

Office of the Chief Investment Officer

TO MEMBERS OF THE INVESTMENTS SUBCOMMITTEE / INVESTMENT ADVISORY GROUP:

DISCUSSION ITEM

For Meeting of March 14, 2017

UPDATE ON INVESTMENT PRODUCTS

EXECUTIVE SUMMARY

The Office of the Chief Investment Officer managed \$103.1 billion in assets as of December 31, 2016. The UC Entity assets are comprised of the Endowment (\$9.9 billion), Pension (\$57.1 billion), Working Capital (\$15.3 billion = Total Return Investment Pool \$8.8 billion and Short Term Investment Pool \$6.5 billion), and Retirement Savings Program (\$20.8 billion). Performance of the Endowment, Pension, and Working Capital portfolios as of December 31, 2016 is provided below and further details are included in the respective product attachments.

GENERAL ENDOWMENT PLAN INVESTMENT REVIEW FOR PERIODS ENDING DECEMBER 31, 2016

As of December 31, 2016, the Office of the Chief Investment Officer (CIO) managed \$9.9 billion in the General Endowment Pool (GEP), which increased by \$748 million this fiscal year to date (six months), including market gains of roughly \$434 million, value added of \$208 million, and net inflows of \$106 million.

GEP Performance as of December 31, 2016 is shown in the table below:

As of December 31, 2016	Market Value in Millions (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	10 Year	20 Year
Endowment	\$ 9,856	2.5	7.1	6.0	5.7	9.0	5.4	7.6
Policy Benchmark		0.9	4.7	6.4	4.3	7.4	4.8	7.1
Value Added		1.6	2.4	(0.4)	1.4	1.6	0.6	0.5
Public Equity	4,585	3.1	10.5	4.4	3.1	9.9	4.0	6.5
GEP Public Equity BM		1.3	7.3	9.2	3.2	9.4	4.0	6.7
Value Added		1.8	3.2	(4.8)	(0.1)	0.5	0.0	(0.2)

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As of December 31, 2016	Market Value in Millions (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	10 Year	20 Year
U.S. Equity	2,107	5.3	11.2	6.6	5.8	13.3	6.2	7.1
Russell 3000 Tobacco Free Index		4.2	9.0	12.7	8.3	14.7	7.0	7.9
Value Added		1.1	2.2	(6.1)	(2.5)	(1.4)	(0.8)	(0.8)
Non-U.S. Equity	1,437	4.7	16.0	1.1	(1.2)	6.7	1.4	-
MSCI World ex-U.S. Tobacco Free		(0.2)	6.2	2.8	(1.7)	6.1	0.8	-
Value Added		4.9	9.8	(1.7)	0.5	0.6	0.6	-
Emerging Market Equity	1,041	(6.7)	1.8	2.2	(1.3)	2.4	2.3	-
MSCI Emerging Market		(4.2)	4.5	11.2	(2.6)	1.3	1.8	-
Value Added		(2.5)	(2.7)	(9.0)	1.3	1.1	0.5	-
Fixed Income	1,038	(1.8)	0.0	5.1	3.0	3.4	5.3	6.4
Policy Benchmark		(2.4)	(0.5)	6.8	3.7	3.5	5.5	6.4
Value Added		0.6	0.5	(1.7)	(0.7)	(0.1)	(0.2)	0.0
Core	366	(3.2)	(3.2)	(0.1)	2.0	2.1	3.9	5.7
Barclays U.S. Government Bond Index		(3.7)	(4.0)	1.1	2.5	1.9	4.2	5.7
Value Added		0.5	0.8	(1.2)	(0.5)	0.2	(0.3)	0.0
High Yield	301	1.0	5.1	11.8	4.4	7.4	7.0	-
Merrill Lynch High Yield Cash Pay Index		1.9	7.5	17.3	4.7	7.3	7.3	-
Value Added		(0.9)	(2.4)	(5.5)	(0.3)	0.1	(0.3)	-
Emerging Market Debt	130	(4.5)	(1.6)	-	-	-	-	-
JP Morgan Emerging Markets Bond Index		(4.0)	(0.1)	-	-	-	-	-
Value Added		(0.5)	(1.5)	-	-	-	-	-
TIPS	241	(1.8)	(0.9)	4.7	2.4	1.0	4.7	-
Barclays U.S. TIPS		(2.4)	(1.5)	4.7	2.3	0.9	4.4	-
Value Added		0.6	0.6	0.0	0.1	0.1	0.3	-
Other Investments								
Private Equity	1,097	4.7	10.0	20.8	21.2	19.0	12.9	18.0
Absolute Return	1,797	1.3	3.4	1.8	3.5	6.1	4.3	-
Custom Absolute Return Benchmark		(0.3)	0.5	(4.0)	(1.3)	0.9	2.2	-
Value Added		1.6	2.9	5.8	4.8	5.2	2.1	-
Real Estate	534	8.7	6.6	12.3	14.1	13.1	3.3	-
NCREIF ODCE Index		1.8	3.8	9.1	11.6	11.4	2.8	-
Value Added		6.9	2.8	3.2	2.5	1.7	0.5	-
Real Assets	213	2.0	4.4	(6.7)	(2.7)	0.0	-	-
Cash	592	0.3	0.5	1.0	1.3	1.4	-	-

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

The Office of the CIO managed \$57.1 billion for the University of California Retirement Plan (UCRP) as of December 31, 2016, which increased \$3.1 billion this fiscal year to date with market gains of \$2.4 billion, value added of roughly \$570 million, and net inflows of \$67 million.

UCRP Performance as of December 31, 2016 is shown in the table below:

As of December 31, 2016	Market Value in Millions (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	10 Year	20 Year
Pension	\$57,137	1.4	5.5	6.4	4.6	8.4	4.9	7.0
Policy Benchmark		0.7	4.5	6.9	4.1	7.6	4.3	6.7
Value Added		0.7	1.0	(0.5)	0.5	0.8	0.6	0.3
Public Equity	31,962	2.7	9.2	7.9	4.0	10.4	4.1	6.4
UCRP Public Equity BM		1.3	7.1	8.9	3.3	9.7	4.2	6.6
Value Added		1.4	2.1	(1.0)	0.7	0.7	(0.1)	(0.2)
U.S. Equity	17,945	3.8	9.1	9.4	7.0	14.0	6.5	7.3
Russell 3000 Tobacco Free Index		4.2	9.0	12.7	8.3	14.7	7.0	7.9
Value Added		(0.4)	0.1	(3.3)	(1.3)	(0.7)	(0.5)	(0.6)
Non-U.S. Equity	9,138	4.7	13.8	6.6	0.2	7.5	1.7	-
MSCI World ex-U.S. Tobacco Free		(0.2)	6.2	2.8	(1.7)	6.1	0.8	-
Value Added		4.9	7.6	3.8	1.9	1.4	0.9	-
Emerging Market Equity	4,879	(8.4)	(1.7)	(1.8)	(3.3)	1.1	1.8	-
MSCI Emerging Market		(4.2)	4.5	11.2	(2.6)	1.3	1.8	-
Value Added		(4.2)	(6.2)	(13.0)	(0.7)	(0.2)	0.0	-
Fixed Income	12,813	(1.8)	(0.2)	5.7	3.4	3.2	5.2	6.6
Policy Benchmark		(2.5)	(1.0)	5.5	3.5	2.8	5.0	6.2
Value Added		0.7	0.8	0.2	(0.1)	0.4	0.2	0.4
Core	7,932	(2.2)	(1.3)	3.6	3.3	2.9	4.6	6.3
Barclays U.S. Aggregate Bond Index		(3.0)	(2.5)	2.6	3.0	2.2	4.5	5.8
Value Added		0.8	1.2	1.0	0.3	0.7	0.1	0.5
High Yield	1,981	1.4	6.1	13.8	4.8	7.7	7.2	-
Merrill Lynch High Yield Cash Pay Index		1.9	7.5	17.3	4.7	7.3	7.3	-
Value Added		(0.5)	(1.4)	(3.5)	0.1	0.4	(0.1)	-
Emerging Market Debt	1,329	(4.1)	(0.9)	8.2	3.9	4.0	5.9	-
JP Morgan Emerging Markets Bond Index		(4.0)	(0.1)	10.2	6.2	5.8	6.8	-
Value Added		(0.1)	(0.8)	(2.0)	(2.3)	(1.8)	(0.9)	-
TIPS	1,571	(2.0)	(1.2)	4.4	2.3	1.1	4.6	-
Barclays U.S. TIPS		(2.4)	(1.5)	4.7	2.3	0.9	4.4	-
Value Added		0.4	0.3	(0.3)	0.0	0.2	0.2	-

As of December 31, 2016	Market Value in Millions (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	10 Year	20 Year
Other Investments								
Private Equity	2,677	2.9	4.2	6.4	12.1	12.8	9.6	15.8
Absolute Return	2,806	1.3	3.4	1.8	3.5	6.1	-	-
Custom Absolute Return Benchmark		1.1	3.4	(1.2)	(0.4)	1.5	-	-
Value Added		0.2	0.0	3.0	3.9	4.6	-	-
Real Estate	3,013	2.3	2.0	8.1	12.5	12.6	1.6	-
NCREIF ODCE Index		1.8	3.8	9.1	11.6	11.4	1.4	-
Value Added		0.5	(1.8)	(1.0)	0.9	1.2	0.2	-
Real Assets	940	2.7	5.3	(6.1)	(2.6)	0.1	-	-
Cash	2,926	0.2	0.5	1.1	1.4	2.1	-	-

**WORKING CAPITAL INVESTMENT REVIEW FOR PERIODS ENDING
DECEMBER 31, 2016**

The Office of the CIO managed \$8.8 billion in the Total Return Investment Pool (TRIP), which decreased \$77 million this fiscal year to date, including market gains of \$114 million, value added of \$66 million, and net outflows of \$257 million. TRIP gained 2.1 percent the past six months, surpassing the benchmark by 0.8 percent as of December 31, 2016. The Short Term Investment Pool (STIP) held \$6.5 billion as of December 31, 2016, gaining 0.6 percent over the last six months and outperforming its benchmark by 0.3 percent.

Working Capital Performance as of December 31, 2016 is shown in the table below:

As of December 31, 2016	Market Value in Millions (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	7 Year	Inception (August 2008)
Total Return	\$ 8,791	(0.3)	2.1	5.1	3.8	6.7	6.9	6.8
Policy Benchmark		(1.1)	1.3	4.4	3.4	6.3	6.5	6.4
Value Added		0.8	0.8	0.7	0.4	0.4	0.4	0.4
Growth	3,179	1.3	6.7	7.7	3.2	10.9	8.8	6.0
MSCI All Country World Index		1.3	7.1	8.4	5.5	11.3	7.0	6.1
Value Added		0.0	(0.4)	(0.7)	(2.3)	(0.4)	1.8	(0.1)
Public Growth	3,099	1.3	5.5	7.1	3.2	10.9	8.8	6.0
Private Growth	80	1.6	10.6	15.3	-	-	-	20.4
Income	4,269	(1.9)	(0.7)	4.1	3.8	4.1	5.4	6.7
Barclays U.S. Aggregate Bond Index		(3.0)	(2.5)	2.6	3.0	2.2	3.6	4.7
Value Added		1.1	1.8	1.5	0.8	1.9	1.8	2.0
Public Income	3,825	(2.3)	(1.1)	4.6	-	-	-	3.0
Private Income	444	1.4	3.0	(1.5)	-	-	-	2.2

As of December 31, 2016	Market Value in Millions (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	7 Year	Inception
Other Investments								
Absolute Return	1,316	1.9	3.6	2.6	2.3	-	-	2.8
HFRX Absolute Return		(0.3)	0.5	0.3	2.2	-	-	2.6
Value Added		2.2	3.1	2.3	0.1	-	-	0.2
Cash	27	1.0	2.0	2.9	2.5	-	-	-

As of December 31, 2016	Market Value in Millions (\$)	3 Months	6 Months	1 Year	3 Year	5 Year	10 Year	20 Year
Short Term	\$ 6,500	0.3	0.6	1.2	1.3	1.6	2.5	3.8
Policy Benchmark		0.1	0.3	0.6	0.4	0.3	1.0	2.7
Value Added		0.2	0.3	0.6	0.9	1.3	1.5	1.1

ATTACHMENTS:

The attached Product Reports for the period ending December 31, 2016 are submitted for discussion. They include:

[Attachment 1: Endowment Investment Review for Periods Ending December 31, 2016](#)

[Attachment 2: Pension Investment Review for Periods Ending December 31, 2016](#)

[Attachment 3: Retirement Savings Investment Review for Periods Ending December 31, 2016](#)

[Attachment 4: Working Capital Investment Review for Periods Ending December 31, 2016](#)