



INVESTMENT ADVISORY SERVICES

Los Angeles • New York

Alternative Investment Performance
Merced County Employees' Retirement Association

April 22, 2021

MCERA Private Equity Capital Budget & Implementation Plan

15% fund level target

- Annual capital budget target of \$40 million, range of \$30-\$50 million
- Target 4-7 investments, range of \$5-\$15 million per inv; average size of \$8 million per

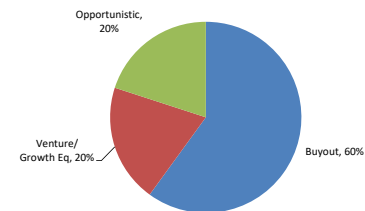
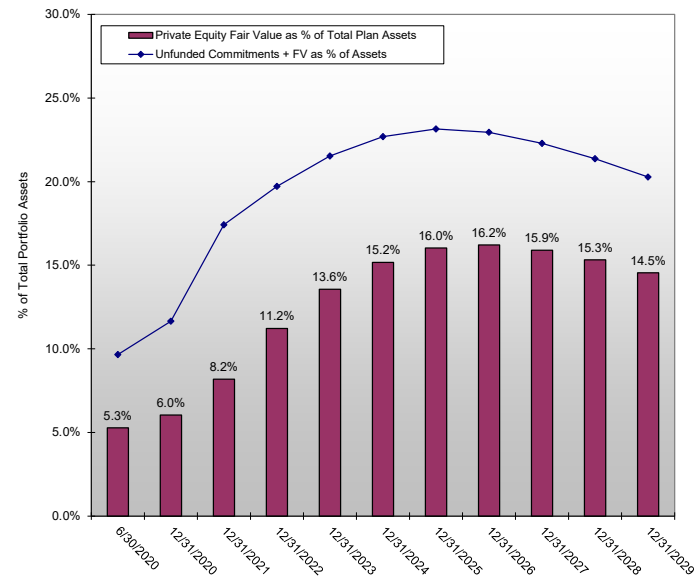
Performance comparisons:

- *Long term investment objective:* Earn a return premium over public equity (Russell 3000 + 3%)
- *Recommended primary asset class benchmark:* Cambridge Associates Global Private Equity & VC Index
- *Recommended fund benchmarks:* Each fund will be compared to the Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to Cambridge Associates Global Private Equity & VC Index

MCERA CY 2020 commitments:

- *Summit Ventures V* – venture (VY 2020), \$6 mm
- *Silver Point Sp Credit II* – corporate debt (VY 2019), \$8 mm
- *Thoma Bravo Discover III* – tech buyout (VY 2020), \$8 mm
- *Marlin Heritage Europe II* – European control buyout (VY 2020), €7 mm
- *Taconic Mkt Dislocation II*– distressed (VY 2020), \$8 mm
- *Khosla VI & Seed D* – venture (VY 2021), \$8 mm
- *GTCR XIII* – buyout (VY 2021), \$8 mm
- *TCV XI* – venture (VY 2021), \$8 mm

Projected Private Equity Allocations



| | Target | Ranges |
|-------------------|--------|--------|
| Buyout | 60% | 40-80% |
| Venture/Growth Eq | 20% | 10-30% |
| Opportunistic | 20% | 10-30% |
| | 100% | |

Note: MCERA’s existing private equity portfolio was modeled using vintage year drawdown/return of capital assumptions patterned after historical category averages. Total fund growth of 5.5%.

MCERA Private Equity Investment Structure & Portfolio Assessment

Investment structure (15% fund target; 5.8% invested as of Dec 2020):

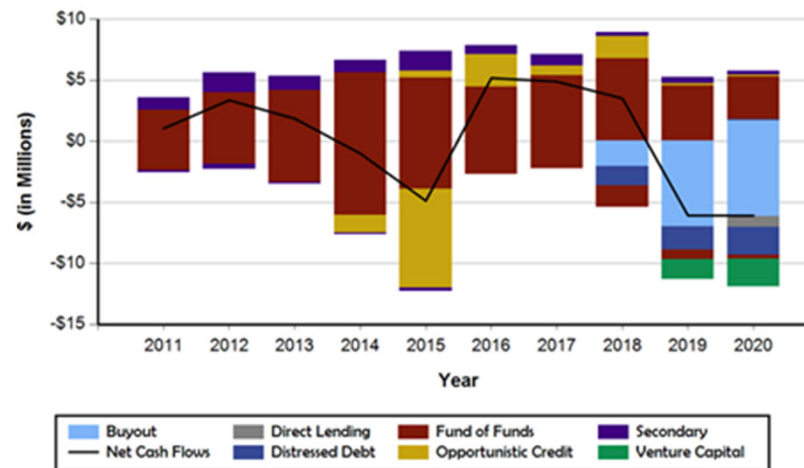
- Current portfolio is barbelled with half of commitments in 2007 & earlier FoFs and half in 2011 & later FoFs
 - Overall portfolio has not met performance expectations; 2011 & later portfolio is still in development with the funds in VY 2017-2020 in their investment period
 - Continued rebound in 3Q valuations offsetting the 1Q20 markdowns and there were annual gains of \$8 million; contributions exceed distributions by \$9 million as the newer portfolios are being built
 - Portfolio is diversified by strategy but overall it is in a negative cash flow situation

Annual Summary

(in thousands)

| | Total Partnerships | Total Commitments | (A) Contributions | (B) Distributions | (C) Fair Value | (B+C) Total Value | (B+C-A) Gain/ Loss | Net IRR | Benchmark |
|--------------------|--------------------|-------------------|-------------------|-------------------|----------------|-------------------|--------------------|---------|-----------|
| September 30, 2019 | 30 | \$130,864 | \$71,521 | \$60,399 | \$43,569 | \$103,967 | \$32,447 | 8.51% | 11.32% |
| September 30, 2020 | 36 | \$179,269 | \$87,792 | \$67,499 | \$60,629 | \$128,128 | \$40,336 | 9.05% | 11.79% |
| Annual Change | 6 | \$48,405 | \$16,271 | \$7,100 | \$17,060 | \$24,161 | \$7,889 | | |

Annual Cash Flow



Note: Net cash flow is the for the respective calendar year.

MCERA Private Equity Performance – as of Sep 30, 2020

| Partnership Name (\$000) | Strategy | (A) Commit. Amount | Unfund. Amount | (B) Cumulat. | | (C) Cumulat. Dist. | (D) Fair Value | (C+D) Total Value | (C+D-B) Gain/ Loss | IRR Net IRR | IRR Bench. | TVPI |
|--|----------------------|--------------------|----------------|---------------|------------|--------------------|----------------|-------------------|--------------------|---------------|---------------|-------------|
| | | | | Cont. | % Drawn | | | | | | | |
| Vintage Year 2004 | | | | | | | | | | | | |
| Invesco Partnership Fund IV, L.P. | Fund of Funds | 10,000 | 2,417 | 7,898 | 76% | 16,195 | 40 | 16,235 | 8,337 | 11.75% | 7.00% | 2.06 |
| Vintage Year 2004 Total | | 10,000 | 2,417 | 7,898 | 76% | 16,195 | 40 | 16,235 | 8,337 | 11.75% | 7.66% | 2.06 |
| Vintage Year 2005 | | | | | | | | | | | | |
| ASP 2005 Non-US Fund | Fund of Funds | 1,500 | 74 | 1,426 | 95% | 1,670 | 272 | 1,942 | 516 | 4.69% | 4.10% | 1.36 |
| ASP 2005 US Fund | Fund of Funds | 3,500 | 177 | 3,323 | 95% | 4,588 | 645 | 5,234 | 1,910 | 6.98% | 8.17% | 1.57 |
| Pantheon Ventures Euro Fund IV | Fund of Funds | 1,173 | 50 | 1,283 | 96% | 1,584 | 78 | 1,663 | 379 | 4.56% | 4.10% | 1.30 |
| Pantheon Ventures USA Fund VI | Fund of Funds | 3,750 | 206 | 3,544 | 95% | 5,104 | 279 | 5,383 | 1,839 | 6.51% | 8.17% | 1.52 |
| Vintage Year 2005 Total | | 9,923 | 507 | 9,576 | 95% | 12,946 | 1,275 | 14,221 | 4,645 | 6.19% | 7.91% | 1.49 |
| Vintage Year 2006 | | | | | | | | | | | | |
| Pantheon Global Secondary Fund III "B" | Secondary | 10,000 | 540 | 9,460 | 95% | 10,200 | 380 | 10,580 | 1,120 | 2.00% | N/A | 1.12 |
| Vintage Year 2006 Total | | 10,000 | 540 | 9,460 | 95% | 10,200 | 380 | 10,580 | 1,120 | 2.00% | 7.00% | 1.12 |
| Vintage Year 2007 | | | | | | | | | | | | |
| ASP 2007 Direct Fund | Fund of Funds | 450 | 12 | 438 | 97% | 863 | 212 | 1,076 | 637 | 12.18% | 11.15% | 2.45 |
| ASP 2007 Non-US Fund | Fund of Funds | 1,575 | 78 | 1,497 | 95% | 1,734 | 675 | 2,409 | 912 | 7.96% | 7.81% | 1.61 |
| ASP 2007 US Fund | Fund of Funds | 2,475 | 115 | 2,360 | 95% | 3,525 | 1,015 | 4,540 | 2,180 | 11.95% | 11.15% | 1.92 |
| Vintage Year 2007 Total | | 4,500 | 205 | 4,295 | 95% | 6,123 | 1,902 | 8,025 | 3,730 | 10.72% | 8.89% | 1.87 |
| Vintage Year 2011 | | | | | | | | | | | | |
| ASP 2011 Direct Fund | Fund of Funds | 500 | 37 | 463 | 93% | 524 | 396 | 920 | 457 | 15.16% | 18.27% | 1.99 |
| ASP 2011 Emerging Markets Fund | Fund of Funds | 500 | 64 | 436 | 87% | 222 | 679 | 901 | 465 | 14.21% | 11.36% | 2.07 |
| ASP 2011 Non-US Developed Fund | Fund of Funds | 1,500 | 322 | 1,178 | 79% | 1,045 | 1,072 | 2,117 | 938 | 13.54% | 11.36% | 1.80 |
| ASP 2011 US Fund | Fund of Funds | 2,500 | 326 | 2,175 | 87% | 1,987 | 2,300 | 4,286 | 2,112 | 15.60% | 18.27% | 1.97 |
| Pantheon Asia Fund VI | Fund of Funds | 1,000 | 95 | 906 | 91% | 468 | 992 | 1,460 | 554 | 10.20% | 11.36% | 1.61 |
| Pantheon Euro Fund VII | Fund of Funds | 1,636 | 218 | 1,493 | 87% | 1,185 | 1,297 | 2,482 | 990 | 11.01% | 11.36% | 1.66 |
| Pantheon Ventures USA Fund IX | Fund of Funds | 2,000 | 212 | 1,788 | 89% | 1,582 | 2,034 | 3,616 | 1,828 | 15.30% | 18.27% | 2.02 |
| Vintage Year 2011 Total | | 9,636 | 1,274 | 8,438 | 87% | 7,012 | 8,769 | 15,781 | 7,343 | 13.81% | 14.30% | 1.87 |
| Vintage Year 2013 | | | | | | | | | | | | |
| Invesco Partnership Fund VI, L.P. | Fund of Funds | 5,000 | 1,548 | 3,958 | 69% | 1,633 | 7,580 | 9,213 | 5,254 | 17.94% | 19.55% | 2.33 |
| Vintage Year 2013 Total | | 5,000 | 1,548 | 3,958 | 69% | 1,633 | 7,580 | 9,213 | 5,254 | 17.94% | 13.08% | 2.33 |
| Vintage Year 2014 | | | | | | | | | | | | |
| Ocean Avenue Fund II | Fund of Funds | 10,000 | 1,000 | 9,000 | 90% | 5,347 | 10,058 | 15,405 | 6,405 | 14.88% | 19.40% | 1.71 |
| Raven Asset-Based Opportunity Fund II | Opportunistic Credit | 10,000 | 474 | 9,526 | 95% | 6,159 | 2,621 | 8,780 | -746 | -2.52% | 6.69% | 0.92 |
| Vintage Year 2014 Total | | 20,000 | 1,474 | 18,526 | 93% | 11,506 | 12,679 | 24,185 | 5,659 | 7.54% | 17.93% | 1.31 |

Note: The benchmark represents the Cambridge Associates LLC median for the respective strategy and vintage year. At the vintage year level, the Cambridge Associates LLC Global Private Equity & VC[®] median is used for the respective vintage year.

MCERA Private Equity Performance – as of Sep 30, 2020

| Partnership Name (\$000) | Strategy | (A) Commit. Amount | Unfund. Amount | (B) Cumulat. Cont. | % Drawn | (C) | | (D) Fair Value | (C+D) Total Value | (C+D-B) Gain/ Loss | IRR Net IRR | IRR Bench. | TVPI |
|---|-----------------|--------------------|----------------|--------------------|------------|----------------|-------|----------------|-------------------|--------------------|---------------|---------------|-------------|
| | | | | | | Cumulat. Dist. | Dist. | | | | | | |
| Vintage Year 2017 | | | | | | | | | | | | | |
| GTCR XII | Buyout | 5,000 | 2,045 | 2,955 | 59% | 116 | | 3,855 | 3,971 | 1,016 | 29.21% | 17.67% | 1.34 |
| Vintage Year 2017 Total | | 5,000 | 2,045 | 2,955 | 59% | 116 | | 3,855 | 3,971 | 1,016 | 29.21% | 16.72% | 1.34 |
| Vintage Year 2018 | | | | | | | | | | | | | |
| Carrick Capital Partners III, L.P. | Buyout | 5,000 | 3,190 | 1,810 | 36% | 0 | | 2,045 | 2,045 | 235 | 9.04% | 6.97% | 1.13 |
| Cressey & Company Fund VI LP | Buyout | 5,000 | 3,450 | 1,550 | 31% | 0 | | 1,987 | 1,987 | 437 | N/M | N/M | 1.28 |
| Davidson Kempner Long-Term Distressed Opportuni Distressed Debt | | 5,000 | 785 | 4,300 | 84% | 85 | | 4,657 | 4,742 | 442 | 6.50% | N/A | 1.10 |
| Vintage Year 2018 Total | | 15,000 | 7,425 | 7,660 | 50% | 85 | | 8,689 | 8,774 | 1,114 | 9.86% | 9.50% | 1.15 |
| Vintage Year 2019 | | | | | | | | | | | | | |
| Accel-KKR Growth Capital Partners III | Buyout | 5,000 | 3,726 | 1,274 | 25% | 0 | | 1,251 | 1,251 | -23 | N/M | N/M | 0.98 |
| Cortec Group Fund VII, L.P. | Buyout | 10,000 | 7,335 | 4,206 | 27% | 1,543 | | 3,085 | 4,627 | 422 | N/M | N/M | 1.10 |
| Genstar Capital Partners IX, L.P. | Buyout | 7,000 | 4,467 | 2,670 | 36% | 137 | | 3,100 | 3,237 | 567 | N/M | N/M | 1.21 |
| Summit Partners Growth Equity Fund X-A, L.P. | Buyout | 8,000 | 7,291 | 709 | 9% | 0 | | 990 | 990 | 282 | N/M | N/M | 1.40 |
| TCV X, L.P. | Venture Capital | 5,000 | 2,196 | 2,805 | 56% | 0 | | 3,686 | 3,686 | 881 | N/M | N/M | 1.31 |
| Vintage Year 2019 Total | | 35,000 | 25,014 | 11,663 | 29% | 1,680 | | 12,112 | 13,792 | 2,128 | N/M | N/M | 1.18 |
| Vintage Year 2020 | | | | | | | | | | | | | |
| Accel-KKR Capital Partners VI, LP | Buyout | 8,000 | 8,000 | 0 | 0% | 0 | | 0 | 0 | 0 | N/M | N/M | 0.00 |
| Marlin Heritage Europe II, L.P. | Buyout | 8,210 | 8,210 | 0 | 0% | 0 | | 0 | 0 | 0 | N/M | N/M | 0.00 |
| Thoma Bravo Discover Fund III, L.P. | Buyout | 8,000 | 8,000 | 0 | 0% | 0 | | 0 | 0 | 0 | N/M | N/M | 0.00 |
| Silver Point Specialty Credit Fund II, L.P. | Direct Lending | 8,000 | 7,176 | 842 | 10% | 3 | | 948 | 951 | 109 | N/M | N/M | 1.13 |
| Taconic Market Dislocation Fund III L.P. | Distressed Debt | 8,000 | 6,560 | 1,440 | 18% | 0 | | 1,440 | 1,440 | 0 | N/M | N/M | 1.00 |
| Spark Capital Growth Fund III, L.P. | Venture Capital | 6,000 | 5,190 | 810 | 14% | 0 | | 731 | 731 | -79 | N/M | N/M | 0.90 |
| Spark Capital VI, L.P. | Venture Capital | 3,000 | 2,730 | 270 | 9% | 0 | | 229 | 229 | -41 | N/M | N/M | 0.85 |
| Summit Partners Venture Capital Fund V-A, L.P. | Venture Capital | 6,000 | 6,000 | 0 | 0% | 0 | | 0 | 0 | 0 | N/M | N/M | 0.00 |
| Vintage Year 2020 Total | | 55,210 | 51,866 | 3,362 | 6% | 3 | | 3,349 | 3,352 | -10 | N/M | N/M | 1.00 |
| Total Portfolio: | | 179,269 | 94,316 | 87,792 | 47% | 67,499 | | 60,629 | 128,128 | 40,336 | 9.05% | 11.79% | 1.46 |
| Portfolio Strategy Totals | | | | | | | | | | | | | |
| Buyout | | 61,000 | 47,503 | 15,174 | 22% | 1,796 | | 16,313 | 18,109 | 2,935 | 22.62% | | |
| Direct Lending | | 8,000 | 7,176 | 842 | 10% | 3 | | 948 | 951 | 109 | 11.75% | | |
| Distressed Debt | | 13,000 | 7,345 | 5,740 | 43% | 85 | | 6,097 | 6,182 | 442 | 6.30% | | |
| Fund of Funds | | 40,175 | 6,051 | 34,947 | 85% | 41,348 | | 24,559 | 65,906 | 30,960 | 11.52% | | |
| Non-US | | 17,094 | 9,111 | 8,219 | 47% | 7,908 | | 5,065 | 12,973 | 4,754 | 8.02% | | |
| Opportunistic Credit | | 10,000 | 474 | 9,526 | 95% | 6,159 | | 2,621 | 8,780 | -746 | -2.52% | | |
| Secondary | | 10,000 | 540 | 9,460 | 95% | 10,200 | | 380 | 10,580 | 1,120 | 2.00% | | |
| Venture Capital | | 20,000 | 16,116 | 3,885 | 19% | 0 | | 4,646 | 4,646 | 762 | N/M | | |
| Total Portfolio: | | 179,269 | 94,316 | 87,792 | 47% | 67,499 | | 60,629 | 128,128 | 40,336 | 9.05% | 11.79% | |

Note: The benchmark represents the Cambridge Associates LLC median for the respective strategy and vintage year. At the vintage year level, the Cambridge Associates LLC Global Private Equity & VC[®] median is used for the respective vintage year.

MCERA Real Estate Capital Budget & Implementation Plan

8% fund level target

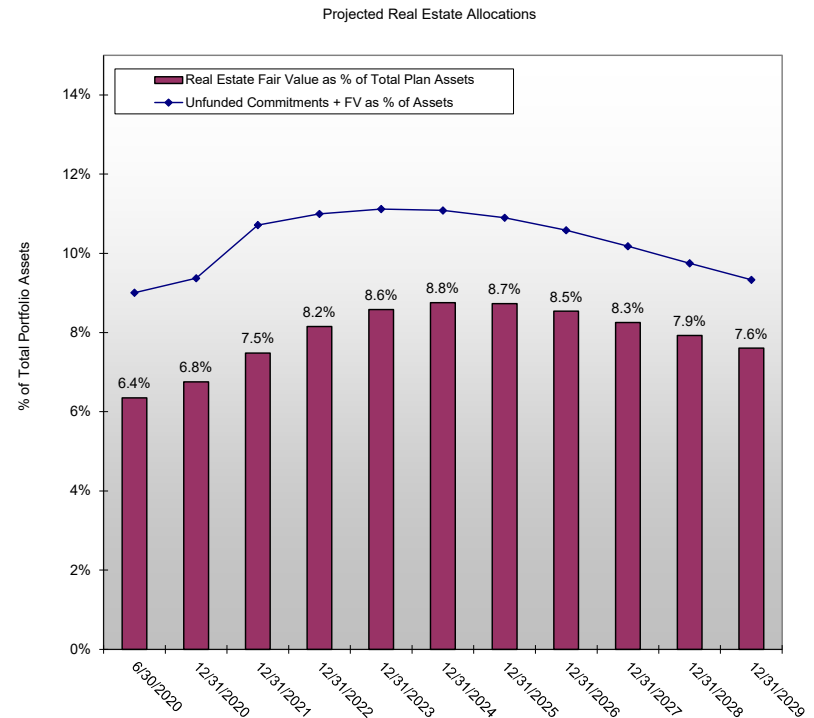
- Annual capital budget target of \$15 million, range of \$10-\$25 million
- Target 2-4 investments, range of \$5-\$10 million per inv
 - Average investment size of \$7 million
 - If an average of 2-4 GP partnership commitments per year, expect a total of 8-16 GP relationships over a 4 year fund raising cycle
- Retain core real estate exposure but lower it to 25% of the portfolio due to current valuations; use REITS as a substitute until funding private real estate investments is needed

Performance comparisons:

- *Long term investment objective:* Earn a return premium over inflation (CPI-U + 5%)
- *Recommended primary asset class benchmark:* NCREIF NFI-ODCE; revisit over time as the structure of the portfolio changes
- *Recommended fund benchmarks:* Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to Cambridge Associates Global Real Estate Index

MCERA CY 2020 commitments:

- *Cerberus RE Debt – commercial RE debt (VY 2020), \$7 mm*
- *Starwood Fund XII – opportunistic RE (VY 2020), \$8 mm*



Note: MCERA’s existing real estate portfolio was modeled using vintage year drawdown/return of capital assumptions patterned after historical averages. Total fund growth rate of 5.5%.

MCERA Real Estate Investment Structure & Portfolio Assessment

Real estate investment structure (8% target, 6.1% actual as of Dec 2020)

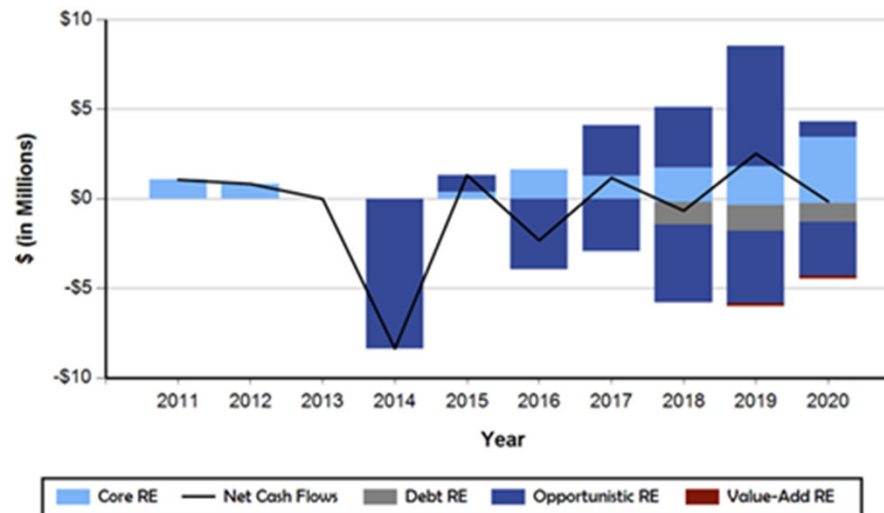
- MCERA invested in 1999 in a private core real estate fund; direct program began in 2014
- Contributions exceed distributions by \$2 million over the past year as overall RE activity has declined and valuations remain muted

Annual Summary

(in thousands)

| | Total Partnerships | Total Commitments | (A) Contributions | (B) Distributions | (C) Fair Value | (B+C) Total Value | (B+C-A) Gain/ Loss | Net IRR | Benchmark |
|--------------------|--------------------|-------------------|-------------------|-------------------|----------------|-------------------|--------------------|---------|-----------|
| September 30, 2019 | 8 | \$67,990 | \$40,366 | \$35,664 | \$58,343 | \$94,007 | \$53,641 | 9.00% | 8.88% |
| September 30, 2020 | 10 | \$83,957 | \$47,676 | \$40,625 | \$60,544 | \$101,169 | \$53,493 | 8.63% | 8.56% |
| Annual Change | 2 | \$15,967 | \$7,310 | \$4,961 | \$2,201 | \$7,162 | -\$148 | | |

Annual Cash Flow



Note: Net cash flow is the for the respective calendar year.

MCERA Real Estate Performance – as of Sep 30, 2020

Real Estate Portfolio

- MCERA began investing in the UBS Trumbull core real estate fund in 1999 and this represents the bulk of the real estate portfolio
 - Opportunistic funds began being added in 2014 and they are in the early stages of development with the VY 2016 fund now out of its “j-curve”
- Overall performance has met objectives, driven by the core RE fund; opportunistic fund performance is not meaningful

| Partnership Name (\$000) | Strategy | (A) Commit. Amount | Unfund. Amount | (B) Cumulat. Cont. | % Drawn | (C) | | (C+D) Total Value | (C+D-B) Gain/ Loss | IRR Net IRR | IRR Bench. | TVPI |
|---|------------------|--------------------|----------------|--------------------|-------------|----------------|----------------|-------------------|--------------------|---------------|---------------|-------------|
| | | | | | | Cumulat. Dist. | (D) Fair Value | | | | | |
| Vintage Year 1999 | | | | | | | | | | | | |
| UBS Trumbull Property Fund | Core RE | 17,000 | 0 | 17,794 | 100% | 26,732 | 36,335 | 63,066 | 45,273 | 8.50% | 10.20% | 3.54 |
| Vintage Year 1999 Total | | 17,000 | 0 | 17,794 | 100% | 26,732 | 36,335 | 63,066 | 45,273 | 8.50% | 12.95% | 3.54 |
| Vintage Year 2014 | | | | | | | | | | | | |
| Greenfield Acquisition Partners VII, L.P. | Opportunistic RE | 13,000 | 1,876 | 12,662 | 86% | 10,341 | 9,043 | 19,384 | 6,722 | 12.05% | 11.07% | 1.53 |
| Vintage Year 2014 Total | | 13,000 | 1,876 | 12,662 | 86% | 10,341 | 9,043 | 19,384 | 6,722 | 12.05% | 10.38% | 1.53 |
| Vintage Year 2016 | | | | | | | | | | | | |
| Patron Capital Fund V | Opportunistic RE | 13,957 | 4,614 | 9,105 | 67% | 3,312 | 6,742 | 10,054 | 949 | 5.60% | 9.65% | 1.11 |
| Vintage Year 2016 Total | | 13,957 | 4,614 | 9,105 | 67% | 3,312 | 6,742 | 10,054 | 949 | 5.60% | 10.15% | 1.11 |
| Vintage Year 2017 | | | | | | | | | | | | |
| Carlyle Realty Partners VIII, L.P. | Opportunistic RE | 5,000 | 3,442 | 1,791 | 31% | 227 | 1,696 | 1,923 | 132 | 6.90% | 6.35% | 1.07 |
| Vintage Year 2017 Total | | 5,000 | 3,442 | 1,791 | 31% | 227 | 1,696 | 1,923 | 132 | 6.90% | 7.98% | 1.07 |
| Vintage Year 2018 | | | | | | | | | | | | |
| Taconic CRE Dislocation Fund II | Debt RE | 5,000 | 1,950 | 3,122 | 61% | 0 | 3,548 | 3,548 | 426 | N/M | N/M | 1.14 |
| AG Realty Value Fund X, L.P. | Opportunistic RE | 5,000 | 3,513 | 1,487 | 30% | 13 | 1,494 | 1,507 | 20 | N/M | N/M | 1.01 |
| Vintage Year 2018 Total | | 10,000 | 5,463 | 4,609 | 45% | 13 | 5,042 | 5,055 | 446 | N/M | N/M | 1.10 |
| Vintage Year 2019 | | | | | | | | | | | | |
| Rockpoint Real Estate Fund VI, L.P. | Opportunistic RE | 5,000 | 4,235 | 764 | 15% | 0 | 736 | 736 | -28 | N/M | N/M | 0.96 |
| Carmel Partners Investment Fund VII, L.P Value-Add RE | | 5,000 | 4,624 | 376 | 8% | 0 | 234 | 234 | -142 | N/M | N/M | 0.62 |
| Vintage Year 2019 Total | | 10,000 | 8,859 | 1,140 | 11% | 0 | 970 | 970 | -170 | N/M | N/M | 0.85 |
| Vintage Year 2020 | | | | | | | | | | | | |
| Cerberus Real Estate Debt Fund, L.P. | Debt RE | 7,000 | 6,429 | 576 | 8% | 0 | 717 | 717 | 141 | N/M | N/M | 1.24 |
| Starwood Distressed Opportunity Fund X | Opportunistic RE | 8,000 | 8,000 | 0 | 0% | 0 | 0 | 0 | 0 | N/M | N/M | 0.00 |
| Vintage Year 2020 Total | | 15,000 | 14,429 | 576 | 4% | 0 | 717 | 717 | 141 | N/M | N/M | 1.24 |
| Total Portfolio: | | 83,957 | 38,682 | 47,676 | 54% | 40,625 | 60,544 | 101,169 | 53,493 | 8.63% | 8.56% | 2.12 |

Note: The benchmark at the total portfolio level is NCREIF NFI-ODCE . Private real estate benchmark at the fund level is the Cambridge Value Add or Opportunistic RE Indices while the Cambridge Global Real Estate Index at the vintage year level.

MCERA Real Asset Capital Budget & Implementation Plan

5% fund level target

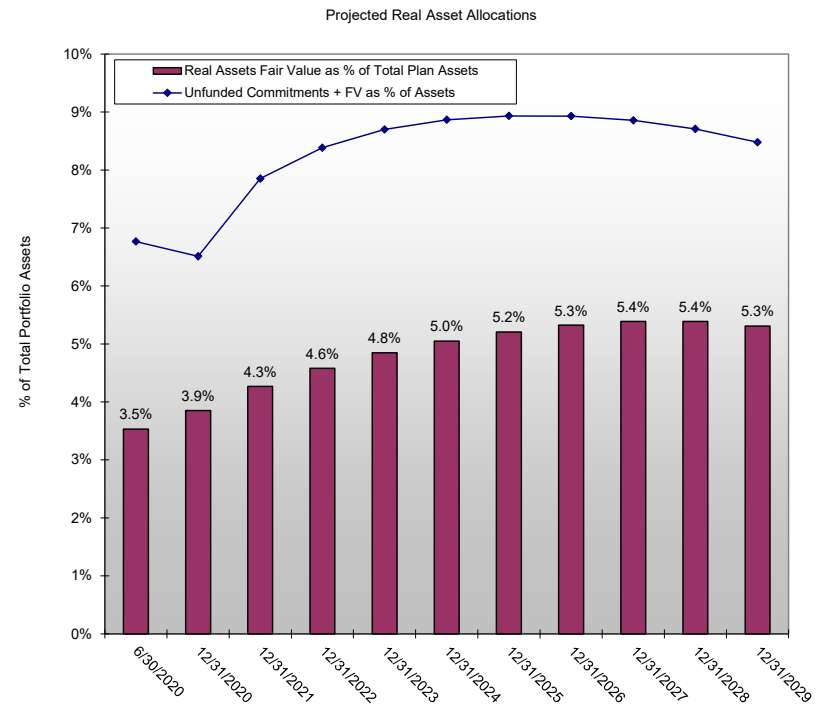
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- Target 2-4 investments, range of \$5-\$10 million per inv
 - Average investment size of \$7 million
 - If an average of 2-4 GP partnership commitments per year, expect a total of 8-16 GP relationships over a 4 year fund raising cycle
- Portfolio targeted to be equally split between infrastructure and energy/natural resource funds

Performance comparisons:

- *Long term investment objective:* Earn a return premium over inflation (CPI-U + 5%)
- *Recommended primary asset class benchmark:* 50/50 Cambridge Global Infrastructure/Cambridge Energy Upstream & Royalties and Private Energy Index
- *Recommended fund benchmarks:* Each fund will be compared to the Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to the 50/50 index

MCERA CY 2020 commitments (\$5 mm):

- *iSquared III* - global infrastructure (VY 2020)



Note: MCERA's existing real asset portfolio was modeled using vintage year drawdown/return of capital assumptions patterned after historical category averages. Total fund growth rate of 5.5%.

MCERA Real Assets Investment Structure & Portfolio Assessment

Real assets investment structure (5% target, 4.1% actual as of Dec 2020)

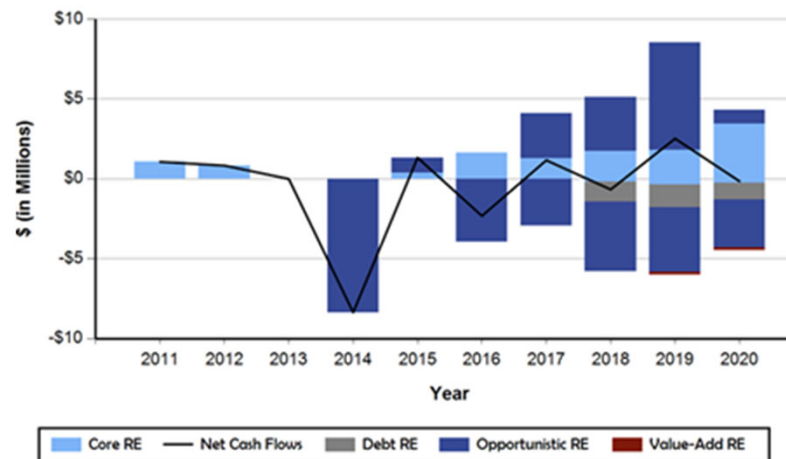
- Program is designed to be equally divided between private infrastructure and natural resource funds along with a public real asset component
- Private fund commitments began in 2014 to infrastructure and 2015 to natural resources
- The overall portfolio is immature with the funds in the early stage of development
 - Distributions exceed contributions by \$5 mm as the infrastructure funds continue to return capital

Annual Summary

(in thousands)

| | Total Partnerships | Total Commitments | (A) Contributions | (B) Distributions | (C) Fair Value | (B+C) Total Value | (B+C-A) Gain/ Loss | Net IRR | Benchmark |
|--------------------|--------------------|-------------------|-------------------|-------------------|----------------|-------------------|--------------------|---------|-----------|
| September 30, 2019 | 12 | \$69,890 | \$39,367 | \$10,731 | \$36,436 | \$47,167 | \$7,800 | 11.91% | 0.59% |
| September 30, 2020 | 12 | \$70,649 | \$47,202 | \$24,005 | \$33,057 | \$57,062 | \$9,860 | 9.99% | -3.30% |
| Annual Change | 0 | \$759 | \$7,835 | \$13,274 | -\$3,379 | \$9,895 | \$2,060 | | |

Annual Cash Flow



Note: Net cash flow is the for the respective calendar year.

MCERA Real Assets Performance – as of Sep 30, 2020

Real Asset Portfolio

- MCERA began allocating to real assets in 2014 via direct fund commitments
- Portfolio is in its early stages of development so performance is not meaningful; the gains in infrastructure funds offset the losses in the energy funds; the VY 2017-19 funds are being built out

| Partnership Name (\$000) | Strategy | (A) Commit. Amount | Unfund. Amount | (B) Cumulat. | | (C) Cumulat. | | (D) Fair Value | (C+D) Total Value | (C+D-B) Gain/ Loss | Net IRR | IRR Bench. | TVPI |
|---|----------------|--------------------|----------------|---------------|------------|---------------|---------------|----------------|-------------------|--------------------|---------------|-------------|------|
| | | | | Cont. | % Drawn | Dist. | % Drawn | | | | | | |
| Vintage Year 2014 | | | | | | | | | | | | | |
| KKR Global Infrastructure II | Infrastructure | 10,000 | 528 | 10,837 | 95% | 8,572 | 7,815 | 16,387 | 5,550 | 15.59% | 5.85% | 1.51 | |
| Vintage Year 2014 Total | | 10,000 | 528 | 10,837 | 95% | 8,572 | 7,815 | 16,387 | 5,550 | 15.59% | | 1.51 | |
| Vintage Year 2015 | | | | | | | | | | | | | |
| GSO Energy Select Opportunities Fund | Energy | 7,500 | 3,486 | 4,470 | 54% | 1,715 | 3,108 | 4,823 | 354 | 2.97% | 1.80% | 1.08 | |
| North Haven Infrastructure Partners II LP | Infrastructure | 10,000 | 1,333 | 11,245 | 87% | 6,547 | 7,180 | 13,727 | 2,483 | 9.49% | 8.11% | 1.22 | |
| Taurus Mining Finance Fund | Mining | 5,000 | 665 | 5,212 | 87% | 3,397 | 2,454 | 5,851 | 640 | 7.53% | N/A | 1.12 | |
| Vintage Year 2015 Total | | 22,500 | 5,484 | 20,926 | 76% | 11,659 | 12,743 | 24,402 | 3,476 | 7.48% | | 1.17 | |
| Vintage Year 2016 | | | | | | | | | | | | | |
| Taurus Mining Finance Annex Fund | Mining | 5,000 | 1,118 | 4,488 | 78% | 2,951 | 2,689 | 5,639 | 1,151 | 21.19% | N/A | 1.26 | |
| Vintage Year 2016 Total | | 5,000 | 1,118 | 4,488 | 78% | 2,951 | 2,689 | 5,639 | 1,151 | 21.19% | | 1.26 | |
| Vintage Year 2017 | | | | | | | | | | | | | |
| EnCap Energy Capital Fund XI, L.P. | Energy | 5,000 | 3,418 | 1,582 | 32% | 0 | 915 | 915 | -667 | -31.95% | -4.39% | 0.58 | |
| ISQ Global Infrastructure Fund II | Infrastructure | 5,000 | 2,002 | 3,368 | 60% | 371 | 3,506 | 3,877 | 509 | 13.26% | N/A | 1.15 | |
| Vintage Year 2017 Total | | 10,000 | 5,420 | 4,950 | 46% | 371 | 4,421 | 4,792 | -158 | -2.60% | | 0.97 | |
| Vintage Year 2018 | | | | | | | | | | | | | |
| EnCap Flatrock Midstream IV, L.P. | Energy | 3,000 | 1,953 | 1,125 | 35% | 78 | 1,140 | 1,219 | 94 | 4.70% | -0.01% | 1.08 | |
| Ardian Infrastructure Fund V | Infrastructure | 5,149 | 4,490 | 659 | 13% | 20 | 575 | 595 | -64 | N/M | N/M | N/A | |
| KKR Global Infrastructure Investors III | Infrastructure | 5,000 | 3,124 | 2,098 | 38% | 130 | 2,007 | 2,136 | 39 | 1.91% | N/A | N/A | |
| Vintage Year 2018 Total | | 13,149 | 9,567 | 3,881 | 27% | 228 | 3,722 | 3,950 | 69 | 1.53% | | 1.02 | |
| Vintage Year 2019 | | | | | | | | | | | | | |
| Global Energy & Power Infrastructure Fund III | Energy | 5,000 | 3,918 | 1,184 | 22% | 224 | 1,051 | 1,274 | 90 | N/M | N/M | 1.08 | |
| Tailwater Energy Fund IV, LP | Energy | 5,000 | 4,063 | 936 | 19% | 0 | 617 | 617 | -318 | N/M | N/M | 0.66 | |
| Vintage Year 2019 Total | | 10,000 | 7,981 | 2,120 | 20% | 224 | 1,668 | 1,892 | -228 | N/M | | 0.89 | |
| Total Portfolio: | | 70,649 | 30,099 | 47,202 | 57% | 24,005 | 33,057 | 57,062 | 9,860 | 9.99% | -3.30% | 1.21 | |
| Portfolio Strategy Totals | | | | | | | | | | | | | |
| Energy | | 20,500 | 12,920 | 8,111 | 37% | 1,794 | 5,780 | 7,574 | -537 | -3.35% | | 0.93 | |
| Infrastructure | | 25,000 | 4,986 | 24,180 | 80% | 15,248 | 17,003 | 32,251 | 8,071 | 12.67% | | 1.33 | |
| Non-US | | 25,149 | 12,193 | 14,911 | 52% | 6,963 | 10,274 | 17,237 | 2,326 | 11.98% | | 1.16 | |
| Total Portfolio: | | 70,649 | 30,099 | 47,202 | 57% | 24,005 | 33,057 | 57,062 | 9,860 | 9.99% | -3.30% | 1.21 | |

Note: Benchmark is 50% S&P Natural Resources and 50% S&P Infrastructure. Benchmarks for individual funds are the respective Cambridge strategy benchmark.

MCERA Hedge Fund Performance – as of Mar 31, 2021

| Fund | Market Value | Actual % | Mar | QTD | YTD | Returns 1 Year | 3 Year | 5 Year | Incep | Std Dev | Sharpe Ratio | Incep Date |
|--|--------------|----------|--------|--------|--------|-------------------|--------|--------|--------|---------|-----------------|---------------|
| Market Neutral | | | | | | | | | | | | |
| KLS Diversified Fund LP | 8,644,168 | 8.7% | -0.25% | 3.47% | 3.47% | 14.46% | -1.35% | - | -0.82% | 11.03% | -0.16 | Oct-17 |
| Laurion Capital, Ltd. | 13,707,848 | 13.7% | 6.34% | 17.22% | 17.22% | 34.60% | - | - | 20.36% | 11.86% | 1.49 | Jul-18 |
| Market Neutral - HF Total | 22,352,016 | 22.4% | 3.69% | 11.49% | 11.49% | 26.03% | 8.12% | - | 7.29% | 7.52% | 0.75 | Oct-17 |
| HFRI Relative Value (Total) Index | | | 0.71% | 3.90% | 3.90% | 19.70% | 4.58% | - | 4.35% | 6.54% | 0.43 | Oct-17 |
| Credit/Distressed | | | | | | | | | | | | |
| Silver Point Capital Fund, L.P. | 15,341,956 | 15.4% | 2.30% | 9.01% | 9.01% | 34.10% | 7.73% | - | 7.79% | 8.44% | 0.73 | Dec-17 |
| Credit/Distressed - HF Total | 15,341,956 | 15.4% | 2.30% | 9.01% | 9.01% | 34.10% | 7.73% | - | 7.79% | 8.44% | 0.73 | Dec-17 |
| HFRI ED: Distressed/Restructuring Index | | | 1.22% | 8.76% | 8.76% | 37.73% | 7.07% | - | 6.85% | 9.16% | 0.59 | Dec-17 |
| Event Driven | | | | | | | | | | | | |
| Taconic Opportunity Fund L.P. | 13,543,968 | 13.6% | 0.80% | 4.76% | 4.76% | 18.20% | - | - | 5.03% | 7.09% | 0.53 | Dec-18 |
| Event Driven - HF Total | 13,543,968 | 13.6% | 0.80% | 4.76% | 4.76% | 18.20% | - | - | 5.03% | 7.09% | 0.53 | Dec-18 |
| HFRI Event-Driven (Total) Index | | | 1.85% | 8.21% | 8.21% | 38.95% | - | - | 9.71% | 11.58% | 0.74 | Dec-18 |
| Equity Long/Short | | | | | | | | | | | | |
| Archipelago Partners, L.P. | 13,504,635 | 13.5% | 0.28% | 1.11% | 1.11% | 20.16% | 5.40% | - | 6.28% | 8.85% | 0.55 | Sep-17 |
| Marshall Wace Funds LP - MW Eureka (US) Fund | 3,904,354 | 3.9% | -2.00% | 1.10% | 1.10% | 22.14% | 7.55% | - | 8.23% | 6.83% | 0.95 | Dec-17 |
| Marshall Wace Funds LP - MW Global Opportunities (US) Fund | 9,620,712 | 9.6% | -4.85% | -7.37% | -7.37% | 6.90% | - | - | 6.90% | 12.70% | 0.56 | Apr-20 |
| Equity Long/Short - HF Total | 27,029,702 | 27.1% | -1.93% | -2.08% | -2.08% | 16.64% | 4.81% | - | 5.83% | 8.32% | 0.53 | Sep-17 |
| HFRI Equity Hedge (Total) Index | | | 1.12% | 7.36% | 7.36% | 48.17% | 10.03% | - | 9.86% | 11.25% | 0.74 | Sep-17 |
| Global Macro-Discretionary | | | | | | | | | | | | |
| Graham Absolute Return Trading Ltd. | 8,145,113 | 8.2% | 2.28% | 6.65% | 6.65% | 26.25% | 4.45% | - | 4.37% | 9.69% | 0.32 | Sep-17 |
| Global Macro-Discretionary - HF Total | 8,145,113 | 8.2% | 2.28% | 6.65% | 6.65% | 26.25% | 4.45% | - | 4.37% | 9.69% | 0.32 | Sep-17 |
| HFRI Macro (Total) Index | | | 0.69% | 3.83% | 3.83% | 11.21% | 4.34% | - | 3.59% | 5.10% | 0.40 | Sep-17 |
| Global Macro-Systematic | | | | | | | | | | | | |
| HFRI Macro (Total) Index | | | 0.69% | 3.83% | 3.83% | 11.21% | 4.34% | - | 3.44% | 5.10% | 0.37 | Nov-17 |
| Multi-Strategy | | | | | | | | | | | | |
| Sculptor Domestic Partners II, L.P. | 13,466,662 | 13.5% | -0.22% | 3.62% | 3.62% | 31.59% | 11.47% | 11.47% | 8.52% | 7.29% | 1.00 | Jul-14 |
| Multi-Strategy - HF Total | 13,466,662 | 13.5% | -0.22% | 3.62% | 3.62% | 31.59% | 11.47% | 11.47% | 8.52% | 7.29% | 1.00 | Jul-14 |
| HFRI Relative Value (Total) Index | | | 0.71% | 3.90% | 3.90% | 19.70% | 4.58% | 5.46% | 3.81% | 5.07% | 0.53 | Jul-14 |
| MCERA Hedge Fund Portfolio | 99,879,417 | 100.0% | 0.88% | 4.82% | 4.82% | 22.11% | 5.69% | 6.95% | 4.90% | 5.75% | 0.66 | Jul-14 |
| Benchmarks | | | | | | | | | | | | |
| HFRI Fund of Funds Composite Index | | | 0.42% | 2.47% | 2.47% | 24.56% | 5.64% | 5.74% | 3.88% | 5.40% | 0.52 | Jul-14 |
| Market Indices | | | | | | | | | | | | |
| Libor3Month | | | 0.02% | 0.05% | 0.05% | 0.27% | 1.60% | 1.44% | 1.15% | 0.25% | - | Jul-14 |
| Bloomberg Barclays US Aggregate Bond Index | | | -1.25% | -3.37% | -3.37% | 0.71% | 4.66% | 3.11% | 3.13% | 3.17% | 0.63 | Jul-14 |
| Bloomberg Barclays US High Yield Bond Index | | | 0.15% | 0.85% | 0.85% | 23.72% | 6.84% | 8.06% | 5.26% | 7.41% | 0.57 | Jul-14 |
| S&P 500 TR | | | 4.38% | 6.17% | 6.17% | 56.35% | 16.78% | 16.30% | 13.27% | 14.35% | 0.86 | Jul-14 |
| MSCI AC World Index Free - Net | | | 2.67% | 4.57% | 4.57% | 54.60% | 12.07% | 13.21% | 8.97% | 14.21% | 0.60 | Jul-14 |
| MSCI EAFE - Net | | | 2.30% | 3.48% | 3.48% | 44.57% | 6.02% | 8.85% | 4.36% | 14.67% | 0.29 | Jul-14 |
| MSCI EMF (Emerging Markets Free) - Net | | | -1.51% | 2.29% | 2.29% | 58.39% | 6.48% | 12.07% | 5.82% | 17.20% | 0.35 | Jul-14 |

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