

REBECCA M. GUNNLAUGSSON, PH. D  
CHAIR

RONALD P. WILDER, PH. D  
VICE-CHAIR

PEGGY G. BOYKIN, CPA  
COMMISSIONER

ALLEN R. GILLESPIE, CFA  
COMMISSIONER

WILLIAM (BILL) J. CONDON, JD, MA, CPA  
COMMISSIONER

WILLIAM (BILL) H. HANCOCK, CPA  
COMMISSIONER

EDWARD N. GIOBBE, MBA  
COMMISSIONER

RETIREMENT SYSTEM INVESTMENT COMMISSION

REYNOLDS WILLIAMS, JD, CFP  
COMMISSIONER



# Commission Meeting Agenda

Thursday, April 12, 2018 9:30 a.m.

RSIC Presentation Center

- I. Call to Order and Consent Agenda
  - A. Adoption of Proposed Agenda
  - B. Approval of February Minutes
- II. Chair's Report
  - A. Retiree Representative Nominations
  - B. Nominations for Chair/Vice-Chair Election
- III. Audit & Enterprise Risk Management Committee Report
- IV. Human Resources & Compensation Committee Report
- V. CEO's Report
- VI. Investment Performance Report
- VII. Consultant Report
  - A. Asset Allocation ~ Approve Benchmarks and Ranges
  - B. Chair and Vice-Chair Requests from February Meeting
- VIII. CIO's Report
  - A. Annual Investment Plan Discussion and Adoption
- IX. Delegated Investment Report
  - A. Digital Colony
- X. Executive Session to discuss investment matters pursuant to S.C. Code Sections 9-16-80 and 9-16-320; to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2) related to litigation filed by American Timberlands Fund II, LP and to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2).
- XI. Potential Action Resulting from Executive Session
- XII. Adjournment

#### NOTICE OF PUBLIC MEETING

*This notice is given to meet the requirements of the S.C. Freedom of Information Act and the Americans with Disabilities Act. Furthermore, this facility is accessible to individuals with disabilities, and special accommodations will be provided if requested in advance.*

**South Carolina Retirement System Investment Commission  
Meeting Minutes**

**February 8, 2018 9:30 a.m.  
Capitol Center  
1201 Main Street, 15<sup>th</sup> Floor  
Columbia, South Carolina 29201  
Meeting Location: Presentation Center**

**Commissioners Present:**

Dr. Rebecca Gunnlaugsson, Chair  
Dr. Ronald Wilder, Vice Chair  
Ms. Peggy Boykin, PEBA Executive Director  
Mr. Allen Gillespie  
Mr. Edward Giobbe  
Mr. Reynolds Williams (via telephone)  
Mr. William H. Hancock  
Bill Condon, Esq.

**I. CALL TO ORDER AND CONSENT AGENDA**

Chair Rebecca Gunnlaugsson called the meeting of the South Carolina Retirement System Investment Commission (“Commission”) to order at 9:30 a.m. Mr. Edward Giobbe made a motion to approve the proposed agenda as presented. Dr. Ronald Wilder seconded the motion, which was approved unanimously.

The Chair referred to the draft minutes from the Commission’s December 7, 2017 meeting as presented and asked whether there was a motion to approve the minutes. Dr. Wilder made a motion to approve the minutes as presented. Mr. Giobbe seconded the motion. Mr. Bill Condon noted that there was a scrivener’s error in the third paragraph of the draft minutes. Mr. Condon made a motion to adopt the minutes as amended to correct the error. Dr. Wilder seconded the motion, which passed unanimously.

**II. CEO’s REPORT**

Mr. Michael Hitchcock, Chief Executive Officer, reminded the Commission that the deadline to file their annual Statements of Economic Interest is March 30, 2018. He then distributed the Code of Ethics form required by the Commission’s Ethics Policy and requested that the Commissioners review, sign and return the forms. He also announced that the 2018 Commission meeting schedule previously approved by the Commission has been posted on the website.

Mr. Hitchcock then updated the Commission on the fiduciary audit, which is required every four years by state law. The State Auditor selected Funston Advisory Group to perform the

audit, which will begin in May. He reminded the Commissioners that Funston had conducted the last fiduciary audit and noted that it will be interesting to see how they think the Commission has progressed since the last fiduciary audit.

Lastly, Mr. Hitchcock reported that RSIC would like to formally endorse the CFA Asset Manager Code of Professional Conduct, which is a code of professional conduct for asset management firms. The asset management firms can choose to adopt the standard of conduct. He noted that currently 19 of our managers currently claim compliance with the Code. The purpose of the Code is to provide asset managers a means to demonstrate in a uniform manner that they are acting as fiduciaries and in their client's best interests. Mr. Hitchcock stated that unless there are any objections, RSIC wants to sign on as endorser and work it into our Operational Due Diligence process. There were no objections noted. This concluded Mr. Hitchcock's report.

### III. CIO's REPORT

The Chair recognized Mr. Geoffrey Berg, Chief Investment Officer ("CIO"), to provide the CIO's report. Mr. Berg began by addressing the recent market volatility. He explained that, even though the market had experienced a 10 percent decline during the previous week, the market was still up over 20 percent from the end of 2016 and was up more than 35 percent from the end of 2015. Mr. Berg noted that the Commission's 2015 decision to increase equities exposure had improved overall Plan ("Plan" or "Portfolio") performance despite the recent volatility. He also emphasized that the market volatility is illustrative of the importance of maintaining a diversified portfolio.

Mr. Berg then introduced Mr. David King, Reporting Officer, to present an investment performance update. Mr. King stated that fiscal year-to-date through December 31, 2017, the Plan was up 7.51 percent versus a policy benchmark of 6.69 percent, with a Plan value of \$31.8 billion. Mr. Berg added that all of the benefit payments required to be made under the Teacher & Employee Retention Incentive ("TERI") Program, by statute, need to be completed by July of 2018. Ms. Peggy Boykin noted that an additional \$450 million will need to be paid, and, in response to a question, clarified that, while the program is still open, all participants will be required to exit the TERI Program as of June 30, 2018.

Mr. Hitchcock asked Mr. King for a 'flash' performance report through the first part of the week prior to the Commission meeting. Mr. King explained that, from the beginning of the year through February 6, 2018, the estimated Plan return was 3 percent, and added that the unofficial, estimated return for the fiscal year was approximately 6.6 percent. Mr. Hitchcock inquired about the status of the Standard & Poor's 500 Index ("S&P") for the month-to-date. Mr. Peter Woolley from Meketa Investment Group responded that the S&P was currently down by 5 percent during that time period.

Next, Mr. Hitchcock discussed the development of the Annual Investment Plan (“AIP”). He began by discussing the purpose of the AIP and how it relates to the Statement of Investment Objectives and Policies (“SIOP”). Mr. Hitchcock explained that his understanding is that the Commission should be providing the CIO with the SIOP, which the CIO will, in turn, use to create the AIP. He stated that the goal of the SIOP and AIP is to keep asset allocation in constant focus, but recommended that the Plan’s strategic asset allocation needs to be more permanent as we move forward. Mr. Hitchcock stated that Mr. Berg will be providing a draft AIP to the Commission by April 1, 2018, and the AIP will need to be adopted by the Commission before May 1, 2018. He added that Mr. Berg and Mr. Robert Feinstein, Managing Director, will be working on initiatives that will be included in the draft AIP. Mr. Hitchcock stated that his goal is to shift the focus of developing the AIP from strategic, long-term plans to action items for RSIC Staff (“Staff”) for a particular year.

Mr. Berg then shifted the discussion to three initiatives that he would like Staff to focus on during the upcoming fiscal year. First, Mr. Berg stated that he would like to build out the investment risk function by developing new tools for use by both the Investment Team and the Commission that will provide a different perspective on risks to the Plan. The second initiative identified by Mr. Berg called for the Investment Team to continue evaluating the mix of fixed and variable costs throughout the Portfolio, and pursuing opportunities to improve the cost structure of the investment program. Finally, Mr. Berg stated that he would like to evaluate currency hedging options. Mr. Berg stated that he intended to engage Meketa’s expertise on how other plans are implementing currency hedging and how it could be integrated into the Portfolio.

Mr. Berg began a discussion of the Portfolio’s risk management function. He introduced RSIC’s Risk Management Team (“Risk Team”): Mr. James Wingo, Senior Officer, and Mr. Jonathan Graab, Senior Risk Analyst. Mr. Berg explained that he had asked that the Risk Team shift their focus to a top-down strategic approach to Plan risk. Mr. Berg analogized Plan risk to a mosaic in which each tile is a different facet of the Plan’s risk portfolio.

At 9:57 a.m., Mr. Allen Gillespie joined the meeting.

Continuing his analogy, Mr. Berg stated that his goal for the first tile of the mosaic was to create a simple risk benchmark that would show how portfolio risk reacts to market conditions in real-time. Mr. Berg then asked Mr. Graab to provide a presentation on the Risk Team’s recent work. Mr. Graab began by stating that the Risk Team had transitioned Staff’s approach to risk modelling from attempting to understand an investment manager’s bets to modelling strategic allocation. He explained that comparing the Plan’s risk profile to a 70/30 stock-to-bond portfolio benchmark works well in accounting for market risk and interest rate risk. After explaining elements of the Risk Team’s approach, Mr. Graab stated that the greatest advantage of this revised approach is that it captures more than 90 percent of

portfolio volatility, operates in real-time, identifies asset class contributions to risk, and provides a flexible framework for modelling outcomes.

Mr. Graab noted some considerations to the revised risk approach as well, including that the approach does not identify risks associated with manager-specific active overweights and underweights. Mr. Berg added that the Plan's new approach to risk will ensure that active managers are not mirroring an index but adding value through unique investment theses. Mr. Graab concluded by noting that Staff will now be utilizing the revised risk approach in monitoring market risk, measuring asset class drawdowns and evidence of mean reversion, quantifying changing correlations between asset classes, and estimating Plan and asset class level factors. The Chair complimented the work of the Risk Team and asked how Staff would use the information garnered from risk modelling as actionable intelligence. Mr. Berg stated that, with these new tools for evaluating risk, Staff will be able to understand risk in real-time and diagnose problems instead of waiting for information from investment managers.

#### IV. REVIEW OF ASSET ALLOCATION

The Chair then introduced Mr. Frank Benham, Managing Principal and Director of Research for Meketa Investment Group ("Meketa"), to provide a presentation on asset allocation. Mr. Benham began his presentation by stating that the focus of the presentation is to provide portfolio options for the Plan. Mr. Allen Gillespie thanked Mr. Benham and Meketa for taking the time to contact each Commissioner to walk through the asset allocation process and seek input.

Mr. Benham reviewed the proposed asset allocation policies. He explained that following the December Commission meeting, Staff and Meketa had discussed numerous policy options and went through multiple iterations for implementation of several of the options. He stated that Meketa recently completed its 2018 Asset Study, which resulted in marginal changes to the projected return expectations of the asset mixes discussed in the December Commission meeting. He explained that Meketa had included three alternative policies with return expectations of 7.4 percent, 7.5 percent, and 7.6 percent.

Mr. Peter Woolley, Managing Principal and Co-Chief Executive Officer for Meketa, discussed the recent asset-liability analysis. Mr. Woolley pointed out that the three policy recommendations are all very similar to the current Plan, but with modest modifications. Mr. Woolley discussed the historical scenarios analysis, stress tests that looked at the impact of different stress periods on funded status, and a sequence of returns analysis. A lengthy discussion ensued regarding the proposed asset allocation policies.

Next Mr. Woolley discussed specific attributes of Meketa's three proposed policy mixes. Of the three allocations, Policy X is the most conservative, meaning it is likely to perform the best in a crisis but will likely trail the others in a strong equity market. Policy Z is the most aggressive, suggesting it is expected to produce the highest expected return in the long run but will suffer ~~the~~ slightly larger drawdowns in a crisis. Lastly, Policy Y falls between Policies

X and Z, with an expected return of 7.5 percent, which is higher than the current policy, with a similar level of risk.

Mr. Woolley stated that no matter which policy the Commission chooses, equities represent the largest share of the portfolio's volatility (risk). In addition, each policy has approximately 60 percent allocated to assets with daily or monthly liquidity. He explained that Meketa conducted an extreme stress test to analyze the Plan's liquidity. Mr. Benham stated that even under extreme scenarios, their analysis indicated that the Plan would maintain sufficient liquidity to meet its obligations.

**Break was taken from 11:51 a.m. to 12:05 p.m.**

Upon returning from break, Mr. Hitchcock introduced Mr. Josh Restauri, who joined the analyst trainee program. Mr. Restauri went to Indiana University of Pennsylvania. He was an intern at Stewart Capital prior to coming to RSIC.

The Chair inquired as to Mr. Berg's thoughts on Meketa's recommendation and asset allocation policies. Mr. Berg stated that his personal preference for the Plan is Policy Y. He stated that he likes the reduction in credit exposure and the modest addition to equity. Mr. Berg also stated that he prefers Policy Y over the Plan's current policy. ~~A lengthy discussion ensued~~ Mr. Condon raised a question regarding the Commissioners' fiduciary duty and how that impacts the adoption of a particular asset allocation. Specifically, he raised the question of what their fiduciary obligations are when the proposed asset allocation reflects a 50 percent probability of making seven and a quarter percent annual return. He and Mr. Hitchcock discussed the statutory rate of return and its impact on asset allocation decisions by the Commission. Mr. Hitchcock explained that the Commission historically has used the statutory rate of return to inform the Commission's decision on how to allocate the assets. The assumed rate of return is considered by the Commission as it manages the Plan and contemplates various asset allocation models. He noted that it would be incumbent upon the Commission to inform the General Assembly and other interested parties if the Commission determined that it would not be prudent to take on the level of risk required to attempt to meet the assumed rate of return. Staff feels that the current proposed asset allocation, with a 52 percent probability of making the assumed rate of return, represents a prudent path to work toward the seven and a quarter percent return, while maintaining a prudent level of risk. A lengthy discussion ensued regarding Policy Y and related matters.

Mr. Gillespie moved that the Commission adopt the recommendation of Meketa and the CIO to approve the asset allocation as presented on red number page 48 of the Asset Allocation Report from Meketa dated February 8, 2018 in the open session agenda materials, Asset Allocation Y, effective July 1, 2018; directs that the approved allocation be incorporated into, and made a part of, the Statement of Investment Objective and Policies; and authorizes Staff to finalize the asset allocation by making any technical revisions or formatting edits

consistent with the action taken by the Commission. Mr. Giobbe seconded the motion, which passed unanimously.

## **V. EXECUTIVE SESSION**

Dr. Wilder made a motion that the Commission recede into Executive Session to discuss investment matters pursuant to S.C. Code Ann. § 9-16-80 and § 9-16-320; to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2) related to litigation filed by American Timberlands Fund II, LP; and to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2). Mr. Hancock seconded the motion, which passed unanimously.

## **VI. POTENTIAL ACTION RESULTING FROM EXECUTIVE SESSION**

Upon return to open session at 1:45 p.m., Mr. Hitchcock noted the Commission did not take any reportable action while in executive session. Any action that did occur while in executive session will be publicized when doing so would not jeopardize the Commission's ability to achieve its investment objectives or implement a portion of the annual investment plan.

## **VII. ADJOURNMENT**

There being no further business, upon a motion made by Mr. Gillespie and seconded by Mr. Giobbe, the Commission voted unanimously to adjourn. The meeting adjourned at 1:50 p.m.

[Staff Note: In compliance with S.C. Code Ann. Section 30-4-80, public notice of and the agenda for this meeting were delivered to the press and to parties who requested notice and were posted at the entrance, in the lobbies and near the 15<sup>th</sup> Floor Presentation Center at 1201 Main Street, Columbia, S.C., at 4:59 p.m. on February 5, 2018.]

<b>Summary report:</b>	
<b>Litéra® Change-Pro TDC 10.1.0.300 Document comparison done on 4/11/2018 9:31:12 AM</b>	
<b>Style name:</b> Default Style	
<b>Intelligent Table Comparison:</b> Active	
<b>Original filename:</b> 2018.03.08 Draft Minutes final clean.docx	
<b>Modified filename:</b> 2018.03.08 Draft Minutes final clean - with Condon comments.docx	
<b>Changes:</b>	
Add	1
Delete	2
Move From	0
Move To	0
Table Insert	0
Table Delete	0
Table moves to	0
Table moves from	0
Embedded Graphics (Visio, ChemDraw, Images etc.)	0
Embedded Excel	0
Format changes	0
<b>Total Changes:</b>	<b>3</b>



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Meeting Minutes**

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Dr. Ronald Wilder, Vice Chair  
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Mr. Allen Gillespie  
Mr. Edward Giobbe  
Mr. Reynolds Williams (via telephone)  
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volatility, operates in real-time, identifies asset class contributions to risk, and provides a flexible framework for modelling outcomes.

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Mr. Benham reviewed the proposed asset allocation policies. He explained that following the December Commission meeting, Staff and Meketa had discussed numerous policy options and went through multiple iterations for implementation of several of the options. He stated that Meketa recently completed its 2018 Asset Study, which resulted in marginal changes to the projected return expectations of the asset mixes discussed in the December Commission meeting. He explained that Meketa had included three alternative policies with return expectations of 7.4 percent, 7.5 percent, and 7.6 percent.

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**V. EXECUTIVE SESSION**

Dr. Wilder made a motion that the Commission recede into Executive Session to discuss investment matters pursuant to S.C. Code Ann. § 9-16-80 and § 9-16-320; to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2) related to litigation filed by American Timberlands Fund II, LP; and to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2). Mr. Hancock seconded the motion, which passed unanimously.

**VI. POTENTIAL ACTION RESULTING FROM EXECUTIVE SESSION**

Upon return to open session at 1:45 p.m., Mr. Hitchcock noted the Commission did not take any reportable action while in executive session. Any action that did occur while in executive session will be publicized when doing so would not jeopardize the Commission's ability to achieve its investment objectives or implement a portion of the annual investment plan.

## VII. ADJOURNMENT

There being no further business, upon a motion made by Mr. Gillespie and seconded by Mr. Giobbe, the Commission voted unanimously to adjourn. The meeting adjourned at 1:50 p.m.

[Staff Note: In compliance with S.C. Code Ann. Section 30-4-80, public notice of and the agenda for this meeting were delivered to the press and to parties who requested notice and were posted at the entrance, in the lobbies and near the 15<sup>th</sup> Floor Presentation Center at 1201 Main Street, Columbia, S.C., at 4:59 p.m. on February 5, 2018.]

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**Commissioners Present:**

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Mr. Allen Gillespie  
Mr. Edward Giobbe  
Mr. Reynolds Williams (via telephone)  
Mr. William H. Hancock  
Bill Condon, Esq.

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Mr. Hitchcock then updated the Commission on the fiduciary audit, which is required every four years by state law. The State Auditor selected Funston Advisory Group to perform the



audit, which will begin in May. He reminded the Commissioners that Funston had conducted the last fiduciary audit and noted that it will be interesting to see how they think the Commission has progressed since the last fiduciary audit.

Lastly, Mr. Hitchcock reported that RSIC would like to formally endorse the CFA Asset Manager Code of Professional Conduct, which is a code of professional conduct for asset management firms. The asset management firms can choose to adopt the standard of conduct. He noted that currently 19 of our managers currently claim compliance with the Code. The purpose of the Code is to provide asset managers a means to demonstrate in a uniform manner that they are acting as fiduciaries and in their client's best interests. Mr. Hitchcock stated that unless there are any objections, RSIC wants to sign on as endorser and work it into our Operational Due Diligence process. There were no objections noted. This concluded Mr. Hitchcock's report.

### III. CIO's REPORT

The Chair recognized Mr. Geoffrey Berg, Chief Investment Officer ("CIO"), to provide the CIO's report. Mr. Berg began by addressing the recent market volatility. He explained that, even though the market had experienced a 10 percent decline during the previous week, the market was still up over 20 percent from the end of 2016 and was up more than 35 percent from the end of 2015. Mr. Berg noted that the Commission's 2015 decision to increase equities exposure had improved overall Plan ("Plan" or "Portfolio") performance despite the recent volatility. He also emphasized that the market volatility is illustrative of the importance of maintaining a diversified portfolio.

Mr. Berg then introduced Mr. David King, Reporting Officer, to present an investment performance update. Mr. King stated that fiscal year-to-date through December 31, 2017, the Plan was up 7.51 percent versus a policy benchmark of 6.69 percent, with a Plan value of \$31.8 billion. Mr. Berg added that all of the benefit payments required to be made under the Teacher & Employee Retention Incentive ("TERI") Program, by statute, need to be completed by July of 2018. Ms. Peggy Boykin noted that an additional \$450 million will need to be paid, and, in response to a question, clarified that, while the program is still open, all participants will be required to exit the TERI Program as of June 30, 2018.

Mr. Hitchcock asked Mr. King for a 'flash' performance report through the first part of the week prior to the Commission meeting. Mr. King explained that, from the beginning of the year through February 6, 2018, the estimated Plan return was 3 percent, and added that the unofficial, estimated return for the fiscal year was approximately 6.6 percent. Mr. Hitchcock inquired about the status of the Standard & Poor's 500 Index ("S&P") for the month-to-date. Mr. Peter Woolley from Meketa Investment Group responded that the S&P was currently down by 5 percent during that time period.



Next, Mr. Hitchcock discussed the development of the Annual Investment Plan (“AIP”). He began by discussing the purpose of the AIP and how it relates to the Statement of Investment Objectives and Policies (“SIOP”). Mr. Hitchcock explained that his understanding is that the Commission should be providing the CIO with the SIOP, which the CIO will, in turn, use to create the AIP. He stated that the goal of the SIOP and AIP is to keep asset allocation in constant focus, but recommended that the Plan’s strategic asset allocation needs to be more permanent as we move forward. Mr. Hitchcock stated that Mr. Berg will be providing a draft AIP to the Commission by April 1, 2018, and the AIP will need to be adopted by the Commission before May 1, 2018. He added that Mr. Berg and Mr. Robert Feinstein, Managing Director, will be working on initiatives that will be included in the draft AIP. Mr. Hitchcock stated that his goal is to shift the focus of developing the AIP from strategic, long-term plans to action items for RSIC Staff (“Staff”) for a particular year.

Mr. Berg then shifted the discussion to three initiatives that he would like Staff to focus on during the upcoming fiscal year. First, Mr. Berg stated that he would like to build out the investment risk function by developing new tools for use by both the Investment Team and the Commission that will provide a different perspective on risks to the Plan. The second initiative identified by Mr. Berg called for the Investment Team to continue evaluating the mix of fixed and variable costs throughout the Portfolio, and pursuing opportunities to improve the cost structure of the investment program. Finally, Mr. Berg stated that he would like to evaluate currency hedging options. Mr. Berg stated that he intended to engage Meketa’s expertise on how other plans are implementing currency hedging and how it could be integrated into the Portfolio.

Mr. Berg began a discussion of the Portfolio’s risk management function. He introduced RSIC’s Risk Management Team (“Risk Team”): Mr. James Wingo, Senior Officer, and Mr. Jonathan Graab, Senior Risk Analyst. Mr. Berg explained that he had asked that the Risk Team shift their focus to a top-down strategic approach to Plan risk. Mr. Berg analogized Plan risk to a mosaic in which each tile is a different facet of the Plan’s risk portfolio.

At 9:57 a.m., Mr. Allen Gillespie joined the meeting.

Continuing his analogy, Mr. Berg stated that his goal for the first tile of the mosaic was to create a simple risk benchmark that would show how portfolio risk reacts to market conditions in real-time. Mr. Berg then asked Mr. Graab to provide a presentation on the Risk Team’s recent work. Mr. Graab began by stating that the Risk Team had transitioned Staff’s approach to risk modelling from attempting to understand an investment manager’s bets to modelling strategic allocation. He explained that comparing the Plan’s risk profile to a 70/30 stock-to-bond portfolio benchmark works well in accounting for market risk and interest rate risk. After explaining elements of the Risk Team’s approach, Mr. Graab stated that the greatest advantage of this revised approach is that it captures more than 90 percent of portfolio

volatility, operates in real-time, identifies asset class contributions to risk, and provides a flexible framework for modelling outcomes.

Mr. Graab noted some considerations to the revised risk approach as well, including that the approach does not identify risks associated with manager-specific active overweights and underweights. Mr. Berg added that the Plan's new approach to risk will ensure that active managers are not mirroring an index but adding value through unique investment theses. Mr. Graab concluded by noting that Staff will now be utilizing the revised risk approach in monitoring market risk, measuring asset class drawdowns and evidence of mean reversion, quantifying changing correlations between asset classes, and estimating Plan and asset class level factors. The Chair complimented the work of the Risk Team and asked how Staff would use the information garnered from risk modelling as actionable intelligence. Mr. Berg stated that, with these new tools for evaluating risk, Staff will be able to understand risk in real-time and diagnose problems instead of waiting for information from investment managers.

#### **IV. REVIEW OF ASSET ALLOCATION**

The Chair then introduced Mr. Frank Benham, Managing Principal and Director of Research for Meketa Investment Group ("Meketa"), to provide a presentation on asset allocation. Mr. Benham began his presentation by stating that the focus of the presentation is to provide portfolio options for the Plan. Mr. Allen Gillespie thanked Mr. Benham and Meketa for taking the time to contact each Commissioner to walk through the asset allocation process and seek input.

Mr. Benham reviewed the proposed asset allocation policies. He explained that following the December Commission meeting, Staff and Meketa had discussed numerous policy options and went through multiple iterations for implementation of several of the options. He stated that Meketa recently completed its 2018 Asset Study, which resulted in marginal changes to the projected return expectations of the asset mixes discussed in the December Commission meeting. He explained that Meketa had included three alternative policies with return expectations of 7.4 percent, 7.5 percent, and 7.6 percent.

Mr. Peter Woolley, Managing Principal and Co-Chief Executive Officer for Meketa, discussed the recent asset-liability analysis. Mr. Woolley pointed out that the three policy recommendations are all very similar to the current Plan, but with modest modifications. Mr. Woolley discussed the historical scenarios analysis, stress tests that looked at the impact of different stress periods on funded status, and a sequence of returns analysis. A lengthy discussion ensued regarding the proposed asset allocation policies.

Next Mr. Woolley discussed specific attributes of Meketa's three proposed policy mixes. Of the three allocations, Policy X is the most conservative, meaning it is likely to perform the best in a crisis but will likely trail the others in a strong equity market. Policy Z is the most aggressive, suggesting it is expected to produce the highest expected return in the long run but will suffer slightly larger drawdowns in a crisis. Lastly, Policy Y falls between Policies X and Z, with an expected return of 7.5 percent, which is higher than the current policy, with a similar level of risk.

Mr. Woolley stated that no matter which policy the Commission chooses, equities represent the largest share of the portfolio's volatility (risk). In addition, each policy has approximately 60 percent allocated to assets with daily or monthly liquidity. He explained that Meketa conducted an extreme stress test to analyze the Plan's liquidity. Mr. Benham stated that even under extreme scenarios, their analysis indicated that the Plan would maintain sufficient liquidity to meet its obligations.

**Break was taken from 11:51 a.m. to 12:05 p.m.**

Upon returning from break, Mr. Hitchcock introduced Mr. Josh Restauri, who joined the analyst trainee program. Mr. Restauri went to Indiana University of Pennsylvania. He was an intern at Stewart Capital prior to coming to RSIC.

The Chair inquired as to Mr. Berg's thoughts on Meketa's recommendation and asset allocation policies. Mr. Berg stated that his personal preference for the Plan is Policy Y. He stated that he likes the reduction in credit exposure and the modest addition to equity. Mr. Berg also stated that he prefers Policy Y over the Plan's current policy. Mr. Condon raised a question regarding the Commissioners' fiduciary duty and how that impacts the adoption of a particular asset allocation. Specifically, he raised the question of what their fiduciary obligations are when the proposed asset allocation reflects a 50 percent probability of making seven and a quarter percent annual return. He and Mr. Hitchcock discussed the statutory rate of return and its impact on asset allocation decisions by the Commission. Mr. Hitchcock explained that the Commission historically has used the statutory rate of return to inform the Commission's decision on how to allocate the assets. The assumed rate of return is considered by the Commission as it manages the Plan and contemplates various asset allocation models. He noted that it would be incumbent upon the Commission to inform the General Assembly and other interested parties if the Commission determined that it would not be prudent to take on the level of risk required to attempt to meet the assumed rate of return. Staff feels that the current proposed asset allocation, with a 52 percent probability of making the assumed rate of return, represents a prudent path to work toward the seven and a quarter percent return, while maintaining a prudent level of risk. A lengthy discussion ensued regarding Policy Y and related matters.

Mr. Gillespie moved that the Commission adopt the recommendation of Meketa and the CIO to approve the asset allocation as presented on red number page 48 of the Asset Allocation Report from Meketa dated February 8, 2018 in the open session agenda materials, Asset Allocation Y, effective July 1, 2018; directs that the approved allocation be incorporated into, and made a part of, the Statement of Investment Objective and Policies; and authorizes Staff to finalize the asset allocation by making any technical revisions or formatting edits consistent with the action taken by the Commission. Mr. Giobbe seconded the motion, which passed unanimously.

## **V. EXECUTIVE SESSION**

Dr. Wilder made a motion that the Commission recede into Executive Session to discuss investment matters pursuant to S.C. Code Ann. § 9-16-80 and § 9-16-320; to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2) related to litigation filed by American Timberlands Fund II, LP; and to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2). Mr. Hancock seconded the motion, which passed unanimously.

## **VI. POTENTIAL ACTION RESULTING FROM EXECUTIVE SESSION**

Upon return to open session at 1:45 p.m., Mr. Hitchcock noted the Commission did not take any reportable action while in executive session. Any action that did occur while in executive session will be publicized when doing so would not jeopardize the Commission's ability to achieve its investment objectives or implement a portion of the annual investment plan.

## **VII. ADJOURNMENT**

There being no further business, upon a motion made by Mr. Gillespie and seconded by Mr. Giobbe, the Commission voted unanimously to adjourn. The meeting adjourned at 1:50 p.m.

[Staff Note: In compliance with S.C. Code Ann. Section 30-4-80, public notice of and the agenda for this meeting were delivered to the press and to parties who requested notice and were posted at the entrance, in the lobbies and near the 15<sup>th</sup> Floor Presentation Center at 1201 Main Street, Columbia, S.C., at 4:59 p.m. on February 5, 2018.]

## **Audit and Enterprise Risk Management Committee**

- I. **Definitions.** For purposes of this charter, the following capitalized terms will have the defined meaning set forth below:
- (A) “Commission” means the commission of seven members responsible for managing the South Carolina Retirement System Investment Commission, as specified in S.C. Code of Laws Ann. §9-16-315.
  - (B) “Management” means the South Carolina Retirement System Investment Commission staff members in senior or executive roles, or who may be designated as such on the organizational chart of the agency.
  - (C) “South Carolina Retirement System Investment Commission” or “RSIC” means the agency established by South Carolina law for the purpose of investing and managing all assets held in trust for the participants and beneficiaries of the state’s five separate defined benefit plans.
- II. **Purpose of the Committee.** The Commission has established an Audit and Enterprise Risk Management Committee to oversee the audit, enterprise risk management, and compliance functions, as well as the internal control environment and any engagements with external audit firms.
- III. **Primary Responsibilities:**
- (A) Overseeing the audit, enterprise risk management, compliance and control activities of the RSIC, including without limitation the development and execution by management of strategies to mitigate risks
  - (B) Overseeing the risk assessment process conducted by the Enterprise Risk Management and Audit functions.
  - (C) Approving, periodically, the audit plans of the Audit function.
  - (D) Assessing, and providing oversight to Management relating to the identification and evaluation, of major strategic, operational, regulatory, information and external risks inherent in the business of the RSIC (the “Risks”) and the control processes with respect to such risks.
  - (E) Reviewing, periodically, the findings of audits and approving any necessary follow up items or recommendations to be conducted by auditors.
  - (F) Monitoring the implementation of any approved follow up items or recommendations.
  - (G) Overseeing the process for monitoring compliance with RSIC policies and applicable laws, including but not limited to: ethics requirements and standards of conduct.

**IV. Composition**

- (A) The Audit and Enterprise Risk Management Committee will consist of three members of the Commission.
- (B) The Commission will appoint Committee members in accordance with the *Committees Policy* of the Commission.
- (C) The Committee Chair will be selected by vote of the Committee.
- (D) The Executive Director of the Public Employee Benefit Authority, serving as a Commission member *ex officio*, will be a member of the Commission's Audit and Enterprise Risk Management Committee.

**V. Meetings**

- (A) The Audit and Enterprise Risk Management Committee will meet at least four times a year and has the authority to convene additional meetings as circumstances require, so long as notice is provided as appropriate and in accordance with the South Carolina Freedom of Information Act ("FOIA").
- (B) In accordance with FOIA, the Committee must give written public notice of its regular meetings at the beginning of each calendar year. The notice must include the dates, times and places of the meetings.
- (C) The annual schedule may be modified by the Audit and Enterprise Risk Management Committee as necessary.
- (D) All Committee members should expect to attend each meeting in person or via conference call or video-conference (if available).
- (E) The Committee may invite members of Management, auditors, and/or others to attend meetings and to provide pertinent information, as necessary.
- (F) In the event a Commission member who is not a member of the Audit and Enterprise Risk Management Committee attends a Committee meeting, she or he will not have voting rights and will not participate in discussions of the Audit and Enterprise Risk Management Committee unless asked and if such participation would not create a quorum of the Commission.
- (G) Meeting agendas, notices, and minutes will be prepared and provided in accordance with the *Committees Policy* of the Commission, FOIA and all other applicable laws.

**VI. Authority:** The Committee is empowered to:

- (A) Retain independent counsel, accountants, or other specialists to advise the Committee.

- (B) Seek any information it requires from RSIC’s staff, all of whom are directed to cooperate with the Committee's requests, or the requests of external parties working for the Committee.
- (C) Meet with the Commission, RSIC staff, auditors, outside counsel and/or specialists, as necessary.
- (D) Appoint (or dismiss), compensate, and oversee the work of the Audit and Enterprise Risk Management Staff in accordance with RSIC’s personnel policies and applicable state law, and oversee the work of the Audit, Enterprise Risk Management, and Compliance functions.
- (E) Ensure that contracts with service providers for work approved by the Committee contain appropriate record-keeping and audit language.
- (F) Communicate with the Commission regarding the RSIC’s policies and applicable laws, including ethics requirements and standards of conduct, as each relates to internal control, and all auditing activities.
- (G) The Committee may authorize investigations into any matters within its scope of responsibility, and in accordance with any policies related thereto.

**VII. Detailed Listing of Responsibilities:** The Committee will carry out the following responsibilities:

- (A) **Internal Control Function.** Oversee the policy and framework for an effective system of internal controls, and provide the mechanisms for periodic assessment of the system of internal controls.

**(B) Staff Functions**

- (1) Assure and maintain the independence of the audit process. The Audit and Enterprise Risk Management Staff (“A & ERM Staff”) will report to the Audit and Enterprise Risk Management Committee. For administrative purposes, such as approving leave requests, the A & ERM Staff will report to the Chief Executive Officer (“CEO”) (dotted line). The CEO will also provide oversight related to internal staff matters and otherwise to the extent that such oversight will not interfere with the independence of the A & ERM Staff.
- (2) The Committee will evaluate the performance of the A & ERM Staff at least annually. The Committee may confer with the CEO and other members of Management as deemed appropriate by the Committee. Discussions regarding the performance of the A & ERM Staff may be held in executive session in accordance with state law.



**(C) Audit Functions**

- (1) Ensure that auditors have access to all documents, information, and systems throughout the RSIC.
- (2) Review periodically with Management and the A & ERM Staff the charter, objectives, plans, activities, staffing, qualifications, and organizational structure of the audit and enterprise risk management functions.
- (3) Receive and review all audit reports and management letters that are related to the support of external audit opinions or are integral to the system of internal controls.
- (4) Review any external auditors' proposed audit or agreed-upon-procedures scope and approach, including coordination of effort with A & ERM staff.
- (5) Review the performance of any external auditors, and exercise final approval on the appointment, retention or discharge of these auditors.
- (6) Pre-approve the scope of all services to be performed by any external auditor.
- (7) Review and approve the reports of the audits and/or agreed-upon-procedures.
- (8) Provide a forum for follow up of findings from the audit reports or agreed-upon-procedures.

**(D) Enterprise Risk Management and Compliance Functions**

- (1) Assure competency and objectivity in the enterprise risk management process.
- (2) Review and evaluate management's identification of all major Risks to the business and their relative weight;
- (3) Assess the adequacy of management's Risk assessment, its plan for Risk control or mitigation, and disclosure;
- (4) Review and evaluate management's development and execution of certain risk mitigation strategies and opportunities proposed by management and selected by the Committee for further review; and
- (5) Review, assess and discuss with RSIC Legal, the Chief Executive Officer and the A & ERM Staff: (i) any significant enterprise risks or exposures, (ii) the steps management has taken to minimize such enterprise risks or exposures; and (iii) the RSIC's underlying policies with respect to risk assessment and enterprise risk management.



- (6) Provide the policy and framework for compliance with applicable law and provide the mechanisms for periodic assessment of compliance, including compliance by named and other service providers, consultants, and investment managers.
  - (7) Review the findings of any examinations by regulatory agencies and any auditor observations.
  - (8) Review the process for communicating applicable ethics requirements and standards of conduct to the Commission and RSIC staff, and for monitoring compliance therewith.
  - (9) Obtain regular updates from Management, the A & ERM Staff, and/or legal counsel regarding compliance matters.
- (E) **Reporting Responsibilities** Regularly report to the Commission about Committee activities, issues, and related recommendations.
- (F) **Other Responsibilities**
- (1) Perform other activities related to this charter as requested by the Commission.
  - (2) Review and assess the adequacy of the Committee charter at least every three years, requesting Commission approval for proposed changes.
  - (3) Confirm annually that all responsibilities outlined in this charter have been carried out.
  - (4) Evaluate the Committee's and individual Committee member's performance on a regular basis in conjunction with the Commission Evaluation Process
  - (5) Provide an appropriate and confidential mechanism for whistleblowers to provide information on potentially fraudulent financial reporting, cases of fraud, or other material breaches of internal control to the Committee.

## Audit and Enterprise Risk Management Committee

- I. **Definitions.** For purposes of this charter, the following capitalized terms will have the defined meaning set forth below:
- (A) “Commission” means the commission of seven members responsible for managing the South Carolina Retirement System Investment Commission, as specified in S.C. Code of Laws Ann. §9-16-315.
  - (B) “Management” means the South Carolina Retirement System Investment Commission staff members in senior or executive roles, or who may be designated as such on the organizational chart of the agency.
  - (C) “South Carolina Retirement System Investment Commission” or “RSIC” means the agency established by South Carolina law for the purpose of investing and managing all assets held in trust for the participants and beneficiaries of the state’s five separate defined benefit plans.
- II. **Purpose of the Committee.** The Commission has established an Audit and Enterprise Risk Management Committee to oversee the audit, enterprise risk management, and compliance functions, as well as the internal control environment and any engagements with external audit firms.
- III. **Primary Responsibilities:**
- (A) Overseeing the audit, enterprise risk management, compliance and control activities of the RSIC, including without limitation the development and execution by management of strategies to mitigate risks
  - (B) Overseeing the risk assessment process conducted by the Enterprise Risk Management and Audit functions.
  - (C) Approving, periodically, the audit plans of the Audit functions.
  - (D) Assessing, and providing oversight to ~~M~~management relating to the identification and evaluation, of major strategic, operational, regulatory, information and external risks inherent in the business of the RSIC (the “Risks”) and the control processes with respect to such risks.
  - (E) Reviewing, periodically, the findings of audits and approving any necessary follow up items or recommendations to be conducted by auditors.
  - (F) Monitoring the implementation of any approved follow up items or recommendations.
  - (G) Overseeing the process for monitoring compliance with RSIC policies and applicable laws, including but not limited to: ethics requirements and standards of conduct.

**IV. Composition**

- (A) The Audit and Enterprise Risk Management Committee will consist of three members of the Commission.
- (B) The Commission will appoint Committee members in accordance with the *Committees Policy* of the Commission.
- (C) The Committee Chair will be selected by vote of the Committee.
- (D) The Executive Director of the Public Employee Benefit Authority, serving as a Commission member *ex officio*, will be a member of the Commission's Audit and Enterprise Risk Management Committee.

**V. Meetings**

- (A) The Audit and Enterprise Risk Management Committee will meet at least four times a year and has the authority to convene additional meetings as circumstances require, so long as notice is provided as appropriate and in accordance with the South Carolina Freedom of Information Act ("FOIA").
- (B) In accordance with FOIA, the Committee must give written public notice of its regular meetings at the beginning of each calendar year. The notice must include the dates, times and places of the meetings.
- (C) The annual schedule may be modified by the Audit and Enterprise Risk Management Committee as necessary.
- (D) All Committee members should expect to attend each meeting in person or via conference call or video-conference (if available).
- (E) The Committee may invite members of Management, auditors, and/or others to attend meetings and to provide pertinent information, as necessary.
- (F) In the event a Commission member who is not a member of the Audit and Enterprise Risk Management Committee attends a Committee meeting, she or he will not have voting rights and will not participate in discussions of the Audit and Enterprise Risk Management Committee unless asked and if such participation would not create a quorum of the Commission.
- (G) Meeting agendas, notices, and minutes will be prepared and provided in accordance with the *Committees Policy* of the Commission, FOIA and all other applicable laws.

**VI. Authority:** The Committee is empowered to:

- (A) Retain independent counsel, accountants, or other specialists to advise the Committee.

- (B) Seek any information it requires from RSIC's staff, all of whom are directed to cooperate with the Committee's requests, or the requests of external parties working for the Committee.
- (C) Meet with the Commission, RSIC staff, auditors, outside counsel and/or specialists, as necessary.
- (D) Appoint (or dismiss), compensate, and oversee the work of the Audit and Enterprise Risk Management Staff in accordance with RSIC's personnel policies and applicable state law, and oversee the work of the Audit, Enterprise Risk Management, and Compliance functions.
- (E) Ensure that contracts with service providers for work approved by the Committee contain appropriate record-keeping and audit language.
- (F) Communicate with the Commission regarding the RSIC's policies and applicable laws, including ethics requirements and standards of conduct, as each relates to internal control, and all auditing activities.
- (G) The Committee may authorize investigations into any matters within its scope of responsibility, and in accordance with any policies related thereto.

VII. **Detailed Listing of Responsibilities:** The Committee will carry out the following responsibilities:

(A) **Internal Control Function.** Oversee the policy and framework for an effective system of internal controls, and provide the mechanisms for periodic assessment of the system of internal controls.

(B) **Staff Functions**

(1) Assure and maintain the independence of the audit process. The Audit and Enterprise Risk Management Staff ("A & ERM Staff") will report to the Audit and Enterprise Risk Management Committee. For administrative purposes, such as approving leave requests, the A & ERM Staff will report to the Chief Executive Officer ("CEO") (dotted line). The CEO will also provide oversight related to internal staff matters and otherwise to the extent that such oversight will not interfere with the independence of the A & ERM Staff.

(2) The Committee will evaluate the performance of the A & ERM Staff at least annually. The Committee may confer with the CEO, ~~CIO~~ and other members of Management as deemed appropriate by the Committee. Discussions regarding the performance of the A & ERM Staff may be held in executive session in accordance with state law.

(2)

**(C) Audit Functions**

- (1) Ensure that auditors have access to all documents, information, and systems throughout the RSIC.
- (2) Review periodically with Management and the A & ERM Staff the charter, objectives, plans, activities, staffing, qualifications, and organizational structure of the audit and enterprise risk management functions.
- (3) Receive and review all audit reports and management letters that are related to the support of external audit opinions or are integral to the system of internal controls.
- (4) Review any external auditors' proposed audit or agreed-upon-procedures scope and approach, including coordination of effort with A & ERM staff.
- (5) Review the performance of any external auditors, and exercise final approval on the appointment, retention or discharge of these auditors.
- (6) Pre-approve the scope of all services to be performed by any external auditor.
- (7) Review and approve the reports of the audits and/or agreed-upon-procedures.
- (8) Provide a forum for follow up of findings from the audit reports or agreed-upon-procedures.

**(D) Enterprise Risk Management and Compliance Functions**

- (1) Assure competency and objectivity in the enterprise risk management process.
- (2) Review and evaluate management's identification of all major Risks to the business and their relative weight;
- (3) Assess the adequacy of management's Risk assessment, its plan for Risk control or mitigation, and disclosure;
- (4) Review and evaluate management's development and execution of certain risk mitigation strategies and opportunities proposed by management and selected by the Committee for further review; and
- (5) Review, assess and discuss with RSIC Legal, the Chief Executive Officer and the A & ERM Staff: (i) any significant enterprise risks or exposures, (ii) the steps management has taken to minimize such enterprise risks or exposures; and (iii) the RSIC's underlying policies with respect to risk assessment and enterprise risk management.

- (6) Provide the policy and framework for compliance with applicable law and provide the mechanisms for periodic assessment of compliance, including compliance by named and other service providers, consultants, and investment managers.
  - (7) Review the findings of any examinations by regulatory agencies and any auditor observations.
  - (8) Review the process for communicating applicable ethics requirements and standards of conduct to the Commission and RSIC staff, and for monitoring compliance therewith.
  - (9) Obtain regular updates from Management, the A & ERM Staff, and/or legal counsel regarding compliance matters.
- (E) **Reporting Responsibilities** Regularly report to the Commission about Committee activities, issues, and related recommendations.
- (F) **Other Responsibilities**
- (1) Perform other activities related to this charter as requested by the Commission.
  - (2) Review and assess the adequacy of the Committee charter at least every three years, requesting Commission approval for proposed changes.
  - (3) Confirm annually that all responsibilities outlined in this charter have been carried out.
  - (4) Evaluate the Committee's and individual Committee member's performance on a regular basis in conjunction with the Commission Evaluation Process.
  - (5) Provide an appropriate and confidential mechanism for whistleblowers to provide information on potentially fraudulent financial reporting, cases of fraud, or other material breaches of internal control to the Committee.

## **Human Resources and Compensation Committee**

**I. Definitions.** For purposes of this charter, the following capitalized terms will have the defined meaning set forth below:

(A) “Commission” means the commission of seven members responsible for managing the South Carolina Retirement System Investment Commission, as specified in S.C. Code of Laws Ann. §9-16-315.

(B) “South Carolina Retirement System Investment Commission” or “RSIC” means the agency established by South Carolina law for the purpose of investing and managing all assets held in trust for the participants and beneficiaries of the state’s five separate defined benefit plans.

**II. Purpose of the Committee.** The Commission has established a Human Resources and Compensation Committee (“HR and Compensation Committee” or the “Committee”) to consider and make recommendations to the Commission concerning matters relating to the compensation of the RSIC staff and to provide oversight relating to human resources.

### **III. Primary Responsibilities**

(A) Reviewing and making recommendations related to the RSIC’s Compensation Policy to ensure the RSIC can recruit and retain superior talent to satisfy the core mission of the Commission.

(B) Providing guidance and oversight to the human resources function.

(C) Receiving recommendations from the Director of Human Resources for human resources functional needs and changes as well as for RSIC staff development.

(D) Conducting or procuring a new peer compensation study at least every three years to assess the current level of RSIC staff compensation and make revisions to target salary ranges, as appropriate.

(E) Discussing the annual Chief Executive Officer (“CEO”) evaluation with the Commission’s Chair and making recommendations to the Commission regarding adjustments to the CEO’s salary.

### **IV. Composition**

(A) The Compensation Committee will consist of three members of the Commission.

(B) The Commission will appoint Committee members and the Committee Chair in accordance with the Committees Policy of the Commission.

**V. Meetings**

- (A) The HR and Compensation Committee will provide guidance to staff on meeting agendas, notices, and minutes in accordance with the Committees Policy of the Commission, the South Carolina Freedom of Information Act (“FOIA”), and all other applicable laws.
- (B) In the event a Commission member who is not a member of the HR and Compensation Committee attends a Compensation Committee meeting, he will not have voting rights and will not participate in discussions of the Compensation Committee.

**VI. Authority.** The Committee is empowered to:

- (A) Recommend to the Commission the retention of consultants or other resources needed by the Committee to carry out its primary responsibilities.
- (B) Meet with and seek information from the Commission, RSIC staff, consultants, and/or other subject matter specialists, as necessary to carry out its primary responsibilities.

**VII. Reporting Responsibilities.** Report to the Commission about Committee activities, issues, and related recommendations as appropriate.**VIII. Other Responsibilities**

- (A) Perform other activities related to this charter as requested by the Commission.
- (B) Review and assess the adequacy of the Committee charter at least every three years, requesting Commission approval for proposed changes.
- (C) Confirm annually that all responsibilities outlined in this charter have been carried out.
- (D) Evaluate the Committee's and individual Committee member's performance on an annual basis in conjunction with the Commission Evaluation Process.



## Human Resources and Compensation Committee

**I. Definitions.** For purposes of this charter, the following capitalized terms will have the defined meaning set forth below:

(A) “Commission” means the commission of seven members responsible for managing the South Carolina Retirement System Investment Commission, as specified in S.C. Code of Laws Ann. §9-16-315.

(B) “South Carolina Retirement System Investment Commission” or “RSIC” means the agency established by South Carolina law for the purpose of investing and managing all assets held in trust for the participants and beneficiaries of the state’s five separate defined benefit plans.

**II. Purpose of the Committee.** The Commission has established a Human Resources and Compensation Committee (“HR and Compensation Committee” or the “Committee”) to consider and make recommendations to the Commission concerning matters relating to the compensation of the RSIC staff and to provide oversight relating to human resources.

### III. Primary Responsibilities

(A) Reviewing and making recommendations related to the RSIC’s Compensation Policy to ensure the RSIC can recruit and retain superior talent to satisfy the core mission of the Commission.

(B) Providing guidance and oversight to the human resources function.

(C) Receiving recommendations from the Director of Human Resources for human resources functional needs and changes as well as for RSIC staff development.

(D) Conducting or procuring a new peer compensation study at least every three years to assess the current level of RSIC staff compensation and make revisions to target salary ranges, as appropriate.

~~(D)~~(E) Discussing the annual Chief Executive Officer (“CEO”) evaluation with the Commission’s Chair and making recommendations to the Commission regarding adjustments to the CEO’s salary.

### IV. Composition

(A) The Compensation Committee will consist of three members of the Commission.

(B) The Commission will appoint Committee members and the Committee Chair in accordance with the Committees Policy of the Commission.

**V. Meetings**

- (A) The HR and Compensation Committee will provide guidance to staff on meeting agendas, notices, and minutes in accordance with the Committees Policy of the Commission, the South Carolina Freedom of Information Act (“FOIA”), and all other applicable laws.
- (B) In the event a Commission member who is not a member of the HR and Compensation Committee attends a Compensation Committee meeting, he will not have voting rights and will not participate in discussions of the Compensation Committee.

**VI. Authority.** The Committee is empowered to:

- (A) Recommend to the Commission the retention of consultants or other resources needed by the Committee to carry out its primary responsibilities.
- (B) Meet with and seek information from the Commission, RSIC staff, consultants, and/or other subject matter specialists, as necessary to carry out its primary responsibilities.

**VII. Reporting Responsibilities.** Report to the Commission about Committee activities, issues, and related recommendations as appropriate.**VIII. Other Responsibilities**

- (A) Perform other activities related to this charter as requested by the Commission.
- (B) Review and assess the adequacy of the Committee charter at least every three years, requesting Commission approval for proposed changes.
- (C) Confirm annually that all responsibilities outlined in this charter have been carried out.
- (D) Evaluate the Committee's and individual Committee member's performance on an annual basis in accordance with the Commission Evaluation Process.

## COMPENSATION POLICY

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### I. COMPENSATION POLICY PURPOSE & PHILOSOPHY

- (A) The South Carolina Retirement System Investment Commission (“RSIC”) recognizes the importance of attracting and retaining a highly qualified professional staff so as to achieve its business and investment objectives. To remain competitive in its efforts to attract, hire, retain, and motivate such a staff, a reasonable and competitive compensation plan is critical.
- (B) A reasonable and competitive compensation plan is one that offers a competitive salary and contingent performance increases for all members of RSIC staff and, in so doing, appropriately rewards staff for their contributions in generating significant value to the Plan by (i) assisting the Commission in setting the strategic asset allocation and direction, (ii) implementing the Commission’s investment, administrative, and operational directives, and (iii) otherwise fulfilling their responsibilities to invest and manage the assets of the South Carolina Retirement System.

### II. AUTHORITY

#### (A) Statutory

- 1) S.C. Code Ann. §9-16-315(G) provides that the Commission shall employ a Chief Executive Officer (“CEO”) who serves at the pleasure of the Commission. The CEO is the chief administrative officer of the Commission as an agency and is charged with the affirmative duty to carry out the mission, policies, and direction of the Commission as established by the Commission. The CEO is delegated the authority of the Commission necessary, reasonable, and prudent to carry out the operation and management of the Commission as an agency and to implement the Commission’s decisions and directives.
- 2) S.C. Code Ann. §9-16-315(H)(1) provides that the CEO shall employ a Chief Investment Officer (“CIO”). The CIO shall develop and maintain annual investment plans and invest and oversee the investment of retirement system funds subject to the oversight of the CEO.
- 3) S.C. Code Ann. §9-16-315(H)(2) provides that the CEO shall employ the other professional, administrative, and clerical personnel s/he determines necessary to support the administration and operation of the Commission and fix their compensation pursuant to an organizational plan approved by the Commission. All employees of the Commission are employees at will and serve at the pleasure of the CEO. The compensation of the CEO, CIO, and other employees of the Commission is not subject to the State of South Carolina’s compensation plan.
- 4) S.C. Code Ann. §9-16-30(A) provides that the Commission may delegate functions that a prudent person acting in a like capacity would delegate except for the final authority to invest. Pursuant to the authority provided by this section, the CEO may delegate certain

administrative responsibilities to RSIC staff as s/he deems appropriate, in accordance with the RSIC's Governance Policies.

- 5) Any reference to "performance increase", "performance pay", or other terminology to this effect is not intended to parallel, correspond, or in any way comply with definitions of such terms in South Carolina law regarding classified employees and those subject to the state compensation plan.
- 6) Pursuant to S.C. Code Ann. §9-16-315(G) and any applicable law, the Commission reserves the right to modify, terminate, and/or rescind any and/or all of the compensation schedules, provisions, policies, and procedures contained in this and/or any supporting documents at any time. This document sets forth a policy and does not create or provide a contract, guarantee of payment, or guarantee of employment between the RSIC, the South Carolina Retirement System, or the State of South Carolina and the employees described in this document.

**(B) Compliance with State and Federal Law**

If the Commission or a court having appropriate jurisdiction determines that any portion of the Compensation Policy violates an applicable state or federal law, that portion will not be in effect at any time. The remaining portions of the Compensation Policy will remain in full force and effect to the maximum extent possible.

### III. REPORTING

- (A) The CEO will annually prepare a report for the Commission detailing the financial impact of all compensation paid each fiscal year to staff. All compensation paid must be within the RSIC's approved annual budget for personal services.
- (B) The CEO will provide regular updates to the Human Resources and Compensation Committee ("HRC Committee") regarding changes in employee compensation, position, and title, as well as hirings, terminations, or resignations since the previous meeting.

### IV. SALARY

**(A) Determining Salary**

- 1) As approved by the Commission, compensation is targeted at the 75<sup>th</sup> percentile of total salary amounts paid by a select group of U.S. public pension funds, endowments, foundations, regional financial services organizations, and State agencies (evaluated as follows: front office = U.S. public pension funds, endowments, foundations, and financial services; middle office = U.S. public pension funds, state agencies, endowments, and foundations; back office = U.S. public pension funds, endowments, foundations, and financial services).
- 2) The Commission will determine the CEO's salary.
- 3) The CEO will use the Agency Salary Grades established in **Appendix A** to slot all other job roles in the grade for which the midpoint of the grade is closest in amount to the targeted 75<sup>th</sup>

## 2 | *Compensation Policy*

### *South Carolina Retirement System Investment Commission*

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percentile of total salary for the particular role. The CEO will set individual salaries by determining where a person in a particular role falls along the role's grade. In doing so, the CEO will consider a number of factors including, but not limited to, the employee's experience, education, knowledge, skills, overall job performance, position within the RSIC and within the RSIC's strategic goals and plans, as applicable.

- 4) The HRC Committee must approve the initial slotting of all existing job roles, the slotting of newly created roles, and the movement of a slotted job role from one grade to another.
- 5) The CEO will make increases to individual salaries pursuant to the guidelines set forth in Section V of this Policy.

**(B) Legislative Salary Adjustments (Note: A/K/A "Cost of Living Adjustments" or "COLAs")**

- 1) The South Carolina General Assembly may appropriate or authorize the expenditure of funds for state employee salary increases each fiscal year, which may depend on the employees' classification status.
- 2) RSIC employees will be granted a legislative increase if the annual Appropriations Act provides for state employees in the unclassified other (non-teachers) classification, consistent with the allocation of fund set by Department of Administration's Executive Budget.
- 3) Agency salary grades will be calibrated to reflect applicable cost of living adjustments.

## V. GUIDELINES & IMPLEMENTATION FOR EMPLOYEE PERFORMANCE INCREASES

**(A) Performance Increases:** This component of compensation is contingent on individual performance. Performance increases provide eligible RSIC employees the opportunity to earn a performance increase to his or her salary. The performance increase will be determined by the CEO based upon the results of the Employee Performance Management System ("EPMS") review, achievement of initiatives and goals related to the strategic plan as applicable, and other contributions not necessarily related to investment performance. All performance increases will be made pursuant to the guidelines set forth in this section.

**(B) Eligibility**

- 1) Generally, all RSIC positions are eligible positions under the Performance Increase Policy except for contract workers and temporary employees.
- 2) All Performance Increases must be allocated within the constraints of the RSIC's approved annual budget for personal services.

**(C) Mechanics of Performance Increases**

**1) Effective Dates and Performance Period**

- (a) Based on an adequate available budget, performance increases to salary will be effective as soon as practicable following the EPMS review for the preceding year's Performance Period.
- (b) The Performance Period for Performance Increases will be in accordance with the RSIC's *EPMS Policy*.
- (c) The CEO will cause all required documents to be submitted to effect salary increases.

### 3 | *Compensation Policy*

#### *South Carolina Retirement System Investment Commission*

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## 2) Performance Increases Standards & Measurements

- (a) Performance Increases to salaries are determined using an eligible annual merit budget, salary range data for the assigned job grade, current employee salary within the salary range, and the current performance evaluation rating.
- (b) The annual merit budget for the investment team will be based on the investment performance of the portfolio during the preceding fiscal year. The investment team annual merit budget will be a maximum of six percent of the aggregate amount of the investment team salaries. Two percent will be added to the merit budget for each of the following separate factors:
  - (i) the investment performance of the portfolio exceeds the median rate of return of U.S. public pension funds as reported by The Bank of New York Mellon, Wilshire TUCS, Callan Associates, or a similar source of comprehensive U.S. pension fund return data; and/or
  - (ii) the investment performance of the portfolio exceeds the assumed rate of return; and/or
  - (iii) the actual investment performance of the portfolio exceeds the policy benchmark of the portfolio by more than fifty basis points.
- (c) The annual merit budget for the operations and administration team will be a percentage of the aggregate amount of the operations and administration team salaries which will be determined by the CEO and approved by the HRC Committee.
- (d) Individual Performance Increases are directly linked to the results of an employee's EPMS review for the preceding year's Performance Period and the employee's place within their assigned job grade's salary range. In determining individual performance increases, the CEO will use the grid method shown by way of example in **Appendix B**.
- (e) In accordance with the RSIC's Personnel Policies, all employees will be given an EPMS review, which serves as an annual appraisal of his or her performance.
  - (i) The EPMS review is a collaborative process between each employee and his or her supervisor and includes job duties, objectives, desired performance characteristics, and comments and/or feedback.
  - (ii) Cooperation and participation toward fulfilling the RSIC's strategic goals are evaluated in each RSIC employee's EPMS review along with other factors and criteria.
  - (iii) Employees should be evaluated annually.
- (f) Performance increases for employees must be calibrated in a manner that progresses an employee along the salary grade for the employee's position consistent with the knowledge, experience, and performance level expected for each tri-tile and the relative point within each tri-tile. The CEO must seek the approval of the HRC Committee prior to increasing an employee's salary above the maximum amount of the salary grade for the employee's position.

#### 4 | *Compensation Policy*

##### *South Carolina Retirement System Investment Commission*

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**(D) Plan Modification, Suspension, and Termination**

- 1) There is no vested right to any benefits under the Performance Increase provisions of the Compensation Policy nor is there any guarantee to the continuing existence of Performance Increases under this Policy.
- 2) The Commission will have the right to modify the Performance Increase provisions of the Compensation Policy or any portion thereof at any time.

**(E) Other Salary Adjustments:** Nothing in this Policy prohibits the CEO from making other adjustments to salaries of RSIC employees. Salary adjustments may be made based on an employee gaining additional skills or knowledge directly related to his or her job, an employee being assigned additional job duties or broader responsibilities, or a promotion or reassignment of an employee to another position. Salary adjustments made pursuant to this item must be calibrated in a manner that takes into consideration the effect that the increase will have on the relative position of the employee's salary along the applicable salary grade.

**VI. OTHER PLAN PROVISIONS****(A) At-will Employment**

- 1) Nothing in this Policy alters the at-will nature of employment between the RSIC and its employees.
- 2) Nothing in the adoption of this Policy creates a contract between the RSIC, the South Carolina Retirement System, the State of South Carolina, and any RSIC employee or confers on any RSIC employee the right to continued employment with the RSIC.
- 3) Nothing in the adoption of this Policy affects the right of the RSIC to terminate the employment of any of its employees at any time.

**(B) Plan Does Not Create a Trust or Entitlement**

- 1) The adoption of this Policy will not be deemed to create a trust or entitlement of any kind.
- 2) No employee will have any security or other interest in any asset of the Retirement System by reason of this Policy or approved annual personal services budget.

**(C) Taxes & Other Deductions**

- 1) All COLAs and/or Performance Increases paid under this Policy will be subject to any deductions for tax and withholding required by the federal, state, or local law in effect at the time of payment and for any and all amounts that may be owed by the employee to the RSIC at the time of payment.
- 2) The RSIC is not obligated to advise an employee of the existence of any tax or amount that the RSIC will be required to withhold.

**(D) Eligibility for Retirement Purposes:** Performance Increases are eligible for pension plan purposes.

**(E) Grievances:** The Commission, in consultation with the CEO, will resolve and has final authority to resolve an RSIC employee's grievance or dispute arising from this Policy.

**5 | *Compensation Policy****South Carolina Retirement System Investment Commission*

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## VII. POLICY REVIEW & HISTORY

- (A) The Commission will review this Policy at least every three years to ensure that it remains relevant and appropriate, or when there is an amendment to state law relevant to any section of this Policy, or when there is a Commission approved change in the responsibilities, duties, or operations of the Commission generally.
- (B) Policy Adopted: January 26, 2010.
- (C) Policy Amended: April 21, 2011; July 21, 2011; May 17, 2012; May 23, 2013; March 13, 2014; June 3, 2014; October 2, 2014, November 19, 2015, and \_\_\_\_\_.



## VIII. APPENDICES

**APPENDIX A**

Grade	1 <sup>st</sup> Tri-tile		2 <sup>nd</sup> Tri-tile		3 <sup>rd</sup> Tri-tile	
	1 <sup>st</sup> Tri-tile	2 <sup>nd</sup> Tri-tile	3 <sup>rd</sup> Tri-tile	1 <sup>st</sup> Tri-tile	2 <sup>nd</sup> Tri-tile	3 <sup>rd</sup> Tri-tile
12	\$257,500	\$360,500	\$360,501	\$463,499	\$463,500	\$566,500
11	\$190,800	\$267,133	\$267,134	\$343,466	\$343,467	\$419,800
10	\$150,700	\$200,933	\$200,934	\$251,166	\$251,167	\$301,400
9	\$115,900	\$154,533	\$154,534	\$193,166	\$193,167	\$231,800
8	\$89,200	\$118,933	\$118,934	\$148,666	\$148,667	\$178,400
7	\$76,200	\$93,967	\$93,968	\$111,732	\$111,733	\$129,500
6	\$61,000	\$75,233	\$75,234	\$89,466	\$89,467	\$103,700
5	\$48,700	\$60,067	\$60,068	\$71,432	\$71,433	\$82,800
4	\$42,100	\$49,133	\$49,134	\$56,166	\$56,167	\$63,200
3	\$35,000	\$40,833	\$40,834	\$46,666	\$46,667	\$52,500
2	\$29,200	\$34,067	\$34,608	\$38,932	\$38,933	\$43,800
1	\$24,400	\$28,467	\$28,468	\$32,532	\$32,533	\$36,600

7 | *Compensation Policy**South Carolina Retirement System Investment Commission*

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**APPENDIX B**

**Sample Performance Increase Grid Assuming a 4% Merit Budget**

		<b>Percent Increase</b>				
<b>Performance Rating</b>	Substantially Exceeds	8.5%	6.5%	5.0%	3.0%	0.0%
	Exceeds	5.5%	4.5%	4.0%	2.0%	0.0%
	Meets	4.0%	3.5%	2.5%	1.0%	0.0%
	Below	0.0%	0.0%	0.0%	0.0%	0.0%
	Does Not Meet	0.0%	0.0%	0.0%	0.0%	0.0%
		<b>Below Minimum</b>	<b>1<sup>st</sup> Tri-tile</b>	<b>2<sup>nd</sup> Tri-tile</b>	<b>3<sup>rd</sup> Tri-tile</b>	<b>Above Maximum</b>
<b>Position-in-Range</b>						

8 | *Compensation Policy*

*South Carolina Retirement System Investment Commission*

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## COMPENSATION POLICY

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### I. COMPENSATION POLICY PURPOSE & PHILOSOPHY

- (A) The South Carolina Retirement System Investment Commission ("RSIC") recognizes the importance of attracting and retaining a highly qualified professional staff so as to achieve its business and investment objectives. To remain competitive in its efforts to attract, hire, retain, and motivate such a staff, a reasonable and competitive compensation plan is critical.
- (B) A reasonable and competitive compensation plan is one that offers a competitive salary and contingent performance increases for all members of RSIC staff and, in so doing, ~~appropriately~~ rewards staff for their contributions in generating significant value to the Plan by (i) assisting the Commission in setting the strategic asset allocation and direction, (ii) implementing the Commission's investment, administrative, and operational directives, and (iii) otherwise fulfilling their responsibilities to invest and manage the assets of the South Carolina Retirement System.

### II. AUTHORITY

#### (A) Statutory

- 1) S.C. Code Ann. §9-16-315(G) provides that the ~~RSIC—Commission~~ shall employ a Chief Executive Officer ("CEO") who serves at the pleasure of the Commission. The CEO is the chief administrative officer of the Commission as an agency and is charged with the affirmative duty to carry out the mission, policies, and direction of the Commission as established by the Commission. The CEO is delegated the authority of the Commission necessary, reasonable, and prudent to carry out the operation and management of the Commission as an agency and to implement the Commission's decisions and directives.
  - 2) S.C. Code Ann. §9-16-315(H)(1) provides that the CEO shall employ a Chief Investment Officer ("CIO"). The CIO shall develop and maintain annual investment plans and invest and oversee the investment of retirement system funds subject to the oversight of the CEO.
  - 3) S.C. Code Ann. §9-16-315(H)(2) provides that the CEO shall employ the other professional, administrative, and clerical personnel s/he determines necessary to support the administration and operation of the Commission and fix their compensation pursuant to an organizational plan approved by the Commission. All employees of the Commission are employees at will and serve at the pleasure of the CEO. The compensation of the CEO, CIO, and other employees of the Commission is not subject to the State of South Carolina's compensation plan.
- ~~1) Chief Investment Officer ("CIO"), and may employ other professional, administrative, and clerical personnel. This section further provides that the compensation of Commission~~

~~employees is not subject to the state compensation plan. Pursuant to this section and within the annual authorized budget, the Commission has the sole authority to determine compensation levels of Commission employees and the means and methods by which compensation levels are determined.~~

~~2)4)~~ S.C. Code Ann. §9-16-30(A) provides that the Commission may delegate functions that a prudent person acting in a like capacity would delegate except for the final authority to invest. Pursuant to the authority provided by this section, ~~the Commission delegates certain authority necessary to administer this Compensation Policy (the "Policy") to the Chief Executive Officer ("CEO"), as provided by the Policy.~~ The CEO may delegate certain administrative responsibilities to RSIC staff as s/he deems appropriate, in accordance with the RSIC's Governance Policies.

~~3)5)~~ Any reference to "performance increase", "performance pay", or other terminology to this effect is not intended to parallel, correspond, or in any way comply with definitions of such terms in South Carolina law regarding classified employees and those subject to the state compensation plan.

~~4)6)~~ Pursuant to S.C. Code Ann. ~~§~~9-16-315(G) and any applicable law, the Commission reserves the right to modify, terminate, and/or rescind any and/or all of the compensation schedules, provisions, policies, and procedures contained in this and/or any supporting documents at any time. This document sets forth a policy and does not create or provide a contract, guarantee of payment, or guarantee of employment between the RSIC, ~~SCRS~~the South Carolina Retirement System, or the State of South Carolina and the employees described in this document.

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If the Commission or a court having appropriate jurisdiction determines that any portion of the Compensation Policy violates an applicable state or federal law, that portion will not be in effect at any time. The remaining portions of the Compensation Policy will remain in full force and effect to the maximum extent possible.

### **III. ~~R~~REPORTING**

**(A)** The CEO will annually prepare a report for the Commission detailing the financial impact of all compensation paid each fiscal year to staff. All compensation paid must be within the RSIC's approved annual budget for personal services.

**(B)** The CEO will provide regular updates to the Human Resources and Compensation Committee ("HRC Committee") regarding changes in employee compensation, position, and title, as well as hirings, terminations, or resignations since the previous meeting.

### **IV. SALARY**

#### **2 | Compensation Policy**

##### *South Carolina Retirement System Investment Commission*

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- 2) The Commission will determine the CEO's salary. ~~The CEO will recommend to the Commission for its approval the CIO's salary and subsequent performance increases.~~
- 3) The CEO will use the Agency Salary Grades established in **Appendix A** to slot all other job roles in the grade for which the midpoint of the grade is closest in amount to the targeted 75th percentile of total salary for the particular role. The CEO will set individual salaries by determining where a person in a particular role falls along the role's grade. In doing so, the CEO will consider a number of factors including, but not limited to, the employee's experience, education, knowledge, skills, overall job performance, position within the RSIC and within the RSIC's strategic goals and plans, as applicable.
- 4) The HRC Committee must approve the initial slotting of all existing job roles, the slotting of newly created roles, and the movement of a slotted job role from one grade to another.
- 5) The CEO will make increases to individual salaries pursuant to the guidelines set forth in Section V of this Policy.

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**(A) Performance Increases:** This component of compensation is contingent on individual performance. Performance increases provide eligible RSIC employees the opportunity to earn a performance increase to his or her salary. The performance increase will be determined by the CEO based upon the results of the Employee Performance Management System ("EPMS") review, achievement of initiatives and goals related to the strategic plan as applicable, and other contributions not necessarily related to investment performance. All performance increases will be made pursuant to the guidelines set forth in this section.

**(B) Eligibility****3 | Compensation Policy***South Carolina Retirement System Investment Commission*

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- 1) Generally, all RSIC positions are eligible positions under the Performance Increase Policy except for contract workers and temporary employees.
- 2) All Performance Increases must be allocated within the constraints of the RSIC's approved annual budget for personal services.

**(C) Mechanics of Performance Increases**

**1) Effective Dates and Performance Period**

- (a) Based on an adequate available budget, performance increases to salary will be effective as soon as practicable following the EPMS review for the preceding year's Performance Period.
- (b) The Performance Period for Performance Increases will be in accordance with the RSIC's EPMS Policy.
- (c) The CEO will cause all required documents to be submitted to effect salary increases.

**2) Performance Increases Standards & Measurements**

- (a) Performance Increases to salary-salaries are determined using an eligible annual merit budget, salary range data for the assigned job grade, current employee salary within the salary range, and the current performance evaluation rating.
- (b) The annual merit budget for the investment team will be based on the investment performance of the portfolio during the preceding fiscal year. The investment team annual merit budget will be a maximum of six percent of the aggregate amount of the investment team salaries. Two percent will be added to the merit budget for each of the following separate factors:
  - (i) the investment performance of the portfolio exceeds the median rate of return of U.S. public pension funds as reported by The Bank of New York Mellon, Wilshire TUCS, Callan Associates, or a similar source of comprehensive U.S. pension fund return data; and/or
  - (ii) the investment performance of the portfolio exceeds the assumed rate of return; and/or
  - (iii) the actual investment performance of the portfolio exceeds the policy benchmark of the portfolio by more than fifty basis points.
- (c) The annual merit budget for the operations and administration team will be a percentage of the aggregate amount of the operations and administration team salaries which will be determined by the CEO and approved by the HRC Committee.
- (d) Individual Performance Increases are directly linked to the results of an employee's EPMS review for the preceding year's Performance Period and the employee's place within their assigned job grade's salary range. In determining individual performance increases, the CEO will use the grid method shown by way of example in Appendix B.
- (e) In accordance with the RSIC's Personnel Policies, all employees will be given an EPMS review, which serves as an annual appraisal of his or her performance.
  - (i) The EPMS review is a collaborative process between each employee and his or her supervisor and includes job duties, objectives, desired performance characteristics, and comments and/or feedback.

**4 | Compensation Policy**

*South Carolina Retirement System Investment Commission*

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- (ii) Cooperation and participation toward fulfilling the RSIC’s strategic goals are evaluated in each RSIC employee’s EPMS review along with other factors and criteria.
- ~~(iii)~~ Employees should be evaluated annually.
- ~~(iv)~~(iii)
- (f) ~~(d)~~ Performance increases for employees must be calibrated in a manner that progresses an employee along the salary grade for the employee’s position consistent with the knowledge, experience, and performance level expected for each tri-tile and the relative point within each tri-tile. The CEO must seek the approval of the HRC Committee prior to increasing an employee’s salary above the maximum amount of the salary grade for the employee’s position.

## 5 | *Compensation Policy*

### *South Carolina Retirement System Investment Commission*

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**(D) Plan Modification, Suspension, and Termination**

- 1) There is no vested right to any benefits under the Performance Increase provisions of the Compensation Policy nor is there any guarantee to the continuing existence of Performance Increases under this Policy.
- 2) The Commission will have the right to modify the Performance Increase provisions of the Compensation Policy or any portion thereof at any time.

**(E) Other Salary Adjustments:** Nothing in this Policy prohibits the CEO from making other adjustments to salaries of RSIC employees. Salary adjustments may be made based on an employee gaining additional skills or knowledge directly related to his or her job, an employee being assigned additional job duties or broader responsibilities, or a promotion or reassignment of an employee to another position. Salary adjustments made pursuant to this item must be calibrated in a manner that takes into consideration the effect that the increase will have on the relative position of the employee's salary along the applicable salary grade.

**VI. OTHER PLAN PROVISIONS****(A) At-will Employment**

- 1) Nothing in this Policy alters the at-will nature of employment between the RSIC and its employees.
- 2) Nothing in the adoption of this Policy creates a contract between the RSIC, the South Carolina Retirement System, the State of South Carolina, and any RSIC employee or confers on any RSIC employee the right to continued employment with the RSIC.
- 3) Nothing in the adoption of this Policy affects the right of the RSIC to terminate the employment of any of its employees at any time.

**(B) Plan Does Not Create a Trust or Entitlement**

- 1) The adoption of this Policy will not be deemed to create a trust or entitlement of any kind.
- 2) No employee will have any security or other interest in any asset of the Retirement System by reason of this Policy or approved annual personal services budget.

**(~~D~~C) Taxes & Other Deductions**

- 1) All COLAs and/or Performance Increases paid under this Policy will be subject to any deductions for tax and withholding required by the federal, state, or local law in effect at the time of payment and for any and all amounts that may be owed by the employee to the RSIC at the time of payment.
- 2) The RSIC is not obligated to advise an employee of the existence of any tax or amount that the RSIC will be required to withhold.

**(~~E~~D) Eligibility for Retirement Purposes:** Performance Increases are eligible for pension plan purposes.

**6 | Compensation Policy***South Carolina Retirement System Investment Commission*

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**(FE) Grievances:** The Commission, in consultation with the CEO, will resolve and has final authority to resolve an RSIC employee’s grievance or dispute arising from this Policy.

## VII. POLICY REVIEW & HISTORY

**(A)** The Commission will review this Policy at least every three years to ensure that it remains relevant and appropriate, or when there is an amendment to state law relevant to any section of this Policy, or when there is a Commission approved change in the responsibilities, duties, or operations of the Commission generally.

**(B)** Policy Adopted: January 26, 2010.

**(C)** Policy Amended: April 21, 2011; July 21, 2011; May 17, 2012; May 23, 2013; March 13, 2014; June 3, 2014; October 2, 2014, ~~and~~ November 19, 2015, and \_\_\_\_\_.

### 7 | *Compensation Policy*

#### *South Carolina Retirement System Investment Commission*

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## VIII. APPENDICES

## APPENDIX A

Grade	1 <sup>st</sup> Tri-tile		2 <sup>nd</sup> Tri-tile		3 <sup>rd</sup> Tri-tile	
	1 <sup>st</sup> Tri-tile	1 <sup>st</sup> Tri-tile	2 <sup>nd</sup> Tri-tile	2 <sup>nd</sup> Tri-tile	3 <sup>rd</sup> Tri-tile	3 <sup>rd</sup> Tri-tile
12	\$ <u>253,600</u> <u>257</u> , <u>500</u>	\$ <u>355,032</u> <u>360</u> , <u>500</u>	\$ <u>355,033</u> <u>360</u> , <u>501</u>	\$ <u>456,466</u> <u>463</u> , <u>499</u>	\$ <u>456,467</u> <u>463</u> , <u>500</u>	\$ <u>557,900</u> <u>566</u> , <u>500</u>
11	\$ <u>187,800</u> <u>190</u> , <u>800</u>	\$ <u>262,932</u> <u>267</u> , <u>133</u>	\$ <u>262,933</u> <u>267</u> , <u>134</u>	\$ <u>338,066</u> <u>343</u> , <u>466</u>	\$ <u>338,067</u> <u>343</u> , <u>467</u>	\$ <u>413,200</u> <u>419</u> , <u>800</u>
10	\$ <u>148,400</u> <u>150</u> , <u>700</u>	\$ <u>197,866</u> <u>200</u> , <u>933</u>	\$ <u>197,867</u> <u>200</u> , <u>934</u>	\$ <u>247,332</u> <u>251</u> , <u>166</u>	\$ <u>247,333</u> <u>251</u> , <u>167</u>	\$ <u>296,800</u> <u>301</u> , <u>400</u>
9	\$ <u>114,100</u> <u>115</u> , <u>900</u>	\$ <u>152,132</u> <u>154</u> , <u>533</u>	\$ <u>152,133</u> <u>154</u> , <u>534</u>	\$ <u>190,166</u> <u>193</u> , <u>166</u>	\$ <u>190,167</u> <u>193</u> , <u>167</u>	\$ <u>228,200</u> <u>231</u> , <u>800</u>
8	\$ <u>87,800</u> <u>89,20</u> <u>0</u>	\$ <u>117,066</u> <u>118</u> , <u>933</u>	\$ <u>117,067</u> <u>118</u> , <u>934</u>	\$ <u>146,332</u> <u>148</u> , <u>666</u>	\$ <u>146,333</u> <u>148</u> , <u>667</u>	\$ <u>175,600</u> <u>178</u> , <u>400</u>
7	\$ <u>75,000</u> <u>76,20</u> <u>0</u>	\$ <u>92,499</u> <u>93,96</u> <u>7</u>	\$ <u>92,500</u> <u>93,96</u> <u>8</u>	\$ <u>109,999</u> <u>111</u> , <u>732</u>	\$ <u>110,000</u> <u>111</u> , <u>733</u>	\$ <u>127,500</u> <u>129</u> , <u>500</u>
6	\$ <u>60,000</u> <u>61,00</u> <u>0</u>	\$ <u>73,999</u> <u>75,23</u> <u>3</u>	\$ <u>74,000</u> <u>75,23</u> <u>4</u>	\$ <u>87,999</u> <u>89,46</u> <u>6</u>	\$ <u>88,000</u> <u>89,46</u> <u>7</u>	\$ <u>102,000</u> <u>103</u> , <u>700</u>
5	\$ <u>48,000</u> <u>48,70</u> <u>0</u>	\$ <u>59,199</u> <u>60,06</u> <u>7</u>	\$ <u>59,200</u> <u>60,06</u> <u>8</u>	\$ <u>70,399</u> <u>71,43</u> <u>2</u>	\$ <u>70,400</u> <u>71,43</u> <u>3</u>	\$ <u>81,600</u> <u>82,80</u> <u>0</u>
4	\$ <u>41,400</u> <u>42,10</u> <u>0</u>	\$ <u>48,299</u> <u>49,13</u> <u>3</u>	\$ <u>48,300</u> <u>49,13</u> <u>4</u>	\$ <u>55,199</u> <u>56,16</u> <u>6</u>	\$ <u>55,200</u> <u>56,16</u> <u>7</u>	\$ <u>62,100</u> <u>63,20</u> <u>0</u>
3	\$ <u>34,600</u> <u>35,00</u> <u>0</u>	\$ <u>40,366</u> <u>40,83</u> <u>3</u>	\$ <u>40,367</u> <u>40,83</u> <u>4</u>	\$ <u>46,132</u> <u>46,66</u> <u>6</u>	\$ <u>46,133</u> <u>46,66</u> <u>7</u>	\$ <u>51,900</u> <u>52,50</u> <u>0</u>
2	\$ <u>28,800</u> <u>29,20</u> <u>0</u>	\$ <u>33,599</u> <u>34,06</u> <u>7</u>	\$ <u>33,600</u> <u>34,60</u> <u>8</u>	\$ <u>38,399</u> <u>38,93</u> <u>2</u>	\$ <u>38,400</u> <u>38,93</u> <u>3</u>	\$ <u>43,200</u> <u>43,80</u> <u>0</u>
1	\$ <u>24,000</u> <u>24,40</u> <u>0</u>	\$ <u>27,999</u> <u>28,46</u> <u>7</u>	\$ <u>28,000</u> <u>28,46</u> <u>8</u>	\$ <u>31,999</u> <u>32,53</u> <u>2</u>	\$ <u>32,000</u> <u>32,53</u> <u>3</u>	\$ <u>36,000</u> <u>36,60</u> <u>0</u>

## 8 | Compensation Policy

## South Carolina Retirement System Investment Commission

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## APPENDIX B

### Sample Performance Increase Grid Assuming a 4% Merit Budget

		Percent Increase				
		Substantially Exceeds	8.5%	6.5%	5.0%	3.0%
Performance Rating	Exceeds	5.5%	4.5%	4.0%	2.0%	0.0%
	Meets	4.0%	3.5%	2.5%	1.0%	0.0%
	Below	0.0%	0.0%	0.0%	0.0%	0.0%
	Does Not Meet	0.0%	0.0%	0.0%	0.0%	0.0%
		<b>Below Minimum</b>	<b>1<sup>st</sup> Tri-tile</b>	<b>2<sup>nd</sup> Tri-tile</b>	<b>3<sup>rd</sup> Tri-tile</b>	<b>Above Maximum</b>
<b>Position-in-Range</b>						

#### 9 | *Compensation Policy*

##### *South Carolina Retirement System Investment Commission*

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# Performance Update

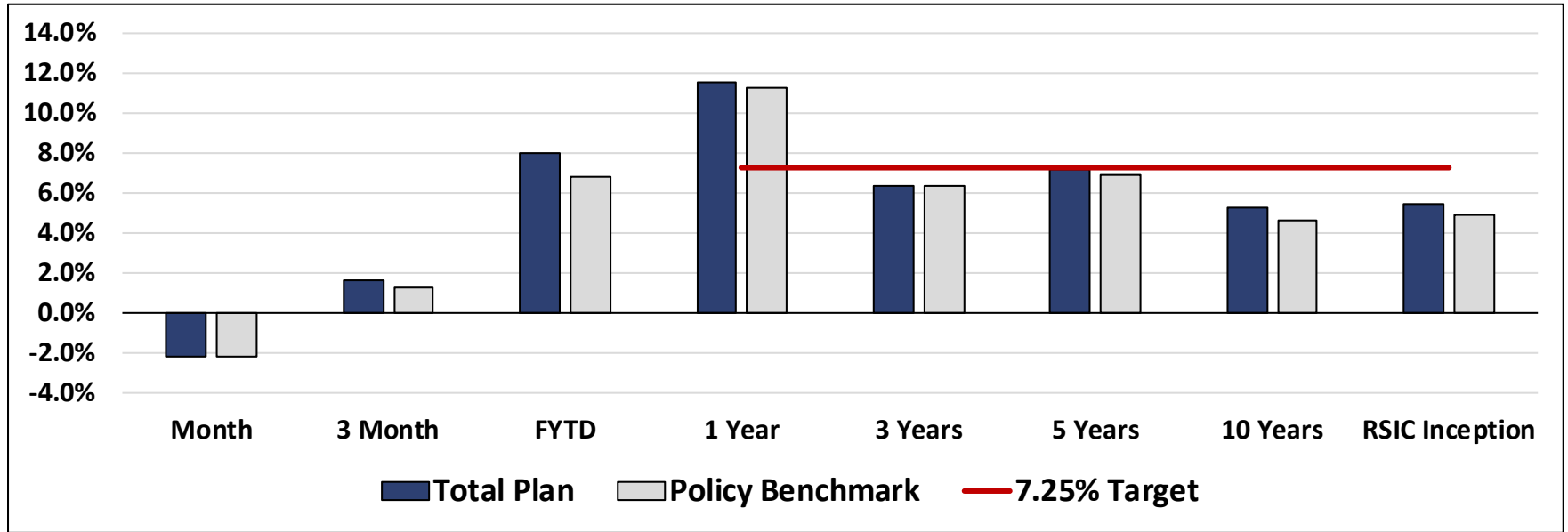
RSIC Commission Meeting

April 12, 2018

Data as of February 28<sup>th</sup>, 2018

# Performance - Plan & Policy Benchmark<sup>1</sup>

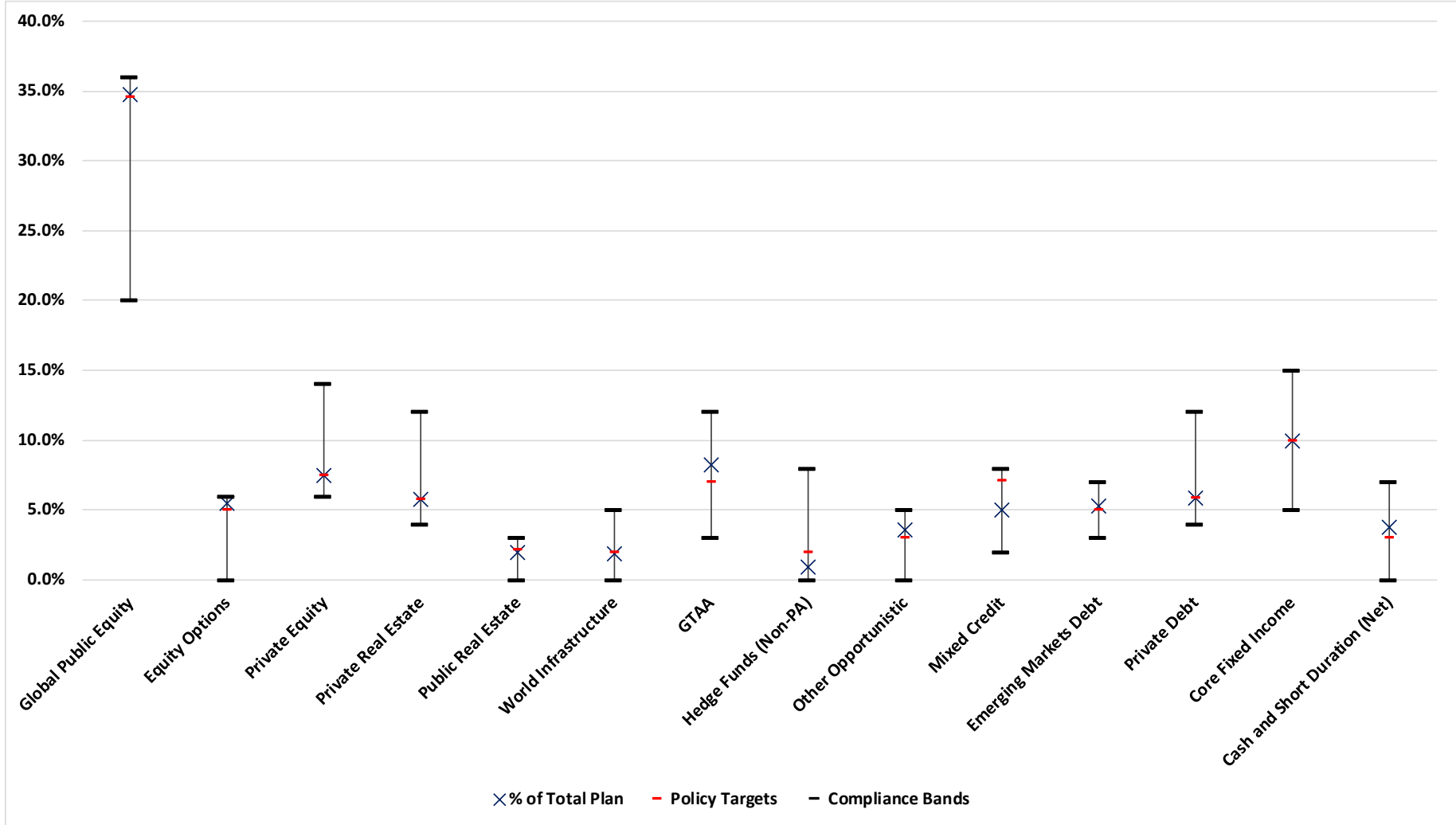
As of February 28, 2018



Historic Plan Performance As of 02/28/17	Market Value (In Millions)	Annualized							
		Month	3 Month	FYTD	1 Year	3 Years	5 Years	10 Years	RSIC Inception
<b>Total Plan</b>	<b>\$31,684</b>	-2.17%	1.65%	8.03%	11.56%	6.41%	7.19%	5.24%	5.46%
<b>Policy Benchmark</b>		-2.14%	1.29%	6.81%	11.29%	6.37%	6.91%	4.64%	4.89%
<b>Excess Return</b>		-0.03%	0.37%	1.22%	0.27%	0.03%	0.29%	0.59%	0.57%

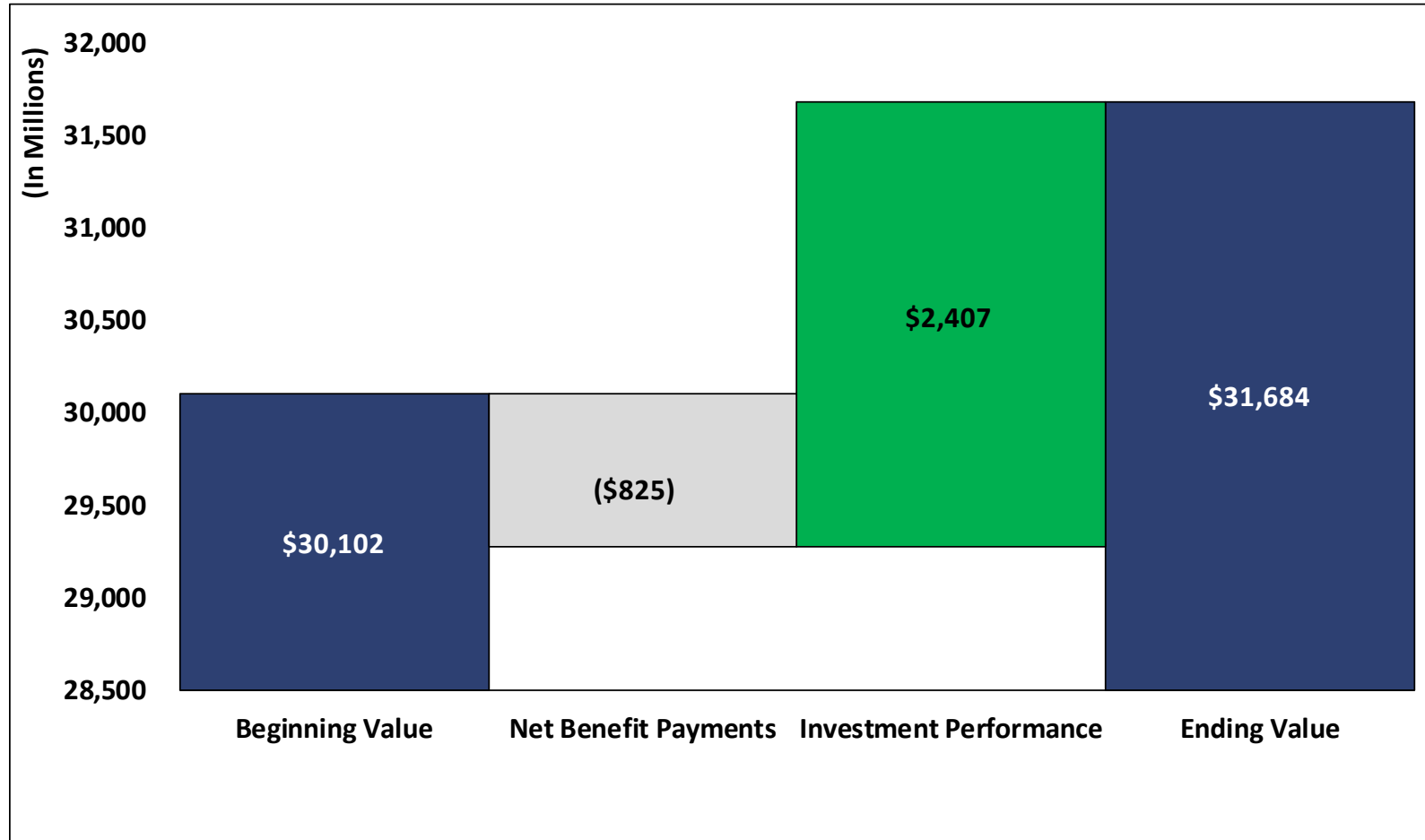
# Portfolio Exposure & Policy Weights <sup>4,6</sup>

As of February 28, 2018



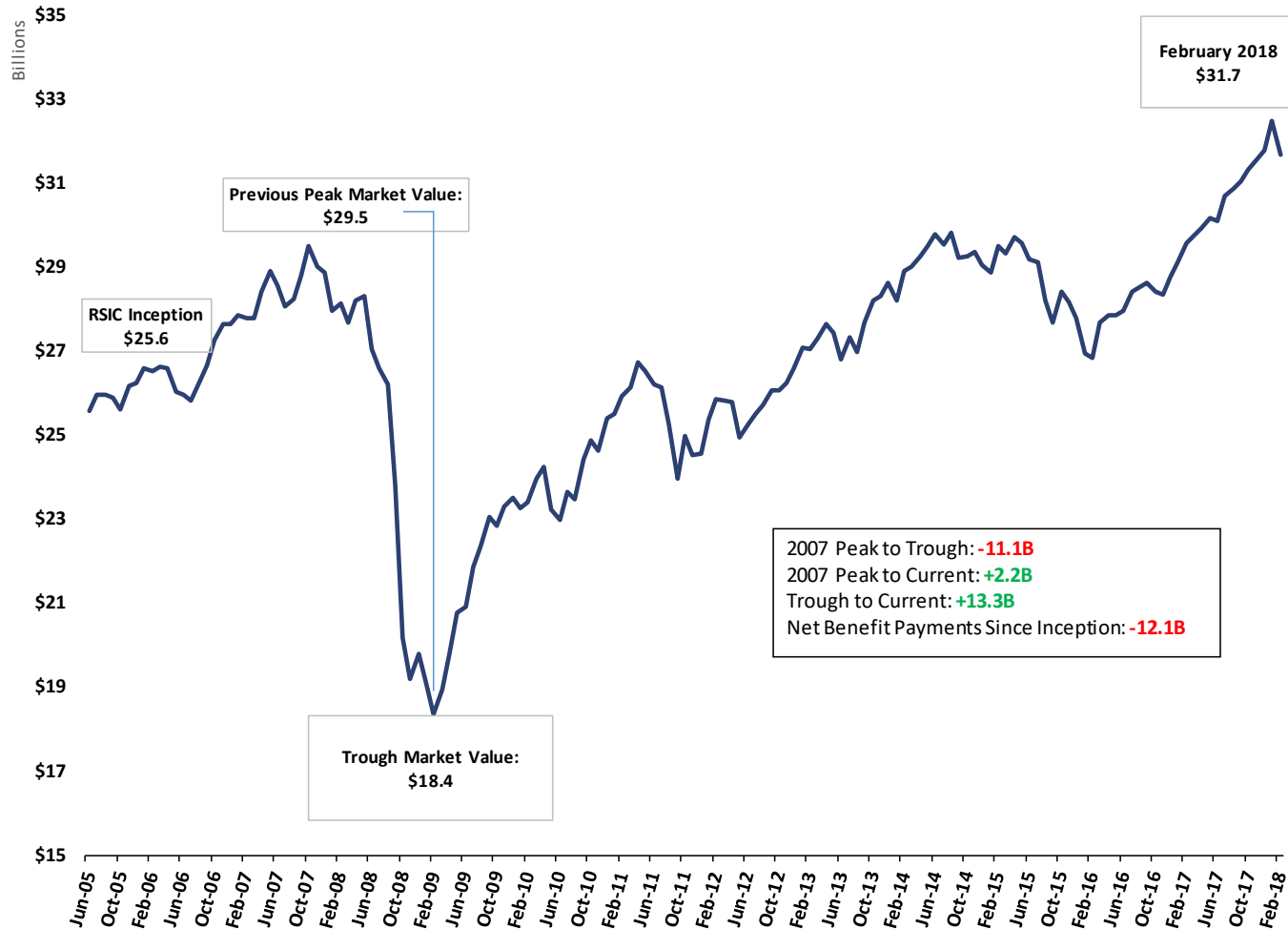
# FYTD Benefits and Performance<sup>1</sup>

As of February 28, 2018



# RSIC Market Value Through Time

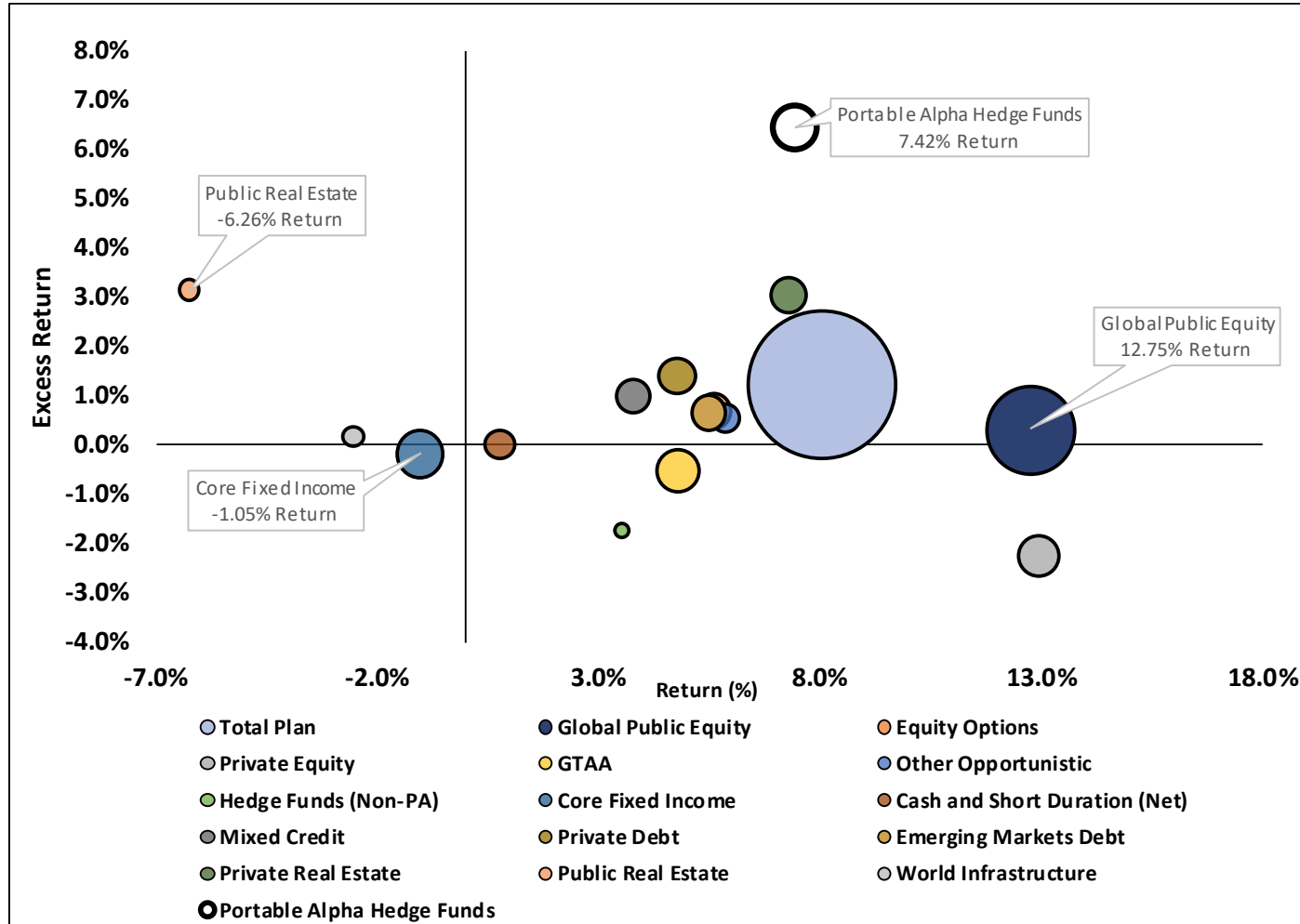
As of February 28, 2018





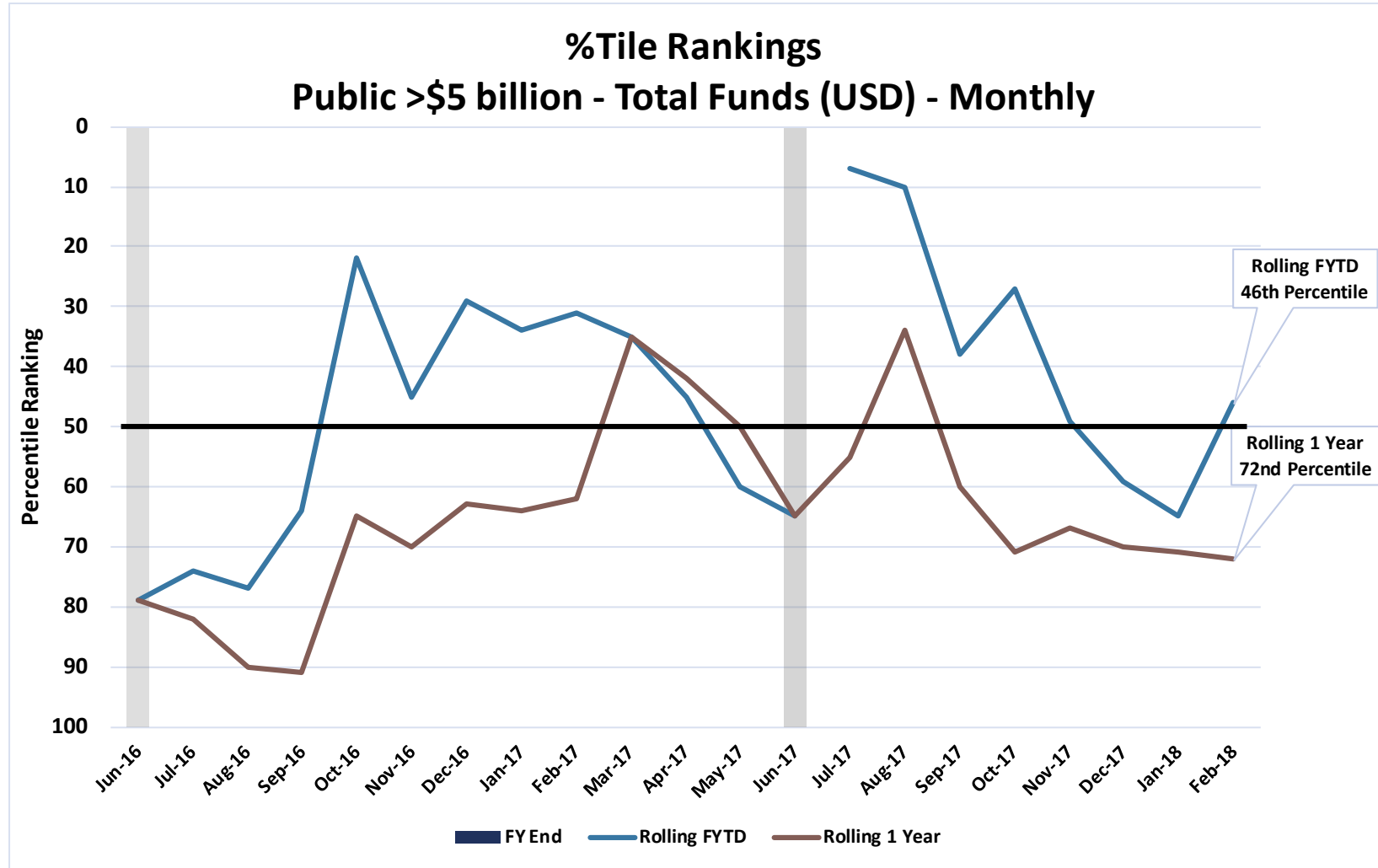
# Asset Class Return & Excess<sup>3,4,5</sup>

FYTD as of February 28, 2018



# RSIC Universe Rankings<sup>2</sup>

As of February 28, 2018



# Footnotes & Disclosures

## Footnotes

1. Benefit payments are net of Plan contributions and disbursements.
2. RSIC Peer Universe is Bank of New York Public Plans Greater than \$5 Billion. The universe includes fund returns that are gross of invoiced fees. The RSIC percentile rank represents the RSIC return gross of invoiced fees.
3. "Cash" market value is the aggregate cash held at the custodian, Russell Investments, and strategic partnerships. Cash performance is estimated using the BofA Merrill Lynch 3-Month T-Bill rate.
4. Asset class exposures and returns include blended physical and synthetic returns and current notional values (EM Debt, GTAA, Global Public Equity, Real Estate, Core Fixed Income, Private Equity, and Commodities).
5. Collateral held to support the overlay program represents opportunity cost associated with financing the overlay program. The Overlay collateral consists of Ported Cash, Ported Short Duration, and Portable Alpha Hedge Funds. The cost of holding these assets is proxied using 3 Month LIBOR. This benchmark is not a component of the Policy benchmark.
6. The target weights to Private Equity, Private Debt, and Private Real Estate will be equal to their actual weights, reported by the custodial bank, as of the prior month end. When flows have occurred in the asset classes, flow adjusted weights are used to more accurately reflect the impact of the asset class weights. In the case of Private Equity, the use of the flow adjusted weight will affect the target allocation to Public Equity, such that the combined target weight of both asset classes shall equal 42% of the Plan. For Private Debt, the use of the flow adjusted weight will affect the target allocation to Mixed Credit, such that the combined target weight of both asset classes shall equal 13% of the Plan. For Private Real Estate, the use of the flow adjusted weight will affect the target allocation to Public Real Estate, such that the combined target weight of both asset classes shall equal 8% of the Plan.

## Disclosures

- Returns are provided by BNY Mellon and are time-weighted, total return calculations. Net of fee performance is calculated and presented after the deduction of fees and expenses. Periods greater than one year are annualized. Past performance is no guarantee of future results. Policy benchmark is the blend of asset class policy benchmarks using policy weights. Asset class benchmarks and policy weights are reviewed annually by the Commission's consultant and adopted by the Commission and have changed over time. The policy benchmark return history represents a blend of these past policies.
- This report was compiled by the staff of the South Carolina Retirement System Investment Commission and has not been reviewed, approved or verified by the external investment managers. No information contained herein should be used to calculate returns or compare multiple funds, including private equity funds.
- Effective October 1, 2005, the State Retirement System Preservation and Investment Reform Act ("Act 153") established the Commission and devolved fiduciary responsibility for investment and management of the assets of the South Carolina Retirement Systems upon RSIC.

# Footnotes & Disclosures

## Benchmarks

- **Global Public Equity Blend:**  
7/2016 – Present: MSCI All-Country World Investable Markets Index (net of dividends)  
Prior to 7/2016: MSCI All-Country World Index (net of dividends)
- **Equity Options Strategies:** CBOE S&P Buy Write Index (BXM)
- **Private Equity Blend:** 80% Russell 3000 Index on a 3-month lag / 20% MSCI EAFE (net of dividends) on a 3-month lag Plus 300 basis points
- **Core Fixed Income:** Bloomberg Barclays US Aggregate Bond Index
- **Emerging Market Debt:** 50% JP Morgan EMBI Global Diversified (US Dollar) / 50% JP Morgan GBIEM Global Diversified (Local)
- **Private Debt :** S&P/LSTA Leveraged Loan Index + 150 basis points on a 3-month lag
- **Mixed Credit Blend:**  
7/2016 – Present: 1/2 Bloomberg Barclays US Corporate High Yield 2% Issuer Capped Bond Index  
1/2 S&P/LSTA Leveraged Loan Index  
Prior to 7/2016: 1/3 Bloomberg Barclays US Corporate High Yield 2% Issuer Capped Bond Index  
1/3 S&P/LSTA Leveraged Loan Index  
1/3 Bloomberg Barclays US Mortgage Backed Securities (MBS) Index
- **GTAA Blend:**  
7/2016 – Present: 50% MSCI World Index (net of dividends)  
50% Bloomberg Barclays US Aggregate Bond Index  
Prior to 7/2016: 50% MSCI World Index (net of dividends)  
50% Citi World Government Bond Index (WGBI)
- **Other Opportunistic:**  
7/2016 – Present: 50% MSCI World Index (net of dividends)  
50% Bloomberg Barclays US Aggregate Bond Index
- **Non PA Hedge Funds**  
7/2016 – Present: 50% MSCI World Index (net of dividends)  
50% Bloomberg Barclays US Aggregate Bond Index
- **Private Real Estate:** NCREIF Open-end Diversified Core (ODCE) Index + 75 basis points
- **Public Real Estate:** FTSE NAREIT Equity REITs Index
- **Infrastructure:** Dow Jones Brookfield Global Infrastructure Index
- **Cash & Short Duration:** BofA Merrill Lynch 3-Month US Treasury Bill Index

# FUND EVALUATION REPORT

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## South Carolina Retirement System

Performance Report  
As of January 31, 2018



**Confidentiality:** This evaluation is prepared by Meketa Investment Group, Inc. for the exclusive use of the South Carolina Retirement System. This evaluation is not to be used for any other purpose or by any parties other than the System, their Board, employees, agents, attorneys, and/or consultants. No other parties are authorized to review or utilize the information contained herein without expressed written consent.

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M E K E T A I N V E S T M E N T G R O U P

BOSTON  
MASSACHUSETTS

CHICAGO  
ILLINOIS

MIAMI  
FLORIDA

PORTLAND  
OREGON

SAN DIEGO  
CALIFORNIA

LONDON  
UNITED KINGDOM

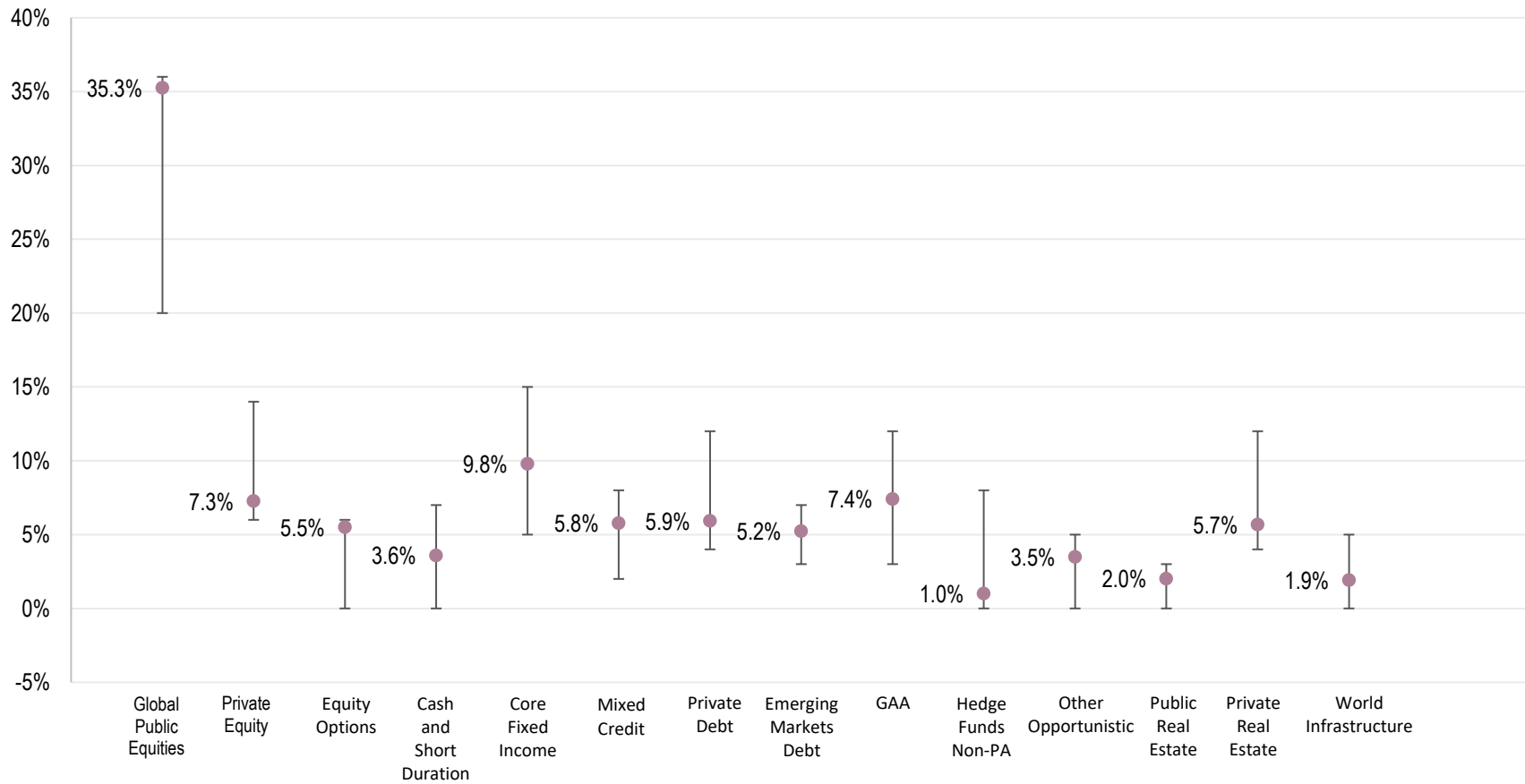
[www.meketagroup.com](http://www.meketagroup.com)

Allocation vs. Targets and Policy								
	MV at 1/31/18	Overlay Exposures	Net Position	% of Total System	% of Total System (Net)	FY 17-18 (b) Policy Targets	Allowable Ranges	SIOP Compliance?
<b>Total System</b>	<b>32,491,302,112</b>	-	<b>32,491,302,112</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	-	-
<b>Equity</b>	<b>13,448,510,355</b>	<b>2,165,757,157</b>	<b>15,614,267,512</b>	<b>41%</b>	<b>48%</b>	<b>47%</b>	<b>42-52%</b>	<b>Yes</b>
Global Equity	9,292,280,776	2,165,757,157	11,458,037,934	29%	35%	35%	20-36%	Yes
Private Equity	2,364,914,834	-	2,364,914,834	7%	7%	7%	6-14%	Yes
Equity Options	1,791,314,744	-	1,791,314,744	6%	6%	5%	0-6%	Yes
<b>Conservative Fixed Income</b>	<b>4,279,346,396</b>	<b>76,664,327</b>	<b>4,356,010,723</b>	<b>13%</b>	<b>13%</b>	<b>13%</b>	<b>10-16%</b>	<b>Yes</b>
Cash and Short Duration	3,031,655,827	(1,859,666,000)	1,171,989,827	9%	4%	3%	0-7%	Yes
Core Fixed Income	1,247,690,569	1,936,330,327	3,184,020,896	4%	10%	10%	5-15%	Yes
<b>Diversified Credit</b>	<b>5,510,918,973</b>	-	<b>5,510,918,973</b>	<b>17%</b>	<b>17%</b>	<b>18%</b>	<b>15-21%</b>	<b>Yes</b>
Mixed Credit	1,880,231,868	-	1,880,231,868	6%	6%	7%	2-8%	Yes
Private Debt	1,928,571,467	-	1,928,571,467	6%	6%	6%	4-12%	Yes
Emerging Markets Debt	1,702,115,638	-	1,702,115,638	5%	5%	5%	3-7%	Yes
<b>Opportunistic</b>	<b>3,115,279,869</b>	<b>764,153,173</b>	<b>3,879,433,041</b>	<b>10%</b>	<b>12%</b>	<b>12%</b>	<b>9-19%</b>	<b>Yes</b>
GAA	1,651,058,400	758,597,162	2,409,655,562	5%	7%	7%	3-12%	Yes
Hedge Funds Non-PA	331,123,881	-	331,123,881	1%	1%	2%	0-8%	Yes
Other Opportunistic	1,133,097,587	5,556,010	1,138,653,598	3%	4%	3%	0-5%	Yes
<b>Real Assets</b>	<b>3,130,671,862</b>	-	<b>3,130,671,862</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>8-14%</b>	<b>Yes</b>
Public Real Estate	658,831,394	-	658,831,394	2%	2%	2%	0-3%	Yes
Private Real Estate	1,846,721,594	-	1,846,721,594	6%	6%	6%	4-12%	Yes
World Infrastructure	625,118,874	-	625,118,874	2%	2%	2%	0-5%	Yes
Hedge Funds PA	3,006,574,657	(3,006,574,657)	-	9%	0%	NA	0-12%	Yes

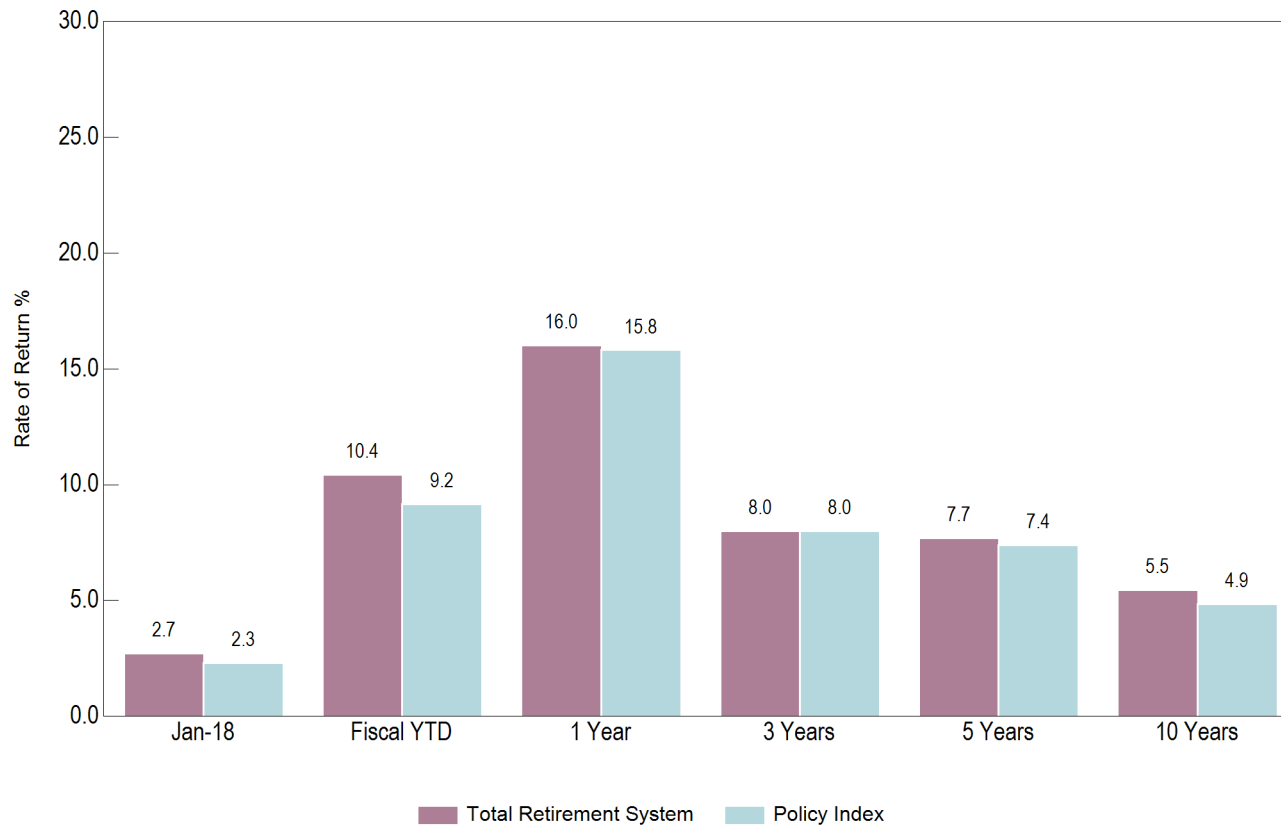
Includes cash in the Russell Overlay separate account.  
Percentages may not sum to 100% due to rounding.



### Actual vs. Policy Ranges: (Including Overlay)



**Net Return Summary  
Ending January 31, 2018**



Returns for periods greater than one year are annualized.





## South Carolina Retirement System Investment Commission

## Total Retirement System

As of January 31, 2018

## Net Asset Class Performance Summary

	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Retirement System</b>	<b>32,491,302,112</b>	<b>100.0</b>	<b>2.7</b>	<b>10.4</b>	<b>16.0</b>	<b>8.0</b>	<b>7.7</b>	<b>5.5</b>	<b>6.6</b>	<b>Jul-94</b>
<i>Policy Index</i>			2.3	9.2	15.8	8.0	7.4	4.9	6.0	Jul-94
<b>Global Public Equities</b>	<b>9,292,280,776</b>	<b>28.6</b>	<b>5.4</b>	<b>17.9</b>	<b>28.6</b>	<b>12.2</b>	<b>10.3</b>	<b>6.7</b>	<b>5.1</b>	<b>Jun-99</b>
<i>MSCI ACWI IMI Net USD</i>			5.4	17.3	27.2	12.0	11.1	6.4	6.0	Jun-99
<b>Private Equity</b>	<b>2,364,914,834</b>	<b>7.3</b>	<b>1.7</b>	<b>9.5</b>	<b>15.7</b>	<b>10.8</b>	<b>13.3</b>	<b>8.9</b>	<b>7.6</b>	<b>Apr-07</b>
<i>80% Russell 3000/20% MSCI EAFE + 300 basis points on a 3-month lag</i>			1.7	12.1	26.9	12.7	16.8	13.6	15.0	Apr-07
<b>Equity Options</b>	<b>1,791,314,744</b>	<b>5.5</b>	<b>1.7</b>	<b>8.5</b>	<b>13.9</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>12.8</b>	<b>Jul-16</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>			1.0	6.4	11.6	9.2	8.5	5.6	11.8	Jul-16
<b>Short Duration</b>	<b>1,153,673,273</b>	<b>3.6</b>	<b>-0.1</b>	<b>0.5</b>	<b>1.4</b>	<b>1.5</b>	<b>1.4</b>	<b>--</b>	<b>1.7</b>	<b>Mar-10</b>
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>			-0.3	-0.1	0.4	0.7	0.8	1.7	1.1	Mar-10
<b>Cash and Overlay</b>	<b>1,877,982,554</b>	<b>5.8</b>	<b>0.1</b>	<b>0.3</b>	<b>0.3</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.1</b>	<b>1.1</b>	<b>Oct-05</b>
<i>ICE BofAML 91 Days T-Bills TR</i>			0.1	0.7	0.9	0.5	0.3	0.4	1.2	Oct-05
<b>Core Fixed Income</b>	<b>1,247,690,569</b>	<b>3.8</b>	<b>-1.1</b>	<b>0.8</b>	<b>3.3</b>	<b>2.0</b>	<b>2.4</b>	<b>4.2</b>	<b>6.1</b>	<b>Jul-94</b>
<i>BBgBarc US Aggregate TR</i>			-1.2	0.1	2.1	1.1	2.0	3.7	5.5	Jul-94
<b>Mixed Credit</b>	<b>1,880,231,868</b>	<b>5.8</b>	<b>0.9</b>	<b>4.3</b>	<b>6.9</b>	<b>4.6</b>	<b>4.0</b>	<b>--</b>	<b>6.5</b>	<b>May-08</b>
<i>50% S&amp;P LSTA Leveraged Loan Index/50% Barclays High Yield Index</i>			0.8	3.1	5.6	5.6	4.7	6.3	6.3	May-08
<b>Private Debt</b>	<b>1,928,571,467</b>	<b>5.9</b>	<b>0.9</b>	<b>5.2</b>	<b>5.4</b>	<b>5.8</b>	<b>7.8</b>	<b>--</b>	<b>7.4</b>	<b>Jun-08</b>
<i>S&amp;P LSTA Leveraged Loan Index + 150 basis points on a 3-month lag</i>			0.6	3.2	6.6	5.5	5.7	5.2	5.2	Jun-08
<b>Emerging Market Debt</b>	<b>1,702,115,638</b>	<b>5.2</b>	<b>2.9</b>	<b>7.0</b>	<b>14.3</b>	<b>7.3</b>	<b>2.5</b>	<b>--</b>	<b>6.4</b>	<b>Jul-09</b>
<i>50% JP Morgan EMBI Global Diversified (USD)/50% JP Morgan EMBI Global Diversified</i>			2.2	6.4	13.1	5.4	2.0	5.6	6.4	Jul-09
<b>GAA</b>	<b>1,651,058,400</b>	<b>5.1</b>	<b>3.6</b>	<b>9.6</b>	<b>13.5</b>	<b>5.2</b>	<b>5.2</b>	<b>5.2</b>	<b>5.7</b>	<b>Aug-07</b>
<i>50% MSCI World Index/50% Barclays Aggregate Bond Index</i>			2.1	8.0	13.5	6.5	6.9	5.4	5.2	Aug-07
<b>Other Opportunistic</b>	<b>1,133,097,587</b>	<b>3.5</b>	<b>0.9</b>	<b>6.1</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>6.1</b>	<b>Jul-17</b>
<i>50% MSCI World Index/50% Barclays Aggregate Bond Index</i>			2.1	8.0	13.5	6.5	6.9	5.4	8.0	Jul-17
<b>Hedge Funds Non Portable Alpha</b>	<b>331,123,881</b>	<b>1.0</b>	<b>0.6</b>	<b>3.5</b>	<b>4.5</b>	<b>2.1</b>	<b>3.1</b>	<b>2.6</b>	<b>2.6</b>	<b>Aug-07</b>
<i>50% MSCI World Index/50% Barclays Aggregate Bond Index</i>			2.1	8.0	13.5	6.5	6.9	5.4	5.2	Aug-07
<b>Hedge Funds Portable Alpha</b>	<b>3,006,574,657</b>	<b>9.3</b>	<b>2.2</b>	<b>7.7</b>	<b>7.9</b>	<b>5.0</b>	<b>7.4</b>	<b>7.8</b>	<b>8.9</b>	<b>Jul-07</b>
<i>3-Month Libor Total Return USD</i>			0.2	0.9	1.4	0.8	0.6	0.8	1.0	Jul-07
<b>Public Real Estate</b>	<b>658,831,394</b>	<b>2.0</b>	<b>-4.0</b>	<b>1.4</b>	<b>3.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-0.7</b>	<b>Jul-16</b>
<i>FTSE NAREIT Equity REIT</i>			-4.2	-1.8	0.7	1.9	7.7	7.1	-2.2	Jul-16
<b>Private Real Estate</b>	<b>1,846,721,594</b>	<b>5.7</b>	<b>0.5</b>	<b>6.6</b>	<b>10.7</b>	<b>12.4</b>	<b>15.3</b>	<b>--</b>	<b>7.0</b>	<b>Jul-08</b>
<i>NCREIF ODCE + 75 bps</i>			0.1	4.2	8.4	11.6	12.3	--	--	Jul-08
<b>World Infrastructure</b>	<b>625,118,874</b>	<b>1.9</b>	<b>0.1</b>	<b>4.4</b>	<b>13.8</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>6.3</b>	<b>Jun-16</b>
<i>DJ Brookfield Global Infrastructure</i>			0.0	3.8	14.4	3.9	7.8	7.5	10.4	Jun-16

Returns are based on values obtained from BNYM.  
Returns for periods greater than one year are annualized.



As of January 31, 2018

**Statistics Summary**  
5 Years Ending January 31, 2018

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Retirement System	7.7%	4.8%	0.3	1.0	1.5	1.1%
Policy Index	7.4%	4.7%	--	1.0	1.5	0.0%
Global Public Equities	10.3%	10.0%	-0.6	1.0	1.0	1.5%
MSCI ACWI IMI Net USD	11.1%	10.0%	--	1.0	1.1	0.0%
Private Equity	13.3%	4.1%	-0.4	0.0	3.2	9.9%
80% Russell 3000/20% MSCI EAFE + 300 basis points on a 3-month lag	16.8%	9.4%	--	1.0	1.8	0.0%
Short Duration	1.4%	0.6%	1.6	0.8	1.8	0.4%
BBgBarc US Govt/Credit 1-3 Yr. TR	0.8%	0.7%	--	1.0	0.7	0.0%
Cash and Overlay	0.0%	0.7%	-0.4	0.3	-0.4	0.7%
ICE BofAML 91 Days T-Bills TR	0.3%	0.1%	--	1.0	0.0	0.0%
Core Fixed Income	2.4%	2.9%	0.7	1.0	0.7	0.6%
BBgBarc US Aggregate TR	2.0%	2.9%	--	1.0	0.6	0.0%
Mixed Credit	4.0%	3.4%	-0.5	1.1	1.1	1.5%
50% S&P LSTA Leveraged Loan Index/50% Barclays High Yield Index	4.7%	2.8%	--	1.0	1.6	0.0%
Private Debt	7.8%	3.3%	0.7	0.5	2.3	3.4%
S&P LSTA Leveraged Loan Index + 150 basis points on a 3-month lag	5.7%	2.4%	--	1.0	2.2	0.0%
Emerging Market Debt	2.5%	8.8%	0.3	1.0	0.3	1.5%
50% JP Morgan EMBI Global Diversified (USD)/50% JP Morgan EMBI Global Diversified	2.0%	8.3%	--	1.0	0.2	0.0%

## South Carolina Retirement System Investment Commission

## Total Retirement System

As of January 31, 2018

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
GAA	5.2%	6.2%	-0.7	1.1	0.8	2.6%
50% MSCI World Index/50% Barclays Aggregate Bond Index	6.9%	5.1%	--	1.0	1.3	0.0%
Hedge Funds Non Portable Alpha	3.1%	3.3%	-0.9	0.4	0.8	4.4%
50% MSCI World Index/50% Barclays Aggregate Bond Index	6.9%	5.1%	--	1.0	1.3	0.0%
Hedge Funds Portable Alpha	7.4%	4.3%	1.6	0.2	1.7	4.3%
3-Month Libor Total Return USD	0.6%	0.1%	--	1.0	2.4	0.0%
Private Real Estate	15.3%	3.4%	0.5	0.1	4.4	5.5%
NCREIF ODCE + 75 bps	12.3%	4.7%	--	1.0	2.6	0.0%

## Disclosure Appendix

- Item 1. Fiscal year begins July 1.
- Item 2. All returns are presented net of management fees.
- Item 3. Policy index performance is calculated by multiplying each asset class target weight by the performance of its respective benchmark.
- Item 4. As stipulated in the Statement of Investment Objectives and Policies, the target weights to Private Equity, Private Debt and Real Estate will be equal to their actual weights, reported by the custodial bank, as of the prior month end. In the case of Private Equity, the use of the actual weight will affect the target allocation to Global Equity. For example, in FY 17-18, the combined target weight of both of these asset classes shall equal 42% of the Plan. For Private Debt, the use of the actual weight will affect the target allocation to Mixed Credit, such that the combined target weight of both asset classes in FY 17-18 shall equal 13% of the Plan. For private market Real Estate, the use of the actual weight will affect the target allocation to public market Real Estate (REITs), such that the combined target weight of both asset classes in FY 17-18 shall equal 8% of the Plan
- Item 5. Overlay exposure is reported from Russell. Market values and performance reported by BNYM are reconciled to manager reported data for public markets strategies.
- Item 6. Total retirement system performance is calculated inclusive of the overlay investments. Individual asset class performance is reported by BNYM excluding synthetic exposure from the overlay program.
- Item 7. Asset classes with less than five years of historical returns are excluded from the risk statistics summary.



# South Carolina Retirement System Investment Commission

## Asset Allocation Ranges

### Asset Allocation Ranges

	Approved <sup>1</sup> Policy (%)	Ranges (%)	Ranges (%)
<b>Rate Sensitive:</b>	<b>14</b>	<b>+/- 10</b>	<b>4 - 24</b>
Cash & Short-term Bonds	1	< 7	0 - 7
Core Bonds	13	+/- 7	6 - 20
<b>Credit:</b>	<b>15</b>	<b>+/- 5</b>	<b>10 - 20</b>
High Yield Bonds & Bank Loans	4	+/- 4	0 - 8
Private Debt	7	+/- 4	3 - 11
Emerging Market Debt	4	+/- 2	2 - 6
<b>Equities:</b>	<b>51</b>	<b>+8 / -20</b>	<b>31 - 59</b>
Global Public Equity	42	+8 / -20	22 - 50
Private Equity	9	+/- 4	5 - 13
<b>Real Assets:</b>	<b>12</b>	<b>+/- 5</b>	<b>7 - 17</b>
Real Estate	9	+/- 4	5 - 13
Infrastructure	3	+/- 2	1 - 5
<b>Opportunistic</b>	<b>18</b>	<b>+/- 6</b>	<b>12 - 24</b>
Hedge Funds - Portable Alpha	10	< 12	0 - 12
Tactical Asset Allocation	7	+/- 4	3 - 11
Other Opportunistic & Risk Parity	1	< 3	0 - 3

- We recommend adopting the proposed ranges effective immediately.

<sup>1</sup> Approved by the Commission on February 8, 2018.





# South Carolina Retirement System Investment Commission

## Benchmark Review and Recommendations

## Current Policy Benchmark Components and Recommended Changes

Asset Class	Current Policy Benchmark	Recommended Policy Benchmark	Recommended Secondary Benchmark
Global Equity	MSCI All Country World Investable Market Index	Weighted average of underlying regional sub-asset class targets <sup>1</sup> in policy portfolio	-
Private Equity	80% Russell 3000 Index/20% MSCI EAFE Index + 300 basis points on a 3-month lag	-	Cambridge Associates Peer Vintage Year
Equity Option Strategies	CBOE S&P 500 BuyWrite Index (BXM)	50% CBOE S&P 500 PutWrite Index, 50% CBOE S&P 500 BuyWrite Index	-
Cash & Short Duration	BofA Merrill Lynch 3-Month T-Bills	-	-
Core Bonds	Bloomberg Barclays Aggregate Index	-	-
Mixed Credit	50% S&P LSTA Leveraged Loan Index/50% Barclays High Yield Index	-	-
Private Debt	S&P LSTA Leveraged Loan Index +150 basis points on a 3-month lag	-	-
Emerging Market Debt	50% JPM EMBI Global Diversified (USD)/ 50% JPM GBI-EM Global Diversified (Local)	-	-
GAA	50% MSCI World Index (net of dividends)/ 50% Bloomberg Barclays Aggregate Bond Index	Total System Policy Benchmark ex-private markets and portable alpha	-
Other Opportunistic Strategies	50% MSCI World Index (net of dividends)/ 50% Bloomberg Barclays Aggregate Bond Index	Total System Policy Benchmark ex-private markets and portable alpha	-
Real Estate (REITs)	FTSE NAREIT Equity REITs Index	-	-
Real Estate (Private)	NCREIF ODCE Gross Index +75 basis points	NCREIF ODCE Net Index +100 basis points	-
World Infrastructure	Dow Jones Brookfield Global Infrastructure Index	-	-
Hedge Funds (Portable Alpha)	3-Month Libor	T-Bills + 250 basis points	50% HFRI FoF Conservative, 50% HFRI: Macro Index

<sup>1</sup> Recommend MSCI USA IMI Index for U.S. Equity, MSCI World ex-US IMI Index for Developed Market Equity (non-U.S.) and MSCI EM IMI Index for Emerging Market Equity.





## Summary of Recommendations

- **Global Equity** – we recommend switching to a policy weighted benchmark.
  - The pre-existing benchmark is weighted based on global market capitalizations. This represents a mismatch versus the deliberate decision by the Commissioners to overweight emerging markets.
- **Private Equity** – we recommend including a secondary, peer-oriented benchmark.
  - The primary benchmark reflects the long-term objective of the private equity program (outperformance vs. public equity markets). However there can be large gaps between the performance of public equity and private equity over shorter periods. The addition of a secondary benchmark allows for comparison versus a peer group over shorter and longer periods. The Cambridge Peer Universe is probably the most widely used and most complete private equity peer universe.
- **Equity Option Strategies** – we recommend a blended put-writing and buy-writing benchmark.
  - The System’s options-based managers can engage in both put-writing and buy-writing. While they should theoretically be equal in the long run, that has not been the case historically. Moreover, the strategy employed by the System’s current managers makes greater use of put writing. Hence, the benchmark should reflect this dual nature.
- **GAA and Other Opportunistic** – we recommend switching to a benchmark that reflect the “opportunity cost” of holding these strategies.
  - The assets invested here could otherwise be invested in (and compared to) the System’s liquid public market investments (i.e., the rest of the System, excluding private equity, private debt, private real estate, private infrastructure, and portable alpha).

### Summary of Recommendations (continued)

- **Real Estate** – we recommend switching to the “net” version of the ODCE benchmark, and increasing the hurdle rate to 100 basis points.
  - Since the System’s returns are presented net of fees, it should be compared to the net-of-fees version of the benchmark (there is no “passive” equivalent available for private real estate).
  - We select a hurdle of 100 bp based on the anticipated 60/40 mix of core vs. non-core real estate. The ODCE represents a core benchmark, and non-core investment should be expected to earn a premium of 200-300 bp over core investments.
- **Hedge Funds (PA)** – we recommend switching to a “cash plus” benchmark, as well as adding a secondary benchmark.
  - The hedge fund component of the portable alpha program is designed to outperform cash. The amount by which it should be expected to outperform can be expressed in terms of the risk it is taking on to do so. The higher the hurdle, the more risk that is anticipated, and vice versa. In this case, the spread reflects the outperformance we expect for a similarly structured portfolio of hedge fund strategies over cash, based on our 2018 20-year capital market expectations.
  - Hedge funds are another area where there can be large gaps between the performance of the strategy and that of the primary benchmark over shorter periods. The addition of a secondary benchmark allows for comparison versus a peer group over shorter and longer periods.
  - The 50/50 Conservative/Macro mix represents a reasonable, if imperfect, comparison to the way in which the hedge fund component of the portable alpha program is currently structured.



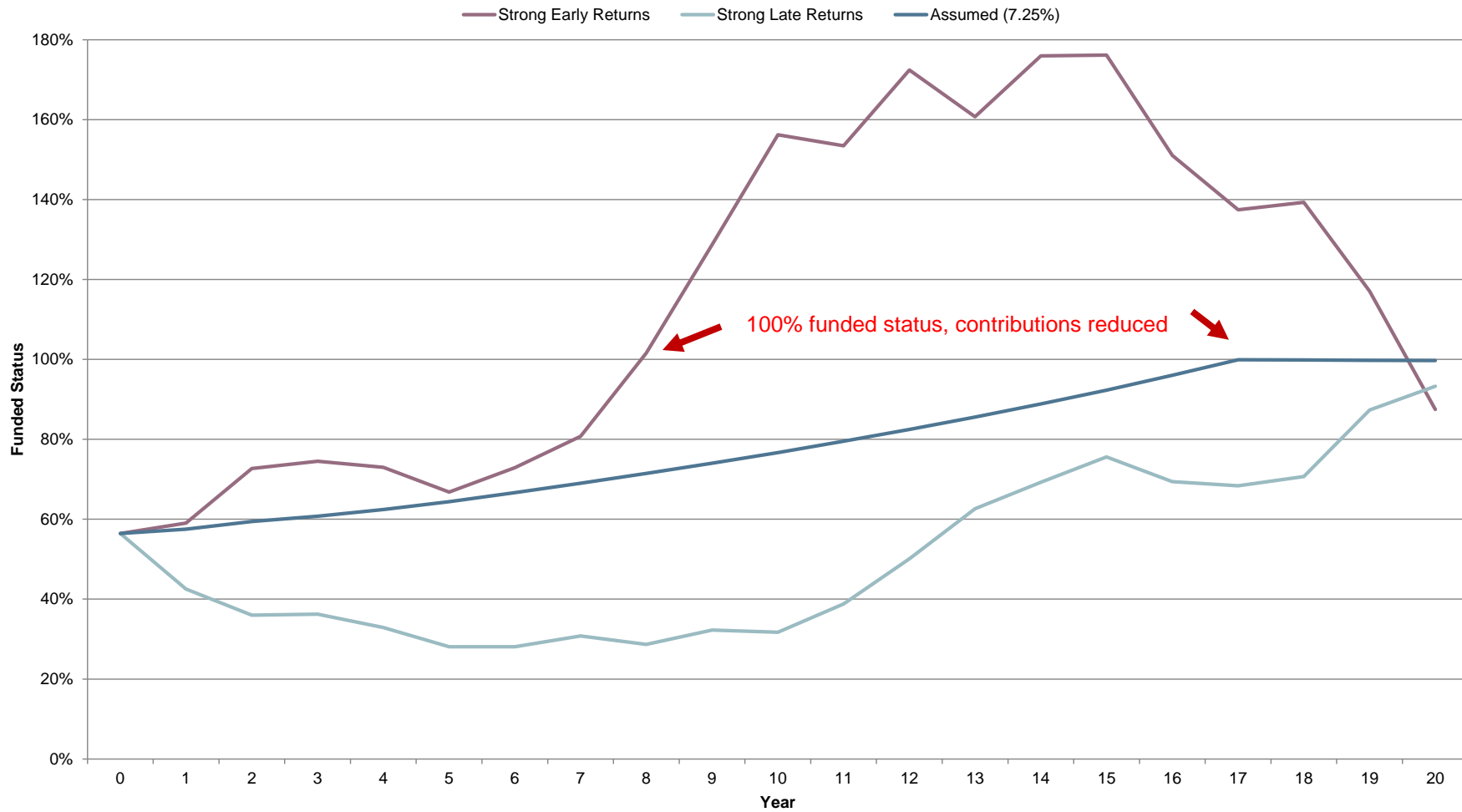
**South Carolina Retirement System Investment Commission**  
Additional Sequence of Returns Modeling - Impact of Reduced Contributions

## Sequence of Returns – Reduction in Contributions once 100% Funded is Reached

- In this analysis, the contributions into SCRS are reduced the year after SCRS reaches 100% fully funded status<sup>1</sup>.
- **Strong Early Returns Sequence:**
  - SCRS becomes fully funded in year eight under the hypothetical strong early returns sequence.
  - In year nine we modeled a reduction in contributions using the values that are expected to be paid into the SCRS once fully funded status is reached. The contributions drop from \$3.31 billion to \$1.25 billion in that year. Subsequent to year nine the contributions grow at an average rate of 1.2% per year, reaching \$1.46 billion in year 20.
  - In this hypothetical sequence of returns, years 9 and 10 are strong years (+35% and +28%), so the funded status continues to increase materially despite reduced contribution levels. Funded status peaks at 176% before dropping down to 87% at the end of the twenty year period.
- **Linear 7.25% Annual Returns:**
  - SCRS reaches exactly 100% funded in year 17 under the linear 7.25% annualized return model.
  - We modeled the reduction in contributions in year 18. SCRS maintains its 100% funded status.
- **Strong Late Returns:**
  - SCRS never reaches 100% funded status in this sequence of returns, even with full contributions paid into the System each year.

<sup>1</sup> Funded status figures use estimated market values (not smoothed asset values). Contributions, Benefit payments, and actuarial liability figures were provided by the Actuary, GRS.

### Reduction in Contributions once 100% Funded is Reached (continued)



Reduction in Contributions once 100% Funded<sup>1</sup> is Reached (continued)

## Strong Early Returns

Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Funded Status (%)	56	59	73	74	73	67	73	81	102	129	156	153	172	161	176	176	151	137	139	117	87	
Net Cash Flow (\$ bb)	0.0	-1.4	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	<b>-2.6</b>	<b>-2.7</b>	<b>-2.8</b>	<b>-2.9</b>	<b>-3.0</b>	<b>-3.1</b>	<b>-3.3</b>	<b>-3.4</b>	<b>-3.5</b>	<b>-3.6</b>	<b>-3.7</b>	<b>-3.7</b>
Annual Returns (%)	0	10	28	7	2	-5	13	15	30	35	28	4	18	-2	15	5	-10	-4	7	-11	-20	

## Linear 7.25% Return

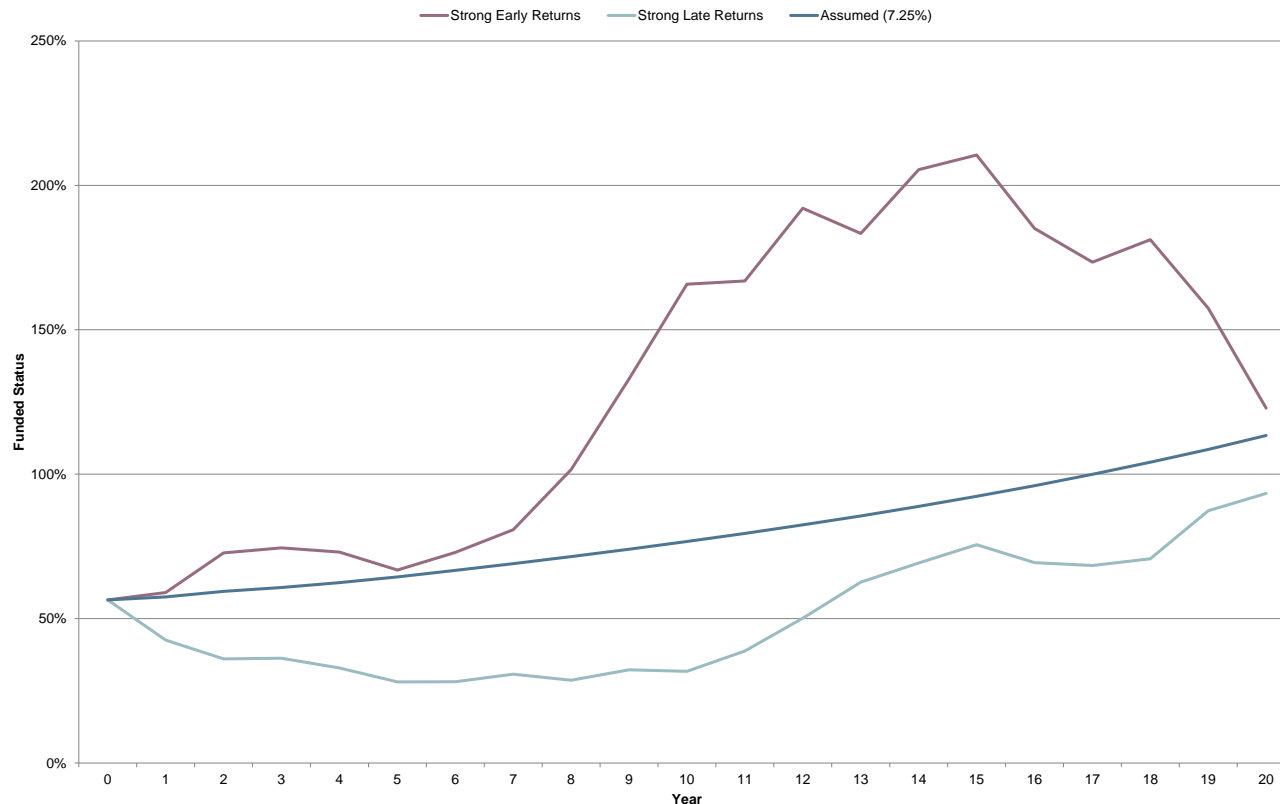
Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Funded Status (%)	56	58	59	61	62	64	67	69	71	74	77	80	82	86	89	92	96	100	100	100	100
Net Cash Flow (\$ bb)	0.0	-1.4	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.7	-0.8	<b>-3.7</b>	<b>-3.8</b>	<b>-3.9</b>
Annual Returns (%)	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25	7.25

## Strong Late Returns

Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
Funded Status (%)	56	43	36	36	33	28	28	31	29	32	32	39	50	63	69	76	69	68	71	87	93	
Net Cash Flow (\$ bb)	0.0	-1.4	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8
Annual Returns (%)	0	-20	-11	7	-4	-10	5	15	-2	18	4	28	35	30	15	13	-5	2	7	28	10	

<sup>1</sup> Net cash flows in bold with bold border are years with reduced contributions. Starting market value based on actuarial asset value for SCRS only from 2017 CAFR. Contributions, Benefit payments, and actuarial liability figures were provided by the Actuary, GRS.

## Appendix A: Original Analysis with No Reduction in Contributions



- As detailed during the February 2018 Commission Meeting, the ending (year 20) funded status<sup>1</sup> could range from 93% to 123% depending on the sequence of returns.
- In this example, the contribution levels are the same for each sequence of returns and each sequence generates a 20 year annualized return of 7.25%.

<sup>1</sup> Funded status figures use estimated market values (not smoothed asset values). Contributions, Benefit payments, and actuarial liability figures were provided by the Actuary, GRS.

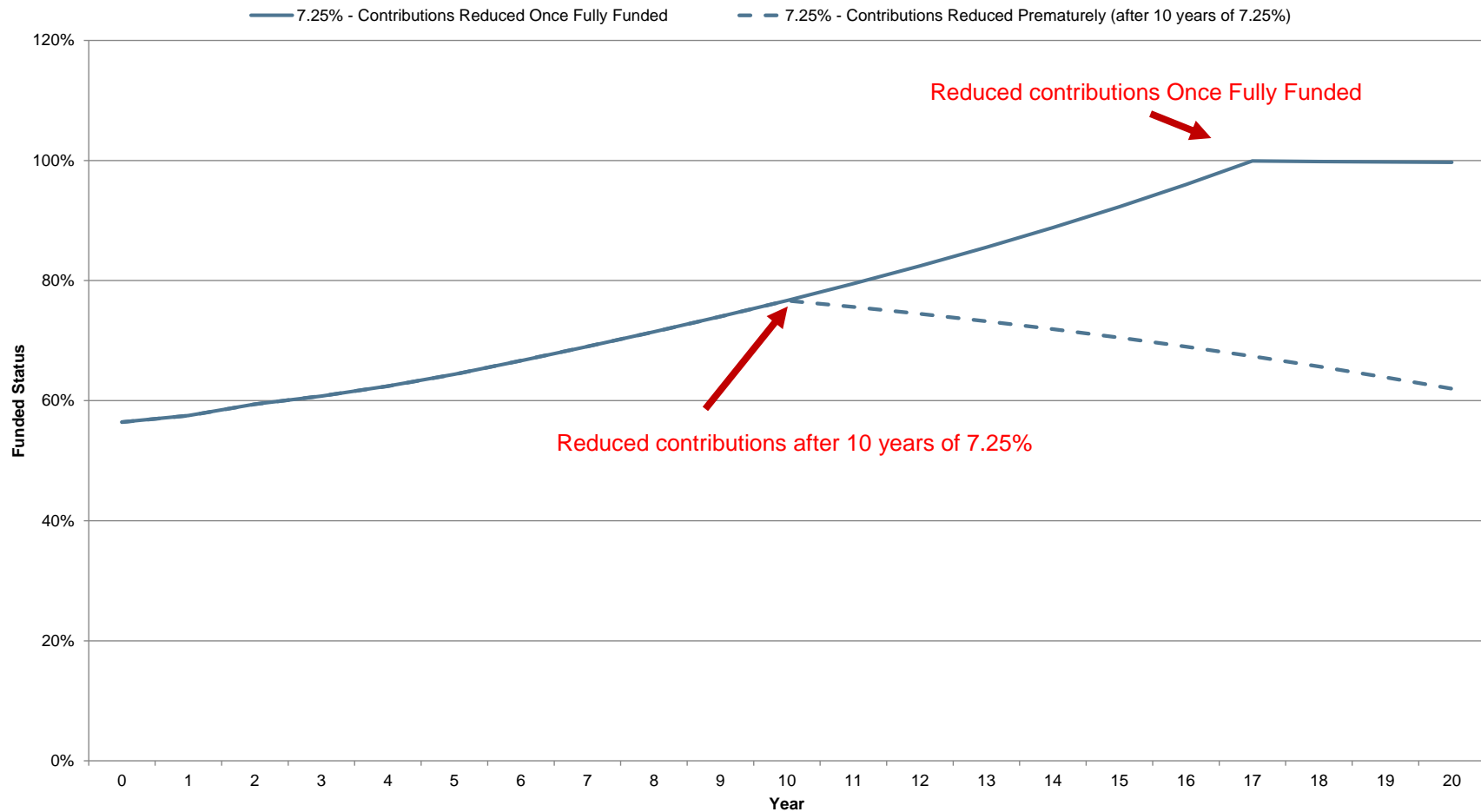
### Appendix A: Original Analysis (continued)

Year	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
<b>Funded Status<sup>1</sup></b>																						
Strong Early Returns (%)	56	59	73	74	73	67	73	81	102	133	166	167	192	183	205	211	185	173	181	157	123	
Strong Late Returns (%)	56	43	36	36	33	28	28	31	29	32	32	39	50	63	69	76	69	68	71	87	93	
Assumed (7.25%)	56	58	59	61	62	64	67	69	71	74	77	80	82	86	89	92	96	100	104	109	113	
<b>Cash Flows (\$ bb)</b>																						
Net Cash Flow	0.0	-1.4	-0.7	-0.6	-0.5	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	
<b>Returns (%)</b>																						
Strong Early Returns (%)	0	10	28	7	2	-5	13	15	30	35	28	4	18	-2	15	5	-10	-4	7	-11	-20	
Strong Late Returns (%)	0	-20	-11	7	-4	-10	5	15	-2	18	4	28	35	30	15	13	-5	2	7	28	10	

<sup>1</sup> Starting market value based on actuarial asset value for SCRS only from 2017 CAFR. Contributions, Benefit payments, and actuarial liability figures were provided by the Actuary, GRS.



## Appendix B: What if Scenario – If Contributions are Reduced Prematurely



- Both scenarios produce 7.25% every single year, but the impact of reducing contributions prematurely is significant.

## Appendix B: What if Scenario – If Contributions are Reduced Prematurely

- In this analysis, both blue lines generate a return of 7.25% every year for twenty years.
- The solid blue line is the same forecast as the first example. SCRS reaches exactly 100% funded<sup>1</sup> in year 17 at which point the contribution level is immediately reduced the following year. SCRS is able to maintain its 100% funded status.
- The dotted blue line shows the impact to funded status if contribution levels are reduced prematurely. In this example we modeled the reduction in year 11 (i.e. after ten years of producing the target return of 7.25%).
- Even if SCRS could generate 7.25% every single year for years 11-20, the funded status deteriorates continuously, ending at 62% at the end of twenty years.

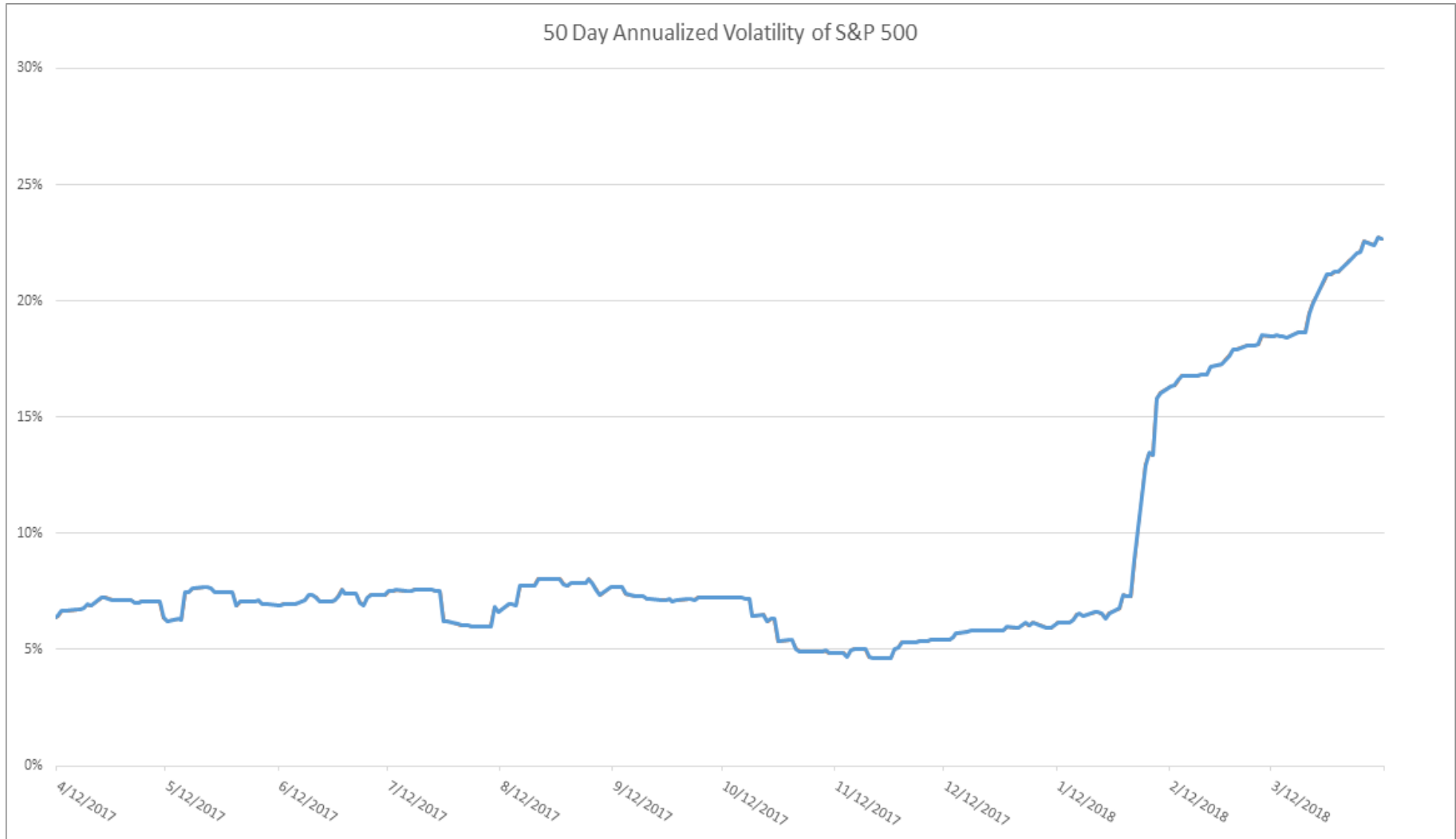
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<sup>1</sup> Funded status figures use estimated market values (not smoothed asset values). Contributions, Benefit payments, and actuarial liability figures were provided by the Actuary, GRS.

# CIO Comments

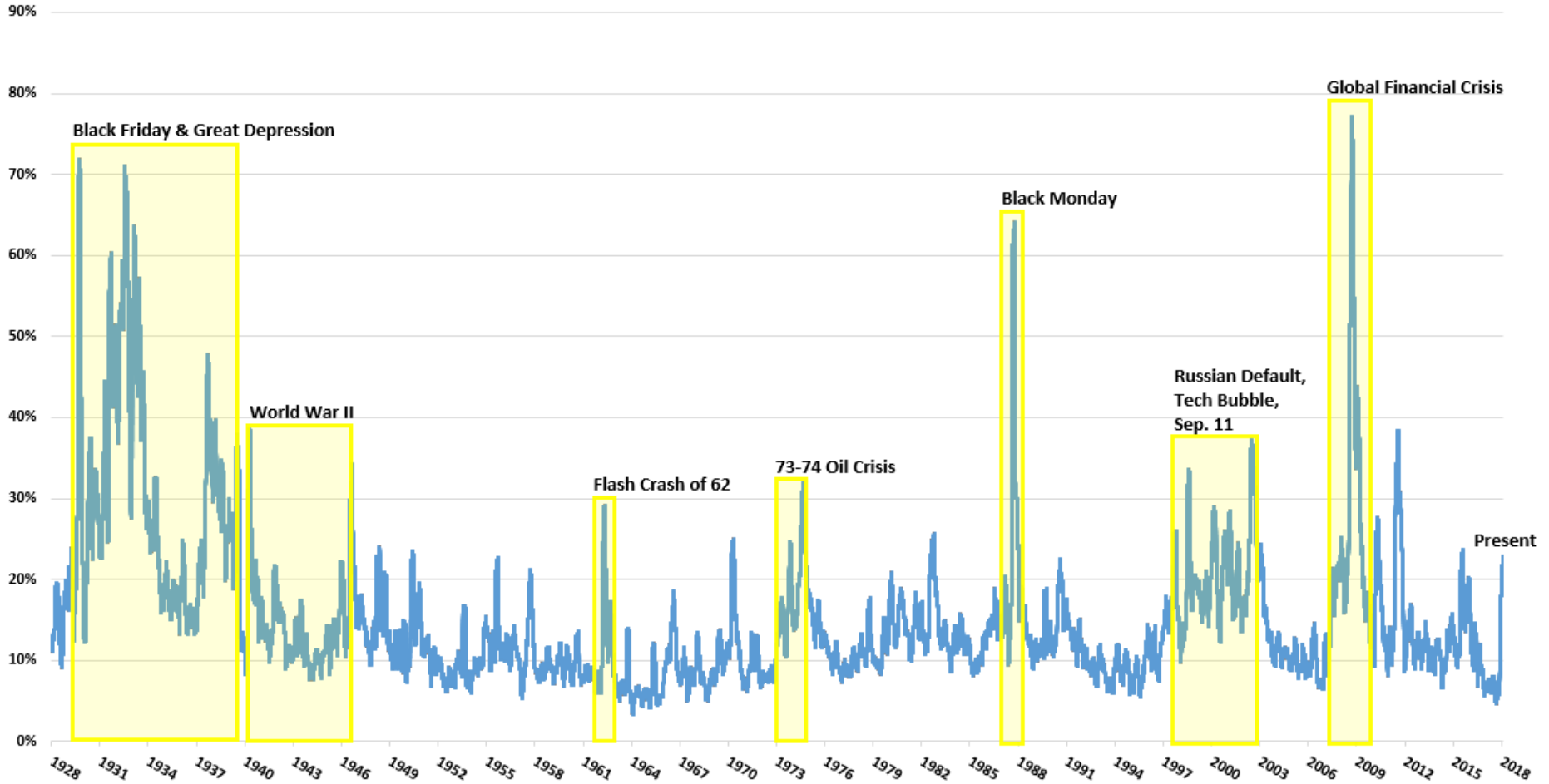
Geoffrey Berg

# Market Volatility Elevated In Recent Months...



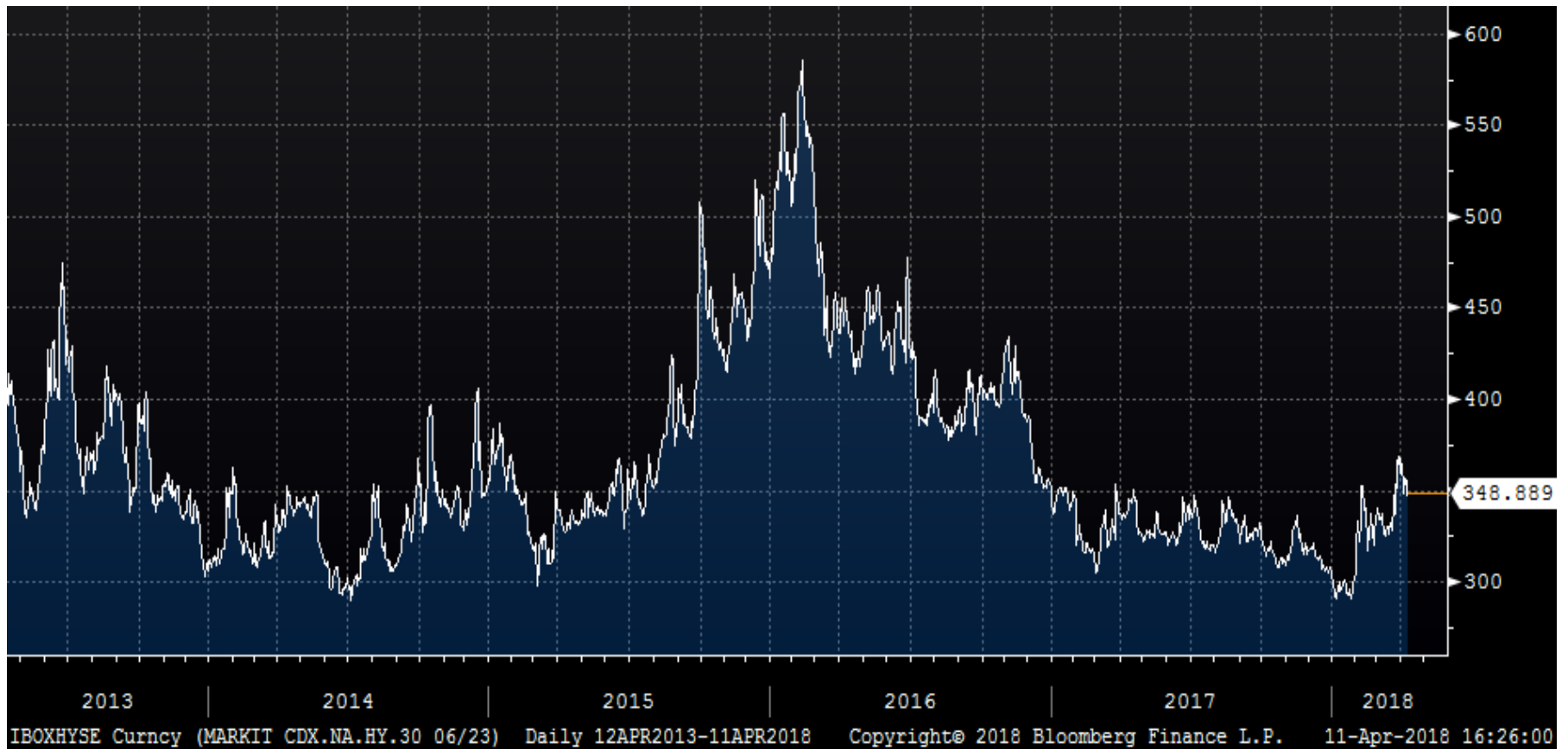
# ...But Normal By Historical Standards (90 years)

50 Day Annualized Volatility of S&P 500

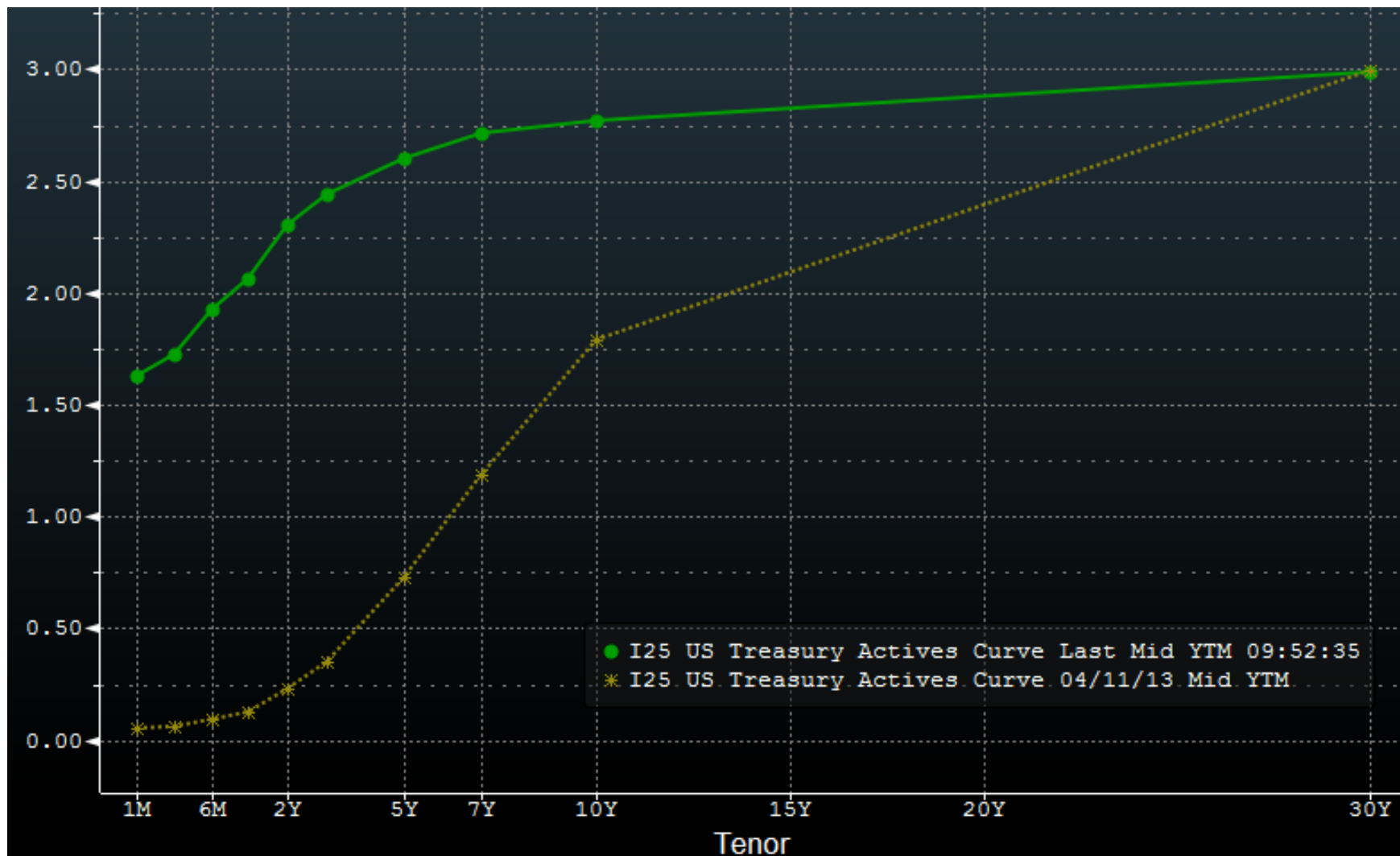


# High Yield Spreads

- High yield spreads are only modestly higher
- Not at a level that suggests serious economic concerns



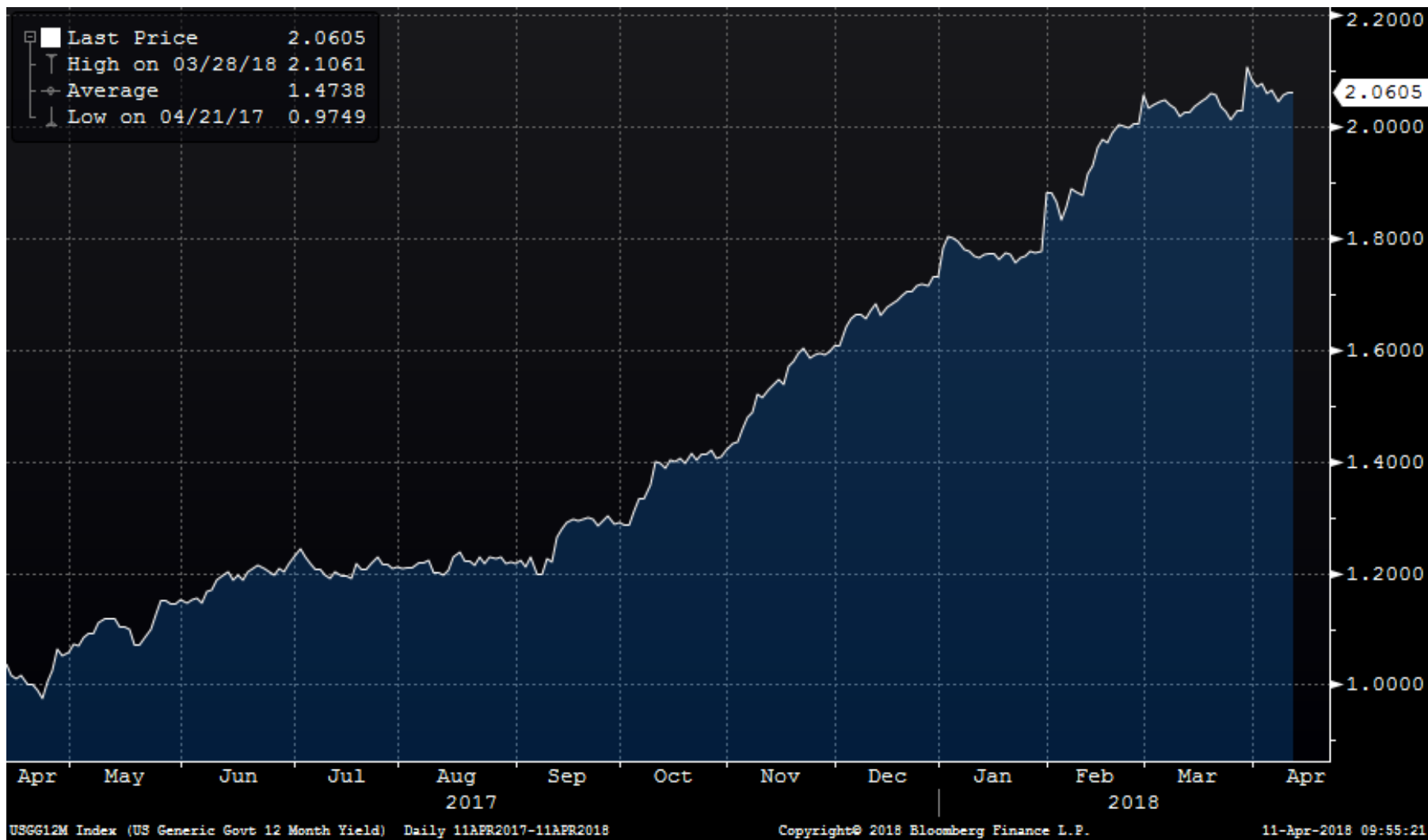
# Bond Yields Rising (5Y)



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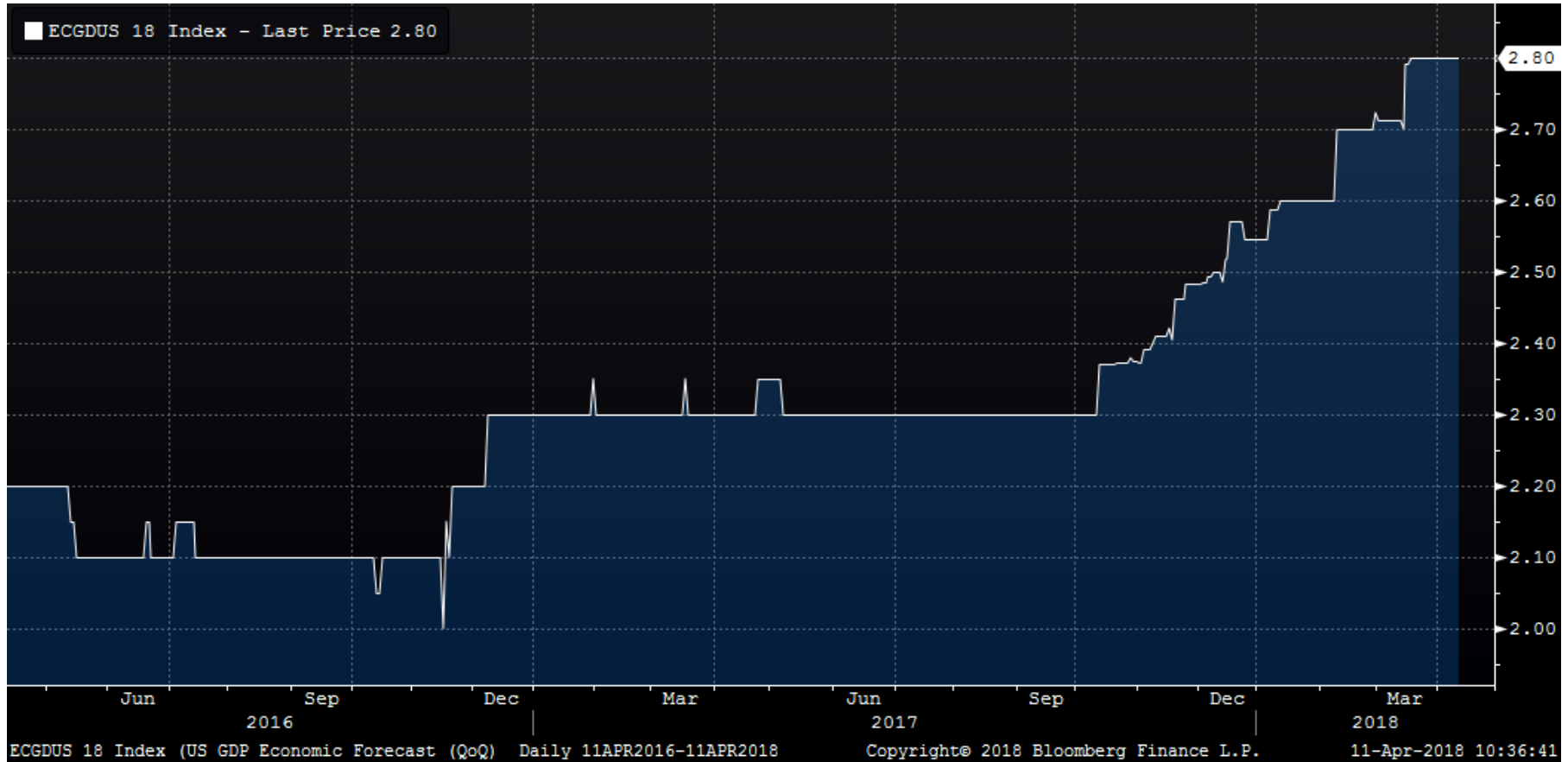
# Cash Rates Rising





# Growth Forecast: Continuing Strength

- Strengthening growth giving Fed the cover it needs for rate hikes

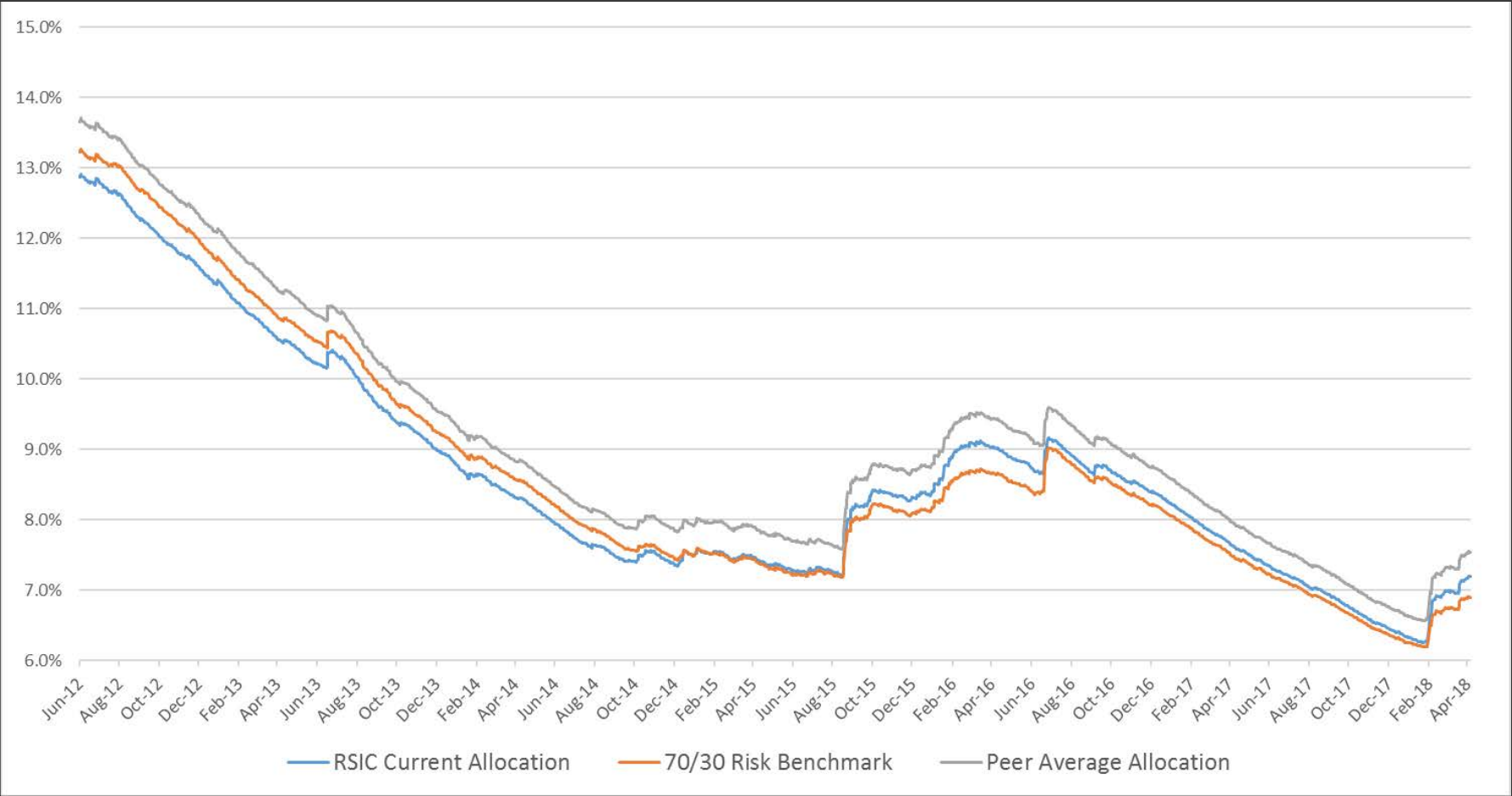


# Key Challenges For Markets

- Federal Reserve motivated to raise rates
- Higher rates reduce appeal of risk assets
- Most risky assets perceived as expensive
- Flattening yield curve
- Return to “normal” equity volatility may reduce attractiveness of risk assets

# RSIC Portfolio Risk vs. Benchmark

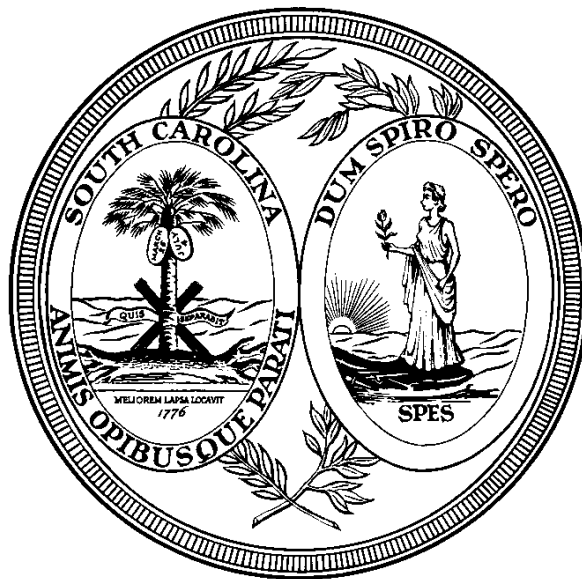
- Trailing volatility (recent observations weighted more heavily)



- Certain factors suggest elevated risks for investors.
- Growth remains strong worldwide.
- We do not expect a return to the low-volatility of recent years.
- Rising volatility may create attractive opportunities.

**SOUTH CAROLINA RETIREMENT SYSTEM  
INVESTMENT COMMISSION**

**ANNUAL INVESTMENT PLAN  
FISCAL YEAR 2018-2019**



as adopted by the Retirement System Investment Commission  
on \_\_\_\_\_; effective on July 1, 2018

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## SECTION 1: OVERVIEW AND PURPOSE

### Overview

The Commission maintains a Statement of Investment Objectives and Policies (“SIOP”), which provides the objectives, policies, and guidelines for investing the assets of the South Carolina Retirement Systems (the “Portfolio”). The SIOP provides the framework by which the RSIC, at the direction of the Chief Investment Officer (“CIO”), drafts a proposed Annual Investment Plan (“AIP”). South Carolina law requires the CIO to submit the proposed AIP to the Commission no later than April 1<sup>st</sup> of each year, and the Commission must adopt a final AIP no later than May 1<sup>st</sup> of each year for the following fiscal year which begins on July 1. The Commission may amend the AIP during the fiscal year as it deems appropriate.

### Purpose

Each year in the AIP, the CIO establishes the goals and initiatives that will guide the work and focus of the investment program for the subsequent fiscal year. These plans take into account the broad market outlook, the outlook for each individual asset class, and Portfolio-level objectives, as stated in the SIOP. The relevant portion of the SIOP may constitute parts of the AIP pursuant to Section 9-16-50(B). The Commission adopts the SIOP, in its entirety, into the AIP, in accordance with Section 9-16-50(B) and to satisfy compliance with the requirements of Section 9-16-330(B).

## SECTION 2: STRATEGIC INITIATIVES

Each year Staff undertakes initiatives approved by the Investment Commission within the AIP with the goal of improving its investment, operational, and governance capabilities that will lead to more efficient and effective implementation of investment strategies and positively contribute to the financial health of the South Carolina Retirement System trust funds. These initiatives are interconnected and are often multi-year or ongoing in nature, requiring collaboration across the organization. Several of the initiatives outlined herein are designed to help the Portfolio adapt to a multi-year period of forecasted lower returns with heightened volatility.

1. In addition to the asset class initiatives described below, the Investment Team will focus on the following key initiatives in support of the Commission’s goals and objectives as expressed in the SIOP.
  - a. Challenging beliefs – Since the fall of 2015, the Investment Team has periodically engaged in a process of challenging its investment beliefs. This process is designed to encourage rigorous debate over an array of important topics that relate to the investment program. Investment staff members are expected to present the most compelling arguments possible on one side of an issue, regardless of their actual belief. This process will continue for the foreseeable future and, as it unfolds, the Investment Team expects to develop and present additional portfolio recommendations reflecting these beliefs.
  - b. Implementation of the long-term asset allocation approved in February 2018 – In February 2018, the Commission adopted a new long-term target asset allocation. The Investment Team will develop and execute a plan for implementing this target asset allocation.
  - c. Comprehensive review of implementation cost – The Investment Team, in conjunction with other RSIC units, will continue to examine the mix of structural and variable costs throughout the Portfolio and pursue opportunities like the co-investment initiative to improve the cost alignment of the investment program. Other elements of the review will include:
    - i. Active/Enhanced/Passive Framework – The Investment Team will continue to strengthen its quantitative framework for assessing the ideal use of active, enhanced, and passive strategies. The goal is to improve the cost-effectiveness of the investment program, when evaluated over a market

cycle (five to seven years). Further work in this area will seek to understand the factors that contribute to the persistence of managers' ability to generate excess returns.

- ii. Pursuing opportunities to consolidate assets with high-conviction managers and to improve the cost of the investment program. In this effort, the Investment Team will continue to perform rigorous due diligence, including a robust assessment of value creation and return attribution.
- d. Building out Investment Risk function – During the fiscal year, the Investment Team will focus on the development of new risk tools and reports for use by both the Investment Team and the Commission.
- e. Tactical Asset Allocation (“TAA”) and Rebalancing – The Investment Team will continue to strengthen its TAA capabilities by enhancing the principles and decision-making framework for these functions. The Team will also evaluate potential changes to its rebalancing discipline.
- f. Currency hedging evaluation – The Investment Team will assess the operational and portfolio impacts of hedging all or a portion of foreign currency risk.
- g. Review of investment process – The Investment Team will conduct a comprehensive review of its procedures for evaluating potential investments.

h. Benchmarking of Plan performance – The Investment Team will evaluate new frameworks for performance benchmarking with the goal of providing additional context for understanding total plan performance.

2. The Operations Team will focus on the following key initiatives in order to provide the operational infrastructure to maintain the appropriate administrative, accounting, and data management services to support the investment, risk management, and reporting functions of the RSIC:

- a. Assess the current state of the performance reporting ecosystem, evaluating RSIC's current initiatives and available systems to ensure the organization's reporting and analytics needs continue to be met.
- b. Evaluate existing procedures and explore additional automation related to the recently acquired fully web-based version of our fixed income portfolio accounting.
- c. Continue to enhance the information technology infrastructure to support RSIC's business needs.
- d. Research and implement a Contact Management Solution to better capture investment manager contacts and RSIC ongoing due-diligence efforts.

3. The Legal Team will focus on the following key initiatives in order to assist the Investment Team in achieving its objectives, while maintaining a focus on identifying and minimizing legal risk to RSIC:

- a. Evaluate the existing contracting process in order to improve efficiency and minimize risk.
- b. Assess additional implementation options and legal structures to enhance RSIC's ability to achieve investment objectives in a prudent and cost-efficient manner.



### SECTION 3: ASSET CLASS INITIATIVES

#### Public Market Initiatives:

- Passive index menu – Explore the utility of having a multi-asset class passive (index) solutions provider.

- Intra-asset class rebalancing opportunities – Evaluate the merits of different rebalancing disciplines. This work will include analysis of changing the frequency and thresholds for rebalancing, as well as weighing the costs of these rebalancing protocols for different asset classes.
- Cultivate debate among managers with differing views – Create opportunities for external investment managers to share differing views with regard to regions, sectors, and asset classes, in order to help inform RSIC tactical asset allocation decisions.

#### Private Market Initiatives:

- Co-investment initiative – Following up on conclusions reached in a challenging convictions review, continue to evaluate the use of an external service provider to assist Staff in sourcing and/or underwriting co-investment opportunities, with the goal of implementing the program during FY 18-19.
- In order to broaden the experience of certain team members, identify opportunities where members of the private markets team can perform due diligence in multiple asset classes, as well as participate in other projects.

### Equity

*The equity asset classes are the Portfolio's investments that reflect an ownership of a business, and includes global public equity and private equity. The long-term target allocation to equity is 51% of the Portfolio, a 4% increase over FY 17-18. Equities performed well in 2017 across the U.S., developed international and emerging markets.*

#### **Global Public Equity**

The long-term target allocation for global public equity is 35%, an increase of 2% over FY 17-18. The current global public equity implementation includes strategies that invest globally and those that focus on a specific region or thematic group (for example, the U.S. or emerging markets). Current implementation features a combination of passive, enhanced, and active mandates.

#### *Key Initiatives:*

- Implement a plan for transitioning towards the new sub-asset class targets for U.S. equity, developed market equity (non-U.S.), and emerging market equity specified in the long-term asset allocation.
- Incorporate enhancements to the passive/enhanced/active tools while researching strategies that improve the existing implementation.
- Research and invest in a small cap emerging markets manager.
- Re-underwrite existing active strategies and develop bench managers across small cap and emerging markets.

#### **Equity Options Strategies**

Equity options strategies have a 7% allocation, an increase of 2% from FY 17-18. This exposure is implemented through a combination of enhanced and active strategies. Enhanced strategies typically focus on systematic improvements to the index construction. Active strategies typically utilize quantitative or fundamental analysis to minimize equity drawdown risk, capture the volatility risk premium, and improve the management of cash collateral.

*Key Initiatives:* Develop and implement a plan for increasing this allocation. Explore the efficacy of equity options strategies in international markets.

#### **Private Equity**

— The RSIC does not have a static target weight for private equity. Rather, the target allocation is determined to be equal

to the actual weight in the portfolio. In the absence of a fixed target, RSIC looks to allocate to private equity by seeking long-term relationships with the best-in-class managers expected to generate superior net of fees returns over time. Thus, the actual private equity allocation may vary over time, based on both the availability of attractive investment opportunities and the prevailing market conditions.

*Key Initiatives:* Continue to refine the quantitative approach in order to enhance understanding of the sources of value creation by managers.

## Real Assets

*The real assets allocation includes both the Portfolio's real estate and infrastructure investments. These assets have a tendency to benefit from a rising inflation environment. The long-term target allocation for the real assets allocation is 12% of the Portfolio, an increase of 2% over the prior fiscal year.*

### **Real Estate**

The RSIC does not have a static target weight for private real estate. Rather, as with private equity, the target allocation for real estate is determined to be equal to the actual weight in the portfolio. The actual real estate allocation is expected to continue to increase over time by 1% (a 2% increase to private strategies offset in part by a 1% reduction to REITs).

The real estate portfolio is divided into three main categories -- public, private core, and private non-core (which covers both value-add and opportunistic strategies) -- and encompasses both debt and equity real estate. The private core component has materially increased in size since the beginning of FY 15-16, but the portfolio continues to have a relatively heavy weighting to private non-core real estate, particularly opportunistic strategies.

The Investment Team will continue to strive to improve the balance between core and non-core strategies. A balanced core/non-core portfolio will be achieved over time through a continued emphasis on investments in core and core-plus strategies, with select, but limited, investments in non-core, value-add, and opportunistic strategies.

*Key Initiatives:* Begin to implement a plan to transition the portfolio to its new public and private market targets. Continue to pursue the objective of achieving a more balanced portfolio by identifying compelling equity and debt investments in core and core plus strategies.

### **Infrastructure**

The long-term target allocation for infrastructure is 3%, an increase of 1% over the prior year. This remains a nascent asset class for the Portfolio, with one dedicated infrastructure investment, a listed infrastructure mandate. Similar to real estate, the infrastructure allocation will, over time, consist of three components: public, private core infrastructure, and private non-core infrastructure.

*Key Initiatives:* Begin the build-out of the private infrastructure portions of the allocation.

## Opportunistic

*The opportunistic asset classes include global asset allocation, the subset of hedge funds that are not a part of the portable alpha implementation ("opportunistic hedge funds"), a component that can consider an array of other opportunistic and risk parity investments, and the portable alpha program. Under the new long-term asset allocation approved by the Commission, the FY 18-19 target allocation steps down from 12% to 8% (exclusive of portable alpha). Effective July 1, 2016,*

*the components of the opportunistic allocation (exclusive of portable alpha) were transitioned from a fixed policy target to a floating target reflecting the component's actual weight in the portfolio.*

### **Global Tactical Asset Allocation**

The long-term target allocation for global tactical asset allocation ("GTAA") is 7%, representing a decrease of 1% compared to the Commission's prior long-term target allocation. The current GTAA portfolio was reconstructed during FY 17-18 removing risk parity and other idiosyncratic strategies.

*Key Initiatives:* Monitor GTAA strategies closely, in order to help inform RSIC internal implementation of internal tactical asset allocation.

### **Opportunistic Hedge Funds (non-PA)**

The long-term target allocation for opportunistic hedge funds (hedge funds that have higher factor or beta exposures to traditional betas) will be eliminated in FY 18-19, as the culmination of a multi-year reduction.

*Key Initiatives:* Complete the wind-down of the opportunistic hedge funds and accelerate liquidity when available.

### **Other Opportunistic Strategies / Risk Parity**

The target allocation for other opportunistic strategies is 1%, a decrease of 2% from the prior year. The objective of this component is to identify investments that, while they may not fit into other asset classes, still offer compelling opportunities for the Portfolio. These investments may offer either high returns, diversifying returns, or both. Examples of potential investments include, but are not limited to, commodities, CTAs, TIPS, and insurance strategies. This allocation also includes risk parity investments.

*Key Initiatives:* Explore insurance-related structures and continue to identify other compelling opportunities for inclusion in this new allocation.

### **Portable Alpha**

The long-term expected allocation for portable alpha is 10%. Portable alpha is comprised of certain synthetic exposures (including equity and fixed income) and alpha strategies. The alpha strategies are expected to generate uncorrelated alpha while minimizing embedded market beta over time.

*Key Initiatives:* Evaluate additional lower-cost alternative beta strategies for potential inclusion in the alpha strategies portion of the portfolio. Continually monitor and recommend changes as appropriate to the alpha and beta portfolio.

## **Credit**

*The credit allocation consists of a group of asset classes that derive a significant share of their expected return from credit risk, as opposed to core fixed income, which derives return from interest rate duration and investment grade debt securities. Among the asset classes included in the credit allocation are high yield bonds and bank loans (mixed credit), emerging market debt, and private debt. The target allocation for the credit allocation is 15%, a decrease of 3% from the prior year.*

### **High Yield Bonds and Bank Loans (Mixed Credit)**

The long-term target allocation for this sub-asset class allocation is 4%, a decrease of 2% from the prior year. The Policy Benchmark for mixed credit incorporates equal amounts of high yield and bank loans. The mixed credit exposure is entirely actively managed. As the private debt allocation progresses toward its target weight, the mixed credit portfolio will decline toward its target weight.

*Key Initiatives:* Design and implement a plan for transitioning to the new long-term target allocation. Continue to monitor return versus risk trade-off between public and private credit, and the portfolio mix between secured and unsecured credit based on forecasted returns and market fundamentals.

### **Emerging Market Debt**

The long-term target allocation for emerging market debt is 4%, a decrease of 1% from the prior year. The Policy Benchmark for emerging market debt is an even blend of USD-denominated and local market debt securities. The portfolio uses a combination of active and passive strategies.

*Key Initiatives:* Develop a plan for reducing exposure. Monitor and adjust the exposures between local market and USD-denominated debt securities.

### **Private Debt**

The RSIC does not have a static target weight for private equity. Rather, the target allocation is determined to be equal to the actual weight in the portfolio. The Investment Team remains constructive on private debt due to the secular shift in the regulatory landscape for banks. Global banking regulations continue to curtail the aggregate lending activities of the banking sector, thereby creating opportunity for non-bank lenders. This creates meaningful opportunities for institutional investors to capture attractive returns. Staff will continue to focus on larger allocations to its highest conviction managers, with an emphasis on structures that capture lower fees and increase customization.

*Key Initiatives:* Develop a public and private credit dashboard to monitor changes in the credit markets and identify the most attractive opportunities. While senior lending strategies will remain a priority, develop strategy to maintain the flexibility to take advantage of credit market turbulence with distressed and special situations investments. Monitor regulatory changes and the potential impact on the future attractiveness of private debt strategies.

### **Rate Sensitive**

*The rate sensitive asset classes consist of the Portfolio's core fixed income, cash and short duration fixed income investments. The long-term target allocation for rate sensitive investments is 14% of the Portfolio, an increase of 1% over the temporary target in place during the concluding portion of FY 17-18, and a 2% increase over the Commission's prior long-term target allocation.*

### **Core Bonds**

The long-term target allocation for core bonds is 13%, an increase of 3% compared to last year. The core bonds allocation will include three main categories:

- nominal investment grade securities across several sectors, including sovereign, government-related (agency), corporate, and asset-backed securities (target allocation of 6%);
- Treasuries (target allocation of 5%); and
- TIPS (target allocation of 2%).

*Key Initiatives:* Implement a plan for transitioning to the new long-term target allocation. Continue to manage the balance between physical and synthetic exposure in the asset class while exploring opportunities for maximizing the return and/or diversification benefits that this asset class can provide.

### ***Cash and Short Duration Fixed Income***

The long-term target allocation for cash and short duration is 1%. This new target represents a decrease of 2% from the temporarily elevated allocation used during the second half of FY 17-18 to better manage the large outflows relating to the end of the TERI program, and a decrease of 1% compared to the Commission's prior long-term target allocation. This allocation includes both short duration and cash portfolios. The short duration portfolios encompass a range of strategies, including very conservative strategies as well as strategies that seek to generate higher returns. The short duration portfolios currently include a combination of internally managed and actively managed strategies.

*Key Initiatives:* Exposures will continue to be managed with a special emphasis on providing for the Plan's liquidity needs. While this need for liquidity is the primary objective, it is balanced to a limited extent with a desire to generate returns that exceed those of the benchmark.

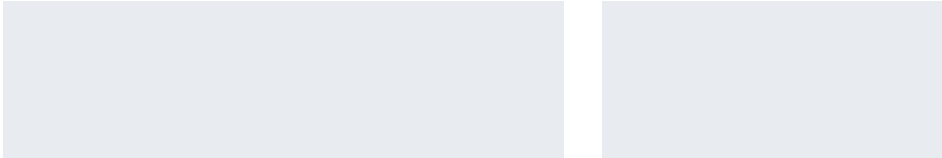
### **Securities Lending**

Even though it is not an asset class, the Investment Team pays specific attention to matters of securities lending. RSIC continues to employ very conservative investment guidelines within the program.

*Key Initiatives:*

- Work with the existing securities lending agent to improve reporting.
- Evaluate the impact of rising interest rates on the securities lending program.
- Consider different approaches to improve securities lending program income while maintaining the program's conservative investment guidelines.

**ATTACHMENT A – LONG-TERM ASSET ALLOCATION (EFFECTIVE 7/1/2018)**  
**[TO BE FINALIZED AFTER COMMISSION’S APRIL MEETING]**



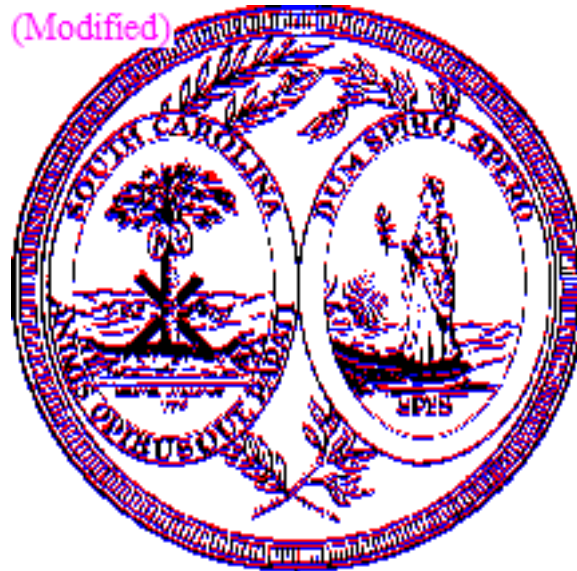
**ATTACHMENT B – BENCHMARKS (EFFECTIVE JULY 1, 2018)**

TBD (April Commission meeting)



**SOUTH CAROLINA RETIREMENT SYSTEM  
INVESTMENT COMMISSION**

**ANNUAL INVESTMENT PLAN  
FISCAL YEAR ~~2017~~-2018-2019**



as adopted by the Retirement System Investment Commission  
on ~~April 27, 2017~~ \_\_\_\_\_; effective on July 1, ~~2017~~2018

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## SECTION 1: OVERVIEW AND PURPOSE

### Overview

~~Annually, the~~ The Commission ~~adopts~~ maintains a Statement of Investment Objectives and Policies (“SIOPI”), which provides the objectives, policies, and guidelines for investing the assets of the South Carolina Retirement Systems (the “Portfolio”). The SIOPI provides the framework by which the RSIC, at the direction of the Chief Investment Officer (“CIO”), drafts a proposed Annual Investment Plan (“AIP”). South Carolina law requires the CIO to submit the proposed AIP to the Commission no later than April 1<sup>st</sup> of each year, and the Commission must adopt a final AIP no later than May 1<sup>st</sup> of each year for the following fiscal year which begins on July 1. The Commission may amend the AIP during the fiscal year as it deems appropriate.

### Purpose

~~The purpose of the AIP is to provide a formal document for investing and managing the Retirement System’s assets to achieve the Commission’s investment~~ Each year in the AIP, the CIO establishes the goals and initiatives that will guide the work and focus of the investment program for the subsequent fiscal year. These plans take into account the broad market outlook, the outlook for each individual asset class, and Portfolio-level objectives ~~and mission,~~ as stated in the SIOPI, ~~which is incorporated therein.~~ The relevant portion of the SIOPI may constitute parts of the AIP pursuant to Section 9-16-50(B). The Commission adopts the SIOPI, in its entirety, into the AIP, in accordance with Section ~~9-16-50~~ 9-16-50 (B) and to satisfy compliance with the requirements of Section ~~9-16-330~~ 9-16-330 (B).

## SECTION 2: STRATEGIC INITIATIVES

Each year Staff undertakes initiatives approved by the Investment Commission within the AIP with the goal of improving its investment, operational, and governance capabilities that will lead to more efficient and effective implementation of investment strategies and positively contribute to the financial health of the South Carolina Retirement System trust funds. These initiatives are interconnected and are often multi-year or ~~on-going~~ ongoing in nature, requiring collaboration across the organization.

~~Concerns about global growth, political uncertainty across the United States and Europe, and divergent monetary policy have left global short term interest rates low, the effectiveness of further monetary stimulus less impactful, and prospective returns on risky assets (equities, credit, real assets) below the actuarial assumed rate of return. While global economic indicators suggest an uptick in global growth and consumer confidence in the U.S., uncertainty remains as the U.S. embarks on a tightening of monetary stimulus in exchange for anticipated fiscal stimulus through lower taxes and government spending. Interest rates have increased and are forecasted to rise, while inflation expectations are beginning to move higher.~~ Several of the initiatives outlined herein are designed to help the Portfolio adapt to a multi-year period of forecasted lower returns with heightened volatility.

1. In addition to the asset class initiatives described below, the Investment Team will focus on the following key initiatives in support of the Commission’s goals and objectives as expressed in the SIOPI.
  - a. Challenging beliefs – Since the fall of 2015, the Investment Team has ~~been~~ periodically engaged in a process of challenging its investment beliefs. This process is designed to encourage rigorous debate over an array of important topics that relate to the investment program. Investment staff members are expected to present the most compelling arguments possible on one side of an issue, regardless of their actual belief. This process will continue for the foreseeable future and, as it unfolds, the Investment Team expects to develop and present additional portfolio recommendations reflecting these beliefs.
  - b. Implementation of the long-term asset allocation approved in February ~~2016 and modifications adopted in April 2017~~ 2018 – In February ~~2016~~ 2018, the Commission adopted ~~both a new~~ long-term target asset allocation ~~and a ‘glide path’ which is intended to provide an appropriate amount of time to transition the~~ as adopted on April 27, 2017 \_\_\_\_\_ : effective on

~~Portfolio-In~~

~~Retirement System Investment Commission~~

~~Annual Investment Plan (FY 2017-2018)~~

as adopted on ~~April 27, 2017~~ \_\_\_\_\_ ; effective on

~~April 2017, the Commission approved certain modifications to both the long-term asset allocation and glide path.~~  
 The Investment Team will ~~continue~~develop and execute a plan for implementing ~~the long-term~~this target asset allocation,~~as modified, with a goal of attaining the interim target allocations for FY 17-18 approved by the Commission.~~

c. Comprehensive review of implementation cost – The Investment Team, in conjunction with other RSIC units, will continue to examine the mix of structural and variable costs throughout the Portfolio and pursue opportunities like the co-investment initiative to improve the cost alignment of the investment program. Other elements of the review will include:

- e.i. Active/Enhanced/Passive Framework – The Investment Team will continue to strengthen its quantitative framework for ~~identifying the appropriate uses~~assessing the ideal use of active, enhanced, and passive strategies. The goal is to improve the cost-effectiveness ~~at~~of the ~~plan level~~investment program, when evaluated over a market

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cycle (five to seven years). Further work in this area will seek to understand the factors that contribute to the persistence of managers' ability to generate excess returns.

~~d. Risk Management — RSIC's Reporting team is responsible for the implementation of the investment risk system. During the fiscal year, the Reporting team will focus on the production of risk reporting for use by the Investment team, thereby supporting the strengthening of risk monitoring and management. This work will focus on the development of customized reporting elements, as well as for supporting improved communication with the Commission relating to risk.~~

ii. Pursuing opportunities to consolidate assets with high-conviction managers and to improve the cost of the investment program. In this effort, the Investment Team will continue to perform rigorous due diligence, including a robust assessment of value creation and return attribution.

d. Building out Investment Risk function – During the fiscal year, the Investment Team will focus on the development of new risk tools and reports for use by both the Investment team and the Commission.

e. ~~Rebalancing and~~ Tactical Asset Allocation (“TAA”) and Rebalancing – The Investment Team will continue to strengthen its ~~rebalancing and~~ TAA capabilities by enhancing the principles and decision-making framework for these functions. The Team will also evaluate potential changes to its rebalancing discipline.

~~f. Fee and expense review — The Investment Team, in conjunction with other RSIC units, will continue to examine the investment program's structural and variable costs, with a goal of identifying potential cost reduction opportunities.~~

f. Currency hedging evaluation – The Investment Team will assess the operational and portfolio impacts of hedging all or a portion of foreign currency risk.

g. Review of investment process – The Investment Team will conduct a comprehensive review of its procedures for evaluating potential investments.

2. The Operations ~~team~~Team will focus on the following key initiatives in order to provide the operational infrastructure to maintain the appropriate administrative, accounting, and data management services to support the investment, risk management, and reporting functions of the RSIC:

a. Assess the current state of the performance reporting ecosystem, evaluating RSIC's current initiatives and available systems to ensure the organization's reporting and analytics needs continue to be met.

b. Evaluate existing procedures and explore additional automation related to the recently acquired fully web-based version of our fixed income portfolio accounting.

c. Continue to enhance the information technology infrastructure to support RSIC's business needs.

d. Research and implement a Contact Management Solution to better capture investment manager contacts and RSIC ongoing due-diligence efforts.

3. The Legal Team will focus on the following key initiatives in order to assist the Investment Team in achieving its objectives, while maintaining a focus on identifying and minimizing legal risk to RSIC:

a. ~~Continued build out of the administrator platform~~Evaluate the existing contracting process in order to ~~enhance reporting and analytics capabilities~~improve efficiency and minimize risk.

b. Assess additional implementation options and legal structures to enhance RSIC's ability to achieve investment objectives in a prudent and cost-efficient manner.

as adopted on \_\_\_\_\_; effective on 07/01/2018

- b. ~~Research potential enhancements and/or replacements to the current Research Management solution.~~
- c. ~~Completion of RFP process for portfolio accounting system replacement and begin implementation/conversion.~~
- d. ~~Transition the investment risk platform from testing phase to production phase for Plan risk management.~~

### SECTION 3: ASSET CLASS INITIATIVES

#### Public Market Initiatives:

- Passive index menu – Explore the utility of having a multi-asset class passive (index) solutions provider.

~~Each year, every asset class leader lays out the goals and initiatives that will guide their work and focus for the subsequent fiscal year. These plans take into account the broad market outlook, the outlook for each individual asset class, and Portfolio level objectives, as stated in the SIOP. The plans for fiscal year 2017-2018 are outlined below.~~

~~The Investment Team will continue working to reduce its total number of relationships with investment managers. The goal of this process will be to consolidate assets with those managers in which the team has the highest conviction, and to improve the cost of the investment program. In order to achieve this, the Investment Team will focus on developing a robust assessment of the key value drivers for these strategies.~~

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- Intra-asset class rebalancing opportunities – Evaluate the merits of different rebalancing disciplines. This work will include analysis of changing the frequency and thresholds for rebalancing, as well as weighing the costs of these rebalancing protocols for different asset classes.
- Cultivate debate among managers with differing views – Create opportunities for external investment managers to share differing views with regard to regions, sectors, and asset classes, in order to help inform RSIC tactical asset allocation decisions.

#### Private Market Initiatives:

- Co-investment initiative – Following up on conclusions reached in a challenging convictions review, continue to evaluate the use of an external service provider to assist Staff in sourcing and/or underwriting co-investment opportunities, with the goal of implementing the program during FY 18-19.
- In order to broaden the experience of certain team members, identify opportunities where members of the private markets team can perform due diligence in multiple asset classes, as well as participate in other projects.

### Equity

*The equity asset classes are the Portfolio's investments that reflect an ownership of a business, and includes global public equity and private equity. The long-term target allocation to ~~the equity allocation is 49.51%~~ of the Portfolio, ~~and the FY 17-18 target allocation is 47%.~~ Broadly speaking, equities performed well in 2016 following a volatile start to 2016. The target allocation to equities will rise for FY 17-18, with the marginal increase coming from equity options strategies. The inclusion of these strategies reflects a desire to add equity exposure without taking the full risk of traditional equity market exposure. Furthermore, such strategies would be expected to provide superior returns (versus a traditional approach) in both low and negative return environments. a 4% increase over FY 17-18. Equities performed well in 2017 across the U.S., developed international and emerging markets.*

#### **Global Public Equity**

~~While the~~The long-term target allocation for global public equity is ~~40%, the FY 17-18 target allocation is 38.35%~~, an increase of 2% over ~~the~~ FY 16-17-18. The current global public equity implementation includes strategies that invest globally and those that focus on a specific region or thematic group (for example, the U.S. or emerging markets). Current implementation features a combination of passive, enhanced, and active mandates.

#### **Key Initiatives:** ~~Incorporating~~

- Implement a plan for transitioning towards the new sub-asset class targets for U.S. equity, developed market equity (non-U.S.), and emerging market equity specified in the long-term asset allocation.
- Incorporate enhancements to the passive/enhanced/active tools while researching strategies that improve the existing implementation.
- Research and invest in a small cap emerging markets manager.
- Re-underwrite existing active strategies and develop bench managers across small cap and emerging markets.

#### **~~Global Public Equity—Equity Options Strategies~~**

~~Of the 38%~~Equity options strategies have a 7% allocation, an increase of 2% from FY 17-18 ~~global public equity allocation, 5% is targeted for equity options strategies.~~ This exposure is implemented through a combination of enhanced and active strategies. Enhanced strategies will typically focus on systematic improvements to the index construction. Active strategies will typically utilize quantitative ~~and~~ or fundamental analysis to minimize equity drawdown risk, capture the volatility risk premium, and ~~improvements to~~ improve the management of cash collateral.

**Key Initiatives:** Develop and implement a plan for increasing this allocation. Explore the efficacy of equity options strategies as adopted on \_\_\_\_\_; effective on 07/01/2018



in international markets.

***Portable Alpha***

~~The long-term expected allocation for Portable Alpha is 10%, which is targeted to reach its 10% allocation in FY 17-18. Portable Alpha is comprised of certain synthetic exposures (which currently include equity, fixed income, and commodity exposures) and alpha strategies. The alpha strategies are expected to generate uncorrelated alpha while minimizing embedded market beta over time.~~

~~*Key Initiatives:* Evaluate lower-cost alternative beta strategies for potential inclusion in the alpha strategies portion of the portfolio. Continually monitor and recommend changes to the composition of the alpha and beta portfolio.~~

***Private Equity***

The RSIC does not have a static target weight for private equity. Rather, the target allocation is determined to be equal

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The private equity asset class transitioned from a fixed policy target of 9% to a floating target of to the actual weight in the portfolio. In the absence of a fixed target, RSIC looks to allocate to private equity by seeking long-term relationships with the best-in-class managers expected to generate superior ~~returns (net of fees)~~ returns over time. Thus, the actual private equity allocation may vary over time, based on both the availability of attractive investment opportunities and the prevailing market conditions.

~~Key Initiatives: Following up on conclusions reached in challenging convictions review, continue to evaluate use of an external service provider to assist Staff in sourcing and/or underwriting co-investment opportunities, with the goal of presenting recommendations to the Commission during 2017. Continue to explore ways in which quantitative tools and~~

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as adopted on April 27, 2017; effective on 07/01/2017

~~resources can be used to (i)~~ Key Initiatives: Continue to refine the quantitative approach in order to enhance Staff's understanding of [the sources of](#) value creation by managers ~~and (ii) assist Staff in the conduct of due diligence.~~

## Real Assets

The real assets ~~asset classes include~~ allocation includes both the Portfolio's real estate and infrastructure investments. These assets have a tendency to benefit from a rising inflation environment. The long-term target allocation for the real assets allocation is 11.12% of the Portfolio, ~~and the FY 17-18 target allocation is 10%~~ an increase of 2% over the prior fiscal year.

### **Real Estate**

~~The long-term target allocation for real estate is 8%, which includes 7% for private real estate and 1% for publicly-traded real estate (REITs). The FY 17-18 asset allocation plan identifies a 6% target for private market real estate and a 2% target for REITs. Effective July 1, 2016, the real estate component of the real assets allocation transitioned from a fixed policy target to a floating target designed to reflect the actual allocation to private real estate. The real estate portfolio is divided into three main strategies: core, value-add, and opportunistic, and encompasses both debt and equity real estate. The core component has materially increased in size since the beginning of FY 15-16, but the portfolio continues to have a heavy weighting to non-core real estate, particularly opportunistic strategies.~~

The RSIC does not have a static target weight for private real estate. Rather, as with private equity, the target allocation for real estate is determined to be equal to the actual weight in the portfolio. The actual real estate allocation is expected to continue to increase over time by 1% (a 2% increase to private strategies offset in part by a 1% reduction to REITs).

The real estate portfolio is divided into three main categories -- public, private core, and private non-core (which covers both value-add and opportunistic strategies) -- and encompasses both debt and equity real estate. The private core component has materially increased in size since the beginning of FY 15-16, but the portfolio continues to have a relatively heavy weighting to private non-core real estate, particularly opportunistic strategies.

The Investment Team will continue to strive to improve the balance between core and non-core strategies. A balanced core/non-core portfolio will be achieved over time through a continued emphasis on investments in core and core-plus ~~open-end commingled funds, fund-of-one accounts, and select~~ strategies, with select, but limited, investments in non-core, value-add, and opportunistic strategies.

*Key Initiatives:* Begin to implement a plan to transition the portfolio to its new public and private market targets. Continue to pursue the objective of achieving a more balanced portfolio by identifying compelling equity and debt investments in core and core plus strategies. ~~Evaluate the costs, benefits, risks, and overall feasibility of internally-managed core real estate.~~

### **Infrastructure**

The long-term target allocation for infrastructure is 3%, ~~while the FY 17-18 target allocation is 2% of plan assets~~ an increase of 1% over the prior year. This remains a nascent asset class for the Portfolio, with one dedicated infrastructure investment, a listed infrastructure mandate. Similar to real estate, the infrastructure allocation will, over time, consist of three components: public, private core infrastructure, and private non-core infrastructure.

*Key Initiatives:* ~~Review and reaffirm the multi-year investment plan for the asset class~~ Begin the build-out of the private infrastructure portions of the allocation.

## Opportunistic

*The opportunistic asset classes include global asset allocation, the subset of hedge funds that are not a part of the ~~Portable Alpha program~~ portable alpha implementation ("opportunistic hedge funds"), ~~and~~ a component that can consider an array of other opportunistic and risk parity investments. ~~The, and the portable alpha program. Under the new~~ long-term asset allocation approved by the Commission, the FY 18-19 target allocation ~~for the opportunistic allocation is 10%. Given the factors involved in transitioning the Portfolio to attain the long-term target allocation, the glide path in the asset allocation plan identifies a 13% target for the opportunistic allocation during the period July 1, 2017 through November 30, 2017, and 12% for the remainder of FY 17-18, a reduction from the prior fiscal year's target allocation of 17%~~ steps down from 12% to 8% (exclusive of portable alpha). Effective July 1, 2016,*

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*the components of the opportunistic allocation (exclusive of portable alpha) were transitioned from a fixed policy target to a floating target reflecting the component's actual weight in the portfolio.*

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### **Global Tactical Asset Allocation**

The long-term target allocation for global tactical asset allocation (“GAAGTAA”) is ~~8%~~. ~~The FY 17-18 target allocation is 8% during the period July 1, 2017 through November 30, 2017, and 7% during the remainder of FY 17-18, down from the prior fiscal year’s target allocation of 10%. The current GAA portfolio invests in three main categories: global tactical asset allocation strategies, 7%, representing a decrease of 1% compared to the Commission’s prior long-term target allocation. The current GTAA portfolio was reconstructed during FY 17-18 removing risk parity strategies, and other idiosyncratic strategies.~~

~~Key Initiatives: Perform broad manager search for GAA portfolio. Implement GAA Monitor GTAA strategies with an enhanced focus on closely, in order to help inform RSIC internal implementation of internal tactical asset allocation, with specific consideration paid to aligning the GAA portfolio with the overall Plan.~~

### **Opportunistic Hedge Funds (~~non-PA~~non-PA)**

The long-term target allocation for opportunistic hedge funds ~~will decline from 4% to 2% in FY 17-18. Hedge (hedge funds that have higher factor or beta exposures to traditional betas are classified as opportunistic hedge funds) will be eliminated in FY 18-19, as the culmination of a multi-year reduction.~~

~~Key Initiatives: Continue to monitor Complete the wind-down of the Opportunistic Hedge Funds opportunistic hedge funds and accelerate liquidity when available.~~

### **Other Opportunistic Strategies / Risk Parity**

The ~~long-term~~ target allocation for other opportunistic strategies is 1%, a decrease of 2%, ~~while the FY 17-18 target allocation is 3% from the prior year.~~ The objective of this component is to identify investments that, while they may not fit into other asset classes, still offer compelling opportunities for the Portfolio. These investments may offer either high returns, diversifying returns, or both. Examples of potential investments include, but are not limited to, commodities, CTAs, TIPS, and insurance strategies. This allocation also includes risk parity investments.

~~Key Initiatives: Explore insurance-related structures and recommend potential actions. Continue continue to identify other compelling opportunities for inclusion in this new asset class allocation.~~

### **Portable Alpha**

The long-term expected allocation for portable alpha is 10%. Portable alpha is comprised of certain synthetic exposures (including equity and fixed income) and alpha strategies. The alpha strategies are expected to generate uncorrelated alpha while minimizing embedded market beta over time.

Key Initiatives: Evaluate additional lower-cost alternative beta strategies for potential inclusion in the alpha strategies portion of the portfolio. Continually monitor and recommend changes as appropriate to the alpha and beta portfolio.

### **Diversified Credit**

The ~~diversified~~ credit allocation consists of a group of asset classes that derive a significant share of their expected return from credit risk, as opposed to core, fixed income, which derives return from interest rate duration and investment grade debt securities. Among the asset classes included in the ~~diversified~~ credit allocation are high yield bonds and bank loans (mixed credit), emerging market debt, and private debt. The target allocation for the ~~diversified~~ credit allocation is ~~18%~~ 15%, a decrease of 3% from the prior year.

*High Yield Bonds and Bank Loans (Mixed Credit)*

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The long-term target allocation for ~~mixed credit is 6%~~this sub-asset class allocation is 4%, a decrease of 2% from the prior year. The Policy Benchmark for mixed credit incorporates equal amounts of high yield and bank loans. The mixed credit exposure is entirely actively managed. As the private debt allocation progresses toward its target weight, the mixed credit portfolio will decline toward its target weight.

*Key Initiatives:* Design and implement a plan for transitioning to the new long-term target allocation. Continue to monitor return versus risk trade-off between public and private credit, and the portfolio mix between secured and unsecured credit based on forecasted returns and market fundamentals.

### ***Emerging Market Debt***

The long-term target allocation for emerging market debt is ~~54%~~, a decrease of 1% from the prior year. The Policy Benchmark for emerging market debt is an even blend of USD-denominated and local market debt securities. The portfolio uses a combination of active and passive strategies.



*Key Initiatives:* ~~Reassess the active and passive exposures already in place to ensure the most efficient implementation~~Develop a plan for reducing exposure. Monitor and adjust the exposures between local market and USD-denominated debt securities.

### **Private Debt**

The ~~private debt asset class transitioned from a fixed policy target of 7% to a floating target of~~RSIC does not have a static target weight for private equity. Rather, the target allocation is determined to be equal to the actual weight in the portfolio. The Investment Team remains constructive on private debt ~~as a result of~~due to the secular shift in the regulatory landscape for banks. Global banking regulations continue to curtail the aggregate lending activities of the banking sector, thereby creating opportunity for non-bank lenders. This creates meaningful opportunities for institutional investors to capture attractive returns. Staff will continue to focus on larger allocations to its highest conviction managers, with an emphasis on structures that capture lower fees and increase customization.

*Key Initiatives:* Develop a public and private credit dashboard to monitor changes in the credit markets and identify the most attractive opportunities. ~~Senior~~While senior lending strategies will remain a priority, ~~while also maintaining~~develop strategy to maintain the flexibility to take advantage of credit market turbulence with distressed and special situations investments. ~~Additionally, there will be a secondary focus on identifying niche private debt strategies. Expand the allowable range for Private Debt to account for recent capital commitments and the current compelling market opportunity offered by the private debt asset class.~~ Monitor regulatory changes and the potential impact on the future attractiveness of private debt strategies.

### **Conservative Fixed IncomeRate Sensitive**

The ~~conservative fixed income allocation is comprised~~rate sensitive asset classes consist of the Portfolio's core fixed income, cash and short duration fixed income investments. The long-term target allocation for ~~conservative fixed income~~rate sensitive investments is ~~12~~14% of the Portfolio, ~~but, as further described below, the allocation for conservative fixed income will be 12% from July 1, 2017 through November 30, 2017 and 13% for the remaining~~an increase of 1% over the temporary target in place during the concluding portion of FY 17-18, and a 2% increase over the Commission's prior long-term target allocation.

### **Core ~~Fixed Income~~Bonds**

The long-term target allocation for core bonds is 13%, an increase of 3% compared to last year. The core bonds allocation will include three main categories:

- ~~Both the long-term and FY 17-18 target allocations for core fixed income are 10%. The existing core fixed income portfolio includes~~ nominal investment grade securities across several sectors, including: ~~Treasuries/~~ sovereign, government-related (agency), corporate, and asset-backed securities- (target allocation of 6%);
- Treasuries (target allocation of 5%); and
  - TIPS (target allocation of 2%).

*Key Initiatives:* [Implement a plan for transitioning to the new long-term target allocation.](#) Continue to manage the balance between physical and synthetic exposure in the asset class while exploring opportunities for maximizing the return and/or diversification benefits that this asset class can provide.

#### ***Cash and Short Duration [Fixed Income](#)***

~~Due to the need to manage a short-term spike in benefit payments resulting from the termination~~[The long-term target allocation for cash and short duration is 1%. This new target represents a decrease of 2% from the temporarily elevated allocation used during the second half of FY 17-18 to better manage the large outflows relating to the end](#) of the TERI program, ~~the~~[and a decrease of 1% compared to the Commission's prior long-term](#) target allocation ~~to cash and short duration will be 2% during the period July 1, 2017 through November 30, 2017, and 3% for the remainder of FY 2017-18.~~ This allocation includes both short duration and cash portfolios. The short duration portfolios encompass a range of strategies, including very conservative strategies as well as strategies that seek to generate higher returns. The short duration portfolios currently include a combination of internally managed and actively managed strategies.

*Key Initiatives:* Exposures will continue to be managed with a special emphasis on providing for the Plan's liquidity needs, ~~which is expected to include approximately \$1.9 billion (net of contributions) for retiree benefit payments during FY 2017-18.~~ While this need for liquidity is the primary objective, it is balanced to a limited extent with a desire to generate returns that exceed those of the benchmark.

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## Securities Lending

~~Though~~Even though it is not an asset class, the Investment Team pays specific attention to matters of ~~Securities Lending (“SL”)~~securities lending. RSIC continues to employ very conservative investment guidelines within the ~~SL~~ program. ~~While the State Treasurer’s Office has traditionally coordinated the SL program on behalf of the RSIC, a change in State law effective July 1, 2017 placed full responsibility for monitoring and oversight of the SL program on the Commission.~~

~~Key Initiatives: Evaluation of the risks and benefits of increasing lending activities, as well as expanding reinvestment guidelines.~~

### Key Initiatives:

- Work with the existing securities lending agent to improve reporting.
- Evaluate the impact of rising interest rates on the securities lending program.
- Consider different approaches to improve securities lending program income while maintaining the program’s conservative investment guidelines.

## ATTACHMENT A – CURRENT STRATEGIC ASSET ALLOCATION

## ATTACHMENT A – LONG-TERM ASSET ALLOCATION (EFFECTIVE 7/1/2018)

Asset Class	FY17-18 (a)	FY17-18 Target Allocation (b%)	FY18-19	Policy Ranges (%)
<b>Equity Rate Sensitive</b>	4			42+/-52%
	7	47% <u>14</u>	49%	<u>10</u>
	%			
Global Equity	33%	33%	35%	20-36%
Private Equity	9%	9%	9%	6-14%
Equity Options Strategies	5%	5%	5%	0-6%
<b>Conservative Fixed Income</b>	12%	13%	12%	10-16%
	2		2	
Cash & <u>and</u> Short Duration	%	3% <u>1</u>	%	0- <u>7</u> %
	1		1	
Core <del>Bonds</del> <u>Fixed Income</u>	0	10% <u>13</u>	0	5+/-
	%		%	15% <u>7</u>
	1		1	
<b>Diversified Credit</b>	8	18% <u>15</u>	8	15+/-
	%		%	21% <u>5</u>
	6		6	
<del>Mixed Credit</del> <u>High Yield Bonds /</u>	%	6% <u>4</u>	%	2+/-8%
<u>Bank Loans</u>				<u>4</u>
	7		7	
Private Debt	%	7%	%	+/- 4-
	5		5	12%
Emerging <del>Markets</del> <u>Market</u>	%	5% <u>4</u>	%	3+/-7%
Debt				<u>2</u>
	1		1	
<b>Opportunistic Equities</b>	3	12% <u>51</u>	10%	9+8/-
	%			19% <u>20</u>
	8		8	
GAA <u>Global Public Equity</u>	%	7% <u>42</u>	8%	3+8/-
				12% <u>20</u>
	2		0	
Hedge Funds (non-PA) <u>Private</u>	%	2% <u>9</u>	%	0+/-8%
<u>Equity</u>				<u>4</u>
Other Opportunistic Strategies	3%	3%	2%	0-5%
	1		1	
<b>Real Assets</b>	0	10% <u>12</u>	1	8+/-
	%		%	14% <u>5</u>
	2		1	
Real Estate (REITs)	%	2% <u>9</u>	%	0+/-3%
				<u>4</u>
Real Estate (Private)	6%	6%	7%	4-12%
	2		3	
<del>World</del> Infrastructure	%	2% <u>3</u>	%	0+/-5%

as adopted on \_\_\_\_\_; effective on 07/01/2018

	%	%	<u>2</u>
	7		
	7		
	1		
<b>Starting Date</b> <u>Opportunistic*</u>	7	12/1/201	7/1/
	2	<u>78</u>	2018
	0		<u>7/1/2017+/-</u>
	1		<u>- 6**</u>
	7		
	1		
	1	6	
	7	7	
	3	3	
<b>Ending Date</b> <u>Tactical Asset</u>	3	0	
<u>Allocation</u>	0	6/30/201	6/30/20
	7	<u>87</u>	<u>19+/- 4</u>
	2	2	
	0	0	
	1	1	
	7	9	
<u>Other Opportunistic and Risk Parity</u>		<u>1</u>	<u>&lt; 3</u>

[\* Excluding portable alpha program's 10% allocation

\*\* Inclusive of portable alpha program]

ATTACHMENT B – BENCHMARKS (EFFECTIVE JULY 1, 2018)

TBD (April Commission meeting)

**ATTACHMENT B — CURRENT BENCHMARKS**

<b>Asset Class</b>	<b>Indices for Policy Benchmark</b>
<b>Equity</b>	
Global Equity	MSCI All-Country World Investable Market Index
Private Equity	80% Russell 3000/20% MSCI EAFE + 300 basis points on a 3-month lag
Equity Options Strategies	CBOE S&P 500 BuyWrite Index (BXM)
<b>Conservative Fixed Income</b>	
Cash & Short Duration	Merrill Lynch 3-Month T-Bills
Core Bonds	Barclays Aggregate Bond Index
<b>Diversified Credit</b>	
Mixed Credit	50% S&P LSTA Leveraged Loan Index/50% Barclays High Yield Index
Private Debt	S&P LSTA Leveraged Loan Index + 150 basis points on a 3-month lag
<b>Opportunistic</b>	
GAA	50% MSCI World Index/50% Barclays Aggregate Bond Index
Hedge Funds (non-PA)	50% MSCI World Index/50% Barclays Aggregate Bond Index
<b>Real Assets</b>	
Real Estate (REITs)	FTSE NAREIT Equity REITs Index
Real Estate (Private)	NCREIF ODCE Index + 75 basis points
World Infrastructure	

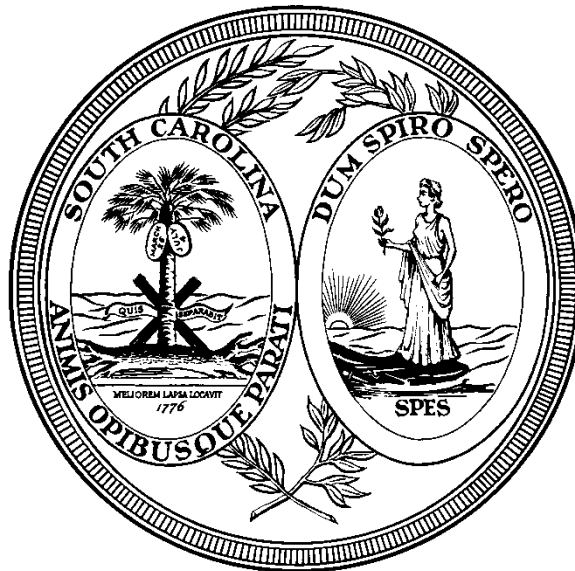




<b>Summary report:</b>	
<b>Litéra® Change-Pro TDC 10.1.0.300 Document comparison done on 3/16/2018 3:07:13 PM</b>	
<b>Style name:</b> Default Style	
<b>Intelligent Table Comparison:</b> Active	
<b>Original filename:</b> 2017-18-AIP.pdf	
<b>Modified filename:</b> Draft AIP (clean).pdf	
<b>Changes:</b>	
<u>Add</u>	255
<del>Delete</del>	241
<del>Move From</del>	0
<u>Move To</u>	0
<u>Table Insert</u>	2
<del>Table Delete</del>	39
<u>Table moves to</u>	0
<del>Table moves from</del>	0
Embedded Graphics (Visio, ChemDraw, Images etc.)	1
Embedded Excel	0
Format changes	0
<b>Total Changes:</b>	<b>538</b>

**SOUTH CAROLINA RETIREMENT SYSTEM  
INVESTMENT COMMISSION**

**ANNUAL INVESTMENT PLAN  
FISCAL YEAR 2018-2019**



as adopted by the Retirement System Investment Commission  
on \_\_\_\_\_; effective on July 1, 2018

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## SECTION 1: OVERVIEW AND PURPOSE

### Overview

The Commission maintains a Statement of Investment Objectives and Policies (“SIOP”), which provides the objectives, policies, and guidelines for investing the assets of the South Carolina Retirement Systems (the “Portfolio”). The SIOP provides the framework by which the RSIC, at the direction of the Chief Investment Officer (“CIO”), drafts a proposed Annual Investment Plan (“AIP”). South Carolina law requires the CIO to submit the proposed AIP to the Commission no later than April 1<sup>st</sup> of each year, and the Commission must adopt a final AIP no later than May 1<sup>st</sup> of each year for the following fiscal year which begins on July 1. The Commission may amend the AIP during the fiscal year as it deems appropriate.

### Purpose

Each year in the AIP, the CIO establishes the goals and initiatives that will guide the work and focus of the investment program for the subsequent fiscal year. These plans take into account the broad market outlook, the outlook for each individual asset class, and Portfolio-level objectives, as stated in the SIOP. The relevant portion of the SIOP may constitute parts of the AIP pursuant to Section 9-16-50(B). The Commission adopts the SIOP, in its entirety, into the AIP, in accordance with Section 9-16-50(B) and to satisfy compliance with the requirements of Section 9-16-330(B).

## SECTION 2: STRATEGIC INITIATIVES

Each year Staff undertakes initiatives approved by the Investment Commission within the AIP with the goal of improving its investment, operational, and governance capabilities that will lead to more efficient and effective implementation of investment strategies and positively contribute to the financial health of the South Carolina Retirement System trust funds. These initiatives are interconnected and are often multi-year or ongoing in nature, requiring collaboration across the organization. Several of the initiatives outlined herein are designed to help the Portfolio adapt to a multi-year period of forecasted lower returns with heightened volatility.

1. In addition to the asset class initiatives described below, the Investment Team will focus on the following key initiatives in support of the Commission’s goals and objectives as expressed in the SIOP.
  - a. Challenging beliefs – Since the fall of 2015, the Investment Team has periodically engaged in a process of challenging its investment beliefs. This process is designed to encourage rigorous debate over an array of important topics that relate to the investment program. Investment staff members are expected to present the most compelling arguments possible on one side of an issue, regardless of their actual belief. This process will continue for the foreseeable future and, as it unfolds, the Investment Team expects to develop and present additional portfolio recommendations reflecting these beliefs.
  - b. Implementation of the long-term asset allocation approved in February 2018 – In February 2018, the Commission adopted a new long-term target asset allocation. The Investment Team will develop and execute a plan for implementing this target asset allocation.
  - c. Comprehensive review of implementation cost – The Investment Team, in conjunction with other RSIC units, will continue to examine the mix of structural and variable costs throughout the Portfolio and pursue opportunities like the co-investment initiative to improve the cost alignment of the investment program. Other elements of the review will include:
    - i. Active/Enhanced/Passive Framework – The Investment Team will continue to strengthen its quantitative framework for assessing the ideal use of active, enhanced, and passive strategies. The goal is to improve the cost-effectiveness of the investment program, when evaluated over a market

cycle (five to seven years). Further work in this area will seek to understand the factors that contribute to the persistence of managers' ability to generate excess returns.

- ii. Pursuing opportunities to consolidate assets with high-conviction managers and to improve the cost of the investment program. In this effort, the Investment Team will continue to perform rigorous due diligence, including a robust assessment of value creation and return attribution.
  - d. Building out Investment Risk function – During the fiscal year, the Investment Team will focus on the development of new risk tools and reports for use by both the Investment team and the Commission.
  - e. Tactical Asset Allocation (“TAA”) and Rebalancing – The Investment Team will continue to strengthen its TAA capabilities by enhancing the principles and decision-making framework for these functions. The Team will also evaluate potential changes to its rebalancing discipline.
  - f. Currency hedging evaluation – The Investment Team will assess the operational and portfolio impacts of hedging all or a portion of foreign currency risk.
  - g. Review of investment process – The Investment Team will conduct a comprehensive review of its procedures for evaluating potential investments.
2. The Operations Team will focus on the following key initiatives in order to provide the operational infrastructure to maintain the appropriate administrative, accounting, and data management services to support the investment, risk management, and reporting functions of the RSIC:
- a. Assess the current state of the performance reporting ecosystem, evaluating RSIC’s current initiatives and available systems to ensure the organization’s reporting and analytics needs continue to be met.
  - b. Evaluate existing procedures and explore additional automation related to the recently acquired fully web-based version of our fixed income portfolio accounting.
  - c. Continue to enhance the information technology infrastructure to support RSIC’s business needs.
  - d. Research and implement a Contact Management Solution to better capture investment manager contacts and RSIC ongoing due-diligence efforts.
3. The Legal Team will focus on the following key initiatives in order to assist the Investment Team in achieving its objectives, while maintaining a focus on identifying and minimizing legal risk to RSIC:
- a. Evaluate the existing contracting process in order to improve efficiency and minimize risk.
  - b. Assess additional implementation options and legal structures to enhance RSIC’s ability to achieve investment objectives in a prudent and cost-efficient manner.

### **SECTION 3: ASSET CLASS INITIATIVES**

#### Public Market Initiatives:

- Passive index menu – Explore the utility of having a multi-asset class passive (index) solutions provider.

- Intra-asset class rebalancing opportunities – Evaluate the merits of different rebalancing disciplines. This work will include analysis of changing the frequency and thresholds for rebalancing, as well as weighing the costs of these rebalancing protocols for different asset classes.
- Cultivate debate among managers with differing views – Create opportunities for external investment managers to share differing views with regard to regions, sectors, and asset classes, in order to help inform RSIC tactical asset allocation decisions.

#### Private Market Initiatives:

- Co-investment initiative – Following up on conclusions reached in a challenging convictions review, continue to evaluate the use of an external service provider to assist Staff in sourcing and/or underwriting co-investment opportunities, with the goal of implementing the program during FY 18-19.
- In order to broaden the experience of certain team members, identify opportunities where members of the private markets team can perform due diligence in multiple asset classes, as well as participate in other projects.

### Equity

*The equity asset classes are the Portfolio's investments that reflect an ownership of a business, and includes global public equity and private equity. The long-term target allocation to equity is 51% of the Portfolio, a 4% increase over FY 17-18. Equities performed well in 2017 across the U.S., developed international and emerging markets.*

#### **Global Public Equity**

The long-term target allocation for global public equity is 35%, an increase of 2% over FY 17-18. The current global public equity implementation includes strategies that invest globally and those that focus on a specific region or thematic group (for example, the U.S. or emerging markets). Current implementation features a combination of passive, enhanced, and active mandates.

#### *Key Initiatives:*

- Implement a plan for transitioning towards the new sub-asset class targets for U.S. equity, developed market equity (non-U.S.), and emerging market equity specified in the long-term asset allocation.
- Incorporate enhancements to the passive/enhanced/active tools while researching strategies that improve the existing implementation.
- Research and invest in a small cap emerging markets manager.
- Re-underwrite existing active strategies and develop bench managers across small cap and emerging markets.

#### **Equity Options Strategies**

Equity options strategies have a 7% allocation, an increase of 2% from FY 17-18. This exposure is implemented through a combination of enhanced and active strategies. Enhanced strategies typically focus on systematic improvements to the index construction. Active strategies typically utilize quantitative or fundamental analysis to minimize equity drawdown risk, capture the volatility risk premium, and improve the management of cash collateral.

*Key Initiatives:* Develop and implement a plan for increasing this allocation. Explore the efficacy of equity options strategies in international markets.

#### **Private Equity**

The RSIC does not have a static target weight for private equity. Rather, the target allocation is determined to be equal

to the actual weight in the portfolio. In the absence of a fixed target, RSIC looks to allocate to private equity by seeking long-term relationships with the best-in-class managers expected to generate superior net of fees returns over time. Thus, the actual private equity allocation may vary over time, based on both the availability of attractive investment opportunities and the prevailing market conditions.

*Key Initiatives:* Continue to refine the quantitative approach in order to enhance understanding of the sources of value creation by managers.

### Real Assets

*The real assets allocation includes both the Portfolio's real estate and infrastructure investments. These assets have a tendency to benefit from a rising inflation environment. The long-term target allocation for the real assets allocation is 12% of the Portfolio, an increase of 2% over the prior fiscal year.*

#### **Real Estate**

The RSIC does not have a static target weight for private real estate. Rather, as with private equity, the target allocation for real estate is determined to be equal to the actual weight in the portfolio. The actual real estate allocation is expected to continue to increase over time by 1% (a 2% increase to private strategies offset in part by a 1% reduction to REITs).

The real estate portfolio is divided into three main categories -- public, private core, and private non-core (which covers both value-add and opportunistic strategies) -- and encompasses both debt and equity real estate. The private core component has materially increased in size since the beginning of FY 15-16, but the portfolio continues to have a relatively heavy weighting to private non-core real estate, particularly opportunistic strategies.

The Investment Team will continue to strive to improve the balance between core and non-core strategies. A balanced core/non-core portfolio will be achieved over time through a continued emphasis on investments in core and core-plus strategies, with select, but limited, investments in non-core, value-add, and opportunistic strategies.

*Key Initiatives:* Begin to implement a plan to transition the portfolio to its new public and private market targets. Continue to pursue the objective of achieving a more balanced portfolio by identifying compelling equity and debt investments in core and core plus strategies.

#### **Infrastructure**

The long-term target allocation for infrastructure is 3%, an increase of 1% over the prior year. This remains a nascent asset class for the Portfolio, with one dedicated infrastructure investment, a listed infrastructure mandate. Similar to real estate, the infrastructure allocation will, over time, consist of three components: public, private core infrastructure, and private non-core infrastructure.

*Key Initiatives:* Begin the build-out of the private infrastructure portions of the allocation.

### Opportunistic

*The opportunistic asset classes include global asset allocation, the subset of hedge funds that are not a part of the portable alpha implementation ("opportunistic hedge funds"), a component that can consider an array of other opportunistic and risk parity investments, and the portable alpha program. Under the new long-term asset allocation approved by the Commission, the FY 18-19 target allocation steps down from 12% to 8% (exclusive of portable alpha). Effective July 1, 2016,*

*the components of the opportunistic allocation (exclusive of portable alpha) were transitioned from a fixed policy target to a floating target reflecting the component's actual weight in the portfolio.*

### **Global Tactical Asset Allocation**

The long-term target allocation for global tactical asset allocation ("GTAA") is 7%, representing a decrease of 1% compared to the Commission's prior long-term target allocation. The current GTAA portfolio was reconstructed during FY 17-18 removing risk parity and other idiosyncratic strategies.

*Key Initiatives:* Monitor GTAA strategies closely, in order to help inform RSIC internal implementation of internal tactical asset allocation.

### **Opportunistic Hedge Funds (non-PA)**

The long-term target allocation for opportunistic hedge funds (hedge funds that have higher factor or beta exposures to traditional betas) will be eliminated in FY 18-19, as the culmination of a multi-year reduction.

*Key Initiatives:* Complete the wind-down of the opportunistic hedge funds and accelerate liquidity when available.

### **Other Opportunistic Strategies / Risk Parity**

The target allocation for other opportunistic strategies is 1%, a decrease of 2% from the prior year. The objective of this component is to identify investments that, while they may not fit into other asset classes, still offer compelling opportunities for the Portfolio. These investments may offer either high returns, diversifying returns, or both. Examples of potential investments include, but are not limited to, commodities, CTAs, TIPS, and insurance strategies. This allocation also includes risk parity investments.

*Key Initiatives:* Explore insurance-related structures and continue to identify other compelling opportunities for inclusion in this new allocation.

### **Portable Alpha**

The long-term expected allocation for portable alpha is 10%. Portable alpha is comprised of certain synthetic exposures (including equity and fixed income) and alpha strategies. The alpha strategies are expected to generate uncorrelated alpha while minimizing embedded market beta over time.

*Key Initiatives:* Evaluate additional lower-cost alternative beta strategies for potential inclusion in the alpha strategies portion of the portfolio. Continually monitor and recommend changes as appropriate to the alpha and beta portfolio.

## **Credit**

*The credit allocation consists of a group of asset classes that derive a significant share of their expected return from credit risk, as opposed to core fixed income, which derives return from interest rate duration and investment grade debt securities. Among the asset classes included in the credit allocation are high yield bonds and bank loans (mixed credit), emerging market debt, and private debt. The target allocation for the credit allocation is 15%, a decrease of 3% from the prior year.*

### **High Yield Bonds and Bank Loans (Mixed Credit)**



The long-term target allocation for this sub-asset class allocation is 4%, a decrease of 2% from the prior year. The Policy Benchmark for mixed credit incorporates equal amounts of high yield and bank loans. The mixed credit exposure is entirely actively managed. As the private debt allocation progresses toward its target weight, the mixed credit portfolio will decline toward its target weight.

*Key Initiatives:* Design and implement a plan for transitioning to the new long-term target allocation. Continue to monitor return versus risk trade-off between public and private credit, and the portfolio mix between secured and unsecured credit based on forecasted returns and market fundamentals.

### **Emerging Market Debt**

The long-term target allocation for emerging market debt is 4%, a decrease of 1% from the prior year. The Policy Benchmark for emerging market debt is an even blend of USD-denominated and local market debt securities. The portfolio uses a combination of active and passive strategies.

*Key Initiatives:* Develop a plan for reducing exposure. Monitor and adjust the exposures between local market and USD-denominated debt securities.

### **Private Debt**

The RSIC does not have a static target weight for private equity. Rather, the target allocation is determined to be equal to the actual weight in the portfolio. The Investment Team remains constructive on private debt due to the secular shift in the regulatory landscape for banks. Global banking regulations continue to curtail the aggregate lending activities of the banking sector, thereby creating opportunity for non-bank lenders. This creates meaningful opportunities for institutional investors to capture attractive returns. Staff will continue to focus on larger allocations to its highest conviction managers, with an emphasis on structures that capture lower fees and increase customization.

*Key Initiatives:* Develop a public and private credit dashboard to monitor changes in the credit markets and identify the most attractive opportunities. While senior lending strategies will remain a priority, develop strategy to maintain the flexibility to take advantage of credit market turbulence with distressed and special situations investments. Monitor regulatory changes and the potential impact on the future attractiveness of private debt strategies.

## **Rate Sensitive**

*The rate sensitive asset classes consist of the Portfolio's core fixed income, cash and short duration fixed income investments. The long-term target allocation for rate sensitive investments is 14% of the Portfolio, an increase of 1% over the temporary target in place during the concluding portion of FY 17-18, and a 2% increase over the Commission's prior long-term target allocation.*

### **Core Bonds**

The long-term target allocation for core bonds is 13%, an increase of 3% compared to last year. The core bonds allocation will include three main categories:

- nominal investment grade securities across several sectors, including sovereign, government-related (agency), corporate, and asset-backed securities (target allocation of 6%);
- Treasuries (target allocation of 5%); and
- TIPS (target allocation of 2%).

*Key Initiatives:* Implement a plan for transitioning to the new long-term target allocation. Continue to manage the balance between physical and synthetic exposure in the asset class while exploring opportunities for maximizing the return and/or diversification benefits that this asset class can provide.

### ***Cash and Short Duration Fixed Income***

The long-term target allocation for cash and short duration is 1%. This new target represents a decrease of 2% from the temporarily elevated allocation used during the second half of FY 17-18 to better manage the large outflows relating to the end of the TERI program, and a decrease of 1% compared to the Commission's prior long-term target allocation. This allocation includes both short duration and cash portfolios. The short duration portfolios encompass a range of strategies, including very conservative strategies as well as strategies that seek to generate higher returns. The short duration portfolios currently include a combination of internally managed and actively managed strategies.

*Key Initiatives:* Exposures will continue to be managed with a special emphasis on providing for the Plan's liquidity needs. While this need for liquidity is the primary objective, it is balanced to a limited extent with a desire to generate returns that exceed those of the benchmark.

### **Securities Lending**

Even though it is not an asset class, the Investment Team pays specific attention to matters of securities lending. RSIC continues to employ very conservative investment guidelines within the program.

*Key Initiatives:*

- Work with the existing securities lending agent to improve reporting.
- Evaluate the impact of rising interest rates on the securities lending program.
- Consider different approaches to improve securities lending program income while maintaining the program's conservative investment guidelines.

## ATTACHMENT A – LONG-TERM ASSET ALLOCATION (EFFECTIVE 7/1/2018)

Asset Class	Target Allocation (%)	Ranges (%)
<b>Rate Sensitive</b>	<b>14</b>	<b>+/- 10</b>
Cash and Short Duration	1	< 7
Core Fixed Income	13	+/- 7
<b>Credit</b>	<b>15</b>	<b>+/- 5</b>
High Yield Bonds / Bank Loans	4	+/- 4
Private Debt	7	+/- 4
Emerging Market Debt	4	+/- 2
<b>Equities</b>	<b>51</b>	<b>+8 /-20</b>
Global Public Equity	42	+8 /-20
Private Equity	9	+/- 4
<b>Real Assets</b>	<b>12</b>	<b>+/- 5</b>
Real Estate	9	+/- 4
Infrastructure	3	+/- 2
<b>Opportunistic*</b>	<b>8</b>	<b>+/- 6**</b>
Tactical Asset Allocation	7	+/- 4
Other Opportunistic and Risk Parity	1	< 3

[\* Excluding portable alpha program's 10% allocation

\*\* Inclusive of portable alpha program]

**ATTACHMENT B – BENCHMARKS (EFFECTIVE JULY 1, 2018)**

TBD (April Commission meeting)

# Digital Colony Partners

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Derek Connor, CFA, CAIA

Chris Alexander

- Closed commitment to Digital Colony Partners of \$125 million
- Digital Bridge has partnered with Colony NorthStar to form Digital Colony
- Digital Colony seeks to take advantage of this opportunity by focusing on four mobile and internet infrastructure sectors:
  - Macro Towers, Small Cell/Distributed Antenna Systems (DAS), Datacenters, and Fiber
- The global increase in data creation, traffic, and storage should continue to drive demand for digital infrastructure assets

# Private Equity Portfolio Fit

- The risk/return profile of these assets is well-suited for the RSIC PE portfolio
  - Strategy will use a private equity, buy and build playbook
- Essential nature of the assets provides downside protection
  - Recurring revenue models
  - Long-duration, investment-grade customer leases
  - Solid cash flow generation
- Provides diversification to the private equity portfolio
  - Private equity returns correlated to global equity markets
  - Digital Colony returns will be tied to growth in mobile data and cloud computing

# Investment Rationale

1. Macro Environment
2. The Investment Team
3. Deal Sourcing Capabilities
4. Buy and Build Strategy



# Investment Considerations

1. First time fund
2. Large fund size: \$3B (\$4.3B hard cap)
3. Key man risk
4. Potential for conflicts with Digital Bridge

# Investment Overview

- Closed commitment to Digital Colony Partners of \$125 million
  - Additional allocation contemplated for co-investment vehicle
  - RSIC has representation on the Investor Advisory Committee
- Fund Size: \$3B (\$4.3B hard cap)
- Management Fee:
  - 1.35% on committed during 4-year investment period; on invested capital thereafter
  - 15% first close discount for year one of investment period
- Preferred Return: 8%
  - 20% carried interest
- Fund Term:
  - Ten years with two additional one-year extensions with Investor Advisory Committee approval