Office of the Chief Investment Officer

TO MEMBERS OF THE COMMITTEE ON INVESTMENTS / INVESTMENT ADVISORY GROUP:

DISCUSSION ITEM

For Meeting of September 9, 2016

UPDATE ON INVESTMENT PERFORMANCE FOR PERIODS ENDING JUNE 30, 2016

EXECUTIVE SUMMARY

The Office of the Chief Investment Officer managed \$97.6 billion in assets as of June 30, 2016. The UC Entity assets are comprised of the Endowment (\$9.1 billion), Pension (\$54.1 billion), Working Capital (\$14.2 billion = Total Return Investment Pool \$8.9 billion and Short Term Investment Pool \$5.3 billion), and Retirement Savings Program (\$20.2 billion). Performance of the Endowment, Pension, and Working Capital portfolios as of June 30, 2016 is provided below and further details are included in the respective product attachments.

GENERAL ENDOWMENT PLAN INVESTMENT PERFORMANCE FOR PERIODS ENDING JUNE 30, 2016

As of June 30, 2016, the Office of the Chief Investment Officer (CIO) managed \$9.1 billion in the General Endowment Pool (GEP), which increased approximately \$181 million this fiscal year, which includes net inflows of roughly \$300 million offsetting the losses of 3.4 percent, which trailed the benchmark by 1.7 percent.

GEP Performance as of June 30, 2016 is shown in the table below:

As of June 30, 2016	Market Value in Millions (\$)	3 Months 6 Months		1 Year	3 Year	5 Year	10 Year	20 Year
Endowment	\$ 9,110	0.8	-0.9	-3.4	7.1	6.5	5.9	7.7
Policy Benchmark		1.5	1.6	-1.7	5.8	4.9	5.2	7.3
Value Added		-0.7	-2.5	-1.7	1.3	1.6	0.7	0.4
Public Equity	4,217	-0.7	-5.5	-10.6	5.0	5.1	4.3	6.4
GEP Public Equity BM		1.0	1.2	-3.7	6.0	5.3	4.4	7.0
Value Added		-1.7	-6.7	-6.9	-1.0	-0.2	-0.1	-0.6

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	t Value ons (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	10 Year	20 Year
	0.047	4.0			0.0	0.7		
U.S. Equity	2,017	1.6	-4.2	-7.5	8.0	9.7	6.2	6.9
Russell 3000 Tobacco Free Index		2.6	3.4	1.7	11.0	11.5	7.3	8.1
Value Added		-1.0	-7.6	-9.2	-3.0	-1.8	-1.1	-1.2
Non-U.S. Equity	1,385	-7.5	-12.9	-18.0	-0.7	0.0	1.4	-
MSCI World ex-U.S. Tobacco Free	Э	-1.1	-3.2	-10.3	1.7	1.1	1.5	-
Value Added		-6.4	-9.7	-7.7	-2.4	-1.1	-0.1	
Emerging Market Equity	815	0.1	0.4	-11.5	0.2	-1.9	4.1	-
MSCI Emerging Market		0.7	6.4	-12.1	-1.6	-3.8	3.5	-
Value Added		-0.6	-6.0	0.6	1.8	1.9	0.6	
Fixed Income	816	2.4	5.0	3.5	3.5	4.1	5.8	7.1
Policy Benchmark		3.4	7.3	5.6	4.5	4.4	6.1	6.7
Value Added		-1.0	-2.3	-2.1	-1.0	-0.3	-0.3	0.4
Core	276	1.8	3.3	3.5	3.4	3.6	4.8	6.6
Barclays U.S. Aggregate Bond Ind		2.2	5.3	6.0	4.1	3.8	5.1	6.3
Value Added		-0.4	-2.0	-2.5	-0.7	-0.2	-0.3	0.3
High Yield	286	3.4	6.4	2.4	4.8	6.5	-	_
Merrill Lynch High Yield Cash Pay Index		5.8	9.2	1.7	4.2	5.7	-	-
Value Added		-2.4	-2.8	0.7	0.6	0.8	-	-
Emerging Market Debt	46	2.2	-	-	-	-	-	
JP Morgan Emerging Markets Bond Index		5.0	_	-	_	_	-	-
Value Added		-2.8	-	-	_	-	-	-
TIPS	208	1.6	5.6	4.1	2.3	2.7	5.0	
Barclays U.S. TIPS		1.7	6.2	4.4	2.3	2.6	4.7	-
Value Added		-0.1	-0.6	-0.3	0.0	0.1	0.3	
Other Investments								
Private Equity	1,065	4.8	9.9	14.4	22.9	17.1	12.3	18.4
Absolute Return	1,656	0.5	-1.5	-4.9	5.3	4.4	4.8	_
Custom Absolute Return Benchma	ark	0.3	-4.5	-9.4	-0.3	-1.1	2.7	-
Value Added		0.2	3.0	4.5	5.6	5.5	2.1	
Real Estate	538	5.5	5.3	10.8	14.2	13.1	3.4	_
NCREIF ODCE Index		2.0	5.1	12.6	12.7	12.3	3.2	-
Value Added		3.5	0.2	-1.8	1.5	0.8	0.2	-
Real Asset	183		-10.6	-14.3	-3.4	-1.6	-	-
Cash	635	0.2	0.5	1.1	1.3	1.5	_	_

UNIVERSITY OF CALIFORNIA RETIREMENT PLAN INVESTMENT PERFORMANCE FOR PERIODS ENDING JUNE 30, 2016

The Office of the CIO managed \$54.1 billion for the University of California Retirement Plan (UCRP) as of June 30, 2016, which decreased \$960 million this fiscal year, a 2.0 percent loss, trailing the benchmark by 1.2 percent.

UCRP Performance as of June 30, 2016 is shown in the table below:

As of June 30, 2016	Market Value in Millions (\$)	3 Months 6 Months		1 Year	3 Year	5 Year	10 Year	20 Year
Pension	\$ 54,081	1.3	0.8	-2.0	6.3	6.1	5.4	7.2
Policy Benchmark		1.3	2.3	-0.8	5.9	5.5	4.9	6.9
Value Added		0.0	-1.5	-1.2	0.4	0.6	0.5	0.3
Public Equity	30,411	0.9	-1.2	-6.4	6.2	6.0	4.4	6.3
UCRP Public Equity BM		1.1	1.6	-4.2	5.2	5.2	4.0	6.7
Value Added		-0.2	-2.8	-2.2	1.0	0.8	0.4	-0.4
U.S. Equity	15,652	2.0	0.2	-2.0	9.7	10.8	6.8	7.3
Russell 3000 Tobacco Fre	e Index	2.6	3.4	1.7	11.0	11.5	7.3	8.1
Value Added		-0.6	-3.2	-3.7	-1.3	-0.7	-0.5	-0.8
Non-U.S. Equity	9,482	-3.3	-6.3	-12.3	1.3	1.2	1.8	-
MSCI World ex-U.S. Toba	cco Free	-1.1	-3.2	-10.3	1.7	1.1	1.5	-
Value Added		-2.2	-3.1	-2.0	-0.4	0.1	0.3	-
Emerging Market Equity	5,277	0.6	-0.1	-13.5	-0.7	-2.6	4.2	-
MSCI Emerging Market		0.7	6.4	-12.1	-1.6	-3.8	3.5	-
Value Added		-0.1	-6.5	-1.4	0.9	1.2	0.7	
Fixed Income	12,646	2.5	5.9	5.0	3.8	4.1	5.9	7.2
Policy Benchmark		2.8	6.5	5.6	4.1	4.0	5.8	6.5
Value Added		-0.3	-0.6	-0.6	-0.3	0.1	0.1	0.7
Core	7,574	2.2	5.1	5.4	4.1	4.1	5.5	7.0
Barclays U.S. Aggregate E	Bond Index	2.2	5.3	6.0	4.1	3.8	5.4	6.3
Value Added		0.0	-0.2	-0.6	0.0	0.3	0.1	0.7
High Yield	1,796	3.7	7.2	2.5	4.8	6.4	7.5	-
Merrill Lynch High Yield C	ash Pay Index	5.8	9.2	1.7	4.2	5.7	7.4	-
Value Added		-2.1	-2.0	0.8	0.6	0.7	0.1	-
Emerging Market Debt	1,320	4.1	9.2	7.5	4.4	4.2	7.1	-
JP Morgan Emerging Mark	kets Bond Index	5.0	10.3	9.8	7.2	5.9	7.9	-
Value Added		-0.9	-1.1	-2.3	-2.8	-1.7	-0.8	-
TIPS	1,956	1.6	5.7	4.1	2.3	2.8	5.0	-
Barclays U.S. TIPS		1.7	6.2	4.4	2.3	2.6	4.7	-
Value Added		-0.1	-0.5	-0.3	0.0	0.2	0.3	

As of June 30, 2016	Market Value in Millions (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	10 Year	20 Year
Other Investments								
Private Equity	2,676	0.0	2.2	6.2	14.4	12.2	9.8	16.6
Absolute Return	2,587	0.5	-1.5	-4.9	5.2	4.4	-	-
Custom Absolute Return Benchmark		0.3	-4.5	-9.4	-0.3	-1.1	-	-
Value Added		0.2	3.0	4.5	5.5	5.5	-	-
Real Estate	3,143	3.7	6.0	11.6	14.2	13.5	2.2	_
NCREIF ODCE Index		2.0	5.1	12.6	12.7	12.3	1.8	-
Value Added		1.7	0.9	-1.0	1.5	1.2	0.4	
Real Asset	961	-1.8	-10.8	-14.6	-3.6	-1.3	-	_
Cash	1,657	0.3	0.6	1.2	1.6	2.4	-	_

WORKING CAPITAL INVESTMENT PERFORMANCE UPDATES FOR PERIODS ENDING JUNE 30, 2016

The Office of the CIO managed \$8.9 billion in the Total Return Investment Pool (TRIP), which increased \$1.4 billion this fiscal year, including net inflow of \$1.4 billion. TRIP gained 0.3 percent, trailing the benchmark by 1.1 percent as of June 30, 2016. The Short Term Investment Pool (STIP) held \$5.3 billion as of June 30, 2016, gaining 1.3 percent and outperforming its benchmark by 0.7 percent.

Working Capital Performance as of June 30, 2016 is shown in the table below:

As of June 30, 2016	Market Value (\$ Millions)	3 Months	6 Months	1 Year	3 Year	5 Year	7 Year	Since Inception
TRIP	\$ 8,868	1.6	3.0	0.3	5.7	6.4	8.1	7.0
Policy Benchmark		1.5	3.1	1.4	5.5	6.0	8.0	6.6
Value Added		0.1	-0.1	-1.1	0.2	0.4	0.1	0.4
Equity	3,125	1.6	1.5	-5.4	6.6	7.7	11.0	5.7
MSCI All Country World Index		1.0	1.2	-4.2	7.8	7.1	8.5	4.1
Value Added		0.6	0.3	-1.2	-1.2	0.6	2.5	1.6
U.S. Equity	1,616	3.2	3.7	-0.2	10.2	11.1	15.1	8.9
Non-U.S. Equity	1,009	0.0	-7.0	-13.6	0.0	2.5	5.2	1.4
Emerging Market Equity	430	-4.0	-10.3	-25.0	-	-	-	-7.2
Private Growth MSCI All Country World	70	0.0	4.2	-	-	-	-	12.3
Index		1.0	1.2	-4.2	7.8	7.1	8.5	4.1

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As of	Market Value	3	6					
June 30, 2016	(\$ Millions)	Months	Months	1 Year	3 Year	5 Year	7 Year	10 Year
Income	4,517	2.1	4.9	5.2	4.7	5.2	6.6	6.6
Barclays U.S. Aggregate	Bond Index	2.2	5.3	6.0	4.1	3.8	4.6	4.8
Value Added		-0.1	-0.4	-0.8	0.6	1.4	2.0	1.8
Core	3,347	2.3	5.5	5.9	4.6	5.0	6.3	6.4
High Yield	408	2.8	6.0	4.3	5.4	6.5	9.1	8.3
Emerging Market Debt	298	3.7	8.5	7.5	-	-	-	5.6
Private Income	464	-0.9	-4.4	0.3	-	-	-	0.3
Barclays U.S. Aggregate	Bond Index	2.2	5.3	6.0	4.1	3.8	4.6	4.8
Other Investments								
Absolute Return	1,048	-0.5	-0.9	-1.8	-	-	-	2.0
HFRX Absolute Return		0.3	-0.2	0.6	-	-	-	2.9
Value Added		-0.8	-0.7	-2.4	-	-	-	-0.9
Cash	178	0.6	0.9	0.9	-	-	-	-

As of June 30, 2016	Market Value (\$ Millions)	3 Months	6 Months	1 Year	3 Year	5 Year	7 Year	10 Year	20 Year
STIP	\$ 5,292	0.3	0.6	1.3	1.4	1.7	2.0	2.7	3.9
Policy Benchmark		0.2	0.3	0.6	0.4	0.3	0.4	1.3	2.8
Value Added		0.1	0.3	0.7	1.0	1.4	1.6	1.4	1.1

ATTACHMENTS:

The attached Reports on Investment Performance for the periods ending June 30, 2016 are submitted for discussion. They include:

Attachment 1: Endowment Investment Performance for Periods Ending June 30, 2016

Attachment 2: Pension Investment Performance for Periods Ending June 30, 2016

Attachment 3: Retirement Savings Investment Performance for Periods Ending June 30, 2016

Attachment 4: Working Capital Investment Performance for Periods Ending June 30, 2016