

TEACHERS' RETIREMENT BOARD  
INVESTMENT COMMITTEE

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SUBJECT: Receive Private Equity – Semi-annual Performance  
Report, Period Ending March 31, 2013

ITEM NUMBER: 12

CONSENT: \_\_\_\_\_

ATTACHMENT(S): 1

ACTION: \_\_\_\_\_

DATE OF MEETING: September 10, 2013 / 45 min

INFORMATION: X

PRESENTER(S): Mike Moy, Pension Consulting Alliance

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### **POLICY**

This item is governed by the [CalSTRS Private Equity Investment Policy](#), (Teachers' Retirement Board Policy Manual, Section 1000, Pg. I-1). Due to the delay in receiving partnership data, this report and the Private Equity report are lagged by one quarter.

### **HISTORY OF THE ITEM**

On a semi-annual basis, in September and April, the Private Equity consultant reviews the performance report of the Private Equity portfolio. This report is critical to the monitoring and oversight responsibility of the Investment Committee.

### **PURPOSE**

Due to the specialized nature of the private equity asset class, the Investment Committee has retained a specialty consultant and receives a specialized performance report on the asset class. While the report includes one-year returns, as a long-term investor, coupled with the long-term nature of the asset class, the Investment Committee is encouraged to focus on the three-, five- and ten-year results because they are less volatile and more indicative of the long-term performance trend of the underlying portfolio. One-year results are less meaningful in an asset class where the typical holding period for a portfolio company is four to five years.

- Mike Moy of Pension Consulting Alliance, the Investment Committee's private equity consultant, will present an oral report highlighting key issues across the CalSTRS Private Equity Portfolio.
- The Portfolio data in the report is prepared by State Street Bank's PrivateEdge Group with input from Pension Consulting Alliance; it is fully customizable to meet Investment Committee needs.
- Mr. Moy will use this opportunity to alert the Committee of any areas of concern, needed policy revisions, or issues that warrant further review.

### **RECOMMENDATION**

Staff recommends that, upon the oral report from Mr. Mike Moy, the Investment Committee receive the report for the record.





# California State Teachers' Retirement System (CalSTRS) Private Equity Program

## Semiannual Report

(As of March 31, 2013)

**Open Session  
September 2013**

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Appendix 2	Calculation of Custom Benchmark
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## 1.0 Executive Summary

Private equity is a long-term asset class with performance results influenced by various factors. This report concentrates on several key exposures that contribute to performance results, including sector, geography and vintage year. In addition, this report highlights broad industry trends that may affect future performance results.

## 1.1 Performance Overview

From inception in 1988 through March 31, 2013, the Private Equity Program (PEP) has earned a net internal rate of return (IRR) of 13.6% and currently comprises 312 active investments across 122 firms.

### Private Equity Program

#### Performance Against Benchmarks

As of March 31, 2013

	Quarter	1-year	3-year	5-year	10-Year	Since Inception
CalSTRS PEP	4.6%	11.2%	12.6%	5.6%	12.4%	13.6%
Custom Benchmark*	11.8%	17.3%	16.1%	10.5%	13.0%	12.2%
Private Equity Industry Benchmark**	3.4%	10.5%	13.6%	6.9%	10.3%	12.1%
<b>Excess Returns</b>						
v. Custom Benchmark	(7.2%)	(6.1%)	(3.5%)	(4.9%)	(0.6%)	1.4%
v. Private Equity Industry Benchmark	1.2%	0.7%	(1.0%)	(1.3%)	2.1%	1.5%

\* CalSTRS custom benchmark, maintained by PrivateEdge, is the return of the Russell 3000 Index + 300 basis points (from and since July 1, 2008); previous periods for the PEP index consists of the 90-day Treasury Bill rate for contributions less than three years old and the Russell 3000 Index + 500 basis points.

\*\*Utilizing State Street Private Equity Fund Index (Total)

Source: PrivateEdge, PCA analysis

**The PEP portfolio has outperformed CalSTRS' customized benchmark by 140 basis points since inception, but has underperformed each of the other reporting periods.** The variance of comparing PEP performance to both a public and a private equity based benchmark are highlighted in this period's results. In particular, the latest one-year period exhibited a return for public equity markets well above long-term expectations while private equity markets failed to keep pace with the appreciation. The material underperformance relative to the Custom Benchmark over the latest one-year period contributes to underperformance over the longer time periods. Over the longer ten-year and since inception periods, the PEP has performed in line with or slightly above the 12.0% return expectation for the private equity asset class.

The second program benchmark, referred to as the Private Equity Industry Benchmark, is based on State Street PrivateEdge data and includes over 2,100 partnerships. The PEP has outperformed this benchmark by 150 basis points since inception and by 210 basis points over the latest 10-year period, but it has underperformed over the latest three-year and five-year periods. Strong since-inception results for the European buyout, venture capital, expansion capital and mezzanine sectors have contributed to longer-term outperformance, while underperformance of the U.S. buyout, venture capital, distressed debt and mezzanine sectors has dampened results over the latest three-year period.

Given the long-term nature of the private equity asset class, combined with an effort to incorporate the more current portfolio construction and economic environment, this section emphasizes the most recent five-year performance period. Primary portfolio considerations include:

- **Buyouts represent 72% of the PEP's market value as of March 31, 2013.** The PEP's exposure to U.S. buyouts posted a five-year return of 5.1% and underperformed its private market industry benchmark by 310 basis points, while European buyouts led its industry benchmark by 130 basis points with a return of 3.6%. Of the \$16.3 billion buyout portfolio, approximately 71% of market value is categorized as U.S. buyouts, with the remaining 29% categorized as international (mostly European). Significant exposure (63% of the PEP buyout market value) to the relatively weaker performance of the mega buyout segment (fund sizes of \$5 billion and greater) has detracted from results during the latest five-year period despite stronger absolute returns over the recent three-year period. Improved future performance will be dependent on a relatively strong public equity market along with robust merger and acquisition activity.
- Distressed debt, representing 12% of the PEP's market value, has increased in size due to commitment activity to this sector since 2007. However, the five-year return underperformed its benchmark by 60 basis points as **the majority of the PEP's commitments to the distressed sector were in funding mode early in the period and commenced before the severity of the financial crisis was fully understood.**
- Venture capital and mezzanine each trailed their respective private market industry benchmarks over the latest five-year period by 180 and 360 basis points, respectively, while expansion capital exceeded its sub-asset class benchmark by 170 basis points.
- **Approximately 54% of the PEP's total commitments were made during the 2005-to-2008 time period.** As of March 31, 2013, these commitments represent 77% of the PEP's market value. As a result, the investments from this four-year period are currently primary drivers of PEP results, and the ultimate results will not be known for several years. However, two of these vintage years are performing below median (one by only a basis point) as of March 31, 2013, with the other two placing in the second quartile of the State Street PrivateEdge benchmark.

## 1.2 Industry Trends

- **U.S. Fundraising activity increased in the second quarter of 2013** after a slow start in the first quarter. Approximately \$103 billion of commitments were raised domestically in the first half of 2013, with buyouts continuing to represent the largest proportion of capital raised. Annualized, this pace would exceed the 2012 commitment amount of \$160 billion. The market continues to be bifurcated, resulting in the most attractive funds being quickly over-subscribed, with the remainder continuing to struggle in an otherwise challenging environment.
- **Announced U.S. buyout deal volume exhibited quarter-over-quarter increases over the last year.** Total announced U.S. buyout deal volume was \$55.8 billion in Q2 2013, up slightly from \$51.6 billion in the first quarter. Activity still remains well below the pre global financial peak of \$595 billion for the 2007 calendar year.
- **Risk metrics in the U.S. leveraged buyout market exhibited mixed messages during the second quarter of 2013** as purchase price multiples decreased and debt multiples increased. The average purchase price multiple in the second quarter of 2013, at 7.8x, declined from 8.7x in 2012 and was below the ten-year average of 8.4x. Debt multiples increased slightly to 5.3x in the second quarter of 2013, up from 5.1x in 2012. It appears buyout managers exhibited restraint during the second quarter of 2013 despite readily available credit.
- **Domestic venture capital investment activity increased slightly in the second quarter of 2013**, but is on pace to continue a downward trend in annual investment activity. Approximately \$12.5 billion was invested across 1,776 companies in the first half 2013 which, when annualized, would lag the \$27.0 billion invested across 3,796 companies in 2012. Approximately \$29.7 billion was invested across 3,986 companies in 2011.
- **Exit activity for U.S. venture capital investments increased in the second quarter of 2013.** The number of merger and acquisition (M&A) transactions increased in the second quarter of 2013, but was still below the quarterly average over the past three years. The initial public offering (IPO) market also exhibited an increase in the second quarter of 2013 after slight quarter-over-quarter declines since the fourth quarter of 2011 (excluding the second 2012 quarter spike due to Facebook). The 32 IPOs in the second quarter of 2013 were the most in any quarter over the past three years and generated value above the quarterly average.
- **The outlook for U.S. distressed debt investment strategies is mixed.** Debt pricing 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. The magnitude of debt that was “amended and extended” during the crisis, pushed out the maturity dates and subsequently reduced the perceived near-term opportunity set for debt-for-control strategies.

## 2.0 CalSTRS' Private Equity Portfolio Performance

This section contains an overview of the performance of the PEP, with a detailed analysis by vintage year, asset class, investment vehicle and geography, based on data provided by State Street PrivateEdge. CalSTRS' investments are classified into categories by sub-asset class, investment vehicle and geography. For example, an Italian buyout investment will be classified as "buyout" in the asset-class classification, "fund investment" for the investment-vehicle classification and "international" for the geographical classification. In line with the CalSTRS' classification system for investments, this performance analysis will examine the portfolio from several different perspectives: vintage year performance, asset class, investment vehicle, geography, fund investment concentration and industry diversification.

## 2.1 Portfolio Overview

Over the last six-month period, the PEP drew down \$1.0 billion of contributions, received \$2.9 billion in distributions and had a market value of \$22.7 billion as of March 31, 2013, matching the market value of six months ago. The total value of the private equity portfolio, which includes the market value plus distributions since inception in 1988, was \$53.7 billion as of March 31, 2013, representing a \$2.9 billion increase since September 30, 2012.

### Summary of Investments

As of March 31, 2013

\$ Millions

	Number of Investments <sup>1</sup>	Capital Committed <sup>2</sup>	Capital Contributed <sup>3</sup>	Capital Distributed	Market Value	Total Value
<b>Mar. 31, 2013</b>	312	\$44,190.4	\$36,463.2	\$30,986.9	\$22,725.0	\$53,711.9
<b>Sep. 30, 2012</b>	308	43,696.8	35,466.7	28,077.6	22,716.6	50,794.3
<b>Six-Month Change</b>	4	493.6	996.5	2,909.3	8.4	2,917.6

1. Number of Investments represents only active investments (both partnerships and co-investments).

2. Includes the impact of exchange rates for international partnerships.

3. Includes capital contributed for management fees called outside of CalSTRS' capital commitment.

Source: PrivateEdge, PCA analysis



## 2.2 Detailed Performance Analysis

CalSTRS has set long-term targets and percentage ranges based on total exposure (defined as market value plus unfunded commitments) for the PEP for its investments in different sub-asset classes. As of March 31, 2013, **CalSTRS' actual investments were in line with the current ranges** set by the Investment Committee.

### Actual vs. Target Allocation by Investment Category

As of March 31, 2013

\$ Millions

Investment Category	Market Value*	Percent of PEP Market Value	Unfunded Commitments**	Total Exposure	Percent of PEP Exposure	CalSTRS Target	CalSTRS' Long-Term Target Range
Buyout	16,339	71.9%	3,973	20,312	67.8%	70%	50-85%
Venture Capital	1,296	5.7%	411	1,707	5.7%	5%	5-15%
Expansion Capital	2,102	9.2%	1,480	3,582	12.0%	10%	5-15%
Distressed Debt	2,702	11.9%	1,108	3,810	12.7%	15%	5-20%
Mezzanine	287	1.3%	273	560	1.9%		

\* Market value is actual as of March 31, 2013 and is based upon the actual strategy of the partnership; secondaries and international are included in buyouts; co-investments are based on company investment strategy.

\*\* The table includes all commitments made through the end of the reporting month.

Source: PrivateEdge, PCA

- Buyouts continue to represent the greatest total exposure at 67.8% of the PEP, down slightly from 68.8% as of September 30, 2012.
- Given the material exposure to buyouts, future performance improvements may be dependent upon a relatively strong public equity market combined with robust merger and acquisition activity.
- Allocation to venture capital is nearing the low end of the target range.

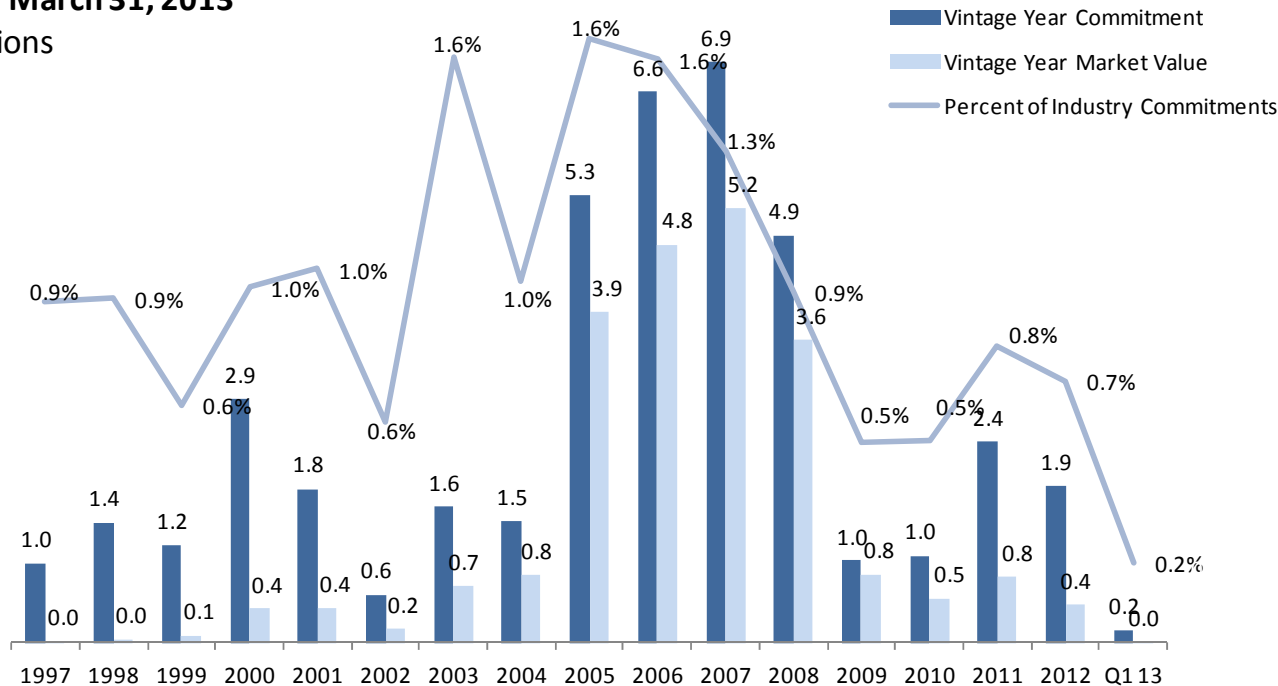
## 2.3 Annual Commitment Activity

Given the self-liquidating nature of the private equity asset class, continued commitment activity is required to reach and maintain target allocation levels. As the CalSTRS' total portfolio grew through the mid-2000s, so did the annual commitment activity for the PEP, reaching a peak of \$6.9 billion in 2007. CalSTRS committed significant amounts of capital from 2005 to 2008, with this time period encompassing approximately 54% of total committed capital and 77% of the PEP's market value as of March 31, 2013. The investments from this four-year period are currently primary drivers of PEP results. PEP annual commitment levels have represented approximately 1.0% of industry commitments levels on average, ranging from 0.5% to 1.6%.

### PEP Annual Commitment Activity and Market Value

As of March 31, 2013

\$ Billions



Source: PrivateEdge, Thomson Reuters, PCA Analysis

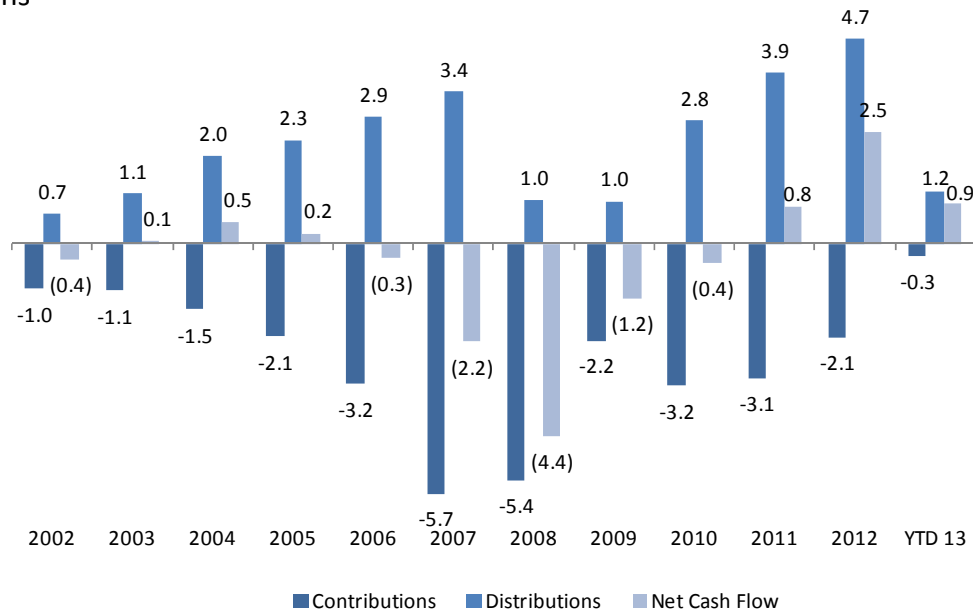
## 2.4 Annual Cash Flows

The PEP's aggregate cash flows have been impacted by broad market dynamics. Contribution activity was at its highest in 2007 and 2008, due to significant investment activity, influenced by readily available debt. Distribution activity increased during the recovery with a high of \$4.7 billion returned last year.

### PEP Annual Cash Flows

As of March 31, 2013

\$ Billions



Source: PrivateEdge, PCA Analysis

- In general, institutional investors have experienced an improvement in net cash flow in their private equity programs with increases in realizations of more mature holdings after extended holding periods due to the financial crisis.
- The PEP was significantly cash flow positive in the first three months of 2013.
- The increased contribution and distribution activity over the past couple of years is expected to reduce the influence on performance of the material capital deployed in the 2007/2008 vintages as a smaller proportion of the portfolio's NAV will be represented by these vintages.

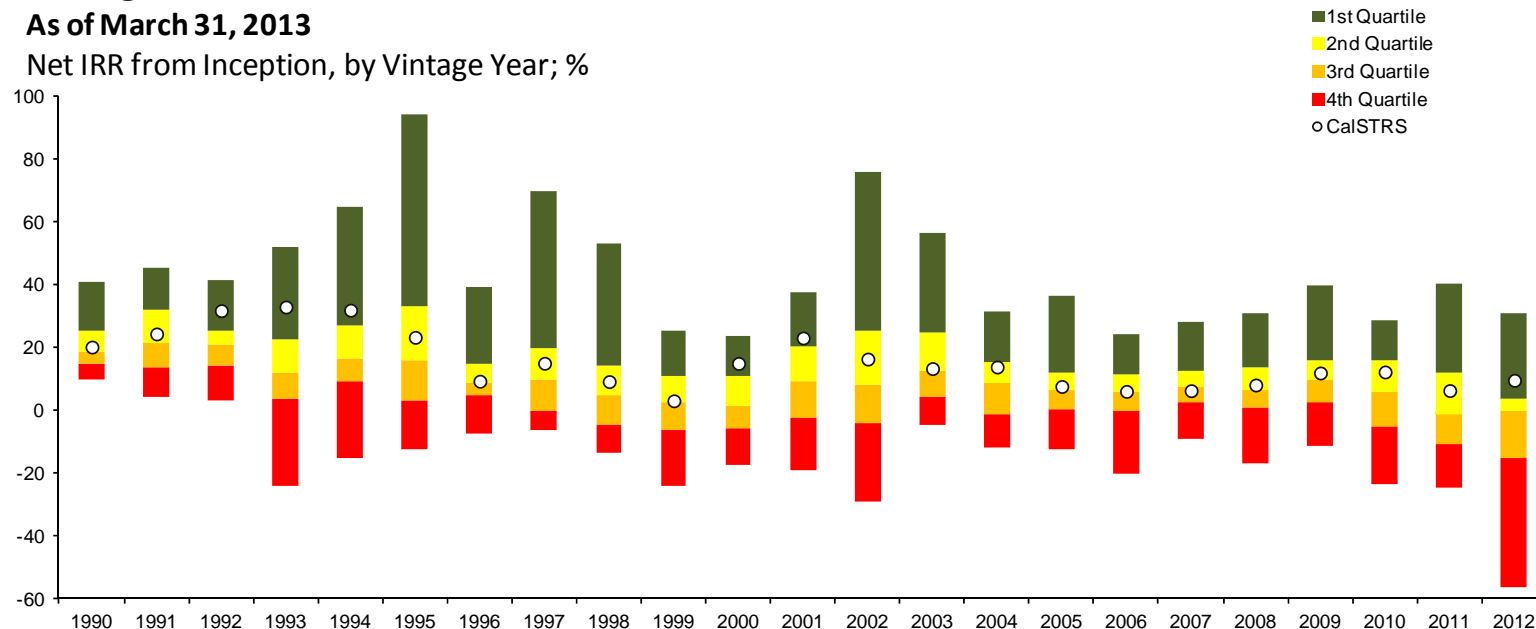
## 2.5 Vintage Year Performance

Investments made by the PEP since 1990 have outperformed the industry median vintage year returns in 21 of 23 years analyzed. Underperformance relative to the median has occurred in the 2006 (by only one basis point) and 2007 vintage years, which are less-mature vintages. These two vintage years represent \$13.5 billion of commitments and \$9.9 billion of market value (approximately 44% of the PEP's aggregate market value) and therefore impact portfolio results. In six vintage years (26% of the vintage years), the PEP has placed in the top quartile of the State Street PrivateEdge benchmark.

### Vintage Year Net Returns\*

As of March 31, 2013

Net IRR from Inception, by Vintage Year; %



\* Benchmark quartile rankings provided by State Street PrivateEdge. Vintage year funds are defined as the return of all funds with the same year of inception.  
Source: PrivateEdge

- Given the significant amount of unrealized value in the 2006 and 2007 vintage years, relative performance results may improve as underlying investments appreciate and are realized (as with the 2005, 2008 and 2009 vintage years that improved from third quartile to second quartile over the past 18 months).

## 2.6 Sub-Asset Class Performance

CalSTRS' sub-asset classes provided mixed performance results versus their respective private market industry benchmarks (as represented by the State Street Private Equity Indices) as of March 31, 2013. This section of the report focuses on the most recent five-year period to reflect the long-term nature of the private equity asset class while also incorporating the more current portfolio construction and economic environment.

### Sub-Asset Class Performance

As of March 31, 2013

Net IRR; %

Sub-Asset Class		1-year	3-year	5-year	10-Year	Since Inception
U.S Buyout	CalSTRS	13.2%	12.3%	5.1%	12.0%	10.9%
	SSPE Index: U.S. Buyout	12.1%	15.0%	8.2%	11.8%	12.9%
International Buyout	CalSTRS	6.8%	14.1%	3.6%	15.3%	14.9%
	SSPE Index: Europe Buyout	11.1%	12.8%	2.3%	12.5%	14.1%
Venture Capital	CalSTRS	2.8%	10.8%	3.9%	8.7%	16.6%
	SSPE Index: Venture Capital	4.5%	12.1%	5.7%	6.1%	10.0%
Expansion Capital	CalSTRS	10.1%	16.4%	9.9%	14.6%	21.6%
	SSPE: Domestic Private Equity	10.9%	14.4%	8.2%	10.6%	12.4%
Mezzanine	CalSTRS	15.2%	9.9%	6.6%	11.8%	13.3%
	SSPE Index: Mezzanine	6.4%	13.1%	10.2%	7.7%	10.2%
Distressed Debt	CalSTRS	16.2%	10.8%	9.3%	9.7%	10.0%
	SSPE Index: Distressed	11.8%	12.2%	9.9%	11.2%	12.3%

Source: Private Edge

- U.S. buyout (the largest sub-asset class in the program) underperformed its sub-asset benchmark over the three-year, five-year and since inception time periods, while international buyout led its sub-asset class benchmark over all periods examined except the latest one-year period.
- Expansion capital outperformed relative to its sub-asset class benchmark over most periods, while venture capital and mezzanine posted mixed results relative to their respective sub-asset class benchmarks.
- Distressed debt underperformed its sub-asset class benchmark over all periods evaluated, except the latest one-year period.

Over the latest five-year period, the U.S. buyout segment of the PEP portfolio posted a return of 5.1% and trailed its industry benchmark by 310 basis points. The financial crisis resulted in lower absolute results over this time period while partnership selection and emphasizing mega buyouts (which have underperformed other transaction sizes during the latest five-year period according to the State Street Private Equity Index) have dampened relative results. Given the size of the CalSTRS' portfolio, it is expected that the PEP would be an active participant in the large end of the buyout market to efficiently deploy capital. International buyouts posted a 3.6% return over the latest five-year period and outperformed its industry benchmark by 130 basis points.

Distressed debt posted a 9.3% return over the latest five-year period and trailed its private market industry benchmark by 60 basis points. Partnership selection and commitment timing have dampened returns, as material amount of the distressed debt commitments were funded prior to the financial crisis. Recent commitments to the distressed debt space, representing approximately \$940 million of commitments with a 2011 or 2012 vintage year, may be positioned to benefit from any increased economic uncertainty. The smaller exposures to venture capital and mezzanine each trailed their respective industry benchmarks over the latest five-year period by 180 and 360 basis points, respectively, while expansion capital exceeded its benchmark by 170 basis points.

## 2.7 Investment Vehicle Performance

Fund investments, at 94%, make up the bulk of the PEP's market value and have largely driven its returns. At 6%, the proportion of the portfolio in co-investments (direct private equity investments made alongside a general partner in a specific transaction, usually on better economic terms than through the limited partner structure), remains the same as six months ago.

While CalSTRS' funds have achieved a net since-inception IRR of 13.7%, the smaller, younger co-investment portfolio has returned 7.2% since inception (the co-investment program has a different inception point than the partnership program).

### Performance by Investment Vehicle

As of March 31, 2013

Net IRR; %

Investment Vehicle	1-year	3-year	5-year	10-Year	Since Inception*
LP/Fund Investments	11.3%	12.8%	5.8%	12.4%	13.7%
Co-Investments	10.8%	11.1%	2.1%	9.7%	7.2%

\* LP/Fund Investment Program year of inception is 1988; Co-Investment Program year of inception is 1996.

Source: PrivateEdge

- The co-investment program has also exhibited a greater volatility of returns over the periods presented (i.e. ranging from 2.1% for the five-year period, up to 11.1% for the one-year period).
- Co-investment activity in the 2007/2008 time frame exhibited an increase in the deployment of capital and average transaction size, while experiencing aggregate losses to date.

## 2.8 Geographic Performance

CalSTRS' private equity investments are predominantly in U.S.-based funds, with 25% of the portfolio in international (mainly European) funds.

Since inception, the U.S. portfolio has returned 13.1%, outperforming its industry benchmark by 70 basis points. However, CalSTRS' U.S. portfolio has underperformed the State Street PrivateEdge benchmark returns over the latest three-year and five-year periods. Significant exposure to mega buyout funds has dampened relative results for the U.S. portfolio. The international portfolio has returned 14.4% since inception, outperforming the industry benchmark by 120 basis points, and outperformed over all other periods evaluated except the latest one-year period.<sup>1</sup>

### Geographic Performance

As of March 31, 2013

Net IRR; %

Investment Vehicle		1-year	3-year	5-year	10-Year	Since Inception
United States	CalSTRS	12.3%	12.4%	6.0%	11.6%	13.1%
	SSPE: Domestic	10.9%	14.4%	8.2%	10.6%	12.4%
International	CalSTRS	8.2%	13.7%	4.1%	14.7%	14.4%
	SSPE: International (Europe)	10.8%	12.3%	2.3%	11.5%	13.2%

Source: PrivateEdge

1. Currency exposure for the non-U.S.-dollar denominated portion of the PEP is managed at the overall portfolio level by the Fixed Income Group at CalSTRS.



## 2.9 Manager Concentration

The PEP's five largest buyout relationships represent 44% of the total exposure to buyouts in the PEP as of March 31, 2013, up from 41% six months ago. These five relationships currently represent 30% of the total PEP exposure, up from the 28% exposure in September of 2012.

### Largest Buyout Relationships

As of March 31, 2013

\$ Millions

General Partner	Number of Investments	Market Value	Unfunded	Total Exposure
Blackstone Group*	9	\$2,135	\$899	\$3,035
TPG Capital**	9	1,719	499	2,218
First Reserve	3	1,415	135	1,549
CVC Capital Partners	6	866	304	1,170
Permira	3	906	36	943

\* Includes investments in four GSO partnerships

\*\* Includes investment in NewBridge Asia IV and TPG Asia V.

Source: PrivateEdge, PCA analysis

CalSTRS' five largest venture capital managers account for 68% of total venture exposure, up from 67% six months ago. The PEP's concentration of venture capital relationships has increased from a low of 48% in 2005, with CalSTRS maintaining larger relationships with select venture capital firms. Overall, the five largest venture capital managers represent 4% of the total PEP exposure.

### Largest Venture Capital Relationships

As of September 30, 2012

\$ Millions

General Partner	Number of Investments	Market Value	Unfunded	Total Exposure
New Enterprise Associates	10	\$358	\$176	\$535
Technology Crossover Ventures	3	205	35	240
JMI Equity	3	158	28	186
VantagePoint Venture Partners	4	156	24	180
Nautic Partners	2	91	8	99

Source: PrivateEdge, PCA analysis

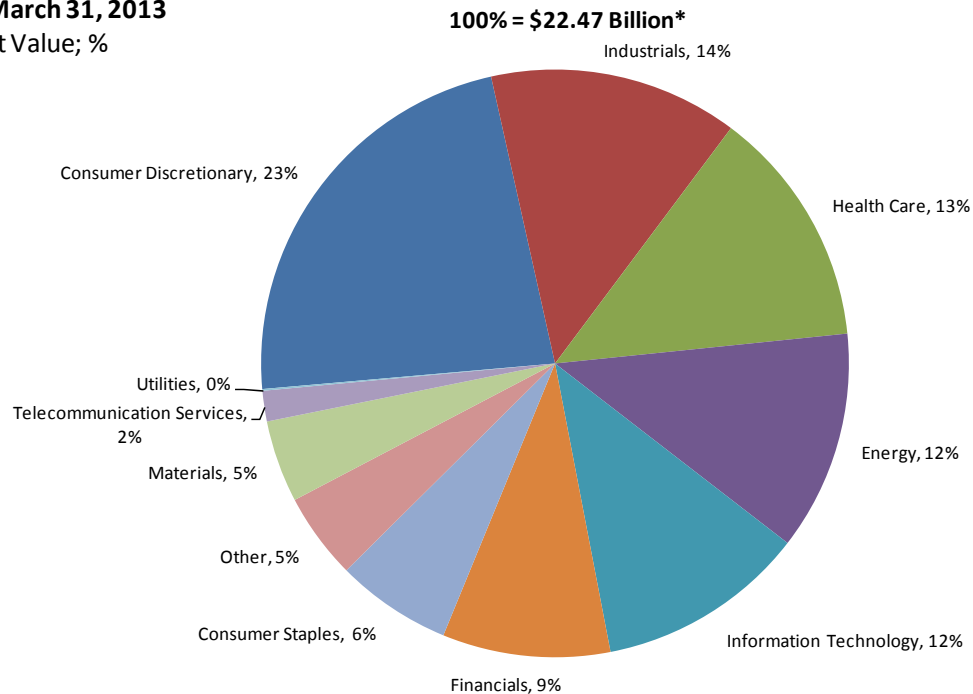
## 2.10 Industry Diversification

It is also important to examine the PEP's exposure to different industries through its underlying portfolio companies. This perspective provides CalSTRS with another tool to assess whether a particular partnership and its investment strategy fits into CalSTRS' private equity portfolio. Based on market value, CalSTRS' portfolio is diversified among a variety of industries, with the largest exposures in the portfolio to the consumer discretionary, industrials, health care, energy and information technology, each representing approximately 12% to 23% of the portfolio. The Russell 3000 Index, with slightly different classifications, has similar exposures, with the five largest sectors being financial services (18%), information technology (15%), consumer discretionary (14%), health care (12%) and producer durables (12%).

### Portfolio Investments by Industry

As of March 31, 2013

Market Value; %



\*Includes only market value of portfolio holdings, and does not include cash, other assets, expense or liability; includes co-investments.

Source: PrivateEdge, PCA Analysis

- Together, the five largest sectors account for approximately 73% of the PEP portfolio.

## 2.11 Proactive Portfolio

The Proactive Portfolio is a framework for selecting private equity investments in an opportunistic and disciplined manner. The program includes: the Urban and Rural Program, the New and Next Generation Manager Program, other innovative strategies, emerging spaces, underserved markets, and California investments. The investments in the Proactive Portfolio are as follows:

### As of March 31, 2013

\$ Millions

Investment	Vintage Year	Market Segment	Commitment	Unfunded	Market Value	Total Value	IRR
CalSTRS/B of A Capital Access Partners	2003	Equity Expansion	75.0	15.0	42.5	59.7	(0.1)
Nogales Investors Fund I, LP	2003	Equity Expansion	25.0	0.5	4.6	16.8	(12.0)
Yucaipa Corporate Initiative Fund	2003	Buyout	150.0	0.0	75.3	94.3	(3.9)
<b>Total 2003 Generation</b>			<b>250.0</b>	<b>15.4</b>	<b>122.4</b>	<b>170.8</b>	<b>(3.6)</b>
CalSTRS New&Next Generation Manager Fund	2005	Equity Expansion	105.6	32.7	77.1	91.1	5.3
<b>Total 2005 Generation</b>			<b>105.6</b>	<b>32.7</b>	<b>77.1</b>	<b>91.1</b>	<b>5.3</b>
Acon-Bastion Partners II, L.P.	2006	Buyout	40.0	4.6	53.5	67.7	17.2
CalSTRS/B of A Capital Access Fund III	2006	Equity Expansion	200.0	59.1	122.4	150.6	2.5
Craton Equity Investors I, L.P.	2006	Venture Capital	30.0	0.7	23.2	23.2	(7.3)
ICV Partners II, L.P.	2006	Equity Expansion	25.0	2.5	19.8	31.0	10.1
Nogales Investors Fund II, L.P.	2006	Equity Expansion	30.0	19.5	11.8	11.8	3.1
Palladium Equity Partners III, L.P.	2006	Buyout	90.0	15.2	89.5	133.3	17.9
<b>Total 2006 Generation</b>			<b>415.0</b>	<b>101.6</b>	<b>320.2</b>	<b>417.6</b>	<b>9.6</b>
Syndicated Communications Vent. Part. V	2007	Venture Capital	20.0	1.5	7.0	7.1	(26.8)
<b>Total 2007 Generation</b>			<b>20.0</b>	<b>1.5</b>	<b>7.0</b>	<b>7.1</b>	<b>(26.8)</b>
CalSTRS New&Next Gen. Manager Fund II	2008	Equity Expansion	216.9	112.9	111.1	111.1	3.2
<b>Total 2008 Generation</b>			<b>216.9</b>	<b>112.9</b>	<b>111.1</b>	<b>111.1</b>	<b>3.2</b>
Yucaipa Corporate Initiatives Fund II LP	2009	Buyout	50.0	2.0	26.6	31.8	(17.2)
<b>Total 2009 Generation</b>			<b>50.0</b>	<b>2.0</b>	<b>26.6</b>	<b>31.8</b>	<b>(17.2)</b>
CalSTRS/BOA/ML Cap Access LLC Fund IV	2010	Buyout	200.0	154.6	43.5	43.5	(5.3)
<b>Total 2010 Generation</b>			<b>200.0</b>	<b>154.6</b>	<b>43.5</b>	<b>43.5</b>	<b>(5.3)</b>
ACON Equity Partners III LP	2011	Buyout	70.0	54.5	14.4	14.6	(8.0)
<b>Total 2011 Generation</b>			<b>70.0</b>	<b>54.5</b>	<b>14.4</b>	<b>14.6</b>	<b>(8.0)</b>
CalSTRS New&Next Gen. Manager Fund III	2012	Equity Expansion	269.5	259.4	7.1	7.1	(42.3)
Craton Equity Investors II, L.P.	2012	Equity Expansion	15.0	13.6	0.9	0.9	(36.3)
Palladium Equity Partners IV, L.P.	2012	Buyout	90.0	75.8	12.1	12.2	(21.5)
<b>Total 2012 Generation</b>			<b>374.5</b>	<b>348.8</b>	<b>20.2</b>	<b>20.2</b>	<b>(37.0)</b>
<b>CalSTRS Proactive Total</b>			<b>1,702.1</b>	<b>824.3</b>	<b>742.4</b>	<b>907.8</b>	<b>1.5</b>

Source: PrivateEdge

The program's investment policy has laid a framework for direct, side-by-side investments with funds that have already been approved through the funds of funds managed by Bank of America Merrill Lynch (CalSTRS/BAML Funds) and INVESCO (the New and Next Generation Manager Funds). As of March 31, 2013, CalSTRS had committed \$1.7 billion within the Proactive Portfolio across direct, side-by-side investments and funds-of-funds vehicles, with approximately 52% of the commitments having been invested. The net since-inception IRR for the Proactive Portfolio is 1.5% as of March 31, 2013, up from 0.6% at September 30, 2012. Almost two thirds of the Proactive Portfolio is committed to funds-of-funds whose structural J-curve is more elongated than a direct fund. This, combined with market volatility, a lack of investment exits and manager specific issues, contributes to the Proactive Portfolio's underperformance. Staff has advised PCA that they are working closely with all of the general partners in the Proactive Portfolio.

## 3.0 Review of New Activity

The PEP has evolved into one of the largest actively managed U.S. private equity programs, with fourteen (one current vacancy) private equity professionals (not including two professionals dedicated to the Proactive Portfolio), ten of who lead investments in private equity. CalSTRS is further supported by investment advisors and independent fiduciaries for selected areas of the portfolio. This section examines current advisors, policy changes and recent portfolio activity.

**Current advisors.** The table below lists the current advisors and their respective roles.

### Role of Advisors

Role	Advisor
Advisor to the Board	PCA
Advisor to staff on U.S., Canada, Asia and Latin America	Cambridge Associates
Advisor to staff on European, Middle East and Africa	Altius Associates
Investment and Performance reporting/Book of Record	PrivateEdge Group
Independent fiduciaries for co-investment and secondary partnerships	Valuation Research Corporation LP Capital Advisors Meketa Investment Group
Independent fiduciaries for Proactive Portfolio investments	Bank of America Merrill Lynch Invesco
Legal advisors	Proskauer Rose LLP Hanson Bridgett LLP Sheppard, Mullin, Richter & Hampton LLP

Source: CalSTRS

**Policy changes.** There were no revisions to the Private Equity Investment Policy during the period.

## 3.1 Recent Portfolio Commitments

During the fourth quarter of 2012 and first quarter of 2013, the CalSTRS private equity staff made five new commitments.

### New Commitments

October 1, 2012, to March 31, 2013

Partnership	Commitment	Investment Category	Closing Date
TPG Credit Strategies Fund II, L.P.	\$50,000,000	Distressed Debt	10/15/2012
FountainVest China Growth Cap Fund II LP	\$45,000,000	Equity Expansion	10/31/2012
KKR MATTERHORN CO-INVEST, L.P.	£27,000,000	Co-Investment	11/2/2012
GSO Capital Solutions Fund II, L.P.	\$125,000,000	Distressed Debt	12/11/2012
EnCap Energy Capital Fund IX, L.P.	\$150,000,000	Equity Expansion	1/31/2013

Source: PrivateEdge

Subsequent to March 31, 2013, CalSTRS made eight new commitments.

### New Commitments

April 1, 2013, to June 30, 2013

Partnership	Commitment	Investment Category	Closing Date
HgCapital 7 C L.P.	£50,000,000	Buyout	4/15/2013
Triton Fund IV L.P.	€ 50,000,000	Buyout	4/17/2013
Permira V L.P.	€ 150,000,000	Buyout	4/24/2013
Gio2 Partners, L.P. (Focus Media)	\$33,000,000	Co-Investment	4/25/2013
Olympus Growth Fund VI, L.P.	\$250,000,000	Equity Expansion	5/14/2013
Ares Capital Europe II (D), L.P.	\$50,000,000	Distressed Debt	5/21/2013
Ares European Credit Strategies Fund (C), L.P.	€ 38,900,000	Distressed Debt	5/24/2013
Strategic Investors Fund VI-A, L.P.	\$45,000,000	Venture Capital	5/31/2013

Source: PrivateEdge

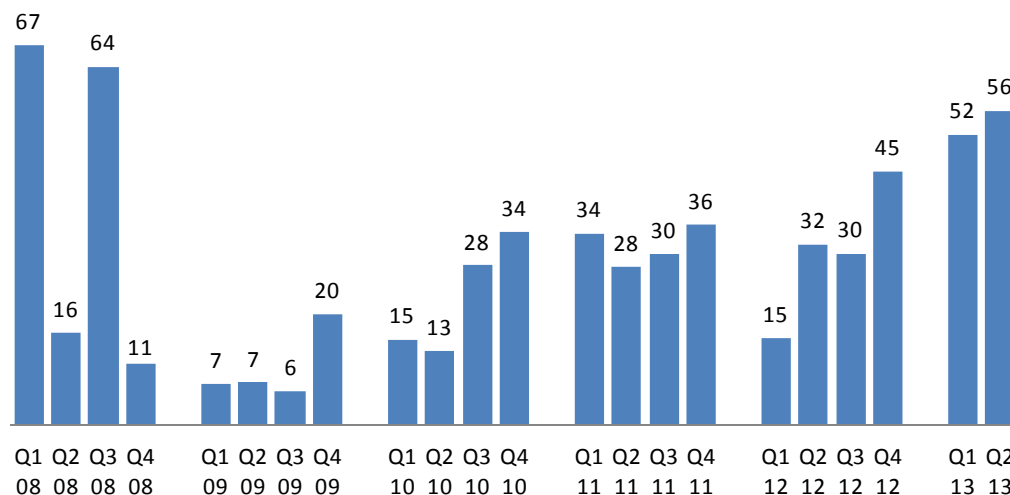
## 4.0 Private Equity Market Environment

This section outlines some of the significant current industry dynamics affecting private equity returns in the U.S., Europe and Asia, including deal flow and fundraising in the buyout and venture capital markets, and reviews major industry developments.

### 4.1 U.S. Buyout Market Trends

**Buyout deals.** Total announced U.S. buyout deal volume has exhibited increased activity over the past several quarters as \$55.8 billion was announced in Q2 2013, up slightly from \$51.6 billion in the first quarter.

**Announced U.S. Quarterly Leveraged Buyout Deal Value\***  
\$ Billions



\* Total deal size (both equity and debt)

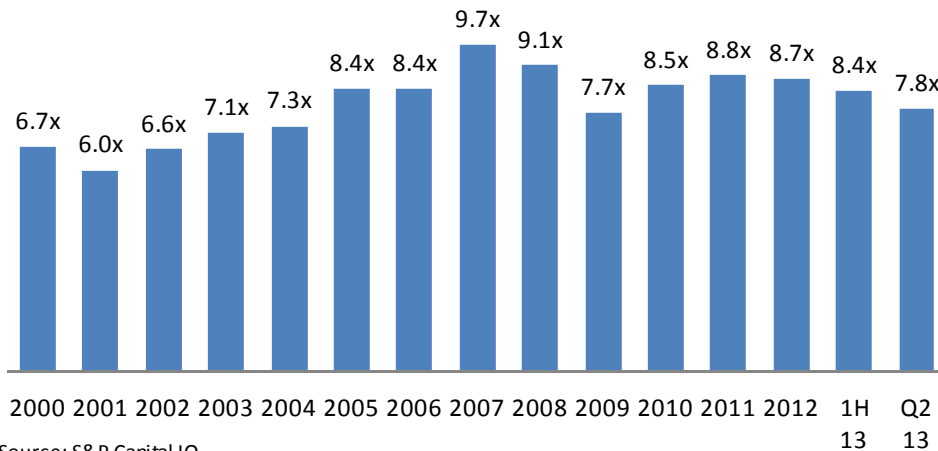
Source: Thomson Reuters Buyouts

- Actual deals closed in the second quarter of 2013 were more muted at \$40.3 billion, with the \$27 billion take-private deal of HJ Heinz representing the majority of dollar volume.
- Q2 2013 saw standalone buyouts representing the largest proportion of transactions followed by add-on acquisitions and platform investments.

Purchase price multiples (as represented by total enterprise value divided by earnings before interest, taxes, depreciation and amortization, or EBITDA) have exhibited volatility over the past several years.

## Average U.S. Purchase Price Multiples

Total Enterprise Value/EBITDA



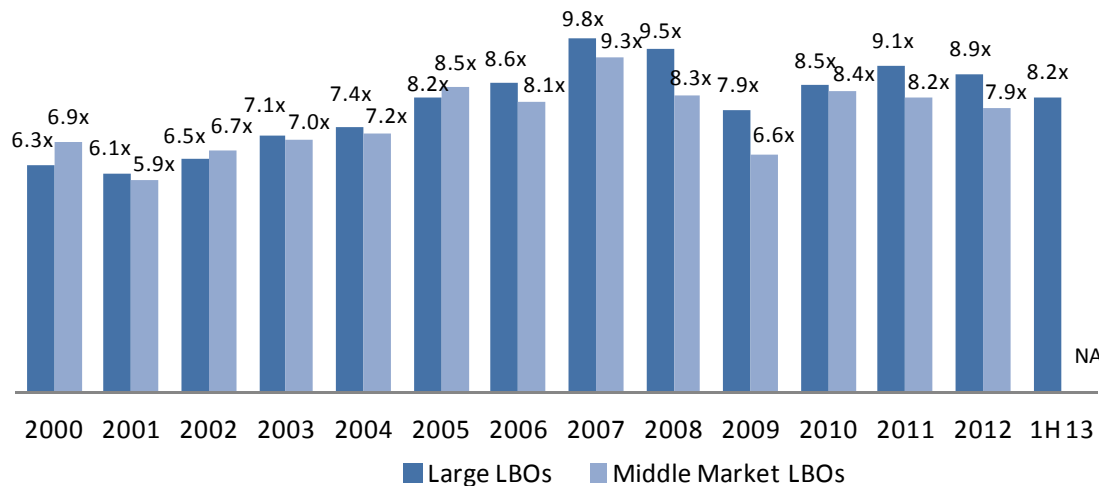
- Purchase price multiples initially declined from their 2007 peak to a near-term low in 2009, but rebounded to 8.8x in 2011 and dipped slightly to 8.7x in 2012
- The average purchase price multiple for the first half of 2013, at 8.4x, matches the ten-year average with the 7.8x average purchase price multiple for the second quarter of 2013 well below the ten-year average.
- The influence of a purchase price multiple on ultimate performance is commonly a material component. Purchases during the 2007/2008 time frame suggest a higher valuation environment for investment transactions.



In general, purchase price multiples for larger transactions (EBITDAs >\$50 million and represented by the dark blue bars below) have historically been higher than the multiples exhibited in the smaller and middle market (EBITDAs <\$50 million and represented by the light blue bars below). Post crisis focus shifted towards commitments to smaller/middle market opportunities, suggesting additional competition for deals that could influence the purchase price multiple in the smaller end of the market.

## Average U.S. Purchase Price Multiples: Large vs. Middle Market

Total Enterprise Value/EBITDA



\*"Large" defined as issuers with EBITDA >\$50M, "Middle Market" as issuers with EBITDA <\$50M.

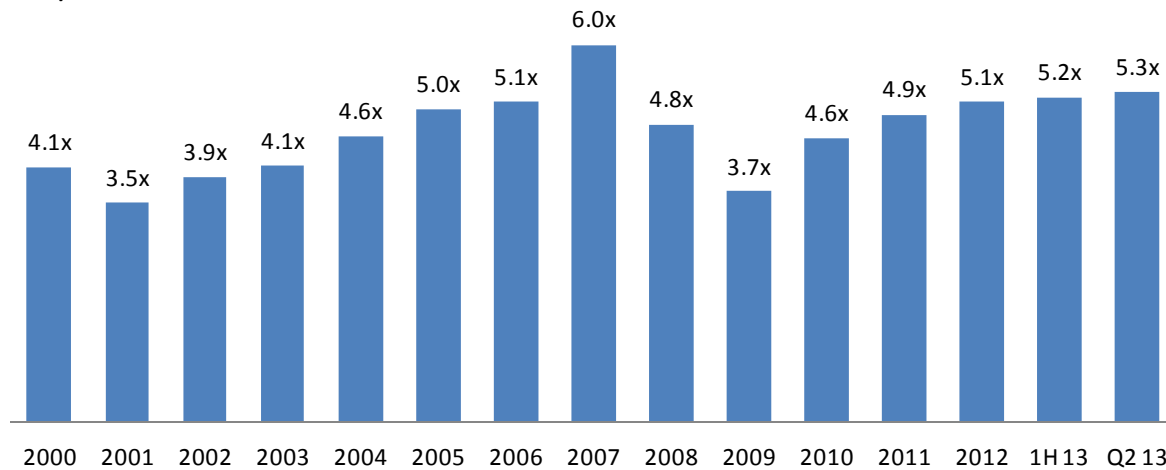
Source: S&P Capital IQ

- The pricing gap between larger and smaller transactions narrowed in 2010 but widened over the subsequent two years. Data is not available for middle-market transactions in the first half of 2013.

The average debt multiple had increased from a low in 2009 of 3.7x, up to 5.1x in 2012 and 5.2x in the first half of 2013 as risk appeared to be increasing in buyout transactions.

## Average U.S. Debt Multiples

Debt/EBITDA



Source: S&P Capital IQ

- The dynamics of 2008 and 2009 resulted in more conservative capital structures for transactions completed.
- The second half of 2013 exhibited a slight increase in the average debt multiple to 5.2x, with the second quarter of 2013 reaching 5.3x.

The sizes of the top 10 deals in the first half of 2013, representing \$43 billion in value, continue to be dramatically less than those seen from 2006 to 2008. The top 10 deals completed during 2007 represented \$237 billion in value, compared to only \$30 billion in 2010, \$34 billion in 2011 and \$31 billion in 2012. **CalSTRS' PEP has exposure to three of the of the ten largest U.S. sponsored buyout deals in the first half of 2013.**

## Top 10 U.S. Sponsored Buyout Deals\* YTD in 2013

Closed	Company Name	Industry	Sponsor	Deal Type	Deal Size \$ Millions
Q2 2013	HJ Heinz Co	Consumer Products and Services	3G Capital Partners, Berkshire Hathaway	Take Private	27,362
Q1 2013	El du Ponte de Nemours & Co (Coatings Unit)	Materials	Carlyle Group	Carve-out	4,900
Q2 2013	Focus Media	Media and Entertainment	Carlyle Group, China Everbright, CITIC Capital Partners, FountainVest Partners	Take Private	2,961
Q2 2013	Lightower Fiber Networks	High Technology	Berkshire Partners	Carve-out	2,000
Q1 2013	Apax Tool Group LLC	Industrials	Bain Capital LLC	Standalone Buyout	1,600
Q2 2013	Cytec Industries-Coating Resins Business	Materials	Advent International Corp.	Carve-out	1,133
Q1 2013	EnergySolutions Inc	Energy and Power	Energy Capital Partners LLC	Take Private	940
Q1 2013	Ingham Enterprises Pty Ltd	Consumer Staples	TPG Capital LP	Take Private	904
Q1 2013	Apple REIT six, Inc	Real Estate	Blackstone Group LP	Take Private	838
Q1 2013	TNS Inc	Consumer Products and Services	Siris Capital	Take Private	830

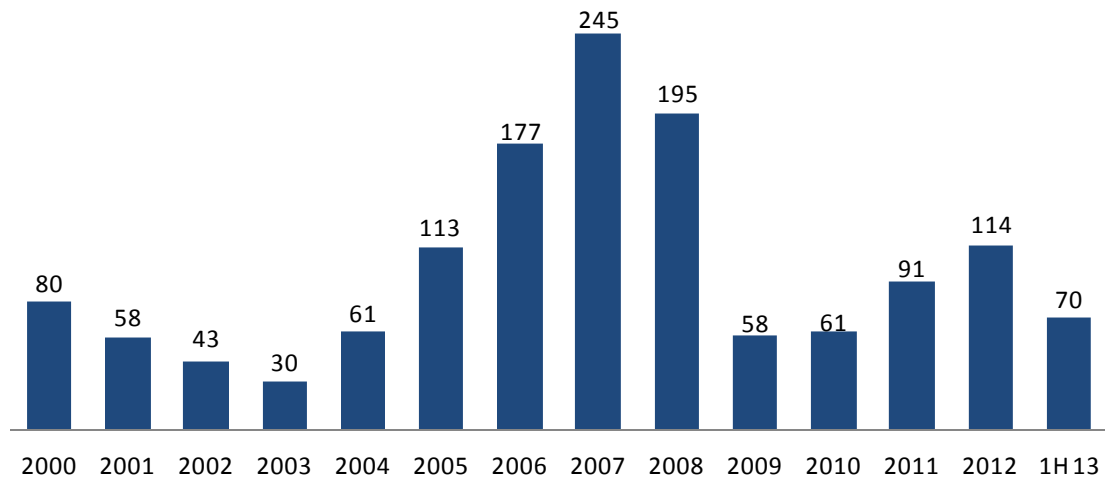
\* Closed deals; deal size includes equity and debt.

Source: *Thompson Reuters Buyouts*

- o Each of the top 10 transactions in 2007 exceeded \$8 billion in disclosed value, the largest valued at \$44.3 billion. In contrast, only one transaction YTD in 2013 exceeded \$5 billion in transaction value.

**Buyout fundraising.** Fundraising activity for first half of 2013 is on pace to exceed last year's level, with \$70 billion raised in the first six months of 2013 compared to \$114 billion raised in the 2012 calendar year.

## U.S. Buyout Fundraising \$ Billions



Source: *Private Equity Analyst*

- Buyouts continue to represent the largest proportion of capital raised domestically.
- The market has become bifurcated, resulting in the most attractive funds being quickly over-subscribed, with the remainder continuing to struggle in an otherwise challenging environment.

The participation of mega firms (defined as those raising funds of \$6 billion or more) continues to be well below the peak years, but returning. Four firms raising capital year-to-date in 2013 have achieved \$6 billion or more in commitments with two more firms targeting \$6 billion or more.

## Largest U.S. Buyout Funds Raising Capital YTD in 2013

\$ Millions

Fund	Firm	Target	Raised*	Raised YTD in 2013
Warburg Pincus Private Equity XI	Warburg Pincus LLC	\$12,000	\$11,200	\$5,741
Silver Lake Partners IV	Silver Lake	7,500	10,300	6,300
Riverstone Global Energy & Power Fund V	Riverstone Holdings LLC	6,000	7,700	4,700
Carlyle Partners VI	Carlyle Group LLC	10,000	7,100	3,400
Lone Star Fund VIII	Lone Star Investment Advisors	5,000	5,070	5,070
Apollo Investment Fund VIII	Apollo Global Management	12,000	5,000	5,000
KPS Special Situations Fund IV	KPS Capital Partners LP	3,000	3,500	3,500
Towerbrook Investors IV	TowerBrook Capital Partners LP	3,000	3,500	3,500
Bain Capital Fund XI	Bain Capital Inc.	6,000	3,000	3,000
CVI Credit Value Fund II	CarVal Investors	2,000	2,010	2,010

\* Represents aggregate commitments raised, which may include prior calendar year

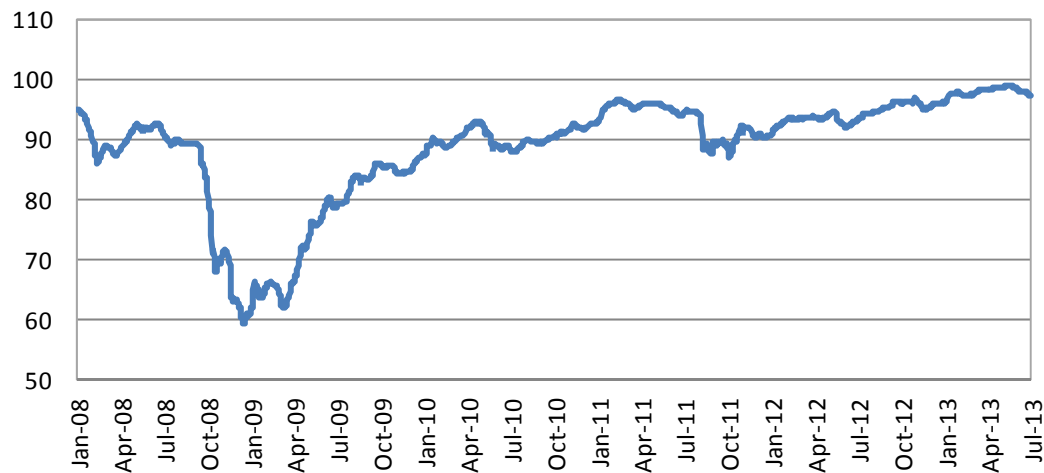
Source: *Private Equity Analyst*

- Given CalSTRS' significant asset size, it is difficult to commit a meaningful amount of capital to an investment opportunity without representing the vast majority of limited partner capital, unless the potential fund is raising a large amount. PCA believes that CalSTRS expects to continue to participate in larger partnerships.
- However, CalSTRS has not committed to any of the 10 largest funds raising capital YTD in 2013.

**Distressed debt.** The outlook for distressed debt investment strategies is mixed. Interest in the leveraged loan market pushed the price of leveraged loans back towards par after lows seen in 2009, easing the opportunity set for trading strategies. Prices have continued a steady climb towards par since late 2011, limiting opportunities.

## Leveraged Loan Index

### Index Level



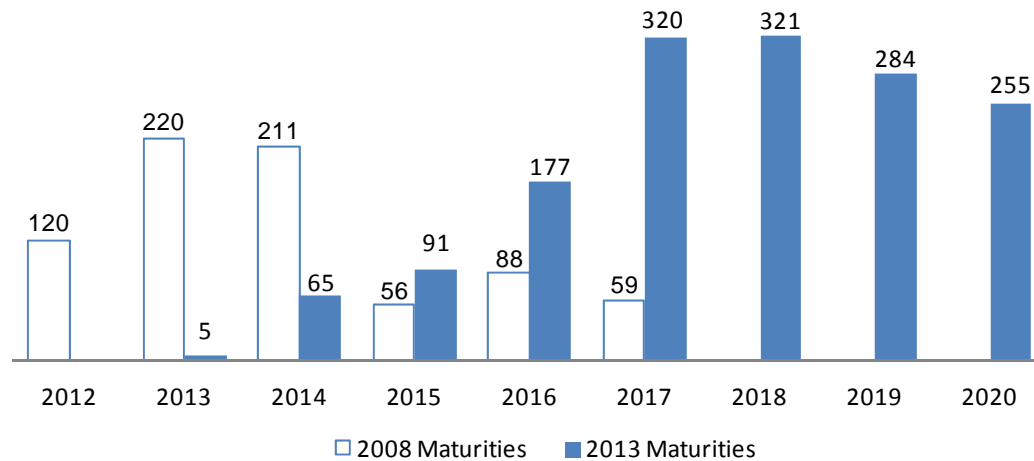
Source: Loan Syndications and Trading Association (LSTA)

- Approximately 52% of CalSTRS' commitments to the distressed debt segment have a vintage year of 2007 or 2008. The distressed debt portfolio includes a variety of strategies, and managers invested capital at differing paces, but material investment activity occurred prior to the pricing drop in late 2008/early 2009.
- Approximately 19% of CalSTRS' distressed debt commitments have a vintage year of 2011 or 2012 that may be positioned to benefit from any increase in uncertainty and volatility.

The opportunity set for debt-for-control strategies remains unclear. There appears to be an attractive pending opportunity set over the longer-term. With the magnitude of debt that was “amended and extended” during the crisis, a significant volume of debt issues are now maturing several years out.

## Bond and Loan Maturities: 2008 vs 2013

\$ Billions

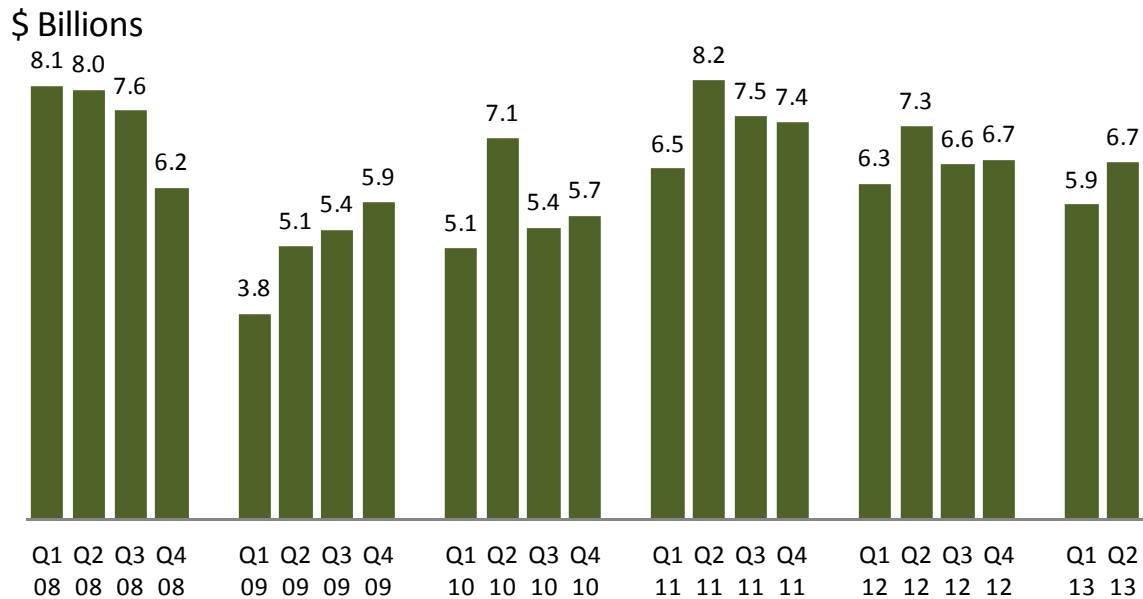


Source: LCD, Standard & Poors, Ares Management

## 4.2 U.S. Venture Capital Trends

**Venture capital deals.** After year over year increases in venture capital investment activity from 2009 through 2011, 2012 exhibited a slight decrease of investment activity. Approximately \$27.0 billion was invested across 3,796 transactions in 2012, down from \$29.7 billion invested across 3,986 transactions in 2011.

### Quarterly U.S. Venture Capital Deal Volume\*



\* Only includes equity portion of deal value.

Source: Thomson Reuters

- In the second quarter of 2013, 913 companies received approximately \$6.7 billion of capital up from the first quarter of 2013 where 863 companies received \$5.9 billion of capital.



The software industry received the highest level of funding for all industries in the first half of 2013, with \$4.4 billion invested, followed by biotechnology at \$2.2 billion and media/entertainment at \$1.1 billion. The table below lists the largest venture capital deals during the first six months of 2013. CalSTRS' PEP has exposure to Solazyme, Inc., one of the ten largest venture capital deals in the first half of 2013.

## Top 10 U.S. Venture Capital Deals YTD in 2013

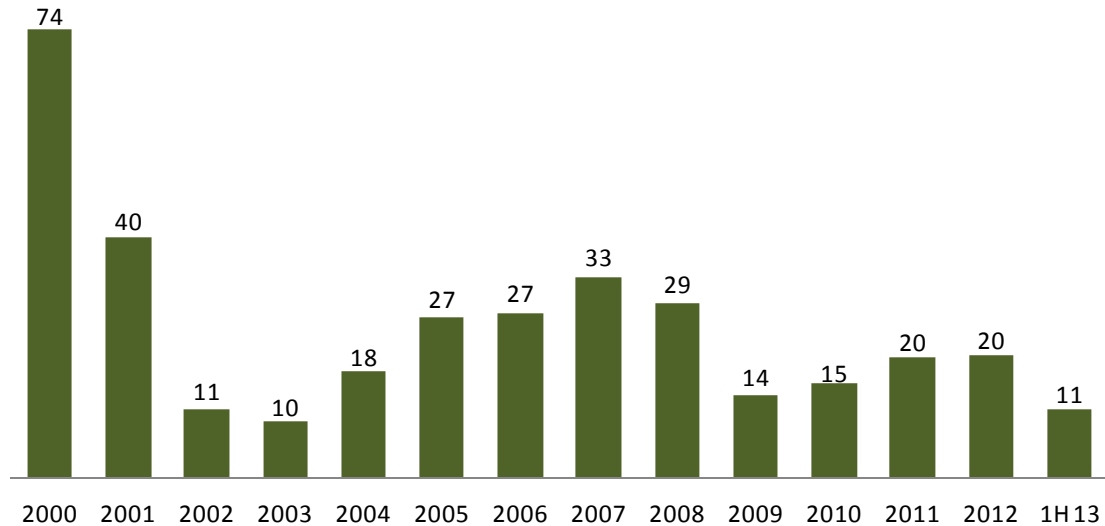
Company Name	Industry	Firm Name(s)	Estimated Round Total \$ Millions
GENBAND, Inc	Communications	One Equity Partners LLC, Sevin Rosen Funds, Venrock Inc	344
Packaging Coordinators, Inc	Pharmaceutical Services	Frazier Healthcare, Thomas Mcnerney and Partners LLC	308
Pinterest, Inc.	Internet Publishing	Adreessen Horowitz, Bessemer Venture Partners, FirstMark Capital LLC, undisclosed firm	200
Air Watch LLC	Encryption Software	Insight Venture Partners LLC	154
Fab.com, Inc.	Retail	Adreessen Horowitz, Atomico Ventures, ITOCHU Technology Ventures, Tencent Collaboration Fund	150
Precision for Medicine, Inc.	Pharmaceutical Services	JH Whitney & Co LLC, Oak Investment Partners, undisclosed firm	150
LendingClub Corp	Consumer Lending	Foundation Capital, Google Ventures	125
Solazyme, Inc.	Alternative Energy	VantagePoint Capital Partners, undisclosed firm	115
LivingSocial, Inc.	Consumer Services	Institutional Venture Partners, undisclosed firm	110
Lynda.Com Inc	Education Services	Accel Partners & Co Inc, Meritech Capital Partners	103

Source: Thomson Reuters

**Venture capital fundraising.** Venture capital fundraising activities have exhibited very slight increases since 2009 with the capital raised in 2012 matching that of 2011 and the capital raised in the first half of 2013 is on pace to slightly exceed 2012.

## U.S. Venture Capital Fundraising

\$ Billions



Source: *Private Equity Analyst*

- Many industry participants view the continued low level of fundraising as a positive dynamic because less capital is expected to compete for attractive venture deals and fewer “me too” firms will compete for market share.

Venture capital fundraising is being led by a select few firms. The top ten funds raising capital in the first half of 2013 represented 59% of aggregate venture capital commitments raised during the first six months of the calendar year. CalSTRS made a commitment to GGV Capital IV, one of the top 10 largest venture capital funds raising capital year to date in 2013.

## Largest Venture Capital Funds Raising Capital YTD in 2013

\$ Millions

Fund	Firm	Target	Raised*	Raised YTD in 2013
Insight Venture Partners VIII	Insight Venture Management	\$2,400	\$2,570	\$2,570
Battery Ventures X	Battery Ventures	650	650	650
GGV Capital IV	GGV Capital	600	625	625
Third Rock Ventures III	Third Rock Ventures	425	516	516
Matrix Partners X	Matrix Partners	N/A	450	450
Spark Capital IV	Spark Capital	425	450	450
Formation8 Partners Fund I	Formation8 Partners	400	448	448
Redpoint Ventures V	Redpoint Ventures	400	400	400
Scale Venture Partners IV	Scale Venture Partners	250	300	300
Social Capital Partnership	Social+Capital Partnership	200	275	275

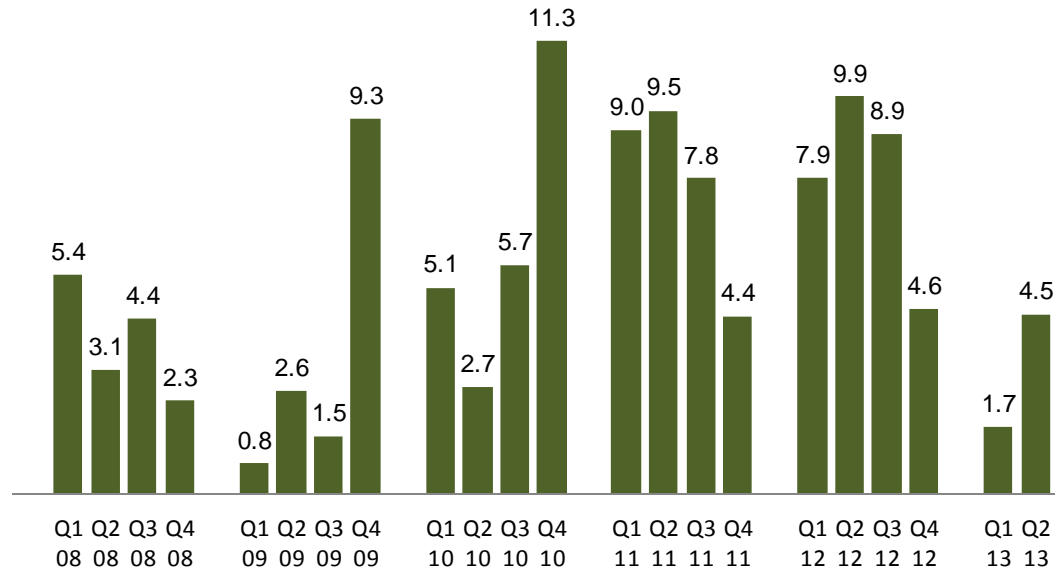
\* Represents aggregate commitments raised, which may include prior calendar year.

Source: *Private Equity Analyst*

- According to *Private Equity Analyst*, 67 early-stage funds raised the greatest amount of venture capital commitment in the first half of 2013, at \$5.5 billion. An additional 12 late-stage funds raised \$3.6 billion in capital commitments, while 13 multi-stage firms collected \$1.8 billion.

**Exit opportunities.** Exit opportunities for venture-backed companies have been mixed.

## U.S. Venture Capital-Backed M&A Activity \$ Billions



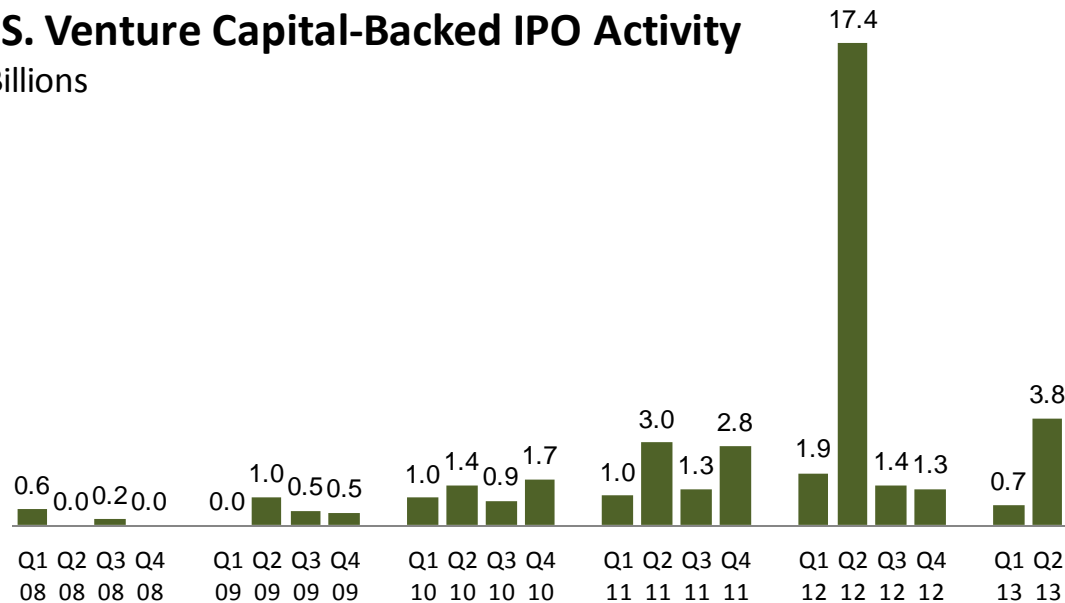
Source: Thomson Reuters

- M&A value for venture-backed companies increased in the second quarter of 2013, as 88 transactions were completed representing \$4.5 billion of value.
- Through the first half of 2013, M&A levels are well below the prior two years. In 2012, 446 venture-backed M&A transactions representing \$31.3 billion in value were completed, slightly exceeding the \$30.9 billion in value transacted across 481 companies in 2012.

The second quarter of 2013 exhibited an uptick in IPO activity as 32 venture-backed companies went public, raising \$3.9 billion after 11 companies went public in the first quarter raising \$0.7 billion.

## U.S. Venture Capital-Backed IPO Activity

\$ Billions



Source: Thomson Reuters

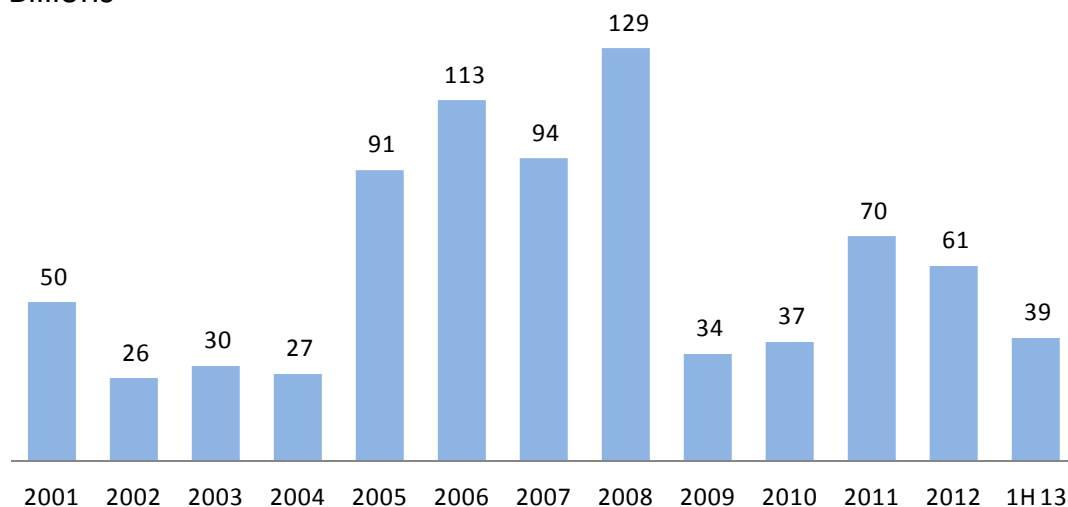
- Removing the Q2 2012 spike in IPO activity due to Facebook, the second quarter of 2013 represented the largest amount of capital raised since the second quarter of 2007.

## 4.3 European Private Equity Trends

**Fundraising.** In 2012 \$61 billion of commitments were raised, slightly below the \$70 billion raised in 2011. However, \$39 billion was raised in the first half of 2013 which is on pace to exceed 2012. These levels continue to be well below the record level of \$129 billion achieved in 2008.

### European Private Equity Fundraising

\$ Billions



Source: Thomson Reuters

CalSTRS invested in four (highlighted in grey below) of the top 10 largest European funds raising capital year-to-date in 2013.

## Largest European Funds Raising Capital YTD in 2013

\$ Millions

Fund	Firm	Target	Raised *	Raised YTD in 2013
Apax Europe VIII	Apax Partners	\$8,883	\$7,500	\$1,772
The Fifth Cinven Fund	Cinven	6,657	6,954	1,692
Triton Fund IV	Triton Advisors	4,003	4,366	4,366
AlpInvest Secondaries Fund V	AlpInvest Partners	4,600	3,480	3,381
ICG Europe Fund V	Intermediate Capital Group	2,855	3,367	1,860
Hg Capital 7	HgCapital	N/A	3,161	3,161
Permira V	Permira	5,710	2,831	2,831
Nordic Capital Fund VIII	Nordic Capital	4,003	2,319	2,319
Equistone Partners Europe Fund IV	Equistone Partners Europe	2,066	2,015	664
Investindustrial V	Investindustrial Advisors	1,712	1,657	129

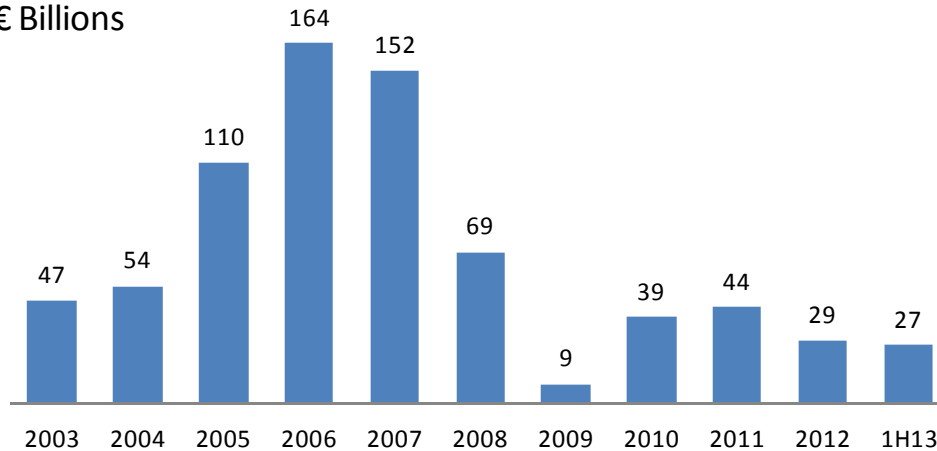
\* Represents aggregate commitments raised, which may include prior calendar year.

Source: *Private Equity Analyst*

**European Buyout deals.** European buyout transaction volume has exhibited a similar trend to the U.S. After peak volumes in 2006 and 2007, transactions declined in 2008 and 2009.

## European LBO Transaction Volume

€ Billions



Source: S&P Capital IQ

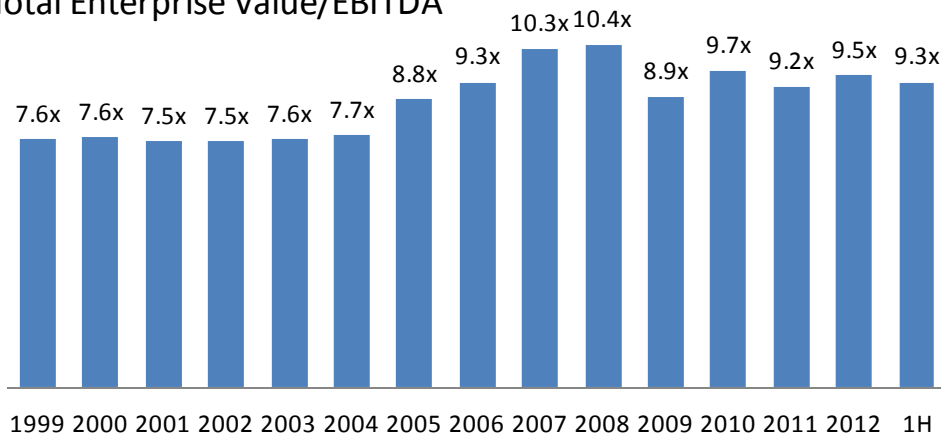
- While the U.S. markets have experienced year-over-year increases since the low in 2009, European buyout transaction volume experienced a decline in 2012.
- European transaction volume in 2013 is on pace to exceed that of 2012 and the near-term high in 2011.



As with the domestic markets, purchase price multiples have exhibited volatility over the past several years.

## European Purchase Price Multiples\*

Total Enterprise Value/EBITDA



1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 1H

\* Transaction size of €500M or more

13

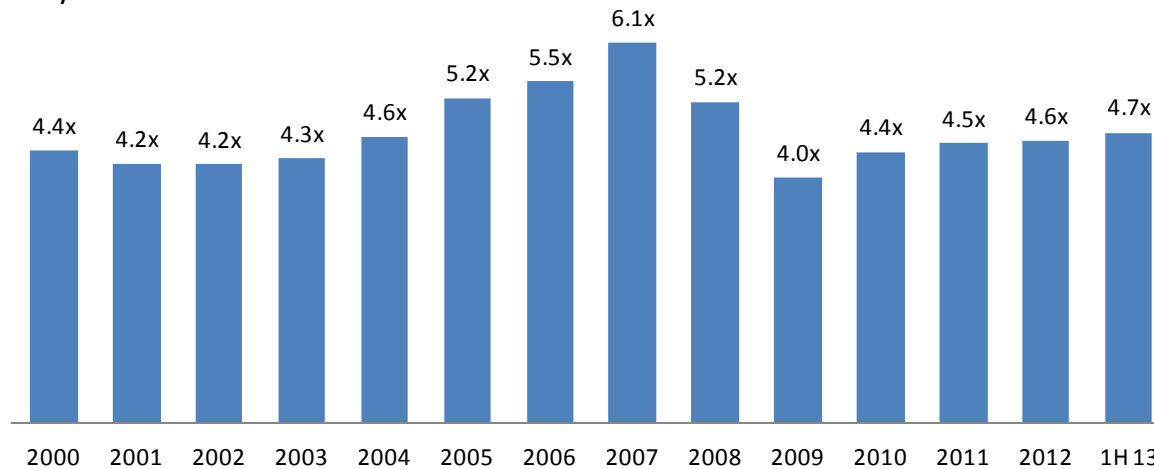
Source: S&P Capital IQ

- Purchase price multiples initially declined from their 2007/2008 peak to a near-term low in 2009, but rebounded quickly to 9.7x in 2010.
- The average purchase price multiple for the first half of 2013, at 9.3x, is above the ten-year average of 9.1x.
- The influence of a purchase price multiple on ultimate performance is commonly a material component. Purchases during the 2007/2008 time frame suggest a higher valuation environment for investment transactions.

The average debt multiple for European LBO transactions had increased from a low in 2009 of 4.0x, up to 4.7x in the first half of 2013.

## Average European Debt Multiples

Debt/EBITDA



Source: S&P Capital IQ

- As with the U.S. credit markets, 2007 reached a peak in average debt multiples.
- The dynamics of 2009 and 2010 resulted in more conservative capital structures for transactions completed.

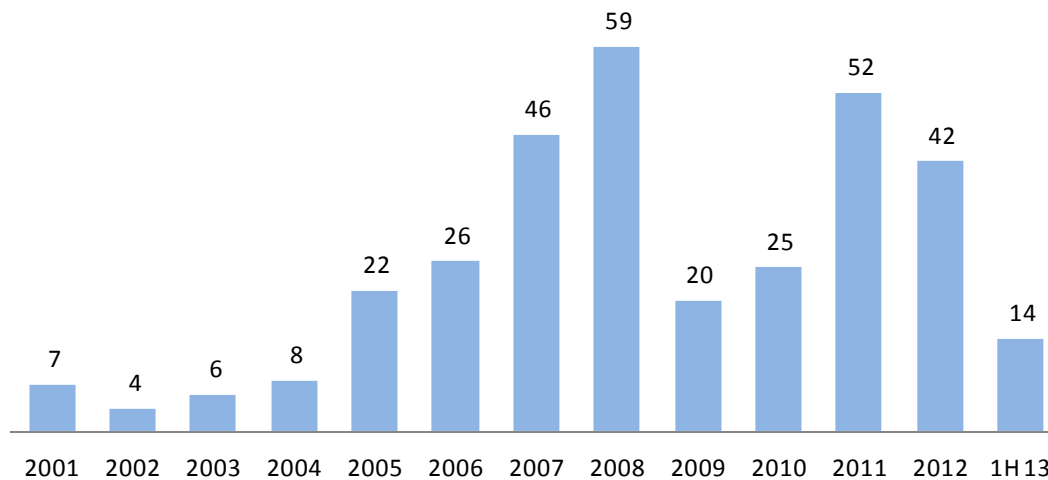
## 4.4 Asian Private Equity Trends

Interest in Asia (defined as the Asia-Pacific countries plus India) has exhibited volatility in fundraising, in line with global trends. Despite recent reductions in growth projections, Asia is still believed to have potential for outpaced returns for private equity investors over the longer-term. Projected growth in these economies is driven primarily by large populations (including an emerging middle class) and ongoing government liberalization in the Asian markets.

**Fundraising.** Fundraising activity has exhibited year-over-year volatility with near-term highs in 2008 and 2011. Approximately \$14 billion has been raised in the first half of 2013, on pace to lag the capital raised in 2012.

### Asian Private Equity Fundraising

\$ Billions



Source: Thomson Reuters

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*The information contained in this report may include forward-looking statements. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the Firm, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect PCA's current judgment, which may change in the future.*

*Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate investment performance for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.*

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*The Russell indices are either registered trademarks or tradenames of Frank Russell Company in the U.S. and/or other countries.*

For Period 01 Jan 1900 To 31 Mar 2013

Description	Capital Committed	Capital Contributed	Capital Distributed	Fair Market Value	Annualized ROR
Excludes Co Investments and Private Liquidation					
<b>Limited Partnership by FOF-Weighted Age Total</b>	<b>39,479,018,491.68</b>	<b>32,135,186,000.33</b>	<b>24,574,287,632.94</b>	<b>21,417,972,032.75</b>	<b>11.26</b>
<i>ACOF Management</i>	150,000,000.00	6,324,814.42	0.00	4,625,218.00	(30.98)
<i>Acon-Bastion</i>	110,000,000.00	50,904,392.00	14,404,394.00	67,876,062.00	16.15
<i>Advent CEE</i>	102,094,437.56	72,720,668.37	1,398,096.00	56,961,858.40	(9.90)
<i>Advent International</i>	272,496,748.99	259,431,724.78	49,420,874.72	316,088,967.53	15.70
<i>Affinity Equity Partners</i>	150,000,000.00	125,660,678.72	38,540,398.88	155,964,218.00	15.60
<i>Alchemy Plan</i>	258,971,327.29	258,926,415.46	161,471,906.89	96,553,961.18	(0.11)
<i>Alchemy SO</i>	79,302,719.52	59,646,405.83	46,284,570.58	32,232,948.56	7.39
<i>Alta Communications</i>	85,000,000.00	82,100,000.00	41,268,052.00	18,126,932.00	(5.63)
<i>Alta Partners</i>	20,000,000.00	20,000,000.00	45,540,989.12	233,388.00	24.54
<i>Angelo Gordon &amp; Co</i>	348,167,750.00	344,917,748.00	204,680,296.00	256,205,611.00	10.56
<i>Apax Europe</i>	954,175,979.68	916,993,327.66	573,466,974.25	695,705,186.22	11.62
<i>Apax U.S.</i>	100,000,000.00	98,422,784.00	145,243,434.00	18,253,223.00	12.03
<i>Apollo Management</i>	600,000,000.00	488,673,265.26	244,333,914.19	572,471,320.00	14.54
<i>ARCH Venture Partners</i>	30,000,000.00	29,250,000.01	1,980,258.00	45,945,587.00	9.60
<i>AtriA Capital Partners</i>	41,761,729.98	26,512,627.69	552,599.45	17,725,362.57	(8.11)
<i>Austin Ventures</i>	37,000,000.00	37,000,000.00	40,871,428.76	2,076,238.00	5.37
<i>Avenue Capital Partners</i>	250,000,000.00	250,000,000.00	326,352,740.00	6,696,930.00	11.21
<i>Bain Capital</i>	600,000,000.00	523,250,000.00	130,001,651.00	498,334,907.00	5.67
<i>Bain Capital Asia</i>	100,000,000.00	37,125,000.00	6,968,991.00	35,986,904.00	7.23
<i>BC Partners</i>	1,206,353,840.76	976,576,137.61	1,089,567,553.71	498,028,232.21	17.40
<i>BCI Partners</i>	25,000,000.00	25,000,021.49	15,212,872.61	1,904,433.00	(5.35)
<i>Blackstone Group</i>	2,874,045,000.00	2,365,386,767.94	1,602,966,730.26	1,789,393,730.00	9.82
<i>BlueRun</i>	55,011,236.00	47,227,415.30	14,718,817.92	44,951,006.00	6.42
<i>Boston Ventures</i>	90,000,000.00	86,872,281.01	96,996,709.58	2,729,672.00	2.60

For Period 01 Jan 1900 To 31 Mar 2013

Description	Capital Committed	Capital Contributed	Capital Distributed	Fair Market Value	Annualized ROR
<i>BS Private Equity</i>	42,232,978.70	36,837,185.71	26,503,838.55	6,474,403.04	(2.37)
<i>CalSTRS Bank of America Capital Access</i>	475,000,000.00	246,314,678.52	45,399,388.33	208,433,617.00	1.08
<i>Carlyle Europe</i>	523,917,886.75	460,097,442.34	107,834,423.09	406,867,338.42	3.81
<i>Carlyle Group</i>	600,000,000.00	521,153,200.00	260,641,947.00	493,367,478.00	11.76
<i>CarVal Investors</i>	196,000,000.00	186,200,000.00	126,173,777.65	118,508,149.00	5.33
<i>Centerbridge Capital</i>	875,000,000.00	485,224,557.13	239,840,926.00	528,493,995.00	17.36
<i>Cerberus</i>	751,410,000.00	636,068,688.15	293,071,387.07	625,140,389.00	8.67
<i>CGW Southeast Partners</i>	40,000,000.00	34,831,657.85	52,536,992.79	1,379,765.00	8.35
<i>Charterhouse UK</i>	136,242,223.90	119,212,587.39	19,236,158.96	94,789,844.32	(0.85)
<i>Clayton, Dublier, and Rice</i>	100,000,000.00	91,293,745.00	81,665,579.00	68,212,576.00	9.58
<i>Clearstone Venture Partners</i>	35,000,000.00	32,200,000.00	374,944.67	41,292,988.00	4.42
<i>Coller International Partners</i>	100,000,000.00	24,316,942.64	804,377.12	30,051,667.00	44.51
<i>Cortec Group</i>	148,641,176.00	98,766,002.00	105,085,420.00	50,934,715.00	16.09
<i>Craton Equity Partners</i>	45,000,000.00	30,660,426.00	76,424.00	24,078,048.00	(7.92)
<i>CVC Capital Partners</i>	1,871,908,712.47	1,567,972,870.48	1,960,991,537.85	866,343,966.79	19.71
<i>CVC Capital Partners Asia Pacific</i>	300,000,000.00	237,913,089.74	60,368,244.53	226,527,524.00	4.95
<i>DCM</i>	15,000,000.00	14,250,000.00	7,945,148.63	12,974,601.00	6.91
<i>ECI</i>	15,686,308.92	8,853,280.79	0.00	8,754,212.94	(0.74)
<i>EnCap Energy Capital</i>	800,000,000.00	464,622,411.59	482,311,158.92	242,608,615.16	22.68
<i>Energy Capital Partners</i>	320,000,000.00	280,321,368.00	87,991,084.00	208,969,864.00	2.56
<i>Energy Spectrum</i>	125,000,000.00	64,892,219.33	77,949,831.24	21,650,088.00	14.21
<i>Equistone Partners</i>	64,881,592.38	22,991,465.88	0.00	25,350,687.51	7.39
<i>First Reserve</i>	1,800,000,000.00	1,665,296,741.00	619,833,312.23	1,414,773,912.00	6.76
<i>Fondinvest</i>	29,568,674.01	28,300,547.66	48,890,972.52	7,126,275.80	24.02
<i>Fortress</i>	400,000,000.00	128,406,090.26	554,644.18	206,392,207.00	22.16
<i>FountainVest</i>	95,000,000.00	31,426,332.33	85,744.00	37,381,071.00	7.40
<i>Francisco Partners</i>	75,000,000.00	29,812,500.00	0.00	28,646,377.00	(3.94)
<i>Frazier Healthcare</i>	47,473,830.00	46,358,194.82	37,502,761.05	26,044,663.00	9.25

For Period 01 Jan 1900 To 31 Mar 2013

Description	Capital Committed	Capital Contributed	Capital Distributed	Fair Market Value	Annualized ROR
<i>Freeman Spogli &amp; Co.</i>	182,500,000.00	163,434,607.00	282,129,514.33	29,938,267.00	14.00
<i>Genstar</i>	70,000,000.00	60,839,576.24	21,073,747.28	62,236,461.00	8.61
<i>GGV Capital</i>	60,000,000.00	20,999,999.99	290,885.33	19,185,161.00	(8.87)
<i>Giza</i>	32,400,000.00	29,272,000.00	13,645,174.00	15,867,415.00	0.06
<i>Gores Capital Partners</i>	130,000,000.00	96,202,368.59	60,066,132.90	75,539,002.00	12.49
<i>GSO</i>	725,000,000.00	333,958,736.00	127,927,985.00	345,495,766.00	17.92
<i>GTCR</i>	35,000,000.00	35,000,000.00	73,863,155.00	169,537.00	24.95
<i>Hellman &amp; Friedman Capital Partners</i>	400,000,000.00	308,716,971.00	303,451,327.60	203,032,993.00	16.01
<i>Hg Renewable</i>	126,195,432.58	85,076,677.42	34,098,842.98	52,685,933.72	0.66
<i>Hony Capital</i>	125,000,000.00	56,847,656.35	1,174,971.30	59,994,290.29	3.69
<i>Huntsman Gay Capital</i>	100,000,000.00	78,484,957.95	33,395,651.68	67,638,336.00	11.09
<i>ICV Capital Partners</i>	25,000,000.00	22,498,988.98	11,184,683.25	19,814,303.00	10.11
<i>Innocal</i>	15,000,000.00	14,923,766.00	4,163,979.00	3,650,842.00	(13.20)
<i>Institutional Venture Partners</i>	50,000,000.00	50,000,000.00	42,168,406.00	58,086,534.00	26.20
<i>Interwest Partners</i>	130,000,000.00	122,000,000.00	75,622,981.58	55,801,876.85	2.07
<i>Invesco</i>	592,135,993.50	187,072,149.36	14,060,913.00	195,291,751.00	4.00
<i>Investitori Associati</i>	34,213,763.98	33,055,780.57	6,821,528.25	8,949,454.64	(17.54)
<i>Irving Place Capital</i>	175,000,000.00	133,507,497.38	0.00	145,162,724.21	1.99
<i>JMI Equity</i>	130,000,000.00	103,885,000.00	96,832,975.71	115,072,271.00	24.39
<i>KKR &amp; Co.</i>	679,551,000.00	636,836,859.00	753,934,571.00	233,489,402.00	11.76
<i>M/C Venture Partners</i>	75,000,000.00	74,597,584.00	108,552,885.00	11,715,995.00	8.36
<i>Madison Dearborn Partners</i>	600,000,000.00	602,705,685.35	896,778,405.96	120,578,964.00	10.76
<i>MatlinPatterson</i>	250,000,000.00	206,446,744.19	97,103,574.99	177,833,090.00	7.75
<i>Mezzanine Lending Associates</i>	50,000,000.00	39,982,987.29	139,668,765.28	0.00	16.35
<i>Nautic</i>	229,500,000.00	221,483,630.28	394,591,202.22	36,614,036.03	13.65
<i>Navis Capital Partners</i>	130,000,000.00	126,883,986.61	55,023,552.20	162,791,159.00	12.32
<i>New Enterprise Associates</i>	870,000,000.00	716,575,000.00	808,685,416.47	392,596,157.00	49.66
<i>NGEN</i>	15,000,000.00	14,431,625.59	742,774.74	512,503.00	(69.32)

For Period 01 Jan 1900 To 31 Mar 2013

Description	Capital Committed	Capital Contributed	Capital Distributed	Fair Market Value	Annualized ROR
<i>Nogales</i>	55,000,000.00	38,163,962.98	12,164,114.32	16,399,288.00	(6.59)
<i>Oak Investment Partners</i>	75,000,000.00	75,000,000.00	29,255,344.04	41,328,468.80	(1.13)
<i>Oaktree Capital Management</i>	715,640,000.00	550,035,225.59	730,160,326.66	211,390,244.00	16.95
<i>Olympus</i>	75,000,000.00	64,791,248.00	27,912,210.00	69,927,591.00	20.20
<i>OnCap</i>	29,611,831.22	10,238,048.06	270,532.74	9,946,047.54	(0.25)
<i>Onex Partners</i>	425,000,000.00	362,748,136.00	351,650,236.00	288,612,742.00	22.27
<i>OrbiMed Capital</i>	40,000,000.00	23,200,000.00	2,151,571.99	25,079,958.00	15.49
<i>PAG Capital Asia</i>	125,000,000.00	34,832,972.85	282,720.29	41,296,645.00	12.56
<i>Palladium</i>	180,000,000.00	88,978,354.96	43,832,371.45	101,622,078.00	17.35
<i>Paul Capital Partners</i>	50,000,000.00	49,246,836.97	45,180,633.57	20,042,087.00	8.69
<i>Permira</i>	1,665,123,329.20	1,628,687,859.03	1,474,073,783.81	906,109,434.79	15.22
<i>Phildrew Ventures</i>	20,221,808.47	20,270,947.58	11,819,892.95	82,076.82	(14.89)
<i>Pond Ventures</i>	10,000,000.00	8,734,342.91	3,552,542.91	4,205,186.00	(3.41)
<i>Prism Venture Partners</i>	25,016,853.00	25,016,853.00	5,867,731.52	10,955,916.00	(10.82)
<i>Providence Equity Partners</i>	1,050,000,000.00	939,737,572.00	355,853,941.00	761,822,693.00	3.83
<i>Quadrangle Capital Partners</i>	100,000,000.00	81,803,191.00	53,640,070.00	52,410,304.00	5.76
<i>Riverstone/Carlyle</i>	350,000,000.00	273,293,841.91	70,406,631.43	226,381,606.00	2.71
<i>Sankaty Advisors</i>	625,000,000.00	612,500,000.00	345,482,100.37	390,229,708.61	4.34
<i>Shasta Ventures</i>	70,000,000.00	46,750,000.00	9,111,629.23	51,276,208.00	8.02
<i>Sofinnova Venture Partners</i>	85,000,000.00	55,500,000.00	28,844,702.01	41,168,421.00	6.45
<i>Spectrum Equity Investors</i>	386,839,889.00	344,324,895.96	395,092,108.83	100,284,157.00	8.77
<i>Strategic Investors</i>	43,711,764.72	8,086,676.46	15,557.37	6,758,818.00	(20.28)
<i>Summit Partners</i>	572,229,109.50	407,796,586.63	573,861,015.96	223,820,697.29	65.73
<i>Syncom</i>	20,000,000.00	18,454,642.00	147,172.00	6,987,253.00	(26.84)
<i>TA Associates</i>	312,500,000.00	255,586,550.00	233,877,072.98	133,297,476.00	13.27
<i>Technology Crossover Ventures</i>	320,000,000.00	292,982,000.00	163,081,718.07	233,871,554.00	11.21
<i>The Cypress Group</i>	278,125,000.00	261,310,997.00	187,739,634.63	48,481,682.00	(1.94)
<i>The Resolute Fund</i>	450,000,000.00	360,469,907.00	207,884,479.00	338,733,248.00	12.86



For Period 01 Jan 1900 To 31 Mar 2013

Description	Capital Committed	Capital Contributed	Capital Distributed	Fair Market Value	Annualized ROR
<i>THL Equity Advisors</i>	422,156,647.00	418,505,152.00	619,710,722.00	55,971,036.00	13.27
<i>Thoma Cressey Bravo</i>	260,000,000.00	214,889,869.95	230,467,130.73	89,844,527.00	9.57
<i>TPG Asia</i>	330,000,000.00	299,829,425.00	157,134,267.00	350,282,803.00	15.55
<i>TPG Capital</i>	2,631,832,542.00	2,163,344,659.00	1,747,662,026.75	1,368,863,060.00	12.20
<i>TPG Credit Strategies</i>	50,000,000.00	24,797,451.00	0.00	29,743,658.00	22.80
<i>TPG Growth</i>	125,000,000.00	20,691,639.00	332,829.00	17,060,165.00	(23.81)
<i>TPG Opportunities</i>	35,438,698.00	12,866,596.00	82,344.00	13,963,063.00	13.72
<i>Triton</i>	67,557,800.60	64,233,565.54	100,454,115.62	29,908,154.52	19.50
<i>US Renewables Group</i>	60,000,000.00	56,677,797.00	2,634,056.00	45,335,155.00	(4.80)
<i>VantagePoint Venture Partners</i>	310,211,765.00	290,386,352.79	111,915,556.01	128,514,472.00	(3.53)
<i>Vestar Capital Partners</i>	250,000,000.00	245,033,138.50	196,003,242.45	130,393,951.00	7.65
<i>Welsh, Carson, Anderson &amp; Stowe</i>	1,603,961,111.00	1,490,891,390.00	1,455,284,129.71	685,597,268.00	7.42
<i>Whitney &amp; Co.</i>	375,000,000.00	360,269,832.46	472,273,161.19	71,677,301.00	9.66
<i>Yucaipa</i>	200,000,000.00	174,989,948.90	24,153,929.00	101,910,672.00	(5.06)

## Appendix 2

The ending account balances for the 90 day Treasury bill and Russell 3000 components are added together to determine the model portfolio's terminal value. Using the terminal value of the model portfolio and STRS' actual cash flows, an IRR can be calculated for any period.

Dollar-Weighted Russell 3000 Benchmark Model / STRS Benchmark for the 3 years ended March 31, 2013.

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Period	STRS actual cash flows and Market Value	Net Cash Flows	Contributions	Distributions (Net Cash Flows minus Contributions)	Russell 3000 Quarterly Return	Russell II Factors	Russell 3000 Growth of \$ Invested	Russell 3000 \$ weighted return	90 Day T-bill quarterly return	T-Bill Factors	90 Day T-Bill Growth of \$ Invested	90 Day T-Bill \$ Weighted Returns	Returns
2010 Q1	18,698,304,354	(145,319,802)	545,360,697	400,040,895	5.93	1.067	15,183,533,702						#####
Q2	18,834,699,207	(338,824,718)	852,654,864	513,830,146	(11.37)	0.894	13,910,292,280						(338,824,718)
Q3	20,353,085,568	(436,165,761)	991,617,609	555,451,848	11.40	1.121	16,036,180,511						(436,165,761)
Q4	22,278,881,076	474,784,400	842,443,074	1,317,227,474	11.68	1.124	17,554,895,566						474,784,400
2011 Q1	22,905,269,164	626,153,929	543,815,012	1,169,968,941	6.31	1.071	18,168,241,548						626,153,929
Q2	23,245,680,073	294,715,018	654,336,441	949,051,459	(0.08)	1.007	17,995,251,931						294,715,018
Q3	21,399,520,712	134,671,671	841,777,161	976,448,832	(15.46)	0.853	15,213,318,544						134,671,671
Q4	22,008,033,737	(233,997,409)	1,013,175,023	779,177,614	12.00	1.127	17,386,679,374						(233,997,409)
2012 Q1	23,665,816,560	275,698,543	506,856,399	782,554,941	12.90	1.136	19,484,123,472						275,698,543
Q2	23,136,399,630	617,887,576	456,185,713	1,074,073,289	(3.26)	0.975	18,376,779,127						617,887,576
Q3	23,347,799,092	631,152,071	432,488,232	1,063,640,303	6.32	1.071	19,044,986,628						631,152,071
Q4	23,589,020,373	1,004,666,644	727,192,108	1,731,858,752	0.34	1.011	18,247,102,831						1,004,666,644
2013 Q1	23,632,971,145	908,009,196	288,452,125	1,196,461,321	11.07	1.118	20,404,782,597						26,137,613,139
<b>STRS Actual 3-yr Return:</b>												<b>Benchmark Portfolio \$ Weighted 3-yr Return:</b>	
12.6%												16.1%	

If STRS had invested in each of the two options shown, instead of investing in private equity, its portfolio would have a value of \$26,137,613,139 at 3/31/2013. This combined portfolio would have generated a dollar-weighted return of 16.12%. Over this same time period the private equity portfolio generated an actual return of 12.65%.

### KEY:

- (A) STRS' portfolio cash flows, market value and 3-year IRR.
  - (B) STRS' net cash flows for the last 12 quarters.
  - (C) New contributions for the last 12 quarters.
  - (D) Distributions for the last 12 quarters.
  - (E) Quarterly return for the Russell 3000 (excluding tobacco).
  - (F) Factor is equal to 1 + the quarterly return for the Russell 3000 + 125 basis points (BP) on an annual basis until June 30, 2008. Premium reduced to 75 basis points starting from July 1, 2008.
  - (G) Calculates the growth of the dollars assumed to be invested in the Russell 3000 + 125 bp until June 30, 2008. Premium reduced to 75 basis points starting from July 1, 2008.
  - (H) Calculates the return on the Russell 3000 + 125 bp portfolio. Premium reduced to 75 basis points starting from July 1, 2008.
  - (I) Quarterly return for the 90-Day T-Bill.
  - (J) Factor is equal to 1 + the quarterly return for the 90-Day T-Bill.
  - (K) Calculates the growth of the dollars assumed to be invested in the 90-Day T-Bill.
  - (L) Calculates the return on the 90-Day T-Bill portfolio.
  - (M) Calculates the return on the combined portfolio.
- CalSTRS' custom benchmark is dollar-weighted by quarter and is a blended benchmark comprised of the Russell 3000® Index and Treasury Bill returns (for capital contributions less than three years old). A 500 basis point premium is added to the Russell 3000 benchmark component to account for the lower liquidity and higher risk involved with private equity. Starting July 1, 2008, CalSTRS has revised the methodology to calculate the benchmark. The new methodology is based on the Russell 3000 plus 300 basis points. In this hybrid model, the growth that is calculated base on Russell.

## Glossary of Terms

**Acquisitions** - See Leveraged Buyouts.

**Acquisitions - Add on** - Add-on acquisitions, or platform investing, are a growth strategy, which involves the acquisition of a company that will be the base (or platform) from which future acquisitions will be made. This strategy invests in consolidating industries by teaming with key industry management to build companies through acquisition and internal growth. Initially, an industry with an unrecognized market niche, high growth potential and no clear market leader is identified. If a suitable company can not be identified, the investment manager may recruit a management team to run the new business. The company's management and the investment manager, acting as a team, will identify and negotiate to buy additional companies within the target industry. A "critical mass" is achieved when the investment manager consolidates formerly entrepreneurial-managed, fragmented operating units into a single portfolio company with standard operating procedures. As a result, the larger company becomes visible and attractive to a wider group of potential buyers. Other companies in the market typically are willing to pay a higher price earnings multiple to buy the portfolio company than paid by the investment manager for its component parts.

**Advisory Board** - Advisory Boards play a role in the governance issues relating to the fundamental aspects of the fund, such as decisions on valuations and management conflicts of interests. Generally, a majority of the composition of the Advisory Board is comprised of the largest limited partners in the limited partnership.

**Aggregation of profits and losses** - Aggregation of profit and losses ensures a fairer profit sharing between the general partner and the limited partners. This calculation is based on the entire performance of the portfolio rather than on a deal by deal basis.

**Buyouts** - See Leveraged Buyouts.

**CAGR** – Compound annual growth rate

**Capital commitment** - A partner's obligation to provide a certain amount of capital to a private equity fund for investments

**Capital contribution** – The total capital that a partner actually contributes to the partnership

**Capital distribution** – The total proceeds that are distributed back to partners by GPs as they exit their investments

**Carried Interest** - The mechanism by which general partners are compensated for their performance. The general partner's carried interest is its share of the partnership's profits, and generally ranges from 10% to 30% of the total. A 20% carried interest has become the industry norm.

**Cash in** - The total capital contributed to a private equity fund by a limited partner for making investments and paying for the fund's expenses and management fees

**Cash out** - The total proceeds distributed by the fund to the limited partner. Proceeds may include both return of capital and gain distributions

**Clawback/lookback provision** – Guarantees that the stated profit allocation is met at the end of a partnership's term with respect to the limited partners

**Co-investments** - Privately negotiated purchase of equity or quasi-equity from private or publicly traded entities. Such investments involve the purchase of non-registered securities, which by their private, illiquid nature command a premium over comparable publicly traded securities. These will not be stand-alone investments and will always be made alongside a partnership investment or pari-passu, or better terms, than the partnership is making its direct investment.

**Convertible Preferred Stock** - A class of stock having different rights than Common Stock, including a liquidation preference over Common Stock; and allowing the Preferred Shareholder to convert Preferred shares into Common shares at some specified conversion ratio. Conversion typically occurs in conjunction with an initial public offering, providing a means of liquidation for the Preferred Shareholder.

**Cost multiple** – Value of the investment (proceeds plus value of unrealized investment) divided over the cost of the investment (original capital commitment). It measures how many times the money multiplied regardless of how long it took to achieve the multiple

**Debt Related Investment Strategies** - Debt related investments include subordinated debt and distressed debt investment strategies. Subordinated debt is often used to help finance leveraged buyouts or other similar transactions. Subordinated debt typically takes the form of mezzanine securities, junk bonds, convertible preferred stock, and other high yielding debt oriented securities. Although considered debt-oriented, securities at the subordinated debt or mezzanine level typically possess equity conversion features, rights, and warrants. Investors at the subordinated debt level are junior to the senior debt holders in a leveraged buyout transaction, meaning they receive interest payments after the senior debt has been satisfied and they share in a liquidation after the senior paper holders have made their claims. However, subordinated debt suppliers are senior to the common equity holders of the company. Distressed debt investments are a form of recovery investing that focus on the debt of a distressed company. Distressed debt investing is defined as the investment in debt securities (generally senior-secured debt) of troubled or bankrupt companies. Also see Restructuring/Recovery investments.

**Direct investment** – Direct investments are similar to co-investments in that the investment is made outside of a limited partnership structure, and made directly into the target company. However, direct investments differ from co-investments in that they are not made alongside an existing partnership. Direct investments require a greater amount of time to pursue on due diligence, and they also involve a greater level of risk in comparison to co-investments

**Distressed debt** – Investments in debt securities (generally senior-secured debt) of troubled or bankrupt companies. Investments may be made based on non-control arbitrage strategies (short term) or control style turnaround opportunities (long term)

**Distributions** – Cash and/or securities paid out to the limited partners from the limited partnership

**Equity expansion** – Similar to late stage venture capital, except that equity expansion investments are generally larger, and are typically less technology orientated. These small- and medium-sized companies have grown from the start-up stage to profitability and are poised from continued rapid growth

**Exposure** – Total market value of all investments plus any unfunded commitments

**General partner** – Managing partners of a limited partnership responsible for performing the day-to-day administrative operations of the limited partnership and acting as investment advisor to the partnership. The general partner typically invests 1% of the capital and retains 20 percent of the profits

**Hedge funds** – Unregulated funds that use a wide range of securities in a variety of skill-based investment strategies

**Hurdle rate** – A rate of return that must be met before the General Partner can share in the carried interest

**Initial public offering (IPO)** – The sale or distribution of a stock or portfolio company to the public for the first time

**Internal rate of return (IRR)** – The discount rate at which the present value of future cash flows of an investment equals the cost of the investment. It is determined when the net present value of the cash outflows (the cost of the investment) and the cash inflows (returns on the investment) equal zero, with the discount rate equal to the IRR

**International Buyout** - An international buyout fund is a limited partnership that generally focuses on acquisition, equity expansion, or later stage investment strategies, however, the fund's primary geographic focus is outside of the United States.

**J-curve** – The J-curve phenomenon is the effect of the cash flow behavior of a partnership. It can be summarized as the first year's investment expenses of investing in a fund that has yet to harvest its capital gains in the future. This normally translates into a negative IRR in the early years of the fund. The plot of the partnership value versus time generally resembles a "J"

**Key man provision** - Limited partners are demanding the right to suspend the funding of the partnership if some of the key people were to leave the firm. This provision is designed to assure the continuity of the firm, and to assure that success (if related to various individuals) stays within the firm.

**Leveraged Buyouts (Acquisitions)** - Acquisitions involve the purchase of all or part of the stock or assets of a company utilizing a significant amount of borrowed capital and a relatively small portion of equity capital. Borrowed capital typically consists of some combination of senior and subordinated debt. The company may be privately or publicly owned, or a subsidiary or division of a privately or publicly owned company. Acquisitions generally include companies with stable cash flows, high market share, and high profit margins, selling low or non-technology products in industries not subject to wide profitability swings.

The general goal behind an acquisition investment is to acquire a company, division or subsidiary that is currently undervalued, and whose assets may be underutilized, and restructure and revitalize it. Ideally, the revitalized company can then be sold, recapitalized, or taken public at a substantial premium to its pre-buyout value.

**Limited partner** – The investors in a limited partnership, generally providing 99 percent of the capital and receiving 80 percent of the profits. Limited partners are not involved in the day-to-day management of the partnership and generally cannot lose more than their capital contribution

**Limited Partnership** – The majority of private equity funds are legally structured as limited partnerships. They are typically fixed-life investment vehicles (with an average term being 10 years). Limited partnerships have General Partners and Limited Partners. The General Partners manage the day-to-day operations and receive a management fee and a percentage of the profits. The Limited Partners invest in the fund and receive income, capital gains, and tax benefits.

**Market value** – The current value of a limited partner's outstanding investments

**Management fees** – The management fee is designed to compensate the General Partner. This fee is used to provide the partnership with such resources as investment and clerical personnel, office space, and administrative services required by the partnership. Generally, the fee ranges from 1.0 percent to 2.5 percent of capital commitments

**Mezzanine** – Investments in unsecured or junior obligations that typically earn a coupon or dividend payment and have warrants on common stock or conversion features to enhance returns

**Multiple of Money** - Multiple of money is often used to measure performance. This is a cumulative return, identifying the return on an investment over the term of the partnership. A multiple that is greater than one indicates that the partnership's total value exceeds the amount of capital contributed to date, whereas, a multiple less than one indicates that the partnership's total value is less than the amount of capital contributed. In summary, achieving a high annualized rate of return over a long period of time is more impressive than achieving a high annualized rate of return over a shorter period of time.

**Natural Resources** - These investments utilize investment strategies that derive their return from the management of and the independent price movements in a particular resource. These investments are more specialized with a corresponding increase in risk. Sub-categories of this group include Oil and Gas (provides funding for the purchase or development of energy producing properties or companies operating within that sector), and Timberland or Farmland (provides funding for the purchase, development and/or lease of land for both growth and income-oriented strategies).

**Overhang** – Overhang is defined as the amount of capital committed to general partners that has yet to be invested and is calculated as the 5-year rolling difference between LP commitments and investments

**Partnership Expenses** - Expenses borne by the partnership including costs associated with the organization of the partnership, the purchase, holding or sale of securities, and legal and auditing expenses.

**Partnership Term** - The term of the partnership is normally ten years, with the general partner reserving the right to terminate the partnership early or extend the term for a set period of time. This is generally subject to the approval by the limited partners.

**Pooled returns** – Composite return measuring all private equity cash flows and valuation changes over a specific period of time

**Portfolio companies** – Any of the companies in which the private equity partnerships have an investment

**Restructuring/Recovery** - Recovery investments involve the investment of capital in companies experiencing anywhere from relatively minor, to extreme difficulties, to companies involved in bankruptcy proceedings. Recovery investing takes advantage of discounted securities of unhealthy, bankrupt (or near), under-performing, and/or under-capitalized companies and either ride or steer them back to recovery. To accomplish this goal, the various funds available use a variety of strategies. The strategies vary by the activity level and/or degree of control required by the acquirers, types of securities utilized, and the relative health of the target companies sought (from bankrupt to nearly healthy). Also, like LBO and venture capital managers, managers of ailing company funds each have a particular target company size preference, and some have industry or sector preferences.

Distressed debt investments are a form of recovery investing that focus on the debt of a distressed company. Distressed debt investing is defined as the investment in debt securities (generally senior-secured debt) of troubled or bankrupt companies.

**Secondary limited partnership** – Privately negotiated purchase of limited partnership interests or investment company interest. Such investments involve the purchase of a pro-rata ownership of non-registered securities, which are currently in, or will be a future purchase of, the partnership portfolio

**Special Equity** - See all non-venture capital related investment strategies, such as Leveraged Buyouts, Acquisitions, Special Situations, Mezzanine Investments, Subordinated Debt, Hedge Funds and Natural Resources.

**Special Situations** - Special Situation funds represents a “catchall” for non-traditional investments that do not fit in traditional groupings. These will include minority, but often control positions in public companies, “white knight” efforts to support managements, turnarounds and bankruptcy reorganizations, and other special situation profit opportunities. It is not the intention to invest in “unfriendly” business take-overs.

**Top quartile returns** – Average return earned by the highest performing 25 percent of capital in the private equity industry

**Total value** – A limited partner’s total market value plus any capital distributions received

**Unfunded commitments** – Money that has been committed to an investment but not yet transferred to the General Partner

**Venture capital** – Investments in young, emerging growth companies in different stages of development. The stages of venture capital investing include seed stage (entrepreneur seeking capital to conduct research or finish a business plan), early stage (company developing products and seeking capital to commence manufacturing), and late stage (profitable or near-profitable high-growth company seeking further expansion capital)

**Venture Economics** – Venture Economics is a leading compiler and publisher of private equity investment data

**Vintage year** – The year of fund formation and its first takedown of capital. By placing a fund into a particular vintage year, the limited partner can compare the performance of a given fund with all other similar types of funds formed in that particular year