



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**



PERIOD ENDING: DECEMBER 31, 2018

Private Equity Review

San Mateo County Employees' Retirement Association

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DEBT RELATED

- **HY and leveraged/syndicated loan issuance were down.** In 2018, US high yield issuance of \$168 billion¹, the lowest issuance total since 2009, was down 40.2% versus 2017. The institutional issuance of \$730 billion¹, 21% off 2017's record level.
- **Spreads loosened across the board except for CCC index.** US HY Credit Index loosened by 166 bps or 44.5%² versus the same period last year. Except for CCC index tightened by 44bps, a 3.6%² decrease versus 2H 2017, BB, B loosened by 146 bps and 140 bps respectively, a 54.5%² and 32.7%² increase versus the same period last year.
- **Slight increase in LBO debt, but improvement in interest coverage.** US total leverage (Debt / EBITDA) for 2018 at 5.8x³ up 1.4% from the same time last year. Interest coverage ratio (EBITDA / Cash Interest) ended Q4'18 at 2.7x³, down 6.2% from 3.1x³ at the end of 2017.

GLOBAL

- **Investment activity up.** During 2018, PE firms globally invested in \$729.6 billion^{6&13} worth of deals, 5.9% from the same time prior year and closed on 19,995 transactions^{6&13}, up 6.5% from 2017.
- **Mixed movement of purchase price multiples by region.** As of December 31, 2018, global median purchase price multiples (Enterprise Value / EBITDA) was 10.8x¹, a 1.8% decrease from the same time last year. This was driven by a 0.1% decrease in US purchase multiples at 10.6x⁷, a 15.8% increase in purchase price multiples in Europe at 11.5x¹¹, and a 17.5% decrease in the rest of the world at 9.2x¹¹.
- **Increase in dry powder in all regions, slightly down in the rest of world.** For 2018, global total PE dry powder was at \$1.36 trillion⁴, up (14.9%) from end of 2017. Total PE dry powder was: up in the US 14.4% to \$735.9 billion⁴; up in Europe by 15.7% to \$281.3 billion⁴; up in Asia by 18.1% to \$302.2 billion⁴; and down the rest of world by 1.8% to \$43.2 billion⁴.

US BUYOUTS

- **Fundraising down significantly.** In 2018, US buyout firms raised \$123.2 billion⁵, down by 30.2% from same time prior year. Both the number of funds closed and average fund size decreased from 1H 2017 to 1H 2018, 117⁵ to 112⁵ and \$1.51 billion⁵ to \$1.1 billion⁵, respectively.
- **Slight decline in LBO price multiples.** As of December 31, 2018, US LBO purchase price multiples (Enterprise Value / EBITDA) were at 10.6x⁷, a -0.1% decrease from 2017.

- **Investment activity up.** During 2018, US buyout firms invested in \$264.0 billion⁶ worth of deals, up 50.9% from the same time last year and closed on 2,787 transactions⁶, up 22.0% versus the same time in 2017. Keurig Dr Pepper, Inc. (\$21.0 billion⁶), Refinitiv (\$17.0 billion⁶), and Johnson Controls' Power Solutions business (\$13.2 billion⁶) contributed to the increase in capital deployed.
- **Dry powder up.** For 2018, US buyout dry powder was \$402.4 billion⁴, up by 12.2% from the same time in 2017.
- **Exits activity strong.** In 2018, US buyout firms exited 928 companies⁶, representing \$178.4 billion⁶ in total transaction value. This represented a 19.3% increase in the number of exits and a 26.1% increase in total transaction value compared to the same time last year.

US VENTURE CAPITAL

- **Fundraising increased.** US VC firms raised \$41.5 billion⁵ during 2018, a 37.6% increase from the same period last year. 342 funds⁵ closed in 2018, a 54.1% increase from the same period last year. The average US VC fund size decreased by 10.7% at \$121.4 million⁵ versus the same period last year.
- **Dry powder up.** As of Q4 2018, US VC dry powder was at \$110.8 billion⁴, up 10.7% from the last year.
- **Investment activity up sharply from last year.** US VC firms deployed \$113.0 billion¹² in capital during 2018, a 47.2% increase from 2017. The number of rounds closed at 5,510¹², a 28.1% increase from the same time last year. The average investment per deal increased 15% from last year, to \$20.6 million¹².
- **All stages valuations were up.** Compared to 2017, the average pre-money valuations increased across all stages in 2018: up 16.7% at \$7.0 million⁸ for Seed stage, 29.0% at \$20.0 million⁸ for Series A, 37.9% at \$55.5 million for Series B, 36.9% at \$115.0 million⁸ for Series C, and 45.4% at \$325.0 million⁸ for Series D. Over the past 3 years, the average pre-money valuations of Seed stage, Series A, Series B, Series C and Series D investments were up 40.0%, 56.6%, 44.9%, 64.3% and 95.6%, respectively⁹.
- **Exit activity up.** US VC firms exited 662 companies¹² in 2018, down by 2.1% from the same period last year, representing \$87.6 billion¹² in transaction value, up 69.4% from the same period 2017.

EX-US

- **Fundraising up in Asia and ROW, down in Europe.** For 2018, Ex-US fundraising was up 2.3% to \$185.5 billion⁵ compared to same time prior year. The increase was led by Asian funds which raised \$80.0 billion⁵, up 25.1% from same time last year. The increase was offset by a decrease in funds in Europe which raised \$89.5 billion⁵, down 17.3% from 2017. Fundraising in the rest of the world was up 74.0% to \$16.0 billion⁵ compared to 2017.
- **Ex-US dry powder grew, but less than dry powder in the US.** PE dry powder outside the US grew to \$626.7 billion⁴ for Q4 2018, a 15.4% increase versus last year. However, dry powder outside the US was still slightly less than dry powder in the US (\$735.9 billion⁴) by 14.8%.
 - **Dry powder of buyout, VC and growth equity in Asia increased.** At the end of 2018, Asia buyout dry power was \$85.6 billion⁴, up by 35.7% from last year. VC dry powder in Asia increased to \$81.1 billion⁴, up by 13.1% from prior year. Growth equity dry powder grew to \$113.6 billion⁴, a 13.8% increase from 2017.
 - **Europe buyout and VC dry powders up.** For 2018, Europe buyout dry power was \$189.3 billion⁴, up by 15.7% from last year. Same time, VC dry powder in Europe grew to \$26.4 billion⁴, a 15.8% increase from prior year. Growth equity dry powder grew to \$20.4 billion⁴, a 36.9% increase from 2017.
- **Investments up in all key sectors and geographies, except for Asia buyout.** Number of deals increased in both Europe and Asia buyout and venture capital. Aggregate deal volume increased in 2018 in European buyout and venture capital and Asia venture capital.
 - **Europe buyout and VC investments increased.** In 2018, Europe buyout firms transacted on \$136.7 billion⁶ in aggregate value, up by 39.4% from 2017. VC investment activity was up from \$17.7 billion in 2017 to \$22.4 billion¹² during 2018, an increase of 26.7%.
 - **Asia average buyout deal value was down, while VC investment activities was up.** During 2018, Asia VC investment activity was \$115.9 billion¹², up from \$75.2 billion in 2017, an increase of 54.1%. Buyout firms closed on \$39.1 billion⁶ in aggregate value, down by 37.5% from the same time of last year's \$62.5 billion⁶.
- **Leverage multiples in Europe moved up, loan volume slightly down.** European LBO leverage multiples (Debt / EBITDA) have averaged 5.7x¹⁰ during 2018, an increase of 6.5% from the same time last year and a 7.7% decrease from the peak (6.1x¹¹) in 2007. European LBO Loan volume at \$76.4 billion¹¹ is down 2.8% versus 2017, an decrease of 44.5% versus the peak of \$137.7 billion¹¹ in of 2007.
- **Exit activity stronger in Europe and Asia.** In 2018, Europe PE firms aggregate exit value amounted to \$122.3 billion^{6&12}, a 48.0% increase from the same time last year, while Asia PE firms' exits were up 174.4% from 2017 to \$84.3^{6&12} billion in the same time.

Outlook

- **Momentum of increase in PE allocations plateaus.** A recent survey of institutional investors conducted on December 31, 2018 indicated that 46%¹³ intend to increase their allocation for private equity compared to 53%¹³ during the same period last year. 49%¹³ intend to maintain their allocation for private equity compared to 43%¹³ during the same period last year.
- **Institutional investors most interested in investing in North America and like small- to mid-market buyouts.** Based on the survey conducted on December 31, 2018, Institutional investors view US as the most attractive location to invest in the current economic climate with 67%¹³ (versus Western Europe 49%¹³) choosing it as their preferred developed markets investment destination, and with 49%¹³ choosing China (versus India 30%¹³) as their preferred emerging markets investment destination. In the same survey, 54%¹³ of institutional investors also cited the small to mid-market buyout strategy as presenting the best opportunities in the current financial climate. venture capital strategy was mentioned next with 46%¹³ of institutional investors believing it presented the best opportunities.

Notes

1. *Leveraged Loan Monthly Refinitiv LPC*
2. *Guggenheim High-Yield Bank Loan Outlook*
3. *LCD's Leveraged Buyout Review*
4. *Preqin Dry powder by Geography (Preqin Website) Dry powder includes Buyout, Distressed PE, Growth, Mezzanine, Co-investments, Balanced, and Venture Strategies.*
5. *Preqin Private Equity Fundraising*
6. *Preqin Private Equity-Backed Buyout Deals and Exits*
7. *US LBO Review*
8. *PitchBook-NVCA Venture Monitor*
9. *PitchBook's VC Valuations*
10. *LCD European Leveraged Buyout Review*
11. *European Leveraged Lending Review*
 - a. *Ex US Multiples were estimated utilizing a number of sources including Preqin Private Equity-Backed Buyout Deals and Exits Factsheet, LCD's Leveraged*
 - b. *Buyout Review, Europe Leverage Lending Review and Leveraged Loan Monthly Refinitiv LPC.*
12. *Preqin Venture Capital Deals and Exits*
13. *Preqin Investor Outlook: Alternative Assets*

Investment Type	Policy Target	Policy Range	Market Value %	Market Value \$(000)	Unfunded Commitment \$(000)	Market Value + Unfunded \$(000)
SamCERA - Total Plan			100.0%	4,254,296		
Buyout (60% +/- 20%)	3.6%	2.4%-4.8%	4.2%	180,579	97,810	278,389
Venture Capital (20%, 0%-30%)	1.2%	0.0%-1.8%	2.0%	83,213	7,625	90,838
Debt-Related/Special Situations (20% +/- 10%)	1.2%	0.6%-1.8%	0.5%	23,313	71,350	94,663
Total Private Equity*	6.0%	4%-8%	6.7%	287,106	176,785	463,890

* The Private Equity Policy Target of 7.0% was reduced to 6.0% effective 10/1/2018.

Portfolio Summary

- As of December 31, 2018, the Private Equity Portfolio had a total market value of \$287.1 million, with \$180.6 million in Buyout, \$83.2 million in Venture Capital, and \$23.3 million in Debt-Related/Special Situations. Total market value is the current reported value of investments, excluding the remaining amount of unfunded commitments.
- SamCERA has contributed \$287.5 million toward its Private Equity commitments. Unfunded commitments total \$176.4 million.
- The portfolio exposure at 6.7% is above the new 6% policy target, but within range. All sub-asset classes, except Debt-Related/Special Situations which is below its target range, are within the policy range while commitments continue to be made to new managers at a slower pace.

Portfolio Activity

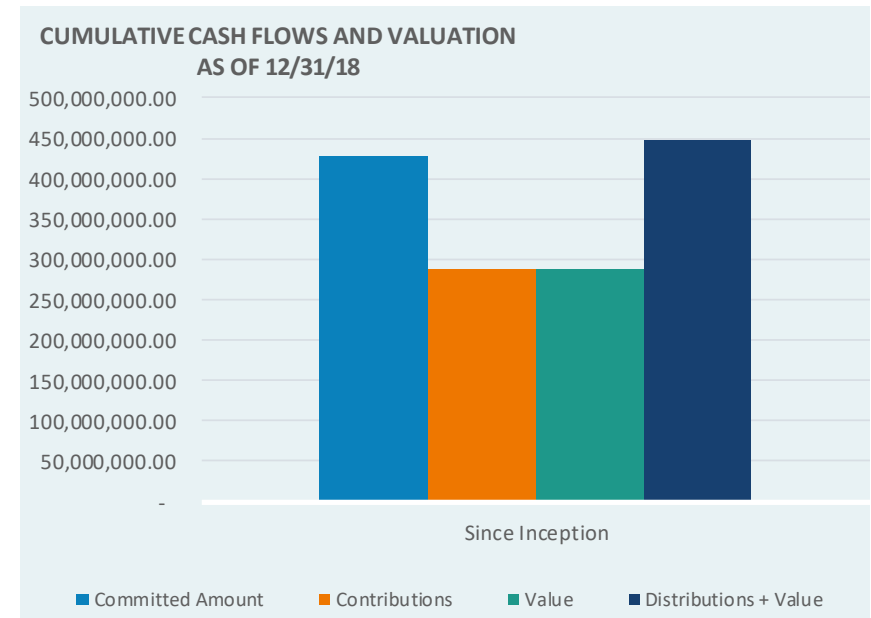
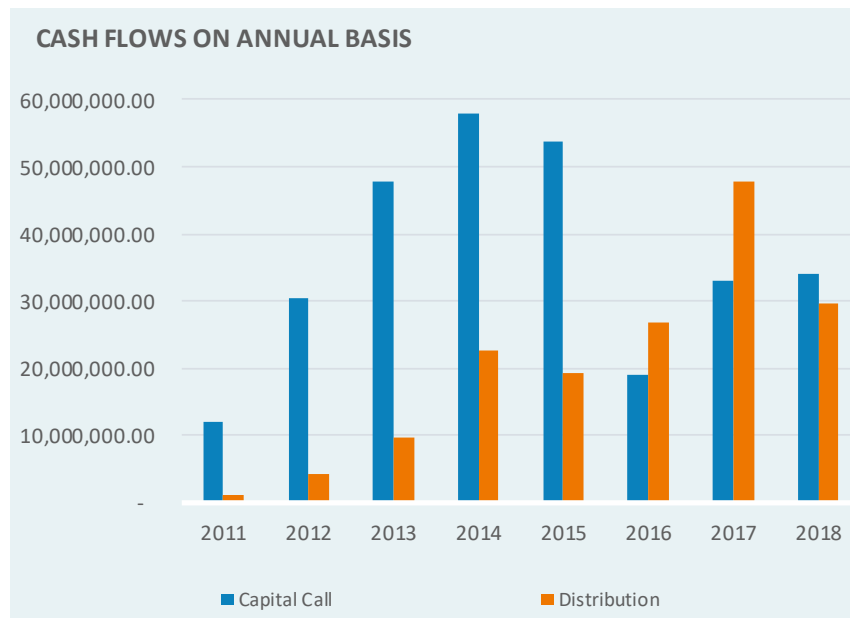
- SamCERA committed \$20.0 million to ABRY Advanced Securities Fund IV in the second half of 2018.

Performance

- The Private Equity portfolio’s performance, as measured by net IRR, is 16.12%, 591 bps above the same cash flow invested in Russell 3000 TR index of 10.21% and 291 bps above Russell 3000 + 3% SamCERA PE benchmark. Capital weighted average investment age of the portfolio is 3.8 years.
- The portfolio is currently valued at \$287.1 million. Together with \$161.2 million in realized distributions, the Total Value at \$448.3 million is approximately \$160.7 million above \$287.5 million total capital contributions, resulting in a total value multiple of 1.56x and a distribution multiple of 0.56x.
- Distributions surpassed contributions in 2016 and 2017 by a ratio of (1.4:1.0) in aggregate, but lagged with a ratio of (0.9:1.0) in 2018.

Attribution of returns:

- Buyouts up \$87.31 million / +48.2% versus cost (Sycamore, Great Hill V & VI, and ABRY VII leading), with 48.5% of called capital realized and distributed;
 - Venture Capital up \$58.36 million / +113.4% versus cost (General Catalyst VI, Emergence Capital III, NEA 14, and Third Rock III leading), with 51.7% of called capital realized and distributed; and
 - Debt-related/Special Situations up \$15.05 million / +27.3% versus cost (ABRY Advanced Securities II and III leading), with 85.0% of called capital realized and distributed.
- Within Private Equity, the current allocation of invested capital is 62.9% to Buyout, 29.0% to Venture Capital, and 8.1% to Debt-Related/Special Situations.

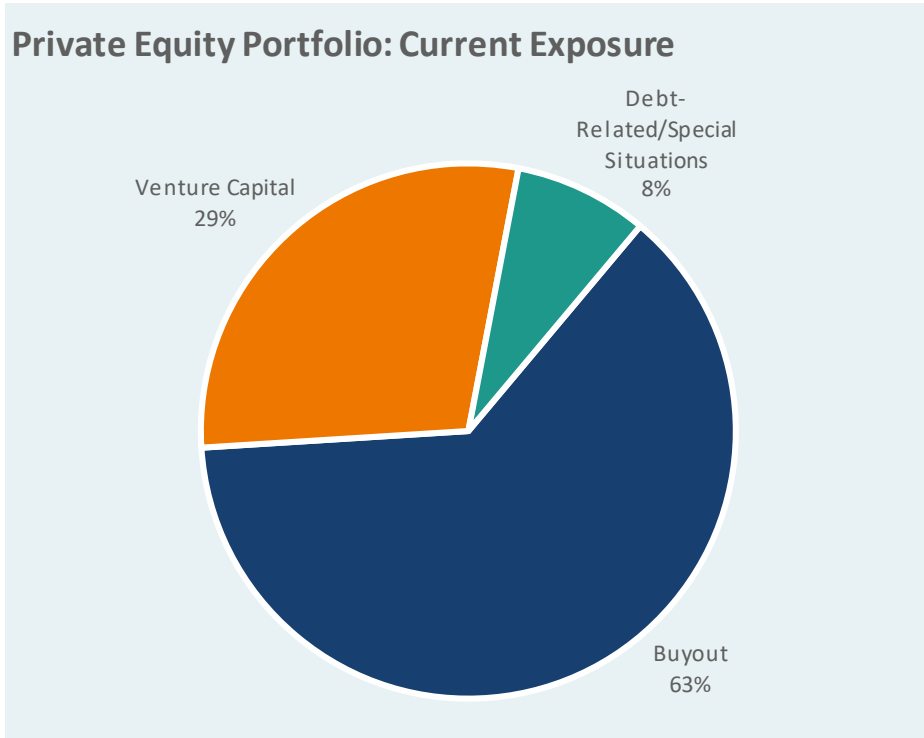


Strategy

Portfolio Diversification

Period Ending: December 31, 2018

Investment Type	Commitment	Reported Value	Current Exposure as % of Private Equity
Buyout	254,887,680	180,579,085	62.9%
Venture Capital	59,000,000	83,213,202	29.0%
Debt-Related/Special Situations	114,500,000	23,313,239	8.1%
Total Private Equity	428,387,680	287,105,526	100.0%

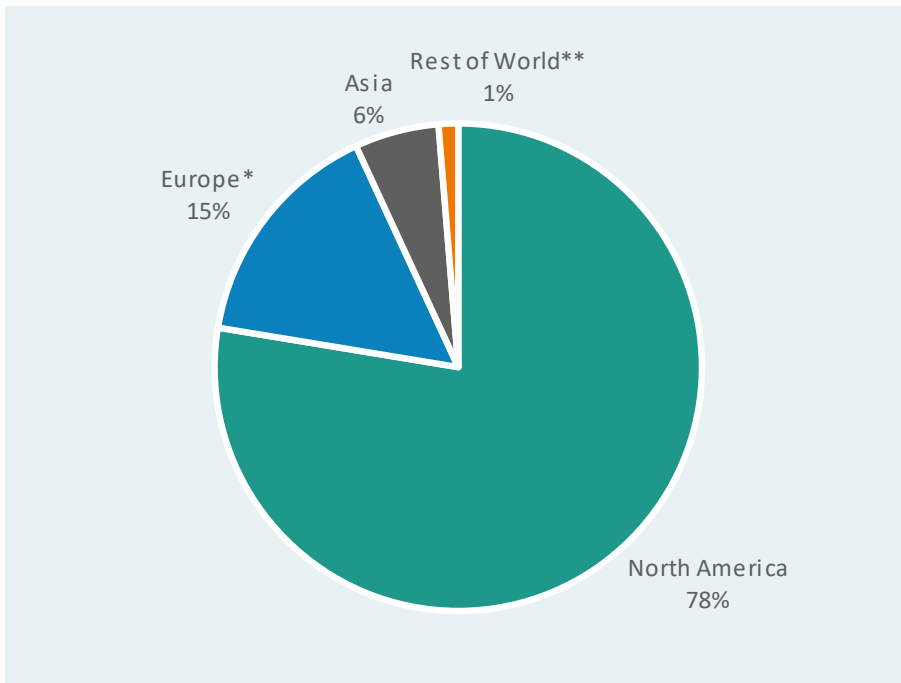


Geography

Portfolio Diversification

Period Ending: December 31, 2018

Geography	Current Exposure
North America	209,767,129
Europe*	41,929,134
Asia	15,179,385
Rest of World**	3,531,878
Total Private Equity	270,407,526



Based on the value of portfolio companies as of December 31, 2018, if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.

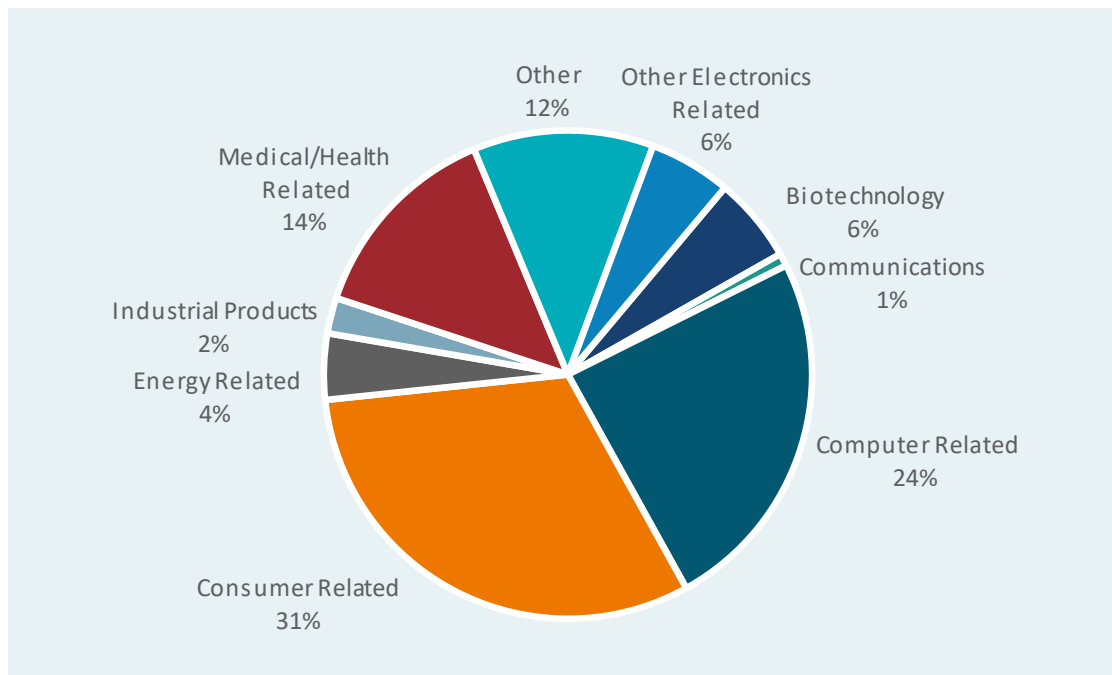
* Europe includes 100% market value from Cevian II.

** Rest of World includes Kenya, United Arab Emirates, Turkey, and Brazil.

Industry Portfolio Diversification

Period Ending: December 31, 2018

Industry	Current Exposure
Biotechnology	13,442,821
Communications	1,974,942
Computer Related	57,624,844
Consumer Related	74,362,935
Energy Related	10,354,297
Industrial Products	5,618,454
Medical/Health Related	32,267,187
Other	28,349,631
Other Electronics Related	12,875,539
Total Private Equity	236,870,650

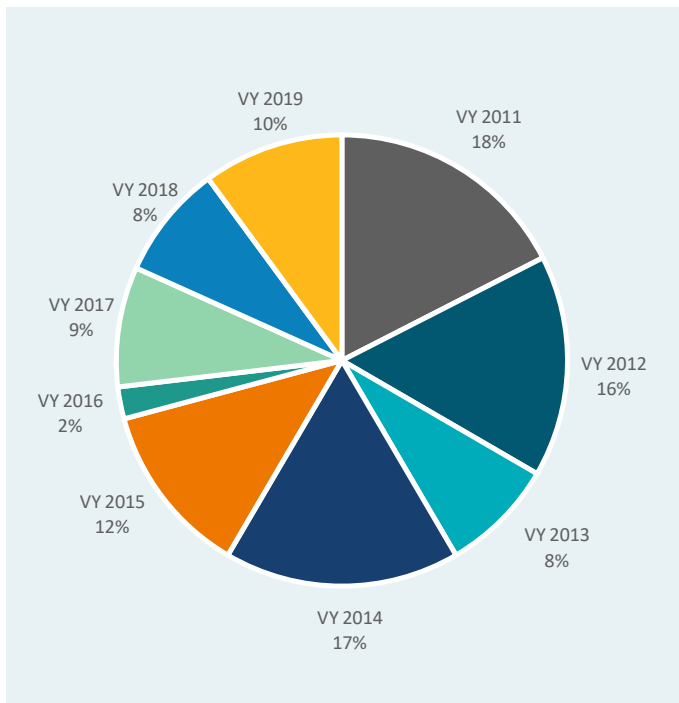


Based on the value of portfolio companies as of December 31, 2018, if provided by the partnerships. Differences between reported value and the total portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.

Vintage Year Portfolio Diversification

Period Ending: December 31, 2018

Vintage Year	Commitment as of 12/31/18	% of Portfolio Commitment	Reported Value as of 12/31/18
2011	75,000,000	17.5%	29,315,577
2012	68,000,000	15.9%	93,062,394
2013	35,000,000	8.2%	44,429,985
2014	72,500,000	16.9%	68,942,539
2015	53,000,000	12.4%	34,224,785
2016	10,000,000	2.3%	1,404,883
2017	37,000,000	8.6%	13,728,431
2018	35,000,000	8.2%	1,996,932
2019	43,298,000	10.1%	0
Total Private Equity	428,798,000	100%	287,105,526



- As of December 31, 2018, the Private Equity Portfolio is above the new 6% policy target, but within range, with exposures within target diversification bands.
- The Private Equity policy target was reduced from 7.0% to 6.0% effective October 1, 2018.