



# Monthly Risk-Return Report

## As of December 31, 2019

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|                                |        |
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Based on actual BNY Mellon data through November 2019 and preliminary data for December 2019.

Private asset valuations and returns are presented with a quarterly lag per industry standard.



### Asset Allocation and Policy Guidelines

As of December 31, 2019

| Asset Class                 | Assets and Allocation |               | Policy Target | Minimum Target | Maximum Target | Difference         |                |
|-----------------------------|-----------------------|---------------|---------------|----------------|----------------|--------------------|----------------|
|                             | \$ (MM)               | %             |               |                |                | From Policy Target | Within Target? |
| Public Markets Equity       | 6,618                 | 47.7%         | 45.0%         | 40.0%          | 50.0%          | 2.7%               | Yes            |
| Global Equity               | 549                   | 4.0%          | 3.0%          | 0.0%           | 10.0%          | 1.0%               | Yes            |
| US Equity                   | 3,051                 | 22.0%         | 20.0%         | 15.0%          | 25.0%          | 2.0%               | Yes            |
| Non-US Equity Developed     | 2,113                 | 15.2%         | 15.0%         | 11.0%          | 19.0%          | 0.2%               | Yes            |
| Non-US Equity Emerging      | 905                   | 6.5%          | 7.0%          | 3.0%           | 11.0%          | -0.5%              | Yes            |
| Fixed Income and Cash       | 3,671                 | 26.5%         |               |                |                |                    |                |
| Risk-Reducing Fixed Income  | 2,843                 | 20.5%         | 18.0%         | 13.0%          | 24.0%          | 2.5%               | Yes            |
| Return-Seeking Fixed Income | 827                   | 6.0%          | 6.0%          | 0.0%           | 12.0%          | 0.0%               | Yes            |
| Opportunistic               | 1,135                 | 8.2%          | 8.0%          | 0.0%           | 15.0%          | 0.2%               | Yes            |
| Private Assets              | 2,451                 | 17.7%         | 23.0%         | 10.0%          |                | -5.3%              | Yes            |
| Real Estate                 | 1,081                 | 7.8%          | 9.0%          | 5.0%           | 12.0%          | -1.2%              | Yes            |
| Private Equity              | 725                   | 5.2%          | 8.0%          | 3.0%           | 10.0%          | -2.8%              | Yes            |
| Private Real Assets         | 645                   | 4.7%          | 6.0%          | 3.0%           | 8.0%           | -1.3%              | Yes            |
| <b>Total Invested</b>       | <b>13,874</b>         | <b>100.0%</b> |               |                |                |                    |                |



## Portfolio and Benchmark Returns

As of December 31, 2019

|                                | MTD  | QTD  | FYTD | CYTD  | 1 Year | 3 Years | 5 Years |
|--------------------------------|------|------|------|-------|--------|---------|---------|
| <b>SDCERA Total Trust Fund</b> | 2.0% | 4.9% | 5.6% | 16.0% | 16.0%  | 8.9%    | 6.4%    |
| SDCERA Policy Benchmark        | 2.5% | 6.3% | 6.6% | 19.8% | 19.8%  | 9.4%    | 6.9%    |
| Balanced Benchmark             | 2.5% | 6.4% | 6.8% | 20.3% | 20.3%  | 9.6%    | 6.8%    |

|  |      |      |      |       |       |       |      |
|--|------|------|------|-------|-------|-------|------|
| <b>SDCERA Public Markets</b>                 | 2.4% | 5.6% | 5.9% | 18.4% | 18.4% | 9.1%  | 5.5% |
| Balanced Benchmark                           | 2.5% | 6.4% | 6.8% | 20.3% | 20.3% | 9.6%  | 6.8% |
| <b>Total Public Markets Equity</b>           | 3.7% | 9.3% | 8.7% | 26.1% | 26.1% | 12.3% | 7.6% |
| MSCI ACWI IMI                                | 3.6% | 9.1% | 8.9% | 26.4% | 26.4% | 12.1% | 8.3% |
| <b>Total Fixed Income and Cash</b>           | 0.4% | 0.6% | 1.9% | 7.3%  | 7.3%  | 3.7%  | 3.1% |
| Bloomberg Barclays US Intermediate Aggregate | 0.2% | 0.5% | 1.9% | 6.7%  | 6.7%  | 3.3%  | 2.6% |

| <b>Opportunistic</b> |      |      |      |       |       |      |      |
|----------------------|------|------|------|-------|-------|------|------|
| <b>Opportunistic</b> | 1.3% | 2.3% | 3.7% | 13.0% | 13.0% | 4.0% | 4.0% |
| Balanced Benchmark   | 2.5% | 6.4% | 6.8% | 20.3% | 20.3% | 9.6% | 6.8% |

| <b>Private Assets</b>      |   |       |      |       |       |       |       |
|----------------------------|---|-------|------|-------|-------|-------|-------|
|                            | <i>The industry standard is to present private asset returns with a quarterly lag</i> |       |      |       |       |       |       |
| <b>Real Estate</b>         | 0.0%  | 2.8%  | 6.1% | 11.9% | 11.9% | 9.4%  | 10.8% |
| NCREIF ODCE                | 0.4%  | 1.1%  | 2.2% | 4.2%  | 4.2%  | 6.1%  | 7.9%  |
| <b>Private Equity</b>      | 0.8%  | 1.7%  | 4.3% | 7.6%  | 7.6%  | 13.6% | 10.6% |
| MSCI ACWI IMI              | 3.6%  | 9.1%  | 8.9% | 26.4% | 26.4% | 12.1% | 8.3%  |
| <b>Private Real Assets</b> | -0.3%   | -0.6% | 0.6% | 0.0%  | 0.0%  | 4.8%  | 3.0%  |
| MSCI ACWI IMI              | 3.6%  | 9.1%  | 8.9% | 26.4% | 26.4% | 12.1% | 8.3%  |

| <b>Equities by Sub-Asset Class</b> |      |       |       |       |       |       |       |
|------------------------------------|------|-------|-------|-------|-------|-------|-------|
| <b>Global Equity</b>               | 3.5% | 8.8%  | 8.8%  | 24.4% | 24.4% | 11.7% | 8.3%  |
| MSCI ACWI IMI                      | 3.6% | 9.1%  | 8.9%  | 26.4% | 26.4% | 12.1% | 8.3%  |
| <b>US Equity</b>                   | 3.0% | 9.2%  | 10.5% | 31.4% | 31.4% | 14.3% | 11.2% |
| MSCI USA IMI                       | 2.9% | 8.9%  | 10.1% | 30.4% | 30.4% | 14.0% | 10.7% |
| <b>Non-US Equity Developed</b>     | 3.4% | 8.5%  | 7.3%  | 23.3% | 23.3% | 9.8%  | 5.9%  |
| MSCI EAFE IMI                      | 3.4% | 8.6%  | 7.6%  | 22.4% | 22.4% | 9.8%  | 6.1%  |
| <b>Non-US Emerging</b>             | 7.3% | 11.5% | 6.1%  | 17.3% | 17.3% | 10.9% | 5.6%  |
| MSCI Emerging Markets              | 7.5% | 11.8% | 7.1%  | 18.4% | 18.4% | 11.6% | 5.6%  |

| <b>Fixed Income by Sub-Asset Class</b>       |       |      |      |       |       |      |  |
|--|-------|------|------|-------|-------|------|--|
| <b>Risk-Reducing Fixed Income</b>            | -0.1% | 0.1% | 1.6% | 5.9%  | 5.9%  | 3.3% |  |
| Bloomberg Barclays US Intermediate Aggregate | 0.2%  | 0.5% | 1.9% | 6.7%  | 6.7%  | 3.3% |  |
| <b>Return-Seeking Fixed Income</b>           | 2.2%  | 2.5% | 3.0% | 11.6% | 11.6% | 5.0% |  |
| ICE BofA Merrill Lynch US High Yield         | 2.1%  | 2.6% | 3.9% | 14.4% | 14.4% | 6.3% |  |

Please note: The Risk-Reducing Fixed Income, Return-Seeking Fixed Income and ICE BofA Merrill Lynch US High Yield 5 yr returns are blank because the current composite returns calculated by BNY Mellon do not cover these time periods. SDCERA Benchmark returns are before fees.



## Portfolio Risk and Tracking Error

| As of December 31, 2019        | 10/31/19<br>Trailing three years |                | 11/30/19<br>Trailing three years |                | 12/31/19<br>Trailing three years |                |
|--------------------------------|----------------------------------|----------------|----------------------------------|----------------|----------------------------------|----------------|
| Total Trust Fund               | Volatility                       | Tracking Error | Volatility                       | Tracking Error | Volatility                       | Tracking Error |
| SDCERA Total Trust Fund Assets | 5.9%                             | N/A            | 5.8%                             | N/A            | 5.9%                             | N/A            |
| SDCERA Policy Benchmark        | 7.6%                             | 2.1%           | 7.6%                             | 2.0%           | 7.7%                             | 2.0%           |

  

| Total Trust Fund               | Forecasted |                | Forecasted |                | Forecasted |                |
|--------------------------------|------------|----------------|------------|----------------|------------|----------------|
| Total Trust Fund               | Volatility | Tracking Error | Volatility | Tracking Error | Volatility | Tracking Error |
| SDCERA Total Trust Fund Assets | 6.2%       | N/A            | 6.3%       | N/A            | 6.4%       | N/A            |
| SDCERA Policy Benchmark        | 7.8%       | 1.7%           | 7.8%       | 1.7%           | 7.9%       | 1.5%           |
| Balanced Benchmark             | 8.2%       | 2.1%           | 8.2%       | 2.0%           | 8.2%       | 1.9%           |
| SDCERA Public-Only Assets      | 7.5%       | N/A            | 7.5%       | N/A            | 7.6%       | N/A            |
| SDCERA Public Benchmark        | 8.1%       | 0.8%           | 8.1%       | 0.8%           | 8.1%       | 0.7%           |

  

| Equities                |       |      |       |      |       |      |
|-------------------------|-------|------|-------|------|-------|------|
| Global Equity           | 11.4% | N/A  | 11.4% | N/A  | 11.5% | N/A  |
| MSCI ACWI IMI           | 11.8% | 1.7% | 11.8% | 1.7% | 11.8% | 1.7% |
| US Equity               | 12.3% | N/A  | 12.3% | N/A  | 12.4% | N/A  |
| MSCI USA IMI            | 12.2% | 0.4% | 12.2% | 0.4% | 12.2% | 0.4% |
| Non-US Equity Developed | 12.4% | N/A  | 12.4% | N/A  | 12.3% | N/A  |
| MSCI EAFE IMI           | 12.3% | 0.7% | 12.3% | 0.7% | 12.2% | 0.7% |
| Non-US Emerging         | 15.8% | N/A  | 15.8% | N/A  | 15.9% | N/A  |
| MSCI Emerging Markets   | 15.6% | 0.8% | 15.6% | 0.8% | 15.8% | 0.8% |

  

| Fixed Income                                 |      |      |      |      |      |      |
|--|------|------|------|------|------|------|
| Risk-Reducing Fixed Income                   | 1.6% | N/A  | 1.5% | N/A  | 1.6% | N/A  |
| Bloomberg Barclays US Intermediate Aggregate | 2.2% | 0.4% | 2.2% | 0.4% | 2.2% | 0.4% |
| Return-Seeking Fixed Income                  | 4.5% | N/A  | 4.5% | N/A  | 4.5% | N/A  |
| ICE BofA Merrill Lynch US High Yield         | 5.4% | 1.1% | 5.4% | 1.1% | 5.3% | 1.1% |

  

| Opportunistic      |      |      |      |      |      |      |
|--------------------|------|------|------|------|------|------|
| Opportunistic      | 6.6% | N/A  | 6.4% | N/A  | 6.4% | N/A  |
| Balanced Benchmark | 8.2% | 5.3% | 8.2% | 5.1% | 8.2% | 5.0% |

  

| Private Assets      |       |       |       |       |       |       |
|---------------------|-------|-------|-------|-------|-------|-------|
| Real Estate         | 3.2%  | N/A   | 3.2%  | N/A   | 3.2%  | N/A   |
| NCREIF ODCE         | 0.2%  | 3.1%  | 0.2%  | 3.1%  | 0.2%  | 3.1%  |
| Private Equity      | 2.4%  | N/A   | 2.4%  | N/A   | 2.4%  | N/A   |
| MSCI ACWI IMI       | 11.8% | 9.5%  | 11.8% | 9.5%  | 11.8% | 9.6%  |
| Private Real Assets | 10.5% | N/A   | 10.4% | N/A   | 10.4% | N/A   |
| MSCI ACWI IMI       | 11.8% | 13.4% | 11.8% | 13.2% | 11.8% | 13.2% |

**Public Markets Portfolio Changes in December 2019**

Allocation Changes (millions)

| Portfolio % |     | Portfolio \$ millions |     | Summary Comments |
|-------------|-----|-----------------------|-----|------------------|
| Begin       | End | Begin                 | End |                  |
|             |     |                       |     |                  |

**Private Markets Portfolio Changes in December 2019**

| Portfolio % |     | Portfolio \$ millions |     | Summary Comments |
|-------------|-----|-----------------------|-----|------------------|
| Begin       | End | Begin                 | End |                  |
|             |     |                       |     |                  |

## Benchmarks

- The SDCERA Policy benchmark is composed as follows: 45% MSCI ACWI Investable Market Index (IMI), 18% Bloomberg Barclays US Intermediate Aggregate Index, 6% ICE BofA Merrill Lynch U. S. High Yield Index, 8% Balanced Benchmark, 23% SDCERA Private Asset Benchmark.
- The SDCERA Balanced Benchmark is composed of 70% MSCI ACWI IMI and 30% Bloomberg Barclays U.S. Intermediate Aggregate Index.
- The Total Public Markets Equity Benchmark is the MSCI ACWI IMI.
- The Global Equity Benchmark is the MSCI ACWI IMI.
- The US Equity Benchmark is the MSCI USA IMI.
- The Non-US Equity (Developed) Benchmark is the MSCI EAFE IMI.
- The Non-US Equity Emerging Markets Benchmark is the MSCI Emerging Markets Index.
- The Risk-Reducing Fixed Income Benchmark is the Bloomberg Barclays U.S. Intermediate Aggregate Index.
- The Return-Seeking Fixed Income Benchmark is the ICE BofA Merrill Lynch U.S. High Yield Index.
- The Opportunistic Benchmark is 70% MSCI ACWI IMI and 30% Bloomberg Barclays U.S. Intermediate Aggregate Index.
- The Total Private Assets Benchmark is composed of 1/3 NCREIF and 2/3 MSCI ACWI IMI.
- The Real Estate Benchmark is the NCREIF ODCE Index.
- The Private Equity Benchmark is the MSCI ACWI IMI.
- The Private Real Assets Benchmark is the MSCI ACWI IMI.
- The MSCI ACWI IMI captures large, mid and small cap representation across 23 Developed Markets (DM) and 26 Emerging Markets (EM) countries.
- The SDCERA Public Markets Risk Benchmark is an aggregate of 3.9% MSCI ACWI IMI, 26.0% MSCI USA IMI, 19.5% MSCI EAFE IMI, 9.1% MSCI Emerging Markets Index, 23.4% Bloomberg Barclays U.S. Intermediate Aggregate Index, 7.8% ICE BofA Merrill Lynch US High Yield Index, and 10.3% Balanced Benchmark.

## Glossary

MSCI ACWI IMI: Morgan Stanley Capital International All Country World - Investable Market Index. A capitalization-weighted stock index that captures large, mid and small cap representation across 23 Developed Markets (DM) and 26 Emerging Markets (EM) countries. The index is comprised of 9,033 equity securities that cover approximately 99% of the global equity investment opportunity set as of December 31, 2019.

Bloomberg Barclays U.S. Intermediate Aggregate: A market value-weighted index consisting of U.S. Treasury securities, corporate bonds and mortgage-related and asset-backed securities with one to ten years to maturity and an outstanding par value of \$250 million or greater.

NCREIF ODCE: National Council of Real Estate Investment Fiduciaries – Open End Diversified Core Equity Index. A capitalization weighted index comprised of open-end, Core funds investing in commercial real estate properties. The funds that constitute the index are subject to certain geographic and property type diversification requirements as well as leverage restrictions. The index returns reflect the property-level leverage contained within each underlying fund. The returns shown in this report are net of management fees of the respective funds included in the index.

MSCI USA IMI: Morgan Stanley Capital International USA - Investable Market Index. A capitalization-weighted stock index designed to measure the performance of the large, mid and small cap segments of the U.S. market. The index is comprised of 2,411 equity securities that cover approximately 99% of the free float-adjusted market capitalization in the U.S. as of December 31, 2019.

MSCI EAFE IMI: Morgan Stanley Capital International Europe Australasia and Far East - Investable Market Index A capitalization-weighted index of stocks that captures large, mid and small cap representation across Developed Markets countries around the world, excluding the U.S. and Canada. The index is comprised of 3,264 equity securities that cover approximately 99% of the free float-adjusted market capitalization in each country as of December 31, 2019.

MSCI Emerging Markets Index: A capitalization-weighted index of stocks that captures large and mid-cap representation across 26 Emerging Markets (EM) countries. The Index is comprised of 1,404 equity securities that cover approximately 85% of the free float-adjusted market capitalization in each country as of December 31, 2019.

ICE BofAML U.S. High Yield Index: Intercontinental Exchange Bank of America Merrill Lynch. A market capitalization-weighted index that tracks the performance of U.S. dollar-denominated below investment grade corporate debt publicly issued in the U.S. domestic market.