TEACHER RETIREMENT SYSTEM OF TEXAS MEETING
BOARD OF TRUSTEES
AND
INVESTMENT MANAGEMENT COMMITTEE

(Mr. Barth, Committee Chair; Mr. Colonnetta; Mr. Kelly; Mr. McDonald; & Ms. Sissney, Committee Members)

AGENDA

July 20, 2012 – 9:00 a.m.
TRS East Building – Boardroom

1. Consider the approval of the proposed minutes of the June 7, 2012 committee meeting – Todd Barth.

2. Receive a review of external manager fees – Dale West.

NOTE: The Board of Trustees (Board) of the Teacher Retirement System of Texas will not consider or act upon any item before the Investment Management Committee (Committee) at this meeting of the Committee. This meeting is not a regular meeting of the Board. However, because a quorum of the Board may attend the Committee meeting, the meeting of the Committee is also being posted as a meeting of the Board out of an abundance of caution.

Tab 1

Minutes of the Investment Management Committee

June 7, 2012

The Investment Management Committee of the Board of Trustees of the Teacher Retirement System of Texas met on June 7, 2012 in the boardroom located on the Fifth Floor of the TRS East Building offices at 1000 Red River Street, Austin, Texas. The following committee members were present:

Todd Barth, Chair
Joe Colonnetta
David Kelly
Eric McDonald
Nanette Sissney

A quorum of the committee was present. Others present:

Karen Charleston, TRS Trustee
Anita Palmer, TRS Trustee
Chris Moss, TRS Trustee
Brian Guthrie, TRS
Britt Harris, TRS
Ken Welch, TRS
Conni Brennan, TRS
Jerry Albright, TRS
Chi Chai, TRS
Eric Lang, TRS
Jase Auby, TRS
Ronnie Jung
Dr. Keith Brown, Investment Advisor
Steve Huff, Fiduciary Counsel
Brady O'Connell, Hewitt EnnisKnupp
Steve Voss, Hewitt EnnisKnupp
Tathata Lohachitkul, Albourne
Ted Melina Raab, Texas AFT
Bill Barnes, Texas Retired Teachers Association
Leroy DeHaven, Texas Retired Teachers Association
Tom Rogers, Austin Retired Teachers Association
Ann Fickel, Texas Classroom Teachers Association
John Grey, Texas State Teachers Association
Craig teDuits, State Street
Mark Schafer, State Street
Jeff Lambert, State Street
Rich Hall, TRS
Dale West, TRS
Sylvia Bell, TRS
Terry Harris, TRS
Mohan Balachandran, TRS
Janis Hydak, TRS
Patricia Cantú, TRS
Stuart Bernstein, TRS
Sharon Toalson, TRS
Allen MacDonell, TRS
Dennis Gold, TRS
Mary Chang, TRS
Angela Vogeli, TRS
Denise Lopez, TRS
Lynn Lau, TRS
Scot Leith, TRS
Rebecca Merrill, TRS
Ashley Baum, TRS
David Veal, TRS
Dan Herron, TRS
Dinah Arce, TRS
Herman Martina
Jody Wright, Legislative Budget Board
Rob Kochis, Townsend
Paul Yett, Hamilton Lane
Jim Baker, Unite Here

Mr. Barth called the meeting to order at 8:35 a.m.

1. Consider the approval of the proposed minutes of the April 19, 2012 committee meeting

On a motion by Mr. McDonald, seconded by Mr. Kelly, the committee approved the minutes of the April 19, 2012 meeting as presented.

2. Receive a review of Review External Private Markets Portfolio.

Mr. LeBlanc discussed the five goals he and Mr. Harris wanted to accomplish with respect to the Investment Management Division when Mr. LeBlanc first joined TRS in 2007: (1) establish an asset allocation to build a global portfolio, (2) develop effective and efficient investment systems and process, (3) hire a world-class investment team, (4) construct the portfolio through attractive investments, and (5) put together a succession plan to replace Mr. LeBlanc. He stated that all of these goals had been achieved.

Mr. LeBlanc stated that the allocation for private equity had increased since 2007 from 3 percent to 12 percent with the net asset value (NAV) increasing from $4.8 billion to $12.7 billion, and the allocation for real assets had increased from 3 percent to 15 percent with the NAV increasing from $1.9 billion to $14 billion. He said that the number of managers and relationships had been reduced since 2007 by the establishment of the premier list, based on the philosophy that achieving optimal diversification using the minimum number of relationships necessary will enable TRS to most effectively manage its resources, relationships, investments, and portfolio. Mr. LeBlanc also indicated that Phase I was establishing the portfolio and getting fully invested, and that Phase II would move into managing the relationships, portfolio management, optimizing investments, and staying more deeply involved with the general partners as they invested fund capital.

Mr. LeBlanc discussed the TRS investment process or the "Texas Way." The most important decision in the process, he said, was to identify the party that TRS should invest with, based on whether there was an alignment of interest, whether the party was committed to generating alpha for the trust, and whether the party was equipped to build a portfolio that would generate the best risk-adjusted return for TRS. He also stated that TRS' consultants, Townsend, Hamilton Lane, and Hewitt EnnisKnupp, had been an integral part of the investment process. Mr. LeBlanc then reviewed the 90-day investment due diligence timeline. Mr. Kelly and Mr. LeBlanc discussed the premier list process, the ranking of managers on the premier list, and the bi-annual review of the premier list.

Mr. LeBlanc profiled the investment team and the overall credentials of the team members.

Mr. LeBlanc stated that private markets had made 160 investments involving approximately $30 billion over a four-year period. He also reviewed the principal investments program, which allowed TRS to invest alongside the general partners in private equity and real estate without additional fees and provided the opportunity for TRS to increase returns. Responding to a question from Mr. Kelly as to whether TRS would open up principal investments to direct investments, Mr. LeBlanc stated that it was not something TRS could do due to resources limitations, but that TRS outsourced many of those investments to LaSalle on the real assets side and BlackRock on the private equity side. On the real assets side, Mr. Lang discussed the relationship with Ranger, a LaSalle fund, and the direct core list. Mr. Hall added that TRS had high-touch relationships with BlackRock and LaSalle and that those types of investments were promoted and leveraged through the BlackRock and LaSalle relationships. Mr. LeBlanc also stated that 25 percent of the general partners are direct principal investment partners and the other 75 percent of the general partners had to go through BlackRock or

LaSalle, and stated that Phase II would involve more principal investments. Mr. LeBlanc then briefly discussed the strategic partner initiative, energy investments, and emerging manager program.

Mr. LeBlanc reviewed some awards and milestone that TRS had achieved and concluded by stating that private markets returns exceeded 11 percent in 2011, despite the J-curve.

Mr. Hall, Mr. Lang and Mr. Yett presented five educational topics: (1) placement agents, (2) the J-curve, (3) return methodologies for private markets, (4) the principal investment process, and (5) the private equity policy benchmark.

Mr. Yett explained the use of placement agents by large and small funds, the payment arrangements, and the due diligence process. Responding to a question from Mr. Barth as to how to avoid headline risk, Mr. Yett stated that disclosure requirements and contractual remedies help to avoid those risks or mitigate them if there is an issue. Mr. McDonald stated that it is important for the fund to regularly review and oversee the process. Mr. Harris stated that a placement agent relationship is between the placement agent and the general partner and that the agent's fees are paid by the general partner, and not by limited partners such as TRS. He stated that TRS has a limited need for placement agents because of TRS' fund size. Mr. Hall noted some placement agents add value by providing market intelligence. Mr. LeBlanc noted that placement agents may serve a good purpose in the emerging manager program, especially in fund raising. There was a discussion relating to the current fund raising activities in the market.

Mr. Yett explained the private equity J-curve. He noted that the behavior on the J-curve depends on different market cycles and the year in which the fund was started. Responding to a question from Mr. Barth as to how the benchmark comes into play on the J-curve, Mr. Lang noted that the Real Assets Portfolio and the benchmark will never be at parity as the benchmark is always based on a fully invested portfolio. Mr. Harris stated that the current benchmarks are the best ones available for private markets.

Mr. Lang explained differences between the time-weighted returns performance reporting methodology for the overall trust and the internal rate of return (IRR) methodology as reported by State Street through Pure View. He stated that each is a correct return methodology but that their differences are due to the delivery and timing of official market values, cash adjustments, currency reconciliation mismatches, and calculation methodology differences. Mr. Harris noted that the "time-weighted" Pure View basically assumes no cash flows and does not adjust according to the size of the investment over time; therefore the return results would be more relevant if the cash flow stays relatively flat, whereas the IRR methodology would be more accurate in terms of capturing cash flow fluctuations over time.

Mr. Hall explained the principal investment process for both direct and indirect investments. He explained that a direct investment is when staff works directly with a general partner (GP) proceeding to make an investment that the GP has presented to TRS, and an indirect investment is when an investment advisor exercises investment discretion and acts on TRS' behalf to engage with a group of managers. Mr. Hall confirmed for Mr. Kelly that principal investments do not have a J-curve because they do not require management fees.

Mr. Hall discussed private equity benchmarking. He stated that when the benchmark of a portfolio changes, the old benchmark will be carried forward until it rolls off through the course of time. He discussed the effect of the legacy benchmark on performance and the transition from the policy benchmark to the State Street Private Equity Index (SSPEI) beginning September 30, 2009. He noted that the effect carried over from the legacy benchmark should be rolled off on September 30, 2012. Responding to a question from Mr. Barth regarding the history of the SSPEI, Mr. Hall stated that it can be traced back at least to 1990.

Mr. Hall provided a general overview of the private equity portfolio. He said that the portfolio was at $12.5 billion of net asset value as of March 31, 2012, slightly under the 12 percent target allocation. He stated that the inception-to-date returns had been about 11 percent relative to the SSPEI of 11.8 percent. He stated that the Venture / Growth Equity Portfolio focuses on buying companies that are about $500 million to $2 billion in enterprise value while the Credit and Special Situations Portfolio contains mezzanine credit funds, distressed credit funds, and other opportunistic, credit-oriented investments. He highlighted that last year's biggest increase in the portfolio was in credit and special situations, which increased from 7.2 percent to 12.7 percent. In terms of correlation to other asset classes, he said, private equities have a positive correlation with equity and a negative correlation with other asset classes, which reflects its diversifying function within the trust. He noted that the observed volatility was at 8.8 percent, far lower than the expected volatility of 25 percent. Presenting the portfolio performance, he stated that the three- and five-year returns were tracking well against the SSPEI and ranked at 17th percentile against the peer group on a three-year basis. Responding to a question from Dr. Brown as to how the expected volatility was calculated, Mr. Hall stated that the "drawdown" (the decline magnitude of a specific asset or investment from the market peak to the market trough) of private equities during the last decline was lower than the public markets, which shows that the portfolio had either a relatively lower risk or volatility, or both. Per Mr. Kelly's request, Mr. Hall explained the rationale behind the allocation of each portfolio. He stated that the allocation based on the expected risk and return and aims at building an efficient frontier portfolio.

Mr. Hall profiled the organizational structure of the Private Equity Team and presented the asset growth, allocation, and returns as of March 31, 2012. He noted that the majority of the invested funds in the 12-month and 36-month periods were with the premier list managers and their funds. He stated that the percentage invested in funds had been around 70 percent and the percentage invested in principal investments had been about 30 percent during both periods. He stated that the long-term target for principal investments was 20 percent of the portfolio. With the largest allocation in the portfolio, he said, domestic buyout had generated 12.7 percent annualized returns since inception to date, which was the highest returning asset class in the portfolio. He noted that credit and special situations had grown substantially over the last few years.

Mr. Hall presented the goals set a year ago and the accomplishments against those goals. He highlighted the $1.9 billion in commitments approved by the Internal Investment Committee (IIC), completion of the 12 percent target allocation, selection and approval of strategic partner investments with KKR and Apollo, implementation of Phase II of the Emerging Managers Program, approval of $105 million in commitments to seven funds in Phase II and $855 million commitments to Private Equity Emerging Managers, and realizations of two investments which generated 39 percent and 141 percent internal rates of return, respectively. He highlighted that the team was recognized as the Limited Partner of the Year by Private Equity International (PEI). Mr. Hall also provided a vintage year returns comparison as of December 31, 2011.

Mr. Hall presented the long-term funding analysis and stated that the goal is to reach the target commitment in 2018. He also presented the capital supply and demand during 2002, at the peak of the market in 2007 and at the end of 2011. He stated that the amount of capital raised in 2011 was about 1.9 percent of the U.S. Gross Domestic Product (GDP), which was slightly below normal. He stated that the demand for capital had gradually returned to a more sustainable pace. He stated that realizations in 2011 were well above the long-term average. He stated that “dry powder” (capital available to the market) had increased from $180 billion ten years ago to $370 billion as of the end of 2011. Concerning the pricing of private equity investments, he stated that it was still well below both the public market average and strategic buyers’ average. Mr. Hall stated that when returns expectations are down, the amount of debt being used to fund an investment would be lower, which would reduce the inherent risk in the investment.

Mr. Hall concluded his presentation by summarizing other activities of the GPs and the fund, and global economic issues. In summary, he noted that the Private Equity Portfolio was approaching its long-term target allocation and had generated $3.5 billion of value for the trust. He projected that 2012 would be the final year when the capital calls would be in excess of the distributions received. He also noted the manageable funding and strong general partner and strategic partner relationships.

Mr. Lang provided an overview of the performance of the Real Assets Portfolio. He reported a return of 13 percent in the one-year period and 12 percent in the three-year period. He stated that the portfolio had grown from $800 million to $14 billion during the five-year period. He noted the addition of the Real Assets Special Situation Portfolio, which had a 15 percent portfolio weight and comprised public securities and debt. Responding to a question from Mr. Guthrie, Mr. Lang stated that the volatility tends to even out over time, especially in the current market environment. He also briefly presented the allocation summary of each strategy. He illustrated the role of the portfolio in the trust and stated that it falls into the real return portion of the trust. He noted that the portfolio is highly diversified and has little to no correlation to global equities, which makes it an excellent diversifier for the trust and can take advantage of an inflationary regime. He reported that the portfolio exceeded both the one-year and three-year expected returns and that volatility was slightly lower than the expected volatility. He laid out the organizational structure of the team and profiled the credentials of the team members and investment consultants. Mr. Lang presented a comparison of historical allocation of each real asset strategy in 2007, 2009, and 2012. He noted that some of the three-year returns could be attributed to the use of Real Estate Investment Trusts (REITs) as a real estate substitute, which had added significant value.

Mr. Lang presented the 2011 goals and accomplishments. He highlighted the commitment of $3 billion on a $3.2 billion target and the implementation of the Phase II of the Emerging Manager Program within the Real Assets Portfolio. He stated that the team continues to implement the principal investment program and had invested $2.2 billion to date in 15 investments and two funds with LaSalle. He noted that the principal investments had 22.5 percent IRR since inception. Mr. Lang also provided a vintage year comparison as of December

31, 2011. He noted that the portfolio had $11.4 billion in capital calls since 2008 and about $9.3 billion in 2009. He also provided a long-term funding analysis. Responding to a question from Dr. Brown as to whether staff went beyond the partnership level and looked at the assets of the portfolio to find out the source of the returns, Mr. Lang stated that staff was working with a firm to look at the attribution by property type and market and had received two reports on the Core portfolio. He stated that staff was planning to engage the firm as one of the resource providers to provide the same level of detail in the value-added opportunistic portfolios, which would help find out the return drivers. He noted that it would take time to find out the return drivers.

Mr. Lang presented the net capital flows during 2002, at the peak of the market in 2007, and at the end of 2011. He noted that the net capital flows had reduced from $316 billion at the peak to $31 billion in 2011 due to a high number of foreclosures and loan payoffs, as well as less new investing. He noted that the transactions also reduced from $500 billion at the peak to $200 billion today. He stated that the pricing capitalization rate was 8.8 percent in 2002 and reduced to 7 percent in 2007. Further discussion followed in response to a question from Mr. Kelly regarding the existing portfolio's reflecting the highest rental rates of a stronger economy with an expectation that future rates and occupancy will be lower. Mr. Lang provided a market update and presented a comparison of the real estate market cycle in 2007 and 2011 and some of the projections based on the cycle. He noted that commercial property values had recovered significantly off their trough levels in 2008. Presenting the macro issues, he stated that staff was focusing on the debt rollover issue and constantly monitoring the debt situation. Mr. LeBlanc commented on the difficulty of assessing the ability of tenants to pay when analyzing the market.

In summary, Mr. Lang stated that the real asset allocation would reach the 15 percent long-term target by 2014. He noted that the public real estate had outperformed the Private during the past three years and that the risk and correlations had stayed within expectations. He stated that the funding needs were expected to decline and staff projected that the distributions in a few years would be sufficient to reach self-funding. He noted the good relationships with the GPs and strategic partners. He stated that staff was pleased with the real assets program evolution and believed that the portfolio was well-positioned.

The meeting adjourned at 10:05 a.m.

Tab 2

Educational Topic

External Public Markets Manager Compensation

Dale West

Managing Director

July 2012

Agenda

- Legislative approvals
  - External Managers
  - Hedge Funds
- Total Trust context
- Rationale for external managers and hedge funds
- How much is externally managed?
- What are the IMD compensation philosophy and advantages?
- Example of a performance payment schedule
- How much value added and/or diversification has been created?
- What have the related expenses been and how do they compare with others?
- How has the compensation been allocated?

Legislative Approvals

External Managers and Hedge Funds

- Legislative Approvals
  - Up to 30% of the Trust's value for externally managed assets in public markets (2007)
  - Up to 10% in hedge funds in two steps (2007 and 2011)
- Reports to the TRS Board
  - Monthly via Transparency Report
  - Annually to Investment Management Committee of the Board
- Built out process over 3-5 years

Total Trust Context

External Managers and Hedge Funds

- TRS trust results over last three years rank in the highest 15%[1]
- TRS risk-adjusted results rank 2nd out of 64 funds[2]
- Latest comprehensive expense study indicated that TRS aggregate costs are below the average for similar funds
  - Presented to the TRS Board in February 2012
  - Based on the Cost Effectiveness Analysis by CEM Benchmarking
- Includes compensation for both external managers and hedge funds

[1] *Source: Trust Universe Comparison Services, Funds greater than $10 billion*
[2] *Source: Hewitt EnnisKnupp, March 17, 2012*

Rationale for External Managers and Hedge Funds

- Significant limitations on internal resources
- Better access to global marketplace
- Diversification via unique investment approaches
- Access to effective and experienced investors
- Creation of unique structures tailored to provide a sustainable competitive advantage to TRS

How Much is Externally Managed?

Strategic Partnership Network, External Managers and Hedge Funds

Programs	Number of Managers	Total Assets ($ Millions)[1]	Percent of Asset Class Managed Externally	Percent of Trust
Strategic Partnership Network	5	$5,480	--	5.0%
External Managers				
US Large Cap	10	$8,431	47%[2]	7.6%
US Small Cap	6	$1,720	90%	1.6%
Non US Developed	7	$4,465	37%[2]	4.0%
Emerging Markets	7	$6,856	58%[2]	6.2%
World Equity	4	$3,762	--	3.4%
Total External Managers	*34*	*$25,234*	*49%*	*22.9%*
Hedge Funds				
Stable Value	21	$3,890	100%	3.5%
Directional	15	$3,027	55%	2.7%
Total Hedge Funds	*36*	*$6,916*	*74%*	*6.3%*
Total	**75**	**$37,630**	**--**	**34.1%**

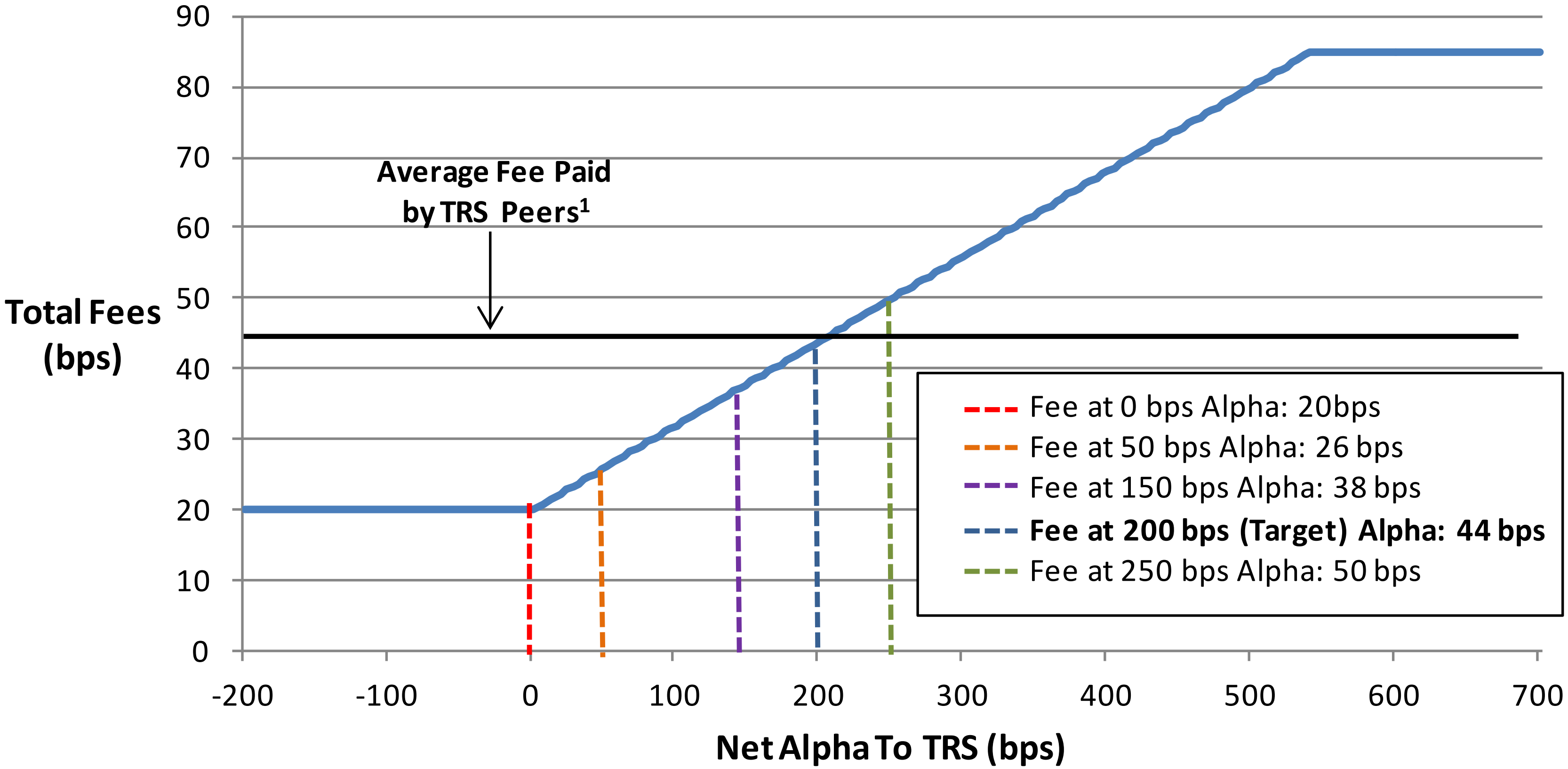
[1]As of March 31, 2012
[2]Includes allocated portion of World Equity Portfolio
Source: State Street Bank

Compensation Philosophy and Advantages

- Compensation Philosophy
  - Pay for performance (alpha not beta)
  - Structure fulcrum rate based on promised outperformance (net) and TRS size
  - Scale down to a much lower fee for performance below the target
  - Scale up for performance above the target, to a defined cap
  - Will accept a fixed fee if TRS "formula" indicates that odds of favoring TRS are unusually high
  - Performance period: three years
- TRS Advantages
  - Scale
  - Broad market perspective
  - Brand
  - First mover
  - Internal management capability
  - Time horizon, diversification and sophistication

Example of a Performance Payment Schedule

Various Scenarios (Target Alpha: 200 Basis Points)



[1] *CEM Benchmarking as of December 31, 2010*

Primer on Hedge Fund Compensation Structures

- Performance benchmark is generally an absolute return (always positive)
- Typical Management Fee: 200 bps (although TRS consolidated “rate” is lower)
- Typical Performance Pay: 20% of returns over a hurdle rate (TRS split is often better)
- Lockup Agreements
  - Often required
  - One to three years
  - Increasingly negotiable
- High Water Mark
  - Highest value achieved by the hedge fund
  - Until exceeded, most hedge funds receive no performance pay

Example of Hedge Fund Compensation

150 Basis Point Management Fee and 15% Performance Fee

	1-Year Return	High Water Mark	Management Fee	Performance Fee	Total Fee
Manager A	Positive (5%)	Above	150 bps	75 bps	**225 bps**
Manager B	Positive (5%)	Below	150 bps	None	**150 bps**
Manager C	Negative (-5%)	Below	150 bps	None	**150 bps**

Investment Results – Net of Fees

Three-Year Period Ending March 31, 2012

Programs	Number of Managers	Total Assets ($ Millions)	Percent of Asset Class Managed Externally	Percent of Trust	One-Year Return	Three-Year Return	One-Year Alpha	Three-Year Alpha
Strategic Partnership Network	5	$5,480	--	5.0%	5.0%	20.2%	-1.2%	0.9%
External Managers								
US Large Cap	10	$8,431	47%[1]	7.6%	8.0%	25.9%	-0.6%	2.2%
US Small Cap	6	$1,720	90%	1.6%	3.1%	--	1.8%	--
Non US Developed	7	$4,465	37%[1]	4.0%	-4.5%	16.0%	2.2%	-1.6%
Emerging Markets	7	$6,856	58%[1]	6.2%	-8.1%	26.1%	0.7%	1.0%
World Equity	4	$3,762	--	3.4%	0.6%	--	1.3%	--
Total External Managers	*34*	*$25,234*	*49%*	*22.9%*	--	--	--	--
Hedge Funds								
Stable Value	21	$3,890	100%	3.5%	-2.5%	5.6%	-6.2%	2.8%
Directional	15	$3,027	55%	2.7%	N/A[2]	--	N/A[2]	--
Total Hedge Funds	*36*	*$6,916*	*74%*	*6.3%*	*-0.9%*	*6.2%*	*-4.8%*	*3.3%*
Total	**75**	**$37,630**	**--**	**34.1%**	**--**	**--**	**--**	**--**

- Value added in four of five externally managed areas with three-year record
- TRS Strategic Partnership Network in top 5% over this period versus TUCS universe
- Stable value hedge funds provided meaningful diversification and downside protection

[1]Includes allocated portion of World Equity Portfolio
[2]Directional Hedge Fund Portfolio generated 2.3% return and 1.6% alpha since October 1, 2011 inception
Source: State Street Bank

Fee Comparison

		Actual		Comparison	
Programs	**Fees at 1% Alpha (bps)**	**3-Year Alpha (bps)**	**1-Year Fees (bps)**	**Peer Fees**	**Retail Fees**
Strategic Partnership Network	30[1]	90	25	--	--
External Managers					
US Equity[2]	58	221	70	44	129
Non US Developed	57	-160	58	44	164
Emerging Markets	53	107	43	75	163
World Equity	55	N/A[3]	50	64	143
Hedge Funds[4]	131	330	132	135	--

- Total value added after fees for these programs has been more than $500 million over the three years to March 2012

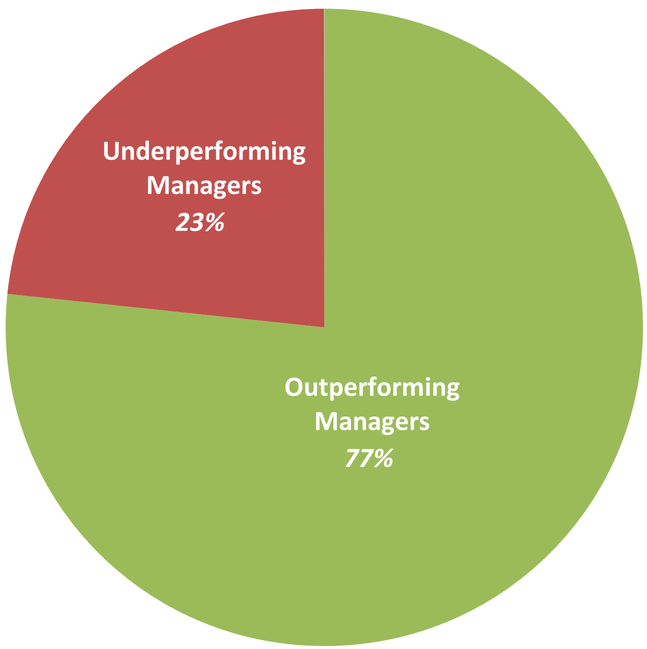
[1]SPN alpha target is 130 bps; 100bps used for illustration
[2]Includes US Large Cap and US Small Cap Portfolios
[3]World Equity Portfolio inception: December 1, 2009
[4]Management fees only

Notes: TRS Fees and performance as of March 31, 2012; estimated and unaudited
Peer fees equal CEM average fee as of December 31, 2010; only management fees available for hedge funds
Retail fees equal average annual expense ratio of Morningstar funds as of May 31, 2012.

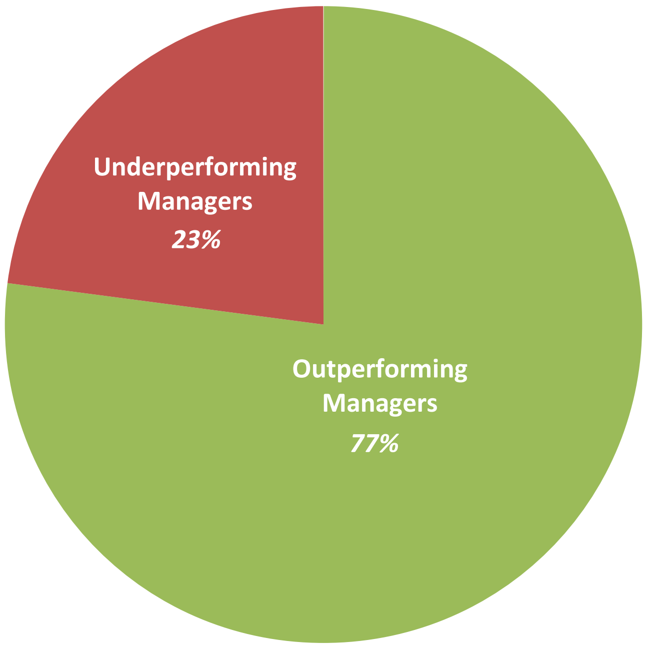
Allocation of Fees Across External Management

Three-Year Period Ending March 31, 2012

Long-Oriented



Hedge Funds



- IMD pays for performance not promises (alpha not beta)
  - Disproportionate percentage of compensation to outperforming organizations
  - Organizations below benchmarks had compensation significantly reduced

<u>Notes:</u> Pie chart represents percent of total fees paid by category
Performance relative to benchmark over invested period

Summary

- TRS allocations to external management have been effective
- Compensation is in-line with delivered results
- TRS IMD prefers performance-oriented compensation structures
- Actual payouts are therefore based on actual performance
- Managers do not achieve “normal fees” until target alpha is delivered