.9%	First
Bay Hills Capital II, L.P.	2009	Buyout	10,000,000	7,950,517	1.4x	19.0%	Second
Bay Hills Capital III, L.P.	2013	Buyout	48,750,000	3,767,924	1.1x	9.6%	First
BDCM Opportunity Fund IV, L.P.	2015	Debt Related	24,420,000	1,853,785	0.9x	-7.1%	NA
Blackstone Capital Partners V, L.P.	2006	Buyout	12,500,000	8,726,070	1.7x	8.2%	Third
Blackstone Capital Partners VI, L.P.	2011	Buyout	40,000,000	29,875,012	1.3x	13.7%	Second
Camelot Opportunities Fund, L.P.	2010	Buyout	2,600,000	1,379,032	0.6x	-13.0%	Fourth
Columbia Captal Equity Partners IV, L.P.	2005	Venture Capital	3,000,000	3,298,720	2.0x	11.5%	Second
Crestview Partners II, L.P.	2008	Buyout	7,500,000	6,392,167	1.5x	14.2%	Second
Crestview Partners III, L.P.	2014	Buyout	21,000,000	2,539,795	0.9x	-13.5%	Second
CVC European Equity Partners VI, L.P.	2014	Buyout	13,530,026	817,124	0.7x	-32.0%	Third
DAG Ventures II, L.P.	2006	Venture Capital	3,000,000	1,654,999	0.7x	-4.6%	Fourth
DAG Ventures III, L.P.	2007	Venture Capital	3,000,000	1,008,113	1.7x	10.4%	Third
DAG Ventures IV, L.P.	2008	Venture Capital	10,000,000	10,666,960	1.4x	6.7%	Third
DAG Ventures V, L.P.	2011	Venture Capital	7,000,000	22,702,697	3.7x	63.0%	First
DCM VI, L.P.	2010	Venture Capital	1,500,000	1,790,679	1.4x	12.9%	Third
Essex Woodlands Fund VIII, L.P.	2008	Venture Capital	5,000,000	5,197,004	1.4x	10.6%	Third
Green Equity Investors IV, L.P.	2003	Buyout	7,500,000	3,607,007	2.0x	11.5%	Third
Green Equity Investors V, L.P.	2007	Buyout	10,000,000	7,129,898	1.8x	18.3%	First
Green Equity Investors VI, L.P.	2012	Buyout	28,000,000	18,382,409	1.2x	12.6%	Second
GTCR Fund IX-A, L.P.	2006	Buyout	7,000,000	2,805,435	1.8x	14.2%	First
H.I.G. BioVentures II, L.P.	2011	Venture Capital	11,500,000	3,283,797	0.8x	-15.3%	Fourth
H.I.G. Capital Partner V, L.P.	2013	Buyout	6,900,000	1,099,359	1.0x	-2.7%	Third
H.I.G. Ventures II, L.P.	2005	Venture Capital	2,000,000	943,110	1.2x	4.0%	Third
Harvest Partners V, L.P.	2007	Buyout	4,000,000	1,678,637	1.8x	20.1%	First
Harvest Partners VI, L.P.	2011	Buyout	11,600,000	10,489,251	1.4x	22.9%	First
Hellman and Friedman Capital Partners VI, L.P.	2007	Buyout	7,500,000	2,546,690	1.7x	12.3%	Second
Horsley Bridge International Fund V, L.P.	2009	Venture Capital	5,000,000	4,288,900	1.4x	17.2%	Second

\* Source: Cambridge Associates Benchmark data (accessed via Thomson ONE) as of March 31, 2015 including Buyout & Growth Equity, Mezzanine & Distressed, and Venture Capital asset classes.



PENSION  
CONSULTING  
ALLIANCE

# Partnership Listing (continued)

## KRS Insurance's Partnership Listing, as of June 30, 2015 (continued)

Investment	Vintage	Sector	Commitmen	Value (\$)	Multiple	IRR	Quartile*
Institutional Venture Partners XI, L.P.	2005	Venture Capital	1,500,000	91,287	1.1x	1.2%	Third
Institutional Venture Partners XII, L.P.	2007	Venture Capital	3,000,000	1,269,180	2.5x	27.2%	First
JW Childs Equity Partners III, L.P.	2002	Buyout	4,000,000	5,320	2.0x	15.9%	Third
Keyhaven Capital Partners Fund III, L.P.	2010	Buyout	3,130,863	1,184,012	1.0x	1.4%	Fourth
Levine Leichtman Capital Partners V, L.P.	2013	Buyout	24,000,000	8,305,668	1.1x	13.0%	Second
MatlinPatterson Global Opportunities Partners	2001	Debt Related	5,000,000	2,536	1.8x	29.8%	First
MatlinPatterson Global Opportunities Partners II	2003	Debt Related	5,000,000	189,466	0.6x	-24.3%	Fourth
MatlinPatterson Global Opportunities Partners II	2007	Debt Related	5,000,000	3,586,117	1.2x	5.7%	Third
Merit Mezzanine Fund IV, L.P.	2005	Debt Related	3,000,000	1,244,594	1.5x	8.5%	Second
MHR Institutional Partners III, L.P.	2006	Debt Related	4,000,000	2,504,671	1.5x	8.8%	Second
Mill Road Capital I, L.P.	2008	Buyout	3,000,000	2,806,973	2.1x	16.6%	Second
New Mountain Partners II, L.P.	2005	Buyout	5,000,000	383,615	1.9x	13.7%	First
New Mountain Partners III, L.P.	2007	Buyout	7,500,000	7,594,980	1.4x	10.3%	Second
New Mountain Partners IV, L.P.	2014	Buyout	17,200,000	3,835,530	1.1x	11.9%	First
Oak Hill Capital Partners II, L.P.	2004	Buyout	7,500,000	1,131,548	1.7x	10.0%	Third
Oak Hill Capital Partners III, L.P.	2007	Buyout	12,500,000	9,051,276	1.4x	9.9%	Second
OCM Opportunities Fund VIIIb, L.P.	2008	Debt Related	7,500,000	896,185	1.7x	16.9%	First
Riverside Capital Appreciation Fund VI, L.P.	2013	Buyout	18,712,500	6,864,305	1.0x	0.7%	Second
Secondary Opportunities Fund III, L.P.	2014	Buyout	75,000,000	9,645,182	1.2x	59.3%	First
Sun Capital Partners IV	2005	Buyout	2,000,000	1,456,359	1.7x	9.0%	Second
TCV VI, L.P.	2005	Venture Capital	2,500,000	731,781	1.6x	14.3%	First
Tenaska Power Fund II, L.P.	2007	Buyout	3,000,000	1,062,704	0.9x	-1.8%	Fourth
Triton Fund IV, L.P.	2013	Buyout	14,473,534	6,302,371	1.0x	1.9%	Second
VantagePoint Venture Partners 2006, L.P.	2006	Venture Capital	3,000,000	1,338,935	0.5x	-14.0%	Fourth
VantagePoint Venture Partners IV, L.P.	2000	Venture Capital	4,000,000	721,434	1.3x	4.5%	First
Vista Equity Partners III, L.P.	2007	Buyout	5,000,000	2,168,474	2.5x	30.3%	First
Vista Equity Partners IV, L.P.	2011	Buyout	23,000,000	23,227,390	1.5x	20.5%	First
Warburg, Pincus Private Equity IX, L.P.	2005	Buyout	10,000,000	2,466,645	1.8x	10.4%	Second
Warburg, Pincus Private Equity X, L.P.	2007	Buyout	7,500,000	5,736,662	1.5x	8.8%	Third
Wayzata Opportunities Fund II, L.P.	2007	Debt Related	7,500,000	2,362,174	1.8x	16.7%	First
Wayzata Opportunities Fund III, L.P.	2013	Debt Related	18,712,500	4,321,194	0.9x	-9.4%	Fourth
Wayzata Opportunities Fund, L.P.	2005	Debt Related	7,500,000	1,434,188	1.5x	9.1%	First

\* Source: Cambridge Associates Benchmark data (accessed via Thomson ONE) as of March 31, 2015 including Buyout & Growth Equity, Mezzanine & Distressed, and Venture Capital asset classes.

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