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UCRP Performance Measurement and Reporting

Adapted from a presentation by the Office of the Treasurer to the UC Faculty Welfare Committee
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It is natural to want to see performance as quickly as possible, especially during periods of volatility and uncertainty. The Treasurer's Office follows best practices in performance measurement and reporting and offers the following insight into the issues impacting the timeliness of performance calculations.

INTERIM VALUATIONS OF ILLIQUID ASSETS UCRP is made up of a diversified range of asset classes, including both *liquid* (easy to convert to cash) and *illiquid* (difficult to convert to cash) assets. The aggregate performance measurement of UCRP combines results from both liquid and illiquid assets and thus includes interim valuations of illiquid assets which are estimates. Even if valuations were known without a lag ("next day" returns), accounting and performance calculations take time and are subject to frequent revision.

"NEXT DAY" RETURNS "Next Day" returns are available if all the following requirements are met:

- All assets are market traded, and
- There are no flows or fixed income trades, and
- All investment accounting is done correctly, and
- All performance calculations are done correctly, and
- All benchmarks are calculated correctly

If any one of the conditions above fails to hold, then correct daily returns for those assets are usually available in 2-3 days. If all of the conditions hold, then correct monthly returns and benchmarks are usually available by the 5th business day after month end. Otherwise, *preliminary* monthly returns are available around the 15th of month and *final* returns are available around the by 25th. The University only wants to report one correct and *final* number.

PERFORMANCE METHODOLOGIES There are two fundamental performance methodologies:

- **Time Weighted Return** is the percent change in market value adjusted for flows in and out of the fund
- **Dollar Weighted Return (IRR)** is the compound return which equates investments and distributions, dependent on the timing of flows

Both methodologies are approved by CFA Institute Performance Presentation Standards.

Time weighted returns are appropriate when the manager does not control the amount or the timing of investments. An example would be an equity portfolio in which market prices are available daily,

liquidity is high, and transaction costs are low. Performance is known soon after the measurement period ends.

Dollar weighted returns are appropriate when the investment manager – rather than the investor – controls the amount and the timing of investments and distributions. An example would be a real estate portfolio in which securities are valued infrequently by appraisal, liquidity is low, and transaction costs are high. Investment results are not known until the project is completed (which may take 5-10 years.) Initial investment and subsequent flows are known, but interim asset values are estimates.

INVESTMENT VALUES Valuation methods directly impact the process and timing of performance measurement. “Value” is the amount for which an investment can be converted to cash today. For publicly traded securities, value is the last price at which a trade occurred. This assumes that the entire position can be liquidated without impacting the price and also assumes the security can be traded at all. For privately held investments for which no liquid market exists, the value is ambiguous and can reflect:

- Book value (cost)
- Book value adjusted for liquidity events
- Book value adjusted for significant economic events (up or down)
- Broker quote less haircut (margin)

PRICING SOURCES Pricing is provided by a number of sources as shown below.

Marketable securities (custodied at State Street)

- Equities, futures, options, mutual funds:
 - o Reuters
 - o Bloomberg
 - o Thompson
- FX rates: Reuters / WM Company
- Bonds:
 - o Barclays (Lehman)
 - o JP Morgan (Bear Sterns)
 - o FT Interactive (IDC)
 - o Reuters/Bridge
 - o S&P / JJ Kenny Securities
 - o Bloomberg
- Default if none of above: investment manager

Marketable securities custodied elsewhere

- Pricing methodology and sources of those custodians

Absolute return strategies

- Fund Administrators
- Often illiquid positions are priced by the hedge fund manager

Real Estate and Private Equity

- Real estate is priced by the manager
 - o Independent appraisals are done periodically, but not all properties are appraised at the same time
- Private equity is priced by the manager

PRICING TIMING Returns are available at different times. Some returns are available within *days* of month end such as publicly traded equities and Treasury bonds. Some returns (often estimates) are received *mid/late-month* from external custodians such as absolute return strategies. Some return estimates are available only quarterly with a one quarter lag such as real estate and private equity.

REPORTING SCHEDULE Given the variety of assets held in the UCRP, what is a realistic schedule for producing performance reports? As stated above, several factors impact the release of returns. Aggregate fund returns are not finalized until data is received from external custodians and managers. Aggregate fund returns are a combination of market traded assets (time weighted returns) and illiquid assets (interim, time-weighted returns reflecting partial and incomplete changes in projected IRR). Partial returns of only the liquid securities are not meaningful and potentially misleading. Even if they are available, partial (liquid) returns need to be properly evaluated by comparison to a partial (liquid) benchmark.

Complete quarterly performance results are made available to the Chair of the Committee on Investments and the Chair of the Regents by the end of the following month. For example, March 2009 quarterly returns will be available by the end of April. Quarterly performance results are typically made public at the next Committee on Investments meeting. Going forward, quarterly returns will be made available to other interested parties the day after returns are made available to the Regents. Please note that the Committee meeting dates are set by the Office of the Secretary and are not always aligned with quarter ending dates.

The Regents Committee on Investments meeting agendas and materials are on line at:
<http://www.universityofcalifornia.edu/regents/meetings.html>