Minutes of the Investment Committee
University of Kentucky Board of Trustees
9:30 a.m. on September 14, 2017
St. Elizabeth Teaching and Education Center (SETEC) Erlanger, KY
Banquet Room B

IN ATTENDANCE:

Investment Committee Members:	Mark P. Bryant, Chair Claude A. Berry, III Michael A. Christian Robert D. Vance Barbara S. Young
Community Advisory Members:	William E. Seale Myra L. Tobin (participated via conference call)
Investment Staff & Consultants:	Susan I. Krauss, Treasurer Todd D. Shupp, Chief Investment Officer
	Nolan M. Bean, Consultant, Fund Evaluation Group Rebecca S. Wood, Consultant, Fund Evaluation Group

Chair Bryant called the meeting to order at 9:36 a.m. and requested a roll call. He then called for a motion to approve the minutes from the Committee meeting on June 15, 2017. The motion was moved by Mr. Vance, seconded by Mr. Christian, and approved by all.

Ms. Krauss began by reviewing the day's agenda, then she and Mr. Shupp presented an Overview of the UK Endowment. Ms. Krauss began by defining an endowment as an aggregation of gifts provided by donors and other funds set aside by the Board of Trustees with the requirement that they be held and invested in perpetuity to generate earnings for support of University programs. She added that an endowment provides stability since the principal is invested and earnings are generated year after year. Ms. Krauss continued with a breakdown of the University's $1.4 billion endowment assets by type. Permanent, or true, endowments make up 56% of the total, quasi endowments account for 43%, with charitable trusts and gift annuities making up the remaining 1%. Ms. Krauss then reviewed a breakdown of the assets by purpose. The largest percentage of endowments support endowed chairs and professorships at 23%, with scholarships and fellowships making up 18%, and enrichment making up 10% of total assets. The other category, at49%, consists mainly of quasi-endowments including the Hospital endowment, the OPEB endowment, the medical malpractice endowment, and the new University operating quasi endowment. Ms. Krauss then briefly reviewed the breakdown of total endowment assets by entity, or major colleges, departments and affiliated corporations.

Ms. Krauss discussed the roles and responsibilities related to the endowment, beginning with the Investment Committee. This Committee has four primary duties as defined by the University's Governing Regulations: to formulate and review investment policies; to appoint, monitor, and evaluate investment managers and consultants; to review and approve plans for general endowment fund management; and to report to the Board after each Committee meeting on endowment investment performance. The most critical decisions that the Committee will make are the asset allocation and the spending policy. She stated the roles of investment office staff, consultants, and the custodian are laid out in the Investment Policy. Staff is responsible for the execution of policies, and the day to day administration of the assets. The consultant serves as an advisor to the Committee and investment office staff on asset allocation issues, manager structure, due diligence, and performance reporting. Finally, the custodian is responsible for safekeeping and recordkeeping of the assets. The investment objectives set forth in the policy are to preserve the purchasing power of endowment assets and the related revenue stream, known as intergenerational equity, and to earn an average annual real return, after inflation expenses, of at least 4.5% over full market cycles. She highlighted that the University has a target spending rate of 4.0% and management fee of 0.5%. Ms. Krauss then shifted discussion to the Uniform Prudent Management of Institutional Funds Act (UPMFIA), which governs how endowments are managed. UPMIFA was approved by the National Conference of Commissioners on Uniform State Laws in 2006 and was enacted in Kentucky in 2010. The two main principles of UPMIFA relate to investments and spending. Assets are to be invested prudently in diversified investments that seek growth as well as income, and the spending guidelines allow for expenditures deemed prudent for endowment program purposes. She noted some key principles to guide investment decisions including the prudent person standard of care, special skills standard of performance, total portfolio focus, diversification, rebalancing, and cost management. Ms. Krauss then briefly summarized the seven principles to guide spending decisions, adding that annual meetings with colleges and other units have been implemented to review and discuss spending for individual endowment funds.

Ms. Krauss reviewed historical endowment values, asset flows, and returns, followed by a review of trailing performance returns as of June 30, 2017, highlighting the long-term results. She also provided an overview of endowment's historical asset allocation and governance milestones demonstrating the evolution to a fully diversified portfolio and highlighting enhancements made to governance and asset allocation implementation. She discussed the formal RFP process for selection of investment managers used historically and the alternative search process now used by staff and the consultant approved by UK's general counsel and chief procurement officer, and formally approved by the Investment Committee in December 2016. Ms. Krauss stated she is confident the new search process will prove beneficial to the endowment over the long-term as it provides UK access to top-tier and emerging managers not available in the past through the formal RFP process.

Ms. Krauss then turned the presentation over to Mr. Shupp, who began with a review of historical investment staffing and consultant usage. In terms of staffing, in 2015 UK hired a full time CIO, followed by the addition of a full time investment operations analyst and a student intern in 2016. The endowment internship program has since expanded to include two students. Moving on to a review of the endowment's consultants over time, in mid-2016 a shift was made from RVK to FEG, and a key factor supporting their selection was their recommended plan to support expanding direct fund implementation and private capital diversification. He then conducted a review of fiscal year 2017. Key accomplishments included a transition to a new investment consultant and significantly enhanced portfolio implementation. The Wildcat Alpha vehicle streamlined direct fund implementation, and an updated manager search process improved the pace, efficiency, and manager opportunity set. Another key development was the shift towards new portfolio asset allocation targets. Portfolio diversification was expanded, fee reduction initiatives were continued, and a new SMIF Program structure was established. There was significant improvement in endowment performance in fiscal year 2017, with an estimated return of 9.6% that was recently revised upward to 10.1%. Mr. Shupp noted the fiscal year return will be revised further as all June 30, 2017 market values are received.

Next, Mr. Shupp referred back to the historical target asset allocation chart, highlighting key changes made in fiscal year 2017. He then covered key differences and continued trends from fiscal year 2016. Meaningful differences included the fact that there were broad-based portfolio gains, with all asset classes delivering positive results. Also, there were material return contributions from marketable alternatives strategies. Continued trends from fiscal year 2016 included outperformance of domestic equity strategies and strong returns in private equity. Then, Mr. Shupp highlighted some fiscal year 2018 initiatives. This includes the continuation of implementing the approved asset allocation, researching ways to improve long-term returns, expanding portfolio diversification, proactive efforts to reduce fees, and enhancing internal processes and workflow. There are also plans to finalize the diversifying strategies portfolio construction, as well as plans to finalize a new hybrid private equity commitment plan. Other initiatives include continued research and implementation of a new emerging markets equity structure as well as ongoing evaluation of opportunistic commitments in private markets. He concluded with investment staff observations, highlighting that staff thinks it is most important to focus on what we can control, since it is extremely difficult to predict future returns. Key things that can be controlled include maintaining diversification across and within asset classes, ensuring that all fees are appropriate for services provided, establishing clear and realistic expectations, learning from the past, and finally, maintaining perspective by filtering out noise and focusing on long-term results.

Next, Mr. Nolan Bean and Ms. Becky Wood, from FEG, provided an education session and an asset allocation study. Mr. Bean opened with the statement that the investment office and FEG are continuing to work towards the asset allocation that was approved in December 2016. He began by reviewing survey results from last year's Investment Committee survey. Mr. Bean then highlighted three main points concerning historical return data. A bull market in equities and declining interest rates have produced strong returns over the trailing seven years, but a review of 10 year returns highlights that not all markets are bull markets. Trailing 20-year results demonstrate that the liquidity premium is a long-term phenomenon. He then presented FEG's capital market assumptions. Mr. Bean noted that expected returns for privates, emerging markets, and MLPs are higher than our target return of 7.5%. He highlighted that UK's probability of hitting this return target with its approved asset allocation targets is 55%. The probability of other portfolio blends achieving this return target was also reviewed, as follows: NACUBO peers with over $1 billion: 56%; 60/40 stock/bond blend: 23%; 80/20 stock/bond blend: 30%. Mr. Bean then briefly discussed risk appetite, stating that the current UK policy has a risk profile similar to a portfolio with an allocation of 60% in equities, but has a higher expected return via broader diversification. The UK portfolio has a similar probability of maintaining intergenerational equity as the NACUBO peers, noting this metric is the percent chance the asset allocation will achieve a ten year return greater than 7.50%.

Mr. Bean then discussed portfolio construction. Historically, a blended 60/40 portfolio has provided returns in excess of CPI + 5%. However, it should not be expected that 60/40 will achieve this goal in the future. He then reviewed strategies for achieving this objective. He began by discussing global diversification within the equity market. Over the very long run, similar returns are expected from U.S. and non-U.S. equities. However, he noted that over extended periods of time, returns will be vastly different. While the U.S. market is substantially outperforming in the 2010s, international equities outperformed the U.S. in the decades of the '70s, '80s, and '00s. He stated that starting valuation is the best predictor of long-term stock returns and the U.S. is poised to underperform non-U.S. equities based on current valuations. For private equity, on average, buyout funds have outperformed the public equity markets over the last 30 years. The U.S. Buyout Index generated a 12.9% net internal rate of return (IRR) over the past 20 years and outperformed most major public indices. Shifting the discussion to fixed income, Mr. Bean stated that the value of the 10-year U.S. Treasury yield provides great insight into the subsequent five year return of the Bloomberg U.S. Aggregate Bond Index. Lower yields in core bonds make future returns less compelling, however credit opportunities have presented compelling risk/return characteristics historically. In summary, Mr. Bean noted four additional points. Asset class diversification was a drawback post-2008, but is prudent for long term investors going forward given current valuations. Secondly, the target asset allocation is diversified, and properly balances the need for return with the desired risk appetite. The traditional, blended U.S. stock/bond portfolio has done well, but is poised to disappoint. Lastly, risk-adjusted return opportunities are available in private capital, credit markets and energy which is where meaningful capital is being deployed.

Next, Mr. Chase Haymond from PIMCO presented a strategy review on the PIMCO All Asset All Authority Fund and Mr. John West from Research Affiliates shared his firm's perspective on asset allocation and diversification. Mr. Haymond began by highlighting some investor challenges, including the fact that conventional stock/bond allocations are not priced to provide adequate forward-looking returns. He then described that the main goals of the fund are to deliver attractive real returns, diversify away from equity risk, and provide inflation protection with modest volatility. All Asset All Authority is a "third pillar" strategy that offers attractive real return potential with diversification away from core stocks and bonds. The fund uses a value-oriented, contrarian allocation strategy that combines expertise from PIMCO, who manages the underlying funds, and Research Affiliates, the fund's subadvisor that determines its asset allocation. Mr. Haymond highlighted that calendar years 2013-2015 challenged most diversified portfolios, as the bull market in U.S. stocks was offset by low to negative returns across most other markets. The strong performance of third pillar assets in 2016 and the first half of 2017 has been fueled by a reversal in key factors that were previously headwinds: rising inflation expectations, stabilizing emerging markets, and value outpacing momentum. Despite their recent recovery, emerging market assets continue to trade at bottom quartile valuations. Mr. Haymond concluded by stating that All Authority remains well positioned to meet its return and diversification goals: it has a high yield, more than twice that of a 60/40 portfolio, an emphasis on cheaper, third pillar assets, and limited exposure to fully valued U.S. stocks and interest rates. Economic fundamentals and technicals are also supportive, in contrast to the 2013-2015 period, suggesting multi-year outperformance potential.

Next, Mr. West of Research Affiliates reviewed a presentation on asset allocation and capital markets expectations. Mr. West began with an introduction to the firm and its mission, stating that the central philosophy of Research Affiliates is the belief that there is mean reversion over a long-term time horizon. Behavioral tendencies and governance constraints perpetuate deviations from the mean in the short-term. Systematically contra-trading price volatility to capture long-horizon mean revision offers significant incremental return potential. Next, Mr. West emphasized three key takeaways for his presentation. First, the past is not prologue. Secondly, diversification is a strategy of maximum regret, as in strong markets investors often regret diversification, and in weak markets they regret not having more. Third, the job of a Trustee is really difficult since the endowment's time horizon is perpetuity whereas a typical trustee term is approximately five years, making it difficult to make decisions that could actually hurt performance in the short term but be best for the endowment over the long term. Next, Mr. West highlighted that mainstream asset classes offer less return than most investors expect and explored what investors could do to improve return potential. The first option is to consider a broader range of asset classes, as less common or uncomfortable assets can be priced to offer better returns. The second option is to unlock excess returns within asset classes, either via active or fundamental index approaches. A third option for improving return potential is to rebalance across asset classes, as tactical rebalancing can profit from valuation extremes. Continuing on this note, Mr. West noted that mean reversion is unreliably reliable, and pursuing all paths is uncomfortable but rewarding. He concluded with a demonstration of Research Affiliates' interactive website, exploring various asset classes and potential portfolios with their associated risks and returns.

The Committee took a break for lunch at noon and returned at 1:00pm.

Ms. Krauss presented the proposed changes to the endowment investment policy noting the policy requires that a formal review be conducted on an annual basis. These proposed changes are typically presented for discussion in September's meeting and then recommended for formal approval at December's meeting. Ms. Krauss emphasized that there are no changes to the portfolio's existing asset allocation targets and reiterated that the two most important decisions made by the Investment Committee are those concerning the asset allocation and the spending policy. Ms. Krauss stated that the primary change to be recommended is a temporary change in the endowment management fee. This proposed change, to be effective July 1, 2018, would have the management fee temporarily increased by up to .50%, for a maximum annual assessment of 1.00%, to support additional expenses related to the capital campaign. She continued by stating that historically the spending rate has been 50 basis points, and the standard management fee assessment of 0.50% would resume upon completion of the capital campaign. At the time of conclusion, Ms. Krauss would likely recommend that the additional .50% be shifted to the target spending rate. As a reminder, the portfolio's total target return is 7.5% and the inflation assumption will be lowered from 3.0% to 2.5%, which leaves 5% to support the University's spending and management fee needs. In this proposal, Ms. Krauss noted that we would keep the spending target at 4%, maintain a standard management fee of .50%, and then incur up to an additional 50 basis points for the temporary management fee. She noted that the specific figure for the additional management fee needed is still to be determined. Mr. Bryant raised a question concerning what was included in these projected, additional costs. Ms. Krauss responded that this would primarily be comprised of personnel for the capital campaign, as well as infrastructure expenses including system needs and increased travel expenses associated with the Philanthropy department. She reiterated that the funding plan was being compiled at this time, and that details would be shared with the Committee once they became available. Mr. Bryant then asked about the process for arriving at this new budget. Ms. Krauss replied that the Philanthropy department constructs a budget and then presents to the Budget Office for approval, as do all other units within the University. Mr. Richey, Chief Philanthropy Officer, added that the costs would also include increased capital campaign efforts among strategic areas across the University, rather than just being strictly limited to the central Philanthropy office. Ms. Krauss stated that this temporary fee would only be increased by the amount deemed necessary. Mr. Christian then raised a question concerning the expected timeline for this campaign. Ms. Krauss responded that the campaign would likely run through fiscal year 2021-2022.

Mr. Shupp then presented the Investment Staff Report. He began with an overview of the endowment asset allocation as of July 31, 2017, stating that the portfolio remains within the policy ranges and well diversified across asset classes. Reviewing asset flows for the period between May 1 and July 31, Mr. Shupp noted that there was an inflow of $75 million to the newly established University Operating Quasi Endowment. The majority of this inflow was invested in passive strategies. Mr. Shupp also highlighted the reduction in the hedged equity allocation since the previous Investment Committee meeting in June, reflecting the shift towards the new asset allocation target of 5%. He stated that an additional hedged equity investment on September 1st will complete the hedged equity portfolio restructuring. Mr. Shupp also briefly reviewed the manager concentration table, highlighting that several of the larger manager concentrations have decreased significantly.

He then presented a report on manager appointments, terminations and due diligence for the period of June 16th through September 14th, 2017. Mr. Shupp noted that over this period, two hedged equity and four diversifying strategies managers were added to the portfolio. This reflects a gradual shift from fund of fund managers to direct managers within the new fund of one. Mr. Shupp stated that this will assist in our efforts to reduce manager fees over time. A full redemption was made from the portfolio's core real estate manager, within private real assets. Other terminations for the period also reflected shifts towards new asset allocation. Exposure was reduced in the areas of hedged equity, real estate, and GTAA. Finally, Mr. Shupp summarized due diligence during the period, which included a wide variety of ongoing research to identify compelling managers within various strategies, portfolio structure analysis on the public real asset portfolio, manager on-site visits with West coast managers, as well as meetings with investment software solutions vendors with the potential to streamline investment office processes. Also of note, in late August, Mr. Shupp and Ms. Krauss attended FEG's Annual Investment Forum in Cincinnati.

Next, Mr. Bean provided a performance review and market update for the periods ending June 30 and July 31, 2017. He began by referencing a memo providing background and rationale for recent manager additions to the University's portfolio, noting that many of these managers are rounding out allocations to the sub-strategies previously targeted. Following this, Mr. Bean reviewed fiscal year 2017 performance. He began with fiscal year 2017 returns for market benchmarks, noting that equities had a great year. International equities were up 20.5%, while the S&P 500 was up 17.9%. In contrast, real assets did very poorly across all categories. International markets strengthened, as a weaker U.S. dollar and structural reform led investors to higher yielding assets. Growth stocks continued to rally, and have now outperformed value stocks over the trailing 10 year period by over 300 basis points. Mr. Bean then presented a summary of asset allocation, performance, and liquidity, stating that this was a key metric to monitor. He stated that final return numbers are still coming in, but the initial fiscal year return estimate of 9.6% outperformed the market-based target allocation benchmark by 20 basis. Mr. Bean noted two key points: the target benchmark reflects the approved asset allocation, which is the biggest driver of overall returns, and that manager selection added 40 basis points relative to the index. He then went into additional market commentary, noting that the return for emerging markets was 24.4%, and this is an asset class in which the University is slightly overweight.

Next, he transitioned to a review of fiscal year 2017 performance for various components of the UK portfolio. The U.S. equity portfolio outperformed the benchmark in the one year period, while the international composite lagged the index. Both composites have added value over their index in the last three years. Hedged equity underperformed the benchmark in FY2017, and this allocation has been reduced towards a lower target while being transitioned from funds of funds to direct mandates. Additionally, the private equity portfolio outperformed peers in the fiscal year. Recent performance has been strong, as the allocation has evolved and become a larger percentage of the portfolio. We expect to capture an illiquidity premium of approximately 300 basis points from this allocation over public markets in the long term. Next, Mr. Bean moved on to discuss performance and Mr. Shupp pointed out a new page added to the performance report, a periodic table of calendar year returns for a variety of market benchmarks. Mr. Bean noted that this chart serves as an example of why diversification is needed. He then shifted to a brief review of July performance, noting that the estimated return for the month was 1.2%., with a calendar year to date return of 6.1%. He concluded by highlighting returns for the domestic and international equity composites, which were 2% and 4.1%, respectively, and reviewing returns for the remaining asset classes.

Then, Ms. Krauss provided a report on the University's operating fund cash and investments as of June 30, 2017 and July 31, 2017. She began by stating that the total operating funds available as of June 30, 2017 were approximately $1.4 billion, pointing out that Tier IV are operating funds invested in the endowment pool, which now totals $368 million. $292 million of this is the Hospital operating quasi, and $75 million in the new University operating quasi-endowment. The total for the three non-endowed tiers is slightly over $1 billion, or 136 days cash on hand which is within the approved target range. She then called attention to the totals for Tiers I and II which was $793 million, or 106 days cash on hand, as of fiscal year end. As a review, Ms. Krauss discussed the composition of each tier, noting tier I is the most liquid and includes cash, as well as overnight and short term investments pending transfer to the state. Tier II is cash on deposit with the state. Tier III is other operating investments comprised of a pool of assets managed internally by staff, primarily in agencies and municipalities, and a low-duration portfolio managed by Reams. Tier IV is operating funds invested in the endowment investment pool. The Operating Investment Policy has established various benchmarks for each tier, and all four tiers are performing well. Ms. Krauss then reviewed bond proceeds on deposit with the State and historical graphs showing total monthly balances by tier for fiscal year 2017 and total fiscal year-end balances by tier for the period 2007-2017.

Lastly, Ms. Krauss reviewed items contained in the Other section, beginning with the 2017 meeting schedule and related agenda items. She stated the 2018 meeting schedule will be available in December once the proposed meeting dates were approved by the Board of Trustees. For the upcoming December Investment Committee meeting, formal approval will be recommended for the revised Endowment

Investment Policy and Ms. Krauss commented that calls will be scheduled with each Committee member to review the proposed policy changes and ensure any questions have been answered. Ms. Krauss noted that the supplemental reports for both the June 30th and September 30th periods will be available at the December 11th Meeting.

Next, Mr. Shupp presented a new section within the meeting materials containing supplemental reading materials. He called attention to three papers including *Maintaining Strategic Direction through Peaks and Valleys*, from Celia Dallas, Chief Investment Strategist of Cambridge Associates; *PIMCO All Asset All Access*, from Rob Arnott, Portfolio Manager and Founder of Research Affiliates; and *J.P. Morgan Quarterly Perspectives,* provided by The Strategy Team at J.P. Morgan Asset Management. Trustee Christian requested that similar materials be distributed between meetings rather than as part of the meeting materials. Mr. Shupp affirmed that this request could be accomplished.

Chair Bryant concluded the meeting by thanking Ms. Krauss, Mr. Shupp, and FEG, as well as advisory members Myra Tobin, Bill Seale, and James Hardymon. He then welcomed three new Board of Trustees members, Dr. Sandy Shuffett, Derek Ramsey, and SBA President Ben Childress.

The meeting was adjourned at 1:56 p.m.

Respectfully submitted,
Kristina W. Goins
University Financial Services