NORTH CAROLINA DEPARTMENT OF STATE TREASURER INVESTMENT MANAGEMENT DIVISION INVESTMENT ADVISORY COMMITTEE

MINUTES OF MEETING July 28, 2016

Time and Location: The Investment Advisory Committee ("IAC" or the "Committee") met on Thursday, July 28, 2016, in the Dogwood Conference Room of the Longleaf Building, 3200 Atlantic Avenue, Raleigh, North Carolina.

Members Present: The following members were present: State Treasurer Janet Cowell (Chair), John Aneralla, Mike Mebane, Neal Triplett (Vice-Chair), David Hartzell, Courtney Tuttle (by teleconference).

Members Absent: Steve Jones.

Staff: The following staff members were present: Patrice Alexander, Renee Bezaire, Kim Baker, Brian Bolcar, Brad Bullock, Nick Byrne, Mary Laurie Cece, Angela Cooper, Craig Demko, Ronald Funderburk II, Alison Garcia, Kathy Hahn, Brett Hall, Karen Hammond-Smith, Beth Harrison, Casey High, Ryan Hill, Carlene Hughes, Sean Incremona, Taylor Jackson, Jordan Janis, Schorr Johnson, Arlene Jones-McCalla, Gail Kadash, Kathy Kornak, Matt Krimm, Fran Lawrence, Matt Leatherman, John Leraas, Deana Moore-Solomon, Troy March, Chris Morris, Neal Motaparthy, Mike Nichols, Tinh Phan, Norman Schiszler, Kevin SigRist, Jeff Smith, Rhonda Smith, Solari, David Stefanick, Edgar Starnes, Christina Strickland, Tessa Tanis, Greg Taylor, Blake Thomas, Steve Toole, Sondra Vitols, Jill Wang, Chris Ward, Sam Watts, Jerrae' Williams, Brad Young, Zhexing Zhang.

Others in Attendance: Flint Benson, Jack McGowan, Kai Peterson (Buck Consulting), Liz Smith, Dan Way.

AGENDA ITEM – OPENING REMARKS

The meeting was called to order at approximately 10:00 a.m. Treasurer Cowell noted that on today's agenda the IAC will be reviewing private equity and fixed income. She also stated that Courtney Tuttle would be joining by phone and that Steve Jones was not able to attend. Treasurer Cowell took the opportunity to thank all of the board members for their service to the IAC and hoped that they would continue to serve the board through the end of the year. She then asked that public comments be held to the end and noted a sign-up sheet on the table in the back of the room. She asked if IAC members had reviewed the agenda and whether there were any actual or implied conflicts. None were noted. Mr. SigRist stated that the Committee would have a working lunch during this meeting.

AGENDA ITEM – APPROVAL OF MINUTES

The Chair asked for approval of the minutes of the April 19, 2016 quarterly meeting. Mr. Mebane moved to approve the minutes and Mr. Triplett seconded. The minutes were approved as written.

AGENDA ITEM - INITIATIVES AND PERFORMANCE UPDATE

The Chair then recognized Mr. SigRist, Chief Investment Officer, to provide an overview of initiatives, as well as an update on the performance of the investments for the North Carolina Retirement Systems ("NCRS"). Mr. SigRist stated that good progress was being made on the major initiatives.

Initiatives Updates:

- 1. Research is ongoing for the ESG policy. Mr. SigRist stated that in August a draft of the ESG policy would be circulated internally and the hope was to bring a policy for the IAC to review in the September meeting.
- 2. The transition of the Non-Pension participants out of the long term fixed income fund is going well and almost complete. The monies are moving in real time even as we speak.
- 3. He noted that the analysis of legacy funds and low conviction managers was pretty far down the road. Houlihan Lokey is helping with this initiative.
- 4. The managed account platform has launched and our partner FRM is managing the platform for NCRS.
- 5. The equity index trading project is going well and we are hoping to move some of the equity trading in house over the next 18 months. Currently, the team is analyzing whether to build out the middle office and back office infrastructure internally or outsource.
- 6. Work continues on the asset liability study.
- 7. A 360 degree feedback study is ongoing in the Department and there is also a department wide employee engagement study and we are getting good results back from this.
- 8. Next week we will be live with moving our trade tickets to an automated system. We are going to go onto BNY Mellon's Private Investment Accounting and Administrative Services platform (PIASS). Hoping to have some mobile applications for these tickets as well.
- 9. The Venture Capital Multiplier Fund, which invests some of the escheat fund, is on track and we are working with the selection committee to evaluate the firms that applied.

Mr. Mebane asked about the VCMF and Mr. SigRist stated that there is a public interest initiative in investing the escheat fund. The General Assembly passed the legislation two sessions ago. The fund will focus on venture capital, trying to facilitate early stage companies with an NC Nexus. Mr. SigRist stated that the escheat fund is able to utilize some smaller funds than the retirement system, and the VCMF allows it to benefit from an illiquidity premium.

Mr. SigRist introduced Mr. Solari to provide the legislative update.

Legislative Update:

1. HB 1137 passed and changed some of the NCRS statutes. It codified many items that are in our policies already, but we were not successful in getting any additional flexibility on asset allocations.

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- 2. He stated that a one time COLA of 1.6 percent was authorized. This is not a traditional COLA as it does not change the monthly benefit.
- 3. Some changes were made in the Budget Act, which would seek to provide additional transparency. The bill authorizes an OSBM study regarding whether to convert operating funds from receipt based to general fund supported. The budget study will be presented in December and the Treasurer's office is going to be involved in this.
- 4. Mr. Solari stated that there was a proposal in a bill called "economic prosperity for all" that proposed to take another \$100 million from escheat to use as venture capital for small businesses. Treasurer was concerned this was not a risk/return profile that we are comfortable with. The proposal did not pass.

Mr. Mebane asked what is the earliest the OSBM study could be adopted. Mr. Solari stated probably mid-March. Ms. Cowell thanked Mr. Mebane and Mr. Aneralla for their help with the legislature. Mr. Solari closed by thanking the Treasurer, Committee, and partners for continued service and assistance during the year.

Update on New IAC Activities:

Mr. SigRist discussed two items that are new activities of the IAC that result, in part, from actions taken in the recently ended legislative session: (i) IAC Consultation on Policies and (ii) Third-Party Review of Governance, Operations, and Investment Practices of the State Treasurer. House Bill 1137 is effective January 31, 2017, and expands the IAC's role in providing consultation on policies and portfolio guidelines.

Mr. SigRist indicated that there would be a new role for the IAC in that on a biannual basis IAC will do a review of this IPS and internal portfolios. Mr. SigRist stated that there would be a whole suite of new policies that the department would bring before the IAC. Mr. Thomas noted that we do already have these policies in place, but the new statute imposes the duty to get IAC input before new policies are implemented or amended. Mr. Mebane asked if this would be a material change in scope of what IAC does. Mr. SigRist stated that what this law really does is codify consultation practices already in place. Ms. Cowell said that legislation would be required to change the IAC role. Mr. Thomas referenced the IAC Commission study that was done a few years ago and stated that the General Assembly appeared to currently have no appetite to change the purely advisory role of the IAC. Mr. SigRist stated that he proposed getting a periodic study on the role of the IAC.

Mr. Thomas gave background on the current state of the law regarding secondary employment of elected officials and corporate board service. Under current state law elected officials and other governmental officials such as members of the Governor's Cabinet may serve on for-profit boards and may have secondary businesses or employment. He stated that the Treasurer was approached to join boards of two Russell 2000 companies, neither of which was in the State's investment portfolio. Treasurer asked for an opinion from the state Ethics commission, which allowed her to join the boards and which was made public. The Treasurer signed a forward looking recusal memo. After discussion at the IAC, it was expressed that the IAC would further study the issue and come up with a policy or statute addressing future State Treasurers' secondary employment or commercial board service.

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Mr. SigRist suggested tentative next steps from the legislative session which included: (i) receiving IAC feedback on the three areas of scope: governance, operations, and investment practices and (ii) getting an investment consultant and/or law firm to work jointly to develop drafts and final deliverables on OSBM study. The consultant would interact with Committee members via phone and provide a briefing on the work-in-progress at the September and November meetings. Mr. Mebane inquired which consultant would be used to conduct the study. Aon Hewitt was suggested as a good choice and would bring an independent perspective. Mr. SigRist advised that DST, investment consultant, and external legal counsel could provide final report to General Assembly and Governor's Office in December 2016. The expectation is that the next Treasurer, if he so chooses, may adopt these guidelines and policies shortly after the January 31, 2017 effective date of the new law.

Performance Update:

NCRS Asset Allocation— A handout was presented, by Mr. SigRist, showing performance data through July 20, 2016. Public Equity showed to be overweight by 1.4% and this overweight is allowing cash to be drawn for the purpose of paying benefits and making capital calls. It was noted that Opportunistic Fixed Income has come in underweight by 1.15%.

NCRS Total Net Portfolio Return vs. Benchmarks — Mr. SigRist noted that the overall performance was just under 1% net return. The bond portfolio did well, returning 7.25%. Much of our underperformance can be attributed to public equity, where both our allocation and selection hurt. Mr. SigRist advised that we were below target in allocations to core real estate and private equity, which performed well, resulting in a lower return compared to the benchmark, missing that mark by about half a percent.

Attribution and Comparison to Peers --- Mr. SigRist stated that the presentation of this slide came out of Aon Hewitt recommendations. He pointed out that some of our inflation sensitive portfolio underperformed because of managers' investment decisions. Investment grade fixed income underperformed which is very uncharacteristic. Mr. SigRist said that one year number should not be the focus but rather the five year number, where the fund is 50 bps per year above the benchmark. Slide 19 shows comparison to peers. The numbers are gross of fees. Compared to peers that manage more than \$1B assets, the Retirement Systems' returns are better than the median, and the Retirement Systems' risk is much lower than peers.

New and Incremental Investment Commitments—Mr. SigRist walked through the list of new and incremental commitments since the April meeting. Mr. Mebane recalled a year ago that the private equity team presented to the IAC and at that time there was difficulty getting selected for deals and asked for an update. Mr. Demko responded that private equity is in a better position in terms of access. Mr. SigRist then transitioned to the discussion of the Asset Liability Study.

AGENDA ITEM - NCRS ASSET LIABILITY STUDY - PHASE II

Mr. SigRist introduced Mr. Kai Peterson with Buck Consultants who performed the Asset Liability Study. Mr. SigRist stated that he would provide a summary of the goals and provide an update regarding additional modeling completed since the last meeting. Mr. SigRist also wanted to inform the IAC of the potential outcome if current statutory limits on some of the completed modeling and discuss next steps.

LGERS Modeling Conclusions

LGERS and TSERS have historically had the same target asset allocation, but now have different Employer Contribution Rate Stabilization Policy ("ECRSP") which was the basis for this year's contribution rates. Both plans have the beneficial impact to add contribution rates in the future above the actuary recommendation given the circumstances. The ECRSP work very differently if investment returns significantly and persistently underperform the 7.25% actuarial return assumption. The expectation is that contributions rates could rise 0.25% to 0.35% each year if investment returns meet or slightly underperform the 7.25% actuarial return assumption. Cost curves for 10 Year Horizon were then reviewed. Mr. SigRist indicated that when we take a look at the cost curves, we end up with very different analytics for TSERS and LGERS. The cost curve for LGERS is very different than TSERS and is distorted – there is no natural curve. Mr. SigRist explained that under ECRSP, the contribution rates cause the distortion.

Mr. SigRist then began discussing stagflation. UBS Asset Management was asked to look at some global instances of stagflation. UBS reviewed historical global episodes (e.g., 1972-81) and did a 10 year projection starting with current conditions. They looked at three recessions with 0.8% average economic growth and inflation increases from 1% to 8% and T-bills rise to 8% and yield curve inverts. UBS projected a hypothetical return on the total plan based on individual asset class performance. A nominal total plan return under 4% was seen in this specific scenario, with a real return of 2%. The weakest performing asset classes were: IG fixed income, cash, public equity, private equity, infrastructure, and high yield. The strongest are real estate, distressed, timber, private natural resources, commodities, and other real assets. Mr. SigRist discussed the desire to be flexible and push up the inflation sensitive portfolio and push down the public equity portfolio in a situation of stagflation. The hypothetical stagflation model projected no more than a 10% probability of stagflation over 10 years.

Mr. SigRist then walked through the best asset allocation blend, next steps and key questions for consideration and discussion. These included:

- Is there a consensus on which blended policy is more likely or preferable?
- Is there sufficient interest in that blend to motivate a change in the target allocation?
- If not, should shading our tactical overweights and underweights be considered?
- Should markets be monitored for a dynamic shift in those tactical weights?

Mr. SigRist stated his preference for flexibility in asset allocation so that IMD can adapt to current market conditions. He then turned the floor over to Kai Peterson to walk through his presentation and provide an update to the IAC.

❖ TSERS ASSET – LIABILITY AND INVESTMENT STRATEGY PROJECT

Mr. Peterson began his presentation with an overview of the project purpose and goals of developing strategies and tactics that will: reasonably ensure earning the actuarially assumed rate of investment return within a desired level of likelihood; maintain levels of diversification suitable for the Retirement System's size and investment opportunity; develop and employ suitable risk management measures to limit exposures to market downturns; and provide the necessary liquidity to meet benefit obligations as they come due.

Mr. Mebane inquired if the projections were the Department's or if they were modeling assumptions. Mr. SigRist indicated that the staff provided input on equity premium rates and the rates are tied to the current market. These are the average yield terms at different times and interest rates are shifting up over time in the model.

The IAC took a break and reconvened at 12:20 p.m. for a lunchtime working session.

Mr. Peterson picked up his presentation at slide 16: TSERS Return and Volatility Curve. The slide showed relative returns of the portfolios modeled. He explained that the three clustered together, the red circle (policy), and the two squares (blended scenario models) appeared to perform the strongest over 10 years. Mr. Peterson continued walking through the asset allocation policy alternatives, their costs, and returns.

Mr. SigRist summarized the results, commenting on the potential to maintain the target asset allocation and focus on next session's legislative agenda, which could be more impactful.

AGENDA ITEM – PRIVATE EQUITY

Craig Demko introduced members of his team: Neal Motaparthy, Brian Bolcar, and Taylor Jackson. Mr. Demko indicated that having a team of four has had an impact in the portfolio by helping gain access to higher performing funds. As of May 31, 2016, portfolio is in compliance with the statutory allocation. Private Equity and Multi Strategy represented 6.88% of the total NCRS plan. Private Equity represented 5.04%, which is below the policy target of 6%. June figures are still compliant and similar to May. Mr. Demko made a note that about 4% of the VC / Growth Equity portfolio is now publicly traded.

Mr. Demko provided an overview of private equity allocation. He indicated that buyout is slightly less than target allocation and Venture Capital is above target and the upper range. This has to do with VC strong performance. Special Situations is below target. He stated that PE is well diversified and while they are not managing to a benchmark, the team looks to see is they are overweight or underweight in certain sectors. Currently, the portfolio is overweight in health care because of good performance. Mr. Aneralla asked about date of performance figures. Mr. Demko said it is for year-end 2015.

Mr. Demko went through the projected PE allocation to funds of funds. Mr. Mebane asked why we are exploring potentially exiting funds of funds. Mr. SigRist said both cost and performance. He stated that once we are out of funds of funds we could see a saving of approximately \$20 million across the plan. Ms. Cowell stated that we have made great progress

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on lowering fees. Mr. Aneralla pointed out that we no longer have to use funds of funds because we have staff. Mr. SigRist stated that this is the whole rationale for the market oriented compensations.

Mr. Demko then went through the performance attribution numbers. Mr. Mebane asked about fee costs reflected in the rate of return. Mr. Demko responded that it depends on the strategy and the structure of fees that we can get. Mr. SigRist said expense ratio is published and also allin costs are published. PE is running about 2% in June 2016, which includes incentive and management fees. During the first quarter of 2016, Private Equity exits declined sequentially 39% on a transaction basis; 51% on a dollar basis. It was noted that the first quarter tends to be slow, coupled with the fact that valuations have dropped recently, leading to sellers holding out for higher valuations.

Mr. Mebane asked if there is a possible shifting in circumstances due to Brexit. Mr. Motaparthy stated that Brexit's impact has been minimal thus far. The portfolio is primarily North American based and most managers completed any financing prior to the vote. The weaker pound may make acquisitions cheaper for foreign companies. The expectation is that that there will be opportunities to recapitalize and or acquire European distressed opportunities

Mr. Motaparthy then walked through the Venture Capital presentation, slide (13). Deal volume has declined at every stage over the past year. Capital invested has remained relatively robust and since 2014, companies with a valuation of 1 billion or greater have been responsible for much of the surge in Venture Capital being invested. He further indicated that there are fewer companies getting funded and those that can demonstrate healthy metrics are receiving larger rounds.

Mr. Demko walked through current initiatives. We are targeting commitments of about \$1.2 billion a year, pending cash flow and opportunity set. The department will be completing "rationalization analysis," which includes "tail" review, fund-of-funds review, and review of noncore relationships. The Private Equity team is also interested in participating in core-equity funds, which have substantially lower fees while returns tend to be close to 10% or into the low teens annually.

AGENDA ITEM – INVESTMENT GRADE FIXED INCOME

Jeff Smith and Brett Hall began by introducing their team – Mike Nichols, Brad Bullock, Carlene Hughes, and Beth Harrison. Mr. Smith thanked the IAC for its continued support, which has helped with team member retention. Mr. Smith then provided an overview of the core portfolio's weightings. Near term strategy has shifted slightly toward a more neutral stance, but still maintains a short duration bias. As discussed at previous IAC meetings, the costs of maintaining a defensive position are weaker relative returns during a rate decline. This underperformance was primarily driven by the duration gap and weaker performing current mortgage backed pools due to serial refinancers. Mr. Smith reported that while our I.G. Cash Fixed Income outperformed the benchmark, the short duration gap resulted in I.G. Core Fixed trailing the benchmark.

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Mr. Smith stated that for the last two years the market consensus has been wrong. The market expectations discussed at previous IAC meetings have consistently pointed to rate increases, while we have actually experienced rate declines over those periods. He stated that the slide feels like déjà vu. Mr. Smith pointed out the LTIP allocation slide. In discussing industry exposures, Mr. Smith previously viewed the banking sector as an opportunity. They have moved the exposure more toward neutral because of election uncertainty and the potential impact on sector. He pointed out that we would expect to underperform slightly if rates surprised lower yet again, but does not feel comfortable overweighting duration at historically low levels. He asked if committee is still comfortable with this. He said there appears to be no strong conviction that rates will head materially higher, but a modest increase is expected.

Mr. Smith acknowledged that the team worked hard over the last quarter on the transfer of non-pension participant's out of the long term fund. The transfer out was about \$1.5 billion. He noted he has not able to buy 144A corporate bonds in the fund for two years. The fund will resume that activity soon. Mr. Aneralla asked what the non-pension assets are. Mr. Smith stated various state agencies have had statutory authority to come into LTIP, and now we have put them in a more appropriate strategy with less interest rate risk. Kevin said we were able to get fees down for entities that would not otherwise be able to get this kind of access.

Mr. SigRist noted that the fixed income is an extremely strong team. Over time we will be able to do more things in fixed income.

Mr. SigRist then took time to recognize interns.

AGENDA ITEM – IAC MEMBER Q&A

There were no further questions raised by the IAC Members.

AGENDA ITEM – PUBLIC COMMENT

There were no public comments.

ADJOURNMENT

It was noted that the next IAC meeting was scheduled for September. Ms. Cowell thanked everyone for their attendance and input. Mr. Mebane motioned to close the meeting, seconded by Mr. Triplett. The meeting was adjourned at approximately 2:16 p.m.

APPROVED BY:	
	JANET COWELL
	STATE TREASURER AND CHAIR