

Executive Team

**Dominic D. Brown, CPA, CFE**  
Chief Executive Officer

**Daryn Miller, CFA**  
Chief Investment Officer

**Jennifer Zahry, JD**  
Chief Legal Officer

**Matthew Henry, CFE**  
Chief Operations Officer

**KERN COUNTY EMPLOYEES'  
RETIREMENT ASSOCIATION**



Board of Retirement

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Robb Seibly, Alternate  
3rd Member (Vacant)

December 8, 2021

Members, Board of Retirement  
Employee Bargaining Units  
Requesting News Media  
Other Interested Parties

Subject: Meeting of the Kern County Employees' Retirement Association Investment Committee

Ladies and Gentlemen:

A meeting of the Kern County Employees' Retirement Association Investment Committee will be held on Tuesday, December 14, 2021 at 9:30 a.m. at via teleconference pursuant to Assembly Bill 361, signed into law on September 16, 2021 as urgency legislation, Resolution 2021-04 adopted by the KCERA Board of Retirement at its Special Meeting held December 3, 2021 and Governor Newsom's March 4, 2020 proclaimed State of Emergency, which remains in effect. (Cal. Gov. Code section 54953, as amended by Assembly Bill 361).

If you wish to listen to the teleconference meeting, please dial one of the following numbers and enter Meeting ID# 289-998-6429:

- (669) 900-9128
- U.S. Toll-free: (888) 788-0099 or (877) 853-5247

Items of business will be limited to the matters shown on the attached agenda. If you have any questions or require additional service, please contact KCERA at (661) 381-7700 or send an email to [administration@kcera.org](mailto:administration@kcera.org).

Sincerely,

Dominic D. Brown  
Chief Executive Officer

Attachment

**AGENDA:**

All agenda item supporting documentation is available for public review on KCERA's website at [www.kcera.org](http://www.kcera.org) following the posting of the agenda. Any supporting documentation that relates to an agenda item for an open session of any regular meeting that is distributed after the agenda is posted and prior to the meeting will also be available for review at the same location.

**AMERICANS WITH DISABILITIES ACT  
(Government Code §54953.2)**

Disabled individuals who need special assistance to listen to and/or participate in the teleconference meeting of the Board of Retirement may request assistance by calling (661) 381-7700 or sending an email to [administration@kcera.org](mailto:administration@kcera.org). Every effort will be made to reasonably accommodate individuals with disabilities by making meeting materials and access available in alternative formats. Requests for assistance should be made at least two (2) days in advance of a meeting whenever possible.

**ROLL CALL**

1. [Discussion and appropriate action on private market fund recommendation](#) presented by Keirsten Lawton, Investment Managing Director, Cambridge Associates<sup>1</sup>, Chief Investment Officer Daryn Miller, CFA, and Senior Retirement Investment Officer Brian Long, CFA – RECOMMEND THE FOLLOWING TO THE BOARD OF RETIREMENT: APPROVE UP TO \$40MM COMMITMENT TO FORTRESS LENDING FUND III; AUTHORIZE EXECUTIVE DIRECTOR TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW
2. [Trustee education regarding Capital Efficiency presented by Scott Whalen, CFA, Verus](#) – RECEIVE EDUCATIONAL TRAINING (30 MINUTES TRUSTEE EDUCATION CREDIT)
3. [Discussion and appropriate action on recommended changes to DB Investors Fund IV<sup>2</sup>](#) presented by Chief Investment Officer Daryn Miller, CFA, and Senior Retirement Investment Officer Brian Long, CFA – RECOMMEND THE FOLLOWING TO THE BOARD OF RETIREMENT: A) APPROVE CHANGES TO DB INVESTORS FUND IV; B) AUTHORIZE EXECUTIVE DIRECTOR TO SIGN, SUBJECT TO LEGAL ADVICE AND REVIEW

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1 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code §6254.26, §6255, and §54957.5.

2 Written materials and investment recommendations from the consultants, fund managers and KCERA investment staff relating to alternative investments are exempt from public disclosure pursuant to California Government Code §6254.26, §6255, and §54957.5.

4. [Presentation on the FY 2020-21 Fee Analysis Report presented by Chief Investment Officer Daryn Miller, CFA, Senior Retirement Investment Officer Brian Long, CFA, and Retirement Investment Analyst II Jack Bowman – RECEIVE AND FILE](#)

### **PUBLIC COMMENTS**

5. The public is provided the opportunity to comment on agenda items at the time those agenda items are discussed by the Committee. This portion of the meeting is reserved for persons to address the Committee on any matter not on this agenda but under the jurisdiction of the Committee. Committee members may respond briefly to statements made or questions posed. They may ask a question for clarification and, through the Chair, make a referral to staff for factual information or request staff to report back to the Committee at a later meeting. Speakers are limited to two minutes. Please state your name for the record prior to making a presentation.

### **REFERRALS TO STAFF, ANNOUNCEMENTS OR REPORTS**

6. On their own initiative, Committee members may make a brief announcement, refer matters to staff, subject to KCERA's rules and procedures, or make a brief report on their own activities.
7. Adjournment

**ALTERNATIVE INVESTMENTS RECORDS**

**EXEMPT FROM PUBLIC DISCLOSURE**

**(CA Gov. Code §6254.26)**

**(CA Gov. Code §6255)**

**(CA Gov. Code §54957.5)**

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**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**

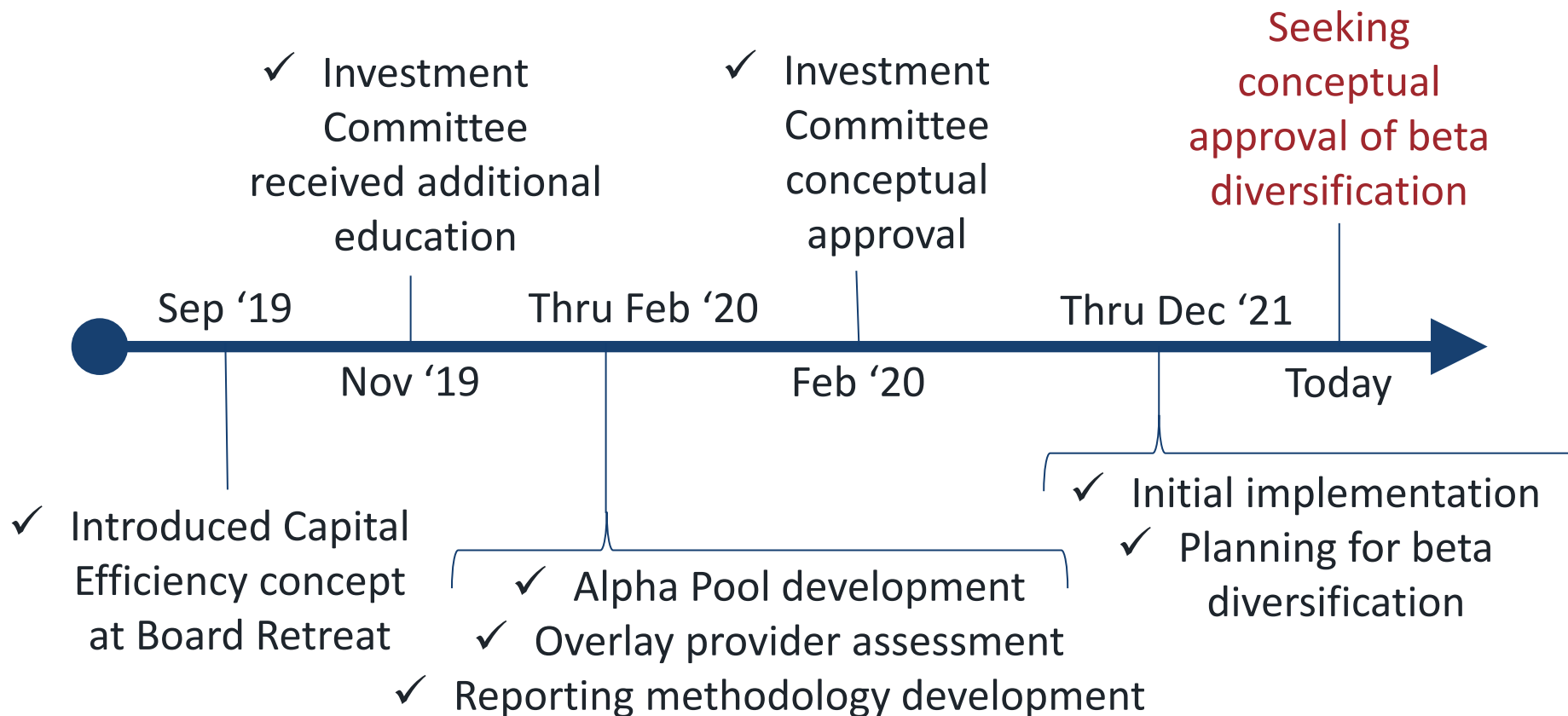


DECEMBER 2021

Capital efficiency review

**Kern County Employees' Retirement Association**

# Project timeline: progress-to-date



# Refresher

## Definitions

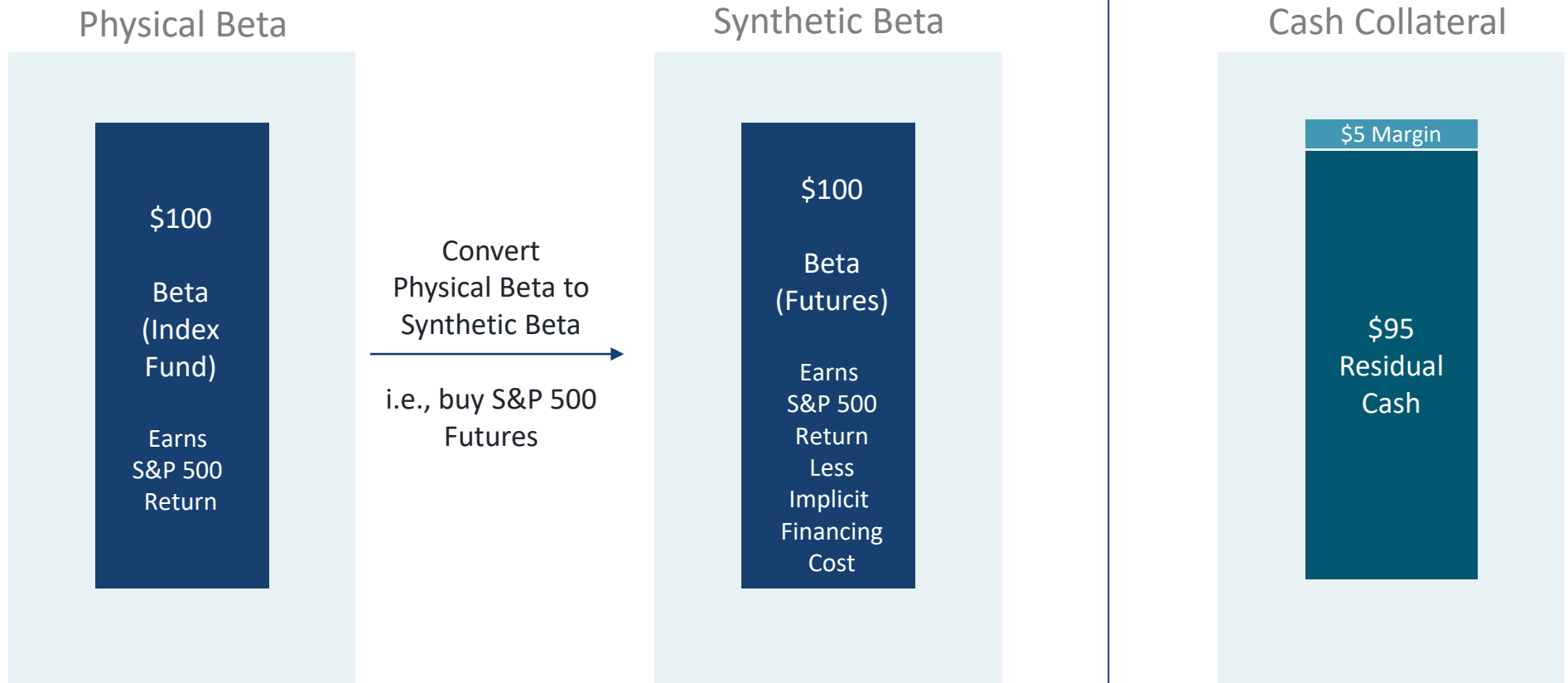
- **Beta:** Market exposure for a given asset class or index (e.g., S&P 500, 10-year Treasury).  
Beta is cheap!
- **Alpha:** Excess return over the benchmark. Also referred to as active return, the potential reward for being different than the benchmark.
- **“Capital Efficiency”:** An approach to earning higher excess returns overall by “hunting” alpha where it can be most easily found and “harvesting” beta where it cannot.

## Program Benefits

- Enhanced return to the pure Beta Portfolio through more efficient use of capital
- More efficient use of fees (paying for pure alpha, not a combination of alpha and beta)
- More reliable alpha sources
- Ability to use excess return from the strategy to balance Total Fund risk

# Capital efficiency mechanics

Step One: Create Synthetic Beta Portfolio (single Beta solution)

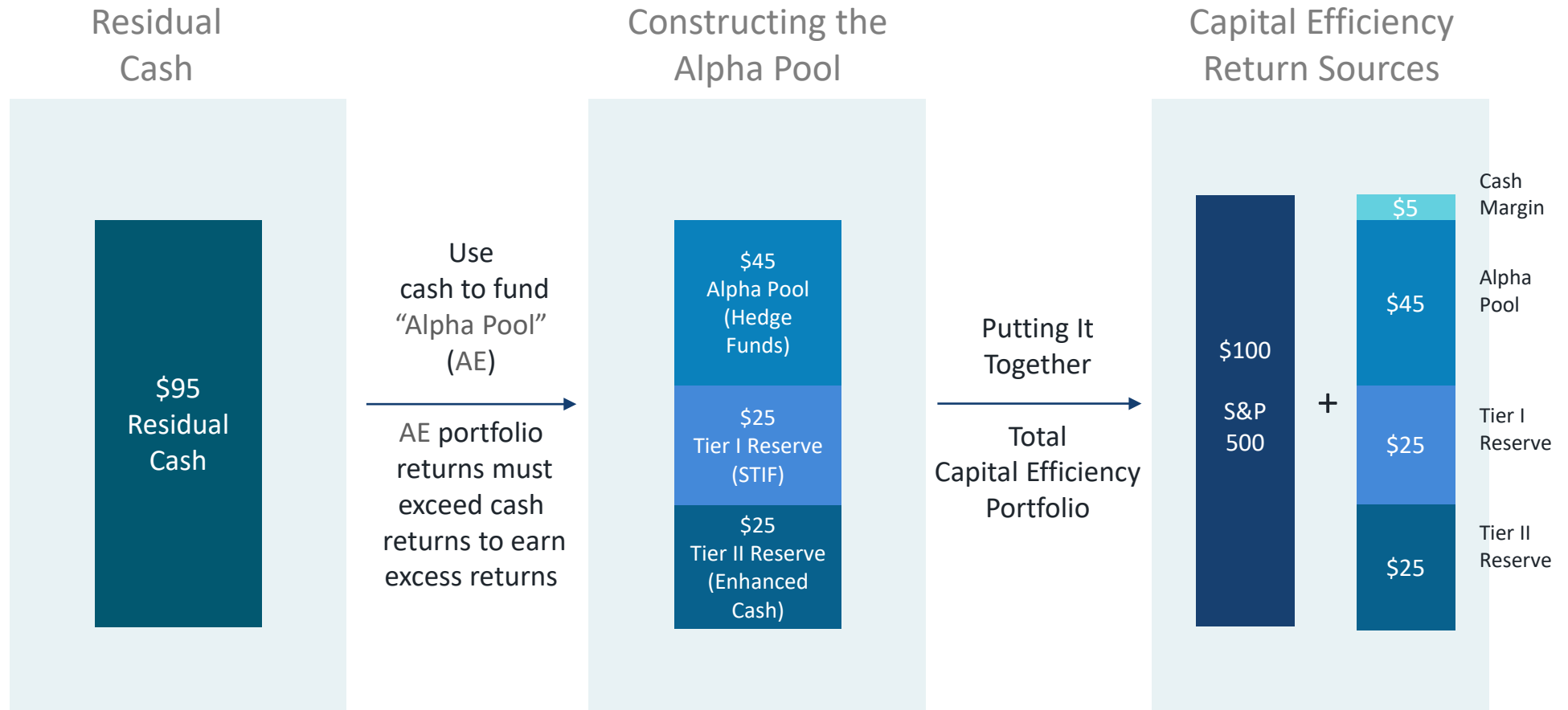


Big Question: What do we do with Residual Cash?



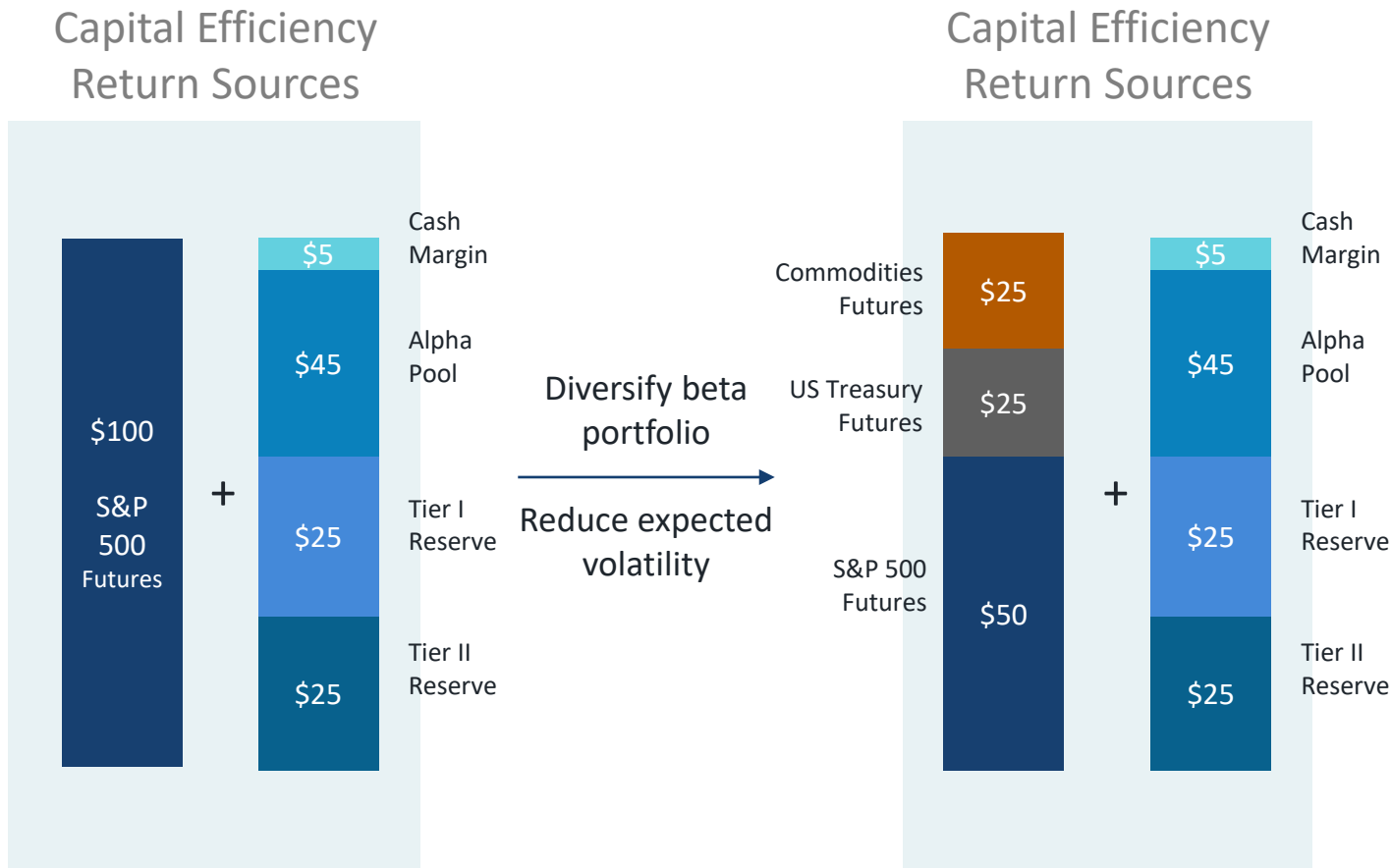
# Capital efficiency mechanics

## Step Two: Integrating Alpha



# Capital efficiency mechanics

Diversifying Beta beyond S&P 500



- Beta to be sourced from three highly liquid markets, rather than just one
  - S&P 500 futures
  - US Treasury futures
  - Commodities futures
- Using only highly liquid markets helps ensure best index tracking during extreme events
- Lower Beta volatility leads to potential for more efficient collateral utilization

# Why diversify the beta portfolio?

## — Advantages

- Diversification = lower volatility = lower cash reserve requirements (currently very conservative)
- Greater flexibility: ability to replace other challenged sources of traditional alpha with Capital Efficiency alpha, i.e., no longer restricted to US large cap equity

## — Disadvantage: modest increase in operational risk (if beta manager fails to maintain required market exposures)

## — Other Considerations

- Minimizing the volatility of the beta portfolio reduces reserve requirements (and the need for low-yielding cash equivalent accounts)
- On the other hand, maximization of traditional alpha opportunities requires qualitative judgement regarding the beta sourcing
- Solution: **wide ranges for each beta allocation**

# Why beta portfolio volatility matters

- Due to opportunities for arbitrage, a liquid futures contract closely tracks the underlying index. Downward price movements are generally the same as they are in an index fund (may be some timing differences during extreme events, e.g., Oct 1987).
- Unlike an index fund, additional collateral must be posted to cover those short-term futures losses (variation margin)
- At 25% of capital, the level I reserve is currently more than adequate to cover the greatest single-day loss in the history of the S&P 500 (-20.5% on 10/19/87)
- The 25% level II reserve is sized to provide approximately six months of rebalancing flexibility in the event of a sustained S&P 500 drawdown
- A more diversified beta portfolio would have less downside risk, thus **requiring smaller reserves to provide the same level of safety**, and leaving more capital available for allocation to the alpha pool

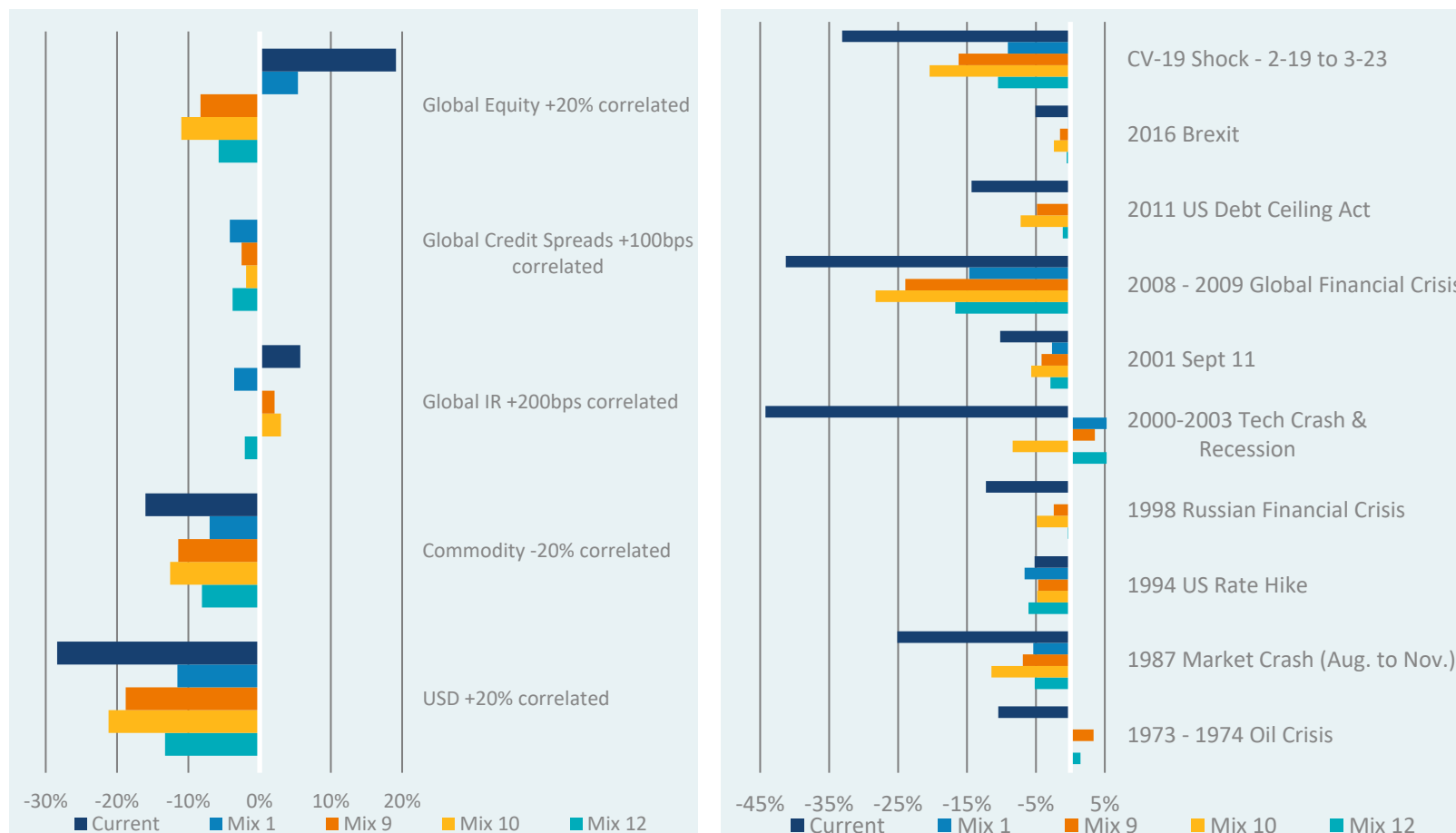
# Reducing beta portfolio volatility

- KCERA Investment Staff and Verus considered many alternative beta portfolios, using three different risk models to examine the volatility reduction provided by increasing proportions of the two new asset classes (US Treasuries and commodities)
- From left-to-right below, we show how eventually putting more than half of the beta portfolio in a 10-year Treasury index (along with some commodities), results in a significantly more risk-efficient beta portfolio (Mix 1), cutting one model's downside risk estimate by more than half

|                                    | Current      | Mix 10       | Mix 9        | Mix 12       | Mix 1        | Verus<br>2021 CMA's (10 Yr) |            |                    |                  |
|------------------------------------|--------------|--------------|--------------|--------------|--------------|-----------------------------|------------|--------------------|------------------|
|                                    |              |              |              |              |              | Return (g)                  | Return (a) | Standard Deviation | Sharpe Ratio (a) |
| US Large Cap                       | 100          | 50           | 33           | 25           | 25           | 5.1                         | 6.3        | 15.7               | 0.38             |
| US Treasury                        | 0            | 25           | 33           | 50           | 55           | 0.7                         | 0.9        | 6.7                | 0.10             |
| Commodities                        | 0            | 25           | 33           | 25           | 20           | 2.2                         | 3.4        | 15.9               | 0.20             |
| <b>Total</b>                       | <b>100</b>   | <b>100</b>   | <b>100</b>   | <b>100</b>   | <b>100</b>   |                             |            |                    |                  |
| Mean Variance Analysis (Lognormal) |              |              |              |              |              |                             |            |                    |                  |
| Forecast 10 Year Return            | 5.1          | 3.8          | 3.2          | 2.7          | 2.6          |                             |            |                    |                  |
| Standard Deviation                 | 15.7         | 9.9          | 8.6          | 6.4          | 5.8          |                             |            |                    |                  |
| Sharpe Ratio (a)                   | 0.38         | 0.39         | 0.38         | 0.40         | 0.42         |                             |            |                    |                  |
| <b>1 year 99% VaR</b>              | <b>-25.3</b> | <b>-16.9</b> | <b>-14.9</b> | <b>-11.0</b> | <b>-10.0</b> |                             |            |                    |                  |

# Additional risk modeling

- Using a Barra factor model, we also examined the drawdown reduction that the various alternative beta portfolios would have provided under both historical scenarios and single factor shocks



Only in the 1994 US Rate Hike scenario did Mix 1 experience a greater drawdown than the current 100% S&P beta portfolio

# Right-sizing the reserves

## Excessive liquidity reserves are a source of inefficiency

- As with traditional asset classes, the fund rebalances *into* the Capital Efficiency beta portfolio after a bad quarter, and *out of* it after a good quarter
- In this context, the reserves are a buffer that prevents forced rebalancing *during* the quarter
- Therefore, estimating the worst-case one-quarter drawdown in the beta portfolio gives us an additional yardstick for sizing the reserves
- We examine both historical data and risk model simulations, and note that that currently, a reserve large enough to completely cover the worst 1-quarter drawdown (-29.7%) is also large enough to cover the worst 1-day drawdown (-20.5%, as previously noted)

| 3-month total return (%)                        | Current | Mix 1 | Mix 9 | Mix 10 | Mix 12 |
|---|---------|-------|-------|--------|--------|
| Historical worst <sup>1</sup>                   | -29.7   | -13.4 | -20.7 | -23.0  | -15.3  |
| Barra 3-sd event <sup>2</sup> (99.7 percentile) | -38.0   | -13.0 | -19.1 | -22.8  | -14.2  |
| MPI 3-sd event <sup>3</sup> (99.7 percentile)   | -35.5   | -15.2 | -23.6 | -26.4  | -17.5  |

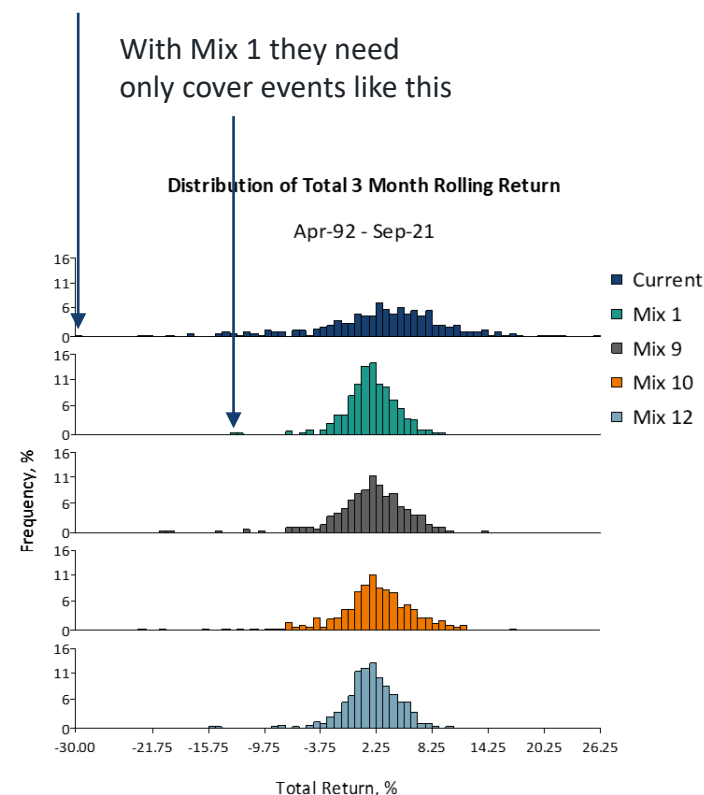
<sup>1</sup> Full common index history, Apr 1992 to Sep 2021

<sup>2</sup> MAC.L model Monte Carlo simulation, 90-day 99.7 percentile outcome

<sup>3</sup> Downside Log-Stable simulation, 3-month 99.7 percentile outcome

- With the large allocation to Treasuries in Mix 1, it may not be unreasonable to have a total reserve that is one-third of the current size ( $50\% \div 3 = 17\%$ )
- With greater knowledge of the short-term behavior of futures portfolios, the beta manager (Parametric) should be able to provide a more refined opinion

Currently the reserves cover events like this



# Recommendation

- Simply using diversification to reduce the volatility of the beta portfolio of the Capital Efficiency Program will reduce the need for reserve liquidity, providing the flexibility for a future increase in the Alpha Pool allocation
- In order to provide the maximum discretion to source beta from the weakest sources of traditional alpha, Verus recommends very wide ranges around the most risk efficient target allocations we considered:
  - S&P 500 futures: 0-50% (target 25%)
  - Treasury futures: 0-75% (target 55%)
  - Commodities futures: 0-40% (target 20%)
- Verus recommends also consulting with the beta manager (Parametric) on the optimal size of the liquidity reserves



**ALTERNATIVE INVESTMENTS RECORDS**

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(CA Gov. Code §6254.26)  
(CA Gov. Code §6255)  
(CA Gov. Code §54957.5)

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**Date:** December 14, 2021  
**To:** Trustees, Investment Committee  
**From:** Daryn Miller, Chief Investment Officer  
 Jack Bowman, Retirement Investment Analyst  
**Subject:** **Fiscal Year 2020-2021 Fee Analysis**

**Key Takeaways**

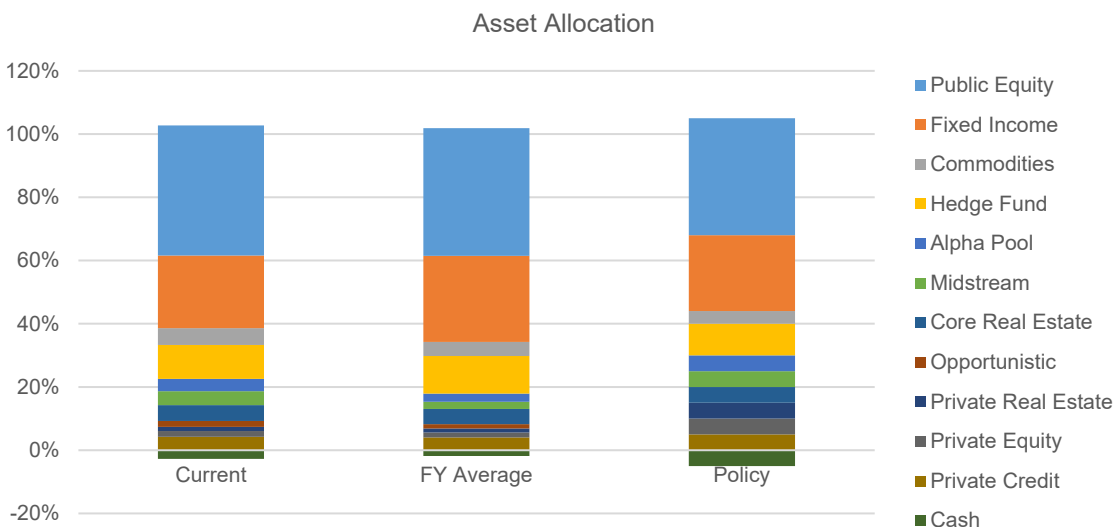
- This is the fourth annual fee analysis report. This report captures the fees and expenses relating to the Plan's investments.
- The Plan's Total Expense Ratio (TER) for the 2020-2021 fiscal year was 1.42% compared to 0.94% and 0.74% for the 2019-2020 and 2018-2019 fiscal years, respectively.
- The increase in TER was primarily driven by high performance fees which contributed 0.70% to the TER; higher performance fees were due to strong portfolio performance.
  - The hedge fund program returned +16.1% for the fiscal year vs. +6.9% for the prior fiscal year. In addition, the higher returns were generated on hedge fund assets that were on average \$114 million higher than the prior year.
  - The alpha pool program returned +15.51% from August 2020 (inception) to June 2021. The alpha pool program had \$123.5 million assets as of June 30, 2021.
- On a dollar basis, the Plan incurred \$69.1 million in investment manager fees and expenses for the 2020-2021 fiscal year compared to \$39.7 million and \$30.9 million for the 2019-2020 and 2018-2019 fiscal years, respectively. \$18.5 million of the investment manager fees increase was from the performance fees.
- **While this memo provides information on fees and expenses, it is important to emphasize that the Investment Program focuses on Net Returns (i.e. returns after fees), as well as the characteristics of the return distribution.**

| Fiscal Years             | 2017-2018 | 2018-2019 | 2019-2020 | 2020-2021 |
|--------------------------|-----------|-----------|-----------|-----------|
| Total Plan Performance   | 6.8%      | 5.7%      | 3.2%      | 24.2%     |
| Total Plan Expense Ratio | 0.94%     | 0.74%     | 0.94%     | 1.26%     |
| Active                   | 1.14%     | 0.93%     | 1.22%     | 1.90%     |
| Passive                  | 0.03%     | 0.03%     | 0.04%     | 0.07%     |
| Traditional              | 0.40%     | 0.26%     | 0.26%     | 0.26%     |
| Alternatives             | 2.79%     | 2.19%     | 2.72%     | 3.81%     |
| Public markets           | 0.77%     | 0.56%     | 0.78%     | 1.09%     |
| Private markets          | 4.06%     | 3.57%     | 3.06%     | 5.15%     |
| Long                     | 0.46%     | 0.29%     | 0.33%     | 0.33%     |
| Hedge                    | 3.38%     | 2.80%     | 4.09%     | 5.07%     |

**Asset Allocation and Investment Structure Are Key Drivers of Fees**

One of the most significant drivers of aggregate fees and expenses is asset allocation. The inclusion of alternative asset classes (i.e. hedge funds and private market funds) into the policy asset allocation has a material impact on fees as alternative investments tend have higher fee structures, and generally do not have passive investment options. This higher fee level is understood within the portfolio context of the diversifying aspects of hedge funds, and higher return potential of private markets.

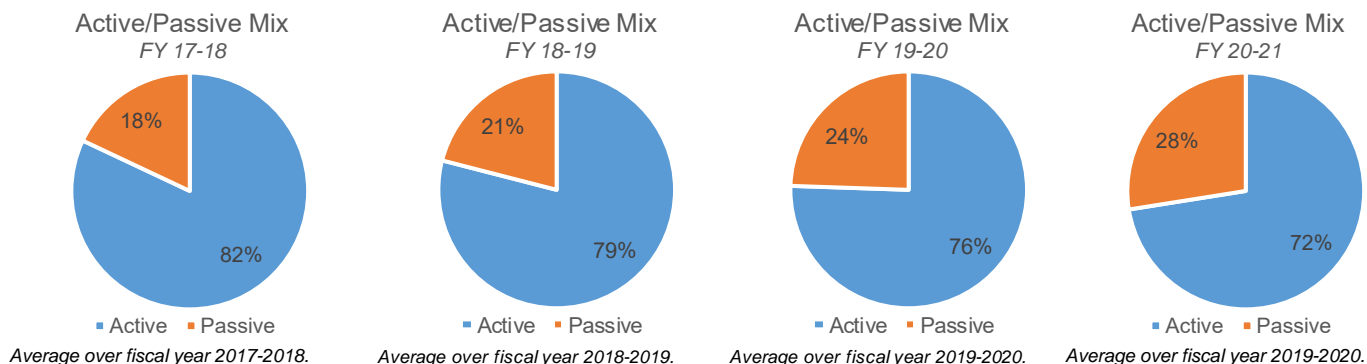
The policy asset allocation has 39% allocated to alternative investments, including Commodities (4%), Hedge Funds (10%), Alpha Pool (5%), Core Real Estate (5%), Private Credit (5%), Private Equity (5%), and Private Real Estate (5%).



Current as of 6/30/2021. FY Average is the average of each quarter-end over fiscal 2020-2021.

An additional consideration when evaluating fees and expenses is the active/passive mix, or the proportion of assets allocated to active investment management verses passive. In asset classes where passive investment options exist, the utilization of passive investment managers can significantly reduce fees. That said, it comes at the cost of potentially higher returns that could occur from successful active management. The active/passive mix decision is typically made during the investment structuring process, and can be modified during rebalancing decisions.

Generally, asset classes or sub-asset classes that are considered inefficient offer better opportunity for excess returns and are actively managed, while more efficient asset classes tend



to be passively managed. The average portion of Plan assets actively managed over the 2020-2021 fiscal year was 72%, which is down 4% from the 2019-2020 fiscal year.

**APPENDIX**

Fee analysis detail:

| Asset Class       | Fees & Expenses |               |               |               | 2017-2018    |              |              |              | 2018-2019    |              |              |              | 2019-2020    |              |              |              | 2020-2021    |              |              |              |
|-------------------|-----------------|---------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                   | 17/18           | 18/19         | 19/20         | 20/21         | MF %         | PF %         | FOE %        | TER %        | MF %         | PF %         | FOE %        | TER %        | MF %         | PF %         | FOE %        | TER %        | MF %         | PF %         | FOE %        | TER %        |
| Equity            | 8.6             | 5.6           | 5.4           | 5.1           | 0.38%        | 0.14%        | 0.04%        | 0.56%        | 0.31%        | 0.00%        | 0.02%        | 0.33%        | 0.27%        | 0.02%        | 0.02%        | 0.32%        | 0.21%        | 0.02%        | 0.02%        | 0.26%        |
| Fixed Income      | 4.3             | 3.0           | 2.9           | 4.0           | 0.20%        | 0.04%        | 0.05%        | 0.29%        | 0.20%        | 0.00%        | 0.02%        | 0.21%        | 0.20%        | 0.00%        | 0.02%        | 0.21%        | 0.22%        | 0.07%        | 0.02%        | 0.30%        |
| Commodities       | 0.7             | 0.8           | 1.1           | 1.6           | 0.64%        | 0.00%        | 0.05%        | 0.69%        | 0.53%        | 0.00%        | 0.05%        | 0.58%        | 0.65%        | 0.00%        | 0.05%        | 0.70%        | 0.67%        | 0.00%        | 0.05%        | 0.72%        |
| Hedge Funds       | 14.3            | 11.4          | 19.4          | 32.3          | 1.53%        | 1.59%        | 0.25%        | 3.38%        | 1.41%        | 1.07%        | 0.33%        | 2.80%        | 1.37%        | 2.43%        | 0.36%        | 4.15%        | 1.46%        | 3.77%        | 0.33%        | 5.56%        |
| Alpha Pool        | 0.0             | 0.0           | 0.0           | 4.4           | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.98%        | 2.35%        | 0.27%        | 3.60%        |
| Real Estate       | 1.7             | 0.8           | 2.0           | 2.1           | 0.94%        | 0.00%        | 0.05%        | 0.99%        | 0.35%        | 0.00%        | 0.06%        | 0.40%        | 0.85%        | 0.00%        | 0.06%        | 0.91%        | 0.82%        | 0.00%        | 0.06%        | 0.88%        |
| Midstream         | 0.0             | 0.0           | 0.0           | 0.0           | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        |
| Private Markets   | 9.0             | 9.2           | 8.1           | 18.3          | 1.85%        | 1.71%        | 0.50%        | 4.06%        | 2.01%        | 1.04%        | 0.52%        | 3.57%        | 1.50%        | 1.34%        | 0.03%        | 2.87%        | 2.51%        | 2.21%        | 0.75%        | 5.47%        |
| Opportunistic     | 0.0             | 0.0           | 0.7           | 1.4           | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 0.00%        | 1.60%        | 1.73%        | 1.98%        | 5.31%        | 0.78%        | 0.96%        | 0.27%        | 2.01%        |
| <b>Total Plan</b> | <b>\$38.6</b>   | <b>\$30.9</b> | <b>\$39.7</b> | <b>\$69.1</b> | <b>0.53%</b> | <b>0.32%</b> | <b>0.09%</b> | <b>0.94%</b> | <b>0.49%</b> | <b>0.17%</b> | <b>0.08%</b> | <b>0.74%</b> | <b>0.50%</b> | <b>0.37%</b> | <b>0.07%</b> | <b>0.94%</b> | <b>0.60%</b> | <b>0.70%</b> | <b>0.12%</b> | <b>1.42%</b> |

**DEFINITIONS**

**Management fees** are typically structured as a percentage on the amount of the investor's investment made or investment committed. The management fee is typically calculated and paid monthly or quarterly.

*MF % = management fees / average annual assets*

**Performance fees** (aka incentive fees, carry, or carried interest) are structured as a percentage of the profits that are generated by the investment manager; these can be calculated and paid over different timeframes (quarterly, annually, multi-year); can be calculated on only profits generated over a specific hurdle or benchmark; are typically calculated relative to a high-water mark; and can include a catch-up and/or claw back provisions. The performance fee is typically accrued each month or quarter. When the performance fee is paid, it is said to have "crystalized".

*PF % = performance / average annual assets*

**Fund operating expense** are the costs associated with an investment manager operating a pooled investment vehicle which is a separate legal entity. These costs include legal, administrative, and audit, for the creation and maintenance of the distinct legal entity. In addition, some investment managers allocate or pass through additional expenses, which are referenced in the PPM or corresponding documentation for the legal structure.

*FOE % = fund operating expense / average annual assets*

**Total Expense Ratio (TER)** is the aggregation of management fees, incentive fees, and fund operating expense incurred by the Plan over the fiscal year, divided by the average market value of assets over the corresponding fiscal year.

*TER % = TER / average annual assets*

*TER % = MF % + PF % + FOE %*