University of California, Berkeley Foundation Investment Policy Statement

Adopted by BEMCO on April 24th, 2019 Ratified by UCBF on May 17th, 2019 Effective Date: January 1st, 2019

The University of California, Berkeley Foundation ("UCBF") is the fiduciary for long-term endowment assets (collectively, "General Endowment Pool" or "GEP") designated for the support of UC Berkeley. UCBF has delegated certain aspects of investment oversight to Berkeley Endowment Management Company ("BEMCO") pursuant to standing corporate resolutions and an Investment Management Services Agreement between UCBF and BEMCO.

In accordance with its delegated authorities, BEMCO serves as the investment manager with day-to-day oversight of investment activity and implementation through its Board of Directors ("BEMCO Board"), Chief Investment Officer ("CIO"), and staff, while UCBF retains ultimate authority over BEMCO's policies and practices.

As of the date of adoption by UCBF, this document will become UCBF's current Investment Policy Statement ("IPS") and supersedes all previous investment policy statements. BEMCO will thereafter carry out its responsibilities for the investment of the General Endowment Pool in a manner consistent with and subject to this IPS.

I. Objectives

Support of UC Berkeley

The primary objective of the GEP is to generate returns sufficient to meet UCBF's desired financial support to UC Berkeley over the long term, while maintaining real purchasing power, sufficient liquidity, and acceptable volatility. UCBF intends that the key terms used in the statement of the primary objective have the following meanings:

- "Long Term" means rolling periods in excess of 10 years.
- "Real Purchasing Power" means UCBF's actual payout adjusted by the CPI-U.
- "Sufficient Liquidity" means holding assets:
 - O That can be readily turned into cash to meet annual payout needs, and
 - O Such that BEMCO can effectively rebalance the GEP's exposures.
- "Acceptable Volatility" means variations in payout are not unreasonably disruptive to the GEP's support of UC Berkeley's programs.

UCBF's Spending Policy, as drafted by UCBF's Finance Committee, is attached and incorporated herein as Exhibit A.

Performance Evaluation

GEP also seeks to generate results after all relevant expenses that match or exceed the returns of a representative mix of investable assets, known as the Total Portfolio Benchmark, over rolling periods in excess of 10 years. The Total Portfolio Benchmark is attached and incorporated herein as Exhibit B. The BEMCO Board will typically review the Portfolio on a quarterly basis in order to evaluate adherence to policies, investment strategies, and progress toward long-term objectives. While short-term results will be

monitored, the objectives for the Portfolio are long-term in nature and progress toward objectives will be evaluated with that in mind. The BEMCO Board will consider additional factors for context on performance, including peer comparisons, risk-adjusted measures and assessment relative to passive index alternatives; however, primary focus will be on the Total Portfolio relative to the Total Portfolio Benchmark, over rolling periods in excess of 10 years. The Total Portfolio Benchmark may be revised from time to time by the BEMCO Board.

II. Risk

Investing requires acceptance of risk. BEMCO strives to manage spending, impairment, and liquidity risks while delineating short-term volatility from long-term risk.

- 1. **Impairment:** Endowment returns fail to fund UCBF's spending goals and offset inflation, resulting in a decline in real purchasing power of the corpus over the long term.
- **2. Spending:** Endowment return volatility disrupts the endowment's orderly support of the University or management of the portfolio.
- **3. Liquidity:** Endowment assets are not sufficiently liquid to fund payout needs, fund GEP obligations, or to be generally reallocated among investments as desired.

BEMCO's approach to risk management is multi-faceted and includes:

- Incorporating institutional risks and constraints.
- Asset allocation as a primary risk management framework.
- Portfolio construction: balancing concentration with diversification of manager and style risks.
- Active monitoring of managers and exposures.
- Value tilt. Margin of safety as a form of risk management.
- Maintaining liquidity for institutional requirements and investment flexibility.
- Attribution analysis (asset allocation, portfolio construction, and manager selection).
- Sensitivity to perception, reputation, headline, and/or ethical risks.

III. Investment Approach & Asset Allocation

Investment Approach

BEMCO is expected to invest the GEP to meet the objectives stated above, balancing prudent diversification and sufficient concentration. Diversification in asset classes, strategies, geographies, and managers reduces overall risk of the portfolio. Concentration helps ensure the portfolio reflects investment conviction, and that high-conviction investments can significantly impact total portfolio performance.

Endowment investing is a long-term investment strategy with long-term capital. BEMCO can utilize illiquidity, and staying power through volatility, to generate investment advantages and competitive returns. BEMCO seeks to capitalize on this advantage when merited.

BEMCO's investment strategy reflects an investment philosophy summarized below:

- Seek managers with exceptional decision-making.
- Acknowledge that a long-term perspective is central to our investment approach, governance, and team construction.
- Seek durability of investment edge.
- Embrace illiquidity when it generates sufficient excess returns (within risk constraints).

- Emphasize primary research, driving insight, conviction, and relationships.
- Avoid market timing, but be nimble.
- Seek value.
- Embrace "path of growth" areas of the capital markets.
- Seek strong incentive alignment.
- Emphasize portfolio concentration with high-conviction investments over excessive diversification.
- Engage active managers, acknowledging manager skill is scarce.

An equity orientation is necessary to meet the long-term objectives of the portfolio. Spending and liquidity needs require that some investments preserve value through periods of market volatility. BEMCO seeks to invest in multiple asset classes that demonstrate areas of market inefficiency or otherwise have a role in the portfolio. Asset class roles include:

Level 1	Role in Portfolio	Level 2	Role in Portfolio		
Growth	Equity oriented. Absolute returns in excess of spending and inflation hurdle. Factors considered include sector, country, liquidity, capital structure, beta, leverage, private vs public, correlation, etc.	Developed Equities	Equity market returns. Outperform passive global equities.		
		Emerging Equities	Enhanced returns / path of growth / secular opportunities. Capitalize o comparative advantage re: tolerance for short-term volatility.		
		Private Equity	Enhanced returns - capitalize on inefficiency and BEMCO comparative advantage as long-term capital in illiquid market.		
		Real Assets	Solid risk-adjusted returns and diversification. Secondary benefits as potential inflation protection.		
		Opportunistic	Enhance risk-adjusted return of overall GEP. Diversify risk-return profile of GEP.		
Preservation	Diversification and Liquidity Oriented. Ensure Holding power for growth investments. Reduce volatility. Protect in deflationary environment.	Absolute Return	Solid absolute performance with low correlation and beta to equities and credit. Limited drawdown risk. Medium term "second source" liquidity.		
		Fixed Income	Predominately "first source" liquidity. Deflation hedge. Flexible to evolve larger risk-adjusted return role if structural opportunity set warrants.		

Utilization of various asset classes, including alternative illiquid markets, is with the expectation that these investments generate long-term portfolio benefits beyond those achievable through passive index investing and should be viewed as an active decision relative to investment alternatives.

Asset Allocation

BEMCO's investment strategy is explicit in an overall risk posture, optimizing results through strategic asset allocation, coupled with research and conviction-based investment selection. The interaction of these components drives opportunities for enhanced returns over passive or more prescriptive investment approaches.

Capital market conditions evolve and as a result, the asset allocation process is dynamic. BEMCO utilizes asset class ranges and targets, providing flexibility in response to market and implementation considerations. Asset allocation targets and ranges are recommended by BEMCO staff and approved by the BEMCO Board. Rebalancing exposure within allowable ranges is a staff responsibility. Targets

should be reviewed and revised as necessary or appropriate, but no less than every three years. Ranges should be revised less frequently. Review and adjustments may become necessary, but the bias is to resist frequent changes to targets given the long-term assumptions and strategic intentions fundamental to their development and adoption as policy. The initial ranges and targets are attached and incorporated herein as Exhibit C.

IV. Other Considerations

Allowable Investments

BEMCO will invest the GEP in a mix of funds or accounts managed by third-party investment firms and direct holdings of individual securities or assets. BEMCO may utilize direct holdings of exchange-traded funds, futures, options, or swaps to create or alter market exposure within the total portfolio. Investment structures may include commingled vehicles, separately managed accounts, funds of one, and direct custodied investment assets, amongst other investment structures. All activity is conducted with the oversight of the BEMCO Board with support and controls from UCBF's Finance team.

Liquidity

The GEP has liquidity demands from campus payout and funding legal commitments to drawdown funds. Additionally, the portfolio needs to be able to respond to changing market conditions and have the flexibility to invest in areas of absolute or relative attractiveness. To address all of these needs, care must be given to the level of liquid assets in the portfolio and the level of future funding commitments made. However, the permanent nature of the GEP's capital and stabilizing impacts of the payout policy allow lower levels of liquidity in pursuit of high-quality investments, areas of market inefficiency and excess return.

Costs

The BEMCO Board and Staff will manage the BEMCO operating budget with a sensitivity to maintaining cost controls and an appropriate cost structure given market realities and necessary resource requirements. The operating budget is recommended by staff and approved by the BEMCO Board. While BEMCO favors active management in many underlying investment strategies, this is conditioned on those investments generating sufficient excess returns over passive alternatives to warrant the fees associated with these types of investments, measured over appropriate periods of time. Where there is little expectation of outperformance, BEMCO will utilize passive or other low fee strategies when appropriate. Other fee reducing strategies including negotiated separate accounts, co-investment, and direct investment strategies will be considered in acknowledgement of the long-term costs that excessive fees have on Total Portfolio results.

Leverage

While BEMCO may invest in funds that utilize differing forms of leverage, the portfolio as a whole is to remain unlevered. Unlevered means that the total notional exposure of the portfolio should not exceed 100% of the assets. Subject to UCBF's approval and oversight, the BEMCO Board may approve a line of credit to address temporary liquidity needs in an amount not to exceed 10% of assets.

Review and Revision

The BEMCO Board should review and consider revisions to this IPS, including its objectives, asset allocation targets, and other components, as necessary or appropriate.

Implementation

The GEP is a complex mix of investment strategies, liquidity profiles, and asset types. It is recognized that making substantial changes to the portfolio's composition and hitting the targeted asset allocation levels will take years to accomplish in some categories.

V. Environmental Sustainability, Social Responsibility, and Corporate Governance (ESG)

BEMCO incorporates environmental sustainability, social responsibility, and governance (ESG) factors into the investment evaluation and monitoring process as part of investment decision making. BEMCO believes that sustainability incorporates broader notions of business quality. Our long-term perspective aligns sustainability with investment risk factors more generally. BEMCO is dedicated to engaging with managers to advance and monitor their approach to ESG, including their investment and management practices, and to providing guidance as to the principles and guidelines that the Berkeley Foundation adheres. Considering sustainability factors is consistent with BEMCO's primary objective to maximize long-term, risk-adjusted returns.

Proper oversight of investments includes being an informed, responsible participant in matters affecting these investments, where reasonably possible and appropriate. BEMCO works with third-party investment managers who are experts in their respective fields, including in the use of tools such as proxy voting to seek maximization of financial returns for the companies in which they invest. When appropriate BEMCO will exercise authority, or delegate to third-party managers that authority, for proxy voting and other governance mechanisms, with the primary mandate to maximize financial returns.

Modifications and/or enhancements to these practices may be approved by UCBF, in consultation with BEMCO, with care to sustain the primary objectives of the GEP.

VI. Conduct

BEMCO is a representative of UC Berkeley to the investment community and the community at large. As such, it should conduct itself in a manner that reflects well on the institution it represents and seek to uphold the highest standards of professional conduct. The BEMCO Board and staff will adhere at all times to the then-current Conflicts of Interest Policy and actively avoid actual or potential conflicts.

As a California nonprofit public benefit corporation, UCBF is subject to the standards for investment or retention of assets set forth in the Section 5240 of the California Nonprofit Public Benefit Corporation Law. BEMCO will carry out its responsibilities in accordance with these standards and otherwise in good faith, and in a manner consistent with the standard of care applicable to similar investment managers operating under similar circumstances.

Exhibit A

APPROVED 10/6/2017

UC Berkeley Foundation Endowment Payout Policy

The UC Berkeley Foundation's (UCBF) payout policy is 4.00% of a twenty-quarter (five year) moving average market value of the general endowment pool. The Finance and Administration Committee, at its discretion, may recommend to the Executive Committee an alternative payout percentage, within a range of 3.5% to 4.5% for a specific payout year, giving due and prudent consideration to factors such as:

- a) desire for stability of funding from one year to the next for planning purposes;
- b) net investment return in current and prior years;
- c) prevailing market conditions and economic outlook and their potential impact;
- d) overall funding environment for the Berkeley campus;
- e) need to maintain the real purchasing power of the endowment; and
- f) total spending from the general endowment pool.

Total spending from the general endowment pool should not exceed 5.5% of a twenty-quarter (five year) moving average market value for a specific payout year. Total spending includes endowment payout, endowment cost recovery (currently 80 basis points), Berkeley Endowment Management Company (BEMCO) expenses, investment manager fees and other expenses. Managing total spending supports the endowment's financial objectives and encourages new endowment gifts.

The Finance and Administration Committee, at its discretion, may recommend to the Executive Committee an alternative payout percentage below 3.5%, or other spending control measures, to limit total endowment spending. The Executive Committee, after giving due and prudent consideration to the recommendation of the Finance and Administration Committee, proposes a payout percentage within a range of 3.5% to 4.5%, or below 3.5% if deemed advisable, for a specific payout year to the Board of Trustees for approval. The payout amount is calculated on a twenty- quarter average ¹ of the ending market value of the endowment at March in the current year. The Foundation distributes the payout to the campus in the first quarter of the following year.

August 22, 2017

¹ The use of a twelve-quarter (three year) moving average market value shall continue for FY 17-18, and a twenty-quarter (five year) moving average market value shall be used beginning in FY 18-19.

Exhibit B

TOTAL PORTFOLIO BENCHMARK

The Total Portfolio Benchmark is:

Asset Class	Benchmark Index		
Developed Equity	MSCI World with USA Gross (net)		
Emerging Markets Equity	MSCI Emerging Markets (net)		
PE/VC	Custom Cambridge Associates Vintage Weighted Benchmarks*		
Real Assets	Custom Cambridge Associates Vintage Weighted Benchmarks*		
Opportunistic	Total Portfolio ex-Opportunistic**		
Absolute Return	Hedge Fund Research, Inc (HFRI) Fund of Funds Conservative Index		
Fixed Income and Cash	80% Bloomberg Barclays US Treasury Index/20% BofA ML 91-Day Treasury Bills Index		

^{*} Custom benchmarks reflect the Cambridge benchmark returns with the same weightings to vintage year-asset class combinations as the BEMCO portfolio. Within PE/VC, the vintage-weighted benchmarks include the global Cambridge Venture Capital Index and a custom global Cambridge Private Equity benchmark that includes the Growth, Buyouts, and Distressed Securities Index universes. Within Real Assets, the vintage-weighted benchmarks include the global Cambridge Real Estate and Natural Resources Indices.

Note: Methodology is a dynamic blend of each asset class benchmark's returns weighted by its actual Net Asset Value in the portfolio. This is to account for the transitional period reflecting implementation realities and timeframes within sub-portfolios. This will revert to measurement of benchmark returns relative to target exposures at BEMCO board determination.

^{**} Dynamic blend of asset class benchmark returns weighted by the actual Net Asset Values of all non-Opportunistic asset classes

 $\underline{\textbf{Exhibit C}}$ ASSET ALLOCATION TARGETS AND NORMAL RANGES

Role	Asset Class	Long-Term Target	Allowable Range
	Developed Equity	28%	20-50%
	Emerging Markets Equity	15%	5-20%
Capital Appreciation	PE/VC	22%	0-30%
	Real Assets	10%	0-15%
	Opportunistic	0%	0-15%
Conital Duo comunications	Absolute Return	15%	5-20%
Capital Preservation	Fixed Income and Cash	10%	5-20%