

JOINT MEETING OF THE BOARD OF  
TRUSTEES AND INVESTMENT ADVISORY  
COMMITTEE

MINUTES - AUGUST 29, 2018



DECEMBER 11-12, 2018

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JOINT MEETING OF THE  
BOARD OF TRUSTEES AND  
INVESTMENT ADVISORY COMMITTEE  
EMPLOYEES RETIREMENT SYSTEM OF TEXAS

**ERS Building – Board Room**  
**200 E. 18<sup>th</sup> Street, Austin, Texas 78701**  
**August 29, 2018 – 9:25 a.m.**

**TRUSTEES PRESENT**

Doug Danzeiser, Chair  
Cydney Donnell, Vice-Chair  
I. Craig Hester, Member  
Ilesa Daniels, Member  
Catherine Melvin, Member  
Jeanie Wyatt, Member

**IAC PRESENT**

Caroline Cooley, Chair  
Ken Mindell, Member  
Didi Weinblatt, Member  
Gene Needles, Member  
Bob Alley, Vice-Chair  
Laura Starks, Member  
Mari Kooi, Member

**IAC ABSENT**

James Hille, Member  
Lenore Sullivan, Member

**ERS STAFF PRESENT**

Porter Wilson, Executive Director  
Catherine Terrell, Deputy Executive Director  
Paula A. Jones, Deputy Executive Director and General Counsel  
Machelle Pharr, Chief Financial Officer  
Tom Tull, Chief Investment Officer  
Sharmila Kassam, Deputy Chief Investment Officer  
Aaron Ismail, Investment Compliance  
Adriana Ballard, Investments  
Amanda Burleigh, Investments  
Anthony Curtiss, Investments  
Angelica Harborth, Group Benefits  
Aris Oglesby, Investments  
Betty Martin, Investments  
Beth Gilbert, Internal Audit  
Bernie Hajovsky, Director of Enterprise Planning Office  
Blaise Duran, Group Benefits  
Brannon Andrews, Office of General Counsel  
Carlos Chujoy, Investments  
Cheryl Scott Ryan, Office of General Counsel  
Chuck Turner, Chief Information Officer  
Chris Tocci, Investments  
Christi Davis, Customer Benefits  
Davis Peacock, Investments  
DeeDee Sterns, Director of Human Resources  
D' Ann DeLeon, Group Benefits

Gabrielle Schreiber, Director of Procurement and Contract Oversight  
Georgina Bouton, Group Benefits  
Jamey Pauley, Enterprise Planning Office  
Jennifer Chambers, Director of Government Relations  
John Streun, Investments  
Juli Davila, Investments  
Karen Norman, Internal Audit  
Kathryn Tesar, Director of Benefits Communications  
Keith Yawn, Director of Strategic Initiatives  
Kelley Davenport, Executive Office  
Lacy Wolff, Enterprise Planning Office  
Lauren Russell, Group Benefits  
Leah Erard, Strategic Initiatives  
Leighton Shantz, Investments  
Michael Shoop, Investments  
Michelle Barron, Group Benefits  
Nancy Lippa, Office of General Counsel  
Nicolas Maffeo, Investments  
Nora Alvarado, Group Benefits  
Pablo de la Sierra Perez, Investments  
Panayiotis Lambropoulos, Investments  
Ricardo Lyra, Investments  
Robert Sessa, Investments  
Robin Hardaway, Director of Customer Benefits  
Shack Nail, Special Projects and Policy Advisor  
Susie Ramirez, Executive Office  
Tanna Ridgway, Investments  
Tim Reynolds, Investments  
Tommy Williams, Information Systems  
Tony Chavez, Director of Internal Audit  
Wendy McAdams, Director of Operation Support  
Wesley Gipson, Investments

**VISITORS PRESENT**

Ashley Mann, House Appropriations Committee  
Bill Hamilton, Retired State Employees Association  
Brad Young, Pavilion  
Charles Leamons, Retiree  
Chad Marsh, Endeavor  
Chris Paxton, Optum RX  
David Deleon, Blue Cross and Blue Shield of Texas  
Elaina Fowler, AFSCME Texas Retirees  
Eric Jackson, Shotglass  
Jessica Karlsruher, Texas Public Employees Association  
John Claisse, Albourne Partners  
Katy Fallon-Brown, Legislative Budget Board  
Louellen Lowe, Legislative Budget Board  
Peter Jansen, CBRE  
Rita Leamons, Spouse of Retiree  
Ruth Ann Eledge, Segal Waters  
Steve Voss, Aon Hewitt Investment Consultants  
Michael McCormick, Aon Hewitt Investment Consultants  
Tiffany Calderon, Humana  
Tathata Lohachitkul, Albourne Partners

## **2. Joint Meeting of the ERS Board of Trustees and Investment Advisory Committee**

### **1. CALL TO ORDER**

#### 1.1 Call Meeting to Reconvene the Board of Trustees

Mr. Doug Danzeiser, Chair of the Board of Trustees (Board) for the Employees Retirement System of Texas (ERS), called to reconvene with the Investment Advisory Committee (IAC) to take up the following Joint Board of Trustees and Investment Advisory Committee agenda items.

#### 1.2 Call Meeting of the Investment Advisory Committee to Order

Ms. Caroline Cooley, Chair of the IAC for ERS, called the meeting to order and read the following statement:

A public notice of the Joint Meeting of the ERS Board of Trustees and Investment Advisory Committee containing all items on the proposed agenda was filed with the Office of the Secretary of State at 8:41 a.m. on Monday, August 20, 2018 as required by Chapter 551, Texas Government Code, referred to as "The Open Meetings Law."

### **2. MINUTES**

#### 2.1 Review and Approval of the minutes to the May 23, 2018 Joint Meeting of the Board of Trustees and Investment Advisory Committee meeting – (Action)

Ms. Caroline Cooley, IAC Chair, opened the floor for a motion on the approval of the minutes from the May 23, 2018 Joint Meeting of the Board and IAC.

The IAC then took the following action:

**MOTION** made by Mr. Bob Alley, seconded by Mr. Laura Starks, and carried unanimously by the members present that the Investment Advisory Committee of the Employees Retirement System of Texas approve the minutes of the Joint Meeting of the Board and IAC held on May 23, 2018.

The Board of Trustees then took the following action:

**MOTION** made by Mr. Craig Hester, seconded by Ms. Catherine Melvin, and carried unanimously by the members present that the Board of Trustees approve the minutes of the Joint Meeting of the Board of Trustees and Investment Advisory Committee held on May 23, 2018.

### **3. INVESTMENT ADVISORY COMMITTEE APPOINTMENT**

#### 3.1 Consideration of Reappointment of ERS Investment Advisory Committee members with terms expiring August 31, 2018

Mr. Tom Tull, Chief Investment Officer presented the staff recommendation to reappoint Mr. Bob Alley and Dr. Laura Starks to the Investment Advisory Committee (IAC).

Mr. Tull highlighted the importance of the IAC members' expertise to the successful operations of the ERS investment program, including their involvement in alternative asset review and Texa\$aver product review committees. He expressed his appreciation for their time commitment to the program.

Mr. Craig Hester opened the floor for a motion on the approval of the reappointment of Mr. Bob Alley and Dr. Laura Starks.

The Board of Trustees took the following action:

**MOTION** made by Mr. Craig Hester, seconded by Ms. Cydney Donnell, and carried unanimously by the members present that the Board of Trustees approve the reappointment of Mr. Bob Alley and Dr. Laura Starks to the Investment Advisory Committee for a three-year term ending August 31, 2021.

#### **4. ERS INVESTMENT POLICY**

##### 4.1 Review of ERS' Investment Policy

Mr. Tom Tull, Chief Investment Officer, Sharmila Kassam, Deputy Chief Investment Officer, Mr. Steve Voss, Aon Hewitt Investment Consulting (AHIC), Michael McCormick, AHIC, presented information on the investment policy.

Mr. Tull began the presentation by giving an overview of the process since the previous Board meeting. ERS established a Risk Steering Committee made up of Board and IAC members to review risk philosophy and metrics for inclusion in the policy.

Ms. Kassam discussed the Investment Policy Statement (IPS) timeline and noted the goal of the process was to take a fresh look at the investment policy in the context of a principles-based approach. She further discussed the level of specificity of the document in certain areas and possible directions. She concluded by highlighting the value of the Investment Policy Steering Committee's discussions with senior Investment staff.

Mr. McCormick noted highlights from discussions with staff and presented a slide that highlighted the core items in the current IPS relative to the new document and offered examples of how sections could be evaluated.

Ms. Kassam discussed the effort to make some of the areas, like delegation of authority, easier to follow with tables to illustrate the delegation rather than just text alone. She then provided an example of a proposed mapping exercise to illustrate the process that will be conducted internally. The objective of the investment philosophy is to make it understandable to anyone by removing jargon and redundancies, while improving the organization of the document. She encouraged Board feedback on the investment program's objectives. Ms. Cydney Donnell commented that even financial professionals can find some of the jargon difficult to follow, particularly in some of the risk sections.

Ms. Kassam noted understandability was a topic that is part of the discussion with the Risk Steering Committee. Staff are working to develop a risk philosophy, at a broader level which does not get too granular. She further explained that staff hope to accomplish something that's easier to understand and easier to use as an oversight document.

Mr. McCormick discussed the IPS survey and noted one of the most frequent comments was to reduce redundancies. He then noted that he felt a switch to a principles-based policy would improve readability and would increase accountability.

Ms. Kassam noted there was discussion and feedback from the survey suggesting the Board and IAC want more details in the risk metrics for each asset class. She further explained the risk metrics will be included in the new draft of the investment policy in the tactical plans.

Mr. McCormick explained that once the bulk of the new document is determined, then the information will be used to create an executive summary.

Mr. Voss explained that risk is one of the areas where a lot of time will be spent over the next month in order to capture what the Board wants. He then requested Board feedback to incorporate into the new policy draft and noted an upcoming review of the Investment Policy Steering Committee in October. He concluded by saying he felt good about where the process is today and thanked the Investment Policy Steering Committee for the time they have devoted to the document.

Mr. Hester applauded the effort and noted that it would be a big step forward in cleaning up the document into a more principles-based policy. He then asked if there were any important discussions of risk that came up in the Risk Steering Committee worth mentioning.

Mr. Voss noted discussions on the importance of absolute risk, market risk, and highlighted drawdowns as the biggest concern. He said that the Risk Steering Committee, investment team, and senior investment leaders are very mindful of risk. He further explained the analytics and tools that are good measurements of public securities don't do the same job for private securities, like private equity and private real estate. He concluded that one of the focuses of the internal team is to think about the key high-level risks that are most important for the private securities.

Ms. Kassam added that there is measured risk and risks that are harder to measure than others. She noted the good dialogue from the Risk Steering Committee catalyzed by Ms. Kooi's comment about managing unmeasurable risk over her career. Ms. Kassam emphasized the need to spend more time acknowledging unmeasurable risk.

Mr. Doug Danzeiser, Board Chair, asked if there will be a policy about large investments that require Board approval. He mentioned that he saw it referenced, but did not see any discussion of the policy about considering those kinds of investments.

Ms. Kassam confirmed that it is referenced in the statutory language, but more language can be added to explain it in the policy. She also proposed reviewing language related to large transaction approval by the Board within the context of the delegation of authority section.

Mr. Danzeiser also asked for language on the selection of benchmarks and the process of selecting benchmarks to be included.

Mr. Hester commented on the importance of diversification, to ensure the Trust is truly diversified.

Ms. Cooley said she appreciated and liked the use of charts and tables within the policy and noted she believes it is a big improvement.

Work will continue on the document which will be brought before the board for approval at a subsequent meeting. No action was required on this item.

## **5. INVESTMENT PERFORMANCE**

### **5.1 Review of Investment Performance for the Second Calendar Quarter of 2018**

Ms. Sharmila Kassam, Deputy Chief Investment Officer, Mr. Steve Voss, Aon Hewitt Investment Consulting (AHIC), and Michael McCormick, AHIC, presented the investment performance for the second quarter of 2018.

Ms. Kassam noted that the report had been streamlined as ERS continues to revise the report for relevance.

Mr. McCormick provided an overview of fiscal year-to-date performance and noted the strength of the fiscal year's returns. The total fund generated a return net of fees of 7%, compared to the benchmark of 5.3%, with a total excess return of 1.7%. He noted strong returns from Private Equity and Private Real Estate, and underperformance from Global Public Equity. The Trust continues to comply with investment policy.

Mr. McCormick said that the Trust had \$10.8 billion in investment earnings over the past five year period, with about \$6 billion in outflows. He explained the tactical allocation in the various asset classes and how an overweight of global equity contributed to excess returns.

Mr. McCormick discussed the Trust's asset allocation and noted the \$28.3 billion end-of-period market value. He further noted the \$10 billion in investment earnings over the five-year period and commented that the overweight on public equities drove some of the performance for the period.

Mr. McCormick said that trailing twelve-month returns were 9.9%, compared to 7.6% for the policy benchmark, which resulted in 226 basis points (bps) of excess return. He then explained that all asset classes contributed to performance with Private Equity being the material driver with Real Assets, Global Credit, and Global Public Equity all contributing to performance. He further explained the decision to be overweight in return seeking assets for much of the 12-month period added about 50 bps of outperformance and provided meaningful value.

Mr. Hester commended the excellent excess returns relative to the benchmark.

Ms. Cooley noted that private equity really stands out and considered if it could be due to taking additional risk. Ms. Kassam noted that there have been no changes to the private equity program.

Mr. McCormick noted that long-term public market equivalents (PME) and internal rates of return (IRR) are going to be a better way to measure private equity performance. Ms. Kassam noted that there are numerous ways to slice and dice performance and explained that PME offers a way to look at private equity returns relative to public market investments. She further noted the private equity portfolio performed as expected.

Mr. McCormick reviewed the Trust's risk and noted that standard deviation, which measures the volatility of investment returns, is a good measure of risk. He explained the advantages of high returns with low levels of risk and said that the Trust was able to reduce risk and increase returns compared to the policy benchmark through diversification.

Mr. Voss said that the last five quarters' excess returns were positive. He further explained the fund has not seen that level of consistency since leading up to and during the global financial crisis. He further noted the investment program, in a rising market environment, has captured good excess returns. He attributed the performance to the investment team's internal decisions to tilt the portfolio and some tactical moves. He noted the decisions paid out nicely with positive returns over the last five quarters.

Mr. McCormick discussed rolling tracking error for the past 36 months and noted that tracking error of the fund has increased recently. He further noted that as tracking error increases, it generally becomes more difficult to capture excess returns, but the information ratio, which measures how much tracking is converting into alpha, was relatively stable. He noted the information ratio has been 0.12 over the past three years.

Mr. McCormick presented performance evolution over time and noted the Trust's positive growth from late 2016 through early 2018. He further noted some volatility in early 2018 and said he expects to see a little spike when the final fiscal year data is updated.

Mr. McCormick noted 10-year returns have started to trickle up due to a decade of really great investment results. He explained that the financial crisis really weighed on 10-year returns for a period of time. He noted that the 15-year period was really the only period where the total fund underperformed the long-term benchmark. He then reaffirmed the rationale for including some of the diversifying asset classes to protect the fund during market declines.

Mr. McCormick presented historical market information and noted the 12-month rolling market returns for the last 10 years were about median. He then commented that the 11.5% and 14.5% shows how remarkable the last 10 years have been. He then noted that returns are at the median, but the median is probably not reflective of markets going forward.

Mr. Voss concluded the presentation by saying the trailing twelve-month returns have been pretty spectacular and noted the 9.9% total fund return versus the 7.6% benchmark returns over the same period, resulting in 226 bps of value. He further noted that on the attribution bar chart every asset class



generated alpha during the last 12-month period and that was relatively unusual. He explained that the Trust has not seen that happen a lot. He then noted that it resulted in roughly \$480 million of alpha generated in the fiscal year-to-date period.

Mr. Hester congratulated the staff on a great year of absolute returns relative to risk taken.

Mr. Danzeiser asked if it would be possible or make any sense to include comparisons to some average public pension returns.

Ms. Kassam noted that it can be difficult to find the right peer base because various public pensions all have different kinds of allocations, parameters, and objectives that are being met, but the team would present a comparison at a future board meeting. Mr. Danzeiser explained that he is interested in seeing performance compared to pension plans that are choosing different allocations.

Mr. Voss discussed the different ways to compare pension plans and noted one way would be to look at public funds greater than \$10 billion. He mentioned that it was probably the most appropriate peer universe. There are about 20 to 30 public pension funds over \$10 billion that report to commercially available databases where data can be collected.

Ms. Cooley added that it would be useful to see a range of the best and worst performing plans.

Ms. Donnell agreed with Mr. Danzeiser's point and added that the Board's most important role is asset allocation.

Mr. Tull agreed with the benefits of comparisons but noted that funds take different levels of risk. He explained that it is important to take into consideration the amount of risk that funds are taking and noted the Trust is run conservatively due to constant liquidity needs. In response to Board consideration, he noted the Trust's tracking error flexibility and the ability to ratchet up the amount of risk taken.

Ms. Donnell commented that the Board can learn whether the Trust is run too conservatively or other pension plans are too aggressive. She noted the risk of getting the asset allocation completely wrong.

Mr. Voss noted that it would be good to see what the typical or average asset allocation of peers are and that AHIC could provide that information.

There were no further questions or discussion, and no action was required on this item.

## **6. HEDGE FUND PROGRAM**

### **6.1 Market Update and Program Overview**

Mr. Anthony Curtiss, Senior Portfolio Manager, Mr. Nicolas Maffeo, Portfolio Manager, Mr. Panayiotis Lambropoulos, Portfolio Manager, Ms. Tathata Lohachitkul, Albourne and, Mr. John Claisse, Albourne, presented the hedge fund program market update and overview.

Mr. Curtiss noted the Absolute Return Portfolio (ARP) is the risk-reducing hedge fund portfolio. He explained that it acts as a diversifier for the Trust and strives to have a low correlation, low beta, and low volatility target. He then noted that the Directional Growth Portfolio (DGP) is the return-seeking hedge fund portfolio. He further noted that it acts as a complement to existing investments within the Trust and has a more tactical beta. He then explained that hedge funds can be placed into other asset classes and have been in the past.

Mr. Curtiss presented a current hedge fund allocation summary of \$1.7 billion through May 31, 2018. It was noted that the data presented was compounded returns since the inception of each respective investment.

Mr. Curtiss discussed the objectives and accomplishments of the ARP and noted that they remain consistent with prior years. He explained that the objective is to outperform the stated policy benchmark of U.S. Treasury Bills + 4%. Mr. Curtiss stated that the annualized return since inception for the ARP is 5.58%. This compares to an annualized return of 4.44% for the stated policy benchmark. He explained the current standard deviation of the portfolio is 2.34%. He then noted that volatility has been suppressed over a number of years. As volatility normalizes, the portfolio should fall within the 4% to 8% objective/targeted range. He then discussed the low correlation to the Trust of 0.64 compared to a 4-year average of about 0.58.

Mr. Curtiss then presented current allocation charts based on geography and strategy. He highlighted that in regards to geographic exposure, the objective is to have at least 60% invested in developed markets. Strategically, not much has changed within the portfolio. The biggest change was the increase in allocation to Global Macro (12% to 22%) and a reduction to Relative Value strategies over the last year.

Mr. Curtiss discussed the underlying strategies and characteristics associated with many of the holdings within the ARP. Relative Value strategies offer a persistent return profile when compared to other strategies. Event Driven strategies are focused on corporate events like mergers, divestitures, distressed situations, and spin-offs. Global Macro is the most uncorrelated strategy and has the most flexibility relative to other hedge fund strategies. The most traditional hedge fund strategy remains Equity Long/Short. Equity Long/Short is where a manager buys one undervalued stock and shorts another stock that's overvalued. The strategy focuses on stock selection and diversification for managing risk.

Mr. Curtiss presented a performance overview slide noting that the largest drawdown for the ARP has been -2.57%. The stated policy benchmark was noted as 0% given that it is an absolute benchmark and does not have any negative numbers. The ARP's largest drawdown has been substantially more favorable relative to industry benchmarks noted in the presentation (i.e. HFRX Global Hedge Fund Index (- 8.93%) and HFRI Fund of Funds Composite Index (-7.58%). Trailing performance was discussed over various periods and it was noted that the ARP has consistently outperformed the stated policy benchmark since its inception.

Mr. Curtiss broadly discussed fiscal year returns and fiscal year-to-date returns for Relative Value and Event-Driven. These are the two largest strategy allocations within the ARP portfolio. He further noted challenges with the portfolio's smallest allocation which is a commodity trading advisor (CTA).

Mr. Curtiss provided a Value-Added Monthly Index chart which provided a visual representation of the ARP's performance using a \$1,000 starting point. The performance was since the inception of the hedge fund program (July of 2012).

Mr. Curtiss discussed the 0.40 rolling 1-year beta to the Trust since the inception of the ARP. A 0.40 beta target was breached in October 2017 and then again in January of 2018. These breaches coincide with overall market volatility collapsing within both equity and credit markets from 2016 through 2017. He further explained that the declining standard deviation of the Trust made the overall beta appear higher from a historical standpoint. Mr. Curtiss stated his desire to continually allocate to strategies that are either less correlated or operate with low net market exposure including market neutral.

Mr. Curtiss highlighted the benefits of the ARP portfolio as a diversifier for the Trust by illustrating relative historical drawdowns between the ARP and the Trust. Since inception, the ARP has suffered smaller drawdowns when compared to the overall Trust. He then presented a performance chart that illustrated the down periods of the Trust compared to the performance of the ARP. He noted the effect that the ARP has provided to the Trust by noting periods where the ARP was up on a monthly basis relative to the Trust. This was as recent as June 2016, October 2016, and March 2018.

Mr. Curtiss noted the portfolio's largest allocations remain focused on Relative Value and Event-Driven strategies. These two strategies represent 65% of the total portfolio. He further noted that Global Macro has been increased due to a strong desire to allocate to less correlated strategies. He explained that future allocations will be focused on Relative Value and Opportunistic strategies with an emphasis on

low net and market neutral strategies. He noted that the portfolio remains diversified and he estimates the liquidity of the portfolio to be high. It is estimated that 80% of the portfolio could be redeemed within 12 months.

Mr. Curtiss presented actual strategy performance over various time periods compared to their respective hedge fund benchmarks. Every strategy has outperformed its respective benchmark.

Mr. Curtiss discussed attribution by strategy sleeve and noted the strong fiscal year performance across all strategies. He further highlighted that Relative Value and Event-Driven strategies were the largest drivers of the portfolio's return.

Mr. Curtiss discussed attribution from a calendar year perspective. He discussed challenges such as having an underweight to Equity Long/Short, but also noted strong positive performance from underlying managers operating within the Event Driven strategy sleeve (i.e. merger arbitrage and distressed). He also highlighted the Global Macro strategy sleeve where he discussed the volatile performance experienced by the ARP's CTA holding. Despite this volatile performance, he stressed the importance of maintaining the exposure as a diversifier. He then explained that the bulk of the exposure within the Global Macro strategy sleeve is primarily allocated to managers that trade both foreign exchange and interest rates. Mr. Curtiss believes that these are the key drivers into how both equity and credit markets function. Lastly, he noted that the overall allocation to Opportunistic is relatively small with only one real investment.

Mr. Curtiss discussed correlations across sub-strategies and noted that they were all fairly low and at times even negative between sub-strategies. He explained that Relative Value and Event-Driven correlations were elevated because of the overlap of the ARP's multi-strategy hedge fund allocations that reside within both strategy sleeves. He further explained that the correlation between the two strategies should decline as new Relative Value allocations occur over time. His intention is to continually source investments that are both less correlated and exhibit lower market exposure.

Mr. Curtiss acknowledged that Global Macro is more volatile than some of the other allocations, but that the most volatile allocation, CTA, is sized appropriately. He also noted that the CTA strategy has struggled over the last few years, but still sees value in the added diversity to the ARP portfolio.

Mr. Maffeo commented that the portfolio has been underweight to Global Macro for some time and increasing the allocation helps to create a more diversified portfolio. He also noted that the most recent Global Macro allocation was to a manager that has an attractive Sharpe ratio despite having a volatile track record.

Mr. Claisse commented that he supports the diversifying benefits of Global Macro allocations when sized appropriately to manage for volatility.

Mr. Mindell commented that it would be helpful to see the Sharpe ratio by sub-strategies to be able to see if the portfolio is getting paid for the excess volatility/risk.

Ms. Cydney Donnell asked about the indices used for the listed sub-strategies. Mr. Claisse acknowledged that the strategies in the indices will not perfectly reflect what is in the portfolio, but that they incorporate a very broad range of strategies. He explained that they are used to provide an illustration.

Mr. Maffeo was introduced and presented the Directional Growth Portfolio (DGP). The DGP is comprised of individual hedge fund investments. Each respective investment is benchmarked to a specific equity market index. The objective of each underlying holding/portfolio is to outperform their respective benchmark while maintaining a tight beta to the respective benchmark. The DGP is designed to complement the Trust. Mr. Maffeo highlighted that relative performance has been strong across most managers and has met internal guidelines while maintaining the appropriate levels of beta and correlation to their respective index.

The largest and longest standing allocation of the DGP is to Marshall Wace LLP at 56%. The second largest allocation is to a manager called Algert Global LLC. Their respective allocation is 25% of the DGP's assets. The allocation to Algert Global LLC occurred in May of 2018. A healthcare focused manager called OrbiMed Advisors is the smallest allocation at 19%. He noted that the most recent allocation to Algert didn't have data available yet. He noted that Marshall Wace has outperformed since inception and their annualized alpha is about 5.5%. OrbiMed has marginally underperformed since the inception of the allocation. He attributed the underperformance to elevated levels of political rhetoric that has negatively affected the healthcare industry over the last 12 to 24 months. As a result, biotech has experienced heightened spikes of volatility. He further noted a disconnect between value and growth stocks where some growth oriented companies have rallied significantly despite having less attractive aspects (i.e. valuation, FCF, positive earnings, etc.). He noted that OrbiMed Advisors LLC is a bottoms-up investor that has a natural tilt towards value-oriented names and reaffirmed the conviction in the manager.

Mr. Maffeo then presented the trailing returns for the three underlying managers within the DGP. Algert has just one month of performance. Marshall Wace outperformed across all time periods and has generated a 33% compounded return in excess of its benchmark since its inception.

The inception to date numbers are on a compounded total return basis.

Mr. Maffeo presented fiscal year-to-date returns and noted Marshall Wace's strong outperformance in Fiscal Year 2015.

Mr. Lambropoulos provided an update regarding the enhancement to the ERS Hedge Fund program. He announced a new venture between ERS and the Pacific Alternative Asset Management Company (PAAMCO) called ERS/PAAMCO Launchpad. In essence, the two organizations have created an investment vehicle which will seed emerging hedge fund managers. One of the goals is for ERS to build a farm system within the Trust by trying to identify managers early in their life cycle. He explained that the partnership will look for managers that have a high probability of becoming successful institutional investment managers of the future. He noted that the venture is a result of work over the last 18 months.

The relationship with PAAMCO came about due to a strong desire to enhance the current hedge fund program. The current program strives to allocate to emerging managers as defined as \$2 billion in assets under management (AUM) or less. Investing in emerging managers is a time consuming venture and is difficult given the current size of the ERS Hedge Fund team. Leveraging PAAMCO's resources allows for a greater bandwidth and could result in fewer missed opportunities. This could prove particularly useful in finding international managers. Another alternative would be to allocate externally to a funds-of-funds which would be focused on emerging managers. He explained that the team felt that the track records of most organizations would not meet the Trust's performance goals along with being costly (second layer of fees). He explained that an ERS Hedge Fund team member spoke with a number of organizations focused on seeding activities with a focus on their investment approach and implementation. Ultimately, a customized solution was developed to help meet the internal goals established for the enhancement to the ERS Hedge Fund program.

Mr. Lambropoulos explained that the ERS/PAAMCO Launchpad is a true joint venture that improves and heightens alignment of interest and shared economics. He noted PAAMCO's global footprint with offices around the world and over 200 employees. Given the scale of the organization, Mr. Lambropoulos noted the added value of their resources to ERS. He then discussed the benefits of the revenue sharing model created through the ERS/PAAMCO Launchpad.

Mr. Lambropoulos noted that the new relationship could grow into a sizable allocation within the Trust, depending on various factors such as the current opportunity set and successes of the program.

Ms. Jeanie Wyatt asked if there was a Request for Proposals (RFP) to identify the advisors for the emerging manager program. She also asked how ERS defines an emerging manager.

Mr. Lambropoulos explained that an RFP was not conducted on this search since it is a customized hedge fund solution. The new emerging manager enhancement divides managers into four buckets: 1) Managers with AUM between \$0 to \$250 million and a track record up to a year 2) Managers with AUM of \$250 to \$500 million with a track record of three to five years. 3) Proprietary trader with no track record 4) "Fallen Angels" which are defined as established managers that have seen their AUM fall significantly.

Ms. Wyatt asked if the "fallen angel" designation includes managers that have reached a large AUM then fell to a lower AUM number and asked if there are concerns that that manager has lost money.

Mr. Lambropoulos noted the manager may bring valuable experience which may be lacking of younger managers. This would be most obvious for managers that traded through the financial crisis of 2008.

Mr. Curtiss added that ERS plans to take a very conservative investment approach for the new venture.

Mr. Tom Tull noted that the due diligence process for selecting PAAMCO was consistent with prior due diligence conducted on other hedge fund investments. ERS' definition of emerging manager is in compliance with the state statute which defines emerging managers as less than \$2 billion in AUM.

Ms. Wyatt asked if Global Investment Management Performance Standards would be used with regards to performance reporting. She also asked if that data would be gathered from prior firms regarding any potential seeding opportunity. Mr. Lambropoulos explained that information will be gathered on all potential investments. When possible, additional information would be gathered from prior employers. PAAMCO has the technological capabilities to run a variety of analyses on any manager.

Mr. Lambropoulos emphasized that the bulk of the return expectations will come from the manager's ability to perform. From a total return perspective, the seeding economics act as an overall enhancement/option to the manager's return profile. ERS will benefit as the manager is successful and continually grows AUM. This is because ERS/PAAMCO Launchpad will be taking revenue shares in exchange for early stage capital.

Ms. Cooley noted that she was pleased with the investment approach.

Mr. Lambropoulos noted that allocations into the new emerging manager program will be made to familiar strategies that are already being monitored by the ERS Hedge Fund team. Many of these strategies would be viable candidates for both the ARP and the DGP.

Representatives from the consultant (Albourne Partners LLC) then presented on the state of the hedge fund industry. Mr. Claisse presented a market update and strategy outlook. He noted the strong hedge fund portfolio (ARP) performance over several timeframes, including 1-year, 5-year, and since inception.

Mr. Claisse noted that the beta of the ARP has been below 0.4 over the last 12 months and attributed it to the very low volatility of the overall Trust. He also stated that the portfolio remains within its guidelines. He then discussed ongoing due diligence and the fact that ERS receives a good degree of transparency from its underlying managers due to Albourne's Open Protocol system. He further discussed performance of the ARP and its significant outperformance over various industry benchmarks.

Mr. Claisse then provided a 12-month performance review of the hedge fund universe. He noted that even though industry performance was negative during 2016, ERS' portfolio generated positive alpha during that timeframe. He further explained that over the last 12-months the industry has seen more dispersion across strategies which are beneficial in generating excess return (i.e. alpha).

Ms. Lohachitkul noted that hedge funds are not an asset class, but are actually a business model where multiple asset classes can be traded. She explained that there are really four key hedge fund

super-strategies that include Directional, Relative Value, Equity Long/Short, and Event-Driven. She noted each super-strategy is expected to perform differently under various market environments. Directional strategies (i.e. Global Macro) are expected to be positive in each of the three states. This is inclusive of a negative state where drawdowns are expected.

Ms. Lohachitkul presented Albourne's current ranking of super-strategies with top allocations targeting both Directional and Relative Value strategies. These two strategies were followed by Equity Long/Short and Event-Driven. She noted that the ARP includes both Global Macro and Relative Value strategies. She then noted the ongoing due diligence of a potential Relative Value allocation which would be focused on Fixed Income Arbitrage. Per Albourne's presentation, Fixed Income Arbitrage and Global Macro were both deemed top quartile strategy rankings. Both strategies under most circumstances actually benefit from increasing volatility and changes in both monetary and fiscal policy. She noted credit related strategies are at the bottom of the rankings given that Albourne sees the current environment as less favorable on credit. This is primarily due to current valuations and a muted opportunity set. Albourne said they have an ongoing positive view regarding less liquid (opportunistic) credit strategies such as lending based strategies.

Mr. Claisse discussed trends in the hedge fund industry and the evolution of the hedge fund business model. He stressed the ongoing focus for Albourne on transparency and governance. Over the last two years, Mr. Claisse noted that around 200 hedge fund managers out of Albourne's universe have changed their fee structures to reduce fees and/or better align themselves with investors. He also noted the ongoing acceptance of the 1% or 30% fee structure model. He stated that the ARP has 13 investments with an average estimated management fee of 1.46% and an average incentive fee of 18.75%. He explained that five of the 13 managers have hurdle rates. Albourne estimates that ERS has saved over \$13 million dollars from fee savings inclusive of negotiations in FY17 and another estimated fee savings totaling \$9 million for the fiscal year to date.

There were no further questions or discussion, and no action was required on this item.

#### 6.2 Consideration of Proposed Hedge Fund Annual Tactical Plan for Fiscal Year 2019 – (Action)

Mr. Anthony Curtiss, Senior Managing Director presented the proposed Fiscal Year 2019 tactical plan.

Mr. Curtiss noted the hedge fund program was within its strategy guidelines and that the Absolute Return Portfolio is approximately 3.7% of the Trust's assets with an allocation target of 5%.

Mr. Curtiss explained that expectations are for one to three new investments during Fiscal Year 2019 that will target Opportunistic and Relative Value strategies.

The IAC then took the following action:

**MOTION** made by Mr. Ken Mindell, seconded by Mr. Gene Needles, and carried unanimously by the members present that the Investment Advisory Committee of the Employees Retirement System of Texas approve the ERS Hedge Fund Tactical Plan for Fiscal Year 2019 as shown in Exhibit A.

The Board of Trustees then took the following action:

**MOTION** made by Ms. Cydney Donnell, seconded by Mr. Craig Hester, and carried unanimously by the members present that the Board of Trustees approve the ERS Hedge Fund Tactical Plan for Fiscal Year 2019 as shown in Exhibit A.

## 7. PRIVATE EQUITY PROGRAM

### 7.1 Market Update and Program Overview

Mr. Wesley Gipson, Senior Portfolio Manager, Mr. Davis Peacock, Portfolio Manager, Mr. Ricardo Lyra, Portfolio Manager, Mr. Brad Young, Pavilion Alternatives Group, and Dr. William Charlton, Pavilion Alternatives Group presented the private equity program market update and overview.

Mr. Gipson noted there have been no changes as far as the personnel to the private equity team and Ms. Adriana Ballard has been promoted to Portfolio Manager.

Mr. Gipson presented a portfolio update as of June 30, 2018. He noted commitments of a little over \$600 million, \$750 million in called capital, and \$780 million in distributions. The Net Asset Value (NAV) grew by a little over \$400 million, which equated to a 100 basis point increase. The private equity portfolio has moved from 12.3% to 13.3% of the overall Trust, slightly above the 13% long-term target. The total value to paid-in-capital increased to 1.35x while distributions to paid-in-capital ticked up to 6.9x. The cumulative internal rate of return since inception picked up by 39 basis points to 12.3%.

Mr. Gipson presented historical liquidity requirements of the private equity program showing capital calls and distributions. He noted that, on average, 3.7% of outstanding commitments are needed quarterly. If applied to current outstanding commitments of roughly \$2.5 billion the projected capital needs are \$90 million per quarter. He explained that during the most recent three quarters, capital calls have been somewhat comparable to distributions and noted that the portfolio is cash flow positive to the tune of \$70 million.

Mr. Gipson discussed a chart showing ERS performance over one, three, five and 10 year periods versus two benchmarks. He explained that the official benchmark is the ACWI IMI + 300 basis points over a rolling 10-year period. He explained Burgiss private equity funds universe is a database of fund returns and noted the Burgess 50<sup>th</sup> percentile exceeds the MSCI ACWI IMI in all periods except for year one. He further noted that it is a good indicator and that the benchmark is a good and relevant benchmark. He noted that the Private Equity Portfolio outperformed the Burgess median and is closer to the Burgess 75<sup>th</sup> percentile than to the median, a midpoint between 50<sup>th</sup> and 75<sup>th</sup>.

Mr. Gipson discussed the Wilshire Trust Comparison which benchmarks the ERS private equity portfolio versus peer public portfolios of greater than \$5 billion in asset value. He noted that the ERS portfolio outperformed the 75<sup>th</sup> percentile in all six periods and outperformed the 95<sup>th</sup> percentile in three of the six periods.

Mr. Peacock discussed underlying portfolio company operating performance. He explained that for the past 12 months revenue has increased from 30.9% a year ago to 62.9%. The EBITDA has increased from 52.8% a year ago to 66.2% and Enterprise Value to EBITDA increased from 5.3% a year ago to 9.9%. He noted that the multiple has grown from 10.6x a year ago to 11.2x and explained that multiples were calculated by taking an average of the increases across each of the portfolio companies.

Ms. Cooley commented that the numbers were really good, especially considering revenues grew 30%.

Mr. Gipson mentioned that for the one-year an outlier is driving quite a bit of the number and if removed the number drops to a more reasonable 12%.

Mr. Peacock discussed portfolio leverage using individual portfolio company data. The categories represent the leverage multiple of the underlying portfolio companies and explained that some range from less than zero times up to 10x leverage. He further explained that in the private equity industry, once leverage ratios exceed 5x to 6x times, the deal is considered to be highly levered. He further explained that 81% of the portfolio falls below the range.

Mr. Peacock noted the negotiated reduction in the average profit share and management fees since the introduction of the co-investment program in 2012. Since the inception of the private equity program in 2007, the average buyout profit share went from 20.2% to 16.7% in 2018. The average buyout management fee went from 1.7% to 1.4% over the same period.

Mr. Peacock then discussed terms by fiscal year of the entire private equity portfolio. Since the inception of the private equity program in 2007, the average profit share went from 18.5% to 13.7% in 2018. The average management fee went from 1.7% to 1.2% over the same period. In addition to the introduction of co-investments and negotiated fees, two large strategic relationships with secondary fund-to-fund managers have been a primary source of savings.

The fee and profit share savings amount to \$69.1 million for the program through co-investments and a total of \$195.8 million of savings are expected. He highlighted \$69.8 million of realized savings and an additional \$208 million in savings is anticipated from fee negotiations. He further explained that for both categories, as investments continue to mature and exit, the figures will continue to rise. He then explained that the estimated co-investment and negotiation savings are expected to total approximately \$540 million.

Mr. Lyra presented a breakdown of the private equity portfolio to show adherence to the investment policy guidelines. The United States portion of the portfolio should not represent anything less than 50%. Currently the US represents 55%, followed by Europe with 25%, and the remainder allocated across developing markets. The guideline states that no sector should represent more than 20% of the portfolio. Currently, no sector represents more than 15%, with the exclusion of the diversified portion that is 19% of the portfolio. He explained that Diversified represents commitments in secondaries and fund-of-funds, and by nature those strategies are diversified across not only sectors, but also vintage years.

Every strategy within the portfolio sits within the ranges provided in the guidelines. He discussed the economic exposure by general partner and explained that the economic exposure is the sum of NAV and the uncalled portion of commitment. The exposure guideline states that no relationship should represent more than 20% of economic exposure. He explained that currently no relationship in the portfolio represents more than 9%.

Commitments are invested during a fund's investment period and take place about three to five years after capital is committed. The investments will then return to ERS approximately three to seven years after the investment. He explained that in 2014 a commitment of \$600 million was made to a secondaries and fund-of-fund strategy. He further noted both strategies are highly diversified across vintages.

Mr. Gipson concluded the presentation by reviewing goals and objectives presented at last year's Board meeting and discussed the goals and objectives for the upcoming fiscal year. Last year's goals were to establish a direct secondaries program, enhance data and reporting, and execute the tactical plan. The only pending item is establishing a direct secondaries program which is pending a request of additional staff in order to execute in a future budget year. He noted that historically the private equity portfolio has been tilted towards value names, but going forward, there will probably be a shift toward growth names. He also noted the shift would include a stronger representation of China due to growth prospects.

Ms. Cydney Donnell commented that since markets have been robust one might expect private equity would see more realizations than have been seen. She asked if managers are holding on to assets because they are having trouble getting new investments or whether it is something else.

Mr. Gipson explained that he hoped to see higher distributions within the portfolio and noted a secondaries sale of mature exposure that has reduced some distributions. He further explained that the general market was good in 2014 and 2015, so managers were selling everything that had matured to the point that it could be sold. He further noted that while distributions and exits have been strong, he believes we are seeing a kind of a retrenching and maturing of the more recent vintages.



Ms. Donnell asked if Mr. Gipson is saying managers harvested a lot in 2014, so they believe there are more operational gains that they can achieve from current portfolio companies. Mr. Gipson said that is what he expects to happen.

Ms. Donnell noted that managers can be focused on harvesting fees and may convince themselves that they can keep it going in a mature market. She further noted that she hopes that staff is considering that and having the necessary dialogue with managers of older vintage funds.

Mr. Gipson commented that it is always an ongoing dialogue between limited partners and general partners and that he believes there are a lot of immature portfolios in the market.

Mr. Gipson noted that every year there is a lot of capital chasing fund managers and a lot of capital chasing deals. He explained that he sees the impact in the number of deals that managers are executing. They are paying very high multiples for platform companies and then they are really trying to make up for it with many add-on acquisitions.

Mr. Young noted that it's an ongoing challenge looking at what managers can add if they are paying full price for a platform. Add-on and operational improvements are a key feature that are reviewed when deciding to invest in a manager.

Mr. Young updated the Board on the Mercer acquisition of Pavilion Alternatives. He noted the team working with ERS will double in size. The platform will increase geographically with more people on the ground in different geographies, including Asia, Latin America, and Europe.

Since inception the private equity portfolio returned 12.8%, compared to 10.6% of the MSCI ACWI IMI + 300 bps. He noted that was very good outperformance for the period of time and noted the five-year and three-year returns were quite good. He further noted outperforming all the different metrics, even in the one-year performance, in a very robust public market is good. He explained that it's not unusual to have that kind of volatility within a one-year number, but still quite good. He said that the performance has been good all the way around and is continuing to outperform as it has done through a variety of cycles.

Mr. Young presented quartile performance on a committed basis. Half of the portfolio funds are in the first and second quartile. The fourth quartile number is weighted by the 2014 vintage year and will normalize over time to be similar to past vintage years. He explained that he expects the portfolio will continue to have outperformance and the fourth quartile number to drop. He then presented the same chart by total value and noted that almost two-thirds of the portfolio is in the first and second quartile, with the third and fourth quarter representing a little less than 4%. He noted that the figures are within expectations. He highlighted that he expects the outperformance number to continue based on the metrics being seen today.

Dr. Charlton discussed the portfolio as being largely North American-based, in line with guidelines. He explained the other geography exposures are in line with guidelines and noted the North American portfolio has done very well. He discussed the industry composition and said it is diversified. He noted that with good diversification across the managers the fund is seeing that flow through in the sectors as well.

Dr. Charlton provided an overview of the co-investment program, specifically there are 39 co-investments in the portfolio today, with 71% committed to buyout strategies. He then noted the diversity across co-investment sponsors. He believes staff has done a very good job of sourcing investments and co-investments.

The co-investment program started becoming very active in 2012. He described the maturation of the program and noted earlier investments are more likely to be carried at higher multiples. He further explained the most recent investments are more likely to be carried near cost. He noted that the co-investment program is still relatively young, but there have been some good results. He then noted a very good exit at the end of last year for the Dwyer investment out of Riverside.

Dr. Charlton said that fundraising has been very strong. He explained there are a lot of limited partners, either creating new allocations to private equity, or increasing their allocations. He noted the effect of seeing a lot of capital come in and new funds being raised more quickly. Whereas, it used to be normally four to six years between subsequent funds, now, it's more like three to five years with some funds coming back in two and a half years. He explained that all the incoming capital is affecting deal flow, which has more recently fallen off. He attributed the drop off in deal flow being driven by pricing that causes managers to be more cautious about what they buy. Prices are very high and fund managers are more cautious. Strategies focused on more growth and more acquisitions take longer to execute, so that's one of the reasons managers are holding portfolio companies longer. There's always a balance between the opportunity to continue growth and what the current return level is, when deciding whether to exit a company.

Dr. Charlton noted the portfolio has consistently exceeded its benchmark and has generated good cash for the portfolio. The portfolio is becoming a source of revenue or source of cash flow, rather than a 'use of cash' flow. He further noted the portfolio has a very high quality group of fund managers that are generating good common investment opportunities and allowing the staff to reduce fees by doing a blend of co-investments and fund investments.

Most funds charge on committed capital during the investment period that typically has a five year investment period, then based on the NAV of the fund.

Mr. Hester asked if the high valuations in the market are causing slower implementation of the tactical plan for next year or if the team is continuing to move forward. Mr. Gipson explained that it is a tough environment, but the goal is to pick good managers and trust them to perform through the cycles.

There were no further questions or discussion, and no action was required on this item.

#### 7.2 Consideration of Proposed Private Equity Annual Tactical Plan for Fiscal Year 2019 – (Action)

Mr. Wesley Gipson, Senior Managing Director, and Mr. Ricardo Lyra, Director, presented the proposed Fiscal Year 2019 tactical plan.

Mr. Lyra discussed the proposed nine to 18 commitments totaling \$1 billion for Fiscal Year 2019.

Mr. Lyra then discussed the projected five-year tactical plan and noted a 14.3% weight to the Trust in 2020 before returning to the 13% target range. He further detailed an allocation pacing of \$800 million per year used to execute the proposed investment strategy.

The allocation is fairly concentrated and based on a target of 35 relationships. The focus is on quality managers and creating meaningful allocations that give access to Limited Partner Advisory Committee seats, information rights, co-investments, and additional negotiating power.

Commitments are evaluated by year and adjusted on a going forward basis to stay around the target.

The IAC then took the following action:

**MOTION** made by Mr. Gene Needles, seconded by Mr. Ken Mindell, and carried unanimously by the members present that the Investment Advisory Committee of the Employees Retirement System of Texas approve the ERS Private Equity Tactical Plan for Fiscal Year 2019 as shown in Exhibit A.

The Board of Trustees then took the following action:

**MOTION** made by Mr. Craig Hester, seconded by Ms. Ilesa Daniels, and carried unanimously by the members present that the Board of Trustees approve the ERS Private Equity Tactical Plan for Fiscal Year 2019 as shown in Exhibit A.

## **8. ADJOURNMENT**

### 8.1 Adjournment of the Joint Meeting of the Board of Trustees and Investment Advisory Committee

There were no questions or further discussion, and no action was required on this item.

### 8.2 Recess of the Board of Trustees. Following a temporary recess, the Board of Trustees will reconvene to take up the remaining Board agenda

There were no questions or further discussion, and no action was required on this item.