

WILLIAM (BILL) H. HANCOCK, CPA
CHAIR

PEGGY G. BOYKIN, CPA
COMMISSIONER

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

EDWARD N. GIOBBE, MBA
COMMISSIONER



RETIREMENT SYSTEM INVESTMENT COMMISSION

RONALD P. WILDER, PH. D
VICE-CHAIR ¹

ALLEN R. GILLESPIE, CFA
COMMISSIONER

REBECCA M. GUNNLAUGSSON, PH. D
COMMISSIONER

REYNOLDS WILLIAMS, JD, CFP
COMMISSIONER

Commission Meeting Agenda

Thursday, September 10, 2020 at 9:30 a.m.

MEETING PARTICIPANTS WILL APPEAR VIA TELECONFERENCE

Teleconference Streaming Via RSIC.SC.GOV

RSIC Presentation Center Open for Public Access to Teleconference

- I. Call to Order and Consent Agenda
 - A. Adoption of Proposed Agenda
 - B. Approval of June 2020 Minutes
- II. Committee Reports
- III. Chair's Report
 - A. Commissioner Committee Selection
- IV. CEO's Report
 - A. Annual Budget Recommendation
- V. CIO's Report
 - A. Investment Performance – Fiscal Year Review
- VI. Strategic Investment Topic Presentation – End Point Bias
- VII. Fiduciary Training (K&L Gates)
- VIII. Delegated Investment Report
- IX. Executive Session to discuss investment matters pursuant to S.C. Code Sections 9-16-80 and 9-16-320; to discuss personnel matters pursuant to S.C. Code Ann. Section 30-4-70(a)(1); and to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2).
- X. Potential Actions Resulting from Executive Session
- XI. Adjourn

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.

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

**June 4, 2020 9:30 a.m.
Capitol Center
1201 Main Street, 15th Floor
Columbia, South Carolina 29201
Meeting Location: Video Presentation**

Commissioners Present:

Dr. Ronald Wilder, Chair
Dr. Rebecca Gunnlaugsson, Vice Chair
Ms. Peggy Boykin, PEBA Executive Director
Mr. Allen Gillespie
Mr. Edward Giobbe
Mr. Reynolds Williams
Mr. William H. Hancock
Mr. William J. Condon, Jr.

I. CALL TO ORDER AND CONSENT AGENDA

Chair Dr. Ronald Wilder 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. Mr. Allen Gillespie seconded the motion, which was approved unanimously.

Mr. Michael Hitchcock, Chief Executive Officer noted that he had received additional comments regarding the draft April 2020 Commission Meeting Minutes that had been posted for review prior to the Commission meeting from Mr. William Condon and that they would be incorporated into the final Minutes if that was the desire of the Commission. The Chair asked Mr. Condon if he would summarize the nature of the additions to the Minutes. Mr. Condon stated that the first addition related to page 3 of the draft April Minutes as to the discussion of the Statement of Investment Objective Policies (“SIOP”) that was approved. He explained that he wanted several additional sentences that gave detail about his comments, and secondly he wanted the word “questions” on page 3 changed to “comments”. Mr. Hitchcock stated that the comments were consistent with points Mr. Condon raised during the discussion at the April meeting. The Chair asked the Commissioners if they had any objections. Dr. Rebecca Gunnlaugsson stated that she did not have any objections but would like to know exactly would be added. Mr. Hitchcock read the proposed comments into the record. There being no further questions or discussions, the Chair noted that the April Minutes would include the proposed additions. The Chair asked for a vote on the March Minutes, which was unanimously approved. The Chair then asked for a vote on the April Minutes, as amended, which was unanimously approved.

II. CHAIR'S REPORT

The Chair stated that nominations for the Commission Chair and Vice- Chair for the term of 2020 to 2022 were discussed at the April Meeting. Mr. William Hancock was nominated for the position of Chair and Dr. Wilder was nominated for the position of Vice-Chair. The Chair asked for any further nominations, none being heard, the Chair read the motion to elect Mr. Hancock to serve as Commission Chair, and Dr. Wilder to serve as Commission Vice-Chair, for the term commencing on July 1, 2020 and ending June 30, 2022. The motion passed unanimously.

The Chair thanked the Commissioners for their cooperation and thanked Dr. Gunnlaugsson for her assistance. He also thanked Mr. Hitchcock for his support. Mr. Hancock echoed the sentiments of the Chair.

III. CEO's REPORT

The Chair recognized Mr. Hitchcock for the CEO's Report. Mr. Hitchcock thanked the Chair and stated that, since the last meeting, the COVID crisis has continued to shape how RSIC Staff ("Staff") work. He said that Staff have risen to the challenge during the recent significant market turbulence. He also stated that Staff continues to amaze him with the work that has been uninterrupted, and Staff is able to continue to operate in the best interests of the beneficiaries.

Mr. Hitchcock gave an update on RSIC's budget. He explained that the pandemic caused a shutdown of the State's economy, which will impact the State's finances going forward. The General Assembly passed a continuing resolution to permit government to continue to operate past July 1, 2020 and carry forward appropriations from the prior year until the General Assembly passes a full budget. Mr. Hitchcock noted that RSIC only expends Trust funds, not general funds, and that RSIC did not request an increase in its budget this fiscal year. Therefore, the General Assembly's budget decisions do not impact RSIC in the same way as other state agencies. He stated that there was a freeze on the employer contribution amount into the Trust. Instead of a one percent increase that was scheduled for July 1, 2020, the increase will be put on hold by the continuing resolution. Mr. Hitchcock stated that the General Assembly may incorporate a freeze into the budget for the full fiscal year and then resume escalating increases in the next fiscal year. Mr. Giobbe asked about the differences in the Trust funds versus the General Funds. Mr. Hitchcock explained that RSIC will expend Trust funds in the following amounts: 55 percent for salaries and 40 percent towards operating expenses. He stated that he would send Mr. Giobbe the budget presentation.

There being no further questions or comments, this concluded Mr. Hitchcock's presentation.

IV. CIO's REPORT

The Chair recognized Mr. Geoff Berg, Chief Investment Officer, for his report. Mr. Berg stated that in light of the turmoil in the first quarter, he would spend a few minutes discussing some of the economic and market impacts of COVID-19, provide a brief update on steps that have been taken to simplify the portfolio in alignment with the asset allocation simplification framework that was approved at the last meeting, and review the Plan's performance. Mr. Hitchcock echoed Mr. Berg's introductory comments, reiterating that the changes to be discussed by Mr. Berg had been made to align the portfolio with the five asset class plan adopted at the last meeting, not in response to current market conditions.

Mr. Berg outlined the array of economic, market, health, and workplace challenges which RSIC faced during the first quarter. He stated that RSIC had remained focused on managing the Plan's liquidity position to avoid becoming a forced seller of assets, and noted that RSIC maintained its key risk exposures by rebalancing at the end of March, which permitted the Plan to more fully participate in the markets' recovery.

Mr. Berg reminded the Commission that at the end of April, the Commission adopted a simpler policy allocation that would formally take effect in July 2020. He stated that RSIC was well on the way to implementing most of the necessary changes, but would likely be more methodical as it related to some of the credit exposures, waiting until spreads reached more acceptable levels.

Mr. Berg reviewed the impacts of the economic downturn in different areas of the economy, including job losses, industrial production, and impacts on various sectors. He explained that the industries with the greatest losses were leisure and hospitality, healthcare and education services, professional and business services, retail, and manufacturing.

He noted that the percentage of lower income households which had experienced employment income decreases was greater than higher income households. Mr. Berg noted that this is important to South Carolina because one-third of jobs in South Carolina were in sectors hardest hit by the pandemic.

Mr. Berg then gave the Commission an overview of the impacts of COVID-19 on consumption patterns, housing, commercial real estate, and other markets, including energy.

Performance Update

Mr. Berg provided a performance update. He noted that during the quarter, the Plan was down approximately 15 percent, resulting in the fiscal year-to-date return being down nearly 11 percent, compared to the Policy Benchmark's negative 12 percent return for the quarter and negative 7 percent return fiscal year to date. He also stated that during the nine months of the current fiscal year, \$3.1 billion in benefits had been paid, compared to

\$2.7 billion of deposits into the Plan, and the investment performance had been meaningfully negative in dollar terms thus far.

He then provided detail of the performance on an asset class by asset class basis, pointing out that three months ago the performance had been overwhelmingly positive, but the magnitude of decline across many markets had pulled down returns.

Mr. Berg informed the Board that, for SIOP compliance purposes, the Plan's private market exposure at March 31, 2020 had exceeded the upper end of its range. He explained that this resulted from the overall decline in the Plan value, which had caused private markets assets to total 26 percent of total Plan value. He noted that this had likely reversed in the ensuing weeks, as markets had rebounded considerably since the end of March.

Mr. Berg reiterated that this had been a very difficult quarter for the Plan across the board, but he noted that he had seen early evidence of the benefit of the simple Policy portfolio that the Commission adopted in April, noting that the simple Policy portfolio outperformed the current Policy portfolio by a wide margin, both in the first quarter (3.2 percent) and fiscal year to date (3.1 percent).

Mr. Berg provided an overview of the actions that RSIC had taken over the last few months to transition the Portfolio to the simplified framework. He stated that Staff had taken a number of actions including: moving the public equity portfolio into "passive" investments; further reducing the Plan's liquidity risk by increasing passive core bond exposure in the overlay; reducing most off-benchmark exposures where it did not involve crystalizing meaningful losses; and determining spread levels at which certain of the remaining off-benchmark credit exposures would be reduced.

Mr. Berg noted that these changes are expected to reduce cost by more than \$40 million annually.

He indicated that the private equity and private debt benchmarks are lagged by three months, so that as of March 31, these benchmarks had not yet been adjusted to reflect impacts from the COVID-19 pandemic. He explained that in the quarter ending June 30, these benchmarks could be expected to pull down the total Plan policy benchmark return by about 2.4 percent because of how the benchmarks are constructed.

Mr. Berg reviewed the most notable performance impacts versus policy for the quarter ended March 31. At the start of the quarter, core bonds were four percent underweight, which detracted from returns by 60 basis points. The GAA and Portable Alpha managers had a challenging quarter and their underperformance detracted from overall performance by a combined 130 basis points. In the Other Opportunistic portfolio, exposure to Master Limited Partnerships ("MLPs") detracted from returns by almost 40 basis points. Mr. Berg noted that the Plan had a strong relative performance in real assets portfolios (adding 41 basis points), as well as strong relative performance in equity options and public equity portfolios (adding 51 basis points).

He then turned the discussion to the performance framework. He stated that as a result of the severity of the downturn, each of the benchmarks, as well as our portfolio, had turned negative for most time periods. He noted that the Policy Benchmark had outperformed the

Reference Portfolio, while the Implementation Benchmark had lagged the Policy Benchmark.

Mr. Berg then reviewed the portfolio structure, which reveals the impact of two decisions: (1) the decision to overweight or underweight an asset class, and (2) the decision to make an asset class look different than its benchmark. For the quarter, there was a small underweight to equity options which had aided performance. Other decisions detracted from Plan performance: the Plan was slightly overweight in public equity; an underweight in the high-performing core fixed income asset class detracted from returns; portable alpha's hedge fund benchmarks were down materially in the quarter; and the Other Opportunistic portfolio's performance was negatively impacted by its small exposure to MLPs.

The next subject Mr. Berg addressed was quarterly attribution from manager selection. He noted that results were mixed. On the positive side, the Plan saw strong performance in Real Assets and Equity Options relative to the benchmark, while Mr. Berg noted that some small hedges in the overlay had served as a bit of a buffer to overall performance. On the negative side, Mr. Berg indicated that the GTAA portfolio had a very disappointing quarter and noted that RSIC continued to see disappointing performance from certain legacy private debt investments.

Plan exposure changes since December 31, 2019 were reviewed. Mr. Berg noted that the Bonds portfolio's active weight declined by three percent, but noted that this reflected a reduction in the cash position, which was deployed in order to rebalance the portfolio. He indicated that RSIC remained underweight Core Fixed Income at the end of the quarter, and was able to capitalize on the turmoil in the credit markets at the end of the quarter by adding some exposure in Mixed Credit. In the equity portfolios, Mr. Berg noted that RSIC continued to rebalance in February and March to maintain exposure.

Mr. Berg stated that he wanted to give the Commissioners a sense of how portfolio risk had changed. He shared estimates of the volatility of the portfolio over the past two years. He stated that three months prior, all three of the volatility estimates had been between eight and nine percent. He noted that this was a considerable jump and worthy of discussion. He explained that in extreme market environments like those recently experienced, we often see two things: (1) a significant spike in the volatility of all risky assets; and (2) the correlations among risky assets becoming less stable.

Mr. Berg concluded by stating that when this happens, it is critical that RSIC remain disciplined, stick to its rebalancing discipline, and buy assets that have declined in price. He noted that RSIC did this during the first quarter. After a brief discussion, he concluded his presentation.

V. STRATEGIC INVESTMENT TOPICS PRESENTATION – MEKETA INVESTMENT GROUP

a. Long- Term Investing in a Recession

Mr. Hitchcock introduced Meketa Investment Group (“Meketa”) Ms. Alli Wallace Stone, Consultant, along with Mr. C. LaRoy Brantley, Consultant and Mr. Peter Woolley, Managing Principal, to present a report on Long Term Investing in a Recession. Mr. Brantley began by explaining some best practices of navigating a bear market. He noted that as long-term investors it is important to remain calm and disciplined in our investment approach. Mr. Brantley also explained that based on the effects of COVID-19 on the global economy, there is the possibility that the United States will enter into a recession during 2020.

Mr. Brantley reviewed the characteristics of a recession, one of them being a significant drop in economic productivity. He stated that there have been 11 recessions since 1947. He went on to provide some historic timelines and duration of extreme markets. He noted that bear markets tend to last two years, but the key to having a bear market is that the recovery exceeds 100% in the following bull market. He explained that portfolio diversification is crucial and that bonds have been important part of that. In response to a question from Mr. Gillespie, Mr. Brantley discussed how diversification can play a role in the portfolio and the impact on government intervention.

There being no further questions, Ms. Stone reviewed some of the thematic mistakes made by peers. She explained four key mistakes by peers, which were (1) being risk-averse in times of market distress; (2) deviating from the plan by refraining from making private markets commitments and losing the opportunity to have adequate vintage year diversification; (3) over-allocating to illiquid assets and being forced sellers in down markets; and (4) seeking to market time and identify the bottom of a market downturn. Mr. Hitchcock noted that Mr. Berg and his team have done a fantastic job ensuring sufficient liquidity for the Trust, and that we do not become forced sellers. He also noted that we had planned for an economic downturn and were ready for this type of event.

Ms. Stone stated that it is crucial to rebalance the portfolio periodically and maintain an understanding of the portfolio’s risk. Dr. Wilder asked about the frequency of rebalancing and the timing. Ms. Stone stated that there is not a huge difference from monthly, quarterly, and semiannually, but the key is understanding transaction costs associated with rebalancing. Mr. Gillespie emphasized that rebalancing should be systematic, in the frequency, the reasoning, and the type. Mr. Brantley underscored the importance of having discipline as an investor. Mr. Gillespie then asked how codified the rebalancing policy should be. Mr. Brantley replied that South Carolina is one of the most disciplined and detailed oriented and stated that there needs to be flexibility built in. Mr. Berg stated that he would connect with Mr. Gillespie after the meeting about rebalancing.

Ms. Stone stated that when it comes to opportunistic investments, we should be able to take advantage of them. We should stay the course and not try to market time or shift allocations during times of market distress. She noted that it is important to be forward-thinking, remain disciplined, and avoiding market timing, in order to be a successful long-term investor. The Fund’s asset allocation is designed to meet the assumed rate of return over the long-term, despite the potential short-term impacts of a recession.

b. China Accounting and Auditing Results

Ms. Stone reviewed the Holding Foreign Companies Accountable Act that was passed by the Senate in May 2020, which increases transparency of foreign companies being traded on US exchanges. Chinese companies are likely to have the hardest time abiding by the new regulations. Ms. Stone explained that it could impact the Emerging Market Index and could hurt over 200 firms from China that are listed. She noted that the regulations provide three years before companies will be required to be compliant and that some will leave the US exchange for London and Hong Kong exchanges. She stated that in aggregate we do not have a lot of exposure to companies that will be affected in our portfolio.

Mr. Condon expressed concern and asked about defining the scope of lack of oversight. Mr. Woolley stated that there should be caps on country exposure and Meketa is examining China exposure right now. Mr. Berg stated the indexes are designed by people that think about these issues and cautioned that costs might increase. He also stated that he was considering approaching MSCI on how they construct the indexes and how they see the risk and mitigate risk through representation of various countries that do not comply with appropriate standards. Mr. Condon would like to share with Staff and Meketa the SEC’s April 1, 2020 statement on Seven Public Risks to Contemplate.

There being no further questions, this concluded Meketa’s presentations.

VI. DELEGATED INVESTMENT REPORT

The Chair recognized Mr. Berg for the delegated investment discussion. The following delegated investments were closed by Staff since the April 16, 2020 Commission meeting.

Asset Class	Investment	Investment Amount	Closing Date
Private Equity	Francisco Partners GP VI	Up to \$100 M	April 16, 2020
Private Equity	Francisco Partners Agility II	Up to \$50 M	April 16, 2020
Private Equity	CVC Capital Partners VIII	€100 M	May 1, 2020
Private Credit	Eagle Point Credit Partners	Up to \$100 M	May 6, 2020
Private Equity	CD&R XI	\$75 M	May 22, 2020
Private Equity	Bridgepoint Development Capital IV	Up to £75 M	May 28, 2020

A break was taken at 12:15 p.m. The Commission reconvened at 12:25 p.m.

VII. EXECUTIVE SESSION

Dr. Gunnlaugsson moved to recede into Executive Session to discuss investment matters and specific investments pursuant to S.C. Code Sections 9-16-80 and 9-16-320; and receive legal advice as needed from legal counsel pursuant to S.C. Section 30-4-70(a)(2). The motion passed by unanimous consent.

VIII. POTENTIAL ACTION RESULTING FROM EXECUTIVE SESSION

Upon return to open session, Mr. Hitchcock noted that the Commission did not take any action while in Executive Session.

IX. ADJOURNMENT

There being no further business, the Commission adjourned by unanimous consent.

[Staff Note: In compliance with S.C. Code Section 30-4-0, public notice of and the agenda for this meeting was delivered to the press and to parties who requested notice and were posted at the entrance, in the lobbies and near the 15th Floor Presentation Center at 1201 Main Street, Columbia, S.C., 5:01 p.m. on June 1, 2020]

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 eight 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 purposes 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 the Audit and Enterprise Risk Management Committee (“Committee”) to oversee the following areas: (i) the Audit Function; (ii) the Enterprise Risk Management Function; (iii) the Compliance Function; (iv) the internal control environment; and (v) engagements with certain external service providers.

III. Responsibilities:

(A) Primary Responsibilities:

- (1) Overseeing the audit, enterprise risk management, compliance, and control activities of RSIC, as set forth in the “Roles and Responsibilities” section of RSIC’s Consolidated Annual Investment Plan and Statement of Investment Objectives and Policies; including without limitation, the development and execution by Management of strategies to mitigate risks.
- (2) Overseeing the risk assessment process conducted by the Enterprise Risk Management Function and the Audit Function.
- (3) Approving, periodically, the audit plans of the Audit Function.
- (4) Reviewing, periodically, the scopes of audits, the findings of audits, and approving any necessary follow up items or recommendations.
- (5) Reviewing the performance of external co-sourced and/or outsourced auditors and exercising final approval on the appointment, retention, or discharge of such auditors.
- (6) Obtaining reasonable assurance that the staff has acted on the observations and recommendations resulting from audits.

(7) Monitoring reports provided by the staff regarding various compliance policies and processes.

(B) Reporting Responsibilities: Regularly reporting to the Commission about Committee activities, issues, and related recommendations.

(C) Other Responsibilities:

(1) Performing other activities related to this charter as requested by the Commission.

(2) Reviewing and assessing the adequacy of the Committee's charter at least every three years. Any proposed changes to the charter must be submitted to the Commission for approval.

(3) Confirming annually that all responsibilities outlined in the charter have been carried out.

(4) Evaluating the Committee's and individual Committee member's performance on a regular basis in conjunction with the Commission Evaluation Process.

(5) Providing an appropriate and confidential mechanism for whistleblowers to provide information on potentially fraudulent financial reporting, cases of fraud, or other material breaches of internal controls to the Committee.

IV. Composition.

(A) The 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 Chair of the Committee will be selected by a vote of the Committee.

(D) The Executive Director of the South Carolina Public Employee Benefit Authority, serving as a Commission member *ex officio*, will be a member of the Committee.

V. Meetings.

(A) The Committee will meet at least four times per 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

(C) 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.

- (D) The Committee's annual meeting schedule may be modified by the Committee as necessary.
- (E) All Committee members should expect to attend each meeting in person or via conference call or video conference.
- (F) The Committee may invite members of Management, auditors, and/or others to attend meetings and to provide pertinent information as necessary.
- (G) In the event that a Commission member who is not a member of the Committee attends a Committee meeting, she or he will not have voting rights and will not participate in discussions of the Committee unless asked and so long as such participation would not create a quorum of the Commission.
- (H) 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) Approve the Audit Function's annual audit plan.
- (B) Approve the Audit Function's co-sourcing and outsourcing plans.
- (C) Seek any information it requires from the staff. All members of the staff are directed to cooperate with the Committee's requests or the requests of external parties conducting work on behalf of the Committee.
- (D) Meet with the Commission, the staff, auditors, outside counsel, and/or specialists as necessary.
- (E) Oversee the work of the Internal Audit Coordinator in accordance with RSIC's personnel policies and applicable state law.
- (F) Communicate with the Commission regarding RSIC's policies and applicable laws as needed.
- (G) The Committee may authorize investigations into any matters within its scope of responsibility and in accordance with any policies related thereto and shall seek approval from the Commission for any necessary additional resources.

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2020 Proposed Slate of Committee Assignments

Human Resources and Compensation Committee

Bill Hancock
Ron Wilder
Ed Giobbe

Audit and Enterprise Risk Management Committee

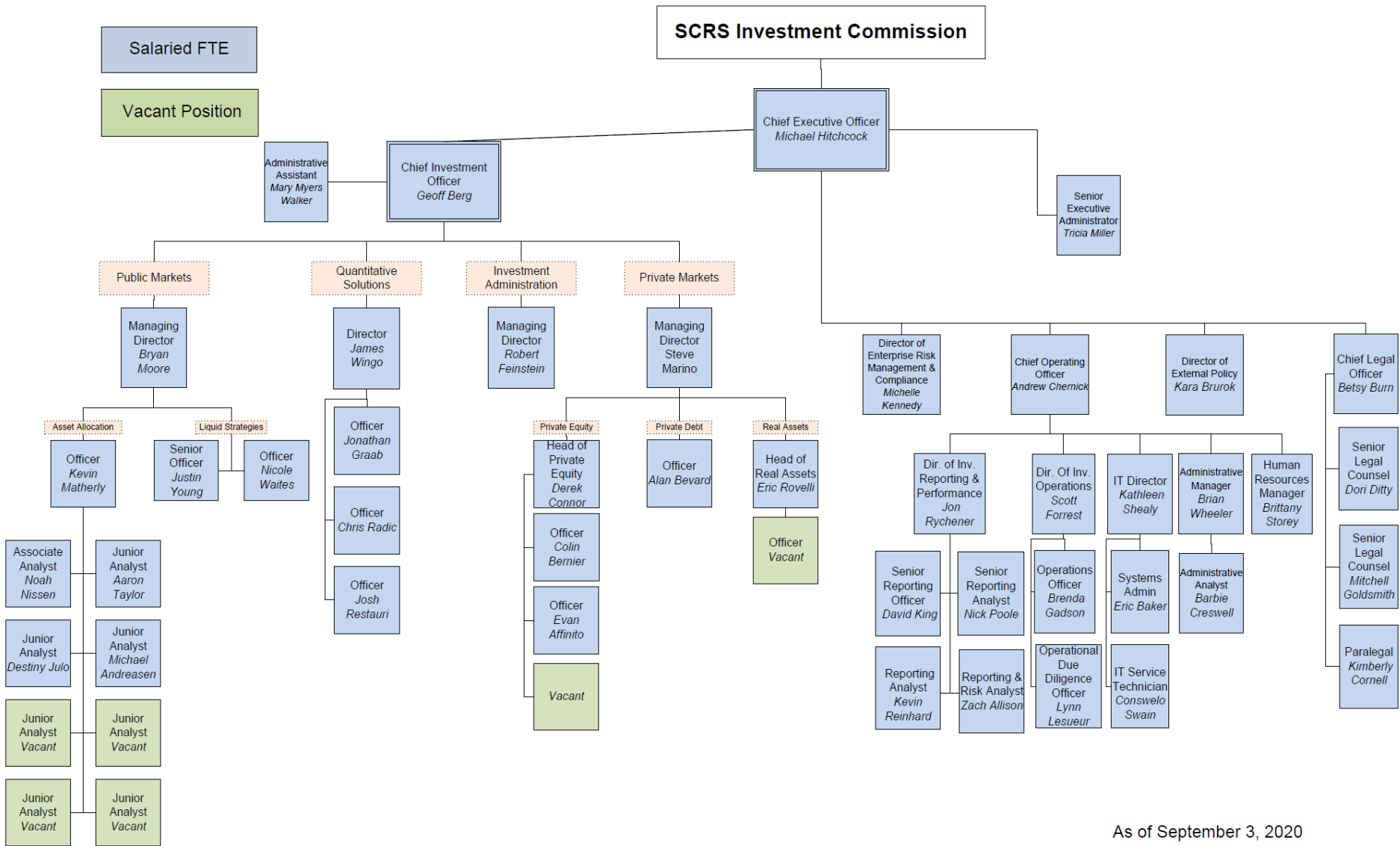
Rebecca Gunnlaugsson
Peggy Boykin
Bill Condon

South Carolina Retirement System Investment Commission

FY 2021-2022 Budget Request

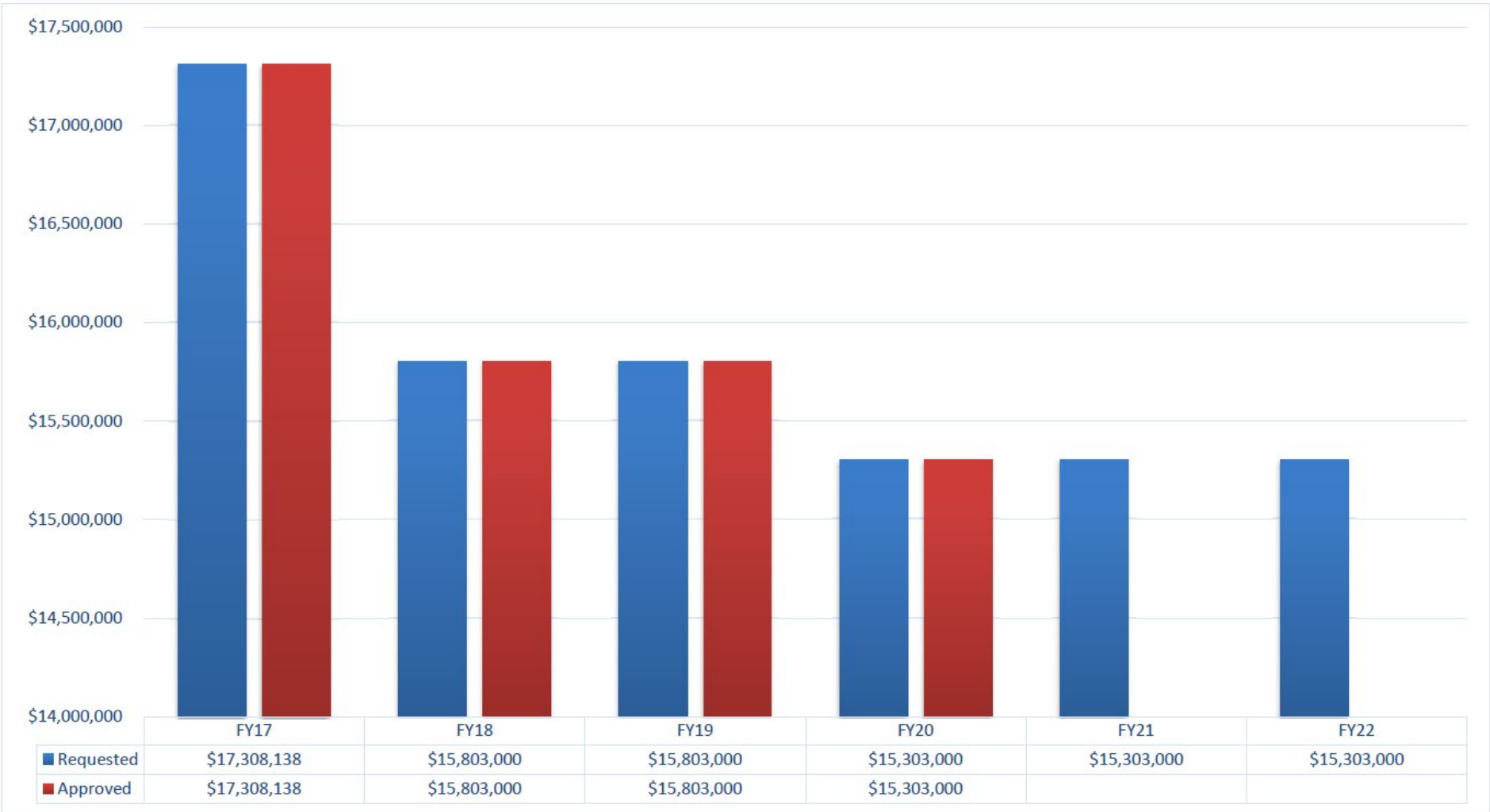
Michael Hitchcock, CEO

Organizational Chart



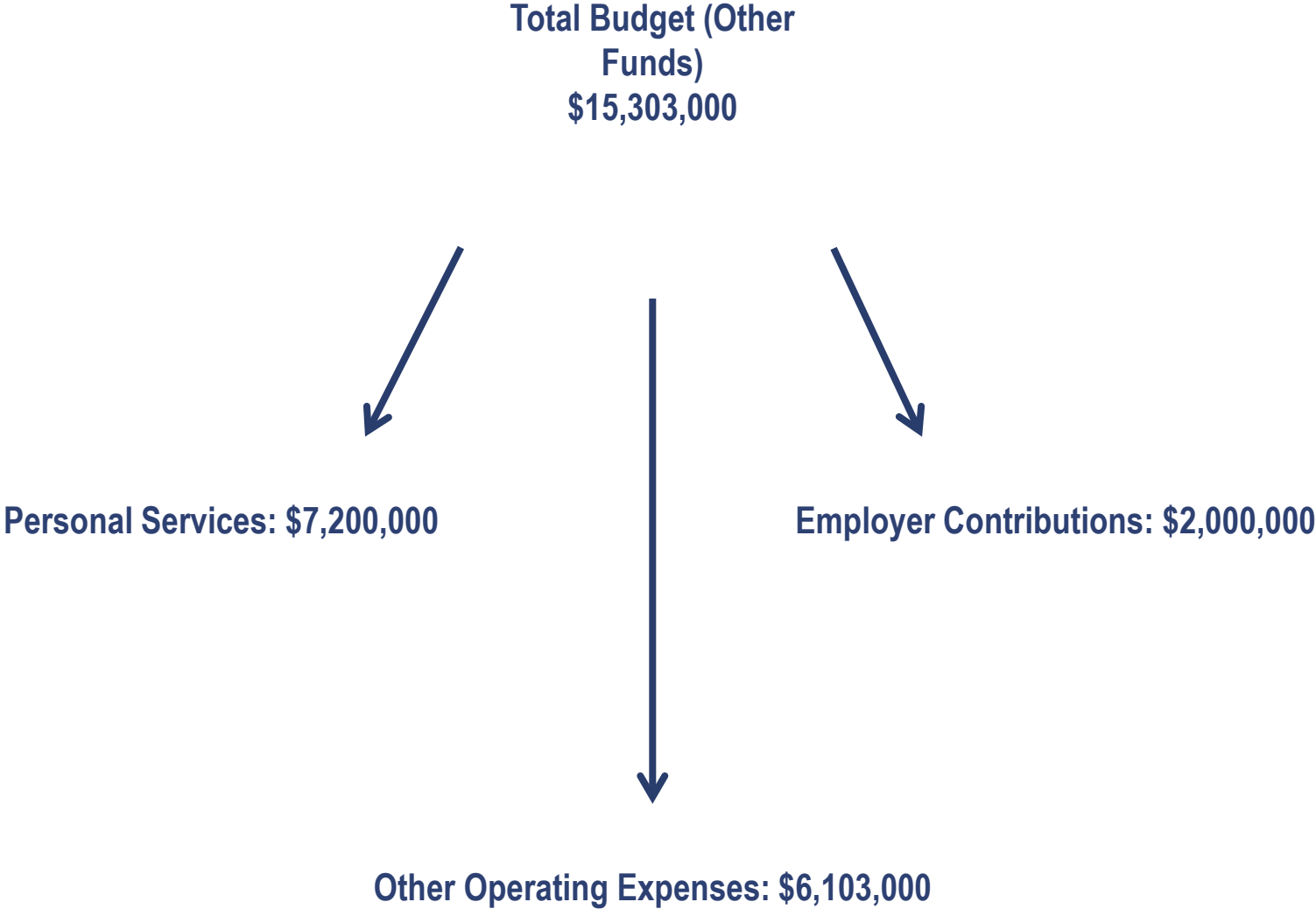
As of September 3, 2020

5 Year Appropriations History



* RSIC is supported solely by other funds and does not receive general funds. Prior appropriation requests reflect the effort of the agency to remain fiscally responsible with Trust Fund dollars.

*To date, state government continues to operate under a Continuing Resolution as the General Assembly has not adopted an Appropriations Bill for FY 2020-2021.



- **Additional expenditures are anticipated for FY 2020-2021 for the following initiatives:**
 - **Filling open FTE positions (personal services)**
 - **Continued expansion of Albourne Consultant Relationship**
 - **Additional cost associated with Co-Sourcing Internal Audit Function**
 - **Continued expenses associated with acquisition and buildout of CRM system**

Total Budget (Other Funds)
\$15,303,000



Personal Services: \$7,200,000



Employer Contributions: \$2,000,000



Other Operating Expenses: \$6,103,000

- **The Commission is requesting the same budget amount as requested for FY 2020-2021.**
- **The Commission is not requesting any additional FTEs for FY 2021-2022 and has plans in place to continue to fill open FTEs to best meet the needs of the agency.**

- **Authorized: 51**
- **Filled: 44**
- **Vacant: 7**
 - 1 Infrastructure Officer
 - 1 Private Equity Officer
 - 1 Unassigned Investment Position
 - 4 Junior Analysts
- **Impending Retirements in the Next 5 Years: 1**

117.125 (GP: Retirement System Assets and Custodial Banking Relationship Transfer) In order to facilitate the transfer of custodianship of the assets of the Retirement System to the Public Employee Benefit Authority and governance of the custodial banking relationship to the Retirement System Investment Commission, all portions of contracts, agreements, and exemptions from the Consolidated Procurement Code providing for and relating to custodial banking, general banking, accounting, or any other ancillary services are transferred to, and devolved upon, the Public Employee Benefit Authority and the Retirement System Investment Commission in accordance with the authority transferred to the respective agency.

- **The Commission is requesting to maintain the current proviso language as written.**
- **As management of custodial banking is fully transitioned to the RSIC, maintenance of these exemptions will allow for any necessary modifications to agreements, including but not limited to, the consolidation of custodial related services with BNYM as a sole provider, in order to create operational and fiscal efficiencies.**

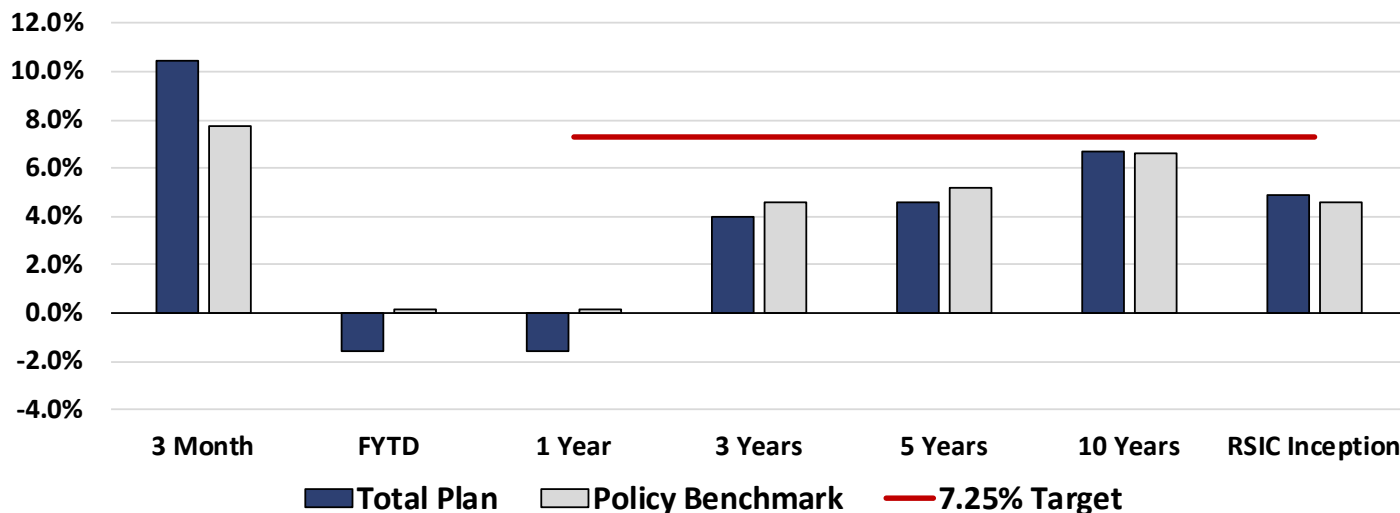
Performance Update

RSIC 09/10/2020 Investment Commission Meeting

Data as of June 30th, 2020

Performance - Plan & Policy Benchmark²

As of June 30, 2020



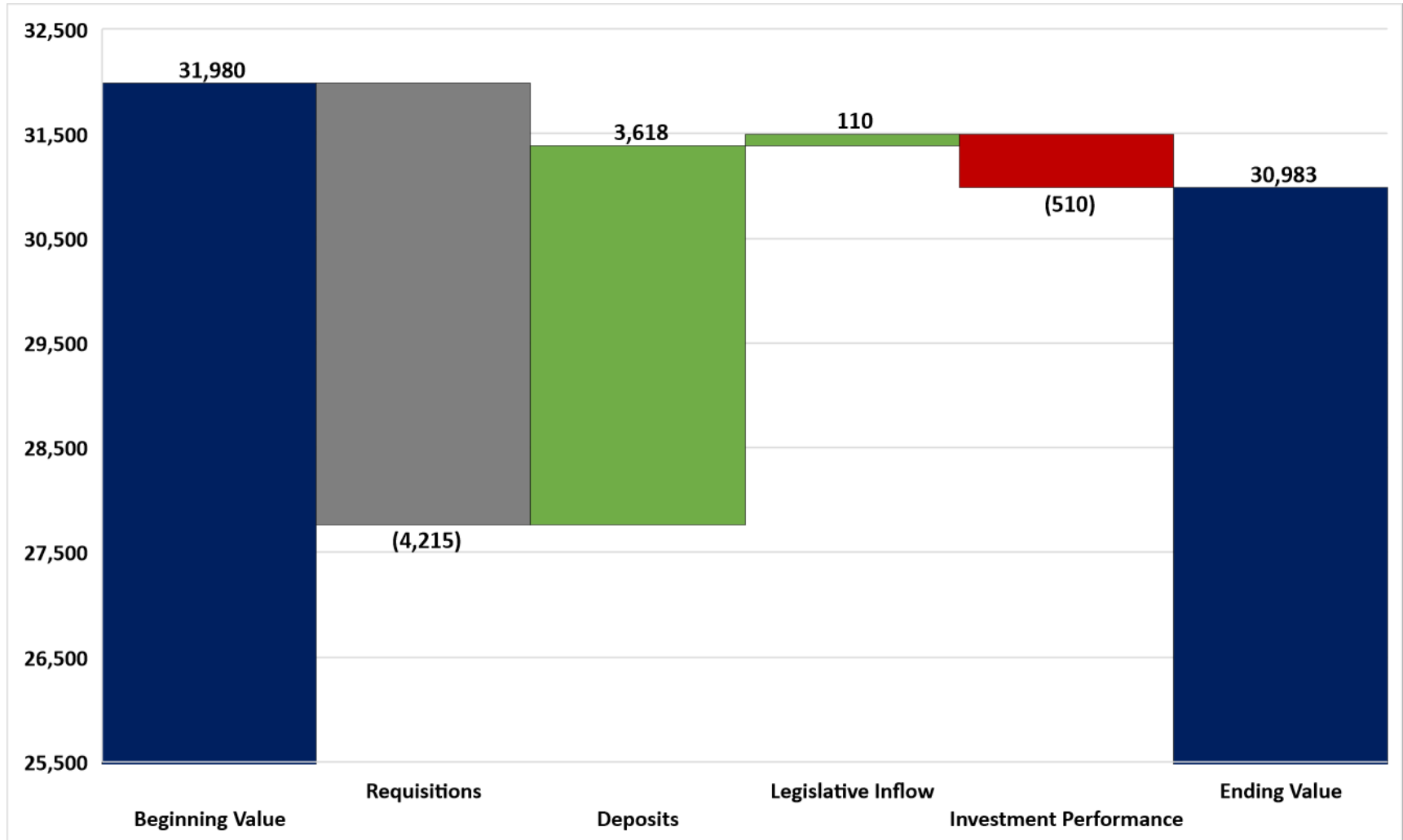
Historic Plan Performance As of 06/30/2020	Market Value (In Millions)	Annualized						RSIC Inception
		3 Month	FYTD	1 Year	3 Years	5 Years	10 Years	
Total Plan	\$30,983	10.44%	-1.58%	-1.58%	3.95%	4.59%	6.71%	4.85%
Policy Benchmark		7.71%	0.13%	0.13%	4.59%	5.22%	6.63%	4.59%
Excess Return		2.72%	-1.71%	-1.71%	-0.64%	-0.63%	0.08%	0.26%
Net Benefit Payments (In Millions)		(\$150)	(\$487)	(\$487)	(\$2,704)	(\$4,895)	(\$9,916)	(\$13,953)
Current 3-month Roll off Return:		-15.48%	N/A	2.65%	2.34%	0.44%	-3.07%	N/A
Next 3-month Roll off Return:		10.44%	N/A	0.62%	3.84%	-3.99%	7.46%	N/A

Current Quarter Roll off Return: represents the 3-month period that has fallen off of each time frame's rolling returns. If the current quarter underperforms the roll off return, the performance would decrease for the period.

Next Quarter Roll off Return: represents the 3-month period that will fall off of each time frame's rolling returns in the next quarter. If the next quarter underperforms the roll off return, the performance would decrease for the period.

FYTD Benefits and Performance

FYTD June 30, 2020



Performance – Plan & Asset Classes^{1,3,4,10}

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As of June 30, 2020

Asset Class / Benchmark returns as of 06/30/2020	Plan Weight	3 Month	YTD	FYTD	Annualized		
					1 Year	3 Years	5 Years
Total Plan	100.0%	10.44%	-6.66%	-1.58%	-1.58%	3.95%	4.59%
Policy Benchmark		7.71%	-5.60%	0.13%	0.13%	4.59%	5.22%
Global Public Equity	43.5%	19.74%	-7.16%	0.68%	0.68%	5.02%	5.63%
<i>Global Public Equity Blend</i>		19.74%	-7.26%	0.84%	0.84%	5.40%	6.05%
Equity Options	2.3%	11.83%	-6.73%	-1.63%	-1.63%	2.45%	n/a
<i>Blended Equity Options BM</i>		10.10%	-13.52%	-9.22%	-9.22%	-0.34%	n/a
Private Equity	7.0%	-5.54%	-7.59%	-6.75%	-6.75%	5.14%	6.77%
<i>Private Equity Blend</i>		-20.06%	-12.82%	-7.18%	-7.18%	5.86%	7.52%
GTAA	1.6%	12.75%	-12.33%	-5.49%	-5.49%	0.86%	2.29%
<i>GTAA Benchmark Blend</i>		13.61%	-5.12%	0.89%	0.89%	4.00%	4.97%
Other Opportunistic	0.7%	15.46%	-22.04%	-22.45%	-22.45%	-2.09%	n/a
<i>GTAA Benchmark Blend</i>		13.61%	-5.12%	0.89%	0.89%	4.00%	n/a
Core Fixed Income	16.3%	3.26%	6.01%	8.49%	8.49%	5.28%	4.22%
<i>Barclays US Aggregate Bond Index</i>		2.90%	6.14%	8.74%	8.74%	5.32%	4.30%
TIPS	0.0%	4.24%	5.78%	7.97%	7.97%	n/a	n/a
<i>Barclays US Treasury Inflation Notes</i>		4.24%	6.01%	8.28%	8.28%	n/a	n/a
Cash and Short Duration (Net)	0.2%	0.56%	0.29%	1.52%	1.52%	1.68%	1.33%
<i>ICE BofA Merrill Lynch 3-Month T-Bill</i>		0.02%	0.60%	1.63%	1.63%	1.77%	1.19%
Mixed Credit	4.6%	11.31%	-3.28%	-1.07%	-1.07%	2.60%	3.04%
<i>Mixed Credit Blend</i>		9.92%	-4.22%	-1.00%	-1.00%	2.70%	4.06%
Private Debt	7.4%	-2.73%	-6.80%	-5.64%	-5.64%	1.52%	2.60%
<i>S&P/LSTA Leveraged Loan + 150 Bps on a 3-month lag</i>		-12.42%	-10.75%	-7.66%	-7.66%	0.72%	2.64%
Emerging Markets Debt	3.9%	12.06%	-7.22%	-4.31%	-4.31%	0.70%	3.59%
<i>Emerging Markets Debt Blend</i>		11.05%	-4.80%	-1.10%	-1.10%	2.43%	3.89%
Private Real Estate	8.2%	-2.03%	-0.31%	3.43%	3.43%	7.19%	8.51%
<i>Private Real Estate Custom Benchmark</i>		-1.40%	-0.45%	2.33%	2.33%	5.83%	8.15%
Public Real Estate	1.6%	12.29%	-13.82%	-7.88%	-7.88%	3.26%	n/a
<i>FTSE NAREIT Equity REITs Index</i>		11.82%	-18.71%	-13.04%	-13.04%	0.03%	n/a
Public Infrastructure	1.6%	11.15%	-7.57%	-0.97%	-0.97%	4.70%	n/a
Private Infrastructure	1.1%	0.55%	-0.11%	-1.82%	-1.82%	n/a	n/a
<i>Dow Jones Brookfield Global Infrastructure Net Index</i>		11.55%	-11.81%	-5.99%	-5.99%	2.78%	n/a
PA Hedge Fund Excess Return (Net LIBOR)	10.0%	4.00%	-2.85%	-0.98%	-0.98%	1.35%	1.20%
<i>Portable Alpha HF Blend</i>		0.62%	1.24%	2.50%	2.50%	1.66%	0.92%
PA Collateral Excess Return (Net LIBOR)	22.8%	2.02%	-1.66%	-0.37%	-0.37%	0.78%	n/a
<i>Portable Alpha Benchmark</i>		0.29%	0.63%	1.44%	1.44%	0.96%	n/a

STATE OF SOUTH CAROLINA

Asset Allocation and SIOP Compliance

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FYTD June 30, 2020

Asset Allocation	Market Value as of 06/30/20	Overlay Exposures	Net Position	% of Total Plan	Policy Targets	Difference	Allowable Ranges	SIOP Compliance
Equities	13,605		16,369	52.8%	51.0%	1.8%	31% - 59%	YES
Global Public Equity	10,729	2,764	13,493	43.5%	37.0%	6.6%	22% - 50%	YES
Equity Options	699	0	699	2.3%	7.0%	-4.7%	5% - 9%	NO
Private Equity	2,177	0	2,177	7.0%	7.0%	0.0%	5% - 13%	YES
Real Assets	3,862		3,862	12.5%	12.0%	0.5%	7% - 17%	YES
Private Real Estate	2,540		2,540	8.2%	8.2%	0.0%	0% - 13%	YES
Public Real Estate	481		481	1.6%	0.8%	0.8%	0% - 13%	YES
Private Infrastructure	344		344	1.1%	1.1%	0.0%	0% - 5%	YES
Public Infrastructure	497		497	1.6%	1.9%	-0.3%	0% - 5%	YES
Opportunistic	719		719	2.3%	8.0%	-5.7%		
GTAA	495	0	495	1.6%	7.0%	-5.4%	3% - 11%	NO
Other Opportunistic	224	0	224	0.7%	1.0%	-0.3%	0% - 3%	YES
Credit	4,926		4,926	15.9%	15.0%	0.9%	10% - 20%	YES
Mixed Credit	1,413		1,413	4.6%	3.6%	1.0%	0% - 8%	YES
Emerging Markets Debt	1,223		1,223	3.9%	4.0%	-0.1%	2% - 6%	YES
Private Debt	2,291		2,291	7.4%	7.4%	0.0%	3% - 11%	YES
Rate Sensitive	4,757		5,107	16.5%	14.0%	2.5%	4% - 24%	YES
Core Fixed Income	727	4,310	5,037	16.3%	13.0%	3.3%	6% - 20%	YES
Cash and Short Duration (Net)	4,030	-3,960	70	0.2%	1.0%	-0.8%	0% - 7%	YES
PA HF Excess Return (Net LIBOR)	3,114	-3,114	0	10.0%*	10.0%	0.0%	0% - 12%	YES
Total Plan	\$30,983	-	\$30,983	100.0%	110.0%			
Total Hedge Funds	3,369		\$3,369	10.9%	n/a	n/a	0% - 20%	YES
Total Private Markets	7,351	-	\$7,351	23.7%	n/a	n/a	14% - 25%	YES

Total Hedge Fund exposure: 10.9% and consisted of: 10.0% PA Hedge Fund Excess Return (Net LIBOR), 0.8% to a hedge fund in Mixed Credit *PA Hedge Fund Excess Return (Net LIBOR) are expressed and benchmarked as gross exposure but employed in conjunction with the Overlay Program and are offset when looking at total plan market value.

Footnotes

1. Represents asset class benchmarks as of reporting date. Benchmarks for asset classes may have changed over time.
2. Benefit payments are the net of Plan contributions and disbursements.
3. "Cash" market value is the aggregate cash held at the custodian, Russell Investments, and strategic partnerships.
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, TIPS, Equity Options, and Commodities). Synthetic returns are provided by Russell Investments gross of financing costs. To accommodate for financing costs, LIBOR is added to the synthetic returns and removed from the collateral return.
5. Performance contribution methodology: Contribution is calculated by taking the sum of the [beginning weight] X [monthly return].
6. Source: Russell Investments; Net notional exposure.
7. Allocation Effect: $[\text{Asset Class Weight} - \text{Policy Weight}] * [\text{Benchmark Return} - \text{Plan Policy Benchmark}]$
Selection Effect: $[\text{Asset Class Return} - \text{Policy Benchmark Return}] * \text{Asset Class Weight in Plan}$
8. 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 44% 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 11% 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 9% of the Plan. For Private Infrastructure, the use of the flow adjusted weight will affect the target allocation to Public Infrastructure, such that the combined target weight of both asset classes shall equal 3% of the Plan.
9. Policy Ending Value is an estimate of the Plan NAV had it earned the Policy Benchmark return.
10. 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.
11. 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.

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.
- Overlay allocation detail is provided by Russell Investments.
- 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.
- Allocation / exposure percentages might not add up to totals due to rounding.

Benchmarks

- **Global Public Equity Blend:**
7/2018 – Present: Weighted average of regional sub-asset class targets in Policy Portfolio. 51.4% MSCI US IMI Index for U.S. Equity, 31.4% MSCI World ex-US IMI Index for Developed Market Equity (non-U.S.), and 17.1% MSCI Emerging Markets IMI Index for Emerging Market Equity
7/2016 – 6/2018: 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:**
7/2018 – Present: 50% CBOE S&P Buy Write Index (BXM) / 50% CBOE S&P 500 Put Write Index (PUT)
Prior to 6/2018: CBOE S&P 500 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 6/2016: 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:**
7/2018 – Present: Total System Policy Benchmark ex-Private Markets and Portable Alpha
7/2016 – 6/2018: 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% FTSE World Government Bond Index (WGBI)
- **Other Opportunistic:**
7/2018 – Present: Total System Policy Benchmark ex-Private Markets and Portable Alpha
7/2016 – 6/2018: 50% MSCI World Index (net of dividends)
 50% Bloomberg Barclays US Aggregate Bond Index
- **Private Real Estate Blend:**
7/2018 – Present: NCREIF Open-End Diversified Core (ODCE) Index *Net of Fees* + 100 basis points
Prior to 6/2018: NCREIF Open-end Diversified Core (ODCE) Index *Gross of Fees* + 75 basis points
- **Public Real Estate:** FTSE NAREIT Equity REITs Index
- **Infrastructure:** Dow Jones Brookfield Global Infrastructure Index
- **Cash & Short Duration:** ICE BofA Merrill Lynch 3-Month US Treasury Bill Index
- **Portable Alpha Hedge Fund Blend:**
7/2018 – Present: ICE BofA Merrill Lynch 3-Month T-Bills + 250 basis points
7/2016-6/2018: *Prior to FY 2019, there was not a benchmark for Portable Alpha Hedge Funds, so effectively zero*
Prior to 7/2016: HFRI Fund Weighted Composite Index (NOTE: PA HF's were considered Low Beta Hedge Funds at this time).
- **Portable Alpha Benchmark:**
7/2018 – Present: *Weighted average of monthly weights for PA Hedge Funds* ICE BofA Merrill Lynch 3-Month T-Bills + 250 basis points, and Zero for Ported Cash and Short Duration
7/2016-6/2018: *Prior to FY 2019, there was not a benchmark for Portable Alpha Hedge Funds, so effectively zero*

Performance Analysis

RSIC 09/10/2020 Investment Commission Meeting

Data as of June 30th, 2020

- Strong recovery during the quarter for all asset classes
 - Only safe assets increased in Q1
 - Risk assets outperformed in Q2
- Strong finish to the fiscal year (but not fully offsetting pandemic impact from Q3):
 - Underweight core bonds/overweight equities during onset of pandemic
 - Difficult year for managers across public markets
 - Energy investments challenged by extraordinary commodity price volatility
- Considerable portfolio reallocation during quarter
 - Alignment with reduction to five asset classes
 - Approximately \$13B traded in Q4

Portfolio Framework – Current Policy Benchmark

As of 6/30/2020

Reference Portfolio	
3 Month	14.59%
1-Year	3.93%
3-Years	5.81%

Policy Benchmark	
3 Month	7.71%
1-Year	0.13%
3-Years	4.59%

Implementation Benchmark	
3 Month	9.64%
1-Year	-0.93%
3-Years	4.10%

RSIC Portfolio Return	
3 Month	10.44%
1-Year	-1.58%
3-Years	3.95%

Value From Diversification	
3 Month	-6.9%
1-Year	-3.8%
3-Years	-1.2%

Quality of Portfolio Structure	
3 Month	1.9%
1-Year	-1.1%
3-Years	-0.5%

Quality of Manager Selection	
3 Month	0.8%
1-Year	-0.6%
3-Years	-0.2%

Actual VS Reference	
3 Month	-4.2%
1-Year	-5.5%
3-Years	-1.9%

Actual VS Policy	
3 Month	2.7%
1-Year	-1.7%
3-Years	-0.6%

Quarterly Attribution – Portfolio Structure

As of June 30, 2020

Quality of Portfolio Structure - Quarter	Impact to Plan (BPS)
Private Equity	108
PA Hedge Fund Excess Return	49
Core Fixed Income	19
Global Public Equity	13
Other Opportunistic	10
Public Real Estate	4
Equity Options	1
World infrastructure	1
Private Real Estate	0
Private Debt	0
Emerging Markets Debt	-1
TIPS	-1
Mixed Credit	-3
Cash and Short Duration (Net)	-7
GTAA	-11
Total Plan	183

PE Universe outperformed as lagged public equity benchmark reached the pandemic in the quarter

Hedge Fund indices outperformed cash

Overweight to Public Equity improved returns

Underweight to Core Bonds helped, but less than it hurt in Q1

Strong liquidity position a slight drag on returns in the quarter

GTAA weight declined during the quarter

Quarterly Attribution – Manager Selection

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As of June 30, 2020

Private Debt outperformed its benchmark (lagged public credit) considerably in the quarter

Public equity managers added value during recovery

Mixed Credit managers recovered vs. their benchmarks

GTAA continued to struggle

Portable Alpha Hedge Funds performed well, but below the broader universes

Quality of Manager Selection - Quarter	Impact to Plan (BPS)
Private Debt	66
Global Public Equity	24
Mixed Credit	10
Emerging Markets Debt	4
Equity Options	4
Core Fixed Income	3
Private Equity	1
Public Real Estate	0
TIPS	0
Cash and Short Duration (Net)	0
Other Opportunistic	-2
Private Real Estate	-3
GTAA	-6
World infrastructure	-13
PA Hedge Fund Excess Return	-15
Total Plan	72

Quarterly Attribution¹ – Full Fiscal Year

Portfolio Structure

	Sep-19	Dec-19	Mar-20	Jun-20	3M	FYTD
Public Equity	-1	3	-40	14	14	-24
Private Equity	-3	-1	-19	108	108	84
Other Assets	-6	-7	-38	-1	-1	-52
Real Assets	-1	0	-6	5	5	-1
Private Credit	0	0	0	0	0	0
Bonds	-16	7	-59	8	8	-60
PA HFs	-11	9	-90	49	49	-44
Total	-38	10	-252	183	183	-96

Portfolio positioning (underweight Core/ overweight Equity) hurt returns during onset of pandemic

Midstream energy exposure (Other Assets) struggled due to underlying commodity instability

Hedge Fund universe benchmarks underperformed RSIC benchmark

Selection

	Sep-19	Dec-19	Mar-20	Jun-20	3M	FYTD
Public Equity	-1	-3	51	28	28	75
Private Equity	-22	-16	-53	1	1	-91
Other Assets	1	13	-51	-8	-8	-46
Real Assets	8	0	42	-16	-16	34
Private Credit	-7	-8	-44	66	66	7
Bonds	-4	-5	-6	16	16	1
PA HFs	11	2	9	-15	-15	8
Total	-14	-17	-51	72	72	-11

Very strong excess returns from Equity Options

Private Equity portfolio lagged Burgiss universe

GTAA very disappointing

Hedge Funds outperformed universe benchmarks for the year.

Total Value Added

	Sep-19	Dec-19	Mar-20	Jun-20	3M	FYTD
Public Equity	-2	-1	12	42	42	51
Private Equity	-25	-17	-72	109	109	-6
Other Assets	-5	5	-89	-9	-9	-98
Real Assets	7	0	36	-11	-11	33
Private Credit	-7	-8	-44	66	66	7
Bonds	-20	2	-65	25	25	-58
PA HFs	0	11	-80	34	34	-36
Total	-52	-7	-303	255	255	-107

Large negative contribution from Bonds from allocation decisions

Private Equity turnaround progressing, but returns still lagged broader universe

Energy exposures across the portfolio weighed on returns in 1H 2020.

¹Asset class contributions are displayed as snapshots of RSIC's quarterly attribution (value added relative to policy benchmark) and are not necessarily additive to total Plan Excess Return over long periods of time

3 Year Performance	Asset Class Return	Policy Return	Excess Return
Public Real Estate	3.3%	0.0%	323
Equity Options	2.5%	-0.3%	279
World Infrastructure	4.6%	2.8%	182
Private Real Estate	7.2%	5.8%	136
Private Debt	1.5%	0.7%	80
Core Fixed Income	5.3%	5.3%	-4
Cash and Short Duration (Net)	1.7%	1.8%	-9
Mixed Credit	2.6%	2.7%	-10
PA Hedge Fund Excess Return	1.4%	1.7%	-31
Global Public Equity	5.0%	5.4%	-38
Private Equity	5.1%	5.9%	-72
Emerging Markets Debt	0.7%	2.4%	-173
GTAA	0.9%	4.0%	-314
Other Opportunistic	-2.1%	4.0%	-609

Asset class eliminated for FY 2021

Asset class that has been a focus of restructuring efforts

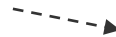
Asset class not expected to serve a permanent role in the portfolio

- Increased Bonds and Public Equity exposures partly due to elimination of GTAA
- Modest underweight to Core Bonds due to overweights to Public Equity/Private Debt
- Significant cash flows since prior quarter

Asset Class	NEW	Weight	Active Weight	Δ Since Last Quarter
	Policy Target			
Public Equity	48.0%	49.0%	1.0%	4.6%
Bonds	26.0%	23.6%	-2.4%	4.7%
Real Assets	12.0%	12.1%	0.1%	-1.5%
Private Equity	7.0%	7.0%	0.0%	-0.8%
Private Credit	7.0%	8.3%	1.3%	0.4%
Other Assets	0.0%	0.0%	0.0%	-7.5%
Portable Alpha	0.0%	9.3%	9.3%	-0.6%
Total Plan	100.0%	109.3%	9.3%	-0.7%

*7/1/2020 exposures reflect adjustments for trades that were made, but not settled at beginning of month.

Asset Class	NEW		Active Weight	Δ Since Last Quarter
	Policy Target	Weight		
Public Equity	48.0%	49.0%	1.0%	4.6%
Bonds	26.0%	23.6%	-2.4%	4.7%
Real Assets	12.0%	12.1%	0.1%	-1.5%
Private Equity	7.0%	7.0%	0.0%	-0.8%
Private Credit	7.0%	8.3%	1.3%	0.4%
Other Assets	0.0%	0.0%	0.0%	-7.5%
Portable Alpha	0.0%	9.3%	9.3%	-0.6%
Total Plan	100.0%	109.3%	9.3%	-0.7%



Public Equity Breakout	Policy Target	Weight	Active Weight	Δ Since Last Quarter
Domestic	27.3%	29.2%	2.0%	9.3%
Developed Non-US	14.9%	14.4%	-0.6%	2.7%
Emerging Markets	5.7%	5.4%	-0.4%	-0.2%
Equity Options	0.0%	0.0%	0.0%	-7.3%
Total	48.0%	49.0%	1.0%	4.6%

Transitioned to passive index funds

Overweight to Public Equity coming from US large caps exposure

*7/1/2020 exposures reflect adjustments for trades that were made, but not settled at beginning of month.

Plan Exposures - Bonds Look Through*

Asset Class	NEW	Active	Δ Since	
	Policy Target			Weight
Public Equity	48.0%	49.0%	1.0%	4.6%
Bonds	26.0%	23.6%	-2.4%	4.7%
Real Assets	12.0%	12.1%	0.1%	-1.5%
Private Equity	7.0%	7.0%	0.0%	-0.8%
Private Credit	7.0%	8.3%	1.3%	0.4%
Other Assets	0.0%	0.0%	0.0%	-7.5%
Portable Alpha	0.0%	9.3%	9.3%	-0.6%
Total Plan	100.0%	109.3%	9.3%	-0.7%

Bonds Breakout	Policy Target	Weight	Active Weight	Δ Since
				Last Quarter
Core Fixed Income	26.0%	19.5%	-6.5%	12.5%
Mixed Credit	0.0%	1.3%	1.3%	-3.3%
Emerging Markets Debt	0.0%	2.1%	2.1%	-1.7%
TIPS	0.0%	0.0%	0.0%	-2.3%
Cash and SD (Net)	0.0%	0.6%	0.6%	-0.5%
Total	26.0%	23.6%	-2.4%	4.7%

Bonds underweight means total portfolio slightly underweight quality/duration

Bonds portfolio overweight High Yield and EM Debt sectors while spreads remain elevated

*7/1/2020 exposures reflect adjustments for trades that were made, but not settled at beginning of month.

Risk Estimates ¹				
August 2020 Exposures and Risk ²				
	Reference Portfolio	Policy ⁴	Implementation ⁴	Actual ⁵
Volatility ³	14.22%	14.91%	16.13%	TBD
Tracking Error	Asset Allocation	Portfolio Structure	Manager Selection ⁵	
	1.93%	1.42%	TBD	

Footnotes:

- 1 Estimates based on an equal weighted (no-decay) model employing two years of daily data.
- 2 8/1 exposures used for risk analysis due to significant number of post-7/1 trade settlements bringing portfolio in line with new policy benchmarks
- 3 Volatility presented as annualized standard deviation based on current positioning
- 4 Private benchmarks proxied with daily public alternatives.
- 5 Actual position level risk sourced from BNYM, and will be subject to a 6-8 week lag due to data requirements.

Appendix

Quarter Performance – Attribution Building Blocks as of 6/30/2020

Attribution Building Blocks as of 6/30/2020											Quality of Portfolio		
	Avg Policy Target	Avg Wt in Plan	Active Weight (BPS)	Asset Class Return	cR to Plan Return	Policy Return	Implementation BM Return	Excess Return - Policy (BPS)	Excess Return - Impl. (BPS)	Impl - Policy (BPS)	Structure (BPS)	Manager Selection (BPS)	Total Value Added (BPS)
Global Public Equity	36.6%	40.3%	369	19.7%	7.9%	19.7%	19.1%	0	67	-67	13	24	37
Equity Options	7.0%	5.5%	-149	11.8%	0.7%	10.1%	10.9%	174	93	80	1	4	5
Private Equity	7.4%	7.4%	0	-5.5%	-0.4%	-20.1%	-6.2%	1452	63	1389	108	1	109
GTAA	7.0%	4.9%	-214	12.7%	0.6%	13.6%	13.9%	-86	-120	34	-11	-6	-17
Other Opportunistic	1.0%	1.8%	77	15.5%	0.3%	13.6%	16.7%	185	-127	312	10	-2	8
Private Real Estate	8.8%	8.8%	0	-2.0%	-0.2%	-1.4%	-1.4%	-63	-63	0	0	-3	-3
Public Real Estate	0.2%	1.1%	93	12.3%	0.1%	11.8%	11.8%	47	47	0	4	0	4
World infrastructure	3.0%	3.3%	28	7.5%	0.2%	11.6%	11.6%	-400	-401	0	1	-13	-12
Emerging Markets Debt	4.0%	3.9%	-14	12.1%	0.5%	11.0%	11.0%	102	107	-5	-1	4	3
Mixed Credit	3.6%	4.7%	111	11.3%	0.5%	9.9%	9.2%	139	215	-76	-3	10	7
Private Debt	7.4%	7.4%	0	-2.7%	-0.2%	-12.4%	-12.4%	969	969	0	0	66	66
Core Fixed Income	11.0%	7.9%	-314	3.3%	0.3%	2.9%	2.9%	36	39	-3	19	3	22
Cash and Short Duration (Net)	1.0%	0.9%	-8	0.0%	0.0%	0.0%	0.1%	0	-12	12	-7	0	-7
TIPS	2.0%	2.2%	21	4.2%	0.1%	4.2%	4.2%	0	0	0	-1	0	-1
PA Hedge Fund Excess Return	10.0%	9.8%	-23	4.0%	0.4%	0.6%	5.6%	338	-155	493	49	-15	34
Total SC with Overlay	110.0%	109.8%	-23	10.4%	10.4%	7.7%	9.6%	272	80	192	183	72	255

Description: This report is used to explain RSIC's performance by asset class as well as attributing each asset classes' excess return to three different effects.

Allocation Effect: The decisions made to over or underweight an asset class relative to RSICs policy targets. Because Global Public Equity is Overweight its target, and the benchmark outperformed the Plan Policy benchmark, it is adding 5BPS to the Plan's excess return over the policy benchmark.

Implementation Style Bias: The performance coming from a manager (or collection of managers) that tracks a different benchmark(s) than that which is used to measure the asset class as a whole. For example, Private Equity is benchmarked to an 80/20 + 300 BPS public benchmark in the Policy BM, but RSIC tracks these assets versus a private markets benchmark.

Manager Selection: The value added by manager's ability to outperform (or underperform) the benchmarks that we hired them to beat. This is a measure of manager "alpha".

- Quality of Portfolio Structure: The combination of the Allocation Effect and Implementation Style Bias.
- Allocation Effect: The decisions made to over or underweight an asset class relative to RSICs policy targets. Because Global Public Equity is Overweight its target, and the benchmark outperformed the Plan Policy benchmark, it is adding 5BPS to the Plan's excess return over the policy benchmark. Allocation effect is calculated as: $[\text{Asset Class Weight} - \text{Policy Weight}] * [\text{Asset Class Policy Benchmark} - \text{Total Plan Policy Benchmark}]$
- Implementation Style Bias: The performance coming from a manager (or collection of managers) that tracks a different benchmark(s) than that which is used to measure the asset class as a whole. For example, Private Equity is benchmarked to an 80/20 + 300 BPS public benchmark in the Policy BM, but RSIC tracks these assets versus a private markets benchmark. Implementation Style Bias is calculated as: $[\text{Asset Class Implementation Benchmark Return} - \text{Asset Class Policy Benchmark Return}] * [\text{Asset Class Weight in Plan}]$
- Manager Selection: The value added by manager's ability to outperform (or underperform) the benchmarks that we hired them to beat. This is a measure of manager "alpha". Manager Selection is calculated as: $[\text{Asset Class Return} - \text{Asset Class Implementation Benchmark Return}] * [\text{Asset Class Weight in Plan}]$
- 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, TIPS, Equity Options, and Commodities). Synthetic returns are provided by Russell Investments gross of financing costs. To accommodate for financing costs, LIBOR is added to the synthetic returns and removed from the collateral return.
- 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.
- Overlay allocation detail is provided by Russell Investments.
- 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.

South Carolina Retirement System Investment Commission

June 30, 2020

Performance Update

	MV at 6/30/2020	Allocation vs. Targets and Policy						
		Overlay Exposures	Net Position	% of Total System	% of Total System (Net)	FY 20 Policy Targets	Allowable Ranges	SIOP Compliance?
Total System	30,982,967,918	-	30,982,967,918	100%	100%	110%	-	-
Equity	13,604,844,026	2,763,737,576	16,368,581,602	44%	53%	51%	31-59%	Yes
Global Public Equity	10,728,889,873	2,763,737,576	13,492,627,450	35%	44%	37%	22-50%	Yes
Private Equity	2,176,831,989	-	2,176,831,989	7%	7%	7%	5-13%	Yes
Equity Options	699,122,164	-	699,122,164	2%	2%	7%	5-9%	No
Conservative Fixed Income	4,756,974,642	349,990,201	5,106,964,843	15%	16%	14%	4-24%	Yes
Cash and Short Duration	4,029,764,827	(3,959,531,927)	70,232,901	13%	0%	1%	0-7%	Yes
Core Fixed Income	727,209,814	4,309,522,128	5,036,731,942	2%	16%	13%	6-20%	Yes
Diversified Credit	4,926,308,831	-	4,926,308,831	16%	16%	15%	10-20%	Yes
Mixed Credit	1,412,818,380	-	1,412,818,380	5%	5%	4%	0-8%	Yes
Private Debt	2,290,605,411	-	2,290,605,411	7%	7%	7%	3-11%	Yes
Emerging Market Debt	1,222,885,040	-	1,222,885,040	4%	4%	4%	2-6%	Yes
Opportunistic	718,746,441	-	718,746,441	2%	2%	8%		
GAA	494,552,158	-	494,552,158	2%	2%	7%	3-11%	No
Other Opportunistic	224,194,283	-	224,194,283	1%	1%	1%	0-3%	Yes
Real Assets	3,862,366,201	-	3,862,366,201	12%	12%	12%	7-17%	Yes
Public Real Estate	481,084,609	-	481,084,609	2%	2%	1%	0-13%	Yes
Private Real Estate	2,539,909,665	-	2,539,909,665	8%	8%	8%	0-13%	Yes
Public Infrastructure	497,393,927	-	497,393,927	2%	2%	2%	0-5%	Yes
Private Infrastructure	343,978,001	-	343,978,001	1%	1%	1%	0-5%	Yes
Hedge Funds PA	3,113,727,777	(3,113,727,777)	-	10%	0%	10%	0-12%	Yes

Includes cash in the Russell Overlay separate account.

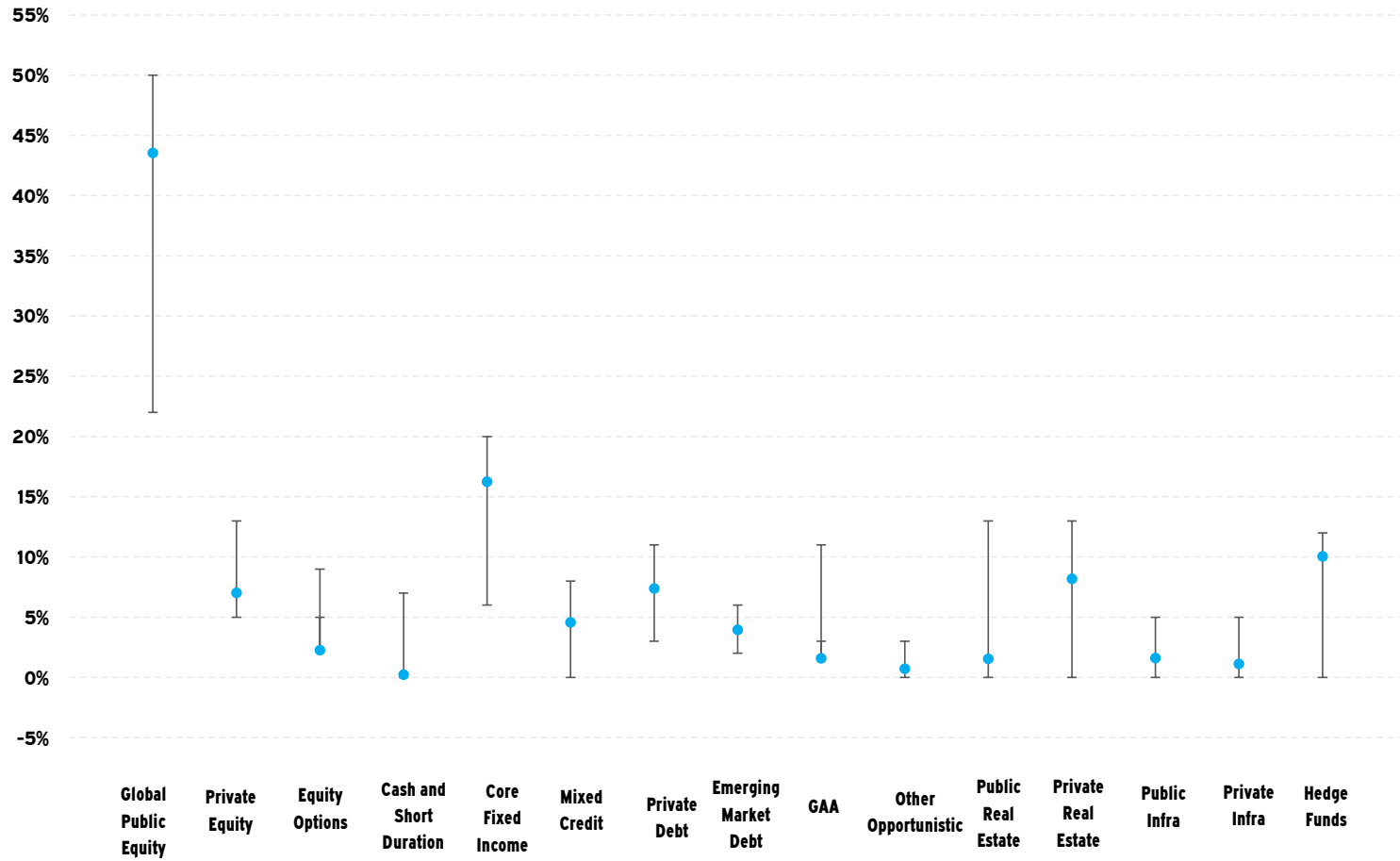
Percentages may not sum to 100% due to rounding.

Residual assets as reported by the custodian are included in the Cash and Short Duration market value for asset allocation purposes only. As of June 30, 2020, the residual assets market value was \$59,098,869.

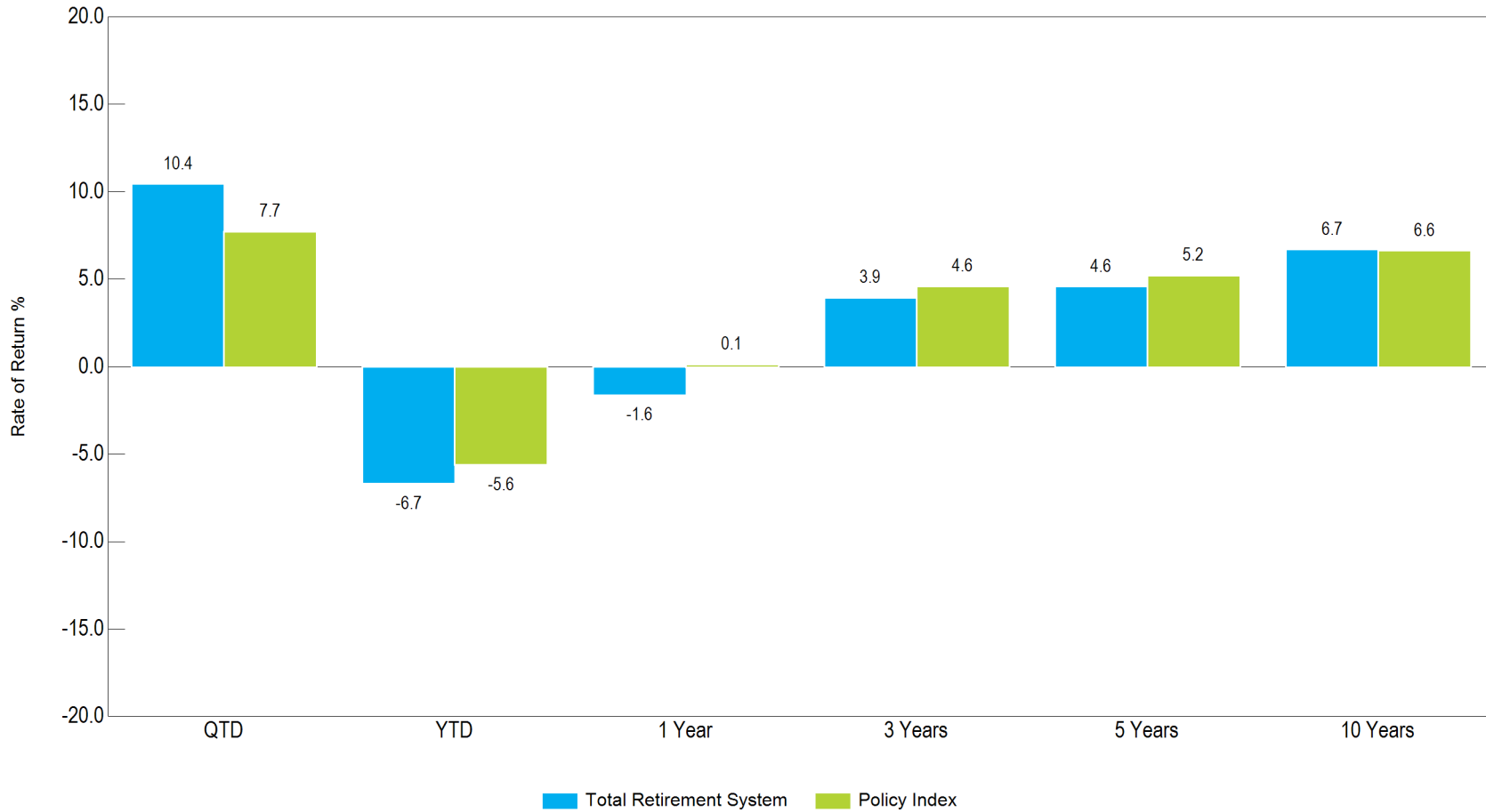
South Carolina Retirement System Investment Commission

Total Retirement System | As of June 30, 2020

Actual vs. Policy Ranges:
(Including Overlay)

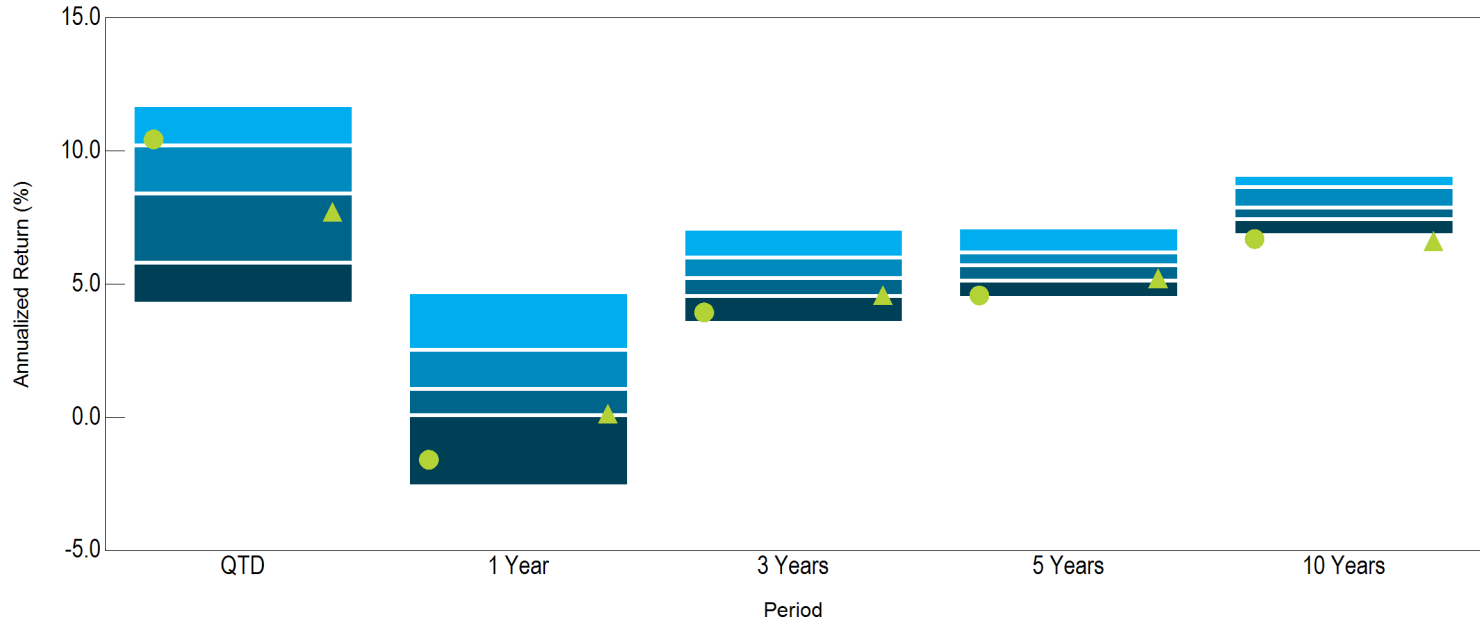


**Net Return Summary
Ending June 30, 2020**



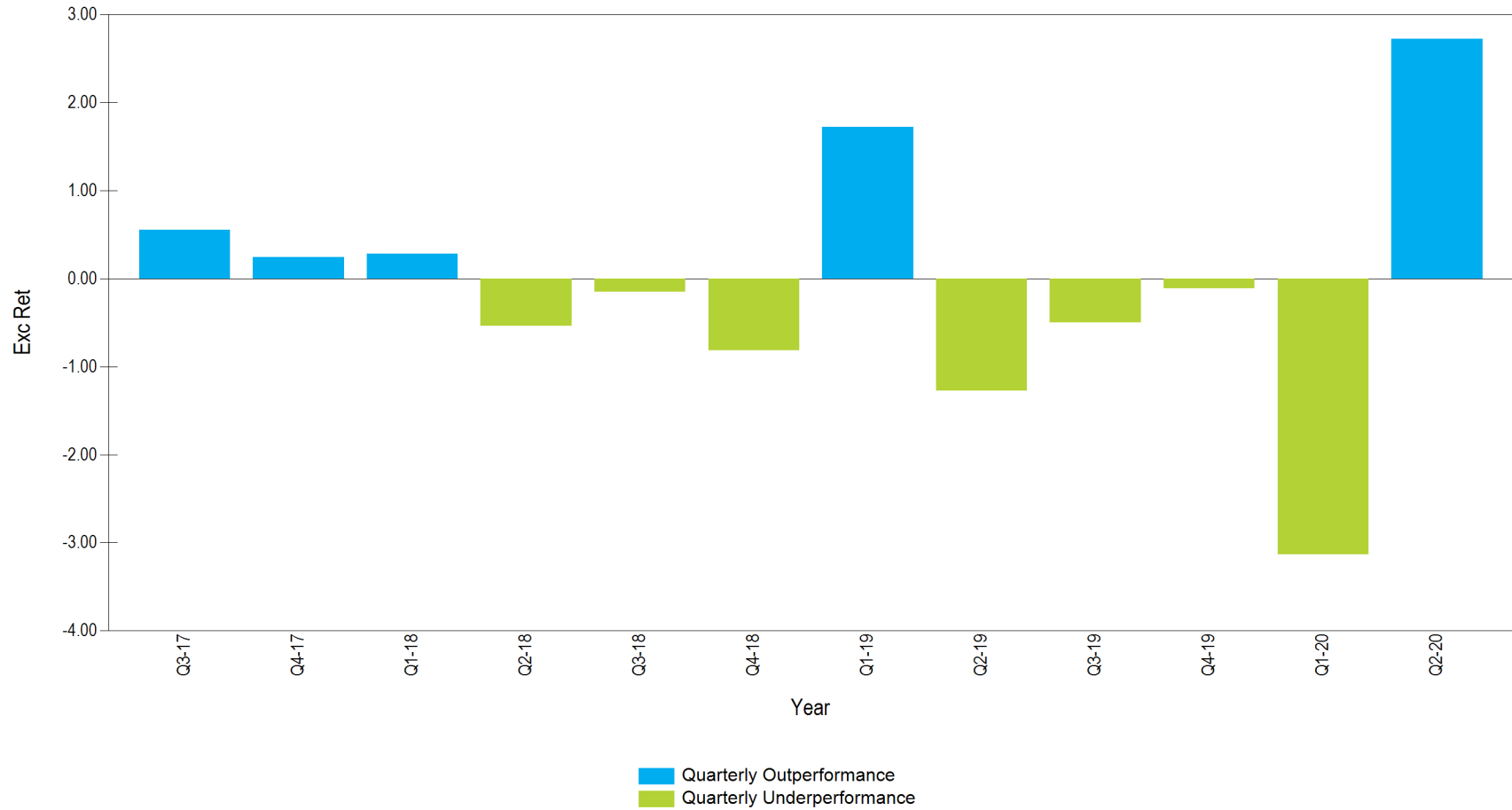
Returns for periods greater than one year are annualized.

InvMetrics Public DB > \$5B Net Return Comparison
Ending June 30, 2020



	Return (Rank)									
	QTD		1 Year		3 Years		5 Years		10 Years	
5th Percentile	11.7		4.7		7.1		7.1		9.1	
25th Percentile	10.2		2.5		6.0		6.2		8.7	
Median	8.4		1.1		5.2		5.7		7.9	
75th Percentile	5.8		0.1		4.6		5.1		7.5	
95th Percentile	4.3		-2.6		3.6		4.5		6.8	
# of Portfolios	26		26		26		25		24	
● Total Retirement System	10.4	(19)	-1.6	(94)	3.9	(93)	4.6	(95)	6.7	(97)
▲ Policy Index	7.7	(58)	0.1	(72)	4.6	(75)	5.2	(70)	6.6	(98)

Quarterly Excess Performance vs. Policy Benchmark



Net Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Retirement System	30,982,967,918	100.0	10.4	-6.7	-1.6	3.9	4.6	6.7	6.0	Jul-94
<i>Policy Index</i>			7.7	-5.6	0.1	4.6	5.2	6.6	5.6	Jul-94
Global Public Equity	10,728,889,873	34.6	20.3	-9.9	-2.7	3.4	4.8	8.0	4.3	Jun-99
<i>FY '20 Global Public Equities Custom Benchmark</i>			19.7	-7.3	0.8	5.4	6.1	8.9	4.8	Jun-99
Private Equity	2,176,831,989	7.0	-5.5	-7.6	-6.8	5.2	6.7	10.5	6.6	Apr-07
<i>80% Russell 3000/20% MSCI EAFE + 300 bps on a 3-month lag</i>			-20.1	-12.8	-7.2	5.9	7.5	11.7	12.6	Apr-07
Equity Options	699,122,164	2.3	11.2	-7.2	-2.0	2.5	--	--	4.7	Jul-16
<i>FY '20 CBOE 50/50 Put/Buy</i>			10.1	-13.5	-9.2	-0.3	2.9	6.4	2.6	Jul-16
Short Duration	416,413,556	1.3	3.2	1.4	2.9	2.5	2.2	2.0	2.0	Mar-10
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>			1.2	2.9	4.2	2.9	2.1	1.6	1.7	Mar-10
Cash and Overlay	3,613,351,272	11.7	0.1	0.3	1.4	1.3	0.6	0.3	1.1	Oct-05
<i>ICE BofA 91 Days T-Bills TR</i>			0.0	0.6	1.6	1.8	1.2	0.6	1.3	Oct-05
Core Fixed Income	727,209,814	2.3	4.4	6.6	9.1	5.5	4.7	4.2	6.1	Jul-94
<i>BBgBarc US Aggregate TR</i>			2.9	6.1	8.7	5.3	4.3	3.8	5.6	Jul-94
Mixed Credit	1,412,818,380	4.6	11.3	-3.3	-1.1	2.6	3.0	4.9	5.5	May-08
<i>50% S&P LSTA Leveraged Loan Index/50% Barclays High Yield Index</i>			9.9	-4.2	-1.0	2.7	4.1	4.9	5.4	May-08
Private Debt	2,290,605,411	7.4	-2.7	-6.8	-5.6	1.5	2.6	6.1	5.8	Jun-08
<i>S&P LSTA Leveraged Loan Index + 150 bps on a 3-month lag</i>			-12.4	-10.7	-7.7	0.7	2.6	4.6	4.0	Jun-08
Emerging Market Debt	1,222,885,040	3.9	12.1	-7.2	-4.3	0.7	3.6	3.4	4.5	Jul-09
<i>50% JP Morgan EMBI Global Diversified (USD)/50% JP Morgan EMBI Global Diversified</i>			11.0	-4.8	-1.1	2.4	3.9	3.9	5.0	Jul-09
GAA	494,552,158	1.6	12.2	-13.7	-7.0	0.2	1.6	5.1	3.9	Aug-07
<i>Total System Policy Benchmark ex-Private Markets</i>			13.6	-5.1	0.9	4.0	5.0	6.0	4.2	Aug-07

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South Carolina Retirement System Investment Commission

Total Retirement System | As of June 30, 2020

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Other Opportunistic	224,194,283	0.7	14.0	-21.1	-21.6	-2.9	--	--	-2.9	Jul-17
<i>Total System Policy Benchmark ex-Private Markets</i>			13.6	-5.1	0.9	4.0	5.0	6.0	4.0	Jul-17
Hedge Funds Portable Alpha	3,113,727,777	10.0	4.1	-2.4	0.6	3.3	2.6	7.1	7.3	Jul-07
<i>ICE BAML 3 Month T-Bill + 250 BPS SC Custom</i>			0.6	1.8	4.1	3.6	2.4	1.4	1.6	Jul-07
Public Real Estate	481,084,609	1.6	12.3	-13.8	-7.9	3.3	--	--	1.8	Jul-16
<i>FTSE NAREIT Equity REIT</i>			11.8	-18.7	-13.0	0.0	4.1	9.1	-0.4	Jul-16
Private Real Estate	2,539,909,665	8.2	-2.0	-0.3	3.4	7.2	8.5	10.7	6.8	Jul-08
<i>NCREIF ODCE Net + 100 BPS SC Custom</i>			-1.4	-0.4	2.4	5.8	8.2	11.7	5.6	Jul-08
Public Infrastructure	497,393,927	1.6	11.1	-7.6	-1.0	4.7	--	--	5.0	Jun-16
<i>DJ Brookfield Global Infrastructure</i>			11.6	-11.8	-6.0	2.8	3.9	9.7	5.2	Jun-16
Private Infrastructure	343,978,001	1.1	0.5	-0.1	-1.8	--	--	--	4.7	Jul-18
<i>DJ Brookfield Global Infrastructure</i>			11.6	-11.8	-6.0	2.8	3.9	9.7	2.9	Jul-18

Return calculations are rounded to the nearest tenth of percent and may differ slightly from BNYM reported returns.

Statistics Summary						
5 Years Ending June 30, 2020						
	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Retirement System	4.6%	8.5%	-0.3	1.1	0.4	1.9%
Policy Index	5.2%	7.6%	--	1.0	0.5	0.0%
Global Public Equity	5.1%	15.1%	-0.5	1.0	0.3	2.0%
FY '20 Global Public Equities Custom Benchmark	6.1%	14.8%	--	1.0	0.3	0.0%
Private Equity	6.7%	4.8%	-0.1	0.1	1.2	13.1%
80% Russell 3000/20% MSCI EAFE + 300 bps on a 3-month lag	7.5%	13.5%	--	1.0	0.5	0.0%
Short Duration	2.2%	1.5%	0.1	0.6	0.7	1.5%
BBgBarc US Govt/Credit 1-3 Yr. TR	2.1%	1.0%	--	1.0	1.0	0.0%
Cash and Overlay	-3.0%	9.8%	-0.4	-7.6	-0.4	9.8%
ICE BofA 91 Days T-Bills TR	1.2%	0.3%	--	1.0	0.2	0.0%
Core Fixed Income	4.7%	3.2%	0.5	1.0	1.1	0.9%
BBgBarc US Aggregate TR	4.3%	3.1%	--	1.0	1.0	0.0%
Mixed Credit	2.9%	7.4%	-0.6	1.0	0.2	2.0%
50% S&P LSTA Leveraged Loan Index/50% Barclays High Yield Index	4.1%	7.0%	--	1.0	0.4	0.0%
Private Debt	2.6%	4.3%	0.0	-0.1	0.3	8.4%
S&P LSTA Leveraged Loan Index + 150 bps on a 3-month lag	2.6%	6.4%	--	1.0	0.2	0.0%
Emerging Market Debt	3.6%	11.2%	-0.1	1.1	0.2	1.9%
50% JP Morgan EMBI Global Diversified (USD)/50% JP Morgan EMBI Global Diversified	3.9%	9.9%	--	1.0	0.3	0.0%
GAA	1.0%	11.6%	-1.1	1.2	0.0	3.6%
Total System Policy Benchmark ex-Private Markets	5.0%	9.6%	--	1.0	0.4	0.0%
Hedge Funds Portable Alpha	2.6%	4.5%	0.0	-1.4	0.3	4.6%
ICE BAML 3 Month T-Bill + 250 BPS SC Custom	2.4%	0.5%	--	1.0	2.5	0.0%
Private Real Estate	8.5%	2.3%	0.1	0.1	3.2	4.2%
NCREIF ODCE Net + 100 BPS SC Custom	8.2%	3.7%	--	1.0	1.9	0.0%

Disclaimer

Disclaimer

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CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM," "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

Retirement System Investment Commission

September 10, 2020

Endpoint Bias Discussion

Introduction

- Almost all investors look at historical returns when making investment decisions.
- However, this data may be biased or incomplete, depending on the time period chosen, as this represents a single “snapshot” of time.
- Endpoint bias refers to the inclusion or exclusion of data that significantly skews results.
 - That is, if the recent past (or the starting period) witnessed unusually high or low returns, then long-term results can change considerably.
 - Starting point bias is as significant as endpoint bias when dramatic investment results are at the beginning of the period.
- Relying solely on data that is biased in this fashion can result in investors making flawed decisions.

Endpoint Bias: Examples

Example 1: Changing Markets

- As of March 2000, the Russell 1000 Growth index had outperformed its Value counterpart by 1.3% annually over twenty years.
- From this data, investors might initially conclude that growth stocks offer a long-term premium relative to value stocks.
- When the twenty-year trailing return is measured one year later, the premium is reversed. Value stocks outperformed growth stocks by an annualized 2.1%.

	20 Years As of 3/00 (%)	20 Years As of 3/01 (%)
Russell 1000 Growth	18.5	13.2
Russell 1000 Value	17.2	15.3

Example 2: Anomalies

- For the twenty-year period ending February 2008, the S&P 500 index had earned 3.4% more annually than the Barclays Aggregate index.
- This was consistent with the long-term premium observed for stocks over bonds.
- However, when measured one year later, investment grade bonds outperformed by an annualized 0.2% over the twenty-year period. Note that this relationship only lasted for one month.

	20 Years As of 2/08 (%)	20 Years As of 2/09 (%)
S&P 500	10.8	7.1
Barclays Aggregate	7.4	7.3

Example 3: Short Time Periods

- Measured over a shorter period of five years ending March 2000, the Russell 2000 Growth index outperformed its Value counterpart by 10.8% on average, per year.
- Twelve months later, small cap value stocks beat small cap growth stocks over the trailing five-year period.

	5 Years As of 3/00 (%)	5 Years As of 3/01 (%)
Russell 2000 Growth	31.8	11.6
Russell 2000 Value	21.0	14.2

- For both the five- and twenty-year periods examined, endpoint bias was significant for growth and value stocks due to the extraordinary rise and fall of technology stocks.

Retirement System Investment Commission

Endpoint Bias Discussion

Example 4: Cyclicality

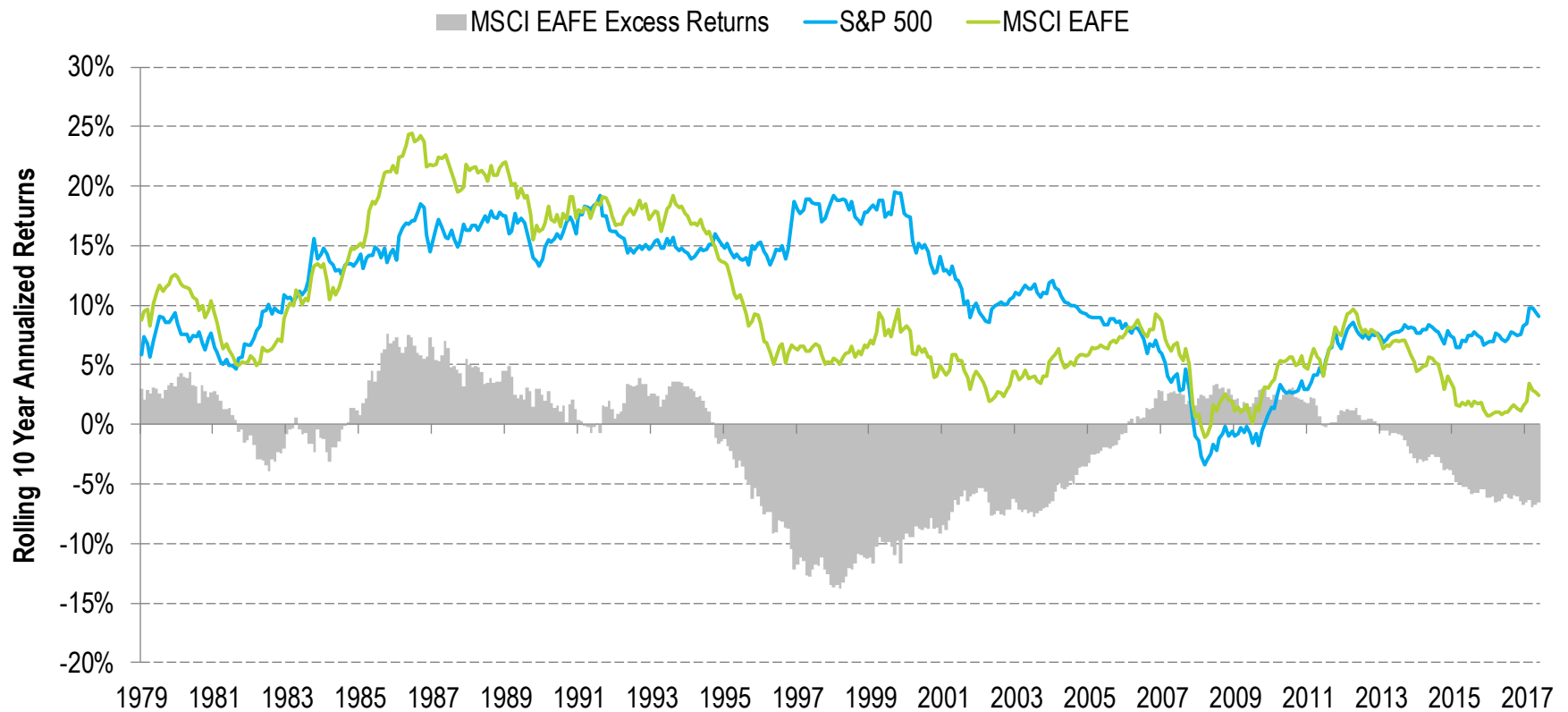
- For the ten-year period ending December 1989, the MSCI EAFE index earned 4.5% more than the S&P 500 index, annually.
- When measured ten years later, the situation was reversed: U.S. equities exhibited an annualized ten-year outperformance of 11.2%.
 - Foreign equity returns were led by dramatic increases in the Japanese equity market in the 1980s.
 - Japanese stocks were then responsible for dragging down performance for foreign equity through the 1990s.
- Over the following decade, the roles reversed again and international equities outperformed domestic for the period ending December 2009.

	10 Years As of 12/89 (%)	10 Years As of 12/99 (%)	10 Years As of 12/09 (%)	8 Years As of 12/17 (%)
MSCI EAFE	22.0	7.0	1.2	6.3
S&P 500	17.5	18.2	-1.0	13.9

- This trend has reversed once again, with U.S. equities significantly outperforming foreign equities over the subsequent eight years.

Example 4: Cyclicality (continued)

- The chart below shows further evidence of the cyclicality experienced by international and domestic equities.

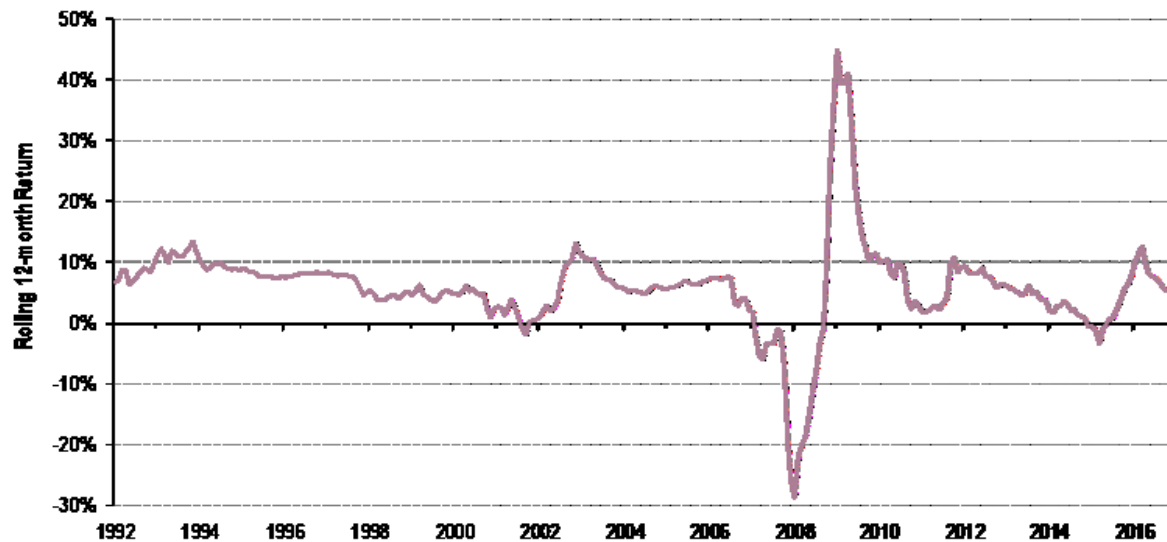


Example 5: Insufficient Data

- Often, the time period being measured may be particularly favorable (or unfavorable) for a certain investment style.
- Bank loans had never experienced more than a 2% loss over a twelve-month period until the arrival of the Global Financial Crisis, when they declined -28.8%.

One-Year Rolling Returns for Bank Loans

1992 to 2017



Example 6: Including All Available Data

- Between 2000 and 2007, S&P GSCI (commodities) performance was seven times that of the S&P 500.
- However, when looking at the full history of the S&P GSCI, the annualized returns lag the S&P 500 by almost four hundred basis points.

	2000 – 2007 (%)	1970 – 2017 (%)
S&P GSCI	13.2	6.7
S&P 500	1.7	10.6

- Commodities experienced strong performance between 2000 and 2007, a period that started in negative territory for equities due to the Tech Crisis of 2000.

Retirement System Investment Commission

Endpoint Bias Discussion

Example 7: Active Management

- As of December 2010, the median value manager was performing better than the median growth manager versus their respective benchmarks.
- For the last three periods in the below chart, the median growth manager has underperformed their benchmark while the median value manager has outperformed in all but one (only 3 bp underperformance)
- These swings are more likely due to market factors (e.g., cap or sector bias) than they are due to a sudden change in manager skill.

Performance versus Benchmark for

Large Cap Value and Large Cap Growth Managers

	Median for 5 Years Ending 12/08	Median for 5 Years Ending 12/10	Median for 5 Years Ending 12/13	Median for 5 Years Ending 12/15	Median for 5 Years Ending 12/17
Large Cap Value	35 bp	118 bp	97 bp	-3 bp	52 bp
Large Cap Growth	103 bp	5 bp	-65 bp	-60 bp	-75 bp

Recommended Approach

- Examine the longest time period available.
 - More data is always better when making statistical estimates.
- Examine periods that contain a variety of market and economic conditions.
 - Data from a bull market cannot properly describe an entire business cycle, for example.
- Examine multiple sub-periods or calculate trimmed means¹.
 - The available history may include periods of extreme volatility.
 - If so, observing sub-periods and continuously rolling periods may help to limit anomalous data points and explain more typical asset class behavior.
- Examine the underlying drivers of asset class returns.
 - An understanding of fundamental drivers may improve our confidence in estimates.
 - Investors may benefit from forward-looking scenario analysis, based on an understanding of the fundamental drivers of historical returns.

¹ A trimmed mean is a method of averaging a set of values that removes extreme values.

Summary

- Endpoint bias refers to investors' tendency to place undue significance on results for measurement periods ending in the present.
 - If the recent past has witnessed unusually high or low returns, then long-term results can change considerably.
 - Investors should be aware of endpoint biases, to avoid selling underperforming assets at the wrong time.
 - Also, it might allow investors to find opportunities to profit from mean reversion in the markets through a contrarian investment style.
- Changing markets and insufficient data are two causes of return behavior in financial markets.
- Endpoint bias can also be found in volatility and correlation data, as well as returns of active managers.
- To gauge and mitigate the effects of endpoint bias, Meketa Investment Group recommends following the approach outlined on the prior page.
 - This approach also holds true when evaluating and selecting managers to be hired (or fired).

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Endpoint Bias Discussion

Appendix: Public Natural Resources Cyclicity

- For the ten-year period ending December 2007, the S&P North America Natural Resources index earned 6.9% more than the S&P 500 index, annually.
- When measured ten years later, the situation reversed: domestic equities exhibited an annualized ten-year outperformance of 8.7%.

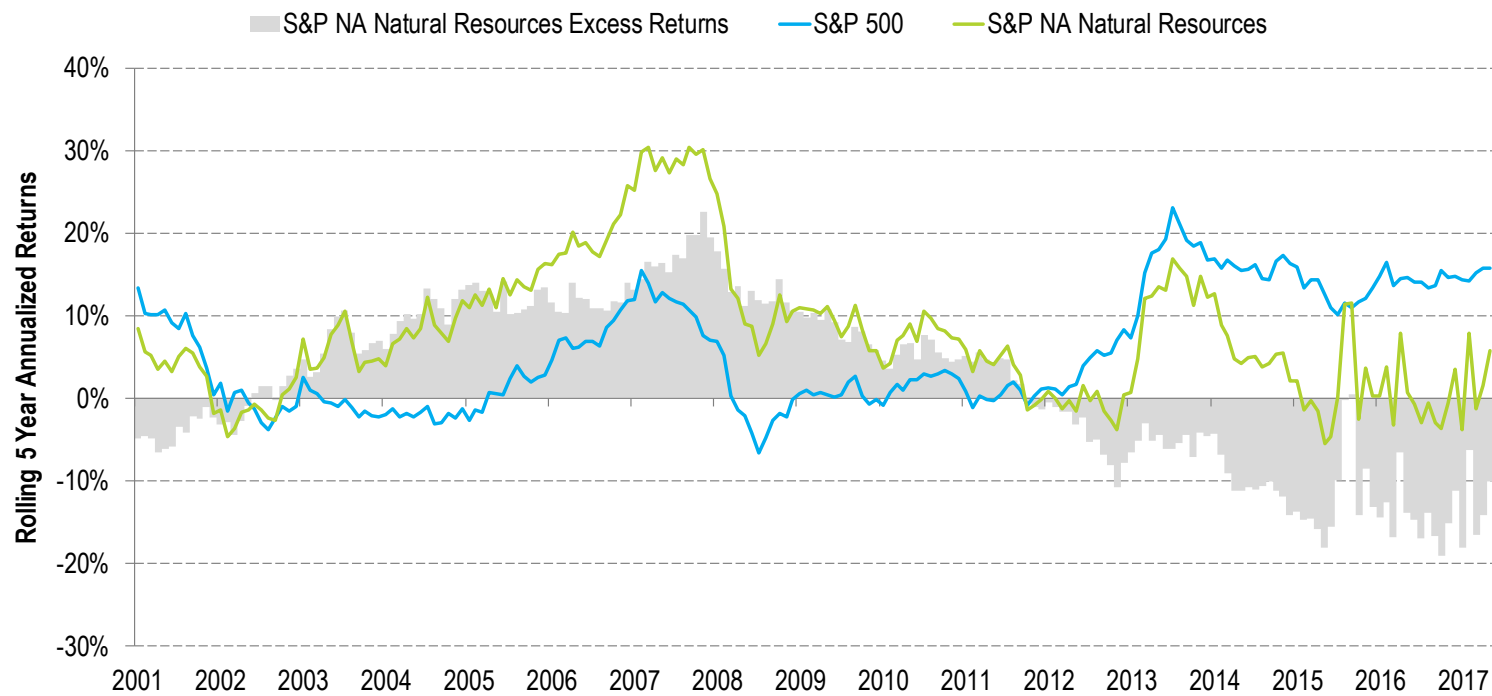
	10 Years As of 12/07 (%)	10 Years As of 12/17 (%)
S&P NA Natural Resources	12.8	-0.2
S&P 500	5.9	8.5

- Public natural resources returns were hurt in the last decade by the dramatic decline in oil prices, which somewhat coincided with a bull market for equities coming out of the Global Financial Crisis.

As of 12/17	1 YR (%)	5 YR (%)	10 YR (%)	Since Inception (%)
S&P NA Natural Resources	1.2	1.1	-0.2	7.1
S&P 500	21.8	15.8	8.5	10.4

Appendix: Public Natural Resources Cyclicity (Continued)

- Public natural resource equities returns are exposed to the cyclical nature of commodities returns, and thus will experience periods of out- and under-performance relative to the broad U.S. equities market.



- We can observe that between 2002 and 2012 public natural resource equities outperformed broad equities in all trailing five-year periods. That trend reversed, however, mainly driven by the decline in energy prices.

Appendix: Emerging Market Equities

- Recent emerging markets equities underperformance brought the annualized since-inception returns to par with U.S. equities.
- However, taking a closer look at the sub-periods available, we can observe periods of relative out-performance from emerging markets equities that, coupled with their still attractive historical standalone realized returns and future expected return potential, points to clear diversification benefits for investors.

As of 12/17	Since Inception (%)	Since Inception to 12/98 (%)	01/99 to 03/08 (%)	04/08 to 12/17 (%)
MSCI Emerging Markets	11.1	13.4	17.7	2.9
S&P 500	10.7	19.0	2.4	9.8

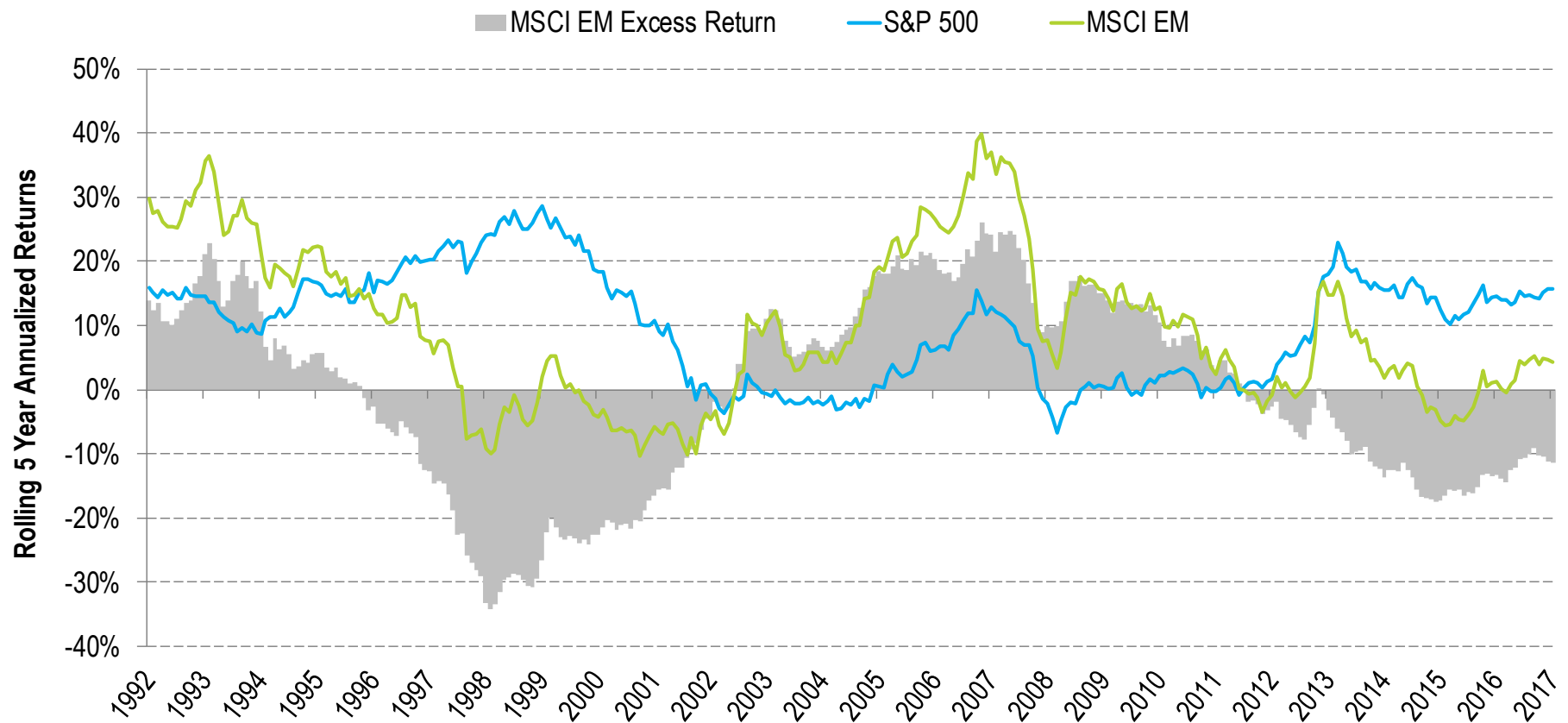
¹ MSCI Emerging Markets Index Inception is January 1988.

Retirement System Investment Commission

Endpoint Bias Discussion

Appendix: Emerging Market Equities (continued)

- The graph below shows the cycle of historical out- and under-performance of emerging markets equities relative to U.S. equities.



Retirement System Investment Commission

Endpoint Bias Discussion

Appendix: High Yield Bonds

- High yield bonds have been a source of additional return to core fixed income holdings, given their increased credit risk.
- However, in November 2008, in the middle of the Global Financial Crisis, investors looking at past performance may have concluded that high yield investing was not worth the risk given that the Barclays Aggregate had outperformed the Barclays High Yield Index in all trailing periods.

As of 11/30/2008	1 YR (%)	5 YR (%)	10 YR (%)	20 YR (%)	Since Inception (%)
Barclays High Yield Index	-31.2	-1.8	1.4	5.9	7.4
Barclays Aggregate Index	1.7	4.1	5.3	7.2	8.3

- That relationship changed quickly. Just a year later, high yield had experienced an impressive recovery.

As of 11/30/2009	1 YR (%)	5 YR (%)	10 YR (%)	20 YR (%)	Since Inception (%)
Barclays High Yield Index	65.0	6.1	6.5	8.5	9.2
Barclays Aggregate Index	11.6	5.5	6.4	7.1	8.4

Retirement System Investment Commission

Endpoint Bias Discussion

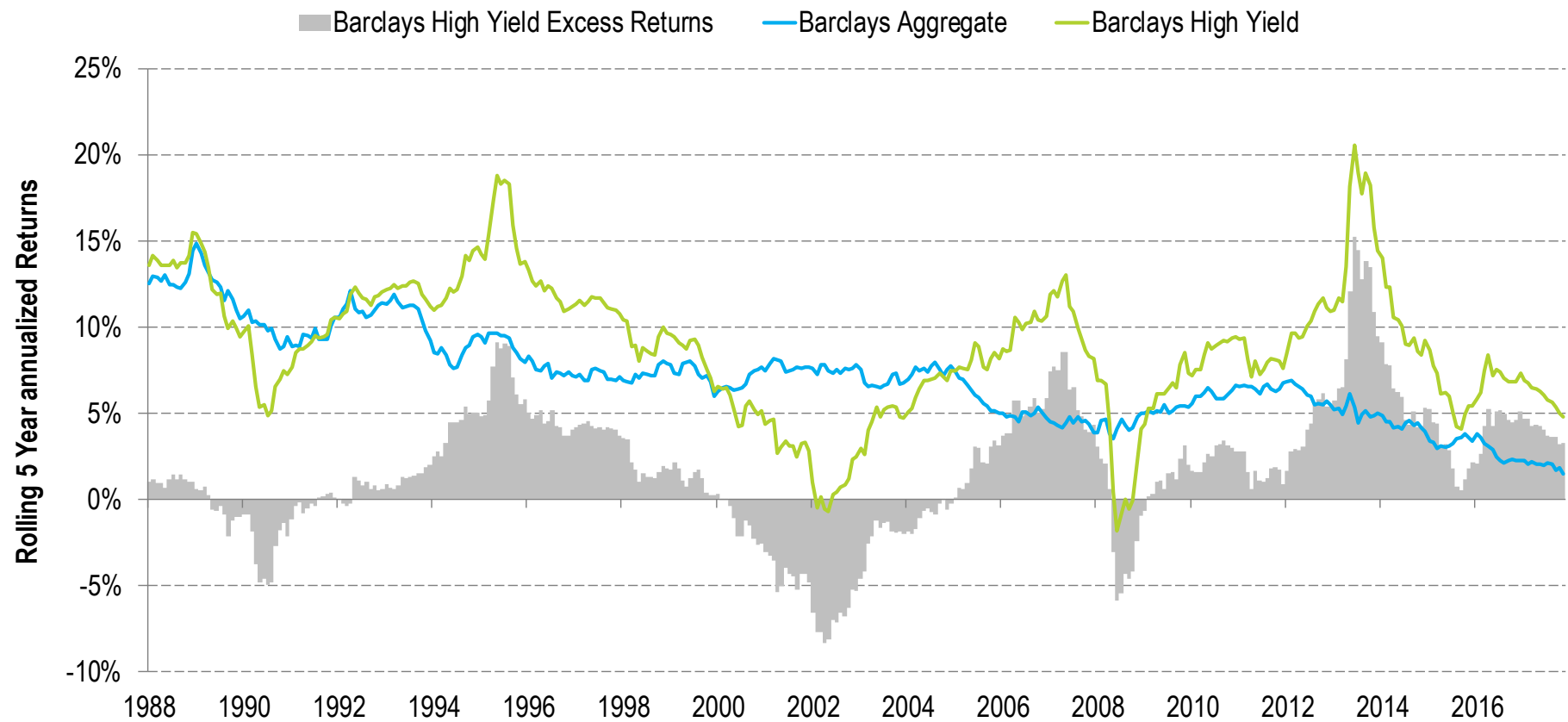
Appendix: High Yield Bonds (continued)

- Fast forward to 2017, and high yield annualized performance doubled that of core bonds after the 2009 recovery.

As of 12/31/2017	Since Inception to 11/08 (%)	12/08 to 12/17 (%)
Barclays High Yield Index	7.4	8.0
Barclays Aggregate Index	8.3	4.0

Appendix: High Yield Bonds (continued)

- High yield bonds performance is exposed to the cyclical nature of the economy and credit, which results in periods of relative out- and under-performance to core bonds.



Retirement System Investment Commission

Endpoint Bias Discussion

Appendix: Changing Markets

- As of March 2000, the Russell 1000 Growth index outperformed its Value counterpart in all trailing periods, fueled by an impressive recent performance.

As of 03/31/2000	1 YR (%)	5 YR (%)	10 YR (%)	20 YR (%)	Since Inception ¹ (%)
Russell 1000 Growth	34.1	31.8	21.6	18.5	18.3
Russell 1000 Value	6.3	21.0	16.0	17.2	16.8

- From this data, investors might initially conclude that growth stocks offer a long-term premium relative to value stocks.
- However, just one year later, with the bursting of the technology bubble, the premium had reversed.

As of 03/31/2001	1 YR (%)	5 YR (%)	10 YR (%)	20 YR (%)	Since Inception ¹ (%)
Russell 1000 Growth	-42.7	11.6	12.7	13.2	14.5
Russell 1000 Value	0.3	14.2	15.2	15.3	16.0

¹ Inception for both Russell 1000 Growth and Russell 1000 Value indices was January 1979.

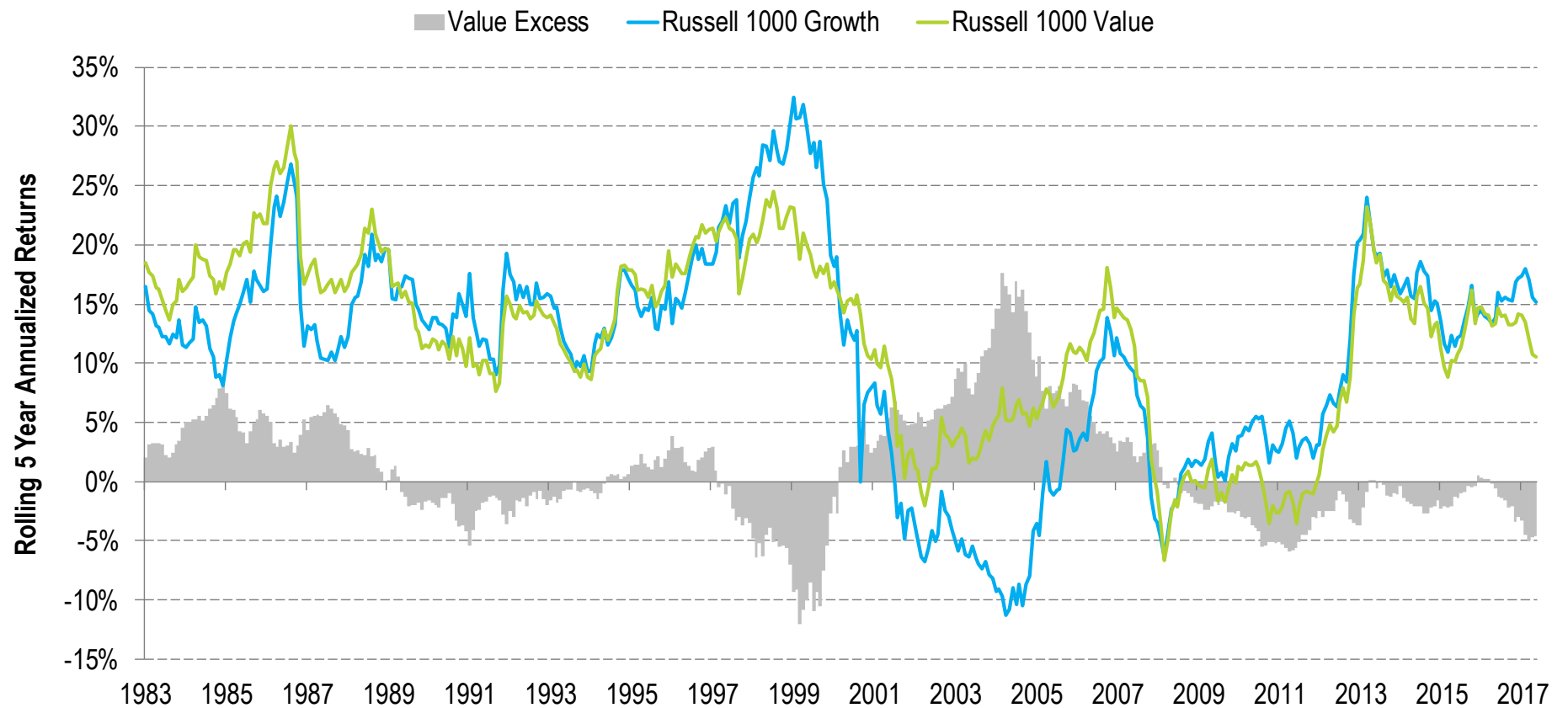
Appendix: Changing Markets (continued)

- Fast forward to 2018, and Russell 1000 Value annualized performance almost doubled that of Growth stocks since the 2000 technology crisis.

As of 4/30/2018	Since Inception to 03/00 (%)	04/00 to 04/18 (%)
Russell 1000 Growth	18.3	3.7
Russell 1000 Value	16.8	6.7

Appendix: Changing Markets (continued)

- The chart below shows further proof of the cyclicity experienced by U.S. large cap value equities relative to U.S. large cap growth equities.



The logo for K&L GATES, featuring the text "K&L GATES" in white, uppercase, sans-serif font on an orange rectangular background.

Fiduciary Duties

A Presentation for the South
Carolina Retirement System
Investment Commission

September 10, 2020

K&L Gates LLP

Margaret Niles

Andrew Feucht

Won-Han Cheng



AGENDA

- Basics on fiduciary duties
 - Duty of loyalty
 - Duty of care
 - Other duties
- Why do fiduciary duties matter?
 - Trustees: pension fund trustees do get sued
 - Trustees: dealing with “problem” investments
 - Managers also have fiduciary duties

WHAT IS A FIDUCIARY?

- Fiduciary: person in special relationship of trust, confidence and responsibility to others
 - Trustees and officers of a pension investment system are fiduciaries
 - RSIC itself is a fiduciary
 - Exclusive authority for investing and managing all assets held in trust for participants and beneficiaries of five state DB plans
 - Commission as an organization has fiduciary responsibilities to pension participants and beneficiaries
 - Commission members are fiduciaries
 - They must ensure that RSIC satisfies its fiduciary responsibilities

WHAT ARE FIDUCIARY DUTIES?

- Universal concept includes:
 - Duty of loyalty
 - Duty of care
- Additional concepts:
 - Derived from various sources:
 - Duty of obedience / compliance with governing documents
 - Duty to diversify investments
 - Duty to use plan assets only to pay plan participants and beneficiaries and “reasonable” plan expenses
 - RSIC Governance Policy Manual Part I
 - Especially Sections (G), (H), and (I)

DUTY OF LOYALTY

- Trustees have a duty of loyalty to the organization and its beneficiaries
 - Must act in the best interests of RSIC
 - Must not place own interests ahead of RSIC's
 - Personal relationships, family members, colleagues, friends
 - Affiliated entities (your “day job”)
 - Must avoid actual, potential and apparent conflicts of interest
 - Must always wear your “trustee hat” and consider only what is best for RSIC

DUTY OF LOYALTY - CONFLICTS OF INTEREST

- Conflicts issues can be murky:
 - “Actual” conflict: Because of other activities or relationships, a person is unable to be impartial, his/her objectivity is impaired, or he/she has an unfair competitive advantage
 - “Potential” conflict: Same, but the conflict circumstances may or may not occur
 - “Appearance” of conflict: Others looking at the situation may perceive that the decision-maker is not acting in the best interests of the organization

DUTY OF LOYALTY – CONFLICTS

- Key point: Appearance of conflicts may be the biggest concern
 - Consider how others see the situation
 - Is there an activity or relationship that could affect the fiduciary's decision?
 - Does the decision-making process allow bias to affect the decision?
 - Activities or relationships that have the potential to cause partiality, impairment of objectivity or unfair advantage *may undermine confidence in the decision-making process*

DUTY OF LOYALTY - CONFLICTS

- For RSIC, separation of pension plan from investment commission eliminates certain issues
 - Common scenarios that RSIC does not face:
 - Some trustees are pension beneficiaries and the board makes decisions on pension benefits
 - Example of a problem: San Diego City Employees' Retirement System
 - Many aspects to this scandal, but one fact that stood out was that trustee actions increased their own pensions to the detriment of the pension system
 - State employee asks a trustee for help with benefits
 - Fortunately for RSIC, these issues do not arise

DUTY OF LOYALTY -- CONFLICTS

- Investment conflicts can arise in current RSIC structure
 - Delegation of investment decision-making to staff does not eliminate potential for conflicts
 - Even asset allocation decision could give rise to appearance of conflict
 - E.g., if a trustee has a financial interest in a private equity or hedge fund manager, a commission decision to increase allocation to alternative investments may appear to be a conflict
 - Same issue for commission approval of a new type of investment

DUTY OF LOYALTY -- CONFLICTS

- Appearance of investment conflicts can arise for any institutional investor
 - Scenarios RSIC might face:
 - Family member or friend works for a firm that provides products or services to RSIC -- e.g., a private equity fund manager or investment adviser
 - Former RSIC employee now works for a manager that is seeking investment from RSIC
 - Trustee has a financial interest in an investment manager
 - Key point again: appearance of trustee conflict is the concern

DUTY OF LOYALTY - CONFLICTS

- How to deal with conflicts? Disclosure
 - Even though the standard idea is to “avoid” conflicts of interest, conflicts may simply be unavoidable
 - Disclosure is key first step
 - State ethics laws may govern what must be disclosed
 - Trustee duty of loyalty means trustees should be mindful of conflicts and take initiative to disclose
 - When in doubt, disclose
 - But even if the relationship is disclosed, the appearance of conflict may be a problem

DUTY OF LOYALTY - CONFLICTS

- How to deal with conflicts? After disclosure
 - Applicable law or conflict of interest policy may prohibit the transaction
 - RSIC Governance Policy Manual Part I
 - Section (I) lists conflicted actions that are prohibited
 - Refers to relevant SC laws
 - Interested trustee may need to recuse and abstain
 - Interested trustee should not be part of the evaluation, discussion or vote
 - Independent advisers can help validate decision
 - If transaction not prohibited, decision-makers should still consider appearance of conflict

DUTY OF CARE

- Classic description:
 - Must act in good faith, with care, skill and diligence that an “ordinarily prudent person” would exercise under similar circumstances in a like position
 - What is an ordinarily prudent person?
 - Must consider similar circumstances and like position
 - This means the expectation may really be “prudent expert”
 - Trustees with expertise are expected to apply that expertise
 - RSIC members are all required to be specialists or have a high level of competence in a relevant field

DUTY OF CARE

- What is required?
 - Prepare for and attend meetings, participate, pay attention
 - Be informed through diligence
 - Do “homework”
 - Ask questions
 - Seek additional information if needed for a decision
 - Seek expert advice if needed
 - But must exercise independent judgment

DUTY OF CARE

- Delegation and reliance
 - Scope of decision-making is unique to an organization
 - Factors include expertise and time required for decisions, requirements of founding documents and statutes
 - *May* rely on information and advice from persons qualified to give the information and advice:
 - Staff, investment advisers, attorneys, accountants and other experts
 - Board committees
 - *Should* rely on others when expertise is required
 - Fiduciary duty requires selection and monitoring with due care

DUTY OF CARE

- Fiduciary duty is demonstrated through (1) prudent process and (2) documenting the process
 - Prudent process may/should involve documenting:
 - Creating a process for making investment decisions
 - Following that process in every case
 - Periodic reassessment of process
 - Review whether RSIC provides effective governance
 - Self-evaluation
 - Look for advice on “best practices”
 - As appropriate, suggest improvements and adjust

OTHER FIDUCIARY DUTIES?

- Duty of obedience
 - Comply with statutes, regulations, charter or equivalent governing RSIC
 - Comply with other laws
 - Note: SC pension fund is not subject to ERISA, but many public pension funds look to ERISA for guidance
 - Generally considered to be best practices and would probably be cited as best practices in a lawsuit
 - Look to Betsy and her team to make sure you are doing this

OTHER FIDUCIARY DUTIES?

- Duty to diversify assets
 - Determining the investment allocation is one of the key responsibilities of a board
 - Can be considered part of the general duty of care
 - Allocation should be based on sound portfolio management principles
 - Does this argue against divestment?

OTHER FIDUCIARY DUTIES?

- Duty to incur only costs that are appropriate and reasonable
 - RSIC not responsible for administration of the retirement system
 - Costs of RSIC include:
 - Staff, trustees, overhead
 - Fees paid to managers – increasingly under public scrutiny
 - Transparency vs. confidentiality

DO PENSION BOARDS ACTUALLY GET SUED?

- Yes, and fiduciary duties are usually at issue
 - Claims may include various parties
 - Plan sponsor or organization that manages investments
 - Board or commission that oversees the organization/staff
 - Individual trustees
 - Key point
 - The claim may be against the board or the organization, not trustees per se, but the same basic set of allegations arise
 - This is why we look at claims against institutions when considering fiduciary duties of trustees

DO PENSION BOARDS GET SUED?

- Many recent lawsuits raise issues not likely to apply to RSIC
 - Claims against DC plan sponsors and fiduciaries
 - Alleging breach of fiduciary duties in offering high-fee options that produce lackluster results
 - E.g., B. Braun Medical ERISA plan faces allegations of unreasonable and wasteful fees and costs
 - Claims relating to benefits
 - E.g., Portico, Lutheran Church Board of Pensions faced suits related to reducing DB pensions and terminating a DB plan
 - Fortunately for RSIC, these issues do not arise

DO PENSION BOARDS GET SUED?

- Boards and trustees may be sued for breach of fiduciary duty in investment decisions
 - Suits arise when investments goes bad
 - Claims of breach of fiduciary duty may vary
 - Lack of due care in investing in funds where underlying investments are not known or independently verifiable
 - Lack of due care in monitoring such investments
 - Appearance of conflicts of interest in selecting a manager that has minimal track record

DO PENSION BOARDS GET SUED?

- Example: Kentucky Retirement System
 - System went from fully funded in early 2000s to significantly underfunded
 - Claims of board mismanagement
 - Lack of oversight of investment program investments in “black box” hedge funds
 - Significant fees
 - Promises of low risk not borne out
 - “Red flags”
 - Madoff scandal should have been a red flag?
 - Any bad acts publicly known about the managers -- dishonesty, fraud
 - Criticism of alternative managers for fees and costs

“PROBLEM” INVESTMENTS

- What problem investments require board attention?
 - Financial strain raises risk
 - Ponzi schemes or simple theft
 - Manager misconduct unrelated to investments
 - Manager misconduct related to investments
 - e.g., failure to follow investment guidelines
 - Possible bankruptcy
 - Problems may cause concern about board’s exercise of duty of care

“PROBLEM” INVESTMENTS

- What should a board do?
 - Duty of care: Be informed, to avoid being caught unaware
 - Encourage investment staff to inform the board of concerns
 - Watch for “red flags”
 - Reporting becomes less timely, less complete
 - Managers cannot be reached for calls or meetings
 - Reported results do not make sense -- especially in comparison to other, similar investments

“PROBLEM” INVESTMENTS

- What else should a board do?
 - Duty of care: Protect the interests of the fund
 - Get the facts
 - Staff and advisers should provide appropriate documentation for board action and be available for discussion
 - Evaluate options
 - Note that suing a fund may mean, in effect, suing yourself
 - A “board memo” -- can be privileged and not subject to public disclosure
 - Form a special committee?
 - Collaborate and discuss with others -- co-investors, advisers
 - Don't hesitate

MANAGER FIDUCIARY DUTIES

- Does the fact that investment managers are fiduciaries protect trustees?
 - Manager fiduciary duties may be more limited than you would wish
 - Language in most private funds and many separate accounts agreements seek to minimize the manager's fiduciary duties
 - Consider ERISA
 - Separate account managers are ERISA fiduciaries
 - Fund managers typically are *not* ERISA fiduciaries
 - Key point: It is not enough to pass down fiduciary duties to the managers

K&L GATES

Delegated Investments (June 4, 2020 to September 9, 2020)

Asset Class	Investment	Investment Amount	Closing Date
Private Credit	Barings Capital Investment Corporation	Lesser of \$137.5 M or 25% of fund commitments	June 22, 2020
Real Assets (RE)	Crow Holdings Realty Partners IX, L.P.	Up to \$100 M	June 30, 2020
Private Equity	Silver Lake Partners VI	Up to \$100 M	July 10, 2020
Private Equity	Horsely Bridge Strategic Fund V	Up to \$200 M	July 17, 2020
Private Equity	Nordic Capital X	Up to €100 M	August 4, 2020