The Regents of the University of California

INVESTMENTS SUBCOMMITTEE

November 14, 2017

The Investments Subcommittee met on the above date at Mission Bay Conference Center, San Francisco.

Members present: Regents Anguiano, Lemus, Sherman, and Zettel; Ex officio member

Makarechian; Advisory members Anderson and May; Chancellor Khosla

In attendance: Regent Kieffer, Faculty Representative White, Secretary and Chief of Staff

Shaw, Chief Investment Officer Bachher, Senior Counsel Adkison, and

Recording Secretary McCarthy

The meeting convened at 2:00 p.m. with Subcommittee Chair Sherman presiding.

1. **PUBLIC COMMENT**

There were no speakers wishing to address the Subcommittee.

2. APPROVAL OF MINUTES OF PREVIOUS MEETING

Upon motion duly made and seconded, the minutes of the meeting of September 12, 2017 were approved.

3. UPDATE ON INVESTMENT PRODUCTS

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chief Investment Officer (CIO) Bachher reported on investment results for the first three months of the fiscal year, from June 30, 2017 to September 30, 2017. During that period, assets managed by the Office of the CIO increased from about \$110 billion to more than \$115 billion, driven primarily by the performance of public equity markets. As of September 30, 2017, the General Endowment Pool (GEP) had assets of about \$11 billion; the UC Retirement Plan (UCRP) held \$64 billion; the UC Retirement Savings Plan (UCRSP) had assets of \$23 billion; the Total Return Investment Pool (TRIP) had assets of \$9 billion, unchanged from the beginning of the fiscal year and including more than \$1 billion of cash from short-term accounts; and Fiat Lux, UC's captive insurance company, with unchanged total assets of \$0.9 billion.

Mr. Bachher said his office would continue to seek to diversify assets outside of the United States, particularly in Asia and developed Europe.

UC assets were invested 50 percent in pubic equities, 30 percent in fixed income, 13.5 percent in other investments, and 5.5 percent in cash. With assets at relatively high values by historical standards, the Office of the CIO had maintained its cash position as a defensive posture, while looking for investment opportunities.

Senior Managing Director Edmond Fong reported on the GEP, a collection of more than 5,700 endowments held on behalf of UC's 265,000 students. At the end of the prior fiscal year on June 30, 2017, UC's systemwide endowments held assets of almost \$18 billion, with \$10.8 billion in the GEP and the balance in campus foundations. The Office of the CIO had been actively engaged with UC's campus foundations. Over the past 19 years, the GEP had paid out more than \$3.9 billion and over the past four years the GEP had inflows of \$1.8 billion. Mr. Fong anticipated a continuation of the trend of increased inflows into the GEP.

With the continued strong public equity market, GEP increased \$400 million in the first quarter of the fiscal year, but underperformed its benchmark by \$100 million. The GEP had net cash outflows of \$100 million, with \$260 million in annual payout and inflows of \$160 million. As of September 30, 2017, the GEP held assets of \$11 billion. At the end of the first quarter, the GEP asset allocation was 45 percent public equities, 11 percent liquidity (formerly known as fixed income), 18 percent absolute return, 11 percent private equity, six percent real assets, and nine percent cash.

The GEP volatility, meaning the predicted volatility of the portfolio as currently allocated, was 6.4 percent, down from 7.2 percent at the end of the fiscal year, and more than ten percent earlier than that. The volatility of the GEP benchmark was also 6.4 percent. In spite of the GEP's eight to ten percent cash balance, Mr. Fong said the GEP was not underrisked. The GEP's long-term volatility was estimated at 13 percent. Volatility had been significantly compressed across asset classes. The GEP risk allocation was attributed 76 percent to risk involving economic growth, down from 79 percent one quarter earlier. There was a slight increase in risk allocation to foreign exchange and emerging markets, as the GEP invested more in non-U.S. developed and some select emerging markets.

GEP gains were driven largely by an overweight to public equity markets. The GEP allocation to private equity was reduced from 11.5 percent the prior quarter to the slightly underweight 10.8 percent, because of a \$200 million payout from a private equity holding. The GEP long-term policy weights were quite different from current allocations, with room to increase allocations to alternative investments. In the current calendar year, the Office of the CIO had invested more than \$300 million in new private equity new or coinvestments, almost \$400 million in absolute return, \$250 million in real estate, and \$150 million in real assets. The Office of the CIO was focused on finding unique investment opportunities, particularly outside of the United States.

Subcommittee Chair Sherman asked how the GEP's large cash position was held. Mr. Bachher responded that GEP cash was held in the Short Term Investment Pool (STIP). Senior Managing Director Steven Sterman said cash holdings in all portfolios were invested in STIP, currently earning slightly less than 1.5 percent. Mr. Fong added that the

new investments he mentioned had not been funded yet and would draw down the GEP cash holdings.

Mr. Fong summarized GEP investment results for the first quarter. Markets delivered returns of 3.6 percent; the GEP returned 3.1 percent, 50 basis points (bps) below the benchmark. During the quarter, global public equity markets rose 5.5 percent. Emerging markets outperformed developed markets; cyclical sectors outperformed defensive sectors; and growth stocks outperformed value stocks. The focus of the GEP was long term, to meet its spending rate of 4.75 percent. Mr. Bachher pointed out that the GEP's quarterly return of 3.1 percent was unusually robust.

Mr. Bachher reported that the GEP was close to the top performers relative to its peers in the prior fiscal year, but he cautioned that relative results fluctuate from year to year. The goal of the Office of the CIO was to improve from being a middle performer to being in the top quartile. He displayed returns of the UC campus foundations. The combined endowments of the GEP and the campus foundations were \$17.75 billion, the sixth largest in the nation among public and private universities.

Mr. Bachher stated that he encouraged campus foundations' management committees to share information regarding management fees with the Office of the CIO in an effort to increase transparency about fee structures. Mr. Bachher estimated UCLA's internal management fees to be 22 bps; UC Berkeley and UCSF disclosed their internal management fees to be 33 bps and 35 bps respectively. Fees paid to external managers would be in addition to these internal management fees. The GEP internal management fee is ten bps and its external management fees are about 17.9 bps.

Subcommittee Chair Sherman observed that the GEP was being managed by the Office of the CIO at a much lower cost than the campus foundations that are not invested in the GEP. Over all time periods, GEP investment returns had been higher than the campus foundations'. He expressed hope that the campus foundations would increase their participation with the Office of the CIO to take advantage of its benefits of scale. Subcommittee Chair Sherman particularly noted that UC Berkeley could benefit, given its financial struggles and the size of its endowment. UC Berkeley could have earned an additional \$17 million to \$18 million a year from the better returns of the GEP, even without considering the GEP's less expensive fee structure. He suggested reviewing governance issues regarding the independence of the campus foundations. The advantages of scale available to the Office of the CIO would become even more significant as it increases its private equity investments.

Chancellor Khosla commented that many of UC San Diego's donors argue that they earn higher returns in their personal investments than the GEP or the campus foundation. He cautioned that mandating that the campus foundations invest more in the GEP could undermine the campuses' donor pools. Major campus donors serve on the campus foundation boards. Subcommittee Chair Sherman commented that while donors may earn higher returns with their private investments, the fact remained that the campus foundation returns had been less than the GEP's. Mr. Bachher agreed with the importance of having

campus donors involved with the campus foundations. He noted that the Office of the CIO had instituted unitized investment pools in public equity, private equity, and absolute return in which some campus foundations were investing. A campus foundation could invest with the Office of the CIO in passive public equities or passive fixed income for a cost of zero bps. Chancellor Khosla said UC San Diego had taken advantage of some opportunities to invest with the Office of the CIO. However, he commented that some donors had the perception that money invested in the GEP would not be controlled by UC San Diego. Subcommittee Chair Sherman said Mr. Bachher's efforts to increase transparency about management fees would be helpful. Chancellor Khosla added that his current role as Chair of the UC San Diego Foundation was very helpful in enabling the foundation to evaluate investments options. Mr. Bachher commented that donors like to have conversations with campus foundation chief investment officers. The Office of the CIO had increased its engagement with campuses in their efforts to cultivate donors and would continue to do so if the campuses considered it helpful.

Senior Managing Director Eduard van Gelderen reported on the UCRP, which had more than 230,000 members, of which 70,000 were retired with an average annual retirement income of \$42,000, resulting in an annual UCRP payout of \$3 billion. UCRP ended the prior fiscal year with \$61.7 billion in assets and had market gains during the first quarter of \$2.4 billion, \$1.9 billion from public equities. Returns were slightly below the benchmark. UCRP's net cash flow, including its \$3 billion payout, was \$0.5 billion. Typically, UCRP cash inflow from contributions and cash outflow through payouts were about equal at around \$3 billion, and he anticipated that would continue for the upcoming five years.

UCRP's funded ratio was currently 85 percent, with the target of being fully funded by 2030, depending on the three variables of benefits, contributions, and investment returns. Mr. van Gelderen recalled that UCRP's 20-year contribution holiday ended in 2010 and contributions restarted. From that time on, investment returns had been 7.3 percent annually, only slightly higher than the 7.25 percent discount rate. The Office of the CIO was working with Ortec Finance, a company specializing in asset liability management, to review UCRP's asset allocation and investments. The expected return from UCRP's current asset allocation would fall short of 7.25 percent. Risk allocation must also be considered. UCRP's current volatility of 6.2 percent was very low, but was a reflection of current market conditions.

UCRP's current asset allocation was 56 percent public equities, which Mr. van Gelderen characterized as a significant allocation. Possible variation in economic growth was the dominant risk factor and he hoped to diversify the portfolio's risk allocation, which would not necessarily reduce the portfolio's volatility. He noted the importance of monitoring downside risk to keep UCRP's funded ratio above 80 percent.

Mr. van Gelderen advised that his office would attempt to diversify the risk within the public equity portfolio, which currently contained, on the one hand, very high-conviction managers, and, on the other hand, passive management. The Office of the CIO had reduced the number of active managers with high fee structures that outweighed returns. A

quantitative strategy would also be employed, which would add diversification. Investing in market-neutral holdings would be explored, which he distinguished from passive management. He envisioned a three-layer public equity strategy consisting of fundamental investments, a quantitative strategy, and market-neutral holdings.

The UCRP portfolio was currently overweight in public equity and underweight in alternative investments. Mr. van Gelderen would look for strategies that would benefit from falling markets, to mitigate the public equity exposure. Drivers of real asset returns were dependent on the assets' underlying cash flows and were generally less affected by general market movements, diversifying the risk of the UCRP portfolio. The Office of the CIO would also seek ways to hedge the UCRP and GEP portfolios' public equity exposure.

Mr. van Gelderen reviewed what he saw as UCRP's three main pillars. The first pillar is generation of cash flow to meet the pension payouts. With UCRP contributions and payouts anticipated to be roughly equal in the upcoming years, he saw no imminent need to increase assets such as fixed income to generate cash flow. The second pillar is returns, which should be as close as possible to the 7.25 percent discount rate. Public and private equity assets are key to returns. The third pillar is market-neutral holdings to mitigate downside risk and would include absolute return and real assets. Mr. van Gelderen expressed his view that the current UCRP asset allocation could be adjusted to increase the stability of the portfolio, while also generating more returns. In the current low-return environment with U.S. Treasury bonds yielding only 2.5 percent, active management would be important to achieve returns approaching the 7.25 percent discount rate.

Regent Makarechian asked for Mr. van Gelderen's view of UCRP's 7.25 percent discount rate, noting that the California Public Employees' Retirement System had reduced its discount rate to seven percent. Mr. van Gelderen expressed his view that, for the short term, 7.25 percent was a very ambitious goal, particularly given current high market valuations. However, considering longer term investment horizons appropriate for a pension plan, UCRP had returned 9.3 percent a year over 25 years. Mr. Bachher expressed his view that, from the perspective of investment returns, 7.25 percent was a high discount rate, given that 20-year returns were 6.7 percent.

Faculty Representative White asked if the portfolio would have to be overly risky to achieve a 7.25 percent return. He suggested focusing on the real rate of return. Mr. van Gelderen said he would support focusing on the real rate of return, which would consider inflation. He added that UCRP's current risk profile was dominated by its 56 percent allocation to public equities. The current public equity portfolio, as he discussed earlier, contained holdings with high-conviction managers and passive investments, resulting in concentrated risk, which he said could be mitigated through diversification. Mr. Bachher added that to achieve higher returns the portfolio's allocation to alternate investments would have to be increased, which would increase risk.

Regent Makarechian asked what the advantage was of using 7.25 percent as the discount rate. Subcommittee Chair Sherman said continuing to use that discount rate would be a way to avoid dealing with the implications until some time in the future.

Chair Kieffer suggested looking at investment returns over various 30-year periods. He said that the effects of changing the discount rate must be considered. Mr. Bachher said these considerations would include contribution rates, which had been increased for the employer from 14 percent to 15 percent. Increasing the employer contribution rate to 18 percent would be helpful. Investment Director Susie Ardeshir commented that the combined employee and employer contribution rate was currently 22 percent; 28 percent would be required for full funding. Mr. Bachher said his office could provide information about the various components and the impact of changes.

Regent Anguiano stated that there were two separate issues: knowing the amount of the unfunded liability and operational decisions about contributions. She supported examining investment returns over 30-year periods.

Chancellor Khosla asked about the relevance of investment returns, if UCRP inflows from contributions equaled payouts, and if the pension's accrued liability did not have to be paid right away. Subcommittee Chair Sherman said that at some point in the future the number of retirees would exceed the number of active employees. Chancellor Khosla said UC's salary base had been expanding, so contributions would continue to increase. Regent Makarechian said these demographic issues would be discussed by UC's actuarial consultants at the following day's meeting.

Mr. White commented that every dollar that UCRP was underfunded was being borrowed at 7.25 percent, which he said was a huge drain on campus operating budgets and created an imperative to improve the funding ratio.

Regent Lemus asked what the risk profile of a portfolio that achieved 7.25 percent returns over the past 20 years would have been. Mr. van Gelderen said there had been a continual downward trend in interest rates over the past 20 years. Currently, with fixed income contributing such low returns, more risk must be taken in alternative investments to compensate for the low fixed income returns. It is anticipated that interest rates would increase. Mr. Bachher agreed that in the past an allocation of public equities and bonds could have achieved a 7.25 percent return, while currently alternative investments must be included. Ms. Ardeshir said that 20 years prior a 60/40 public equity/fixed income portfolio would have generated a seven percent return. To achieve that return currently, a portfolio must assume twice the risk. Regent Lemus noted the importance of considering risk levels.

Chief Operating Officer Arthur Guimaraes reported that AB 2833, a California public pension plan disclosure requirement approved in 2016, mandated more transparency in disclosure of public pension funds' management fees for alternative investments, including that these fees be reported once a year as part of a public meeting. The Office of the CIO would interpret these requirements broadly to cover all alternative assets including private equity, real assets, real estate, and absolute return. He displayed two slides, which he said would be posted on the website of the Office of the CIO, showing these figures and indicating those funds that did not disclose their fees. In its first year of reporting this information, the Office of the CIO captured almost 70 percent of the data. Mr. Bachher

expressed his full support for the requirement to disclose management fees, noting that it aligned with his emphasis on reducing management fees.

Mr. Guimaraes reported on the UCRSP that serves more than 325,000 participants who saved a combined \$1.3 billion a year. This defined contribution (DC) plan would continue to grow.

Subcommittee Chair Sherman asked if the number of participants in the DC plan was growing at a faster rate than the number in the defined benefit (DB) plan. Mr. Guimaraes answered in the affirmative, noting that some DB plan members also save in the DC plan. Also, newly hired UC employees can choose the DC plan rather than the DB plan. UCRSP participants also include 60,000 seasonal or part-time employees and some former UCRP participants who discontinued employment before five years and were moved into the DC plan.

Mr. Guimaraes advised that the UCRSP was the second largest public DC plan in the nation and was close to becoming one of the ten largest of all public or private DC plans in the country. In the past year, the UCRSP had grown by \$2 billion or 11 percent. As of September 30, the plan had 16 investment options. The UCRSP Target Date funds, the default investment, had grown 20 percent in the past year. The UC Global Fund and the UC Balance Growth Fund were eliminated as of October 2. The UC Global Fund consisted of 85 percent U.S. equities and 15 percent international stocks, both in passive indices. The UC Balanced Growth Fund was originally launched to mirror UCRP; over time the allocation had not kept pace with UCRP's; it resembled a target date fund minus the risk drawdown over time.

Subcommittee Chair Sherman asked if employees who chose the DC plan tended to be younger than those who chose the DB plan. Mr. Guimaraes responded that in the first fiscal year that newly hired employees had this option, of 5,500 hires, 2,000 chose the DC plan and these had an average age of about 40.

Senior Managing Director Scott Chan commented that for the fiscal year to date, including the month of October, the GEP active public equity portfolio gained 8.7 percent and its total public equity portfolio gained 8.3 percent, compared with 7.7 percent for its benchmark. In the same four-month time period, the UCRP active public equity portfolio gained 8.4 percent and the total public equity portfolio rose eight percent. Rising earnings globally had benefited public equity markets. He expressed his belief that the Office of the CIO's public equity portfolio was well-positioned.

Senior Managing Director Steven Sterman reported on the working capital portfolios, which assist UC's campuses and medical centers manage \$82 billion in annual cash flow and maximize earnings of working capital to support spending. There had been no change in the portfolio's risk allocation or asset allocation, and performance has been in line with benchmarks. As of September 30, the working capital portfolios held \$15.5 billion, compared with \$14.25 billion as of June 30. Working capital is held 60 percent in TRIP

and 40 percent in STIP. He anticipated more funds moving from STIP into the GEP as Funds Functioning as Endowments (FFEs).

TRIP's net cash flow was fairly flat for the quarter. Its market gains and value added were offset by its annual July payout, plus campus withdrawals for specific projects. STIP had positive cash flow of \$1.2 billion, from seasonal inflows at the beginning of the academic year and UC's issuance of a \$1 billion bond in September. Over both short and long time periods, TRIP delivered significantly higher returns than STIP. TRIP's asset allocation was slightly overweight in public equities and slightly underweight in fixed income. Mr. Sterman did not anticipate changes to the asset allocation in the near future. Risk could be managed within allowable asset class ranges. TRIP returned 2.5 percent for the quarter, slightly below its benchmark. The TRIP portfolio was quite liquid with its large allocation to public fixed income and its 35 percent public equity allocation, which was completely passive. The GEP portfolio was much less liquid. TRIP liquidity could be used to cover a short-term University need.

The STIP asset allocation had not changed since the end of the fiscal year. STIP was a very high-quality, short-maturity, highly liquid portfolio. Over the past month, interest rates had increased slightly in anticipation of continued Federal Reserve Board interest rate increases. STIP gained 0.4 percent for the quarter, 0.3 percent above its benchmark.

Chancellor Khosla noted that, in addition to the investment strategy of the Office of the CIO, each campus could have its own investment strategy, which could include investing in various holdings of the Office of the CIO. He expressed his view that campuses' having the ability to create FFEs in the GEP with embedded liquidity was beneficial. Mr. Bachher agreed and advised that nearly \$3 billion would be coming into the GEP as FFEs by the end of the fiscal year. He encouraged the UC campuses to think of the Office of the CIO as an investment advisor with the ability to optimize campus cash and leverage the scale of the Office of the CIO. Chancellor Khosla expressed his view that each UC campus should have a chief financial officer.

Ms. Ardeshir reported on Fiat Lux, UC's captive insurance company, a not-for-profit corporation formed by the Regents in 2012. Fiat Lux currently had 19 approved lines of business, including workers' compensation, medical malpractice, and professional liability, with written premiums of approximately \$254 million collected from the campuses. In July 2016, Fiat Lux assets invested in self-insured trusts managed by State Street, invested in primarily passive options, roughly 75 percent fixed income, were moved to STIP. The Office of the CIO worked with the Board of Fiat Lux on an investment policy framework and asset allocation appropriate for its liabilities and risk profile. An interim asset allocation of 60 percent fixed income, 14 percent public equities, and 26 percent cash was developed and, by March 2017, 70 percent of assets were deployed. Opportunities would be sought to partner in other investments of the Office of the CIO, particularly in liquid alternatives. The long-term asset allocation would be 65 percent fixed income, 20 percent public equities, and 15 percent alternatives. Given current market conditions, Ms. Ardeshir advised patience in reaching the long-term allocation. The Fiat Lux risk profile was between STIP's and TRIP's. During the first quarter of the fiscal year, Fiat Lux

returned 1.1 percent, 0.2 percent above its benchmark; since its inception in July 2016, the portfolio returned 2.1 percent, 0.4 percent over its benchmark.

Investment Director John Beil discussed the private equity portfolio, currently with assets of \$4.1 billion market value, nearly four percent of total assets under management of the Office of the CIO. The private equity was split between the GEP and UCRP, with a small allocation in TRIP. Over the upcoming five to seven years, the Office of the CIO would implement the long-term asset allocation and more than double the size of the private equity portfolio to more than \$10 billion. During that time, Mr. Beil anticipated that the private equity in the GEP would increase from an 11.5 percent allocation to 22.5 percent; in UCRP from five percent to ten percent. The pace of investments would increase from about \$500 million to \$700 million per year to close to \$2 billion per year. Specifically, in UCRP, the Office of the CIO would invest an additional \$1.5 billion per year in the GEP; and an additional \$650 million per year in the UCRP. In 2017, the pace of Office of CIO investments in private equity increased, but with a careful approach.

Over the past several years, the Office of the CIO has streamlined the private equity portfolio, reducing the number of managers and increasing the size of investments with its remaining managers. The number of private equity investments has been reduced from 214 in 2012 to 148 in 2017, and the number of managers reduced from 107 in 2012 to 49 in 2017. The average investment size has increased from \$35 million in 2012 to more than \$55 million in 2017. This trend would continue. Beginning in 2013, the Office of the CIO completed some secondary sales and the remaining assets were with the highest-conviction managers.

Regent Makarechian asked if these figures included co-investments. Mr. Beil answered in the affirmative. Regent Makarechian asked if the Office of the CIO intended to increase the size of its investments with its current managers. Mr. Beil said he would add high-conviction managers with differentiated strategies. After streamlining efforts, he considered the portfolio to be well-positioned with its current roster of managers. Regent Makarechian asked if investing more with fewer managers enabled the Office of the CIO to negotiate lower fees. Mr. Bachher commented that the current market favored private equity funds and it was therefore a difficult time to negotiate lower fees. The implications of new disclosure laws also presented a challenge. The Office of the CIO would be patient in moving toward its long-term allocation.

Regent Makarechian asked if the Office of the CIO intended to increase its co-investments. Mr. Bachher answered in the affirmative. Mr. Beil displayed a graph of the seven-year annualized returns in various types of private equity. The total private equity portfolio returned 15 percent per year. Buyout funds and venture capital funds returned roughly 12.5 percent to 13 percent each, while co-investments returned 31.5 percent per year.

Subcommittee Chair Sherman asked how private equity realized returns compared with value information from managers. Mr. Beil said they varied by manager and fluctuated from period to period, but in aggregate were fairly accurate.

Subcommittee Chair Sherman asked if the Office of the CIO was driving realization events in co-investments. Mr. Beil responded that a vast majority of the co-investment portfolio was passive, meaning that UC was investing alongside one of its managers and that manager drives decisions such as when to enter and exit, and decisions of the board of directors over that time period. The Office of the CIO had made 29 co-investments to date and 11 of those had been fully realized, making the co-investment program a mature one with a net positive cash flow in the current year. For the past several years the private equity portfolio had a net cash inflow, with a slowing in the pace of new investments and an acceleration of distributions to UC from investments that are being exited by its co-investment managers.

Faculty Representative White commented that the long-term co-investment results were excellent. He asked if the campus foundations could make similar investments without partnering with the Office of the CIO. Mr. Beil responded that campus foundations that have their own investment offices would be able to co-invest alongside their private equity partners. The Office of the CIO launched a new private equity product through which UC campus foundations could participate in the Office of the CIO's private equity investments on a fee-free, carry-free basis. Mr. White characterized that product as a remarkable opportunity for the campuses.

Regent Makarechian asked about the advantages of co-investments. Mr. Beil estimated that as of September 30 the co-investment portfolio had saved \$180 million in costs, including \$40 million in management fees and \$140 million in carried interest. The portfolio had returned 31 percent annually over seven years. Mr. Beil attributed these gains to very good investment selection by the managers alongside of whom the Office of the CIO invested and good investment selection by the Office of the CIO. Mr. Bachher acknowledged that the co-investment portfolio also had benefited from good fortune. He noted that 17 of the Office of the CIO's 29 co-investments to date had been \$25 million or less, and 26 less than \$50 million. Mr. Bachher anticipated making larger co-investments in the future. Mr. Beil noted that more institutions were making co-investments, making the market more competitive. The Office of the CIO sought to differentiate itself by the speed in which it can make a decision, and its ability to provide nimble capital solutions, providing not only capital but also debt to co-investments on occasion.

Mr. Beil cited an example of a successful co-investment. In 2015, a manager with whom the Office of the CIO had not previously invested with, brought a co-investment opportunity to the Office of the CIO to invest more than \$150 million in Duff and Phelps, a company that performs financial valuations of private equity companies. In its review of the opportunity, the Office of the CIO concluded that it had a good familiarity with that type of business, business trends in that field, and risks. In response to a question from Subcommittee Chair Sherman, Mr. Bachher recalled that the Office of the CIO made the investment at 8.5 times Earnings Before Interest, Depreciation and Amortization. Because of the size of the investment, the Office of the CIO took a seat on the board of directors. Over a two-year period, the investment gained more than \$120 million. Regent Makarechian commented that there should be a way to reward the Office of the CIO staff for such successful investments, to incentivize performance. Mr. Bachher commented that

such investments carried more risk and were more labor-intensive for the Office of the CIO.

Regent-designate Anderson asked if the Office of the CIO had been able to normalize expenses in private equity. Mr. Bachher responded that typical costs would be two percent management fee and 20 percent carried interest, with occasional slight discounts. The coinvestment Duff and Phelps opportunity had costs of 1.5 percent. On a blended basis, the cost of the private equity co-investment portfolio would be one percent management fee and ten percent carried interest. Regent-designate Anderson expressed support for the program.

Regent Lemus asked if there was sufficient opportunity in private equity, given the amount of capital currently seeking private equity investments. Mr. Beil said his office would continue to be mindful of the market environment. Since 2010 private equity assets under management had continued to grow. Commitments made currently would be invested over a five-year period and likely would not be settled until year eight or nine.

4. ADOPTION, AMENDMENT, AND RESCISSION OF CERTAIN REGENTS POLICIES ON INVESTMENT MATTERS

The Chair of the Investments Subcommittee and the Chief Investment Officer recommended that Regents Policies on investment matters be adopted, amended, or rescinded as shown in Attachments 1 through 11.

[Background material was provided to Regents in advance of the meeting, and a copy is on file in the Office of the Secretary and Chief of Staff.]

Chief Investment Officer (CIO) Bachher explained the UC had a lengthy investment policy for each product. In the spirit of the Regents' broader governance review, the Office of the CIO had reviewed these governance documents. Each product should continue to have its own policy, more concisely focused, as well as an Asset and Risk Allocation Policy. The Office of the CIO developed an Implementation Manual that would be shared with the Subcommittee annually.

Investment Director Susie Ardeshir explained that this policy review was a collaborative effort of the Office of the CIO, the Office of the General Counsel, and the Office of the Secretary and Chief of Staff to the Regents to ensure that the proposed policies aligned with the Regents' governance framework. This action would involve 17 Regents policies in Series 6000 Investment Matters: amendment of six existing Investment Policy Statements for the various products; approval of four new Asset and Risk Allocation Policies; and rescission of seven policies that would be incorporated into the appropriate Investment Policy Statements. The Investment Policy Statements would be under the authority of the full Board; the Asset and Risk Allocation Policies would be recommended by the Investments Subcommittee for approval by the full Board through its consent agenda; the Implementation Manual would be under the authority of the Office of the CIO.

A proposed revision to the charter of the Finance and Capital Strategies Committee would be considered by the Governance and Compensation Committee the following day. Authority over determination of asset classes and asset allocation would be changed from being delegated to the Investments Subcommittee to being recommended by the Investments Subcommittee for approval by the full Board through its consent agenda. Any member of the Board could have the recommendation moved from the consent agenda to the Board's regular agenda.

Ms. Ardeshir said the proposed Investment Policy Statements would be streamlined to reflect broad frameworks of purpose and fiduciary oversight, and would be the primary vehicle for transmitting the Regents' objectives.

Regent Zettel asked how the proposed changes would affect the meetings of the Investments Subcommittee. Ms. Ardeshir said there would be no change. The only substantive change was that the Asset and Risk Allocation Policy recommended by the Investments Subcommittee would be placed on the consent agenda of the full Board, rather than approved under delegated authority of the Subcommittee.

Regent Makarechian asked if restrictions on Regents' conduct in the proposed Investment Policy Statements' Conflicts of Interest section would conflict with the Regents' stated fiduciary duty. Ms. Ardeshir clarified that the Regents were prohibited from making specific investment recommendations or providing such information to any member of the Office of the CIO, a typical provision. It would not prohibit general discussion of investment options. Senior Counsel Adkison added that the proposed Conflict of Interest section was moved into the Investment Policy Statements from Regents Policy 6104: Policy on Conflict of Interest Regarding Assets Managed by the CIO. This policy creates a barrier between the Office of the CIO and all Regents to ensure that there would be no influence over the selection of investment managers by the Office of the CIO.

Mr. Bachher agreed that the existing policy was incorporated verbatim in the proposed Investment Policy Statements. While he agreed that no Regent should dictate investments to the Office of the CIO, he thought the policy could be reviewed, as UC Regents are well-connected individuals who could learn of a good investment opportunity. He would be open to reviewing the language of the Conflicts of Interest section in the future. Regent Makarechian expressed his view that this section should be reviewed prior to taking action on this item. Chair Kieffer agreed.

Regent Makarechian also expressed his view that the proposed No Right of Action section in the proposed Investment Policy Statements should specifically include the Regents.

Subcommittee Chair Sherman said this item would be deferred so these concerns could be addressed and the item brought back to a future meeting.

Secretary and Chief of Staff

UNIVERSITY OF CALIFORNIA GENERAL ENDOWMENT POOL INVESTMENT POLICY STATEMENT

POLICY SUMMARY/BACKGROUND

The purpose of this Investment Policy Statement ("Policy" or "IPS") is to define the objectives and policies established for the management of the investments of the University of California General Endowment Pool ("GEP"). The management of the GEP is subject to state and federal regulations and laws, and all other University investment policies, which may not be listed in this document. The IPS is approved by the Board of Regents. The investment policy statement consists of the following sections:

- Investment Objectives
- Monitoring and Reporting
- Total Return Expenditure (Spending) Rate
- Endowment Administration Cost Recovery
- Conflicts of Interest
- Disclosures
- Restrictions
- Policy Maintenance

This policy reflects the Governance Framework outlined in Bylaws 22 and 23 of the University and the Finance and Capital Strategies Committee Charter.

The Board defines the goals and objectives of the GEP and is responsible for establishing and approving changes to this IPS. The Finance and Capital Strategies Committee and Investments Subcommittee are responsible for establishing the Asset and Risk Allocation Policy (with approval by the Board on a consent agenda), which defines the strategic asset allocation, risk tolerance, asset types and benchmarks of the portfolio.

The Chief Investment Officer (or "Office of the Chief Investment Officer") is responsible for implementing the approved investment policies and developing investment processes and procedures for asset allocation, risk management, investment manager selection and termination, monitoring and evaluation, and the identification of management strategies that will improve the investment efficiency of the GEP assets.

POLICY TEXT

INVESTMENT OBJECTIVES

1. Overall Objective

The GEP provides a common investment vehicle, which will generate a stable and growing income stream, for (most but not all of) the University's endowments and quasi-endowments, for which the University is both trustee and beneficiary.

The overall investment goal of the GEP is to preserve the purchasing power of the future stream of endowment payout for those funds and activities supported by the endowments, and to the extent this is achieved, cause the principal to grow in value over time. GEP seeks to maintain liquidity needed to support spending in prolonged down markets to maximize the value of the endowment.

2. Return Objective

GEP seeks to maximize its return on investment, consistent with levels of investment risk that are prudent and reasonable given long-term capital market expectations and the overall objectives of the GEP. The performance of GEP will be measured relative to its objectives (e.g. spending, inflation, growth) and policy benchmarks found in the asset and risk allocation policy.

3. Risk Objective

While the Board recognizes the importance of the preservation of capital, it also recognizes that to achieve the GEP's overall objectives requires prudent risk-taking, and that risk is the prerequisite for generating investment returns. Therefore, investment risk cannot be eliminated but should be managed. Risk exposures should be identified, measured, monitored and tied to responsible parties as identified in the Asset and Risk Allocation Policy; and risk should be taken consistent with the GEP's objectives and the expectations for return from the risk exposures. GEP seeks a level of risk that is prudent and reasonable to maximize the probability of achieving its overall objective consistent with capital market conditions. GEP should limit the probability of loss of capital and/or a loss of purchasing power over a full market cycle (typically 4-8 years). Another important risk objective is limiting declines in purchasing power over the spending policy rolling period, currently 60 months (i.e. 5 years).

4. Sustainability Objective

The Office of the Chief Investment Officer shall incorporate environmental sustainability, social responsibility, and governance (ESG) into the investment evaluation process as part of its overall risk assessment in its investments decision making. ESG factors are considered with the same weight as other material risk factors influencing investment decision making.

The Office of the Chief Investment Officer uses a proprietary sustainability framework to provide core universal principles that inform the decisions and assist in the process of investment evaluation. The Office of the Chief Investment Officer manages the GEP consistent with these sustainability principles. The Framework can be found on the Office of the Chief Investment Officer website in the sustainability section.

MONITORING AND REPORTING

The Office of the Chief Investment Officer (OCIO) is responsible for monitoring the portfolio and investment managers on an ongoing basis. The OCIO should monitor and report to the Investments Subcommittee, Finance and Capital Strategies Committee and Board of Regents on the following items.

- 1. Asset and Risk Allocation
- 2. Investment Performance and Attribution (against benchmarks identified in the **GEP Asset and Risk Allocation Policy**)
- 3. Material Changes to Organization and Investment Strategy
- 4. Potential Material Issues and Risks

While short-term results will be monitored, it is understood that GEP's objectives are long-term in nature and progress towards these objectives will be evaluated from a long-term perspective.

TOTAL RETURN EXPENDITURE (SPENDING) RATE

The endowment spending rate provides University programs with a source of income that is perpetual, growing (at least as fast as inflation) and predictable. The spending rate should balance the needs of current and future generations (equalize real value of per unit distributions over time), and preserve the purchasing power (real value) of the endowment, net of annual spending distributions.

The objective of the spending rate is to allow the principal or core assets to grow on a total return basis (total return = change in market value + income generated from the securities held) while "smoothing" the payout from the endowment assets in order to mitigate disruptions to the budgets of the endowed activities throughout economic and market cycles. Total return expenditure rates permit the spending of realized portfolio gains. The Spending Rate is a percent of unit value (or average unit value) distributed to programs each year and uses a smoothing formula that mediates between volatile market returns and program needs for predictable income.

The total return expenditure (spending) policy for eligible assets in the General Endowment Pool is 4.75 percent of a 60-month moving average of the market value of a unit invested in the GEP.

ENDOWMENT ADMINISTRATION COST RECOVERY

Endowment cost recovery is taken from the endowment payout each year and is used to defray, in part, the cost of the campuses and at the system-wide offices of administering and carrying out the terms of the Regents' endowments. The funds released by this mechanism are used by the campuses and the Office of the President as support for incremental fundraising activities. The endowment administration cost recovery rate of 55 basis points (0.55 percent) is to recover reasonable and actual costs related to the administration of gift assets invested in the General Endowment Pool.

CONFLICTS OF INTEREST

In order to maintain the highest fiduciary standards and to continue to comply with institutional investment best practices, the roles and responsibilities of various UC fiduciaries are explicitly separated to ensure the continuance of sound investment practice and the protection against real or perceived conflict of interest, especially with regard to the selection of individual investments or investment managers. By separating the duties of investment policy-making and investment implementation, The Regents' created an institutional framework to uphold the California Political Reform Act of 1974, which provides that public officials shall not make, participate in making, or influence a governmental decision in which the official has a financial interest.

Individual Regents, advisory members and expert advisors of Regents Committees and Subcommittees are prohibited from contacting the Chief Investment Officer, including any officer of the Office of the Chief Investment Officer of the Regents, to offer advice or recommendations with respect to the selection of specific investments, investment managers, or investment management firms. The General Counsel is responsible for determining, pursuant to the following procedures, that the Chief Investment Officer's responsibilities for selecting investment managers have been exercised free of any such prohibited efforts to influence the Chief Investment Officer.

The Chief Investment Officer will advise the General Counsel if any employee of that office is contacted by a Regent, advisory member or expert advisor in connection with the choice of investments, investment managers, or investment management firms. The Office of the General Counsel will then determine whether the communication was prohibited pursuant to this policy. In the event such a prohibited effort to influence the Chief Investment Officer's selection of investments, investment managers, or investment management firms is identified, the General Counsel shall immediately bring the matter to the attention of the Chair of the Investments Subcommittee.

DISCLOSURES

The Chief Investment Officer provides investment-related information on the GEP to The Regents' Investments Subcommittee in a manner consistent with the requirements outlined in this policy. Current and historical materials are publicly available on The Regents' website within the section on Meeting Agendas and Schedule. The Chief Investment Officer's Annual Report for the most recent fiscal year is also available on the Chief Investment Officer's website. Other disclosures that will be posted on the Chief Investment Officer's website are:

- 1. A report on private equity internal rates of return is publicly available on the Chief Investment Officer's website on a lagged quarterly basis.
- 2. As soon as practicable after each fiscal year, a complete listing of all assets held by the GEP at calendar year end will be posted on the Chief Investment Officer's website. Each listing will include the asset's market value at the end of the year. The assets will be grouped in the standard categories used by the custodian bank to group the assets in the asset reports provided to the Chief Investment Officer.

RESTRICTIONS

The Regents have restricted that purchase of securities issued by tobacco companies and companies with business operations in Sudan are prohibited in separately managed accounts. The Chief Investment Officer will determine what constitutes a tobacco or Sudan company based on standard industry classification of the major index providers and must communicate this list to investment managers annually and whenever changes occur.

COMPLIANCE/DELEGATION

The GEP Investment Policy Statement should be reviewed at least annually and updated as necessary. Revisions may be recommended by the Office of the Chief Investment Officer, Investments Subcommittee, Finance and Capital Strategies Committee, and approved by the Board of Regents.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

GEP Asset and Risk Allocation Policy (add links)

Investment Implementation Manual (add links)

Changes to procedures and related documents do not require Regents approval, and inclusion or amendment of references to these documents can be implemented administratively by the Office of the Secretary and Chief of Staff upon request by the unit responsible for the linked documents.

UNIVERSITY OF CALIFORNIA GENERAL ENDOWMENT POOL ASSET AND RISK ALLOCATION POLICY

POLICY SUMMARY/BACKGROUND

The purpose of this Asset and Risk Allocation Policy ("Policy") is to define the asset types, strategic asset allocation, risk management, benchmarks, and rebalancing for the University of California General Endowment Pool ("GEP"). The Investments Subcommittee has consent responsibilities over this policy

POLICY TEXT

ASSET CLASS TYPES

Below is a list of asset class types in which the GEP may invest so long as they do not conflict with the constraints and restrictions described in the GEP Investment Policy Statement. The criteria used to determine which asset classes may be included are:

- Positive contribution to the investment objective of GEP
- Widely recognized and accepted among institutional investors
- Low cross correlations with some or all of the other accepted asset classes

Based on the criteria above, the types of assets for building the portfolio allocation are:

1. **Public Equity**

Includes publicly traded common and preferred stock of issuers domiciled in US, Non-US, and Emerging (and Frontier) Markets. The objective of the public equity portfolio is to generate investment returns with adequate liquidity through a globally diversified portfolio of common and preferred stocks.

2. Liquidity (Income)

Liquidity includes a variety of income related asset types. The portfolio will invest in interest bearing and income based instruments such as corporate and government bonds, high yield debt, emerging markets debt, inflation linked securities, cash and cash equivalents. The portfolio can hold a mix of traditional (benchmark relative) strategies and unconstrained (benchmark agnostic) strategies. The objective of the income portfolio is to provide necessary liquidity for payment obligations and portfolio rebalancing needs, while investing in higher yielding and less liquid income opportunities with excess liquidity.

3. **Private Equity**

Private equity includes, but is not limited to, venture capital and buyout funds, direct investments, and co-investments in private companies. This includes investments in privately held companies and private investments in public entities which are illiquid. The objective of the portfolio is to earn higher returns than the public equity markets over the long term and take advantage of the illiquidity premium.

4. Real Assets

Real assets includes, but is not limited to, natural resources, real estate, timberland royalties, energy, infrastructure, and commodities related equity and debt related investments. The objective of the real assets portfolio is to contribute to the diversification of the portfolio, generate returns through income and/or capital appreciation, and provide protection against unanticipated inflation.

5. Absolute Return / Strategic Opportunities

Absolute return investments are expected to generate long-term real returns by exploiting market inefficiencies. The portfolio invests in a collection of strategies that includes, but is not limited to, strategy types such as Relative Value, Event Driven, and Strategic Opportunities. The objective of the portfolio is to provide diversification and generate capital appreciation.

6. **Derivatives**

A derivative is a contract or security whose value is derived from another security or risk factor. There are three fundamental classes of derivatives – futures, options and swaps – each with many variations; in addition, some securities are combinations of derivatives or contain embedded derivatives. Use of derivatives to create economic leverage is prohibited. Permitted applications for derivatives are: efficient substitutes for physical securities, managing risk by hedging existing exposures, to implement arbitrage or other approved active management strategies.

Each asset class is assigned a benchmark that represents the opportunity set and risk and return characteristics associated with the asset class. For some private or more complex asset classes the benchmark serves as a proxy for the expected level and pattern of returns rather than an approximation of the actual investment holdings.

RISK MANAGEMENT

There are four principal factors that affect an endowment fund's financial status:

- Contributions
- Annual payout to endowment recipients
- Inflation
- Investment performance

The level of risk tolerance will take into account all four factors. At certain levels of assets and a given spending policy, it could be impossible for the investments to achieve the necessary performance to meet the desired spending. The result is that either spending policy has to be changed, contributions increased or risk tolerance changed.

There are different types of risk tied to various responsible parties at each level of GEP investment management. Thus, different risk metrics are appropriate at each level.

The **principal risks** that impact the GEP, and the parties responsible for managing them are as follows:

- Capital market risk is the risk that the investment return associated with the Subcommittee's asset allocation policy is not sufficient to provide the required returns to meet the GEP's investment objectives. Responsibility for determining the overall level of capital market risk lies with the Board and Subcommittee.
- Investment style risk is associated with an active management investment program. It is the performance differential between an asset category's market target and the aggregate of the managers' benchmarks within the asset category weighted according to a policy allocation specified by the Chief Investment Officer. This risk is an implementation risk and is the responsibility of the Chief Investment Officer.
- Manager value-added risk is also associated with an active management investment program. It is the performance differential between the aggregate of the managers' actual (active) portfolios and the aggregate of the managers' benchmarks. This risk is an implementation risk and is the responsibility of the Chief Investment Officer (and indirectly the investment managers retained by the Chief Investment Officer).
- Tactical/strategic risk is the performance differential between (1) policy allocations for the GEP's asset categories and its investment managers and (2) the actual allocations. This risk is the responsibility of the Chief Investment Officer.
- Total active risk refers to the volatility of the difference between the return of the GEP policy benchmark and the actual return. It incorporates the aggregate of the risks above, and is thus the responsibility of the Chief Investment Officer.

Although the management of investment portfolios may be outsourced, investment oversight and risk management are primary fiduciary duties of the Board that are delegated to and performed by the Chief Investment Officer. The Chief Investment Officer shall report on risk exposures and the values of the several risk measures to the Board.

GEP Product level (Board, Investments Subcommittee, and Office of the Chief Investment Officer)

- Spending Risk (insufficient assets to meet planned spending)
 - o Measures the risk of inappropriate investment policy and strategy
 - Loss of purchasing power and loss of capital
- Total Investment Risk (volatility of total return)
 - o Measures the risk of asset allocation policy

Implementation level (Office of the Chief Investment Officer)

- Active Risk or "Tracking Error" (volatility of deviation from style or benchmark)
 - o Measures the risk of unintended exposures or ineffective implementation

Risk Measures: GEP will use various risk analysis tools (e.g. factor analysis, simulation modeling) to measure the portfolio risks noted below. These metrics are intended to be used as one of many inputs in the asset and risk allocation process and are not intended to be used as benchmarks to measure actual results.

- Loss of Purchasing Power: Loss of purchasing power is defined by the portfolio value losing value, after adjusting for inflation. To measure this risk, GEP will estimate the expected probability that the Portfolio's *real* return will be less than 0.0% (i.e. a loss) over the spending policy period.
- The Office of the Chief Investment Officer (OCIO) will evaluate the probability of "ruin," where the plan's spending, combined with market losses, incorporating the loss of capital (portfolio losing value after adjusting for inflation over a full market cycle) result in the plan being unable to recover its purchasing power over a full market cycle. The probability of ruin should be minimal, and the OCIO should report on any concerns about the feasibility of achieving its return objectives without a material probability of ruin.

The OCIO is responsible for managing both total and active risk, and shall implement procedures and safeguards so that the combined risk exposures of all portfolios taken together are kept within risk bands. Further, within limits of prudent diversification and risk budgets, total and

active risk exposures are fungible. That is, the OCIO may allocate risk exposures within and between asset types in order to optimize return.

STRATEGIC ALLOCATION

The purpose of the Strategic Asset Allocation is to reflect GEP's long-term purpose and objectives, as well as the investment beliefs and organizational capability of the OCIO. The actual portfolio exposures will deviate from the Strategic Asset Allocation as a result of price drifts, opportunity set, and value adding activities of the OCIO. This is underpinned by the recognition that investment opportunities come and go, values rise and fall, and that implementation must be dynamic in order to benefit from this fluctuation. This belief is critical to add value to the GEP. The OCIO follows a risk allocation process to ensure that the attractiveness of all opportunities is assessed on a consistent basis and that will meet the objectives set.

The investment strategy of the GEP will incorporate the risk tolerance of the Board, Committee, and Subcommittee, the relationship between current and projected assets, evolution of the University's financial needs, namely GEP Spending Policy, contributions, and growth expectations.

Below are the strategic asset allocation long-term weights and allowable ranges:

Table 1

	Strategic Asset	<u>Allowabl</u>	Allowable Ranges	
	Allocation	Minimum	Maximum	
Public Equity	30.0	20.0	52.5	
Private Equity	22.5	10.0	32.5	
Absolute Return (Strategic Opportunities)	25.0	15.0	32.0	
Real Assets	12.5	3.0	17.5	
<u>Liquidity (Income)</u>	<u>10.0</u>	<u>0.0</u>	<u>17.5</u>	
TOTAL	$10\overline{0.0}\%$			

BENCHMARKS

The following criteria have been adopted for the selection of benchmark indices. It is understood that not all benchmarks will meet the entire list of criteria, but ideally, benchmarks that meet most of the criteria will be selected. There may be instances where tradeoffs are made between benchmarks that meet some of the criteria but not others.

- 1. **Unambiguous**: the names and weights of securities comprising the benchmark are clearly delineated.
- 2. **Investable**: is possible to replicate the benchmark performance by investing in the benchmark holdings.

- 3. **Measurable**: it is possible to readily calculate the benchmark's return on a reasonably frequent basis.
- 4. **Appropriate**: the benchmark is consistent with investment preferences or biases.
- 5. **Specified in Advance**: the benchmark is constructed prior to the start of an evaluation period.
- 6. **Reflects Current Investment Opinion**: investment professionals in the asset class should have views on the assets in the benchmark and incorporate those views in their portfolio construction.

Benchmarks are a tool against which to measure the effectiveness of investment strategy either at a total fund level, at an investment class or strategy level, or at the mandate level. Based on the benchmark selection criteria, the following strategic policy benchmarks have been chosen:

Table 2

Asset Class	Benchmark	
Global Equity	MSCI All Country World Index (ACWI) Investable Market Index (IMI) Tobacco Free - Net Dividends	
Private Equity	Russell 3000 + 3% ¹	
Absolute Return (Strategic Opportunities)	HFRI Fund of Funds Composite	
Real Assets (non Real Estate)	Actual Real Assets Portfolio Return	
Real Assets (Real Estate)	NCREIF Fund Index - Open End Diversified Core Equity (ODCE), lagged 3 months	
Income (Liquidity)	Barclays US Aggregate Index	

The **Total GEP Portfolio Benchmark** is a weighted average consisting of each of the monthly returns of the benchmarks noted above weighted by the Policy Allocation percentages. The policy benchmarks may differ from the target allocations in <u>Table 1</u> until implementation reaches the long-term strategic asset allocation.

REBALANCING

There will be periodic deviations in actual asset weights from the strategic target weights. Causes for periodic deviations are market movements, cash flows, tactical tilts, and asset selection. Significant movements from the asset class policy weights will alter the intended expected return and risk of the GEP. Accordingly, the GEP may be rebalanced when necessary to ensure adherence to this policy and the Investment Policy.

¹ As the Office of the CIO transitions the benchmark into the portfolio, 150 basis points illiquidity premium will be used for the first year starting in July 2017.

The OCIO will monitor the actual asset allocation. The Board directs the OCIO to take all actions necessary, within the requirement to act prudently, to manage the asset allocation in a manner that ensures that the GEP achieves its long-term risk and return objectives.

The OCIO shall assess and manage the trade-off between the cost of rebalancing and the active risk associated with the deviation from policy asset weights. The Chief Investment Officer may delay a rebalancing program when the Chief Investment Officer believes the delay is in the best interest of the GEP.

COMPLIANCE/DELEGATION

The GEP Asset and Risk Allocation Policy should be reviewed at least annually and updated as necessary. The Investments Subcommittee may recommend action which will be placed on the Consent Agenda for approval by the Board.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

Investment Implementation Manual (add links)

Changes to procedures and related documents do not require Regents approval, and inclusion or amendment of references to these documents can be implemented administratively by the Office of the Secretary and Chief of Staff upon request by the unit responsible for the linked documents.

UNIVERSITY OF CALIFORNIA RETIREMENT PLAN INVESTMENT POLICY STATEMENT

POLICY SUMMARY/BACKGROUND

The purpose of this Investment Policy Statement ("Policy" or "IPS") is to define the objectives and policies established for the management of the investments of the University of California Retirement Plan ("UCRP"). The management of UCRP is subject to state and federal regulations and laws, and all other University investment policies, which may not be listed in this document. The investment policy statement consists of the following sections:

- Investment Objectives
- Monitoring and Reporting
- Conflicts of Interest
- Disclosures
- Policy Maintenance

This policy reflects the Governance Framework outlined in Bylaws 22 and 23 of the University and the Finance and Capital Strategies Committee Charter

The Board defines the goals and objectives of UCRP and is responsible for establishing and approving changes to this IPS. The Finance and Capital Strategies Committee and Investments Subcommittee are responsible for establishing the Asset and Risk Allocation Policy (with approval by the Board on a consent agenda), which defines the strategic asset allocation, risk tolerance, asset types and benchmarks of the portfolio.

The Chief Investment Officer (or "Office of the Chief Investment Officer") is responsible for implementing the approved investment policies and developing investment processes and procedures for asset allocation, risk management, investment manager selection and termination, monitoring and evaluation, and the identification of management strategies that will improve the investment efficiency of UCRP assets.

POLICY TEXT

INVESTMENT OBJECTIVES

1. Overall Objective

The objective of UCRP is to provide retirement benefits, as described in the Plan document, to its participants and their beneficiaries. The overall investment goal of UCRP is to maximize the probability of meeting the Plan's liabilities subject to the Regents' funding policy.

2. Return Objective

UCRP seeks to maximize its return on investment, consistent with levels of investment risk that are prudent and reasonable given long-term capital market expectations and the overall objectives of UCRP. The performance of UCRP will be measured relative to its objectives (e.g. actuarial rate, funded status, inflation) and policy benchmarks found in the Asset and Risk Allocation Policy.

Accordingly, the investment objectives and strategies emphasize a long-term outlook, and interim performance fluctuations will be viewed with the corresponding perspective. The Board acknowledges that over short time periods (i.e. one quarter, one year, and even three to five year time periods), returns will vary from performance objectives and the investment policy thus serves as a buffer against ill-considered action.

3. Risk Objective

While the Board recognizes the importance of the preservation of capital, it also recognizes that to achieve UCRP's overall objectives requires prudent risk-taking, and that risk is the prerequisite for generating investment returns. Therefore investment risk cannot be eliminated but should be managed. Risk exposures should be identified, measured, monitored and tied to responsible parties; and risk should be taken consistent with UCRP's objectives and the expectations for return from the risk exposures.

UCRP seeks a level of risk that is prudent and reasonable to maximize the probability of achieving its overall objective consistent with capital market conditions. The expected level of UCRP funded status volatility (i.e. surplus risk, or volatility of the change in UCRP assets relative to the change in UCRP liabilities) should be monitored and the Board seeks to minimize the probability of loss of funded status over a full market cycle.

4. Sustainability Objective

The Office of the Chief Investment Officer (OCIO) shall incorporate environmental sustainability, social responsibility, and governance (ESG) into the investment evaluation process as part of its overall risk assessment in its investments decision making. ESG factors are considered with the same weight as other material risk factors influencing investment decision making.

The OCIO uses a proprietary sustainability framework to provide core universal principles that inform the decisions and assist in the process of investment evaluation. The OCIO manages the UCRP consistent with these sustainability principles. The Framework can be found on the OCIO's website in the sustainability section.

MONITORING AND REPORTING

The OCIO is responsible for monitoring the portfolio and investment managers on an ongoing basis. The OCIO should monitor and report to the Investments Subcommittee, Finance and Capital Strategies Committee, and Board of Regents on the following items.

- 1. Asset and Risk Allocation
- 2. Investment Performance and Attribution (against benchmarks identified in the **UCRP Asset and Risk Allocation Policy**)
- 3. Material Changes to Organization and Investment Strategy
- 4. Potential Material Issues and Risks

While short-term results will be monitored, it is understood that UCRP's objectives are long-term in nature and progress towards these objectives will be evaluated from a long-term perspective.

CONFLICTS OF INTEREST

In order to maintain the highest fiduciary standards and to continue to comply with institutional investment best practices, the roles and responsibilities of various UC fiduciaries are explicitly separated to ensure the continuance of sound investment practice and the protection against real or perceived conflict of interest, especially with regard to the selection of individual investments or investment managers. By separating the duties of investment policy-making and investment implementation, The Regents' created an institutional framework to uphold the California Political Reform Act of 1974, which provides that public officials shall not make, participate in making, or influence a governmental decision in which the official has a financial interest.

Individual Regents, advisory members, and expert advisors of Regents Committees or Subcommittees are prohibited from contacting the Chief Investment Officer, including any officer of the OCIO of the Regents, to offer advice or recommendations with respect to the selection of specific investments, investment managers, or investment management firms. The General Counsel is responsible for determining, pursuant to the following procedures, that the Chief Investment Officer's responsibilities for selecting investment managers have been exercised free of any such prohibited efforts to influence the Chief Investment Officer.

The Chief Investment Officer will advise the General Counsel if any employee of that office is contacted by a Regent, advisory member, or expert advisor in connection with the choice of investments, investment managers, or investment management firms. The Office of the General Counsel will then determine whether the communication was prohibited pursuant to this policy. In the event such a prohibited effort to influence the Chief Investment Officer's selection of investments, investment managers, or investment management firms is identified, the General Counsel shall immediately bring the matter to the attention of the Chair of the Investments Subcommittee.

DISCLOSURES

The Chief Investment Officer provides investment-related information on the UCRP to the Regents' Investments Subcommittee in a manner consistent with the requirements outlined in this policy. Current and historical materials are publicly available on the Regents' website within the section on Meeting Agendas and Schedule. The Chief Investment Officer's Annual Report for the most recent fiscal year is also available on the Chief Investment Officer's website. Other disclosures that will be posted on the Chief Investment Officer's website are:

- 1. A report on private equity internal rates of return is publicly available on the Chief Investment Officer's website on a lagged quarterly basis.
- 2. The fees and expenses paid directly to the alternative investment vehicle, the fund manager, or related parties.
 - a. The name, address, and vintage year of each alternative investment vehicle, the dollar amount of the total commitment, and the following information related to fees and expenses paid directly to the alternative investment vehicle, the fund manager or related parties (as defined in AB2833);
 - b. Fees and expenses paid directly to the alternative investment vehicle, the fund manager or related parties;
 - c. Pro rata share of fees and expenses not included above that are paid by the alternative investment vehicle to the fund manager or related parties;
 - d. UCRP's pro rata share of carried interest distributed to the fund manager or related parties; and
 - e. UCRP's pro rata share of aggregate fees and expenses paid by portfolio companies to the fund manager or related parties.
- 3. As soon as practicable after each fiscal year, a complete listing of all assets held by the UCRP at calendar year end will be posted on the Chief Investment Officer's website. Each listing will include the asset's market value at the end of the year. The assets will be grouped in the standard categories used by the custodian bank to group the assets in the asset reports provided to the Chief Investment Officer.
- 4. Each External Manager² proposing an investment to be made by or on behalf of the University of California Retirement System must comply with one of the following two requirements:

² "External Manager" means a (i) person who is seeking to be, or is, retained by the Regents to manage a portfolio of securities or other assets for compensation or (ii) a person managing an investment fund who offers or sells, or has offered or sold, an ownership interest in the investment fund.

- a. If the External Manager will not use any Placement Agents³ in connection with the proposed investment, the External Manager must provide the Chief Investment Officer with a written statement to that effect.
- b. If the External Manager will use a Placement Agent in connection with the proposed investment, the External Manager must disclose the following information in writing to the Chief Investment Officer:
 - i. A description of the relationship between the External Manager and any Placement Agents for the investment for which funds are being raised.
 - ii. Whether the Placement Agent's mandate includes the Regents of University of California as trustee/custodian.
 - iii. A description of the services performed by the Placement Agent.
 - iv. A description of any and all payments of any kind provided or agreed to be provided to a Placement Agent by the External Manager with regard to investments by the Regents as a plan trustee or custodian of retirement or savings plan assets.
 - v. Upon request, the resume for each officer, partner or principal of the Placement Agent detailing the person's education, professional designations, regulatory licenses, and investment and work experience.
 - vi. A statement as to whether the Placement Agent, or any of its affiliates, is registered with the Securities Exchange Commission.
 - vii. A statement as to whether the Placement Agent, or any of its affiliates, is registered as a lobbyist under California law.
- c. The Chief Investment Officer will only enter into agreements to invest in or through External Managers that agree to comply with the provisions of this policy with regard to Placement Agents. The Chief Investment Officer will rely on the written statements made by the External Manager.

³ "Placement Agent" means a person directly or indirectly hired, engaged or retained by, or serving for the benefit of or on behalf of, an External Manager or an investment fund managed by an External Manager, who acts, or has acted, for compensation as a finder, solicitor, marketer, consultant, broker or other intermediary in connection with the offer or sale to the Regents of either the investment management services of the External Manager or an ownership interest in an investment fund managed by the External Manager. Any exceptions to this definition of "Placement Agent" available under Sections 7513.8 or Section 82047.3 of the California Government Code will apply under this Policy.

RESTRICTIONS

The Regents have restricted that purchase of securities issued by tobacco companies and companies with business operations in Sudan are prohibited in separately managed accounts. The Chief Investment Officer will determine what constitutes a tobacco or Sudan company based on standard industry classification of the major index providers and must communicate this list to investment managers annually and whenever changes occur.

COMPLIANCE/DELEGATION

The UCRP Investment Policy Statement should be reviewed at least annually and updated as necessary. Revisions may be recommended by the Office of the Chief Investment Officer, Investments Subcommittee, Finance and Capital Strategies Committee, and approved by the Board of Regents.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

UCRP Asset and Risk Allocation Policy (add links)

Investment Implementation Manual (add links)

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UNIVERSITY OF CALIFORNIA RETIREMENT PLAN ASSET AND RISK ALLOCATION POLICY

POLICY SUMMARY/BACKGROUND

The purpose of this Asset and Risk Allocation Policy ("Policy") is to define the asset types, strategic asset allocation, risk management, benchmarks, and rebalancing for the University of California Retirement Plan ("UCRP"). The Investments Subcommittee has consent responsibilities over this policy

POLICY TEXT

ASSET CLASS TYPES

Below is a list of asset class types in which the UCRP may invest so long as they do not conflict with the constraints and restrictions described in the UCRP Investment Policy Statement. The criteria used to determine which asset classes may be included are:

- Positive contribution to the investment objective of UCRP
- Widely recognized and accepted among institutional investors
- Low cross correlations with some or all of the other accepted asset classes

Based on the criteria above, the types of assets for building the portfolio allocation are:

1. **Public Equity**

Includes publicly traded common and preferred stock of issuers domiciled in US, Non-US, and Emerging (and Frontier) Markets. The objective of the public equity portfolio is to generate investment returns with adequate liquidity through a globally diversified portfolio of common and preferred stocks.

2. **Fixed Income**

Fixed Income includes a variety of income related asset types. The portfolio will invest in interest bearing and income based instruments such as corporate and government bonds, high yield debt, emerging markets debt, inflation linked securities, cash and cash equivalents. The portfolio can hold a mix of traditional (benchmark relative) strategies and unconstrained (benchmark agnostic) strategies. The objective of the income portfolio is to provide necessary liquidity for payment obligations and portfolio rebalancing needs, while investing in higher yielding and less liquid income opportunities with excess liquidity.

3. **Private Equity**

Private equity includes, but is not limited to, venture capital and buyout funds, direct investments, and co-investments in private companies. This includes investments in privately held companies and private investments in public entities which are illiquid. The objective of the portfolio is to earn higher returns than the public equity markets over the long term and take advantage of the illiquidity premium.

4. **Private Real Estate**

Private real estate includes, but is not limited to, core, value-add, opportunistic strategies that are characterized by development, repositioning and leverage. Investments are typically comprised of commercial properties in various operating segments (e.g. office, retail, hotel, industrial, student housing and multi-family). The objective of the real estate portfolio is to contribute to the diversification of the portfolio, generate returns through income and/or capital appreciation, and protect long-term purchasing power.

5. Real Assets

Real assets includes, but is not limited to, natural resources, timberland, energy, royalties, infrastructure, and commodities related equity and debt related investments. The objective of the real assets portfolio is to contribute to the diversification of the portfolio, generate returns through income and/or capital appreciation, and provide protection against unanticipated inflation.

6. Absolute Return / Strategic Opportunities

Absolute return investments are expected to generate long-term real returns by exploiting market inefficiencies. The portfolio invests in a collection of strategies that includes, but is not limited to, strategy types such as Relative Value, Event Driven, and Strategic Opportunities. The objective of the portfolio is to provide diversification and generate capital appreciation.

7. **Derivatives**

A derivative is a contract or security whose value is derived from another security or risk factor. There are three fundamental classes of derivatives – futures, options and swaps – each with many variations; in addition, some securities are combinations of derivatives or contain embedded derivatives. Use of derivatives to create economic leverage is prohibited, except for specific strategies only. Permitted applications for derivatives are: efficient substitutes for physical securities, managing risk by hedging existing exposures, to implement arbitrage or other approved active management strategies.

Each asset class is assigned a benchmark that represents the opportunity set and risk and return characteristics associated with the asset class. For some private or more complex asset classes

the benchmark serves as a proxy for the expected level and pattern of returns rather than an approximation of the actual investment holdings.

RISK MANAGEMENT

There are three principal factors that affect a pension fund's financial status: 1) contributions, 2) benefit payments, and 3) investment performance. Only the last factor is dependent upon the investment policy and guidelines contained herein. However, the Subcommittee's level of risk tolerance will take into account all three factors. At certain levels of funded status, it could be impossible for the investments to achieve the necessary performance to meet the promised liabilities. The result is that either benefits have to be reduced, contributions increased, or risk tolerance changed.

There are different types of risk important at each level of investment management for UCRP and tied to various responsible parties thus different risk metrics are appropriate at each level.

There are different types of risk tied to various responsible parties at each level of UCRP investment management. Thus, different risk metrics are appropriate at each level.

The **principal risks** that impact the UCRP, and the parties responsible for managing them are as follows:

- Capital market risk is the risk that the investment return associated with the Subcommittee's asset allocation policy is not sufficient to provide the required returns to meet the UCRP's investment objectives. Responsibility for determining the overall level of capital market risk lies with the Board and Subcommittee.
- Investment style risk is associated with an active management investment program. It is the performance differential between an asset category's market target and the aggregate of the managers' benchmarks within the asset category weighted according to a policy allocation specified by the Chief Investment Officer. This risk is an implementation risk and is the responsibility of the Chief Investment Officer.
- Manager value-added risk is also associated with an active management investment program. It is the performance differential between the aggregate of the managers' actual (active) portfolios and the aggregate of the managers' benchmarks. This risk is an implementation risk and is the responsibility of the Chief Investment Officer (and indirectly the investment managers retained by the Chief Investment Officer).
- Tactical/strategic risk is the performance differential between (1) policy allocations for UCRP's asset categories and its investment managers and (2) the actual allocations. This risk is the responsibility of the Chief Investment Officer.
- Total active risk refers to the volatility of the difference between the return of the UCRP policy benchmark and the actual return. It incorporates the aggregate of the risks above, and is thus the responsibility of the Chief Investment Officer.

• Surplus risk refers to the volatility of the change in the dollar value of UCRP assets versus the change in the dollar value of the liabilities. The latter represents the ultimate investment objective of the Plan. Because the asset allocation articulates the Regents' risk tolerance, and because the Regents determine the Plan's benefits and liabilities, this risk is the joint responsibility of the Board and the Subcommittee.

Although the management of investment portfolios may be outsourced, investment oversight and risk management are primary fiduciary duties of the Board that are delegated to and performed by the Chief Investment Officer. The Chief Investment Officer shall report on risk exposures and the values of the several risk measures to the Board.

UCRP Product level (Board, Investments Subcommittee, and Office of the Chief Investment Officer)

- Surplus Risk (insufficient assets to meet liabilities)
 - o Measures the risk of inappropriate investment policy and strategy
- Total Investment Risk (volatility of total return)
 - Measures the risk of asset allocation policy

Implementation level (Office of the Chief Investment Officer)

- Active Risk or "Tracking Error" (volatility of deviation from style or benchmark)
 - o Measures the risk of unintended exposures or ineffective implementation

Risk Measures: UCRP will use various risk analysis tools (e.g. factor analysis, simulation modeling) to measure the portfolio risks noted below. These metrics are intended to be used as one of many inputs in the asset and risk allocation process and are not intended to be used as benchmarks to measure actual results.

- Funded Ratio: Funded Ratio, defined as the ratio of plan assets to liabilities. Plan assets shall be measured at current market value as well as using actuarially smoothing. Liabilities shall be measured as the actuarial accrued liability (AAL). Liabilities, and hence this metric, are formally re-estimated only annually, but should be reviewed quarterly (change in liabilities estimated using liability duration and change in bond yields, as well as accruals for service cost and benefits paid).
 - The funded ratio projected over a ten year forecast period, using an actuarial model of assets and liabilities
 - The expected shortfall, defined as the expected loss experienced in worst case market scenarios

The Office of the Chief Investment Officer (OCIO) is responsible for managing both total and active risk and shall implement procedures and safeguards so that the combined risk exposures of all portfolios taken together are kept within risk bands. Further, within limits of prudent diversification and risk budgets, total and active risk exposures are fungible. That is, the OCIO may allocate risk exposures within and between asset types in order to optimize return.

STRATEGIC ALLOCATION

The purpose of the Strategic Asset Allocation is to reflect UCRP's long-term purpose and objectives, as well as the investment beliefs and organizational capability of the OCIO. The actual portfolio exposures will deviate from the Strategic Asset Allocation as a result of price drifts, opportunity set, and value adding activities of the OCIO. This is underpinned by the recognition that investment opportunities come and go, values rise and fall and, that implementation must be dynamic in order to benefit from this fluctuation. This belief is critical to add value to UCRP. We follow a risk allocation process to ensure that the attractiveness of all opportunities is assessed on a consistent basis and that will meet the objectives set.

The investment strategy of UCRP will be based on a financial plan that will consider:

- The financial condition of the Plan, i.e., the relationship between the current and projected assets of the Plan and the projected benefit payments, and the current Funding Policy.
- Future growth of active and retired participants; expected service costs and benefit payments; and inflation and the rate of salary increases. (Together these are the principal factors determining liability growth.)
- The expected long-term capital market outlook, including expected volatility of and correlation among various asset classes.

Below are the strategic asset allocation long-term weights and allowable ranges:

Table 1

	Target Allocation	Allowable Ranges	
		Minimum	Maximum
Global Equity	50.0	40.0	60.0
US Fixed Income	13.0	10.0	16.0
High Yield Fixed Income	2.5	0.0	5.0
Emerging Mkt Fixed Income	2.5	0.0	5.0
TIPS	2.0	0.0	4.0
Private Equity	10.0	5.0	15.0
Absolute Return	10.0	0.0	20.0
Real Assets	3.0	0.0	6.0
Real Estate	7.0	2.0	12.0
Liquidity	0.0	0.0	10.0
TOTAL	100%		
Combined Public Equity	50.0	40.0	60.0
Combined Fixed Income	20.0	10.0	30.0
Combined Other Investments*	30.0	20.0	40.0

^{*} Other Investments category including, but not limited to: Real Estate, Private Equity, Real Assets, and Absolute Return

BENCHMARKS

The following criteria have been adopted for the selection of benchmark indices. It is understood that not all benchmarks will meet the entire list of criteria, but ideally, benchmarks that meet most of the criteria will be selected. There may be instances where tradeoffs are made between benchmarks that meet some of the criteria but not others.

- 1. **Unambiguous**: the names and weights of securities comprising the benchmark are clearly delineated.
- 2. **Investable**: is possible to replicate the benchmark performance by investing in the benchmark holdings.
- 3. **Measurable**: possible to readily calculate the benchmark's return on a reasonably frequent basis.
- 4. **Appropriate**: the benchmark is consistent with investment preferences or biases.
- 5. **Specified in Advance**: the benchmark is constructed prior to the start of an evaluation period.

6. **Reflects Current Investment Opinion**: investment professionals in the asset class should have views on the assets in the benchmark and incorporate those views in their portfolio construction.

Benchmarks are a tool against which to measure the effectiveness of investment strategy either at a total fund level, at an investment class or strategy level, or at the mandate level. Based on the benchmark selection criteria, the following strategic policy benchmarks have been chosen:

Table 2

Asset Class	Benchmark	
Global Equity	MSCI All Country World Index (ACWI) Investable	
	Market Index (IMI) Tobacco Free - Net Dividends	
Core Fixed Income	Barclays US Aggregate Index	
High Yield Fixed Income	Merrill Lynch High Yield Cash Pay Index	
Emerging Market Fixed Income	JP Morgan Emerging Markets Bond Index Global	
	Diversified	
Treasury Inflation	Barclays US TIPS Index	
Protected Securities (TIPS)		
Private Equity	Russell 3000 + 3% ⁴	
Absolute Return / Strategic	HFRI Fund of Funds Composite	
Opportunities		
Real Assets	Actual Real Assets Portfolio Return	
Real Estate	NCREIF Funds Index – Open End Diversified Core	
	Equity (ODCE), lagged 3 months	

The **Total UCRP Portfolio Benchmark** is a weighted average consisting of each of the monthly returns of the benchmarks noted above weighted by the Policy Allocation percentages. The policy benchmarks may differ from the target allocations in Table 1 until implementation reaches the long-term strategic asset allocation.

REBALANCING

There will be periodic deviations in actual asset weights from the strategic target weights. Causes for periodic deviations are market movements, cash flows, tactical tilts, and asset selection. Significant movements from the asset class policy weights will alter the intended expected return and risk of UCRP. Accordingly, UCRP may be rebalanced when necessary to ensure adherence to this policy and the Investment Policy.

The OCIO will monitor the actual asset allocation. The Board directs the OCIO to take all actions necessary, within the requirement to act prudently, to manage the asset allocation in a manner that ensures that UCRP achieves its long-term risk and return objectives.

⁴ As the OCIO transitions the benchmark into the portfolio, it will use 150 basis points illiquidity premium for the first year starting in July 2017.

The OCIO shall assess and manage the trade-off between the cost of rebalancing and the active risk associated with the deviation from policy asset weights. The Chief Investment Officer may delay a rebalancing program when the Chief Investment Officer believes the delay is in the best interest of UCRP.

COMPLIANCE/DELEGATION

The UCRP Asset and Risk Allocation Policy Statement should be reviewed at least annually and updated as necessary. The Investments Subcommittee may recommend action which will be placed on the Consent Agenda for approval by the Board.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

Investment Implementation Manual (add links)

Changes to procedures and related documents do not require Regents approval, and inclusion or amendment of references to these documents can be implemented administratively by the Office of the Secretary and Chief of Staff upon request by the unit responsible for the linked documents.

UNIVERSITY OF CALIFORNIA TOTAL RETURN INVESTMENT POOL INVESTMENT POLICY STATEMENT

POLICY SUMMARY/BACKGROUND

The purpose of this Investment Policy Statement ("Policy" or "IPS") is to define the objectives and policies established for the management of the investments of the University of California Total Return Investment Pool ("TRIP"). The management of TRIP is subject to state and federal regulations and laws, and all other University investment policies, which may not be listed in this document. The investment policy statement consists of the following sections:

- Investment Objectives
- Monitoring and Reporting
- Conflicts of Interest
- Disclosures
- Policy Maintenance

This policy reflects the Governance Framework outlined in Bylaws 22 and 23 of the University and the Finance and Capital Strategies Committee Charter. The Board defines the goals and objectives of TRIP and is responsible for establishing and approving changes to this IPS. The FCS Committee and Investments Subcommittee are responsible for establishing the Asset and Risk Allocation Policy (with Board approval on a consent agenda), which defines the strategic asset allocation, risk tolerance, asset types and benchmarks of the portfolio.

The Chief Investment Officer (or "Office of the Chief Investment Officer") is responsible for implementing the approved investment policies and developing investment processes and procedures for asset allocation, risk management, investment manager selection and termination, monitoring and evaluation, and the identification of management strategies that will improve the investment efficiency of TRIP assets.

POLICY TEXT

INVESTMENT OBJECTIVES

1. Overall Objective

TRIP is an investment pool established by the Regents and is available to UC Campuses and certain other related entities. TRIP allows UC organizations to maximize return on their intermediate-term working capital, subject to risk tolerance and liquidity management practices established with the Office of the President and Campuses, by taking advantage of the economies of scale of investing in a larger pool and investing across a broad range of asset classes.

2. Return Objective

The Objective of TRIP is to generate a rate of return, after all costs and fees, in excess of the policy benchmark, and consistent with liquidity, cash flow requirements, and risk budget as defined in the Asset and Risk Allocation policy.

3. Risk Objective

While the Board recognizes the importance of the preservation of capital, it also recognizes that to achieve TRIP's overall objectives requires prudent risk-taking, and that risk is the prerequisite for generating investment returns. Therefore, investment risk cannot be eliminated but should be managed. Risk exposures should be identified, measured, monitored and tied to responsible parties; and risk should be taken consistent with TRIP's objectives and the expectations for return from the risk exposures.

TRIP seeks a level of risk that is prudent and reasonable to maximize the probability of achieving its overall objective consistent with capital market conditions.

4. Sustainability Objective

The Office of the Chief Investment Officer shall incorporate environmental sustainability, social responsibility, and governance (ESG) into the investment evaluation process as part of its overall risk assessment in its investments decision making. ESG factors are considered with the same weight as other material risk factors influencing investment decision making.

The Office of the Chief Investment Officer uses a proprietary sustainability framework to provide core universal principles that inform the decisions and assist in the process of investment evaluation. The Office of the Chief Investment Officer manages TRIP consistent with these sustainability principles. The Framework can be found on the Office of the Chief Investment Officer website in the sustainability section.

MONITORING AND REPORTING

The Office of the Chief Investment Officer (OCIO) is responsible for monitoring the portfolio and investment managers on an ongoing basis. The OCIO should monitor and report to the Investments Subcommittee, Finance and Capital Strategies Committee and Board of Regents on the following items.

- 1. Asset and Risk Allocation
- Investment Performance and Attribution (against benchmarks identified in the TRIP Asset and Risk Allocation Policy)
- 3. Material Changes to Organization and Investment Strategy
- 4. Potential Material Issues and Risks

While short-term results will be monitored, it is understood that TRIP's objectives are long-term in nature and progress towards these objectives will be evaluated from a long-term perspective.

CONFLICTS OF INTEREST

In order to maintain the highest fiduciary standards and to continue to comply with institutional investment best practices, the roles and responsibilities of various UC fiduciaries are explicitly separated to ensure the continuance of sound investment practice and the protection against real or perceived conflict of interest, especially with regard to the selection of individual investments or investment managers. By separating the duties of investment policy-making and investment implementation, the Regents' created an institutional framework to uphold the California Political Reform Act of 1974, which provides that public officials shall not make, participate in making, or influence a governmental decision in which the official has a financial interest.

Individual Regents, advisory members, and expert advisors of Regents Committees or Subcommittees are prohibited from contacting the Chief Investment Officer, including any officer of the Office of the Chief Investment Officer of the Regents, to offer advice or recommendations with respect to the selection of specific investments, investment managers, or investment management firms. The General Counsel is responsible for determining, pursuant to the following procedures, that the Chief Investment Officer's responsibilities for selecting investment managers have been exercised free of any such prohibited efforts to influence the Chief Investment Officer.

The Chief Investment Officer will advise the General Counsel if any employee of that office is contacted by a Regent, advisory member, or expert advisor in connection with the choice of investments, investment managers, or investment management firms. The Office of the General Counsel will then determine whether the communication was prohibited pursuant to this policy. In the event such a prohibited effort to influence the Chief Investment Officer's selection of investments, investment managers, or investment management firms is identified, the General Counsel shall immediately bring the matter to the attention of the Chair of the Investments Subcommittee.

DISCLOSURES

The Chief Investment Officer provides investment-related information on TRIP to the Regents' Investments Subcommittee in a manner consistent with the requirements outlined in this policy. Current and historical materials are publicly available on The Regents' website within the section on Meeting Agendas and Schedule. The Chief Investment Officer's Annual Report for the most recent fiscal year is also available on the Chief Investment Officer's website.

RESTRICTIONS

The Regents have restricted that purchase of securities issued by tobacco companies and companies with business operations in Sudan are prohibited in separately managed accounts. The Chief Investment Officer will determine what constitutes a tobacco or Sudan company based on standard industry classification of the major index providers and must communicate this list to investment managers annually and whenever changes occur.

COMPLIANCE/DELEGATION

The TRIP Investment Policy Statement should be reviewed at least annually and updated as necessary. Revisions may be recommended by the Office of the Chief Investment Officer, Investments Subcommittee, Finance & Capital Strategies Committee, and approved by the Board of Regents.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

TRIP Asset and Risk Allocation Policy (add links)

Investment Implementation Manual (add links)

Changes to procedures and related documents do not require Regents approval, and inclusion or amendment of references to these documents can be implemented administratively by the Office of the Secretary and Chief of Staff upon request by the unit responsible for the linked documents.

UNIVERSITY OF CALIFORNIA TOTAL RETURN INVESTMENT POOL ASSET AND RISK ALLOCATION POLICY

POLICY SUMMARY/BACKGROUND

The purpose of this Asset and Risk Allocation Policy ("Policy") is to define the asset types, strategic asset allocation, risk management, benchmarks, and rebalancing for the University of California Total Return Investment Pool ("TRIP"). The Investments Subcommittee has consent responsibilities over this policy.

POLICY TEXT

ASSET CLASS TYPES

Below is a list of asset class types in which TRIP may invest so long as they do not conflict with the constraints and restrictions described in the TRIP Investment Policy Statement. The criteria used to determine which asset classes may be included are:

- Positive contribution to the investment objective of TRIP
- Widely recognized and accepted among institutional investors
- Low cross correlations with some or all of the other accepted asset classes

Based on the criteria above, the types of assets for building the portfolio allocation are:

1. **Growth**

Includes publicly traded common and preferred stock of issuers domiciled in US, Non-US, and Emerging (and Frontier) Markets. The objective of the growth portfolio is to generate investment returns with adequate liquidity through a globally diversified portfolio of common and preferred stocks.

2. **Income**

Income includes a variety of income related asset types. The portfolio will invest in interest bearing and income based instruments such as corporate and government bonds, high yield debt, emerging markets debt, inflation linked securities, cash and cash equivalents. The portfolio can hold a mix of traditional (benchmark relative) strategies and unconstrained (benchmark agnostic) strategies. The objective of the income portfolio is to provide necessary liquidity for payment obligations and portfolio rebalancing needs, while investing in higher yielding and less liquid income opportunities with excess liquidity.

3. Absolute Return / Strategic Opportunities

Absolute return investments are expected to generate high long-term real returns by exploiting market inefficiencies. The portfolio invests in a collection of strategies that includes, but is not limited to, strategy types such as Relative Value, Event Driven, and Strategic Opportunities. The objective of the portfolio is to provide diversification and generate capital appreciation.

4. **Derivatives**

A derivative is a contract or security whose value is derived from another security or risk factor. There are three fundamental classes of derivatives – futures, options and swaps – each with many variations; in addition, some securities are combinations of derivatives or contain embedded derivatives. Use of derivatives to create economic leverage is prohibited, except for specific strategies only. Permitted applications for derivatives are: efficient substitutes for physical securities, managing risk by hedging existing exposures, to implement arbitrage or other approved active management strategies.

Each asset class is assigned a benchmark that represents the opportunity set and risk and return characteristics associated with the asset class. For some private or more complex asset classes the benchmark serves as a proxy for the expected level and pattern of returns rather than an approximation of the actual investment holdings.

RISK MANAGEMENT

There are three principal factors that affect TRIP's financial status: 1) annual payout, 2) inflation, and 3) investment performance. The level of risk tolerance will take into account all three factors. At certain levels of assets and a given payout policy, it could be impossible for the investments to achieve the necessary performance to meet the desired spending. The result is that either spending policy has to be changed or risk tolerance changed.

There are different types of risk tied to various responsible parties at each level of TRIP investment management. Thus, different risk metrics are appropriate at each level.

The **principal risks** that impact the TRIP, and the parties responsible for managing them are as follows:

- Capital market risk is the risk that the investment return associated with the Subcommittee's asset allocation policy is not sufficient to provide the required returns to meet the TRIP's investment objectives. Responsibility for determining the overall level of capital market risk lies with the Board and Investments Subcommittee.
- Investment style risk is associated with an active management investment program. It is the performance differential between an asset category's market target and the aggregate of the managers' benchmarks within the asset category weighted according to a policy

allocation specified by the Chief Investment Officer. This risk is an implementation risk and is the responsibility of the Chief Investment Officer.

- Manager value-added risk is also associated with an active management investment program. It is the performance differential between the aggregate of the managers' actual (active) portfolios and the aggregate of the managers' benchmarks. This risk is an implementation risk and is the responsibility of the Chief Investment Officer (and indirectly the investment managers retained by the Chief Investment Officer).
- Tactical/strategic risk is the performance differential between (1) policy allocations for the TRIP's asset categories and its investment managers and (2) the actual allocations. This risk is the responsibility of the Chief Investment Officer.
- Total active risk refers to the volatility of the difference between the return of the TRIP policy benchmark and the actual return. It incorporates the aggregate of the risks above, and is thus the responsibility of the Chief Investment Officer.

Although the management of investment portfolios may be outsourced, investment oversight and risk management are primary fiduciary duties of the Board that are delegated to and performed by the Chief Investment Officer. The Chief Investment Officer shall report on risk exposures and the values of the several risk measures to the Board.

TRIP Product level (Board, Investments Subcommittee, and Office of the Chief Investment Officer)

- Spending Risk (insufficient assets to meet planned spending)
 - o Measures the risk of inappropriate investment policy and strategy
 - Loss of purchasing power and loss of capital
- Total Investment Risk (volatility of total return)
 - o Measures the risk of asset allocation policy

Implementation level (Office of the Chief Investment Officer)

- Active Risk or "Tracking Error" (volatility of deviation from style or benchmark)
 - o Measures the risk of unintended exposures or ineffective implementation

Risk Measures: TRIP shall be managed so that its annualized tracking error budget shall not exceed 200 basis points. This budget is consistent with the ranges around the combined asset classes and incorporates asset / sector allocation and security selection differences from the aggregate benchmark. Each Manager or asset class segment will have a unique active risk

budget, relative to its asset class benchmark, which is appropriate to its individual strategy, and specified in its guidelines,

The Office of the Chief Investment Officer (OCIO) is responsible for managing both total and active risk and shall implement procedures and safeguards so that the combined risk exposures of all portfolios taken together are kept within risk bands. Further, within limits of prudent diversification and risk budgets, total and active risk exposures are fungible. That is, the OCIO may allocate risk exposures within and between asset types in order to optimize return.

STRATEGIC ALLOCATION

The purpose of the Strategic Asset Allocation is to reflect TRIP's purpose and objectives, as well as the investment beliefs and organizational capability of the OCIO. The actual portfolio exposures will deviate from the Strategic Asset Allocation as a result of price drifts, opportunity set, and value adding activities of the OCIO. This is underpinned by the recognition that investment opportunities come and go, values rise and fall and, that implementation must be dynamic in order to benefit from this fluctuation. This belief is critical to add value to TRIP. We follow a risk allocation process to ensure that the attractiveness of all opportunities is assessed on a consistent basis and that will meet the objectives set.

The investment strategy of TRIP will incorporate the risk tolerance of the Board, Committee, and Subcommittee, the relationship between current and projected assets, evolution of the University's financial needs, namely TRIP Payout, contributions, and growth expectations.

Below are the strategic asset allocation long-term weights and allowable ranges:

Table 1

	Strategic Asset	Allowable Ranges	
	Allocation	Minimum	Maximum
Growth	35.0	30.0	40.0
Income	50.0	45.0	55.0
Absolute Return	15.0	5.0	25.0
TOTAL	100.0%		

TRIP has the flexibility to invest up to ten percent of the portfolio in private investments. While the program will generally invest in liquid, marketable securities, there will at times be a trade-off of illiquidity for higher expected return.

BENCHMARKS

The following criteria have been adopted for the selection of benchmark indices. It is understood that not all benchmarks will meet the entire list of criteria, but ideally, benchmarks that meet most of the criteria will be selected. There may be instances where tradeoffs are made between benchmarks that meet some of the criteria but not others.

- 1. **Unambiguous**: the names and weights of securities comprising the benchmark are clearly delineated.
- 2. **Investable**: is possible to replicate the benchmark performance by investing in the benchmark holdings.
- 3. **Measurable**: it is possible to readily calculate the benchmark's return on a reasonably frequent basis.
- 4. **Appropriate**: the benchmark is consistent with investment preferences or biases.
- 5. **Specified in Advance**: the benchmark is constructed prior to the start of an evaluation period.
- 6. **Reflects Current Investment Opinion**: investment professionals in the asset class should have views on the assets in the benchmark and incorporate those views in their portfolio construction.

Benchmarks are a tool against which to measure the effectiveness of investment strategy either at a total fund level, at an investment class or strategy level, or at the mandate level. Based on the benchmark selection criteria, the following strategic policy benchmarks have been chosen:

Table 2

Asset Class	Benchmark
Growth	MSCI All Country World Index (ACWI) Investable Market Index (IMI) Tobacco Free - Net Dividends
Income	Barclays US Aggregate Index
Absolute Return (Strategic Opportunities)	HFRX Absolute Return Index

The **Total TRIP Portfolio Benchmark** is a weighted average consisting of each of the monthly returns of the benchmarks noted above weighted by the Policy Allocation percentages.

REBALANCING

There will be periodic deviations in actual asset weights from the strategic target weights. Causes for periodic deviations are market movements, cash flows, tactical tilts, and asset selection. Significant movements from the asset class policy weights will alter the intended expected return and risk of TRIP. Accordingly, TRIP may be rebalanced when necessary to ensure adherence to this policy and the Investment Policy.

The OCIO will monitor the actual asset allocation. The Board directs the OCIO to take all actions necessary, within the requirement to act prudently, to manage the asset allocation in a manner that ensures that TRIP achieves its risk and return objectives.

The OCIO shall assess and manage the trade-off between the cost of rebalancing and the active risk associated with the deviation from policy asset weights. The Chief Investment Officer may delay a rebalancing program when the Chief Investment Officer believes the delay is in the best interest of TRIP.

COMPLIANCE/DELEGATION

The TRIP Asset and Risk Allocation Policy Statement should be reviewed at least annually and updated as necessary. The Investments Subcommittee may recommend action which will be placed on the Consent Agenda for approval by the Board.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

Investment Implementation Manual (add links)

Changes to procedures and related documents do not require Regents approval, and inclusion or amendment of references to these documents can be implemented administratively by the Office of the Secretary and Chief of Staff upon request by the unit responsible for the linked documents.

UNIVERSITY OF CALIFORNIA SHORT TERM INVESTMENT POOL INVESTMENT POLICY STATEMENT

POLICY SUMMARY/BACKGROUND

The purpose of this Investment Policy Statement ("Policy" or "IPS") is to define the objectives and policies established for the management of the investments of the University of California Short Term Investment Pool ("STIP"). The management of STIP is subject to state and federal regulations and laws, and all other University investment policies, which may not be listed in this document. The investment policy statement consists of the following sections:

- Investment Objectives
- Monitoring and Reporting
- Conflicts of Interest
- Disclosures
- Policy Maintenance

This policy reflects the Governance Framework outlined in Bylaws 22 and 23 of the University and the Finance and Capital Strategies Committee Charter. The Board defines the goals and objectives of STIP and is responsible for establishing and approving changes to this IPS. The Finance and Capital Strategies Committee and Investments Subcommittee are responsible for establishing the Asset and Risk Allocation Policy (with Board approval on a consent agenda), which defines the strategic asset allocation, risk tolerance, asset types, and benchmarks of the portfolio.

The Chief Investment Officer (or "Office of the Chief Investment Officer") is responsible for implementing the approved investment policies and developing investment processes and procedures for asset allocation, risk management, investment manager selection and termination, monitoring and evaluation, and the identification of management strategies that will improve the investment efficiency of STIP assets.

POLICY TEXT

INVESTMENT OBJECTIVES

1. Overall Objective

STIP is a cash investment pool established by the Regents and is available to all University groups and affiliates. STIP allows fund participants to maximize income on their short-term cash balances by taking advantage of the economies of scale of investing in a larger pool and investing in a broader range of maturities.

2. Return Objective

The Objective of STIP is to maximize returns consistent with safety of principal, liquidity, and cash flow requirements.

3. Risk Objective

The Program shall be managed to preserve capital and avoid negative returns over any one-year time horizon. The volatility of the plan should be consistent with this objective and the yield level of the fund.

4. Sustainability Objective

The Office of the Chief Investment Officer (OCIO) shall incorporate environmental sustainability, social responsibility, and governance (ESG) into the investment evaluation process as part of its overall risk assessment in its investments decision making. ESG factors are considered with the same weight as other material risk factors influencing investment decision making.

The OCIO uses a proprietary sustainability framework to provide core universal principles that inform the decisions and assist in the process of investment evaluation. The OCIO manages STIP consistent with these sustainability principles. The Framework can be found on the OCIO's website in the sustainability section.

MONITORING AND REPORTING

The OCIO is responsible for monitoring the portfolio and investment managers on an ongoing basis. The OCIO should monitor and report to the Investments Subcommittee, Finance and Capital Strategies Committee, and Board of Regents on the following items.

- 1. Asset and Risk Allocation
- 2. Investment Performance and Attribution (against benchmarks identified in the **STIP Asset and Risk Allocation Policy**)
- 3. Material Changes to Organization and Investment Strategy
- 4. Potential Material Issues and Risks

CONFLICTS OF INTEREST

In order to maintain the highest fiduciary standards and to continue to comply with institutional investment best practices, the roles and responsibilities of various UC fiduciaries are explicitly separated to ensure the continuance of sound investment practice and the protection against real or perceived conflict of interest, especially with regard to the selection of individual investments or investment managers. By separating the duties of investment policy-making and investment

implementation, the Regents' created an institutional framework to uphold the California Political Reform Act of 1974, which provides that public officials shall not make, participate in making, or influence a governmental decision in which the official has a financial interest.

Individual Regents, advisory members, and expert advisors of Regents Committees or Subcommittees are prohibited from contacting the Chief Investment Officer, including any officer of the OCIO of the Regents, to offer advice or recommendations with respect to the selection of specific investments, investment managers, or investment management firms. The General Counsel is responsible for determining, pursuant to the following procedures, that the Chief Investment Officer's responsibilities for selecting investment managers have been exercised free of any such prohibited efforts to influence the Chief Investment Officer.

The Chief Investment Officer will advise the General Counsel if any employee of that office is contacted by a Regent, advisory member or expert advisor in connection with the choice of investments, investment managers, or investment management firms. The Office of the General Counsel will then determine whether the communication was prohibited pursuant to this policy. In the event such a prohibited effort to influence the Chief Investment Officer's selection of investments, investment managers, or investment management firms is identified, the General Counsel shall immediately bring the matter to the attention of the Chair of the Investments Subcommittee.

DISCLOSURES

The Chief Investment Officer provides investment-related information on STIP to the Regents' Investments Subcommittee in a manner consistent with the requirements outlined in this policy. Current and historical materials are publicly available on the Regents' website within the section on Meeting Agendas and Schedule. The Chief Investment Officer's Annual Report for the most recent fiscal year is also available on the Chief Investment Officer's website.

RESTRICTIONS

The Regents have restricted that purchase of securities issued by tobacco companies and companies with business operations in Sudan are prohibited in separately managed accounts. The Chief Investment Officer will determine what constitutes a tobacco or Sudan company based on standard industry classification of the major index providers and must communicate this list to investment managers annually and whenever changes occur.

COMPLIANCE/DELEGATION

The STIP Investment Policy Statement should be reviewed at least annually and updated as necessary. Revisions may be recommended by the OCIO, Investments Subcommittee, Finance and Capital Strategies Committee, and approved by the Board of Regents.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

STIP Asset and Risk Allocation Policy (add links)

Investment Implementation Manual (add links)

Changes to procedures and related documents do not require Regents approval, and inclusion or amendment of references to these documents can be implemented administratively by the Office of the Secretary and Chief of Staff upon request by the unit responsible for the linked documents.

UNIVERSITY OF CALIFORNIA SHORT TERM INVESTMENT POOL ASSET AND RISK ALLOCATION POLICY

POLICY SUMMARY/BACKGROUND

The purpose of this Asset and Risk Allocation Policy ("Policy") is to define the asset allocation, risk guidelines, and benchmark for the University of California Short Term Investment Pool ("STIP"). The Investments Subcommittee has consent responsibilities over this policy.

POLICY TEXT

ASSET CLASS TYPES

STIP will primarily invest in short duration US dollar-denominated bonds and cash equivalents.

The following list is indicative of the investment classes, which are appropriate for STIP, given its Benchmark and risk budget. This is not an exhaustive list of "allowable" asset types.

Security types and/or strategies not specifically enumerated, but which the Chief Investment Officer believes are appropriate and consistent with the Investment Policy may also be held, subject to policy restrictions.

The Program may purchase securities on a when-issued basis or for forward delivery.

1. Fixed income instruments

- a. Obligations issued or guaranteed by the U.S. Federal Government, U.S. Federal Agencies or U.S. government-sponsored corporations and agencies
- b. Obligations of U.S. and foreign corporations such as corporate bonds, notes and debentures, and bank loans
- c. Mortgage-backed and asset-backed securities
- d. Obligations of international agencies, supranational entities, and foreign governments (or their subdivisions or agencies)
- e. Obligations issued or guaranteed by U.S. local, city and State governments and agencies
- f. Private Placements or Rule 144A securities, issued with or without registration rights

- 2. Short term fixed income instruments (having maturity of less than 13 months)
 - a. US Treasury and Agency bills and notes
 - b. Certificates of deposit
 - c. Bankers acceptances
 - d. Commercial paper
 - e. Repurchase and reverse repurchase agreements (must be fully collateralized with approved collateral, using approved counterparties only)
 - f. Eurodollar CD's, TD's, and commercial paper
 - g. US and Eurodollar floating rate notes
 - h. Money market funds managed by the custodian

Restrictions

The following security types are **not** permitted:

- a. Interest rate derivative contracts, including options and futures
- b. Equity like securities, including but not limited to convertible bonds, preferred stocks, warrants, equity linked notes, and commodities
- c. Securities issued in currencies other than US Dollar
- d. Foreign currency linked notes
- e. Buy securities on margin
- f. Sell securities short
- g. Buy party-in-interest securities
- h. Buy securities restricted as to sale or transfer, except for 144A securities, which are permitted
- i. Buy or write structured ("levered") notes
- j. Employ economic leverage in the portfolio through borrowing or derivatives, or engage in derivative strategies that conflict with the Derivatives Policy

- k. Purchase or sell foreign exchange contracts
- 1. Below investment grade securities, but we maintain the ability to hold up to 5% below investment grade in the event of ratings downgrades

STRATEGIC ALLOCATION

The portfolio will be invested primarily in marketable, publicly traded, investment grade short term fixed income instruments, notes and debentures denominated in U.S. dollars.

STIP will be invested in a diversified portfolio of fixed income securities, subject to policy restrictions.

RISK MANAGEMENT

STIP's investments will be appropriately diversified to control overall risk. The following limitations apply in order to manage risk within acceptable ranges:

1. Interest rate risk

- a. No security may have a maturity of more than 5 ½ years, excluding internal notes receivable
- b. The effective duration of the investment program, excluding internal note receivables, should be less than 3 years

2. Credit risk

- a. Commercial Paper must have a rating of at least A-1, P-1, D-1, or F-1
- b. The Program's investments should exhibit an average credit quality of A (or equivalent) or better. Split-rated credits are considered to have the higher credit rating as long as the higher rating is given by one of the NRSRO's
- c. No more than 5% of the Program's allocation to commercial paper may be invested in any single issuer. This guideline may be exceeded on a temporary basis due to unusual cash flows, up to a limit of 10%, for a period not to exceed one month.
- d. Except for securities issued by the US Treasury or Agencies of the US Government, no more than 3% of the Program's market value (exclusive of commercial paper) may be invested in any single issuer.

3. Liquidity risk

- a. No more than 10% of the Program's market value may be invested in Private Placements or Rule 144A securities
- b. The Programs' investments in aggregate of any security may not exceed 20% of that security's outstanding par value at time of purchase, without a written exception approved by the Chief Investment Officer.

BENCHMARKS

The following criteria have been adopted for the selection of benchmark indices. It is understood that not all benchmarks will meet the entire list of criteria, but ideally, benchmarks that meet most of the criteria will be selected. There may be instances where tradeoffs are made between benchmarks that meet some of the criteria but not others.

- 1. **Unambiguous**: the names and weights of securities comprising the benchmark are clearly delineated.
- 2. **Investable**: is possible to replicate the benchmark performance by investing in the benchmark holdings.
- 3. **Measurable**: it is possible to readily calculate the benchmark's return on a reasonably frequent basis.
- 4. **Appropriate**: the benchmark is consistent with investment preferences or biases.
- 5. **Specified in Advance**: the benchmark is constructed prior to the start of an evaluation period.
- 6. **Reflects Current Investment Opinion**: investment professionals in the asset class should have views on the assets in the benchmark and incorporate those views in their portfolio construction.

Benchmarks are a tool against which to measure the effectiveness of investment strategy either at a total fund level, at an investment class or strategy level, or at the mandate level. Based on the benchmark selection criteria, the STIP Benchmark will be a weighted average of the income return on a constant maturity two (2) year US Treasury note and the return on US 30 day Treasury Bills. The weights for the two constituents will be the actual average weights of the bond and cash equivalent components of the pool. The Benchmark will be rebalanced monthly.

COMPLIANCE/DELEGATION

The STIP Asset and Risk Allocation Policy Statement should be reviewed at least annually and updated as necessary. The Investments Subcommittee may recommend action which will be placed on the Consent Agenda for approval by the Board.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

Investment Implementation Manual (add links)

Changes to procedures and related documents do not require Regents approval, and inclusion or amendment of references to these documents can be implemented administratively by the Office of the Secretary and Chief of Staff upon request by the unit responsible for the linked documents.

UNIVERSITY OF CALIFORNIA RETIREMENT SAVINGS PROGRAM DEFINED CONTRIBUTION PLAN, TAX DEFERRED 403(B) PLAN, AND 457(B) DEFERRED COMPENSATION PLAN INVESTMENT POLICY STATEMENT

POLICY SUMMARY/BACKGROUND

The purpose of this Investment Policy Statement ("Policy" or "IPS") is to define the objectives and policies established for the management of the investments of the University of California Retirement Savings Program ("RSP"). The management of RSP is subject to state and federal regulations and laws, and all other University investment policies, which may not be listed in this document.

This policy reflects the Governance Framework outlined in Bylaws 22 and 23 of the University and the Finance and Capital Strategies Committee Charter.

The Chief Investment Officer (or "Office of the Chief Investment Officer") is responsible for implementing the approved investment policies and developing investment processes and procedures for asset allocation, risk management, investment manager selection and termination, monitoring and evaluation, and the identification of management strategies that will improve the investment efficiency of RSP assets.

POLICY TEXT

The Board has designated the Office of the Chief Investment Officer (OCIO) as the primary fiduciary for investment functions of RSP, including the selection of asset classes and Fund Options and the monitoring of investment performance.

All transactions undertaken on behalf of the Fund Options are undertaken solely in the interests of the Program's participants and their beneficiaries.

The Regents have delegated responsibilities to the OCIO as follows:

- a. Develop and implement criteria for selecting appropriate asset classes and specific Fund Options within those classes for the Program, after consultation with the Retirement Savings Program Advisory Committee ("RSPAC") and the appropriate constituent groups in the University community.
- b. Create and implement a process to monitor and evaluate the Program's investment structure and the Fund Options and, based on such periodic evaluations and consultation with appropriate parties, make changes to either the asset classes or Fund Options.
- c. Select investment professionals ("managers") with demonstrated experience and expertise who are responsible for managing specific portfolios.
- d. Select fund options as needed to provide the required diversification within an asset class, taking into account value and fees.

e. Establish and implement procedures for the selection, monitoring, evaluation, and termination of investment managers.

The Regents have delegated responsibilities to the RSPAC as follows:

RSPAC was established by the Regents to obtain feedback from the University community on RSP and to discuss coordination of issues that arise between the administrative and investment functions. RSPAC is comprised of the Chief Investment Officer (CIO), the Plan Administrator (UC Human Resources), and other members who serve at the request of the Executive Vice President – Chief Operating Officer (COO). RSPAC includes representatives from the Office of the CIO, Office of the COO, and the Office of the General Counsel. External consultants are invited to provide advice and counsel on an as-needed basis. Members serve on RSPAC without compensation. An appointed committee member can resign at any time.

RSPAC responsibilities include:

- Assessing the quality of services provided by vendors against established criteria and/or benchmarks;
- Reviewing Program fees and expenses;
- Providing input on the annual report to the Regents;
- Retaining consultants necessary to assist in reviewing administrative and investment performance.

The RSP Investment Policy Statement will be updated as necessary. Revisions may be recommended by the Office of the Chief Investment Officer, Investments Subcommittee, Finance & Capital Strategies Committee or RSPAC, and approved by Board of Regents.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

PROCEDURES AND RELATED DOCUMENTS

Investment Managers and Fund Options (add links)

Investment Implementation Manual (add links)

Changes to procedures and related documents do not require Regents approval, and inclusion or amendment of references to these documents can be implemented administratively by the Office of the Secretary and Chief of Staff upon request by the unit responsible for the linked documents.

Regents Policy 6201: Investment Reporting for the University of California Campus Foundations

Additions shown by underscoring; deletions shown by strikethrough

POLICY SUMMARY/BACKGROUND

The Regents authorize the Committee on Investments Subcommittee to review the investment policies and practices of campus foundations and conduct an annual review of statements of investment policy and reports of investment performance in a format approved by the Committee on Investments, together with the annual financial reports of campus foundations as audited by certified public accountants. The Office of the Chief Investment Officer of the Regents is available to provide investment management services, without charge, for any campus foundation which requires such service.

POLICY TEXT

Delegation to Campus Foundations and Statement of Policy

The Administrative Guidelines for Campus Foundations provide that each Campus Foundation Board of Directors has the duty to develop an appropriate investment policy for such Foundation. It is the policy of the Regents that each Campus Foundation shall develop and follow an appropriate investment policy, and shall act as a prudent investor in accordance with applicable law, using a portfolio approach in making investments and considering the risk and return objectives of the endowment funds. A Campus Foundation may hold and invest endowments and funds functioning as endowments on a long-term basis. All such investments must be consistent with the terms of the gift instrument. Investment operations shall be conducted in accordance with prudent, sound practices to ensure that gift assets are protected and enhanced and that a reasonable return is achieved, and with due regard for the fiduciary responsibilities of the Foundation's governing Board and the Regents. Financial activities of a Campus Foundation shall be administered and reported in accordance with prudent business practices and generally accepted accounting principles.

Reporting from Campus Foundations

The Regents' generalist investment consultant shall review investment procedures and results annually and report the findings to the Regents. The Administrative Guidelines for Campus Foundations require the following reports from the Campus Foundations to the generalist investment consultant:

- A Campus Foundation's enabling documents (e.g., articles of incorporation, bylaws, constitution) shall be provided, and any amendments shall be forwarded promptly following any revision.
- Within 90 days of the close of each fiscal year, a Campus Foundation shall submit a
 detailed report comparing budgeted to actual administrative expenditures by fund source.

- Copies of the Foundation's report to the State Registry of Charitable Trusts, tax returns, and a current list of Foundation officers, directors or trustees, and legal counsel shall be provided promptly each year.
- The external auditor shall furnish a copy of the audit report, including the letter to management with management's response, promptly following the completion of the audit each year.
- A copy of each Foundation's investment policy shall be provided, and any amendments thereto shall be forwarded promptly following any revision.
- A copy of each investment performance report shall be provided 45 days following the close of each quarter.

Annual Performance Review and Reporting by Investment Consultant

The Regents' generalist investment consultant of the Office of the Chief Investment Officer shall review, annually, as well as upon initial adoption of, and upon any change to initially and at the time of any change, each Foundation's investment policy, asset allocation policy, and performance on an annual basis, 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 Subcommittee annually on their findings.
- In addition, on an annual basis, beginning with the Fiscal Year 2006-2007, the Regents' investment consultant of the Office of the Chief Investment Officer 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,
 - o Ranges for each asset class,
 - o Policy benchmarks for each asset class and in total, and
 - o Investment guidelines for each asset class-

The Regents' generalist investment consultant of the Office of the Chief Investment Officer will raise any issues of concern with the campus foundations, and subsequently, if necessary, with the Committee on Investments Subcommittee.

If any Foundation approves changes to its investment policy (including but not limited to asset allocation targets and policy benchmarks), it must communicate such change to the Regents' generalist investment consultant prospectively before the effective date of such change. Office of the Chief Investment Officer.

NO RIGHT OF ACTION

This policy is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the University of California, its officers, employees, or agents.

Regents Policies on Investment Matters Recommended for Rescission

The following Regents Policies will be significantly amended as shown in the Attachments. The current policies are available at the links, below.

- 6101: Investment Policy Statement for University of California Retirement Plan (UCRP) (See Attachment 3 for amended Policy)
- 6102: Investment Policy Statement for General Endowment Pool (See Attachment 1 for amended Policy)
- 6108: Total Return Investment Pool (TRIP) Policy Statement (See Attachment 5 for amended Policy)
- 6109: Short Term Investment Pool (STIP) Investment Guidelines (See Attachment 7 for amended Policy)
- 6111: Investment Policy Statement for UC Retirement Savings Program (See Attachment 9 for amended Policy)

The Regents Policies, below, will be rescinded and incorporated into the appropriate Investment Policy Statements.

- 6104: Policy on Conflict of Interest Regarding Assets Managed by the Treasurer
- 6105: Policy on Disclosure of UCRP and GEP Investments-Related Information
- 6106: Policy on Total Return Expenditure on Regents' General Endowment Pool Assets
- 6107: Policy on Endowment Administration Cost Recovery on Regents' Assets
- 6110: Policy on Disclosures Regarding Use of Placement Agents for the University of California Retirement System Investments
- 6301: Policy to Exclude Securities of Companies Manufacturing Tobacco Products from Index Funds and to Continue Existing Exclusion from Actively Managed Funds
- 6302: Policy on Divestment of University Holdings in Companies with Business Operations in Sudan

Regents Policy 6104: Policy on Conflict of Interest Regarding Assets Managed by the Chief Investment Officer

Adopted September 22, 2005

Amended July 19, 2007, November 15, 2007, March 20, 2008 and March 29, 2012

The Regents has adopted Investment Policy Statements for the University of California Retirement Plan and General Endowment Pool, which assign limited roles and responsibilities to investment fiduciaries, with appropriate checks and balances.

The existing governance process has avoided the potential for and the appearance of conflicts of interest with respect to the selection of individual investments or investment managers by maintaining a separation of roles and responsibilities.

The Regents' Committee on Investments is responsible for oversight of the management of investments on behalf of The Regents. This involves the establishment of investment policies and oversight of the management of the assets with advice from the Investment Advisory Group. These responsibilities include approving an asset allocation policy, performance benchmarks, risk budgets, and investment guidelines.

The Chief Investment Officer is responsible for implementing the approved investment policies and the development of investment processes and procedures for asset allocation, risk management, investment manager selection and termination, allocation, monitoring and evaluation, and the identification of management strategies that will improve the investment efficiency of the Fund assets.

Individual Regents and members of the Regents' Investment Advisory Group (IAG) are prohibited from contacting the Chief Investment Officer, including any officer of that office, to offer advice or recommendations with respect to the selection of specific investments, investment managers, or investment management firms. The General Counsel is responsible for determining, pursuant to the following procedures, that the Chief Investment Officer's responsibilities for selecting investment managers have been exercised free of any such prohibited efforts to influence the Chief Investment Officer. The Chief Investment Officer will advise the General Counsel if any employee of that office is contacted by a Regent or an IAG member in connection with the choice of investments, investment managers, or investment management firms. The Office of the General Counsel will then determine whether the communication was prohibited pursuant to this policy. In the event such a prohibited effort to influence the Chief Investment Officer's selection of investments, investment managers, or investment management firms is identified, the General Counsel shall immediately bring the matter to the attention of the Chair of the Regents' Committee on Investments.

In order to maintain the highest fiduciary standards and to continue to comply with institutional investment best practices, this Policy explicitly separates the roles and responsibilities of various UC fiduciaries to ensure the continuance of sound investment practice and the protection against real or perceived conflict of interest, especially with regard to the selection of individual investments or investment managers. By separating the duties of investment policy making and investment implementation, The Regents' Committee on Investments has created an institutional framework to uphold the California Political Reform Act of 1974, which provides that public officials shall not make, participate in making, or influence a governmental decision in which the official has a financial interest.

Regents Policy 6105: Policy on Disclosure of University of California Retirement Plan and General Endowment Pool Investment-Related Information

Approved May 26, 2005 Amended March 29, 2012

This document sets forth the policy of The Regents on disclosure of information relating to the investments of the University of California Retirement Plan (the UCRP) and the General Endowment Pool (the GEP). The purpose of this policy statement is to make clear how and what investment related information will be routinely disclosed to participants in the UCRP and the general public.

- 1. The Chief Investment Officer provides investment-related information on the UCRP and the GEP to The Regents' Committee on Investments and the Investment Advisory Committee in a manner consistent with the requirements outlined in the Investment Policy Statement for the University of California Retirement Plan approved by The Regents on November 18, 2004 and the Investment Policy Statement for the General Endowment Pool approved by The Regents on March 17, 2005. Current and historical materials are publicly available on The Regents' website within the section on Meeting Agendas and Schedule.
- 2. A report on private equity internal rates of return is publicly available on the Chief Investment Officer's website on a quarterly basis.
- 3. The Chief Investment Officer's Annual Report for the most recent fiscal year is also available on the Chief Investment Officer's website. The report provides asset allocation and performance of the UCRP, the GEP, and other UC investment funds.
- 4. As soon as practicable after each calendar year, a complete listing of all assets held by the UCRP and the GEP at calendar year end will be posted on the Chief Investment Officer's website. Each listing will include the asset's market value at the end of the year. The assets will be grouped in the standard categories used by the custodian bank to group the assets in the asset reports provided to the Chief Investment Officer.

Regents Policy 6106: Total Return Expenditure Policy on Regents' General Endowment Pool Assets

Approved March 20, 1998

The Regents adopt in principle a total return expenditure (spending) policy for eligible endowment gift assets in the General Endowment Pool.

Regents Policy 6107: Policy on Endowment Administration Cost Recovery on Regents' Assets

Approved March 20, 1998

The Regents adopt a policy to recover reasonable and actual costs related to the administration of gift assets invested in the General Endowment Pool.

Regents Policy 6110: Policy on Disclosures Regarding Use of Placement Agents for University of California Retirement System Investments

Approved July 14, 2011 Amended March 29, 2012

Each External Manager proposing an investment to be made by or on behalf of the University of California Retirement System must comply with one of the following two requirements:

- 1. If the External Manager will not use any Placement Agents in connection with the proposed investment, the External Manager must provide the Chief Investment Officer with a written statement to that effect.
- 2. If the External Manager will use a Placement Agent in connection with the proposed investment, the External Manager must disclose the following information in writing to the Chief Investment Officer:
 - A description of the relationship between the External Manager and any Placement Agents for the investment for which funds are being raised.
 - Whether the Placement Agent's mandate includes the Regents of University of California as trustee/custodian.
 - A description of the services performed by the Placement Agent.
 - A description of any and all payments of any kind provided or agreed to be provided to a Placement Agent by the External Manager with regard to investments by the Regents as a plan trustee or custodian of retirement or savings plan assets.
 - Upon request, the resume for each officer, partner or principal of the Placement Agent detailing the person's education, professional designations, regulatory licenses, and investment and work experience.
 - A statement as to whether the Placement Agent, or any of its affiliates, is registered with the Securities Exchange Commission.
 - A statement as to whether the Placement Agent, or any of its affiliates, is registered as a lobbyist under California law.

The Chief Investment Officer will only enter into agreements to invest in or through External Managers that agree to comply with the Regents' Policy on Disclosures Regarding the Use of Placement Agents for University of California Retirement System Investments. The Chief Investment Officer will rely on the written statements made by the External Manager. For purposes of this Policy:

"External Manager" means a (i) person who is seeking to be, or is, retained by the Regents to manage a portfolio of securities or other assets for compensation or (ii) a person managing an investment fund who offers or sells, or has offered or sold, an ownership interest in the investment fund.

"Placement Agent" means a person directly or indirectly hired, engaged or retained by, or serving for the benefit of or on behalf of, an External Manager or an investment fund managed by an External Manager, who acts, or has acted, for compensation as a finder, solicitor, marketer, consultant, broker or other intermediary in connection with the offer or sale to the Regents of either the investment management services of the External Manager or an ownership interest in an investment fund managed by the External Manager. Any exceptions to this definition of "Placement Agent" available under Sections 7513.8 or Section 82047.3 of the California Government Code will apply under this Policy.

Regent Policy 6301: Policy to Exclude Securities of Companies Manufacturing Tobacco Products from Index Funds and to Continue Existing Exclusion from Actively Managed Funds

Adopted January 18, 2001 Amended March 29, 2012

- 1. The Chief Investment Officer, using the standards established for the Russell 3000 Tobacco Free Index and the MSCI EAFE Tobacco Free Index, shall continue the current practice of not directly investing in tobacco products companies.
- 2. The Russell 3000 Tobacco Free Index and the MSCI EAFE Tobacco Free Index, which exclude the stocks of tobacco products companies, be adopted as the index funds authorized by the Asset Allocation Plan.
- 3. Should the Chief Investment Officer determine at any time that The Regents' investment objectives are compromised by this policy, a report describing the circumstances shall be prepared by the Chief Investment Officer with appropriate recommendations.

Regents Policy 6302: Policy on Divestment of University Holdings in Companies with Business Operations in Sudan

Approved March 16, 2006 Amended November 20, 2008, March 19, 2009 and March 29, 2012

- A. Divest all shares of the following nine companies: Bharat Heavy Electricals Ltd., China Petroleum and Chemical Corp. (Sinopec), Oil & Natural Gas Co. Ltd., PECD Bhd., PetroChina Company Ltd., CNPC Hong Kong, MISC Berhad (Petronas), Lundin Petroleum, and AREF Investment Group held within separately managed equity portfolios of the University of California Retirement Plan (UCRP) and the General Endowment Pool (GEP). The proposed policy would apply to both indexed and actively managed, publicly-traded equity portfolios
- B. Prohibit future purchase of shares in the above nine companies until such time as the Chief Investment Officer reports to the Committee on Investment that either there is compelling information that a company has materially improved its operation and is no longer thought to be contributing to the suffering in the Darfur region of Sudan, or that the situation in the Darfur region has improved to such a point that the prohibition on investment is no longer thought to be in the best interests of the people of Sudan.
- C. Condition implementation of the proposed divestment policy upon enactment by the California legislature and signature by the Governor of legislation providing indemnification for past, present, and future individual Regents, and the University, its officers, agents, and employees, for all costs and defense of any claim arising from the decision to divest.
- D. Instruct the Chief Investment Officer to contact the management of several other companies identified by the Sudan Divestment Study Group to ask them to ensure that their business operations in Sudan, while providing beneficial effects for the people of Sudan, do not inadvertently contribute to the campaign of genocide.
- E. Instruct the Chief Investment Officer to report on the status of this policy to the Committee on Investments as part of the annual review of the Investment Policies for the UCRP and GEP.
- F. Divest all shares held in the nine companies within an 18-month period commencing once indemnification legislation has been enacted.
- G. Communicate the decision to divest shares held in the nine companies to the managers of commingled accounts in which assets of the UCRP and GEP are invested, with a request

- that they consider the University's stand on this issue as they make their investment decisions.
- H. Communicate the decision to divest shares held in the nine companies to the Investment Committees of the Campus Foundations so that they may consider adopting similar policies for their Funds.