UTIMCO BOARD OF DIRECTORS **ANNUAL MEETING AGENDA** June 27, 2019

UTIMCO 210 West 7th Street, Suite 1700 Austin, Texas 78701

Time		Item #	Agenda Item
Begin	End		· · ·
9:00 a.m.	9:05 a.m.	1	OPEN MEETING: Call to Order of the Meeting/Discussion and Appropriate Action Related to Minutes of February 21, 2019 Meeting*
9:05 a.m.	9:10 a.m.	2	Discussion and Appropriate Action Related to Corporate Resolutions: - Election of Corporate Officers* - Committee Assignments*
9:10 a.m.	9:25 a.m.	3	Investment Review (10 year review of returns)
9:25 a.m.	9:45 a.m.	4	Real Return Presentation
9:45 a.m.	10:05 a.m.	5	Private Equity Presentation
10:05 a.m.	10:15 a.m.	6	Strategic Partnerships Update
10:15 a.m.	10:35 a.m.	7	UTIMCO's Five Year Strategic Plan Presentation
10:35 a.m.	10:50 a.m.	8	Report from Audit and Ethics Committee - Discussion and Appropriate Action Related to Engaging Corporate External Auditor* - Discussion and Appropriate Action Related to Master Custodian*,*
10:50 a.m.	10:55 a.m.	9	Report from Risk Committee
10:55 a.m.	11:20 a.m.	10	 Report from Policy Committee Discussion and Appropriate Action Related to Proposed Amendments to the Investment Policy Statements*,** Discussion and Appropriate Action Related to Amendments to the Bylaws of The University of Texas/Texas A&M Investment Management Company*,**
11:20 a.m.	11:40 a.m.	11	 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; and to consult with legal counsel regarding legal matters and pending and/or contemplated litigation pursuant to Section 551.071, <i>Texas Government Code</i> Reconvene into Open Session Report from Compensation Committee Discussion and Appropriate Action Related to the CEO's Base Salary for 2019-2020 Fiscal Year* Discussion and Appropriate Action Related to the CEO's Qualitative Performance Standards for the UTIMCO Compensation Program for the Performance Period ending June 30, 2020* Discussion and Appropriate Action Related to the Amendment of Table 1 of the UTIMCO Compensation Program, effective July 1, 2019*
11:40 a.m.	11:50 a.m.	12	Discussion and Appropriate Action Related to UTIMCO 2019-2020 Budget*,**
11:50 a.m.			Adjourn followed by Lunch
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* Action by resolution required ** Resolution requires further approval from the Board of Regents of The University of Texas System

Next Regularly Scheduled Meeting: September 26, 2019

RESOLUTION RELATED TO MINUTES

RESOLVED, that the minutes of the Meeting of the Board of Directors held on **February 21, 2019,** be, and are hereby, approved.

MINUTES OF MEETING OF THE BOARD OF DIRECTORS OF THE UNIVERSITY OF TEXAS/TEXAS A&M INVESTMENT MANAGEMENT COMPANY

The Board of Directors (the "Board") of The University of Texas/Texas A&M Investment Management Company (the "Corporation") convened in an open meeting on **February 21, 2019**, in person at the corporate headquarters located at 210 West 7th Street, Suite 1700 in Austin, 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 J. Kyle Bass Robert Gauntt Janet Handley R. Steven Hicks Ray Nixon Ray Rothrock Clifton L. Thomas, Jr. James C. "Rad" Weaver

thus constituting a majority and quorum of the Board. Employees of the Corporation attending the meeting were Britt Harris, President, CEO and Chief Investment Officer; Rich Hall, Deputy Chief Investment Officer; Joan Moeller, Secretary and Treasurer; Cecilia Gonzalez, Corporate Counsel and Chief Compliance Officer; Ken Standley, Chief of Staff; Scott Slayton, Managing Director; Susan Chen, Managing Director; Amanda Hopper, Senior Director; Ryan Ruebsahm, Managing Director; Courtney Powers, Senior Director; Anthony Caruso, Director; Gary Hill, Senior Manager; and other team members. Other attendees were Keith Brown of the McCombs School of Business at UT Austin; Jerry Kyle of Orrick, Herrington & Sutcliffe LLP; Robert Cowley and Jason Bell of Deloitte; David Rejino of Texas A&M University System; and Allen Hah, Roger Starkey, and Karen Adler of The University of Texas System ("UT System"). Chairman Hildebrand called the meeting to order at 9:03 a.m. Copies of materials supporting the Board meeting agenda were previously furnished to each member of the Board.

Minutes

The first item to come before the Board was approval of the Minutes of the Board of Directors Meetings held on December 6, 2018. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

RESOLVED, that the minutes of the Meeting of the Board of Directors held on December 6, 2018, be, and are hereby, approved.

Resolution of Appreciation for Director J. Kyle Bass

Chairman Hildebrand recognized and thanked Director J. Kyle Bass for his nine years of service on the Board. Other Directors and Mr. Harris also offered their thanks and praise for Director Bass' service to the Corporation. Director Bass thanked everyone for their kind words and said he enjoyed serving on the Board. After discussion, Chairman Hildebrand recommended approval of a resolution to honor Director J. Kyle Bass for his service to UTIMCO. Upon motion duly made and seconded, the following resolution was unanimously adopted:

WHEREAS, in recognition of his substantial background and expertise in business, J. Kyle Bass was appointed by the Board of Regents of The University of Texas System to the Board of Directors of The University of Texas Investment Management Company ("UTIMCO") in 2010, reappointed to a second term in 2013, and was reappointed for a third and final term in 2016; and

WHEREAS, Mr. Bass served as Chairman of the Risk Committee of the Board since 2014, and served as Chairman and member of the Compensation Committee, and as a member of the Policy Committee; and

WHEREAS, during his tenure on the UTIMCO Board, Mr. Bass provided invaluable insight and counsel, drawing on his many years of business and investment experience as founder and principal of Hayman Capital Management, L.P., a Dallas-based hedge fund focused on global event-driven opportunities; and

WHEREAS, Mr. Bass's commitment and service as a Director of UTIMCO were exemplary, reflecting his deep devotion to the education and development of students at all levels, and further evidenced by his service as a member of the Advisory Group for the Richard A. Mayo Center for Asset Management at the University of Virginia Darden School of Business; and

WHEREAS, Mr. Bass's unselfish contributions are also evidenced in the civic and corporate arenas by his service on various boards, including Troops First Foundation and the Texas Department of Public Safety Foundation; and

WHEREAS, during Mr. Bass's tenure on the UTIMCO Board, UTIMCO managed the Permanent University Fund for the benefit of The University of Texas and The Texas A&M University Systems and other investments of The University of Texas System with the highest standards of integrity, professionalism, and competency, earning wide praise and recognition from UTIMCO's investment beneficiaries, namely The University of Texas System and The Texas A&M University System, as well as the alumni and patrons of such Systems, the State's legislative leaders, the national credit rating agencies, capital markets, and investment community generally; and

WHEREAS, during Mr. Bass's tenure on the UTIMCO Board, total assets under management by UTIMCO almost doubled, growing from \$23 billion to over \$44 billion; and

WHEREAS, Mr. Bass's leadership, judgment, and commitment to UTIMCO has contributed greatly to UTIMCO's success.

NOW, THEREFORE,

BE IT RESOLVED, that the Directors of The University of Texas/Texas A&M Investment Management Company, on behalf of the grateful people of the State of Texas, particularly the Boards of Regents and Administrators of The University of Texas System and The Texas A&M University System, do hereby express to J. Kyle Bass their sincerest appreciation for his leadership and service that contributed immeasurably to UTIMCO's success; and

BE IT FURTHER RESOLVED, that all persons who read this Resolution should know that Mr. Bass has made a lasting and fundamental contribution to improve the manner in which public university endowments are invested and managed in the State of Texas, to the benefit of all of the citizens of the State, particularly the students and faculty of The University of Texas System and The Texas A&M University System.

PASSED AND ADOPTED this 21st day of February 2019.

Designation of Annual Meeting

Chairman Hildebrand recommended Board approval of the resolution to designate the Annual Meeting of the UTIMCO Board of Directors. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

RESOLVED, that the Annual Meeting of the Board of Directors will be held on June 27, 2019, in Austin, Texas.

2018 Market Review and 2019 Outlook

Chairman Hildebrand asked Scott Slayton to present his 2018 Market Review and 2019 Outlook. Mr. Slayton reviewed the 2018 financial market, identifying the key drivers of 2018 performance. He followed with a 2019 financial market outlook, concluding that 2019 will bring higher volatility across assets and the possibility of a US earnings recession. Mr. Slayton then answered the Directors' questions.

Performance Report and Market Update

Chairman Hildebrand asked Mr. Harris to present the Corporation's performance report and market update. Mr. Harris began with a review of 2018, including 2018 endowment returns and diversification. He then presented the Corporation's assets under management and performance results as of December 31, 2018. Mr. Harris reported the Corporation had \$44 billion of assets under management, specifically: \$21.5 billion in the Permanent University Fund (PUF), \$9.8 billion in the Long Term Fund (LTF) and \$1.1 billion in the Permanent Health Fund (PHF); \$9.2 billion in the Intermediate Term Fund (ITF), \$1.8 billion in the Short Term Fund (STF), \$0.4 billion in the Debt Proceeds Fund, and \$0.2 billion in Other funds. The net performance for the 12 months ended December 31, 2018, for the PUF was 1.68%, for the LTF and PHF was 1.87%, and for the ITF was -3.25%. Mr. Harris reviewed PUF historical performance and performance attribution, presented the current strategic asset allocation, noted that for the past five years, the PUF and The University of Texas General Endowment Fund (GEF) had generated more returns for less risk, and announced special awards received by Team members. Mr. Harris presented the UTIMCO risk overview, stating that bubble indicators and bear market indicators did not signal a recession at this time. He answered questions from the Directors.

Review of 2018 and 2019 Priorities

Chairman Hildebrand asked Rich Hall to review UTIMCO's 2018 priorities and present UTIMCO's priorities for 2019. Mr. Hall began by discussing the achievements of 2018, including the development and implementation of a new strategic asset allocation and corresponding revisions to the investment policies; the sizing and transfer of ITF dollars to the LTF; the sale of gold holdings; charting a path for the Natural Resources Team; alignment of compensation, both employee compensation and manager compensation, particularly the "1 or 30" hedge fund fee structure and adjustments to Public Equity fees; and the review of underperforming areas. Mr. Hall discussed in detail the environment, excellence, and execution sections of the Total Alignment Map, which captures on one page everything that the Team needs to do to provide world class results. He then addressed UTIMCO's 2019 priorities and discussed staying focused on UTIMCO's Total Alignment Map for the future.

Primer on Strategic Partnerships

Chairman Hildebrand asked Ken Standley to update the Directors on the progress made on UTIMCO's Strategic Partnerships. Mr. Standley gave an overview of UTIMCO's Strategic Partnership program. He discussed the goals of these strategic partnerships and the selection criteria and process. He addressed expectations related to the endowments and how each regime planned to utilize the Strategic Partnerships. Board approval will be required to enter into strategic partnerships. Mr. Harris answered the Directors' questions and gave additional explanation about his experience with strategic partnerships in his past leadership positions.

Public Equity Presentation

Chairman Hildebrand invited Susan Chen and Amanda Hopper to present an update on Public Equities. Ms. Chen reported on the role of Public Equities in the Endowments. She reported that Public Equities is approximately \$10.8 billion of the total portfolio, roughly 26% of the total Endowment and ITF assets as of December 2018. Ms. Chen briefly addressed the team, market conditions, performance, portfolio and manager framework, and top priorities for calendar year 2019.

Next Ms. Hopper discussed manager framework, composed of desired manager attributes, timing and fit in the portfolio, and reviewed the premier list breakdown of the Public Equities portfolio. She also discussed results of the 2018 action plan for the Public Equities Team and the top priorities for the Team in 2019. Ms. Chen, Ms. Hopper, and Mr. Harris answered the Directors' questions.

Hedge Funds Presentation

Chairman Hildebrand asked Ryan Ruebsahm to present the Hedge Funds Review. Mr. Ruebsahm noted the Hedge Fund Team had a successful year and highlighted five key points. Performance was strong and the Hedge Fund Team achieved its objectives for the year in both portfolios during a difficult year to make

money. The diversification program worked across the portfolio. The Team exceeded its goal of 1 or 30 fee alignment with its partners by achieving approximately 73% adoption across the portfolio. The Team hired an analyst and added a new director, Tony Caruso, to focus on stable value. The Team has begun to build out the stable value portion of the portfolio. Mr. Caruso introduced himself to the Directors. Mr. Ruebsahm highlighted performance of the hedge fund portfolio and new objectives for both the directional and stable value portfolios. Mr. Caruso continued with observations of the hedge fund industry. Finally, Courtney Powers presented on new initiatives. He reported that the Team had completed all but one of the items on their action plan from 2018. He then reviewed the Team's action plan for 2019. Mr. Ruebsahm answered the Directors' questions.

Report from Risk Committee

Chairman Hildebrand asked Director Bass to provide a report from the Risk Committee. Director Bass reported that the Risk Committee met via teleconference on November 29, 2018 and February 19, 2019. During the November 29, 2018 meeting the Committee approved the minutes of the July 19, 2018 meeting and the joint meeting with the Policy Committee. Routine matters before the Committee included a report from the Corporate Counsel and Chief Compliance Officer on quarterly compliance matters for the year ended August 31, 2018. The Committee also discussed the Office of Foreign Assets Control (OFAC) Compliance Procedure. Mr. Harris and Dr. Uzi Yoeli gave a market and portfolio risk update for the year ended August 31, 2018.

During the February 19, 2019 meeting the Committee approved the minutes of the November 29, 2018 meeting. In addition, the Committee approved amendments to the Charter of the Committee. Routine matters before the Committee included a report from the Corporate Counsel and Chief Compliance Officer on compliance matters for the quarter ended November 30, 3018, including an update on compliance with the OFAC procedure. Dr. Tim Jones gave a market and portfolio risk update as of December 31, 2018. Director Bass noted the resolution related to the proposed amendments to the Charter of the Risk Committee for approval by the Board. Upon motion duly made and seconded, the following resolution was unanimously adopted:

RESOLVED, that the amendments to the Charter of the Risk Committee, as recommended be, and are hereby approved, in the form submitted to the Corporation's Board of Directors.

Report from Audit and Ethics Committee

Chairman Hildebrand asked Director Handley to provide a report on behalf of the Audit and Ethics Committee. Director Handley reported that the Committee met via teleconference on both November 29, 2018 and February 14, 2019. At the meeting on November 29, 2018, the Committee approved minutes from their July 19, 2018 meeting. All of the following items were also approved, subject to approval by the full Board: the audit reports of the PUF, the GEF, the PHF, LTF, ITF (collectively, the Investment Funds), and the Statement of Investment Performance Statistics for the year ended August 31, 2018; the Deloitte & Touche LLP's Audit Results and Communications for the Investment Funds; the proposed amendments to the Charter of the Audit and Ethics Committee; and the proposed performance award for the Corporate Counsel and Chief Compliance Officer for the performance period ended August 31, 2018. Routine matters of the Committee included an update on UTIMCO's compliance, reporting and audit matters, including the compliance

summary for the quarter and year ended August 31, 2018, the annual report on the institutional compliance program, and update on the FY18 action plan and presentation of the FY19 action plan.

At the meeting on February 14, 2019, the Committee approved minutes from their November 29, 2018 meeting; discussed and approved the Deloitte & Touche LLP's Audit Results and Communications for the corporation for the fiscal year ended August 31, 2018, subject to approval by the Board; and approved the audit reports for the corporation for the year ended August 31, 2018, subject to approval by the Board. Mr. Mike Peppers of the UT System Audit Office reported to the Committee on their findings related to the Travel and Business Entertainment Expenses Audit for the fiscal year ended August 31, 2018. Routine matters of the Committee included an update on UTIMCO's compliance, reporting and audit matters, including the compliance program, and update on the FY 19 action plan. Finally, the Committee heard a report from Ms. Moeller on the unaudited financial statements without footnotes for the Investment Funds and the unaudited financial statements with the Corporation for the three months ended November 30, 2018.

Director Handley asked Mr. Cowley of Deloitte and Touche LLP to provide a brief report to the Board on the audits of the Corporation and Investment Funds . After Mr. Cowley's presentation, Director Handley requested approval, on behalf of the Audit and Ethics Committee, of a resolution related to the audits of the Corporation and Investment Funds for Fiscal Year 2018 and a resolution to approve the proposed amendments to the Charter of the Audit and Ethics Committee. Upon motion duly made and seconded, the following resolutions were unanimously adopted by the Board:

RESOLVED, that Deloitte & Touche LLP's Financial Statement Audit Results and Communications on the Corporation and the Investment Funds Under Fiduciary Responsibility of The University of Texas System Board of Regents for the year ended August 31, 2018, be, and are hereby approved in the form as presented to the Board; and

FURTHER RESOLVED, that the separate annual financial statements and audit reports for the Corporation and the Permanent University Fund, the Permanent Health Fund, The University of Texas System Long Term Fund, The University of Texas System General Endowment Fund, and The University of Texas System Intermediate Term Fund each for the fiscal years ended August 31, 2018, and August 31, 2017, and the Statement of Investment Performance Statistics for the year ended August 31, 2018, be, and are hereby approved in the form as presented to the Board.

And,

RESOLVED, that the amendments to the Charter of the Audit and Ethics Committee, as recommended be, and are hereby approved, in the form submitted to the Corporation's Board of Directors.

Report from Policy Committee

Chairman Hildebrand asked Director Handley to provide a report from the Policy Committee on behalf of Chairman Hicks. Directo Handley reported that the Policy Committee met via teleconference on November 29, 2018. During the meeting the Committee approved the minutes of the July 19, 2018 meeting and the July 19, 2018 Joint Meeting of the Policy and Risk Committees. Other action items considered by the

Committee included proposed amendments to the Master Investment Management Services Agreement between the Corporation and the Board of Regents of UT System (IMSA), subject to approval by the Board and the Board of Regents; and proposed amendments to the Charter of the Policy Committee, subject to approval by this Board. Director Handley requested approval, on behalf of the Policy Committee, of a resolution related to the proposed amendments to the IMSA and a resolution to approve the proposed amendments to the Charter of the Policy Committee, the proposed amendments to the IMSA and a resolution to approve the proposed amendments to the Charter of the Policy Committee. Upon motion duly made and seconded, the following resolutions were unanimously adopted by the Board:

RESOLVED, that the Master Investment Management Services Agreement with UTIMCO ("IMSA") be, and is hereby, approved in the form submitted to the Corporation's Board, subject to approval by the Board of Regents of The University of Texas System;

And

RESOLVED, that the amendments to the Charter of the Policy Committee, as recommended be, and are hereby approved, in the form submitted to the Corporation's Board of Directors.

Report from Compensation Committee

Chairman Hildebrand asked Director Rothrock to provide a report from the Compensation Committee. Director Rothrock stated that the Compensation Committee (the "Committee") met on November 29 and December 6, 2018. Most of the items from the November 29, 2018 meeting were previously addressed at the December 6, 2018 meeting. One item requiring action by the Board was the proposed changes to the Charter of the Compensation Committee. Director Rothrock recommended the resolution for approval by the Board. Upon motion duly made and seconded, the following resolution was unanimously adopted by the Board:

RESOLVED, that the amendments to the Charter of the Compensation Committee, as recommended be, and are hereby approved, in the form submitted to the Corporation's Board of Directors.

Employee's Service as Director on an UTIMCO Investee Company

Chairman Hildebrand asked Mr. Harris to discuss his recommendation that William Prather III, Senior Director – Natural Resources and Infrastructure replace Patrick Pace M.D., Senior Director – Private Equity to serve as a Series B/C Manager of the Board of Managers for AgBiome, LLC effective March 1, 2019. Mr. Harris explained that UTIMCO made a co-investment in AgBiome, LLC. In accordance with the UTIMCO Code of Ethics, an employee, with the prior approval of the Board, may serve as a director of a company in which UTIMCO has directly invested its assets, conditioned on the extension of UTIMCO's Directors and Officers Insurance Policy coverage to the Employee's service as director of the investee company and endorsement of any compensation paid to the Employee for this service to UTIMCO and applied against UTIMCO's fees. UTIMCO's Directors and Officers Insurance Policy coverage was extended to cover Mr. Prather's service as a director and no compensation is associated with this position. Upon motion duly made and seconded, the following resolution was adopted:

RESOLVED, that the Board of Directors hereby approves William Prather's service as a Series B/C Manager of the Board of Managers for AgBiome, LLC.

FURTHER RESOLVED, that this board service on an UTIMCO investee company will meet all requirements of the Code of Ethics for the Corporation applicable to board service on an UTIMCO investee company.

Adjourn

There being no further business to come before the Board, the meeting was adjourned at approximately 11:39 a.m.

Secretary: ____

Joan Moeller

Approved: ____

Date: _____

____ Ray Rothrock Vice Chairman Board of Directors of The University of Texas/Texas A&M Investment Management Company

Agenda Item

UTIMCO Board of Directors Meeting June 27, 2019

Agenda Item: Discussion and Appropriate Action Related to Corporate Resolutions: - Election of Corporate Officers - Committee Assignments **Developed By:** Harris, Gonzalez, Moeller **Presented By:** Rothrock Type of Item: Action required by UTIMCO Board **Description:** Vice Chairman Rothrock will present a recommendation for the election of Corporate Officers. As stated in the Bylaws, a purpose of the Annual Meeting is to elect Officers for the ensuing year. Employees that are designated as Officers by the UTIMCO Board meet the definition of Key Employees in the Corporation's Code of Ethics. Upon election of officers, the newly elected Chairman will propose new Board committee assignments for the Risk Committee of the Board. No other changes are being made to current committee assignments. **Recommendation:** Vice Chairman Rothrock will recommend approval of the election of Corporate Officers and the newly elected Chairman will propose committee assignments. **Reference:** UTIMCO Board of Directors Terms and Committees

RESOLUTION RELATED TO CORPORATION OFFICERS

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
	Chairman Vice Chairman
	Vice Chairman for Policy
Britt Harris	President, Chief Executive Officer and Chief Investment Officer
Rich Hall	Deputy Chief Investment Officer
Joan Moeller	Senior Managing Director, Treasurer and Secretary
Susan Chen	Managing Director
Russ Kampfe	Managing Director
Edward Lewis	Managing Director
Ryan Ruebsahm	Managing Director
Scott Slayton	Managing Director
Uzi Yoeli	Managing Director

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RESOLUTION RELATED TO COMMITTEE ASSIGNMENTS

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

Robert Gauntt Janiece Longoria Ray Rothrock James C. "Rad" Weaver

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 Robert Gauntt is hereby designated the Chair of the Risk Committee and shall preside at its meetings.

UTIMCO Board of Directors Terms and Committees As of June 2019

Member	UTIMCO Office Held	Original Appointment Date	Current Term Expiration Date	Committee
Jeffery D. Hildebrand Outside Director		05/23/19	04/01/22	
Ray Rothrock Texas A&M Representative	Vice-Chairman elected 05/18/2018	04/27/16	04/01/20	Compensation (Chair) Risk
R. Steven "Steve" Hicks Regent, UT System	Vice-Chairman for Policy elected 05/18/2018	02/17/11	04/01/21 (Regental 02/01/21)	Policy (Chair)
Robert Gauntt Outside Director		08/24/17	04/01/20	Compensation Risk
Janet Handley Texas A&M Representative		05/10/17	04/01/20	Audit and Ethics (Chair) Policy
Janiece Longoria Regent, UT System		05/22/19	04/01/21 (Regental 02/01/23)	
Ray Nixon Outside Director		05/12/16	04/01/21	Compensation Policy
Cliff Thomas Regent, Texas A&M Regent		04/19/18	04/01/21	Audit and Ethics Policy
James C. "Rad" Weaver Regent, UT System		05/10/17	4/1/2021 Regental 02/01/23	Audit and Ethics Risk
Audit and Ethics Committee Janet Handley, Chair Clifton L. Thomas, Jr. James C. "Rad" Weaver				
<u>Compensation Committee</u> Ray Rothrock, Chair Robert Gauntt Ray Nixon				
Policy Committee R. Steven Hicks, Chair Janet Handley Ray Nixon Clifton L. Thomas, Jr.				

Risk Committee

Robert Gauntt Ray Nixon Ray Rothrock

Agenda Item UTIMCO Board of Directors Meeting June 27, 2019

Agenda Item:	Investment Review (10 year review of returns)
Developed By:	Harris
Presented By:	Harris
Type of Item:	Information Item
Description:	Mr. Harris will present an investment review for the 10 years ending March 31, 2019.
Recommendation:	None
Reference:	Investment Review presentation



The University of Texas/Texas A&M Investment Management Company

Investment Review

10 Years Ending March 31, 2019

Britt Harris

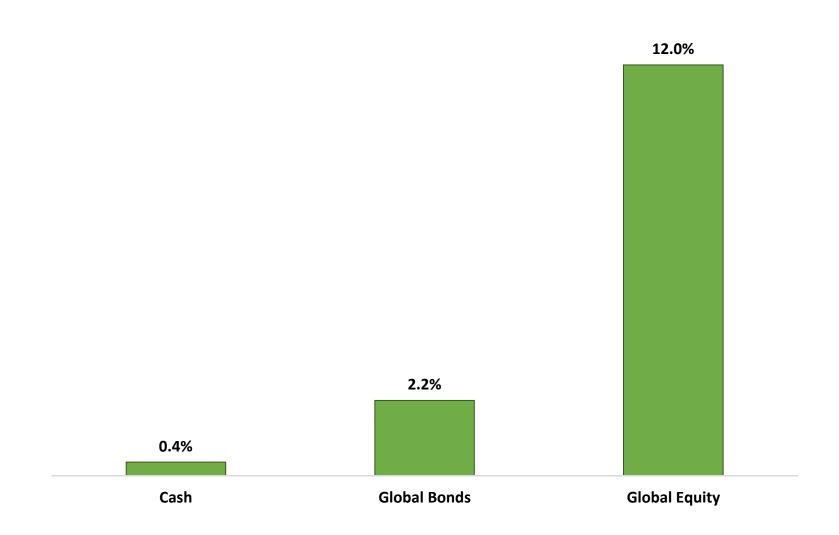
President, CEO and Chief Investment Officer



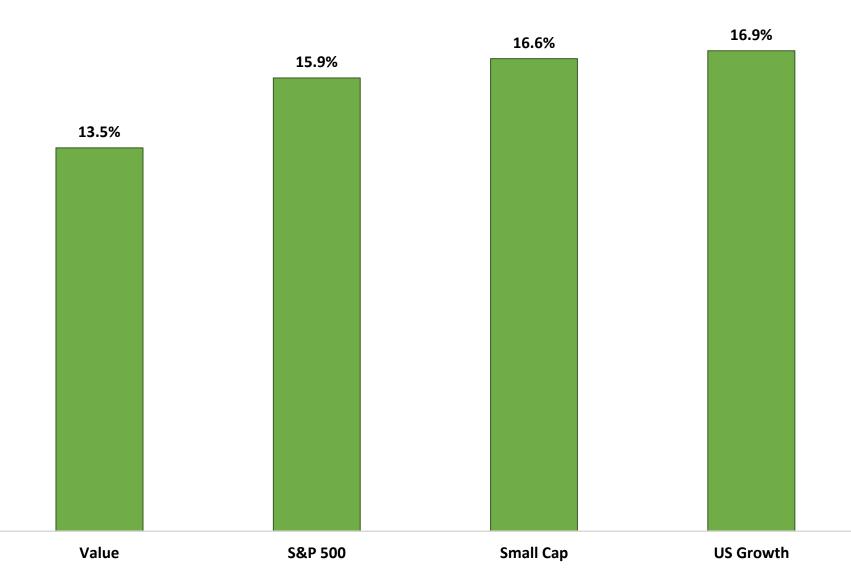
Market Performance The Last 10 Years



Total Returns



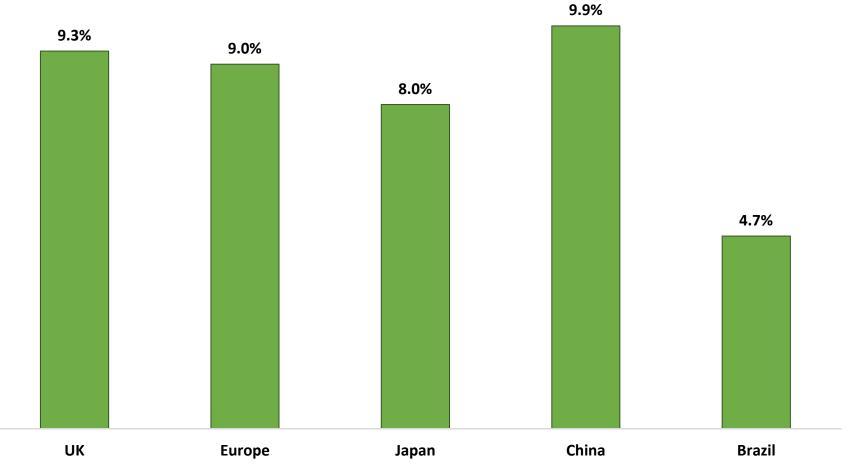




Total Returns



Total Returns (USD)



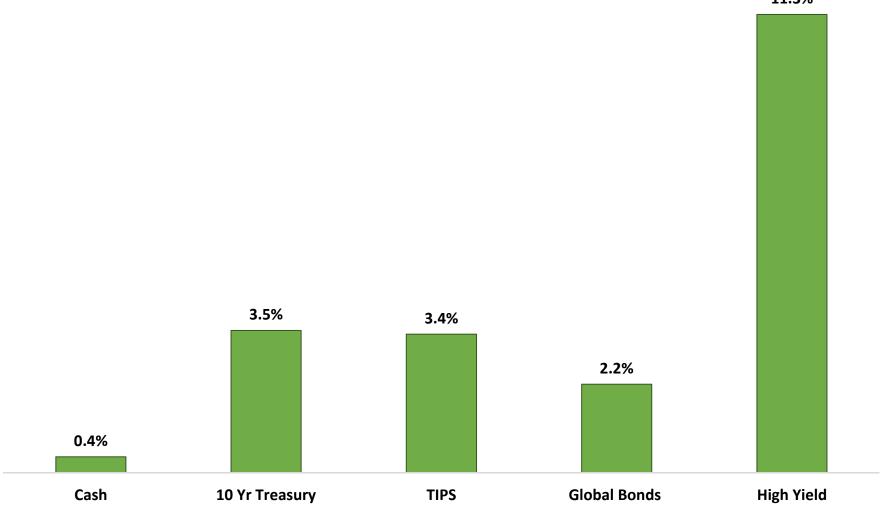
Multiples



	P	/E	P/S		
	March 2009	March 2019	March 2009	March 2019	
US	13.5	17.1	0.9	2.0	
UK	10.5	12.8	0.8	1.1	
Europe	7.3	5.8	1.0	0.8	
China	11.5	12.3	1.4	1.3	
Brazil	10.7	11.7	1.3	1.6	



Total Returns (USD)



Interest Rates and Other Statistics

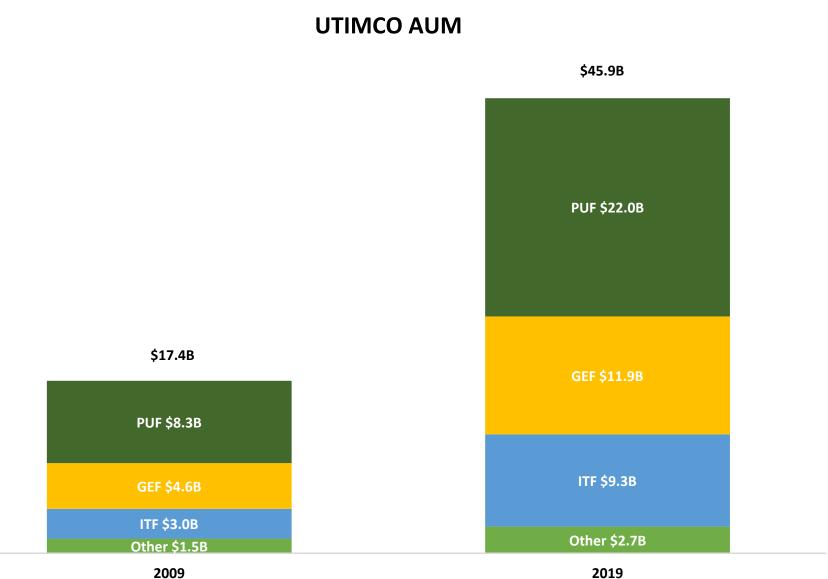


	US		Germany		Japan		China	
	2009	2019	2009	2019	2009	2019	2009	2019
Yields								
CB Policy Rate	0.25%	2.50%	0.25%	-0.40%	0.10%	-0.10%	1.60%	2.60%
10-Year Sov	3.8%	2.4%	3.4%	-0.1%	1.3%	-0.1%	3.6%	3.3%
Inv Grade	4.7%	3.6%	4.0%	0.8%	0.9%	0.4%	3.5%	3.2%
High Yield	9.1%	6.4%	10.1%	4.0%	-	-	-	-
Economic Stats								
GDP Growth	-2.5%	2.3%	-4.5%	1.3%	-5.4%	1.0%	9.2%	6.3%
Inflation	-0.3%	2.0%	0.3%	1.3%	-1.4%	1.1%	-0.7%	2.3%
Unemployment	9.3%	3.8%	9.7%	8.0%	5.1%	2.4%	4.3%	3.8%
CB Balance Sheet (Bn)	\$2,238	\$3,892	€1,852	€4,685	¥122,534	¥563,854	¥22,754	¥34,859
Debt/GDP*	86.7%	106.7%	79.2%	83.6%	201.0%	237.5%	34.3%	55.4%

Source: Bloomberg, IMF as of 5/14/2019 *2019 is IMF Forecast



UTIMCO Results The Last 10 Years

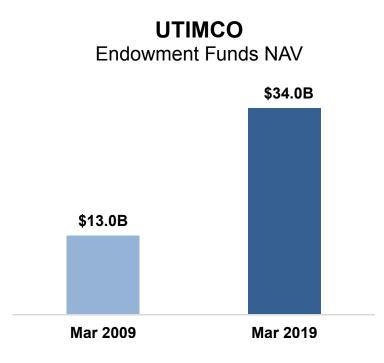




	10 Yr Return	Alpha
UTIMCO	9.80%	1.50%
Directional Hedge Funds	7.70%	4.20%
Stable Value Hedge Funds	6.40%	2.80%
Non-US Equity (EAFE)	11.50%	2.70%
Private Equity	13.60%	2.50%
Emerging Markets Equity	11.20%	2.20%
Real Estate	15.70%	1.40%
Global Equity	13.60%	1.20%
Fixed Income	4.80%	1.10%
Natural Resources	9.90%	(-0.3%)
US Equity	14.20%	(-1.0%)

Note: Asset Class returns reflect performance in the PUF

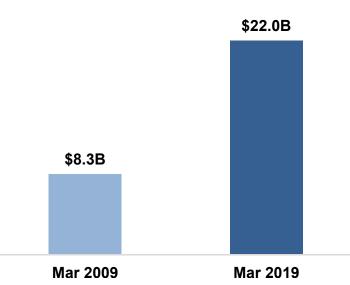




	UTIMCO	Benchmark	Alpha
Returns	9.8%	8.3%	1.5%
Standard Deviation	5.8%	6.8%	
Tracking Error	2.3%		
Information Ratio	0.68		
Beta	0.83		
Sharpe Ratio	1.63		







	PUF	Benchmark	Alpha
Returns	9.8%	8.3%	1.5%
Standard Deviation	5.8%	6.5%	
Tracking Error	2.2%		
Information Ratio	0.68		
Beta	0.59		
Sharpe Ratio	1.62		

PUF NAV

GEF NAV



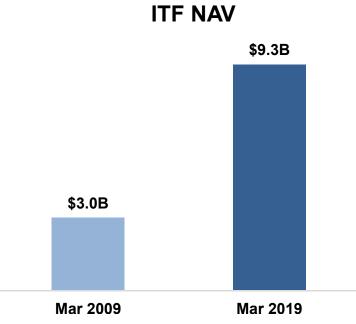


\$11.9B \$4.6B Mar 2009 Mar 2019

	GEF	Benchmark	Alpha
Returns	9.9%	8.3%	1.7%
Standard Deviation	5.7%	6.5%	
Tracking Error	2.2%		
Information Ratio	0.76		
Beta	0.59		
Sharpe Ratio	1.66		

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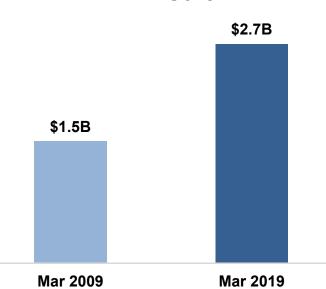




	ITF	Benchmark	Alpha
Returns	7.3%	5.8%	1.5%
Standard Deviation	6.2%	6.7%	
Tracking Error	1.4%		
Information Ratio	1.08		
Beta	0.57		
Sharpe Ratio	1.11		

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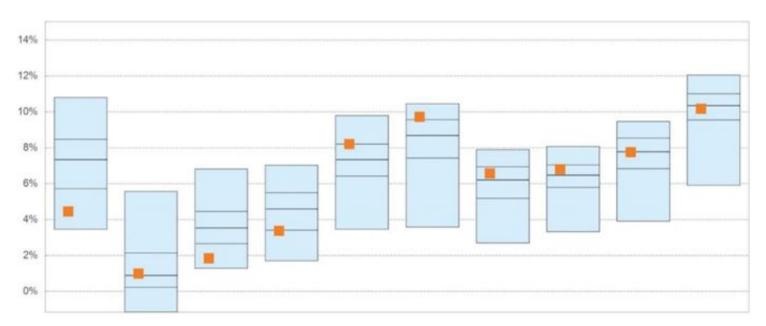


All Other

Note: includes Separately Invested Endowments, Short Term Fund, Debt Proceeds Fund

Performance Comparison Cumulative Periods Ending: March 31, 2019



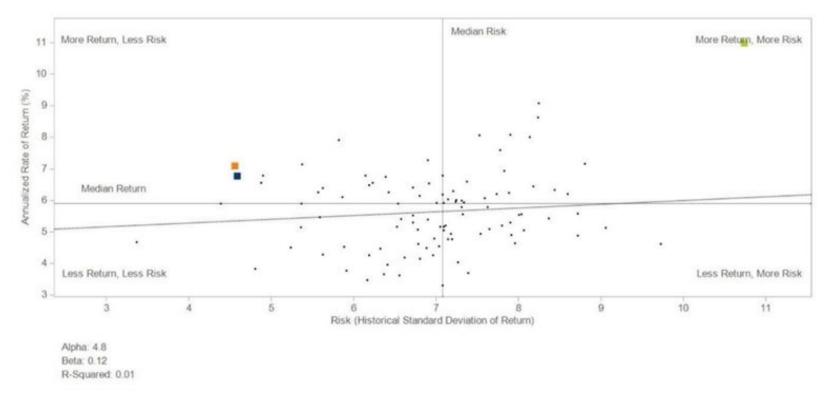


Total Returns of Master Trusts - Plans > \$1 Billion

Percentile Rankings	1 Qtr	2 Qtrs	3 Qtrs	1 Year	2 Years	3 Years	4 Years	5 Years	7 Years	10 Years
5th	10.79	5.56	6.82	7.02	9.78	10.44	7.90	8.07	9.45	12.04
25th	8.47	2.15	4.46	5.49	8.21	9.57	6.93	7.05	8.54	11.00
50th	7.34	0.90	3.54	4.60	7.34	8.68	6.21	6.47	7.77	10.34
75th	5.73	0.23	2.66	3.42	6.41	7.43	5.18	5.79	6.84	9.55
95th	3.47	-1.14	1.29	1.71	3.46	3.59	2.70	3.33	3.91	5.91
No. Of Obs	168	166	164	164	159	159	157	156	154	142
PUF TOTAL FUND	4.35 (91)	0.90 (50)	1.75 (92)	3.27 (80)	8.10 (27)	9.61 (23)	6.47 (37)	6.70 (40)	7.65 (56)	10.06 (62



For past five years, PUF and GEF have generated more returns for less risk



	Risk Value	Risk Rank	Return Value	Return Rank
GEF TOTAL FUND	4.59	96	7.01	17
■PUF TOTAL FUND	4.62	94	6.70	24
S&P 500	10.77	1	10.91	1
Median	7.08		5.90	

Source: Wilshire Trust Universe Comparison Services

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Investment Environment March 2019

Investment Policy and Current Environment

As of March 31, 2019

	Stable Value 17%			Ben	chmark	Returns	ş ¹
	Total Fixed Income 10% Stable Value Hedge Funds 6% Cash 1%	43% Public Equities: Developed Markets 20% Directional Hedge Funds 13% Emerging Markets 10% 20% Private Equity: Developed Markets 14% Emerging Markets 5% Credit 1%	Natural Resources 8% Infrastructure: 2% Real Estate 8% Gold and Commodities 1%	Time Horizon 1 Year 3 Year 5 Year 7 Year 10 Year	Stable Value 0.9% 3.0% 1.8% 2.1% 3.7%	Global Equity 2.7% 8.7% 6.1% 7.0% 8.6%	Real Return 2.3% 7.8% 5.3% 6.4% 9.9%
		Economic Conditions		Environment Stable Value	Stable Value 1.00	Global Equity 0.02	Real Return -0.21
	 GDP surprises are negative Inflation surprisingly low with weak demand Negative earnings surprises Out of line valuations Flight to quality 	 Positive GDP surprises Inflation surprises not dramatic Positive earnings surprises Reasonable valuations Political stability 	 Real GDP growth too low Inflation surprises on the high side Real earnings too low Commodity-oriented demand exceeds supply by an above normal margin 	Global Equity Real Return		1.00	0.27 1.00
1 Year	0.0%	4.8%	(0.6%)				
3 Years	2.5%	10.0%	10.9%				
10 Years	4.0%	10.6%	9.0%				

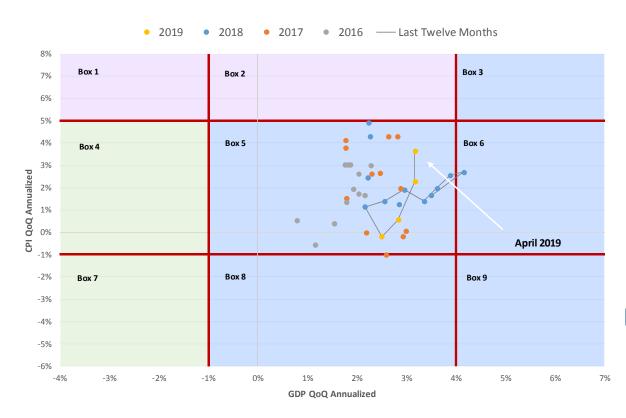
¹ Returns and Correlations reflect quarterly benchmark returns and not actual UTIMCO returns (return data from 2009 – 2019)

* Percentages may not add up due to rounding

TIMO



US Policy Signal Chart



Historical UTIMCO Returns

*Box returns may vary significantly depending on if we just moved into a new environment/box or if we remained in the same box. Thus, returns are separated in that manner below:

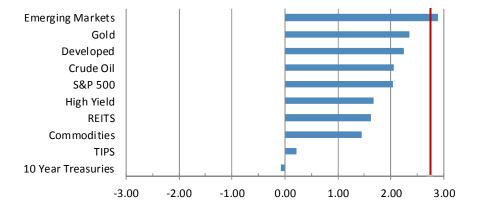
Box #	Move	Stay	Total
1	-	-	-
2	12.6%	-14.9%	-0.4%
3	-	-	-
4	-37.9%	54.5%	-15.8%
5	14.7%	7.8%	9.4%
6	13.7%	12.3%	12.9%
7	-73.5%	-24.0%	-41.6%
8	18.4%	20.2%	19.1%
9	-	-	-

Global Policy Signals Summary

Quarterly Signals	3/31/2019	12/31/2018	9/30/2018
US	5	5	5
Europe	5	5	5
Japan	5	8	4
China	6	6	3

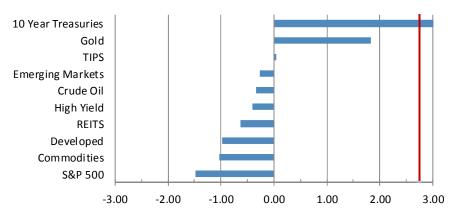
Bubble Monitor



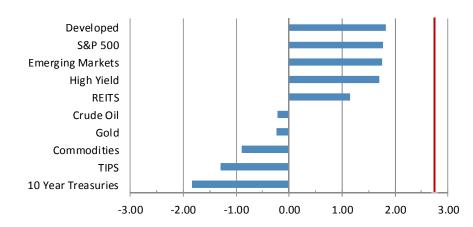


Bubble Level Monitor: September 2007

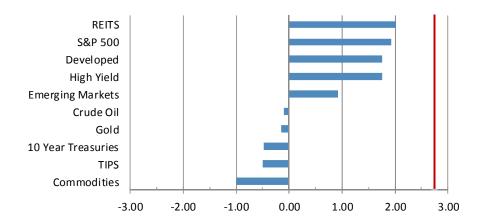
Bubble Level Monitor: December 2008



Bubble Level Monitor: April 2018



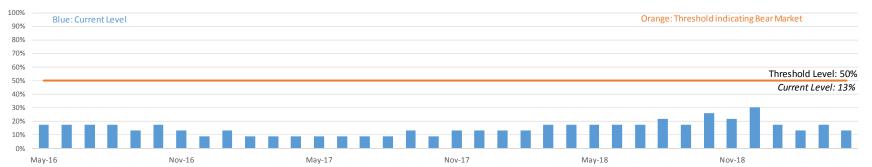
Bubble Level Monitor: April 2019





April 2019

Percentage of Bear Market Indicators On



			Indicat	or Level		
Туре	Indicator	On/Off	Current	Threshold	Last 36 Months	% On Last 36 Months
	Syr Breakeven Inflation < 1.25%	Off	1.9%	1.3%		0%
	10yr Breakeven Inflation > 3%	Off	1.9%	3.0%		0%
Inflation	YoY Inflation > 12m Moving Avg	Off	2.1%	2.2%		50%
_	YoY CPI Energy > 20%	Off	1.7%	20.0%		0%
	YoY PCE Deflator > 3%	Off	1.5%	3.0%		0%
	Employment Growth < 0%	Off	2.1%	0.0%		0%
nt	YoY Avg. Hourly Earnings > 3%	On	3.2%	3.0%		22%
Employment	YoY NonFinc Labor Costs > 3.5%	Off	0.3%	3.5%	~~~~~	0%
Em	Consumer Confidence Spread < -20%	Off	-0.7%	-20.0%		0%
	Unemployment 3mo MA > .33% off lows	Off	3.7%	4.1%		0%
	Inventory/Sales > Long-term Avg.	On	37.0%	33.0%		100%
	YoY Leading Economic Indicator < 0%	Off	2.7%	0.0%		0%
Growth	Leading/Coincident Ratio Drawdown > 26 months	Off	7.0	26.0		0%
Gro	Fed Recession Probability > 10%	On	27.5%	10.0%		50%
	Residential Construction (% of GDP) > 5%	Off	2.4%	5.0%		0%
	Total Investment (% of GDP) > 18.5%	Off	15.2%	18.5%		0%

Туре	Indicator	On/Off		tor Level Threshold	Last 36 Months	% On Last 36 Months
	US HY Yield > Long-term Avg.	Off	6.1%	10.0%		0%
Credit	Non-Mortgage Delinquency Rate > 3.5%	Off	2.3%	3.5%		0%
	Real Rates < 0%	Off	0.4%	0.0%	~~~~	83%
	YoY Equity Markets < -5%	Off	12.7%	-5.0%		3%
Market	Investment Banks < 12m Moving Avg 1 SD	Off	10.0%	0.0%		14%
Mar	Cons. Discretionary < 12m Moving Avg 1 SD	Off	14.1%	0.0%		3%
	US Dollar 24m Change > 10%	Off	0.6%	10.0%	~~~~	17%

3/22 Indicators "On"



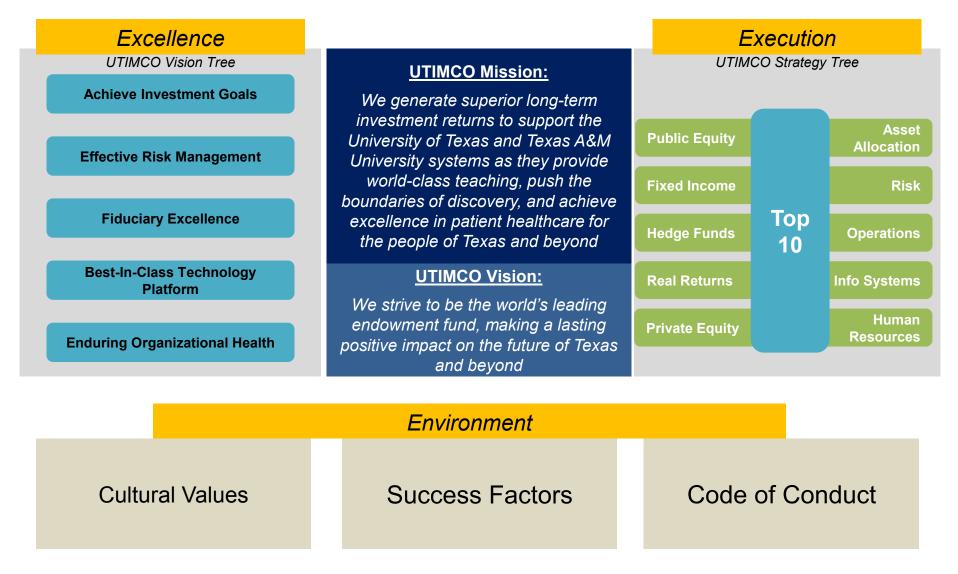
April 2019

Percentage of Bear Market Indicators On



Total Alignment Map

Deep dive into our most important priority





Summary



- Exceptional decade
 - High equity returns
 - Low portfolio volatility
 - High Sharpe Ratio
- Global Equity regime
- Alpha generation almost everywhere
 - US Equity was the exception
- Bear Market Indicators low
- No Bubble signals
- Future returns likely muted

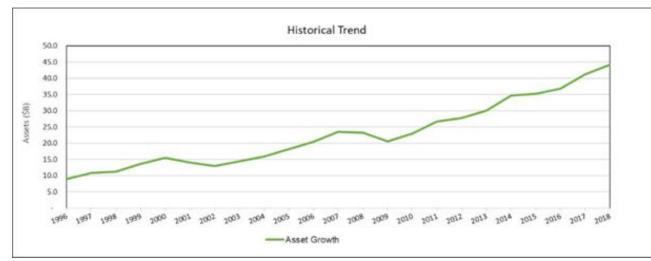


Appendix

Overview of Funds

Periods Ending March 31, 2019

	Overview of Funds Periods Ending March 2019														
					Returns					Alpha					
Endowment Funds	<u>\$B</u>	Q	<u>XTR</u>	<u>1Y</u>	<u>3Y</u>	<u>5Y</u>	<u>10Y</u>	<u>QTR</u>	<u>1Y</u>	<u>3Y</u>	<u>5Y</u>	<u>10Y</u>			
PUF	\$ 22.0	4.	.29	2.98	9.30	6.41	9.76	0.33	0.41	1.43	0.94	1.51			
PHF	\$ 1.2	4.	.24	2.97	9.53	6.57	9.82	0.28	0.40	1.66	1.10	1.57			
LTF	\$ 10.7	4.	.24	2.97	9.54	6.57	9.82	0.28	0.40	1.67	1.10	1.57			
Other	\$ 0.1		-	-	-	-	-	-	-	-	-	-			
TOTAL	\$ 34.0														
Operating Funds															
ITF	\$ 9.3		.34	1.63	6.14	3.44	7.31	0.71	1.07	1.22	0.90	1.50			
Debt Proceeds	\$ 0.3		.62	2.26	1.41	0.91	N/A	0.02	0.14	0.22	0.17	N/A			
STF	\$ 2.3	0.	.61	2.19	1.30	0.82	0.50	0.01	0.07	0.11	0.08	0.07			
TOTAL	\$ 11.9														
		Increa	ase	Inco	ne & Distri	butions (\$M)	Projected							
All Assets	\$ 45.9	\$	1.9					<u>8/31/2019</u>	<u>8/31/</u>	2018 <u>8</u> /	<u>31/2017</u>	<u>8/31/2016</u>			
December 2018	\$ 44.0	\$ ((1.4)	PUF	Land Contr	ibutions		\$ 953	\$1,	032 \$	689	\$ 512			
September 2018	\$ 45.4	\$	0.8	PUF	Distribution			(1,014)	(887)	<u>(839</u>)	(773)			
June 2018	\$ 44.6	\$	0.3	Net F	ayout (\$M)			\$ (61)	\$	145 \$	(150)	\$ (261)			
March 2018	\$ 44.3														



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10 Year UTIMCO Results

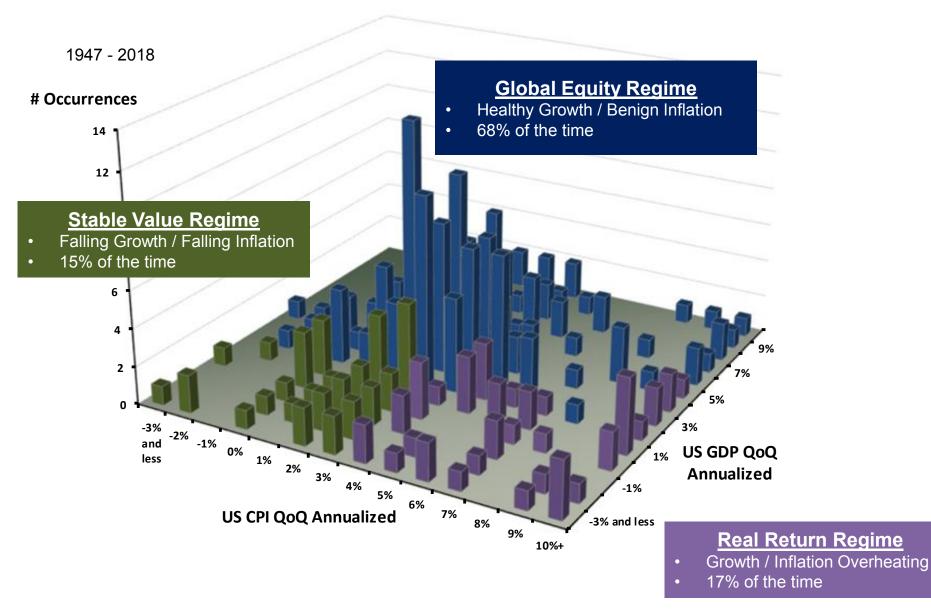


10-Year UTIMCO Results			Return					Alpha		
	Q1 2019	1 Yr	3 Yr	5 Yr	10 Yr	Q1 2019	1 Yr	3 Yr	5 Yr	10 Yr
Total Endowments	4.3%	3.0%	9.3%	6.4%	9.8%	 0.3%	0.4%	1.4%	0.9%	1.5%
Total ITF	6.3%	1.6%	6.1%	3.4%	7.3%	0.7%	1.1%	1.2%	0.9%	1.5%
US Public Equity	16.3%	6.3%	10.4%	6.1%	14.2%	2.5%	(2.5%)	(2.5%)	(4.0%)	(1.0%)
Non-US Developed Public Equity	11.8%	(2.6%)	9.3%	7.8%	11.5%	1.4%	0.6%	2.0%	5.6%	2.7%
Global Developed Equity	17.3%	8.0%	14.0%	9.4%	13.6%	4.8%	4.0%	3.3%	2.7%	1.2%
Emerging Markets Public Equity	12.0%	(5.7%)	11.2%	7.0%	11.2%	2.1%	1.8%	0.5%	3.3%	2.2%
Total Public Equity	14.4%	0.9%	11.6%	7.6%	12.7%	2.8%	0.8%	0.8%	1.9%	1.7%
Directional Hedge	6.8%	3.8%	6.9%	4.2%	7.7%	1.8%	3.8%	2.8%	1.9%	4.2%
Private Equity	0.1%	6.5%	11.8%	10.6%	12.1%	0.5%	(0.9%)	2.3%	0.5%	1.0%
Private Emerging Markets	0.8%	10.8%	11.3%	8.4%	8.3%	1.1%	3.4%	1.8%	(1.7%)	(2.7%)
Private Credit	(0.3%)	3.6%	8.9%	8.5%	13.4%	0.1%	(3.7%)	(0.7%)	(1.6%)	2.4%
Venture Capital	2.1%	21.1%	13.0%	17.0%	18.8%	2.4%	13.7%	3.5%	6.9%	7.7%
Total Private Equity	0.9%	11.5%	11.9%	11.3%	13.6%	1.2%	4.1%	2.4%	1.2%	2.5%
Total Global Equity	8.2%	4.8%	10.0%	7.2%	10.6%	 2.0%	2.2%	1.3%	1.1%	2.0%
Total Fixed Income	3.1%	(0.5%)	2.3%	1.8%	4.7%	0.1%	(1.9%)	0.2%	0.4%	1.4%
Stable Value Hedge	0.4%	3.4%	5.8%	3.7%	6.4%	(3.5%)	2.9%	1.5%	1.3%	2.8%
Total Stable Value	1.8%	0.0%	2.5%	1.5%	4.0%	 (1.5%)	(0.9%)	(0.4%)	(0.3%)	0.3%
Gold	0.7%	(2.8%)	1.5%	0.1%	-	(0.1%)	(0.3%)	(0.1%)	0.0%	_
Total Private Natural Resources	(13.8%)	(11.7%)	8.5%	5.8%	9.9%	(0.1%)	(10.7%)	1.9%	(2.5%)	(0.3%)
Total Infrastructure	(0.7%)	(0.3%)	14.4%	13.8%	17.2%	0.7%	(6.5%)	5.2%	4.0%	6.3%
Total Real Estate	2.6%	13.0%	15.2%	13.6%	15.7%	2.2%	<u>(0.3%)</u> 6.7%	6.3%	4.1%	1.4%
Total Real Return	(5.0%)	(0.6%)	10.9%	5.2%	9.0%	(2.6%)	(3.0%)	3.1%	0.0%	(0.9%)
Tactical Asset Allocation* (bps impact)	0.0%	(0.2%)	(0.1%)	(0.0%)	(0.0%)	0.0%	(0.2%)	(0.1%)	(0.0%)	(0.0%)

Asset Class results reflect performance in the PUF only

UTIMCO Asset Allocation Framework

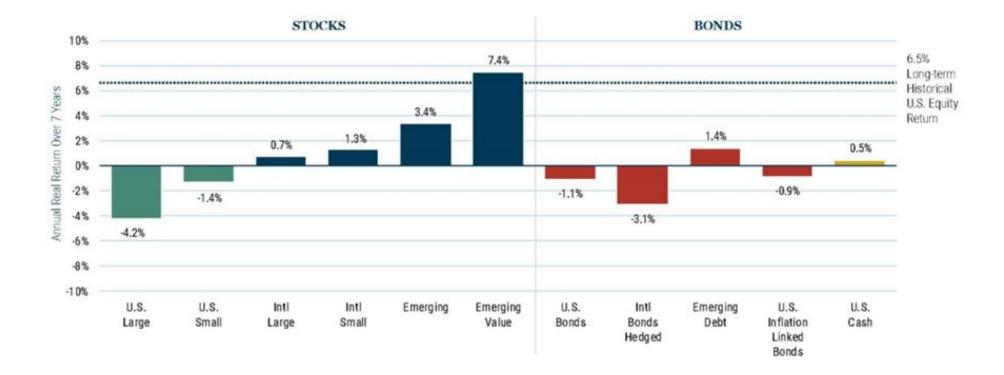




Source: Bloomberg, St. Louis Fed



As of March 31, 2019



Source: GMO

*The chart represents local, real return forecasts for several asset classes and not for any GMO fund or strategy. These forecasts are forward-looking statements based upon the reasonable beliefs of GMO and are not a guarantee of future performance. Forward-looking statements speak only as of the date they are made, and GMO assumes no duty to and does not undertake to update forward-looking statements. Forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Actual results may differ materially from those anticipated in forward-looking statements. U.S. inflation is assumed to mean revert to long-term inflation of 2.2% over 15 years.



Value and growth within large and small stocks, and REITs, as of March 31, 2019

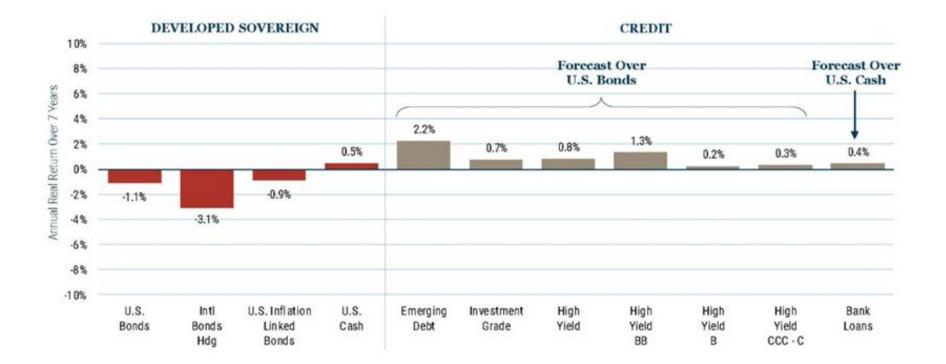


Source: GMO

*The chart represents local, real return forecasts for several asset classes and not for any GMO fund or strategy. These forecasts are forward-looking statements based upon the reasonable beliefs of GMO and are not a guarantee of future performance. Forward-looking statements speak only as of the date they are made, and GMO assumes no duty to and does not undertake to update forward-looking statements. Forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Actual results may differ materially from those anticipated in forward-looking statements. U.S. inflation is assumed to mean revert to long-term inflation of 2.2% over 15 years.



As of March 31, 2019



Source: GMO

*The chart represents local, real return forecasts for several asset classes and not for any GMO fund or strategy. These forecasts are forward-looking statements based upon the reasonable beliefs of GMO and are not a guarantee of future performance. Forward-looking statements speak only as of the date they are made, and GMO assumes no duty to and does not undertake to update forward-looking statements. Forward-looking statements are subject to numerous assumptions, risks, and uncertainties, which change over time. Actual results may differ materially from those anticipated in forward-looking statements. U.S. inflation is assumed to mean revert to long-term inflation of 2.2% over 15 years.

Agenda Item UTIMCO Board of Directors Meeting June 27, 2019

Agenda Item:	Real Return Presentation
Developed By:	Real Return Team
Presented By:	Lewis, Joshi, Prather
Type of Item:	Information Item
Description:	Mr. Lewis will lead the presentation on Real Return investments, with Mr. Joshi and Mr. Prather leading the discussions on Real Estate, Natural Resources, and Infrastructure portfolios, respectively.
Recommendation:	None
Reference:	Real Return Portfolio Overview presentation



The University of Texas/Texas A&M Investment Management Company

Real Return Portfolio Overview

Edward Lewis, Mukund Joshi & Billy Prather – June 2019



Priorities

- Unification of the Real Estate and Natural Resources groups into a combined Real Return team resulting in streamlined management, improved communication, unified investment processes, and increased career growth opportunities
- Review of the Natural Resources portfolio as part of the long-term reduction plan to 5.0% of the endowments
- Build Infrastructure towards a long-term 4.0% allocation target, with a focus on diversified strategies that provide exposure to locationspecific, monopolistic assets or companies that provide essential services to society and generate stable cash flow

Performance Summary

- Real Return portfolios generated a -1.8% point-to-point Time Weighted Return ("TWR") over the past 12 months resulting in negative 540 basis points of alpha when compared to a NAV-weighted combined benchmark of the Real Estate, Natural Resources, and Infrastructure
- Real Return portfolios generated a 12.1% TWR and 580 basis points of alpha over a 10-year period and a Since Inception return of 11.0% TWR

Portfolio Positioning

- Focus on stable cash flow real estate capable of weathering a potential economic downturn while generating current yields of 6-8%
- Target infrastructure investments which benefit from long-term secular tailwinds such as midstream, power, and communications as well as unique assets with defensible moats stemming from monopolistic characteristics
- Reduction in exposure to international, particularly emerging markets, energy assets in natural resources

Real Return Team Structure



The team has an average of 9 years of experience and 5 years at UTIMCO



Edward Lewis Managing Director MBA, U. of Chicago



Mukund Joshi, CFA Senior Director MBA, UT Austin



Spencer Branch Associate BBA, UT Austin



Steve Muenzen Senior Analyst BE, Dartmouth



Billy Prather, CFA, CPA Senior Director MPA, UT Austin

Zoe Gabbard Associate BBA, UT Austin



Adam Harrison Analyst BBA, UT Austin



Associate Director BSBA, Wash U. St. Louis

Mallory Glusband, CFA



Henry Glenn Associate MBA, UT Austin



Ryan Moores Analyst MSF, UT Austin



Tara Hamilton Investment Team Coordinator BA, Eastern Washington University



Christine Torres Investment Team Coordinator ACC



2019 Real Return Action Plan



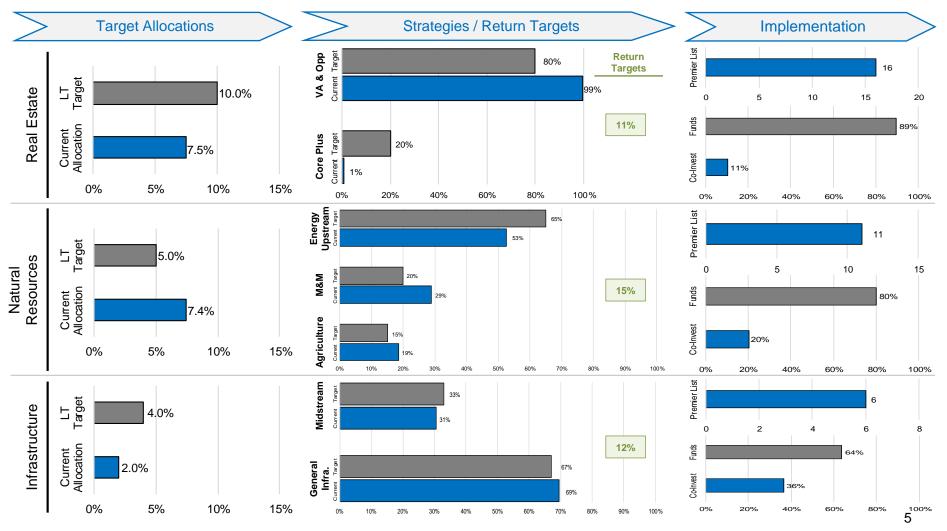
Deliver Results	Invest in Processes	Professional Development	Cross Collaboration
 Deliver 250 basis points of alpha over relevant benchmarks for Natural Resources, Infrastructure, and Real Estate portfolios over three-year rolling periods (Q4) Achieve 15% allocation to co- investments in Real Estate and 25% in Natural Resources and Infrastructure by the end of 2019 (Q4) Target co-investment portfolio returns in excess of fund portfolio returns across Real Estate, Natural Resources, and Infrastructure over rolling three- year periods (Q1-Q4) Manage commitments across teams to reach medium and long-term asset allocation targets under the 2018 Strategic Asset Allocation plan (Q1-Q4) Achieve full compliance with firmwide OFAC regulations (Q1-Q4) 	 Standardized "World Class" scorecard summarizing premier list approvals / removals / reclassifications, fit within portfolio framework, strategy adherence, performance, portfolios drivers and detractors, and organizational health (Q2) Integrate investment review process including internal two- pagers on funds and co- investments (Q1) Standardized portfolio summary section across semi-annuals which provides a clear and concise overview of key portfolio metrics and performance (Q2) 20% increase in efficiency from Critical Processes (Q1-Q4) Semi-annual portfolio reviews (Q1-Q4) 	 Active involvement in industry organizations and conferences (Q1-Q4) Seek speaking engagements (Q1-Q4) Raise profile of team members amongst existing and prospective managers (Q1-Q4) Engage with key stakeholders including Board of Directors and ULandCo (Q1-Q4) Achieve 100% success rate on team training hour requirements (Q1-Q4) Incorporate HBR Levels of Competency into personalized development plans for Real Return leadership (Q2) 	 Provide input and recommendations on Real Return allocations in the ITF (Q1) Collaborate with risk on the development of risk measurement tools (Q2) Participate in endowment wide initiatives including bureaucracy elimination, task force groups, training programs, and social activities (Q1-Q4) Work with Private Equity to create standardized work product and analysis tools across all illiquid investments (Q2) Provide investment recommendations as needed on public equity exposures across Real Return portfolios (Q1-Q4) Active engagement on strategic partner discussions (Q1-Q4) Collaborate to standardize UTIMCO analyst program (Q1- Q4)
-	-	-	-
Attractive risk-adjusted returns while meeting allocation and regime targets	20% productivity increase and increased clarity on investment strategies	Improve talent across teams and increase brand recognition	Share best ideas and expertise across organization

Real Return Investment Strategies

As of December 31, 2018



- Build a global portfolio of real assets across Real Estate, Natural Resources, and Infrastructure capable of generating superior riskadjusted returns during periods of low GDP growth, high inflation, low real earnings, or periods of excess commodity demand
- Long-term return expectations across all Real Return strategies of 11-15% is in-line with the 10-year performance of 12.1%
- Real Return current allocation of 17% against a long-term target of 19%



Real Return Strategic Asset Allocation



NAV as of December 31, 2018; TWR as of April 30, 2019 (reflects 12/31/18 marks); (\$ millions)

		Exposure			Investme	nt Results		Risk					
Real Return Private Portfolio	NAV	% of RR Portfolio	% of Endowments	1-Year (TWR)	3-Year (TWR)	5-Year (TWR)	10-Year (TWR)	5-Year (SD)	Information Ratio				
Private Real Estate	\$2,592	44.4%	7.5%	11.2%	15.2%	16.5%	10.2%	6.3%	2.02				
Private Natural Resources	\$2,563	43.9%	7.4%	-13.6%	8.3%	5.7%	10.9%	18.6%	0.53				
Private Infrastructure	\$686	11.7%	2.0%	3.0%	15.6%	14.6%	17.1%	11.4%	0.72				
Total Real Return Portfolio	\$5,841	100.0%	17.0%	-1.8%	12.0%	11.5%	12.1%	10.8%	0.83				
Weighted Average Benchmark				3.6%	8.8%	6.0%	6.3%						
Real Return Alpha				-5.4%	3.2%	5.5%	5.8%						



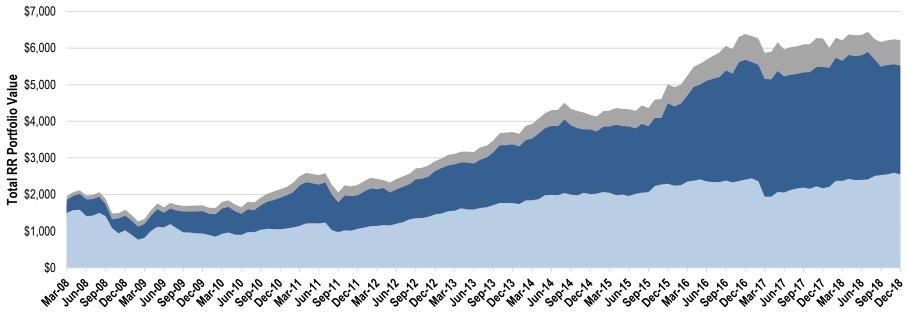
Source: Burgiss, Mellon; Real Return portfolio does not include Gold (1) Correlations reflect 1y returns from 2009 – 2019

Real Return Portfolio Growth



Valuations as of December 31, 2018; (\$ millions)

	Partne	rships			Activit	y TTM					
Real Return Private Portfolio	PartnershipsManagersInvestment Vehicles2478158193748196	Beg NAV	Calls [End NAV	% of v Endowment	s. 12/31/18 Policy	New Mandates	Commitments			
Real Estate	24	78	\$2,389	\$461	\$538	\$280	\$2,592	7.5%	-0.5%	8	\$666
Natural Resources	15	81	2,940	301	264	-415	2,563	7.4%	-0.6%	6	222
Infrastructure	9	37	906	249	468	-2	686	2.0%	0.0%	5	275
Total Real Return Portfolio	48	196	\$6,236	\$1,011	\$1,270	-\$137	\$5,841	17.0%	-1.0%	19	\$1,162



Real Estate Natural Resources Infrastructure

Real Estate – Performance



NAV, Unfunded, and Investment Returns (TWR) as of April 30, 2019 to reflect December 31, 2018 private RE marks Cambridge Total RE Benchmark as of December 31, 2018, TUCS as of March 31, 2019, FTSE EPRA/NAREIT Developed Net TRI as of April 30, 2019

		Exposure			Investme	nt Results		Existing Man	agers
Sector Portfolio	NAV	% of Sector Portfolio	% of Endowments	1-Year (TWR)	3-Year (TWR)	5-Year (TWR)	10-Year (TWR)	Premier List	Other
Private Real Estate:				-					
US/Canada	\$1,412	54.5%	4.1%	14.3%	17.7%	19.9%	14.1%	4	0
Global	552	21.3%	1.6%	7.7%	10.6%	15.2%	5.7%	7	5
Europe	435	16.8%	1.3%	11.1%	16.4%	9.9%	n/a	4	0
Latin America	151	5.8%	0.4%	-6.4%	1.5%	n/a	n/a	1	0
Asia-Pacific	41	1.6%	0.1%	6.7%	12.5%	16.9%	6.1%	0	3
Private Real Estate	\$2,592	100.0%	7.5%	11.2%	15.2%	16.5%	10.2%	16	8
CA Total RE Benchmark (Pooled)				6.8%	9.3%	10.5%	6.8%		
Real Estate Alpha				4.4%	6.0%	6.0%	3.4%		
FTSE EPRA NAREIT Developed Index				9.6%	5.2%	5.5%	11.7%		

Returns:

- Outperformance over the one-year period relative to the Cambridge RE Total benchmark due to investments in U.S. communications assets, European real estate, particularly German residential, and niche investment sectors such as manufactured housing, resort hotels, and parking
- Consistent outperformance relative to the Cambridge RE Total benchmark over all reporting periods with contributions from the majority of investment partnerships
- Limited underperformance confined to an investment in a London data center and an early fund investment in China

⁽¹⁾ Total number of managers equals 28 due to four investment vehicles spread across multiple geographical mandates; Total number of active managers equals 24 (16 Premier List, 8 Other)

⁽²⁾ Performance and total NAV does not include small \$32M public RE position; inclusive of this position, total RE NAV is \$2,634



Real Estate

- Low interest rates have kept cap rates and borrowing costs low and extended the real estate cycle
- Prolonged period of valuation increases due to cap rate compression and increased asset-focused capital expenditures
- Strong macroeconomic fundamentals such as low unemployment, GDP above 3%, and inflation at healthy levels have been supportive for real estate fundamentals and valuations
- Real estate continues to generate steady income due to strong leasing and property occupancy

Natural Resources – Performance



NAV, Unfunded, and Investment Returns (TWR) as of April 30, 2019 to reflect December 31, 2018 private NR marks; Cambridge NR Benchmark as of December 31, 2018

		Exposure			Investme		Existing Managers				
Sector Portfolio	NAV	% of Sector Portfolio	% of Endowments	1-Year (TWR)	3-Year (TWR)	5-Year (TWR)	10-Year (TWR)	Premier List	Other		
Private Natural Resources				-							
Energy Upstream	\$1,349	52.6%	3.9%	-21.1%	8.5%	7.1%	12.8%	4	1		
Metals and Mining	739	28.8%	2.1%	0.4%	14.1%	2.9%	n/a	3	2		
Agriculture	475	18.5%	1.4%	-8.6%	-1.1%	0.5%	n/a	4	1		
Private Natural Resources	\$2,563	100.0%	7.4%	-13.6%	8.3%	5.7%	10.9%	11	4		
CANR Benchmark (Pooled)				-0.6%	7.5%	0.4%	5.8%				
Natural Resources Alpha				-13.0%	0.8%	5.4%	5.1%				
MSCI World Natural Resources Index				-9.1%	2.5%	-6.0%	1.2%				

Returns:

- Underperformance in the Energy portfolio relative to the Cambridge Natural Resources benchmark over the one-year period driven by the write-down of an international offshore upstream energy investment
- Metals and Mining portfolio has provided strong results over the past one and three-year periods due to investments in international mining assets
- Agriculture portfolio has persistently underperformed other Natural Resources sectors due to poor performance in coinvestments and exposure to minority growth equity Agriculture investments

Infrastructure – Performance



NAV, Unfunded, and Investment Returns (TWR) as of April 30, 2019 to reflect December 31, 2018 private Infrastructure marks; Cambridge Infrastructure Benchmark as of December 31, 2018

		Exposure			Investme		Existing Managers				
Sector Portfolio	NAV	% of Sector Portfolio	% of Endowments	1-Year (TWR)	3-Year (TWR)	5-Year (TWR)	10-Year (TWR)	Premier List	Other		
Private Infrastructure											
General Infrastructure	\$476	69.5%	1.4%	-1.1%	12.7%	10.5%	8.0%	5	3		
Energy Midstream	209	30.5%	0.6%	11.5%	24.4%	24.7%	n/a	1	0		
Private Infrastructure	\$686	100.0%	2.0%	3.0%	15.6%	14.6%	17.1%	6	3		
CA Infrastructure Benchmark (Pooled)				6.9%	12.0%	10.1%	6.8%				
Infrastructure Alpha				-4.0%	3.6%	4.5%	10.3%				
MSCI World Infrastructure Index				6.3%	4.3%	3.3%	7.7%				

Returns:

- Underperformance relative to the Cambridge Infrastructure benchmark during the past year due to write-downs in a renewable power services investment and currency headwinds from exposure to emerging markets currencies
- Outperformance in all other reporting periods driven by the realization of an Asian renewable energy platform as well as valuation uplifts and realizations in midstream energy and infrastructure services



Natural Resources & Infrastructure

- In Q4 2018, crude prices fell 40% on the back of record US production, Iran export waivers, and growing concerns over global economic growth with global demand growing a steady 1.3% in 2018
- US and OECD crude inventories close to five-year average; US natural gas inventories significantly below five-year average
- US rig counts in-line with five-year average, but above recent lows
- For the trailing 12-month period ending Q1 2019, Infrastructure deal volume fell 24% compared to the prior period and aggregate deal value dropped from \$399 billion to \$273 billion
- Infrastructure dry powder increased 13% to all-time highs in 2018, implying increased competition for large deals and trophy assets



Real Return Unification

Focused on the unification of the Real Estate and Natural Resources groups into a combined Real Return team resulting in streamlined management, improved communication, unified investment processes, and increased career growth opportunities

Performance

 Real Return portfolios experienced poor performance of -1.8% TWR over the past 12 months resulting in negative 540 basis points but has outperformed over the past 10 years generating a 12.1% TWR and 580 basis points of alpha

Portfolio Positioning

- At this point in the cycle the Real Return team is focused on downside protection across portfolios:
 - Investing in Real Estate with stable cash flows and capable of weathering a potential economic downturn while generating current yields of 6-8%
 - Targeting Infrastructure investments which benefit from long-term secular tailwinds such as midstream, power, and communications as well as unique assets with defensible moats stemming from monopolistic characteristics
 - Reducing our current exposure to international, particularly emerging markets, upstream energy



Appendix

U.S. – RE Dashboard



 Cap Rates at cycle lows and compressing quarterly returns signal lower expected go-forward returns in U.S. real estate

Q4 2018 Real Estate US Market Dashboard

Report Date: December 31 2018

		2	2018			20)17			20)16			20	15			20	14			20)13			20)12			20				20)10			20	09			20	08	
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Pricing																																												
RCA National Property Index	133	131	129				120	117	115	114	111	109	106	104	102	100	97	94	92	89	87	85	83	81	79	77	76	75	74	73	71	70	69	69	68	69	70	73	77	83	89	94	98	100
RCA Major Markets Index	151	150) 149	147	145	143	140	136	133	132	129	126	124	122	120	117	113	109	106	102	99	97	94	92	89	87	87	86	85	84	81	79	78	77	76	75	77	79	84	89	95	100	103	105
Cap rate spread over Baa (bps)	93	100	126	141	184	183	180	163	154	185	207	154	92	107	126	205	213	198	201	188	163	153	154	229	216	233	204	176	175	168	139	119	117	163	142	116	114	96	-4	-141	-123	-206	-39	-25
Returns																																												
NCREIF US Property Index (TR) %	1.4	1.7	1.8	1.7	1.8	1.7	1.8	1.6	1.7	1.8	2.0	2.2	2.9	3.1	3.1	3.6	3.0	2.6		2.7	2.5	2.6		2.6		2.3				3.3		3.4	4.6	3.9	3.3	0.8	-2.1	-3.3	-5.2	-7.3	-8.3	-0.2	0.6	1.6
FTSE EPRA/NAREIT Developed (QoQ%)	-6.3	0.4	9.9	-8.1	1.3	0.4	1.0	-0.1	-3.7	-1.1	6.1	5.4	7.1	1.9	-10.6	4.4	14.1	-3.5	6.7	9.8	-1.0	-3.3	-1.7	7.6	2.3	-0.1	3.3	10.6	14.8	-15.2	3.3	6.0	7.4	13.0	-4.6	9.4	8.5	34.6	30.2	-33.4	-40.0	4.1	-5.8	1.0
RCA Cap Rate (%)	6.0	6.1	6.0	6.1	6.1	6.1	6.2	6.2	6.2	6.2	6.3	6.3	6.4	6.4	6.5	6.5	6.6	6.7	6.7	6.8	6.8	6.8	6.9	6.9	6.9	6.9	6.9	6.9	7.0	7.1	7.2	7.2	7.3	7.4	7.4	7.4	7.4	7.3	7.0	7.0	6.9	6.8	6.8	6.7
Financing																																												
CMBS Production (\$ billions)	19	18	21	19	26	26	22	14	24	18	9	18	21	22	26	26	25	28	20	20	26	17	21	23	17	13	12	6	6	10	8	9	7	2	2	0	2	0	1	0	0	0	6	6
RCA Mortgage Rate (%)	6.5	6.5	6.5	6.5	6.6	6.5	6.5	6.6	6.6	6.5	6.5	6.6	6.5	6.6	6.6	6.7	6.7	6.9	7.0	6.9	7.1	7.1	7.1	7.2	7.2	7.3	7.3	7.4	7.6	7.5	7.6	7.7	7.7	8.0	8.0	8.2	8.2	8.0	7.6	7.5	7.2	7.1	7.0	7.0
RCA Mortgage Rate spread over Baa (bps)	140	147	174	185	232	220	213	201	195	208	228	183	108	129	144	222	226	218	223	197	192	180	176	263	251	274	247	220	233	213	185	165	164	227	200	196	192	175	46	-93	-91	-181	-16	2
Liquidity																																												
Fundraising (\$ billions)	4	6	14	21	3	3	3	5	6	6	18	11	8	21	12	39	6	6	8	6	19	5	13	3	7	12	4	10	27	4	9	5	2	2	13	9	2	4	8	6	10	13	9	13
Dry Powder (\$ billions)	193				175				149				138				107				116				83				97				83				96				89		i	
Transaction Volume (\$ billions)	172	160	124	120	133	130	116	110	144	131	117	120	173	121	132	144	136	120	101	96	124	97	78	79	117	74	65	55	71	67	80	42	65	41	29	20	25	17	15	14	27	43	49	63
Distressed Opportunity																																												
Delinquency Rate (%)	2.9	3.1	3.7	4.1	4.4	4.7	5.1	5.2	4.8	4.7	4.5	4.0	4.1	4.9	5.0	5.1	5.3	5.6	5.7	6.1	6.9	7.6	7.9	8.5	9.1	9.3	10.0	9.6	9.3	9.5	9.6	9.5	9.2	8.4	8.7	8.0	6.5	4.8	3.6	2.4	1.4	0.7	0.5	0.5
Macro																																												
10-Yr Yield (%)	2.8	3.0	2.9	2.8	2.4	2.2	2.2	2.5	2.5	1.6	1.6	1.9	2.2	2.2	2.4	2.0	2.2	2.5	2.6	2.7	2.9	2.8	2.5	1.8	1.8	1.6	1.6	2.2	1.9	1.9	3.2	3.5	3.3	2.5	2.9	3.8	3.8	3.3	3.5	2.7	2.2	3.8	4.0	3.4
Inflation Breakeven (%)	1.9	2.0	2.1	2.1	2.1	1.9	1.8	1.8	2.0	1.8	1.5	1.6	1.4	1.5	1.7	1.9	1.7	1.8	2.2	2.2	2.2	2.2	2.2	2.3	2.5	2.5	2.3	2.2	2.2	2.0	2.1	2.4	2.4	2.1	1.7	2.1	2.3	2.1	1.8	1.6	0.9	0.6	2.2	2.4
Real GDP YoY (%)	3.2	3.0	3.0	2.9	2.6	2.5	2.3	2.1	1.9	1.9	1.5	1.3	1.6	2.0	2.4	3.4	3.8	2.7	3.0	2.6	1.5	2.6	1.9	1.3	1.6	1.5	2.5	2.4	2.7	1.6	0.9	1.7	1.9	2.6	3.2	2.8	1.7	0.2	-3.0	-3.9	-3.3	-2.8	0.0	1.1
Unemployment Rate (%)	3.8	3.9	3.7	4.0	4.0	4.1	4.2	4.3	4.4	4.7	5.0	4.9	5.0	5.0	5.0	5.3	5.4	5.6	5.9	6.1	6.7	6.7	7.2	7.5	7.5	7.9	7.8	8.2	8.2	8.5	9.0	9.1	9.0	9.3	9.5	9.4	9.9	9.9	9.8	9.5	8.7	7.3	6.1	5.6
Macro Factors (Specific to Real Estate)																																												
Job Growth (%)	0.5	0.4	0.5	0.5	0.4	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.6	0.4	0.6	0.4	0.6	0.5	0.6	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.2	0.6	0.4	0.3	0.5	0.4	0.4	-0.1	0.5	0.1	-0.3	-0.6	-1.1	-1.7	-1.4	-0.7	-0.4	-0.1
PMI	54	60	_	59	59	60	57	57	54	51	53	51	48	50	52	52	55	56	55	55	56	55	52	52	50	52	50	54	53	54	56	58	57	55	57	59	56	55	46	37	35	47	50	50
Consumer Confidence	98	100	98	101	96	95	95	97	98	91	94	91	93	87	96	93	94	85	83	80	83	78	84	79	73	78	73	76	70	60	72	68	75	68	76	74	73	74	71	57	60	70	56	70

Europe – RE Dashboard



 Low cap rates, high levels of dry powder, and elevated transaction volumes in Europe are characteristic of late-cycle investment behavior

Q4 2018 Real Estate EU Market Dashboard

Report Date: December 31, 2018

		2	018			20	017			20	16			2	015			20	14			20	13			20	12			20	11			20)10			20	009			20	08	
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1																								
Pricing/Returns																																												
FTSE EPRA/NAREIT Europe (QoQ%)	-9	-1.3	5.0	-3.3	6.0	1.1	3.7	1.2	-3.1	3.6	-3.0	-2.7	2.8	3.5	-7.1	19.4	8.3	0.6	8.3	5.9	4.0	5.7	0.3	0.0	7.3	5.8	2.2	9.9	0.7	-17.1	4.8	2.9	4.8	15.0	-7.1	3.6	3.7	29.5	18.9	-15.6	-34.3	-4.8	-16.9	-1.9
UK Property Price Index (CPPI)	111	108	105	102	101	101	100	98	97	96	95	93	91	90	89	88	87	86	84	81	79	76	74	74	75	76	75	74	73	74	75	74	75	76	77	76	70	63	60	62	70	78	84	88
Europe RCA Cap Rates (%)	5.7	5.8	5.7	5.7	5.8	5.8	5.8	5.8	5.9	6.0	6.0	6.1	6.1	6.2	6.2	6.3	6.4	6.5	6.6	6.6	6.6	6.6	6.6	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.6	6.6	6.6	6.7	6.8	7.1	7.3	7.2	6.9	6.5	6.3	6.2	6.0	5.8
Cap Rates vs 10y Euro Bond (bps)	548	529	544	525	533	532	535	551	568	607	614	591	549	560	547	614	589	559	534	507	469	480	490	525	522	510	493	469	471	464	356	327	364	442	423	397	386	393	349	350	332	217	138	192
Financing/Liquidity																																												
Dry Powder (\$ billions)	73				72				57				63				61				56				31				35				39				38				36			
Fundraising (\$ billions)	3.0	0.8	1.9	1.5	0.3	1.0	12.6	1.6	3.0	1.9	2.2	2.3	3.7	3.6	1.3	2.1	1.7	0.9	3.2	10.6	4.0	3.6	0.0	0.4	1.6	2.5	3.2	3.7	0.8	1.8	1.0	1.0	1.0	0.9	0.6	4.8	3.4	1.1	1.7	1.1	2.5	3.6	11.5	4.0
Transaction Volume (\$ billions)	60	37	40	38	62	42	43	41	62	37	44	37	62	55	46	49	54	36	38	31	46	30	24	25	36	23	22	23	29	25	24	24	30	20	19	18	26	13	11	12	20	30	23	31
Масто																																												
Unemployment Rate (%)	7.9	8.0	8.2	8.5	8.6	8.9	9.1	9.4	9.6	9.9	10.1	10.2	10.4	10.6	11.0	11.2	11.3	11.5	11.5	11.8	11.9	12.0	12.1	12.1	11.9	11.6	11.4	11.1	10.7	10.4	10.0	10.0	10.1	10.2	10.3	10.2	10.1	10.0	9.7	9.3	8.3	7.7	7.5	7.3
Euro-Area 10y Yield (%)	0.2	0.5	0.3	0.5	0.4	0.5	0.5	0.3	0.2	-0.1	-0.1	0.2	0.6	0.6	0.8	0.2	0.5	0.9	1.2	1.6	1.9	1.8	1.7	1.3	1.3	1.4	1.6	1.8	1.8	1.9	3.0	3.4	3.0	2.3	2.6	3.1	3.4	3.2	3.4	3.0	3.0	4.0	4.6	3.9
EU Inflation Rate (%)	1.5	2.1	2.0	1.4	1.3	1.6	1.3	1.5	1.1	0.4	0.0	0.0	0.3	0.2	0.5	-0.1	-0.2	0.3	0.5	0.5	0.8	1.1	1.6	1.7	2.2	2.6	2.4	2.7	2.8	3.0	2.7	2.7	2.2	1.9	1.5	1.6	0.9	-0.3	-0.1	0.6	1.6	3.6	3.9	3.6
EU/USD Exchange Rate	1.15	1.16	1.17	1.23	1.20	1.18	1.14	1.07	1.05	1.12	1.11	1.14	1.09	1.12	1.12	1.08	1.21	1.26	1.37	1.38	1.38	1.35	1.31	1.28	1.32	1.29	1.26	1.34	1.29	1.35	1.45	1.42	1.34	1.36	1.23	1.35	1.44	1.46	1.41	1.33	1.39	1.43	1.58	1.58
EU GDP yoy (%)	1.5	1.5	1.8	2.2	2.4	2.7	2.8	2.5	2.2	2.1	1.9	2.0	2.1	2.3	2.3	2.3	2.2	2.0	1.7	1.7	1.8	1.2	0.5	0.1	-0.6	-0.6	-0.4	-0.4	0.0	0.8	1.6	2.0	2.9	2.5	2.4	2.2	1.0	-2.1	-4.4	-5.3	-5.4	-2.3	0.1	1.5
Property Type-Specific Metrics																																												
Eurozone Consumer Confidence	-7	-5	-5	-4	-3	-4	-5	-7	-6	-7	-7	-7	-4	-6	-6	-6	-9	-10	-8	-10	-13	-14	-18	-19	-21	-21	-19	-18	-20	-19	-15	-14	-13	-13	-14	-12	-11	-13	-18	-23	-22	-19	-19	-13
EU Economic Consumer Sentiment	108	111	112	112	114	112	110	108	108	105	105	104	108	106	104	104	102	102	104	103	101	98	90	89	87	85	89	92	91	92	102	105	104	101	98	97	92	84	74	65	71	89	95	103
Manufacturing PMI	51	53	55	57	61	58	57	56	55	53	53	52	53	52	53	52	51	50	52	53	53	51	49	47	46	46	45	48	47	49	52	58	57	54	56	57	52	49	43	34	34	45	49	52

Natural Resources Dashboard



Price volatility in crude oil and high levels of associated gas production have remained disruptive to capital investment in long-term energy projects. In Q4 2018 crude oil prices dropped ~40% (bullish crude oil and short lead time projects)

Q4 2018 Natural Resources Market Dashboard

Report Date: December 31, 2018

			018				2017				016			20				20				-	13				012				011				010				009	
	Q4	Q3	Q2	Q1	Q4	Q	3 Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
NR Equities vs. Commodity Futures																																								
Equity vs. Commodity Performance (12m)	94%	109%	114%	102%	<mark>106%</mark>	6 107	<mark>%</mark> 1079	6 1079	6 114%	119%	105%	102%	96%	86%	94%	111%	103%	112%	117%	110%	119%	118%	109%	100%	101%	107%	93%	101%	104%	94%	112%	96%	97%	95%	99%	119%	113%	124%	107%	103%
Commodity Spot Prices																																								
Crude - WTI, NYM (\$/bbl)	45.4	75.3	74.2	63.0	60.4	51.	7 46.0	50.6	53.7	48.2	48.3	38.3	37.0	45.1	59.5	47.6	53.3	91.2	105.4	101.6	98.4	102.3	98.0	97.1	91.8	92.5	85.0	103.0	98.8	79.2	95.4	106.7	91.4	80.0	75.6	83.8	79.4	70.6	69.9	49.7
Nat. Gas - HH, NYM (\$/MMbtu)	2.9	3.1	2.9	2.7	3.1	3.0) 3.0	3.2	3.7	2.9	2.9	2.0	2.3	2.5	2.8	2.6	2.9	4.1	4.5	4.4	4.2	3.6	3.6	4.0	3.4	3.5	2.8	2.1	3.0	3.7	4.4	4.4	4.4	3.9	4.6	3.9	5.6	4.8	3.8	3.8
Copper - COMEX (\$/lb)	2.6	2.8	3.0	3.1	3.3	3.0) 2.7	2.7	2.5	2.2	2.2	2.2	2.1	2.3	2.6	2.7	2.8	3.0	3.2	3.0	3.4	3.3	3.2	3.4	3.7	3.8	3.5	3.8	3.4	3.2	4.3	4.3	4.4	3.7	2.9	3.6	3.3	2.8	2.3	1.8
Gold - COMEX (\$/t oz)	1281	1187	1255	1342	1316	5 128	32 124	2 1247	1152	1313	1321	1234	1060	1116	1172	1183	1184	1211		1283	1202	1327	1256	1600	1676	1781	1604	1669	1567	1620			1421	1308	1246	1113	1096	1008	927	923
Wheat - CBOT (cents/bu)	503	510	498	446	434	44	8 511	427	408	402	431	474	470	513	615	512	590	478	565	697	605	679	646	664	778	884	739	661	653	609	585	763	794	674	465	451	542	458	511	533
Crude - OPEC																																								
Surplus Capacity - DOE Monthly (MMbopd)	1.2	1.3	1.5	1.9	2.1	1.8	3 1.9	2.3	1.1	1.0	1.1	1.5	1.5	1.3	1.1	1.6	2.1	2.2	2.2	2.2	2.0	1.7	2.0	2.7	2.6	2.1	1.9	2.0	2.5	2.6	2.8	3.6	4.0	3.6	3.8	4.2	4.4	4.3	3.5	3.4
Crude - OECD Stocks																	t																							
US Crude Storage - DOE Weekly (MMbbls)	441	404	418	425	424	46	5 503	536	479	469	494	499	451	429	434	450	349	330	353	348	327	335	355	360	332	338	357	337	307	314	337	336	314	340	338	336	307	319	329	342
Cushing Crude Storage - DOE Weekly (MMbbls)	42	24	28	35	49	62	2 60	69	68	63	64	66	64	53	57	60	32	19	20	27	41	33	50	49	50	44	48	40	29	30	37	42	37	35	36	31	36	25	30	30
OECD Crude Storage - IEA Monthly (MMbbls)	1079	1037	1089	1090	1100	116	51 120	9 1245	5 1181	1182	1215	1201	1176	1127	1140	1116	1045	977	1004	1027	972	1010	1011	1025	988	1016	1033	995	926	949	994	995	962	983	1014	998	944	960	993	1017
OECD Total Products Storage - IEA Monthly (MM	1459	1484	1395	1411	1442	2 147	<mark>11 148</mark>	7 1479	1512	1571	1545	1512	1507	1501	1427	1377	1402	1418	1338	1293	1338	1401	1370	1370	1410	1420	1360	1377	1404	1426	1399	1381	1427	1471	1455	1406	1448	1521	1475	1440
Natural Gas																	\square																							
US Storage (DOE Weekly, Bcf)	2.7	2.9	2.2	1.4	3.1	3.5	5 2.9	2.1	3.3	3.7	3.2	2.5	3.6	3.6	2.7	1.5	3.1	3.2	1.9	0.8	2.8	3.5	2.6	1.7	3.5	3.7	3.1	2.5	3.5	3.4	2.5	1.6	3.1	3.5	2.8	1.7	3.1	3.7	2.8	1.7
US Rig Counts																																								
Total Rigs	1083	1054	1047	993	929	94	0 940	824	658	522	431	450	698	809	862	1028	1811	1922	1873	1809	1751	1744	1748	1748	1763	1848	1959	1979	2007	1990	1886	1776	1694	1659	1557	1465	1189	1024	928	1043
Land Rigs	1056	1029	1024	977	909	91	6 915	798	634	497	408	420	672	776	828	993	1744	1850	1800	1741	1670	1663	1670	1680	1692	1781	1893	1910	1948	1944	1837	1729	1656	1624	1529	1399	1139	983	878	992
Gas Rigs	198	189	187	194	182	18				96	89	88	162	195	219	222	328	330	314	318	372	376	353	389	431	435	534	658	809	923	874	891	919	962	960	949	759	712	688	808
Oil Rigs	885	863	858	797	747	75	0 756	662	525	425	341	362	536	614	640		1482	1591	1558		1378	1362	1390	1354	1327	1410				1060	1006	877	765	687	587	502	418	303	229	224
Vertical Rigs	68	63	56	63	65	64	l 77	69	70	64	61	55	89	117	108	136	300	372	381	384	377	417	441	443	477	514	553	566	625	617	570	531	535	523	478	508	418	396	371	422
Horizontal Rigs	945	922	926	870	796	79	4 792	685	532	407	332	346	549	609	657	799	1336	1341	1263	1211	1148	1085	1067	1099	1111	1142	1171	1180	1167	1135	1073	1017	947	916	849	735	571	444	396	409
Directional Rigs	70	69	65	60	68	82	2 71	70	56	51	38	49	60	83	97	93	175	209	229	214	226	242	240	206	175	192	235	233	215	238	243	228	212	220	230	222	200	184	161	212
Marine Shipping Activity																																								
Baltic Dry Index - Daily Value	1271	1540	1385	1055	1366	5 135	6 901	1297	961	875	660	429	478	900	800	602	782	1063	850	1362	2277	2003	1171	910	699	766	1004	934	1738	1899	1413	1530	1773	2446	2406	2998	3005	2220	3757	1615
NR Overall Weighted Average Indicator																																								
NR Weighted Average Indicator	2.8	3.3	3.4	2.9	2.9	2.6	3 2.3	2.3	2.2	2.2	1.9	1.5	1.2	1.2	1.5	1.8	2.1	3.0	3.4	3.1	3.3	3.3	3.0	2.7	2.5	3.0	2.4	3.0	3.4	2.9	3.3	2.9	2.9	2.5	2.2	2.8	2.5	2.6	2.2	2.1

Agenda Item UTIMCO Board of Directors Meeting June 27, 2019

Agenda Item:	Private Equity Presentation
Developed By:	Private Equity Team
Presented By:	Pace, Rincon, Thawley
Type of Item:	Information Item
Description:	Mr. Pace will lead the presentation on Private Equity investments, with Mr. Rincon and Mr. Thawley leading the discussions on their respective portfolios.
Recommendation:	None
Reference:	Private Equity Portfolio Overview presentation



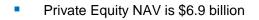
The University of Texas/Texas A&M Investment Management Company

Private Equity Portfolio Overview

Patrick Pace, Brad Thawley, & Richard Rincon – June 2019

Private Equity Summary

Role in Endowment and Team



- \$2.4 billion in Private Equity, \$2.3 billion in Venture Capital, \$1.7 billion in Emerging Markets, and \$0.5 billion in Private Credit
- ~ ~20% of total Endowment assets as of April 2019; long-term Strategic Asset Allocation ("SAA") target of 25%
- Managed by ten-person investment team, with average of ten years of experience and two years at UTIMCO
- In the Five-Year Strategic Plan, Private Equity assets forecast to grow over 50%, with need for three additional team members

Market Conditions

- As institutional capital continues to flood into private assets, the Private Equity market remains very competitive, marked by all-time high valuations and leverage ratios
- Venture Capital was a strong value driver within private markets in 2018, offsetting the weak returns in the rest of Private Equity, primarily due to a decline in valuations during Q4 2018

Performance Summary

- Private Equity generated a 12% point-to-point Time Weighted Return ("TWR") over the past 12 months, generating 160 basis points of alpha when compared to a NAV-weighted benchmark across Private Equity, Venture Capital, Emerging Markets, and Private Credit
- Private Equity generated a 13.8% TWR and negative 50 basis points of alpha over the past 10 years
- In a PME analysis, the portfolio generated a since inception IRR of 11% and generated 5.5% of alpha vs the MSCI World index

Top Priorities

- Drive improved performance through rebalancing following a recent portfolio construction exercise, as well as building towards UTIMCO's SAA target of 25% for Private Equity
- Continue to revamp and upgrade critical processes to sharpen decision-making and drive efficiency

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Private Equity Team



Pat Pace Senior Director M.D., University of Texas Medical School at Houston Prior: EDG Partners / Citadel



Brad Thawley Senior Director BA, Bucknell University Prior: TRS



Will Mirshak Director MBA, University of Chicago Prior: Mesirow Advanced Strategies



Patrick Curby-Lucier, CFA Associate BBA, Texas A&M University *Prior: TRS*



Tori Lee Senior Analyst BBA, The University of Texas at Austin



Ross Crutchfield Analyst BBA, The University of Texas at Austin



Tracy Stewart Investment Team Coordinator MA, University of South Florida *Prior: Sage Advisory*



Richard Rincon Senior Director MBA, Northwestern Prior: Grace Equity



Conrad Shang Director MBA, University of Pennsylvania *Prior: Norwest Venture Partners*



Nicole Wang Associate MBA, The University of Texas at Austin *Prior: Galaxy Capital*



Jim Pappas, CFA Senior Analyst BBA, University of Notre Dame *Prior: Samson Resources*



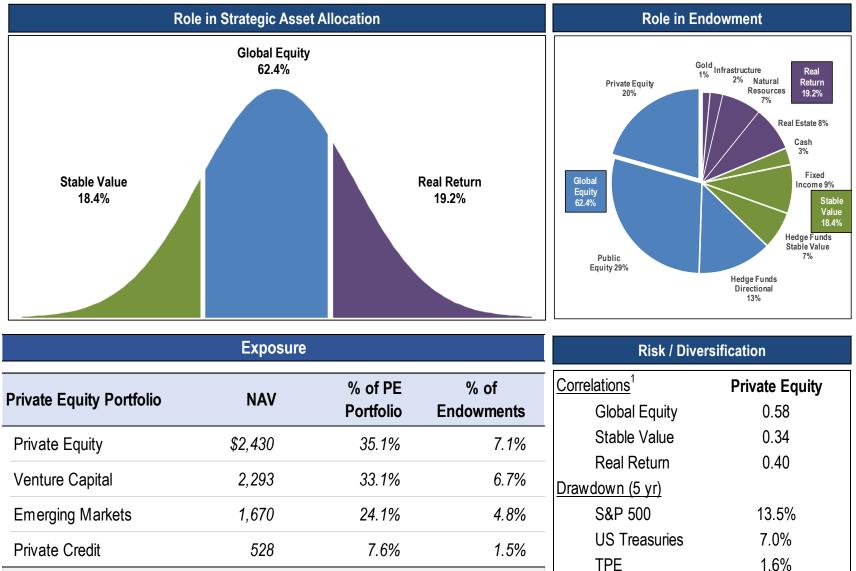
Aimee Work Investment Team Coordinator BA, The University of Texas at Austin *Prior: DRW*

Experience Summary: 4 Master Degrees 3 CFA Candidates 2 CFA Charterholders 1 M.D.

Private Equity Strategic Asset Allocation



NAV as of December 31, 2018



(1) Correlations reflect one year returns from 2009 to 2019

Source: Burgiss, BNY Mellon

Private Equity

6.3%

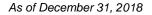
20.1%

Real Return

100.0%

\$6,921

Private Equity Market Conditions



	1.0-3.5 = Unattractive
Scale	3.5-7.5 = Neutral
	7.5-10.0 = Attractive

Private Equity	Valuation Environ	ment	
	Current Level	Percentile Ranking	Current Score
Fundraising as % of GDP	1.2%	58%	5
Invested as % of GDP	4.4%	92%	1
Dry Powder as % of GDP	7.2%	100%	1
Debt Multiple (Net Debt/EBITDA)	5.8x	92%	1
Equity Contribution (Equity/TEV)	45.0%	83%	9
PE Price Multiples (TEV/EBITDA)	10.6x	92%	1
Russell 3000 Multiple (TEV/EBITDA)	11.1x	89%	2
Russell 3000 to Private Pricing Spread	0.5x	75%	3
Leveraged Loan Spread over LIBOR (bps)	270	36%	7
High Yield Loan Spread over LIBOR (bps)	391	58%	5
GDP 2-Yr Forecast Growth	2.3%	50%	6
IPO Count	43	33%	4
M&A Count	1,118	67%	7
Consumer Confidence Index	135	100%	10
UTIMCO Valuation Score			3.2

Cambridge Benchmark I	Returns										
Strategy	1-Yr	3-Yr	5-Yr	7-Yr	10-Yr						
Private Equity	8.4%	14.6%	12.1%	14.1%	14.3%						
Venture Capital	18.7%	10.6%	14.3%	15.1%	13.5%						
Emerging Markets	6.3%	10.0%	10.6%	11.1%	12.6%						
Private Credit	4.1%	9.3%	6.6%	10.5%	15.1%						
Total Private Equity	10.4%	11.8%	11.3%	12.9%	14.3%						
Benchmarks											
Private Equity	Cambridge	Global Buy	routs								
Venture Capital Cambridge Global Venture Capital											
Emerging Markets Cambridge Emerging Markets PE & VC											
Private Credit Cambridge Credit Opportunities											
Total Private Equity UTIMCO NAV-Weighted Sub-Strategy Benchmarks											

Notes: Overall UTIMCO Valuation score is a simple average of all the shaded line items.

Total Private Equity Benchmark Return is a NAV-weighted return of all the individual sub-strategy specific benchmarks, using UTIMCO beginning of time horizon NAV.



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Private Equity Performance Summary



UTIMCO and benchmark data as of December 31, 2018; TWR as of April 30, 2019 (reflects 12/31/18 marks); (\$ millions)

Investment Results													
Endowments (NAV) as of 4/30/20191	\$34.5	(\$bn)											
Private Equity Assets (NAV)	\$6.9	(\$bn)											
% of Endowments	20.1%												
	<u>1-Year</u>	<u>3-Year</u>	<u>5-Year</u>										
Private Equity Return (Time Weighted)	12.0%	12.2%	11.2%										
Specific Benchmark Return (Weighted Avg)	10.4%	11.8%	11.3%										
Alpha vs. Benchmark (Weighted Avg)	1.6%	0.4%	-0.1%										
FoF Benchmark Return	11.3%	9.9%	10.5%										
Alpha vs. FoF Benchmark	0.7%	2.3%	0.7%										

Investment Allocation & Performance by Sub-Asset Class (TWR)													
<u>1-Year Analysis</u>	Beg. NAV	NAV Net CF Gain/Loss End NAV % of Total PE UTIMCO TWR ²		Benchmark Return ³	Total Alpha								
Private Equity ⁴	\$2,462	(\$120)	\$88	\$2,430	35.1%	7.3%	8.4%	-1.1%					
Emerging Markets	1,616	(40)	94	1,670	24.1%	10.0%	6.3%	3.7%					
Venture Capital	1,876	17	400	400 2,293 33.1% 21.7		21.7%	18.7%	3.1%					
Private Credit	638	(148)	39	528	7.6%	4.5%	4.1%	0.5%					
Total (TWR) ²	\$6,592	(\$291)	\$621	\$6,921	100.0%	12.0%	10.4%	1.6%					
3-Year Analysis	Beg. NAV	Net CF	Gain/Loss	End NAV	% of Total PE	UTIMCO TWR ²	Benchmark Return ³	Total Alpha					
Private Equity ⁴	\$2,010	(\$272)	\$692	\$2,430	35.1%	12.3%	14.6%	-2.3%					
Emerging Markets	993	244	433	1,670	24.1%	11.0%	10.0%	1.0%					
Venture Capital	1,440	194	659	2,293	33.1%	13.8%	10.6%	3.2%					
Private Credit	813	(484)	199	528	7.6%	8.9%	9.3%	-0.4%					

Investment Return Expectations by Sub-Asset Class (IRR, Nominal)									
	Expected Beta	<u>Alpha Target</u>							
Private Equity	8.1%								
Emerging Markets	5.7%								
Venture Capital	6.6%								
Private Credit	10.5%								
Total	8.2%	2.5%							

<u>5-Year Analysis</u>	Beg. NAV	Net CF	Gain/Loss End NAV		% of Total PE	UTIMCO TWR ²	Benchmark Return ³	Total Alpha	
Private Equity ⁴	\$1,843	(\$414)	\$1,001	\$2,430	35.1%	10.8%	12.1%	-1.2%	
Emerging Markets	647	510	512	1,670	24.1%	8.2%	10.6%	-2.5%	
Venture Capital	1,239	(158)	1,212	2,293	33.1%	16.2%	14.3%	1.9%	
Private Credit	986	(810)	352	528	7.6%	8.2%	6.6%	1.5%	
Total (TWR) ²	\$4,716	(\$871)	\$3,077	\$6,921	100.0%	11.2%	11.3%	-0.1%	

Footnotes:

(1) "Endowments" refers to the PUF & GEF

(2) Time-weighted returns as of April 30, 2019 to capture reporting of December 31, 2018 valuations

(3) Benchmark returns for each strategy are calculated by linking (and annualizing) pooled quarterly IRRs for all funds in strategy. Total benchmark return is the weighted average of the sub-asset class specific benchmarks using UTIMCO beginning NAV.

(4) Private Equity refers to developed private equity investments and includes Energy Services



- UTIMCO revisited Portfolio Construction and launched a process in Summer 2018
 - Studied historical returns and components of returns for various asset classes
- Three Main Goals:
 - Achieve scalability as the Endowments grow
 - Reduce return dispersion; increase stability
 - Remain committed to well-established alpha-generating strategies
- Result of Portfolio Construction is to increase commitments to well-established managers with consistent returns, while also continuing to pursue targeted, high-conviction opportunities to drive upside
- As part of this process, the Private Equity Premier List is likely to evolve significantly over the next few years

Private Equity Illustrative Portfolio Construction



 Five-year plan maintains absolute exposure to historical alpha drivers while increasing the overall portfolio size and exposure to scalable and stable strategies



Private Equity Premier List



		Exposure		<u> </u>	Manager Count									
	Actual \$MM	Actual %	Target %	Invested	Non-Invested	Total	Total %	Target %						
Platinum	\$708	9%	20%	4	3	7	8%	10%						
Gold	\$1,969	25%	30%	10	3	13	15%	30%						
Silver	\$3,601	46%	40%	36	12	48	56%	50%						
Bronze	\$1,548	20%	10%	10% 14 4 18		18	21%	10%						
Premier List	\$7,827	79%			Premier List	86	58%							
Other	\$2,093	21%			Other	62	42%							
PE Total	\$9,920	•			PE Total	148								

Current Private Equity Premier List

Illustrative Relationship Sizing - 10-Year Plan

Strategy	Total 10-Year Capital Plan (\$B)	Avg Fund Commitment (\$M)	Fund Raise Cycle (years)	# of Managers Desired	10-year Commitment Plan per Manager (\$M)
Large Buyout	\$12	\$250	3.0	10	\$1.2
Small Buyout	mall Buyout \$6		3.6	15	\$0.4
Growth Equity	\$4	\$150	3.0	10	\$0.4
Venture Capital	\$5	\$50	2.5	25	\$0.2
Private Credit	\$3	\$200	2.6	10	\$0.3
TOTALS	\$30			70	\$0.4

2019 Private Equity Action Plan



Complete

In Process

Partnerships	Portfolio Construction & Alignment	Processes	Human Capital
 Streamline Premier List, including development of forward pipeline of potential Premier List partners who will be coming to market and deepen current relationships to increase co-investment deal flow Complete market mapping of areas where new Premier List partners will need to be added as a result of portfolio construction process Deepen relationships with UT and Texas A&M A) Healthcare B) Leverage IP "know how" with university patent offices Engage in Strategic Partner process to help identify best multi-asset class partners Execute mini strategic partnership within portfolio 	 Achieve at least 250 bps of alpha above new PE benchmark Develop portfolio construction and risk management framework (in collaboration with Risk Team) Development of PE commitment model, including capital allocation framework among sub-strategies Drive more proactive co-investment penetration (target 20-25% of capital deployment in high quality co- investments) Evaluate secondary market to accelerate rebalancing of portfolio Review portfolio in-depth twice during year 	 Establish selection criteria and decision-making processes for: A) Premier List additions B) Fund Investments C) Co-Investments Implement and refine PATS model in collaboration with Real Return team Establish regular pipeline review process to engage team across substrategies Enhanced liquidity tracking for commitment model Maintain LT valuation dashboards and active liquidity tracking across portfolio Finish implementation of iLevel and integrate into portfolio monitoring Collaborate across teams to improve firm-wide templates for presentations and memos Support OFAC implementation 	 Hire for open Associate position and establish hiring plans for 1-year and 5- year time horizons Establish personal development goals and career paths for each team member Ensure completion of annual training requirement Raise profile among existing managers and global PE community Participate in industry speaking events, conferences, and lecture opportunities Solidify team structure / coverage / domain expertise Ensure proper succession planning in coordination with HR Collaborate to standardize UTIMCO Analyst program
<u>Deadline</u> : Q4 2019	Deadline: Q4 2019		Deadline: Q2 2019
More efficient use of time	Deliver risk-adjusted performance while investing in line with SAA	Improve productivity and transparency	Improve team & retention; Brand strength

Agenda Item UTIMCO Board of Directors Meeting June 27, 2019

Agenda Item:	Strategic Partnerships Update
Developed By:	Standley
Presented By:	Standley
Type of Item:	Information Item
Description:	Mr. Standley will provide an update to the Board on the Strategic Partnerships selection process.
Recommendation:	None
Reference:	Strategic Partnerships Update presentation



The University of Texas/Texas A&M Investment Management Company

Strategic Partnerships Update

Ken Standley, Chief of Staff

1



Goals of Strategic Partnerships

- Investment Alpha: achieve UTIMCO objectives and add value
- Organizational Alpha: training, resources, deliver full value of the firm
- Relationship Alpha: "positive peer pressure", mutual commitment

Public

- Targeting 2-4 partners with \$500 M – 1.5 Bn per partner
- Public multi-asset portfolios with valueadded through strategy selection and tactical asset allocation
- Performance-based fees

Private

- Targeting 2-4 partners with \$1 – 2 Bn per partner
- Private Equity, Real Estate, Natural Resources, Credit
- Fee-advantaged investment in funds, access to co-investment

Selection Process

Phase 1 Screen

- Articulate investment objectives and specify mandate
- Construct DDQ
- Go out to broad set of prospective Strategic Partners
- Systematically score responses across 7 key criteria

Publics: Complete

Privates: Complete

Phase 2 *Deep DD*

- Conduct in-depth due diligence on focal points
- Publics: TAA, Research, Risk Management
- Privates:
 Performance,
 Alignment, Terms,
 Strategy,
 Coinvestments

Publics: Q2

Privates: Q4

Phase 3 *Final Selection*

- Deliver proposed terms to finalists
- Negotiate and agree to terms
- Bring to UTIMCO board for final approval

Publics: September

Privates: February



Public Strategic Partners: Phase 2



	Option A	Option B
US Equity	41%	35%
Non-US Developed	21%	14%
Emerging Markets	20%	13%
Fixed Income	18%	11%
Directional HF		9%
Stable Value HF		18%
Baseline Alpha	100 bps	140 bps
Baseline TE	250 bps	200 bps
Baseline Info Ratio	0.4	0.7
Baseline Exp Return	6.6%	5.8%
Baseline Exp Risk	13.1%	10.4%
Baseline Sharpe	0.5	0.6

- Ongoing analysis in Phase 2
 - assessing SP Proposals at different levels of risk to generate spectrum of risk/return
 - Identifying commonalities/differences across proposals and levels of risk
 - Scrutinizing feasibility and complexity of individual proposals
 - Determining appropriate constraints on use of leverage and concentration

- 2 possible benchmarks under consideration
- Public SP Benchmark and objectives should reflect broad UTIMCO goals
 - Long Term Strategic Asset Allocation
 - Alpha generation through strategy selection and asset allocation
- To be accretive, Public SPs must exceed the "opportunity cost" of allocation
 - 100-140 basis points of Alpha
 - Information Ratio of 0.4-0.7

Lower Risk: 100 bps of TE

Medium Risk: 300 bps of TE

Higher Risk: 500 bps of TE

Private Strategic Partners Update



- Phase 1 Complete
 - Evaluated 15 prospective partners across our 7 key criteria
 - Data considered
 - 400 pages of DDQ responses
 - o 267 Funds (\$615 Bn of Capital)
 - 2,745 individual deals (\$365 Bn of Deals)
 - Narrowed the field to continue with managers who offer breadth and skill
 - Initial Conclusions
 - Very few organizations possess the ability to engage in a Strategic Partnership
 - Innovation has occurred in the structure of Strategic Partnerships that UTIMCO should consider
- Phase 2
 - Articulate UTIMCO's unique strategic needs for private capital deployment and approach prospective partners with our goals
 - Establish the "opportunity cost" of Strategic Partnerships to set baseline expectations
 - Approaching remaining prospective partners in July to evaluate willingness and ability to execute

Summary



- Phase 1 is complete for both Public and Private Strategic Partnerships and Phase 2 is underway
- Public Strategic Partnerships
 - Evaluating Phase 2 proposals
 - Rigorous due diligence of key value drivers
 - Expected on-site visits this summer
 - Will present UTIMCO proposal for Public Strategic Partnerships at September Board meeting
- Private Strategic Partnerships
 - Doing internal work to specify desired objectives and exposures that accomplish UTIMCO strategic goals
 - Expect to approach prospective partners in July with our conclusions
 - Target due diligence to firms who can accomplish objectives consistent with our needs
 - Expect to present UTIMCO proposal for Private Strategic Partnerships by February Board meeting



Criteria for Selecting a Strategic Partner



- 1. Delivers Full Range of Valuable Investment Products and Services
- 2. Customize Products and Services to Specific UTIMCO Requirements
- 3. Operate Globally With a Sustainable Business Model
- 4. Produce Proprietary and Value-Added Investment Research
- 5. Share Significant Resources When Appropriate
- 6. Share Our Long-Term Compensation Philosophy
- 7. Senior Management Makes a Full Commitment to the Partnership



Inflows	Endowment	S	Strategic Partnerships
	Public Markets Public Equity Directional HF	33% 5%	Public Strategic Partners Funded from mix of Public Market Assets (TBD) <u>Prospective Investment Objectives</u>
\$4-7 Bn	Stable Value HF Fixed Income Cash	10% 7% 1%	-Relative Returns: Add alpha over a benchmark -Total Returns: CPI + 3-5% -Subject to agreed upon risk limits
	Private Markets Private Equity Real Estate Natural Resources Infrastructure	25% 10% 5% 4%	 Private Strategic Partners May span private markets or target specific areas <u>Prospective Investment Objectives</u> -Maximize total returns across private markets -Specific hurdles and fee structures (TBD)

Public SPN Team



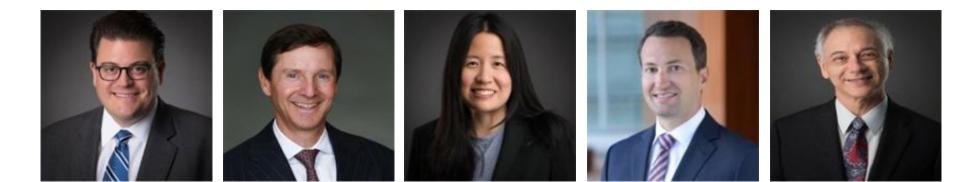


Amanda Hopper Courtney Powers Public Equity

Hedge Funds

Ken Standley Chief of Staff

Rich Hall Deputy CIO Russ Kampfe Fixed Income



Ryan Ruebsahm Hedge Funds

Scott Slayton Tactical Asset Allocation

Susan Chen Public Equity

Tony Caruso Hedge Funds

Uzi Yoeli Risk Management

Private SPN Team













Billy Prather Natural Resources

Brad Thawley Private Equity

Conrad Shang Private Equity

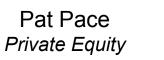
Eddie Lewis Real Return

Ken Standley Chief of Staff



Mukund Joshi Real Estate





Rich Hall Deputy CIO



Richard Rincon

Private Equity



Will Mirshak Private Equity

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Agenda Item UTIMCO Board of Directors Meeting June 27, 2019

Agenda Item:	UTIMCO's Five Year Strategic Plan Presentation
Developed By:	Hall
Presented By:	Harris, Hall
Type of Item:	Information Item
Description:	Mr. Harris and Mr. Hall will review UTIMCO's Five Year Strategic Plan.
Recommendation:	None
Reference:	UTIMCO's Five Year Strategic Plan presentation



The University of Texas/Texas A&M Investment Management Company

Five-year Strategic Plan

Britt Harris Richard Hall



- Establish a long-term strategic plan that is fully supported by UTIMCO's Board of Directors and the UT System Board of Regents
 - Protect the UTIMCO franchise
 - Prepare UTIMCO for the future
- Benchmark UTIMCO resource structure against peers and relevant industry participants
- Review factors driving resource requirements
- Outline management's assessment of anticipated resources required to maintain strong fiduciary stewardship of UT and TAMU assets

Benchmarking



- Cost and resource benchmarking vs. peers and investment firms
 - UTIMCO budget at ~10 bps of AUM compares favorably vs. peers at 13 20 bps
 - Cambridge Associates notes average of 18bps for endowments > \$3 billion
 - \$440k / FTE budget is well below major endowment peers (\$630k \$750k)
 - \$1 billion AUM / Investor is in middle of observed \$0.5 \$1.3 billion range
- Operational benchmark recommendations
 - 10 GP relationships / investor and ~20 40 funds per investor
 - Driven by engagement level (e.g., advisory board membership)
 - \$1 \$2 billion AUM per investor depending on public vs private
 - 1.3 Operations FTEs per investor is below 1.5 1.7 industry rule of thumb
 - Slightly below recommended 7 to 1 ratio of FTEs to IT professionals

Benchmarking



UTIMCO costs compare favorably to large peers and independent fund of funds

				Peers							Financial Services Industry Comps						
	U	ТІМСО	Cambridge Assoc > \$3B Universe	 Peer A		Peer B		Peer C		Peer D		Firm A		Firm B		Firm C	
Current AUM (\$ billion)	\$	45		\$ 43	\$	31	\$	27	\$	25	\$	30	\$	20	\$	60	
Budget Year Budget Year AUM (\$ billion)				\$ 2018 43	\$	2018 31	\$	2018 27	\$	2018 25	\$	2018 30	\$	2018 20	\$	2018 60	
Budget (\$ million)		\$44		\$ 75	\$	37	\$	41	\$	43	\$	45	\$	41	\$	230	
Budget (bps of AUM)		9.7	18.0	17.5		12.0		15.0		17.5		15.0		20.3		38.3	
Investment Professionals		43		36		22		23		39		50		40		145	
Operations Professionals		45		54		25		27		25		65		53		157	
IT Professionals		11		 29		2		5		3		15		13		40	
Total FTE		99		119		49		55		67		130		106		342	
AUM / FTE (\$ million)	\$	454.55		\$ 361.34	\$	624.49	\$	490.91	\$	373.13	\$	230.77	\$	188.68	\$	175.44	
AUM / Investor (\$ billion)	\$	1.05		\$ 1.19	\$	1.39	\$	1.17	\$	0.64	\$	0.60	\$	0.50	\$	0.41	
Budget / FTE (\$ million)		\$0.44		\$0.63		\$0.75		\$0.74		\$0.64		\$0.35		\$0.38		\$0.67	
Ops + IT / Investor FTE		1.3x		2.3x		1.2x		1.4x		0.7x		1.6x		1.7x		1.4x	



- Key factors contributing to need for resources:
 - Expected Growth
 - Base case AUM growth of \$17 billion and \$44 billion over 5 and 10 year periods, respectively
 - Public Equity, Fixed Income and Hedge Funds more scalable
 - Private Equity, Real Estate, Natural Resources and co-investments more resource intensive
 - Increased Complexity
 - Increased demands on operations team leading to departures
 - Addition of more intensive trading strategies related to TAA, increasing private funds and co-investments
 - Increased administrative burdens compliance and tax
 - Succession planning
 - Critical for business continuity: transfer institutional knowledge
 - Significant potential for retirement of long-tenured team members in operations in next 3-5 years
 - Developing bench strength in investment functions: eliminate single points of failure
 - Prudent oversight
 - Maintaining AUM, number of GP relationships and number of investments per team member near industry standard metrics
 - Enhancing security profile of IT resources

Resource Drivers: Growth



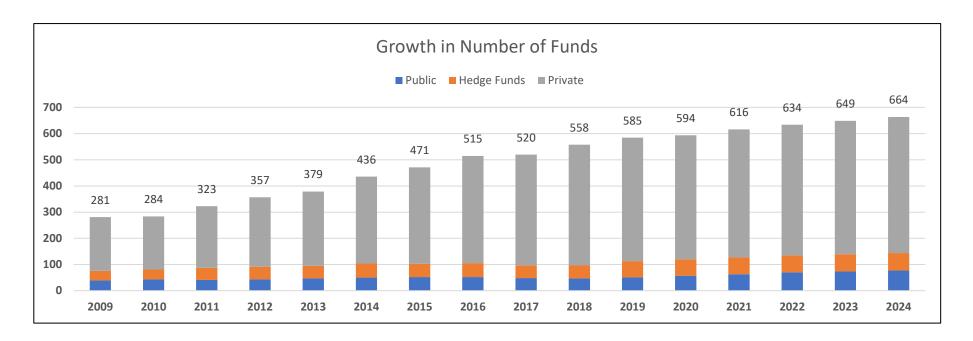
Long-term AUM growth expected to continue driven by University Lands and ITF transfers



Key drivers and assumptions:

- Total AUM expected to grow by \$44 billion from \$37 to \$91 billion over 10 years
 - \$16B transferred from ITF
 - \$3B new inflows from institutions
 - \$11B royalties from University Lands
 - \$42B investment returns (assumed at 7.3% annually)
 - \$(24B) total distributions (average 4.5% of beginning NAV)
- 94% total increase over next 10 years at 6.8% CAGR





- Increase in Private Funds has driven increased complexity
 - Less scalable and long-lived
 - Increased workload for investment teams to deploy and monitor
 - Higher operational intensity to process cash flows, maintain accounting and track performance
- Additional TAA + Risk derivative activities increasing operational complexity
- Tax and compliance issues adding to operational burdens



Process:

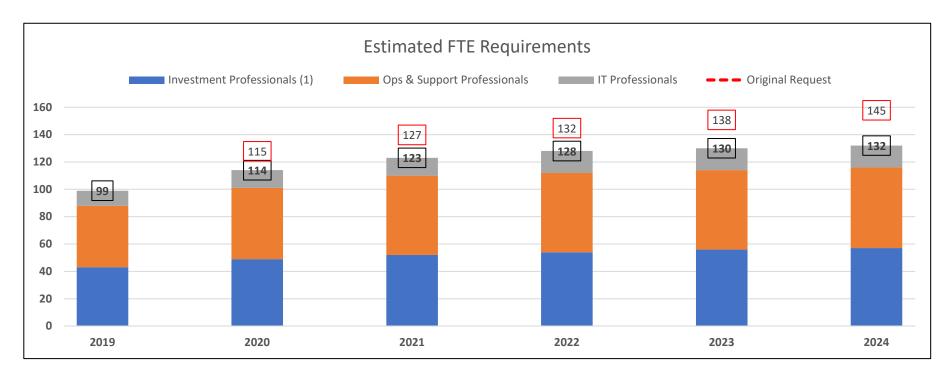
- Bottom up process engaging all management committee members
- Evaluated incumbent data in all key positions
- Determined retirement and retention risks
- Assessed bench strength behind key positions
 - Number of potential succession candidates
 - Time required for succession candidates to be ready for key role
- Identified gaps and vulnerabilities
- Conclusions
 - Operations knowledge transfer in advance of expected retirements
 - Create bench strength for long-term continuity and capacity for key infrastructure projects
 - Investments retain key senior portfolio managers
 - Drive performance through retention of key investors and develop talent to avoid departure disruptions
 - Information Technology develop strategic vision and bolster with execution talent
 - Maintain and replace infrastructure, ensure security and implement new systems effectively

Resource Requirements



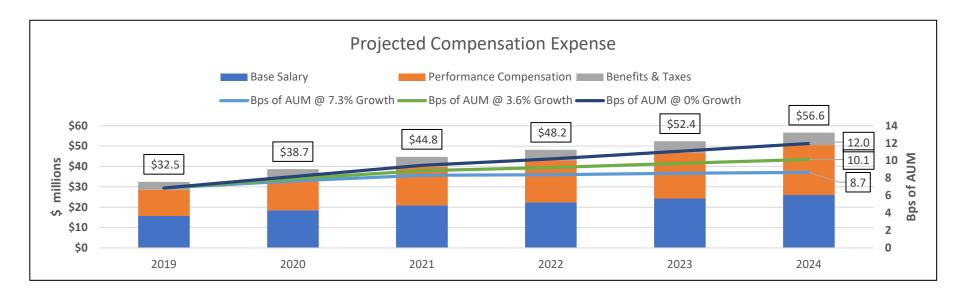
- Resources requested over next five years:
 - Original ask for 45 people
 - Scaled back by CEO / DCIO to 30 33 people by 2024
 - 14 investors, 14 operations, up to 5 information technology
 - FY20 request 15 FTE
 - o 6 investors, 7 operations, 2 information technology
 - Leverage existing title structure more fully to support retention
- Direct personnel cost impact:
 - Base salary: \$2.1 million in FY20
 - Bonus: \$2.6 million in FY20
 - Offsets:
 - \$30 \$50 million saved by "1 or 30" fee saving initiative
 - \$4 million saved in Custodian RFP
 - Reduced fee and carry on increased co-investments





- Total AUM increase of \$17 billion or 38% expected by 2024
- Total Headcount additions = 33 new hires or 33% increase relative to current state
- Scaled back initial request: 33 additions requested vs. initial request of 45
 - Investment professionals: 14 current vs. 22 initial
 - Operations & Support: 14 current vs. 15 initial
 - Information Technology: 5 current vs. 8 initial





- Compensation costs compounding at ~11.9%
- 60% of compensation increase driven by new hires
- Existing FTE compensation compounding at 4.7% (merit and promotion raises)
 - Roughly equal split between base salary and performance compensation
 - Estimating 3.5% base salary increases + ~70% of max performance compensation
 - Benefits and taxes at 24% of base salary



Appendix

Resource Requirements: Total UTIMCO



UTIMCO requesting 33 additional FTE over five years

	Estimated FTE Requirements by Title (FY ending Aug 31)									
	2019	2020	2021	2022	2023	2024	# Increase			
CEO / CIO	1	1	1	1	1	1	0			
Deputy CIO	1	1	1	1	1	1	0			
Senior Managing Director	1	1	3	4	5	5	4			
Managing Director	8	9	11	11	14	17	9			
Senior Director	11	14	14	16	14	12	1			
Director	11	10	10	10	12	13	2			
Associate Director	8	12	14	12	15	19	11			
Associate	14	17	18	23	20	18	4			
Senior Analyst	18	21	21	22	22	23	5			
Analyst	16	17	18	16	14	11	-5			
ITC / Admin	10	11	12	12	12	12	2			
Total	99	114	123	128	130	132	33			

Estimated FTE Requirements by Function (FY ending Aug 31)

SMD and MD levels expanded for retention and succession planning

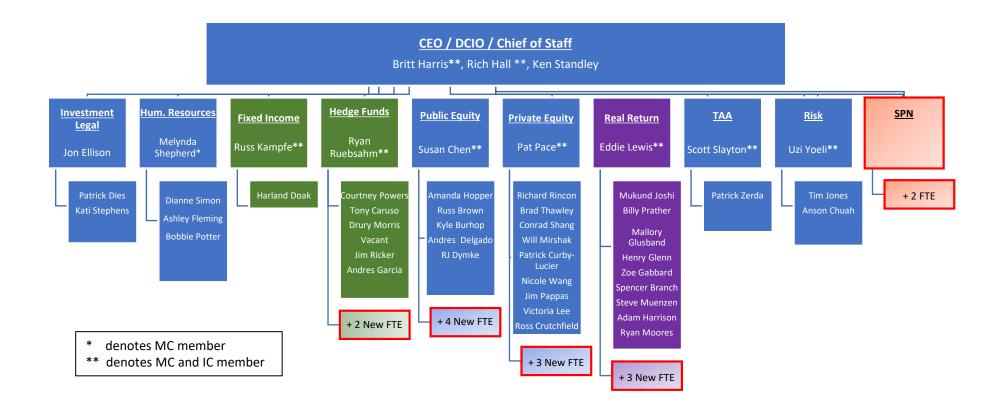
- Investment teams growing to support additional AUM, particularly in resource intensive PE and Real Return
- **Operations & IT** teams growing to replace attrition, improve compliance and legal capacity, develop team depth and succession candidates

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	2019	2020	2021	2022	2023	2024	# Increase
CEO Office	3	3	3	3	3	3	0
Tactical Asset Allocation	2	2	2	2	2	2	0
SPN Team	0	1	2	2	2	2	2
Hedge Funds	7	8	8	8	9	9	2
Fixed Income	2	2	2	2	2	2	0
Public Equity	6	8	8	9	10	10	4
Private Equity	10	11	12	12	12	13	3
Real Return	10	11	12	13	13	13	3
Risk	3	3	3	3	3	3	0
Investment Professionals (1)	43	49	52	54	56	57	14
Ops Acctg Reporting Corp Accounting Human Resources (2) ITC / Admin Assistants (3) Investment Legal Corp Legal and Compliance (4) Data and Doc Mgmt Security Ops & Support Professionals	15 4 3 10 3 2 6 2 2 45	18 4 3 11 3 4 7 2 2	20 4 3 12 3 5 8 3 	20 4 3 12 3 4 9 3 	21 4 3 12 3 4 8 3 	21 5 3 12 3 4 8 3 59	6 1 0 2 0 2 2 1 1
							_
IT Professionals		13	13	16	16	16	5
Total =	99	114	123	128	130	132	33
Original Request		115	127	132	138	145	



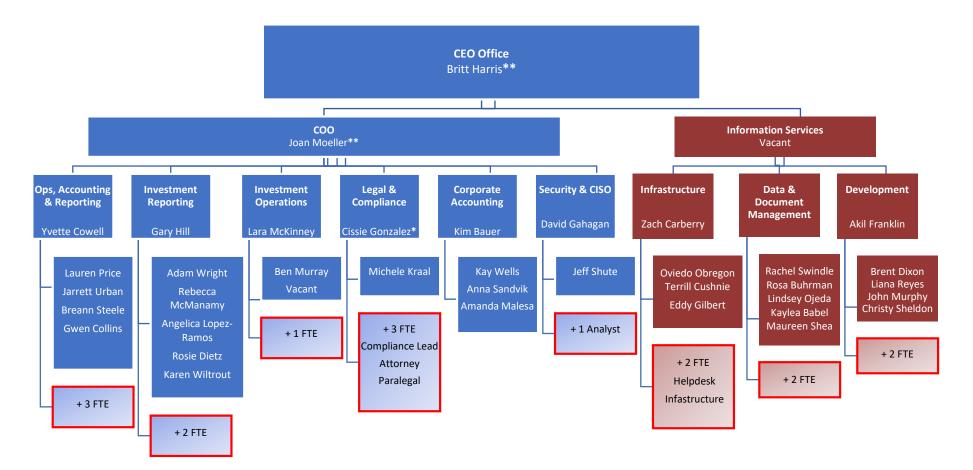
- Investment Group requesting 14 additional FTE over next five years
- Investment FTE growth primarily driven by Public Equity, Private Equity and Real Return all asset classes that are projected to increasing AUM by 50% over the next five years



Resource Requirements: Operations and IT



- Adding 14 FTE in Operations, Accounting & Reporting. Short staffed and impacted by two recent senior departures
- Separating Corporate Legal and Compliance into distinct functions and staffing each
- Increasing IT team by up to 6 people



Agenda Item UTIMCO Board of Directors Meeting

June 27, 2019

- Agenda Item: Report from Audit and Ethics Committee: Discussion and Appropriate Action Related to Engaging Corporate External Auditor; Discussion and Appropriate Action Related to Master Custodian
- **Developed By:** Moeller, Gonzalez
- Presented By: Handley
- **Type of Item:** Action required by UTIMCO Board related to Engaging Corporate External Auditor and Master Custodian; Further action required by Board of Regents of The University of Texas System (UT System) related to Master Custodian; Information item on other items
- **Description:** The Audit and Ethics Committee (the "Committee") met on June 20, 2019. The Committee's agenda included (1) approval of Committee minutes; (2) discussion and appropriate action related to engaging corporate external auditor; (3) discussion and appropriate action related to Master Custodian; (4) an update on UTIMCO's compliance, reporting, and audit matters; (5) a presentation of unaudited financial statements as of February 28, 2019 for the Investment Funds and the Corporate Counsel and Chief Compliance Officer for the 2019-2020 Fiscal Year. The Committee also met in Executive Session for the purpose of deliberating individual personnel compensation and evaluation matters, to receive an update on computer security assessments related to information resources technology, and to consult with legal counsel regarding legal matters and pending and/or contemplated litigation.
- **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 Touche LLP as the corporate auditor. If approved by the Board, FY 2019 will be the 13th year that Deloitte serves as the Corporation's independent auditor. Estimated fees for the FY 2019 audit services are \$45,000 plus out-of-pocket expenses. This is a \$1,500 increase over the FY 2018 fee.

The Committee will report on its action related to the retention of BNY Mellon as the master custodian for the Investment Funds under the fiduciary care of the Board of Regents of the UT System. The master custodian provides a wide range of services, including global custody, accounting, performance, analytics and securities lending. Global custody services, multi-currency reporting, data transmission, and robust on-line reporting are requirements for the master custodian. The master custodian is deeply involved in the accounting and operations of the investment assets under the fiduciary care of the Board of Regents of the UT System and is an extension of the back office for UTIMCO. The current contract with BNY Mellon was effective March 30, 2007, and the last master custodian review was conducted in 2012. Pursuant to the UTIMCO

Agenda Item UTIMCO Board of Directors Meeting June 27, 2019

Purchasing Policy, formal bids should be obtained every five years for contracts with vendors in excess of \$1,000,000.

The Committee reviewed the unaudited financial statements for the second quarter for the Funds and UTIMCO Corporation and the quarterly compliance reports. In addition to the routine update on compliance, reporting, and audit issues, Ms. Gonzalez reported on the annual disclosure statements filed by outside financial advisors and service providers that were filed with the State Auditor's Office on April 15th and the annual report on Director Co-Investments. The Master Investment Management Services Agreement between UTIMCO and the Board of Regents of The University of Texas System requires UTIMCO to maintain a log of (1) all agreements or transactions between UTIMCO or a "UTIMCO entity" and a "Director entity" or an "Employee entity", and (2) all investments in the private investment, or is then co-investing, in the same business entity that must be reviewed annually by the UTIMCO Board of Directors and reported to the U.T. Board.

Moshmee Kalamkar, Assistant Director of Audits, for the UT System Audit Office reported to the Committee on the follow up of the UTIMCO Software Development Life Cycle Review. Also, she will report on the upcoming review related to the Risk Team's monitoring plan and activities used to monitor key risks identified for Investment Risk Management as part of the Institutional Compliance Program.

The Committee also reviewed the Contracts Report. In accordance with the Delegation of Authority Policy, UTIMCO reports any new contracts, leases or other commercial arrangements of \$250,000 or more to the UTIMCO Board at its next regularly scheduled meeting, and annually, all existing contracts, leases, or other commercial arrangements of \$250,000 or more. There were no new contracts reported for the period.

- **Recommendation:** The Committee will request the UTIMCO Board take appropriate action based on the Committee's action from its meeting related to engaging the corporate external auditor and the retention of BNY Mellon as the Master Custodian for the Investment Funds under the fiduciary care of the UT System.
- Reference: Deloitte & Touche LLP Engagement Letter Selection of Master Custodian presentation Director Co-Investment Log FY 19 Quarterly Compliance Reports

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, 2019.

RESOLUTION RELATED TO MASTER CUSTODIAN

RESOLVED, that the UTIMCO Board approves the selection of Bank of New York Mellon ("BNY Mellon") as the master custodian for the investment assets under the fiduciary care of Board of Regents of The University of Texas System and directs UTIMCO to renegotiate or extend the existing contract with BNY Mellon, as considered necessary, subject to approval of the Board of Regents of The University of Texas System.



Deloitte & Touche LLP 500 West 2nd Street Suite 1600 Austin, TX 78701 USA

Tel: +1 512 691 2300 Fax: +1 512 708 1035 www.deloitte.com

June 20, 2019

Ms. Joan Moeller Senior Managing Director The University of Texas/Texas A&M Investment Management Company 210 West 7th Street, Suite 1700 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/Texas A&M Investment Management Company ("UTIMCO"), (the "Company" or "you" or "your"). 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, 2019, 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 (the "Audit and Ethics Committee") and the Company's management.

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 \$45,000, plus expenses. Based on the anticipated timing of the work, our fees will be billed approximately as follows:

Invoice Date	Amount
October 2019	\$20,000
December 2019	\$25,000

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, technology- and administrative-related charges 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 in any such document would constitute the reissuance of such 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.

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 The University of Texas/Texas A&M Investment Management Company:

By: _____

Title: _____

Date: _____

cc: the Audit and Ethics Committee of The University of Texas/Texas A&M 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 June 20, 2019, between Deloitte & Touche LLP and The University of Texas/Texas A&M 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.

APPENDIX B

MANAGEMENT'S RESPONSIBILITIES

This Appendix B is part of the engagement letter dated June 20, 2019, between Deloitte & Touche LLP and The University of Texas/Texas A&M 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 *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.

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COMMUNICATIONS WITH THE AUDIT AND ETHICS COMMITTEE

This Appendix C is part of the engagement letter dated June 20, 2019, between Deloitte & Touche LLP and The University of Texas/Texas A&M 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 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 June 20, 2019, between Deloitte & Touche LLP and The University of Texas/Texas A&M 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. Assignment and Subcontracting. 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. <u>Force Majeure</u>. 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.
- Confidentiality. To the extent that, in connection with this engagement, D&T comes into 6. 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.
- <u>Dispute Resolution.</u> 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.

APPENDIX E

DISPUTE RESOLUTION PROVISION

This Appendix E is part of the engagement letter dated June 20, 2019, between Deloitte & Touche LLP and The University of Texas/Texas A&M 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.

<u>Arbitration Procedures:</u> 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 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.

<u>Costs:</u> 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.



The University of Texas/Texas A&M Investment Management Company

Selection of Master Custodian June 20, 2019



- Bank of New York Mellon ("BNY Mellon"), successor to Mellon Trust, current master custodian, has served as master custodian ("custodian") since September 1, 1995
- Custodian provides a wide range of services for the investment funds under the fiduciary care of the UT Board of Regents, including global custody, accounting, performance analytics, private investment call and distribution processing, and securities lending
- Last custodian review was conducted in 2012

Review and Selection Process



- Internal selection committee consisting of Operations, Accounting and Information Security team members was formed
- Request for Proposal ("RFP") was developed in February 2019
- RFP was sent to four global custodians:
 - BNY Mellon
 - State Street
 - Northern Trust
 - JP Morgan
- RFP responses were received from all four

Review and Selection Process (con't)



- Internal Committee reviewed and rated RFP responses based on various criteria, including:
 - Quality of Organization
 - Client Service/Administration
 - Global Custody/Securities Processing
 - Cash Management/Income Collection
 - Corporate Actions and Tax Reclaims
 - Accounting/Reporting
 - Valuation
 - Performance Measurement/Portfolio Analytics/Risk Management
 - Audit Controls
 - On-line Systems/Technology
 - Private Investment Data Management and Support
 - Hedge Fund Data Management and Support
 - Fees

Review and Selection Process (con't)

- Based on the results of the committee's review all four respondents were invited to UTIMCO's offices to present on their ability to provide the service requirements outlined in the RFP
- Three members of the internal committee also made on-site visits to respondents' offices to observe systems and processes and visit with staff members





- Internal committee members held regular meetings throughout the review and selection process to discuss the merits of the respondents based on the due diligence performed
- The internal committee's recommendation is to retain BNY Mellon as the master custodian for the investment funds under the fiduciary care of the UT Board of Regents

UTIMCO Director Co-Investment Log FY 19

No.	Date	Director	Business Entity	Fund	Interest?	UTIMCO Investment?
1	08-23-16	Rothrock	Underscore.VC	Underscore.VC (fka Assemblies.VC)	Limited Partner; less than pecuniary interest	YES
2	Pre-04-19-18 (board appt)	Thomas	EnCap Investments	EnCap Flatrock Midstream Fund III LP	Interest owned by C.L.Thomas Holdings Investments, LLC; less than pecuniary interest	YES
3	Pre-08-24-17 (board appt)	Gauntt	LongVue Capital	Longvue Capital Partners III LP	Less than pecuniary interest	YES

The University of Texas/Texas A&M Investment Management Company Institutional Compliance Program Report for the Quarter Ended February 28, 2019

Section I – Organizational Matters

• One meeting of the Ethics and Compliance Committee was held during the quarter: January 22, 2019.

<u>Section II - Risk Assessment, Monitoring Activities and Specialized Training (Performed by</u> <u>Responsible Party)</u>

High-Risk Area #1: Investment Due Diligence

Responsible Party: Managing Director – Public Equity; Managing Director – Hedge Funds; Managing Director – Real Return; Managing Director - Fixed Income; Senior Director – Private Equity **Key "A" risk(s) identified:**

- Organization could fail to adequately conduct due diligence on prospective managers.
- Organization could fail to adequately conduct continual review and evaluation of external managers hired to manage UT System investment funds.

Key Monitoring Activities:

Public Equity: The Public Equity Team participated in 52 meetings/calls with potential managers. Serious due diligence was initiated on 1 mandate. No new mandates were completed. Ongoing review of active external managers included 45 meetings/calls. Additional efforts included monthly performance tracking, reviews and analyses by the team and participation in two annual meetings.

Fixed Income: The Fixed Income Team participated in five meetings/calls with potential managers. Ongoing review of active external managers included seven meetings/calls. No serious due diligence was initiated on any mandates. No new mandate was completed.

Hedge Funds: The Hedge Funds Team participated in 52 meetings/calls with potential managers. Serious due diligence was initiated on one new mandate. No new mandates were completed. Ongoing review of active external managers was conducted in the form of 90 meetings/calls/site visits. Additional efforts included monthly performance tracking, reviews and analyses by the team.

Private Credit: The Private Credit Team participated in 21 meetings/calls with potential managers. Serious due diligence was initiated on two mandates. One new mandate was completed. No addition to an existing mandate was completed. Ongoing review of active external managers included six meetings/calls.

Private Equity: The Private Equity Team participated in 28 meetings/calls with potential managers. Serious due diligence was initiated on one new mandate and two existing mandates. Three new mandates were completed. There were no additions to existing mandates. Ongoing review of active external managers included eight meetings/calls. Additional efforts included participation in one annual meeting.

Healthcare: The Healthcare Team participated in two meetings/calls with potential managers. Serious due diligence was initiated on two new mandates. No serious due diligence was initiated on existing

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mandates. Two new mandates were completed. There were no additions to existing mandates. Ongoing review of active external managers included four meetings/calls.

Technology: The Technology Team participated in 10 meetings/calls with potential managers. Serious due diligence was initiated on one new mandate. One new mandate was completed. No addition to an existing mandate was completed. Ongoing review of active external managers included 10 meetings/calls. Additional efforts included participation in two annual meetings.

Natural Resources: The Natural Resources Team participated in 97 meetings/calls with potential managers. Serious due diligence was initiated on one new mandate and three existing mandates. Three new mandates were completed. There were additions to two existing mandates. Ongoing review of active external managers included 93 meetings/calls.

Emerging Markets: The Emerging Markets Team participated in 20 meetings/calls with potential managers. No serious due diligence was initiated on any new mandate. One new mandate was completed. There were no additions to existing mandates. Ongoing review of active external managers included 23 meetings/calls.

Real Estate: The Real Estate Team participated in 31 meetings/calls with potential managers. Serious due diligence was initiated on four new mandates. Four new mandates were completed. There were no additions to existing mandates. Ongoing review of active external managers included 66 meetings/calls. Additional efforts included participation in 1 annual meeting.

Specialized Training: The Investment Team attended 16 industry-related conferences/functions and meetings.

High-Risk Area #2: Investment Risk Management Responsible Party: Managing Director - Risk Management Key "A" risk(s) identified:

- Organization could fail to accurately perform its assessment of risk due to data and investment instrument modeling error.
- Organization could fail to respond to risk levels (manage risk budget).

Key Monitoring Activities:

- Risk Team continued to enhance its understanding and reporting of macro risks and market risks. This currently includes tracking and reporting a bubble monitor, a bear market monitor, an environment monitor, and factor data. The Risk Team expanded the concept of the bear-market monitor to track bear-market conditions outside the US.
- Risk Team reviewed two due diligence questionnaires during the quarter.
- Risk Team worked with the Tactical Asset Allocation (TAA) team on modeling and deriving an appropriate Risk Budget that would allow the TAA team to generate the required value-add, while limiting the downside exposure to an appropriate level.
- Three managers triggered CUSUM this quarter. These managers were review by the investment teams, with the decisions being one terminate, one hold, and one add.

- Risk Team continued to evaluate potential Unified Risk Systems, with the goal to have a unified risk language across UTIMCO, be able to aggregate all exposures across the endowment into a single framework, and to offer advanced insights into private markets.
- All investments presented to Investment Committee submitted a Risk scorecard that was reviewed by Risk Management for consistency and accuracy.
- During the quarter, Risk Team reconciled accounting records' market value with market values modeled by IFS; reconciled month end values from IFS to accounting records and identified reasons for all discrepancies. Risk Team compared each month's downside volatility with both prior month results and with market activity to determine consistency and identified reasons for all changes; performed analysis of managers' portfolio-level risks and performance.
- Risk Team continued to monitor sources and uses of cash and the sources and uses of illiquid capital; prepared projections on portfolio downside volatility utilization, country exposure, liquidity, and asset allocations; and updated projections on a weekly basis.
- All internal derivatives were reviewed and analyzed in detail prior to initiation.
- External managers that may use derivatives are monitored daily for spikes in returns or in volatility. Effects of derivatives on the overall portfolio are monitored monthly. Fixed income duration and tracking error is being monitored on an ongoing basis. Managers' use of margin and leverage is monitored on an ongoing basis. Risk Team confirmed each month downside volatility and VaR calculations.

Specialized Training: Risk Team participated in two conferences during the quarter.

High-Risk Area #3: Information Technology and Security

Responsible Party: Chief Information Security Officer (CISO)

Key "A" risk(s) identified:

• Organization could fail to adequately secure networks and data to prevent abuse, destruction, and/or theft.

Key Monitoring Activities:

- CISO identified a former employee with continued access to UTIMCO resources and email for almost two months after the employee terminated employment. The account was disabled on March 1, 2019.
- CISO continues to identify software installations by the IT Team that had not been submitted for legal or security review.
- CISO identified unapproved cloud storage use for firm data by the TAA team. Violators were notified and instructed to cease use.
- CISO identified the use of Information Services administrator credentials for system service accounts. Violators were notified and instructed to use appropriately permissions unique credentials to prevent unfettered access to all systems.
- Windows 2008 servers remain in production environments even though Windows 2008 no longer receives mainstream support from Microsoft; Two are currently registered in the directory, down from 12 in the prior reporting period.
- Multi-factor authentication is not configured for multiple network infrastructure devices.
- Multiple alerts were sent to the firm covering various topics including viruses, malware, phishing scams, securely sending credit card and social security numbers and updates for mobile devices.

- Significant progress has been made with respect to the elimination of Outlook PST files. The 8/31/18 deadline has been extended to 12/31/18; work appears on track to meet the 12/31/18 deadline.
- Employee security training was completed for a new team member.
- Monitoring and blocking of unencrypted electronic transmissions of social security numbers and credit card numbers is ongoing. One violation noted.

Specialized Training: CISO attended teleconference UT Security meetings. CISO met with Denim Group and Sirius Computing to review new technologies, security standards, and security.

Responsible Party: Chief Technology Officer

Key "A" risk(s) identified:

• Organization could fail to manage computer software and hardware resulting in internal and external users unable to perform necessary job duties.

Key Monitoring Activities:

- Manage Engine Service Desk implementation project to enhance helpdesk and systems management capabilities completed.
 - o Hardware Inventory now automated for user workstations, laptops and servers
 - o Software inventory now automated with continuous scanning
- Migration of Investment Teams files to the cloud for the Unified File Storage project completed
- Denim security assessment findings remediation ongoing in this reporting period
 Remediation will continue through third quarter
- CISO has highlighted an extensive security wish list for Technology in addition to the Denim audit findings. This has been jointly reviewed, prioritized and is been worked through by technology, progress continues.
- User workstations patched for updated security with operating system and 3rd party software updates
- Servers patched for updated security with operating system and 3rd party software updates
- Firewall rules audit, modifications and patching ongoing
- Switches and routers patching and updates ongoing
- Citrix Remote Access environment patched and upgraded
- Decommission of 2008 Servers in progress
- A new employee and returning temporary employee went through infrastructure onboarding training

Specialized Training: Manage Engine ongoing training, Microsoft advanced SharePoint training. Infrastructure and software teams met with Comm3, Century Link, Sequel Data Systems, PC Connections, CIMA Technologies, Fortinet, Dell and Manage Engine for architecture reviews, training and project implementation.

High-Risk Area #4: Investment Compliance **Responsible Party:** Senior Director - Accounting and Chief Compliance Officer

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Key "A" risk(s) identified:

- Organization could fail to comply with investment policies, applicable laws and regulations, and other policies.
- Organization could fail to detect non-compliance with applicable policies, etc.

Key Monitoring Activities:

- Verified that investments are in compliance with rules and guidelines in policies, rules and regulations utilizing custodian's software and in-house developed databases and reports.
- Review of monthly and quarterly investment compliance reports prepared by employees continues.
- Information regarding the categorization of mandates is included in the Certificates of Compliance mailouts and Monthly Transparency report sent to UTIMCO Directors and the investment memos reviewed by the Internal Investment Committee.
- Annual Compliance Statements were sent to 25 managers of separately managed accounts. All were returned timely; no noncompliance was noted.
- Continued participation by the Portfolio Accounting and Operations employees in prospective and active external manager investment due diligence.
- Derivative Investment Controls and Processes are being followed and work continues to improve them.
- Testing was performed on all new commitments and funding made to ensure compliance with the Delegation of Authority.

Specialized Training: None

High-Risk Area #5: Conflicts of Interest **Responsible Party:** Chief Compliance Officer **Key "A" risk(s) identified:**

• Organization could fail to comply with conflicts of interest provisions in Code of Ethics and Texas Education Code section 66.08.

Key Monitoring Activities:

- All Certificates of Compliance were received timely from all Directors and Key Employees for all investment managers hired and funded. No conflicts of interests were noted, i.e. no pecuniary interests were identified.
- No Directors were required to submit compliance statements during the quarter.
- One full time employee, one temporary worker converted to a full-time employee, and one temporary employee, were hired during the quarter. A prior intern returned during the quarter. New hire compliance statements were received timely from the new employee. The temporary worker submitted compliance statements in the prior quarter. The temporary employee was excused as she was only hired for a two-week engagement. The intern submitted compliance statements within the last 12 months.
- One new hire ethics and compliance training session was held during the quarter. New hire received training within a reasonable time after hire. The temporary worker received training in the prior quarter. The temporary employee was excused as she was only hired for a two-week engagement. The intern received compliance training within the last 12 months.
- Effective April 1, 2013, a new procedure regarding the periodic review of public resources for comparison with financial disclosure statement information provided by Directors and Key

Employees was adopted, which requires review of these statements within 90 days after the deadline for filing the statements. No review was required during the quarter.

- List of publicly traded securities of all publicly traded companies in which a Director or • employee has a pecuniary interest (the "restricted list") was maintained. Internal managers and external managers operating under agency agreements are provided the restricted list to prevent the violation of UTIMCO Code of Ethics and Texas Education Code Section 66.08. No new security was added to the list. One existing manager operating under an agency agreement that funded a new mandate was provided the restricted list during the quarter.
- Daily, the Chief Compliance Officer designee reviewed security holdings of internal and • external managers operating under agency agreements for compliance with the restricted list. No exceptions were noted.
- Of 61 employee securities transactions during the quarter, five required preclearance. All were • precleared as required. No transactional disclosure forms were filed late during the quarter.
- Required annual reporting to the Audit and Ethics Committee for CEO approvals for outside employment and disciplinary action disclosures was completed on February 5, 2019.
- Two employees requested CEO approval for outside employment during the quarter.
- Beginning with the fourth quarter 2015, the Finance and Administration travel review process was modified to require testing of a sample of expense reports only and no longer provide a review of all reimbursement requests. As a result, compliance reporting is now limited to information obtained from the sample tested during each quarter. Of the six expense reports tested during the quarter, none included third party paid expenses. None of the expense reports tested included a sponsored entertainment event.
- Effective September 1, 2017, employees must submit sponsored entertainment requests for • approval to the CCO. During the quarter, six employees requested and received approval for sponsored entertainment events.

Specialized Training: None

Section III – Monitoring and Assurance Activities (Performed by Compliance Office)

High-Risk Area #1: Investment Due Diligence

Assessment of Control Structure: Well controlled

Assurance Activities Conducted: CCO reviewed results of quarterly due diligence monitoring plans for each Investment Team. Ongoing due diligence efforts on multiple managers continue. Significant Findings: None.

High-Risk Area #2: Investment Risk Management

Assessment of Control Structure: Well controlled

Assurance Activities Conducted: CCO continues to review documentation maintained by the Risk Team evidencing risk monitoring performed by the Risk Team. Significant Findings: None

High-Risk Area #3: Information Technology & Security

Assessment of Control Structure: *Opportunity for enhancement*

Assurance Activities Conducted: CCO continues to meet with CISO regarding information technology and security practices. The Security and Information Services teams continue to meet bi-weekly to track and monitor the status of identified areas of vulnerability and required improvement in UTIMCO's information resources.

Significant Findings: None

High-Risk Area #4: Investment Compliance

Assessment of Control Structure: Well controlled

Assurance Activities Conducted: CCO continues to review investment and fund compliance reports to determine that policy requirements have been maintained based on the activity performed by employees. CCO reviewed the documentation and workpapers supporting the various compliance reports prepared by the Responsible Parties.

Significant Findings: None

High-Risk Area #5: Conflicts of Interest

Assessment of Control Structure: Well controlled

Assurance Activities Conducted: CCO reviewed the completed sign-offs for completeness for all certificates of compliance received. Monitoring for potential conflicts of interest in the areas of personal securities transactions, outside employment and business activities, and manager/third party-paid travel, entertainment and gifts is ongoing.

Significant Findings: None

Section IV – General Compliance Training Activities

One training session was held during the quarter.

Section V – Action Plan Activities

See updated Institutional Compliance Action Plan Fiscal Year 2019.

<u>Section VI – Confidential Reporting</u>

UTIMCO maintains a Compliance Hotline to receive and process complaints. UTIMCO has contracted with an outside vendor to provide the service. The chart below summarizes the calls received during the **FISCAL YEAR**:

	FYTD	
Туре	Number	% of Total
Employment Related	0	0.00%
Policy Issues	0	0.00%
Hang ups or wrong numbers	0	0.00%
Total	0	100.00%

All calls are accepted by the hotline and reported to the UTIMCO Compliance Office. All reports are handled by a 5-person team comprised of the Corporate Counsel and Chief Compliance Officer, the Compliance Specialist, the Senior Director – Human Resources, the Executive Assistant to the President, CEO and Chief Investment Officer, and David Givens from The University of Texas Systemwide Compliance Office.

The University of Texas Investment Management Company Institutional Compliance Action Plan Fiscal Year 2019

#	ACTION ITEM	TARGET COMPLETION DATE	STATUS
A. RI	ISK ASSESSMENT		
1.	Complete detailed review of Enterprise Risk Management Framework; update risk assessments, including mapping of controls in conjunction with updated investment and operations processes under new CEO, if any; prepare new/updated monitoring plans for high risk areas and update Fraud Program as needed	12/31/2018; revised to 08/31/19	ERM, risk assessments and updated monitoring plans in progress (holdover from FY 2018) Update to Fraud Program near completion, currently with COO for review; work continues on ERM
B. M	ONITORING ACTIVITIES / ASSURANCE		
2.	Revise Responsible Party Monitoring Plan documentation for high risk areas A in conjunction with updated investment and operations processes under new CEO, if any	12/31/2018; revised to 08/31/19	Monitoring plans revisions in progress (holdover from FY 2018)
3.	Continual enhancement of compliance monitoring and reporting	Ongoing	Ongoing
С. С	OMPLIANCE TRAINING / AWARENESS		
4.	Increase personal training and awareness related to cybersecurity risks	Ongoing	Ongoing
5.	Provide new employee and annual Code of Ethics training and information to improve employee awareness of compliance program	04/30/2019	New Employee training session held 01/09/2019; Annual training session held 04/01/2019
6.	Identify and network with similarly situated compliance professionals	Ongoing	Council of Public Funds Compliance Officers 11/27/18 and 02/26/2019; Meeting with Travis County Compliance Officer 12/03/18; ACC-Austin Small Law CLE 02/13/2019
D. R	EPORTING		
7.	Work with Information Technology Team to automate Code of Ethics forms	06/30/2019	No activity
8.	Conduct quarterly meetings with the internal ethics and compliance committee	Ongoing	<i>Quarterly meeting held</i> <i>11/12/18 and 01/22/2019</i>
9.	Provide quarterly/annual reports to the Audit and Ethics Committee and System- wide compliance office	Ongoing	Quarterly reporting to A&E and Risk Committees: 11/29/18, 02/14/2019 and 02/19/2019

Updated 04/10/2019

#	ACTION ITEM	TARGET COMPLETION DATE	STATUS
			<i>Quarterly reporting to</i> <i>Systemwide Compliance:</i> 01/16/19 and 03/11/2019
<i>E. 0</i> 1	THER / GENERAL COMPLIANCE		
10.	Update/Revise Institutional Compliance Program Manual	09/30/2019	In process; OFAC Compliance Procedure incorporated into manual
11.	Continual update of compilation of all laws and regulations applicable to UTIMCO and to the extent necessary, modify compliance processes and reporting	Ongoing	Ongoing
12.	Update Business Continuity Plan due to move to new office space	11/30/2018	IT disaster recovery plan received 03/12/19 and incorporated into BCP document (holdover from FY 2018); Team is currently working on updating mission critical contact lists
13.	Supervise and manage work of Compliance Specialist	Ongoing	Ongoing
14.	UT Systemwide Compliance Office activities participation: annual compliance officers' forum and other activities	Ongoing	Jason King, Executive Director of Systemwide Compliance & Ethics Officer for the U.T. System attended EECC meeting held on 01/22/2019; Spring ICAC meeting held 03/26/2019
15.	Hotline reporting	Ongoing	No activity

Agenda Item UTIMCO Board of Directors Meeting June 27, 2019

Agenda Item:	Report from Risk Committee
Developed By:	Gonzalez, Moeller
Presented By:	Gauntt
Type of Item:	Information item
Description:	The Risk Committee ("Committee") met jointly with the Policy Committee and separately on June 20, 2019. The Committee's agenda for the joint meeting included a discussion and appropriate action related to proposed amendments to the Investment Policy Statements. Its separate meeting included (1) discussion and appropriate action related to the approval of minutes of its February 19, 2019, meeting; (2) review and discussion of compliance reporting; and (3) a market and portfolio risk update.
Discussion	The Committee approved the minutes of its February 19, 2019 meeting, reviewed the quarterly compliance reporting and heard an update on the market and portfolio risk. Director Hicks will report on the proposed amendments to the Investment Policy Statements during his report from the Policy Committee in Tab 10.
Recommendation:	None
Reference:	None

Agenda Item

UTIMCO Board of Directors Meeting June 27, 2019

- Agenda Item: Report from Policy Committee: Discussion and Appropriate Action Related to Proposed Amendments to the Investment Policy Statements; and Discussion and Appropriate Action Related to Amendments to the Bylaws of The University of Texas/Texas A&M Investment Management Company
- Developed By: Team
- Presented By: Hicks, Yoeli, Gonzalez

Type of Item:Action item; Action required by UTIMCO Board and by the Board of Regents of The
University of Texas System (UT Board)

Description: The Policy Committee ("Committee") met separately and jointly with the Risk Committee on June 20, 2019. The Joint Committee meeting agenda included discussion and appropriate action related to proposed amendments to the Investment Policy Statements. The Committee's separate meeting agenda included: (1) approval of minutes of the November 29, 2018 meeting; and (2) discussion and appropriate action related to amendments to the Bylaws of The University of Texas/Texas A&M Investment Management Company.

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

The Bylaws may be altered, amended, or repealed by the Board of Directors of the Corporation with the approval of the UT Board. Section 66.08 of the Texas Education Code requires that the UT Board approve the articles of incorporation and bylaws of the Corporation and any amendment to the articles of incorporation or bylaws. The Bylaws of UTIMCO were initially approved by the UT Board on February 8, 1996 and have been restated various times to include amendments adopted; the most recent amendment of the Bylaws occurred on May 1, 2018.

Discussion: Investment Policies Dr. Yoeli will review the proposed amendments to the Exhibits of the Investment Policy Statements. The Exhibits to the Investment Policy Statements of the Permanent University Fund (PUF), General Endowment Fund (GEF), Intermediate Term Fund (ITF), Permanent Health Fund (PHF), and Long Term Fund (LTF) will be amended to reflect the proposed changes. The Exhibits to the Investment Policy

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Agenda Item

UTIMCO Board of Directors Meeting June 27, 2019

Statements for the PUF, GEF, PHF, LTF, and ITF have been amended to reflect changes proposed for FY 20 and ongoing.

There are no recommended amendments to the Short Term Fund (STF) Investment Policy Statement or the Separately Invested Funds (SIF) Investment Policy Statement. These were last amended effective September 1, 2016, and August 2012, respectively.

There are no recommended amendments to the Liquidity Policy or Derivative Investment Policy. These were last amended effective August 10, 2018. There are no recommended changes to the Delegation of Authority Policy which was last amended September 20, 2018.

UTIMCO Bylaws

Director Hicks will report on the Committee's action related to the proposed amendments to Article V, Sections 4 and 5 (pages 6 and 7) to remove the limitation on service by a director as Chairman or Vice Chairman rather than the current five-year limitation on service in these offices.

- **Recommendation:** Director Hicks will request the UTIMCO Board to approve the proposed amendments to the Investment Policy Statements for the PUF, GEF, PHF, LTF and ITF for the fiscal year beginning September 1, 2019, and the proposed amendments to the Bylaws, effective August 15, 2019, both subject to approval by the UT Board.
- Reference:
 Exhibit A to the Investment Policy Statements for the PUF and GEF, effective September 1, 2019

 Exhibit B to the Investment Policy Statements for the PHF and LTF, effective September 1, 2019

 Exhibit A to the Investment Policy Statement for the ITF, effective September 1, 2019

 Policy Reviews Presentation

 Bylaws of The University of Texas/Texas A&M Investment Management Company

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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, as presented be, and are hereby approved, subject to approval by the Board of Regents of The University of Texas System.

RESOLUTION RELATED TO UTIMCO BYLAWS

RESOLVED, that amendments to the UTIMCO Bylaws, as presented be, and are hereby, approved, subject to approval by the Board of Regents of The University of Texas System.

EXHIBIT A - PUF and GEF ASSET CLASS TARGETS, RANGES, AND PERFORMANCE OBJECTIVES EFFECTIVE SEPTEMBER 1, 20182019

		FYE 2019 2020		
Asset Class	Min	Target*	Max	Benchmark
Global Equity:				
	2.0%	7.07.5%	12.0%	MSCI US with Net Dividends
U.S. Public Equity		4.0 4.5%		
Non-U.S. Developed Public Equity	0.0%	4.0 4.5% 8.0 10.0%	10.0%	MSCI EAFE and Canada with Net Dividends
Global Developed Public Equity	3.0%	8.0 10.0%	13.0%	MSCI World Index with Net Dividends
Total Developed Public Equity	12.0%		26.0%	
Emerging Markets Public Equity	5.0%	10.0 9.0%	15.0%	MSCI Emerging Markets Index with Net Dividends
Total Public Equity	22.0%	29.0 31.0%	36.0%	
Directional Hedge Funds	7.0%	12.0 11.2%	17.0%	HFRI Fund of Funds Composite
Private Equity	18.0%	22.0 20.8%	27.0%	Blended Cambridge Buyouts, Emerging Markets Private Equity and Venture Capital, Credit Opportunities, and Venture Capital
Total Global Equity	56.0%	63.0%	70.0%	
Stable Value:				
Investment Grade Fixed Income	2.0%	9.5 7.0%	12.0%	Bloomberg Barclays Global Aggregate Index - Hedged
Credit-Related Fixed Income	0.0%	0.0%	5.0%	Bloomberg Barclays Capital Global High Yield Index
Total Fixed Income	2.0%	9.5 7.0%	12.0%	
Cash	-5.0%	1.0%	6.0%	3 month T-Bills
Stable Value Hedge Funds	2.0%	7.0 10.0%	12.0%	HFRI Fund of Funds Conservative
Total Stable Value	11.5%	17.5 18.0%	23.5%	
Real Return:				
Inflation Linked Bonds	0.0%	0.0 1.3%	5.0%	Bloomberg Barclays Global Inflation Linked TR Index
Gold	0.0%	1.5 0.0%	5.0%	Gold Spot Price (XAU)
Commodities	0.0%	0.0%	6.0%	Bloomberg Commodity TRI
Total Commodities	0.0%	0.0%	6.0%	
Natural Resources	0.0%	8.0 6.6%	12.0%	Cambridge Natural Resources
Infrastructure	0.0%	2.0 2.9%	9.0%	Cambridge Infrastructure
Public Real Estate	0.0%	0.0%	5.0%	FTSE EPRA/NAREIT Developed Index Net TRIUSD
Private Real Estate	3.0%	8.0 8.2%	13.0%	Cambridge Real Estate
Total Real Return	13.5%	19.5 19.0%	25.5%	
Total All Asset Classes		100.0%		

The total Asset Class exposure, including the amount of derivatives exposure not collateralized by Cash, may not exceed 105% of the Asset Class exposure excluding the amount of derivatives exposure not collateralized by Cash.

POLICY/TARGET RETURN/RISKS*	FYE 2019 2020
(Benchmark)	4.304 .22%
One Year Downside Volatility	10.83 11.05%
Risk Bounds	
Lower: 1 Year Downside Volatility	75.00%
Upper: 1 Year Downside Volatility	115.00%

*Asset Class Targets and Policy/Target Return/Risks reset monthly

EXHIBIT B - PHF and LTF ASSET CLASS TARGETS, RANGES, AND PERFORMANCE OBJECTIVES EFFECTIVE SEPTEMBER 1, 20182019

		FYE 2019 2020		
Asset Class	Min	Target*	Max	Benchmark
Global Equity:				
U.S. Public Equity	2.0%	7.0 7.5%	12.0%	MSCI US with Net Dividends
. ,	0.0%	4.0 4.5%	12.0%	MSCI OS with Net Dividends
Non-U.S. Developed Public Equity		4.0 4.5% 8 .0 10.0%		
Global Developed Public Equity	3.0%	19.0 22.0%	13.0%	MSCI World Index with Net Dividends
Total Developed Public Equity	12.0%	10.0 9.0%	26.0%	MOOL Exception Medicate la description Net Dividende
Emerging Markets Public Equity	5.0%	29.0 31.0%	15.0%	MSCI Emerging Markets Index with Net Dividends
Total Public Equity	22.0%		36.0%	
Directional Hedge Funds	7.0%	12.0 11.2%	17.0%	HFRI Fund of Funds Composite
				Blended Cambridge Buyouts, Emerging Markets Private Equity and
Private Equity	18.0%	22.0 20.8%	27.0%	Venture Capital, Credit Opportunities, and Venture Capital
Total Global Equity	56.0%	63.0%	70.0%	
Stable Value:		0.55.00/		
Investment Grade Fixed Income	2.0%	9.5 7.0%	12.0%	Bloomberg Barclays Global Aggregate Index - Hedged
Credit-Related Fixed Income	0.0%	0.0%	5.0%	Bloomberg Barclays Capital Global High Yield Index
Total Fixed Income	2.0%	9.5 7.0%	12.0%	
Cash	-5.0%	1.0%	6.0%	3 month T-Bills
Stable Value Hedge Funds	2.0%	7.0 10.0%	12.0%	HFRI Fund of Funds Conservative
Total Stable Value	11.5%	17.5 18.0%	23.5%	
Real Return:				
Inflation Linked Bonds	0.0%	0.01.3%	5.0%	Bloomberg Barclays Global Inflation Linked TR Index
Gold	0.0%	1.5 0.0%	5.0%	Gold Spot Price (XAU)
Commodities	0.0%	0.0%	6.0%	Bloomberg Commodity TRI
Total Commodities	0.0%	0.0%	6.0%	
Natural Resources	0.0%	8.06.6%	12.0%	Cambridge Natural Resources
Infrastructure	0.0%	2.0 2.9%	9.0%	Cambridge Infrastructure
Public Real Estate	0.0%	0.0%	5.0%	FTSE EPRA/NAREIT Developed Index Net TRIUSD
Private Real Estate	3.0%	8.08.2%	13.0%	Cambridge Real Estate
Total Real Return	13.5%	19.5 19.0%	25.5%	
Total All Asset Classes	15.5 /0	100.0%	20.0 /0	
TOTAL ALL ASSEL CLASSES		100.0%		

The total Asset Class exposure, including the amount of derivatives exposure not collateralized by Cash, may not exceed 105% of the Asset Class exposure excluding the amount of derivatives exposure not collateralized by Cash.

POLICY/TARGET RETURN/RISKS*	FYE 2019 2020
Expected 10-Year Annual Real Return (Benchmark)	4 .30 4.22%
One Year Downside Volatility	10.83 11.05%
Risk Bounds	
Lower: 1 Year Downside Volatility	75.00%
Upper: 1 Year Downside Volatility	115.00%

*Asset Class Targets and Policy/Target Return/Risks reset monthly

EXHIBIT A - ITF ASSET CLASS TARGETS, RANGES, AND PERFORMANCE OBJECTIVES EFFECTIVE SEPTEMBER 1, 20182019

		FYE 2019 2020		
Asset Class	Min	Target*	Max	Benchmark
Global Equity:	0.70.0%	5.7 3.3%	10.7 8.3%	
U.S. Public Equity	0.7 0.0%			MSCI U.S. with Net Dividends
Non-U.S. Developed Public Equity	0.0%	3.4 1.9%	8.4 6.9%	MSCI EAFE and Canada with Net Dividends
Global Developed Public Equity	1.6 0.0%	6.6 3.8%	11.6 8.8%	MSCI World Index with Net Dividends
Total Developed Public Equity	7.5 2.0%	15.7 9.0%	22.5 16.0%	
Emerging Markets Public Equity	2.1 0.0%	7.1 4.0%	12.1 9.0%	MSCI Emerging Markets Index with Net Dividends
Total Public Equity	15.8 6.0%	22.8 13.0%	29.8 20.0%	
Directional Hedge Funds	25.0 32.0%	31.6 43.0%	38.0 50.0%	HFRI Fund of Funds Composite
Total Global Equity	45.0%	54.4 56.0%	62.0%	
Stable Value:				
Investment Grade Fixed Income	20.0 28.0%	28.7 35.0%	35.0 42.0%	Bloomberg Barclays Global Aggregate Index - Hedged
Cash	0.0%	3.0 2.0%	8.0%	3 month Tbills
Stable Value Hedge Funds	5.0 2.0%	10.2 7.0%	15.0 12.0%	HFRI Fund of Funds Conservative
Total Stable Value	36.0%	41.9 44.0%	52.0%	
Real Return:				
Inflation Linked Bonds	0.0%	0.0%	5.0%	Bloomberg Barclays Global Inflation Linked TR Index
Gold	0.0%	2.4 0.0%	7.5 5.0%	Gold Spot Price (XAU)
Commodities	0.0%	1.2 0.0%	6.0 5.0%	Bloomberg Commodity TRI
Total Commodities	0.0%	3.6 0.0%	8.5 7.0%	1
Public Real Estate	0.0%	0.1 0.0%	5.0%	FTSE EPRA/NAREIT Developed Index Net TRIUSD
Total Real Return	0.0%	3.7 0.0%	10.0 7.0%	
Total All Asset Classes		100.0%		

The total Asset Class exposure, including the amount of derivatives exposure not collateralized by Cash, may not exceed 100% of the Asset Class exposure excluding the amount of derivatives exposure not collateralized by Cash.

POLICY/TARGET RETURN/RISKS*	FYE 2019 2020	
(Benchmark)	2.10 2.38%	
One Year Downside Volatility	5.36 3.81%	
Risk Bounds		
Lower: 1 Year Downside Volatility	75.00%	
Upper: 1 Year Downside Volatility	115.00%	

*Asset Class Targets and Policy/Target Return/Risks reset monthly



The University of Texas/Texas A&M Investment Management Company

Policy Portfolio Review

June 20, 2019

Uzi Yoeli



Summary & Agenda

- Endowment FY2020 Proposal:
 - Continue the transition toward the Long-Term Strategic Asset Allocation (LTSAA) from current weights
- ITF FY2020 Proposal:
 - Efficiently de-risk the portfolio to better fit the intended mandate
 - 10% decrease in total public equities
 - 8% increase in total hedge funds
 - o 6% increase in total fixed income
- Proposed changes only affect exhibits and not the main body of the policy
- No changes to any other policies (liquidity, derivative, delegation of authority)



PUF & GEF FY2020 Policy



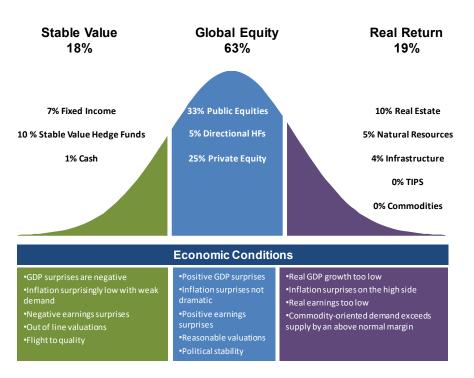
Endowment FY2020 Policy Overview

- A thorough process was completed last year that finalized the transition of investment policy to a regime-based investment approach and set the LTSAA
- The proposed changes this year focus on specific areas:
 - Global Equity, Stable Value, and Real Return Regimes:
 - Complete transition to regime-level LTSAA weights
 - Private Equity, Real Estate, Natural Resources & Infrastructure:
 - Expected \$2 billion transfer from ITF to LTF may result in private investments decreasing from 40.3% in 2018 to 37.4% by December 2019
 - Public Equities, Hedge Funds, Fixed Income, Commodities:
 - Continue the transition toward the LTSAA from current weights

LTSAA and FY19 Approved Policies



Regime-Based LTSAA Framework



Asset Class	FY2019 Policy	SAA	Difference
U.S. Public Equity	7.0%	10.0%	3.0%
Non-U.S. Developed Public Equity	4.0%	5.0%	1.0%
Global Developed Public Equity	8.0%	10.0%	2.0%
Total Developed Public Equity	19.0%	25.0%	6.0%
Emerging Markets Public Equity	10.0%	8.0%	-2.0%
Total Public Equity	29.0%	33.0%	4.0%
Directional Hedge Funds	12.0%	5.0%	-7.0%
Private Equity	22.0%	25.0%	3.0%
Total Global Equity	63.0%	63.0%	0.0%
Total Fixed Income	9.5%	7.0%	-2.5%
Cash	1.0%	1.0%	0.0%
Stable Value Hedge Funds	7.0%	10.0%	3.0%
Total Stable Value	17.5%	18.0%	0.5%
Private Real Estate	8.0%	10.0%	2.0%
Natural Resources	8.0%	5.0%	-3.0%
Infrastructure	2.0%	4.0%	2.0%
TIPS	0.0%	0.0%	0.0%
Total Commodities	1.5%	0.0%	-1.5%
Total Real Return	19.5%	19.0%	-0.5%

Glide Path to LTSAA: Privates



- With the latest commitment model, we expect overall private investments to decrease in 2020 before ramping back up toward the LTSAA target (ITF to LTF flows)
- Table below reflects latest private projections as well as a decision to keep regime weights constant at the LTSAA

	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	SAA
Asset Class	Policy	F12020	FIZUZI	F12022	F12023	F12024	F12025	SAA
U.S. Public Equity	7.0%							10.0%
Non-U.S. Developed Public Equity	4.0%							5.0%
Global Developed Public Equity	8.0%							10.0%
Total Developed Public Equity	19.0%							25.0%
Emerging Markets Public Equity	10.0%							8.0%
Total Public Equity	29.0%							33.0%
Directional Hedge Funds	12.0%							5.0%
Private Equity	22.0%	20.8%	21.4%	22.2%	23.3%	24.3%	25.0%	25.0%
Total Global Equity	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%
Total Fixed Income	9.5%							7.0%
Cash	1.0%							1.0%
Stable Value Hedge Funds	7.0%							10.0%
Total Stable Value	17.5%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%
Private Real Estate	8.0%	8.2%	8.7%	9.1%	9.5%	9.8%	10.0%	10.0%
Natural Resources	8.0%	6.6%	5.9%	5.6%	5.4%	5.2%	5.0%	5.0%
Infrastructure	2.0%	2.9%	3.2%	3.5%	3.7%	3.8%	4.0%	4.0%
TIPS	0.0%							0.0%
Total Commodities	1.5%							0.0%
Total Real Return	19.5%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%



Glide Path to LTSAA: Overall Plan

- Holding the private and regime weights from the previous slide, UTIMCO has control over the remaining blue cells:
 - Majority of asset classes: continue the transition toward the LTSAA
 - TIPS: Increase allocation to fill the underweight in Real Return regime

Asset Class	FY2019 Policy	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	SAA
U.S. Public Equity	7.0%	7.5%	9.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Non-U.S. Developed Public Equity	4.0%	4.5%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Global Developed Public Equity	8.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Total Developed Public Equity	19.0%	22.0%	24.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Emerging Markets Public Equity	10.0%	9.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Total Public Equity	29.0%	31.0%	32.0%	33.0%	33.0%	33.0%	33.0%	33.0%
Directional Hedge Funds	12.0%	11.2%	9.6%	7.8%	6.7%	5.7%	5.0%	5.0%
Private Equity	22.0%	20.8%	21.4%	22.2%	23.3%	24.3%	25.0%	25.0%
Total Global Equity	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%	63.0%
Total Fixed Income	9.5%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%
Cash	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Stable Value Hedge Funds	7.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Total Stable Value	17.5%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%
Private Real Estate	8.0%	8.2%	8.7%	9.1%	9.5%	9.8%	10.0%	10.0%
Natural Resources	8.0%	6.6%	5.9%	5.6%	5.4%	5.2%	5.0%	5.0%
Infrastructure	2.0%	2.9%	3.2%	3.5%	3.7%	3.8%	4.0%	4.0%
TIPS	0.0%	1.3%	1.2%	0.8%	0.4%	0.2%	0.0%	0.0%
Total Commodities	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Real Return	19.5%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%

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Proposed FY2020 Targets: PUF + GEF

Regime	Asset Class	FY19 Target	FY20 Target	LTSAA	LTSAA Difference vs FY20
	Total Public Equity	29.0%	31.0%	33.0%	2.0%
GLOBAL	Directional Hedge Funds	12.0%	11.2%	5.0%	-6.2%
EQUITY	Private Equity	22.0%	20.8%	25.0%	4.2%
	Total Global Equity	63.0%	63.0%	63.0%	0.0%
	Total Fixed Income	9.5%	7.0%	7.0%	0.0%
STABLE	Cash	1.0%	1.0%	1.0%	0.0%
VALUE	Stable Value Hedge Funds	7.0%	10.0%	10.0%	0.0%
	Total Stable Value	17.5%	18.0%	18.0%	0.0%
	Private Real Estate	8.0%	8.2%	10.0%	1.8%
	Natural Resources	8.0%	6.6%	5.0%	-1.6%
REAL	Infrastructure	2.0%	2.9%	4.0%	1.1%
RETURN	TIPS	0.0%	1.3%	0.0%	-1.3%
	Total Commodities	1.5%	0.0%	0.0%	0.0%
	Total Real Return	19.5%	19.0%	19.0%	0.0%
	Total PUF + GEF	100.0%	100.0%	100.0%	0.0%
Policy	Expected 10Y Annual Real Return	4.30%	4.22%	-	-
Return / Risk	One Year Downside Volatility	10.83%	11.05%	-	-



Proposed FY2020 Policy: PUF + GEF

		FYE 2019 2020				
Asset Class	Min	Target*	Max	Benchmark	FY2020	LTSAA
Global Equity:						
U.S. Public Equity	2.0%	7.0 7.5%	12.0%	MSCI US with Net Dividends	7.5%	10.0%
Non-U.S. Developed Public Equity	0.0%	4.0 4.5%	10.0%	MSCI EAFE and Canada with Net Dividends	4.5%	5.0%
Global Developed Public Equity	3.0%	8.0 10.0%	13.0%	MSCI World Index with Net Dividends	10.0%	10.0%
Total Developed Public Equity	12.0%	19.0 22.0%	26.0%		22.0%	25.0%
Emerging Markets Public Equity	5.0%	10.0 9.0%	15.0%	MSCI Emerging Markets Index with Net Dividends	9.0%	8.0%
Total Public Equity	22.0%	29.0 31.0%	36.0%		31.0%	33.0%
Directional Hedge Funds	7.0%	12.0 11.2%	17.0%	HFRI Fund of Funds Composite	11.2%	25.0%
				Blended Cambridge Buyouts, Emerging Markets Private Equity		
Private Equity	18.0%	22.0 20.8%	27.0%	and Venture Capital, Credit Opportunities, and Venture Capital	20.8%	5.0%
Total Global Equity	56.0%	63.0%	70.0%		63.0%	63.0%
Stable Value:						
Investment Grade Fixed Income	2.0%	9.5 7.0%	12.0%	Bloomberg Barclays Global Aggregate Index - Hedged	7.0%	7.0%
Credit-Related Fixed Income	0.0%	0.0%	5.0%	Bloomberg Barclays Capital Global High Yield Index	0.0%	0.0%
Total Fixed Income	2.0%	9.5 7.0%	12.0%		7.0%	7.0%
Cash	-5.0%	1.0%	6.0%	3 month T-Bills	1.0%	1.0%
Stable Value Hedge Funds	2.0%	7.0 10.0%	12.0%	HFRI Fund of Funds Conservative	10.0%	10.0%
Total Stable Value	11.5%	17.5 18.0%	23.5%	-	18.0%	18.0%
Real Return:						
Inflation Linked Bonds	0.0%	0.0 1.3%	5.0%	Bloomberg Barclays Global Inflation Linked TR Index	1.3%	0.0%
Gold	0.0%	1.5 0.0%	5.0%	Gold Spot Price (XAU)	0.0%	0.0%
Commodities	0.0%	0.0%	6.0%	Bloomberg Commodity TRI	0.0%	0.0%
Total Commodities	0.0%	0.0%	6.0%		0.0%	0.0%
Natural Resources	0.0%	8.0 6.6%	12.0%	Cambridge Natural Resources	6.6%	5.0%
Infrastructure	0.0%	2.0 2.9%	9.0%	Cambridge Infrastructure	2.9%	4.0%
Public Real Estate	0.0%	0.0%	5.0%	FTSE EPRANAREIT Developed Index Net TRIUSD	0.0%	0.0%
Private Real Estate	3.0%	8.0 8.2%	13.0%	Cambridge Real Estate	8.2%	10.0%
Total Real Return	13.5%	19.5 19.0%	25.5%	i i i i i i i i i i i i i i i i i i i	19.0%	19.0%
Total All Asset Classes		100.0%			100.0%	100.0%

POLICY/TARGET RETURN/RISKS*	FYE 2019 2020		
Expected 10-Year Annual Real Return	4 .30 4.22%		
One Year Downside Volatility	10.83 11.05%		
Risk Bounds			
Lower: 1 Year Downside Volatility	75.00%		
Upper: 1 Year Downside Volatility	115.00%		

*Asset Class Targets and Policy/Target Return/Risks reset monthly

9



ITF FY2020 Policy



ITF FY2020 Policy Overview

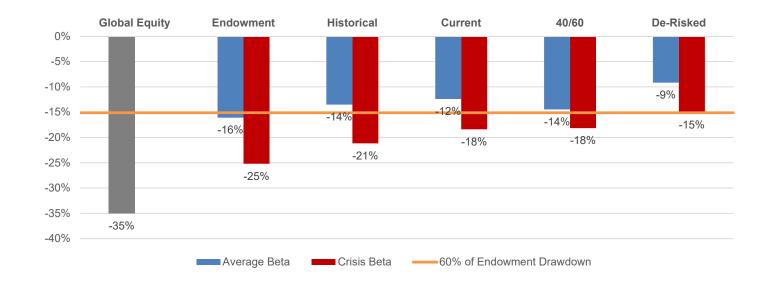
- The current ITF stated goal of "60% of endowment risk, 60% of returns" ended up being "90% of endowment risk, 60% of returns" in 2008
 - Changing the fixed income strategy last year from unhedged currency exposure to hedged has decreased this drawdown risk
 - However, the current portfolio is still projected to have 73% of endowment risk in drawdown periods
- Given these findings, a review of the ITF strategic asset allocation was conducted and incorporated client institution objectives for:
 - Expected returns
 - Capital preservation
 - Potential for extraordinary distributions
- The proposed FY2020 policy decreases drawdown risk and improves the overall risk profile of the ITF by decreasing equity exposure and increasing directional hedge fund exposure



- Evaluated multiple portfolio construction approaches and narrowed the process on three specific approaches:
 - 1. "Current": keep the portfolio weights as is
 - 2. "40/60": the simple approach of 40% in global equities and 60% in fixed income
 - 3. "De-Risked": replace a portion of equity exposure with directional hedge fund exposure
 - Directional hedge funds reduce equity beta while expected to deliver high alpha
- Further analysis on the three specific portfolios reveal:
 - The Current ITF portfolio exhibits an improved risk profile than the historical portfolio, primarily due to changing the fixed income strategy from unhedged to hedged
 - However, the current portfolio is still projected to have 73% of endowment risk in drawdown periods
 - The 40/60 portfolio does not improve the risk profile of the ITF beyond its current state
 - By optimizing the De-Risked approach, the proposed FY2020 policy efficiently brings down relative drawdown risk to 60% of the endowment



Portfolio Drawdown Risk



Projected ITF Drawdown Relative to Projected Endowment Drawdown							
	Historical ITF	Current ITF	40/60	De-Risked / FY20 Proposal			
Average Beta	84%	77%	90%	57%			
Crisis Beta*	89%	73%	72%	60%			

*Expected downside risk the ITF is expected to endure relative to the endowment in a drawdown environment





- The specific allocations for the De-Risked approach were selected by running an optimization exercise which held the hedge fund allocation constant and increased the equity exposure until drawdown risk was no more than 60% of the endowments
 - Target hedge fund allocations were selected after considering liquidity and capital planning constraints

				Alternate Portfolios				
					FY2020			
	Asset Class	Current	1	2	Proposal	4	5	Notes
	Cash	3%	2%	2%	2%	2%	2%	Hold Constant
	Bonds	29%	38%	36%	35%	34%	33%	Vary
Portfolio	Equities	23%	10%	12%	13%	14%	15%	Vary
Allocations	SVHF	10%	7%	7%	7%	7%	7%	Hold Constant
	DHF	32%	43%	43%	43%	43%	43%	Hold Constant
	Other ¹	4%	0%	0%	0%	0%	0%	Hold Constant
	Ret	4.5%	4.3%	4.3%	4.4%	4.4%	4.5%	
Portfolio Metrics	Risk	5.9%	4.4%	4.7%	4.8%	5.0%	5.1%	
	Sharpe	0.42	0.52	0.50	0.49	0.49	0.48	
Risk vs.	Average	77%	50%	55%	57%	60%	62%	
Endowments	Crisis Beta ²	73%	55%	58%	60%	62%	64%	Key Metric to Observ

¹ Includes gold, commodities, public real estate

² Expected downside risk the ITF is expected to endure relative to the endowments in a drawdown environment

- The proposed portfolio slightly decreases the return relative to the current portfolio, but improves the risk profile across both absolute and relative metrics
 - Specifically, drawdown risk is decreased from 73% to 60%, allowing for capital preservation for the smaller institutions that have most of their capital in the ITF



Proposed FY2020 Targets: ITF

		FY19	FY20	
Regime	Asset Class	Target	Target	Difference
	Public Equity	22.8%	13.0%	-9.8%
GLOBAL				
	Directional Hedge Funds	31.6%	43.0%	11.4%
EQUITY				
	Total Global Equity	54.4%	56.0%	1.6%
	Investment Grade Fixed Income	28.7%	35.0%	6.3%
STABLE	Cash	3.0%	2.0%	-1.0%
VALUE	Stable Value Hedge Funds	10.2%	7.0%	-3.2%
	Total Stable Value	41.9%	44.0%	2.1%
	Global Inflation Linked Bonds	0.0%	0.0%	0.0%
REAL	Total Commodities	3.6%	0.0%	-3.6%
RETURN	Public Real Estate	0.1%	0.0%	-0.1%
		2 70/	0.0%	2 70/
	TOTAL REAL RETURN	3.7%	0.0%	-3.7%
	Total ITF (net)	100.0%	100.0%	0.0%
Policy	Expected 10Y Annual Real Return*	2.10%	2.38%	0.28%
Return / Risk	One Year Downside Volatility	5.36%	3.81%	-1.55%

* Expected return increases due to updates in capital market assumptions (for reference, the 10Y yield moved from 2.4% to 2.7% from December 2017 to December 2018). Holding policy weights constant from FY19 while updating capital market assumptions would lead to an expected real return of 2.52%, matching the nominal return of 4.5% previously shown on the previous slide. The proposed changes in asset allocation bring the expected return down to 2.38%, while improving the risk profile. 15

Proposed FY2020 Policy: ITF



		FYE 2019 2020		
Asset Class	Min	Target*	Max	Benchmark
Global Equity:				
U.S. Public Equity	0.7 0.0%	5.7 3.3%	10.7 8.3%	MSCI U.S. with Net Dividends
Non-U.S. Developed Public Equity	0.0%	3.4 1.9%	8.4 6.9%	MSCI EAFE and Canada with Net Dividends
Global Developed Public Equity	1.6 0.0%	6.6 3.8%	11.6 8.8%	MSCI World Index with Net Dividends
Total Developed Public Equity	7.5 2.0%	15.7 9.0%	22.5 16.0%	
Emerging Markets Public Equity	2.1 0.0%	7.14 .0%	12.1 9.0%	MSCI Emerging Markets Index with Net Dividends
Total Public Equity	15.8 6.0%	22.8 13.0%	29.8 20.0%	
Directional Hedge Funds	25.0 32.0%	31.6 43.0%	38.0 50.0%	HFRI Fund of Funds Composite
Total Global Equity	45.0%	54.4 56.0%	62.0%	
Stable Value:				
Investment Grade Fixed Income	20.0 28.0%	28.7 35.0%	35.0 42.0%	Bloomberg Barclays Global Aggregate Index - Hedged
Cash	0.0%	3.0 2.0%	8.0%	3 month Tbills
Stable Value Hedge Funds	5.0 2.0%	10.2 7.0%	15.0 12.0%	HFRI Fund of Funds Conservative
Total Stable Value	36.0%	41.9 44.0%	52.0%	
Real Return:				
Inflation Linked Bonds	0.0%	0.0%	5.0%	Bloomberg Barclays Global Inflation Linked TR Index
Gold	0.0%	2.4 0.0%	7.5 5.0%	Gold Spot Price (XAU)
Commodities	0.0%	1.2 0.0%	6.0 5.0%	Bloomberg Commodity TRI
Total Commodities	0.0%	3.6 0.0%	8.5 7.0%	1
Public Real Estate	0.0%	0.1 0.0%	5.0%	FTSE EPRA/NAREIT Developed Index Net TRIUSD
Total Real Return	0.0%	3.7 0.0%	10.0 7.0%	
Total All Asset Classes		100.0%		

POLICY/TARGET RETURN/RISKS*	FYE 2019 2020	
Expected 10-Year Annual Real Return**	2.10 2.38%	
One Year Downside Volatility	5.36 3.81%	
Risk Bounds		
Lower: 1 Year Downside Volatility	75.00%	
Upper: 1 Year Downside Volatility	115.00%	

The total Asset Class exposure, including the amount of derivatives exposure not collateralized by Cash, may not exceed 100% of the Asset Class exposure excluding the amount of derivatives exposure not collateralized by Cash.

*Asset Class Targets and Policy/Target Return/Risks reset monthly

* Expected return increases due to updates in capital market assumptions (for reference, the 10Y yield moved from 2.4% to 2.7% from December 2017 to December 2018). Holding policy weights constant from FY19 while updating capital market assumptions would lead to an expected real return of 2.52%, matching the nominal return of 4.5% previously shown on the previous slide. The proposed changes in asset allocation bring the expected return down to 2.38%, while improving the risk profile.

BYLAWS

OF

THE UNIVERSITY OF TEXAS/TEXAS A&M

INVESTMENT MANAGEMENT COMPANY

Restated to Include Amendments Adopted on

March 13, 1997 (Approved by the Board of Regents on May 8, 1997)

May 2, 1997 (Approved by the Board of Regents on May 8, 1997)

September 22, 1999 (Approved by the Board of Regents on November 11, 1999)

December 9, 1999 (Approved by the Board of Regents on February 10, 2000)

October 26, 2001 (Approved by the Board of Regents on November 8, 2001)

June 26, 2003 (Approved by the Board of Regents on August 7, 2003)

Ratified September 29, 2004 (Approved by the Board of Regents on August 12, 2004)

May 25, 2006 (Approved by the Board of Regents on July 13, 2006)

January 30, 2008 (Approved by the Board of Regents on February 7, 2008)

July 14, 2011 (Approved by the Board of Regents on August 25, 2011)

July 22, 2013 (Approved by the Board of Regents on August 22, 2013)

May 10, 2017 (Approved by the Board of Regents on May 10, 2017)

February 28, 2018 (Approved by the Board of Regents on May 1, 2018)

June 27, 2019 (Approved by the Board of Regents on August 15, 2019)

UTIMCO 05/01/201808/15/2019

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BYLAWS

OF

THE UNIVERSITY OF TEXAS/TEXAS A&M INVESTMENT MANAGEMENT COMPANY

ARTICLE I STRUCTURE AND PURPOSES

Section 1. <u>Structure</u>. The University of Texas/Texas A&M Investment Management Company (the "Corporation") is a nonprofit corporation organized under the laws of the State of Texas, including the Texas Business Organizations Code (the "TBOC"). The Articles of Incorporation of the Corporation (as amended from time to time, the "Articles of Incorporation") were filed in the office of the Secretary of the State of Texas on November 15, 1995.

Section 2. <u>Member</u>. The Corporation shall have no members.

Section 3. <u>Purposes</u>. The Corporation is organized and will be operated exclusively for charitable and educational purposes. In accomplishment of such purposes, the Corporation will be administered solely for the purpose of aiding, assisting, supporting and acting on behalf of The University of Texas System (the "System"), an agency of the State of Texas, in the performance of its essential governmental function of providing higher education in accordance with the laws of the State of Texas authorizing and governing the System and the creation of the Corporation. The Corporation shall have, without limitation, the following purposes:

(a) To invest funds under the control and management of the Board of Regents of the System (the "Board of Regents"), including the permanent university fund, as designated by the Board of Regents in accordance with the laws of the State of Texas; and

(b) To perform such other activities or functions that the Board of Directors of the Corporation determines are necessary or appropriate for the accomplishment of the purposes of the Corporation, provided, however, that the Corporation may not engage in any business other than investing funds designated by the Board of Regents pursuant to a contract with the System for the investment of such funds.

Section 4. <u>Approval by System</u>. Notwithstanding the powers delegated to the Board of Directors of the Corporation, the Corporation may not contract with the Board of Regents to invest funds under the control and management of the Board of Regents, including the permanent university fund, unless and until the Board of Regents has approved (i) the Articles of Incorporation and Bylaws of the Corporation; (ii) the investment policies of the Corporation; (iii) the audit and ethics committee of the Corporation; and (iv) the code of ethics of the Corporation. Furthermore, the Board of Regents must approve (i) any amendments to the Articles of Incorporation and Bylaws of the Corporation; (ii) any changes to the investment policies of the Corporation; (iii) any changes in the audit and ethics committee of the Corporation shall file reports with the Board

of Regents quarterly, and at such other times as requested by the Board of Regents, concerning such matters as required by the Board of Regents.

Section 5. <u>Prohibited Transactions</u>. In addition to the prohibitions of the laws of the State of Texas, the Corporation may not enter into an agreement or transaction with a former director, officer, or employee of the Corporation, or a business entity in which a former director, officer, or employee of the Corporation has an interest, on or before the first anniversary of the date the person ceased to be a director, officer, or employee of the Corporation. For purposes of this section (i) a former director, officer, or employee of the Corporation has an interest in a business entity if such person owns (a) five percent or more of the voting stock or shares of the business entity or (b) five percent or more of the fair market value of the business entity, and (ii) a former director of the Corporation has an interest in a business entity if money received by such person from the business entity exceeds five percent of the person's gross income for the preceding calendar year. A two-thirds majority of the Board of Directors of the Corporation shall be required to forward to the Board of Regents a change to this Section.

Section 6. Revolving Door. A former director or employee of the Corporation may not make any communication to or appearance before a current director or employee of the Corporation before the second anniversary, in the case of a former director, or the first anniversary, in the case of a former employee, of the date the former director or employee ceased to be a director or employee of the Corporation if the communication or appearance is made (a) with the intent to influence, and (b) on behalf of any person in connection with any matter on which the person seeks action by the Corporation. If a director of the Corporation knowingly communicates with a former director or employee of the Corporation, whose communication or appearance is made with the intent to influence, and on behalf of any person in connection with any matter on which the person seeks action by the Corporation, such director shall be subject to removal from serving as a director of the Corporation. If an employee of the Corporation knowingly communicates with a former director or employee of the Corporation whose communication or appearance is made with the intent to influence, and on behalf of any person in connection with any matter on which the person seeks action by the Corporation, such director or employee shall be subject to disciplinary action. A two-thirds majority of the Board of Directors of the Corporation shall be required to forward to the Board of Regents a change to this Section.

ARTICLE II OFFICES

Section 1. <u>Principal Place of Business</u>. The principal place of business of the Corporation shall be located at 210 West 7th Street, 17th Floor, Austin, Texas 78701. The Corporation may have such other offices, either within or without the State of Texas, as the Board of Directors may determine or as the affairs of the Corporation may require from time to time.

Section 2. <u>Registered Office and Registered Agent</u>. The Corporation shall have and continuously maintain in the State of Texas a registered office and a registered agent whose office is the Corporation's registered office, as required by the TBOC. The registered office may, but need not, be identical with the principal office of the Corporation in the State of Texas, and the address of the registered office may be changed from time to time by the Board of Directors in accordance with applicable law.

ARTICLE III BOARD OF DIRECTORS

Section 1. <u>Powers</u>. The property, business, and affairs of the Corporation shall be managed and controlled by the Board of Directors, and subject to the restrictions imposed by law, the Articles of Incorporation, and these Bylaws, the Board of Directors shall exercise all of the powers of the Corporation.

Section 2. <u>Number</u>. The Board of Directors shall consist of nine (9) Directors consistent with <u>Texas Education Code</u> Section 66.08.

Section 3. Appointment and Term. In compliance with applicable law, seven (7) Directors shall be appointed by the Board of Regents, pursuant to a process determined by the Board of Regents and shall include (i) at least three (3) persons then serving as members of the Board of Regents ("Regental Directors"), (ii) three (3) persons with substantial background and expertise in investments, and (iii) one qualified individual as determined by the Board of Regents, which may include the Chancellor of The University of Texas System; and two (2) Directors shall be appointed by the Board of Regents of The Texas A&M University System pursuant to a process determined by the Board of Regents of The Texas A&M University System and shall include at least one (1) person with substantial background and expertise in investments. If appointed to the UTIMCO Board by the Board of Regents, the Chancellor of the System shall serve as a Director so long as he or she remains Chancellor of the System or until the Chancellor's earlier removal or resignation as provided in these Bylaws. The three (3) Regental Directors shall serve for two-year terms that expire on the first day of April of each odd-numbered year. The remaining Directors (other than the Chancellor of the System and the Regental Directors) shall serve three-year staggered terms that expire on the first day of April of the appropriate year. No such Director (other than the Chancellor of the System and the Regental Directors) shall serve more than three (3) full three-year terms. Notwithstanding the foregoing, the Board of Regents may, from time to time, alter the terms of the Directors it is authorized to appoint and the Board of Regents of The Texas A&M University System may, from time to time, alter the terms of the Directors it is authorized to appoint. Each person serving as a Director shall serve until the expiration of such Director's term, or until such Director's successor has been chosen and qualified, or until such Director's earlier death, resignation, or removal as provided in these Bylaws.

Section 4. <u>Removal and Resignation</u>. Any Director appointed by the Board of Regents may be removed from office at any time, with or without cause, by the Board of Regents. Any Director appointed by the Board of Regents of The Texas A&M University System may be removed from office at any time, with or without cause, by the Board of Regents of The Texas A&M University System. Any Director or officer may resign at any time. Such resignation shall be made in writing and shall take effect at the time specified therein, or, if no time be specified, at the time of its receipt by the President or Secretary. The acceptance of a resignation shall not be necessary to make it effective, unless expressly so provided in the resignation.

Section 5. <u>Vacancies</u>. Any vacancy occurring in the office of a Director, whether by death, resignation, removal, increase in the number of Directors, or otherwise, shall be filled by the entity authorized to appoint the Director.

Section 6. <u>Meetings of Directors</u>. The Directors may hold meetings and keep the Corporation's books and records at such place or places within the State of Texas as the Board of Directors may from time to time determine.

Section 7. <u>Annual Meetings</u>. The annual meeting of the Board of Directors ("Annual Meeting") shall be held at such time and place as shall be designated from time to time by resolution of the Board of Directors, or, if not so designated, on the third Thursday of the month of April of each year at the Corporation's principal office for the purpose of (i) electing officers for the ensuing year, and (ii) transacting such other business as may be properly brought before such Annual Meeting. Notice of Annual Meetings shall be required.

At the request of the U. T. Board of Regents, a joint meeting with the U. T. Board of Regents ("Joint Meeting") shall be held to discuss investment policies including asset allocation, investment performance, determination of risk, performance of the Corporation, organizational issues, proposed budget, and related issues. Notice of Joint Meetings shall be required.

Section 8. <u>Regular Meetings</u>. Regular meetings of the Board of Directors ("Regular Meetings") shall be held at such times and places as shall be designated from time to time by resolution of the Board of Directors. Notice of Regular Meetings shall be required. The UTIMCO President shall consult with the Chairman and the Chancellor on the draft agenda for meetings of the UTIMCO Board at least three (3) weeks prior to each regular UTIMCO Board meeting.

Section 9. <u>Special Meetings</u>. Special meetings of the Board of Directors ("Special Meetings") shall be held at such times and places as shall be designated from time to time by the Chairman or, on the written request of any Director, by the Secretary or on the written request of the Board of Regents. Notice of Special Meetings shall be required.

Section 10. <u>Notice of Meetings</u>. The Secretary shall give notice of the time and place of each Annual, Joint, Regular and Special Meeting to each Director in person, or by mail, electronic mail, telegraph, or telephone, at least five (5) days before and not sooner than fifty (50) days before such meeting; provided, however, that in the case of a Special Meeting called because of an emergency or urgent necessity, notice will be provided as required by the Texas Open Meetings Act.

Section 11. <u>Quorum</u>. A majority of the then acting Directors shall constitute a quorum for the consideration of any matters pertaining to the Corporation's purposes. If at any meeting of the Board of Directors there is less than a quorum present, the Chairman may adjourn the meeting from time to time. The act of a majority of the Directors present at a meeting at which a quorum is present shall be the act of the Board of Directors, unless the act of a greater number is required by law, the Articles of Incorporation, or these Bylaws.

Section 12. <u>Voting</u>. Directors must vote in person and proxy voting is prohibited.

Section 13. <u>Conduct of Business</u>. At meetings of the Board of Directors, matters pertaining to the Corporation's purposes shall be considered.

At all meetings of the Board of Directors, the Chairman of the Board shall preside, and in the absence of the Chairman of the Board, the Vice Chairman of the Board or the Vice Chairman for Policy shall preside. In the absence of the Chairman of the Board and the Vice Chairmen of the Board, a chairman shall be chosen by the Board of Directors from among the Directors present.

The Secretary of the Corporation shall act as secretary of all meetings of the Board of Directors, but in the absence of the Secretary, the Chairman may appoint any person to act as secretary of the meeting.

The chairman of any meeting of the Board of Directors shall determine the order of business and the procedure at the meeting, including, without limitation, conduct of the discussion and the order of business pursuant to a duly posted agenda.

Section 14. <u>Compensation of Directors; Expenses</u>. Persons serving as Directors shall not receive any salary or compensation for their services as Directors. A Director shall be entitled to reimbursement for reasonable expenses incurred by the Director in carrying out duties as a Director.

ARTICLE IV COMMITTEES

Section 1. <u>Board Committees</u>. The Board of Directors may from time to time designate members of the Board of Directors to constitute committees that shall have and may exercise such powers as a majority of the Board of Directors may determine in the resolution that creates the committee; provided, however, that the Board of Regents must approve the audit and ethics committee of the Corporation as required by applicable law and further provided that the full UTIMCO Board shall fully review, discuss, and approve performance compensation for UTIMCO officers and employees following careful consideration and due diligence. The Board of Directors may appoint individuals who are not members of the Board of Directors to any committee; provided, however, that a majority of the committee members shall be members of the Board of Directors in the management of the Corporation.

Other committees, not having and exercising the authority of the Board of Directors in the management of the Corporation, may be designated and members appointed by a resolution adopted by the Board of Directors. Membership of such committees may, but need not, be limited to Directors.

Any Director appointed to a committee designated by the Board of Directors shall cease to be a member of such committee when he or she is no longer serving as Director.

Section 2. <u>Procedures; Meetings; Quorum</u>. Any committee created by the Board of Directors or these Bylaws, unless otherwise expressly provided herein, shall (i) have a chairman designated by the Board of Directors, (ii) fix its own rules or procedures, (iii) meet at such times and at such place or places as may be provided by such rules or by resolution of such committee or resolution of the Board of Directors, and (iv) keep regular minutes of its meetings and cause such minutes to be recorded in books kept for that purpose in the principal office of the Corporation, and report the same to the Board of Directors at its next Regular Meeting. At every meeting of any such committee, the presence of a majority of all the members thereof shall constitute a quorum, and the affirmative vote of a majority of the members present shall be

necessary for the adoption by it of any action, unless otherwise expressly provided in the committee's rules or procedures or these Bylaws or by the Board of Directors.

The Board of Directors may designate one or more Directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of such committee.

Section 3. <u>Nominating Committee</u>. The Chairman may appoint a Nominating Committee to make recommendations to him or her on positions as requested.

ARTICLE V OFFICERS

Section 1. <u>Number, Titles, and Term of Office</u>. The officers of the Corporation shall consist of a Chairman of the Board, a Vice Chairman for Policy, a Vice Chairman of the Board, a President, a Secretary, a Treasurer, and such other officers and assistant officers as the Board of Directors may from time to time elect or appoint. Such other officers and assistant officers shall have such authority and responsibility as may be assigned to them by the Board of Directors. Any two (2) or more offices may be held by the same individual, except the offices of President and Secretary and the offices of Chairman and Vice Chairman. Except for those officers elected at the organizational meeting (the "Organization Meeting"), the term of office for each officer shall be until the next succeeding Annual Meeting at which officers are elected. The term of office for those officer shall be date of the Organization Meeting and ending on the date of the first Annual Meeting. In any event, a duly-elected officer shall serve in the office to which he or she is elected until his or her successor has been duly elected and qualified.

Section 2. <u>Removal</u>. Any officer or agent or member of a committee elected or appointed by the Board of Directors may be removed by the Board of Directors, but such removal shall be without prejudice to the contract rights, if any, of the individual so removed. Election or appointment of an officer or agent or member of a committee shall not of itself create contract rights.

Section 3. <u>Vacancies</u>. Any vacancy occurring in any office of the Corporation may be filled by the Board of Directors.

Section 4. <u>Powers and Duties of the Chairman of the Board</u>. The Chairman of the Board shall preside at all meetings of the Board of Directors and shall have such other powers and duties as may be assigned to such officer in these Bylaws or from time to time by the Board of Directors. The Chairman of the Board shall be appointed by the Board of Directors. <u>No Director shall serve more than five (5) full one-year terms as Chairman</u>.

Section 5. <u>Powers and Duties of the Vice Chairman of the Board</u>. The Vice Chairman of the Board shall have such powers and duties as may be assigned to such officer in these Bylaws or from time to time by the Board of Directors and shall exercise the powers of the Chairman during that officer's absence or inability to act. Any action taken by the Vice Chairman in the performance of the duties of the Chairman shall be conclusive evidence of the absence or inability to act of the Chairman at the time such action was taken. The Vice Chairman of the Board shall

be appointed by the Board of Directors. No Director shall serve more than five (5) full one year terms as Vice Chairman.

Section 6. <u>Powers and Duties of the Vice Chairman for Policy</u>. If appointed to the UTIMCO Board by the Board of Regents, the Chancellor of the System shall serve as Vice Chairman for Policy; otherwise, the Board shall appoint another Director to serve as the Vice Chairman for Policy. The Vice Chairman for Policy shall coordinate those responsibilities, including the appropriate resolution of policy issues, assigned to UTIMCO and System by the <u>Rules and Regulations</u> of the Board of Regents and the Master Investment Management Services Agreement with UTIMCO to facilitate UTIMCO's performance of its core investment duties. The Vice Chairman for Policy shall exercise the powers of the Chairman during the absence or inability to act of both the Chairman and the Vice Chairman of the Board. Any action taken by the Vice Chairman in the performance of the duties of the Chairman at the time such action was taken.

Section 7. <u>Powers and Duties of the President</u>. All references to the President in this document shall mean the Chief Executive Officer of the Corporation. If the positions of President and Chief Executive Officer are held by different individuals the responsibilities designated to the President in these Bylaws shall be performed by the Chief Executive Officer. Subject to the control of the Board of Directors, the President shall have general executive charge, management, and control of the properties, business, and operations of the Corporation with all such powers as may be reasonably incident to such responsibilities; shall have the authority to agree upon and execute all leases, contracts, evidences of indebtedness, and other obligations in the name of the Corporation subject to the approval of the Board of Directors and the Executive Committee, if any; and shall have such other powers and duties as may be designated in these Bylaws and as may be assigned to such officer from time to time by the Board of Directors pursuant to a duly approved Delegation of Authority Policy.

Section 8. <u>Powers and Duties of the Treasurer</u>. The Treasurer shall have custody of all of the Corporation's funds and securities that come into such officer's hands. When necessary or proper, the Treasurer may endorse or cause to be endorsed, in the name and on behalf of the Corporation, checks, notes, and other obligations for collection and shall deposit or cause to be deposited the same to the credit of the Corporation in such bank or banks or depositories and in such manner as shall be designated and prescribed by the Board of Directors; may sign or cause to be signed all receipts and vouchers for payments made to the Corporation either alone or jointly with such other officer as may be designated by the Board of Directors; whenever required by the Board of Directors, shall render or cause to be rendered a statement of the cash account; shall enter or cause to be entered regularly in the Corporation's books to be kept by such officer for that purpose full and accurate accounts of all moneys received and paid out on account of the Corporation; shall perform all acts incident to the position of Treasurer subject to the control of the Board of Directors; and shall, if required by the Board of Directors, give such bond for the faithful discharge of such officer's duties in such form as the Board of Directors may require.

Section 9. <u>Powers and Duties of the Secretary</u>. The Secretary shall keep the minutes of all meetings of the Board of Directors in books provided for that purpose; shall attend to the giving and serving of all notices; in furtherance of the Corporation's purposes and subject to the

limitations contained in the Articles of Incorporation, may sign with the President in the name and on behalf of the Corporation and/or attest the signatures thereto, all contracts, conveyances, franchises, bonds, deeds, assignments, mortgages, notes, and other instruments of the Corporation; shall have charge of the Corporation's books, records, documents, and instruments, except the books of account and financial records and securities of which the Treasurer shall have custody and charge, and such other books and papers as the Board of Directors may direct, all of which shall be open at reasonable times to the inspection of any Director upon application at the Corporation's office during business hours; and shall in general perform all duties incident to the office of Secretary subject to the control of the Board of Directors. The Secretary shall assure that current copies of the Corporation's Articles of Incorporation and Bylaws, Corporation Policies, Investment Policies approved by the Board of Regents, Committee Charters, and Minutes of all meetings of the Corporation and Committees are posted on the Corporation's website. The Secretary will assure that all open meetings of the Corporation are recorded and that recordings are available upon request.

ARTICLE VI MISCELLANEOUS PROVISIONS

Section 1. <u>Fiscal Year</u>. The Corporation's fiscal year shall be as determined from time to time by the Board of Directors.

Section 2. <u>Seal</u>. The Corporation's seal, if any, shall be such as may be approved from time to time by the Board of Directors.

Section 3. <u>Notice and Waiver of Notice</u>. Whenever any notice is required to be given by mail under the provisions of these Bylaws, such notice shall be deemed to be delivered when deposited in the United States mail in a sealed postpaid wrapper addressed to the person or Board of Regents entitled thereto at such person's post office address, as such appears in the records of the Corporation, and such notice shall be deemed to have been given on the date of such mailing. A waiver of notice in writing signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to notice.

Section 4. <u>Public Information</u>. The Board of Directors shall comply with applicable provisions of the Texas Public Information Act.

Section 5. <u>Open Meetings</u>. The Board of Directors shall conduct open meetings in accordance with Section 66.08(h), <u>Texas Education Code</u>. The Secretary is required to provide public notice of such meetings in accordance with applicable law therewith.

ARTICLE VII

INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 1. <u>Right to Indemnification</u>. Subject to any limitations and conditions in these Bylaws, including, without limitation, this Article VII, each person who was or is made a party or is threatened to be made a party to or is involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, arbitrative or investigative (a "Proceeding"), or any appeal of such a Proceeding or any inquiry or investigation that could lead to a Proceeding, by reason of the fact that he or a person of whom he is the legal representative, is

or was a Director or officer of the Corporation, or while a Director or officer of the Corporation is or was serving at the request of the Corporation as a director, officer, partner, venturer, proprietor, trustee, employee, agent, or similar functionary of another foreign or domestic corporation, partnership, joint venture, sole proprietorship, trust, employee benefit plan or other enterprise, shall be indemnified by the Corporation to the fullest extent authorized by the TBOC, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), against judgments, penalties (including excise and similar taxes), fines, settlements and reasonable expenses (including, without limitation, attorneys' fees) actually incurred by such person in connection with a Proceeding, but if the Proceeding was brought by or in behalf of the Corporation, the indemnification is limited to reasonable expenses actually incurred or suffered by such person in connection therewith, and indemnification under these Bylaws shall continue as to a person who has ceased to serve in the capacity which initially entitled such person to indemnity hereunder. In no case, however, shall the Corporation indemnify any person, or the legal representatives of any person, with respect to any matters as to which such person shall be finally adjudged in any such Proceeding to be liable on the basis that personal benefit resulted from an action taken in such person's official capacity, or in which such person is found liable to the Corporation. Any person entitled to indemnification pursuant to this Article VII is sometimes referred to herein as an "Indemnified Person."

Section 2. <u>Advance Payment</u>. An Indemnified Person's right to indemnification conferred in this Article VII shall include the right to be paid or reimbursed by the Corporation the reasonable expenses incurred by an Indemnified Person who was, is or is threatened to be made a named defendant or respondent in a Proceeding in advance of the final disposition of the Proceeding; provided, however, that the payment of such expenses incurred by an Indemnified Person in advance of the final disposition of a Proceeding shall be made only upon delivery to the Corporation of a written affirmation by such Indemnified Person of his or her good faith belief that he or she has met the standard of conduct necessary for indemnification under this Article VII and a written undertaking by or on behalf of such Indemnified Person is not entitled to be indemnified under this Article VII or otherwise.

Section 3. <u>Appearance as a Witness</u>. Notwithstanding any other provision of this Article VII, the Corporation may pay or reimburse expenses incurred by an Indemnified Person in connection with his or her appearance as a witness or other participation in a Proceeding at a time when the Indemnified Person is not a named defendant or respondent in the Proceeding.

Section 4. <u>Nonexclusivity of Rights</u>. The right to indemnification and the advancement and payment of expenses conferred in this Article VII shall not be exclusive of any other right which an Indemnified Person may have or hereafter acquire under any law (common or statutory), the Articles of Incorporation, the Bylaws, agreement, vote of disinterested Director or otherwise.

Section 5. <u>Insurance</u>. The Corporation may purchase and maintain insurance, at its expense, to protect itself or any Indemnified Person, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under this Article VII.

Section 6. <u>Savings Clause</u>. If this Article VII or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify and hold harmless each Indemnified Person as to costs, charges and expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement with respect to any action, suit or proceeding, whether civil, criminal, administrative or investigative to the full extent permitted by any applicable portion of this Article VII that shall not have been invalidated and to the fullest extent permitted by applicable law.

ARTICLE VIII AMENDMENTS

Section 1. <u>Amendment</u>. These Bylaws may be altered, amended, or repealed by the Board of Directors with the approval of the Board of Regents. A request by the Board of Regents to consider an alteration, amendment, or repeal of these Bylaws will be considered at the next regular meeting of the Corporation or at a special meeting called for that purpose.

Agenda Item

UTIMCO Board of Directors Meeting June 27, 2019

- Agenda Item: Report from Compensation Committee: Discussion and Appropriate Action Related to CEO's Base Salary for 2019-2020 Fiscal Year; Discussion and Appropriate Action Related to the CEO's Qualitative Performance Standards for the UTIMCO Compensation Program for the Performance Period ending June 30, 2020; and Discussion and Appropriate Action Related to the Amendment of Table 1 of the UTIMCO Compensation Program, effective July 1, 2019
- Developed By: Moeller, Gonzalez
- Presented By: Rothrock
- Type of Item:
 Action item; Action required by UTIMCO Board
- **Description:** The Compensation Committee (the "Committee") met on June 20, 2019. The Committee's agenda included the following (1) approval of minutes of the December 6, 2018 meeting; (2) discussion and appropriate action related to base salaries for the UTIMCO officers and other UTIMCO Compensation Program (Plan) Participants for 2019-2020 Fiscal Year; (3) discussion and appropriate action related to the CEO's Qualitative Performance Standards for the Plan for the Performance Period ending June 30, 2020; and (4) discussion and appropriate action related to the amendment of Table 1 of the Plan, effective July 1, 2019. The Committee also met in Executive Session for the purpose of deliberating individual personnel compensation matters.
- **Discussion:** (1) Base Salaries. 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 2019-2020 Fiscal Year. The Committee will report on its recommendation and request that the Board take appropriate action related to the CEO's base salary.

(2) CEO Qualitative Performance Standards. Section 5.4(b) of the Plan states that the CEO's Qualitative Performance Standards will be determined and approved by the Board. The Committee presents and recommends the approval of the CEO's Qualitative Performance Standards to the UTIMCO Board. The two categories of Performance Standards are Quantitative Performance and Qualitative Performance. The Qualitative Performance Standards will be measured systematically as part of each Participant's annual performance appraisal process, using predetermined standard criteria, each Participant's adherence to UTIMCO's cultural values, and may include multi-rater feedback regarding a variety of contributions and behaviors needed for organizational success such as interpersonal relationship skills, accountability, effective teamwork, etc.

(3) **Table 1.** The Plan consists of two elements: base salary and an annual performance plan. The UTIMCO Board has the discretion to interpret, adopt such rules and regulations it deems necessary to carry out the Plan, and amend the Plan. Mr. Harris will present a revised and updated Table 1 consisting of Eligible Positions,

Agenda Item

UTIMCO Board of Directors Meeting June 27, 2019

Weightings, Award Opportunities, and Percentage of Award Deferred for each Eligible Position for the Performance Periods beginning after June 30, 2019. No other revisions to the Plan are being requested.

Recommendation: The Committee will recommend the Board approve (1) the CEO's Base Salary for the 2019-2020 Fiscal Year; (2) the CEO's Qualitative Performance Standards for the Plan for the Performance Period ending June 30, 2020; and (3) the revised and updated Table 1 for the Performance Periods beginning after June 30, 2019.

Reference: Materials provided for Executive Session

2

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 2019-2020 in the amount of \$_____.

RESOLUTION RELATED TO THE CEO'S QUALITATIVE PERFORMANCE STANDARDS FOR PERFORMANCE PERIOD ENDING JUNE 30, 2020

WHEREAS, Section 5.4(b) of the UTIMCO Compensation Program (the "Plan") provides that the Board will determine the Performance Standards of the CEO for each Performance Period; and

WHEREAS, the Board has reviewed the CEO's Qualitative Performance Standards for the Performance Period ending June 30, 2020, as prepared by the CEO, and recommended by the Compensation Committee and set forth in the document presented to the Board.

NOW, THEREFORE, be it:

RESOLVED, that the Board approves the Qualitative Performance Standards for the CEO for the Performance Period ending June 30, 2020, as set forth in the document presented to the Board.

RESOLUTION RELATED TO AMENDMENTS TO TABLE 1 OF THE UTIMCO COMPENSATION PROGRAM

WHEREAS, Section 7.2. of the UTIMCO Compensation Program (the "Plan") provides that UTIMCO, by action of its Board of Directors (the "Board"), has the right in its discretion to amend the Plan or any portion thereof from time to time; and

WHEREAS, the Plan requires Table 1 to be revised as necessary, for subsequent Performance Periods to set forth any changes or additions to the Eligible Positions, the Weightings for the Eligible Positions, the Award Opportunities, and any Applicable Deferral Percentage for each Eligible Position, for that Performance Period as soon as administratively practicable after confirmation of such Eligible Positions by the Board for such Performance Period and to be attached as Table 1 to the Plan; and

WHEREAS, the Board has reviewed the updated and amended Table 1 and approves the amendments as recommended by the Compensation Committee.

NOW, THEREFORE, be it:

RESOLVED, that the updated and amended Table 1, a copy of which is attached hereto, is hereby adopted and approved to replace the current Table 1, effective as of July 1, 2019.

Agenda Item UTIMCO Board of Directors Meeting June 27, 2019

- Agenda Item: Discussion and Appropriate Action Related to UTIMCO 2019-2020 Budget
- Developed By: Hall, Moeller, Bauer
- Presented By: Harris, Hall

Type of Item:Action Item; Action required by UTIMCO Board; further action required by Board of
Regents of The University of Texas System (UT Board)

Description: The Master Investment Management Services Agreement with UTIMCO (IMSA) sets forth the annual budget and management fee requirements. 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 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 UT Board back to the Funds that generated the surplus.

- **Discussion:** Mr. Harris and Mr. Hall will present the UTIMCO Proposed FY2020 Budget presentation.
- **Recommendation:** Mr. Harris recommends that the UTIMCO Proposed 2019-2020 Annual Budget, Management Fee Request, and Allocation Schedule be approved as presented.
- **Reference:** UTIMCO FY2020 Budget presentation

RESOLUTION RELATED TO BUDGET

RESOLVED, that the UTIMCO Management Fee of \$49,868,696 and the Other Direct Fund Costs of \$7,101,269 resulting in Total Fees of \$56,969,965, Capital Budget of \$536,000 and the Allocation Schedule; as provided to the Board for the period beginning September 1, 2019 through August 31, 2020, be, and are hereby, approved, subject to approval by the Board of Regents of The University of Texas System.



The University of Texas/Texas A&M Investment Management Company

UTIMCO FY 2020 Budget

Britt Harris President, CEO and Chief Investment Officer

Rich Hall Deputy Chief Investment Officer

June 27, 2019

AGENDA



Action Items

- 1. Approve UTIMCO Services and Direct Costs Operating Budget
- 2. Approve UTIMCO Capital Budget
- 3. Approve UTIMCO Annual Fee & Allocation Schedule
- Appendix

Budget FY 2020 and FY 2019



UTIMCO FY 2019 Budget v FY 2020	FY 2019	FY 2020	FY20 Budget v FY19 Budget	FY20 Budget v FY19 Budget	
Budget	Budget	Budget	Variance \$	Variance %	Description
UTIMCO Services					
Salaries	15,876,073	17,889,310	2,013,237	12.7%	15 new hires (50% of increase); 19 promotions (17% of increase)
Performance Compensation	12,907,738	15,592,053	2,684,315	20.8%	CEO/Deputy CIO plan deferrals; plan promotions; plan deferral period conversion
Employee Benefits & Payroll Taxes	3,884,425	4,486,765	602,340	15.5%	Impact of new employees and compensation increases
TOTAL EMPLOYEE RELATED EXPENSE	32,668,236	37,968,128	5,299,892	16.2%	
Hiring, Recruiting, Relocation & Consultants	543,000	474,000	(69,000)	-12.7%	
Travel & Meetings	1,313,020	1,333,956	20,936	1.6%	
On-Line Data & Subscriptions	3,279,505	3,712,008	432,503	13.2%	Adding new licenses to Factset and Bloomberg as well as expanding Factset capabilities
Contract Services & Maintenance Contracts	900,296	954,801	54,505	6.1%	
Lease Expense	2,630,324	2,663,724	33,400	1.3%	
Depreciation	1,600,000	1,675,000	75,000	4.7%	Includes depreciation on new equipment for new hires and build-out of office space
Professional Fees	305,604	310,604	5,000	1.6%	
Other	549,026	776,475	227,449	41.4%	New Excise Tax on Pay of Highly Compensated Employees
TOTAL NON-EMPLOYEE RELATED EXPENSE	11,120,775	11,900,568	779,793	7.0%	
Total UTIMCO Services	\$43,789,011	\$49,868,696	\$6,079,685	13.9%	
Direct Costs to Funds					
Custodian Fees & Performance Measurement	8,947,724	4,100,000	(4,847,724)	-54.2%	New fee structure as a result of the Custodian review process
Risk Measurement	324,000	665,500	341,500	105.4%	New Risk System to run concurrently with legacy system for six months of fiscal year
Consultant Fees	327,500	307,500	(20,000)	-6.1%	
Legal and Background Checks	738,000	825,250	87,250	11.8%	More background checks anticipated
Auditing & Foreign Tax Consultants	956,750	983,919	27,169	2.8%	
Other	231,200	219,100	(12,100)	-5.2%	
Total Direct Costs to Funds	\$11,525,174	\$7,101,269	(\$4,423,905)	-38.4%	
Grand Total	\$55,314,185	\$56,969,965	\$1,655,780	3.0%	

Factors Driving Incremental Increase



- Employee Related Expenses
 - Base Salaries increasing \$2.0M
 - \$1.14M to 95 existing employees for merit increases, market adjustments and promotions
 - \$860K to 15 new employees hired during fiscal year
 - 7 operations, 2 information technology, 6 investors
 - Performance compensation increasing \$2.7M
 - Budgeted at 70% of maximum potential performance compensation
 - Key drivers include inclusion of CEO/DCIO plan deferrals, compression of deferral period from 3 to 2 years, senior-level promotions, hiring new team members
 - Operating Expenses
 - Operating expenses growing by \$780K
 - Adding new licenses for FactSet and Bloomberg to support the new hires as well as expanding the FactSet capabilities.
- Additional details on employee and operating expenses provided in Appendix

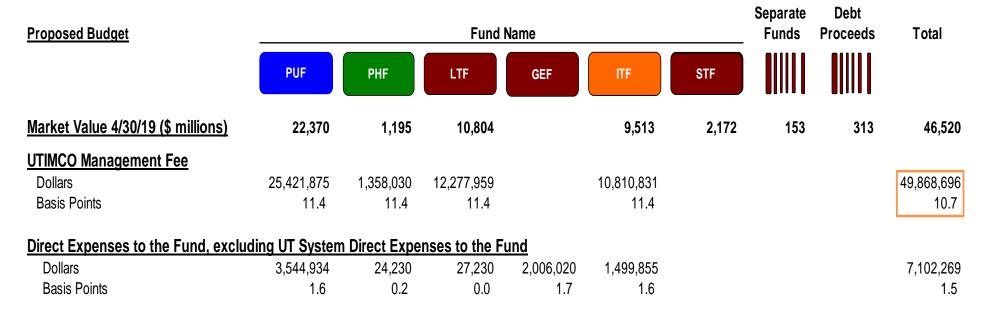


(\$ in thousands)	FY 2 Budget	019 Forecast	FY 2020 Budget	FY 2020 Bi 2019 B \$		Description
Server Room/Telecom/AV Equipment	\$23	\$23	\$140	\$117	508.7%	
Computer Equipment & Software Licenses	140	140	26	(114)	-81.4%	Laptop Computers
Furniture, Equipment & Copiers	50	37	70	20	40.0%	Furniture for new offices
Leasehold	50		300	250	500.0%	Build-out current open spaces to make new offices
Total Capital Budget	\$263	\$200	\$536	\$273	103.8%	



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

For the fiscal year ending August 31, 2020





TOTAL COMPENSATION



(\$ in thousands)	FY 2	019	FY 2020	FY 2020 Budget v FY 2019 Budget	
	Budget	Forecast	Budget	\$	%
Salaries	\$15,876	\$15,814	17,889	\$2,013	12.7%
Performance Compensation	12,908	12,936	15,592	2,684	20.8%
Benefits & Taxes	3,884	3,613	4,487	603	15.5%
Total Compensation	\$32,668	\$32,363	\$37,968	\$5,300	16.2%

Increase in Salaries is the result of:

- The addition of 15 new employees \$0.86M
- Nineteen promotions \$0.35M
- Normal increases and market adjustments \$0.79M

Increase in Performance Compensation is the result of:

- New Hires \$0.15M
- Effect of converting deferral period from 3 to 2 years (excluding CEO/Deputy CIO) \$0.44M
- Plan Participant Promotions \$0.58M
- CEO and Deputy CIO deferrals included in FY20 \$1.1M
- Normal increases and deferral roll-forwards \$.3M
- Earnings on deferrals \$0.11M
- Average maximum multipliers for current Plan participants increased from 147% in FY19 to 155% in FY20

OTHER UTIMCO EXPENSES



(\$ in thousands)	FY 2	019	FY 2020	FY 2020 B FY 2019 F	-	
	Budget	Forecast	Budget	\$	%	Description
Hiring, Recruiting, Relocation & Consultants	\$543	\$280	\$474	(69)	-12.7%	
Travel & Meetings	1,313	1,051	1,334	21	1.6%	
On-Line Data & Subscriptions	3,280	3,177	3,712	432	13.2%	Adding new licenses to FactSet and Bloomberg as well as expanding FactSet capabilities
Contract Services and Maintenance Contracts	900	851	955	55	6.1%	
Lease Expense	2,630	2,576	2,664	34	1.3%	
Depreciation	1,600	1,635	1,675	75	4.7%	Includes depreciation on new equipment for new hires and build- out of office space
Professional Fees	306	266	310	4	1.3%	
Other	549	513	777	228	41.5%	New Excise Tax on Pay of Highly Compensated Employees
Total Other UTIMCO	\$11,121	\$10,349	\$11,901	\$780	7.0%	

DIRECT COSTS



(\$ in thousands)	FY 2019		FY 2020	FY 2020 Budget v FY 2019 Budget		
	Budget	Forecast	Budget	\$	%	Description
Custodian Fees & Performance Measurement	\$8,948	\$5,608	\$4,100	\$ (4,848)	-54.2%	New fee structure as a result of the Custodian review process
Risk Measurement	324	283	666	342	105.6%	New Risk System to run concurrently with legacy system for six months of fiscal year
Consultant Fees	327	491	307	(20)	-6.1%	
Legal and Background Checks	738	820	825	87	11.8%	More background checks anticipated
Auditing & Foreign Tax Consultants	957	972	984	27	2.8%	
Other	231	200	219	(12)	-5.2%	
Total	\$11,525	\$8,374	\$7,101	\$ (4,424)	-38.4%	

CASH RESERVES



Projected Cash Reserves at August 31, 2019:

Conclusion: N	lo Rebate to UTS is Rec	ommende	ed
ance Available for Rebate		\$	671,826
quired Cash Reserves at August 31, 20)19	\$	11,328,174
Depreciation Expense			(1,675,000)
Capital Budget Expenditures			536,000
Applicable Percentage	25%		12,467,174
20 Proposed Operating Budget	49,868,696		
ected Cash Reserves at August 31, 20	019	\$	12,000,000
(Includes awards &			(, ,)
Less: Accounts Payable, Accr	ued Liabilities		(14,000,000)
Prepaid Expenses			1,200,000
Cash		\$	24,800,000