

Minutes of the Investment Committee
University of Kentucky Board of Trustees
9:00 a.m. (CST) on September 8, 2016
The Medical Center / Western Kentucky University Health Sciences Complex
Bowling Green, Kentucky

IN ATTENDANCE:

Investment Committee
Members: William C. Britton, Acting Chair
Claude A. Berry III
James H. Booth
Mark P. Bryant
Carol Martin Gatton
Robert D. Vance

Community Advisory
Members: James F. Hardymon
William E. Seale
Myra L. Tobin

Investment Staff &
Consultants: Susan I. Krauss, Treasurer
Todd D. Shupp, Chief Investment Officer

Michael J. Aluise, Consultant, Fund Evaluation Group
Nolan M. Bean, Consultant, Fund Evaluation Group
Rebecca S. Wood, Consultant, Fund Evaluation Group

Acting Chair Britton called the meeting to order at 9:00 a.m. and requested a roll call. Acting Chair Britton then called for a motion to approve the minutes from the Committee meeting on June 23, 2016. The motion was moved by Trustee Booth, seconded by Trustee Vance, and approved by all.

Ms. Krauss began the endowment overview presentation, reviewing the history and evolution of the University's endowment. She discussed the background of the University's \$1.2 billion endowment, noting that the endowment is comprised of an aggregation of gifts provided by donors and other funds set aside by the Board of Trustees with the requirement they be held and invested in perpetuity to generate earnings for support of University programs, providing stability when there are downturns in other sources of income. She presented a breakdown of total endowment assets by type and entity as of June 30, 2016. By type, true / permanent endowments valued at \$727.3 million made up 60% of the total, quasi endowments equaling \$483.0 million comprised 39%, and the remaining 1% was comprised of charitable trusts and gift annuities of \$6.8 million and term endowments of \$4.3 million. By entity, the University's assets of \$1.2 billion made up 98% of the total, UKRF had \$12.8 million or 1% and Equine had \$8.3 million or 1%. Assets for Mining Engineering, Humanities and The Fund had values of \$1.8 million, \$1.3 million and \$154,000, respectively, each less than 1%.

Next, Ms. Krauss reviewed the roles and responsibilities of the Committee, investment staff, investment consultant, investment managers and investment custodian. She stated that, as set forth in the governing regulations, the responsibilities of the Committee include formulating and reviewing investment policies, appointing, monitoring and evaluating investment managers and consultants, reviewing and approving

plans for the general management of endowment funds, and reporting to the Board after each Committee meeting on endowment investment performance. She continued by noting that the investment staff, consisting of Susan Krauss, Todd Shupp and Kristina Dills, has the responsibility of working with the consultant and advising and making recommendations on asset allocation and the spending policy. The investment consultant, Fund Evaluation Group (FEG), serves as an advisor to the Committee and investment staff on asset allocation and policy decisions, assisting with manager due diligence, performance reporting and monitoring of assets. Investment managers are tasked with managing the assets in the approved strategy for which they were hired and the investment custodian, Northern Trust, holds assets in safekeeping, providing settlements of trades, collecting income, remitting income to the University and providing record keeping.

Ms. Krauss then discussed investment objectives. She stated that the overriding objective is to preserve the purchasing power of endowment assets and the related revenue stream. With the objective of earning a 7.5% nominal return and allowing 3.0% for inflation, the average annual real return available for spending is 4.5%, with a targeted spending rate of 4.0% and a management fee of 0.5%. She presented background information for UPMIFA (Uniform Prudent Management of Institutional Funds Act), which was approved in 2006 by NCCUSL (National Conference of Commissioners on Uniform State Laws). She noted that UPMIFA updated and clarified UMIFA (Uniform Management of Institutional Funds Act), relaxing the historic value limitation and providing better guidance for making spending decisions. She stated that two main principles set forth in UPMIFA and subject to donor intent / express limitation relate to investment and spending. Regarding investment, assets are to be invested prudently in diversified investments that seek growth as well as income. Relating to spending, there is guidance that allows for prudent expenditure to support the endowed program purposes. She commented that UPMIFA enhanced the protection of donor intent and provided clear guidance on obtaining consent to release / modify restrictions deemed to be impractical or impairing management of the fund. UPMIFA guidelines for making investment decisions include the prudent person standard of care, a special skills standard of performance, the total portfolio focus, diversification, rebalancing and cost management. Additionally, UPMIFA set forth seven principles to guide spending decisions, to be applied at the individual fund level, including duration and preservation of the endowment fund, purposes of the institution and the endowment fund, general economic conditions, effect of inflation or deflation, expected total return from income and appreciation of investments, other resources of the institution and the investment policy of the institution.

Next, Ms. Krauss provided a review of historical endowment information, beginning with a presentation of historical endowment values, dating back to 1992 when the endowment pool was established. At inception, the total assets of the endowment pool equaled \$96 million. As of June 30, 2016, the value had grown to more than \$1.2 billion. Additionally, she provided a review of long-term returns as of June 30, 2016. Since 1992, the endowment returned 7.1%. Over the past seven years, it returned 8.2%. The prior ten, fifteen and twenty year periods produced returns of 3.9%, 4.6% and 6.4%, respectively. A review of the historical target asset allocation highlighted the progression from a very traditional asset allocation to a diversified portfolio. From 1992 to 2000, the pool was primarily a 60/40 soft bond mix. By 2000, the allocation was 62.5% equity and 37.5% core bonds. In 2004, global equity was added. In 2005, private equity and real estate were included. In 2008, absolute return and real return were incorporated. In 2013, long-short equity and global tactical asset allocation were added. Then Ms. Krauss reviewed some key governance milestones. She noted that prior to 2008 the Committee approved the issuance of RFPs for all service providers and interviewed search finalists and made manager hiring and firing decisions. From 2008 to 2014, the investment staff had the authority to issue RFPs and select recommended finalists for presentations to the Committee and the Committee approved manager hires and fires. Beginning in December 2014, the hiring and firing of investment custodians and managers was delegated to staff in consultation with the consultant and the hiring of the investment consultant became a collaborative effort by the Committee and investment staff. At this time, Acting Chair Britton noted that the Committee had not approved the recent hiring of FEG as the consultant or Northern Trust as the custodian earlier in 2016.

Trustee Vance moved a motion to ratify the hiring of Fund Evaluation Group as the consultant. The motion was seconded by Trustee Bryant, and approved by all. Additionally, Trustee Vance moved a motion to ratify the hiring of Northern Trust as the custodian. The motion was seconded by Trustee Bryant, and approved by all.

Then, Ms. Krauss reviewed the investment staffing and consultant history. She noted that from 1992 to 2002, there was very limited staff, with less than half of a full-time employee dedicated to the endowment. Also during that time period, Cambridge Associates was hired to create a single, diversified endowment pool. From 2002 to 2008, staffing increased modestly, but was still less than a full-time employee. The University used Ennis Knupp as a consultant and implemented a whole-stock methodology, adding real estate and private equity. She commented that from 2008 to 2016, staffing increased to a little more than the full-time equivalent of an employee and RVK was hired to expand diversification to include hedge funds and other alternatives. Beginning in 2016, staffing increased to the equivalent of almost two and a half full-time employees, evolving from a consultant driven model to a staff driven model. Also in 2016, FEG was hired and provided a clearly defined plan for portfolio enhancements.

Next, Mr. Shupp provided a review of fiscal year 2015 – 2016. He noted that several endowment searches were completed during the year, including those for investment consultant, investment custodian and investment manager for diversified inflation strategies. Improvements were made to the portfolio structure and diversification. Examples included changes to fixed income and diversified inflation strategies to address portfolio needs and strategies of concern. Also, the exposure to emerging markets equity was modestly increased. He commented that there were several proactive fee reductions, including negotiated savings of \$770,000 (30%) over the first five years versus the initial consulting fee proposal, a PIMCO unconstrained fund change resulting in \$150,000 (50%) fee savings and a negotiated 20% management fee reduction on Grosvenor OCF IV. Also, a new manager search process proposal was proposed during this time period, there was an uptick in detailed open records requests, and there was increased efficiency in investment staff processes. He stated that the year proved to be a challenging period for performance, with an estimated return of (1.8%). Trends from fiscal year 2015 continued; examples included U.S. equities outperforming marketable alternatives, and private equity and real estate delivering strong returns. He commented that the real detractor for the year was the first three months when the value declined by 5.0%; however, the remaining nine months returned 3.4%. He noted that initiatives for fiscal year 2017 include asset allocation changes, fee reduction and implementation enhancements, including a Fund of One vehicle and a new proposed search process to increase efficiency and return potential.

Mr. Shupp then presented some investment staff observations. He commented that recessions occur approximately every ten years and it has been eight years since the 2008 crisis. Also, U.S. stocks are at record levels with stock valuations at the top 10% of historical observations based on data dating back to the 1880's. He noted that when the rally ends the expectation is that there will be benefits from portfolio diversification with active, long/short approaches. He stated that the University has the ability to increase risk, but must be prepared for declines in shorter term periods in the next bear market and that it is extremely difficult to predict future returns. Therefore, he explained, the focus should remain on what can be controlled, including diversification across asset classes and risk factors, asset allocation and risk associated with desired level of return, investment in high conviction active managers at appropriate fee levels, setting of realistic expectations, learning from the past and maintaining perspective and focusing on long-term results.

Next, Mr. Bean reviewed the questions and responses from the recent Committee survey. He commented that key takeaways from responses included the following: the primary goal of the Endowment is to generate performance greater than spending plus inflation, the asset allocation should afford above a 50% probability of reaching the return objective, active management has the ability to add value, the portfolio

can afford more illiquidity and more risk, and the endowment has just one client, the University. He stated that results were compiled from ten participants, including five Committee members, two staff members and three others. Regarding the time horizon, on average, respondents felt the achievable rate of return for the Fund over the next decade was 7%. Mr. Bean agreed that he felt 7% was achievable. Seventy percent of respondents ranked achieving performance equal to or greater than 7.5% as the most important primary investment objective. Regarding benchmarking UK performance versus peer institutions, 60% of respondents felt public institutions with a \$1 - \$2 billion endowment value was the best benchmark. When asked to identify the risk that was their primary focus, 60% said shortfall risk, where return is less than the long-term objective, and 40% responded market risk, or fluctuations in asset prices. When asked to identify the goal most important to them, 80% of respondents said performance greater than a total return target of 7.5%. Next, survey participants were asked for the minimum probability of achieving the total return objective of 7.5% they would be willing to accept over the next decade. The average response was 58%. When asked for the maximum decline they would be willing to withstand in any one year, the average response was 13%. The next question referenced the portfolio's liquidity as of March 31, 2016, with 51% of the portfolio being available for withdrawal within less than three months, and asked respondents how the liquidity profile felt. Seventy percent said the liquidity profile felt too liquid and 30% said it felt about right. When asked if they believed active management could add value net of all fees, 50% said yes in some asset classes and an additional 40% responded yes in all asset classes. Next, respondents were given a scale of 1 (too conservative) to 10 (too aggressive) and asked to characterize the risk of the current portfolio, with 5 being "appropriate". The average score was four. Additionally, 80% of respondents answered that they believe active asset allocation (over / under-weight the target asset allocation within predetermined ranges) can add value versus a strategy of consistent rebalancing to the target asset allocation. Mr. Bean noted the following conclusions to the survey: the asset allocation should be established to meet the Endowments' primary objective over the long term (7.0% to 7.5%), performance versus peer institutions is the least important objective and should not drive investment decisions, and active management and asset allocation will be pursued in markets where alpha can be generated.

Next, Mr. Bean provided a review of asset allocation and spending. He noted current market challenges, including the fact that U.S. based portfolios trounced globally diversified portfolios over the past seven years and, based on current valuations, a U.S. 60/40 portfolio has the lowest expected return in history. He then presented FEG's investment philosophy. The four key points included that investment decisions should be made with a long-term perspective, portfolios should be constructed to achieve diversification by global risk factors, valuation considerations should drive investment decisions and skillful active management has the potential to add value. Mr. Bean then reviewed FEG's proposed asset allocation. Recommended targets would decrease global equity from the current target of 50% to 40%, global fixed income would increase from 10% to 20%, real assets would decrease from 22% to 20% and diversifying strategies would increase from 18% to 20%. Additionally, the percentage of hedge funds and private capital would increase from 48% to 55%. In relation to risk, the proposed standard deviation would decrease from 15.4% to 15.1%. He noted that the probability of achieving the target return of 7.5% is 53%. Next, Mr. Bean commented on MLP yields, which are at historically wide levels. As of June 30, 2016, the distribution yield for the Alerian MLP Index was 7.2% versus the historical long-term average of 7.4%. On a comparative basis, the MLP Index is yielding in excess of most other income-oriented securities with an ability to grow yields over time. Mr. Bean then provided FEG's portfolio recommendations, which were to reduce long/short equity and increase private equity, increase private debt and increase energy/natural resources. He noted that the benefits to the University from the recommendations would be higher returning asset classes at similar fee level, increasing illiquidity to capture incremental return / income and attractive return / risk profile at current valuations.

The Committee took a break for lunch at 11:34, returning at 12:34.

After lunch, Mr. Bean presented a discussion of active versus passive management. He noted that many active strategies fall close to the benchmark-aware classification, which is at the opposite end of the spectrum as pure active. He continued by stating that most managers underperform. Reasons for underperformance include arithmetic of active management {i.e. active management’s aggregated excess return (alpha) is a zero-sum game (if one active manager outperforms, another underperforms), and net of fees is a negative-sum game}, market efficiency and higher costs. Therefore, it is difficult to identify skillful managers. Additionally, studies have demonstrated there is no evidence of persistence in fund outperformance. Among the top performing managers there was no persistent outperformance in the subsequent five years nor was there a bias towards reasonably strong performance in the subsequent period. Also, studies indicate there is opportunity for improvement in returns in accepting a smart beta approach to gaining market exposure. Regarding active management, he outlined the advantages and disadvantages. Advantages include the opportunity to outperform the benchmark, unique exposure with expertise and protection can be provided in periods of market decline. Disadvantages include higher fees, underperformance for multi-year periods when philosophy is out of favor and time, effort, costs, and difficulty in finding skillful managers. He noted that the University’s public equity portfolio is currently positioned with more capital allocated to passive strategies than that of peers. Also, he stated that FEG recommends pursuing active managers with the following characteristics: unconstrained mandates, expert knowledge, access to more information, a valuation-oriented, contrarian approach, longer-term focus and high active share (a measure of how different an active manager is invested versus its benchmark).

Next, Ms. Krauss introduced Bill Harris, the University’s Chief Procurement Officer, and Bill Thro, University General Counsel, to discuss a proposal for an alternative process for conducting searches for endowment investment managers that would allow investment staff and the investment consultant to conduct manager searches without a formal request for proposal conducted by the Purchasing department. Mr. Harris stated that it has been determined the selection of managers is not feasible to bid using the formal competitive negotiation process set forth in KRS 45A.085. Therefore, the University’s investment staff may utilize the alternative process described in the Opinion of General Counsel, Opinion #2016-02, Use of Alternative Competitive Negotiation Approach for the Selection of Investment Managers. Mr. Thro noted that competition is not feasible for two reasons. First, history has determined that the RFP process does not work for investment managers for a major university with a significant endowment. Additionally, the fact that peer institutions use a different process also indicates that the market place has determined that utilizing an RFP process does not work. Ms. Krauss, added that the new search process would offer significant fee reduction and increased efficiency and return potential, while maintaining core KRS procurement objectives related to cost, transparency, competition, avoidance of conflicts of interest, and achieving best value. The objective of the search process will be to select the firm that offers the best value for the University and whose strategy is the most advantageous to the University’s ability to fulfill its mission. Ms. Krauss noted that the change to the selection process would be voted on at the December Committee meeting.

Mr. Shupp presented proposed changes to the endowment investment policy to be recommended for approval in December, highlighting the key changes. In section IV., Delegation of Authority, under Investment Managers, additional verbiage has been proposed that states “Investment managers will be selected utilizing an alternative search process approved by the Chief Procurement Officer, as described in the memorandum included in Appendix 1.” In section VI., Investment Policies, under Asset Allocation, it is being recommended that the current table be revised to reflect changes to asset categories, targets and ranges as shown below:

<u>Asset Category</u>	<u>Target</u>	<u>Range</u>
GLOBAL EQUITY	40%	30 - 50%
<i>Public</i>	<i>20</i>	
<i>Private</i>	<i>15</i>	

<i>Hedged (long/short)</i>	5	
GLOBAL FIXED INCOME	20	15 - 25
<i>High Quality/ Rate Sensitive</i>	<i>10</i>	
<i>Public Credit</i>	<i>5</i>	
<i>Private Credit</i>	<i>5</i>	
REAL ASSETS	20	15 - 25
<i>Public</i>	<i>10</i>	
<i>Private</i>	<i>10</i>	
DIVERSIFYING STRATEGIES	20	15 - 25

Also in the section VI., under Liquidity, additional wording is being proposed to recognize and differentiate between liquid, semi-liquid and illiquid categories. In the proposed structure, liquid assets (available within 90 days) will comprise no less than 35% of the portfolio, semi-liquid (available in 90 days or more but less than 2 years) and illiquid assets (available in 2 years or more) will comprise no more than 65% in total, and illiquid strategies will comprise no more than 35% of the portfolio. In section VII., Performance Evaluation, under Performance Benchmarks, there is a proposal to add a chart and wording to reflect assets included in the new asset allocation.

Following the review of proposed changes to the investment policy, Mr. Seale asked whether staff would need Investment Committee approval to reduce the portfolio's exposure to an asset category below the approved, lower bound of its allocation range. He proposed widening the range for Global Fixed Income to provide additional flexibility in case there is a need for a significant reduction to this asset category. Ms. Krauss agreed this was a good point, commenting that the proposed ranges are narrower than existing ranges and that a reduction below approved ranges would require additional Investment Committee approval. Acting Chair Britton agreed it would be a prudent decision to provide additional flexibility, and staff agreed to broaden the Global Fixed Income range and further evaluate the proposed ranges for each asset category. Acting Chair Britton also asked for confirmation that changes would be made to section IV. Delegation of Authority to reflect Mr. Seale's suggestion to remove staff discretion on the hiring of the Investment Custodian, and staff agreed to make this revision to the proposed policy.

Then, Mr. Shupp presented the Investment Staff Report. He began with an overview of the endowment asset allocation as of July 31, 2016, noting that the portfolio remains well within the policy ranges and well diversified across asset classes. He noted additions in June that included \$5 million to establish the UKRF Research Innovation Quasi-Endowment Fund and \$3.8 million to establish the UKRF College of Pharmacy Innovative Quasi-Endowment Fund. Next, he provided an update on manager appointments, terminations and due diligence for the period of June 24, 2016 through September 8, 2016. There was an extension to the SMIF Investment Management Agreement through June 30, 2107 to allow temporary oversight of the current graduate SMIF account by undergraduate students. Additionally, there was a temporary, liquid Diversified Inflation Strategy investment of \$25.4 million in a passive MLP fund. Relating to due diligence, there were a number of calls with FEG to begin the transition process and an onsite meeting was conducted with Reams.

Mr. Aluise then reviewed performance reporting for the quarter ending June 30, 2016 and the month ending July 31, 2016. Since this was the first Committee meeting since contracting with FEG, he also discussed the structure of reports and the types of reports that will be provided. At June 30, 2016, the value of the endowment was \$1.21 billion. The FYTD return was (1.8%) and the quarter to date return was 1.7%. Asset allocation was divided into 55% in global equity, 10% in global fixed income, 18% in real assets and 16% in diversifying strategies. For the month ending July 31, 2016, the market value was \$1.23 billion with a monthly / FYTD return of 1.8%.

Ms. Krauss then provided a report on the University's operating fund cash and investments which totaled \$1.36 billion as of June 30, 2016. She stated that the total cash and investments subject to the operating

fund investment policy was \$456.8 million, with \$215.0 million in overnight and short-term investments and \$241.8 million in other investments. The total cash held by the state as of June 30, 2016 was \$905.5 million, of which \$396.7 million was bond proceeds and other funds restricted for construction.

The meeting was adjourned at 2:13 p.m.

Respectfully submitted,
Kimberly C. Lush
Office of the Treasurer