NORTH CAROLINA DEPARTMENT OF STATE TREASURER INVESTMENT ADVISORY COMMITTEE MEETING MINUTES FOR November 17, 2021

Time and Location: The Investment Advisory Committee ("IAC" or the "Committee") met on Wednesday, November 17, 2021, at 9:00 a.m. via conference call and GoTo Webinar.

Members Present: State Treasurer Dale R. Folwell (Chair), Loris Colclough, John Aneralla and Greg Patterson.

Members Attending via Webinar: Lentz Brewer

Not in attendance: Michael Mebane

Staff Present (in person and virtual): Ted Brinn, Matt Krimm, Rhonda Smith, Nick Langley, Gail Kadash, Kathy O'Neill, Fran Lawrence, Bill Golden, Laura Rowe, Joe Farley, Casey High, Greg Taylor, Tina Kapoor, Dan Way, Deana Solomon, Troy March, Brian Bolcar, Ty Powers, Brett Hall, Sam Watts, Frank Lester, Debbie Thomas, Chris Ward, Jeff Smith, Chris Morris, Ronald Funderburk, Craig Demko, Paul Palermo, Joan Fontes, Michael Nichols, Anne Roof, Ben Garner, Jason Sass.

Others in Attendance: Adam Rees (pageantmedia.com), Ronan O'Brian (fin-news), Brian Kahley (Franklin Templeton), Charles Ashmun (Blackrock), Mitchell King (Blackrock), Samuel Slade (pageantmedia.com), Mellissa Chang (pestakeholder.org), Phaedra Garibaldi (BNY Mellon), Alex Cardno (ft.com), Michael Baruch (peimedia.com), Tiffany Scott, David Hammond, Dwight Willis, John deVille, Brett Dublick, Drew Edwards, Mary Beth Murphy, Rashay Jethalal, Michael Reid (CEM), Elizabeth Hood (Callan), Weston Lewis (Callan), Jason Ellement (Callan), and John Pirone (Callan).

AGENDA ITEM – OPENING REMARKS

The meeting was called to order at approximately 9:00 a.m. by Ted Brinn. Meeting etiquette information, and Webinar/Conference line use was shared by Ben Garner. Mr. Garner confirmed there was a quorum and provided procedures for virtual guidelines.

The Chief of Staff then commenced the meeting.

AGENDA ITEM – APPROVAL OF MINUTES

Mr. Garner mentioned there were slight edits to the prior meeting minutes that were sent to all members and approved unanimously. Mr. Patterson moved, Mr. Colclough seconded, and there was a member roll call to approve the minutes. The minutes were approved.

Note: The Minutes from the May 2021 IAC Meeting was updated to include the Approval of Minutes section originally left off in the materials provided during the August 2021 meeting. The correction has since been re-distributed and approved by the IAC Committee Members via email and republished.

AGENDA ITEM – PERFORMANCE UPDATE

The Chair recognized Jeff Smith, Co-CIO and Director of Fixed Income, and Chris Morris, Co-CIO and Chief Risk and Operating Officer, to present the performance update.

Mr. Smith provided an update on the United States economic environment for the third quarter of 2021 and further discussed the current quarter changes. Some highlights included that the equity markets started out strong but gave back on the returns due to the supply chain lock down and other economic factors including rising inflation. Domestic markets fared better than global equities. Generically, bonds flat for the quarter rates declined early but rose back. The spread basis was flat as well.

Mr. Morris presented an update on Assets Under Management (AUM), as of September 30, 2021. He stated the total AUM was \$172.8B, which is up \$1.4B since the prior quarter. Most of the increase is due to large non-pension deposits into the Cash Management program (STIF).

Mr. Morris reviewed the asset allocation as of September 30, 2021. In this quarter, there were no major changes from the prior quarter. The portfolio is currently 8.0% underweight to growth, largely driven by the underweight in public equity. The portfolio shows 9.7% overweight to rates and liquidity due to cash mostly. Mr. Morris also stated there is a slight underweight to inflation sensitive and diversifiers of 1.5% consistent to prior quarters and is on target with multi-strategy.

Mr. Morris continued to the Total Net Portfolio Returns vs. Benchmarks slide, discussing the periodic performance from both an absolute and relative perspective across multiple time horizons. Portfolio was up roughly half a percent for the third quarter with equity markets slightly negative and fixed income largely flat. The alternatives were very strong specifically private equity. Mr. Morris stated that we have exceeded the actuary rate in all timeframes presented with the 20 year over 7%.

Mr. Morris discussed the Growth of a Dollar charts, which illustrate how the total pension and alternatives sleeve have performed relative to the long-term policy benchmark over the five- and ten-year periods and since 1997, which is the beginning of the pensions' performance record. Mr. Morris stated there were no major changes, and the total pension outperformed both benchmarks over the long-term periods.

Mr. Morris moved on to the Contribution to Total Plan Return. He discussed the dollar amount each asset class contributed to the earnings of the plan for the prior one-year period. Mr. Morris stated that the majority driven by strong 1-year performance of public equity and private equity had strong earnings as well.

Mr. Morris next walked the committee through the Net of Fees Return Attribution charts, discussing how the portfolio either added or detracted value relative to the benchmark over various horizons. He discussed how the allocation drove performance, but selection effect continues to be strong as asset classes outperform benchmarks.

Mr. Morris presented the Net of Fees Risk Metrics slide. This slide shows across all time periods rolling volatility and tracking error down significantly. There have been no major changes here since the last quarter.

Mr. Morris discussed the peer universe comparison slides, which show our percentile rank. In strong markets we are expected to lag our peers, due to less equity exposure as compared to our peers and more fixed income assets. However, in falling markets, we outperform significantly. In reviewing the risks, we are at the lowest risk percentile versus our peers.

Mr. Morris moved on to the liquidity slides, hitting on the structural liquidity, benefit payments, and cash flows within the alternatives sleeve. The portfolio is currently at 76% Level 1 Liquidity, which is well within minimums for policy guidelines, and we remain cash flow positive. Mr. Morris also reported there have

been no changes to benefit payments and it is expected by calendar year-end with pay out of \$2-3 billion in net benefit payments. This has trended down in recent years, but we do expect it to trend upwards in coming years.

Mr. Smith reported on Asset Class Performance and spoke to the Calendar Year Asset Class Return chart, highlighting growth with the strong 1-year performance in Public Equity (27.8%), and Private Equity (57.3%), double digits for most others adding value.

Mr. Smith next discussed new and incremental investments, a lot of new commitments in private equity and inflation sensitive completed another platform commitment. Leveraging weight and collaboration across the three asset classes, allowed us to take advantage of better negotiation and rates.

Mr. Smith moved along to Asset Allocation History with no material changes, and the Top 20 Investment Managers presentation, noting the 2 internally managed portfolios have been 53% internal vs 52% slightly higher with one change on Number 19 to Earnest from Campbell.

AGENDA ITEM -ASSET LIABILITY STUDY

The Treasurer thanked the CIOs for their reports and introduced the Callan Group, with John Pirone and Jason Ellement presenting. The ALM study looks at asset allocation in relation to the liabilities of the plan. Elizabeth Hood introduced the Callan team. The goals for today are working on setting a long-term strategy, a framework to operate within, to help achieve the goals for the long-term goals. Callan will review the process and capital market assumptions.

Mr. Ellement reported that Callan will provide an overview of the asset/liability modeling process, and capital market assumption development (projected for both next 10 and 30 years). Equity incorporates macroeconomics (such as GDP at 2.25%, 4.5% capital appreciation = US forecasted at 6.75% and global equity forecasted at 7.10%), as well as projected income return and valuation considerations while bonds forecasted by anchoring yields and interest rates and incorporating an interest rate increase over time (cash 2.75% at the end of 30 years). Alternatives blend baseline projections with implementation considerations.

Callan also reported that there are additional customized projections shared on slide 10 for alternative asset classes. Discussed, as an example, the impact of the change in actuarial rate that influences the asset allocation decisions. All items presented today will be based on actual target weights as the base model for future comparison. Callan also will be modeling the TSERS \$90 billion plan vs. the entire \$120 billion plan which are similar in nature (they explained ECRSP-Employer Contribution Rate Stabilization Policy as it will be referenced in the models thru 2027, in the next meeting). Callan continued to provide an overview of liability model assumptions and output customized by NCRS staff.

Callan presented that, lastly, they would like to provide preliminary results of liability projections. A discussion related to budgeted supplement vs. COLA followed; the supplement would not be accounted for or reflected in the models.

Callan summed up the presentation with these takeaways: there will be a lot of variability over 1-year, compounded returns, and probability of achieving 6.5% expected to improve over long term. The plan is projected to be fully funded in 2031. Additionally, the actual target weights versus the other mixes and models will be presented at the next meeting.

Note: The Treasurer was able to join the meeting during this presentation.

AGENDA ITEM – INVESTMENT COST-EFFECTIVENESS REVIEW

The Treasurer introduced Michael Reid, CEM Benchmarking, Inc. to review a summary of results for the 5-year period that ended December 31, 2020. This review looks at costs and efficiency related to cost effectiveness compared to our peers.

Overall, the returns for the 5-year were 8.7%, below both public and peer medians of 9.6% and 9.9% respectively. The value add was equal to the public median but slightly below the peer median. However, this is expected due to our asset risk of 9.6%, below the public median of 10.7%. Investment costs of 28.0 basis points was below our benchmark cost of 35.9 basis points, and well below the peer median of 52.2 basis points. In fact, the 28.0 basis points was the lowest cost among all funds in the peer group. Costs decreased by 22.6 basis points from 2016 to 2020 primarily due to a lower cost asset mix specifically external investment management costs, a difference of 9.3bps.

Mr. Reid stated that performance was solid for the past 5 years, which allowed the comparison in costs to be viewed without performance caveats. The categories may differ from the actual asset classes and total plan returns as the CEM mapping have many different categories the plan maps to.

AGENDA ITEM – I.G. FIXED INCOME ASSET CLASS REVIEW

The Treasurer introduced Jeff Smith, Investment Director of IG Fixed Income and his team. Brett Hall reviewed the Short-Term Portfolio (STIF); current average maturity is 1 year, down from 1.3 years. We have been reinvesting and redeploying assets in a low-rate environment. As a result, the STIF rate has declined. Mr. Hall next discussed Repurchase Agreements management strategy and structure. The U.S. Agencies' dramatic change to 15.3% contributed to type of assets, specifically callable agencies. There were no material changes to portfolio characteristics. Additionally, assets under management increased significantly since last year.

Mr. Smith presented the Core Fixed Income product. He stated Fixed Income has pulled back on over-weightings to get closer to targets and has outperformed in all measured time periods. The Fixed Income Asset Class outperformed by 70 bp driven by short duration relative to the benchmark. There were no material changes to Allocation, and the yield curves are flat.

Mr. Hall next discussed how the chart on page 9 tracks corporate spread relative value by sector. In comparison to the prior year, most have shifted down in terms of spread levels. We are noticing a lot of rate changes being pulled forward on the FOMC projections chart. The expectations are for rates to rise modestly in 2022, keeping returns in the 1.5-3% range over the next five years.

AGENDA ITEM – OPPORTUNISTIC F.I. ASSET CLASS REVIEW

The Treasurer introduced Ronald Funderburk, Investment Director of Opportunistic FI, and Ty Powers.

Mr. Funderburk and the team discussed the portfolio's history, structure, and performance. Capital preservation and making attractive absolute returns may be in conflict with each other but we feel we have been able to achieve these goals over a long period of time. Our portfolio is underweighted by 1.2% compared to target and that trend will continue over the next year. Mr. Funderburk stated that we plan to continue to address this underweight with new commitments.

Mr. Funderburk commented that our distributions are projected to be greater than \$800mm in 2022. Mr. Funderburk stated that we are working with high conviction managers; this helped achieve our goals while maintaining diversification. Additionally, over the last year, we generated a 22% return relative to the benchmarks return of 14% and continued to be over in all time periods. A dislocation mandate has been providing returns, and we want to continue to be proactive with this mandate. Special situations and Distressed Debt have performed well over a long period and the team has done well identifying good managers. These sub-components have done well for the portfolio. The appendix graphs show these sub-components in better detail.

Mr. Funderburk stated that the portfolio characteristics reflect that we do not have enough European exposure. We want to be able to take advantage of the lagging European economic cycle. Different geographies present different opportunities at different times.

Mr. Powers continued with the credit market update and stated that overall opportunistic fixed income benefited from the "everything" rally over the past 12 months. The portfolio performed well through the COVID crisis with managers working with underlying companies to provide flexibility and assistance during cash crunches. Our structured credit rebounded quickly after the Fed stepped in. CMBS lagged but has since bounced back. We are noticing higher debt coverage and lower debt/EV levels providing some cushion vs. lofty valuations. The spreads are compressed at the present time.

Mr. Powers also reported that yields are the lowest in over a decade. 85% of high yield bonds have negative real yields. We see that private debt still offers attractive risk-adjusted yield and will continue to be our focus.

Mr. Funderburk stated that our portfolio priorities are to maintain meaningful exposure to senior, secured direct loans. We also aim to opportunistically add differentiated private credit exposure. We will continue to focus on SMA's and custom opportunities with co-investments.

AGENDA ITEM - PUBLIC COMMENT

John deVille was introduced for public comment. Mr. deVille, a teacher in Mason County, posed questions surrounding a comment the Treasurer made at the August IAC meeting about how the plan was designed.

Mellissa Chang was introduced for public comment. Ms. Chang, who is with Private Equity Stakeholder project, had comments about one of NCDST's investment managers, Landmark Partners. Ms. Chang questioned the eviction practices of one of Landmark's investments, Pretium Partners, and stated they believe that NCDST should hold off on future investments with Landmark Partners until this is addressed.

Mary Beth Murphy was introduced for public comment. Ms. Murphy is a teacher and elected county commissioner in Guilford County. Ms. Murphy asked about decisions to not invest \$17 billion dollars, thereby lowering the bar for investment performance that will effectively require tax increases on educators, school boards and county commissions.

Drew Edwards was introduced for public comment. Mr. Edwards stated that he is engaged to an educator and is a member of communication workers of America. Mr. Edwards' posed questions to IAC members, asking about their responsibilities and whether they have fiduciary obligations regarding investment decisions.

The Treasurer closed out the public comments and moved to IAC member questions.

AGENDA ITEMS - IAC MEMBER Q&A

IAC members were provided with the opportunity to pose questions to the Treasurer and IMD staff. They each expressed their gratitude and happy to be attending the meeting in person.

The Treasurer stated Mr. Colclough was mentioned, while in Charlotte with city council members, he applauded them for putting funds approximately \$130 million in an account for unfunded health care liability similar to how it was done in Winston-Salem. Mr. Colclough responded that he has been in business for 35 years, and he is happy to be in a conservative situation. Mr. Brewer stated we do not have a crystal ball and prefer not to take unnecessary risks.

ADJOURNMENT

The Treasurer next thanked Jeff Smith, Christopher Morris, and the Investment Management team and requested that there be a motion to adjourn the meeting.

Mr. Colclough motioned to adjourn. Mr. Aneralla seconded the motion. Mr. Patterson and Mr. Brewer agreed to adjourn.

The Treasurer officially adjourned the meeting at approximately 11:50 am.

DALE R. FOLWELL, CPA

NORTH CAROLINA STATE TREASURER AND CHAIR