

***The University of Texas Investment  
Management Company***



***Presentation Materials***

***Board of Directors Meeting***

***June 16, 2005***

**UTIMCO BOARD OF DIRECTORS  
MEETING AGENDA  
June 16, 2005**

UTIMCO  
221 W. 6<sup>th</sup> Street, Suite 1700  
Austin, Texas

**Open Meeting Agenda**  
Convene at 10:00 a.m. CDT

**Agenda Item**

---

- 1 Call to Order/Consideration of Minutes of May 19, 2005 Meeting\*
- 2 Discussion and Consideration of Committee Assignment\*
- 3 Discussion and Consideration of Asset Allocation\*, \*\*

Adjournment

\* Action by resolution required

\*\*Resolution requires further approval from the U. T. System Board of Regents

Members of the Committee may attend the meeting by telephone conference call pursuant to Tex. Educ. Code Ann. § 66.08(h)(2)(B). The telephone conference will be audible to the public at the meeting location specified in this notice during each part of the meeting that is required to be open to the public.

**Next Scheduled Meetings: July 8 (Joint with UT System BOR) and July 21, 2005**

TAB 1

<b>RESOLUTION RELATED TO MINUTES</b>
--------------------------------------

RESOLVED, that the minutes of the meeting of the Board of Directors held on **May 19, 2005**, be, and are hereby, approved.

**MINUTES OF THE MEETING OF  
THE BOARD OF DIRECTORS OF  
THE UNIVERSITY OF TEXAS  
INVESTMENT MANAGEMENT COMPANY**

The Board of Directors (the "Board") of The University of Texas Investment Management Company (the "Corporation") convened in an open meeting at 9:10 a.m. on the **19th day of May 2005**, at the Hotel Crescent Court, Dallas, Texas, said meeting having been called by the Chairman, Woody L. Hunt, with notice provided to each member in accordance with the Bylaws. The audio portion of the meeting was electronically recorded.

Participating in the meeting were the following members of the Board:

Woody L. Hunt, Chairman  
Clint D. Carlson  
H. Scott Caven, Jr.  
J. Philip Ferguson  
Erle Nye  
Robert B. Rowling  
Charles W. Tate

thus, constituting a majority and quorum of the Board. Director Mark G. Yudof was not present at the meeting. Also, attending the meeting were Bob Boldt, President, Chief Executive Officer and Chief Investment Officer of the Corporation; Joan Moeller, Secretary and Treasurer of the Corporation; Christy Wallace, Assistant Secretary of the Corporation; Cathy Iberg, Managing Director – Marketable Alternative Investments and Deputy CIO; Bill Edwards, Managing Director of Information Technology; Larry Goldsmith, Managing Director of Public Markets; Andrea Reed, Risk Manager; Sara McMahon and Trey Thompson, Co-Managing Directors – Non-Marketable Alternative Investments of the Corporation; several staff members of the Corporation; Jerry Turner, legal counsel for the Corporation; Keith Brown of the McCombs School of Business at UT Austin; Scott Kelley, Philip Aldridge, Amy Barrett, Charlie Chaffin, and Cathy Swain of U. T. System Administration; Greg Anderson of The Texas A&M University System; Bruce Myers of Cambridge Associates; and Steven Voss of EnnisKnupp. Mr. Hunt called the meeting to order at 9:10 a.m. and announced that this was the Annual Meeting of the Board. Copies of materials supporting the Board meeting agenda were previously furnished to each Director or distributed at the meeting.

**Minutes**

The first matter to come before the Board was approval of the minutes of the meeting of the Board of Directors held on March 31, 2005. Upon motion duly made and seconded, the following resolution was unanimously adopted:

RESOLVED, that the minutes of the meeting of the Board of Directors held on March 31, 2005, be, and are hereby, approved.

**Audit and Ethics Committee Report**

Mr. Nye, Chairman of the Audit and Ethics Committee, reported that the Committee had met previously on April 25, 2005, and discussed and approved the appointment of the firm of Ernst & Young, LLP as the

independent auditor of the Corporation for the year ended August 31, 2005. The Committee recommends that the Board approve the Engagement Letter with Ernst & Young, LLP. Upon motion duly made and seconded; the following resolution was unanimously adopted:

RESOLVED, that the firm of Ernst & Young, LLP be, and is hereby, engaged as the independent auditor of the Corporation for the year ended August 31, 2005, as recommended by the Audit and Ethics Committee.

Mr. Nye continued by stating that the Committee met again today, prior to the Board meeting. At both meetings, enhancements and clarifications to the Audit Charter of the Audit and Ethics Committee were discussed, primarily due to the voluntary compliance with the Sarbanes Oxley Act of 2002 (SOX), which redefines the role of audit committees. Upon motion duly made and seconded, the following resolution was unanimously adopted:

RESOLVED, that the revision of the Audit Charter of the Audit and Ethics Committee be, and is hereby, approved in the form submitted to the Board.

Mr. Hunt gave a review of proposed changes to the Code of Ethics that were discussed at the Committee level, but no Board action was requested by the Committee at this time. Mr. Nye also reported on the implementation progress of relevant provisions of SOX.

### **Appointment of Officers**

The next item to come before the Board was the appointment of officers for the Corporation. Mr. Hunt recommended that Mr. Caven be added as Vice-Chairman of the Board. Upon motion duly made and seconded, the following resolution was unanimously adopted:

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.

<b><u>Name</u></b>	<b><u>Office or Offices</u></b>
Woody L. Hunt	Chairman
H. Scott Caven, Jr.	Vice-Chairman
Mark G. Yudof	Vice-Chairman for Policy
Bob Boldt	President
Cathy Iberg	Managing Director
Bill Edwards	Managing Director
Larry Goldsmith	Managing Director
Sara McMahon	Managing Director
Joan Moeller	Managing Director, Treasurer and Secretary
Andrea Reed	Risk Manager
Trey Thompson	Managing Director
Christy Wallace	Assistant Secretary

### **Designation of Key Employees**

The next item to come before the Board was the designation of Key Employees for the Corporation. Upon motion duly made and seconded, the following resolution was unanimously adopted:

RESOLVED, as required by the Corporation's Code of Ethics, the Board hereby designates, by position, the following key employees of the Corporation.

Bob Boldt	President, Chief Executive Officer and Chief Investment Officer
Cathy Iberg	Managing Director - Marketable Alternative Investments/Deputy CIO
Bill Edwards	Managing Director - Information Technology
Larry Goldsmith	Managing Director – Public Markets Investments
Sara McMahon	Managing Director - Non-Marketable Alternative Investments
Joan Moeller	Managing Director - Accounting, Finance and Administration
Andrea Reed	Risk Manager
Trey Thompson	Managing Director - Non-Marketable Alternative Investments
Greg Cox	Portfolio Manager - Equity Investments
Russ Kampfe	Senior Portfolio Manager - Fixed Income Investments
Harland Doak	Portfolio Manager - Fixed Income Investments
Debbie Childers	Manager of Portfolio Accounting and Operations
Gary Hill	Manager of Investment Reporting
Greg Lee	Manager - Finance and Administration
Christy Wallace	Executive Assistant

#### **External Investment Consultant Report**

Upon request from Mr. Hunt, Ms. Moeller provided to the Board a comprehensive report on Cambridge Associates, the Corporation's external investment consultant, to satisfy the annual requirement in the Delegation of Authority Policy. The report included description of services provided in the contract covering general consulting services, as well as consultant services in the Non-Marketable and Marketable Alternative Investment areas. During discussion, Mr. Boldt, Mr. Myers, Mr. Brown, and members of the Corporation Staff answered the Directors' questions. Upon motion duly made and seconded, with Director Carlson abstaining, the following resolution was adopted:

RESOLVED, that the contract renewal of Cambridge Associates as the external investment consultant, be, and is hereby, approved, subject to negotiation of the contract amount by the President, not to exceed \$1.1 million for the contract period December 2004 through November 2005.

#### **External Counsel Report**

Ms. Moeller continued by presenting a comprehensive report on external counsel, to update the Board on the scope of services provided to the Corporation by Vinson & Elkins, with Jerry Turner as lead counsel. Vinson & Elkins provides counsel on both corporate and investment matters and responds to issues and questions brought forth by Directors and Staff.

#### **Asset Allocation, Risk and Performance**

Mr. Hunt asked Mr. Boldt to report on the Corporation's asset allocation, risk and performance. Mr. Boldt began by discussing policy ranges and policy targets, and then presented the Market Exposure chart showing market exposure and deviations from policy targets within tactical policy ranges. He continued by discussing relative risk analysis, the peer universe and value added. Mr. Boldt reported Cumulative Value

Added under the Corporation's management for periods ended March 31, 2005. Current performance information was also presented. The net performance for the one-month period ended March 31, 2005, for the PUF was -.57% and for the GEF was -.54%, versus benchmark returns of -.50% for each fund. The net performance for the one-year period ended March 31, 2005, for the PUF and GEF were 10.12% and 10.23%, respectively, versus benchmark returns of 9.13% for each fund. The Short Intermediate Term Fund's (SITF) performance was 0.08% versus benchmark return of 0.01% for the one-month period, and was .92% versus benchmark return of -0.38% for the one-year period ended March 31, 2005. Performance for the Short Term Fund (STF) was 0.22% versus 0.24% for its benchmark for the one-month period, and was 1.65% versus benchmark return of 1.67% for the one-year period ended March 31, 2005. Also presented was performance attribution, manager history performance summary, statistics on liquidity, and total derivatives by type and application. Mr. Boldt also gave a report on existing contracts, leases and other commercial arrangements. Mr. Boldt, Mr. Goldsmith, Ms. Iberg, and Mr. Voss answered the Directors' questions.

### **Name Change of Liquidity Committee to Risk Committee**

Mr. Hunt asked Mr. Boldt to present the next item. Mr. Boldt brought forth a suggestion made by Chancellor Yudof regarding changes to the Liquidity Committee. A recommendation by the Corporation's Staff was made to consider a name change from Liquidity Committee to Risk Committee and amendments to the Charter of the Committee relating to additional duties and responsibilities delegated to oversight and monitoring of investment risk management. The existing members of the Liquidity Committee would remain the same. The proposed changes to the Charter would enhance the Charter to reflect the changes regarding investment risk management only, and are not intended to duplicate the enterprise risk management duties of the Audit and Ethics Committee. Mr. Boldt answered the Directors' questions. Upon motion duly made and seconded, the following resolution was unanimously adopted:

RESOLVED, that the Liquidity Committee be renamed the Risk Committee;

AND FURTHER RESOLVED, that the Charter of the Liquidity Committee be amended and renamed the Charter of the Risk Committee, and is hereby, approved in the form submitted to the Board.

Director Nye left the meeting at this time.

### **Asset Allocation Review**

Mr. Hunt asked Mr. Boldt to begin the Asset Allocation Review. Mr. Boldt reviewed the objectives, time frame and issues to address in the asset allocation review process. He presented recommended return and risk assumptions, developing return correlations and recommended constraints. Mr. Boldt continued with details of the specific decision factors and how they are related to the asset allocation review process. Mr. Boldt and Mr. Kelley answered the Directors' questions. The Directors' cast their first straw vote for the decision factors on the form provided by the Staff.

The meeting was recessed at 12:40 p.m.

The Board of the Corporation reconvened in an open meeting at the same meeting location at 1:35 p.m.



**Compensation Committee Report**

Mr. Hunt asked for a report from the Compensation Committee. Committee Chairman Ferguson reported that the Compensation Committee met during the lunch recess and approved the Corporation's Officers' and Other UTIMCO Compensation Program Participants' Base Salaries (except that of the President) for the Fiscal Year 2005-2006 in the amount of \$3,273,500. The Committee also submitted a recommended base salary for the Corporation's President for the 2005-2006 Fiscal Year. Upon motion duly made and seconded, the following resolution was unanimously adopted:

RESOLVED, that the Corporation's President's Base Salary submitted by the Compensation Committee for the Fiscal Year 2005-2006, in the amount of \$495,000, be, and is hereby, approved.

**Asset Allocation Review Continued**

Mr. Hunt asked Mr. Boldt to continue with the asset allocation review process. Mr. Boldt reported that during the recess, Ms. Reed and her staff began calculating the decision factor votes that were taken before lunch. He presented first an unconstrained portfolio, then the asset allocation selected by the Board, providing comparison with candidate policy portfolio options and recommended benchmark changes. While final calculations were compiled, Mr. Hunt asked Mr. Myers to give a short presentation regarding trends, issues that similar institutions are grappling with, and the return opportunities (and risks) that are unique to the current environment. Mr. Boldt then continued by presenting the final asset allocation selections from the Board votes. During discussions on asset allocation, targets and benchmarks, and peer trends, Mr. Boldt, Mr. Myers and other Staff members answered the Directors' questions. The Board requested that the Staff prepare a formal recommendation with the final asset allocation decision including tactical value added, targets, ranges, and actual benchmarks and present it to the Board at a later date for a vote. No action was taken at this time.

There being no further business to come before the Board of Directors, the meeting was adjourned at approximately 3:15 p.m.

Secretary: \_\_\_\_\_  
Joan Moeller

Approved: \_\_\_\_\_ Date: \_\_\_\_\_  
Woody L. Hunt  
Chairman, Board of Directors of  
The University of Texas Investment  
Management Company

TAB 2

## **RESOLUTION RELATED TO RISK COMMITTEE ASSIGNMENT**

BE IT RESOLVED, that, H. Scott Caven, Jr., J. Philip Ferguson, Woody L. Hunt and Charles W. Tate are hereby designated as the Risk Committee of the Board of Directors to serve until the expiration of their term, or until their successor has been chosen and qualified, or until such their earlier death, resignation or removal; and

FURTHER RESOLVED, that H. Scott Caven, Jr. is hereby designated the Chair of the Risk Committee and shall preside at its meetings.

TAB 3

**Agenda Item**  
UTIMCO Board of Directors Meeting  
June 16, 2005

**Agenda Item:** Discussion and Approval of Asset Allocation Policy Recommendation to the Board of Regents

**Developed By:** UTIMCO Staff

**Presented By:** Boldt

**Type of Item:** Action Item for UTIMCO Board; Action Item for Board of Regents

**Description:** The recommended 2005 Asset Allocation Policy sets allocation targets, policy ranges, and policy benchmarks for the Permanent University Fund and the General Endowment Fund.

**Recommendation:** UTIMCO staff recommends approval of the 2005 Asset Allocation Policy as presented.

**Discussion:** The UTIMCO Board recently completed an extensive review of the asset allocation policies of the endowment funds. The process involved developing capital market assumptions, determining restrictions, and using decision factor analyses to reach final decisions on asset allocation policy. Complete details of the process and the resultant recommendations are included in the attached paper entitled "UTIMCO Board 2005 Asset Allocation Review" and in the Asset Allocation Review 2005 notebook prepared for each UTIMCO Board member. The following staff recommendations are the result of this process:

**Agenda Item**  
**UTIMCO Board of Directors Meeting**  
**June 16, 2005**

Recommended 2005 Asset Allocation Policy	Percent of Portfolio (%)		
Asset Category	Policy Targets	Policy Ranges	Benchmark
<b>US Equities</b>	20.0	10 to 30	Wilshire 3000 Index
<b>Global ex US Equities</b>	17.0	10 to 30	Policy target-weighted composite of the sub-indices in this category
Non-US Developed Equity	10.0		MSCI EAFE Index with net dividends
Emerging Markets Equity	7.0		MSCI Emerging Markets Index with net dividends
<b>Hedge Funds</b>	25.0	15 to 30	Policy target-weighted composite of the sub-indices in this category
Directional Hedge Funds	10.0		Combination index: 66.7% S&P Event-Driven Hedge Fund Index plus 33.3% S&P Arbitrage Hedge Fund Index
Absolute Return Hedge Funds	15.0		Combination index: 50% S&P Event-Driven Hedge Fund Index plus 50% S&P Directional/Tactical Hedge Fund Index
<b>Private Capital</b>	15.0	5 to 20	Venture Economics' Periodic IRR Index
Venture Capital	4.0		
Private Equity	11.0		
<b>Inflation Linked</b>	13.0	0 to 20	Policy target-weighted composite of the sub-indices in this category
REITS	5.0		Wilshire Associates Real Estate Securities Index
Commodities	3.0		GSCI Index minus 1%
TIPS	5.0		Lehman Brothers US TIPS Index
<b>Fixed Income</b>	10.0	5 to 15	Lehman Brothers Aggregate Index
<b>Cash</b>	0.0	-10 to 10	91 Day T-Bills

<b>Expected Return&gt;</b>	8.34%
<b>1 Year Downside Risk&gt;</b>	7.6%
<b>Standard Deviation&gt;</b>	10.8%
<b>95% 1 Year VaR&gt;</b>	-13.8%
<b>Illiquidity&gt;</b>	32.4%

**Reference:** 2003 Asset Allocation Policy (Exhibit A attached); "UTIMCO Board 2005 Asset Allocation Review" (attached); Asset Allocation Review 2005 notebook; Liquidity Policy

## **RESOLUTION RELATED TO POLICY PORTFOLIO**

RESOLVED, that the Policy Portfolio Targets, Ranges and Benchmarks, in the form submitted, be approved and adopted by this Corporation's Board of Directors, subject to approval by The University of Texas System Board of Regents.

## UTIMCO Board 2005 Asset Allocation Review

The UTIMCO Board completed the second phase of the asset allocation review at the May 19th Board meeting. The purpose of this paper is to review the process and results and present staff recommendations for the final decision to be made during a telephone Board meeting next week.

### The Recommendation

To begin with the bottom line, the UTIMCO staff recommends the following Policy Portfolio:

Recommended 2005 Asset Allocation Policy	Percent of Portfolio (%)		
Asset Category	Policy Targets	Policy Ranges	Benchmark
<b>US Equities</b>	<b>20.0</b>	<b>10 to 30</b>	Wilshire 3000 Index
<b>Global ex US Equities</b>	<b>17.0</b>	<b>10 to 30</b>	Policy target-weighted composite of the sub-indices in this category
Non-US Developed Equity	10.0		MSCI EAFE Index with net dividends
Emerging Markets Equity	7.0		MSCI Emerging Markets Index with net dividends
<b>Hedge Funds</b>	<b>25.0</b>	<b>15 to 30</b>	Policy target-weighted composite of the sub-indices in this category
Directional Hedge Funds	10.0		Combination index: 66.7% S&P Event-Driven Hedge Fund Index plus 33.3% S&P Arbitrage Hedge Fund Index
Absolute Return Hedge Funds	15.0		Combination index: 50% S&P Event-Driven Hedge Fund Index plus 50% S&P Directional/Tactical Hedge Fund Index
<b>Private Capital</b>	<b>15.0</b>	<b>5 to 20</b>	Venture Economics' Periodic IRR Index
Venture Capital	4.0		
Private Equity	11.0		
<b>Inflation Linked</b>	<b>13.0</b>	<b>0 to 20</b>	Policy target-weighted composite of the sub-indices in this category
REITS	5.0		Wilshire Associates Real Estate Securities Index
Commodities	3.0		GSCI Index minus 1%
TIPS	5.0		Lehman Brothers US TIPS Index
<b>Fixed Income</b>	<b>10.0</b>	<b>5 to 15</b>	Lehman Brothers Aggregate Index
<b>Cash</b>	<b>0.0</b>	<b>-10 to 10</b>	91 Day T-Bills

<b>Expected Return&gt;</b>	8.34%
<b>1 Year Downside Risk&gt;</b>	7.6%
<b>Standard Deviation&gt;</b>	10.8%
<b>95% 1 Year VaR&gt;</b>	-13.8%
<b>Illiquidity&gt;</b>	32.4%

As will be shown later, this recommended policy portfolio is very similar to the current policy portfolio, as our analysis indicated that only very slight practical changes were necessary.

### The Process

The process used in this asset allocation review was very similar to the process used in the 2003 review and consisted of two distinct phases. A detailed overview of the process used in this review can be found under the "Framework" tab in your Asset Allocation Review 2005 notebook. The



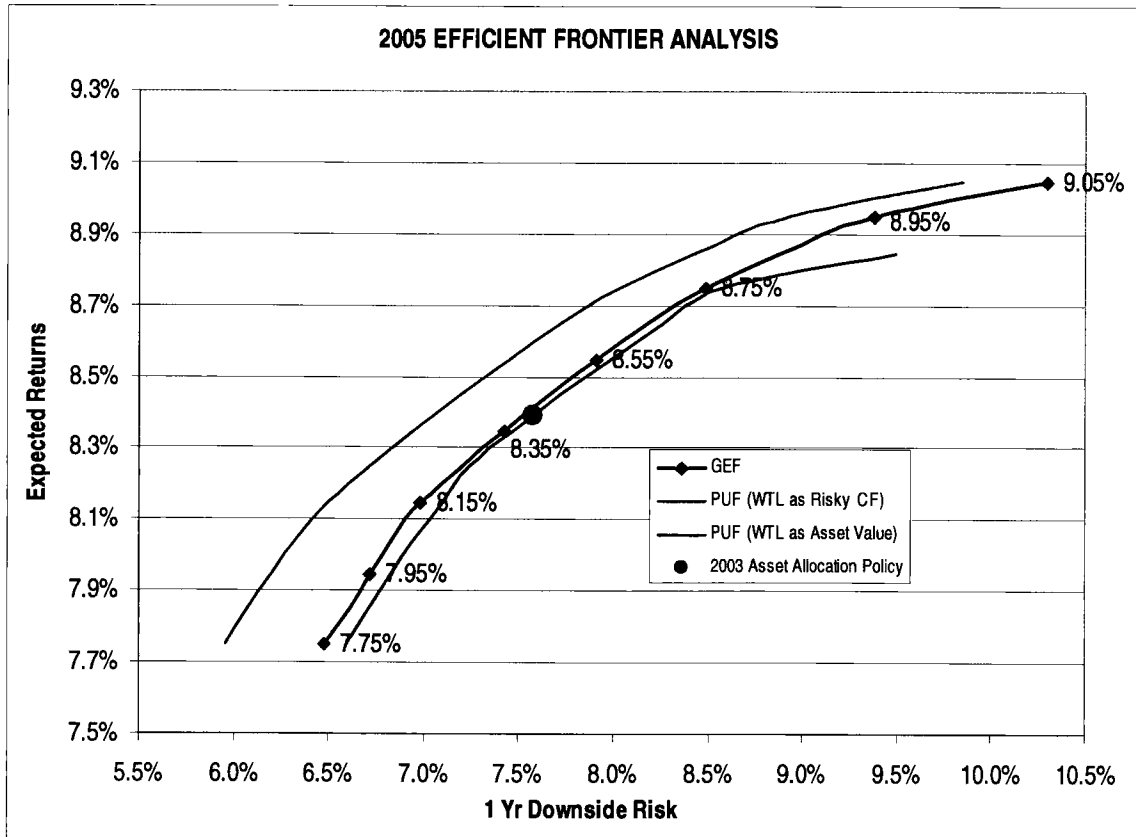
UTIMCO staff, in conjunction with Cambridge Associates and using data from several external consultants and investment firms, presented decision factor alternatives as well as asset category risk, return, correlation data, and restrictions for UTIMCO Board review and approval. Completing phase one of the process, this data was used in internal calculations using UTIMCO-developed optimization and simulation models to derive the information necessary for the decision factor voting process. During the second phase of the process, UTIMCO Board votes in the decision factor process determined the “best” policy portfolio alternative. This “best” alternative was altered during the meeting to take into account additional asset category restrictions not specified during phase one of the process. Final Board approval of the policy alternative to be presented to the Board of Regents will occur in a telephone meeting of the UTIMCO Board.

### **Risk, Return, and Correlation Assumptions**

All risk, return, and correlation assumptions were developed by the UTIMCO staff incorporating data provided by several external consultants and investment managers. The details of the procedure used to develop the return assumptions and all external information are included under the “Assumptions” tab of your Asset Allocation Review 2005 notebook. Both EK and Cambridge agreed that all final assumptions were reasonable.

### **Candidate Policy Portfolios**

A set of candidate policy portfolios was prepared by staff. This candidate set was prepared using all data agreed in phase one with one additional asset category limitation. Hedge funds were constrained to 30% of the portfolio, rather than the 40% limitation set originally. This change was made because of concerns regarding our ability to increase hedge fund positions significantly at this time. Policy portfolio candidates were developed for the General Endowment Fund (GEF), the Permanent University Fund (PUF) with the West Texas Lands cash flow included as a risky cash flow, and the PUF with the West Texas Lands as an asset. These candidate portfolios for the GEF, as well as the current (2003) policy portfolio, are illustrated in the following graph. It is important to note that the current policy portfolio, the 2003 Policy Portfolio, is very near the efficient frontier:



The composition of each candidate policy portfolio is indicated below:

Portfolio	1	3	5	7	9	11	13	14	2003 Policy
<b>GEF with 30% Hedge Fund Constraint</b>									<b>GEF Beg Value (\$ mil):</b> <span style="border: 1px solid black; padding: 2px;">\$4,660</span>
US Equities	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	30.0%	45.0%	20.0%
Global ex US Equities	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Emerging Markets Equities	0.0%	0.0%	0.2%	4.3%	8.3%	13.9%	15.0%	15.0%	7.0%
Absolute Return Hedge Funds	15.0%	15.0%	15.0%	15.0%	15.0%	13.1%	0.0%	0.0%	15.0%
Directional Hedge Funds	8.3%	10.4%	15.0%	15.0%	15.0%	15.0%	15.0%	5.0%	10.0%
Venture Capital	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	6.8%
Private Equity	7.4%	9.7%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	9.0%
REITS	1.4%	2.2%	5.0%	5.0%	5.0%	3.0%	5.0%	0.0%	5.0%
Commodities	3.9%	3.2%	3.3%	2.4%	1.7%	0.0%	0.0%	0.0%	3.0%
Oil & Gas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TIPS	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%
Fixed Income	25.0%	24.5%	16.5%	13.3%	10.0%	10.0%	10.0%	10.0%	10.0%
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Expected Return	7.75%	7.95%	8.15%	8.35%	8.55%	8.75%	8.95%	9.05%	8.39%
1 yr DR	6.5%	6.7%	7.0%	7.4%	7.9%	8.5%	9.4%	10.3%	7.6%
3 yr DR	3.8%	3.9%	4.0%	4.2%	4.5%	4.8%	5.2%	5.7%	4.3%
Vol	8.7%	9.2%	9.8%	10.6%	11.4%	12.3%	13.7%	15.0%	10.8%
95% 1 yr VAR	-10.6%	-11.4%	-11.8%	-12.9%	-14.4%	-16.3%	-18.1%	-21.1%	-13.6%
PVA (1 Yr \$ mil)	\$42.3	\$45.1	\$48.4	\$52.4	\$56.5	\$60.8	\$60.8	\$59.4	\$53.2
Average Future Distribution (\$ mil)	\$254.9	\$257.8	\$260.8	\$264.3	\$268.1	\$272.2	\$277.0	\$280.0	\$265.2
Illiquidity	29.1%	32.6%	35.3%	35.4%	35.4%	34.6%	27.3%	22.0%	32.4%

Treating the PUF with the West Texas Lands cash flow as a contribution, the current approach, would result in policy portfolio candidates for the PUF that are identical to those for the GEF shown above.

### Decision Factors

The UTIMCO Board selected the decision factors to be used in the selection process from a list prepared by staff. For a review of how decision factors are used to select the “best” policy portfolio alternative, please refer to the “Decision Factors” tab in your Asset Allocation Review 2005 notebook.

Board members provided scores for the selected decision factors at the meeting. Only one vote was taken because Board members were satisfied with the results of the first vote. Voting results were very similar for the GEF and PUF; only GEF results are shown below:

2005 General Endowment Fund Decision Factors														
G1	Minimize the possibility that distributions made under the current distribution policy will be “frozen” at the upper bound payout rate of 5.5% in any year within the next 15 years.	3.1%	17.6%	4.3%	0.0%	4.8%	9.1%	10.0%	7.0%	9.0%	16.7%	20.0%	0.0%	0.7
G2	Maximize the possibility of rolling 10 year compound annual GEF real returns exceeding 5.1%.	31.3%	17.6%	8.5%	0.0%	14.3%	13.6%	0.0%	12.2%	15.8%	0.0%	50.0%	0.0%	1.0
G3	Minimize the possibility that the real value of the GEF, after distributions, will decline over future 10 year periods.	15.6%	23.5%	19.1%	0.0%	14.3%	13.6%	20.0%	15.2%	10.4%	33.3%	0.0%	31.8%	0.6
G4	Maximize the possibility that future actual annual GEF returns will exceed the GEF Policy Portfolio return.	7.8%	11.8%	19.1%	15.8%	14.3%	18.2%	10.0%	13.9%	7.5%	0.0%	0.0%	0.0%	1.7
G5a	Maximize the possibility that the GEF will have returns in the top half of the UTIMCO performance compensation peer universe over future 3 year periods.	15.6%	17.6%	21.3%	73.7%	28.6%	13.6%	10.0%	25.8%	28.5%	16.7%	20.0%	45.5%	0.7
G6a	Maximize the possibility that future real returns over rolling 10 year time periods will exceed the 5.1% MAR by 1%, the margin necessary to maintain HEPI purchase power by historical standards.	7.8%	5.9%	10.6%	0.0%	14.3%	9.1%	10.0%	8.2%	21.8%	0.0%	10.0%	0.0%	0.8
G7	Minimize the possibility that the GEF will have a return of minus 20% or less over any future 3 year time period.	15.6%	5.9%	12.8%	10.5%	9.5%	18.2%	20.0%	13.2%	6.8%	33.3%	0.0%	11.4%	0.7
G8	Minimize the exposure of GEF assets to “illiquid” investment options as defined in the GEF Liquidity Policy Statement.	3.1%	0.0%	4.3%	0.0%	0.0%	4.5%	20.0%	4.6%	0.2%	0.0%	0.0%	11.4%	2.0

One of the most important features of the decision factor process is the information the decision factor voting process provides about the thinking of individual Board members, about where consensus and disagreement exist among Board members, and whether continuity in thinking exists from Board to Board in subsequent applications of the process. It is very important to review the individual voting information provided above very carefully to get the greatest benefit from the process. Several points can be derived from a thorough analysis of the votes:

- In aggregate, Board members ranked the decision factors in the following relative order of importance:

2005 General Endowment Fund Decision Factors		
<b>G5a</b>	Maximize the possibility that the GEF will have returns in the top half of the UTIMCO performance compensation peer universe over future 3 year periods.	25.8%
<b>G3</b>	Minimize the possibility that the real value of the GEF, after distributions, will decline over future 10 year periods.	15.2%
<b>G4</b>	Maximize the possibility that future actual annual GEF returns will exceed the GEF Policy Portfolio return.	13.9%
<b>G7</b>	Minimize the possibility that the GEF will have a return of minus 20% or less over any future 3 year time period.	13.2%
<b>G2</b>	Maximize the possibility of rolling 10 year compound annual GEF real returns exceeding 5.1%.	12.2%
<b>G6a</b>	Maximize the possibility that future real returns over rolling 10 year time periods will exceed the 5.1% MAR by 1%, the margin necessary to maintain HEPI purchasing power by historical standards.	8.2%
<b>G1</b>	Minimize the possibility that distributions made under the current distribution policy will be "frozen" at the upper bound payout rate of 5.5% in any year within the next 15 years.	7.0%
<b>G8</b>	Minimize the exposure of GEF assets to "illiquid" investment options as defined in the GEF Liquidity Policy Statement.	4.6%

The most important factor by a wide margin was the "competitiveness" factor, G5a. Three of the seven voting Board members rated this factor most important, more than any other factor. A related "competitiveness" factor, factor G4, ranked third indicating the overall importance Board members placed on being competitive.

The least important factor, also by a wide margin, was the liquidity factor. This represents a significant change from the 2003 vote as will be discussed later.

- The "Dispersion Factor" shown in the far right column of the vote summary table indicates the statistical degree of disagreement among all the votes cast in the process for each decision factor (statistically, this measure is the standard deviation of the votes for each factor divided by the mean vote for each factor). The liquidity factor had the widest disagreement among all voters, followed by the competitiveness factor G4. Disagreement was approximately equal, and lower, in all other factors.

- Using a statistical measure (sum of the squared deviations across all decision factors) to measure the deviation in voting results between the Board averages and the averages of all other voting individuals or groups, the UTIMCO staff votes were most closely aligned with Board votes, followed in order of declining agreement with Board positions by Dr. Brown, Cambridge Associates, and Ennis Knupp.

As was indicated earlier, an important benefit of the decision factor process is the ability to compare concrete Board opinion over time. The table below compares Board votes in the 2003 and 2005 reviews:

2005 General Endowment Fund Decision Factors		2005 Votes				2003 Votes			
<b>G1</b>	Minimize the possibility that distributions made under the current distribution policy will be "frozen" at the upper bound payout rate of 5.5% in any year within the next 15 years.	8.1%	5.5%	7.0%		10.5%	10.5%	10.5%	
<b>G2</b>	Maximize the possibility of rolling 10 year compound annual GEF real returns exceeding 5.1%.	8.0%	17.8%	12.2%		15.3%	19.7%	17.2%	
<b>G3</b>	Minimize the possibility that the real value of the GEF, after distributions, will decline over future 10 year periods.	14.5%	16.1%	15.2%		17.0%	19.3%	18.0%	
<b>G4</b>	Maximize the possibility that future actual annual GEF returns will exceed the GEF Policy Portfolio return.	13.0%	15.0%	13.9%		6.8%	9.9%	8.2%	
<b>G5a</b>	Maximize the possibility that the GEF will have returns in the top half of the UTIMCO performance compensation peer universe over future 3 year periods.	32.5%	16.8%	25.8%		18.2%	12.3%	15.6%	
<b>G6a</b>	Maximize the possibility that future real returns over rolling 10 year time periods will exceed the 5.1% MAR by 1%, the margin necessary to maintain HEPI purchasing power by historical standards.	7.5%	9.2%	8.2%		8.9%	13.8%	11.1%	
<b>G7</b>	Minimize the possibility that the GEF will have a return of minus 20% or less over any future 3 year time period.	11.5%	15.5%	13.2%		7.9%	8.7%	8.3%	
<b>G8</b>	Minimize the exposure of GEF assets to "illiquid" investment options as defined in the GEF Liquidity Policy Statement.	5.0%	4.0%	4.6%		15.2%	5.9%	11.1%	

Although some differences should be expected since changes in Board membership have occurred, the following points are interesting:

- The Regents and Chancellor group were consistent in voting the competitiveness factor as the most important in both 2003 and 2005, but the margin of difference versus other factors increased significantly this year. Independent directors were consistent as well, continuing to vote factors G2 and G3 as very significant, but actually ranked competitiveness factor G5a lower this year.
- Independent directors were consistent in ranking the liquidity factor (G8) as the least important factor, while Regents and Chancellor position on the liquidity factor changed significantly, moving from fourth most important in 2003 to least important in 2005.
- The "dispersion factor" measure indicates the degree of disagreement among voting Board members over the importance of each factor. Board disagreement was highest last year over the issue of competitiveness as embodied in factor G5a; this year disagreement was

highest in the relative importance of liquidity while that factor fell significantly in relative importance.

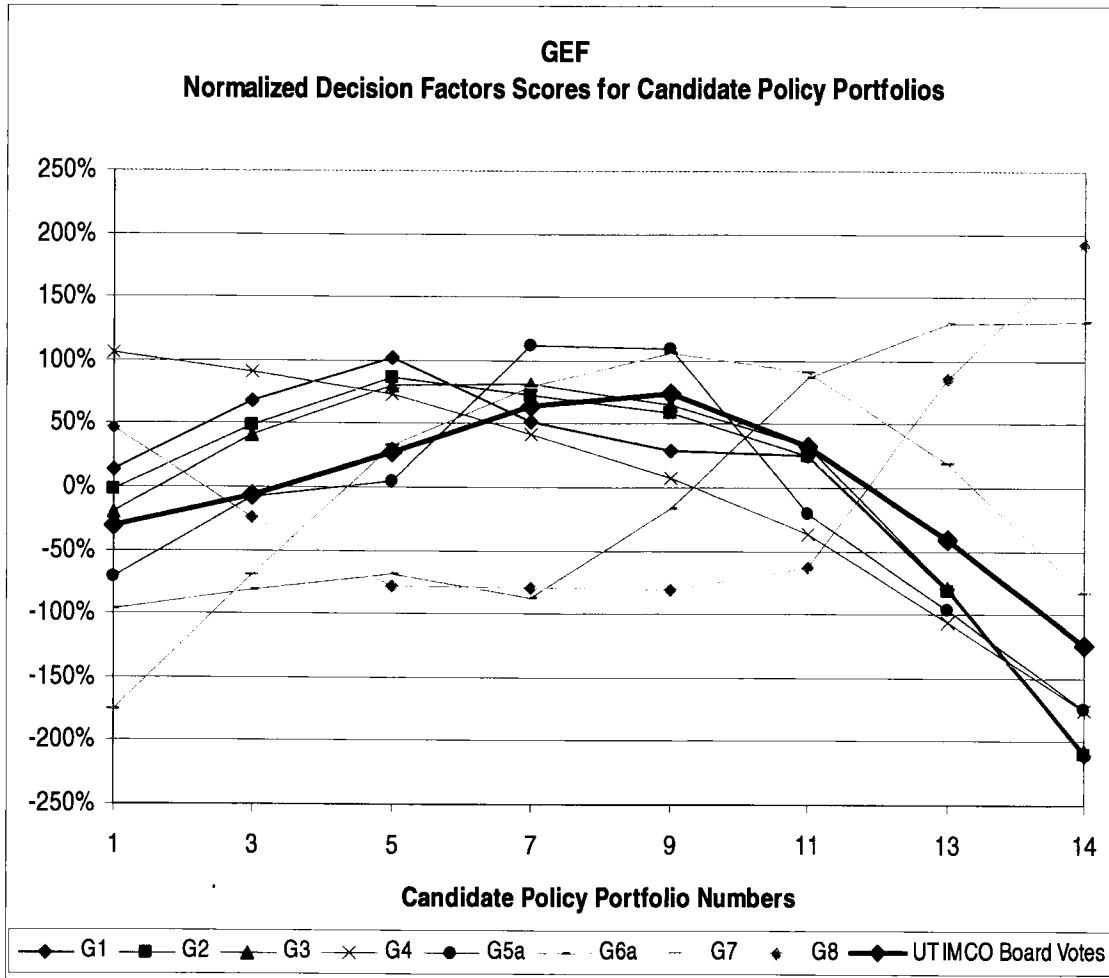
- The full comparisons of 2003 and 2005 factor rankings are shown below:

General Endowment Fund Decision Factors			General Endowment Fund Decision Factors		
<b>G5a</b>	Maximize the possibility that the GEF will have returns in the top half of the UTIMCO performance compensation peer universe over future 3 year periods.	25.8%	<b>G3</b>	Minimize the possibility that the real value of the GEF, after distributions, will decline over future 10 year periods.	18.0%
<b>G3</b>	Minimize the possibility that the real value of the GEF, after distributions, will decline over future 10 year periods.	15.2%	<b>G2</b>	Maximize the possibility of rolling 10 year compound annual GEF real returns exceeding 5.1%.	17.2%
<b>G4</b>	Maximize the possibility that future actual annual GEF returns will exceed the GEF Policy Portfolio return.	13.9%	<b>G5a</b>	Maximize the possibility that the GEF will have returns in the top half of the UTIMCO performance compensation peer universe over future 3 year periods.	15.6%
<b>G7</b>	Minimize the possibility that the GEF will have a return of minus 20% or less over any future 3 year time period.	13.2%	<b>G6a</b>	Maximize the possibility that future real returns over rolling 10 year time periods will exceed the 5.1% MAR by 1%, the margin necessary to maintain HEPI purchasing power by historical standards.	11.1%
<b>G2</b>	Maximize the possibility of rolling 10 year compound annual GEF real returns exceeding 5.1%.	12.2%	<b>G8</b>	Minimize the exposure of GEF assets to "illiquid" investment options as defined in the GEF Liquidity Policy Statement.	11.1%
<b>G6a</b>	Maximize the possibility that future real returns over rolling 10 year time periods will exceed the 5.1% MAR by 1%, the margin necessary to maintain HEPI purchasing power by historical standards.	8.2%	<b>G1</b>	Minimize the possibility that distributions made under the current distribution policy will be "frozen" at the upper bound payout rate of 5.5% in any year within the next 15 years.	10.5%
<b>G1</b>	Minimize the possibility that distributions made under the current distribution policy will be "frozen" at the upper bound payout rate of 5.5% in any year within the next 15 years.	7.0%	<b>G7</b>	Minimize the possibility that the GEF will have a return of minus 20% or less over any future 3 year time period.	8.3%
<b>G8</b>	Minimize the exposure of GEF assets to "illiquid" investment options as defined in the GEF Liquidity Policy Statement.	4.6%	<b>G4</b>	Maximize the possibility that future actual annual GEF returns will exceed the GEF Policy Portfolio return.	8.2%

- The largest increase in rank this year was in factor G4, which jumped from last place in 2003 to third place this year. Again, this is an indication of the importance Board members placed this year on competitiveness as factor G4 emphasizes a policy portfolio with sufficient PVA opportunity so that our active management decisions can generate returns in excess of the policy portfolio.

This analysis illustrates the power of the decision factor process. Without the structure of the decision factor process, it would have been impossible to isolate these issues of significant differences in opinion within the UTIMCO Board. Just as the average scores for the decision factors obscures the significant differences in opinion, general discussion at the Board meeting would have been even less helpful in isolating issues. But, by dissecting the results, we know what the issues are and how segments of the UTIMCO Board feel about those issues.

Using the average scores for the decision factors across Board members, the process highlights the most attractive alternatives from the candidate policy portfolios:



The decision factor process directed our attention to policy portfolio alternative 9 as the most attractive portfolio, with alternative 7 as a close second. Absent any other considerations, one of the two alternatives highlighted below would best fit Board interpretation of the endowment funds goals and objectives:

Portfolio	1	3	5	7	9	11	13	14	2003 Policy	
<b>GEF with 30% Hedge Fund Constraint</b>					<b>GEF Beg Value (\$ mil):</b>					<b>\$4,660</b>
US Equities	20.0%	20.0%	20.0%	20.0%	20.0%	20.0%	30.0%	45.0%	20.0%	
Global ex US Equities	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	
Emerging Markets Equities	0.0%	0.0%	0.2%	4.3%	8.3%	13.9%	15.0%	15.0%	7.0%	
Absolute Return Hedge Funds	15.0%	15.0%	15.0%	15.0%	15.0%	13.1%	0.0%	0.0%	15.0%	
Directional Hedge Funds	8.3%	10.4%	15.0%	15.0%	15.0%	15.0%	15.0%	5.0%	10.0%	
Venture Capital	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	6.0%	
Private Equity	7.4%	9.7%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	9.0%	
REITS	1.4%	2.2%	5.0%	5.0%	5.0%	3.0%	5.0%	0.0%	5.0%	
Commodities	3.9%	3.2%	3.3%	2.4%	1.7%	0.0%	0.0%	0.0%	3.0%	
Oil & Gas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
TIPS	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.0%	
Fixed Income	25.0%	24.5%	16.5%	13.3%	10.0%	10.0%	10.0%	10.0%	10.0%	
Cash	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
Expected Return	7.75%	7.95%	8.15%	8.35%	8.55%	8.75%	8.95%	9.05%	8.39%	
1 yr DR	6.5%	6.7%	7.0%	7.4%	7.9%	8.5%	9.4%	10.3%	7.6%	
3 yr DR	3.8%	3.9%	4.0%	4.2%	4.5%	4.8%	5.2%	5.7%	4.3%	
Vol	8.7%	9.2%	9.8%	10.6%	11.4%	12.3%	13.7%	15.0%	10.8%	
95% 1 yr VAR	-10.6%	-11.4%	-11.8%	-12.9%	-14.4%	-16.3%	-18.1%	-21.1%	-13.6%	
PVA (1 Yr \$ mil)	\$42.3	\$45.1	\$48.4	\$52.4	\$56.5	\$60.8	\$60.8	\$59.4	\$53.2	
Average Future Distribution (\$ mil)	\$254.9	\$257.8	\$260.8	\$264.3	\$268.1	\$272.2	\$277.0	\$280.0	\$265.2	
Illiquidity	29.1%	32.6%	35.3%	35.4%	35.4%	34.6%	27.3%	22.0%	32.4%	

However, there were additional constraints introduced at the Board meeting, the most important of which was a limitation on the total hedge fund allocation to the current 25% of the portfolios, rather than the 30% limitation used in the modeling. In addition, the Board and staff concluded that the venture capital target produced by the optimization was probably not practical, at least in the short run, and that a lower target would be more appropriate. As a result, the Board reached the following tentative policy portfolio and asked staff to develop a final recommendation:



Asset Category	Percent of Portfolio	
	2003 Policy Portfolio	2005 Policy Portfolio Version 1
US Equities	20.0	20.0
Global Equities ex US	10.0	12.0
Emerging Markets Equities	7.0	7.0
Absolute Return Hedge Funds	15.0	15.0
Equity Hedge Funds	10.0	10.0
Venture Capital	6.0	3.0
Private Equity	9.0	12.0
REITs	5.0	5.0
Commodities	3.0	3.0
TIPs	5.0	3.0
Fixed Income	10.0	10.0
Cash	0.0	0.0

Expected Return>	8.39%	8.38%
1 Year Downside Risk>	7.6%	7.8%
Standard Deviation>	10.8%	11.1%
95% 1 Year VaR>	-13.6%	-14.2%
Illiquidity>	32.4%	32.5%

Interestingly, the tentative new policy portfolio was statistically inferior to the current policy portfolio, offering slightly lower expected returns at higher expected risk. Of course, this change is due entirely to the lowered target for venture capital, which was done for mostly practical reasons. After further review and analysis, the UTIMCO staff developed a slightly different version of the new policy portfolio as shown below:

Asset Category	Percent of Portfolio		
	2003 Policy Portfolio	2005 Policy Portfolio Version 1	2005 Policy Portfolio Staff Version
US Equities	20.0	20.0	20.0
Global Equities ex US	10.0	12.0	10.0
Emerging Markets Equities	7.0	7.0	7.0
Absolute Return Hedge Funds	15.0	15.0	15.0
Equity Hedge Funds	10.0	10.0	10.0
Venture Capital	6.0	3.0	4.0
Private Equity	9.0	12.0	11.0
REITs	5.0	5.0	5.0
Commodities	3.0	3.0	3.0
TIPs	5.0	3.0	5.0
Fixed Income	10.0	10.0	10.0
Cash	0.0	0.0	0.0

Expected Return>	8.39%	8.38%	8.34%
1 Year Downside Risk>	7.6%	7.8%	7.6%
Standard Deviation>	10.8%	11.1%	10.8%
95% 1 Year VaR>	-13.6%	-14.2%	-13.8%
Illiquidity>	32.4%	32.5%	32.4%

The primary differences between the staff recommendation and the tentative policy portfolio developed at the Board meeting are:

1. Rather than increasing global non US equities versus the 2003 Policy Portfolio, staff prefers to maintain the TIPS position at the 2003 policy level. TIPS provide significant direct inflation protection, diversification, and stability to the portfolios while developed international markets face significant issues which would not seem to warrant an increased strategic exposure.
2. Staff believes that with disclosure policy settled by new legislation, a 4% target for venture capital is feasible. The 1% increase in the venture target was taken from the private equity target so as to maintain the overall target of 15% for Private Capital.

As you can see in the table above, with these recommended changes, the 2005 Policy Portfolio would be very similar to the 2003 Policy. While expected return would be slightly lower, risk levels would be approximately equal to the current policy and below the levels implicit in the tentative policy portfolio. Illiquidity would also be unchanged from the 2003 policy level.

As indicated earlier in this report, the full staff Policy Portfolio recommendation is:

Recommended 2005 Asset Allocation Policy		Percent of Portfolio (%)		
Asset Category	Policy Targets	Policy Ranges	Benchmark	
<b>US Equities</b>	<b>20.0</b>	<b>10 to 30</b>	Wilshire 3000 Index	
<b>Global ex US Equities</b>	<b>17.0</b>	<b>10 to 30</b>	Policy target-weighted composite of the sub-indices in this category	
Non-US Developed Equity	10.0		MSCI EAFE Index with net dividends	
Emerging Markets Equity	7.0		MSCI Emerging Markets Index with net dividends	
<b>Hedge Funds</b>	<b>25.0</b>	<b>15 to 30</b>	Policy target-weighted composite of the sub-indices in this category	
Directional Hedge Funds	10.0		Combination index: 66.7% S&P Event-Driven Hedge Fund Index plus 33.3% S&P Arbitrage Hedge Fund Index	
Absolute Return Hedge Funds	15.0		Combination index: 50% S&P Event-Driven Hedge Fund Index plus 50% S&P Directional/Tactical Hedge Fund Index	
<b>Private Capital</b>	<b>15.0</b>	<b>5 to 20</b>	Venture Economics' Periodic IRR Index	
Venture Capital	4.0			
Private Equity	11.0			
<b>Inflation Linked</b>	<b>13.0</b>	<b>0 to 20</b>	Policy target-weighted composite of the sub-indices in this category	
REITS	5.0		Wilshire Associates Real Estate Securities Index	
Commodities	3.0		GSCI Index minus 1%	
TIPS	5.0		Lehman Brothers US TIPS Index	
<b>Fixed Income</b>	<b>10.0</b>	<b>5 to 15</b>	Lehman Brothers Aggregate Index	
<b>Cash</b>	<b>0.0</b>	<b>-10 to 10</b>	91 Day T-Bills	

<b>Expected Return&gt;</b>	8.34%
<b>1 Year Downside Risk&gt;</b>	7.6%
<b>Standard Deviation&gt;</b>	10.8%
<b>95% 1 Year VaR&gt;</b>	-13.8%
<b>Illiquidity&gt;</b>	32.4%

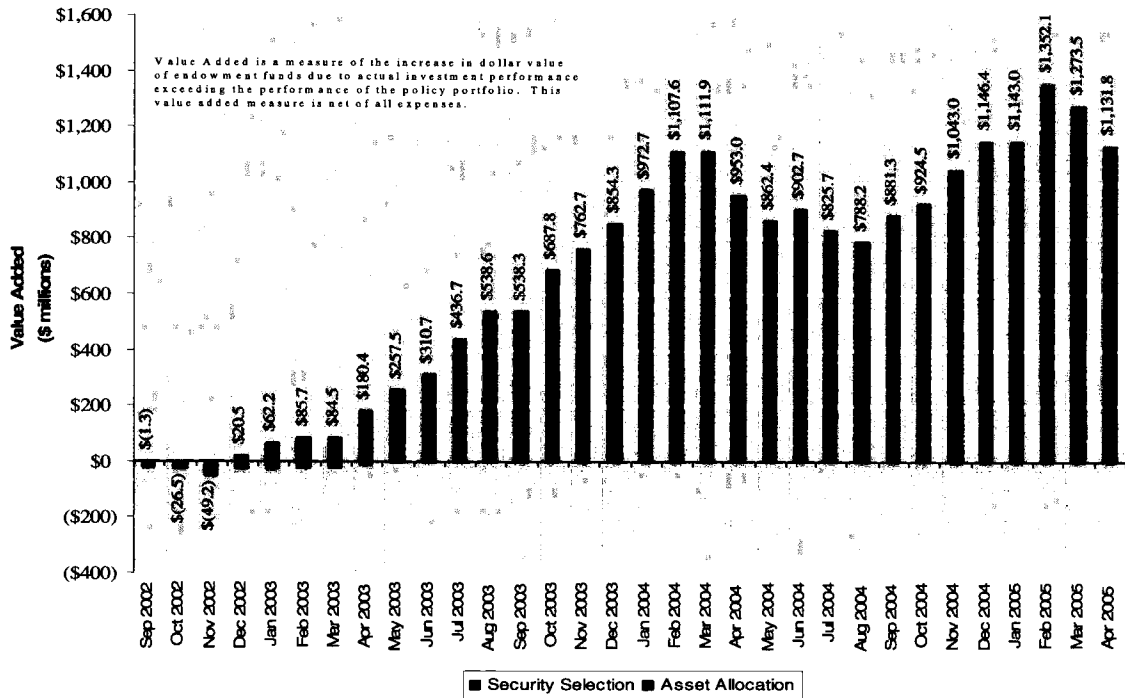
The full recommendation includes not only targets for all asset categories, but policy ranges and asset category benchmarks as well. The most significant changes versus the 2003 policy are:

1. Policy targets have been set at the individual asset category level and at higher level categories such as "Hedge Funds" and "Private Capital."
2. Policy ranges have been set at the higher level categories rather than at the lower individual asset category level. This was done to provide additional tactical management latitude for staff while maintaining strategic risk control. Policy compliance monitoring would be done at the higher level asset categories shown in bold print in the table above in order to minimize transaction costs. At the same time, policy ranges for US Equity, Global Equities, and Fixed Income have been narrowed from the ranges in the 2003 Policy.
3. Policy ranges for Hedge Funds and Private Capital have been changed to allow a tactical margin both above and below the allocation target.
4. The policy range for cash has been widened and includes the provision for a negative cash position to facilitate risk management of our derivative positions. This change is consistent with our change in focus to emphasize both risk exposures and dollar exposures in managing the endowment portfolios rather than focusing solely on dollar exposures. With

risk management as a primary focus, it may be necessary from time to time to maintain derivatives positions in which positions are not 100% cash collateralized (the accounting treatment for this situation is to show a negative cash position) in order to produce the appropriate risk exposure. The negative cash position does not imply any actual borrowing.

5. Higher level asset categories have been changed by moving REITs out of the US Equities category and TIPS out of the Fixed Income Category, and moving both, along with Commodities, into a higher level "Inflation Linked Assets" category.
6. Benchmark performance for each higher level category (except Private Capital) would simply be the policy target weighted combination of the sub-indices comprising the category.
7. The Hedge Fund benchmarks have been changed from the "proxy" benchmarks used previously to newly available investable benchmarks now offered by Standard & Poors. Information on these new benchmarks is attached to this report. Staff has selected combinations of the sub-indices offered by S&P that we feel best reflect the hedge fund strategies utilized in each of our hedge fund categories.

One of the questions raised at the Board meeting was whether the policy ranges should be narrowed significantly as is the case at many public pension funds. Staff does not agree with that approach. Flexibility is essential in responding to changing capital market conditions, and policy ranges that are too tight simply do not allow value-added in responding to unusual market conditions. But what is "too tight" and what evidence do we have that staff has any skill in using policy range flexibility to add value? We believe the new UTIMCO team has used the flexibility in recent policy ranges responsibly to add value over the trying market environment of the past three years. As the chart below indicates, of the more than \$1.1 billion in cumulative value-added earned by UTIMCO over the past three years, approximately \$200 million has come from tactical asset allocation decisions.



More importantly, all the tactical value added came from the more liquid asset categories where tactical shifts are more readily made:

General Endowment Fund  
Performance Attribution

	Asset Allocation		Return		
	Annualized From September 1, 2002 to April 30, 2005		Annualized From September 1, 2002 to April 30, 2005		
	Benchmark	GEF	Benchmark	GEF	
Cash and Cash Equivalents			1.45%	1.42%	-0.03%
U.S. Equities			14.41%	14.74%	0.32%
Global Equities			18.98%	19.91%	0.61%
Equity Hedge Funds			5.58%	6.61%	0.11%
Absolute Return Hedge Funds			5.06%	16.29%	-0.11%
Commodities			18.05%	21.65%	-0.14%
Fixed Income			4.98%	8.17%	0.22%
Total Marketable Securities			11.55%	15.33%	0.98%
Private Capital			5.32%	7.88%	-0.01%
Total Fund			10.64% (2)	14.47%	0.97%

(1) The Total Attribution reports which asset classes contributed to the Fund's outperformance or underperformance relative to the Endowment Policy Portfolio return.  
(2) The benchmark that the Fund is measured against is the Endowment Policy Portfolio. The Endowment Policy Portfolio return is the sum of the weighted benchmark returns for each asset class comprising the Endowment Policy Portfolio.

As the table above indicates, value-added from tactical allocation shifts in the GEF (yellow highlighted numbers) totaled 97 basis points per year compounded over the three year period since September 2002. Note also that if adjustments are made to exclude the asset categories where tactical returns shown are due to positions that staff had very little ability to manipulate such as Private Capital and Hedge Funds, the annual value added was about 109 basis points. While

the tactical value added is considerably less than the 286 basis points per year we added by manager and security selection over the three years, it is very important to keep in mind that the differential between the performance of the median \$1 billion and above endowment and the performance of the top quartile of that group was only 119 basis points over the past three years! In this context it is obvious why the ability to make tactical moves is so important.

While this is not iron-clad evidence of skill, it certainly does show that staff decisions have added value and also that value added from our tactical decisions, while episodic, does not fluctuate wildly, thus adding significant additional volatility to the endowment portfolios. We believe the policy ranges in our recommendation strike an appropriate balance between policy control and the flexibility necessary to add value through tactical allocation decisions on a periodic basis.

### **Looking Ahead**

We have now established a process which can be used in future reviews in order to establish continuity, to involve Board members in all key decisions along the way rather than just in the final decision at the end of the process, to get the best input possible from external sources on risk, return, and correlation assumptions, to use the latest risk measurement tools to more accurately assess the risks in the endowment portfolios, to use decision factors to improve our understanding of what the key issues were in the decision and how those issues were viewed by each individual Board member, and to ultimately make a decision that will leave Board members satisfied that they had made the right decision. We have a building database on Board thinking from the decision factor process which should stimulate further Board discussions in future meetings.

An important part of the final review of the process we have just completed is to consider possible future changes to the policy portfolios. In order to evaluate possible future changes to the policy allocation we did an analysis of the hypothetical impact of adding portfolio categories widely used by our endowment peers that we do not currently employ. The criteria we used determined which new asset categories most improved the return/risk efficiency of the endowment portfolios relative to the recommended 2005 Policy Portfolio allocations. New asset categories that would most improve the potential of the endowment portfolios (in order of decreasing impact) are:

1. Private Real Estate
2. Timber
3. Oil & Gas

Changes in existing categories that would most improve portfolio efficiency would be an increase in hedge funds and an increase in commodities. This analysis further highlights the importance of the "Inflation Linked" asset category as an important diversification, and risk reduction, element of the endowment portfolios. This is an area that deserves significant future attention.

**STANDARD  
& POOR'S**

# S&P Hedge Fund Index

## Balancing Investability and Representation

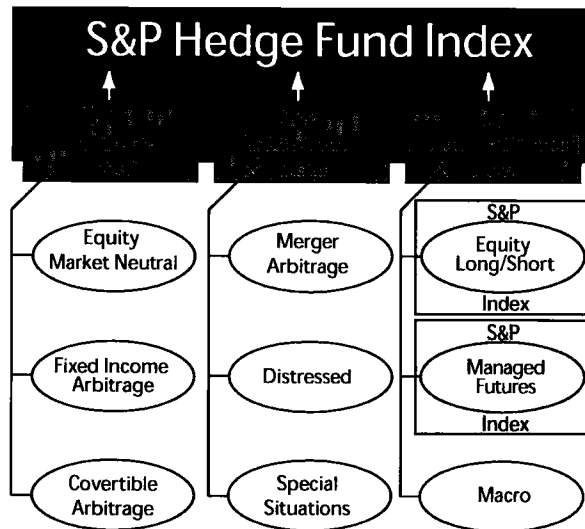
A hallmark of Standard & Poor's index construction is to both adequately represent the respective market as well as provide that the underlying constituents are liquid and investable. In developing the S&P Hedge Fund Index (S&P HFI), Standard & Poor's consulted with outside experts, extensively analyzed hedge fund databases, and reviewed academic literature to determine that 30-40 hedge funds is an optimal number to closely, yet efficiently, represent the hedge fund universe.

The composition of the S&P HFI is based on a rigorous and well-documented methodology that entails both quantitative and qualitative screens. The index currently has 41 constituents and is divided into three styles, for three sub-indices. Each of these is further divided into three strategies. These nine strategies are weighted equally, although the number of funds in each may vary. This is consistent with the objective of creating a representative index reflecting the range of strategies open to hedge fund investors that diversifies both hedge fund strategy risk and manager risk over time. Furthermore, an equally-weighted index avoids the tendency to favor funds attracting flows of capital chasing recent results.

## A Rigorous Fund Selection Process

Standard & Poor's extensively analyzes a universe of selected hedge fund databases and other industry sources and assesses potential candidates based on a defined set of criteria. Only funds with sufficient assets and tenure within the nine strategies are considered. These funds are screened quantitatively using a series of correlation-based analyses to mitigate self-reporting bias and confirm that each fund exhibits behavior conforming to its particular strategy.

To provide for investability, prospective constituent funds are reviewed for their willingness to participate in the index, provide the necessary transparency, and guarantee investment capacity.



Furthermore, each fund undergoes an extensive due diligence process by Albourne Partners Limited, a leading hedge fund consultant, to determine whether it appears that it has sufficient risk and operating controls, is strategy conforming and has a high-quality fund management team.

## KEY BENEFITS

- **Diversifying** - Tends to have a low correlation to equity and bond market indices, but a high correlation to existing hedge fund indices
- **Representative** - Represents the core hedge fund universe through an equal weighting of nine major hedge fund strategies
- **Investable** - At inclusion, index constituents allocate a minimum capacity of \$100 million
- **Standardized** - Provides a consistent approach in terms of due diligence and valuation
- **Timely** - Priced on a daily basis via managed accounts run by index constituents
- **Transparent** - Index constituents, daily pricing, changes, and methodology publicly available

For further information on the S&P Hedge Fund Index series, please contact:

Email: [index\\_services@standardandpoors.com](mailto:index_services@standardandpoors.com)

## Phone:

New York: + 1 212 438 2046  
Frankfurt: + 49 6192 968 311  
Hong Kong: + 852 2532 8083  
London: + 44 20 7176 8388  
Madrid: + 34 91 1803232  
Milan: + 39 02 72111245  
Paris: + 33 1 4075 7791  
Sydney: + 61 2 9255 9874  
Tokyo: + 81 3 4550 8568  
Toronto: + 1 416 507 4104

For more information, please visit our website: [www.sp-hedgefundindex.com](http://www.sp-hedgefundindex.com)

Standard & Poor's commenced calculating values of the S&P HFI in October 2002, the S&P MFI in January 2003, and S&P ELSI in April 2004. The S&P Hedge Fund Pro Forma Indices returns are derived by Standard & Poor's from data received from the fund companies themselves to the extent available back to January 1998 for the S&P HFI and S&P MFI and April 1999 for S&P ELSI. Standard & Poor's can not verify the validity or accuracy of this data and does not recommend any investment or other decision based on their results or on any other index calculation. The funds included were constituents of the S&P HFI as of September 2002, or the S&P MFI as of December 2002, or of S&P ELSI as of March 2004. Past performance is not necessarily indicative of future results. Not reviewed or approved by the NASD.

April 29, 2005

**Daily Indicative S&P HFI Series Return Summary (as of Apr 29, 2005)**

Index	MTD	QTD	YTD	ITD <sup>1,2,3</sup>
S&P Hedge Fund Index	(0.85%)	(0.85%)	(1.05%)	16.03%
S&P Arbitrage Index	(0.61%)	(0.61%)	(0.54%)	4.94%
S&P Event-Driven Index	(0.49%)	(0.49%)	0.69%	27.36%
S&P Dir./Tactical Index	(1.48%)	(1.48%)	(3.30%)	16.14%
S&P Managed Futures Index	(6.51%)	(6.51%)	(12.31%)	(0.16%)
S&P Equity Long/Short Index	(1.93%)	(1.93%)	(1.66%)	0.04%
S&P ELSI US	(1.96%)	(1.96%)	(2.38%)	1.65%
S&P ELSI Global Ex-US	(1.90%)	(1.90%)	(1.03%)	(1.68%)

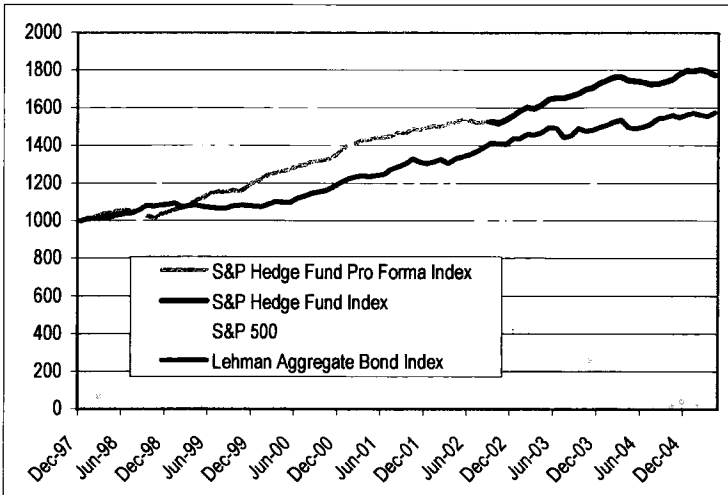
1 = Inception (09/30/02) to Date for S&P HFI and three sub-indices.

2 = Inception (12/31/02) to Date for S&P MFI.

3 = Inception (03/31/2004) to Date for S&P ELSI and two sub-indices.

A daily update of this Index Return Summary is on [www.sp-hedgefundindex.com](http://www.sp-hedgefundindex.com), as well as pro forma returns, methodology, announcements, and constituents.

**Cumulative Returns of S&P HFI and Pro Forma Index with S&P 500 and Lehman Agg.**



**Finalized Returns of S&P HFI and Pro Forma Index**

	Jan %	Feb %	Mar %	Apr %	May %	Jun %	Jul %	Aug %	Sep %	Oct %	Nov %	Dec %	Year %
2005	(0.18)	0.40	(0.54)	(1.03)									(1.35)
2004	0.92	0.96	0.04	(0.96)	(0.35)	(0.28)	(0.66)	0.18	0.57	0.65	1.76	1.08	3.95
2003	1.76	1.09	(0.34)	1.22	1.82	0.47	(0.04)	0.68	0.68	1.40	0.44	1.44	11.12
2002	0.56	(0.32)	1.13	0.49	0.87	(0.20)	(0.90)	0.29	0.25	(0.48)	1.13	1.29	4.14
2001	2.42	0.70	1.19	0.24	0.82	0.15	0.43	1.32	(0.29)	1.46	(0.32)	0.89	9.36
2000	1.27	1.97	0.79	0.73	0.73	1.52	0.31	1.41	0.34	0.34	1.29	2.03	13.48
1999	1.32	1.06	1.10	2.83	1.06	1.92	0.91	(0.28)	0.78	(0.46)	2.06	2.11	15.35
1998	0.78	1.21	1.75	0.21	1.01	0.45	(0.22)	(2.09)	(0.32)	(1.37)	2.03	1.04	4.49

**S&P HFI and Pro Forma Statistics**

	Actual	Pro Forma
Annualized	to Apr-05	to Sep-02
Return	5.97%	9.34%
Std. Deviation	2.85%	3.21%
Sharpe Ratio (3.5%)	0.84	1.29
Sortino Ratio (3.5%)	1.44	2.27

**Profit/Loss (Jan 1998 - Apr 2005)**

Consecutive Profitable Periods		
Run-Up	Start	End
27.11%	Nov-99	Aug-01
14.06%	Nov-98	Jul-99
6.76%	Aug-03	Mar-04

Drawdown Analysis		
Drawdown	Peak	Valley
(3.95%)	Jun-98	Oct-98
(2.24%)	Mar-04	Jul-04
(1.57%)	Feb-05	Apr-05

**S&P HFI Constituent Manager Descriptives**

	Median	Average
Assets (\$ mil)	700	1378
Tenure (years)	8.9	10.1
Staff (FT Equivalent)	35	47

\*Pertains only to each manager's assets and tenure in the relevant S&P HFI strategy. As of February, 2005

**Correlations to Other Asset Classes and Similar Indices (January 1998 - Apr 2005)**

	S&P Hedge Fund Index	S&P Arbitrage Index	S&P Event-Driven Index	S&P Directional/Tactical Index	S&P Managed Futures Index	S&P Equity Long/Short Index	S&P 500	S&P SmallCap 600	Lehman Aggregate Bond Index	Merrill High Yield Master II	CSFB/Tremont Investable Index	HRFX Equal Wght Strategies Index	MSCI Hedge Invest Index	Dow Jones Hedge Fund BPI-AX
S&P Hedge Fund Index	1.00													
S&P Arbitrage Index	0.51	1.00												
S&P Event-Driven Index	0.73	0.29	1.00											
S&P Directional/Tactical Index	0.68	-0.08	0.17	1.00										
S&P Managed Futures Index	0.32	-0.06	-0.28	0.77	1.00									
S&P Equity Long/Short Index	0.67	0.08	0.66	0.51	0.06	1.00								
S&P 500	0.28	-0.08	0.56	0.06	-0.31	0.56	1.00							
S&P SmallCap 600	0.49	0.01	0.66	0.26	-0.17	0.72	0.73	1.00						
Lehman Aggregate Bond Index	0.10	0.02	-0.16	0.26	0.36	-0.15	-0.23	-0.18	1.00					
Merrill High Yield Master II	0.49	0.24	0.69	0.08	-0.23	0.37	0.47	0.52	0.08	1.00				
CSFB/Tremont Investable Index	0.83	0.16	0.53	0.73	0.50	0.80	0.11	0.46	0.34	0.38	1.00			
HRFX Equal Wght Strategies Index	0.95	0.19	0.87	0.88	0.64	0.82	0.77	0.68	0.27	0.66	0.91	1.00		
MSCI Hedge Invest Index	0.83	0.44	0.47	0.64	0.44	0.55	0.10	0.34	0.26	0.21	0.64	0.94	1.00	
Dow Jones Hedge Fund BPI-AX	0.83	0.56	0.89	0.65	0.50	0.81	0.76	0.67	-0.16	0.58	0.78	0.86	0.84	1.00



# ENNISKNUPP

## Summary of Ennis Knupp + Associates' Thinking on UTIMCO's Proposed 2005 Asset Allocation Review Process

EnnisKnupp was asked by System staff to review the process proposed by UTIMCO staff for the 2005 asset allocation review, and provide recommendations for action to the Regents. This memorandum presents our thinking on the process as described so far. The recommendations most relevant to the current review process for the Regents are summarized below:

### Recommendations to Regents:

1. Change the time period referred to in Decision Factor 4 (outperform the Policy Portfolio) to five years from the current one year.
2. Assign a lesser weight to Decision Factor 5 (outperform peers) in favor of other decision factors.
3. Eliminate, or assign zero weights to, Decision Factor 6 (2% safety margin over Minimal Acceptable Return of 5.1% after inflation) and Decision Factor 7 (avoid 20% nominal loss).
4. Handle Decision Factor 8 (illiquidity) through explicit constraints, eliminating the factor or assigning zero weight to it.
5. Proceed with the asset category allocation constraints proposed by UTIMCO staff, with the exception of Cash and hedge funds. Change the lower limit on Cash to 0% from the current -10%. Constrain the total target hedge fund allocation (Absolute Return Hedge Funds and Equity Hedge Funds combined) to 25% of assets, the maximum allocation allowed by current policy.
6. Add a constraint on maximum allocation to total illiquid investments that is consistent with the Liquidity Policy (currently 30%).
7. Proceed with asset class risk, return and correlation assumptions proposed by UTIMCO staff.

# ENNISKNUPP

## MEMORANDUM

**To:** Cathy Swain, CFA, Director of Investment Oversight  
Philip Aldridge, Associate Vice Chancellor for Business Affairs  
**The University of Texas System**

**From:** Mike Sebastian  
Steve Voss

**Date:** May 4, 2005

**Re: 2005 Asset Allocation Review**

EnnisKnupp was asked by System staff to provide our thinking on UTIMCO's proposed approach to the 2005 asset allocation review. This memorandum provides that analysis. We focus on proposals made by UTIMCO in the 2005 asset allocation review process as it has been described so far, relating to proposed decision factors, asset category return assumptions, definitions of asset classes and their corresponding benchmarks, incorporation of the West Texas Lands into the asset allocation process, and constraints. Many of these topics touch on larger investment policy issues, which we look forward to assisting the Board of Regents and System staff in further examining.

Specific recommendations for the Regents are included, in boxes, below (on pages 4, 5 and 6).

### Decision factors

UTIMCO staff has proposed a set of "decision factors" to be used to evaluate policy portfolio alternatives. Decision factors are a way to quantify, in the asset allocation modeling process, certain investment objectives and risks associated with the endowments. Ideally, the decision factors would directly correspond with the investment objectives set by the Board of Regents, and the risks perceived as relevant by the Board of Regents. At a minimum, the decision factors should be consistent with the investment objectives and risk tolerance of the endowments.

The investment objectives of the Permanent University Fund (PUF) and the General Endowment Fund (GEF) are defined in the Investment Policy Statements as follows:

"[T]o preserve the purchasing power of fund assets and annual distributions by earning an average annual real return over rolling ten-year periods or longer at least equal to the target distribution rate of such fund plus the annual expected expense [currently 5.1%]."

"[T]o generate a fund return in excess of the Policy Portfolio benchmark and the median return of the universe of the college and university endowments with assets greater than \$1 billion as reported by Cambridge Associates over rolling five-year periods or longer."

The Investment Policy Statements clearly define the investment objectives of the endowments: to preserve purchasing power while outperforming the Policy Portfolio (through active management) and peers (presumably through a combination of asset allocation policy and active management). It also defines the relevant risk; the risk of a decline in the real value of the endowments.

We provide an analysis of the decision factors proposed by UTIMCO, below. For reference, the decision factors are described in the Asset Allocation Review 2005 binder presented to the UTIMCO Board of Directors, under the "Decision Factors" tab.

*Factors P1 and G1*

"Minimize the possibility that distributions made at the current policy rate of 4.75% of average assets would remain flat or fall over any future 1 year period."

*Factors P2 and G2*

"Maximize the possibility that future rolling 10 year compound annual real returns in the PUF [GEF] will exceed 5.1%."

*Factors P3 and G3*

"Minimize the possibility that the real value of the PUF [GEF], after distributions at the current 4.75% distribution policy rate, will decline over future 10 year periods."

These factors are consistent with the investment objectives described in the Investment Policy Statements. We recommend that they be implemented as proposed by UTIMCO.

*Factors P4 and G4*

"Maximize the possibility that actual PUF [GEF] returns will exceed the PUF [GEF] Policy Portfolio return in future one year periods."

This factor is consistent with one of the secondary investment objectives (outperforming the Policy Portfolio) described in the Investment Policy Statements. However, we recommend changing the time period referred to in this factor to five years, from the current one year, to be consistent with the time period specified in the Investment Policy Statements.

#### *Factors P5 and G5*

“Maximize the possibility that the PUF [GEF] will have future returns in the top half of the universe consisting of the endowments we [UTIMCO staff] have identified as competitors for the “5 Best Managed” endowment slots over future 3 year periods.”

This factor is consistent with the one of the secondary investment objectives (outperforming peers) specified in the Investment Policy Statements. It is important for decision-makers to be aware of the performance and practices of peers, and we recognize that the University of Texas System competes with other educational institutions for faculty, students and other resources, and that there is a desire to use the endowments as a tool for maintaining competitiveness.

However, we believe that the endowments are best viewed as an engine for competition by virtue of achieving their spending goals, rather than by exceeding the investment performance of the endowments of other institutions. To the extent that the endowments do compete on terms of investment performance, competitiveness is best achieved through the successful *implementation* of investment policy (asset allocation within allowable ranges, selection of outside investment managers, internal investment management) by UTIMCO staff. It is less appropriate as a driver of long-term asset allocation policy.

We recommend that competitiveness, as described in Factor 5, remain a decision factor, but that its relative weight in the process be downplayed in favor of factors (such as Factors 1 through 4) that relate directly to the financial situation and goals of the System and the endowments.

#### *Factors P6 and G6*

“Maximize the possibility that future annual real returns over rolling 10 year time periods will exceed the 5.1% Minimum Acceptable Return (MAR) by a safety margin of at least 2%.”

Earning the MAR is the primary investment objective of the endowments, and the level at which the MAR is set will have a profound effect on the expected risk and return of the chosen target asset allocation. While achieving a “safety margin” of 2% would clearly be a favorable outcome, the margin represents a significant additional hurdle not prescribed by investment policy, and would likely result in a risk level greater than that indicated by policy. As a result, using this decision factor, especially if it is weighted significantly in importance, will likely have the result of increasing the risk of the recommended target asset allocation.

*Factors P7 and G7*

"Minimize the possibility that the PUF [GEF] will have a return of -20% or less over any future 3 year time period."

Sensitivity to a 20% nominal loss in a three year time period is not a risk described in the endowments' investment policies. If such losses are of concern, to the extent that risk of such loss might rule out a target asset allocation that otherwise is expected to achieve the existing investment objectives, then the Investment Policy Statements should be revised to add avoidance of nominal losses as an investment objective.

*Factors P8 and G8*

"Minimize the exposure of the PUF [GEF] assets to "illiquid" investment positions as currently defined in the PUF [GEF] Liquidity Policy Statement."

If there is a desire to limit illiquidity in the endowment portfolios (pursuant to a liquidity policy), a more effective way to do so would be to impose a hard constraint (maximum target allocation to illiquid investments) in the modeling process, rather than including illiquidity as an undesirable outcome in the decision factors.

**Recommendation to Regents:** Proceed with Factors 1-3 (described above) as proposed by UTIMCO. Change the time period referred to in Factor 4 (outperform the Policy Portfolio) to five years from the current one year. Assign a lesser weight to Factor 5 (outperform peers) in favor of other decision factors. Eliminate, or assign zero weights to, Factor 6 (2% safety margin over MAR) and Factor 7 (avoid 20% nominal loss). Handle Factor 8 (illiquidity) through explicit constraints (see "Constraints" section below), eliminating it or assigning zero weight to it as a decision factor.

**Asset category return assumptions**

UTIMCO followed a process of developing capital markets modeling assumptions that included a survey of outside firms, a "building block" approach for two asset classes (U.S. equity and fixed income), and internal judgment and analysis on the part of UTIMCO staff. The process appears to be essentially the same as that used in 2004, and yields similar assumptions.

The appropriateness of UTIMCO's process is difficult to assess, since little detail is provided. In many cases, assumptions appear to be heavily influenced by the judgment of UTIMCO staff. This is reasonable, given UTIMCO's charge as the investment manager of the endowment assets, and the wide latitude given UTIMCO to change asset allocation (within the allowable ranges) based on staff's outlook for the relative prospects of those asset classes. And the assumptions, in nearly all cases, are similar to those produced by our capital markets modeling process, which we believe to be industry best practice.

We compare UTIMCO's 2005 return assumptions with EnnisKnupp's in the Appendix of this memo. Though they are not shown in the Appendix, UTIMCO's risk (standard deviation) and correlation assumptions are generally similar to EnnisKnupp's.

***Recommendation to Regents: Proceed with assumptions proposed by UTIMCO staff.***

#### **Asset categories and benchmarks**

A set of asset categories are defined in Exhibit A of the Investment Policy Statements, and in UTIMCO's Asset Allocation Review 2005 report. We reviewed the asset categories and benchmarks, and believe they are reasonable, with the exception of the Commodities benchmark, which is currently the Goldman Sachs Commodities Index (GSCI) minus 1 percent. The rationale for lowering the performance hurdle by 1 percentage point for this asset category was that, due to implementation costs associated with futures contracts, the actual return of the GSCI is unachievable. However, commodities futures are not the only investment in the Commodities asset class—approximately one-third of the Commodities asset class in the PUF and GEF is invested in the Pacific Investment Management Company (PIMCO) Real Return strategy, which is an actively managed portfolio (unlike commodities futures contracts), that does not seek to match the return of the GSCI. We also note that the commodities futures investment has generated a return 4.9 percentage points higher than the GSCI over the since-inception period (March 31, 2002). We recommend changing the commodities benchmark to simply be the GSCI.

***Recommendation to Regents: Change the Commodities benchmark, on a going-forward basis, to the Goldman Sachs Commodities Index (GSCI), from the GSCI minus 1 percent.***

#### **Incorporating West Texas lands into asset allocation policy decision-making**

It is our understanding that, historically, cash flows from the West Texas Lands have been treated as contributions to the PUF. UTIMCO staff has proposed integrating the West Texas Lands into the asset allocation modeling process for the PUF. Given the presence of the Lands as a significant and growing long-term asset, we recommend that they be factored into the asset allocation review process. We note that, given the size of the asset and its unique risk and return characteristics, the integration could have a profound impact on the optimal composition of the remainder of the portfolio. This impact will depend heavily on assumptions made about the future risk and return of the West Texas Lands. Additionally, integration will almost certainly result in the PUF and the GEF having different asset allocation policies. It is also conceivable that the addition of the West Texas Lands will change the risk and return profile of the PUF to a degree that comparison with a peer group of endowment funds may lose relevance.

We do not have sufficient information at this time to make further conjectures about how integrating the West Texas Lands might affect the PUF. We would need, specifically, assumptions regarding the future returns and risks projected by UTIMCO for these assets. We would further recommend that these assumptions, in addition to the standard approval process involving the UTIMCO Board of Directors, be reviewed by the consultants of both UTIMCO and the Board of Regents.

**Recommendation to Regents:** Direct UTIMCO to integrate the West Texas Lands in the asset allocation review process. Both UTIMCO's and the Board of Regents' consultants should participate in the process of developing assumptions regarding the investment characteristics of this asset.

### Constraints

In a quantitative asset allocation modeling process, constraints can limit the usefulness of analysis results, since they lead the process away from what is determined to be optimal, based on the inputs, and toward a solution that is pre-determined by the user who sets the constraints. However, constraints are also frequently necessary, to exclude portfolios that are unacceptable to the decision-makers.

UTIMCO staff has proposed a set of constraints, which differ from those used in the 2004 asset allocation review in that they are slightly more permissive. We believe that the constraints are generally appropriate, with the exception of the potential for leverage at the asset allocation policy level implied by the -10% proposed minimum for Cash, and the potential for a substantial further increase in the endowments' target allocation to hedge funds. We believe that allowing economic leverage as a matter of long-term asset allocation policy in a public endowment with the disclosure and reporting requirements faced by UTIMCO is inappropriate. We also note that the current maximum allowable exposure to hedge funds in the endowment portfolios is 25% of total assets (per Exhibit A of the Investment Policy Statements), compared with an average actual allocation among large endowments of approximately 20%.<sup>1</sup> Under the proposed constraints, total target allocation to hedge funds (including absolute return and equity hedge funds) could reach 45% of total assets. We recommend limiting the total hedge fund target allocation to its current allowable maximum of 25%.

As discussed in the section of this memo relating to the decision factors, we believe that the most appropriate way to address liquidity in the asset allocation review process is to add a constraint on total allocation to illiquid investments that is consistent with the Liquidity Policy.

**Recommendation to Regents:** Proceed with the constraints proposed by UTIMCO staff, with the exception of Absolute Return Hedge Funds, Equity Hedge Funds and Cash. Change the lower limit on Cash to 0% from the current -10%. Constrain the total target hedge fund allocation to 25%. Add a constraint on maximum allocation to total illiquid investments that is consistent with the Liquidity Policy. Currently, the Liquidity Policy specifies an upper limit of a 30% allocation to illiquid investments.

---

<sup>1</sup> Average asset allocation of total assets (equal-weighted) among endowments with assets greater than \$1 billion, per the 2004 NACUBO Endowment Study.

Appendix

Asset Category Return Assumptions Comparison

Asset Category	UTIMCO 2005 Proposed Assumption	EnnisKnupp Assumption
U.S. Equity	8.50%	8.79%
Global Equity	8.50	8.80
Emerging Markets Equity	10.50	10.01
Absolute Return Hedge Funds	7.00	5.10
Directional Hedge Funds	8.00	7.73
Venture Capital	14.00	14.12
REITs	7.50	8.10
Commodities	6.00	4.08
TIPS	5.50	5.02
Fixed Income	5.75	5.79
Cash	4.00	4.86
Inflation Rate	3.00	2.46



# ENNISKNUPP

## MEMORANDUM

**To:** Board of Regents  
The University of Texas System

**From:** Mike Sebastian  
Steve Voss

**Date:** June 9, 2005

**Re:** Recommendations on Asset Class Definitions, Benchmarks and Ranges

We were asked by System staff to provide our recommendations for the Investment Policy Statements (specifically, Exhibit A) regarding asset class definitions, benchmarks and allowable policy ranges. *(We do not present any recommended changes to the asset allocation policy targets.)* This memorandum provides a summary of those recommendations. Our starting point was the policy portfolio and benchmarks proposed by UTIMCO staff. For allowable policy ranges, our starting point was the current set of allowable ranges as described in the Investment Policy Statements.

### Summary of Recommended Changes

The major recommended changes to the proposed asset class definitions and benchmarks, and the current allowable ranges, are as follows:

- **Eliminate asset class aggregations.** Assign one target, allowable range and benchmark to each individual asset class, for the purposes of simplicity and eliminating redundancies. Remove the categories of Global Ex-U.S. Equities (combines Developed Markets and Emerging Markets Equities), Total Hedge Funds (combines Absolute Return and Equity Hedge Funds), Total Private Capital (combines Venture Capital and Private Equity) and Inflation Linked (combines REITs, Commodities and TIPS). If combined benchmarks for multiple categories are needed for some purpose, we recommend simply combining those category benchmarks at the policy weights.
- **Narrow the allowable ranges around the U.S. Equities and Fixed Income targets.** The current wide ranges around these targets imply a desire for UTIMCO to engage in market timing. Market timing is an endeavor that has been shown to be largely unsuccessful for investors, and we question whether UTIMCO would desire to deviate from asset allocation policy targets to such a degree.
- **Reduce the maximum allowable allocations to the Absolute Return and Equity Hedge Fund categories.** In the current Investment Policy Statement, the category of Total Hedge Funds is assigned an allowable range of allocations of 15% to 25%. We recommend the elimination of this

category, as described above, thus removing the constraint on total hedge fund investments. We recommend reducing the allowable maximum allocation to Equity Hedge Funds to 12%, and the allowable maximum allocation to Absolute Return Hedge Funds to 17%, for a combined maximum allowable hedge fund allocation of 29%.

- **Allow the allocations to Venture Capital and Private Equity to be zero.** The illiquidity of these asset classes, and fluctuations in the availability of investment opportunities, suggest that it would be appropriate for UTIMCO to be allowed to maintain a zero allocation in these areas, on a temporary basis, when circumstances suggest that it would be the best course of action.
- **Change the Commodities benchmark from GSCI -1% to GSCI.** Our understanding of the rationale for subtracting 1% from the Goldman Sachs Commodity Index return is that the reduction reflects the cost of passively investing in the GSCI using futures contracts. However, 1) no other asset class has a recommended benchmark that accounts for the cost of passive implementation, 2) the endowments' commodities investments consist of investments other than GSCI futures, and 3) we believe that the return of the GSCI is achievable, net of costs.
- **Reconsider the relationship between Fixed Income guidelines and benchmark.** We do not recommend a change from the proposed benchmark in this area. We note, however, that the Investment Policy Statements indicate that up to 50% of the endowments' fixed income allocation may be invested in non-dollar-denominated bonds, and up to 15% may be invested in emerging market debt. If investments in non-U.S. bonds are to be a strategic part of the endowments' investment programs, then a benchmark that includes such securities should be considered for Fixed Income (or non-U.S. bonds should be added as a separate asset category.)

#### **Asset Class Definitions and Benchmarks**

In assessing the asset class definitions and benchmarks proposed by UTIMCO, we applied the following principles:

In general, asset class definitions and benchmarks should be:

- As uncomplicated as possible
- Free of redundancies
- Consistent with one another
- Consistent with the process used to arrive at the recommended asset allocation targets

In addition, benchmarks should:

- Capture the entire investment opportunity set
- Be free of biases
- Investable, where possible

### Allowable Ranges

At the time of the writing of this memorandum, UTIMCO's proposed allowable asset allocation ranges were not available. We based our analysis on the current allowable ranges as described in Exhibit A of the Investment Policy Statements. We applied the following principles and observations in our analysis:

- Policy ranges represent allowable deviations around a long-term target, and so should be roughly symmetrical around the target
- Market timing has been shown to be a generally unsuccessful investment strategy
- We observe that UTIMCO has represented itself as a "benchmark-sensitive" investor
- Illiquid asset classes require the most flexibility to be "out of the market" when investment opportunities are scarce

In order for the policy targets to have relevance, actual allocations must remain close to the targets in the long term. The primary purpose of the ranges around the targets is to allow for fluctuations in actual allocations that occur as a result of investment returns. Allowable ranges are not meant, as a matter of standard practice, to serve simply as boundaries for the placement of long-term targets.

### EnnisKnupp Recommended Exhibit A of the Investment Policy Statements

Asset Category	Policy Targets (UTIMCO Recommended)	Policy Ranges (EK Recommended)	Benchmarks (EK Recommended)
Traditional U.S. Equities	20.0%	15-25%	Russell 3000 Index
Non-U.S. Developed Equity	12.0	7-17	MSCI EAFE Index
Emerging Markets Equity	7.0	4-10	MSCI Emerging Markets Index
Equity Hedge Funds	10.0	5-12	50% S&P Event Driven Index + 50% S&P Directional/Tactical Index
Absolute Return Hedge Funds	15.0	7-17	66.7% S&P Event Driven Index + 33.3% S&P Arbitrage Index
Venture Capital	3.0	0-6	Venture Economics Periodic IRR Index
Private Equity	12.0	0-15	Venture Economics Periodic IRR Index
REITs	5.0	2-8	Dow Jones Wilshire Real Estate Securities Index
Commodities	3.0	1-5	GSCI
TIPS	3.0	1-5	Lehman Brothers U.S. TIPS Index
Fixed Income	10.0	5-15	Lehman Brothers Aggregate Bond Index
Cash	0.0	0-5	90-Day T-Bills

The benchmark (Policy Portfolio) for the total endowment consists of the asset class benchmarks combined at the target percentage allocations.

TAB 4

**DRAFT**  
**The University of Texas System**  
**Investment Performance Reporting Error Correction Policy**

Effective Date of Policy: \_\_\_\_\_  
Date Approved by UTIMCO Board: \_\_\_\_\_  
Date Approved by The U. T. System Board of Regents: \_\_\_\_\_

---

**Purpose**

The purpose of this Investment Performance Reporting Error Correction Policy (“Error Correction Policy”) is to ensure continued consistency and accuracy of reported performance data by providing guidance to handle all types of errors in presentation of investment performance statistics. The performance data subject to this policy are relied upon by UTIMCO directors and advisors, The U.T. System Board of Regents, System Administration staff, development officers, donors, legislators, consultants, third party verifiers, auditors, members of the public, and other consumers of investment performance information for funds under the management and control of the University of Texas System Board of Regents (“U.T. System Board”). This Investment Performance Reporting Error Correction Policy addresses situations where errors are discovered and the process for documenting and correcting errors.

**Scope**

This policy applies to all types of errors in presentation of actual and benchmark investment performance reporting for fund portfolios (endowment and operating), asset classes, and third party investment manager portfolios. It defines:

1. Situations in which investment performance data (including benchmarks) reported by UTIMCO must be retroactively changed;
2. How such restatement should be documented; and
3. When and for whom restated numbers should be republished.

A determination that a chosen externally published benchmark for a given asset class, portfolio, fund, or composite in the investment performance presentation is inappropriate, inconsistent with investment goals and policies, or no longer suitable for any reason, as opposed to misstated, miscalculated, or presented incorrectly, does not constitute an “error” for purposes of this policy. The U.T. System Board will make the final determination as to whether or not a proposed restatement and republication should be made in cases where a benchmark is replaced for reasons other than an actual error.

**Types of Errors in Presentation of Investment Performance Data**

Presentation errors that must be corrected and that could result in restatement and republication of investment performance data include, but are not limited to, the following types:

- Reconciliation errors
- Calculation errors

- Valuation errors
- Benchmark reporting presentation errors
- Other types of errors.

**Reconciliation errors** (differences) between UTIMCO's records and raw data from an outside source, such as a third party investment manager or custodian, can result in an erroneous calculation of a rate of return and/or risk statistics. Errors can be caused by, but are not limited to:

- Missed trades, processed against the wrong account or not correctly registered on one or more systems.
- Mishandling of corporate actions, missed completely or simply not processed correctly.
- Missed cash flows.
- Differences in carrying values for securities that aren't actively traded or for which manual prices are entered.
- Exchange rate discrepancies.

**Calculation errors** are defined as inaccuracies in numerical calculations resulting from a mathematical, accounting, statistical, or software error.

**Valuation errors** can result from pricing problems for securities that aren't actively traded or for which market prices aren't available.

**Benchmark reporting presentation errors** may result when index returns (customized or externally published) are weighted incorrectly for policy portfolios.

**Other types of errors** in presentation of investment performance statistics include, but are not limited to, incorrect allocation of portfolios to composites/ funds, misstated composite dispersion, or other disclosures and/or presentation statistics.

### **Definitions**

**Restatement** shall be defined as the correction of data presented in monthly and/or quarterly investment performance reports, accompanied by a detailed footnote explaining the date, the reasons for, and the impact of the change.

**Republishing** is defined as making best efforts to redistribute corrected data to parties who may have relied upon the incorrect information, including but not limited to UTIMCO directors and advisors, U.T. System Board and staff, Development Officers, Donors, legislators, consultants, third party verifiers, auditors, and members of the public. A disclosure, including the date, reasons for, and impact of the change, must be provided to attempt to ensure that relevant parties fully understand the change.

**Risk statistics** include, but are not limited to, standard deviation of returns and downside risk measures for asset classes, portfolios, and/or funds.

**Materiality:** Materiality in terms of the size and impact of an error will vary for different asset types (e.g., equities, fixed income, emerging markets), reporting periods (e.g., monthly, quarterly, or annual returns), and qualitative circumstances. Assessing materiality of an error in performance measurement requires that management, their custodians, consultants, independent verifiers, and auditors consider not only the size of the misstatement but also the qualitative significance of the information to the investment performance report taken as a whole. Situations may arise where a reasonable person would conclude that a matter is material even though it is quantitatively small relative to the financial statements or investment performance reporting taken as a whole. Examples of considerations that may make a relatively “small” investment performance reporting error material include but are not limited to the following:

- If the error arises from an estimate, what degree of imprecision is inherent in the estimate?
- Does the misstatement hide a failure to meet goals or expectations for the enterprise?
- Does the misstatement mask a change in earnings or other trends?
- Does the error change a loss into income, or vice versa?
- Does the error concern a component, fund, asset class, or other portion of the business that has been identified as playing a significant role in operations?
- Does the error affect compliance with investment policy statements, regulatory or other contractual requirements?
- Does the error have the effect of increasing management compensation – e.g., by satisfying requirements for the award of bonuses or other forms of incentive compensation?
- Does the error involve concealment of an unlawful transaction?

**Aggregating and Netting Errors:** In determining whether multiple errors cause the investment performance to be materially misstated, errors should be evaluated both individually and in the aggregate in light of quantitative and qualitative factors to judge whether they materially misstate the investment performance overall.

### **The Error Correction Process**

The Error Correction Process strives to provide simple, unambiguous steps to correct and document errors, and to disseminate the corrected information to all interested parties. The process includes the following steps:

1. **Report the error immediately to the Chief Compliance Officer**, together with the calculation of its impact.
2. **Determine if the error is material:** The Chief Compliance Officer will be responsible to recalculate the investment performance presentation and risk statistics to estimate the impact of the error and to gather all relevant facts and circumstances that could influence the determination of materiality.
3. **Document the original figure, corrected figure, and action taken.** UTIMCO staff must disclose the date, the reasons for, and the impact of any change to attempt to ensure that relevant parties who may have relied on the investment performance reporting fully understand it. Potentially relevant parties who require disclosure of corrected performance data include but are not limited to UTIMCO directors and advisors, U.T. System Board and

staff, Development Officers, Donors, legislators, consultants, third party verifiers, auditors, and members of the public.

4. ***Restate and republish the affected data.*** When an error, as defined above, is discovered in the presentation of Actual Investment Performance Data and/or Benchmark Investment Performance Data for an individual portfolio, an asset class, or at the total fund level, the data will be restated and republished immediately to all parties who may have relied upon the incorrect information, unless all three of the following circumstances apply:
  - a. A correction will have little or no impact on previously reported numbers because the error is calculated to be “immaterial” based on both quantitative measures and qualitative facts and circumstances as described above; **and**
  - b. The error will be captured and corrected in an immediately subsequent reporting period; **and**
  - c. Risk statistics derived from investment performance returns will not be materially impacted.
  
5. ***Benchmark Change:*** In the event of a benchmark change, if a custom benchmark or combination of multiple benchmarks is used, staff must also provide written disclosure to all relevant parties, describing the benchmark creation and re-balancing process.