

Minutes of the Meeting of the Investment Committee
University of Kentucky
Monday, April 29, 2019

The Investment Committee met on Monday, April 29, 2019, in the Bolivar Art Gallery of the School of Art and Visual Studies.

A. Meeting Opened

Elizabeth McCoy, Chair of the Investment Committee, called the meeting to order at 2:01 p.m. and requested a roll call.

B. Roll Call

The following members of the Investment Committee answered the call of the roll: Elizabeth McCoy, James H. Booth, Michael A. Christian, Robert D. Vance, and Barbara S. Young. The following Committee member was not in attendance: Carol Martin "Bill" Gatton.

The following Community Advisory members answered the call of the roll: William C. Britton, Myra L. Tobin, James F. Hardymon, and Quint Tatro. The following Advisory member was not in attendance: William E. Seale.

The University Investment Staff was represented by Susan I. Krauss, Treasurer, and Todd D. Shupp, Chief Investment Officer.

Fund Evaluation Group (FEG) was represented by Michael J. Aluise, Rebecca S. Wood, and Greg Houser.

C. Approval of Minutes for February 21, 2019

Chair McCoy called for a motion to approve the minutes from the Committee meeting on February 21, 2019. The motion was moved by Trustee Vance and seconded by Trustee Christian. The motion passed without dissent.

D. Portfolio Risk Review

Mr. Mike Aluise, Fund Evaluation Group (FEG), introduced Mr. Greg Houser, FEG's Director of Research, who presented a risk review. He began by outlining an agenda for topics discussed which included risk measurement, risk tolerance, and risk monitoring. He began by explaining that most conversations on risk are focused on what can go wrong with a portfolio. There are various categories of risk. Absolute risk is considering a stand-alone investment and is calculated by using only the returns of a single investment or portfolio. Relative risk compares an investment's return to something else, most often a benchmark or peer group. Risk-adjusted measures take into account the amount of risk taken to achieve a given return.

Standard Deviation is the most commonly used risk metric. It establishes a percentage-

point assessment of risk. If a return has a normal distribution, Standard Deviation can help explain the probability of possible upside or downside return distributions. Beta measures an investment's or asset class's sensitivity to the market (the market has a beta of 1.0). More volatile portfolios have a beta greater than 1.0, whereas portfolios that are less sensitive to the market have a beta lower than 1.0. Lastly, the Sharpe Ratio measures a portfolio's excess return (over the risk-free rate) per unit of total risk, as defined by Standard Deviation.

Additional risks to consider include liquidity risk, operational risk, behavioral risk, and concentration risk. Mr. Houser stated that volatility (Standard Deviation) across asset classes is different, and pairing asset classes that have varying levels of Standard Deviation and a low correlation to each other could improve portfolio results. He pointed out that there also are many non-market reasons investors have difficulty meeting their investment objectives. A primary example of these is short-term focus. Investors intend to focus on the long-term, but react to the short-term. Investors can also err by extrapolating recent trends (also called recency bias) – such investors tend to think since the market has done well, it will continue to do so. Third, is investing in the comfortable. Investors may avoid asset classes that could provide risk-return benefits in portfolio construction. He cited several examples including U.S. investors holding more U.S. stocks than the rest of the world, with other countries doing the same.

Mr. Aluise then addressed risk tolerance. He stated that there are two dominant risks to investors' portfolios: market risk and shortfall risk. Market risk is the risk of decline in portfolio value and income. Shortfall risk is the risk of failing to meet return requirements. Investors must strike a balance between market risk and shortfall risk. Mr. Aluise next presented slides to remind the Committee of their responses to the 2018 Portfolio Construction Survey in which the careful balance between market and shortfall risk was considered for the UK portfolio specifically.

Mr. Aluise turned the presentation back over to Mr. Houser to discuss risk monitoring. Mr. Houser began by stating the importance of monitoring macro and broad market risks, and also understanding the primary risk drivers for each underlying asset class for which the portfolio is exposed. Next, Mr. Aluise shared a few comments regarding volatility, specifically how uncharacteristically low volatility had been from 2012-2017. The return of volatility in 2018 brought the S&P 500 back to a more normal volatility level but it understandably felt jarring to investors given the low levels of volatility from previous years. He stated that as finance theory has developed, the framework for describing equity asset pricing has changed. In addition to identifying how much beta a public equity allocation holds, investors should be aware of their exposure to other factors such as value, size, momentum, and quality/profitability. Mr. Houser went on to highlight a risk measure that can be analyzed in determining if a new strategy should be added to the portfolio: by evaluating a strategy's marginal contribution to risk, one can work to better maximize the risk-adjusted returns of a portfolio. This approach recognizes that from a diversification perspective, increasing (or decreasing) the allocation to an asset class is only additive up until a certain point. Mr. Houser then called attention to a historical scenario analysis chart which illustrated how our Endowment, in its current allocation form, would have performed during various periods of market stress. As an example, the UK portfolio would have declined by an estimated 27% in the Great Financial Crisis with its current asset allocation targets. Ms. Krauss noted that the UK Portfolio sustained a decline of 40% during that period, given the asset allocation at that time. Trustee Christian asked what percentage of the total portfolio was invested in equities

during the time of the financial crisis. Ms. Krauss replied that to her recollection this totaled 65-70%. Mr. Aluise mentioned that there is continuous work around risk being done both at Fund Evaluation Group and by endowment staff as it relates to the UK portfolio. Mr. Houser concluded his presentation by stating that risk measures should not be viewed in isolation, risk-adjusted returns must be considered, and diversification is the key to managing risk without sacrificing return. Ms. Tobin asked what portfolio equity beta statistic would be considered acceptable, and Mr. Aluise replied that this would be a range of about 0.5 to 0.6. Mr. Tatro asked how risk is measured in private equity in FEG's assumptions and Mr. Aluise replied that this is done in two ways: a liquidity stress test and measuring volatility.

E. Investment Staff Report

Next, Mr. Shupp presented the Investment Staff Report, beginning with an overview of the Endowment asset allocation as of March 31, 2019. Key updates included significant progress toward reaching the new target allocations: an increase in equity exposure as well reduced exposure to fixed income, public real assets, and diversifying strategies. He stated that the portfolio remains within the policy ranges and well-diversified across asset classes, through the first quarter of 2019. Next, Mr. Shupp highlighted the manager appointments and terminations. Appointments included a private equity addition in the buyout area, DFW Capital Partners, as well as a private real assets infrastructure manager, Ridgewood Water and Strategic Infrastructure Fund. Terminations for the period included a diversifying strategies manager, Graham Capital Management, which comes about as part of the process to lower the overall diversifying strategies exposure to 15%. Due diligence for the period included meetings with existing and prospective managers, portfolio and research calls with FEG, and a meeting with Quint Tatro, Jon Chait and their students to review the Student Managed Investment Funds (SMIF). Finally, Ms. Krauss, Mr. Shupp, and Ms. Rohde met with the Divest UK student group, with significant progress being made toward transparency, most notably improvements to the UK Endowment website.

F. Performance Review & Market Update

Mr. Aluise began the performance review and market update with a high level overview of market performance as of March 31, 2019. Overall, there was a substantial market recovery for equities, specifically within U.S. small cap growth. Markets were buoyed by the Federal Reserve's shift to a more dovish stance, an improved trade deal outlook with China, and strong earnings from U.S. businesses. Most markets have recovered their losses from the fourth quarter of 2018, but it has been a wild ride. Addressing fixed income, returns were up as interest rates declined. Riskier fixed income sectors performed the strongest, including high-yield and credit sensitive. Real assets also were additive for the period, especially in the areas of Real Estate Investment Trusts (REITs) and Master Limited Partnerships (MLPs). UK portfolio performance specifically was favorable for this time period, returning 4.9% for the quarter, and 2.3% for the fiscal year to date. Non-U.S. equity allocation held back relative Portfolio returns in the first quarter, including an international equity overweight and underperformance from a smart beta strategy, as well as a lower risk profile. Moving on to asset allocation, Mr. Aluise stated that the UK Endowment is within policy ranges, and is moving closer to the target allocation as of March 31, 2019. In conclusion, over two volatile quarters, the portfolio's diversified positioning helped to generate attractive risk-adjusted results. Significant progress has been made on moving to the approved asset allocation, but more work

remains. The portfolio is positioned prudently to reach the primary objective.

Next, Mr. Aluise briefly discussed the memo highlighting two new managers, and focused on the portfolio's newest private equity manager, DFW Capital Partners. The UK portfolio is moving towards a target allocation of 20% to private equity, and Mr. Aluise provided some perspective on the current popularity of this asset class. Many investor types are seeking to increase their allocations to private equity based upon an attractive historical risk/return profile. As a consequence, valuations are increasing within the private equity market, particularly in late-stage venture capital and mega-cap buyouts. The UK portfolio is focused on areas with more reasonable valuations, particularly in the lower middle market buyout space where the companies are smaller, competition is lower, and more inefficiencies exist. The key to succeeding in this area will be to find the best managers, and DFW is believed to be one. The objective of the private equity allocation is to produce a return premium of 300-500 basis points over public markets. This illiquidity premium is an integral part of the risk/return assumptions driving the overall allocation to private capital. Private equity opportunities will primarily consist of: venture capital, growth equity, and buyout. Of these three broad types, DFW fits into the lower-middle buyout category. He noted that many inefficiencies exist here that can be taken advantage of, compared to mega-cap buyout and late stage growth. Trustee Vance asked if we should be nervous, given that private equity has done so well, and has for some time. Mr. Aluise answered that this is a common question, and it can be a risk especially for very large firms. However, the concern is mitigated in the case of smaller funds. Ms. Wood added comments regarding being very deliberate and intentional with private capital manager commitments. Trustee Christian asked if FEG considers whether managers are invested in their own funds, and at what percentage. Mr. Aluise answered that they do evaluate this during their due diligence process, and that DFW committed \$20 million, or 5% of the total fund, which is high for industry standards. Lastly, Mr. Shupp called attention to the "quilt chart" included in the FEG performance report as a strong example of how a diversified portfolio, including an allocation to private equity, benefits the University's Endowment.

G. Other

Ms. Krauss reviewed the 2019 Investment Committee meeting schedule and tentative agenda items. She highlighted the upcoming June meeting which will include an educational session on diversifying strategies. The September Annual Retreat will include an Environmental, Social, and Governance (ESG) topical session, an external manager presentation, and a review of the Endowment Investment Policy. Investment Office Staff will also be conducting one-on-one mid-year meetings with each Committee and Advisory member. Lastly, she noted the inclusion of supplemental endowment reports as of December 31, 2018 and the operating cash and investment report as of February 28, 2019.

H. Meeting Adjourned

Hearing no further business, the meeting was adjourned at 3:18 p.m.

Respectfully submitted,

A handwritten signature in blue ink that reads "Kristina W. Goins". The signature is written in a cursive style with a large, stylized initial 'K'.

Kristina W. Goins
University Financial Services