The Regents of the University of California

COMMITTEE ON INVESTMENTS
INVESTMENT ADVISORY COMMITTEE
August 24, 2006

The Committee on Investments and the Investment Advisory Committee met jointly by teleconference on the above date at the following locations: Covel Commons, Los Angeles campus and UCSF–Mission Bay Community Center, 1675 Owens Street, San Francisco.

Members present: ***Representing the Committee on Investments***: Regents Schilling, Schreiner, and Wachter

Representing the Investment Advisory Committee: Mr. David Fisher and Mr. Chuck Martin; Consultants Behrle, Child, and Lehmann

In attendance: Acting Secretary Shaw, University Counsel Patti, Chief Investment Officer Berggren, and Recording Secretary Bryan

Due to the lack of a quorum, the meeting was held as a briefing session for the members. All recommendations will be submitted for action at the September 2006 meeting of the Committee on Investments.

The meeting convened at 1:45 p.m. with Committee Chair Wachter presiding.

1. **READING OF NOTICE OF MEETING**

For the record, it was confirmed that notice was served in accordance with the Bylaws and Standing Orders for a Special Meeting of the Committee on Investments and the Investment Advisory Committee for the purpose of addressing items on the Committees' agendas.

2. **PUBLIC COMMENT**

Committee Chair Wachter explained that the public comment period permitted members of the public an opportunity to address University-related matters. The following person addressed the Committees concerning the item noted:

Item 609, UC Retirement Plan Asset Allocation and Transition Update

Professor Emeritus Charles Schwartz recalled that the University had always had an effective retirement investment program, but in recent years its record has slipped, he believed as a result of The Regents' having privatized what used to be effective internal management of investments. He reported that over the past year there were 18 external managers who performed better than their benchmark and 22 who performed worse. For the aggregate performance of all external managers grouped according to the major asset classes, the total returns reported were significantly behind the returns of the assigned benchmarks. He believed more detailed information and analysis of the matter should be provided to the public.

3. **QUARTERLY INVESTMENT PERFORMANCE SUMMARY**

Chief Investment Officer Berggren reported that the University of California Retirement Plan (UCRP) and the General Endowment Pool (GEP) had positive absolute and relative returns for the second quarter of calendar year 2006. The UCRP returned 7.1 percent. Despite a 25 basis point negative active return, there was a positive active return for the fiscal year to date of 26 basis points and for the three-year period of 34 basis points. The GEP returned 11.57 percent for the fiscal year to date, and despite a negative 23 basis point active return in the quarter, there was a 53 basis point improvement in active return and a 49 basis point improvement in the three-year period. In the quarter, the U.S. equity portfolio declined 2.5 percent versus the Russell 3000 decline of 2.06 percent. The underperformance of 45 basis points in the quarter resulted in a 14-basis-point underperformance. The underperformance was attributable to the equity portfolio, where there was a tilt toward small-cap stocks and growth. From May 11 to the end of June, emerging markets indexes were down 25 percent. Fixed income and high yield categories also posted a loss for the quarter; however, the US Core Fixed Income had positive excess returns for every period except the quarter. The bond portfolio showed very strong performance, principally as a result of being underweighted. Concerning performance objectives, the UCRP annualized total return was 10.54 percent for the past three years and 5.34 percent over the past five years. This compares to an actuarial rate of 7.5 percent. All asset classes were within guideline ranges.

The biggest factor bets in the portfolio were high-yield, large-value-growth and mid-growth sectors. The biggest risk contributors to the portfolio were large-value and mid-growth sectors. The bond portfolio had an average duration and average maturity equal to the benchmark. The largest major contributor to performance was the underweighting in mortgage of 305 basis points, which contributed 15 basis points to the excess return. The other category was overweighted by 129 basis points and contributed 138 basis points to the overall returns.

An analysis of the style exposure of both the UCRP and the GEP shows a portfolio with more growth, smaller size, significantly more volatility, and more trading activity than the benchmark. There is a negative bias toward energy and financial stocks and a positive bias toward technology, just the opposite of the sectors that have performed well in the last quarter.

A more representative way has been developed to judge the performance of the Private Equity portfolio using industry metrics. The weighted average excess return of the portfolio by vintage year for private equity indicates there was a weighted excess return over the entire period of 10.8 percent. In the Private Equity portfolio over the last ten years, which is the only relevant period in which to judge Private Equity performance, UCRP had a 23.9 percent annual return, and the GEP had a 24.9 percent annual return, which is excellent performance.

The GEP outperformed the benchmark by 53 basis points, as noted above, in the fiscal year-to-date period. This was principally the result of very good fixed income and absolute return relative performance. It indicates the benefit of having the absolute return strategy in the portfolio. Contributing to the basis points of active return, 31 basis points came from the absolute return strategy through good security selection and asset allocation; 16 basis points came from the bond portfolio, also because of good asset allocation and security selection; and 7 basis points came from emerging markets asset allocation. All asset classes in the GEP were within policy guidelines. The largest factor exposures in the portfolio were credit and mid-growth. The biggest contributors to risk were the large value, large growth, and mid-growth sectors.

The portfolio added value of $3.2 billion in the last year. On balance it was a good year, given the challenges in the fourth quarter.

4. **REAL ESTATE PORTFOLIO STRATEGY**

It was recalled that The Regents approved a 5 percent allocation to Real Estate (RE) in both the UCRP and GEP in May 2003. The Office of the Treasurer began to make significant commitments to RE funds in 2006, after hiring Gloria Gil as Director of Real Estate. Ms. Gil presented the strategy for this asset class; it is designed to achieve the 5 percent allocations in a prudent manner over the next three to five years, being mindful of market conditions. A number of changes to the Investment Guidelines are also recommended.

Director Gil commented on the revised strategy. She recalled that the real estate program started in October 2004. As of July 2006, the office has committed about $810 million to 12 funds; $350 million of that is invested now. Returns for real estate are about 18.5 percent net, which is about 70 basis points below the benchmark.

Ms. Gil reviewed the role of real estate and described strategies that will be used to implement the program, the portfolio as it stands, and some changes that staff are recommending to the guidelines. She noted that real estate enhances diversification of the total UCRP and GEP portfolios. Historically, it has a low negative correlation among other asset classes. As focus is placed on the funding of the fund and employee contributions, the income component of real estate will help pay plan benefits and fund expenses. It also provides competitive risk-adjusted returns and a hedge against inflation.

The Treasurer's Office plans to implement several strategies. The core strategy would include more income, about 70 percent, appreciation of about 30 percent, and leverage up to 50 percent. The public Real Estate Investment Trust (REIT) strategy would be similar but have liquidity. The enhanced strategy incorporates more under-serviced assets where there is value creation and would have about 60 percent of income and

40 percent of appreciation, with leverage up to 70 percent. Lastly, the high return would include new development, repositioning redevelopment, and financial structuring, with leverage up to greater than 70 percent. Since March, staff has committed six funds, mostly in the enhanced and high return strategies.

Ms. Gil noted that core private real estate properties are expensive now and are not a prudent buy. Staff proposes direct investments, but only through discretionary separate accounts set up as title holding corporations. Separate account managers could buy these properties and hold onto them to build the core portfolio; hence, a change from 25 percent to 40 percent is proposed in the enhanced allocation and of 15 percent to 25 percent in the high return allocation. It is also proposed to increase the access to other properties such as senior housing, medical offices, student housing, self storage, and hotels from up to 10 percent to up to 20 percent of the portfolio and to change the existing maximum in the single metropolitan and international investments areas from 10 percent to 20 percent in order to be more flexible with major markets like New York and Los Angeles and to have more international investments. The international component represents only a very small part of the portfolio. Staff will put in place factors to mitigate risk as managers are hired. Current guidelines require that at least 90 percent of the public real estate portfolio be invested in securities held in one of the benchmark indices, no more than 10 percent of the public real estate portfolio be invested in non-U.S. companies, no property type exceed two times its weight in the benchmark index, and no investment with any single manager exceed 25 percent of the public real estate portfolio and 25 percent of that manager's total assets under management. It is proposed to increase the maximum international allocation to 25 percent of the public real estate portfolio to respond to increasing transparency, liquidity, and stability in many global markets.

Ms. Gil stated that existing benchmarks for private real estate investments are measured against the NCRIEF Property Index (NPI) and for public real estate investments against the Dow Jones-Wilshire REIT Index. It is proposed to use for core allocation the NCREIF index and for the enhanced and high return allocations an IRR base to cover the J curve. When the investments are fully invested and mature, the office will return to using the NPI index. For public real estate it is proposed that U.S. REIT managers continue to be benchmarked to the Dow Jones-Wilshire REIT Index and Global REIT managers to the FTSE EPRA/NAREIT.

In response to a question asked by Regent Schilling, Ms. Gil indicated that, although high return investments carry higher risks, the risks will be controlled through limits on the managers' investments. Managers will be sought who are capable of handling separate account programs.

Mr. Lehmann believed that the changes would result in diversification across vintages, as the percentages that will be shifted into the various higher return, high risk categories include properties expected to become core in the future. Ms. Gil emphasized that due diligence, manager selection, and increasing risk in the overall portfolio are being addressed with care.

5. **REAL ESTATE PORTFOLIO INVESTMENT GUIDELINES**

The Chief Investment Officer recommended, and Richards & Tierney concurs, that the attached Investment Guidelines for Real Estate investments for the University of California Retirement Plan (UCRP) and General Endowment Pool (GEP) be approved. These revised guidelines are to be effective immediately.

It was recalled that The Regents approved a 5 percent allocation to Real Estate (RE) in both the UCRP and GEP in May 2003. At that time, Investment Guidelines for both public and private real estate were approved. The Office of the Treasurer began to implement the RE allocation in late 2004 and recommended modified investment guidelines. With the addition of a Director of Real Estate and a new strategy for implementing the allocation, additional modifications are recommended. These changes and their rationale have been listed and explained previously.

6. **ABSOLUTE RETURNS STRATEGIES INVESTMENT GUIDELINES**

The Chief Investment Officer recommended, and Richards & Tierney concurred, that the attached Investment Guidelines for Absolute Returns Strategies for the University of California General Endowment Pool (GEP) be approved. These revised guidelines are to be effective immediately.

It was recalled that in May 2006, the Committee on Investments approved a new asset allocation policy for the GEP, in which the portion of the GEP invested in Absolute Return (AR) strategies was increased from 10 percent to 15 percent. The Committee had previously asked the Treasurer, now Chief Investment Officer, to develop a plan to modify the AR portfolio, which would continue to be diversified but also balanced across a broad range of strategies, including higher volatility equity type strategies which offer higher expected returns. These proposed investment guidelines are necessary to implement a larger allocation to AR strategies.

In order to implement this strategy, the Treasurer recommended, and Richards & Tierney concurred, that several guidelines be modified or added in order to reduce concentration risk and allow a more globally diversified portfolio. These changes include:

- Reduction of the permitted ranges around target allocations of the principal substrategies within AR strategies
- Clarification on the limitation of the use of leverage for the total AR portfolio
- Limitation on the percentage of underlying investments in emerging market securities
- Expansion of the limit on the percentage of underlying investments in Non-US securities (developed and emerging markets)

Chief Investment Officer Berggren reported that the first performance objective has been change to 500 basis points over the one-month US Treasury bill from 2 percent to 4.5 percent. The second is to set new policy ranges for the four strategies: Long/Short Equity 30 percent to 70 percent, Event Driven 20 percent to 50 percent, and Relative Value 10 percent to 40 percent. No more than 10 percent of the absolute return portfolio may be invested in emerging market securities on a look-through basis and no more than 40 percent in securities issued by entities domiciled outside the United States. Finally, no more than 15 percent of the AR portfolio risk may be derived from any single manager. This provides good diversification and the right parameters. The revisions have been reviewed in depth with Chairman Wachter.

7. **PROPOSED POLICY ON LEGAL PROCEEDINGS RELATED TO INVESTMENTS OF THE UNIVERSITY OF CALIFORNIA**

The Chief Investment Officer and the Regents' investment consultant, Richards & Tierney recommended that a policy be adopted regarding the initiation of legal proceedings relating to investments of or managed by the University of California. In the proposed policy, jurisdiction over initiation of litigation relating to investments of or managed by the University of California is shifted from the Committee on Finance to the Committee on Investments.

It was recalled that it is the practice of the General Counsel to seek approval of The Regents before initiating significant litigation. Because the General Counsel is under the general jurisdiction of the Committee on Finance, the General Counsel has submitted recommendations to initiate litigation to that Committee for consideration and recommendation to the full Board. In addition, where emergency action must be taken to protect the interests of the University prior to the next meeting of the Board, the General Counsel has sought approval, pursuant to the Regents' Policy on Interim Authority, from the Chairman of the Board or the Chair of the Committee on Finance before initiating suit. Since 2001, the University has been involved as a plaintiff in four lawsuits seeking compensation for damage to the University's investments arising from alleged violations of federal and State securities laws. In 2002, the University sought and obtained lead plaintiff status in two federal class actions. In 2003, the University initiated two suits on its own behalf separate from on-going class actions. All of these actions seek compensation which, if obtained, would be paid to the University's investment funds. Furthermore, the University's investment funds are responsible for any unreimbursed costs the University may incur in connection with the litigation. (Under retention agreements with outside counsel, counsel is responsible for litigation costs it incurs, which are reimbursed from any recovery. The University has thus far been successful in the class actions in recovering its own out-of-pocket costs from the class settlement funds.) Since the costs and benefits of such litigation are to the University's investment funds, it is recommended that jurisdiction over lawsuits in this area be shifted from the Committee on Finance to the Committee on Investments.

University Counsel Patti recalled that the University had rarely participated actively in this sort of litigation. Its costs and potential benefits accrue to the University's investment funds. For that reason it seemed that this committee has a strong interest in making decisions relating to the initiation of any such litigation.

Regent Schreiner asked if policy requires the General Counsel to seek approval from The Regents before initiating significant litigation and if significant litigation has been defined. Mr. Patti responded that essentially all litigation that has been initiated has been brought to the Board for approval. The exceptions generally have been litigation relating to collection actions, and there is a specific Regents policy relating to them which allows more flexibility. There is not an express policy requiring that initiation of litigation be approved, although it has been uniform practice over time to do so. The General Counsel has sought Regental approval in cases where the University is the lead plaintiff or separate actions are being filed on behalf of the University.

Mr. Patti noted that the Regents' policy on interim action requires that either the Chairman of the Board or the Chair of the relevant Committee approve actions taken between Board meetings; it has been the practice to get the approval of both. The Chair of the Committee on Investments rather than Finance would now become the relevant Chair.

8. **REGENTS' INVESTMENT POLICY WITH RESPECT TO CAMPUS FOUNDATIONS**

Committee on Investments Chair Wachter recommended approval of the following investment policy for the UC Campus Foundations:

INVESTMENT POLICY FOR THE UC CAMPUS FOUNDATIONS

> The Regents' generalist Investment Consultant shall conduct an annual review of each Campus Foundation's investment policy and performance, including asset allocation relative to its policy and performance by asset class and relative to its benchmarks, and provide a report to the Committee on Investments annually on their findings. In addition, on a one time basis, to be completed within the FY2006-2007, the Regents' investment consultant will review the written investment policies and governance structure of each Foundation to ensure that each set of written policies includes, at a minimum asset allocation target percentages, ranges for each asset class, policy benchmarks for each asset class and in total, and investment guidelines for each asset class.
>
> Foundations are encouraged to adopt the investment policies and guidelines of the General Endowment Pool (GEP). If any Foundation's policies differ materially from those of the GEP, the Foundation is required to explain the differences to The Regents' investment consultant. The Regents' generalist investment consultant shall review, initially and at the time of any change, each Foundation's

asset allocation policy. In the case that any policy is significantly different from The Regents' policy (e.g., if the Foundation's target asset class weights are outside the ranges currently set for the GEP), the Foundation is required to explain its rationale to the Regents' investment consultant. The Regents' investment consultant will then provide an assessment and recommendation to the Committee on Investments. Any exception to The Regents' investment policies will be evaluated annually by The Regents investment consultant.

If any Foundation makes changes to its policy (asset allocation percentages and/or benchmarks), it must communicate to The Regents' investment consultant before such change may become effective.

This policy is to be effective immediately.

The Committee was informed that the policy clarifies the fiduciary responsibility of The Regents with respect to UC Campus Foundations. The General Counsel has determined that the Regents have ultimate fiduciary responsibility over all investments of the University, including those of the Campus Foundations. The Investment Policy above is proposed in order to demonstrate proper oversight of the foundations' investment portfolios.

Committee Chair Wachter recalled that there had been a number of discussions about this and a meeting with the Foundations.

Chief Investment Officer Berggren reported that The Regents' consultant, Richards & Tierney, will conduct an annual review of each campus foundation's investment policy and performance and will include asset allocation relative to its policy and absolute and relative investment performance. On a one-time basis to be completed within FY2007, The Regents' consultant will review the written policies and governance of each of the plans.

Mr. Behrle reported that the foundations were not concerned about the overriding policy, but he believed that there was a lack of clarity as to the ultimate authority of approval. The proposal seems to imply that The Regents' investment consultant may act without the review and approval of the Committee on Investments. Chief Investment Officer Berggren affirmed that the investment consultant would assess a situation and make a recommendation to the Committee. Mr. Behrle noted that given all of the parties involved, under this scenario it could take months for the foundations to get approval for changes to asset allocations or benchmarks.

Mr. Tom Richards of Richards & Tierney, The Regents' investment consultant, commented that the policy was in no way meant to constrain the foundations with respect to managing their assets in a way they believe is in the best interests of their particular campus. It provides some assurance to the Regents that their fiduciary responsibilities are being fulfilled. To the extent that there is a change in an asset allocation policy, the consultant would not be in a position to approve it but would like to be notified when an asset allocation or benchmark is changed. To the extent that the asset allocation policy is outside the range that The Regents has approved, the Regents on the Investment Committee would like to review and approve it before it is implemented. Regent Wachter emphasized that the Committee members are not trying to interfere, but they feel the need to set a process in order to be kept informed and anticipate any problems. Mr. Behrle agreed to forward before the next meeting suggestions for clarifying the language in ways acceptable to the foundations and the committee.

9. **PROVISION OF ENDOWMENT ALTERNATIVE ASSET CLASSES TO THE CAMPUS FOUNDATIONS**

The Committee was informed that, in response to requests by UC foundations, the Office of the Treasurer has created three programs to allow access for greater exposure to alternatives: Private Equity Vintage Year Program, Real Estate Vintage Year Program, and Absolute Return Unitized Program. All three programs will commence on January 1, 2007, with notifications due on October 1, 2006 by interested participants. UC foundations may elect to participate in any, all, or none of the programs. Benefits from participating in these programs include access to managers who impose high minimum investment amounts, lower fees than those charged by Fund of funds, and less time spent on manager searches, manager monitoring and paperwork.

Chief Investment Officer Berggren noted that the program will provide the UC foundations with greater exposure to alternatives. She believed it would be beneficial to the foundations to participate extensively in the programs.

10. **TREASURER’S REPORT ON ANNUAL INCENTIVE PLAN FISCAL YEAR 2006**

It was recalled that under the Annual Incentive Plan (AIP) approved by The Regents in March 2002, incentive awards earned by the Treasurer’s Office staff are based largely on the investment results of The Regents’ portfolios relative to predetermined investment objectives (benchmarks). Results were tabulated by Mercer Human Resource Consulting. Investment returns were calculated by State Street and Cambridge Associates and reviewed by UCOP Internal Audit. At the end of each plan year, the Treasurer will submit a report to The Regents summarizing overall results of the Plan for the year, including the payment of actual incentive awards.

Mr. Terry Dennison of Mercer Consulting described the process that was undertaken to establish the awards. He reported that every year the consultant examines changes to the award structure, such as the payoff formula and the addition of new asset classes, that are necessitated by the evolution of the investments in the program. In order for the awards to remain fair and to provide proper incentives, the award payoff function is calibrated to changes in the investment environment and the investment structure of the UC programs. The award information is provided to the staff of the Treasurer’s Office.

Chief Investment Officer Berggren reported that the total of awards earned this year is \$1.6 million, paid over three years. The total value added to the UC entity is 21 basis points, which equates to \$114.8 million; the award as a percent of assets is .0025; the award as a percent of all the value added by the staff is 1.26 percent. The award is about 10 percent of the budget of the Treasurer's Office.

11. **RISK BUDGETING AND INVESTMENT MANAGEMENT IN THE OFFICE OF THE TREASURER**

It was recalled that in 2001, the previous Treasurer recommended, and The Regents approved, a senior position in the Office of the Treasurer to focus on Investment Risk Management. The purpose of this function was two-fold: first, to have a thorough understanding of the risk exposures in The Regents' portfolios and to ensure that risk exposures were intentional and adequately compensated; second, to integrate risk awareness, measurement, and management in all aspects of the Treasurer's investment processes. Over the past four years, a risk management function has been established, measurement processes have been implemented, and quarterly reports have begun to integrate performance achieved with risk taken. At this time, emphasis is shifting to the second role, that of integrating risk and investment management.

Managing Director Phillips described the beginning steps of this process, known as risk budgeting. In an active strategy, taking risk means taking positions that differ from the benchmark. The potential impact of these decisions can be measured. A risk budget is a target for the amount of risk deemed acceptable for that portfolio.

Mr. Phillips recalled that the former consultants' new investment policy that was adopted in 2000 for the UCRP and GEP included a simple risk control method for UC equity. It required that 30 percent of the equity allocation be managed passively. In 2004, Richards & Tierney proposed, and The Regents adopted, a different approach to risk management that can result in a more efficient use of risk. The risk exposures in an asset class depend on what kind of strategies are employed in that active space. Traditional and concentrated bottom up managers will produce higher risk than enhanced index or quantitative managers. Measuring risk requires a common framework to evaluate all of the active decisions which will allow risk to be traded off in different areas depending on the expectations for return. This is the essence of the process now being implemented in the Treasurer's Office.

Mr. Phillips described how risk is defined. It is important to specify what is being measured, how it is being measured, and why that measurement can help in management. Risk management is critical. It is used in each asset class and in the total fund. The first part of the process is to identify and quantify the risks that are being taken. The second step is to allocate or to budget risk to achieve the best expected return. Risk cannot be "measured," but most investors believe that higher risk should be compensated by higher returns. Typically, higher risk is correlated with higher volatility or standard deviation of returns. That is why volatility is used as a proxy for risk. It is not really a measure but is a good approximation of the loss potential for most traditional portfolios that indicates the likely range of outcomes.

For nontraditional assets, other risk proxies are used which focus more on the potential for loss, or downside volatility such as value at risk, which measures the expected loss given extreme events. This kind of measure is used to allocate capital to strategies with option-like returns. Risk measures are not forecasts of the return that will happen, they are forecasts of the range of returns which are likely.

Active risk is different from total risk. Sometimes it is called tracking error. It is defined as the volatility of active returns, which is the portfolio minus the benchmark return. Active risk measures how different the portfolio is from the benchmark and gives an indication of the likely range of active returns around the benchmark. Active risk is a good indication of how the investment policy approved by The Regents is being implemented. Active risk can come from security selection decisions, industry decisions, country, regions, currencies, styles, capitalization – any difference between a portfolio and a benchmark. At the total fund level there is an additional type of risk that occurs, either under- or over-weighting an asset class relative to the policy weights. Managers take active risk; they have exposures different from the benchmark in order to earn active returns. Everything else being equal, the expected active return is a function of active risk – the size of the difference. If a manager is over-weighting a particular stock because he thinks it is going to return 2 percentage points better than the benchmark, then all other things being equal, a double weight for that stock should equal a double expected return. Because of that, risk or the difference from the benchmark is viewed as the input into the investment process and is carefully managed. Risk equates to the sum total of the active decisions made by the University's portfolio managers. Active risk is managed by setting a budget for it. Once set, the actual differences in the portfolio from the portfolio to the benchmark are measured and compared to the realized risk to the budget or plan. The loop is closed by explaining the variance between what was budgeted and what was realized and recommending changes if needed.

Mr. Phillips addressed active risk for UCRP. The active risk budget for UCRP is a 3 percent annualized tracking error. That means that in every two out of three years, active return is expected to be plus or minus 3 percent of the performance benchmark. This level of active risk is consistent with the historical volatility of UCRP, with other pension plans, with reasonable budgets for the risk of the asset classes that comprise the fund, and with the investment objective of the fund to provide a modest value added. It is sufficient to allow flexibility in allocating risk to strategies with higher expected returns. At 4.5 percent, the GEP active risk budget is higher than the pension plans, because it is more appropriate for the endowment to take risk than for the pension plan. The impact of all of the active decisions that are made by managers implementing their strategies is rather small relative to the total portfolio.

Mr. Lehmann commented that in 2000 the downside risk in the old portfolio was substantial, hitting its targets of bad risk, because the equity portfolio at the end of that year was about $25 billion invested in 60 large cap growth stocks, representing no diversification. Going forward, diversification has had a positive effect.

Mr. Phillips discussed the risk budgets for the UC portfolios. He reported that in most cases the realized and forecast active risks are similar in magnitude, meaning that the models used are effective in forecasting risk, and in most cases the realized and forecast active risks are lower than the risk budgets. One exception is emerging market equity, which has been extremely volatile. A risk budget would change if the Committee decided that it had become appropriate to take more or less risk, if opportunities in active strategies either expand or contract, or if the overall level of market volatility or cross-section volatility changes.

Mr. Phillips observed that the innovation in risk management is developing a common framework and a single metric to quantify all investment decisions. In considering over- or under-weighting duration and over- and under-weighting high yield bonds, each risk can be quantified. Their interaction with each other discloses whether there should be 20 percent overweight duration and 5 percent underweight high yield bonds or some other set of numbers. Having this framework allows trading off risk in one area with another. If risk budget is used up, risk must be reduced in one or more strategies in order to take risk in another one. Crude risk controls such as a limit on percentages do not tell what the volatility of the portfolio is; it must be understood what is in the portfolio, and there must be some measure of the volatility of those individual securities.

Mr. Phillips concluded his remarks by stating that using risk budgets enables a more efficient use of risk by linking expected return to risk. This helps in asset allocation and manager structure decisions, and it ensures that the risks that are taken are intentional – that they are identifiable and there is adequate compensation for them. It is a quality control for the main input to the investment process. The essence of investment management is the management of risk, not the management of return.

12. UC RETIREMENT PLAN (UCRP) ASSET ALLOCATION AND TRANSITION UPDATE

It was recalled that in November 2005, The Regents approved a new asset allocation policy for the UCRP. The Treasurer began implementation in December and gave progress reports to the Committee in February and May. The majority of the planned transactions are now completed. The asset class benchmarks and total fund policy benchmarks were effective as of July 1, 2006.

Chief Investment Officer Berggren provided an update on the transition to the new asset allocation. She recalled that the new policy calls for an allocation of 49 percent for US Equity, which is down 7 percent, and an increase in international developed equity to 18 percent, which is up 11.7 percent. A goal is to raise the emerging markets to 3 percent, which would be about 230 basis points over where it was in May 2003. The target approved in November 2005 was 70 percent Equity, 28 percent Fixed Income.

The US Fixed Income was proposed to be reduced by 17 percent to 13 percent. Many of the steps toward this asset allocation have been completed. Passive US Equity is down by $3.8 billion and non-US Equity passive up by $3.9 billion to get the Non-US Equity near the targeted percentages. US Fixed Income has been reduced by $6.3 billion. Six hundred million dollars has been added to High Yield, $1.3 billion to the Non-US fixed, $800 million to Emerging Markets, and $145 million to TIPS. The transition account stands at about $1.5 billion. In the second half of 2006, passive US Equity will be reduced by $700 million; by definition, active US Equity will go up by the same amount. Non-US passive will be reduced by $700 million, and non-US active will be increased by $500 million. Two hundred fifty million will be added to Emerging Market equity. Two or three new managers will be added to High Yield and one or two managers to Emerging Market Debt. Specific strategies and processes are being developed for handling increases to the Equity and Fixed Income portfolios. Richards & Tierney has specified alternative benchmark weights during the transition period.

13. **ENDOWMENT SPENDING STUDY**

It was recalled that in March 2005, the Regents approved an expenditure rate per unit for the General Endowment Pool (GEP) for the 2006-07 fiscal year of 4.75 percent of a 60-month moving average of the market value of a unit invested in GEP. This expenditure rate was adopted by The Regents in October 1998. The Office of the President and Office of the Treasurer feel it is appropriate to review the GEP payout rate and/or formula. The endowment has many constituents across the University, and Office of the President will involve all parties in a thorough discussion of the issues prior to a recommendation for any changes.

The Treasurer's Office has commissioned Cambridge Associates to review and update its analysis, which was presented to the Committee on Investments in November 2003. The analysis has been updated with current capital market assumptions and the asset allocation policy recently approved by the Committee.

Mr. Matt Lincoln, Managing Director of Cambridge Associates, reported that the study was intended to provide an overview of endowment spending policies in general. There were three basic perspectives: a survey of other large endowment policies; a historical simulation of policies using long-term stock and bond returns; and a Monte Carlo simulation using The Regents' asset allocation policies and asset class return volatility and correlation assumptions. In each case the spending rate or the percentage of unit value that gets distributed and the smoothing or spending policy were examined.

Mr. Lincoln discussed the basic findings of the study. First, relative to the policies of other large endowments, the most common policy is the moving average, which is the basic structure used to distribute a percentage of a rolling average of unit values over varying periods of time. The Regents uses 60 months and 5 years; others use longer or shorter periods. The most common spending rate is 5 percent of the average market value of the unit. The Regents' spending rate is below that; however, that may be appropriate in that the circumstances are different from those of the large majority of other endowments in the study in that the net income from gifts to the University – the percentage of endowment value – is likely well below those of other endowments. That would offset spending distribution and smooth out volatility of the investment returns. Over the last 12 years, the gifts to the GEP averaged in real terms about 1 percent of the assets, which is substantially lower than the private sector is experiencing.

Mr. Lincoln reported that a major point highlighted by both the historical return simulations and the Monte Carlo simulations is that there is a basic tradeoff in setting The Regents' spending rate. Regardless of future returns, the higher the spending rate, the slower the growth of distributions to programs will be. The more that is distributed today, the slower and more volatile the growth rate will be to programs in the future; however, if the spending rate is set well below actual return, the growth rate will be higher and more real dollars will be delivered to future students, professors, and programs than to current ones. The Monte Carlo simulation pointed out that based on The Regents' current investment return assumptions and current asset allocation assumptions, spending rates over 4.2 percent are likely to result in long term distribution growth that does not keep pace with inflation.

Mr. Lincoln commented on investment spending policies that are intended to smooth out the volatility of investment returns. The Regents' programs ideally should have an absolutely stable, smooth, predicable flow of spending distributions, yet on the investment side there must be volatility in order to earn an adequate return. The spending policies or smoothing policies are mechanisms to mediate between the volatility of investments and the desire for a smooth flow of spending distributions to programs. There are three broad types of policies. A moving average policy, which is used by The Regents, tends to result in more volatile distributions to programs but does a better job of preserving, over the long term, the purchasing power of the underlying endowment. A constant growth rule does the best job of providing a very smooth growth of distributions to programs but at the expense of greater risk of eroding, over time, the purchasing power of the underlying endowment. A hybrid rule, which is a combination of moving average and constant growth, falls between the two. The spending distributions are less volatile than of a moving average, but the hybrid does not do as good a job as the moving average program of reducing the risk to the underlying endowment over the long term.

14. QUARTERLY REPORT OF UC CAMPUS FOUNDATION INVESTMENT PERFORMANCE

It was recalled that, as the endowment assets of the UC foundations grow, The Regents must be able to report performance results that are independently confirmed and consistent with the methodology used to report the GEP. As a matter of policy, this is an important element in the oversight responsibilities of both The Regents and the foundations.

The Regents asked the Chief Investment Officer to coordinate with the foundations and their custodian banks to provide The Regents with quarterly Investment Performance Summary Reports on each foundation's investments, in the same format as is currently provided to the COI/IAC by the Chief Investment Officer.

A draft report that incorporates performance and asset allocation for all the UC foundations as of March 31, 2006 was mailed to the Committee in advance of the meeting.

The meeting adjourned at 3:25 p.m.

Attest:

Acting Secretary