### **UTIMCO BOARD OF DIRECTORS MEETING AGENDA** July 21, 2016

UTIMCO 401 Congress Avenue, Suite 2800 Austin, Texas 78701

### Dial: (877) 873-8018 Participant Code: 9695257

Time		ltem #	Agenda Item
Begin	End		
11:00 a.m.	11:05 a.m.	1	<b>OPEN MEETING:</b> Call to Order of the Meeting/Discussion and Appropriate Action Related to Minutes of May 5, 2016 Meeting*
11:05 a.m.	11:10 a.m.	2	Discussion and Appropriate Action Related to Committee Assignments*
11:10 a.m.	11:40 a.m.	3	Endowment and Operating Funds Update
11:40 a.m.	12:00 p.m.	4	Operations, Accounting and Reporting Overview
12:00 p.m.	12:45 p.m.	5	UTIMCO Organization Update
12:45 p.m.	1:15 p.m.		Lunch
1:15 p.m.	1:25 p.m.	6	Report from Audit and Ethics Committee - Discussion and Appropriate Action Related to Corporate Auditor*
1:25 p.m.	1:35 p.m.	7	Report from Risk Committee
1:35 p.m.	2:00 p.m.	8	<ul> <li>Report from Policy Committee</li> <li>FY 2017 Investment Policy Recommendations</li> <li>Discussion and Appropriate Action Related to the Investment Policy Statements*,**</li> <li>Discussion and Appropriate Action Related to the Liquidity Policy*,**</li> <li>Discussion and Appropriate Action Related to the Derivative Investment Policy*,**</li> <li>Discussion and Appropriate Action Related to the Delegation of Authority Policy*</li> </ul>
2:00 p.m.	2:20 p.m.	9	Executive Session Pursuant to Section 551.074 <i>Texas Government Code</i> , the Board of Directors may convene in Executive Session to deliberate individual personnel compensation matters, including the CEO and Chief Investment Officer Reconvene into Open Session Report from Compensation Committee - Discussion and Appropriate Action Related to the CEO's Base Salary for 2016-2017 Fiscal Year*
2:20 p.m.	2:45 p.m.	10	Discussion and Appropriate Action Related to UTIMCO 2016-2017 Budget*,**
2:45 p.m.			Adjourn

\* Action by resolution required \*\* Resolution requires further approval from the Board of Regents of The University of Texas System

### Next Regularly Scheduled Meeting: October 13, 2016

### **RESOLUTION RELATED TO MINUTES**

RESOLVED, that the minutes of the Annual Meeting of the Board of Directors held on **May 5, 2016**, be, and are hereby, approved.

### MINUTES OF ANNUAL MEETING OF THE BOARD OF DIRECTORS OF THE UNIVERSITY OF TEXAS INVESTMENT MANAGEMENT COMPANY

The Board of Directors (the "Board") of The University of Texas Investment Management Company (the "Corporation") convened in an open meeting on **May 5**, **2016**, at the offices of the Corporation, Suite 2800, 401 Congress Avenue, Austin, Texas, said meeting having been called by the Chairman, Jeffery D. Hildebrand, with notice provided to each member in accordance with the Bylaws. The audio portion of the meeting was electronically recorded and broadcast over the Internet. Participating in the meeting were the following members of the Board:

Jeffery D. Hildebrand, Chairman William H. McRaven, Vice President for Policy Phil Adams Kyle Bass R. Steve Hicks H. Lee S. Hobson Ray Rothrock

Directors R. Steven Hicks and Ray Rothrock participated by means of conference telephone, enabling all persons participating in the meeting to hear each other, thus constituting a majority and quorum of the Board. Kyle Bass joined the meeting later as noted in the minutes. Directors Ardon E. Moore and David J. Beck did not attend the meeting. Chairman Hildebrand called the meeting to order at 10:05 a.m. Employees of the Corporation attending the meeting were Bruce Zimmerman, CEO and Chief Investment Officer; Joan Moeller, Secretary and Treasurer; Christy Wallace, Assistant Secretary; Cecilia Gonzalez, Corporate Counsel and Chief Compliance Officer; Mark Warner, Senior Managing Director - Natural Resources, Emerging Markets & Lower/Middle Markets; Uzi Yoeli, Managing Director - Risk Management; Russ Kampfe, Managing Director - Fixed Income; Ryan Ruebsahm, Managing Director - LCC; Amanda Hopper, Senior Director - MCC; Pat Pace, Director - Healthcare & Lower/Middle Markets; Mukund Joshi, Senior Associate - Real Estate; Uche Abalogu, Chief Technology Officer; and other staff members. Other attendees were Jim Phillips, Roger Starkey, Allen Hah, Terry Hull, Eric Polonski and Mike Peppers of UT System Administration; Keith Brown of the McCombs School of Business at UT Austin; Jerry Turner of Andrews Kurth LLP; and Maria Robinson of The Texas A&M University System. Copies of materials supporting the Board meeting agenda were previously furnished to each member of the Board.

Chairman Hildebrand asked Director Adams to introduce the newest member of the Board, Ray Rothrock, who was appointed to the Corporation's Board by the Board of Regents of The Texas A&M University System. Director Adams provided background information on Director Rothrock and he and other members welcomed him to the Board.

### <u>Minutes</u>

The first action item to come before the Board was approval of the minutes of the Board of Directors Meetings held on March 2, 2016, and on March 3 and 4, 2016. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

1

RESOLVED, that the minutes of the Meetings of the Board of Directors held on March 2, 2016 and March 3 and 4, 2016, be, and are hereby, approved.

#### **Corporate Resolutions**

Chairman Hildebrand asked for nominations for Chairman of the Board. Jeffery Hildebrand was nominated and Chairman Hildebrand accepted the nomination as Chairman. He asked to table naming a Vice-Chairman until a future meeting. He recommended approval of the corporate resolution designating officers for the Corporation. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

RESOLVED, that the following persons are hereby appointed to the respective office or offices of the Corporation set forth opposite their names, to serve until the next Annual Meeting of the Corporation or until their resignation or removal.

<u>Name</u>	Office or Offices
Jeffery D. Hildebrand	Chairman
William H. McRaven	Vice-Chairman for Policy
Bruce Zimmerman	Chief Executive Officer and Chief Investment Officer
Joan Moeller	Senior Managing Director, Treasurer and Secretary
Mark Warner	Senior Managing Director
Ryan Ruebsahm	Managing Director
Susan Chen	Managing Director
Russ Kampfe	Managing Director
Uzi Yoeli	Managing Director
Uche Abalogu	Chief Technology Officer
Christy Wallace	Assistant Secretary

Chairman Hildebrand then recommended approval of new committee assignments. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Audit and Ethics Committee of the Board of Directors:

David J. Beck Phil Adams R. Steven Hicks

subject to approval by the Board of Regents of The University of Texas System at a future meeting, to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that David J. Beck is hereby designated the Chair of the Audit and Ethics Committee and shall preside at its meetings.

2

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Compensation Committee of the Board of Directors:

H. Lee. S. Hobson Kyle Bass Ray Rothrock

to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that H. Lee S. Hobson is hereby designated the Chair of the Compensation Committee and shall preside at its meetings.

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Risk Committee of the Board of Directors:

Kyle Bass David J. Beck H. Lee S. Hobson Ray Rothrock

to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that Kyle Bass is hereby designated the Chair of the Risk Committee and shall preside at its meetings.

BE IT RESOLVED, that the following Directors of the Corporation are hereby designated as the Policy Committee of the Board of Directors:

R. Steven Hicks David J. Beck Phil Adams Ray Rothrock

to serve until the expiration of their term, or until their successor has been chosen and qualified, or until their earlier death, resignation or removal; and

FURTHER RESOLVED, that R. Steven Hicks is hereby designated the Chair of the Policy Committee and shall preside at its meetings.

#### Endowment and Operating Funds Update

Chairman Hildebrand asked Mr. Zimmerman to present the Corporation's endowment and operating funds update. Mr. Zimmerman handed out a one page summary that listed actual returns for the period ending

February 29, 2016, compared those returns with various benchmarks, and listed the Sharpe and Information Ratio for several periods over the past ten years. He also presented the Corporation's assets under management and performance results as of February 29, 2016. Mr. Zimmerman reported the Corporation had \$34.6 billion of assets under management: \$17.0 billion in the Permanent University Fund ("PUF"), \$7.8 billion in the General Endowment Fund ("GEF"), \$2.1 billion in the Short Term Fund ("STF"), \$0.3 billion in Separately Invested Funds, \$0.3 billion in the Debt Proceeds Fund, and \$7.1 billion in the Intermediate Term Fund ("ITF"). The net performance for the six months ended February 29, 2016, for the PUF was -4.31% and for the GEF was -4.37%. The ITF's performance was -4.26%. He reported active management value add attribution. Mr. Zimmerman then asked Ms. Hopper to provide an update on the More Correlated and Constrained (MCC) portfolio. Ms. Hopper provided information on the MCC portfolio including global equity, emerging markets, active management, and underperformance risk information specifically related to the MCC portfolio. Mr. Ruebsahm was asked to report on the hedge fund portfolio, and he provided returns and value add information for the Less Correlated and Constrained (LCC) portfolio. Mr. Zimmerman and Investment Staff answered the Directors' questions. Director Bass joined the meeting during the endowment and operating funds update.

### Scenario Discussion

Chairman Hildebrand asked Mr. Zimmerman to begin the scenario discussion. Mr. Zimmerman stated that he and Dr. Yoeli would present various scenarios of different portfolios to stress the importance of a correct asset mix. Staff utilizes projections in the construction of strategic asset allocation and ongoing portfolio management. Mr. Zimmerman and Dr. Yoeli discussed probability, severity, onset and duration, all dimensions that need to be considered in evaluating the different scenarios, and answered the Directors' questions.

### Educational Program for Board

Chairman Hildebrand asked Mr. Turner to present the Educational Program for UTIMCO Directors to the Board. Mr. Turner provided a handout, <u>Texas Open Meetings Act</u>, to the Board. He stated that the Investment Management Services Agreement between the UT System Board of Regents and the Corporation requires the Corporation to provide training and education to members of the Board as may be determined in consultation with UT System staff to assure that all duties required of directors under the Texas Non-Profit Corporation Act and matters related to the legal and fiduciary responsibilities of the Directors, including current regulations for determining reasonable compensation, are outlined and discussed fully. Although Board training is provided during an orientation session for each new member of the Board, Mr. Turner's presentation served as an update and a resource for current Board members. Director McRaven left the meeting at this time. Mr. Turner answered the Directors' questions.

At approximately 12:13 p.m. the Board recessed for lunch.

The meeting of the Board reconvened in open session at 12:40 p.m.

### Private Investment Update

Chairman Hildebrand asked Mr. Zimmerman to begin discussion of the Private Investment Strategy Update. Mr. Zimmerman began by providing an executive summary of the private investments portfolio.

He discussed private markets performance vs. public markets, desired performance and peer performance. Also discussed was expected performance, illiquidity risk capacity, and asset class detail. Mr. Zimmerman, Mr. Warner, Mr. Ruebsahm and Dr. Yoeli answered the Directors' questions. Mr. Ruebsahm, Mr. Joshi, Mr. Prather, Dr. Pace and Mr. Warner presented blended fees by asset class for credit, real estate, natural resources, buyout and emerging markets, respectively. Dr. Yoeli presented the Board a forward-looking commitment model for private investments, with Dr. Yoeli and Mr. Zimmerman answering questions from the Directors.

### Organization Update

Chairman Hildebrand asked Mr. Zimmerman to give an organization update to the Board. Mr. Zimmerman gave an update on the Corporation's staffing, reported on the 2<sup>nd</sup> Quarter Corporate budget vs. actual, and a recent accounting system upgrade. Mr. Zimmerman and Ms. Moeller answered the Directors' questions.

### Audit and Ethics Committee Report

Chairman Hildebrand asked Mr. Adams to provide a report on behalf of the Audit and Ethics Committee. Mr. Adams reported that the Committee met on April 26, 2016. At that meeting, the Committee approved minutes from their previous meeting, heard an update on compliance for the period ending February 29, 2016, from Ms. Gonzalez, a brief audit summary from Mr. Peppers of UT System Audit Office, and Ms. Moeller presented the separate unaudited financial statements as of February 29, 2016, for the PUF, GEF, the Permanent Health Fund, The University of Texas System Long Term Fund, ITF and the Corporation. There were no action items related to the Audit and Ethics Committee report.

### **Risk Committee Report**

Chairman Hildebrand asked Mr. Bass to provide a report from the Risk Committee. Mr. Bass reported that the Committee convened on April 26, 2016 and minutes were approved from the previous meeting. He stated that the Risk Committee approved 14 new investment mandate categorizations prepared by Staff for the period beginning February 1, 2016 and ending April 1, 2016. The Committee heard a report from Ms. Gonzalez on compliance items for the quarter ending February 29, 2016. There were no action items related to the Risk Committee report.

### **Compensation Committee Report**

Chairman Hildebrand asked Mr. Hobson to provide a report on behalf of the Compensation Committee. Mr. Hobson stated that the Committee had met on April 26, 2016, and the Committee approved minutes from their previous meeting. They also discussed and approved the Designation of a new employee in Eligible Position as a Participant in the UTIMCO Compensation Program for the Performance Period ending August 31, 2016, subject to further approval by the Board, and the Qualitative Performance Goals for the new Participant in the UTIMCO Compensation Program for the Performance Period ending August 31, 2016. The Committee also approved the Compensation Plan Universe for 2015/16 Performance Period as determined by UTIMCO staff to be used as the Peer Group in Appendix B of the UTIMCO Compensation Program. Staff recommended no changes to the Peer Group. Chairman Hildebrand recommended that

the Board accept the Compensation Committee's recommendations. Upon motion duly made and seconded, the following resolutions were unanimously adopted by the Board:

WHEREAS, Section 5.3.(a) of the UTIMCO Compensation Program (the "Plan") provides that, in order to become a "Participant" in the Plan for a Performance Period, a UTIMCO employee must be (1) employed in a position designated by the Board of Directors of UTIMCO (the "Board") as an "Eligible Position" for that Performance Period and (2) selected by the Board as a Participant for that Performance Period; and

WHEREAS, the Compensation Committee of the Board has recommended Akil Franklin (Mgr., Development) to become a Participant for the 2015/2016 Performance Period; and

WHEREAS, the UTIMCO Board wishes to select Akil Franklin (Mgr., Development) as a Participant for the 2015/2016 Performance Period.

NOW, THEREFORE, be it:

RESOLVED, that, Akil Franklin (Mgr., Development) be designated as a "Participant" in the Plan for the 2015/2016 Performance Period, effective as of January 25, 2016.

And,

WHEREAS, Section 8.14. of the UTIMCO Compensation Program (the "Plan") provides that the "Peer Group" will be updated annually at the beginning of each Performance Period, and Appendix B (UTIMCO Peer Group) will be amended accordingly; and

WHEREAS, Section 7.2. of the Plan provides that the Board has the right to amend the Plan or any portion thereof from time to time; and

WHEREAS, the Board wishes to amend Appendix B to conform to the updated Peer Group as defined in the Plan.

NOW, THEREFORE, be it:

RESOLVED, that the updated and amended Appendix B (UTIMCO Peer Group), a copy of which is attached hereto, is hereby adopted and approved as part of the Plan to replace the current Appendix B, effective as of September 1, 2015.

#### Policy Committee Report

Chairman Hildebrand asked Mr. Hicks to provide a report from the Policy Committee. Mr. Hicks reported that the Committee convened on April 26, 2016 and minutes were approved from the previous meeting. He

stated that the Policy Committee discussed and approved proposed amendments to the Delegation of Authority Policy, subject to approval by the Board. As a result of the UT System Audit Office audit of the internal controls surrounding the processes of the separately managed accounts, staff proposed changes to the Delegation of Authority Policy to clarify staff's delegated authority with respect to investment of the UT System funds. The Committee also discussed and approved proposed amendments to the Short Term Fund ("STF") Investment Policy Statement effective September 1, 2016, subject to further approval by the Board and the Board of Regents. The STF Investment Policy Statement was being amended to accommodate changes in the SEC rules governing money market funds effective October 14, 2016. Mr. Hicks recommended approval of both resolutions on behalf of the Policy Committee. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

RESOLVED, that amendments to the Delegation of Authority Policy as presented be, and are hereby approved, and that amendments to the Short Term Fund Investment Policy Statement, as presented be, and are hereby approved. subject to approval by the Board of Regents of The University of Texas System.

There being no further business to come before the Board, the meeting was adjourned at approximately 2:03 p.m.

Secretary: \_\_\_\_

Joan Moeller

Approved:

Date: \_\_\_\_\_

Jeffery D. Hildebrand Chairman, Board of Directors of The University of Texas Investment Management Company

### **Appendix B**

### **UTIMCO Peer Group**

- Brown University
- Columbia University
- Cornell University
- Dartmouth College
- Duke University
- Emory University
- Harvard University
- John Hopkins University
- Massachusetts Institute of Technology
- New York University
- Northwestern University
- Princeton University
- Rice University
- Stanford University
- UNC Management Company
- University of California
- University of Chicago
- University of Michigan
- University of Notre Dame
- University of Pennsylvania
- University of Southern California
- University of Virginia Investment Management Company
- Vanderbilt University
- Washington University in St. Louis
- Yale University

Source: UTIMCO Staff. Represents endowment funds (excluding the Total Endowment Assets) with more than 10 full-time employee positions, allocations to alternative assets in excess of 40%, and with assets greater than \$2.5 billion, all to be determined as of the last day of each year ended June 2013, 2014, 2015.

### Agenda Item UTIMCO Board of Directors Meeting July 21, 2016

Agenda Item:	Discussion and Appropriate Action Related to Committee Assignments
Developed By:	Zimmerman, Gonzalez, Moeller
Presented By:	Hildebrand
Type of Item:	Action required by UTIMCO Board
Description:	Chairman Hildebrand will propose Board Committee assignments for Ray Nixon. Director Nixon was appointed to the UTIMCO Board by the Board of Regents of The University of Texas System, effective May 12, 2016.
Recommendation:	Chairman Hildebrand will recommend approval of the UTIMCO Board Committee assignments for Ray Nixon.
Reference:	None

### **RESOLUTION RELATED TO COMMITTEE ASSIGNMENTS**

RESOLVED, that Director Ray Nixon is hereby designated as a member of the Policy, Risk and Compensation Committees of the Board of Directors, to serve until the expiration of his term, or until his successor have been chosen and qualified, or until his death, resignation, or removal.



## UTIMCO Board Endowment and Operating Funds Update July 21, 2016

### Performance Summary Periods Ending May 31, 2016

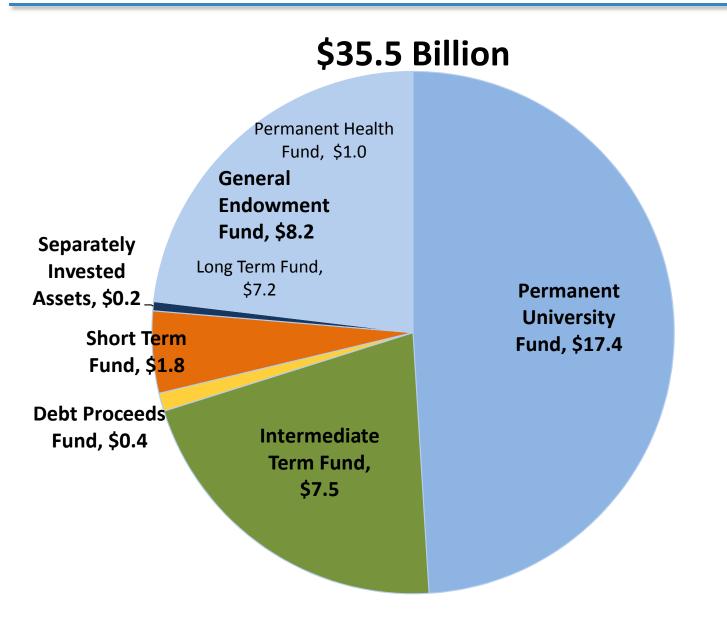


	Fiscal YTD Nine				
	Months Ended	One Year	Three Years	Five Years	Ten Years
Endowments					
Actual Returns	-0.10%	-2.88%	4.93%	4.80%	5.29%
Policy Portfolio Returns	1.53%	-1.64%	4.55%	4.13%	3.74%
Actual vs. Policy	-1.63%	-1.24%	0.38%	0.67%	1.55%
CPI + 5%	4.56%	6.07%	6.08%	6.29%	6.80%
Actual vs. CPI + 5%	-4.65%	-8.95%	-1.15%	-1.49%	-1.51%
60% Global Stocks/ 40% Global Bonds	4.42%	-0.10%	4.56%	4.55%	4.62%
Actual vs. Global 60/40	-4.52%	<b>-2.79%</b>	0.36%	0.24%	0.67%
60% US Stocks/ 40% Bonds	6.47%	2.46%	7.90%	8.47%	6.74%
Actual vs. US 60/40	<b>-6.56%</b>	-5.35%	<b>-2.97%</b>	<b>-3.67%</b>	-1.45%
Sharpe Ratio		-0.54	0.93	0.85	0.52
Information Ratio		-0.49	0.18	0.29	0.64
ITF					
Actual Returns	0.18%	-3.92%	1.96%	2.48%	4.15%
Policy Portfolio Returns	1.12%	-3.11%	1.32%	1.20%	2.26%
Actual vs. Policy	<b>-0.94%</b>	<b>-0.81%</b>	0.64%	1.28%	1.89%
CPI + 3%	3.06%	4.05%	4.06%	4.27%	4.77%
Actual vs. CPI + 3%	<b>-2.88%</b>	- <b>7.97%</b>	<b>-2.10%</b>	-1.79%	-0.62%
Cash	0.16%	0.18%	0.10%	0.12%	1.27%
Actual vs. Cash	0.02%	-4.10%	1.86%	2.36%	2.88%
Sharpe Ratio		-0.65	0.37	0.42	0.49
Information Ratio		-0.64	0.52	0.89	1.23

	Periods Ending March 31, 2016					
	One	Three	Five	Ten		
	Year	Years	Years	Years		
Actual Returns	-2.60%	4.88%	5.03%	5.30%		
Average Return Endowments > Billion \$	-2.16%	5.80%	6.13%	5.49%		
Actual vs. Average Return Endowments > Billion \$	-0.44%	<b>-0.92%</b>	-1.10%	<b>-0.19%</b>		
Percentile Rank	54%	71%	75%	49%		

### UTIMCO Assets Under Management May 31, 2016





## Combined PUF and GEF Exposure

As of May 31, 2016 (in millions)



Asset Group	Asset Class	Const	elated and rained ı Only)	Less Correlated and Constrained (Hedge Funds)		Private Investments		Total		
Fixed Income	lave at a ant Crade	¢4.0C0	7.20/	<b>ሰር 7</b> 0	0.00/	ድጋ	0.00/	ቀባ ፈንጋ	0 50/	
	Investment Grade	\$1,860	7.3%	\$573		\$0 052	0.0%	. ,	9.5%	
	Credit-Related		0.1%	1,072	4.2%			,	8.0%	
Fixed Income Total		1,888	7.4%	1,645	6.4%	953	3.7%	4,486	17.5%	
Real Assets	Real Estate	582	2.3%	0	0.0%	1,638	6.4%	2,220	8.7%	
	Natural Resources	1,571	6.2%	0	0.0%	2,272	8.9%	3,843	15.1%	
Real Assets Total		2,153	8.5%	0	0.0%	3,910	15.3%	6,063	23.8%	
Equity	Developed Country	3,240	12.5%	4,995	19.5%	2,922	11.4%	11,157	43.4%	
	Emerging Markets	2,348	9.2%	499	1.9%	1,071	4.2%	3,918	15.3%	
Equity Total		5,588	21.7%	5,494	21.4%	3,993	15.6%	15,075	58.7%	
Total		<u>\$9,629</u>	<u>37.6%</u>	<u>\$7,139</u>	<u>27.8%</u>	<u>\$8,856</u>	<u>34.6%</u>	<u>\$25,624</u>	<u>100.0%</u>	
	Number of Partners	Ę	51	4	8	153		25	252	

# Endowment Dashboard

### May 31, 2016

Sharpe

IR



<u>Underper</u>	formance	<u>e</u>			<u>Transpa</u>	arenc <u>y</u>				
FY2016TD	3-years	5-years	10-years			Full but				
-0.1%	4.9%	4.8%	5.3%		Full	Lagged	<u>Partial</u>	None		
					33%	36%	28%	3%		
<u>Market</u>					Concor	tration				
	Beta				Concer			<b>-</b>	(	
U.S. Equity	Rates	Currency			110	Man Top 10		<u>Securities</u> Bonds	( <u>Top 10)</u> Stocks	
0.623	(0.341)	(0.132)			<u>US</u> 55%	<u>Top 10</u> 23%	<u>Top 20</u> 38%	5.0%	4.8%	
	(0.0.1)	()			55%	2370	30 %	5.0%	4.070	
Scenarios	5				<u>Illiquid</u>	itv			<u>Unfunded</u>	<u> </u>
		US Liquidity	Japan	50% Oil	mquiu	icy	<u>90 day</u>	<u>1 year</u>	Commit-	
Expected	Landing	Squeeze	Implosion	Drop			liquidity	<u>liquidity</u>	ments	
Returns:	-21.9%	-20.7%	-16.1%	<u>1.2%</u>	Endowm	ents	35%	56%	25%	
Returns.	-21.970	-20.7%	-10.1%	1.270	ITF		59%	87%		
Downside	e Volatilit	v			Lovora	70				
		1 stdev	2 stdev		<u>Levera</u>					
E						<u>LCC</u>	LCC ex-FI	<u>Endowments</u>		
Expected ret	lums	-5.1%	-18.3%		Gross	1.82	1.51	1.00		
VIX:		14.	2%		Net	0.24	0.47	1.00		
Active Ma	anagama	nt			Perma	nent Loss d	of Canital			
	unugeme			10	<u>ı cıma</u>			Anticipated/		
		1-year	3-years	10-years		Invested	Realized	Unrealized	Total Loss	Annualized
Value-Add						Capital (\$B)	Loss (\$M)	Loss (\$M)	(\$M)	Loss (%)
bps		(124)	47	151	MCC	\$33.7	\$622	-	\$622	0.32%
\$		(\$332M)	\$285M	\$3,534M	LCC	13.2	240	198	438	0.58%
<u>Return/Vola</u>	tility				PI	<u>14.5</u>	<u>327</u>	<u>202</u>	<u>529</u>	0.95%
Sharne		(0.54)	0.93	0.52	••	<u></u>		_ <u></u>		0.00/0

0.49%

Total

<u>\$61.4</u>

<u>\$1,189</u>

<u>\$400</u>

<u>\$1,589</u>

0.52

0.64

0.93

0.18

(0.54)

(0.49)

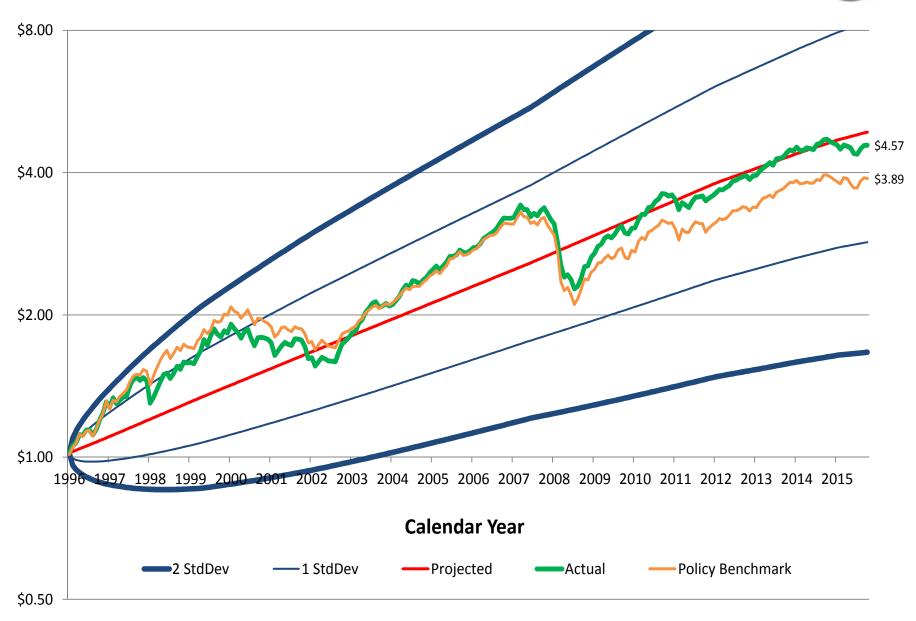


# **Underperformance Risk**



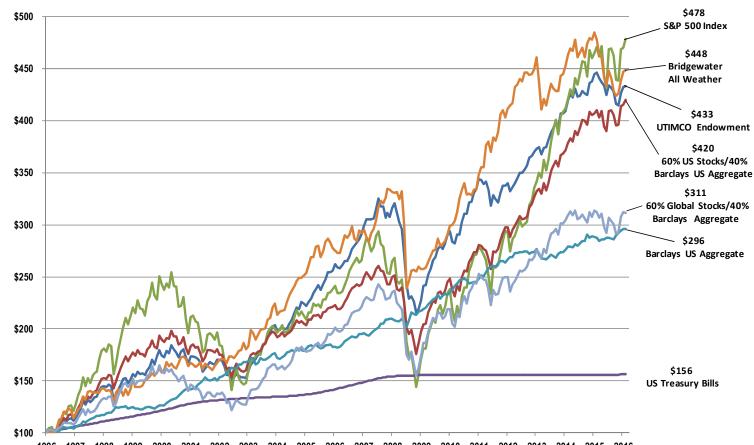
	Periods Ending May 31, 2016							
	Fiscal YTD		_	_				
	Nine Months	One	Three	Five	Ten			
Fund	Ended	Year	Years	Years	Years			
Permanent University Fund (PUF)	-0.10%	-2.89%	4.89%	4.76%	5.25%			
General Endowment Fund (GEF)	-0.08%	-2.88%	5.02%	4.88%	5.37%			
Intermediate Term Fund (ITF)	0.18%	-3.92%	1.96%	2.48%	4.15%			

## Returns vs Projected Returns



## Returns vs. Market





#### 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

	Trailing Annualized Returns Period Ending May 31, 2016							
	One	Three	Five	Seven	Ten	Since		
	Year	Years	Years	Years	Years	March 31, 1996		
UT Endowments	-2.88%	4.93%	4.80%	8.75%	5.29%	7.51%		
60% US Stocks / 40% Bonds	2.46%	7.90%	8.47%	10.84%	6.74%	7.34%		
60% Global Stocks / 40% Bonds	-0.10%	4.56%	4.55%	7.61%	4.62%	5.77%		
Stocks	1.72%	11.06%	11.67%	14.91%	7.41%	8.04%		
Bonds	2.99%	2.91%	3.33%	4.40%	4.97%	5.50%		
Bridgewater All Weather	-6.24%	0.79%	4.78%	8.24%	5.09%	7.69%		
Treasury Bills	0.12%	0.07%	0.07%	0.08%	0.93%	2.22%		



# Market Risk

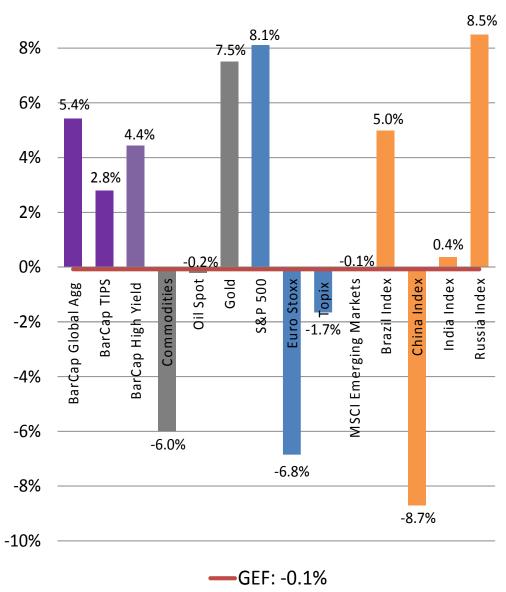
## Market Performance During FY2016TD

10%



### Sensitivity Analysis (beta)

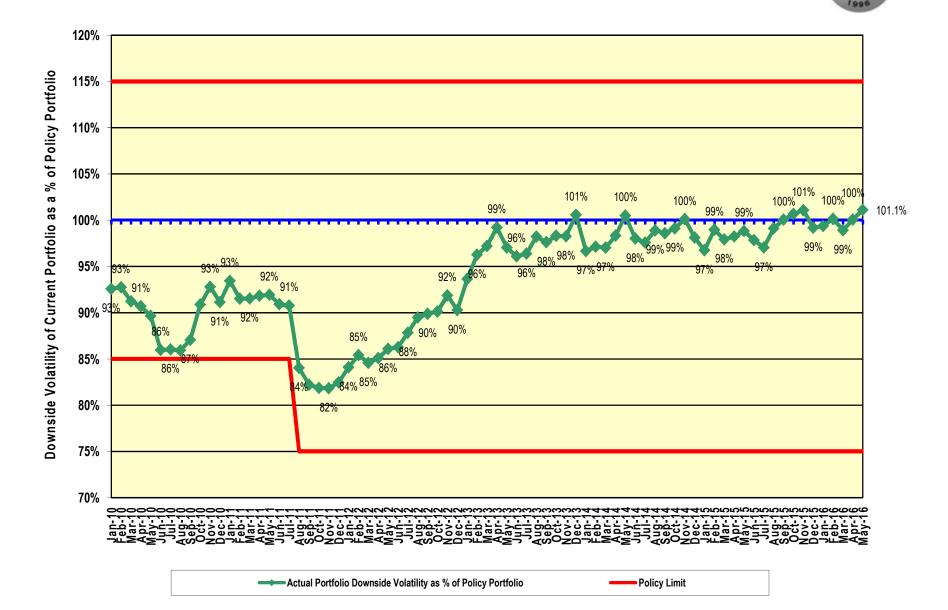
All Equities	0.685
U.S. Equities	0.623
Interest Rates	(0.341)
Currencies	(0.132)





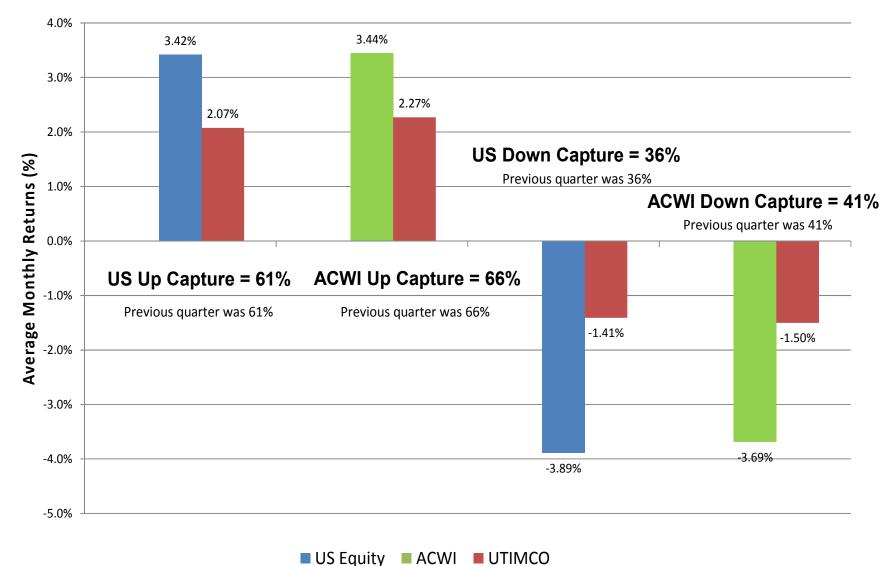
# **Downside Volatility Risk**

## Downside Volatility Utilization of GEF



## Up-Down Capture vs U.S. & World Equities





Data from 8/1996 till 5/2016. US equity had 95 down months and 143 up months; ACWI had 100 down months and 138 up months



# **Active Management Risk**



	Nine Month FYTD	One Year	Three Years	Five Years	Ten Years
<u>Value Add</u> Basis Points \$	-161 -\$423	-124 -\$332	47 \$285	75 \$819	151 \$3,534
<u>Return/Volatility</u> Sharpe Ratio Information Ratio		-0.54 -0.49	0.93 0.18	0.85 0.29	0.52 0.64

## Active Management Value Add Attribution Periods Ending May 31, 2016



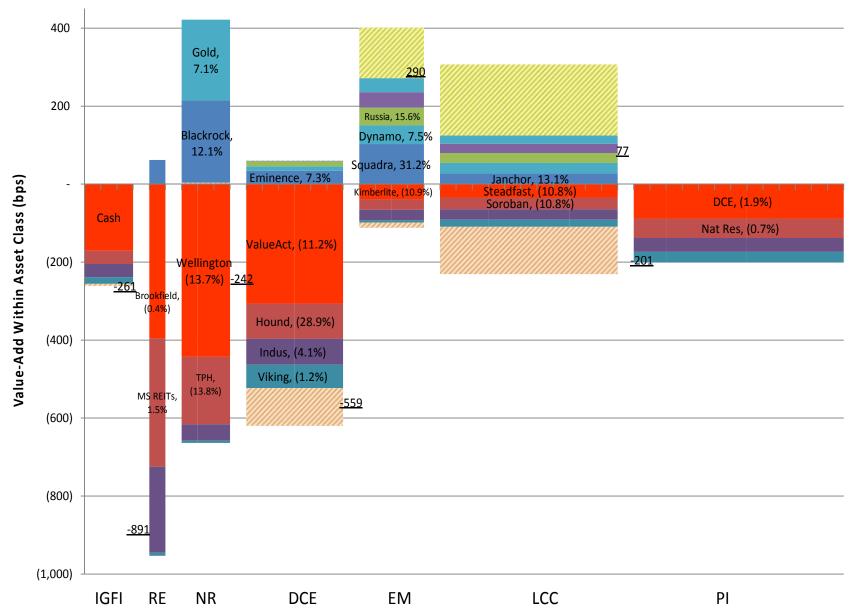
		Nine Month			
	Three Month	FYTD	One Year	Three Years	<b>Five Years</b>
External Manager					
MCC	0.24%	-0.98%	-1.07%	0.45%	0.77%
LCC	0.36%	0.26%	0.62%	0.69%	1.01%
Private Markets	-0.31%	-0.62%	-0.39%	-0.29%	-0.39%
Total External Manager	0.29%	-1.34%	-0.84%	0.85%	1.39%
Tactical Allocation:					
Gold	0.00%	0.00%	0.00%	-0.25%	-0.29%
Other	-0.41%	-0.27%	-0.39%	-0.07%	-0.13%
<b>Total Tactical Allocation</b>	-0.41%	-0.27%	-0.39%	-0.32%	-0.42%
Insurance Hedges	0.00%	0.00%	-0.01%	-0.06%	-0.22%
Total Value Add	-0.12%	-1.61%	-1.24%	0.47%	0.75%

## **Current Tactical Allocation**

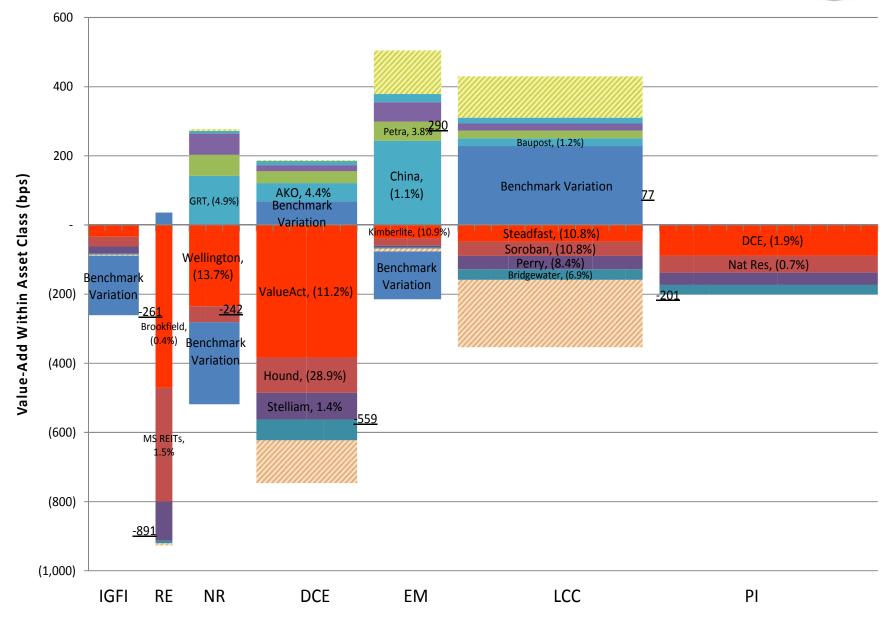


	Underweight	Overweight	Net Tactical Position	
MCCIGFI		1.6%	1.6%	
LCC	1.0%	-	(1.0%)	
PI Credit	-	0.3%	0.3%	
<u>RE</u>				
MCC	0.2%	-	(0.2%) <u>0.6%</u>	
Privates		<u>0.6%</u>		
TOTAL	<u>0.2%</u>	<u>0.6%</u>	<u>0.4%</u>	
<u>Nat Res</u>				
MCC-NRE	-	0.1%	0.1%	
Commodities	1.7%	-	(1.7%)	
Gold	0.3%	-	(0.3%)	
Privates		<u>0.8%</u>	<u>0.8%</u>	
TOTAL	<u>2.0%</u>	<u>0.9%</u>	<u>(1.1%)</u>	
<u>DCE</u>				
MCC	1.7%	-	(1.7%)	
Privates		<u>1.5%</u>	<u>1.5%</u>	
TOTAL	<u>1.7%</u>	<u>1.5%</u>	<u>(0.2%)</u>	
<u>EM</u>				
MCC	0.6%	-	(0.6%)	
Privates		<u>0.6%</u>	<u>0.6%</u>	
TOTAL	<u>0.6%</u>	<u>0.6%</u>	<u>0.0%</u>	
TOTAL	<u>5.5%</u>	<u>5.5%</u>	<u>0.0%</u>	

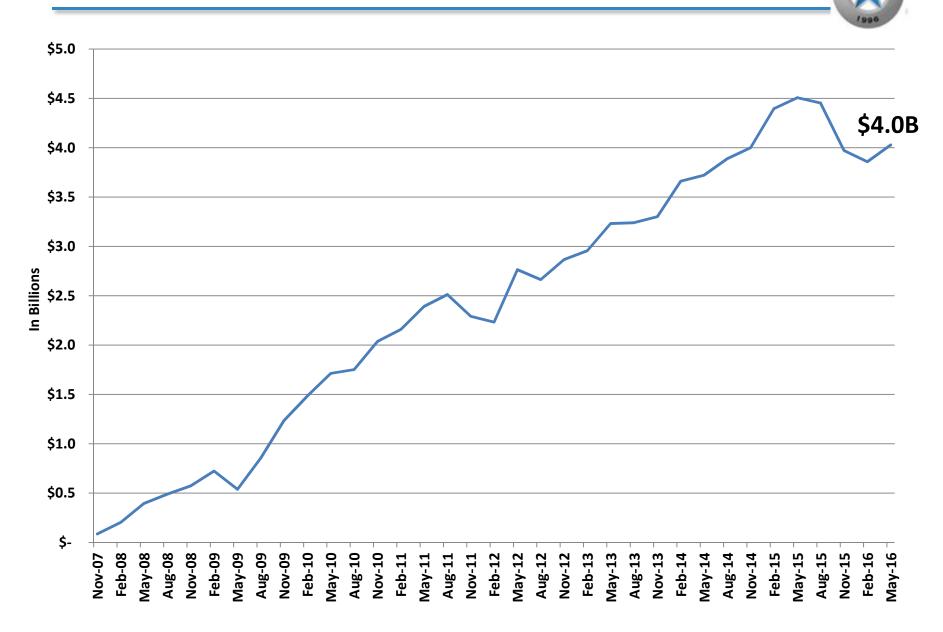
## Value-Add Breakdown for FY2016TD



## Value-Add Breakdown for FY2016TD



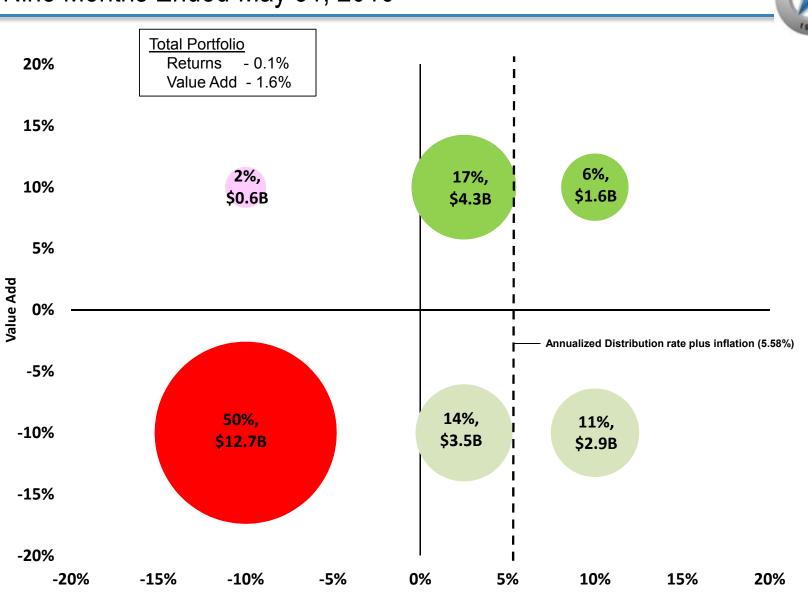
## **Cumulative Value Add**





20%					1					_	
15%								Asterio	- 4		
10%		•	tive Actu tive Value		າຣ	•		Actual R Value Ac			
5% 2											
е А 9 0%											
Value Add -5%											
-10%		<ul> <li>Negative Actual Returns</li> <li>Negative Value Add</li> </ul>					<ul><li>Positive Actual Returns</li><li>Negative Value Add</li></ul>				
-15%											
-20%											
-2	0%	-15%	-10%	-5%	0%		5%	10%	15%	20%	
Returns											

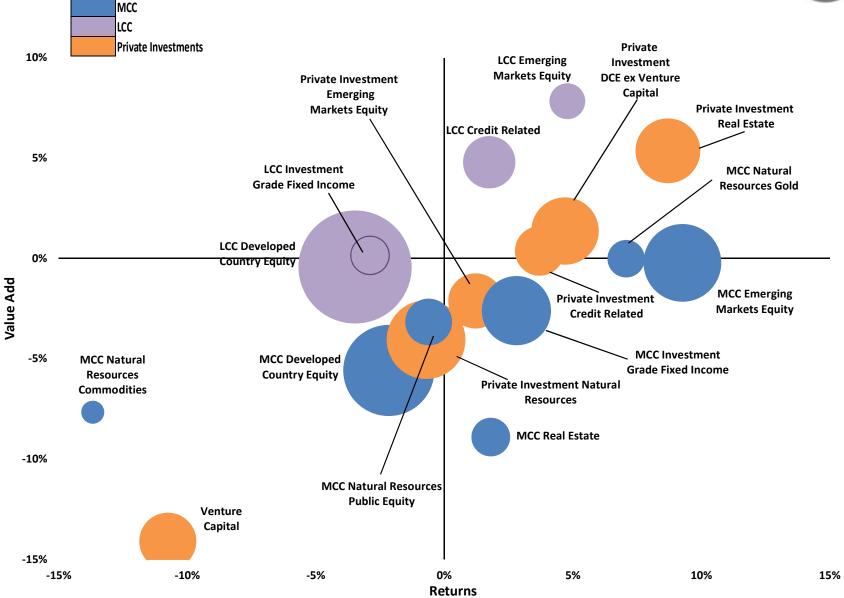
### Returns and Value Add Nine Months Ended May 31, 2016



Returns

### Returns and Value Add Nine Months Ended May 31, 2016





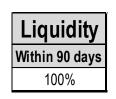
### MCC Investment Grade Fixed Income

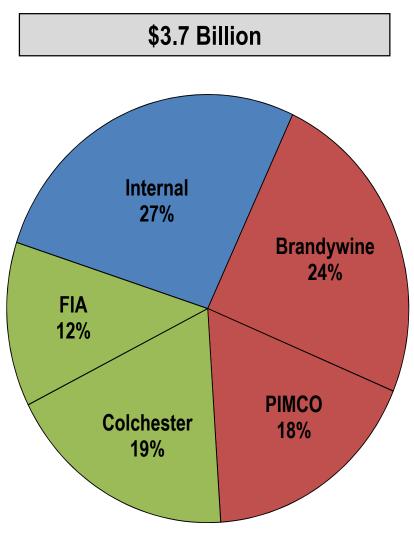


Investment Returns					
	1 Year	3 Years	5 Years	7 Years	
Actual Return	2.4%	1.3%	2.5%	4.8%	
Benchmark Return	<u>5.3%</u>	<u>1.4%</u>	<u>1.2%</u>	<u>3.1%</u>	
Value Add	-2.9%	-0.1%	1.3%	1.7%	
Actual Standard Deviation Benchmark Standard Deviation	5.4% 4.4%	4.4% 4.1%	4.3% 4.2%	4.7% 4.9%	
Sharpe Ratio	0.4	0.3	0.6	1.0	
Information Ratio	-1.6	-0.1	0.8	1.0	

<b>Capital Move</b>	men	it (FY16		
<u>Subscriptions</u>				
Brandywine	\$	37		
Colchester		37		
Total	\$	74		
<u>Redem</u> r	otions			
Total	\$	74		
Net Activity	\$	0		

U.S
Global
Global ex-U.S.







Overview				
	UTIMCO	BC GIbI Agg		
Total Portfolio Size	\$3.7B	\$46T		
Modified Duration	6.6	6.9		
Yield to Maturity	2.5%	1.3%		
Average Agency Rating	A1	AA3		

Geographical Exposure					
UTIMCO BC GIbI Agg O/U					
United States	45.0%	30.2%	14.8%		
Canada	0.5%	3.5%	-3.0%		
Europe	24.8%	35.5%	-10.7%		
Asian-Pac Aggregate	14.9%	27.3%	-12.4%		
Emerging Markets	14.8%	3.5%	11.3%		

Currency Exposure						
UTIMCO BC GIbI Agg O/U						
United States Dollar	41.4%	43.8%	-2.3%			
Euro	16.6%	24.1%	-7.5%			
Japanese Yen	13.5%	17.7%	-4.2%			
UK Pound Sterling	4.0%	5.7%	-1.7%			
Emerging Markets	16.1%	2.4%	13.7%			
Other	8.2%	6.2%	2.0%			

Sector Exposure					
UTIMCO BC GIbl Agg O/U					
Treasuries & Sovereign	70.5%	66.0%	4.5%		
Government Related	4.1%	9.7%	-5.6%		
Corporates	21.4%	17.4%	4.1%		
Securitized	3.1%	6.9%	-3.8%		
Cash & Cash Equivalents	0.8%	0.0%	0.8%		

As of 5/31/2016

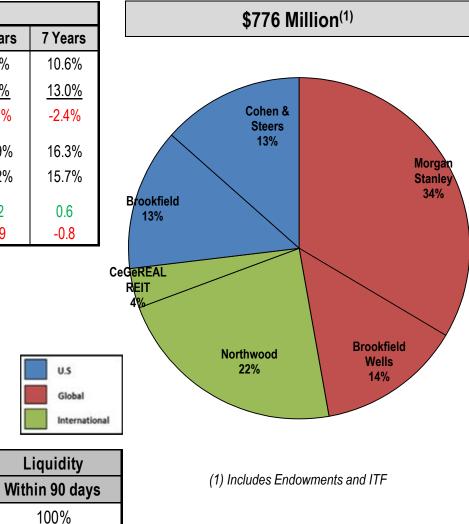
## MCC (Long Only) – Real Estate



NAV, Investment Returns, and Capital Movement as of May 31, 2016

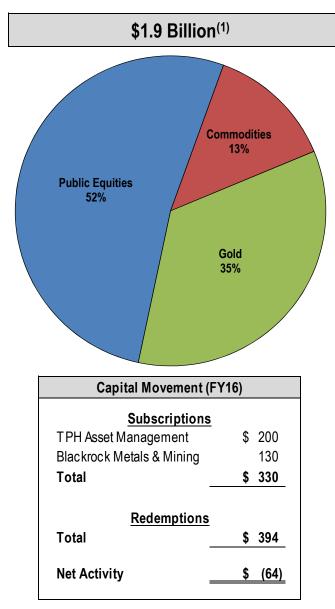
Investment Returns					
	1 Year	3 Years	5 Years	7 Years	
Actual Return (Ex Hedges)	-7.0%	1.8%	3.4%	10.6%	
Benchmark Return	<u>3.4%</u>	<u>5.8%</u>	<u>6.5%</u>	<u>13.0%</u>	
Value Add	-10.3%	-4.0%	-3.1%	-2.4%	
Actual Standard Deviation	16.5%	12.1%	15.9%	16.3%	
Benchmark Standard Deviation	15.1%	12.2%	15.2%	15.7%	
Sharpe Ratio	-0.5	0.1	0.2	0.6	
Information Ratio	-3.0	-1.2	-0.9	-0.8	

Capital Movement (FY16)				
Subscriptions				
CeGeREAL REIT	\$	29		
Total	\$	29		
<u>Redemptions</u> Total \$30				
Net Activity	\$	(1)		



## MCC (Long Only) - Natural Resources

NAV, Investment Returns, and Capital Movement as of May 31, 2016

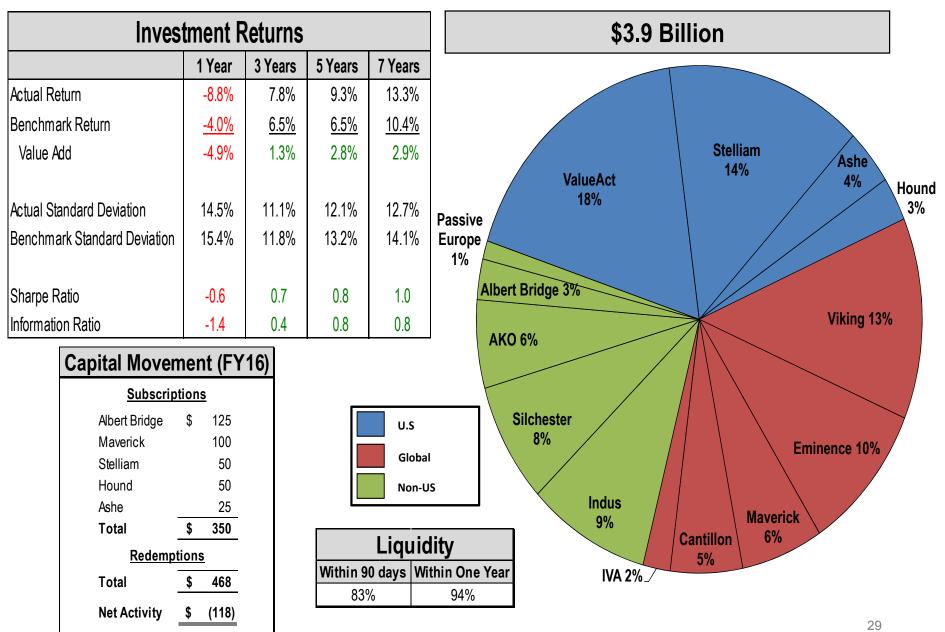


Investment Returns					
	1 Year	3 Years	5 Years	7 Years	
Public Equities (\$1,027 million)					
Actual Return	-20.8%	-11.2%	-10.0%	-0.7%	
Benchmark	<u>-14.8%</u>	<u>-6.7%</u>	<u>-6.5%</u>	<u>0.4%</u>	
Value Add	-6.0%	-4.5%	-3.4%	-1.1%	
Actual Standard Deviation	33.5%	25.5%	25.3%	24.4%	
Benchmark Standard Deviation	24.6%	19.7%	20.3%	20.3%	
Sharpe Ratio	-0.7	-0.6	-0.5	-0.2	
Information Ratio	-0.5	-0.5	-0.4	-0.1	
Commodities (\$259 million)					
Actual Return	-24.0%	-16.8%	-14.1%	-5.8%	
Benchmark	<u>-15.3%</u>	<u>-13.2%</u>	<u>-12.5%</u>	<u>-5.2%</u>	
Value Add	-8.7%	-3.7%	-1.7%	-0.5%	
Actual Standard Deviation	18.5%	15.2%	15.0%	15.3%	
Benchmark Standard Deviation	16.2%	13.7%	14.9%	15.2%	
Sharpe Ratio	-1.5	-1.3	-1.1	-0.6	
Information Ratio	-1.7	-0.9	-0.5	-0.2	
Gold (\$681 million)					
Actual Return	2.2%	-4.1%	-4.4%		

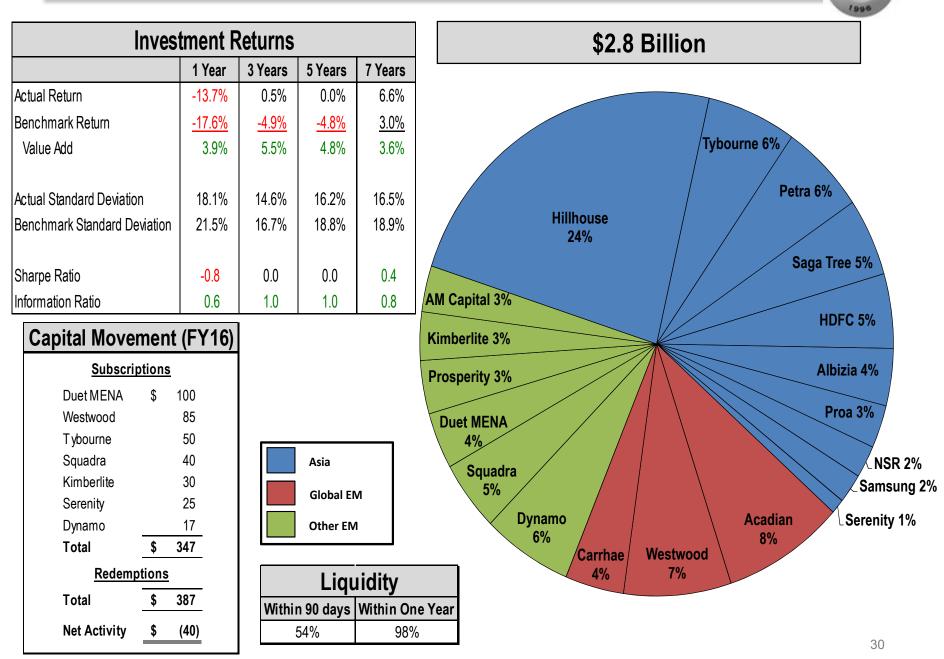


## MCC Public Equity – Developed Markets





## MCC Public Equity – Emerging Markets



## Less Correlated & Constrained



LCC Portfolio Characteristics					
	1 Year	3 Year	5 Year	7 Year	
LCC Return	-4.3%	3.8%	5.0%	7.4%	
Benchmark Return	<u>-6.2%</u>	<u>1.6%</u>	<u>1.5%</u>	<u>2.9%</u>	
Value Add	2.0%	2.2%	3.5%	4.5%	
LCC Volatility	5.9%	5.1%	5.0%	4.8%	
Benchmark Volatility	4.4%	4.0%	4.2%	4.2%	
Sharpe Ratio	-0.8	0.7	1.0	1.5	
Information Ratio	1.0	1.1	1.9	2.5	

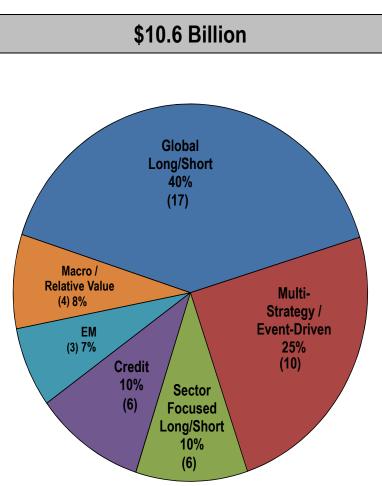
As of 5/31/2016 - Statistics for periods longer than a year are annualized.

FYTD Capital Activity			
<u>Subscription</u>	ons		
Key Square	\$250		
Kintbury	175		
Hound	140		
Steadfast	75		
Two Creeks	75		
Junto	65		
Owl Creek Credit	57		
Route One	50		
Kingstown	50		
12 West	50		
Other (9)	<u>190</u>		
Total	<u>\$1,177</u>		
Redemptions			
Total	\$1,298		
Net Activity	(\$121)		

Concentration				
Тор 10	42%			
Тор 20	69%			
Тор 30	88%			

Liquidity				
<u>90 days <u>1 year</u></u>				
19%	70%			

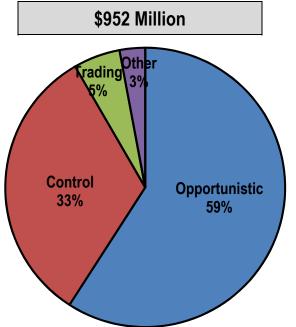
Look-Thru Leverage							
<u>% of Capital Gross Net</u>							
Core Strategies	94%	151%	47%				
FI&FX	6%	663%	-329%				
Total LCC	100%	182%	24%				



## Private Investments - Credit

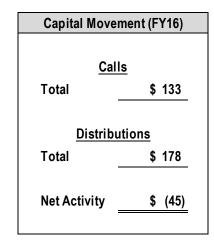


NAV, Investment Returns, and Capital Movement as of May 31,2016



Investment Returns								
	1 Year	3 Years	5 Years	7 Years				
<u>Actual Return</u>	5.8%	9.3%	10.0%	15.1%				
<u>General Benchmark</u>	8.8%	13.3%	12.9%	13.2%				
Value Add	-3.0%	-4.1%	-2.9%	1.8%				
(4)								
Specific Benchmark <sup>(1)</sup>	-0.4%	6.7%	8.2%	12.1%				
Value Add	6.1%	2.6%	1.8%	3.0%				

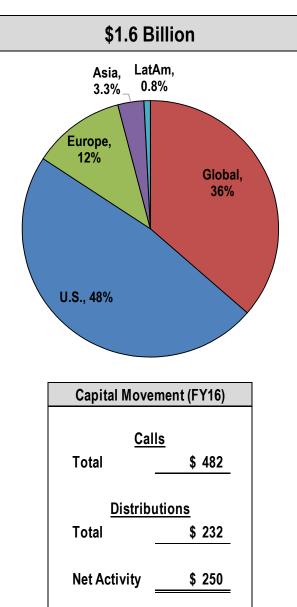
(1) Cambridge Associates - Distressed Securities



## Private Investments – Real Estate

UTIMCO 7996

NAV, Investment Returns, and Capital Movement as of May 31, 2016

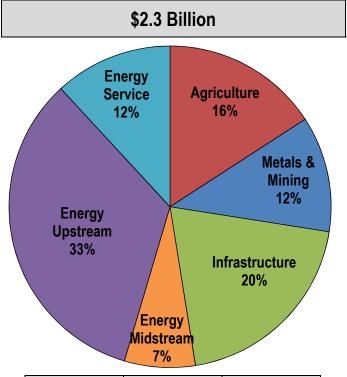


Investment Returns									
	1 Year	1 Year 3 Years 5 Years 7 Years							
<u>Actual Return</u>	15.7%	18.6%	11.5%	8.9%					
<u>General Benchmark</u>	8.8%	13.3%	12.9%	13.2%					
Value Add	7.0%	5.3%	-1.5%	-4.4%					
Specific Benchmark <sup>(1)</sup>	12.8%	14.0%	11.7%	10.4%					
Value Add	2.9%	4.6%	-0.2%	-1.6%					

(1) Cambridge Associates – Total Real Estate

### **Private Investments - Natural Resources**

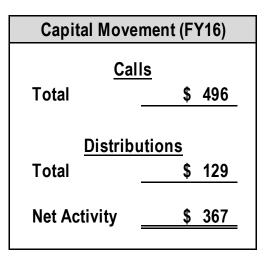
NAV, Investment Returns, and Capital Movement as of May 31, 2016



\$ in millions	Net Asset Value	Unfunded
Energy		
NAM Upstream	\$324	\$339
Other Upstream	437	183
Midstream	161	221
Energy Service	<u>269</u>	<u>270</u>
Total Energy	1,191	1,012
Mining	264	249
Agriculture	359	335
Infrastructure	<u>453</u>	<u>447</u>
Total	<u>\$2,267</u>	<u>\$2,043</u>

Investment Returns								
	1 Year 3 Years 5 Years 7 Years							
<u>Actual Return</u>	-1.8%	6.1%	12.5%	15.3%				
<u>General Benchmark</u>	8.8%	13.3%	12.9%	13.2%				
Value Add	-10.6%	-7.2% -0.4%		2.0%				
Cresifia Darahmark <sup>(1)</sup>	-16.0%	-6.8%	-1.6%	3.3%				
Specific Benchmark <sup>(1)</sup>	-10.0%	-0.0%	-1.0%	3.3%				
Value Add	14.2%	12.9%	14.2%	11.9%				

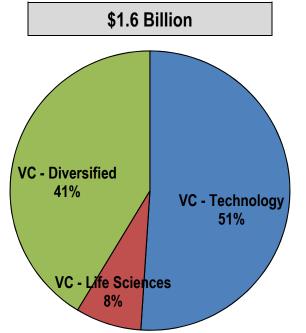
(1) Cambridge Associates Natural Resources Private Equity Index



## Private Investments – Venture Capital

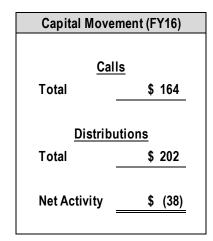


NAV, Investment Returns, and Capital Movement as of May 31,2016



Investment Returns								
	1 Year 3 Years 5 Years 7 Years							
Actual Return	5.0%	25.1%	19.1%	23.6%				
<u>General Benchmark</u>	8.8%	13.3%	12.9%	13.2%				
Value Add	-3.8%	11.8%	6.2%	10.3%				
Specific Benchmark <sup>(1)</sup>	2.1%	19.2%	14.2%	14.8%				
Value Add	2.9%	5.9%	4.9%	8.8%				

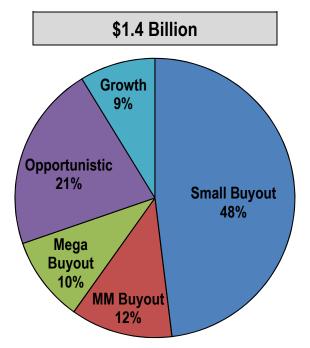
(1) Cambridge Associates - Global VC



## Private Investments – Private Equity

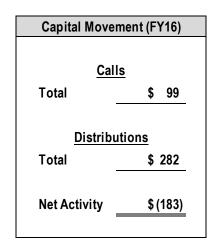


NAV, Investment Returns, and Capital Movement as of May 31,2016



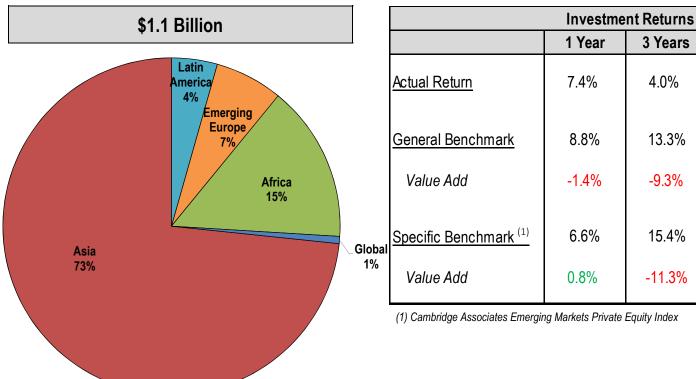
Investment Returns									
	1 Year	1 Year 3 Years 5 Years 7 Years							
<u>Actual Return</u>	12.2%	12.3%	11.8%	12.2%					
<u>General Benchmark</u>	8.8%	13.3%	12.9%	13.2%					
Value Add	3.4%	-1.0%	-1.1%	-1.0%					
<u>Specific Benchmark<sup>(1)</sup></u>	2.0%	10.9%	9.9%	13.7%					
Value Add	10.2%	1.4%	1.9%	-1.5%					

(1) Cambridge Associates - Global PE & Growth



## **Private Investments - Emerging Markets**

NAV, Investment Returns, and Capital Movement as of May 31, 2016



Capital Movement (FY16)							
Calls							
Total	\$ 147						
<u>Distribu</u>	<u>itions</u>						
Total	\$ 48						
Net Activity	\$ 99						



7 Years

7.3%

13.2%

-6.0%

15.0%

-7.8%

5 Years

2.1%

12.9%

-10.8%

10.1%

-8.0%



## **Transparency Risk**



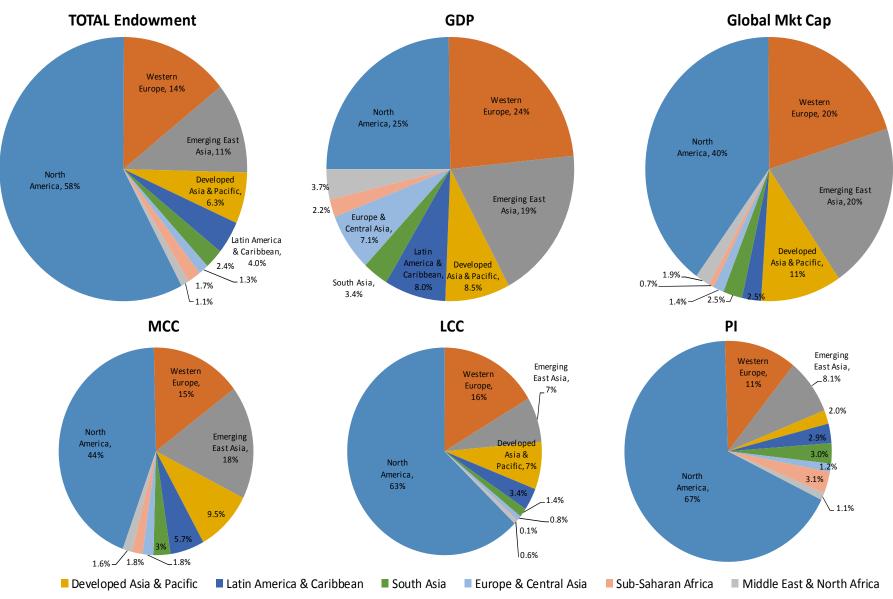
	Fixed Income	MCC Real Assets	Equities	TOTAL	LCC	Privates	TOTAL
Full & Timely	100%	97%	74%	84%			33%
Full but lagged			8%	5%		99%	36%
Partial		3%	11%	7%	95%		28%
No Transparency			7%	4%	5%	1%	3%



## **Concentration Risk**

#### Geographic Exposure As of December 31, 2015





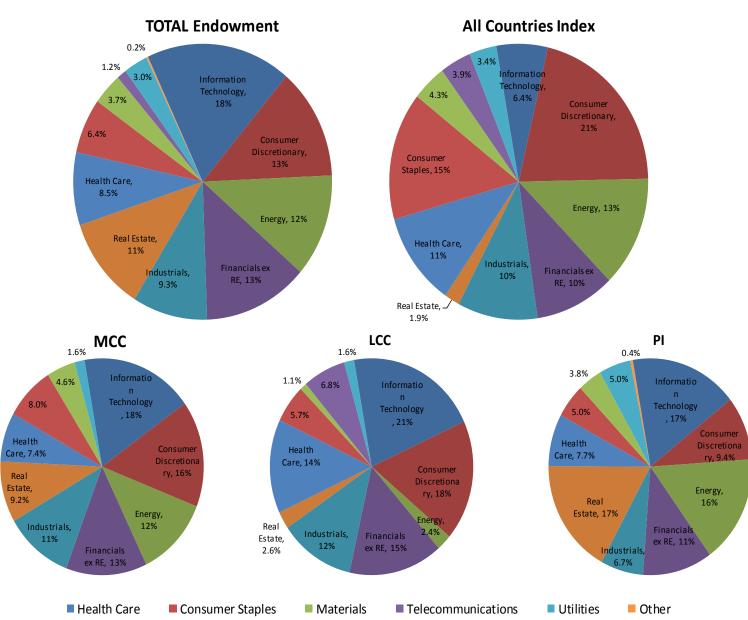
#### Largest Country Exposures As of December 31, 2015



	МСС	LCC	PI	TOTAL	GDP	Global Mkt Cap
1) United States	41.8%	61.7%	62.8%	55.2%	22.5%	37.2%
2) China	7.2%	5.2%	5.0%	5.8%	13.4%	8.7%
3) Japan	6.5%	5.9%	0.3%	4.2%	5.9%	8.0%
4) United Kingdom	4.7%	2.4%	5.1%	4.1%	3.8%	5.4%
5) Canada	1.7%	1.1%	3.8%	2.3%	2.3%	2.7%
6) India	2.6%	1.4%	2.6%	2.2%	2.7%	2.4%
7) Brazil	2.9%	1.0%	1.9%	2.0%	3.0%	0.7%
8) South Korea	3.9%	1.1%	0.0%	1.7%	1.8%	2.0%
9) Australia	1.1%	1.3%	1.1%	1.2%	1.9%	1.7%
10) Hong Kong	1.8%	0.7%	0.9%	1.2%	0.4%	6.0%
11) France	2.1%	0.5%	0.6%	1.1%	3.6%	3.1%
12) Mexico	2.2%	0.4%	0.0%	0.9%	1.7%	0.6%
13) Germany	0.4%	0.7%	1.1%	0.7%	5.0%	2.9%
14) Spain	0.9%	0.0%	1.1%	0.7%	1.8%	1.0%
15) Switzerland	1.3%	0.3%	0.1%	0.6%	0.9%	2.4%
16) Indonesia	0.8%	0.0%	0.9%	0.6%	1.1%	0.6%
17) Rep of Congo	0.0%	0.0%	1.7%	0.6%	0.0%	0.0%
18) Singapore	0.9%	0.1%	0.5%	0.5%	0.4%	0.7%
19) Netherlands	0.6%	0.0%	0.8%	0.5%	1.1%	0.7%
20) Thailand	0.7%	0.0%	0.8%	0.5%	0.5%	0.6%
21) Italy	0.7%	0.3%	0.3%	0.5%	2.8%	0.9%
22) Russia	0.8%	0.2%	0.3%	0.4%	2.4%	0.6%

# Sector Exposure – $\beta$ adjusted As of December 31, 2015

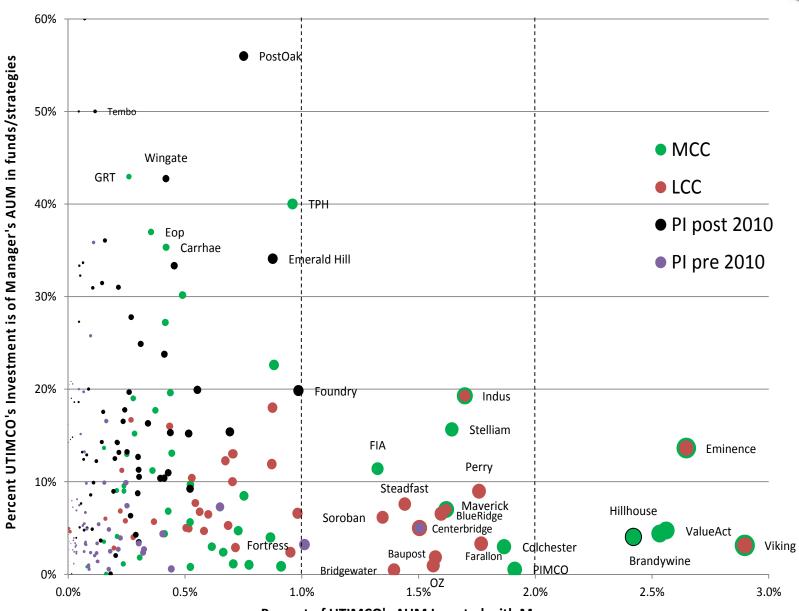
#### Endowments, excluding Fixed Income and NR commodities



55

43

#### Concentration Analysis As of December 31, 2015



Percent of UTIMCO's AUM Invested with Manager



#### **Top Ten Fixed Income and Equity**

Fixed Income	\$ (M)	% of AUM
U.S. Government	\$465	1.40%
Japanese Sovereign	270	0.82%
Mexican Sovereign	212	0.64%
Australian Sovereign	156	0.47%
New Zealand Sovereign	133	0.40%
UK Sovereign	126	0.38%
Malaysian Sovereign	87	0.26%
Brazilian Sovereign	80	0.24%
South African Sovereign	60	0.18%
Norwegian Sovereign	<u>59</u>	<u>0.18%</u>
TOTAL	<u>\$1,648</u>	<u>4.97%</u>

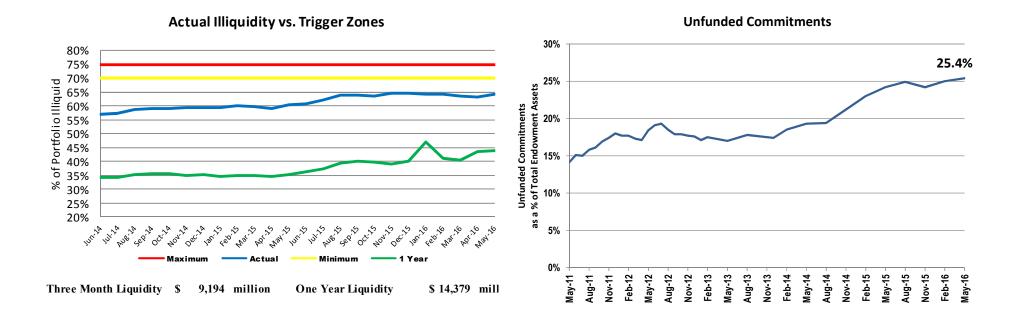
Equity	\$ (M)	% of AUM
Autodesk	\$213	0.64%
Google (Alphabet)	203	0.61%
Microsoft	202	0.61%
Private consumer company	185	0.56%
Facebook	154	0.46%
Amazon	146	0.44%
Allergan PLC	132	0.40%
JD.com	132	0.40%
Time Warner Cable	125	0.38%
Private resource company	<u>112</u>	<u>0.34%</u>
TOTAL	<u>\$1,601</u>	<u>4.83%</u>



## Illiquidity Risk

#### Endowment Fund Liquidity As of May 31, 2016





#### Private Investments Portfolio Rollforward Nine Months Ended May 31, 2016



		Beg FY 9/1/	15						Commitments	End 5/31/16		
\$ in millions	NAV	Unfunded	# Funds	Calls	Distributions	Change in Valuation	% Return	# Funds	\$ Committed	NAV	Unfunded	
Credit-Related Fixed Income	\$958	\$371	39	\$133	\$178	\$39	4.2%	0	\$25	\$952	\$359	
Real Estate	1,261	1,487	55	482	232	127	8.7%	5	319	1,638	1,343	
Natural Resources	1,911	1,971	70	496	129	(5)	-0.9%	12	576	2,273	2,044	
Venture	1,329	588	60	164	202	(140)	-10.8%	6	209	1,151	635	
Other Developed Country Equity	1,863	<u>1,012</u>	<u>94</u>	<u>99</u>	<u>282</u>	<u>91</u>	<u>4.7%</u>	<u>3</u>	<u>100</u>	<u>1,771</u>	<u>1,021</u>	
Total Developed Country Equity	3,192	1,600	154	263	484	(49)	-1.9%	9	309	2,922	1,656	
Emerging Markets Equity	<u>959</u>	<u>703</u>	<u>31</u>	<u>147</u>	<u>48</u>	<u>13</u>	1.2%	<u>6</u>	<u>265</u>	<u>1,071</u>	<u>775</u>	
TOTAL % of Endowment (PUF+ GEF)	<u>\$8,281</u> 32%	<u>\$6,132</u> 24%	<u>349</u>	<u>\$1,521</u>	<u>\$1,071</u>	<u>\$125</u>	1.3%	<u>32</u>	<u>\$1,494</u>	<u>\$8,856</u> 35%	<u>\$6,177</u> 24%	

## **Co-Investment Pipeline and Portfolio**



	MC	C	LC	C	Real Es	tate	Natural Res	sources	Private M	arkets	Tota	al
<u>FY 2016</u>	<u>#</u>	<u>\$</u>	<u>#</u>	<u>\$</u>	#	<u>\$</u>	<u>#</u>	<u>\$</u>	<u>#</u>	<u>\$</u>	<u>#</u>	<u>\$</u>
Pipeline:												
Reviewed	4	\$190	4	\$225	13	\$361	106	\$2,723	13	\$169	140	\$3,668
Interest	2	90	3	200	7	166	30	823	7	103	49	1382
Committed	2	90	0	0	2	31	4	138	3	17	11	276
In Process	0	0	0	0	0	0	16	400	2	14	18	414
Since Inception	<u>#</u>	<u>\$</u>	<u>#</u>	<u>\$</u>	<u>#</u>	<u>\$</u>	<u>#</u>	<u>\$</u>	<u>#</u>	<u>\$</u>	<u>#</u>	<u>\$</u>
<u>Pipeline:</u>												
Reviewed	9	\$440	12	\$725	50	\$1,072	219	\$5,809	51	\$1,104	341	\$9,150
Interest	3	140	8	550	28	569	78	2,209	24	573	141	4,041
Committed	3	140	1	75	15	214	26	771	15	216	60	1,416
In Process	0	0	0	0	0	0	16	400	2	14	18	414
Portfolio Returns (Since Inception):												
Invested	3	\$136	1	\$75	15	\$184	26	\$560	15	\$209	60	\$1,163
Realized Proceeds	0	0	1	38	6	44	2	166	4	44	13	292
NAV		156		51		195		614		272		1,288
Multiple		1.15x		1.18x		1.30x		1.39x		1.52x		1.36x
IRR		15%*		10%		12%		24%		17%		19%

\* Return not annualized as holding period is less than one year.



## Leverage Risk

### Non-Insurance Related Internal Derivatives As of May 31, 2016 (in millions)



		Net Notional Value	Activity from previous report (2/29/2016)
Manager	Derivative Strategy	(\$ millions)	(\$ millions)
Developed Country Equity			
EuroStoxx 50 Futures	Purchased futures to gain exposure to European markets.	44	44
Developed Country FX hedges	Sale of Euro forw ards to hedge the currency exposure in the MCC accounts	(45)	(45)
Japan Forw ards	Sale of Japanese Yen forw ards to hedge the currency exposure in the MCC accounts	(145)	174
Emerging Markets Equity			
Hillhouse QFII FX hedges	China Forw ards: Sale of Chinese Yuan forw ards to hedge the currency exposure in the MCC accounts	(172)	(172)
Hillhouse QFII FX hedges	China Forwards: Sale of Chinese Yuan forwards to hedge the currency exposure in the MCC accounts	(248)	(1)

#### External Manager Agency Account Derivatives As of May 31, 2016 (in millions)

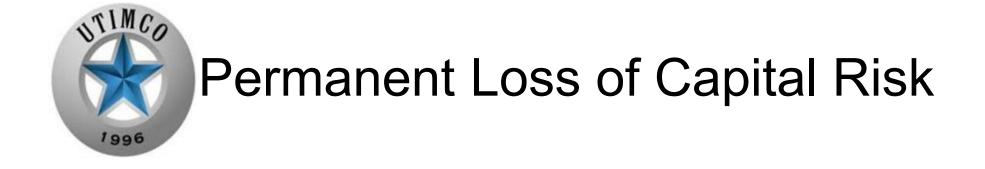


		Net Notional Value
Manager	Derivative Strategy	(\$ millions)
Investment Grade Fixed Income		
Brandywine	Currency forwards used to hedge foreign currency exposure	204
Colchester	Currency forw ards used to hedge foreign currency exposure	16
First International Advisors	Currency forw ards used to hedge foreign currency exposure	87
PIMCO Global Bonds	Currency forw ards used to underw eight the US dollar	45
	Long US and Non-US futures used to overw eight duration in Eurozone Long futures used to overw eight front end of US and UK yield curves	255 (33)
	Receive Interest rate sw aps used to overw eight duration in the Eurozone and underw eight intermediate portion of the Japanese yield curve	332
	Pay Interest rate sw aps used to overw eight duration in the Eurozone and underw eight intermediate portion of the Japanese yield curve	(467)
	Interest rate swaps used to overw eight front end of US and UK yield curves	72
	Short/Written credit default swaps used to overweight credit risk	237
	Long/Purchased credit default sw aps used to underw eight credit risk	(40)
	Written options used to increase portfolio yield	(69)
	Purchased options used to increase portfolio yield	13
Natural Resources		
Wellington Commodities SPV	Exchange-traded commodity futures, options and/or sw aps	283
Developed Equity		
Albert Bridge	Currency forw ard contracts for hedging purposes. Contracts for Differences to gain efficient access to certain European markets.	(51) 50
Cantillon	Currency forw ard contracts for hedging purposes or to provide efficient investment exposure.	(22)
Eminence	Currency forw ard contracts for hedging purposes or to provide efficient investment exposure.	(88)
International Value Advisors	Currency forw ard contracts for hedging purposes or to provide efficient investment exposure.	(4)
Non-US Emerging Equity		
Dynamo	Written covered call and put options to increase portfolio income and purchased put options to hedge portfolio	33
Saga Tree	Currency forward contracts for hedging purposes or to provide efficient investment exposure.	(63)

### OTC Derivative Counterparty Report As of May 31, 2016 (in millions)



		\$ millions										
Counterparty	S & P / Moody Counterparty Rating	Ma Owe	k-to- rket ed by oker	Mark-to- Market Owed by UTIMCO	Total Mark- to-Market	(Held)/Posted Collateral	Total Mark- to-Market net of Collateral	Percentage of Total Funds				
BANK OF AMERICA	A-	\$	51.1	\$ (46.5)	\$ 4.6	\$ (1.1)	\$ 3.5	0.01%				
CITIBANK NY	А		32.9	(34.8)	(1.9)	0.2	(1.7)	-0.01%				
GOLDMAN SACHS	A-		29.0	(32.9)	(3.9)	3.0	(0.9)	0.00%				
BNP PARIBAS	А		11.2	(11.0)	0.2	-	0.2	0.00%				
CITIBANK NA, LONDON	А		9.7	(3.4)	6.3	-	6.3	0.02%				
MACQUARIE BANK LTD, SYDNEY	A-		6.3	(6.9)	(0.6)	-	(0.6)	0.00%				
BARCLAYS	A-		5.5	(4.7)	0.8	-	0.8	0.00%				
HSBC BK USA, NEW YORK	А		4.2	(4.0)	0.2	1.0	1.2	0.00%				
UBS A G, ZURICH	A-		2.9	-	2.9	-	2.9	0.01%				
BANK OF NEW YORK	А		2.8	(7.3)	(4.5)	-	(4.5)	-0.01%				
MERRILL LYNCH	A-		2.2	(0.7)	1.5	-	1.5	0.00%				
MORGAN STANLEY	A-		1.0	(0.2)	0.8	0.2	1.0	0.00%				
J P MORGAN, CHASE	A-		0.4	(0.5)	(0.1)	-	(0.1)	0.00%				
STANDARD & CHARTERED BK, LONDON	A-		0.3	(0.1)	0.2	(0.4)	(0.2)	0.00%				
MERRILL LY NCH PIERCE FENNER SMITH INC NY	А		0.2	-	0.2	-	0.2	0.00%				
UBS AG, STAMFORD	A-		0.1	(0.2)	(0.1)	-	(0.1)	0.00%				
MELLON BANK	А		0.1	(0.1)	-	-	-	0.00%				
CS FIRST BOSTON GBL FOREIGN EXCH	A-		0.1	-	0.1	-	0.1	0.00%				
CHASE MANHATTAN	A-		-	(0.1)	(0.1)	-	(0.1)	0.00%				
SOCIETE GENERALE, PARIS	А		-	(0.1)	(0.1)	-	(0.1)	0.00%				
AUSTRALIA & NZ BANK LTD	AA-		-	-	-	-	-	0.00%				
TORONTO DOMINION BANK	AA-		-	-	-	-	-	0.00%				
CREDIT SUISSE FIRST	A-		-	-	-	0.7	0.7	0.00%				
ROYAL BANK OF SCOTLAND PLC	A-		-	-	-	-	-	0.00%				
NOMURA GLOBAL FINANCIAL, NEW YORK	A-		-	-	-	-	-	0.00%				
SOCIETE GENERALE, NEW YORK	А		-	-	-	-	-	0.00%				
UNION BANK SWITZERLAND SECS, LONDON	A+		-	(2.8)	(2.8)		(2.8)	-0.01%				
Grand Total		\$	160.0	\$ (156.3)	\$ 3.7	\$ 3.6	\$ 7.3	0.01%				



#### Permanent Loss of Capital As of December 31, 2015



		<b>Dollars Invested</b>				
	Investments	in Those				Annualized
<b>Total Dollars</b>	Made	Generating	Realized	Unrealized		Total Losses as
ts Invested	Generating	Losses	Losses (in	Losses	<b>Total Losses</b>	Percentage of
(in Billions)	Losses	(in Billions)	Millions)	(in Millions)	(in Millions)	Invested Capital
\$33.8	31	\$7.0	-\$978	\$0	-\$978	0.53%
13.5	22	1.6	-\$240	-\$219	-\$459	0.53%
15.3	99	1.9	-\$319	-221	-540	0.97%
\$62.6	152	\$10.5	-\$1,537	-\$440	-\$1,977	0.61%
1	ts Invested (in Billions) \$33.8 13.5 15.3	Total Dollars Invested (in Billions)Made Generating Losses\$33.83113.52215.399	InvestedInvestmentsin ThoseInvestedGeneratingLosses(in Billions)Losses(in Billions)\$33.831\$7.013.5221.615.3991.9	Investmentsin ThoseTotal DollarsInvestmentsGeneratingInvestedGeneratingLosses(in Billions)Losses(in Billions)\$33.831\$7.013.5221.615.3991.9	InvestmentsInvestmentsin ThoseRealizedUnrealizedInvestedGeneratingLossesLosses(in Billions)Unrealized(in Billions)Losses(in Billions)Millions)(in Millions)(in Millions)\$33.831\$7.0-\$978\$013.5221.6-\$240-\$21915.3991.9-\$319-221	InvestmentsInvestmentsin Those GeneratingRealizedUnrealizedInvestedGeneratingLosses(in Billions)Total Losses(in Billions)Losses(in Billions)Millions)(in Millions)\$33.831\$7.0-\$978\$013.5221.6-\$240-\$21915.3991.9-\$319-221

## **Endowment Returns and Ratios**

Periods Ending May 31, 2016



i	Weighted Endowment Returns																_		1996			
					Weight	ed Endov	vment Re	turns			1	1 year		3	8 year		!	5 year	10 year			
		Asset																				
Endowments		alue illions)	1.000 r	<u>VS.</u> Donch	2 1/02 5	vs. Donch	Event	<u>VS.</u> Bonch	10	<u>VS.</u> Donch	<u>Standard</u> Deviation		Info Patio	Standard		Info Datio	Standard Deviation			Standard Deviation		
endowments	<u>(in m</u>	<u>intons)</u>	<u>1 year</u>	<u>Bench</u>	<u>3 year</u>	<u>vs. Bench</u>	<u>5 year</u>	<u>Bench</u>	<u>10 year</u>	<u>Bench</u>	Deviation	<u>Ratio</u>	<u>Ratio</u>	<u>Deviation</u>	<u>Ratio</u>	<u>Ratio</u>	Deviation	<u>Ratio</u>	<u>Ratio</u>	Deviation	<u>Ratio</u>	<u>Ratio</u>
More Correlated and Constrained																						
Fixed Income																						
Investment Grade	\$	1,860	0.18%	-5.14%	-0.22%	-1.63%	0.89%	-0.31%	3.21%	-0.81%	3.98%	0.01	(4.03)	3.28%	(0.09)	(0.95)	3.64%	0.22	(0.18)	4.78%	0.45	(0.35
Credit Related		28	3.73%	2.07%	4.03%	1.00%	7.75%	2.38%	N/A	N/A	8.63%	0.41	0.60	8.39%	0.47	0.23	9.05%	0.85	0.53	N/A	N/A	N/A
Real Assets																						
Real Estate		582	-6.97%	-10.36%	1.75%	-4.07%	3.38%	-3.14%	3.02%	-0.18%	16.49%	(0.43)	(2.92)	12.06%	0.14	(1.16)	15.86%	0.21	(0.94)	22.26%	0.09	(0.06
Natural Resources		1,027	-20.22%	-5.55%	-13.19%	-3.43%	-11.54%	-2.21%	-5.04%	-0.84%	28.42%	(0.72)	(0.54)	20.77%	(0.64)	(0.49)	19.96%	(0.58)	(0.39)	22.38%	(0.27)	(0.16
Equity																						
Developed Markets		3,240	-8.96%	-4.99%	7.77%	1.30%	9.27%	2.74%	5.61%	1.30%	14.54%	(0.63)	(1.38)	11.15%	0.69	0.35	12.15%	0.76	0.75	15.39%	0.30	0.35
Emerging Markets		2,348	-12.83%	4.80%	0.62%	5.57%	0.00%	4.83%	4.13%	1.02%	17.93%	(0.72)	0.79	14.78%	0.04	1.06	16.34%	(0.01)	1.00	21.66%	0.14	0.22
MCC subtotal		9,085	<u>-9.74%</u>	-3.62%	1.31%	0.74%	1.98%	1.46%	N/A	N/A	12.91%	(0.77)	(1.22)	9.84%	0.13	0.28	10.85%	0.18	0.52	N/A	N/A	N/A
Less Correlated and Constrained																						
Fixed Income																						
Investment Grade		573	-10.33%	-4.08%	-1.41%	-3.01%	1.82%	0.34%	N/A	N/A	9.18%	(1.14)	(0.53)	7.37%	(0.20)	(0.50)	6.81%	0.26	0.05	N/A	N/A	N/A
Credit Related		1,072	-1.95%	4.29%	3.29%	1.69%	5.76%	4.28%	N/A	N/A	5.53%	(0.38)	1.22	4.37%	0.74	0.52	4.63%	1.23	1.43	N/A	N/A	N/A
Real Assets																						
Real Estate		-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Natural Resources		-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Equity																						
Developed Markets		4,995	-5.02%	1.23%	4.41%	2.80%	5.64%	4.16%	N/A	N/A	6.72%	(0.77)	0.44	5.97%	0.72	1.02	5.92%	0.94	1.54	N/A	N/A	N/A
Emerging Markets		499	7.33%	13.57%	2.38%	0.78%	1.42%	<u>-0.05%</u>	N/A	N/A	7.49%	0.96	2.86	6.75%	0.34	0.14	5.99%	0.22	(0.01)	N/A	N/A	N/A
LCC subtotal		7,139	<u>-4.26%</u>	<u>1.99%</u>	<u>3.79%</u>	<u>2.18%</u>	<u>5.00%</u>	<u>3.52%</u>	<u>5.76%</u>	5.56%	6.12%	(0.72)	0.95	5.21%	0.71	1.11	5.00%	0.98	1.88	6.22%	0.76	2.38
Private Investments																						
Fixed Income																						
Investment Grade		-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Credit Related		953	5.75%	-3.03%	9.25%	-4.17%	9.99%	-3.00%	N/A	N/A	2.18%	2.57	(0.38)	2.28%	4.02	(0.79)	3.59%	2.76	(0.51)	N/A	N/A	N/A
Real Assets																						
Real Estate		1.638	15.75%	6.97%	18.57%	5.15%	11.45%	-1.53%	N/A	N/A	5.73%	2.72	1.01	6.43%	2.87	0.77	6.40%	1.78	(0.22)	N/A	N/A	N/A
Natural Resources		2.272	-2.02%	-10.80%	6.02%	-7.40%	12.49%	-0.49%	, N/A	, N/A	5.68%	(0.38)	(1.07)	6.76%	0.88	(0.92)	9.95%	1.25	(0.05)	, N/A	, N/A	, N/A
Equity		,							,	,		(/	( - )			()			(/	,	,	,
Developed Markets		2,922	9.15%	0.37%	16.78%	3.36%	14.40%	1.42%	N/A	N/A	12.25%	0.74	0.04	8.32%	2.01	0.46	6.82%	2.10	0.22	N/A	N/A	N/A
Emerging Markets		1.071	7.43%	-1.35%	4.05%	-9.37%	2.09%		N/A	N/A	6.45%		(0.13)	5.48%	0.72	(1.27)	5.09%	0.40	(1.61)	N/A	N/A	N/A
Private Investment subtotal		8,856	7.21%	-1.57%	12.34%	-1.08%	11.46%		11.03%	0.19%	5.74%		(0.23)	4.52%	2.71	(0.22)	4.10%		(0.31)	6.29%	1.58	0.03
Total Before Insurance, Tactical,		-,											( <b>/</b>			(- <i>'</i>						
Hedging Derivatives and Gold		25,080	-2.97%	-1.32%	5.30%	0.75%	5.56%	1.43%	5.65%	1.90%	5.72%	(0.54)	(0.50)	5.28%	0.99	0.34	5.74%	0.95	0.64	8.21%	0.56	0.82
Insurance, Tactical and Hedging																						
Derivatives Impact on Total Return		-	0.00%	0.00%	-0.07%	-0.07%	-0.45%	-0.45%	-0.23%	-0 23%												
·		<b>F</b> 4 4																				
Gold Impact on Total Return	<u> </u>	544	0.09%	0.09%	-0.30%	-0.30%	-0.31%	-0.31%	-0.13%													_
Grand Total	\$	25,624	<u>-2.88%</u>	<u>-1.24%</u>	<u>4.93%</u>	<u>0.38%</u>	<u>4.80%</u>	<u>0.67%</u>	<u>5.29%</u>	<u>1.55%</u>	5.62%	(0.54)	(0.49)	5.23%	0.93	0.18	5.58%	0.85	0.29	8.15%	0.52	0.64



## ITF

## ITF Returns and Ratios

Periods Ending May 31, 2016

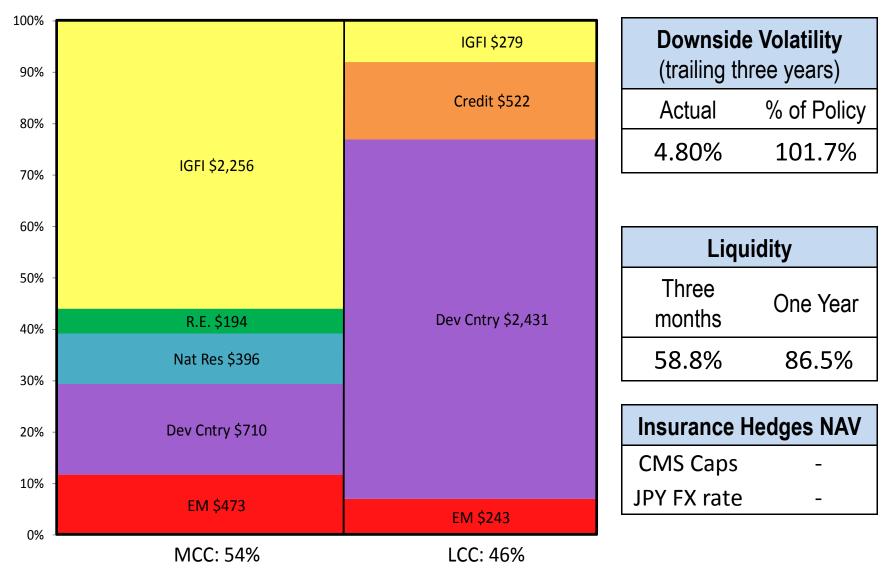


		ITF Returns							1 year 3 year					5	year		1	0 year				
	Ne	t Asset																				
	١	/alue		<u>vs.</u>		VS.		VS.		<u>VS.</u>	<u>Standard</u>	<u>Sharpe</u>	Info									
ITF	<u>(in r</u>	<u>nillions)</u>	<u>1 year</u>	<u>Bench</u>	<u>3 year</u>	<u>Bench</u>	<u>5 year</u>	<u>Bench</u>	<u>10 year</u>	<u>Bench</u>	<u>Deviation</u>	<u>Ratio</u>	<u>Ratio</u>									
More Correlated and Constrained																						
Fixed Income																						
Investment Grade	\$	2,256	1.88%	-3.44%	0.78%	-0.63%	2.05%	0.85%	4.38%	0.37%	5.10%	0.34	(2.12)	4.02%	0.18	(0.37)	4.06%	0.49	0.54	5.43%	0.79	0.19
Credit Related		-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Real Assets																						
Real Estate		194	-6.91%	-10.30%	1.78%	-4.04%	3.40%	-3.13%	2.81%	-0.38%	16.49%	(0.43)	(2.89)	12.06%	0.14	(1.15)	15.95%	0.21	(0.92)	22.15%	0.12	(0.12)
Natural Resources		259	-20.25%	-5.58%	-13.16%	-3.40%	-11.52%	-2.18%	-4.40%	-0.20%	28.40%	(0.72)	(0.54)	20.73%	(0.64)	(0.49)	19.86%	(0.58)	(0.39)	21.98%	(0.20)	(0.04)
Equity																						
Developed Markets		710	-8.86%	-4.90%	7.83%	1.37%	9.31%	2.78%	6.55%	2.32%	14.54%	(0.62)	(1.35)	11.17%	0.69	0.36	12.12%	0.76	0.76	15.10%	0.43	0.68
Emerging Markets		473	-13.58%	4.05%	0.53%	5.48%	-0.07%	4.76%	3.81%	0.70%			0.63	14.61%	0.03	0.97	16.30%	(0.01)	0.94	21.83%	0.17	0.16
MCC subtotal		3,892	-3.86%	-3.27%	1.00%	0.06%	1.70%	0.81%	N/A	N/A	8.43%	(0.48)	(2.02)	6.54%	0.14	0.04	7.27%	0.22	0.51	0.00%	-	N/A
Less Correlated and Constrained																						
Fixed Income																						
Investment Grade		279	-10.33%	-4.08%	7.86%	-3.01%	3.80%	0.34%	N/A	N/A	9.18%	(1.14)	(0.53)	7.37%	(0.20)	(0.50)	6.81%	0.26	0.05	N/A	N/A	N/A
Credit Related		522	-1.95%	4.29%		1.69%	4.97%	4.28%	N/A	N/A		(0.38)	1.22	4.37%	0.74	0.52	4.63%	1.23	1.43	N/A	N/A	N/A
Real Assets																						
Real Estate		-	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Natural Resources		-	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	, N/A	
Equity																						
Developed Markets		2,431	-5.06%	1.19%	4.36%	2.76%	5.60%	4.13%	N/A	N/A	6.71%	(0.78)	0.42	5.98%	0.72	0.99	5.93%	0.93	1.52	N/A	N/A	N/A
Emerging Markets		243	7.33%	13.57%	7.86%	6.26%	3.80%	2.33%	N/A	N/A	7.49%	0.96	2.86	6.75%	1.15	1.12	5.99%	0.62	0.46	N/A	N/A	N/A
LCC subtotal		3,475	-4.29%	1.95%		2.15%	4.97%	3.50%	5.82%	5.61%	6.12%	(0.73)	0.94	5.21%	0.70	1.09	5.00%	0.98	1.86	6.27%	0.92	2.39
Total Before Insurance, Tactical,																						
Hedging Derivatives and Gold		7,367	<u>-4.02%</u>	<u>-0.91%</u>	<u>2.22%</u>	<u>0.90%</u>	<u>3.04%</u>	<u>1.84%</u>	<u>4.38%</u>	<u>2.12%</u>	6.34%	(0.66)	(0.60)	5.18%	0.41	0.65	5.77%	0.51	1.29	8.30%	0.52	1.41
Insurance, Tactical and Hedging																						
Derivatives Impact on Total Return		-	0.00%	0.00%	-0.03%	-0.03%	-0.25%	-0.25%	-0.13%	-0.13%												
Gold Impact on Total Return		137	<u>0.10%</u>	<u>0.10%</u>	<u>-0.22%</u>	<u>-0.22%</u>	<u>-0.31%</u>	-0.31%	<u>-0.10%</u>	-0.10%												
Grand Total	Ś	7,504	-3.92%	-0.81%	<u>1.96%</u>	<u>0.64%</u>	2.48%	1.28%	<u>4.15%</u>	1.89%	6.22%	(0.65)	(0.64)	5.12%	0.37	0.52	5.68%	0.42	0.89	8.28%	0.49	1.23

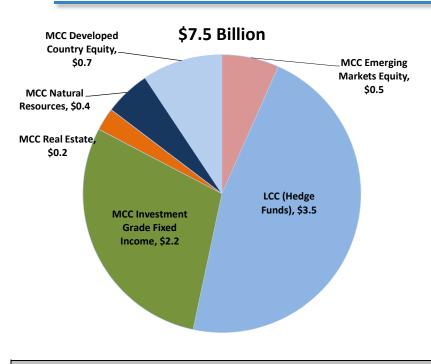
ITF



ITF NAV: \$7,504M

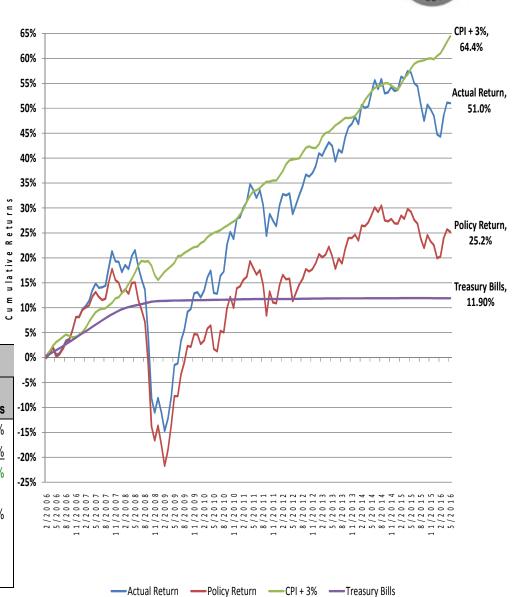


ITF



	Investment Returns												
	FYTD	1 Year	3 Years	5 Years	7 Years	10 Years							
Actual Return	0.2%	-3.9%	2.0%	2.5%	6.3%	4.2%							
Benchmark Return	<u>1.1%</u>	<u>-3.1%</u>	<u>1.4%</u>	<u>1.2%</u>	<u>4.5%</u>	<u>2.3%</u>							
Value Add	-0.9%	-0.8%	0.6%	1.3%	1.8%	1.9%							
Actual Standard Deviation		6.2%	5.1%	5.7%	6.2%	8.3%							
Sharpe Ratio		-0.7	0.4	0.4	1.0	0.5							
Information Ratio		-0.6	0.5	0.9	1.3	1.2							

Statistics for periods longer than a year are annualized





# **Contract Update**



### April 16, 2016 through June 30, 2016 New Contracts, Leases, and Other Commercial Arrangements

(Total Obligation per Agreement greater than \$50,000)

Agreement	Purpose	Contract Term	Annual Amount
Real Capital Analytics	Limited license to RCA products for real estate transactional data	6/1/2016 - 5/31/2017	\$70,000

# Agenda Item UTIMCO Board of Directors Meeting July 21, 2016

Agenda Item:	Operations, Accounting and Reporting Overview	
Developed By:	Zimmerman, Moeller, Hill	
Presented By:	Zimmerman, Moeller, Hill	
Type of Item:	Information Item	
Description:	Bruce Zimmerman, Joan Moeller and Gary Hill will present an overview of the Operations, Accounting and Reporting teams' critical activities related to the Investment Funds and individual endowments, including the support provided to the UT and A&M Systems, internal investment staff, and other key interfaces.	
Reference:	Operations, Accounting and Reporting Overview presentation	



# UTIMCO Board Operations, Accounting and Reporting Overview July 21, 2016



- UTIMCO's Operations, Accounting and Reporting teams (OAR) have executed their responsibilities with extraordinary efficiency, securely, and stellar quality and service
- OAR has astutely utilized technology to leverage its activities
- OAR's breadth of activities, depth of experience and best-in-class expertise, provides UTIMCO with not only a strong foundation for its investment activities, but also a competitive advantage as investment activities increase in scope, complexity and number



- OAR is central to everything UTIMCO does and everyone UTIMCO interacts with
  - UT and Texas A&M Systems
  - Investment Staff
  - BNY Mellon
  - Compliance
  - Many, many other constituents, for example:
    - Auditors (Deloitte and UT System)
    - IFS (Risk)
    - Data Providers
    - Cambridge

# **BNY Mellon**



- BNY Mellon: Global Custodian and the official books and records; an extension of the OAR staff
  - Maintains General Ledgers
  - Trade processing
  - Reconciliation of investment manager accounts
  - Cash processing
  - Daily valuation
  - Compliance monitoring
  - Support for opening accounts in new markets
  - Assistance with regulatory filings globally
  - Investment performance and analytics
  - Securities lending
  - Tax reclaims
  - Corporate actions

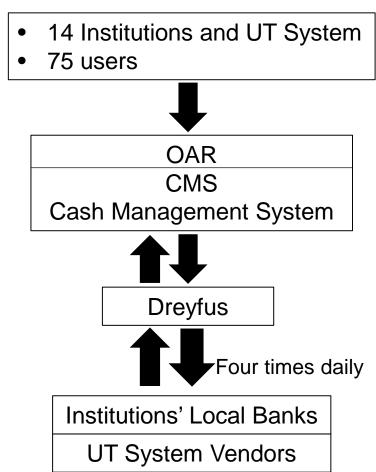
# Key Responsibilities



- OAR provides support and control for a myriad of activities critical to the UT and A&M Systems, including:
  - I. Contributions and Disbursements
    - Short Term Fund
    - Intermediate Term Fund, Long Term Fund, Permanent Health Fund, and Permanent University Fund
  - II. External Investment Management Partners
    - Fundings and Redemptions
    - Distributions and Fees
  - III. Internal Trading
  - IV. Securities
  - V. Accounting for Investment Funds
  - VI. Accounting and Reporting for Individual Endowments
  - VII. General Reporting
  - VIII.Operational Due Diligence
  - IX. Separately Invested Funds

I. Contributions and Disbursements: Short Term Fund

- Cash Management System (CMS)
  - Internet application built by UTIMCO in 2005
  - Move cash to/from banks and Short Term Fund (\$2B) and between institutions
  - Averaged 30 transactions/\$75M moved per day in June 2016
  - Monthly transfers to/from Intermediate Term Fund
  - Component Reports System:
     Balance and activity reporting
  - UT System staff training
  - Daily monitoring/error correction
  - Secure





## I. Contributions and Disbursements:

Intermediate Term Fund, Long Term Fund, Permanent Health Fund, and Permanent University Fund



- Intermediate Term Fund
  - Monthly Contributions and Redemptions
     (9 transactions/\$115M per month FYTD through June 2016)
  - Monthly Distributions
- Long Term Fund
  - New Endowments (400 accounts/\$212M per year)
  - Sale of Gifted Securities
  - Quarterly "Buy-in" (\$53M per quarter)
  - Quarterly Distributions
- Permanent Health Fund
  - Quarterly Distributions
- Permanent University Fund
  - Daily Contributions from University Lands Mineral Revenues
  - Distributions

# II. External Investment Management Partners



- 252 external investment management partners and 478 individual funds/co-investments
  - Sets up "accounts"
  - Fundings/Commitments
  - Receipts/Distributions
- Management/performance fee calculation, payment and review
- Created "Pooled" Accounts to facilitate cross-fund rebalancing

# III. Internal Trading



- While limited, UTIMCO engages in some direct trading
  - Internal Investment Grade Fixed Income portfolio
  - Sales of gifts-in-kind
  - Portfolio hedging and positioning using derivative instruments
- Processes, settles and reconciles all direct trades with counterparties
- Provides portfolio information to Internal Investment Grade Fixed Income team
- Provides daily, weekly and monthly reporting of derivative valuations, calculation of margin requirements and processing of collateral movements



- Maintains Master File of over 56,000 securities
  - Securities held in custody (51,700)
  - Funds (4,300), including limited partnerships & commingled funds
- Adds an average of 200 securities per month
- Assigns asset types and other identifying information to assist in reporting at various levels of granularity
- Monitors all changes made by the Custodian

# V. Accounting for Investment Funds



- Is in continuous communication with BNY Mellon, acting as a full partner in all processes related to Investment Fund Accounting
  - Up-front decision making
  - Reviews, verifications and error correction
- Maintains a Data Warehouse which stores all transactions and investment holding records on a daily and monthly basis dating back to September 1995
- Maintains Portfolio Management System for Private Investments
  - Capital calls and Distributions
  - Valuations
  - Reconciliation with BNY Mellon records
- Maintains ledgers and allocates separately managed accounts held in pooled accounts
- Calculates Policy Portfolio Benchmark Returns and value-add
- Provides support for UT System Controller's Office for accounting entries and support for UT and A&M System bond offering documents and rating agency requests

## VI. Accounting and Reporting for Individual Endowments



- Over 12,000 individual endowments.....and growing.
- Provides the accounting for each underlying endowment:
  - Fund Accounting System (iFAS, migrated from a mainframe system in 2009-2010)
    - Processes all receipts/contributions and distributions
    - Subsidiary ledger for each individual endowment account
    - Passes information to/from UT System and Institutions
    - Also tracks Gifts-in-Kind, Mineral Interest receipts, and rental income
    - Over 100 transaction/event codes
    - Daily monitoring/error corrections
- Provides the reporting for each underlying endowment:
  - Component Reporting Information System (CRIS):
    - Various summary level reporting (e.g. institution, college and department, etc.)
    - Reports contributions, income, sales, distributions, beginning and ending balances and investment returns
    - Over 50 reporting formats
    - UT System and institutions have online access

## VI. Accounting and Reporting for Individual Endowments



- Endowment Reporting
  - Individual PDF reports for the over 12,000 private endowment accounts
  - Prepared quarterly
  - Available for fiscal years since 1997
  - Used for annual donor reporting by UT System institutions
  - UT System and institutions have online access

# VII. General Reporting

## OAR produces a comprehensive array of reports for use by numerous constituents

#### Daily

- NAV and Performance
- Cash Availability and Projections

- Monthly
- Performance and Attribution
   Unaudited Financial for Investment Staff
- Derivative Activity and **Balances**
- Assets Under Management
- Asset Allocation
- Market Exposures
- UT System Share of ITF Earnings

### Quarterly

- Statements for each Fund
- Fund Updates for UTIMCO Board
- Fund Updates for UT Board of Regents
- Derivative Reports
- Fund Highlights
- Endowment Reports

### **Statutory Reporting**

- Quarterly Investment **Summaries**
- Semi-Annual Report for the PUF
- Annual Fund Summary of Investments (Monthly for the PUF)
- Annual Legislative Budget **Board Report**
- PHF Annual Report

### **Ad-Hoc Reporting**

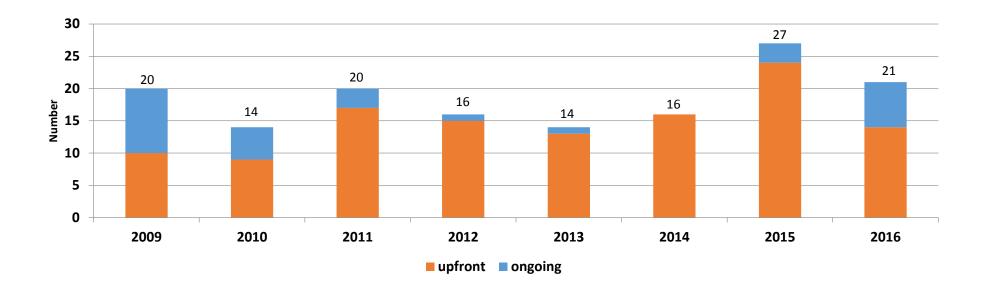
### Annually

 Audited Financial Statements for each Fund

# VIII. Operational Due Diligence



- OAR conducts operational due diligence on prospective and potential external investment management partners
- Operational due diligence has improved UTIMCO's investment efforts



# IX. Separately Invested Funds

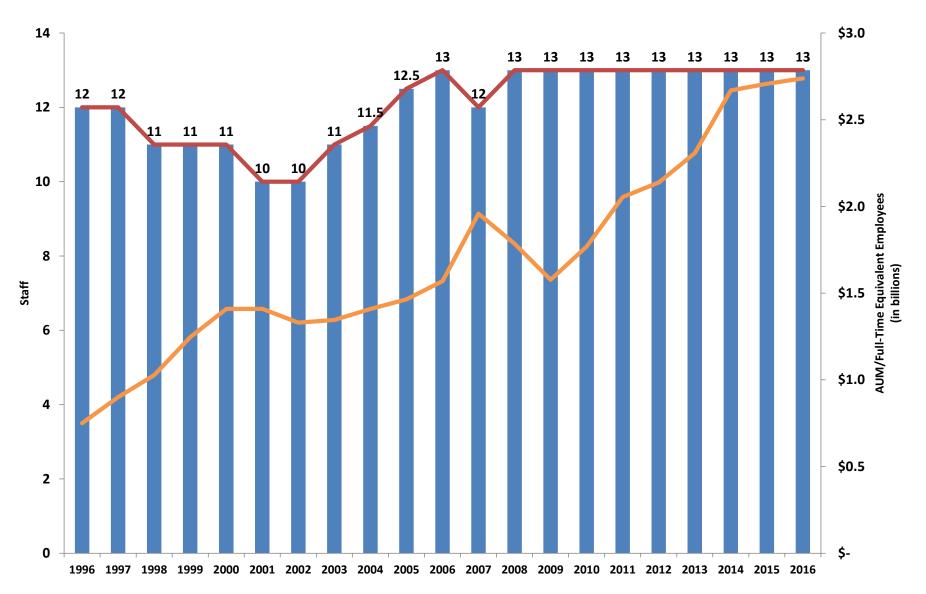


The Separately Invested Funds (SIFs) consist of

- Approximately 62 (\$62.2 M) accounts where the nature of the underlying asset or donor restrictions preclude investment in the LTF
- 43 (\$22.5M) charitable remainder trusts (CRTs)
- Various current purpose accounts
- Complicated, time-consuming: estimated to require 1.0 full-time equivalent personnel
- OAR keeps the official books and records
- OAR processes all transactions including:
  - Creation
  - Funding
  - Investments
  - Distributions
- Preparation of CRT tax returns and donor reports
- Mineral and Real Estate recordkeeping for endowments and current purpose accounts
- Assist institutions in managing tech stock holdings
  - Stock certificate safekeeping
  - Disposition

## **OAR Efficiency**





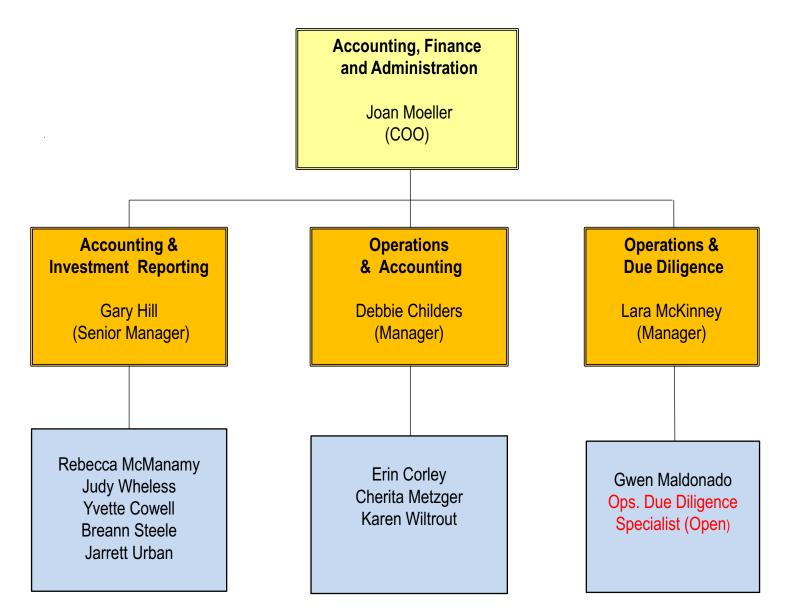
# **Technology Support**



- OAR could not function efficiently without the use of a multitude of software applications developed over two decades, and a reliable and secure network, server and storage infrastructure
  - As previously highlighted, some critical applications include:
    - Cash Management System (CMS)
    - Component Reporting Information System (CRIS)
    - Endowment Reports
    - Fund Accounting System (iFAS)
    - Component Account Maintenance System (CAMS)
    - Daily downloads of BNY Mellon transactions and holdings
    - Daily downloads of iFAS transactions and holdings
  - All data is stored in a Data Warehouse to ensure "One Source" for integrity of all data

## UTIMCO ORGANIZATIONAL STRUCTURE Operations, Accounting and Reporting







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# Agenda Item UTIMCO Board of Directors Meeting July 21, 2016

Agenda Item:	UTIMCO Organization Update
Developed By:	Staff
Presented By:	Zimmerman, Staff
Type of Item:	Information Item
Description:	Bruce Zimmerman and Staff will provide an update on UTIMCO's staffing and information technology update.
Reference:	UTIMCO Organization Update presentation



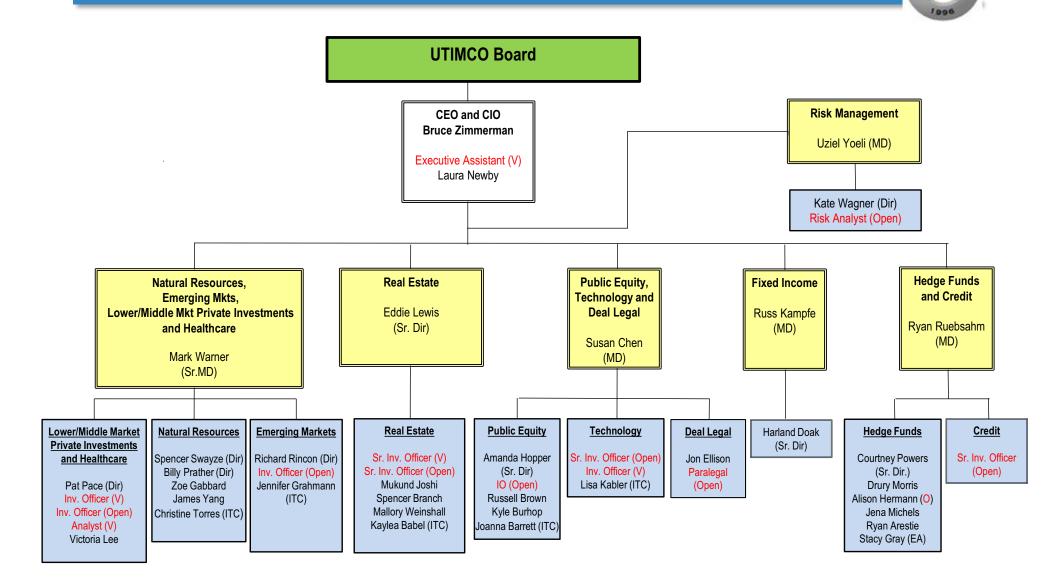
# The University of Texas Investment Management Company

## UTIMCO ORGANIZATION UPDATE July 21, 2016

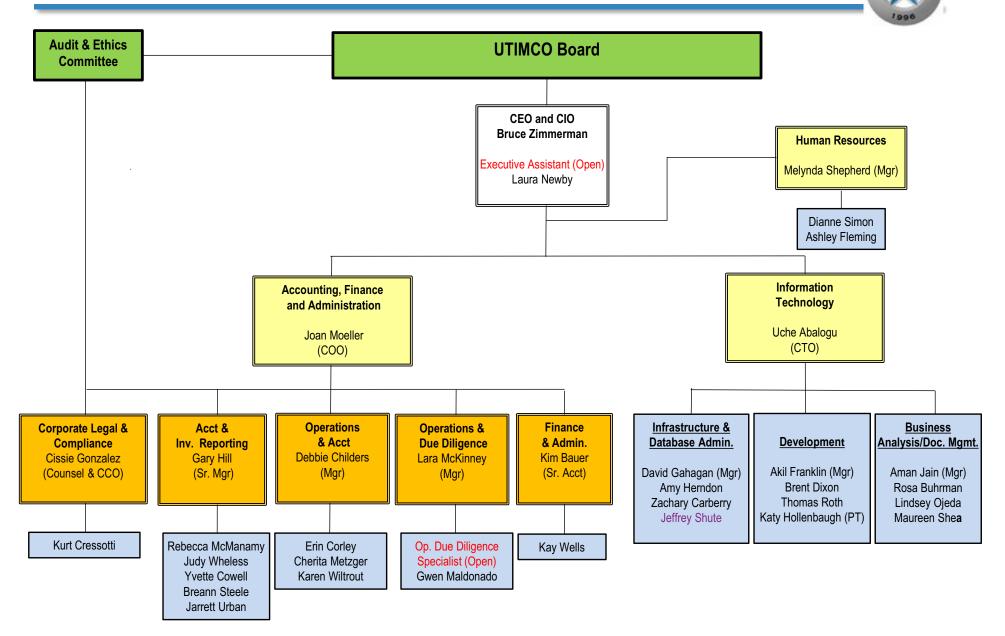


- Staffing
- Information Technology Update

## UTIMCO ORGANIZATIONAL STRUCTURE Investments



## UTIMCO ORGANIZATIONAL STRUCTURE Support & Control



# INFORMATION TECHNOLOGY UPDATE

- Historically, technology support focused on operations, accounting and reporting
- Investment Support System (ISS) project started 3 years ago
- Vision: aggregation of our investment data and processes
  - Documents
  - Data
  - Relationships
- GlobeArc started in May 2013
  - Document Management System
  - Data Management
    - "Top down" portfolio reporting (Uzi grid)
    - "Bottom up" Excel data access tool (IDM)
    - Database schema and Data synchronization tools
  - Relationship management migration (Salesforce): Not started
- Project paused in October 2015
  - Revalidation exercise raised priority of mobile and offline data access
  - Dynamo, identified to meet investment team needs
- Total cost to date: \$3.9M (includes vendor cost of \$2.4M and \$1.5M prorated staff)
- 13.9% (\$543k total, \$337k vendor cost) Write-off of obsolete development projected for 2017 fiscal year end





## Work In Progress FY 2016/2017

- Investment Support System initiative
- Office 365 & productivity enhancement tools
- Email system migration to the cloud
- Technology design and engineering for new building

## **Recent Accomplishments**

 UTIMCO scored 99% in UT System's system-wide security assessment scorecard

#### Agenda Item UTIMCO Board of Directors Meeting July 21, 2016

- Agenda Item: Report from Audit and Ethics Committee, including Discussion and Appropriate Action Related to Corporate Auditor
- **Developed By:** Zimmerman, Gonzalez, Moeller
- Presented By: Beck

**Type of Item:** Action item related to Engaging Corporate Auditor; information item on other items

- **Description:** The Audit and Ethics Committee ("Committee") met on July 12, 2016. The Committee's agenda included the following: (1) discussion and appropriate action related to engaging corporate external auditor; (3) report from UT System Audit Office (4) update on compliance, reporting, and audit issues; (5) presentation of unaudited financial statements for the nine months ended May 31, 2016 for the Funds and the Corporation; and (6) discussion and appropriate action related to base salary, performance incentive plan participation, and performance goals for the Corporate Counsel and Chief Compliance Officer for the 2016-17 fiscal year.
- **Discussion:** The Committee will report on its action related to the hiring of Deloitte and Touche LLP as the corporate auditor and request that the Board take appropriate action related to hiring Deloitte and Touch LLP as the corporate auditor. If approved by the Board, FY 2016 will be the tenth year that Deloitte serves as the Corporation's independent auditor. Estimated fees for the FY 2016 audit services are \$40,500 plus out-of-pocket expenses. This is a \$1,500 increase over the FY 2015 fee. The FY 2014 fee was also \$39,000.

UT System Audit Office reviewed with the Committee the Separately Managed Accounts (SMAs) Audit Report FY 2015.

The Committee will report on its action related to the Corporate Counsel and Chief Compliance Officer's base salary, performance incentive plan participation, and performance goals for the 2016-2017 fiscal year and performance period.

Routine activities of the Committee included reviewing the unaudited financial statements for the nine month period for the Funds and the UTIMCO Corporation, and the quarterly compliance reports.

- **Recommendation:** Committee will request appropriate action related to the hiring of Deloitte & Touche LLP as the corporate auditor.
- **Reference:** Draft Deloitte & Touche LLP Engagement Letter

### RESOLUTION RELATED TO INDEPENDENT AUDITOR FOR THE CORPORATION

RESOLVED, that the firm of Deloitte & Touche LLP be, and is hereby, engaged as the independent auditor of the Corporation for the year ended August 31, 2016.

# Deloitte.

July 5, 2016

Deloitte & Touche LLP 400 West 15th Street Suite 1600 Austin, TX 78701-1648 USA

Tel: +1 512 691 2330 Fax: +1 512 708 1035 www.deloitte.com

Ms. Joan Moeller Senior Managing Director—Accounting, Finance and Administration The University of Texas Investment Management Company 401 Congress Street, Suite 2800 Austin, TX 78701

Dear Ms. Moeller:

Deloitte & Touche LLP ("D&T" or "we" or "us") is pleased to serve as independent auditors for The University of Texas Investment Management Company ("UTIMCO"), the "Company" or "you" or "you"). Mr. Robert Cowley will be responsible for the services that we perform for the Company hereunder.

In addition to the audit services we are engaged to provide under this engagement letter, we would also be pleased to assist the Company on issues as they arise throughout the year. Hence, we hope that you will call Mr. Cowley whenever you believe D&T can be of assistance.

The services to be performed by D&T pursuant to this engagement are subject to the terms and conditions set forth herein and in the accompanying appendices. Such terms and conditions shall be effective as of the date of the commencement of such services.

#### Audit of Financial Statements

Our engagement is to perform an audit in accordance with auditing standards generally accepted in the United States of America ("generally accepted auditing standards"). The objective of an audit conducted in accordance with generally accepted auditing standards is to express an opinion on whether the Company's financial statements for the year ending August 31, 2016, are presented fairly, in all material respects, in accordance with accounting principles generally accepted in the United States of America ("generally accepted accounting principles").

Appendix A contains a description of the auditor's responsibilities and the scope of an audit in accordance with generally accepted auditing standards.

#### **D&T Reports**

We expect to issue a written report upon the completion of our audit. Our ability to express an opinion or to issue any report as a result of this engagement and the wording thereof will, of course, be dependent on the facts and circumstances at the date of our report. If, for any reason, we are unable to complete our audit or are unable to form or have not formed an opinion, we may decline to express an opinion or decline to issue any report as a result of this engagement. If we are unable to complete our audit, or if any report to be issued by D&T as a result of this engagement requires modification, the reasons for this will be discussed with the Audit and Ethics Committee of the UTIMCO Board of Directors ("Audit and Ethics Committee") and the Company's management.

The University of Texas Investment Management Company July 5, 2016 Page 2

#### Management's Responsibilities

Appendix B describes management's responsibilities.

#### **Communications with the Audit and Ethics Committee**

Appendix C describes various matters that we are required by generally accepted auditing standards to communicate with the Audit and Ethics Committee and management.

#### Fees

We estimate that our fees for this engagement will be \$40,500, plus expenses. Based on the anticipated timing of the work, our fees will be billed approximately as follows:

Invoice Date	Amount
September 22, 2016	\$20,000
November 14, 2016	20,500

We anticipate sending invoices according to the above schedule, and payments are due 30 days from the date of the invoice. Engagement-related expenses, such as travel, lodging, transportation, meals, telephone, typing, etc. will be billed in addition to the fees and will be stated separately on the invoices.

Our continued service on this engagement is dependent upon payment of our invoices in accordance with these terms. Our estimated fees are based on certain assumptions, including (1) timely and accurate completion of the requested entity participation schedules and additional supporting information, (2) no inefficiencies during the audit process or changes in scope caused by events that are beyond our control, (3) the effectiveness of internal control over financial reporting throughout the period under audit, (4) a minimal level of audit adjustments (recorded or unrecorded), and (5) no changes to the timing or extent of our work plans. We will notify you promptly of any circumstances we encounter that could significantly affect our estimate and discuss with you any additional fees, as necessary.

### Inclusion of D&T Reports or References to D&T in Other Documents or Electronic Sites

If the Company intends to publish or otherwise reproduce in any document any report issued as a result of this engagement, or otherwise make reference to D&T in a document that contains other information in addition to the audited financial statements (e.g., in a periodic filing with a regulator, in a debt or equity offering circular, or in a private placement memorandum), thereby associating D&T with such document, the Company agrees that its management will provide D&T with a draft of the document to read and obtain our approval for the inclusion or incorporation by reference of any of our reports, or the reference to D&T, in such document before the document is printed and distributed. The inclusion or incorporation by reference of any of our reports. The Company also agrees that its management will notify us and obtain our approval prior to including any of our reports on an electronic site.

The University of Texas Investment Management Company July 5, 2016 Page 3

Our engagement to perform the services described herein does not constitute our agreement to be associated with any such documents published or reproduced by or on behalf of the Company. Any request by the Company to reissue any report issued as a result of this engagement, to consent to any such report's inclusion or incorporation by reference in an offering or other document, or to agree to any such report's inclusion on an electronic site will be considered based on the facts and circumstances existing at the time of such request. The estimated fees outlined herein do not include any procedures that would need to be performed in connection with any such request. Should D&T agree to perform such procedures, fees for such procedures would be subject to the mutual agreement of the Company and D&T.

\* \* \* \* \*

The parties acknowledge and agree that D&T is being engaged under this engagement letter to provide only the services described herein. Should the Company or the Audit and Ethics Committee request, and should D&T agree to provide, services (including audit services) beyond those described herein, such services will constitute a separate engagement and will be governed by a separate engagement letter.

This engagement letter, including Appendices A through E attached hereto and made a part hereof, constitutes the entire agreement between the parties with respect to this engagement and supersedes any other prior or contemporaneous agreements or understandings between the parties, whether written or oral, relating to this engagement.

If the above terms are acceptable and the services described are in accordance with your understanding, please sign the copy of this engagement letter in the space provided and return it to us.

Yours truly,

Deloitte & Touche LLP

Accepted and agreed to by University of Texas Investment Management Company:

By: \_\_\_\_\_

Title:

Date: \_\_\_\_\_

cc: The Audit and Ethics Committee of the University of Texas Investment Management Company

### AUDITOR'S RESPONSIBILITIES AND SCOPE OF AN AUDIT IN ACCORDANCE WITH GENERALLY ACCEPTED AUDITING STANDARDS

This Appendix A is part of the engagement letter dated July 5, 2016 between Deloitte & Touche LLP and The University of Texas Investment Management Company.

### Auditor's Responsibilities

Our responsibilities under generally accepted auditing standards include forming and expressing an opinion about whether the financial statements that have been prepared by management with the oversight of the Audit and Ethics Committee are presented fairly, in all material respects, in accordance with generally accepted accounting principles. The audit of the financial statements does not relieve management or the Audit and Ethics Committee of their responsibilities.

### Scope of an Audit

Generally accepted auditing standards require that we plan and perform the audit to obtain reasonable, rather than absolute, assurance about whether the financial statements as a whole are free from material misstatement, whether caused by fraud or error. However, because of the inherent limitations of an audit, together with the inherent limitations of internal control, an unavoidable risk exists that some material misstatements may not be detected, even though the audit is properly planned and performed in accordance with generally accepted auditing standards. We have no responsibility to plan and perform the audit to obtain reasonable assurance that misstatements, whether caused by fraud or error, that are not material to the financial statements as a whole are detected.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the financial statements, whether caused by fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

### **MANAGEMENT'S RESPONSIBILITIES**

This Appendix B is part of the engagement letter dated July 5, 2016 between Deloitte & Touche LLP and The University of Texas Investment Management Company.

### **Financial Statements**

Management is responsible for the preparation, fair presentation, and overall accuracy of the financial statements in accordance with generally accepted accounting principles. In this regard, management has the responsibility for, among other things:

- Selecting and applying the accounting policies
- Designing, implementing, and maintaining effective internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error
- Identifying and ensuring that the Company complies with the laws and regulations applicable to its activities and informing us of all instances of identified or suspected noncompliance with such laws or regulations
- Providing us with (1) access to all information of which management is aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation, and other matters, (2) additional information that we may request from management for the purpose of our audit, and (3) unrestricted access to personnel within the Company from whom we determine it necessary to obtain audit evidence

#### **Management's Representations**

We will make specific inquiries of the Company's management about the representations embodied in the financial statements. In addition, we will request that management provide us with the written representations the Company is required to provide to its independent auditors under generally accepted auditing standards. The responses to those inquiries and the written representations of management are part of the evidential matter that D&T will rely on in forming its opinion on the Company's financial statements. Because of the importance of management's representations, the Company agrees to release and indemnify D&T, its subcontractors, and their respective personnel from all claims, liabilities, and expenses relating to our services under this engagement letter attributable to any misrepresentation by management.

#### **Independence Matters**

In connection with our engagement, D&T, management, and the Audit and Ethics Committee will assume certain roles and responsibilities in an effort to assist D&T in maintaining independence. D&T will communicate to its partners, principals, and employees that the Company is an attest client. Management of the Company will ensure that the Company, together with its subsidiaries and other entities that comprise the Company for purposes of the consolidated financial statements, has policies and procedures in place for the purpose of ensuring that neither the Company nor any such subsidiary or other entity will act to engage D&T or accept from D&T

any service that under American Institute of Certified Public Accountants (AICPA) or other applicable rules would impair D&T's independence. All potential services are to be discussed with Mr. Cowley.

In connection with the foregoing paragraph, the Company agrees to furnish to D&T and keep D&T updated with respect to a corporate tree that identifies the legal names of the Company's affiliates, as defined in AICPA *Code of Professional Conduct* Interpretation No. 101-18 (e.g., parents, subsidiaries, investors, or investees) ("Company Affiliates"), together with the ownership relationship among such entities. Such information will be maintained in a database accessible by D&T in connection with their compliance with AICPA or other applicable independence rules.

Management will coordinate with D&T to ensure that D&T's independence is not impaired by hiring former or current D&T partners, principals, or professional employees in a key position, as defined in the AICPA *Code of Professional Conduct*. Management of the Company will ensure that the Company, together with its subsidiaries and other entities that comprise the Company for purposes of the consolidated financial statements, also has policies and procedures in place for purposes of ensuring that D&T's independence will not be impaired by hiring a former or current D&T partner, principal, or professional employee in a key position that would cause a violation of the AICPA *Code of Professional Conduct* or other applicable independence rules. Any employment opportunities with the Company for a former or current D&T partner, principal, or professional employee should be discussed with Mr. Cowley before entering into substantive employment conversations with the former or current D&T partner, principal, or professional employee.

For purposes of the preceding section entitled "Independence Matters", "D&T" shall mean Deloitte & Touche LLP and its subsidiaries; Deloitte Touche Tohmatsu Limited, its member firms, the affiliates of Deloitte & Touche LLP, Deloitte Touche Tohmatsu Limited and its member firms; and, in all cases, any successor or assignee.

### COMMUNICATIONS WITH THE AUDIT AND ETHICS COMMITTEE

This Appendix C is part of the engagement letter dated July 5, 2016, between Deloitte & Touche LLP and The University of Texas Investment Management Company.

We are responsible for communicating with the Audit and Ethics Committee significant matters related to the audit that are, in our professional judgment, relevant to the responsibilities of the Audit and Ethics Committee in overseeing the financial reporting process.

In connection with the foregoing, we will communicate to the Audit and Ethics Committee any fraud we identify or suspect that involves (1) management, (2) employees of the Company who have significant roles in internal control, or (3) other employees of the Company when the fraud results in a material misstatement of the financial statements. In addition, we will communicate with the Audit and Ethics Committee any other matters related to fraud that are, in our professional judgment, relevant to their responsibilities. We will communicate to management any fraud perpetrated by lower-level employees of which we become aware that does not result in a material misstatement of the financial statements; however, we will not communicate such matters to the Audit and Ethics Committee unless otherwise directed by the Audit and Ethics Committee.

We will also communicate to the Audit and Ethics Committee matters involving the Company's noncompliance with laws and regulations that have come to our attention during the course of our audit, other than when such matters are clearly inconsequential.

We will also communicate in writing to management and the Audit and Ethics Committee any significant deficiencies or material weaknesses in internal control (as defined in generally accepted auditing standards) that we have identified during the audit, including those that were remediated during the audit.

Generally accepted auditing standards do not require us to design procedures for the purpose of identifying other matters to communicate with the Audit and Ethics Committee. However, we will communicate to the Audit and Ethics Committee matters required by AICPA AU-C 260, *The Auditor's Communication with Those Charged with Governance*.

### **Texas State Auditor's Office**

D&T agrees that the Texas State Auditor's Office or any authorized regulatory representative of the State of Texas (the "State") shall at any time have access to and the rights to examine and audit any pertinent books, documents, working papers, and records of D&T relating to this engagement letter, and to excerpt and transcribe any pertinent books, documents, working papers, and records of D&T. If photocopies of pertinent books, documents, working papers, and records of D&T are requested, D&T will send a letter to the Texas State Auditor's Office or regulatory representative of the State similar (but not identical) in form to that in the American Institute Of Certified Public Accountants AU-C Section 9230, and such letter will be acknowledged by the Texas State Auditor's Office or regulatory representative of the State similar (but not identical) in form to the State prior to the provision of any photocopies by D&T. Any photocopies of pertinent books, documents, working papers, and records of D&T will be identified as "confidential treatment requested by Deloitte & Touche LLP."

D&T understands that the Texas State Auditor's Office may opt to rely on the work of D&T to support the Texas State Auditor's Office's opinion on the Comprehensive Annual Financial Report for the State of Texas, and D&T agrees to cooperate with the Texas State Auditor's Office in a joint effort to comply with American Institute of Certified Public Accountants standard AU-C 600, *Special Considerations – Audits of Group Financial Statements (Including the Work of Component Auditors)*. D&T acknowledges that the Texas State Auditor's Office has informed it that it is serving in the capacity of the group engagement auditor. As a component auditor, information D&T agrees to provide to the Texas State Auditor's Office includes information necessary to facilitate determinations regarding D&T's understanding and compliance with ethical requirements and professional competence.

### APPENDIX D

#### **GENERAL BUSINESS TERMS**

This Appendix D is part of the engagement letter to which these terms are attached (the engagement letter, including its appendices, the "engagement letter") dated July 5, 2016, between Deloitte & Touche LLP and The University of Texas Investment Management Company.

- 1. <u>Independent Contractor</u>. D&T is an independent contractor and D&T is not, and will not be considered to be, an agent, partner, fiduciary, or representative of the Company or the Audit and Ethics Committee.
- 2. <u>Survival</u>. The agreements and undertakings of the Company contained in the engagement letter will survive the completion or termination of this engagement.
- 3. <u>Assignment and Subcontracting.</u> Except as provided below, no party may assign any of its rights or obligations (including, without limitation, interests or claims) relating to this engagement without the prior written consent of the other parties. The Company hereby consents to D&T subcontracting a portion of its services under this engagement to any affiliate or related entity, whether located within or outside of the United States. Professional services performed hereunder by any of D&T's affiliates or related entities shall be invoiced as professional fees, and any related expenses shall be invoiced as expenses, unless otherwise agreed.
- 4. <u>Severability.</u> If any term of the engagement letter is unenforceable, such term shall not affect the other terms, but such unenforceable term shall be deemed modified to the extent necessary to render it enforceable, preserving to the fullest extent permissible the intent of the parties set forth herein.
- 5. **Force Majeure**. No party shall be deemed to be in breach of the engagement letter as a result of any delays or non-performance directly or indirectly resulting from circumstances or causes beyond its reasonable control, including, without limitation, fire, epidemic or other casualty, act of God, strike or labor dispute, war or other violence, or any law, order or requirement of any governmental agency or authority.
- 6 **Confidentiality**. To the extent that, in connection with this engagement, D&T comes into possession of any confidential information of the Company, D&T shall not disclose such information to any third party without the Company's consent, using at least the same degree of care as it employs in maintaining in confidence its own confidential information of a similar nature, but in no event less than a reasonable degree of care. The Company hereby consents to D&T disclosing such information (1) as may be required by law or regulation, or to respond to governmental inquiries, or in accordance with applicable professional standards or rules, or in connection with litigation or arbitration pertaining hereto; (2) to the extent such information (i) is or becomes publicly available other than as the result of a disclosure in breach hereof. (ii) becomes available to D&T on a nonconfidential basis from a source that D&T believes is not prohibited from disclosing such information to D&T, (iii) is already known by D&T without any obligation of confidentiality with respect thereto, or (iv) is developed by D&T independently of any disclosures made to D&T hereunder; or (3) to contractors providing administrative, infrastructure, and other support services to D&T and subcontractors providing services in connection with this engagement, in each case, whether located within or outside of the United States, provided that such contractors and subcontractors have agreed to be bound by confidentiality obligations similar to those in this paragraph.
- 7. **Dispute Resolution.** Any controversy or claim between the parties arising out of or relating to the engagement letter or this engagement (a "Dispute") shall be resolved by mediation or binding arbitration as set forth in the Dispute Resolution Provision attached hereto as Appendix E and made a part hereof.

8. **Governing Law**. This engagement letter, together with the appendices, and all of the rights and obligations of the parties hereto and all of the terms and conditions hereof shall be construed, interpreted and applied in accordance with and governed by and enforced under the laws of the State of Texas.

### **DISPUTE RESOLUTION PROVISION**

This Appendix E is part of the engagement letter dated July 5, 2016, between Deloitte & Touche LLP and The University of Texas Investment Management Company.

This Dispute Resolution Provision sets forth the dispute resolution process and procedures applicable to the resolution of Disputes and shall apply to the fullest extent of the law, whether in contract, statute, tort (such as *negligence*), or otherwise.

<u>Mediation:</u> All Disputes shall be first submitted to nonbinding confidential mediation by written notice to the parties, and shall be treated as compromise and settlement negotiations under the standards set forth in the Federal Rules of Evidence and all applicable state counterparts, together with any applicable statutes protecting the confidentiality of mediations or settlement discussions. If the parties cannot agree on a mediator, the International Institute for Conflict Prevention and Resolution ("CPR"), at the written request of a party, shall designate a mediator.

**Arbitration Procedures:** If a Dispute has not been resolved within 90 days after the effective date of the written notice beginning the mediation process (or such longer period, if the parties so agree in writing), the mediation shall terminate and the Dispute shall be settled by binding arbitration to be held in Austin, Texas. The arbitration shall be solely between the parties and shall be conducted in accordance with the CPR Rules for Non-Administered Arbitration that are in effect at the time of the commencement of the arbitration, except to the extent modified by this Dispute Resolution Provision (the "Rules").

The arbitration shall be conducted before a panel of three arbitrators. Each of the Company and Deloitte & Touche LLP shall designate one arbitrator in accordance with the "screened" appointment procedure provided in the Rules and the two party-designated arbitrators shall jointly select the third in accordance with the Rules. No arbitrator may serve on the panel unless he or she has agreed in writing to enforce the terms of the engagement letter (including its appendices) to which this Dispute Resolution Provision is attached and to abide by the terms of this Dispute Resolution Provision. Except with respect to the interpretation and enforcement of these arbitration procedures (which shall be governed by the Federal Arbitration Act), the arbitrators shall apply the laws of the State of Texas (without giving effect to its choice of law principles) in connection with the Dispute. The arbitrators shall have no power to award punitive, exemplary or other damages not based on a party's actual damages (and the parties expressly waive their right to receive such damages). The arbitrators may render a summary disposition relative to all or some of the issues, provided that the responding party has had an adequate opportunity to respond to any such application for such disposition. Discovery shall be conducted in accordance with the Rules.

All aspects of the arbitration shall be treated as confidential, as provided in the Rules. Before making any disclosure permitted by the Rules, a party shall give written notice to all other parties and afford such parties a reasonable opportunity to protect their interests. Further, judgment on the arbitrators' award may be entered in any court having jurisdiction.

**Costs:** Each party shall bear its own costs in both the mediation and the arbitration; however, the parties shall share the fees and expenses of both the mediators and the arbitrators equally.

### Agenda Item UTIMCO Board of Directors Meeting July 21, 2016

- Agenda Item: Report from Risk Committee
- Developed By: Staff
- Presented By: Bass
- Type of Item: Information item
- **Description:** The Risk Committee ("Committee") met separately and jointly with the Policy Committee on July 12, 2016. The Committee's agenda for its meeting included (1) discussion and appropriate action related to the minutes; (2) discussion and appropriate action related to categorization of new investment mandates; (3) review and discussion of compliance reporting; and (4) review and discussion of performance and risk reporting. The joint meeting agenda included discussion and appropriate action related to proposed amendments to the investment policies.
- **Discussion** The Committee reviewed and took appropriate action related to 14 mandate categorizations prepared by staff for the period beginning April 2, 2016, and ending July 1, 2016. The Committee will report to the UTIMCO Board the results of its review of the Investment Mandate Categorizations.

The Committee reviewed the quarterly compliance reporting.

The Committee also had a joint meeting with the Policy Committee to discuss staff's recommended amendments to the Exhibits of the Investment Policy Statements of the Permanent University Fund, General Endowment Fund, Intermediate Term Fund, Permanent Health Fund, and Long Term Fund. The Committee also discussed Staff's recommended amendments to the Liquidity Policy, Derivative Investment Policy and Delegation of Authority Policy. The discussion of the Investment Policies is covered in the Report from the Policy Committee in Tab 8.

Recommendation:	None
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Reference: None

### UTIMCO Board of Directors Meeting July 21, 2016

- Agenda Item: Report from Policy Committee: (1) FY 2017 Investment Policy Recommendations; (2) Discussion and Appropriate Action Related to the Investment Policy Statements; (3) Discussion and Appropriate Action Related to the Liquidity Policy; and (4) Discussion and Appropriate Action Related to the Derivative Investment Policy; and (5) Discussion and Appropriate Action Related to the Delegation of Authority Policy
- Developed By: Staff
- Presented By: Hicks, Zimmerman

Type of Item: Action item; Action required by UTIMCO Board and by the UT System Board of Regents

**Description:** The Policy Committee ("Committee") met jointly with the Risk Committee on July 21, 2016. The Committee's agenda for the joint meeting included discussion and appropriate action related to proposed amendments to the Investment Policy Statements, Liquidity Policy, Derivative Investment Policy and the Delegation of Authority Policy.

The Investment Management Services Agreement (IMSA) requires that UTIMCO review the current Investment Polices for each Fund at least annually. The review includes distribution (spending) guidelines, long-term investment return expectations and expected risk levels, Asset Class and Investment Type allocation targets and ranges for each eligible Asset Class and Investment Type, expected returns for each Asset Class, Investment Type, and Fund, designated performance benchmarks for each Asset Class and/or Investment Type and such other matters as the UT System Board of Regents or its staff designees may request. The Investment Policies and Exhibits listed below are enclosed for the approval of the UTIMCO Board with further approval of the UT System Board of Regents required.

**Discussion:** Mr. Zimmerman will present the FY2017 Investment Policy Recommendations.

### Investment Policies

Exhibit A of the Investment Policy Statements of the Permanent University Fund (PUF), General Endowment Fund (GEF) and Intermediate Term Fund (ITF) and Exhibit B of the Investment Policy Statements for the Permanent Health Fund (PHF) and Long Term Fund (LTF) will be amended to reflect the proposed changes. Attachment 1 reflects these proposed changes to the PUF, GEF, PHF, and LTF. Attachment 2 reflects the proposed changes to the ITF. In addition, the following Investment Policies were submitted to the Risk and Policy Committees for approval of amendments:

Liquidity Policy (effective August 25, 2016)

1

UTIMCO Board of Directors Meeting July 21, 2016

- Derivative Investment Policy (effective August 25, 2016)
- Delegation of Authority Policy (effective July 21, 2016)

Amendments to the Short Term Fund (STF) Investment Policy Statement effective September 1, 2016, were presented to and approved by the UTIMCO Board at its May 5, 2016 meeting. The Separately Invested Funds (SIF) Investment Policy Statement was reviewed by staff and there were no recommended amendments. The SIF Investment Policy Statement was last amended by the Board of Regents in August 2012.

#### Exhibits to the Investment Policy Statements

Exhibits to the Investment Policy Statements for the PUF, GEF, PHF, LTF, and ITF, have been amended to reflect changes proposed for FY 17.

Attachment 1 sets forth the revised Policy Portfolio Asset Class and Investment Type targets and ranges for FY 2017 in Exhibits A of the PUF and GEF, and Exhibits B in the PHF and LTF Investment Policy Statements. Attachment 2 sets forth the revised Policy Portfolio Asset Class and Investment Type targets and ranges for FY 2017 in Exhibit A of the ITF Investment Policy Statement. Finally, the Policy Benchmarks and Expected 10-year Annual Return (Benchmark) target for FY 2017 have been updated and the one year downside volatility have been adjusted to reflect the revised Asset Class and Investment Type targets for FY 2017.

#### Liquidity Policy

The Liquidity Policy has been amended to update language in the definition of cash and to change the ranges and trigger zones for each of the Endowment Funds as follows:

Page 1, Definition of Cash, deleted language requiring UTIMCO Board approval for other money market funds because no investment meeting the definition of cash needs UTIMCO Board approval; cash holdings are limited to funds rated AAAm by Standard & Poor's or the equivalent by a Nationally Recognized Statistical Rating Organization (NRSRO).

Page 2, Liquidity Policy Profile ranges and trigger zones for each of the Endowment Funds in the table are being changed for FY17 and going forward.

Liquidity above trigger zone:	<u>FY 17+</u> 25.0%
Liquidity within trigger zone:	20.0%-25.0%
Liquidity below trigger zone:	<20%

UTIMCO Board of Directors Meeting July 21, 2016

Pages 2-3, paragraph after table, the permitted maximum for illiquid investments is changed from 75% to 80% of the total portfolio for the Endowment Funds.

Pages 2-3, paragraph after table, illiquid investments in the trigger zone requiring prior approval by the Risk Committee or the UTIMCO Board are changed from "70% to 75%" to "75% to 80%".

Page 3, unfunded commitments as a percent of total invested assets is increased from 30.0% to 35.0%.

### Derivative Investment Policy

The Derivative Investment Policy has been amended to clarify staff's delegated authority with respect to derivative investments consistent with the Delegation of Authority Policy, which was amended May 5, 2016.

The changes to the Derivative Investment Policy are as follows:

Page 2, Permitted Derivative Applications, language changed to clarify that any Director may require a complete review of a new Derivative Investment prior to implementation if it is a Permitted Derivative Application but not of the types set forth on Exhibit B.

### Delegation of Authority Policy

The Delegation of Authority Policy has been amended to clarify that delegated limits apply not only to Private Investment co-investments but to co-investments across all Investment Types and except for Fixed Income Investments, adds the same Co-investment limitations to Direct Investments.

Page 3, Contracts, changes the reporting limits on UTIMCO contracts from \$50,000 to \$100,000.

Pages 3-4, Allocation of Investment Funds to New Managers and Mandates, adds language to clarify that the limits on Private Investment co-investments alongside an existing external manager also apply to a direct Public Investment alongside an existing external manager.

Page 4, Changing Allocations of Investment Funds to Existing Managers and Mandates, adds language to clarify that the limits on Private Investment coinvestments alongside an existing external manager also apply to a direct Public Investment alongside an existing external manager.

Page 5, Internal Investment Management, adds language to make the direct management of assets by UTIMCO Staff subject to the same limitations applicable to Co-investments to a direct Public or Private Investment, except for Fixed Income Investments.

3

### UTIMCO Board of Directors Meeting July 21, 2016

Minor editorial changes have also been made.

**Recommendation:** The Committee will request the UTIMCO Board to take appropriate action related to the proposed amendments to the Investment Policy Statements for the PUF, GEF, PHF, LTF and ITF for the fiscal year beginning September 1, 2016. The Committee will also request the UTIMCO Board to take appropriate action related to the proposed amendments to the Liquidity Policy and Derivative Investment Policy, effective August 25, 2016 and the Delegation of Authority Policy, effective July 21, 2016.

Reference: FY2017 Investment Policy Recommendations Attachment 1 - Exhibits to Investment Policy Statements for the PUF, GEF, PHF, and LTF, effective September 1, 2016 Attachment 2 – Exhibit A to Investment Policy Statement for the ITF, effective September 1, 2016 Liquidity Policy, effective August 25, 2016 Derivative Investment Policy, effective August 25, 2016 Delegation of Authority Policy, effective July 21, 2016

### **RESOLUTION RELATED TO INVESTMENT POLICIES**

RESOLVED, that amendments to the Investment Policy Statements of the Permanent University Fund, General Endowment Fund, Permanent Health Fund, Long Term Fund, and Intermediate Term Fund, and amendments to the Derivative Investment Policy and Liquidity Policy, as presented be, and are hereby approved, subject to approval by the Board of Regents of The University of Texas System; and

FUTHER RESOLVED, that amendments to the Delegation of Authority Policy as presented be, and are hereby approved.



## FY2017 Investment Policy Recommendations

**UTIMCO Board Meeting** 

# **Executive Summary**



### Context

- Staff believes we are in a lower-return environment, particularly for the next three years
  - Based on Staff's projected returns, the *current* Policy Portfolio is expected to generate 2.70% in real returns (before any value-add) and the *proposed* Policy Portfolio is expected to generate real returns of 2.87% in FY2017
  - Over a longer-term horizon (next 10 years) staff projects that the Policy Portfolio will generate real returns of 3.95%, before any value-add
- This environment underscores the importance of value-add required to generate returns that support the current distribution rate
- Staff does not recommend holding cash and waiting for a major downturn, extensive hedging, or eliminating any Asset Class or Investment Style in the Policy Portfolio
  - Such views might be appropriate for the short term and implemented tactically

# **Executive Summary**



## **Recommendations for the Endowments**

- Private Investments increase from 31% in FY2016 to 36% in FY2017
- Increase "ceilings" in the Liquidity Policy
  - Illiquid NAV from 70% / 75% to 75% / 80% (Risk Committee approval / Full Stop)
  - Unfunded commitments from 30% to 35%
- Decrease LCC from 29% in FY2016 to 25% in FY2017
- Eliminate smaller Policy Portfolio targets (all currently 2.5%) for
  - Commodity Futures
  - Natural Resources Public Equities
  - REITs
- Keep gold at 2.5%
- Increase MCC IGFI from 6.5% in FY2016 to 7.5% in FY2017
- Increase MCC Public Equities
  - DCE from 14% in FY2016 to 19% in FY2017
  - EM from 9.5% in FY2016 to 10% in FY2017

# Summary of Draft and Revised Proposals



FY	FY 2016 Policy		LCC	PI	TOTAL
	Investment Grade	6.5%	2.25%	0.0%	8.75%
Fixed Income	Credit Related	<u>0.0%</u>	<u>4.25%</u>	<u>3.5%</u>	<u>7.75%</u>
income	Fixed Income Total	6.5%	6.5%	3.5%	16.5%
	Real Estate	2.5%	0.5%	5.5%	8.5%
Real Assets	Natural Resources	<u>7.5%</u>	<u>0.0%</u>	<u>7.5%</u>	<u>15.0%</u>
A33613	Real Assets Total	10.0%	0.5%	13.0%	23.5%
	Developed Country	14.0%	20.0%	11.0%	45.0%
Equity	Emerging Market	<u>9.5%</u>	<u>2.0%</u>	<u>3.5%</u>	<u>15.0%</u>
	Equity Total	23.5%	22.0%	14.5%	60.0%
	TOTAL	<u>40.0%</u>	<u>29.0%</u>	<u>31.0%</u>	<u>100.0%</u>

5/3	1/2016 Actual	МСС	LCC	PI	TOTAL
	Investment Grade	7.3%	2.2%	0.0%	9.5%
Fixed Income	Credit Related	<u>0.1%</u>	<u>4.2%</u>	<u>3.7%</u>	<u>8.0%</u>
income	Fixed Income Total	7.4%	6.4%	3.7%	17.5%
	Real Estate	2.3%	0.0%	6.4%	8.7%
Real Assets	Natural Resources	<u>6.2%</u>	<u>0.0%</u>	<u>8.9%</u>	<u>15.1%</u>
	Real Assets Total	8.5%	0.0%	15.3%	23.8%
	Developed Country	12.5%	19.5%	11.4%	43.4%
Equity	Emerging Market	<u>9.2%</u>	<u>1.9%</u>	<u>4.2%</u>	<u>15.3%</u>
	Equity Total	21.7%	21.4%	15.6%	58.7%
	TOTAL	<u>37.6%</u>	<u>27.8%</u>	<u>34.6%</u>	<u>100.0%</u>

FY	FYE 2017 Draft		LCC	PI	TOTAL
	Investment Grade	9.0%	2.0%	0.0%	11.0%
Fixed Income	Credit Related	<u>0.0%</u>	<u>4.0%</u>	<u>3.5%</u>	<u>7.5%</u>
income	Fixed Income Total	9.0%	6.0%	3.5%	18.5%
	Real Estate	0.0%	0.0%	7.0%	7.0%
Real Assets	Natural Resources	<u>0.0%</u>	<u>0.0%</u>	<u>9.0%</u>	<u>9.0%</u>
Assets	Real Assets Total	0.0%	0.0%	16.0%	16.0%
	Developed Country	19.0%	18.0%	12.5%	49.5%
Equity	Emerging Market	<u>10.0%</u>	<u>2.0%</u>	<u>4.0%</u>	<u>16.0%</u>
	Equity Total	29.0%	20.0%	16.5%	65.5%
	TOTAL	<u>38.0%</u>	<u>26.0%</u>	<u>36.0%</u>	<u>100.0%</u>

FYE	2017 Proposal	мсс	LCC	PI	TOTAL
	Investment Grade	7.5%	2.0%	0.0%	9.5%
Fixed Income	Credit Related	<u>0.0%</u>	<u>4.0%</u>	<u>3.5%</u>	<u>7.5%</u>
lincollic	Fixed Income Total	7.5%	6.0%	3.5%	17.0%
	Real Estate	0.0%	0.0%	7.0%	7.0%
Real Assets	Natural Resources	<u>2.5%</u>	<u>0.0%</u>	<u>9.0%</u>	<u>11.5%</u>
A33613	Real Assets Total	2.5%	0.0%	16.0%	18.5%
	Developed Country	19.0%	17.0%	12.5%	48.5%
Equity	Emerging Market	<u>10.0%</u>	<u>2.0%</u>	<u>4.0%</u>	<u>16.0%</u>
	Equity Total	29.0%	19.0%	16.5%	64.5%
	TOTAL	<u>39.0%</u>	<u>25.0%</u>	<u>36.0%</u>	<u>100.0%</u>

## **Context and Process Overview**



- Investment Policies are the primary guiding and controlling mechanisms for the funds UTIMCO manages
- The UT System Board of Regents is the ultimate determiner of the Investment Policies
- UTIMCO staff makes Investment Policy recommendations to the UTIMCO Policy Committee (in a joint meeting with the Risk Committee), who makes recommendations to the UTIMCO Board, who makes recommendations to the Regents
- The Investment Management Service Agreement requires the UTIMCO Board to make annual Investment Policy recommendations, but no changes are required
  - Endowments' (and the Intermediate Term Fund) investment strategy is optimized by being long term in outlook and in practice
  - Adjustments, however, are always possible, and, at times, desirable

# **Investment Policy Major Components**



- The Endowments (PUF, GEF, LTF and PHF) and the ITF Investment Policies have as their main components:
  - Asset Class and Investment Type Net Asset Value (NAV) targets and minimum and maximum range, as a percentage of total assets
    - There are no specific "cell" targets and ranges
  - Benchmarks are part of the Policies
    - They are the starting point for portfolio construction
    - They anchor measurement of staff's value-add
  - Volatility Risk budget and minimum and maximum range
  - Projected annual returns and downside volatility
    - Currently, there is no real impact of these projections
    - In the past, actual returns in excess of projected "permitted" increased distributions
- The Liquidity Policy sets limits on illiquid NAV and Unfunded Commitments
- Other policies include the Derivative Investment Policy and the Short Term Fund Investment Policy
- The Delegation of Authority is an intra-UTIMCO policy, determining guidelines under which the CIO may make investment decisions without seeking additional UTIMCO Board approval. The Delegation of Authority Policy does not require Regental approval.

# **UTIMCO Staff Process**



- The analysis and recommendations are the result of a consensus effort on the part of the seven person Senior Investment Team with the input from the almost twenty senior investment officers on UTIMCO staff
- The work included:
  - Projections as to Asset Class and Investment Type returns, over both ten-year and three-year horizons; projections included both the returns of the underlying investment ("beta") and the expected value-add ("alpha").
  - Projections as to Asset Class and Investment Type volatility
  - Projections as to correlations between Asset Classes and Investment Types
  - Calculation of "Optimal Portfolios" and "Efficient" frontier, both unconstrained and constrained
  - Review of other Endowments' asset allocation
  - Subjective recommendation of Asset Class and Investment Type target allocation, and minimum and maximum range
  - Projection of portfolio annual returns and downside volatility
  - Review and recommendation for limits on illiquidity NAV and on Unfunded Commitments
- Over the past few weeks, staff met with individual Board members to get their input

## Private Investments



 Staff recommends Private Investment NAV Policy Target increase from 31% in FY2016 to 36% in FY2017 Private Investment NAV

May 2016 (Actual)	35%
August 2016 (Projected)	36%
August 2017 (Projected)	39%

- Maintains the strategy of continuing to build the Private Investment portfolio from its current level of 35% up to 40%, in a measured pace
  - Private Investments provide the opportunity to realize an illiquidity return premium
  - Private Investments are a great source of "alpha" since there is a wide dispersion between average and top quartile funds
    - While this spread is shrinking over time, much like any other source of returns, Cambridge Associates most recent estimate is that this spread is still ~ 450bps
  - Private Investment NAV results from a number of uncontrollable factors, including the timing and amount of capital calls and distributions, and is also highly dependent on total Endowment returns, and is therefore a "derived" ratio
- Individual Board members' feedback included
  - General support for the Private Investment program
  - General comfort with Private Investments up to 40% of total assets, with some Board members indicating comfort with higher levels and some indicating preference for lower levels
  - Individual Board members' views on Liquidity Policy changes were consistent with overall views on Private Investments
  - Some concerns about future returns, high fees, and mismatch between staff tenure / compensation and private investment return realization



- Staff recommends LCC NAV Policy Target decrease from 29% in FY2016 to 25% in FY2017
  - Based on feedback, staff's draft recommendation of 26% was lowered to 25%
- Maintains the strategy of gradually reducing LCC to use as a funding source for the increase in Private Investments
  - Gradual decrease due to
    - Cautious short-term views on Public Equity market returns
    - Belief in alpha-generation potential from existing LCC managers
- Individual Board members' feedback included
  - General support for the LCC program
  - Some concerns about future returns and high fees
  - Some Board members suggested targets above the draft proposal of 26%, while some Board members suggested targets below 26%

## **Smaller Specific Policy Portfolio Targets**



- Staff recommends elimination of the smaller, specific Policy Portfolio targets (all currently 2.5%) in
  - Commodity Futures
  - Natural Resources Public Equities
  - REITs
- Based on feedback from individual Board members, staff's draft recommendation to also eliminate the 2.5% allocation to gold was reversed
- These targets were put in place at a time when we did not have this exposure via Private Investments that we now have
  - These changes will result in a simpler Policy Portfolio
  - These changes, while not eliminating the possibility of investing in these assets, would make current allocations "off policy" and therefore subject to more scrutiny and debate
- Individual Board members feedback included
  - General support for these changes

## MCC IGFI, DCE, and EM

Staff recommends increases as follows:

	<u>FY2016</u>	<u>FY2017</u>
IGFI	6.5%	7.5%
DCE	14.0%	19.0%
EM	9.5%	10.0%

- Increase in IGFI due to:
  - Protection from potential equity market selloff
  - Protection for potential global deflationary environment
- Increase in DCE due to:
  - Inclusion of REIT and Natural Resources Equities, previously separate portfolios
- Increase in EM due to:
  - Relatively attractive valuations
  - Long-term structural world economy changes
- Individual Board members' feedback included
  - General support for these changes
  - Some questions regarding an increase of IGFI in an environment where overall Endowment returns are projected to be low
  - Some questions regarding an increase of DCE and EM given
    - Current valuations
    - Risks of easy monetary policies ending with likely negative impact on equities
    - Risks of global recessions, in particular China



## Other Changes to the Endowment Investment Policies



- At this time, no changes are recommended to the Benchmarks
  - Benchmarks are the starting point for portfolio construction (e.g., country and sector weights)
  - Benchmarks measure Staff value-add, and therefore are the starting point for determining the majority of Staff incentive compensation
  - There is work under way to evaluate the Private Investment Benchmark
- Some changes to the minimum and maximum ranges to reflect the changes to the Targets
- Changes to the Expected Returns and Downside Volatility
- The two pages in Exhibit A of the Endowment Investment Policies that reflect these recommendations are shown on the following two pages





### EXHIBIT A

(continued)

ASSET CLASS AND INVESTMENT TYPE TARGETS, RANGES AND PERFORMANCE OBJECTIVES

EFFECTIVE DATE DECEMBER 1, 2015 SEPTEMBER 1, 2016

### POLICY BENCHMARKS BY ASSET CLASS AND INVESTMENT TYPE: FYE 2016 2017

FYE <del>2016</del> 2017		More Correlated & Constrained	Less Correlated & Constrained	Private Investments	Total
Fixed Income	Investment Grade	Barclays Capital Global Aggregate Index ( <del>6.5%</del> 7.5%)	<del>2.25%</del> 2.0%	0.0%	<del>8.75% <u>9.5%</u></del>
Fixed income	Credit-Related	0.00%	4 <del>.25%</del> 4.0%	3.5%	<del>7.75%</del> 7.5%
	Real Estate	FTSE EPRA/NAREIT Developed Index Net TRI USD (2.5%0.0%)	<del>0.5%</del> 0.0%	<del>5.5%</del> 7.0%	<del>8.5%</del> 7.0%
Real Assets	Natural Resources	33.4% 0.0% Bloomberg Commodity Total Return Index , 33.3% 0.0% MSCI World Natural Resources Index and 33.3% 100.0% Gold Spot price (XAU) (7.5% 2.5%) *	0.0%	<del>7.5%</del> 9.0%	<del>15.0% <u>11.5%</u></del>
E au iáu	Developed Country	MSCI World Index with Net Dividends ( <del>14.0% <u>19.0%</u>)</del>	<del>20.0%</del> 17.0%	<del>11.0%</del> 12.5%	4 <del>5.0%</del> 48.5%
Equity	Emerging Markets	MSCI EM Index with Net Dividends( <del>9.5%<u>10.0%</u>)</del>	2.0%	<del>3.5%</del> 4.0%	<del>15.0%</del> 16.0%
Total		4 <del>0%</del> 39%	<del>29.0%</del> 25.0%	<del>31.0%</del> 36.0%	100.0%

\* Bloomberg Commodity Total Return Index and MSCI World Natural Resources Index will be phased out monthly during FY 2017.

Hedge Fund Research Indices Fund of Funds Composite Index Custom Cambridge Fund of Funds Benchmark

Investment Policy/Benchmarks are indicated in Black/Bold Reportable Targets are indicated in Gray

## Exhibit A



EXHIBIT A

### ASSET CLASS AND INVESTMENT TYPE TARGETS, RANGES, AND PERFORMANCE OBJECTIVES EFFECTIVE DECEMBER 1, 2015 SEPTEMBER 1, 2016

POLICY PORTFOLIO	FYE <del>2016</del> 2017			
		Min	Target	Max
Asset Classes				
Investment Grade Fixed Income		3.0%	<del>8.75%</del> 9.5%	25.0%
Credit-Related Fixed Income		0.0%	<del>7.75%</del> 7.5%	30.0%
Real Estate		0.0%	<del>8.5%</del> 7.0%	12.5%
Natural Resources		<del>5.0%</del> 2.5%	<del>15%</del> 11.5%	<del>25.0%</del> 20.0%
Developed Country Equity		30.0%	<del>45.0%<u>48.5%</u></del>	<del>60.0%</del> 65.0%
Emerging Markets Equity		8.0%	<del>15.0%<u>16.0%</u></del>	25.0%
Investment Types				
More Correlated & Constrained		30.0%	4 <del>0.0%</del> 39.0%	60.0%
Less Correlated & Constrained		<del>25.0%</del> 20.0%	<del>29.0%</del> 25.0%	37.5%
Private Investments		20.0%	<del>31.0%</del> <u>36.0%</u>	<del>40.0%</del> 45.0%

\*The total Asset Class & Investment Type exposure, including the amount of derivatives exposure not collateralized by Cash, may not exceed 105% of the Asset Class & Investment Type exposures excluding the amount of derivatives exposure not collateralized by Cash.

POLICY BENCHMARK (reset monthly)	FYE <del>2016</del> 2017
Barclays Capital Global Aggregate Index	<del>6.5%</del> 7.5%
FTSE EPRA/NAREIT Developed Index Net TRI USD	<del>2.5%</del> 0.0%
33.4% 0.0% Bloomberg Commodity Total Return Index, 33.3% 0.0% MSCI	
World Natural Resources Index and <del>33.3%</del> <u>100.0%</u> Gold Spot price (XAU) <u>*</u>	<del>7.5%</del> 2.5%
MSCI World Index with net dividends	<del>14.0%<u>19.0%</u></del>
MSCI Emerging Markets with net dividends	<del>9.5%</del> 10.0%
Hedge Fund Research Indices Fund of Funds Composite Index	<del>29.0%</del> 25.0%
Custom Cambridge Fund of Funds Benchmark	<del>31.0%</del> <u>36.0%</u>
POLICY/TARGET RETURN/RISKS/DISTRIBUTION RATE	FYE <del>2016</del> 2017
Expected <u>10-Year</u> Annual Real Return (Benchmark)	<del>3.9%</del> <u>3.95%</u>
One Year Downside Volatility	<del>10.0%</del>
Risk Bounds	
Lower: 1 Year Downside Volatility	75%
Upper: 1 Year Downside Volatility	115%

UT System suggested the "Expected Annual Real Return (Benchmark)" line reflect the longer-term assumptions on returns

\* Bloomberg Commodity Total Return Index and MSCI World Natural Resources Index will be phased out monthly during FY 2017.

## Intermediate Term Fund



- Staff also discussed and is recommending certain changes to the Intermediate Term Fund Investment Policy
- Consistent with the Endowments, Staff is recommending eliminating the specific NAV targets for
  - Commodity Futures
  - Natural Resources Public Equities
  - REITs
- Also consistent with the Endowments, Staff recommends increases in the MCC DCE (from 9% to 15%) and the MCC EM (from 6% to 7.5%)
- The two pages in Exhibit A of the Intermediate Term Fund Investment Policy that reflect these recommendations are shown on the following two pages





### EXHIBIT A - INTERMEDIATE TERM FUND (continued) ASSET CLASS AND INVESTMENT TYPE TARGETS, RANGES AND PERFORMANCE OBJECTIVES EFFECTIVE DATE DECEMBER 1, 2016 SEPTEMBER 1, 2016

### POLICY BENCHMARKS BY ASSET CLASS AND INVESTMENT TYPE: FYE 2016 2017

FYE 2017		More Correlated & Constrained	Less Correlated & Constrained	Total
Fired Income	Investment Grade	Barclays Capital Global Aggregate Index (30.0%)	4.5%	34.5%
Fixed Income	Credit-Related	(0.0%)	7.5%	7.5%
	Real Estate	FTSE EPRA/NAREIT Developed Index Net TRI USD ( <del>3.0% <u>0.0%</u>)</del>	<del>1.0%</del> 0.0%	4 <del>.0%</del> 0.0%
Real Assets	Natural Resources	33.4% 0.0% Bloomberg Commodity Total Return Index, 33.3% 0.0% MSCI World Natural Resources Index and 33.3% 100% Gold Spot price (XAU) (7.0%2.5%)*	0.0%	<del>7.0%</del> 2.5%
Fauity	Developed Country	MSCI World Index with Net Dividends ( <del>8.0</del> % <u>15.0%</u> )	29.0%	<del>38.0% <u>44.0%</u></del>
Equity	Emerging Markets	MSCI EM Index with Net Dividends ( <del>6.0%<u>7.5%</u>)</del>	<del>3.0%<u>4.0%</u></del>	<del>9.0%</del> 11.5%
Total		55.0%	45.0%	100.0%

\* Bloomberg Commodity Total Return Index and MSCI World Natural Resources Index will be phased out monthly during FY 2017. Hedge Fund Research Indices Fund of Funds Composite Index

Investment Policy/Benchmarks are indicated in Black/Bold Reportable Targets are indicated in Gray



### EXHIBIT A - INTERMEDIATE TERM FUND ASSET CLASS AND INVESTMENT TYPE TARGETS, RANGES, AND PERFORMANCE OBJECTIVES EFFECTIVE DATE DECEMBER 1, 2016 SEPTEMBER 1, 2016

POLICY PORTFOLIO		FYE <del>2016</del> 2017		
	Min	Target	Max	
Asset Classes				
Investment Grade Fixed Income	20.0%	34.5%	50.0%	
Credit-Related Fixed Income	0.0%	7.5%	12.0%	
Real Estate	0.0%	<del>4.0%</del> 0.0%	10.0%	
Natural Resources	<del>2.5%</del> 0.0%	<del>7.0%</del> 2.5%	<del>20.0%<u>10.0%</u></del>	
Developed Country Equity	20.0%	<del>38.0%<u>44.0%</u></del>	<del>50.0%<u>60.0%</u></del>	
Emerging Markets Equity	2.5%	<del>9.0%<u>11.5%</u></del>	<del>17.5%</del> 20.0%	
Investment Types				
More Correlated & Constrained	45.0%	55.0%	65.0%	
Less Correlated & Constrained	35.0%	45.0%	55.0%	

\*The total Asset Class & Investment Type exposure, including the amount of derivatives exposure not collateralized by Cash, may not exceed 100% of the Asset Class & Investment Type exposures excluding the amount of derivatives exposure not collateralized by Cash.

POLICY BENCHMARK (reset monthly)	FYE <del>2016</del> 2017
Barclays Capital Global Aggregate Index	30.0%
FTSE EPRA/NAREIT Developed Index Net TRI USD	<del>3.0%</del> 0.0%
33.4% 0.0% Bloomberg Commodity Total Return Index, 33.3% 0.0% MSCI	
World Natural Resources Index and <del>33.3%</del> <u>100.0%</u> Gold Spot price (XAU) <u>*</u>	<del>7.0%</del> 2.5%
MSCI World Index with net dividends	<del>9.0%</del> 15.0%
MSCI Emerging Markets with net dividends	<del>6.0%</del> 7.5%
Hedge Fund Research Indices Fund of Funds Composite Index	45.0%
POLICY/TARGET RETURN/RISKS	FYE <del>2016</del> 2017
Expected 10-Year Annual Real Return (Benchmark)	<del>2.4%</del> <u>1.60%</u>
One Year Downside Volatility	<del>6.1%</del>
Risk Bounds	
Lower: 1 Year Downside Volatility	70.0%
Upper: 1 Year Downside Volatility	115.0%

\* Bloomberg Commodity Total Return Index and MSCI World Natural Resources Index will be phased out monthly during FY 2017.



- In previous years, changes to Investment Policies have sometimes been immediate and sometimes phased in during the course of the fiscal year
- Given the magnitude of the recommended changes, Staff recommends that the changes be phased in during the course of the fiscal year (benchmark weights to be reset monthly)
- For example, the target for commodity futures, which is 2.5% for August 2016, would be reduced by roughly 0.21% each month until reaching 0% in August 2017



- Delegation of Authority Policy
  - Co-Investments: Clarified that delegated limits apply for all coinvestments across all Investment Types (not just Private Investments)
  - Direct investments, other than Fixed Income investments, limited to the same amounts as co-investments (currently there is no limit)
- Derivative Investment Policy
  - Amended to clarify staff's delegated authority with respect to derivative investments consistent with the Delegation of Authority Policy
- Liquidity Policy
  - Increase the ceiling for illiquid NAV from 70% / 75% to 75% / 80% (Risk Committee approval / Full Stop)
  - Increase the ceiling for unfunded commitments from 30% to 35%



# Appendix

# Return Projections (Three Years)



- UTIMCO staff also developed shorter term (three years) return projections
- The three-year return projections are lower than the ten-year projections across all asset classes and investment types
  - Since it is across the board, this has little effect on the optimal portfolio for a given level of risk

3-year expected returns ("beta")			
	Range	Median	Mean
MCC: IGFI	1.0% - 2.0%	1.8%	1.6%
Credit	2.0% - 4.0%	3.0%	2.8%
Real Estate	2.0% - 4.0%	4.0%	3.5%
Nat Res: Commodities	1.0% - 4.0%	2.5%	2.4%
Equities	3.0% - 6.0%	4.5%	4.8%
Dev Cntry Equities	1.0% - 4.0%	4.0%	3.3%
EM Equities	3.0% - 6.0%	5.0%	5.0%
LCC	1.0% - 4.1%	3.5%	2.9%
PI: Credit	3.0% - 7.0%	6.5%	6.0%
Real Estate	6.0% - 7.5%	7.0%	6.8%
Nat Res	6.0% - 12.0%	7.5%	8.2%
Developed Countries	3.0% - 8.0%	7.0%	6.4%
EM Equities	5.0% - 8.0%	5.8%	6.0%
PI A verage	4.5% - 7.5%	7.2%	6.8%
Inflation	1.25% - 2.0%	1.6%	1.6%

3-year expected returns ("beta" plus "alpha")			
	Range	Median	Mean
MCC: IGFI	1.3% - 3.0%	2.4%	2.3%
Credit	2.4% - 5.5%	4.0%	4.0%
Real Estate	2.0% - 5.0%	4.3%	4.0%
Nat Res: Commodities	1.0% - 4.5%	2.5%	2.8%
Equities	4.0% - 6.5%	5.6%	5.4%
Dev Cntry Equities	3.0% - 6.0%	5.5%	4.9%
EM Equities	5.0% - 7.5%	7.0%	6.7%
LCC	4.0% - 6.3%	5.4%	5.3%
PI: Credit	4.5% - 11.0%	8.3%	8.2%
Real Estate	7.5% - 11.0%	9.0%	9.2%
Nat Res	7.5% - 15.0%	10.8%	10.8%
Developed Countries	4.5% - 13.0%	9.3%	9.1%
EM Equities	5.0% - 12.5%	7.8%	8.2%
PI Average	6.0% - 12.1%	9.4%	9.3%
Inflation	1.25% - 2.0%	1.6%	1.6%

# Return Projections (Ten Years)



 UTIMCO staff received various return projections and developed their own projections

10-year expected returns ("beta")			
	Range	Median	Mean
MCC: IGFI	1.5% - 3.0%	3.0%	2.6%
Credit	2.0% - 5.0%	5.0%	4.5%
Real Estate	4.0% - 6.0%	6.0%	5.3%
Nat Res: Commodities	1.0% - 4.0%	3.5%	2.9%
Equities	4.0% - 8.0%	6.0%	6.2%
Dev Cntry Equities	4.0% - 6.5%	6.0%	5.6%
EM Equities	4.0% - 8.0%	6.8%	6.7%
LCC	2.0% - 5.8%	4.0%	4.0%
PI: Credit	7.0% - 9.0%	8.0%	7.8%
Real Estate	7.5% - 11.0%	9.3%	9.2%
Nat Res	8.0% - 13.0%	9.8%	10.1%
Developed Countries	8.0% - 11.4%	10.0%	9.6%
EM Equities	5.0% - 11.0%	7.1%	7.5%
PI Average	7.5% - 10.9%	9.3%	9.2%
Inflation	1.7% - 3.0%	2.5%	2.4%

10-year expected returns ("beta" plus "alpha")			
	Range	Median	Mean
MCC: IGFI	1.8% - 4.0%	3.7%	3.3%
Credit	2.4% - 7.0%	6.0%	5.6%
Real Estate	4.0% - 7.0%	6.3%	5.8%
Nat Res: Commodities	1.0% - 5.0%	3.5%	3.3%
Equities	5.0% - 8.5%	6.9%	6.8%
Dev Cntry Equities	5.0% - 8.0%	7.5%	7.3%
EM Equities	5.0% - 9.5%	9.3%	8.4%
LCC	4.5% - 8.0%	6.6%	6.4%
PI: Credit	8.5% - 12.0%	10.3%	10.2%
Real Estate	9.0% - 13.0%	12.0%	11.6%
Nat Res	9.5% - 14.5%	13.3%	12.7%
Developed Countries	9.5% - 16.0%	11.5%	12.3%
EM Equities	6.0% - 13.3%	11.0%	10.0%
PI Average	9.0% - 14.3%	12.0%	11.8%
Inflation	1.7% - 3.0%	2.5%	2.4%

# Volatility and Correlation Projections



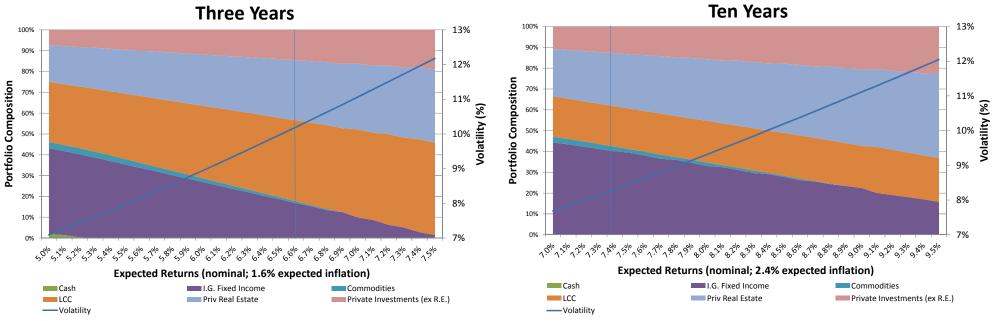
 For each Asset Class and Investment Type, volatility and correlations were projected. Special care was taken with Private Investments, as their reported returns tend to be smoothed and lagged.

	Volatility	Cash	I.G. Fixed Income	High- yield bonds	REITs	Commod ities	Nat Res Equities	US Equity	Dev ex US Equities	EM Equities	LCC	Priv Real Estate	Private ex RE
Cash	1%	1	0.26	0.09	-0.09	0.01	-0.01	-0.01	0.01	0.01	-0.01	0.01	0.01
I.G. Fixed Income	6%		1	0.29	0.16	0.06	0.09	0.14	0.11	0.01	0.14	0.02	0.1
High-yield bonds	13%			1	0.44	-0.01	0.41	0.51	0.59	0.29	0.51	0.21	0.39
REITs	21%				1	0.11	0.69	0.34	0.36	0.36	0.34	0.49	0.13
Commodities	28%					1	0.19	-0.01	0.01	0.21	0.115	-0.01	0.05
Nat Res Equities	19%						1	0.41	0.69	0.69	0.46	0.21	0.39
US Equity	17%							1	0.79	0.74	0.585	0.31	0.75
Dev ex US Equities	19%								1	0.76	0.615	0.29	0.69
EM Equities	24%									1	0.54	0.24	0.65
LCC	9%										1	0.23	0.49
Priv Real Estate	21%											1	0.11
Private ex RE	25%												1

## Optimal Portfolios and Efficient Frontier: Unconstrained



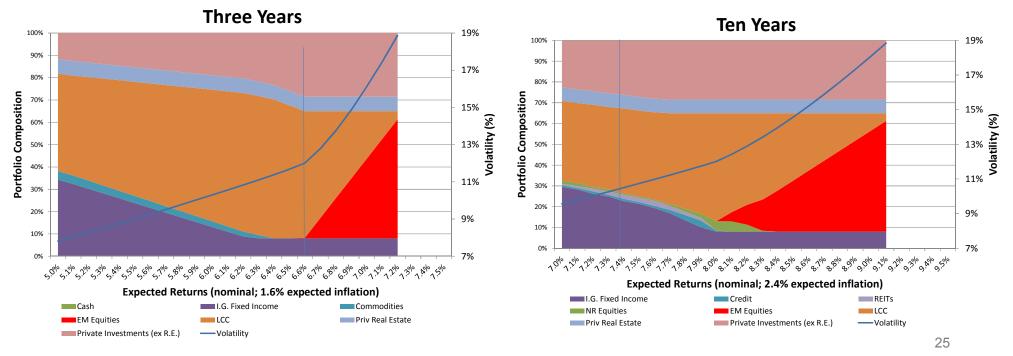
- With projected returns, volatilities and correlations, it is possible to construct, for any given level of desired returns, the portfolio that minimizes volatility risk
- These models gravitate towards "extreme" portfolios. For example, they tend to recommend bimodal portfolios of private equity alongside fixed income, with no public equities
  - The optimization procedure focuses on volatility risk, and ignores other types of risk, such as illiquidity risk
- Shown below are "unconstrained" Optimal Portfolios and Efficient Frontiers for the three-year and the ten-year return projections, with alpha



## Optimal Portfolios and Efficient Frontier: Constrained Portfolios



- A second set of models assumes there are certain constraints on the portfolio, usually anchored by the existing portfolio and certain "absolutes" (e.g., liquidity requirements)
- For this analysis, the Private Investment portfolio was constrained to be no more than 36% of the Endowments, and MCC IGFI was constrained to be no less than 9%
- Shown below are "constrained" Optimal Portfolios and Efficient Frontiers for the three-year and the ten-year return projections, with alpha



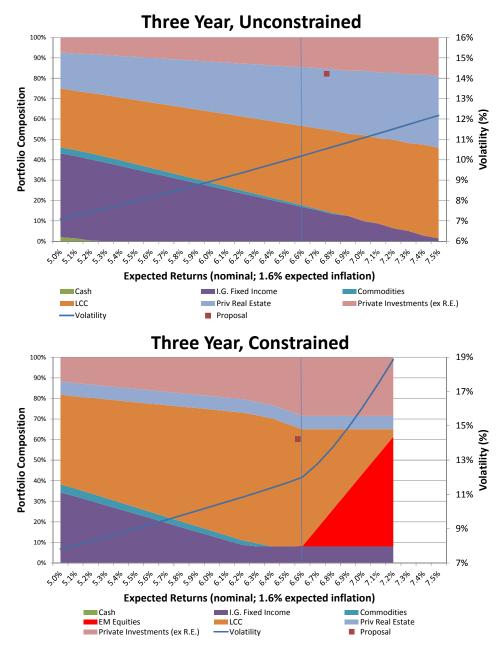
### Asset Class and Investment Type NAV Target Recommendations

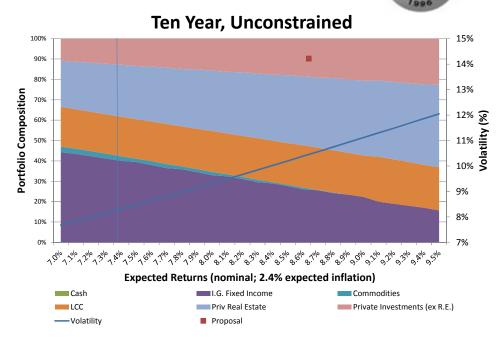


	FY2017 Ta	FY2017 Target Recommendations				
	Range	Median	Mean	Recommend- ation		
MCC: IGFI	6.0% - 9.0%	6.8%	7.1%	9.0%		
Credit	0.0% - 0.0%	0.0%	0.0%	0.0%		
Real Estate	0.0% - 2.0%	0.5%	0.8%	0.0%		
Nat Res: Commodities	0.0% - 5.0%	2.3%	2.2%	0.0%		
Equities	0.0% - 5.0%	2.5%	2.7%	0.0%		
Dev Cntry Equities	12.0% - 15.0%	13.0%	13.3%	19.0%		
EM Equities	9.0% - 11.0%	9.3%	9.5%	10.0%		
MCC TOTAL	32.5% - 40.0%	35.0%	35.4%	38.0%		
LCC: IGFI (macro)	2.3% - 3.0%	2.5%	2.5%	2.0%		
Credit	3.5% - 5.0%	4.1%	4.1%	4.0%		
Real Estate	0.0% - 0.0%	0.0%	0.0%	0.0%		
Nat Res	0.0% - 1.0%	0.0%	0.2%	0.0%		
Developed Countries	17.5% - 20.0%	18.0%	18.4%	18.0%		
EM	2.0% - 2.5%	2.0%	2.1%	2.0%		
LCC TOTAL	26.0% - 29.5%	27.3%	27.3%	26.0%		
PI: Credit	2.0% - 4.0%	3.3%	2.7%	3.5%		
Real Estate	6.0% - 8.0%	7.5%	6.2%	7.0%		
Nat Res	9.0% - 11.0%	9.3%	8.2%	9.0%		
Developed Countries	11.0% - 13.0%	12.8%	10.4%	12.5%		
EM Equities	3.5% - 5.0%	4.0%	3.5%	4.0%		
PI TOTAL	34.0% - 39.0%	37.8%	37.3%	36.0%		

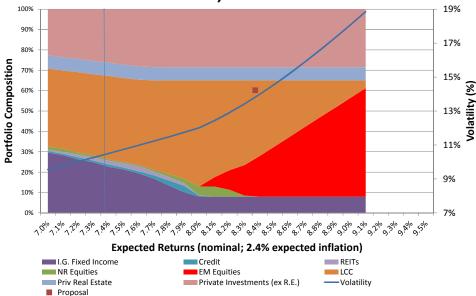
- Each member of the Senior Staff made a recommendation for the FY2017 Policy Portfolio. The table shows the range of suggestions, the median and the mean, and what Staff recommends after much deliberation
- The range of Senor Investment Team recommended Asset Class and Investment Type allocations was relatively narrow
- The recommended Policy Targets are very similar to the Median and Mean of the Team's individual recommendations

### Recommended Portfolio in the Context of Optimal Portfolios and Efficient Frontier





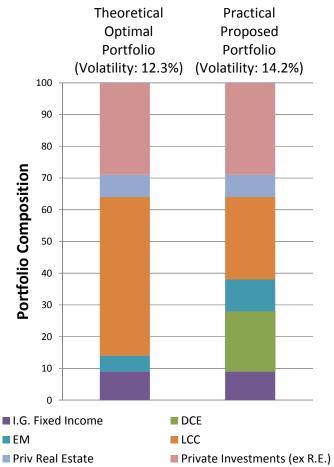
Ten Year, Constrained



## "Optimal Portfolio" vs Recommended Portfolio



- In the theoretically Optimal Portfolio the 55% that is not allocated to Private Investments (36%) or MCC-IGFI (9%) is allocated 50% to LCC and 5% to MCC-EM.
- In the portfolio staff recommends, this 55% is allocated 26% to LCC, 19% to MCC-DCE and 10% to MCC-EM Theoretical Practical
- The lower proposed allocation to LCC is driven by:
  - Liquidity considerations
  - Capacity limits with the top LCC managers
  - The desire to maintain the opportunity for upside scenario returns in the MCC book
- The proposed allocation to MCC-DCE (and not just MCC-EM) is driven by:
  - Better liquidity
  - Higher quality / conviction



# **Peer Allocations**



### FY2016 Policies, as communicated June 30, 2015

		Yale	Harvard	Princeton	UPenn	Michigan	Notre Dame	North- western	Stanford	Average	UT-2016
ALL	FIXED INCOME	8.5%	13.0%	5.0%	5.7%	15.0%	8.0%	17.0%	5.0%	9.7%	6.5%
C	ommodities										5.0%
	REITs										2.5%
	Nat Res	4.0%	11.0%	10.0%	15.1%				10.0%	10.5%	2.5%
Equities	Domestic					30.0%	35.0%				14.0%
	Developed ex US	14.5%	8.0%	6.0%	16.1%				19.0%	19.1%	14.070
	Emerging		10.0%	10.0%	10.2%				19.070	15.170	9.5%
ALL LO	NG ONLY EQUITY	18.5%	29.0%	26.0%	41.4%	30.0%	35.0%	28.0%	29.0%	29.6%	28.5%
TOTAL (M	CC)	27.0%	42.0%	31.0%	47.1%	45.0%	43.0%	45.0%	34.0%	39.3%	40.0%
Hedge Fu	nds	21.5%	16.0%	25.0%	31.3%	15.0%	15.0%	18.0%	22.0%	20.5%	29.0%
incuge i u	105	21.3/0	10.070	23.070	51.570	13.070	13.070	10.070	22.070	20.3/0	23.070
Real	Natural Resources	8.5%	11.0%	10.00/	4.6%	8.0%	15.00/	10.00/	10.0%	8.5%	7.5%
Assets	Real Estate	13.0%	13.0%	19.0%	5.4%	12.0%	15.0%	18.0%	8.0%	9.7%	5.5%
Private	LBO	16.0%	10.00/	25.0%	11.6%	12.0%	27 00/	0% 19.0% 26.0%	26.0%	11.4%	10.00/
Equity	Venture	14.0%	18.0%	25.0%	11.0%	8.0%	27.0%		10.7%	18.0%	
TOTAL (Pr	rivate)	51.5%	42.0%	44.0%	21.6%	40.0%	42.0%	37.0%	44.0%	40.3%	31.0%

- Fixed Income ranges from 5% to 17% and averages 10%
- Public Equity ranges from 19% to 41% and averages 30%
- Hedge Funds range from 15% to 31% and average 20%
- Private Investments range from 22% to 52% and average 40%

# Liquidity Policy



30

- The Liquidity Policy has two major controls on portfolio illiquidity:
- Illiquid NAV trigger zone and maximum
  - Based on three-month illiquidity in normal markets
  - Current limits are:
    - At 70% illiquidity, any new illiquid commitments require UTIMCO Risk Committee approval (beginning of the Trigger Zone)
    - At 75% illiquidity, no new illiquid commitments are possible (maximum)
  - These limits were set in FY2010, when Privates Investments were 22% and total illiquidity was 53%; currently, Privates Investments are 35% and total illiquidity is 63%
  - Staff recommends changing the beginning of the Trigger Zone from 70% to 75% and the maximum from 75% to 80%
- Unfunded Commitments
  - At 30% Unfunded Commitments (as a percentage of Endowment Total Assets), any new illiquid commitments require UTIMCO's Risk Committee approval
  - The limit was set in FY2010, when Unfunded Commitments were 15%; currently they are 25%
  - Staff recommends changing the Unfunded Commitments maximum from 30% to 35%

#### ATTACHMENT 1 EXHIBIT A ASSET CLASS AND INVESTMENT TYPE TARGETS, RANGES, AND PERFORMANCE OBJECTIVES EFFECTIVE DECEMBER 1, 2015 SEPTEMBER 1, 2016

POLICY PORTFOLIO	FYE <del>2016</del> 2017				
	Min	Target	Max		
Asset Classes					
Investment Grade Fixed Income	3.0%	<del>8.75%</del> 9.5%	25.0%		
Credit-Related Fixed Income	0.0%	<del>7.75%</del> 7.5%	30.0%		
Real Estate	0.0%	<del>8.5%</del> 7.0%	12.5%		
Natural Resources	<del>5.0%</del> 2.5%	<del>15%</del> 11.5%	<del>25.0%</del> 20.0%		
Developed Country Equity	30.0%	4 <del>5.0%</del> 48.5%	<del>60.0%<u>65.0%</u></del>		
Emerging Markets Equity	8.0%	<del>15.0%<u>16.0%</u></del>	25.0%		
Investment Types					
More Correlated & Constrained	30.0%	4 <del>0.0%</del> 39.0%	60.0%		
Less Correlated & Constrained	<del>25.0%</del> 20.0%	<del>29.0%</del> 25.0%	37.5%		
Private Investments	20.0%	<del>31.0%</del> 36.0%	4 <del>0.0%<u>45.0%</u></del>		

\*The total Asset Class & Investment Type exposure, including the amount of derivatives exposure not collateralized by Cash, may not exceed 105% of the Asset Class & Investment Type exposures excluding the amount of derivatives exposure not collateralized by Cash.

POLICY BENCHMARK (reset monthly)	FYE <del>2016</del> 2017
Barclays Capital Global Aggregate Index	<del>6.5%</del> 7.5%
FTSE EPRA/NAREIT Developed Index Net TRI USD	<del>2.5%</del> 0.0%
33.4% 0.0% Bloomberg Commodity Total Return Index, 33.3% 0.0% MSCI World	
Natural Resources Index and <del>33.3% <u>100.0%</u> Gold Spot price (XAU) <u>*</u></del>	<del>7.5%</del> 2.5%
MSCI World Index with net dividends	<del>14.0%</del> 19.0%
MSCI Emerging Markets with net dividends	<del>9.5%</del> 10.0%
Hedge Fund Research Indices Fund of Funds Composite Index	<del>29.0%</del> 25.0%
Custom Cambridge Fund of Funds Benchmark	<del>31.0%</del> <u>36.0%</u>
POLICY/TARGET RETURN/RISKS/DISTRIBUTION RATE	FYE <del>2016</del> 2017
Expected <u>10-Year</u> Annual Real Return (Benchmark)	<del>3.9%</del> <u>3.95%</u>
One Year Downside Volatility	<del>10.0%</del> <u>10.41%</u>
Risk Bounds	
Lower: 1 Year Downside Volatility	75%
Upper: 1 Year Downside Volatility	115%

\* Bloomberg Commodity Total Return Index and MSCI World Natural Resources Index will be phased out monthly during FY 2017.

#### ATTACHMENT 1 EXHIBIT A (continued) ASSET CLASS AND INVESTMENT TYPE TARGETS, RANGES AND PERFORMANCE OBJECTIVES EFFECTIVE DATE DECEMBER 1, 2015 SEPTEMBER 1, 2016

#### POLICY BENCHMARKS BY ASSET CLASS AND INVESTMENT TYPE: FYE 2016 2017

FYE <del>2016</del> 2017		More Correlated & Constrained	Less Correlated & Constrained	Private Investments	Total
Fixed Income	Investment Grade	Barclays Capital Global Aggregate Index ( <del>6.5%<u>7.5%</u>)</del>	<del>2.25%</del> 2.0%	0.0%	<del>8.75%<u>9.5%</u></del>
rixeu income	Credit-Related	0.00%	4 <del>.25%<u>4.0%</u></del>	3.5%	<del>7.75%<u>7.5%</u></del>
	Real Estate	FTSE EPRA/NAREIT Developed Index Net TRI USD ( <del>2.5%<u>0.0%</u>)</del>	<del>0.5%</del> 0.0%	<del>5.5%</del> 7.0%	<del>8.5%</del> 7.0%
Real Assets	Natural Resources	33.4% 0.0% Bloomberg Commodity Total Return Index , 33.3% 0.0% MSCI World Natural Resources Index and 33.3% 100.0% Gold Spot price (XAU) (7.5%2.5%) *	0.0%	<del>7.5%<u>9.0%</u></del>	<del>15.0%<u>11.5%</u></del>
Equity	Developed Country	MSCI World Index with Net Dividends (14.0%19.0%)	<del>20.0%</del> 17.0%	<del>11.0%<u>12.5%</u></del>	4 <del>5.0%</del> 48.5%
Equity	Emerging Markets	MSCI EM Index with Net Dividends( <del>9.5%<u>10.0%</u>)</del>	2.0%	<del>3.5%<u>4.0%</u></del>	<del>15.0%</del> 16.0%
Total		4 <del>0%<u>39%</u></del>	<del>29.0%</del> 25.0%	<del>31.0%<u>36.0%</u></del>	100.0%
				Hedge Fund Researc	h Indices Fund of

Hedge Fund Research Indices Fund c Funds Composite Index Custom Cambridge Fund of Funds Benchmark

\* Bloomberg Commodity Total Return Index and MSCI World Natural Resources Index will be phased out monthly during FY 2017.

Investment Policy/Benchmarks are indicated in Black/Bold Reportable Targets are indicated in Gray

### **ATTACHMENT 2 EXHIBIT A - INTERMEDIATE TERM FUND** ASSET CLASS AND INVESTMENT TYPE TARGETS, RANGES, AND PERFORMANCE OBJECTIVES

EFFECTIVE DATE DECEMBER 1, 2015 SEPTEMBER 1, 2016

POLICY PORTFOLIO		FYE <del>2016</del> 2017	
	Min	Target	Max
Asset Classes			
Investment Grade Fixed Income	20.0%	34.5%	50.0%
Credit-Related Fixed Income	0.0%	7.5%	12.0%
Real Estate	0.0%	4.0% <u>0.0%</u>	10.0%
Natural Resources	<del>2.5%</del> 0.0%	<del>7.0%</del> 2.5%	<del>20.0%</del> 10.0%
Developed Country Equity	20.0%	<del>38.0%<u>44.0%</u></del>	<del>50.0%<u>60.0%</u></del>
Emerging Markets Equity	2.5%	<del>9.0%<u>11.5%</u></del>	<del>17.5%<u>20.0%</u></del>
Investment Types			
More Correlated & Constrained	45.0%	55.0%	65.0%
Less Correlated & Constrained	35.0%	45.0%	55.0%

\*The total Asset Class & Investment Type exposure, including the amount of derivatives exposure not collateralized by Cash, may not exceed 100% of the Asset Class & Investment Type exposures excluding the amount of derivatives exposure not collateralized by Cash.

POLICY BENCHMARK (reset monthly)	FYE <del>2016</del> 2017
Barclays Capital Global Aggregate Index	30.0%
FTSE EPRA/NAREIT Developed Index Net TRI USD	<del>3.0%</del> 0.0%
33.4% <u>0.0%</u> Bloomberg Commodity Total Return Index, 33.3% 0.0% MSCI World	
Natural Resources Index and <del>33.3%</del> 100.0% Gold Spot price (XAU) *	<del>7.0%</del> 2.5%
MSCI World Index with net dividends	<del>9.0%<u>15.0%</u></del>
MSCI Emerging Markets with net dividends	<del>6.0%</del> 7.5%
Hedge Fund Research Indices Fund of Funds Composite Index	45.0%
POLICY/TARGET RETURN/RISKS	FYE <del>2016</del> 2017
Expected 10-Year Annual Real Return (Benchmark)	<del>2.4%</del> <u>1.60%</u>

Expected To-Teal Annual Real Return (Dencimark)	<del>2.470</del> 1.0076	
One Year Downside Volatility	<del>6.1%</del>	
Risk Bounds		
Lower: 1 Year Downside Volatility	70.0%	
Upper: 1 Year Downside Volatility	115.0%	

\* Bloomberg Commodity Total Return Index and MSCI World Natural Resources Index will be phased out monthly during FY 2017.

#### ATTACHMENT 2 EXHIBIT A - INTERMEDIATE TERM FUND (continued) ASSET CLASS AND INVESTMENT TYPE TARGETS, RANGES AND PERFORMANCE OBJECTIVES EFFECTIVE DATE DECEMBER 1, 2015 SEPTEMBER 1, 2016

#### POLICY BENCHMARKS BY ASSET CLASS AND INVESTMENT TYPE: FYE 2016 2017

FYE 2017		More Correlated & Constrained	Less Correlated & Constrained	Total
Fixed Income	Investment Grade	Barclays Capital Global Aggregate Index (30.0%)	4.5%	34.5%
Fixed income	Credit-Related	(0.0%)	7.5%	7.5%
	Real Estate	FTSE EPRA/NAREIT Developed Index Net TRI USD ( <del>3.0%<u>0.0%</u>)</del>	<del>1.0%</del> 0.0%	4 <del>.0%</del> 0.0%
Real Assets	Natural Resources	33.4% 0.0% Bloomberg Commodity Total Return Index, 33.3% 0.0% MSCI World Natural Resources Index and 33.3% 100% Gold Spot price (XAU) (7.0%2.5%)*	0.0%	<del>7.0%<u>2.5%</u></del>
Equity	Developed Country	MSCI World Index with Net Dividends (9.0%15.0%)	29.0%	<del>38.0%<u>4</u>4.0%</del>
Equity	Emerging Markets	MSCI EM Index with Net Dividends ( <del>6.0%<u>7.5%</u>)</del>	<del>3.0%<u>4.0%</u></del>	<del>9.0%<u>11.5%</u></del>
Total		55.0%	45.0%	100.0%

Hedge Fund Research Indices Fund of Funds Composite Index

<u>\* Bloomberg Commodity Total Return Index and MSCI World Natural Resources Index will be phased out</u> monthly during FY 2017.

Investment Policy/Benchmarks are indicated in Black/Bold Reportable Targets are indicated in Gray Effective Date of Policy: <u>November 5, 2015</u><u>August 25, 2016</u> Date Approved by U. T. System Board of Regents: <u>November 5, 2015</u><u>August 25, 2016</u> Date Approved by UTIMCO Board: <u>October 15, 2015</u><u>July 21, 2016</u> Original Effective Date of Policy: August 7, 2003 Supersedes: Liquidity Policy dated <u>August 21, 2014</u><u>November 5, 2015</u>

#### **Purpose:**

The purpose of this Liquidity Policy is to establish limits on the overall liquidity profile of investments in (1) the Permanent University Fund (PUF) and the General Endowment Fund (GEF), hereinafter collectively referred to as the Endowment Funds and, (2) the Intermediate Term Fund (ITF). For the purposes of this policy, "liquidity" is defined as a measure of the ability of an investment position to be converted into Cash. The established liquidity profile limits will act in conjunction with, but do not supersede, the Investment Policies adopted by the U. T. System Board of Regents.

#### **Objective:**

The objective of this Liquidity Policy is to control the element of total risk exposure of the Endowment Funds and the ITF stemming from the uncertainties associated with the ability to convert longer term investments to Cash to meet immediate needs or to change investment strategy, and the potential cost of that conversion.

#### Scope:

This Liquidity Policy applies to all PUF, GEF, and ITF investments made by The University of Texas Investment Management Company (UTIMCO), both by internal and by external managers. Policy implementation will be managed at the aggregate UTIMCO level and will not be a responsibility of individual internal or external managers managing a portion of the aggregate assets.

#### **Definition of Liquidity Risk:**

"Liquidity risk" is defined as that element of total risk resulting from the uncertainty associated with both the cost and time period necessary to convert existing investment positions to Cash. Liquidity risk also entails obligations relating to the unfunded portions of capital commitments. Liquidity risk can result in lower than expected returns and reduced opportunity to make changes in investment positions to respond to changes in capital market conditions.

#### **Definition of Cash:**

Cash is defined as short term (generally securities with time to maturity or mandatory purchase or redemption of three months or less), highly liquid investments that are readily convertible to known amounts and which are subject to a relatively small risk of changes in value. Holdings may include:

- the existing Dreyfus Institutional Preferred Money Market Fund mandate and any other UTIMCO Board approved-SEC Rule 2a-7 money market fund rated AAAm by Standard & Poor's or the equivalent by a Nationally Recognized Statistical Rating Organization (NRSRO),
- securities of the U.S. Treasury and U.S. Agencies and their instrumentalities with maturities of 397 days or less,
- separately managed accounts with investment guidelines equivalent to, or more stringent than, unaffiliated liquid investment funds rated AAAm by Standard & Poor's Corporation or the equivalent by a NRSRO,
- the Custodian's late deposit interest bearing liquid investment fund,
- municipal short term securities,
- commercial paper rated in the two highest quality classes by Moody's Investor Service, Inc. (P1 or P2) or Standard & Poor's Corporation (A1 or A2 or the equivalent),
- negotiable certificates of deposit with a bank that is associated with a holding company whose short-term rating meets the commercial paper rating criteria specified above or that has a certificate of deposit rating of 1 or better by Duff & Phelps, and

 repurchase agreements and reverse repurchase agreements transacted with a dealer that is approved by UTIMCO and selected by the Federal Reserve as a Primary Dealer in U.S. Treasury securities and rated A-1 or P-1 or the equivalent.

#### Liquidity Risk Measurement-The Liquidity Profile:

For the purposes of this Liquidity Policy, potential liquidity risk will be monitored by measuring the aggregate liquidity profile of the Endowment Funds and ITF. All individual investments within the Endowment Funds and ITF will be segregated into two categories:

- Liquid: Investments that could be converted to Cash within a period of 90 days or less in an orderly market at a discount of 10% or less.
- **Illiquid:** Investments that could be converted to Cash in an orderly market over a period of more than 90 days or in a shorter period of time by accepting a discount of more than 10%.

UTIMCO staff will report individual investments within the Endowment Funds and ITF categorized as follows:

- Cash: Short term (generally securities with time to maturity or mandatory purchase or redemption of three months or less), highly liquid investments that are readily convertible to known amounts and which are subject to a relatively small risk of changes in value.
- Liquid (Weekly): Investments that could be converted to Cash within a period of one day to less than 7 days in an orderly market at a discount of 5% or less.
- Liquid (Quarterly): Investments that could be converted to Cash within a period of 90 days or less in an orderly market at a discount of 10% or less.
- Liquid (Annual): Investments that could be converted to Cash within a period of one day to less than 365 days in an orderly market at a discount of 10% or less.

The measurements necessary to segregate all existing investments into one of the two categories assume normally functioning capital markets and cash market transactions. In addition, swaps, derivatives, or other third party arrangements to alter the status of an investment classified as illiquid may be considered, with the prior approval of the UTIMCO Board or the Risk Committee, in determining the appropriate liquidity category for each investment.

The result of this liquidity risk measurement process will be a liquidity profile for the Endowment Funds and the ITF which indicates the percentage of the total portfolio assets within each liquidity category. This Liquidity Policy defines the acceptable range of percentage of total assets within each liquidity category, specifies "trigger zones" requiring special review by UTIMCO staff and special action by the UTIMCO Board or the Risk Committee, and specifies the method of monitoring and presenting actual versus policy liquidity profiles.

#### **Liquidity Policy Profile:**

The current Liquidity Policy Profile ranges and trigger zones for each of the Endowment Funds are defined by the table below:

Liquidity above trigger zone:	<b>FY <u>1417+</u></b> 30.0 <u>25.0</u> %
Liquidity within trigger zone:	<del>25.0<u>20.0</u>%-<u>30.0</u>25.0</del> %
Liquidity below trigger zone:	< <del>25.0</del> 20.0%

The permitted maximum for **illiquid** investments is 7580% of the total portfolio for the Endowment Funds. Investments for the Endowment Funds that maintain liquidity above the trigger zone do not require any action by the

#### The University of Texas Investment Management Company Liquidity Policy

Risk Committee. Any **illiquid** investments made in the 7075% to 7580% trigger zone require prior approval by the Risk Committee. No investment may be made for the Endowment Funds which would cause illiquidity to be greater than 7580%.

The current Liquidity Policy Profile ranges and trigger zones for the ITF are defined by the table below:

Liquidity above trigger zone:	<u>FY 14+</u> 50%
Liquidity within trigger zone:	45%-50%
Liquidity below trigger zone:	<45%

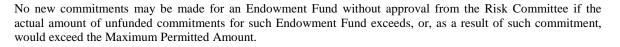
The permitted maximum for **illiquid** investments is 55% of the total portfolio for the ITF. Investments for the ITF that maintain liquidity above the trigger zone do not require any action by the Risk Committee. Any **illiquid** investments made in the 50% to 55% trigger zone require prior approval by the Risk Committee. No investment may be made for the ITF which would cause illiquidity to be greater than 55%.

Risk Committee review of new investments in the illiquid trigger zone will supplement, rather than replace, the procedures established by the UTIMCO Board for the approval of new investments.

#### **Unfunded Commitments:**

As used herein, "unfunded commitments" refers to capital that has been legally committed from an Endowment Fund and has not yet been called but may still be called by the general partner or investment manager. The Maximum Permitted Amount of unfunded commitments for each Endowment Fund is:

Unfunded Commitments as a percent of total invested assets:



#### **Documentation and Controls:**

Managing Directors responsible for each asset class are responsible for determining the liquidity category for each investment in that asset class as well as the amount of unfunded commitments for each Endowment Fund. The determination of liquidity will include underlying security trading volumes, notice periods, redemption dates, lock-up periods, and "soft" and "hard" gates. These classifications will be reviewed by the Risk Manager and the Chief Compliance Officer, and must receive final approval from the Chief Investment Officer. Classifications and weights within each liquidity category will be updated and reported on a monthly basis. All new investments considered will be categorized by liquidity category, and a statement regarding the effect on overall liquidity and the amount of unfunded commitments for each Endowment Fund of the addition of a new investment must be an element of the due diligence process and will be a part of the recommendation report to the UTIMCO Board.

As additional safeguards, trigger zones have been established as indicated above to trigger required review and action by the UTIMCO Board or the Risk Committee in the event any investment action would cause the actual investment position in illiquid investments to enter the designated trigger zone, or in the event market actions caused the actual investment position in illiquid investments to move into trigger zones. In addition, any proposed investment actions which would increase the actual investment position in illiquid investments to actual investment position in illiquid investments to move into trigger zones. In addition, any proposed investment actions which would increase the actual investment position in illiquid investments in any of the PUF, the GEF, or the ITF by 10% or more of the total asset value of such fund would also require review and action by the UTIMCO Board or the Risk Committee prior to the change. Any actual positions in any trigger zones or outside the policy ranges will be communicated to the Chief Investment Officer immediately. The Chief Investment Officer

will then determine the process to be used to eliminate the exception and report promptly to the UTIMCO Board and the Risk Committee the circumstances of the deviation from Policy and the remedy to the situation. Furthermore, as indicated above, no new commitments may be made for an Endowment Fund without approval from the Risk Committee if the actual amount of unfunded commitments for such Endowment Fund exceeds, or, as a result of such new commitment, would exceed, the Maximum Permitted Amount.

#### **Reporting:**

The actual liquidity profiles of the Endowment Funds and the ITF, including a detailed analysis of liquidity by category, and the status of unfunded commitments for each Endowment Fund, and compliance with this Liquidity Policy will be reported to the UTIMCO Board on at least a quarterly basis. Any exception to this Liquidity Policy and actions taken to remedy the exception will be reported promptly.

Effective Date of Policy: <u>November 5, 2015</u><u>August 25, 2016</u> Date Approved by U. T. System Board of Regents: <u>November 5, 2015</u><u>August 25, 2016</u> Date Approved by UTIMCO Board: <u>October 15, 2015</u><u>July 12, 2016</u> Supersedes: Derivative Investment Policy approved <u>August 21, 2014November 5, 2015</u>

#### **Purpose:**

The purpose of the Derivative Investment Policy is to set forth the applications, documentation and limitations for investment in derivatives in the Permanent University Fund (PUF), the General Endowment Fund (GEF), the Intermediate Term Fund (ITF), and the Separately Invested Funds (SIF), hereinafter referred to as the Funds. The Board of Regents approved investment policy guidelines for the Funds to allow for investment in derivatives provided that their use is in compliance with UTIMCO's Board approved Derivative Investment Policy. This Derivative Investment Policy supplements the Investment Policy Statements for the Funds.

#### **Objective:**

The objective of investing in derivatives is to facilitate risk management and provide efficiency in the implementation of various investment strategies for the Funds. Derivatives can provide the Funds with more economical means to improve the Funds' risk/return profile.

#### Scope:

This Policy applies to all derivatives in the Funds executed by UTIMCO staff and by external managers operating under an Agency Agreement. This Policy does not apply to external managers operating under limited partnership agreements, offshore corporations, or other Limited Liability Entities that limit the liability exposure of the Funds' investments. Derivative policies for external managers are established on a case-by-case basis with each external manager, as described below.

This Policy applies to both Exchange Traded Derivatives and Over the Counter (OTC) derivatives. This Policy shall not be construed to apply to index or other common or commingled funds that are not controlled by UTIMCO. These commingled investment vehicles are governed by separate investment policy statements.

#### **External Managers:**

External managers are selected to manage the Funds' assets under either an Agency Agreement or through a Limited Liability Entity. An external manager operating under an Agency Agreement may engage in derivative investments only if (i) such manager has been approved to use derivatives by the UTIMCO Chief Investment Officer and (ii) the investments are consistent with the overall investment objectives of the account and in compliance with this Policy. The use of derivatives by an external manager operating under an Agency Agreement shall be approved by the UTIMCO Chief Investment Officer only for external managers that (i) demonstrate investment expertise in their use, (ii) have appropriate risk management and valuation policies and procedures, and (iii) effectively monitor and control their use.

While this Policy does not specifically include external managers operating through a Limited Liability Entity, it is noted that selecting and monitoring external managers through a Limited Liability Entity requires a clear understanding of the external managers' use of derivatives, particularly as it relates to various risk controls and leverage. The permitted uses of derivatives and leverage must be fully documented in the limited liability agreements with these managers.

#### **Definition of Derivatives:**

Derivatives are financial instruments whose value is derived, in whole or part, from the value of any one or more underlying securities or assets, or index of securities or assets (such as bonds, stocks, commodities, and currencies). For the purposes of this Policy, derivatives shall include Derivative Investments but shall not include a broader range of securities, such as mortgage backed securities, structured notes (including participation notes), convertible bonds, exchange traded funds (ETFs), and Bona Fide Spot Foreign Exchange Transactions. Derivatives may be purchased through a national or international exchange or through an OTC direct arrangement with a Counterparty. Refer to the

attached Exhibit A for a glossary of terms. If it is unclear whether a particular financial instrument meets the definition of Derivative Investment, the Risk Manager and Chief Compliance Officer, in consultation with the Chief Investment Officer, will determine whether the financial instrument is a Derivative Investment. The Chief Investment Officer will report such determinations to the Chairman of the Risk Committee.

#### **Permitted Derivative Applications:**

The primary intent of derivatives should be to hedge risk in portfolios or to implement investment strategies more effectively and at a lower cost than would be possible in the Cash Market.

Permitted Derivative Applications are Derivative Investments used:

- To implement investment strategies in a low cost and efficient manner;
- To alter the Funds' market (systematic) exposure without trading the underlying Cash Market securities through purchases or short sales, or both, of appropriate derivatives;
- To construct portfolios with risk and return characteristics that could not be created with Cash Market securities;
- To hedge and control risks; or
- To facilitate transition trading.

UTIMCO staff may not enter into any Derivative Investment that is not a Permitted Derivative Application. To the extent that a new Derivative Investment\_recommended by UTIMCO staff or for the engagement of an external manager operating under an Agency Agreement that has been approved by UTIMCO's Chief Investment Officer is a Permitted Derivative Application but is not within the delegated authority as set forth on Exhibit B, the UTIMCO Board will be provided with an "Option to Review" following the process outlined in Exhibit A to the Delegation of Authority Policy. This "Option to Review" applies to any new Derivative Investment recommended by UTIMCO's Chief Investment Officer that is not within the delegated authority set forth on Exhibit B or the engagement of an external manager operating under an Agency Agreement that seeks to engage in a Derivative Investment that is not within the delegated authority set forth on Exhibit B, any Director may require a complete review of the new Derivative Investment prior to implementation. Notwithstanding the foregoing, UTIMCO's Chief Investment Officer, the Risk Manager, or Chief Compliance Officer may determine that presentation and approval of the proposed Derivative Investment at a Risk Committee meeting is warranted before engaging in the Derivative Investment.

#### **Risk and Investment Policy Controls:**

Following the implementation of any Derivative Investment, the Funds' projected downside volatility bounds, and projected exposure to Asset Class and Investment Type, must be within the permissible ranges as set forth in the Funds' Investment Policy Statements.

#### **Documentation and Controls:**

Prior to the implementation of a new Derivative Investment by UTIMCO staff, UTIMCO staff shall document the purpose, valuation method, methods for calculating delta, delta-adjusted exposure, Asset Class and Investment Type exposure, the effect on portfolio leverage (if applicable), risks (including, but not limited to modeling, pricing, liquidity and Counterparty risks), the expected increase or reduction in risk resulting from the Derivative Investments, and the procedures in place to monitor and manage the derivative exposure. For any short exposure, UTIMCO staff shall also document the basis risk and appropriate stop-loss procedures. UTIMCO shall establish appropriate risk management procedures to monitor daily the risk of (i) internally managed Derivative Investments and (ii) externally managed accounts operating under Agency Agreements that permit derivatives. Internal control procedures to properly account and value the Funds' exposure to the Derivative Investment shall be fully documented.

#### **Additional Limitations:**

**Leverage:** Leverage is inherent in many derivatives. In Cash Markets, in most cases, the cash outlay is equal to the market exposure acquired. By contrast, Derivative Investments offer the possibility of establishing – for the same cash outlay – substantially larger market exposure. Therefore, risk management and control processes must focus on the

#### The University of Texas Investment Management Company Derivative Investment Policy

total risk assumed in a Derivative Investment. Exhibits A of the Fund's Investment Policy Statements provide a limitation on the amount of uncollateralized derivative exposure that can be utilized by the Funds whereby, the total Asset Class and Investment Type exposure, including the amount of derivatives exposure not collateralized by cash, may not exceed 105% (100% in the ITF) of the Asset Class and Investment Type exposures excluding the amount of derivatives exposure not collateralized by cash.

**Counterparty Risks:** Rigorous Counterparty selection criteria and netting agreements shall be required to minimize Counterparty risk for Over the Counter (OTC) derivatives. Any Counterparty in an OTC derivative transaction with the Funds must have a credit rating of at least A- (Standard and Poor's) or A3 (Moody's). All OTC derivatives, with the exception of Bona Fide Spot Foreign Exchange Transactions, must be subject to established ISDA Netting Agreements and have full documentation of all legal obligations of the Funds. In limited circumstances, the August 2012 DF Protocol Agreement, as published on August 13, 2012 (the "August Protocol Agreement") and the 2002 ISDA Master Agreement with a Schedule (an "ISDA March 2013 DF Protocol Master Agreement"), developed in connection with ISDA's Dodd-Frank Documentation Initiative to implement and comply with the regulatory requirements imposed under Title VII of the Dodd–Frank Wall Street Reform and Consumer Protection Act, may be used in place of an ISDA Netting Agreement or on a temporary basis until an ISDA Netting Agreement with the Counterparty is downgraded below the minimum credit rating requirements stated above, UTIMCO staff will take appropriate action to protect the interests of the Funds, including availing itself of all potential remedies contained in the ISDA agreements. The net market value, net of collateral postings, of all OTC derivatives for any individual Counterparty may not exceed 1% of the total market value of the Funds.

#### **Risk Management and Compliance:**

To ensure compliance with all terms and limitations of this Policy, all internally managed and externally managed Derivative Investments in accounts under Agency Agreements will be marked to market on a daily basis by the Funds' custodian and reviewed periodically, but no less frequently than monthly, for accuracy by the UTIMCO Risk Manager. In addition, data from the external risk model will be reviewed for accuracy and completeness by the UTIMCO Risk Manager.

Compliance with this Policy will be monitored by the UTIMCO Chief Compliance Officer using data provided by the custodian and the external risk model.

Any instances of noncompliance with this Policy will be reported immediately to the UTIMCO Chief Compliance Officer and the UTIMCO Chief Investment Officer, who will determine the appropriate remedy and report promptly to the Chairs of the Risk Committee, the Audit & Ethics Committee, and the UTIMCO Board Chairman. The UTIMCO Board Chairman may waive immediate remedial action in appropriate circumstances.

#### **Reporting:**

On a quarterly basis, UTIMCO shall provide a comprehensive report to UTIMCO's Board and the Risk Committee. This report shall include all outstanding Derivative Investments, by type, entered into during the period being reported for both internal managers and external managers operating under Agency Agreements. Asset allocation as provided in the Funds' Investment Policy Statements shall incorporate the impact of uncollateralized derivative exposure associated with derivatives. For risk reporting purposes, the models used to calculate the expected profit or loss in each scenario will include the effect of delta sensitivity and other derivative sensitivity parameters as appropriate. Risk calculations will take into account leverage, correlation, and exposure parameters such as beta for equities and duration for fixed income. The UTIMCO Risk Manager will calculate risk attribution - i.e., how much of the overall risk is attributed to each Asset Class and Investment Type, including the full effect on risk of the derivatives in each. The UTIMCO Risk Manager will calculate risk attribution for each Derivative Investment.

#### Derivative Investment Policy Exhibit A Glossary of Terms

Agency Agreement – A form of legal agreement that typically grants limited investment discretion to an external investment manager to act as the investment agent of the Funds but does not limit the liability of the Funds for actions taken by that agent.

**Basket** – A group of securities and a weighting scheme, or a proprietary index. Baskets are typically defined to achieve a certain investment goal, within certain limitations. For example, a Basket could replicate an emerging market index, excluding certain companies that UTIMCO is not permitted to hold.

**Bona Fide Spot Foreign Exchange Transaction** – Generally, a foreign exchange transaction that settles via an actual delivery of the relevant currencies within two business days (T+2). In addition, an agreement, contract or transaction for the purchase or sale of an amount of foreign currency equal to the price of a foreign security with respect to which (i) the security and related foreign currency transactions are executed contemporaneously in order to effect delivery by the relevant securities settlement deadline and (ii) actual delivery of the foreign security and foreign currency occurs by such deadline (such transaction, a "Securities Conversion Transaction"). For Securities Conversion Transactions, the Commodity Futures Trading Commission (CFTC) will consider the relevant foreign exchange spot market settlement deadline to be the same as the securities settlement deadline.

Cash Market - The physical market for a commodity or financial instrument.

**Counterparty** - The offsetting party in an exchange agreement.

Derivative Investment - An investment in a Futures Contract, Forward Contract, swap, and all forms of options.

**Exchange Traded Derivatives** - A Derivative Investment traded on an established national or international exchange. These derivatives "settle" daily in that cash exchanges are made between the exchange and parties to the contracts consistent with the change in price of the instrument. Fulfillment of the contract is guaranteed by the exchange on which the derivatives are traded. Examples include S&P 500 Futures Contracts and Goldman Sachs Commodities Index Futures Contracts.

**Forward Contract** - A nonstandardized contract for the physical or electronic (through a bookkeeping entry) delivery of a commodity or financial instrument at a specified price at some point in the future. The most typical Forward Contract is a forward foreign currency contract, which involves the contemplated exchange of two currencies.

**Futures Contract** - A standardized contract for either the physical delivery of a commodity or instrument at a specified price at some point in the future, or a financial settlement derived from the change in market price of the commodity or financial instrument during the term of the contract.

**ISDA Netting Agreement** - The International Swaps and Derivatives Association (ISDA) is the global trade association representing participants in the privately negotiated derivatives industry, covering swaps and options across all asset classes. ISDA has produced generally accepted "Master Agreements," a 1992 Master Agreement and a 2002 Master Agreement, that are used by most counterparties in OTC derivatives. Netting agreements are terms within the applicable Master Agreement that deal with the calculation of exposure for each Counterparty. These netting agreements require that exposures between counterparties will be "netted" so that payables and receivables under all existing derivatives between two Counterparties are offset in determining the net exposure between the two Counterparties.

**Limited Liability Entity** – A legal entity created to define how assets contributed to the entity by external partners to the agreement will be managed by the manager of the entity. These entities are typically limited liability partnerships,

corporations, or other such entities that limit the liability of external investors to the current value of the external investors' investment in the entity.

**Long Exposure to an Asset Class** – The Net Asset Value of the Asset Class and Investment Type as defined in the Funds' Investment Policy Statement.

**Option** - A derivative that conveys the right but not the obligation to buy or deliver the subject financial instrument at a specified price, at a specified future date.

**Over the Counter (OTC) derivatives** - A derivative which results from direct negotiation between a buyer and a Counterparty. The terms of such derivatives are nonstandard and are the result of specific negotiations. Settlement occurs at the negotiated termination date, although the terms may include interim cash payments under certain conditions. Examples include currency swaps and Forward Contracts, interest rate swaps, and collars.

**Replicating Derivatives** – Derivatives that are intended to replicate the return characteristics of an underlying index or any other Cash Market security.

**Swap** - A contract whereby the parties agree to exchange cash flows of defined investment assets in amounts and times specified by the contract.

5

#### Derivative Investment Policy Exhibit B Delegated Derivative Investments

Subject to the limitations contained in the Derivative Investment Policy, the UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer the authority to enter into the following Derivative Investments:

Delegated Derivative Investments:

- 1. Replicating Derivatives Derivative Investments that replicate the return characteristics of a long exposure to an underlying index, Basket or commodity. These investments are generally Futures Contracts and swaps on a passive index, Basket or commodity.
- 2. Derivative Investments that upon their expiration would not exceed the loss of a similar investment in the cash market equivalent being referred to in the derivative contract. These investments may include swaps whereby the holder of the instrument will forgo potential upside return in exchange for downside protection or receive a multiple of a referenced return should the return of the underlying referenced cash market equivalent be within a certain range and may also include the selling of put options.
- 3. Derivative Investments that reduce Long Exposure to an Asset Class or hedge against risk, and limit maximum loss to the premium paid for the Derivative Investment, i.e., purchase options. The aggregate prorated annual premium of all Derivative Investments under this provision shall be as set forth in the respective Fund's Investment Policy Statement.
- 4. Futures Contracts and Forward Contracts on foreign currency if used (i) by an external fixed income manager within its investment guidelines, (ii) for hedging purposes by an external equities manager within its investment guidelines, or (iii) to hedge existing or prospective foreign currency risk by UTIMCO staff.
- 5. Derivative Investments used to manage bond duration or hedge equity exposure to countries, sectors or capitalization factors, or individual stock(s) swaps within the portfolio only if subsequent to the investment the portfolio would not be net short to any one of those factors. An example of such a hedge is selling Futures Contracts or call options on a country or sector index, provided the manager is exposed to that country or sector.
- 6. Derivative Investments used to gain Long Exposure to an Asset Class and limit maximum loss to the premium paid for the Derivative Investment.

The delegated authority set forth above should not be construed to permit UTIMCO staff to enter into Derivative Investments that are unhedged or 'naked' short positions containing unlimited loss.

Modeling: Each Delegated Derivative Investment must be such that it can be decomposed into one or more components, and each said component can be modeled using a model such as the CDS valuation model, Black-Scholes model, including modifications for foreign currency ("Quanto"), allowing both normal and log-normal distributions (the Black model), and modifications to handle dividends or other model approved by the Policy Committee.

Leverage: Each Delegated Derivative Investment must be modeled on a fully collateralized basis. During the course of the investment, cash collateral backing a Derivative Investment may be utilized to invest in other investments thereby creating leverage at the Fund level. This is only allowed if within the Funds' Investment Policy Statements.

Effective Date of Policy: <u>May 5July 21</u>, 2016 Date Approved by UTIMCO Board: <u>May 5July 21</u>, 2016 Supersedes: Delegation of Authority Policy approved by the UTIMCO Board on <u>November 18, 2014May 5,</u> <u>2016</u>

#### Purpose:

The purpose of the Delegation of Authority Policy is to provide a clear delineation of responsibilities of the UTIMCO Board of Directors and the UTIMCO staff. Section 66.08(d) of the *Texas Education Code* provides that UTIMCO's duties to the U. T. System Board of Regents with respect to the management of investment funds shall be governed by a contract between the two parties. UTIMCO provides various investment management services to the U. T. System Board as more fully described in the Investment Management Services Agreement by and between the U. T. System Board and UTIMCO. The UTIMCO Board is responsible for management and investment oversight of UTIMCO. The UTIMCO Board recommends amendments to the Investment Policies for approval by the U. T. System Board. The UTIMCO Board is responsible for overseeing the investment process to execute the established Investment Policies. However, to enhance the competitiveness of the investment process, improve management and operational efficiency, and define and concentrate accountability for performance, certain duties and responsibilities are delegated by the UTIMCO Board to UTIMCO Management. This Policy Statement defines the delegation of authority in the two primary areas of UTIMCO operations:

- (1) Management, Operations, and Finance; and
- (2) Investments.

#### Objective:

By clearly defining the scope of delegated authority to UTIMCO Management, this Policy Statement enhances operational efficiency and timeliness in decision making, thereby enhancing competitiveness.

#### Scope:

This Policy applies to all matters under UTIMCO control. The only delegations of authority granted by the UTIMCO Board are enumerated in this Policy, and any authority not specifically granted in this Policy is retained by the UTIMCO Board acting as agent for the U. T. System Board, provided that nothing contained in this Policy Statement is intended to, or shall, limit any delegation of authority otherwise set forth in the UTIMCO Bylaws, the Investment Management Services Agreement, any Committee Charter, any Investment Policy, or any formal policy adopted by the UTIMCO Board.

#### Authority Delegated to UTIMCO Management:

The primary functions of the UTIMCO Board are to formulate, revise, <u>oversee</u>, implement, and conduct ongoing oversight of the policies it has established for UTIMCO. The duties and responsibilities of the UTIMCO Board are enumerated in the UTIMCO Bylaws, Articles of Incorporation, Committee Charters, Investment Management Services Agreement, and UTIMCO policies. To execute its responsibilities more efficiently, the UTIMCO Board has delegated the authority to implement UTIMCO policies to UTIMCO Management in two primary areas: (i) Management, Operational, and Financial Authority; and (ii) Investment Authority.

*Management, Operational, and Financial Authority:* Final authority for the functions listed below rests with the UTIMCO Board:

- Administration, Accounting and Financial Management;
- Systems Technology Management;
- Personnel Management;
- Compliance;
- Client Relations and Reporting; and
- Public Relations.

However, the UTIMCO Board hereby delegates authority to UTIMCO Management in each functional area as specified below:

Administration, Accounting, and Financial Management: The UTIMCO Board hereby delegates all day-to-day operational decisions to UTIMCO Management. This delegation includes, but is not limited to, all administrative decisions regarding the management of endowment and operating funds as well as all administrative and financial decisions associated with the operation of the UTIMCO organization. This delegation includes the authority to execute all contracts and agreements, subject to the limitations defined below.

*Systems Technology Management:* The UTIMCO Board hereby delegates all decisions regarding the operation and management of all systems technology assets to UTIMCO Management. This delegation includes the authority to execute all contracts and agreements, subject to the limitations defined below.

*Personnel Management:* The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer all personnel management decisions regarding positions included in approved UTIMCO operating budgets, and grants authority to the Chief Executive Officer to add non-budgeted personnel as necessary, subject to review in the following budget cycle, provided that the addition of any non-budgeted personnel shall be promptly reported to the UTIMCO Board. All compensation decisions for officers of UTIMCO are excluded from this delegation.

*Compliance:* The UTIMCO Board hereby delegates all compliance operations to UTIMCO Management, while retaining all oversight functions as specified in UTIMCO policies.

*Client Relations and Reporting:* The UTIMCO Board hereby delegates all client relations and reporting decisions to UTIMCO Management.

*Public Relations:* The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer, in conjunction with The University of Texas System Offices of Public Affairs and Governmental Relations, all decisions regarding public relations matters, except for those matters that are reserved to the UTIMCO Vice Chairman for Policy.

In addition, to facilitate the execution of the authority granted above, the UTIMCO Board hereby delegates the following specific duties and responsibilities to UTIMCO Management:

- Contracts: The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer the authority to execute on the behalf of UTIMCO all contracts, leases, or other commercial arrangements (except investment management agency contracts, partnership agreements, investment consultant agreements and agreements with independent auditors) for a total obligation of \$1 million or less during the contract term; provided that, for purposes of this delegation any contract that does not have a fixed term shall be deemed to have a term of one year; provided further, that notice of any such new contracts, leases, or other commercial arrangements of \$50,000100,000 or more shall be reported to the UTIMCO Board at its next regularly scheduled meeting, and annually, all existing contracts, leases, or other commercial arrangements of \$50,000100,000 or more shall be reported to the UTIMCO Board.
- Fiduciary Counsel: Management of UTIMCO's Fiduciary Counsel: The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer the authority to direct the day-to-day work product of the UTIMCO fiduciary Fiduciary counselCounsel, provided that the UTIMCO fiduciary Fiduciary counsel Counsel shall continue to have primary reporting responsibility to the UTIMCO Board.

*Investment Authority:* The UTIMCO Board hereby delegates the following specific duties and responsibilities to UTIMCO Management:

- Tactical Asset Allocation: Without limitations of timing, procedures, or vehicles utilized, decisions regarding tactical asset allocation within the ranges established in Investment Policies, including rebalancing portfolio weights to Policy Target Weights or actively deviating from Policy Weights as market conditions dictate, are hereby delegated to the UTIMCO Chief Executive Officer, as long as any decisions do not violate established Investment Policies. Short sales of securities (including exchange traded funds, and individual common stocks and bonds) and equity indices or short positions established through Delegated Derivative Investments as defined in the Derivative Investment Policy to offset existing long positions for risk control purposes may also be utilized as a vehicle in tactical asset allocation. Prior to implementation of any short security sale strategy and throughout the duration of the strategy, risk analyses shall be performed to verify the expected risk reducing impact of the proposed strategy and that the strategy does not result in the risk position of the total Funds being outside the policy risk range.
- *Risk Management:* The UTIMCO Board hereby delegates all decisions regarding the design and operation of any risk management system to UTIMCO Management.
- Allocation of Investment Funds to New Managers and Mandates: The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer the authority to commit UT System funds to a new relationship with an internal or external investment manager during the first six months of the relationship or to new mandates with external investment managers already under existing relationships with UTIMCO, and the accompanying authority to negotiate and execute agency, partnership or subscription agreements as necessary, provided that any Director may require a

complete review by the Board of the investment prior to the execution of the investment if the investment exceeds any of the following thresholds:

- More Correlated & Constrained (MCC) Investments: 1.5% of Applicable Assets (as defined below).
- o Less Correlated & Constrained (LCC) Investments: 1.0% of Applicable Assets.
- Private Investments: 0.75% of Applicable Assets.
- Co-investments to a direct <u>Public or</u> Private Investment <u>with alongside</u> an existing external manager: 0.30% of Applicable Assets.
- Changing Allocations of Investment Funds to Existing Managers and Mandates: Subsequent to
  the first six months of the UTIMCO relationship with a new manager, the UTIMCO Board hereby
  delegates to the UTIMCO Chief Executive Officer the authority to increase investments or
  commitments to existing internal or external investment managers and mandates, and the
  accompanying authority to renegotiate existing agency, partnership or subscription agreements
  as necessary, provided that any Director may require a complete review by the Board of the
  investment prior to the execution of the investment if the investment exceeds any of the
  following thresholds:
  - More Correlated & Constrained (MCC) Investments: 1.0% of Applicable Assets in each subsequent 12-month period.
  - Less Correlated & Constrained (LCC) Investments: 0.75% of Applicable Assets in each subsequent 12-month period.
  - Private Investments: 0.50% of Applicable Assets in each subsequent 12-month period.
  - Co-investments to a direct <u>Public or</u> Private Investment <u>with alongside</u> an existing external manager: 0.30% of Applicable Assets in each subsequent 12-month period.
- Terms Applicable to All Internal and External Managers:
  - Any Director may require a complete review by the Board of an investment prior to the execution of the investment if, as a result of the investment:
    - Total Assets managed by the internal or external manager exceed 50% of the Total Assets managed by the manager in that investment strategy; or
    - Total Assets managed by the internal or external manager exceed 3.0% of Applicable Assets in the aggregate for all Investment Types (4.0% for managers limited to MCC Investment Grade Fixed Income mandates). For purposes of this provision, if Total Assets managed by the internal or external manager includes an allocation to Private Investments and MCC and/or LCC Investments, Applicable Assets will include the total combined NAV of the Endowments plus the ITF.
  - If any UTIMCO Director requires a complete review of the investment prior to the execution of the investment, the UTIMCO Director will submit a written request to Staff and the Staff shall make a presentation to highlight the attributes and risks of the proposed investment at the next UTIMCO Board meeting. Subsequent to hearing the presentation, the Board shall vote on whether or not to approve such investment.
  - "Applicable Assets" is defined as follows:

- For MCC and LCC Investments: Total combined NAV of the Endowments and ITF determined as of the most recent quarter-end close of books; and
- For Private Investments: Total combined NAV of the Endowments determined as of the most recent quarter-end close of books.
- o "Total Assets" shall be defined as NAV plus unfunded commitments.
- Prior to a new relationship with an internal or external investment manager or to a new mandate with an existing external investment manager, the Staff will send each Board member a description of the proposed investment and a Certificate of Compliance for the investment.
- Passive exposure, either by an individual internal or external manager, is limited only as required to maintain the Policy Portfolio within the Asset Class and Investment Type ranges.
- The UTIMCO Chief Executive Officer will report to the UTIMCO Board at its regularly scheduled Board meetings regarding all decisions made under this delegated authority.
- Manager Monitoring and Termination: The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer all decisions regarding monitoring and termination of existing internal or external investment managers.
- Notwithstanding, on a quarterly basis, manager mandates (excluding passive exposure) shall be aggregated across all Funds, asset classes and investment types and any mandate resulting in three percent (3%) or more exposure relative to the total Funds (excluding the ITF for Private Investments) will be reported to the Risk Committee at its next meeting. UTIMCO staff will be required to make a presentation and prepare a recommendation to the Risk Committee regarding an appropriate course of action for any manager mandate resulting in five percent (5%) or more exposure relative to the total Funds (excluding the ITF for the Private Investments). Such presentation and recommendation will include information regarding the manager mandate, including original amount of investment, historical performance, market and economic outlook, and appropriate sizing, with timelines for completion of any recommended action. After discussion and review by the Risk Committee, the Risk Committee may approve the recommendation of UTIMCO staff, determine a different appropriate level of exposure or request additional information to be presented at a subsequent meeting before action may be taken by UTIMCO staff. UTIMCO staff will be responsible for implementing any Risk Committee approved action.
- Investment in Derivative Investments: The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer the authority to enter into the Derivative Investments of the types set forth in Exhibit B of the Derivative Investment Policy and as authorized by the Funds' Investment Policy Statements. Any Director may require a complete review of any new Derivative Investment recommended by UTIMCO staff or for the engagement of an external manager operating under an Agency Agreement that has been approved by UTIMCO's Chief Investment Officer if the new Derivative Investment is not of the types authorized in Exhibit B of the Derivative Investment Policy.
- Internal Investment Management: The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer all decisions associated with the direct management of assets by UTIMCO

Staff subject to the same limitations applicable to Co-investments to a direct Public or Private Investment, excepting Fixed Income Investments.

 Management of the UTIMCO Board's External Investment Consultant(s): The UTIMCO Board hereby delegates to the UTIMCO Chief Executive Officer the authority to direct the day-to-day work product of the UTIMCO Board's external investment consultant(s), provided that the UTIMCO Board's external investment consultant(s) shall continue to have primary reporting responsibility to the UTIMCO Board.

#### **Documentation, Controls, and Reporting:**

All UTIMCO Management decisions made under this Delegation of Authority Policy will be monitored by UTIMCO's Chief Compliance Officer. Any exceptions to this Policy will be reported to UTIMCO's Chief Executive Officer immediately. The UTIMCO Chief Executive Officer will develop a remedy to the exception, if possible, and report the exception and the remedy to the UTIMCO Chairman immediately. Additionally, the UTIMCO Chief Executive Officer will report any exceptions to this Policy to the UTIMCO Board at its next regularly scheduled meeting, unless the UTIMCO Chairman instructs otherwise.

#### Agenda Item

#### UTIMCO Board of Directors Meeting July 21, 2016

- Agenda Item: Report from Compensation Committee, including Discussion and Appropriate Action Related to CEO's Base Salary for 2016-2017 Fiscal Year
- Developed By: Zimmerman, Moeller, Gonzalez
- Presented By: Hobson
- Type of Item:
   Action item; Action required by UTIMCO Board
- **Description:** The Compensation Committee (the "Committee") met on July 12, 2016. The Committee's agenda for its July 12, 2016 meeting consisted of (1) discussion and appropriate action related to minutes of April 26, 2016 meeting; and (2) discussion and appropriate action related to base salaries for the UTIMCO Officers and other Plan Participants for 2016-2017 fiscal year. The Committee also met in Executive Session for the purpose of deliberating individual personnel compensation and evaluation matters.
- **Discussion:** The Committee will report on its action related to the base salaries for all UTIMCO officers and Plan Participants (other than the CEO) for the 2016-17 Fiscal Year. The Committee will request that the Board take appropriate action related to the CEO's base salary.
- **Recommendation:** The Committee will request appropriate action from the Board related to the CEO's Base Salary for 2016-17 Fiscal Year
- **Reference:** Compensation materials provided for executive session

### **RESOLUTION REGARDING CEO'S BASE SALARY**

RESOLVED, that the Board of Directors of UTIMCO hereby approves the Base Salary of the Corporation's CEO for the Fiscal Year 2016-2017 in the amount of \$\_\_\_\_\_.

#### Agenda Item UTIMCO Board of Directors Meeting July 21, 2016

- Agenda Item: Discussion and Appropriate Action Related to UTIMCO 2016-2017 Budget
- Developed By: Zimmerman, Moeller, Bauer
- Presented By: Zimmerman
- **Type of Item:** Action Item; Action required by UTIMCO Board; further action required by Board of Regents of The University of Texas System ("U.T. Board")
- **Description:** The Master Investment Management Services Agreement with UTIMCO ("IMSA") sets forth the annual budget and management fee requirements. UTIMCO submits to the U.T. Board its proposed annual budget for the following fiscal year within the time frame specified by the U.T. Board for other annual budget submissions. The annual budget includes all estimated expenses associated with the management of the Investment Funds. The annual budget also includes an annual UTIMCO management fee which includes all operating expenses associated with the general management of the Funds, including, without limitation, reasonable salaries, benefits and performance compensation of portfolio management and support personnel, expenses for consulting services, office space lease expenses, office furniture and equipment expenses, professional, legal, payroll, and other general services, travel, insurance, capital expenditures, and other miscellaneous expenses incurred by UTIMCO in connection with the performance of its obligations under the IMSA. At the same time UTIMCO submits its annual budget, it submits to the U.T. Board an allocation formula for charging the annual budget to the Investment Funds. In addition to the annual budget, UTIMCO submits its capital expenditures budget.

During the preparation of the annual budget, a reserve analysis is also prepared. Within 90 days after the end of each fiscal year in the event that there is a surplus, UTIMCO distributes that portion of the cash reserves as may be directed by the U.T. Board back to the Funds which generated the surplus. Although the calculation supports a rebate back to the Funds, Staff is not recommending a rebate due to the future 2017 costs associated with the new lease space in the new UT System office building. These potential costs have not been determined yet and the capital budget will be brought forth to the Board at a future meeting for approval. UT System Office of Finance supports UTIMCO's recommendation.

- **Discussion:** Mr. Zimmerman will present the UTIMCO FY17 Budget presentation, including the reserve analysis.
- **Recommendation:** UTIMCO staff recommends that the UTIMCO Proposed 2016-2017 Annual Budget, Capital Budget, Management Fee Request, and Allocation Schedule be approved as presented.
- **Reference:** Proposed UTIMCO FY17 Budget presentation

### **RESOLUTION RELATED TO BUDGET**

RESOLVED, that the UTIMCO Management Fee of \$32,295,292 and the Other Direct Fund Costs of \$8,746,653, resulting in Total Fees of \$41,041,945, Capital Budget of \$100,000 and the Allocation Schedule; as provided to the Board for the period beginning September 1, 2016 through August 31, 2017, be, and are hereby, approved, subject to approval by the Board of Regents of The University of Texas System.



# The University of Texas Investment Management Company

**Proposed FY 2017 Budget** 

### FY 2016 BUDGET & FORECAST AND FY 2017 BUDGET



FY	2016	FY 2017	FY 2017 Budget v FY 2016 Budget		
Budget	Forecast	Budget	\$	%	
24,627 6,883	19,499 6,514	24,280 8,015	<mark>(347)</mark> 1,132	- <mark>1.4%</mark> 16.4%	
\$31,510	\$26,013	\$32,295	\$785	2.5%	
\$1,564	\$314	\$100	(\$1,464)	-93.6%	
\$8,502	\$8,003	\$8,747	\$245	2.9%	
	Budget 24,627 6,883 \$31,510 \$1,564	24,627 19,499 6,883 6,514 \$31,510 \$26,013 \$1,564 \$314	Budget         Forecast         Budget           24,627         19,499         24,280           6,883         6,514         8,015           \$31,510         \$26,013         \$32,295           \$1,564         \$314         \$100	FY 2016         FY 2017         FY 2016 B           Budget         Forecast         Budget         \$           24,627         19,499         24,280         (347)           6,883         6,514         8,015         1,132           \$31,510         \$26,013         \$32,295         \$785           \$1,564         \$314         \$100         (\$1,464)	



(\$ in thousands)	FY	2016	FY 2017	FY 2017 Budget v FY 2016 Budget		
	Budget	Forecast	Budget	\$	%	
Salaries	\$11,416	\$10,530	\$12,274	\$858	7.5%	
Incentive Compensation	10,441	6,592	9,006	(1,435)	-13.7%	
Benefits & Taxes	2,770	2,377	3,000	230	8.3%	
Total Compensation	\$24,627	19,499	24,280	(347)	-1.4%	
l otal Compensation	\$24,627	19,499	24,280	(347)	-1.4	

## **SALARIES**



• <u>Salary Budget - FY16</u>	<u>\$11,416</u>	
• <u>Salary Forecast - FY16</u>	\$10,530	
Full year net effect of recent hires and departures	(668)	1
• <u>Salary Run Rate</u>	\$9,862	
• <u>Salary Increases</u>		
S taff, excluding promotions	\$468	5.1%
Promotions (five)	80	<u>13.7%</u>
Total Salary Increases	548	5.6%
• Staff Openings and Additions		
Unfilled FY16 Positions (10): (LCC, Credit, Emerging Mkts, Lower/Middle Mkts, & Tech IO's, MCC, Risk & RE Analysts, Paralegal, Ops Due Diligence)	1,065	
Vacant Positions (5): (Lower/Middle Mkts, Real Estate & Tech IO's, Lower/Middle Mkt Analyst, CEO Exec Assistant)	619	
New Positions (3): (Natural Resources/Emerging Markets Associate, Emerging Markets Analyst, Support and Control Staff)	180	
Total Staff Openings and Additions	1,864	*

### • <u>Salary Budget - FY17</u>

\* Included in budget at an average of 9 months

<u>\$12,274</u>



(\$ in thousands)	FY 2016		FY 2016		FY 2017	FY 2017 B FY 2016 I	-
	Budget	Forecast	Budget	\$			
Cash Portion of Earned Incentive	\$7,994	\$4,535	\$6,674	(\$1,320)	-16.5%		
Vesting of Deferred Incentives	2,238	1,983	2,149	(89)	-4.0%		
Earnings on Deferred Incentives	209	74	183	(26)	-12.4%		
Total Incentive Compensation	\$10,441	\$6,592	\$9,006	(\$1,435)	-13.7%		

## **OTHER UTIMCO EXPENSES**



(\$ in thousands)	FY 2016		FY 2016		FY 2017	FY 2 Budge 2016 B		
	Budget	Forecast	Budget	\$	%	Description		
L eas e Depreciation	\$1,177 1,750	\$1,175 1,541	\$1,932 1,171	\$755 (579)	64.1% - <mark>33.1%</mark>	Lease Expiration Extension (\$16/ft to \$32/ft net of concessions) Leasehold Improvements Fully Depreciated at 8/31/2016		
Online Data & Subscriptions	1,250	1,256	2,000	750	60.0%	Dynamo, Private Investment, RE Market Data		
Travel	805	623	1,006	201	25.0%	Filled/New Positions		
Contract Svcs & Maint Agrmnts	624	596	514	(110)	-17.6%	Executive Coaching; IT Contract Labor		
Hiring, Relo & Comp Cons	503	417	568	65	12.9%	New Hires in FY17		
Legal	120	164	165	45	37.5%	FY17 Legislative Session		
Other	654	742	659	5	<u>0.8</u> %			
Total Other UTIMC O	\$6,883	\$6,514	\$8,015	\$1,132	16.4%			

## **CAPITAL BUDGET**



(\$ in thousands)	FY 2 Budget	2016 Forecast	FY 2017 Budget	FY 2017 Budget v FY 2016 Budget \$ %		Description
Technology Initiatives	\$1,252	\$92	\$0	(\$1,252)	-100.0%	GlobeArc Project Termination
<u>Business as Usual</u>						
Computer Servers/Software	45	42	30	(15)	-33.3%	Server Replacement/Software
S taff E quipment	45	45	45	0	0.0%	Replacement Desktops & Laptops, Miscellaneous
Software Licenses	137	131	25	(112)	-81.8%	FY16 Budget Included Accounting Software Upgrade
Furniture, Equipment & Copiers	50	4	0	(50)	-100.0%	
Leasehold	35	0	0	(35)	-100.0%	
	312	222	100	(212)	-67.9%	
Total Capital Budget	\$1,564	\$314	<u>\$100</u>	(\$1,464)	-93.6%	



(\$ in thousands)	FY 2016		FY 2016		FY 2017	FY 2017 B FY 2016 E	•	
	Budget	Forecast	Budget	\$	%	Description		
Custodian Fees	\$5,462	\$5,293	\$5,444	(\$18)	-0.3%			
Performance, Analytical and Risk Measurement	1,216	1,113	1,236	20	1.6%	Account Additions		
Consultant Fees	300	324	566	266	88.7%	Novus Contract		
Legal and Background Checks	575	312	522	(53)	-9.2%			
Auditing & Foreign Tax Consultants	929	928	959	30	3.2%	Increased Transaction Activity		
Other	20	33	20	0	0.0%			
Total	\$8,502	\$8,003	\$8,747	\$245	2.9%			

### **ANNUAL FEE & ALLOCATION SCHEDULE**



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UTIMCO Management Fee and Direct Budgeted Investment Expenses Annual Fee and Allocation Schedule

Annual Fee and Anocation Schedule

For the fiscal year ending August 31, 2017

Proposed Budget			Fund	Name			Funds	Proceeds	Total
	PUF	PHF	LTF	GEF	ITF	STF			
Forecasted Market Value 8/31/17 (\$ millions)	18,092	1,054	7,495	PHF LTF 8,549 (2)	7,443	1,805	208	371	36,468
UTIMCO Management Fee									
Dollars (thousands)	17,619	1,291	7,905		5,480				32,295
Basis Points	9.7	12.3	10.5	0	7.4	0	0	0	8.9
Direct Expenses to the Fund, excluding UT System Direct Expenses to the Fund									
Dollars (thousands)	3,843	25	26	2,214	2,639				8,747
Basis Points	2.1	0.2	0.0	2.6	3.5	0	0	0	2.4

(1) Income is net of fees

(2) Pooled Fund for the collective investment of the PHF and LTF



### Projected Cash Reserves at August 31, 2016:

Balance Available for Distribution		\$ 1,241,718
Required Cash Reserves at August 31,	2016	\$ 8,173,823
2017 Proposed Capital Expenditures	100,000	 100,000
2017 Proposed Operating Budget Applicable Percentage	32,295,292 25%	8,073,823
Expected Cash Reserves at August 31,	\$ 9,415,541	
Prepaid Expenses Less: Accounts Payable, Accr (Includes awards & e	 650,000 (5,859,459)	
Cash		\$ 14,625,000

Conclusion: No Rebate Recommended Back to the UT System Investment Funds