The Regents of the University of California

FINANCE AND CAPITAL STRATEGIES COMMITTEE
July 12, 2017

The Finance and Capital Strategies Committee met on the above date at UCSF–Mission Bay Conference Center, San Francisco.

Members present:	Regents Blum, Lemus, Makarechian, Sherman, and Zettel; Ex officio member Kieffer, Advisory member White; Chancellors Blumenthal, Gillman, Hawgood, and Khosla; Staff Advisor Valdry
In attendance:	Regents Anguiano and Park, Regents-designate Anderson and Morimoto, Assistant Secretary Lyall, General Counsel Robinson, Provost Dorr, Executive Vice President and Chief Financial Officer Brostrom, and Recording Secretary Johns

The meeting convened at 2:05 p.m. with Committee Chair Makarechian presiding.

1. **APPROVAL OF MINUTES OF PREVIOUS MEETING**

Upon motion duly made and seconded, the minutes of the meeting of May 17, 2017 were approved.

2. **UPDATE ON THE UNIVERSITY'S SEISMIC PROGRAM**

[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.]

Executive Vice President and Chief Financial Officer Brostrom began the discussion by recalling that the University has been addressing seismic needs since at least the 1971 San Fernando earthquake, which revealed flaws in building codes at that time. UC adopted its first Seismic Safety Policy in 1975. The policy has undergone changes over the years in response to major earthquakes around the world and improvements in construction to prevent seismic damage. Following the issuance of the first policy, UC launched a preliminary survey of all campus buildings to determine how they would perform in case of an earthquake. Campuses began carrying out seismic retrofits in 1979. Since that time, UC has improved over 350 buildings totaling more than 24 million square feet, either with seismic upgrades or by replacing them in accordance with applicable building codes.

In November 2014, General Counsel Robinson made a presentation to the Committee on Finance, following which a systemwide Seismic Mitigation Task Force was formed. The principal goals of the Task Force have been development of a new Seismic Risk Model, establishment of a Seismic Advisory Board unique to UC, and revisions to UC's Seismic Safety Policy. The Seismic Risk Model calculates life safety risk and is based on the

"Hazus" model developed by the Federal Emergency Management Agency. The Hazus model has been used by the Berkeley campus. The UC Seismic Risk Model evaluates seismic performance of buildings, soil conditions, distance from fault lines, construction type, age, and occupancy, and allows the University to determine down time and capital loss in case of a seismic event.

The Task Force endorsed the establishment of a UC-specific Seismic Advisory Board consisting of independent engineers to advise UC on technical matters. Each Board member is assigned to at least one campus and has a full understanding of the seismic concerns of that location.

Mr. Brostrom presented a chart showing 2017 revisions to the Seismic Safety Policy. Under the Policy, there is undiminished continued use of buildings rated III ("good") and IV ("fair"). In buildings rated V and VI ("poor" and "very poor" conditions) there would be no occupancy beyond 2030. When the University acquires a building in "poor" condition, occupancy must cease after 24 months; a building in "very poor" condition may not be occupied. Similar conditions apply to leases and business acquisitions, except that a "very poor" building may not be leased at all. No occupancy is allowed for buildings with a rating of VII (the "red tag" category); an acquisition or business acquisition may only occur for a strategic purpose.

The Seismic Advisory Board would work to evaluate existing UC buildings with seismic ratings of V and VI. Mr. Brostrom anticipated that a report would be brought to the Committee in spring or summer 2018.

Regent Sherman referred to campuses that have seismically impaired buildings and are also embarking on construction of student housing. He asked if it made sense in these cases to demolish the buildings and rebuild for mixed use, incorporating classrooms and housing. Mr. Brostrom responded that every campus evaluates this question on a case-by-case basis. As an example he cited the relocation of Tolman Hall at UC Berkeley, which had housed the Department of Psychology and the Graduate School of Education. A new building has been built, partially funded by State funds. The campus was making a decision about the future of Tolman Hall. The preferred option appeared to be to raze the building, since a retrofit would be far too costly. Mr. Brostrom opined that this site would lend itself for mixed use. He noted that the Davis campus was reevaluating options for Haring Hall.

Regent Sherman observed that given the constraints in the use of State funds, mixed-use projects provide an income stream that can help pay for infrastructure.

Regent Makarechian asked that the Office of the President present the dollar amount UC requires for seismic repairs each November, along with the amount of available funding, so that this can be submitted to the State. Mr. Brostrom responded that the annual Capital Financial Plan includes information on which projects are eligible for State funding; this document could be refined further to highlight seismic safety and deferred maintenance needs.

Regent Lemus asked if it would be possible for the University to develop guidelines for mixed-use projects for the campuses as part of the seismic review process, as one consideration among others. Mr. Brostrom responded that it would be preferable for UC to approach this on a case-by-case basis. He noted that the University was building mixed-use projects whenever it made sense to do so, given considerations of occupancy and separate revenue streams. This matter could be brought to the attention of the Seismic Advisory Board. The most significant concern would be capital constraints.

3. **CONSENT AGENDA**

A. ***Fiscal Year 2017-18 Budget for the University of California Office of the President***

The President of the University recommended that the fiscal year 2017-18 budget for the University of California Office of the President, as shown in Table 1 below, be approved.

Table 1 – Total FY 2017-18 Proposed Budget

FY 2017-18 BUDGET SUMMARY OFFICE OF THE PRESIDENT ($ millions)	TOTAL Proposed Budget FY 2017-18	Expenses (Projected) FY2016-2017	TOTAL Budget FY 2016-2017	Var-FY17-18 Budget to Projection	% More / (Less) Budget vs Projection	% More / (Less) to Prior Year Budget
OFFICE OF THE PRESIDENT						
Central and Administrative Services	**277.77**	**249.82**	**267.70**	**27.96**	**11%**	**4%**
Academic Affairs	30.04	28.11	29.93	1.93	7%	0%
Innovation & Entrepreneurship	61.93	53.60	52.73	8.33	16%	17%
Finance	40.85	33.09	39.77	7.76	23%	3%
Operations	118.58	111.32	119.30	7.26	7%	-1%
President's Exec. Office	2.61	3.41	3.18	(0.80)	-23%	-18%
Health Sciences	4.16	3.69	4.17	0.47	13%	0%
Governmental Relations	5.44	5.07	5.41	0.37	7%	1%
Public Affairs	14.18	11.53	13.21	2.65	23%	7%
Regents Officers	**58.45**	**49.71**	**57.96**	**8.74**	**18%**	**1%**
General Counsel	12.49	10.91	11.65	1.58	14%	7%
Secretary of the Regents	3.08	2.76	2.91	0.32	12%	6%
Ethics & Compliance	7.54	7.34	7.67	0.20	3%	-2%
Investments Office	35.34	28.70	35.74	6.64	23%	-1%
TOTAL w/o UCPath Operations	**336.22**	**299.53**	**325.66**	**36.69**	**12%**	**3%**
UCPath Operations	**52.44**	**16.25**	**20.15**	**36.19**	**223%**	**160%**
Grand Total (including UCPath Operations)	**388.66**	**315.78**	**345.81**	**72.88**	**23%**	**12%**

FY 2017-18 BUDGET SUMMARY OFFICE OF THE PRESIDENT ($ millions)	TOTAL Proposed Budget FY 2017-18	Expenses (Projected) FY2016-2017	TOTAL Budget FY 2016-2017	Var-FY17-18 Budget to Projection	% More / (Less) Budget vs Projection	% More / (Less) to Prior Year Budget
SYSTEMWIDE ACADEMIC & PUBLIC SERVICE PROGRAMS						
Instruction	58.38	52.95	53.67	5.43	10%	9%
Research	172.28	106.68	108.58	65.60	61%	59%
Public Service	15.19	16.32	16.43	(1.13)	-7%	-8%
Academic Support	46.68	46.31	46.40	0.37	1%	1%
National Laboratories	4.27	3.59	3.94	0.68	19%	9%
Presidential Initiatives	9.77	5.57	9.77	4.20	75%	0%
TOTAL	**306.58**	**231.43**	**238.79**	**75.15**	**32%**	**28%**
Agriculture and Natural Resources	**102.27**	**100.82**	**101.08**	**1.45**	**1%**	**1%**
Grand Total (including ANR)	**408.84**	**332.25**	**339.87**	**76.60**	**23%**	**20%**
TOTAL OF BOTH TABLES (w/o UCPath)	**745.06**	**631.77**	**665.53**	**113.29**	**18%**	**12%**
TOTAL OF BOTH TABLES	**797.50**	**648.02**	**685.68**	**149.48**	**23%**	**16%**
Strategic Priorities Reserve Year End Projected						
Committed	38.7	57.1		(18.4)		
Uncommitted	16.2	29.9		(13.7)		

B. ***Amendment of Regents Policy 6102: General Endowment Pool Investment Policy Statement Appendix 1 (Benchmarks)***

The Chief Investment Officer recommended that Appendix 1 of Regents Policy 6102: Investment Policy Statement for General Endowment Pool be amended as shown in Attachment 1, effective July 1, 2017.

[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.]

Committee Chair Makarechian briefly introduced the items.

Upon motion duly made and seconded, the Committee approved the President's and the Chief Investment Officer's recommendations and voted to present them to the Board.

4. **APPROVAL OF BUDGET AND EXTERNAL FINANCING, NUEVO EAST STUDENT HOUSING PROJECT, SAN DIEGO CAMPUS**

The President of the University recommended that:

A. The 2017-18 Budget for Capital Improvements and the Capital Improvement Program be amended as follows:

From: San Diego: Nuevo East Student Housing – preliminary plans – $8,515,000 to be funded from housing reserves.

To: San Diego: Nuevo East Student Housing – preliminary plans, working drawings, construction, and equipment – $266.13 million to be funded with external financing ($247,115,000), housing reserves ($17,015,000), and campus funds from investment income ($2 million).

B. The scope of the Nuevo East Student Housing project shall provide approximately 546,975 assignable square feet (ASF) of housing space, including approximately 1,414 beds to primarily support graduate and professional students, a student community center (approximately 14,450 ASF), and site improvements. The scope includes demolition of 22 existing buildings (consisting of 336 beds) and the removal of 224 surface parking spaces in the northern portion of Mesa Housing.

C. The President of the University be authorized to obtain external financing in an amount not to exceed $247,115,000 plus additional related financing costs. The President shall require that:

(1) Interest only, based on the amount drawn down, shall be paid on the outstanding balance during the construction period.

(2) As long as the debt is outstanding, general revenues from the San Diego campus shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the authorized financing.

(3) The general credit of the Regents shall not be pledged.

D. The President be authorized, in consultation with the General Counsel, to execute all documents necessary in connection with the above.

[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.]

Chancellor Khosla began the discussion by delineating the overall context in which this project and other current development projects were being proposed. In 2007, UC San Diego had approximately 27,000 students; in 2012 the campus had 29,000 students. In 2016, the campus had grown to 36,000 students, an increase of 25 percent over four years. He anticipated that enrollment in fall 2017 might exceed 37,000 students. This enrollment growth had taken place under many constraints, the most significant being that no new infrastructure, classrooms or dormitories, had been built to accommodate the new students. The campus was concerned that the quality of the student experience would be diminished. An important goal that has resulted from UC San Diego's strategic planning is to guarantee four years of housing for undergraduates and Ph.D. students at 20 percent below market rates. The vacancy rate for rental units in the La Jolla community was currently less than two percent, while inflation for rental units was between seven and nine percent. UCSD was keenly aware of housing as a significant part of the total cost of education. The first of three projects to be presented by UCSD that day, Nuevo East Student Housing, was part of a planned 5,000-bed expansion of student housing. The second project, the North Torrey Pines Living and Learning Neighborhood, would be a 2,000-bed undergraduate college and a mixed-use site. The third project, Ridge Walk Academic Complex, would provide two new academic buildings, one for arts and humanities, and one for social sciences. Both these divisions had needs for more space, and UCSD wished to demonstrate that it was a home not only for the science, technology, engineering, and mathematics fields, but also for the arts and humanities and for social sciences.

Vice Chancellor Pierre Ouillet recalled that preceding the proposed Nuevo East Student Housing project there had been two other graduate student housing phases on the East Campus, Mesa Nueva and Nuevo West. The Mesa Nueva project was complete and students would be moving in within about three weeks. The number of graduate students seeking on-campus housing and who could not be accommodated still remained significant. The Nuevo East project would be built on the eastern edge of the campus, along Regents Road. UCSD would need to consider carefully how architectural elements would articulate the space between the campus and the adjoining community and have a welcoming effect. In January 2017, the Regents had approved preliminary plans funding for the Nuevo East project, and the Committee had encouraged the campus to make three changes to the design: increase the housing density, establish a much more deliberate entrance to the eastern side of the campus, and reduce the investment and land dedicated for surface parking. The campus had addressed all three suggestions. First, the number of beds had been increased from 1,100 to slightly more than 1,400. This had been achieved by increasing the height of the buildings. As a response to the second suggestion, Mr. Ouillet presented a rendering of the project as viewed from Regents Road, including a building to be named "The Exchange," a community center for graduate students. Third, the campus had eliminated the surface parking lot from the project. The site that had been slated for 550 parking spaces would be reserved for redevelopment in a separate project at a future date. The project kept only 75 parking spaces for accessibility, business delivery, and short-term convenience. Mr. Ouillet stated the campus' commitment to keep rental rates for students at or below a point that was 20 percent below market. He presented a chart comparing the cost of construction for this project, $277 per gross square foot, with other UC projects and private developments in San Diego. In this respect, Nuevo East Student Housing was faring well in part due to an extensive design-build process. The project was slightly more expensive than the two preceding East Campus housing phases because three of the five structures would be high-rise buildings.

Regent Sherman observed that the density for the project was 157 beds per acre, while the density for the North Torrey Pines Living and Learning Neighborhood project was around 250 per acre. Mr. Ouillet responded that the floor area ratio was higher than that of the surrounding community, and the campus felt it was pushing the boundary of livability. The amount of open space nearby was limited, so the project buildings would be high, allowing for recreational facilities at ground level and small areas for gathering. The campus had increased density to the extent that seemed reasonable.

Regent Sherman asked if there was resistance from the adjoining community to increasing the project density. He stated that the project would not cover its debt service at a six percent planning rate, and Mr. Ouillet confirmed this. Regent Sherman asked if increasing the density further would help with the financing of the project. Mr. Ouillet responded that the change in density from the previous to the current model did not change the project cost very much. In evaluating density, the campus considered input both from the community and from its graduate students.

Regent Sherman asked if the square footage per bed was in line with other UCSD projects. Mr. Ouillet responded in the affirmative. Assistant Vice Chancellor Mark Cunningham observed that this housing would accommodate not only single students, but couples and students with children as well. The campus wished to provide a neighborhood environment with green space. The planned height of the buildings and the number of stories reflected the kind of community UCSD wished to build.

Regent Sherman noted that while the campus' goal was to offer rents at 80 percent of the market rate, the pro forma financial statements showed rent at less than 75 percent of market. Chancellor Khosla responded that the campus was seeking to keep rents as low as possible and provide some leeway for the future. The current pro forma financial statements would be reexamined when the project was completed. Regent Sherman expressed concern about this rental rate combined with the question of debt service coverage. Mr. Ouillet responded that UCSD considers housing as a whole. The campus' debt service coverage ratio for housing as a whole had not decreased below 1.25, with the exception of one year. He anticipated that this project would not create any economic hardship for UCSD.

Regent Sherman reiterated his concern about the campus' ability to meet the planning rate for debt service coverage and asked how soon the campus would be able to borrow money for the project. Associate Vice President Sandra Kim responded that the planning rate was conservative. The University was planning a housing project bond in September and might be able to finance this project early in 2018, following California Environmental Quality Act (CEQA) approval.

Regent Sherman asked if CEQA approval is a threshold that UC must pass before being able to go to market. Ms. Kim responded that the University wants to know for certain that a project can be built. Regent Sherman asked if the campus could go to market with this project now. Ms. Kim responded that this would be a policy decision. Some revenues for the project were already pledged in limited project revenue bonds. She opined that there would be a slight risk in moving forward with this project without full design and CEQA approval. The campus was planning to seek design and CEQA approval in November and the project might be on the market in early 2018. Regent Sherman stated that it would be advantageous to have the financing put in place soon. Chancellor Khosla agreed that the sooner the campus could lock in the interest rate, the better. Ms. Kim explained that in general, the University tries to pre-fund projects as soon as it is practical to do so.

Regent Blum agreed that the sooner the campus could finance the project, the better. He asked if the campus planned to hold these investments rather than sell them. Chancellor Khosla responded that the campus wishes to own this property in order to be able to control the rental costs for students.

Committee Chair Makarechian asked how utility costs would be covered. Chancellor Khosla responded that utilities on campus are charged to various expense centers. Mr. Ouillet explained that utilities for student housing would come from the operating budget.

In response to a question by Committee Chair Makarechian, Mr. Cunningham described the Nuevo East floor plan, with a combination of one-, two-, and three-bedroom units. Each bedroom would be a single bedroom. In response to another question by Committee Chair Makarechian, Mr. Ouillet explained that the total project cost including financing was higher than the construction cost.

Regent Lemus asked how much more the high-rise component of the project would cost than the mid-rise component. Assistant Vice Chancellor Joel King responded that one could expect to pay a 30 percent premium for the high-rise component; this was related to fire and life safety features, fire pumps, and pressurized stairwells.

Regent Lemus asked how the campus had evaluated or analyzed different possible construction types. Mr. Ouillet responded that UCSD had carried out massing studies to determine how much development the site could absorb and how to distribute densities in order to make optimal use of the land. Rather than having an eight-story building across the entire space, the campus opted for a combination of different heights, resulting in a few 12-story buildings, a ten-story building, and two lower, six- to eight-story structures. Mr. Ouillet noted the campus also wanted to avoid a situation where construction is high enough to trigger greater costs but not high enough to lower the cost per unit.

Regent Lemus asked about the campus' decision-making process regarding the 30 percent premium, noting that the more costly part of this project would be subsidized by other parts of the project and by other UCSD projects. Mr. Ouillet responded that this higher cost was offset by the common areas, utilities, and infrastructure. The costs of the previous and current models, the current model having higher density, were almost the same.

Regent Park asked if UCSD's goal of guaranteeing student housing for four years is shared by all the campuses. Ms. Kim responded that each campus has different student housing goals. This goal was specific to the San Diego campus. Regent Park asked if this would be the longest guarantee offered by any campus. Ms. Kim responded that UCLA also offers a substantial guarantee. UCSD's four-year target was ambitious.

Regent Park asked why UCSD appeared to be adding more graduate student spaces than undergraduate spaces and if this reflected an underlying need. Chancellor Khosla responded that the campus was adding both graduate and undergraduate housing. The Nuevo East project is located in a part of campus dedicated primarily to graduate student housing. UCSD would add 2,000 spaces for undergraduates in the North Torrey Pines Living and Learning Neighborhood in the West Campus, with another 2,000 to 3,000 spaces to be added in the following phase. The campus would like to add 10,000 spaces, divided about evenly between graduates and undergraduates. Chancellor Khosla remarked that UCSD's undergraduate enrollment has grown faster than its graduate enrollment. The campus needs to increase its graduate enrollment to support research and teaching, and needs graduate housing in order to recruit more graduate students. He acknowledged that there was a delicate balance to be achieved between the two.

Committee Chair Makarechian recalled that campus Long Range Development Plans require that on-campus housing be available for a certain percentage of students.

Upon motion duly made and seconded, the Committee approved the President's recommendation and voted to present it to the Board.

5. **APPROVAL OF BUDGET AND EXTERNAL FINANCING, NORTH TORREY PINES LIVING AND LEARNING NEIGHBORHOOD, SAN DIEGO CAMPUS**

The President of the University recommended that:

A. The 2017-18 Budget for Capital Improvements and the Capital Improvement Program be amended as follows:

From: San Diego: North Torrey Pines Living and Learning Neighborhood – preliminary plans – $22.25 million to be funded from housing reserves ($13.35 million) and campus funds ($8.9 million).

To: (1) San Diego: North Torrey Pines Living and Learning Neighborhood – preliminary plans, working drawings, construction, and equipment – $509.45 million to be funded with external financing ($494.95 million), gift funds ($8 million), and housing reserves ($6.5 million); and

(2) Upon Regents' approval of the related concurrent item, *Approval of Preliminary Plans and Working Drawings Funds, Ridge Walk Academic Complex, San Diego Campus*, San Diego: Ridge Walk Academic Complex – preliminary plans and working drawings – $12 million to be funded from campus funds.

B. The scope of the North Torrey Pines Living and Learning Neighborhood project shall provide approximately 644,000 assignable square feet in a mixed-use environment, including approximately 2,000 undergraduate beds, resident support space, and residential dining; lecture halls and classroom; residential life and administrative space for students and staff in UC San Diego's Sixth College; market and retail space; and approximately 1,250 below-grade parking spaces. The project shall also realign Scholars Drive, make improvements to Ridge Walk along the eastern edge of the neighborhood, and other site improvements to create a pedestrian- and bicycle-friendly community.

C. The President of the University be authorized to obtain external financing in an amount not to exceed $494.95 million plus additional related financing costs. The President shall require that:

(1) Interest only, based on the amount drawn down, shall be paid on the outstanding balance during the construction period.

(2) As long as the debt is outstanding, general revenues from the San Diego campus shall be maintained in amounts sufficient to pay the debt service and to meet the related requirements of the authorized financing.

(3) The general credit of the Regents shall not be pledged.

D. The President be authorized, in consultation with the General Counsel, to execute all documents necessary in connection with the above.

[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.]

(For discussion, see item 6 below.)

6. **APPROVAL OF PRELIMINARY PLANS AND WORKING DRAWINGS FUNDS, RIDGE WALK ACADEMIC COMPLEX, SAN DIEGO CAMPUS**

The President of the University recommended that:

The 2017-18 Budget for Capital Improvements and the Capital Improvement Program be amended as follows:

From: San Diego: North Torrey Pines Living and Learning Neighborhood – preliminary plans – $22.25 million to be funded from housing reserves ($13.35 million) and campus funds ($8.9 million).

To: (1) Upon Regents' approval of the related concurrent item, *Approval of Budget and External Financing, North Torrey Pines Living and Learning Neighborhood, San Diego Campus,* San Diego: North Torrey Pines Living and Learning Neighborhood – preliminary plans, working drawings, construction, and equipment – $509.45 million to be funded with external financing ($494.95 million), gift funds ($8 million), and housing reserves ($6.5 million); and

(2) San Diego: Ridge Walk Academic Complex – preliminary plans and working drawings – $12 million to be funded from campus funds.

[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.]

Associate Vice President Sandra Kim briefly introduced the North Torrey Pines Living and Learning Neighborhood project and the Ridge Walk Academic Complex project, explaining that they were interrelated.

Chancellor Khosla provided background for the North Torrey Pines Living and Learning Neighborhood project by recalling that UC San Diego is organized into a residential college system. Currently there were six colleges with nearly 28,000 undergraduates. Within a large university, the college system is intended to offer students a residential experience in a smaller community. He stated his view that a residential college would ideally have not more than 3,000 students, while a realistic goal for UCSD would be a limit of 4,000 students. Based on this number of 4,000 students per college, he projected that the campus would need eight colleges by 2020. The North Torrey Pines project would provide the infrastructure for Sixth College, which was currently located in temporary facilities. This was a visionary, mixed-use project.

Vice Chancellor Pierre Ouillet presented a map of the ten-acre parcel, currently occupied by parking, where the North Torrey Pines project would be located. The Ridge Walk Academic Complex project, within the same parcel, would be treated as a separate project for which the campus would seek State funding. Representatives of Sixth College had taken part in the design process over the prior nine months, through an extensive design-build competition with three finalists. North Torrey Pines would be a mixed-use project providing more than 600,000 assignable square feet and 2,000 beds for undergraduates. More than half of the undergraduate living space would be offered in a residence hall configuration, while 900 beds would be provided in an apartment-style configuration. Mr. Ouillet enumerated other features of the project, including a 600-seat lecture hall and market and retail space. The campus had been attentive to the question of parking. Construction of the project would involve the removal of 900 surface parking spaces while adding 278 net new spaces for a total of 1,250 below-grade parking spaces. The underground structure would be used for parking and transit connections. He noted that this part of campus is furthest away from rapid transit. As in the Nuevo East project just discussed, the campus wishes to maintain rental rates for students at 20 percent below market. The construction costs were approximately $300 per gross square foot. Costs were in line with the private sector in spite of UC's higher labor costs; Mr. Ouillet attributed this to the scale of the project and to its value engineering. UCSD anticipated that the North Torrey Pines Living and Learning Neighborhood would open in fall 2020.

Committee Chair Makarechian requested clarification of the allocation of funds between the North Torrey Pines and Ridge Walk Academic Complex projects. Ms. Kim explained that in the Ridge Walk Academic Complex agenda item, the Committee was being asked to affirm preliminary plans funding for $4 million and to approve $8 million for working drawings. This allocation was made based on State eligibility. The Ridge Walk Academic Complex project was being separated from the original project for which preliminary plans funding had been approved at the November 2016 meeting. The package approved in November 2016 included the $4 million; the campus was now requesting an additional $8 million for working drawings, needed because this project would be included in an upcoming State capital budget request. Mr. Ouillet seconded the explanation; now that the campus was pursuing a separate track for the Ridge Walk Academic Complex project, which was eligible for State funding, the working drawings needed to be further developed.

Regent Anguiano asked if academic and administrative facilities to be provided for Sixth College would be subsidized by housing revenues or by the reserve portion of the campus budget. Chancellor Khosla responded that housing revenues paid for these administrative facilities, which serve mostly to support the residential program but include some academic components. In response to another question by Regent Anguiano, Chancellor Khosla recalled the origins of UC San Diego's college system. When the campus was founded, it intended to follow the example of the Claremont Colleges, with colleges for humanities, sciences, and engineering. The campus soon realized that this was not the appropriate trajectory. The colleges became primarily residential, with a general education sequence but with no faculty. Faculty are located in their departments, managed by department chairs and deans. UCSD's colleges have provosts, who are like residential deans. Provosts have responsibility for the general education sequence and the quality of residential life and residential programs.

Regent Sherman asked how the campus charges for parking. Assistant Vice Chancellor Mark Cunningham responded that there are rates for faculty, staff, and students. Mr. Ouillet added that altogether, UCSD's parking system covers its costs, subsidizes the campus, compensates for the use of land, and is within UC's debt service ratio requirements.

Regent Park noted that the background materials referred to a future Seventh College. She asked about the rationale for creating a new college rather than increasing the size of existing colleges, and if a separate infrastructure for a new college was in fact warranted. Chancellor Khosla briefly reiterated the concept behind UCSD's college system, providing the experience of a small college of 2,000 to 4,000 students within the context of a large university. UCSD's colleges now had around 5,500 students, and Chancellor Khosla underscored that this had a negative impact on the student experience. While 3,000 students per college would be a desirable population size, the realities of the campus' real estate situation would not allow this. Given projected enrollment, the campus would need to build a Seventh College and an Eighth College over the next five to seven years to maintain a number of 4,000 students per college. Responding to Regent Park's question about infrastructure, he emphasized that students need to be housed somewhere, with rent and living expenses, whether or not UCSD chose to build a new college. The new infrastructure would be paid for by money that would be spent in any case somewhere else. The college system facilitated a better educational experience and stronger ties to the institution, which would be reflected in alumni philanthropy in the future.

Regent Park asked if 1,000 additional students in a college made a palpable difference in student experience, in a student's everyday life. Chancellor Khosla responded that if UCSD only maintained its current six colleges and undergraduate enrollment rose to 32,000 to 34,000, this would result in almost 6,000 students per college. He emphasized his conviction that this was not merely a matter of a number, but a loss of quality in students' community and education.

Upon motion duly made and seconded, the Committee approved the President's recommendations in items 5 and 6 and voted to present them to the Board.

7. **APPROVAL OF FUNDING REALLOCATION FOR HOUSING ASSISTANCE**

The President of the University recommended that:

A. A one-time allocation of $27 million be provided as a source of funding for housing assistance for students, faculty, and staff.

B. These funds will be reallocated from the Faculty Housing Programs Reserve, and will provide $3 million to each of the following campuses: Berkeley, Davis, Irvine, Los Angeles, Riverside, San Diego, San Francisco, Santa Barbara, and Santa Cruz.

[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.]

Executive Vice President and Chief Financial Officer Brostrom explained that this proposed one-time allocation of $27 million would assist campuses with student, faculty, and staff housing needs. Given the diversity of needs at the various locations, the University would grant maximum flexibility to the chancellors to use these funds as most appropriate. Campuses might use these funds for planning studies or subsidy programs, as two examples. The chancellors would report on the use of these funds, and this could be reported to the Committee as well. He noted that UC has a low default rate on its loans. This action would redirect approximately one-half of the Faculty Housing Programs Reserve.

In response to a question by Committee Chair Makarechian, Mr. Brostrom explained that the decision to provide $3 million to each location was based on the fact that the overall amount to be distributed was too small to warrant some other kind of division.

Committee Chair Makarechian asked if the decision to reduce the Faculty Housing Programs Reserve was based on default ratios. Mr. Brostrom responded that since 1984, the Mortgage Origination Program (MOP) had generated $3 billion in loans, with losses of only $5.8 million. Overall performance has been remarkable.

Committee Chair Makarechian asked what would happen if MOP did not perform well. Mr. Brostrom responded that the Faculty Housing Programs Reserve would reimburse the Short Term Investment Pool (STIP) if the MOP earnings rate were lower than what the funds would have earned had they remained in other STIP investments.

Staff Advisor Valdry praised the inclusion of staff and students in the ambit of this action. He urged the campuses, when developing these programs, to target the most vulnerable student and employee populations. He alluded to significant housing difficulties at campuses like Santa Cruz and Santa Barbara.

Upon motion duly made and seconded, the Committee approved the President’s recommendation and voted to present it to the Board.

8. **AUTHORIZATION TO INCREASE THE UNIVERSITY EMPLOYER CONTRIBUTION RATE AND MAKE ADDITIONAL CONTRIBUTIONS TO THE UNIVERSITY OF CALIFORNIA RETIREMENT PLAN**

The President of the University recommended that the Regents:

A. Approve increases in the University contribution rate for the Campus and Medical Centers segment of the University of California Retirement Plan (UCRP), effective July 1, 2018, to 15 percent (from 14 percent) for all member classes other than Tier Two and 7.5 percent (from seven percent) for Tier Two members[1], and an increase in the employer assessment to seven percent (from six percent) for Savings Choice Participants in the Defined Contribution Plan, to help pay down the UCRP unfunded liability.

B. Add Sections H, I, J and K to the Regents' November 2015 action, *Authorization to Fund University of California Retirement Plan Annual Required Contributions for Fiscal Year 2015-16, Fiscal Year 2016-17, and Fiscal Year 2017-18 with Contributions from Short Term Investment Pool*, as follows:

Additions shown by underscoring

H. Transfer funds from STIP to UCRP in FY 2018-19, FY 2019-20, FY 2020-21, and FY 2021-22 in amounts equal to the difference between the approved total UCRP contribution and the ARC. Should STIP have insufficient funds, funds will be transferred from the Total Return Investment Portfolio (TRIP) to STIP. These transfers shall satisfy the requirements below and will not exceed $500 million in FY 2018-19, $500 million in FY 2019-20, $600 million in FY 2020-21, and $700 million in FY 2021-22:

(1) Maintenance of a minimum balance of STIP and TRIP liquidity of $5 billion at all times. STIP and TRIP liquidity is the sum of STIP and up to $1 billion of STIP-like investments in TRIP.

(2) The creation of an internal note receivable ("STIP Note") for the amounts above, owned by STIP participants.

(3) The ability to set the repayment terms on the STIP Note, which will have a final maturity no later than FY 2041-42.

(4) Assessment of all University fund sources making UCRP payments to include an additional amount for principal and interest payments on the STIP Note, divided proportionally based on covered compensation.

(5) For funding sources, such as federal contracts and grants, where interest payments for the STIP Note are not billable as direct program costs, the campuses will be required to pay these charges using non-federal sources.

[1] The UCRP member class known as "Tier Two" is a frozen group. As of July 1, 2016, it had six active members.

I. Obtain external financing not to exceed $2.3 billion, plus additional related financing costs in lieu of or in addition to the STIP transfers, for the purpose described above if it is expected that this option could be accomplished at a lower cost or is more practical for the University. The repayment of external financing shall be from the same University fund sources that would be responsible for making payments on the STIP Note as outlined above.

J. The total amount of the STIP transfers and external financing shall not exceed $2.3 billion plus additional related financing costs.

K. Take all actions and execute all documents necessary in connection with Sections H through J above.

[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.]

Executive Vice President and Chief Financial Officer Brostrom explained that this item proposed increasing the employer contribution rate to the UC Retirement Plan (UCRP) in July 2018 and continuing a program of borrowing from the Short Term Investment Pool (STIP) into UCRP. Mr. Brostrom recalled six past instances of borrowing for the UCRP; most often this had been borrowing from STIP. This borrowing program had served the University well and increased the funded level of the UCRP, borrowing at 1.5 percent and earning at 7.25 percent. He noted that the State appeared to be following the University's example by pursuing a similar approach in its current-year budget, borrowing $6 billion from its short-term Pooled Money Investment Account into the California Public Employees' Retirement System (CalPERS).

The action proposed in this item would raise the UCRP employer contribution from 14 percent to 15 percent. Mr. Brostrom presented a chart showing amounts that would need to be borrowed over the next four years, totaling $2.3 billion, to be added to the employer and employee contributions, to achieve the Annual Required Contribution. The University was determining if there was sufficient liquidity in STIP and the Total Return Investment Pool (TRIP) for internal borrowing, or if UC might undertake external borrowing. The campuses' employer contribution rates would increase by about 2.5 points over four years, with a combination of the contribution and paying back the STIP borrowing on a 25-year amortization schedule. This approach would have positive effects on UCRP, as demonstrated by another chart showing that the funded status of the UCRP with these changes would reach 90 percent by 2031 and 95 percent by 2037. This projection assumed borrowing through 2022; at that point UC would reassess its liquidity and whether it needed to continue the borrowing program.

Committee Chair Makarechian asked about the employee contribution rate. Mr. Brostrom responded that this rate would remain the same, between seven and nine percent depending on pension tier. UC has never assigned the UCRP unfunded liability to employees. Employees pay roughly 50 percent of the UCRP normal cost.

Committee Chair Makarechian recalled that the State does not fund the UCRP in the same way it funds CalPERS. He expressed concern about the UCRP liability, projections about the number of future retirees relative to active employees, and the risk that the University was in some sense mortgaging its future. Mr. Brostrom responded that in the last three years, as part of the Governor's framework agreement with the University, the University received $436 million in Proposition 2 funds. Depending on the state of Proposition 2 and the State's "rainy day" fund, he hoped that some of the needed $2.3 billion mentioned earlier would be offset by additional State contributions. He acknowledged that the UCRP contribution rate has a tremendous effect on UC's operating budget and increasingly on its medical centers. The University's rate was lower than that of most public employers in California; the State's rate was almost double that of UC. He described the proposal as a measured approach to achieve 90 percent funding within about 15 years.

Committee Chair Makarechian asked if these projections took into account the ratio of active employees to retirees. Mr. Brostrom responded in the affirmative. The University's assumption for employee growth is 0.7 percent, while the assumption for retiree growth is much higher. He acknowledged that this is a burden on the retirement system.

Committee Chair Makarechian asked if UC would borrow from STIP or TRIP. Mr. Brostrom responded that UC would borrow only from STIP.

Committee Chair Makarechian observed that borrowing from STIP affects campus liquidity. In case of a shortfall, the University would have to cash out funds from TRIP, which has significantly higher returns. He asked who would be responsible for the penalty in this case and about further implications for UC liquidity of borrowing from STIP. Mr. Brostrom responded that this issue is part of the ongoing dialogue the University has with credit rating agencies, which would like UC to maintain at least $5 billion in STIP. The University would continue to monitor its liquidity on a monthly basis and UC grapples with asset optimization – any excess liquidity should be moved to a pool with higher returns. This has worked well, but as UC runs up against constraints it might need to consider an external line of credit. Campuses have taken actions on their own. UCSF has moved funds from the campus' STIP to the campus endowment.

In response to a remark by Regent Blum, Mr. Brostrom stated that UC's experience with working capital has been growing, even when State support has decreased. UC medical centers consistently produce positive margins.

Committee Chair Makarechian asked how the $2.3 billion projected borrowing would affect liquidity and credit ratings. Mr. Brostrom responded that UC would have to monitor the situation closely. He recalled that there are other demands on STIP, such as the Mortgage Origination Program.

Committee Chair Makarechian asked how often the Office of the President would report on liquidity. Mr. Brostrom responded that there are monthly and quarterly reports to rating agencies that could be provided.

Committee Chair Makarechian stated that it would be important to keep the Committee informed about UC's liquidity needs in STIP and how the University could move TRIP funds into the UCRP, which would produce an annual difference of $400 million to $500 million.

Committee Chair Makarechian expressed support for the proposed action but described it as a temporary solution, and one that may lead the State to conclude that it is not obligated to contribute to addressing the UCRP liability. Mr. Brostrom responded that in its framework agreement with the State, UC had succeeded in having the State contribute about one-third of the borrowing for the last three years.

Regent Lemus referred to the chart displayed earlier showing the projected funded status of the UCRP through 2037 and asked about the assumed rate of return. Mr. Brostrom responded that the proxy rate was 7.25 percent.

Regent Sherman asked about UCRP payments to STIP to ensure that STIP is reimbursed appropriately and asked if there would be payments from TRIP to STIP to maintain the $5 billion level per rating agency instructions. Mr. Brostrom responded that the University was not planning to move funds from TRIP to STIP. UC has been working with the rating agencies to demonstrate that a large portion of TRIP is liquid. In response to another question by Regent Sherman, he confirmed that the rating agencies were taking account of underlying assets that UC could make use of in the short term if the need were to arise.

Regent Park asked if the University had considered a greater increase in the employer contribution, more than one percentage point, in the context of increasing State support and tuition revenue. Mr. Brostrom responded in the negative. In spite of the increase in these revenue sources, the University still faced a significant shortfall in its operating budget and for its capital program in particular.

In response to a question by Chair Kieffer, Mr. Brostrom explained that the proposed action assumed that after being raised to 15 percent, the employer contribution would remain at that level indefinitely. UC might consider an additional increase later. Mr. Brostrom stated his view that a funded level of 90 percent to 95 percent was desirable for a pension plan and would allow the plan to pay benefits for about a century.

Upon motion duly made and seconded, the Committee approved the President's recommendation and voted to present it to the Board.

9. **UPDATE ON THE UNIVERSITY'S 2017-18 BUDGET**

[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.]

Executive Vice President and Chief Financial Officer Brostrom recalled that the final 2017-18 State budget had been adopted by the Legislature on June 15 and signed into law by the Governor on June 27. The overall State budget included more than $183 billion in expenditures and the State General Fund was $127 billion. The budget authorized State General Fund expenditures of $125.1 billion, with the balance used for reserves and to meet Proposition 2 funding requirements. For the University, the State budget was consistent with the four-year funding framework agreement. There was a four percent base budget adjustment of $131 million; over four years, these adjustments had added up to an additional $500 million from the State General Fund. The budget included a $169 million one-time contribution to the UC Retirement Plan; over three years, these one-time contributions totaled $436 million. The budget also provided $6.6 million in one-time General Fund support for a number of projects, $82 million in Proposition 56 funds for medical research, and $5 million in funding for transportation studies.

The State budget included the expectation that in 2018-19 the University would enroll at least 1,500 more resident undergraduates than in 2017-18. The Budget Act acknowledged that this enrollment growth cost would be shared by UC and the State. The University would work with the Legislature, the Governor's office, and the Department of Finance to identify current UC systemwide program funding that could be redirected toward enrollment growth. One meeting had already taken place to discuss this matter. A welcome element of the budget was $5 million in new General Fund support for 500 additional graduate students. Another $50 million would be provided to the University contingent upon UC satisfying five conditions by May 1, 2018, and Mr. Brostrom stated that UC would make every effort to satisfy them.

The Budget Act had created a separate line-item appropriation of State General Funds to replace funding that the Office of the President (UCOP) otherwise receives through two campus assessments. The first, a general campus assessment, amounts to about one-half of the overall UCOP budget; this year, this would be replaced by a State General Fund appropriation of $296.4 million. The second assessment is for the UCPath system; for the 2017-18 year, there would be a direct State General Fund appropriation of $52.4 million. Because the line-item appropriation was equivalent to the projected revenues that would have been generated from the campus assessments, there would be no overall revenue impact to UCOP and the UC system. Nevertheless, Mr. Brostrom underscored his concern that this approach by the State did not reflect sound public policy, and the University would work with the Legislature and the Governor to change the approach and reverse it in the following year's budget. An argument against the approach was the idea that the State General Fund should directly support the University's core missions of teaching, research, and public service rather than administrative functions. Second, the approach directly and inappropriately subsidizes other parts of the enterprise. The best example of this was UCPath, which operates on a fee-for-service model. Campuses pay for UCPath services based on the number of employee W-2 forms that are generated. Instead, State General Funds would be paying for this service. Third, under the California Constitution, the Board of Regents is the appropriate fiduciary body to determine the size, scope, and activities of UCOP.

Chair Kieffer questioned the benefit of the practice of campus assessments, or taxing each campus or entity. This practice might suggest that UCOP is a service center rather than an essential element of the University. Mr. Brostrom expounded his view that the system that had been in place before campus assessments did not tax appropriately. UCOP assessed a series of taxes on revenues not related to UCOP services: taxes on indirect cost recovery, nonresident tuition, and patent royalties. If research income increased at a certain campus, UCOP would also experience an increase even though it was not providing any additional services to the campus. The current approach with campus assessments offers greater transparency, the growth rate for the assessments has been low, and campuses can choose from which fund source they wish to pay the assessments.

Chair Kieffer emphasized that UCOP must be seen as a key element of the UC system and cautioned that some language used by UC might suggest otherwise. Mr. Brostrom agreed, noting that many programs administered through UCOP are part of the University's core mission, such as Student Affairs, the UC Centers in Sacramento and Washington, D.C., and multi-campus research programs.

Chancellor Gillman expressed concern about the State's expectation that UC would increase undergraduate enrollment without any associated additional State funding. In the long-term partnership of UC and the State, the State must understand that increased enrollment of California resident students depends on the willingness of legislators to subsidize that enrollment. The current State expectation might set a dangerous precedent. Chair Kieffer observed that increasing enrollment without appropriate funding would lead to a higher student-faculty ratio, injury to UC's reputation, and decline in quality.

Chancellor Gillman gave credit to the partnership of UC and the State for the University's excellence in research rankings and in contributions to the betterment of society. This partnership included the State's understanding that funds spent on making UC education accessible for more California students were not an expense but an investment in the future of the state. Chancellor Gillman voiced his serious concern about the direct appropriation for UCOP. He stated his view that this represented a violation of the Constitution of the State of California. The authors of the Constitution had sound reasons for giving the Regents constitutional autonomy, and this autonomy was crucial to the greatness of the UC system. The Constitution does not make the activities of UCOP accountable to the Legislature in a direct way. It was imperative for the future of the University that the Legislature's decision to make a direct State appropriation to UCOP not become a precedent. The fundamental law of the State of California needed to be respected.

Regent Blum expressed strong agreement with Chancellor Gillman's statement and criticized the State for reducing funding for the University while also attempting to reduce its authority. Chair Kieffer expressed agreement with Chancellor Gillman and Regent Blum, noting that this issue would be the focus of the current year. In this situation, the Regents and UCOP needed to persuade rather than command. Regent Blum stressed his view that the State Auditor's report on UCOP had come to incorrect conclusions.

Faculty Representative White voiced his principal objection to the line-item direct appropriation for UCOP: the Legislature had unintentionally undermined the part of the University that it cared about most, the State-supported core of the UC mission. The best possible outcome to this situation would be that many people would work hard to reapportion funds among campuses, schools, and departments to try to maintain the State-supported mission. This would require an immense amount of work and at best would bring the University back to a neutral position; but it was much more likely that this work would result in winners and losers. It was difficult to imagine that the State-supported part of the institution would emerge unscathed. This situation was extremely unfortunate and was probably the result of misunderstanding and poor communication.

Regent Park observed that there were dissatisfaction and consternation on many sides. The University should focus on the opportunity to improve its relationship with the Legislature. She urged the Regents, the chancellors, and UCOP to focus on rebuilding this relationship in order to lead to the desired outcome. Committee Chair Makarechian expressed the Board's general agreement on the need to rebuild this relationship, but also underscored that the Regents must preserve their rights. In this situation, the Regents had no other options but to accept the Legislature's action.

10. **NORTHERN REGIONAL LIBRARY FACILITY PHASE 4 EXPANSION**

[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.]

Associate Vice President Sandra Kim introduced the discussion of the Northern Regional Library Facility Phase 4 Expansion. The University Librarians of the ten campuses proposed to add a fourth phase to the Northern Regional Library Facility (NRLF), located at UC Berkeley's Richmond Field Station. The project would support the ten campuses' libraries' needs through storage of and access to valuable collections and by enabling campus libraries to use on-campus library space in new ways and for new services. This expansion would add capacity for an additional 3.1 million print volumes, allowing the facility to meet systemwide storage needs through 2030.

Vice Provost Susan Carlson explained that the NRLF circulates materials to all UC campuses for use by students, faculty, and other researchers and regularly accepts new volumes and archival materials for storage from the campuses. The need for expansion resulted in part from the need to convert campus library spaces to meet emerging needs for collaborative learning environments. The NRLF expansion would allow UC to sustain its investment in the largest academic library collection in the world and to maintain its leading role in preserving scholarly works and valuable cultural and historical materials. The proposed project enjoyed unanimous support from all UC campuses.

UC Berkeley University Librarian Jeffrey MacKie-Mason asserted the critical role of the Regional Library Facilities for the University's mission. These facilities benefit all ten campuses by providing high-density, low-cost storage that enables UC to build and maintain a world-class research collection. High-density, secure preservation saves approximately $3.40 per volume annually, amounting to about $45 million in annual systemwide savings. The Regional Library Facilities allow the campuses to convert scarce on-campus space to serve more pressing needs, especially for undergraduate learning, and allow collections to be shared across all ten campuses, with 24-hour delivery to any campus. This ensures equality of access to high-quality materials for all campuses and for every UC student.

Mr. MacKie-Mason cautioned that without additional capacity, the Regional Library Facilities would be unable to serve campus storage needs in the near future. The University had been making use of the Regional Library Facilities since 1982, and had regularly built new phases to address needs for off-site storage. UC libraries have adjusted their collection management strategies to stretch the time between each capacity addition. UC has reduced duplicate purchases across the system, has increased the density of on-campus storage, and is prioritizing digital content. Nevertheless, the University would need to continue to add print materials to its collections. For example, special collections consisting of rare, historical, and archival materials are primarily in print form. Print materials are still obtained where this is preferred for certain types of scholarship, or when materials are not available in digital form. UC libraries collect materials from around the world in over 200 languages, and most of these materials are still only published in print form. In addition, UC needs to shift parts of its existing collections off campus to convert space to other campus uses. At current deposit levels, the University would soon fill the Regional Library Facilities. The NRLF would be filled by 2018. A 2012 survey of five-year collection growth indicated that UC collectively anticipated adding over 300,000 volumes annually to the Regional Library Facilities. A 2017 review confirmed this forecast. The proposed NRLF expansion would allow UC to remain just ahead of this crisis, avoiding campus costs and disruption of planned uses of campus space for the next decade.

The University’s library and archival collections are valued at $1.1 billion and are fundamental to UC’s education, research, and public service mission. On-campus access to materials is valuable, but it had simply become too expensive to keep all materials on campus. High-density, preservation-quality storage facilities with rapid delivery were a well-understood solution. The Regional Library Facilities are important in providing direct cost savings, lowering UC’s cost of operations, and releasing campus shelving space for other uses. UC Santa Barbara had recently created a teleconferencing center and training room by moving storage of a low-use government documents collection off campus. UC San Diego created 30,000 square feet of teaching and learning commons by moving some collections off campus. UC Berkeley had recently moved books in order to convert the fourth and fifth floors of Moffitt Library into a 40,000-square-foot technology-rich collaborative learning space.

Mr. MacKie-Mason elucidated the rationale for the particular form of this project. The University evaluated a number of possible solutions using ten different criteria, including cost, effect on the campuses, quality of preservation, and access. Of particular note, UC considered the net present value life cycle cost for a 40-year time horizon. Operating costs for some alternatives would quickly accumulate and overwhelm capital savings.

The University considered five alternatives. Construction of a fourth module at the NRLF was the preferred alternative because it satisfied all the criteria at the lowest long-term cost. UC considered outside vendors, storage companies, and even Amazon. The problem with this option was that the capture of UC's valuable assets would lead to the risks of future cost increases; UC would be beholden to the outside vendor. In addition, outside vendors provide only limited and very costly access to the materials, and for the most part do not meet preservation quality standards. The University also considered building a new Regional Library Facility in a cheaper location than Richmond. This option would reduce capital costs modestly on a net present value basis, but savings would be more than offset by increased operating costs. This would be the University's third Regional Library Facility and would require an additional team costing approximately $800,000 annually to maintain and operate the facility, as well as additional service contracts and higher utility costs. Further, any potential capital cost savings would be offset by the need for new infrastructure and other duplicative space needs, such as extra space for staff and public use and for loading dock areas. UC considered keeping collections on campus, but of all the options, this one presented the highest real and opportunity cost. Finally, the University considered increasing capacity utilization of the existing Regional Library Facilities. Increased space garnered from this approach would be insufficient to meet even ten years of need; Mr. MacKie-Mason estimated that it would meet about three years of need. This approach would also result in considerable cost and disruption. The proposed project would meet systemwide needs for about ten years, serve all ten UC campuses, and be situated on land ideally suited for this use. Every master plan for the Richmond Field Station has envisioned this expansion. The project would take advantage of the modular design of the NRLF, saving money by drawing on existing staff and using a central service corridor and existing infrastructure. Currently, UC Berkeley manages the NRLF on behalf of the system, carrying the operating costs. The University planned to return to the Regents with a request for approval of preliminary plans funding in September 2017.

Chancellor Blumenthal inquired about the reasons for the significant difference in cost of storing books on campus versus in a Regional Library Facility, $3.40 per volume annually. Mr. MacKie-Mason responded that this figure resulted from a study sponsored by the Council on Library and Information Resources and carried out by a leading economist and expert on information resources. The higher cost of storing books on campus is due to the higher cost of land and maintenance of facilities on central campuses than in a high-density facility. The NRLF is not like an ordinary library and its layout does not allow for the usual kind of access to materials. Its stacks are 30 feet tall and employees are lifted by machines to retrieve books. The density of the facility is much higher than could be achieved on campus. The NRLF is built on land with a lower value to the campus so that the opportunity cost is lower. Studies showing the economic benefit of using remote library storage facilities have been widely reviewed and accepted and most major universities are using remote storage.

Committee Chair Makarechian asked about the cost of delivering books to the campuses when they are requested. Storage locations closer to the campuses might provide lower shipping costs. He also asked about clean-up costs for the Richmond site. Mr. MacKie-

Mason responded that in order to minimize transportation costs it might seem to make sense to spread books across the state, but this would lead to further complications. The University would then have multiple facilities and would not achieve the storage density it currently has and the associated savings which make up for some shipping costs. Another point that must be taken into consideration is that these materials are shared by all ten campuses. It is impossible to predict which campus will need which book at which time. If the University were to store one-tenth of its collection at every campus, it would still be required to ship books around the state. Currently UC has two locations, the NRLF and the Southern Regional Library Facility (SRLF).

Committee Chair Makarechian suggested that a single site, at a location that was central for all ten campuses, might be desirable. Mr. MacKie-Mason explained that the transportation costs are a small part of the NRLF and SRLF operating costs. The University had considered a location in the Central Valley for a potential new facility, but the cost of building a third facility and the cost of additional staff would negate any savings from a more central location. Committee Chair Makarechian requested the study demonstrating this as well as the study showing the inadvisability of using a third-party provider. Mr. MacKie-Mason responded that these studies were voluminous and could be provided. He then responded to Committee Chair Makarechian’s question about site clean-up. The proposed expansion would occur on an existing site that was already prepared and part of the campus’ master plan; a module would be added to an existing facility. There would be an environmental assessment for the project.

Regent Sherman asked if UC had considered subterranean construction. Associate Vice Chancellor Rajiv Parikh responded that soil conditions at the Richmond site were not optimal. The ground at the site was made up of sandy soils that required a great deal of foundational work even for this warehouse structure. He anticipated that construction underground at this site might prove extraordinarily costly.

Regent Sherman asked if dewatering was required at this site. Mr. Parikh responded that the campus had not done much construction at this site recently. The last NRLF module had been built in 2005. He described the mat-slab foundation that would stabilize the facility. He recalled that when UC Berkeley was considering construction for the Berkeley Global Campus at Richmond Bay, it found that at about 15 to 20 feet below ground there began to be problems with water seepage from San Francisco Bay and that there would have been major dewatering and stability problems for construction there.

Regent Sherman asked if it would be possible to implement robotic systems for retrieving books that could increase density inside the facility. Mr. MacKie-Mason responded that the University found that available robotic systems were too costly. The system in use is semi-robotic; employees rise and descend on cherry-pickers to retrieve materials. The engineering architects involved in the planning study found this system to be the best cost solution.

Regent Sherman described the projected increase in print volumes as dramatic. He asked about the development of digitization and if physical volumes were necessary.

Mr. MacKie-Mason observed that the growth in number of print volumes was steady but not exponential. There were three major sources of print volumes that UC expected to add to its Regional Library Facilities for at least another ten years: historical, archival, and special materials; materials from many language areas of world that are still mostly in print form; and existing volumes moved from the campuses to free up campus space.

Regent Lemus asked if the University had data on trends in library use and on how students and researchers access information, which might be related to digitization. He asked if there were opportunities for increasing digitization. Mr. MacKie-Mason responded that digitization was proceeding rapidly. UC was digitizing existing materials, and many new materials are produced digitally. This factor was taken into account in assessing the need for this project. He observed that digitization would not solve the problem of storage of existing volumes. Current methods can guarantee the storage of digital data for about a decade, while preservation of paper can be assured for hundreds of years. In the interest of preserving its assets and human cultural heritage, the UC system would not destroy print materials as they are digitized. Digitization would reduce future storage problems, and at some point there would no longer be a need to add remote storage capacity.

Committee Chair Makarechian asked if the University had an estimate of the amount of space that could be saved on campuses with expensive land by moving large portions of library collections to storage. Mr. MacKie-Mason responded that UC had not studied this specific question but recalled that UC Berkeley had recently moved approximately 120,000 volumes from Moffitt Library to storage, allowing a renovation of a 40,000-square-foot space.

Regent-designate Morimoto asked how the University, in choosing to expand at NRLF rather than build at a new site, had balanced the desire for near-term efficiency with seismic concerns, concerns about soil quality, and storage needs that would continue into the distant future, for a hundred years and more. Mr. MacKie-Mason responded that UC had no special concerns about seismic safety at the site, only concerns about the soil quality. The University also did not believe there would be any problems due to rising sea levels for at least 75 years. He speculated that with more foresight, the University might have chosen in 1980 to build a library storage facility in the Central Valley, rather than in the current locations in Richmond and Los Angeles. The Regional Library Facilities have long functional lives and durable construction. To tear down and rebuild the facilities would be an extraordinary expense, while the capital maintenance costs required to operate them were surprisingly modest. Mr. MacKie-Mason estimated the cost of replacing the NRLF in the Central Valley at $150 million.

Student Advisor Sands asked if students are less likely to check out books if they are not on the shelf and have to be ordered, and if UC libraries were offering the same quality as in the past. Mr. MacKie-Mason responded that the University libraries were offering students a different quality. He averred that the quality of service was good and noted that 96 percent of book requests are fulfilled within 24 hours, much faster than interlibrary loan borrowing. Students use the NRLF at high rates. Mr. MacKie-Mason emphasized that the Regional Library Facilities provide a great advantage to students across the UC system through access to a collective resource. Books borrowed from the Regional Library Facilities are delivered to students more quickly than books borrowed from the regular collection of another campus. The Regional Library Facilities were improving service across the system, although he acknowledged that this was at some expense to local campus collections. Space freed up on the campuses can be used for other purposes that benefit undergraduate learning.

Regent Makarechian requested the cost studies about all the options considered by the University showing the rationale for the proposed project.

The meeting adjourned at 4:35 p.m.

Attest:

Secretary and Chief of Staff

Additions shown by underline; deletions shown by strikethrough.

APPENDIX 1
Effective: July 1, 2017
Replaces Version Effective: May 12, 2016

**ASSET ALLOCATION,
PERFORMANCE BENCHMARKS,
AND REBALANCING POLICY**

Based on the risk budget for the GEP, the Committee has adopted the following asset allocation policy, including asset class weights and ranges, benchmarks for each asset class, and the benchmark for the total GEP.

Criteria for including an asset class in the strategic policy include:

- Positive contribution ~~positively~~ to the investment objective of GEP
- Widely recognized and accepted among institutional investors
- ~~Has~~ Low cross correlation with other accepted asset classes
- ~~Has a~~ Meaningful performance history
- ~~Involves a unique set of investors~~

The allowable ranges for each asset class and in total have been chosen to be consistent with budgets and ranges for total and active risk.

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A. Strategic Asset Allocation and Ranges

	Target Allocation	Allowable Ranges	
		Minimum	Maximum
Global Equity	30.0%	20.0	52.5
US Equity	15.7		
Developed Non US Equity	11.0		
Emerging Mkt Equity	3.3		
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
Liquidity (Income)	10.0	0.0	17.5
TOTAL	100%		

B. Asset Class Performance Benchmarks

The Committee has adopted the following performance benchmarks for each asset class. Criteria for selection of a benchmark include:

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

Asset Class	**Benchmark**
Public Equity	MSCI All Country World Index IMI Tobacco Free
~~US Equity~~	~~Russell 3000 Tobacco Free Index~~
~~Non US Eq. Devel.~~	~~MSCI World ex-US Net Tobacco Free~~
~~Emerging Mkt Eq.~~	~~MSCI Emerging Market Free Net~~
~~Fixed Income~~	~~Barclays US Aggregate Bond Index~~
~~High Yield Fixed Income~~	~~Merrill Lynch High Yield Cash Pay Index~~
~~Emg Mkt Fixed Income~~	~~Dollar Denominated: JP Morgan Emerging Markets Bond Index Global Diversified~~
~~TIPS~~	~~Barclays US TIPS Index~~
Private Equity	~~N/A~~ Russell 3000 Index + 300 basis points (See below note 2.)
Absolute Return	~~Diversified: HFRX Absolute Return Index~~ HFRI Fund of Funds Composite
Real Assets (non-Real Estate) Real Estate (Real Assets)	~~N/A (See below note 3.)~~ Actual Real Assets Portfolio Return NCREIF Funds Index – Open End Diversified Core Equity (ODCE), lagged 3 months
~~Real Estate~~	~~NCREIF Funds Index – Open End Diversified Core Equity (ODCE), lagged 3 months~~
Liquidity (Income)	Barclays US Aggregate Index

Notes on asset class benchmarks:

1. Global Equity: The Chief Investment Officer will determine what constitutes a tobacco company based on standard industry classification of the major index providers (e.g., Russell, MSCI) and communicate this list to investment managers annually and whenever changes occur.

2. Private Equity: As we transition the benchmark into the portfolio we will use150 basis points illiquidity premium for the first year. ~~*Long term* portfolio returns will be compared to investable public equity alternatives as well as non-investable peer group indices. There is no appropriate market benchmark to use for *short term* performance evaluation or decision making.~~
~~3. Real Assets (all strategies ex-commodities): similar to Private Equity~~

C. Total GEP Performance Benchmark

This is the composition of the total GEP performance benchmark referred to in the Investment Policy Statement, Part 4(b). The percentages below add to 100%. Until GEP reaches its long term targets the performance benchmark will reflect the glide path framework and interim weightings, which will differ from the long term policy approved in the Strategic Asset Allocation and as noted below

Percentage	Benchmark
30.0%	× MSCI All Country World Index IMI Tobacco Free
~~21.0%~~	~~× Russell 3000 Tobacco Free Index~~
~~14.0%~~	~~× MSCI World ex-US Net Tobacco Free~~
~~7.5%~~	~~× MSCI Emerging Market Free Net~~
~~5.0%~~	~~× Barclays US Aggregate Bond Index~~
~~2.5%~~	~~× Merrill Lynch High Yield Cash Pay Index~~
~~2.5%~~	~~× JP Morgan Emerging Market Bond Index Global Diversified~~
~~2.5%~~	~~× Barclays US TIPS Index~~
~~11.5~~ 22.5%	× ~~Actual return of private equity portfolio~~ Russell 3000 Index +300 basis points
~~23.0~~ 25.0%	× ~~HFRX Absolute Return Index~~ HFRI Fund of Funds Composite
~~3.0~~ 12.5%	× ~~Aggregate Real Assets benchmark (see section B), with components weighted by their actual weights within the total real assets portfolio~~ NCREIF Funds Index – Open End Diversified Core Equity (ODCE), lagged 3 Months Actual Other Real Assets Portfolio Return
~~7.5~~ 10.0%	× Barclays US Aggregate Index

Notes on Total Fund benchmark:

~~1. The benchmark for private equity is replaced by the private equity portfolio's actual performance. This has the effect of neutralizing the active performance of this class for purposes of total fund performance evaluation.~~
1 ~~2~~. The calculation of the Total Fund benchmark will assume a monthly rebalancing methodology.
2 ~~3~~. In the event of a significant change in asset allocation, the Chief Investment Officer in consultation with the Subcommittee may specify an alternative weighting scheme to be used during a transition period.

D. Rebalancing Policy

There will be periodic deviations in actual asset weights from the long-term/current policy asset weights specified above. Causes for periodic deviations are market movements, cash flows, and varying portfolio performance. Significant movements from the asset class policy weights will alter the intended expected return and risk of the GEP. Accordingly, the Investment Committee authorizes the Chief Investment Officer to rebalance the GEP when necessary to ensure adherence to the Investment Policy.

The Chief Investment Officer will monitor the actual asset allocation at least monthly. The Committee directs the Chief Investment Officer to take all actions necessary, within the requirement to act prudently, to rebalance assets to within the policy ranges in a timely and cost effective manner when actual weights are outside the prescribed ranges. The Chief Investment Officer may utilize derivative contracts [in accordance with Appendix 4] to rebalance the portfolio such that the portfolio's net exposures are consistent with policy ranges.

The Chief Investment Officer shall assess and manage the trade-off between the cost of rebalancing and the active risk associated with the deviation from policy asset weights. With approval from the Chair of the Committee, 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. Results of rebalancing will be reported to the Committee at quarterly meetings.