RSIC
RETIREMENT SYSTEM INVESTMENT COMMISSION

Commission Meeting Agenda

Thursday, November 8, 2018 9:30 a.m.

RSIC Presentation Center

I. Call to Order and Consent Agenda
   A. Adoption of Proposed Agenda
   B. Approval of June & September Minutes

II. Chair's Report
   A. Approve Proposed 2019 Meeting Schedule

III. Fiduciary Performance Audit Report ~ Funston Advisory Services, LLC

IV. Audit & Enterprise Risk Management Committee Report

V. CEO's Report
   A. Discuss and Approve SIOP

VI. CIO's Report
   A. 3rd Quarter Investment Performance Update
   B. Asset Allocation Principles

VII. Consultant Report
   A. FY 2017-2018 Investment Performance Review
   B. Discussion of Non-US Investing
   C. Discussion of Currency Hedging

VIII. Delegated Investment Report
   A. Providence Equity Partners VIII, LP
   B. Man Numeric Emerging Markets Small Cap
   C. Hellman and Friedman Capital Partners IX, LP
   D. Brookfield Capital Partners V
   E. Brookfield Strategic Real Estate Partners III
   F. Owl Rock First Lien Fund
   G. KKR Lending Partners III, LP

IX. Executive Session – Discuss investment matters pursuant to S.C. Code Sections 9-16-80 and 9-16-320; to discuss personnel matters related to CEO's review of CIO performance and CEO performance and compensation pursuant to S. C. Code Section 30-4-70(a)(1); and receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2).

X. Potential Action Resulting from Executive Session

XI. Adjournment

South Carolina Retirement System Investment Commission
Meeting Minutes

September 13, 2018 9:30 a.m.
Capitol Center
1201 Main Street, 15th Floor
Columbia, South Carolina 29201
Meeting Location: Presentation Center

Commissioners Present:
Dr. Ronald Wilder, Chair
Dr. Rebecca Gunnlaugsson, Vice Chair
Ms. Peggy Boykin, PEBA Executive Director, (Via Telephone)
Mr. Allen Gillespie, (Via Telephone)
Mr. Edward Giobbe (Via Telephone)
Mr. Reynolds Williams (Absent)
Mr. William H. Hancock
Mr. William J. Condon, Jr.

I. CALL TO ORDER AND CONSENT AGENDA

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

As a footnote to the agenda, the Chair noted that because of the inclement weather caused by Hurricane Florence, the Commission reduced the agenda for today's meeting and deferred a number of agenda items to the next Commission meeting in November. The following agenda items were deferred: Audit and Enterprise Risk Committee Report, Human Resources & Compensation Committee Report, Performance Update, Consultant's Report, Delegated Investment Report, and CEO's Performance Review. The discussion of the Commission's June meeting minutes was also postponed to the November meeting.

II. CHAIR'S REPORT

The Chair began his Report with a personal note. The Chair communicated that he is honored to become Chair and grateful to the other Commission members for selecting him. The Chair especially thanked Mr. Michael Hitchcock, Chief Executive Officer, Mr. Geoffrey Berg, Chief Investment Officer, and the RSIC Staff ("Staff") for their important support.

The Chair then submitted to the Commission the proposed slates of members for each Committee. The Chair proposed that the Human Resources and Compensation Committee be composed of Mr. Edward Giobbe, Dr. Gunnlaugsson, and Dr. Wilder and that the Audit and

Enterprise Risk Committee be composed of Ms. Peggy Boykin, Mr. William J. Condon, Jr., and Mr. Hancock. The Chair then asked if there were any questions or comments on the proposed slates. As there were none, the Chair called for a vote after noting that a motion was not required. The Committee assignments were approved unanimously.

III. CEO'S REPORT

The Chair recognized Mr. Hitchcock for the CEO's Report. Mr. Hitchcock presented the Fiscal Year 2019-20 South Carolina Retirement System Investment Commission ("RSIC") Budget Request ("Budget") for Commission review and approval. Mr. Hitchcock first relayed to Commission members that the presentation was a high-level overview of the Budget, and if any Commission members would like a more detailed overview, he would be willing to talk with them personally at their request.

Mr. Hitchcock then reminded the Commission that RSIC is supported solely by Trust funds and receives no budget allocation from the State's General Budget. Mr. Hitchcock further explained that any budgeted funds not spent by the Commission stays in the Trust fund and continues to earn interest. Mr. Hitchcock emphasized that the Commission strives to mitigate expenses that are not directly tied to the Commission's mission, and that the Commission is currently underbudget for this fiscal year.

Reviewing the RSIC employee organizational chart, Mr. Hitchcock noted that the Commission is budgeted to fill ten full time employee ("FTE") positions. Speaking to the open positions generally, Mr. Hitchcock expressed that the RSIC is currently looking to recruit a Director of Enterprise Risk Management and that there are four positions reserved for the Junior Analyst program.

Mr. Hitchcock then gave additional detail of certain expenditures in Fiscal Year 2017-18. He elaborated that additional costs were incurred from migrating Information Technology services away from the South Carolina Public Employee Benefit Authority ("PEBA") primarly for security purposes and control over our own domain. He also noted that RSIC entered into contracts with Albourne, RISC's specialty consultant, and Meketa, the Commission's investment consultant. Additionally, RSIC expended funds for the state mandated fiduciary audit.

Moving on to RSIC current fiscal year 2018-2019 anticipated Budget expenditures, Mr. Hitchcock articulated that additional expenditures are anticipated with the implementation of the Microsoft Dynamics System, RSIC fiduciary audit, and filling the open FTE positions. Mr. Hitchcock stressed, however, that the Commission has been performing a major evaluation of system providers and services which may result in significant cost savings and resulting overall in expenditures being below the authorized Budget amount.

Mr. Hitchcock reiterated that because of the anticipated decrease in expenditures, the Commission is requesting a $500,000 reduction in the Budget's "Other Operating Expenses" authorization for Fiscal Year 2019-20. Mr. Hitchcock explained that the Commission is not requesting any additional FTEs for Fiscal Year 2020 because plans are in place to be able to fill open FTEs to best meet the needs of the agency with the lower amount. Mr. Hitchcock then responded to questions pertaining to employer contributions and the interplay between the budget request and the Commission's Statement of Investment Objectives and Policies. At the conclusion of the budget discussion, Mr. Hancock made a motion to authorize the CEO to submit a proposed FY 2020 detailed budget substantially similar to the draft budget presented for inclusion in the Governor's Annual Budget. Dr. Gunnlaugsson seconded the motion, which passed unanimously.

Lastly, Mr. Hitchcock noted that performance updates from Meketa Investment Group and the Staff for fiscal year end, as well as July's Performance Report had been posted to WatchDox. He noted that these reports would be discussed at the November meeting. This concluded the CEO's report. At 9:50 a.m. Mr. Giobbe joined the meeting by telephone.

IV. CIO'S REPORT

The Chair recognized Mr. Berg for the CIO's report. Mr. Berg commenced his report by presenting a recommendation to increase the allocations to three of the Commission's existing core and core plus real estate managers. It was noted that these recommendations would facilitate implementation of the asset allocation changes approved by Commission effective July 1, 2018. After Mr. Berg provided background information regarding the spectrum of real estate investments utilized in the Commission's real estate program, he summarized the changes to the real estate allocation made by the Commission in April 2018, at which time the Commission approved an increase in the real estate allocation from 8 percent to 9 percent. Mr. Berg noted that while private real estate's portion of this allocation increased from 6 percent to 8 percent, the Investment Team was working to implement a shift to a more conservative 'baseline' portfolio, with core strategies increasing from one-half to two-thirds of the private real estate allocation. Mr. Berg explained that these combined changes created a need for 2.2 percent additional core and core plus exposure.

Mr. Berg stated that the Investment Team's recommendation was to address this need by expanding capacity in three of the Commission's existing core and core plus strategies. Mr. Berg explained that the team's due diligence did not reveal any material changes in the strategies used by the firms or the personnel at the firms and noted that the three strategies' returns had been strong. Mr. Berg stressed, however, that the recommendation to increase the allocation to these strategies was centered not on performance, but rather on targeting a lower-risk real estate portfolio as the economy moves later into the business cycle.

Mr. Berg summarized the three recommendations to increase the Plan's allocations:

1. Morgan Stanley PRIME (core open-end real estate equity fund) - from 1.25 percent to up to 3 percent of plan assets;
2. Blackstone Property Partners (core plus open-end real estate equity fund) - from 1 percent to up to 2 percent of plan assets; and
3. Heitman CREDIT (core plus open end real estate debt fund) - from 0.6 percent to up to 1.25 percent of plan assets.

Mr. Berg noted that the Investment Team might not invest the entirety of the recommended amounts, but rather, was requesting the flexibility to invest these additional amounts if needed.

In the ensuing discussion, the Commissioners and Mr. Berg addressed several topics, including the baseline portfolio and the underlying types and numbers of properties within the strategies.

The Chair informed the Commission that there was a procedural matter related to the recommendations, and asked Mr. Hitchcock to address the matter. Mr. Hitchcock then read a recusal statement submitted by Mr. Giobbe (Attached as Exhibit "A"). Mr. Giobbe's recusal statement stated that in accordance with South Carolina Code Section 8-13-700(b), Mr. Giobbe would not be participating in the deliberations, voting, or any other actions on the matter before the South Carolina Retirement System Investment Commission regarding the Morgan Stanley PRIME investment. Mr. Hitchcock noted that Mr. Giobbe had retired, and receives a pension, from Morgan Stanley, and stated that in order to avoid a conflict of interest or even an appearance of impropriety, Mr. Giobbe recused himself from the vote.

The Chair asked for a motion to approve the recommendations relating to Blackstone Property Partners and Heitman CREDIT. Dr. Gunnlaugsson requested clarification regarding the additional amount sought for the Heitman CREDIT account. It was clarified that the Investment Team recommended increasing the allocation to Heitman CREDIT from 0.6 percent to up to 1.25 percent of plan assets, and not 2 percent as had been printed in the motion materials distributed to Commissioners. Mr. Gillespie made the motion the Commission adopt the recommendation of the CIO and Staff to expand mandates of the three existing core and core plus real estate managers as discussed during the meeting and as follows: (a) (i) authorize an increased investment of up to 2 percent of Plan Assets into Blackstone Property Partners LP, (ii) authorize an increased investment of up to 1.25 percent of Plan Assets into Heitman Core Real Estate Debt Income Trust, LP; (b) authorize the CEO or his designee to negotiate and execute any necessary amendments or other documents to implement the increased Investments as approved by the Commission upon documented approval for legal sufficiency by RSIC Legal; and (c) authorize the CEO and/or the CIO or their designee(s) to thereafter authorize the custodian of funds to transfer such funds as are necessary to meet the Retirement System's trust funds' obligations with respect to the Investments. Mr. Condon seconded the motion, which passed unanimously.

Mr. Hancock moved that the Commission adopt the recommendation of the CIO and Staff to expand the mandate of the existing Morgan Stanley PRIME core real estate strategy as discussed during the meeting and as follows: (i) authorize an increased investment of up to 3 percent of Plan Assets into Morgan Stanley PRIME Property Fund, LLC; (ii) authorize the CEO or his designee to negotiate and execute any necessary amendments or other documents to implement the increased Investment in Morgan Stanley as approved by the Commission upon documented approval for legal sufficiency by RSIC Legal, and (iii) authorize the CEO and/or the CIO or their designee(s) to thereafter authorize the custodian of funds to transfer such funds as are necessary to meet the Retirement System trust funds' obligations with respect to the Investment. After a brief discussion regarding the recusal process, Mr. Gillespie seconded the motion, which passed unanimously, with Mr. Giobbe's recusal.

V. EXECUTIVE SESSION

Mr. Hancock made a motion that the Commission recede into Executive Session to discuss investment matters pursuant to S.C. Code Sections 9-16-80 and 9-16-320; to discuss negotiations incident to proposed contractual arrangenents, and to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(1) and (2). Mr. Condon seconded the motion, which passed unanimously. The Commission receded into Executive Session at 10:28 a.m.

VI. POTENTIAL ACTION RESULTING FROM EXECUTIVE SESSION

Upon return to open session at 11:32 a.m., Mr. Hitchcock noted that the Commission did not take reportable action while in executive session. He noted that any action that did occur while in executive session, pursuant to S.C. Code Ann. § 9-16-80 and 9-16-320, would be publicized when doing so would not jeopardize the Commission's ability to achieve its investment objectives or implement a portion of the annual investment plan.

Mr. Gillespie then moved that the Commission: (a) adopt the recommendation of the CIO and the Internal Investment Committee as set forth in the Summary Terms Chart on Page 1 of the Due Diligence Report dated August 8, 2018 discussed in Executive Session; (b) authorize an investment of up to $100 million into Asana Fund II, LP; (c) authorize the CEO or his designee to negotiate and execute any necessary documents to implement the Investment as approved by the Commission (1) upon documented approval for legal sufficiency by RSIC Legal, and (2) upon expiration of the three business day review period as approved by the Commission on May 1, 2014 (or as the review period may be amended or superseded by the Commission); and (d) authorize the CEO and/or the CIO or their designee(s) to thereafter authorize the custodian of funds to transfer such funds as are necessary to meet the Retirement System trust funds' obligations with respect to the Investment. Mr. Condon seconded the motion, which passed unanimously.

VII. ADJOURNMENT

There being no further business, upon a motion made by Mr. Hancock and seconded by Dr. Gunnlaugsson, the Commission voted unanimously to adjourn. The meeting adjourned at 11:34 a.m.

[Staff Note: In compliance with S.C. Code Section 30-4-80, 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., at 5:02 p.m. on September 10, 2018]

EXHIBIT "A"

In accordance with S.C. Code Section 8-13-700(B), I will not be participating in the deliberations, voting, or other actions on the matter before the South Carolina Retirement System Investment Commission regarding the Morgan Stanley Prime Property Fund. I retired from and receive a pension from Morgan Stanley. Thus, to avoid a potential conflict or even the appearance of impropriety, I will recuse myself from the vote.

I understand that this statement will be attached to the minutes for the September 13, 2018 Commission meeting.

Edward N. Giobbe

Edward N. Giobbe | 9/13/2018
Date

South Carolina Retirement System Investment Commission
Meeting Minutes

June 14 -15, 2018 9:30 a.m.
Capitol Center
1201 Main Street, 15th Floor
Columbia, South Carolina 29201
Meeting Location: Presentation Center

Commissioners Present:
Dr. Rebecca Gunnlaugsson, Chair
Dr. Ronald Wilder, Vice Chair
Ms. Peggy Boykin, PEBA Executive Director (Absent)
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 Rebecca Gunnlaugsson called the meeting of the South Carolina Retirement System Investment Commission ("Commission") to order at 9:31 a.m. Dr. Ronald Wilder made a motion to approve the proposed agenda as presented. Mr. Bill Condon seconded the motion, which was approved unanimously.

The Chair asked whether there was a motion to approve the draft minutes from the Commission's April 12, 2018 and May 17, 2018 meetings as presented. Mr. Condon made a motion to approve the minutes as presented. Dr. Wilder seconded the motion, which passed unanimously.

II. CHAIR'S REPORT

The Chair began by noting that the nomination period had expired for the Commission's Retiree Representative Member ("Retiree Representative") and that no additional nominations had been received since the Commission nominated Dr. Ronald Wilder for a second term as the Retiree Representative during the April Commission meeting. Dr. Wilder asked to be excused before the vote for any discussion by the Commission members of his nomination. The Chair asked if there was a pending motion to elect Dr. Wilder as the Retiree Representative. Mr. Condon made the motion after clarifying that there was a quorum present. The Chair noted that there was a quorum with four voting members present. The Commission unanimously approved Dr. Wilder as the Retiree Representative.

The next order of business was the election of the Chair and Vice Chair for the new term commencing July 1, 2018. The Chair explained that currently there was a pending motion to elect Dr. Wilder to serve as the Chair and herself to serve as the Vice Chair. She also clarified that the term is for two years, ending June 30, 2020. The Chair called for a vote on the motion for Dr. Ronald Wilder to serve as Chair and Dr. Rebecca Gunnlaugsson to serve as Vice Chair, which was unanimously passed. Dr. Wilder thanked the Chair for her leadership over the past two years and stated that he was looking forward to the Commissioners serving together to do the best for the beneficiaries of the fund.

Mr. Allen Gillespie and Mr. Edward Giobbe joined the meeting at 9:35 a.m.

III. AUDIT & ENTERPRISE RISK MANAGEMENT COMMITTEE REPORT

The Chair recognized Mr. Allen Gillespie for the Audit and Enterprise Risk Management Committee Report. Mr. Gillespie began by stating the Committee met on June 7, 2018. The Committee received an update on a variety of routine compliance matters. He noted that there were no exceptions to report.

Mr. Gillespie then discussed internal audit updates including the agreed upon procedures completed by the State Auditor's office. The report had been completed on the areas of cash receipts, disbursements on payroll and non-payroll and had no findings.

He announced that a GIPS compliance vendor was selected, which was ACA, and he added that ACA had already begun work on the GIPS compliance verification process.
Mr. Gillespie noted that that the Committee received an update on the fiduciary performance review which is required by law and is now underway with Funston Advisory Services ("Funston") performing the review. He stated that Funston will be performing in-person interviews during the month of June, beginning Monday.

Lastly, Mr. Gillespie stated that the Committee received an ERM update including an update on the ERM framework and developmental process.

Mr. Condon inquired as to when Funston would be interviewing the Commissioners. Mr. Brad Gainey, Director of Audit and Enterprise Risk Management, stated that Funston would be onsite in the coming week to interview RSIC Staff. He explained that Funston provided agendas and topics that they would like to cover for each individual person, in advance of the scheduled interviews. He stated that the Commissioner interviews are the next phase and he expects that Funston will also provide topics for those interviews.

IV. CEO's REPORT

The Chair recognized Mr. Hitchcock for the CEO's Report. Mr. Hitchcock, on behalf of the Staff, thanked the Chair for her service over the past two years, which had helped the organization progress substantially during that time. Mr. Hitchcock also expressed his gratitude on behalf of the organization to the Commission for their hard work over the last two years, especially Vice Chair Dr. Wilder.

Mr. Hitchcock then turned the discussion to an overview of both the Statement of Investment Objectives and Policies ("SIOP") and the Annual Investment Plan ("AIP"). He explained that he and Staff had been exploring ways to re-structure both documents to make them more functional as well as to make them more strategic, both long-term as to the SIOP, and shorter-term at to the AIP, and that he wanted to get a consensus from the Commission if they agree with this direction.

The senior leadership on Staff plans to work with the Commissioners and Dr. Wilder to develop changes to the structure and content of the SIOP by the September Commission meeting. By way of background, Mr. Hitchcock reminded the Commission that state law requires that the Commission adopt both an SIOP and an AIP. State law also requires the Commission to provide the CIO and CEO with annual investment objectives. The AIP is required by state law to be adopted by May 1 of each year for the following fiscal year and the Commission is also required to reaffirm or adopt a new SIOP on at least an annual basis.

He suggested that the Commission shift to a more pro-active approach with these documents and have them reflect the strategic vision of the Commission, both on a long- and short-term basis. Mr. Hitchcock stated that the SIOP's principal role should be to house the state-mandated content, as well as long-term strategic and policy matters relevant to the Commission's long-term asset allocation. As for the AIP, Mr. Hitchcock noted that there is some state mandated content that is required to be included. He suggested that the AIP should also focus on the annual investment team initiatives, as well as a method of tracking their progress, as suggested previously by Mr. Condon.

Mr. Hitchcock suggested that going forward, the Commission would review and approve the SIOP each fall, as well as review organizational strategic planning. The Commission would then provide the CIO and CEO with guidance on investment objectives at the November/December meeting, which they would then use to guide the development of the key initiatives in the AIP, which would be discussed in draft form by the February meeting and adopted before the May 1 statutory deadline. The cycle would then start over in June when the Staff would begin reviewing the SIOP in preparation for the following September meeting. Mr. Condon made several suggestions, including a suggestion to lessen the technical jargon used in the documents to make them more readable.

Next, Mr. Hitchcock discussed the proposed Communication Plan. By way of background he reminded the Commission that Funston had recommended the adoption of a communications policy in their initial report.

The proposed Communication Plan is a proactive policy, which promote confidences that the RSIC is a world class investment organization which performs solely in the best interests of the beneficiaries' financial future. Mr. Hitchcock stated that he had discussed the Communication Plan with the Chair and Dr. Wilder and incorporated their suggestions in making it more general and placing the majority of the responsibility of carrying out the communication plan on the external relations team as well as himself. He then summarized the key points of the proposed Policy. Mr. Wilder stated that he was pleased to see a list of key initiatives in the Policy. Mr. Hitchcock responded by stating the he wants the RSIC to be prepared and to be a ready resource for the General Assembly as they look at pension reform. He also stated that it is important that the Commission educate the public on what we do, how we do it, and why we do it and to make it as jargon free as possible to make it more understandable to the general public.

The Chair requested a motion to approve the Communication Plan. Mr. William Hancock moved that the Commission approve the Communication Plan as presented and authorize Staff to finalize the Plan by making any technical revisions or formatting edits consistent with the action taken by the Commission. Dr. Wilder seconded the motion, which passed unanimously.

V. CIO'S REPORT

The Chair recognized Mr. Geoff Berg for the CIO's report. Mr. Berg began his presentation by thanking the Chair for her service, support, valuable perspective, and her generosity with her time over the past two years. He then introduced Mr. David King, Senior Reporting Officer, to present the Investment Performance Report for the fiscal year through April 30, 2018.

Mr. King started by stating that through April 30, 2018, the Plan returned 8.01 percent versus the policy benchmark of 7.29 percent. He noted that fiscal year to date ("FYTD"), the Plan paid out $933 million in net benefits and, through investment performance, increased the value of the Plan approximately $1.5 billion, to bring the Plan's value to $31.57 billion as of April 30, 2018.

Mr. King turned next to the Plan's portfolio exposures, noting that the Commission had adopted new ranges at its April meeting in order to transition into the previously adopted asset allocation. Mr. King indicated that all asset classes were within the required ranges. He reviewed the Plan's market value through time, noting that the Plan's April 30, 2018 ending market value of $31.57 billion was near its highest level since inception. Since inception, the Plan has paid out $12.2 billion in net benefit payments to retirees.

Mr. King then reviewed asset class performance, noting that most of the asset classes had positive FYTD returns, with the exception of core fixed income, REITs, and infrastructure. He noted that private equity was the highest performing asset class on an absolute basis, even though it is still significantly underperforming its benchmark, due in part to the lagged benchmark. Mr. King explained that most private equity managers value their assets on a quarterly basis. Because many of the valuations have not been received, it can inflate the underperformance in periods of strong public equity market performance. After additional discussion regarding lagging benchmarks and the performance of the private equity asset class compared to its benchmark, Mr. King noted that although private equity was the highest performing asset class on an absolute basis, the portable alpha hedge funds were the highest performing class on a relative basis. After some discussion regarding the anticipated payments to retirees as part of the wind down of the TERI program, Mr. King concluded his performance report.

VI. CONSULTANT REPORT

Mr. Berg introduced Mr. Frank Benham, Managing Principal and Director of Research for Meketa Investment Group ("Meketa") to provide a presentation on asset allocation and to provide follow up discussion on items from previous meetings. Mr. Benham handed the presentation over to Mr. Aaron Lally, Executive Vice President for Meketa. Mr. Lally first stated that there were two items from the Commission's April meeting for which additional clarification was needed. The first item relates to Treasury Inflation Protected Securities ("TIPS"), this asset class is new for the Commission, and a benchmark was not addressed at the time the allocation to TIPS had been approved. He recommended that the Commission adopt the Bloomberg Barclays US Treasury Inflation Notes Total Return Index Unhedged USD ("Barclays TIPS Index") as the benchmark for TIPS.

The second matter that required additional clarification relates to equity options and the new asset allocation of an increase in the target allocation from five to seven percent. Mr. Lally noted that the Commission had not formally addressed that the range should be increased accordingly. Therefore, he recommended that a range of five to nine percent be placed around the seven percent target.

Dr. Wilder asked about the background of the option-based equity strategies and whether the historical risk of those investments had been different from the risk in public equity. Mr. Lally replied that historically the risk was not much different, but perhaps slightly lower.

The Chair inquired if there were any additional questions. With no additional questions, she noted that there was a motion that needed to be addressed. Dr. Wilder moved that the Commission adopts the recommendation of Meketa to approve the asset allocation ranges and benchmarks revisions recommended by Meketa as set forth on red numbered page(s) 49 of the open session agenda materials as presented, with the ranges to be effective July 1, 2018; directs that the approved asset allocation and ranges be incorporated into, and made a part of, the SIOP; and authorizes Staff to finalize the benchmark and asset allocation ranges by making any technical revisions or formatting edits consistent with the action taken by the Commission. Mr. Giobbe seconded the motion, which was passed unanimously.

VII. INVESTMENT RECOMMENDATION

Mr. Berg offered introductory comments regarding Macquarie Super Core Infrastructure Fund ("Macquarie Super Core" or the "Fund"), the private infrastructure investment that was being presented to the Commission. He explained that the Macquarie Super Core investment is designed to provide predictable cash flow and went on to highlight some of the other reasons he believed Macquarie Super Core was an attractive investment. Mr. Berg noted that the Investment Team is attempting to identify investments that can achieve the assumed rate of return while simultaneously narrowing the range of outcomes for the Plan's rate of return. The Fund is expected to fit this profile, as its expected return was likely to meet or exceed the Plan's actuarial assumed rate of return. In addition, Mr. Berg noted to the Commission that the Fund has an anticipated life span of at least 20 years, which, while much longer than most other investments that the Commission considers, is appropriate given both the long-term nature of infrastructure assets as well as the long-term nature of the plan's liabilities. Mr. Berg then recognized Ms. Ashli Aslin, Investment Officer, for a presentation regarding the Macquarie Super Core fund.

Ms. Aslin began by explaining that Macquarie Super Core is the first private infrastructure investment that the Commission has considered. She then provided a summary of the infrastructure asset class, the role it plays in the Plan's portfolio, and the benefits of owning regulated assets. She explained that Macquarie Super Core will invest in regulated utilities, an area that includes water, sewage, electricity, heating, and gas distribution businesses. Mr. Condon asked about the geography of the investment, and Ms. Aslin replied that the Fund's initial set of investments would be in European regulated utilities.

Ms. Aslin then provided an overview of the investment strategy. She explained that the type of assets the Fund will hold have a high initial cost, and they operate in a monopolistic environment, affording them long-term, stable and predictable cash flows.

Ms. Aslin stated that Staff's recommendation to the Commission was to invest up to €125 million into the Fund. She explained that the Fund would make investments with a net-of-fee return expectation of 7-8%, with 5% of that return coming from distributed yield. She noted that the management fee was 50 basis points on uninvested capital and no greater than 65 basis points on the Fund's net asset value and explained that the Fund will also charge a performance fee of 20% on distributed yield over a 4% hurdle after all other fees and expenses. The term of the fund is 20 years with two two-year extensions, and investors may elect to extend the Fund's term beyond the 20-year term in five-year increments.

The Commissioners asked a variety of questions about the strategy. Mr. Condon asked if Staff is expecting 5% annual distributions from the Fund. Ms. Aslin replied in the affirmative. Mr. Giobbe inquired about the 20% performance fee over the hurdle and asked whether the performance fee is higher than most private equity investments. Ms. Aslin clarified that the performance fee is not 20% of all the performance; the performance fee will be 20% of the yield after the first 4%.

Mr. Reynolds Williams asked if and how the strategy is protected against inflation. Ms. Aslin explained that as inflation increases, there is a mechanism for these utilities to obtain rate increases, which acts as a hedge against inflation. Mr. Hancock asked if there was any research concerning the gap between what a European regulator deems an appropriate cost and what a utility manager deems an appropriate cost. Ms. Aslin replied that regulators understand the importance of allowing an appropriate rate of return, in order to ensure that essential services are adequately provided. Mr. Berg added that the manager has a long history of navigating regulatory processes to ensure that its investors earn an appropriate rate of return. Next, Mr. Condon asked what the Fund actually owns. Mr. Berg clarified that the Fund owns companies that operate and maintain the infrastructure assets. Additional discussion ensued regarding the proposed investment.

Mr. Williams then moved that the Commission: (a) adopt the recommendation of the CIO and the Internal Investment Committee as set forth in the Summary Terms Chart on pages 1 and 2 of the Due Diligence Report dated June 14, 2018; (b) authorize an investment of up to €125 million as of the date of closing; (c) authorize the CEO or his designee to negotiate and execute any necessary documents to implement the Investment as approved by the Commission (1) upon documented approval for legal sufficiency by RSIC Legal, and (2) upon expiration of the three business day review period as approved by the Commission on May 1, 2014 (or as the review period may be amended or superseded by the Commission); and (d) authorize the CEO and/or the CIO or their designee(s) to thereafter authorize the custodian of funds to transfer such funds as are necessary to meet the Retirement System trust funds' obligations with respect to the Investment. Dr. Wilder seconded the motion, which passed, with Mr. Hancock opposing the motion.

A brief break was taken from 10:57 a.m. to 11:14 a.m.

VIII. DELEGATED INVESTMENT REPORT

The Chair recognized Mr. Berg for the delegated investment report. Mr. Berg noted Staff closed two new private equity investments since the previous meeting. Mr. Berg then introduced Mr. Joshua Greene, Investment Officer, to give a brief summary of the Plan's investment in Industry Ventures Partnership Holdings V ("Industry Ventures"). Mr. Greene began by stating that the Plan made a $50 million commitment to Industry Ventures, a venture capital fund, and that the investment closed on June 1, 2018. He explained that Industry Ventures has an experienced team that focuses on broad venture networks. Industry Ventures accesses venture capital markets through three avenues. The first avenue is Industry Ventures' primary fund, which invests through a fundraising process. The second avenue is purchasing interests in other funds from exiting limited partners. Industry Ventures typically buys these interests at a discount and utilizes the information garnered from these funds to make more informed investment decisions. The final avenue is through direct and co-investments. Industry Ventures targets high conviction companies within the funds in which they have invested and directly invests or co-invests in order to get exposure. Mr. Greene reminded the Commission that the Plan's main access to venture capital is through Industry Ventures, and the Plan has made three investments with them since 2008. Mr. Greene then overviewed Industry Ventures' investment strategy. After answering several questions, Mr. Greene concluded his presentation.

Mr. Berg then introduced Mr. Derek Connor, Senior Investment Officer, to present another recent investment, Providence Strategic Growth Fund III ("PSG III"). Mr. Connor stated that the Plan recently closed a $75 million commitment to PSG III. PSG III's strategy is to invest in growth equity in lower middle markets companies in the software sector. PSG III tends to target smaller business that have an enterprise value between $10 million and $200 million. Mr. Connor explained that PSG III creates platform companies, which are grown until their size makes them attractive for acquisition by strategic buyers or private equity funds. Mr. Connor stated that PSG III focuses on four key areas: security and network technology, mobile payments, business applications, and artificial intelligence. Staff has strong conviction in the strategy, especially as a result of PSG III's focus on the rapidly growing cloud computing and mobile device sectors. Mr. Connor explained that PSG III is a new relationship for RSIC and will help fill the Plan's underweight to growth equity. Mr. Connor then answered several questions from the Commissioners regarding the investment strategy.

With there being no further questions, Mr. Connor concluded his report.

IX. EXECUTIVE SESSION

Mr. Gillespie made a motion that the Commission recede into 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 Section 30-4-70(a)(1); and to receive advice from legal counsel pursuant to S.C. Code Section 30-4-70(a)(2). Mr. Giobbe seconded the motion, which passed unanimously.

X. POTENTIAL ACTION RESULTING FROM EXECUTIVE SESSION

Upon return to open session at 5:14 p.m., Mr. Hitchcock noted that the Commission did not take reportable action while in executive session. He noted that any action that did occur while in executive session, pursuant to S.C. Code Ann. § 9-16-80 and 9-16-320, would be publicized when doing so would not jeopardize the Commission's ability to achieve its investment objectives or implement a portion of the annual investment plan.

Mr. Giobbe then made a motion that the Commission approve the recommendation by the CIO to modify the investment guidelines of the existing MSCI World Index Fund mandate with Blackrock Institutional Trust Company to include the set of Accessible Strategies outlined in the confidential memo presented to the Commission in executive session on June 14, 2018, and authorize the CEO or his designee to negotiate and execute any necessary documents to implement the modifications as approved by the Commission. Mr. Hancock seconded the motion, which passed unanimously.

XI. RECESS

There being no further business, upon a motion made by Mr. Giobbe and seconded by Mr. Condon, the Commission voted unanimously to adjourn. The meeting recessed at 5:16 p.m.

MEETING TO RECONVENE FRIDAY, JUNE 15, 2018 AT 9:00 a.m.

I. CALL TO ORDER

Chair Rebecca Gunnlaugsson called the meeting of the South Carolina Retirement System Investment Commission ("Commission") day two to order at 9:01 a.m.

II. GLOBAL PUBLIC MARKETS DISCUSSION

Mr. Geoff Berg, Chief Investment Officer, announced that the next item on the agenda was a public markets update from three of our global asset allocation managers, which would be followed by a discussion of private markets by Brookfield Asset Management. He then turned discussion over to Mr. Steve Marino, Managing Director, who gave a brief overview of the global asset allocation within the Plan. In September of 2017 the Commission had approved three mandates to Aberdeen Standard Life, Morgan Stanley and PineBridge Investments. He explained the goal of the mandates was to add excess return to the portfolio through tactical asset allocation. This process is done by selecting markets instead of individual securities, and by increasing or decreasing risk, depending on the current economic conditions. He further explained that the second part of the mandate for each manager was to create more opportunities to increase communication between the parties, including the ability to leverage their teams, research, and opportunities like this to come and educate RSIC on where we are in the market cycle.

Mr. Marino introduced Mr. Guy Stern, from Aberdeen Standard Life, Global Head of Multi-Asset and Macro Investing. He noted that Mr. Stern is also responsible for the day-to-day management in the multi-asset investing team. Mr. Stern began by thanking the Communication for the invitation. He discussed how we deal with an end in the bull market in bonds. He then discussed in great detail the issues of inflation, interest rates, duration, credit and equity beta. The discussion then turned to topics including public equity allocation, real assets, and real estate, with a concentration on inflation. Lastly, he discussed global trade and trade barriers. He concluded his presentation by discussing Aberdeen's position that we are currently near the middle of the economic cycle.

Mr. Marino then introduced Mr. Michael Kelly, Chief Investment Officer and Head of Global Multi-Assets at PineBridge Investments. Mr. Kelly is responsible for overseeing the firm's global multi-asset business.

Mr. Kelly began his presentation by stating that where we are in the economic cycle matters a great deal, and it effects how and where we invest. PineBridge believes we are late in the cycle. He discussed the historical path of the economy and then discussed in detail the financial crisis, trade and how trade is globally viewed. Mr. Kelly then presented a five-year forward look on return prospects. The discussion turned to the impact of technology, including a brief history of the industrial revolutions and the economic effects of each.

He then provided the Commission with some 'musts' to think about in a disruptive world. First, you must be active in a disruptive period. Secondly, you must be very liquid. He stated that perhaps it would be important to slow down on private investments in this environment. Lastly, he stated that reflation is good at a macro-level, but at a micro-level it is very challenging.

Next Mr. Marino introduced Mr. Mark Bavoso, Senior Portfolio Manager, Global Multi-Assets from Morgan Stanley Investment Management. Mr. Bavoso began his presentation by thanking the Commission for the invitation to come and speak about his team's views on the market and the economy. He then stated that determining where we are in a cycle is difficult to do. He spoke briefly about global growth and the effect it has had on the economy this year.

Mr. Bavoso briefly discussed information technology ("IT") and IT spending. After some questions from the Commission regarding IT spending, he turned the to China and its impact on the global economy. After a thorough discussion of China, Mr. Bavoso turned to a discussion of topics including global inflation and the Euro Zone.

A lengthy question and answer session occurred with the participation of the Commissioners and all three representatives.

III. PRIVATE MARKET UPDATE

Mr. Berg introduced Mr. Barry Blattman, Vice Chairman of Brookfield Asset Management ("Brookfield"). He noted that Brookfield has nearly $300 billion of assets under management, largely private market assets. Mr. Berg outlined the Commission's relationship with Brookfield, noting that we have committed slightly more than $500 million to strategies managed by Brookfield. He then stated that Mr. Blattman was going to discuss private markets. Mr. Blattman first reviewed his background as well as Brookfield's background. He explained that his presentation would cover statistics, and how Brookfield sees the world, as well as private credit, real estate, and infrastructure.

Mr. Blattman then discussed the highlights of private markets, noting that private equity, private credit, and private real asset strategies have returned 12.6 percent annually over the last 15 years. He stated that Brookfield primarily focuses on value when it comes to strategies in private equity.

The first topic Mr. Blattman discussed was private credit, stating that the interest in floating rate debt is very high right now. He discussed the reasons for the growth in interest in floating rate debt, as well as other topics related to private credit.

Mr. Blattman then turned his discussion to the private real estate market. He stated that we are in a period of an over-supply of capital and discussed the impact of that on private real estate and fund closings. Mr. Blattman also discussed the difference between public and private real estate and how each affects the market.

Infrastructure was Mr. Blattman's final topic. He noted that in Brookfield's holdings, real estate was significantly higher than infrastructure, but they feel over time infrastructure will exceed real estate due to the scale of opportunities created around the world.

IV. ADJOURNMENT

There being no further business, the Commission voted unanimously to adjourn. The meeting adjourned at 12:00 p.m.

[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., at 5:05 p.m. on June 11, 2018]

RETIREMENT SYSTEM INVESTMENT COMMISSION
1201 MAIN STREET, SUITE 1510, COLUMBIA, SC 29201

To: **Commission Members**

From: **Michael Hitchcock, Chief Executive Officer**

Date: **September 13, 2018**

Re: **Meeting Schedule for 2019**

2019 Proposed Commission Meeting Schedule

Thursday, February 7, 2019

Thursday, April 11, 2019

Thursday, June 13, 2019

Thursday, September 12, 2019

Thursday, November 7, 2019

Fiduciary Performance Audit of the South Carolina Retirement System Investment Commission

November 8, 2018

Funston Advisory Services LLC

Overview

- Funston Advisory Services LLC (FAS) was selected by the South Carolina Office of the State Auditor (OSA) to conduct the 2018 South Carolina Retirement System Investment Commission (RSIC) fiduciary performance audit.
  - FAS also completed the 2014 fiduciary performance audit of RSIC for the South Carolina State Inspector General.
- The primary purpose of the 2018 audit is to evaluate the progress made in implementing the recommendations resulting from the 2014 fiduciary performance audit of RSIC.
  - This fiduciary performance audit began in May 2018. The 2018 FAS team was substantially the same as the 2014 team.
- OSA also requested the review:
  - Identify any areas of weakness in current operational policies and practices.
  - Prioritize recommended improvements by significance and urgency and, where feasible, include an analysis of potential costs or benefits associated with implementation.

Overall Assessment of Progress

In 2014

- RSIC's infrastructure had not kept pace with its complex investment strategies (e.g., private equity, strategic partnerships, etc.)
- The Commissioners were involved in performing investment operations such as due diligence to the detriment of a more strategic focus.
- Severe frictions existed within and between the Commission and the Treasurer's Office amid accusations of Commission malfeasance.
- The legislative framework governing RSIC was highly fragmented with multiple, unclear authorities, responsibilities and accountabilities.
- In sum, RSIC was reactive, destabilized, and in crisis. Staff were demoralized. Media coverage was often hostile, and beneficiaries and members were anxious. The General Assembly was deeply concerned.

Overall Assessment of Progress

Our 2014 fiduciary performance audit

- 126 recommendations for improvement.
- Five improvement themes:
  1. Reset Commissioners' focus on strategy and oversight.
  2. Improve assurance and independent reassurance to build trust and confidence.
  3. Align fiduciary duties and responsibilities.
  4. Build capabilities across the organization (including HR, IT, Accounting, etc.).
  5. Improve the custodial relationships.
- Significant progress has been made
  - 110 of our recommendations fully implemented.
  - 9 are substantially implemented.
  - Of the remaining 7 which have not been implemented, five are under the control of RSIC and two still require action by the General Assembly.

Overall Assessment of Progress

Very impressive progress

- From a very troubled and difficult situation, RSIC is now stable, has strong leadership, effective governance, and capable staff and operations.
- As recommended in 2014, the Commission created and filled a new CEO position in 2015.
- The CEO has been instrumental in leading the organization forward with clear direction and purpose.
- The CEO has also been able to build effective relationships with the General Assembly and the Treasurer's Office.

1. Reset Commissioners' focus on strategy and oversight

Significant progress

- Commissioners are now focused more on oversight and the longer-term strategic challenges of RSIC and much less on the day-to-day investment execution processes
- The Commission created the Human Resources and Compensation Committee (HRCC) and Audit and Enterprise Risk Management Committee (AERMC) and expanded Charters to reflect broader oversight authorities.
- The Commission completes an annual self-assessment process to identify areas of improvement.
- Most investment manager selection decisions were delegated to the CIO in October 2017.
- Relationships between Commissioners and stakeholders have improved significantly.

2. Improve assurance and independent reassurance to build trust and confidence

Significant progress

- The PEBA auditor, CliftonLarsonAllen, conducts annual Agreed Upon Procedures (AUP) and reports to the AERMC.
  - Typically, these have focused on due diligence procedures and investment valuations, but have also addressed other areas, as appropriate.
- The roles and responsibilities in the Internal Investment Committee charter have been strengthened, detailed and clarified.
  - The charter was most recently updated and approved in May 2018.
- RSIC now participates in CEM's annual peer investment performance and cost benchmarking.

2. Improve assurance and independent reassurance to build trust and confidence (cont'd)

Some progress but still needs improvement

- ERM, Internal Audit, and Compliance have been combined into a single position (Director of Enterprise Risk Management and Compliance). The position is currently vacant.
  - Internal audit activities are being outsourced and are also under the direction of that combined position.
  - Currently, there is no functioning ERM program although significant management attention is given to identifying and managing risk and there is very good tone at the top. Despite the absence of this position, all compliance responsibilities are being maintained and an audit plan is being followed.
- Although the Commission had approved an enterprise risk management (ERM) program in 2014, and the AERMC charter includes responsibility for oversight of the ERM program, very little progress has been made.
  - This is due, in part, to frequent turnover in the Director of ERM position and the complexity of the proposed ERM process.

3. Align fiduciary duties & responsibilities

Very Significant Progress

- Eight recommendations were made to the General Assembly in 2014. Six were incorporated into legislation in 2017
- These improvements have been a major contributor to the ability of RSIC to continue to make strides in its governance and performance.
  - Fragmentation of fiduciary responsibilities has been significantly reduced, including removal of the SFAA as a retirement system fiduciary.
  - The General Assembly will now receive a recommendation every four years from PEBA, in consultation with RSIC and the system actuary, for the assumed annual rate of return.
  - The reform legislation also codified the CEO position – implemented by RSIC in 2015.
  - RSIC is now allowed to engage attorneys in consultation with the Attorney General.
  - The Commissioner qualification criteria were modified to recognize relevant experience in lieu of specific credentials, and the size of the Commission was expanded with a seventh voting member.

3. Align fiduciary duties & responsibilities (cont'd)

Some progress but still needs improvement

- We continue to recommend the General Assembly:
  - delegate authority to the Commission for operational budgetary control, the setting of staff compensation and performance incentives, and
  - provide an exemption to the State procurement policy for investment management systems.

4. Organizational Capability Development

Significant Progress

- A new hiring and interviewing process, onboarding plan for new employees, core competency development, and training were implemented in 2014.
- The HR function has been effective in supporting organizational development. However, the succession plan is out of date, which is a critical gap.
- At the time of the 2014 review, RSIC had planned to begin a program to internally manage some public investments.
  - This would have required significant new capabilities in trading systems and staffing as well as governance and oversight.
  - Since that time, RSIC has revised its plans, and has no immediate intention of managing assets internally and is focused on an externally-managed portfolio.
  - As a result, many of the critical internal infrastructure needs identified in 2014 have been mitigated.

4. Organizational Capability Development

Significant Progress

- RSIC has made significant upgrades to its support capabilities through:
  - The hiring of an investment administrator in 2014.
  - A risk analytics system has been acquired.
  - A document storage and management system has been implemented.
- RSIC formed an IT Steering Committee in 2016 which provides oversight and governance for IT-related needs of the organization.
- RSIC is considering significant changes and upgrades to its risk and workflow capabilities. The Steering Group is a key driver of the process.
- RSIC has also formed a cross-functional Business Internal Investment Committee which meets quarterly and is intended to ensure effective communication of business initiatives to and from the Investment Office.

4. Organizational Capability Development

Some Progress

- RSIC has not developed an overall 3- to 5-year infrastructure plan as recommended in the 2014 review.
  - However, in the key initiatives developed by the Commission through their most recent self-assessment process, a focus on more comprehensive organizational strategic planning for resourcing, personnel, infrastructure, risk management, systems and policy was identified as a goal.
  - While this has become a lower priority due to the decision not to pursue internal asset management, it will still be a helpful step which could guide the overall capability development for the future.

5. Improve the Custodial Relationship

Significant Progress

- The new statute passed by the General Assembly in 2017 designated the PEBA Board as the custodian of the trust's assets and made RSIC responsible for the custodial banking arrangement.
- Since the new law took effect, RSIC signed a new custody agreement with Bank of New York Mellon (BNYM) in July 2017.
  - RSIC staff report that since the new contract and direct relationship with BNYM has been in place the ability to acquire the desired services and the responsiveness of the custodial bank has significantly improved.
  - There is currently an effort underway to rationalize the custodial bank and investment administrator services. The concerns identified in 2014 appear to have been resolved and for this the General Assembly is again to be commended.

2018 Recommendations

- FAS proposes 52 detailed recommendations to build on progress and take RSIC to the next level of performance
- These are summarized by responsibility and authority on the following pages.

General Assembly

- Delegate authority to the Commission for budgets, staffing and compensation.
- Provide an exemption to the State procurement policy for direct investment support services.
- Consider fully delegating the responsibility for setting the assumed rate of return to PEBA and RSIC.

Commissioner Appointers

- When Commissioner terms expire, close attention should be given to the timely appointment of successor Commissioners.

Investment Commission

- Develop a long-term (e.g., 3-5 years) strategic policy agenda to provide a framework for bringing key issues to the Commission and for planning Commissioner education in advance of addressing those issues.
- Conduct the full asset liability and asset allocation study every three to five years, including a review of the Commission's investment beliefs, with an annual review to check adherence and underlying assumptions.
- Improve on-boarding and ongoing education of Commissioners through individualized training plans and creation of a one- to two-year onboarding program.
- The Commission should work more closely with its consultant to articulate overall expectations and to leverage the consultant's capabilities for Commissioner training.

Investment Commission (cont’d)

- Develop a succession planning process for the CEO and the head of ERM/Internal Audit/Compliance.
- Improve the Commission self-assessment process to increase Commissioner engagement.
- Update the securities litigation and ethics policies.
- With staff support, complete a three- to five-year business plan which includes assessment of internal vs. external resource requirements.

RSIC Staff

- Expedite development of an Enterprise Risk Management (ERM) program.
- Expand the broker/dealer selection and monitoring policy, including ethics reviews and compliance attestations.
- Update the template Investment Management Agreement (IMA) to incorporate the specific requirements of the Statement of Investment Objectives and Policies (SIOP).
- Update the succession plan and staff development plans for key leadership positions.
- Continue with selection of a new investment risk management system and integrate it with investment reporting processes and the quantitative solutions group.

RSIC Staff (cont'd)

- Continue to make refinements in due diligence and monitoring processes.
- As staff continues to develop and expand the co-investment program, develop a formal plan which considers what type of outside expertise and support is needed.
- Improve certain aspects of side letter term prioritization and related side letter processes.
- Refresh the outside counsel pool with a new RFP process (already underway).
- Pursue a service level agreement with the custodian.
- Develop a more formal IT plan which includes technology, vendor, data and disaster recovery strategies and considers overall resource requirements.

Closing Summary

- RSIC has made impressive progress, is stabilized and professional with effective leadership, and continues to improve.
- Due to the actions of the General Assembly, the governance framework of RSIC is much improved.
- While there are still numerous opportunities for improvement in this report, our 2018 recommendations are, in many cases, opportunities to achieve leading practice.
- We hope that this 2018 report will be a helpful roadmap for the continued improvement of RSIC.

RETIREMENT SYSTEM
INVESTMENT COMMISSION

Statement of Investment Objectives and Policies: Overview of Proposed Changes

Michael Hitchcock, CEO
Geoff Berg, CIO
Robert Feinstein, Managing Director

SIOP – Background and Timeline

- State law requires that the Commission maintain both a Statement of Investment Objectives and Policies ("SIOP") and an Annual Investment Plan ("AIP"), and specifies certain content that must be included in these documents.
- The Commission approved the FY 18-19 AIP at its April 2018 meeting.
- At the Commission's June 2018 meeting, we noted that:
  - the SIOP was in need of an update
  - the opportunity existed to simplify the SIOP and AIP and make it easier for the Commission and Staff to track and demonstrate compliance with the requirements of State law.
- RSIC Staff has revised the SIOP

Overview of Major Changes

SIOP has been comprehensively recrafted to:

- More succinctly address the requirements of State law
  - Some material will be moved into the Annual Investment Plan (AIP)
- Reflect legislative, governance, policy and other changes

Major changes include:

- Investment Objective (Section I.B)
- Roles and Responsibilities (Section II.A)
- Assurance and Reassurance (Sections II.B and III.H)
  - Updated discussion of the many forms of assurance and re-assurance built into our governance framework
- Asset Allocation (Sections III.A and III.B)
  - Updated discussion of process and philosophy
- Rebalancing; Risk Management (Sections III.E and F)
- Investment Manager Guidelines (Section III.G)

APPENDIX

State Law Requirements – SIOP

State Law	Summary of Requirement
9-16-50(B)	the desired rate of return on assets overall
9-16-50(B)	the desired rates of return and acceptable levels of risk for each asset class
9-16-50(B)	asset allocation goals
9-16-50(B)	guidelines for the delegation of authority
9-16-50(B)	information on the types of reports to be used to evaluate investment performance
	Note: Section 9-16-50(B) provides that portions of the SIOP may constitute parts of the AIP

State Law Requirements – AIP

State Law	Summary of Requirement
9-16-330(C)	general operational and investment policies
9-16-330(C)	investment objectives and performance standards
9-16-330(C)	investment strategies, which may include indexed or enhanced indexed strategies as the preferred or exclusive strategies for equity investing, and an explanation of the reasons for the selection of each strategy
9-16-330(C)	industry sector, market sector, issuer, and other allocations of assets that provide diversification in accordance with prudent investment standards, including desired rates of return and acceptable levels of risks for each asset class
9-16-330(C)	policies and procedures providing flexibility in responding to market contingencies
9-16-330(C)	procedures and policies for selecting, monitoring, compensating, and terminating investment consultants, equity investment managers, and other necessary professional service providers
9-16-330(C)	methods for managing the costs of the investment activities
9-16-330(C)	a detailed description of the amount and extent of the final authority to invest
9-16-340(B)	Min. and max. amounts allocated to equity investments (70% cap)

State Law Requirements – Other

State Law	Summary of Requirement
9-16-100(B)	Limitations on use of Placement Agents – Commission's Placement Agent Policy (SIOP)
11-57-10	Iran Divestment Policy (SIOP)
9-16-55	Sudan Divestment Policy (SIOP)
9-16-50(B); 9-16-330(C)(8)	Investment Delegation Policy

SOUTH CAROLINA RETIREMENT SYSTEM INVESTMENT COMMISSION

STATEMENT OF INVESTMENT OBJECTIVES AND POLICIES

As amended and adopted on ______________________, 2018

TABLE OF CONTENTS

I. INTRODUCTION

A. PURPOSE

The South Carolina Retirement System Investment Commission (the "RSIC" or the "Commission") was created to invest and manage the assets of the State's five defined benefit retirement plans for the sole purpose of helping to provide a safe and secure financial future for each respective plan's beneficiaries. These plans include the South Carolina Retirement System, the Police Officers Retirement System, the Retirement System for Judges and Solicitors, the Retirement System for Members of the General Assembly, and the National Guard Retirement System, and include over 500,000 active plan participants, retirees, and other beneficiaries (collectively, "the Retirement System" or the "Plan").

The RSIC invests and manages the Retirement System's assets as one group trust (the "Trust"). As fiduciaries, the RSIC recognizes that we have the highest duty of care to prudently invest and manage the assets of the Trust on behalf of all our beneficiaries.

B. INVESTMENT OBJECTIVE

The RSIC seeks to achieve an investment return necessary to enable the Retirement System to provide promised benefits payments to current and future retirees. In order to achieve this objective, the RSIC must design an investment program that not only services the benefit payments of current retirees, but also **improves the funded status of the plan** in order to ensure adequate resources are available to meet the needs of current and future active plan participants.

The South Carolina General Assembly has stated that the return necessary to meet this investment objective is 7.25 percent on annual basis. As such, the RSIC strives to construct an investment portfolio (the "Portfolio") that will meet or exceed this rate of return while exposing the Trust's assets to a prudent amount of investment risk. The RSIC recognizes that market volatility and other factors may impact the ability to meet this performance objective at times, on a short-term basis, but believes that a 7.25 percent rate of return is achievable over a long-term investment horizon.

In order to focus on achieving the investment objective, the RSIC adopted a Strategic Plan in 2016 that set Improving Plan Returns as our three-year strategic goal. The Plan defines success as achieving a three-year trailing investment return that exceeds the median pension fund return and our own policy benchmark. The plan provides that in order to achieve the strategic goal, the RSIC must "remain introspective and consistently scrutinize our performance against a variety of benchmarks including, but not limited to, the assumed rate of return, the performance of our peers, and our policy benchmark. We must acknowledge outcomes that are less than expected, and apply the lessons we learn to future decisions. We must at all times remain intellectually nimble and willing to challenge the strategic status quo." [RSIC Strategic Plan: http://www.ic.sc.gov/who-we-are/at-a-glance.html].

C. ROLE OF THIS DOCUMENT

The Statement of Investment Objectives and Policies ("SIOP") is statutorily mandated and is one of several key documents that articulate the implementation framework that guides the RSIC in meeting the investment objective stated in Section I.B. Other key documents include the Commission's Governance Policies and the Annual Investment Plan. The SIOP also establishes investment and performance objectives, policies and guidelines, roles, responsibilities, and delegation of authority for the management of Trust assets. This ensures that the Commissioners, Staff, consultants, external investment managers, stakeholders, and the public have a clear understanding of the overall guidelines that apply to the investment portfolio. All decisions that affect the management of the investment portfolio must comply with the guidelines contained within this document and be consistent with South Carolina law.

At least annually, the Commission must review the SIOP to determine its continued applicability. If the liquidity needs, actuarial return assumptions, or the market risk/return expectations change, the SIOP may be amended to meet changing needs and objectives.

Under State law, portions of the SIOP may constitute parts of the Annual Investment Plan ("AIP").

II. GENERAL OPERATING POLICIES

A. ROLES AND RESPONSIBILITIES

The following section outlines the roles and responsibility for each party associated with administration and management of the assets for the Retirement System.

1. In 2005, the RSIC was established by South Carolina law to invest and manage all of the Retirement System's assets. The RSIC is governed by an eight-member Commission. The Commission's fiduciary responsibilities include overseeing the management of the business affairs of the RSIC, setting the asset allocation, approving certain investments, ensuring legal and ethical integrity, and maintaining accountability.

2. RSIC and PEBA serve as co-trustees of the Retirement System's assets.

3. The Commission employs a Chief Executive Officer ("CEO"), who serves as the Chief Administrative Officer of the RSIC as an agency and is charged with the affirmative duty to carry out the mission, policies, and directives of the Commission. The CEO is delegated all of the Commission's authority necessary, reasonable, and prudent to carry out the operations and management of the RSIC as an agency and to implement the Commission's decisions and directives.

4. The CEO is charged with employing a Chief Investment Officer ("CIO") who manages the RSIC's investment functions subject to the oversight of the CEO. The CIO implements the Commission's investment decisions, including asset allocation, risk management, investment manager oversight, and other related activities. The CIO approves investments which fall within the parameters of the Investment Authority Delegation Policy and decides which investments that do not fall within the delegation policy are presented to the Commission for its approval.

5. The Commission engages an external investment consultant ("Consultant"), who is accountable to the Commission, to work collaboratively with the RSIC Staff. Services provided by the Consultant are detailed in the engagement contract, and generally include developing an asset allocation, asset/liability study, performance reporting, benchmarking/peer group comparisons, and general investment education and advice. RSIC Staff may rely on the Consultant for data resources, external analyst inputs, and access to educational materials. The CEO also retains a specialty consultant to serve as an extension of RSIC Staff in Private Equity, Private Debt, Real Estate and Infrastructure ("Private Markets Consultant").

6. The Internal Audit function reports to the Commission's Audit and Enterprise Risk Management Committee and the CEO. The purpose of the Internal Audit function is to provide independent, objective assurance and recommendations designed to add value and improve RSIC operations. It assists the entity in accomplishing its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. The Internal Audit function is primarily fulfilled by using external resources.

7. The Enterprise Risk Management and Compliance (ERM and Compliance) function reports to the Audit and Enterprise Risk Management Committee and the CEO. The ERM and Compliance function coordinates the assessment of, and provides oversight related to the identification and evaluation of, major strategic, operational, regulatory, informational, and

external risks inherent in the business of the RSIC. ERM and Compliance is also responsible for overseeing the process for monitoring compliance with RSIC policies and applicable laws.

8. RSIC primarily invests Trust assets by allocating capital to external investment managers who implement specific investment strategies in order to provide the exposures necessary to meet the requirements of the Commission's strategic asset allocation.

9. Staff manages and invests a limited amount of Trust assets directly, which are mainly in short duration instruments in order to meet the plan's liquidity needs.

10. PEBA administers a comprehensive program of retirement benefits, performing fiduciary duties as stewards of the contributions and disbursements for the Retirement System. PEBA has the responsibility of producing GAAP basis financial statements for the Retirement System and maintains a general ledger to support that process. The financial statements that are produced by PEBA contain information regarding the investments made by the Commission and as such contain the official accounting records for the Retirement System. The financial statements are presented in accordance with Generally Accepted Accounting Principles and comply with the Governmental Accounting Standards Board standards. The financial statements are audited annually by an independent audit firm hired by the State Auditor's Office.

11. PEBA is the custodian of the assets of the Retirement System, and the RSIC is responsible for the Retirement System's custodial banking arrangement.

12. The South Carolina General Assembly has the authority to control budget and staffing for the RSIC and to set the actuarial assumed rate of return for the Portfolio. Starting in 2021, and every four years thereafter, in consultation with the Commission and the Retirement System's Actuary, PEBA will propose an assumed annual rate of return to the General Assembly that will take effect at the beginning of the 2021-2022 fiscal year unless the General Assembly takes action to amend or reject the recommendation. The General Assembly also conducts periodic legislative oversight hearings of the Commission.

B. PRIMARY POLICIES

The Commission and the Staff work jointly to design and implement operating and investment policies. These primary policies include the Commission's governance policies, internal operating policies, the SIOP, and the AIP. These policies are subject to revision, and several require adoption by the Commission.

1. Governance Policies

   The Commission will revise the Governance Policies as needed. The Commission anticipates an in-depth review and revisions to the Governance Policies every three years. The Governance Policies include the following components:

   - Commission Roles and Responsibilities
   - Chairman and Vice-Chairman Roles and Responsibilities
   - CEO and CIO Roles and Responsibilities
   - Commission Operations
   - Executive Staff and Commission Evaluations
   - Committees

- Communications
- Service Provider Selection Policy

2. Internal Operating Policies

   The CEO is responsible for designing, implementing, and monitoring operating policies and procedures. The CEO may delegate certain items to Staff. The primary operating policies include the following:

   - Memorandum of Understanding with PEBA
   - Personnel Policies
   - Information Technology Policies
   - Administrative Policies (travel, purchasing, etc.)

3. SIOP and AIP

   Annually, the Commission reviews the SIOP, which provide the objectives, policies, and guidelines for investing the assets of the Retirement System, and each year the Commission must amend it or reaffirm it. The SIOP provides the framework pursuant to which the CIO and Staff draft the AIP. The purpose of the AIP is to provide a formal plan for investing the Retirement System's assets to achieve the Commission's investment objectives and mission. South Carolina law requires the CIO to submit the proposed AIP to the Commission no later than April 1st of each year, and the Commission must meet no later than May 1st of each year to adopt the proposed AIP for the following fiscal year. The Commission may amend the AIP during the fiscal year as it deems appropriate.

   State law provides that the approved AIP must be implemented by the Commission through the CIO. An organizational infrastructure has been created to assist the CIO in implementing the AIP and SIOP, and otherwise complying with the Commission's objectives, policies, and guidelines for investing the assets of the Retirement System. Components of this infrastructure include an Internal Investment Committee ("IIC"). The IIC is chaired by the Chief Investment Officer and serves the primary purposes of reviewing and making recommendations to the CIO regarding proposed investments.

   Another component of this organizational infrastructure is the due diligence guidelines the RSIC Staff utilizes. The due diligence guidelines require the Investment team, with assistance from the Private Markets Consultant and other resources, to review both current investments and potential investments with respect to the Portfolio's goals and constraints. The guidelines require the gathering of specified types of information concerning potential external investment managers' strategy and operations. Compliance with these guidelines is verified by RSIC's ERM and Compliance function and is subject to review and external audit.

   On-going reporting and other forms of communication, assurance, and re-assurance permit the Commission to gauge the RSIC Staff's compliance with the SIOP, the AIP and other objectives, policies, and guidelines for investing Retirement System assets. The Commission receives reports and information from its Committees, the CEO, the CIO, the Consultant and others several times a year at its meetings. The Commission also receives information regarding the Portfolio on a monthly and quarterly basis from RSIC's Reporting team, as well as comprehensive quarterly reports from the Consultant and RSIC's Reporting and Investment teams. The Audit and Enterprise Risk Management Committee receives reports from the internal audit function, external auditors, and the ERM and Compliance function and apprises the Commission of the reports' findings. There are also statutorily mandated quarterly and annual reports which the Commission provides to interested parties and the public regarding the Portfolio.

C. GENERAL PROVISIONS RELATING TO THE ALTERNATIVE INVESTMENTS

South Carolina law, the Employee Retirement Income Security Act of 1974 ("ERISA"), and the Uniform Management of Public Employee Retirement Systems Act of 1997 ("UMPERSA") each have similar or compatible, but not identical, definitions and responsibilities of fiduciaries with respect to managing and investing assets of retirement systems. For clarity and consistency, it is prudent for the Commission to declare standards for interpretation of certain terms used in these sources.

As relating to the use of alternative investment strategies, the "Plan Assets" of the Retirement System include the System's ownership interest in the following entities (e.g., a share or a unit), but do not include the underlying assets owned by the entity itself:

1) A registered investment company;
2) A registered security that is widely held and freely transferable;
3) an entity in which "benefit plan investors" hold less than 25% of the equity interest as defined and determined by ERISA §3(42);
4) An "operating company" engaged in the production or sale of a product or service other than the investment of capital;
5) A "real estate operating company" or REOC (which actively manages and develops real estate consistent with U.S. Department of Labor ERISA regulations);
6) A "venture capital operating company" or VCOC (which actively manages "venture capital investments" consistent with U.S. Department of Labor ERISA regulations); or
7) A private investment partnership or offshore investment corporation the offering memorandum of which allows for the entity to take both long and short positions, use leverage and derivatives, and invest in many markets.

Where the Commission invests in an entity that does not hold Retirement System's assets, the Commission's decision to invest in the entity will be subject, inter alia, to the South Carolina fiduciary rules and ethics standards provided by state law, but the transactions engaged in by the entity generally will not be subject to the same rules.

On occasion, the Commission will need to interpret statutes while implementing and administering the investment program. Whenever the South Carolina statutes are substantively similar to provisions of ERISA or UMPERSA, and to the extent practicable and consistent with South Carolina law and other principles of general application relating to public pension plans, the Commission intends to use (1) pertinent provisions of ERISA; (2) interpretive rules and regulations of the U.S. Department of Labor relating to ERISA; and (3) the Reporter's official comments to UMPERSA for guidance.

III. INVESTMENT POLICIES

A. INTRODUCTION

State law provides that in investing and managing the assets of the Portfolio, the Commission shall consider, among other circumstances: (i) general economic conditions, (ii) the possible effect of inflation or deflation; (iii) the role that each investment or course of action plays within the overall Portfolio; (iv) the needs for liquidity, regularity of income, and preservation or appreciation of capital; and (v) the adequacy of funding for the Plan based on reasonable actuarial factors (Section 9-16-50). Accordingly, in establishing investment goals, objectives, and guidelines for the Portfolio, the Commissioners, as fiduciaries, must take an array of considerations under advisement, including the Retirement System's liabilities, liquidity, funded status, the statutorily provided assumed rate of return, limitations imposed by applicable law, and current and expected economic and market conditions. The Commission also incorporates and relies upon established investment theory and principles when developing investment policies for the Portfolio.

B. ASSET ALLOCATION

1. General

Research has shown that a portfolio's asset allocation explains the overwhelming majority of its return and risk. Given this importance, the Commission, in conjunction with the Consultant and RSIC Staff, conducts:

a. a comprehensive asset-liability analysis and asset allocation study every three years, although the Commission may also request a comprehensive study in response to a material change in the investment environments, legislation, or actuarial matters affecting the Portfolio; and

b. a periodic review of potential adjustments to the existing asset allocation. While this type of review typically occurs annually, the Commission may elect to conduct such a review in response to changes in the investment or actuarial assumptions, legislation, or other matters that may materially affect the investment strategy.

The Commission believes that, over long periods of time, a diversified portfolio will best meet the RSIC's investment objective and enable the Retirement System to provide promised benefits payments to the Plan's participants.

In February, 2018, the Commission adopted a new strategic asset allocation which became effective July 1, 2018. Information regarding the Commission's strategic asset allocation can be found in Section IV, while the results of the Consultant's February 2018 analysis of the long-term expected performance and expected risk of the current asset allocation based upon the Consultant's 20-year capital market assumptions may be found at Section V, along with the Consultant's 20-year correlation assumptions for each asset class.

2. Asset allocation constraints

In establishing its asset allocation, the Commission abides by the following constraints:

a. Pursuant to S.C. Code Ann. §9-16-340(B), the Commission must also include the minimum and maximum allocations to equity investments on an ongoing basis, not to exceed 70 percent. While State law does not stipulate whether the limitation of 70 percent is based on cost or market value, the Commission manages this limitation on a market value basis.

b. The Commission has also imposed the following constraints:

1. Private Markets: As described in Section IV, Staff and Consultant will also notify the Commission if Private Markets assets exceed 25 percent of total assets.

2. Hedge Funds: Hedge funds may not exceed 20 percent of total assets.

3. Portable Alpha: Portable alpha strategies will be capped at 12 percent of total assets.

3. Benchmarks

Benchmarks are utilized for comparative, analytical, and performance measurement purposes. They are applied on both an absolute and relative basis. The CFA Institute issued guidance for selecting appropriate benchmarks. In this guidance, the Institute suggested that benchmarks should be (i) specified in advance, (ii) appropriate, (iii) measurable, (iv) unambiguous, (v) reflective of investment options, (vi) owned, and (vii) investable.

The above criteria are considered in selecting asset class benchmarks. The table included in Section IV notes the policy benchmarks which became effective July 1, 2018. The Plan's Policy Benchmark will be calculated based upon the weighted allocation to each asset class benchmark.

C. ASSET CLASS STRUCTURE AND IMPLEMENTATION

Once the strategic asset allocation (including benchmarks, targets and ranges) is set by the Commission, it is the responsibility of RSIC Staff, in conjunction with the Consultant, to make implementation recommendations and decisions. In doing so, the Commission understands that RSIC Staff will:

1. consider an array of factors, including the assigned benchmarks, accessibility of markets, costs of implementation, and expected market efficiency; and

2. consider the use of (i) internal and external managers, (ii) active, enhanced, or passive strategies, and (iii) physical, cash, and derivative markets in order to gain the desired exposures.

The Portfolio uses passive, enhanced, and active strategies, with most active strategies managed externally. At present, the Investment Staff actively manages certain Cash and Short Duration accounts, and performs distribution management (management and disposition of in-kind distributions received from external investment managers or third parties). In addition, the CIO has discretion to use synthetic instruments, derivatives, equity baskets, and exchange traded funds in order to implement the asset allocation or otherwise manage the portfolio in accordance with the ranges established by the Commission.

The Overlay program functions as a means by which the CIO and Investment Staff are able to manage exposures and manage risk in an efficient manner using synthetic instruments, exchange-traded-funds/notes, equity or fixed income baskets, options, futures, swaps and forward currency contracts.

D. ALLOWABLE INVESTMENTS; LIMITATIONS

1. With certain limitations discussed below, State law provides that the Commission may invest "in any kind of property or type of investment consistent with" Title 9, Chapter 16 of the S.C. Code and Section 9-1-1310. These investments include, but are not limited to, futures, forward contracts, swaps, and options, equities, bonds, loans, 144(A)'s, exchange traded funds, American Depository Receipts, real property, and real estate investment trusts. These investments may be listed, exchange traded, or over the counter, negotiated contracts or investments.

   In addition to the instruments outlined above, for every asset class, a variety of investment structures may be utilized depending on the nature of a particular investment. In accordance with the terms of the investment limitations outlined in this policy, these structures may include, but are not limited to, mutual funds, limited partnerships, limited liability companies, strategic partnerships, trusts, commingled vehicles, fund-of-funds, and separately managed accounts[1] in which assets may be held by either the Retirement System's master custodial bank or an external custodian who is selected and monitored by the external manager or general partner.

2. State law imposes certain limited restrictions on the investment of the Portfolio. The managers of the Portfolio's accounts **other than** index funds, commingled funds, limited partnerships, derivative instruments or the like are required to assist the Commission in meeting its obligations under the following laws:

   a. S.C. Code Ann. §11-57-10 et seq. sets forth limitations on investment in certain types of companies that are engaged in business operations in Iran. See Section VIII of the SIOP for additional information.

   b. S.C. Code Ann. §9-16-55 sets forth limitations on investment in certain types of companies that are engaged in active business operations in Sudan. See Section IX of the SIOP for additional information.

   The Commission has also established a policy prohibiting an investment in any security or obligation issued by a company or a corporation that is a known sponsor of terrorist organizations or of a company domiciled in a country that is a recognized sponsor of terrorism or terrorist organizations as based on reports from the Office of Terrorism and Financial Intelligence of the Department of Treasury and the Country Reports on Terrorism by the Office of the Coordinator for Counterterrorism of the U.S. Department of State.

3. Alternative Investments – The Commission has established two guidelines applicable to its alternative investments, which include Hedge Funds, Private Equity, Private Debt, private market Real Estate, and private market Infrastructure:

   a. The Commission's initial commitment to a fund will not exceed 25% of the committed capital of that fund, unless the Commission specifically waives or suspends this restriction (i) in order to take advantage of a new firm or product that has not yet built an asset base or (ii) in the case of a fund that has been created specifically for RSIC (e.g., a single LP fund).

[1] For purposes of the SIOP, reference hereafter to "fund" will include a limited partnership, limited liability corporation, or commingled vehicle, as applicable.

b. Unless otherwise approved by the Commission, no more than 15% of the long-term targeted alternative asset investment allocation may be invested with a single manager, general partner, or single fund, with the exception of Funds of One and Strategic Partnerships.

E. REBALANCING AND EXPOSURE MANAGEMENT

The Commission delegates to the CIO or his designee the authority to execute manager and/or securities transactions to implement rebalancing, manage liquidity, or to otherwise manage exposures within the allowable ranges. As part of this delegation, the Commission expects the CIO and RSIC Staff to articulate, implement and provide reporting to the Commission regarding the Portfolio's rebalancing and exposure management activities as requested. A high-level summary of the rebalancing and exposure management guidelines is set forth below.

1. The asset allocation is reviewed on an ongoing (typically weekly) basis by Staff and the CIO to ensure that the Portfolio is within its allocation ranges and to identify appropriate actions necessary to maintain compliance and to provide for the liquidity needs of the Retirement System.

2. The goal of the rebalancing and exposure management activities is to implement the investment strategy at a reasonable cost within the targets and ranges established by the Commission, recognizing that constant rebalancing to the exact target may not be economically justifiable. The following guidelines are used:

   a. Rebalancing is currently performed monthly unless a case has been made ***not*** to rebalance. Potential rebalancing activity is flagged for consideration based upon exposure reporting that is updated by RSIC Reporting. Rebalancing the portfolio incurs costs (trading commissions, bid-ask spread, and market impact) which are taken into consideration when rebalancing the Portfolio. Rebalancing decisions are overseen by the CIO.

   b. When an asset class reaches its minimum or maximum allocation, Staff will initiate rebalancing transactions to keep allocations within the approved ranges. Otherwise, Staff must seek Commission approval to remain outside the ranges.

3. Concentration risk with respect to significant reliance on any single external manager is reviewed regularly by Staff. Mitigation of performance, operational, headline/reputational, or other fiduciary risks is typically achieved by maintaining a diversified allocation approach both within and across asset classes.

   RSIC Staff must balance the risks noted above with the economic benefits associated with a streamlined approach that uses fewer, larger allocations. Additional analyses of the costs and benefits of passive vs. active market exposure are an important input in these decisions.

F. RISK MANAGEMENT

The main risk for a pension system is that the assets may not be sufficient to support the liabilities over the long term. While the Commission's authority is limited to the management of the assets, it recognizes that a robust understanding of the Retirement System's liabilities, liquidity needs, projected funding, and other inputs is important in the Portfolio's design. The risk tolerance of the Portfolio is primarily a function of the unique needs of the Plan. As noted in Section III.B, the Commission understands that a portfolio's asset allocation explains the majority of its return and risk over time and therefore, it contemplates changes to the asset allocation at least annually, based upon an array of inputs, including:

1. Actuarial data provided by PEBA and the Retirement System's actuary
2. Asset/liability studies and asset allocation reviews provided by the Consultant
3. Input from the CIO and Staff
4. Other data, as requested.

RSIC Staff monitors risk levels both in absolute terms, but also in relation to the Policy benchmark established by the Commission's asset allocation and a simple reference portfolio. This is accomplished using a mix of proprietary and third-party systems and tools. The Commission considers an array of inputs at least annually and decides whether it wishes to make any changes to the asset allocation.

At the Portfolio level, Staff will:

1. Maintain the Portfolio's asset allocation within the limits established by this policy.
2. Employ an appropriate level of diversification and adhere to the limits within this policy or as contracted with the manager.
3. Adhere to policies and procedures established by the Commission.
4. Maintain adequate liquidity for benefit payments and capital calls.

G. INVESTMENT MANAGER GUIDELINES

1. General

In keeping with the responsibilities assigned to the CIO by State law and the Commission's Governance Policies, the Commission authorizes the CIO and his designees to develop and revise investment management guidelines for each internally and externally managed investment manager. In making this delegation, the Commission acknowledges that discretion in implementing the investment strategy, within the parameters of all applicable guidelines described herein, will typically be granted to the Commission's investment managers. This discretion is typically limited to the selection of securities and the timing of transactions within the portion of the Portfolio allocated to each manager. The CIO and the Investment team will establish general guidelines for each asset class that will serve as a background or starting point for the development of the manager-specific guidelines for separately managed accounts.

2. Strategic Partnerships

The Commission may elect to establish Strategic Partnerships with certain asset managers who are believed to possess specific expertise, knowledge and capabilities for a limited or broad range of investment strategies. The performance of each Strategic Partnership will be reviewed by the Commission periodically, with a more comprehensive review occurring roughly every 3-5 years.

The investment approval and evaluation process within the Strategic Partnership is similar to that followed for other investments, however, in addition to passing the RSIC's internal process, the investment must also be approved by the investment committee of the strategic partnership.

3. Funds of One

A Fund of One is an investment structure in which there is typically a majority investor in a specific vehicle or fund. The Commission may elect to use a Fund of One structure where it believes that such a structure will have lower costs, customized exposure advantages, and/or other beneficial considerations. The CIO is responsible for the day-to-day investment responsibilities with respect to Funds of One, including providing affirmative or negative consent for underlying investments, as required.

4. Guidelines for Use of Other Pooled/Commingled Funds[2]

a. Commingled investment vehicles can often provide lower costs and better diversification than can be obtained with a separately managed account pursuing the same investment objectives. However, commingled investment funds cannot customize investment policies and guidelines to the specific needs of individual clients. Recognizing these trade-offs, the Commission may accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled vehicles, and exempt commingled investment vehicles from the requirements and guidelines of this policy if:

   i. The investment practices of the commingled vehicle are consistent with the spirit of this policy and are not significantly different in letter; and
   ii. The benefits of using a commingled vehicle rather than a separate account are material.

b. In some cases, the Commission may structure a portfolio as a separate account that allows for the advantages of commingled vehicles, but the Trust will be the only investor. With international assets, commingled vehicles save the Commission from having to provide additional resources for currency and foreign custody issues as the manager will assume responsibility for these functions.

c. In instances where an investment mandate is structured through a commingled vehicle, the investment policies of that vehicle will be the legal governing policies of the investment of assets allocated to that vehicle.

5. Trade Execution

For all accounts, the Commission expects the purchase and sale of its securities to be conducted in a manner designed to receive the best combination of price and execution. The Commission may evaluate policies that provide for the most efficient and effective trading process.

Compliance with investment guidelines must be monitored by the investment managers on an ongoing basis and be based on then current market values. Securities that, if purchased, would constitute a compliance violation may not be purchased.

In the event of a compliance violation, the manager will be expected to promptly notify Staff. If for some reason the manager does not believe that it is prudent to immediately bring the account back into compliance, the manager will be expected to present a justification as well as a proposal for bringing the

[2] For purposes of this section, reference to commingled “fund” or “vehicle” will include a limited partnership, limited liability company, or any commingled structure, as applicable.

account composition back into compliance.

As noted in Sections II.B and III.H of this SIOP, through ongoing reporting and other forms of communication, assurance and re-assurance, the Commissioners will be able to gauge compliance by external investment managers and RSIC Staff with the foregoing guidelines for investing the assets of the Retirement System.

H. ONGOING MONITORING AND REPORTING; OTHER INVESTMENT-RELATED POLICIES

1. Periodic Reports to Commission

The Commission will monitor performance through periodic reports that will allow assessment of broad policy decisions, strategic allocation decisions, and implementation decisions. Performance will be calculated using time-weighted rate of return methodology. In addition, performance for private market investments will be calculated on a dollar-weighted basis and multiple on invested capital.

a. As noted above, the Commissioners receive monthly and quarterly reports from RSIC's Reporting team, and comprehensive quarterly investment performance reports from the Consultant, as well as RSIC's Reporting and Investment teams. These reports, along with others, will assist the Commission in reviewing performance and gauging success in accomplishing its strategic goal and investment objective based on the policy benchmarks established by the Commission at both the total fund level and asset class level. While the Commission strives to be transparent and accountable for its actions, confidential reports will be used when the disclosure of material information could impair a manager's performance or the ability of the Commission or Investment team to implement a portion of the AIP or achieve investment objectives.

b. The CIO will also periodically provide the Commission with a brief commentary which summarizes thoughts on the markets and key decisions made in the quarter, along with justification for those decisions.

c. Periodically, an external consultant may be engaged to report to RSIC Staff regarding the RSIC's success in minimizing implementation cost without negatively impacting performance.

2. Manager Monitoring Guidelines

RSIC Staff maintains an Ongoing Due Diligence Policy that outlines the manager monitoring requirements in detail. In summary, the Investment team is required to perform periodic reviews of each active manager. These reviews contribute to the decision to either retain or terminate that manager. These reviews involve both quantitative and qualitative assessments in order to ensure that any decision is made fairly and consistently, and to avoid untimely or undisciplined decisions that may adversely impact returns. Additionally, the Investment team reviews audited financial statements, compliance certifications, and investment fees on an annual basis. Compliance with the Ongoing Due Diligence Policy is reviewed annually through an Agreed Upon Procedures audit performed by an independent auditor.

3. Proxy Voting and Reporting

Managers of separate accounts are authorized and directed to vote all proxies, or to direct the

Physical Custodian to vote proxies, in keeping with the manager's duties under federal and state law to act in the best interest of the Plan and to maximize shareholder value, and generally to exercise any of the powers of an owner with respect to the assets under the manager's control, subject at all times to the absolute right of the Commission to direct the voting of proxies upon written notification to the manager.

Those separate account managers which vote proxies must provide a written annual summary to the RSIC summarizing proxy votes cast during the previous year. The report shall also (i) detail any changes to the manager's proxy voting practices and (ii) note any instance in which proxies were not voted in accordance with the best interests of the Plan.

4. Portfolio Disclosure

The Commission strives to be as transparent as possible regarding all decisions, both business and investment. However, since public disclosure of the details of transition plans or specific investments may jeopardize the Commission's ability to effectively implement the plan or achieve investment objectives these items will be considered confidential and will remain within the confines of Executive Session during Commission meetings. Information relating to the Commission's actions will be made available to the public as soon as the plan is implemented but not until public disclosure of the information will no longer jeopardize the RSIC's ability to achieve its investment objectives or implement the investment plan.

IV. ASSET ALLOCATION FOR FY 2018-19 (Effective July 1, 2018)

Asset Class	Target Allocation	Target Ranges	Policy Benchmark	Secondary Benchmark
Rate Sensitive	**14**	**4-24**		
Cash and Short Duration	1	0-7	ICE BofA Merrill Lynch 3-Month T-Bills	
Core Bonds	13	6-20	Weighted Average of Underlying sub-asset class targets in Policy Portfolio	
Nominal Investment Grade Bonds	*6*		*Bloomberg Barclays Capital U.S. Aggregate Bond Index*	
Treasuries	*5*			
TIPS	*2*		*Bloomberg Barclays US Treasury Inflation Notes TR Index Value Unhedged USD*	
Credit	**15**	**10-20**		
High Yield Bonds / Bank Loans[1]	4	0-8	50% S&P LSTA Leveraged Loan Index / 50% Bloomberg Barclays Capital U.S. Corporate High Yield 2% Issuer Capped Index	
Private Debt[1,5]	7	3-11	S&P LSTA Leveraged Loan Index + 150 BPs on a 3-month lag	
Emerging Market Debt	4	2-6	50% JP Morgan EMBI Global Diversified (USD) / 50% JP Morgan GBI-EM Global Diversified (Local)	
Equities	**51**	**31-59**		
Global Public Equity[1,2]	42	22-50	Weighted Average of Underlying Regional Sub-asset Class Targets[1] in policy portfolio	MSCI All Country World Index IMI Net Total Return
US Equity[2]	*18*		*MSCI US IMI Net TR USD*	
Developed Market Equity (Non-U.S.)[2]	*11*		*MSCI WORLD EX US IMI Net TR USD*	
Emerging Market Equity[2]	*6*		*MSCI Emerging IMI Net TR USD*	
Equity Options	*7*	*5-9*	*50% CBOE S&P 500 Putwrite / 50% CBOE S&P 500 Buywrite*	
Private Equity[1,5]	9	5-13	80% Russell 3000 Index / 20% MSCI EAFE Index plus 300 BPs, on a 3 month lag	Cambridge Associates Peer Vintage Year
Real Assets	**12**	**7-17**		
Real Estate	9	5-13	Weighted Average of Underlying sub-asset class targets in Policy Portfolio	
Private Real Estate[1,5]	*8*		*NCREIF ODCE Net Index + 100 basis Points*	
Public Real Estate (REITs)[1]	*1*		*FTSE NAREIT Equity REITs Index*	
Infrastructure	3	1-5	Weighted Average of Underlying sub-asset class targets in Policy Portfolio	
Public Infrastructure[1]	*1*		*Dow Jones Brookfield Global Infrastructure Index*	
Private infrastructure[1,5]	*2*		*Dow Jones Brookfield Global Infrastructure Index*	
Opportunistic	**18**			
Global Tactical Asset Allocation	7	3-11	Total System Policy Benchmark ex-Private Markets and Portable Alpha[3]	
Other Opportunistic and Risk Parity	1	0-3	Total System Policy Benchmark ex-Private Markets and Portable Alpha[3]	
Portable Alpha Hedge Funds[4]	10	0-12	ICE BofA Merrill Lynch 3-Month T-Bills + 250BPS	50% HFRI Macro Index / 50% HFRI FoF Conservative

[1]The target weights to Private Equity, Private Debt, Real Estate, and Private Infrastructure will be equal to their actual flow adjusted weights, reported by the custodial bank, as of the prior month end. In the case of Private Equity, the use of the actual flow adjusted weight will affect the target allocation to Global Public Equity (excluding Equity Options). For example, in FY 18-19, the combined target weight of both of these asset classes shall equal 44% of the Plan. For Private Debt, the use of the actual flow adjusted weight will affect the target allocation to HY Bonds and Bank Loans, such that the combined target weight of both asset classes in FY 18-19 shall equal 11% of the Plan. For private market Real Estate, the use of the actual flow adjusted weight will affect the target allocation to public market Real Estate (REITs), such that the combined target weight of both asset classes in FY 18-19 shall equal 9% of the Plan. For Private Market Infrastructure, the use of the actual flow adjusted weight will affect the target allocation to public infrastructure, such that the combined target weight of both asset classes in FY 18-19 shall equal 3% of the Plan.

[2]Global Public Equity (excluding equity options) target portfolio's floating target is comprised of weighted regional underlying sub-asset class componets: 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

[3]Floating Targets between public and private markets do not apply to Opportunistic Benchmark. Weights are fixed at long term policy targets.

[4]Portable Alpha Hedge Funds are included in the Opportunistic target allocation and the Policy benchmark, and reported as gross exposure used as collateral supporting the Overlay program and nets to zero when calculating the total Plan

[5]Staff and Consultant will notify the Commission if Private Markets assets exceed 25 percent of total assets.

V. Meketa Investment Group 2018 Annual Asset Study

Twenty-Year Annualized Return and Volatility Expectations for Major Asset Classes

Asset Class	Annualized Compounded Return (%)	Annualized Average Return (%)	Annualized Standard Deviation (%)
Rate Sensitive			
Cash Equivalents	2.9	2.9	1.0
Investment Grade Bonds	3.6	3.7	4.0
Intermediate Government Bonds	2.7	2.8	3.5
Long-term Government Bonds	3.5	4.3	13.0
TIPS	3.3	3.6	7.5
Credit			
High Yield Bonds	6.4	6.2	12.5
Bank Loans	5.0	5.5	10.0
Emerging Market Bonds (major; unhedged)	4.9	5.6	11.5
Emerging Market Bonds (local; unhedged)	5.4	6.5	14.5
Private Credit	6.7	8.2	17.0
Equities			
Public U.S. Equity	7.3	8.9	18.0
Public Developed Market Equity	7.1	9.1	20.0
Public Emerging Market Equity	9.4	12.5	25.0
Global Equities	7.5	9.4	19.0
Private Equity	9.3	12.9	27.0
Real Assets			
REITs	6.8	10.9	28.5
Core Private Real Estate	5.5	6.2	12.0
Value Added Real Estate	6.9	8.7	19.0
Opportunistic Real Estate	8.5	11.6	25.0
Natural Resources (Private)	8.8	11.4	23.0
Commodities	4.6	6.2	18.0
Infrastructure (Core)	6.6	7.7	15.0
Infrastructure (Non-Core)	8.5	11.1	23.0
Other			
Hedge Funds	5.2	5.5	8.5

Meketa Investment Group 2018 Annual Asset Study: Correlation Expectations

	TIPS	Investment Grade Bonds	High Yield Bonds	U.S. Equity	Developed Market Equity	Emerging Market Equity	Private Equity	Real Estate	Natural Resources (private)	Commodities	Core Infrastructure (private)	Hedge Funds
TIPS	1.00											
Investment Grade Bonds	0.80	1.00										
High Yield Bonds	0.30	0.20	1.00									
U.S. Equity	0.00	0.05	0.70	1.00								
Developed Market Equity	0.15	0.05	0.70	0.90	1.00							
Emerging Market Equity	0.15	0.05	0.70	0.80	0.90	1.00						
Private Equity	0.05	0.05	0.65	0.85	0.80	0.75	1.00					
Real Estate	0.10	0.20	0.50	0.50	0.45	0.40	0.45	1.00				
Natural Resources (private)	0.10	0.10	0.45	0.65	0.60	0.60	0.55	0.45	1.00			
Commodities	0.35	0.05	0.40	0.35	0.55	0.60	0.30	0.15	0.65	1.00		
Core Infrastructure (private)	0.30	0.30	0.60	0.55	0.55	0.50	0.45	0.60	0.60	0.40	1.00	
Hedge Funds	0.20	0.05	0.70	0.80	0.85	0.85	0.65	0.45	0.65	0.35	0.60	1.00

VI. Placement Agent Policy

I. Purpose. It is the intent of this Policy to comply with S.C. Code Ann. §9-16-100[1], which prohibits compensation being paid to a Placement Agent (as defined below) as a result of an investment by the Retirement System (as defined below).

II. Definitions. For purposes of this Policy, the following capitalized terms will have the defined meaning set forth below:

(A) Pursuant to §9-16-100(B), a "Placement Agent" means any individual directly or indirectly hired, engaged, or retained by, or serving for the benefit of or on behalf of an external manager or an investment fund managed by an external manager and who acts or has acted for compensation as a finder, solicitor, marketer, consultant, broker, or other intermediary in connection with making an investment with or investing in a fund managed by the external investment manager.

(B) "Placement Agent Policy Compliance Letter" means that letter which will be requested from prospective external investment management firms in accordance with the terms of this Policy.

(C) "Policy" means this Placement Agent Policy.

(D) "Retirement System" means the South Carolina Retirement Systems Group Trust.

(E) "RSIC" means the South Carolina Retirement System Investment Commission.

III. Procedure

(A) RSIC staff will inform prospective external investment management firms ("Investment Managers") as to the RSIC's Placement Agency Policy and statutory requirements as soon as practicable after RSIC staff begins the due diligence review of any potential investment. The RSIC staff member leading the due diligence review for the investment is responsible for sending written notice (paper, fax or email) to the Investment Manager requesting a Placement Agent Policy Compliance Letter. If a copy of this Policy has not already been provided to the Investment Manager, then this Policy will be made available to the Investment Manager prior to or at the time notice is given to the Investment Manager.

(B) The Placement Agent Policy Compliance Letter must be included in the RSIC investment Due Diligence Report packet.

(C) Investments will not be voted on by the Commission, Internal Investment Committee, or otherwise approved pursuant to RSIC policies, prior to receipt of the completed Placement Agent Policy Compliance Letter and confirmation from RSIC compliance staff that the letter is sufficient per Section VIII below.

(D) The following entities must complete the Placement Agent Policy Compliance Letter as outlined below:

(1) Investment Managers that have a direct contractual investment management relationship with the RSIC or with an investment vehicle in which the RSIC is invested.

(2) Investment Managers that have an indirect contractual investment management relationship with the RSIC through an investment vehicle that invests in funds or other pooled investment vehicles or other assets.

[1] All references are to the Code of Laws of South Carolina, 1976, as amended, and will be referenced by Code Section number (§) hereafter.

IV. **Placement Agent Policy Compliance Letter.** The Investment Manager will provide disclosure in the form of a letter addressing all requirements specified below:

(A) Certification that, in compliance with §9-16-100, no Placement Agent (as defined by State law) received, or will receive, compensation in connection with the RSIC making an investment with or investing in a fund managed by the Investment Manager.

(B) Representation that the Investment Manager has reviewed the applicable law and has not relied on the counsel or advice of RSIC or any employee, representative, agent or officer of RSIC regarding the interpretation and application of the applicable law.

(C) Representation that all information contained in the Placement Agent Policy Compliance Letter is true, correct and complete in all material respects.

V. **Open Records Law**. RSIC may be required to disclose information in the Placement Agent Policy Compliance Letter under the South Carolina Freedom of Information Act.

VI. **Investments with Separate Account Investment Management Agreements ("IMAs").** If, after closing, the RSIC determines that the Placement Agent Policy Compliance Letter contains a material inaccuracy or omission, the RSIC will, to the fullest extent possible, seek the option, in its sole discretion and without liability to the Investment Manager or any third party, to terminate the IMA and to pursue all remedies that may otherwise be available to the RSIC without incurring any penalty under any agreement to which it is a party.

VII. **Investments in commingled investment structures (LPAs, LLCs, Trusts, etc.).** The RSIC will endeavor to have provisions incorporated into the transaction documents for commingled investment structures which would permit the RSIC to take those actions described in the next sentence. If, after closing, the RSIC determines that the Placement Agent Policy Compliance Letter contains a material inaccuracy or omission, the RSIC will seek to obtain the option, in its sole discretion and without liability to the commingled investment structure, the General Partner or equivalent management entity, any other investor in the structure or third party, to cease making further capital contributions and/or direct payments to the investment and to pursue all remedies that may otherwise be available to the RSIC without being deemed to be a defaulting Limited Partner under the transaction documents and without incurring any other penalty under any agreement to which it is a party.

VIII. **Review**. RSIC's compliance staff will review Placement Agent Policy Compliance Letters and will determine whether each letter is sufficient. Any questions regarding the sufficiency of the letter will be referred to the RSIC legal department and will be reported to the CIO and applicable RSIC Staff.

IX. **Staff Contact.** RSIC staff will provide notice about the prohibition in the state law to any party that contacts RSIC staff regarding a potential investment and appears to be acting in the role of a Placement Agent.

X. **Other**

(A) Obligation to Update**.** It is the Investment Manager's obligation to promptly inform RSIC staff of any material changes to a prior-filed Placement Agent Policy Compliance Letter, and to submit an updated Placement Agent Policy Compliance Letter where warranted prior to the RSIC's closing on an investment.

XI. Review and History

(A) The Commission will review this policy at least every three years to ensure that it remains relevant and appropriate, or when there has been an amendment to state law relevant to any section of this policy, or a Commission approved change in the responsibilities, duties, or operations of the Commission or its committees generally, or as otherwise deemed appropriate by the Commission.

(B) No provision of this policy shall apply to the extent that it is in conflict with any provision of the Code of Laws of South Carolina, 1976, as amended. In the event of such conflict, the applicable Code provision shall apply in all respects.

(C) This policy was initially adopted on September 20, 2012.

(D) This policy was amended on June 22, 2017 and will take effect on July 1, 2017.

VII. SECURITIES LITIGATION POLICY

(A) Purpose of Policy; Objectives - The purpose of this document is to set forth the Commission's policies with respect to securities litigation. The principle objective of the Commission with regard to securities litigation is to prudently and effectively manage securities claims as assets of the Retirement System. Prudent and effective management of securities claims consists of the following functions:

(1) Timely initial identification of potential claims.
(2) The ability to conduct an in-depth assessment of certain claims, where warranted.
(3) Making determinations regarding the most appropriate method of managing claims. Most, if not all, of these claims will be prosecuted by the class action bar whether or not the Commission takes an active role. Consequently, the Commission will focus on identifying those cases where active involvement could add value, either in the specific case or on a long term and portfolio-wide basis. Decisions as to what claims should be actively managed and how to manage them requires a balancing of the costs and benefits involved.
(4) Insuring that all claims are timely filed and recoveries are collected.

Each of these functions is discussed in greater detail below.

(B) Initial Identification of Potential Claims – The identification of potential claims is a time-sensitive process, due to federal law's requirement that any party interested in seeking appointment as lead plaintiff in a federal securities class action must file a notice of its intention to seek appointment within 60 days of the filing of the initial complaint. Potential claims may be identified internally by the Commission's staff, investment consultants and analysts, or externally (by a third party "claims monitoring" service or by the class action bar). Experience has shown that the class action bar typically identifies and files actions on almost all claims first. Therefore, the most expedient way to identify claims is usually to monitor class action filings, determine whether the Retirement System is a member of the class and make other preliminary assessments regarding the potential claim.

The following summarizes the process presently used by the Commission to identify claims in which it has an interest:

(1) The Commission's legal counsel reviews cases listed on various websites when notices of filings are received. Cases may also be identified by other information services or called to the Commission's attention by outside counsel.
(2) The "class periods" (that is, the start and end dates proposed in cases, which may (i) have an effect on the Retirement System's potential losses and (ii) be modified during the course of the litigation) in new cases are compared to Retirement System's trading history to identify those in which Retirement System is a class member.
(3) The Commission's legal counsel obtains a Retirement System trading history and a price chart for cases in which Retirement System may have a claim. Where available, other information describing the case may also be obtained.

(4) The current size of Retirement System's holding in the company is determined.
(5) Upon request by the Commission's legal counsel, a rough damage estimate will be prepared by staff or otherwise, based on the price drop after the end of the class period and the number of shares purchased and sold during the class period.
(6) If the potential claim has a measurable, material impact on our investment return, the Commission's legal counsel obtains a copy of the complaint and seeks to gather other publicly available information.
(7) Advice from the CEO, CIO, the portfolio manager(s), the Commission's investment consultant, and other analysts is obtained when the Retirement System has a substantial claim.

(C) Evaluating Claims - Unless adequate internal resources are available, claims identified for further evaluation are generally sent to experienced securities/litigation counsel engaged specifically to evaluate claims and advise the Commission on options for prudently managing the claims in question. A list of qualified securities/litigation counsel will be maintained by the Commission, in consultation with the Attorney General, for evaluating and/or prosecuting claims. The same general process and standards are used to evaluate each claim, as well as to determine and implement an appropriate claim management strategy, regardless of how the case is identified or referred to the Commission. That process generally includes the following steps and considerations:

(1) Claim evaluation counsel performs due diligence on claims.
(2) In instances where the Retirement System has a large current position in a company, claims are evaluated as to whether they are nuisance suits. If such a claim is likely to cause unnecessary serious harm to the company or the industry (and the value of Retirement System's holding), consideration may be given to whether the Commission could add value to the Retirement System's holding by supporting the company in seeking dismissal of the frivolous or immaterial lawsuit.
(3) Claim evaluation counsel examines reasonable options for protecting the Retirement System's interests in a way that is likely to produce the greatest risk/reward benefits. Options may include (i) passive participation in class action, (ii) filing to become lead plaintiff, (iii) attempting to get a larger claimant to become lead plaintiff, (iv) monitoring the case from the sidelines, (v) writing a letter to the court and/or lead outside counsel to bring up issues being ignored, (vi) filing a motion to support or oppose a particular lead plaintiff or lead outside counsel candidate, (vii) filing a notice of appearance and more actively monitoring the case, (viii) attempting to negotiate an agreement with prospective lead outside counsel that will require them to keep the Commission informed of case developments, providing the Commission with access to discovery upon request and allow the Commission to participate in settlement negotiations or be consulted on a settlement, (ix) waiting until settlement and reviewing the settlement carefully with the option to object to a poor settlement or excessive fees[1], and (x) opting out of the class to file a separate action (e.g., where the Retirement System has a substantial Section 18

[1] The Commission will develop guidelines addressing arrangements which constitute "excessive fees."

claim for direct reliance on misrepresentations in a document filed with the SEC that is unlikely to be pursued by the class).

(4) Where other institutional investors appear to have similar large claims, consideration may be given to contacting them about a joint effort.

(5) Pursuit of a shareholder derivative action might be considered where the company is not pursuing claims it has against third parties if the shareholders would benefit from realizing on those claims.

(6) Non-litigation alternatives to addressing the underlying cause of the company's problem are also considered (e.g., contacting appropriate law enforcement agencies about potential prosecution of wrongdoers, filing a shareholder resolution or negotiating for remedial corporate governance changes, such as addition of independent directors).

(7) Resource and other potential impacts may be considered in recommending a course of action. Factors which will be considered include impact of the proposed litigation on the Commission's staffing and resources, as well as other issues (e.g., strength of potential witnesses, likelihood that an investment will be sold, contents of Commission's files, support of the portfolio manager for legal action, and potential compromise of Commission's trading strategy if material, non-public information were to be acquired through involvement in discovery).

(8) The Retirement System's portfolio impact of active claims management on long-term value may be taken into consideration in addition to the factors involved in a single case (e.g., the deterrence of future fraud from pursuit of claims against corporate bad actors or culpable auditors that are unlikely to be pursued without active case management by a knowledgeable lead plaintiff, introduction of competition between law firms to lower the size of legal fee awards taken out of recoveries, raising the standard for acceptable recoveries in class actions, objecting to unreasonable fees, and fostering changes in corporate culture that are likely to benefit shareholders).

(9) Potential conflicts with other members of the class should also be taken into consideration in determining how to best manage the Retirement System's interests in a particular lawsuit (e.g., where the Retirement System has an overriding interest in getting the case dismissed because of its large continuing position and negative view of the suit's merits, the Commission may not want to seek appointment as lead plaintiff).

(10) Claim evaluation counsel generally provides a written analysis and a recommendation to the Commission's Legal Division on what the most cost-effective options appear to be for managing the claim.

(11) Recommendations may be discussed with portfolio managers, outside counsel and other Commission and Retirement System staff as appropriate prior to a final decision on management of the claim by the Commission's Legal Division.

(D) <u>Serving as Lead Plaintiff</u> - Where the claim evaluation process results in a decision to seek appointment as lead plaintiff, specific principles for adding value through the Commission's participation in the litigation may be identified (e.g., reduction of class legal fees and costs, pursuit of recoveries from culpable officers, directors, auditors, or other third parties, maximization of the recovery, and correction of underlying corporate governance problems). The Commission believes the most important decisions a lead plaintiff makes are usually those on selection/compensation of lead outside counsel and evaluation of potential settlement offers. In that regard, the Commission will always seek to structure lead outside counsel's compensation in a way that aligns interests of the class and its lawyers. The Commission believes that deterrence goals can be achieved in settlements through pursuit of claims against individuals and third parties that are bad actors. The following outlines the Commission's approach to serving as lead plaintiff.

(1) When the Retirement System acts as sole lead plaintiff, the Commission will select lead outside counsel based on proposals submitted by and interviews of one or more potential lead outside counsel firms. [Note: A sample form of request for proposals may be found in Exhibit A hereto]. A selection/review panel will evaluate candidates for lead outside counsel. Panel members will include the Chairman of the Commission, a member of the Commission's Legal Division, and a designee of the South Carolina Attorney General. That panel will also receive the advice of the Commission's general investment consultant and other analysts. A majority of the panel will constitute a quorum. The panel will make a recommendation regarding proposed lead outside counsel for a particular case to the Commission for a final decision.

(2) The lead outside counsel selection should be done so as to establish for the court and other class members that lead outside counsel was selected on merit.

(3) If the Commission does not prefer to serve as the sole lead plaintiff, other institutions may be invited to participate as joint lead plaintiffs. When a group is formed to function as lead plaintiff, similar procedures should be agreed upon for selection of lead outside counsel and supervision of the litigation. In the absence of other arrangements, the Commission generally prefers to have each participant designate a representative to serve on a lead plaintiff committee. The committee could be authorized to function much the same way that creditors' and equity holders' committees in bankruptcies do, with the committee electing its own officers, being updated regularly by lead outside counsel and convening as needed to review events or make decisions. Lead outside counsel could effectively serve as staff to the lead plaintiffs' committee.

(4) Only qualified lead outside counsel candidates should be invited to submit proposals.

(5) Consideration may be given to expanding competition between competent counsel within the class action bar, in order to encourage long-term reduction of fees.

(6) While other innovative fee proposals may be solicited, the Commission will generally favor an arrangement that starts at a very low level (e.g., 5-10 percent) for a minimal recovery (this mitigates against counsel pursuing a frivolous case) and increases in brackets up to a maximum level for the highest recovery dollars. (The Commission does not ordinarily favor a descending fee schedule out of concern that it might operate to impose an artificial cap on lead outside counsel's incentives at the point where the fee percentage starts to decline. The last dollars are usually the hardest to obtain and lead outside counsel should be duly motivated to get them.) To prevent a windfall for lead outside counsel, the Commission also believes the fee schedule should contain a component that lowers the fee for early recoveries and gradually increases as the case proceeds. The fee schedule could be viewed as a grid, with the size of the recovery on one axis and the stage of litigation on the other. If costs and expenses are anticipated to be a major factor, consideration could be given to determining fees after costs are deducted from the recovery so that lead outside counsel is encouraged to keep costs under control.

(7) The Commission will not advance fees or expenses for the class.

(8) Lead outside counsel is generally expected to indemnify the Retirement System and Commission for any sanctions.
(9) Lead outside counsel must provide information on its malpractice insurance coverage.
(10) A written proposal is usually requested from lead outside counsel candidates. The proposal should include an evaluation of the case, the suggested fee arrangement, and a litigation plan. Unless the Commission is otherwise familiar with the outside counsel, the proposal should also explain the firm's experience in similar cases and the expertise of the lawyers that would work on the case.
(11) The Commission believes it should retain the right to consent to an increase in a fee agreement at a later stage in the litigation if circumstances change such that the fee schedule is a disadvantage to the class.
(12) Separate fee levels for claims against different defendants may be considered, if it is likely that efforts to obtain recoveries would vary from one to another.
(13) Written proposals are generally reviewed by the selection/review panel (or the lead plaintiff committee) and the top candidates may be asked to provide an oral presentation (either in person or by conference call).
(14) If time does not permit selection of lead outside counsel to be completed prior to the deadline for lead plaintiff applications, the Commission's Legal Division may file the lead plaintiff motion.
(15) A case management agreement covering reporting, approval and other procedures should be established with lead outside counsel to ensure that Commission/Retirement System will be able to perform effectively its responsibilities as lead plaintiff.
(16) Use of local or co-counsel by lead outside counsel will require approval from the Commission, where it will not unreasonably increase class fees or costs.

(E) Filing of Claims -Upon the settlement or other resolution of class action or other securities litigation, the Commission's custodial bank shall timely file all documents and take other steps necessary to insure that (a) the interests of the Commission and Retirement System are protected and (b) all monies due the Retirement System from such litigation are collected. The Commission's Legal Division will receive information from the custodial bank regarding the filing of claims and receipt of settlement proceeds and other recoveries, and periodically report to the Commission.

II. ADMINISTRATION OF POLICY

(A) Processing Claims – The Commission's Legal Division is responsible for managing and coordinating the processing of all securities claims of the Commission/Retirement System either directly to court or through lead outside counsel.

(B) Reporting - The Legal Division will submit quarterly reports to the Commission regarding the status of (i) securities claims in which the Commission may be eligible to obtain a recovery and (ii) recoveries collected.

(C) Conclusion - As the Commission gains more experience with securities class action litigation, this process is expected to evolve. Changes in law and developments in court interpretations of the Private Securities Litigation Reform Act of 1996 and other laws may also impact procedures used by the Commission. Questions about the Commission's securities class action procedures may be addressed to the Commission's legal counsel.

III. Policy Review & History

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

(B) This policy was adopted November 17, 2011.

IV. Exhibits

(A) Sample Request for Proposals

Exhibit A – Sample Request for Proposals

The Commission may solicit proposals for lead outside counsel, though it will be more customary for the applicants to solicit the Commission. When the Commission does solicit proposals, the Sample Request below will often suffice.

Legal Division
South Carolina Retirement System Investment Commission
1201 Main Street, Suite 1510
Columbia, South Carolina 29201
Sample Request for Proposals
Date:______________

To: Candidate Law Firms

Re: _______________ Class Action

_____________ is soliciting proposals from selected qualified law firms to represent it in seeking appointment as lead plaintiff and in representing the class as lead counsel (subject to approval by the court) in the above securities class action litigation. _________ invites your firm to submit a proposal.

A list of the known pending class action lawsuits against the company is attached. We have also attached our trading history in the stock during the proposed class periods. Additional information can be provided upon request. I assume you will have to review the filed complaints and additional information about the company in order to evaluate the case and provide us with your legal analysis and proposal.

Proposals must be no more than ten pages in length and should be submitted to the attention of __________________ by _________. Please provide at least six copies of all materials. The following items should be addressed, either in the written proposal or subsequent presentation:

- Whether you believe this case is one in which we should seek appointment as lead plaintiff;
- Your firm's experience in handling similar litigation;
- Identification of staffing arrangements you would make in order to accommodate workload;
- The results of any investigations you have performed for the case;
- Analyses of the causes of action which could be pursued by the class or us;
- Separate consideration of claims against the various defendants and potential defendants, including the company's accountants, underwriters, directors and officers;
- A damage analysis for claims of both us and the class, including likely recovery projections;
- Anticipated defenses to each claim and motions that might be brought by the parties;
- A general litigation plan outline for the case, including discovery plans and a target trial date;
- Consideration of the potential need for subclasses;
- What the appropriate class period should be;
- Evaluation of how the case might be handled to enhance deterrence of future fraud;
- Identification of firm personnel who would work on the case, including the roles each person would play and their normal hourly rates;
- Plans for use of co-counsel or other law firms and our relationship with any other plaintiffs;

- Arrangements for retaining and compensating experts and third parties on behalf of the class;
- Suggested reporting arrangements for supervision of lead outside counsel by us;
- Identification of your firm's malpractice coverage;
- Confirmation that your firm would cover litigation costs, any bonds required by the court and potential Rule 11 liability; and
- Proposed fee arrangements.

We invite alternative and thoughtful fee proposals for consideration. We seek an arrangement that aligns the interests of lead outside counsel with those of class members. We invite suggestions for a progressive fee structure which rewards lead outside counsel for success in pursuing damage recovery and other litigation goals, encourages prompt resolution of the matter, discourages unnecessary discovery and motion practice, and eliminates outcomes where counsel could obtain a cheap settlement that provides unreasonable fees. While fees will be a consideration in the selection process, our decision on lead outside counsel will also include evaluation of other factors, including those listed above.

Please note that we will not be responsible for fees or costs prior to recovery. As you know, representation of the class as lead outside counsel is subject to court approval.
If you submit a proposal, you may be contacted regarding a presentation to us by the primary firm personnel who would be responsible for the case. The presentation may be done in person or by teleconference.

VIII. IRAN DIVESTMENT POLICY

I. Background. The State of South Carolina has enacted an Iran divestment law, codified at S.C. Code Ann. §11-57-10 et seq. ("Act"). The Act (i) notes that in 2010, President Barack Obama signed into law H.R. 2194, the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (Public Law 111-195), which expressly authorizes states and local governments to prevent investments in, including prohibiting entry into or renewing contracts with, companies operating in Iran's energy sector and holding investments that have the result of directly or indirectly supporting the efforts of the Government of Iran to achieve nuclear weapons capability, and (ii) indicates that the intent of the General Assembly was "to fully implement the authority granted under" this federal law. The Act applies to the South Carolina Retirement System Investment Commission ("Commission" as the governing body, "RSIC" as the agency) in two ways. First, the Act imposes certain procurement and general contracting requirements on the State and its agencies, as well as political subdivisions, rendering certain persons and organizations engaged in investment activities in Iran ineligible to enter into contracts for goods and services with RSIC. Second, the Act contains provisions very similar to the State's Sudan divestment law, which sets forth various criteria that are to be considered by the Commission in making certain investment-related determinations required by the Act.

II. Purpose. The purpose of this Iran Divestment Policy ("Policy") is to document the manner in which the Act is administered. The Commission has the exclusive authority to invest and manage the assets of the South Carolina Retirement Systems Group Trust ("Group Trust") pursuant to S.C. Code Ann. §9-16-20. The Commission also has the fiduciary duty to manage the assets of the Group Trust solely in the interests of the retirement systems, participants, and beneficiaries. The Commission must discharge these responsibilities in a manner consistent with all applicable statutes, regulations, and policies, including the Act.

III. Definitions. The Act utilizes the following defined terms:

(A) "Energy Sector of Iran" means activities to develop petroleum or natural gas resources or nuclear power in Iran.

(B) "Financial Institution" means the term as used in Section 14 of the Iran Sanctions Act of 1996 (Public Law 104-172; 50 U.S.C. 1701 note), which includes:

 (1) A depository institution (as defined in Section 3(c)(1) of the Federal Deposit Insurance Act), including a branch or agency of a foreign bank (as defined in Section 1(b)(7) of the International Banking Act of 1978);
 (2) A credit union;
 (3) A securities firm, including a broker or dealer;
 (4) An insurance company, including an agency or underwriter; and
 (5) Any other company that provides financial services.

(C) "Investment" means a commitment or contribution of funds or property, whatever the source, a loan or other extension of credit, and the entry into or renewal of a contract for goods or services.

(D) "Investment Activities" means:

 (1) The Person provides goods or services of twenty million dollars or more in the Energy Sector of Iran, including a Person that provides oil or liquefied natural gas

tankers, or products used to construct or maintain pipelines used to transport oil or liquefied natural gas, for the Energy Sector of Iran; or

(2) The Person is a Financial Institution that extends twenty million dollars or more in credit to another Person, for forty-five days or more, if that Person will use the credit to provide goods or services in the Energy Sector in Iran and is identified on the State's Scrutinized Persons List, as defined herein, as a Person engaging in Investment Activities in Iran.

(E) "Iran" includes the Government of Iran and any agency or instrumentality of Iran.

(F) "Person" means any of the following:

(1) A natural person, corporation, company, limited liability company, business association, partnership, society, trust, or any other nongovernmental entity, organization, or group;

(2) Any governmental entity or instrumentality of a government, including a multilateral development institution, which is defined as an international financial institution other than the International Monetary Fund in Section 1701(c)(3) of the International Financial Institutions Act (22 U.S.C. 262r(c)(3)); and

(3) Any successor, subunit, parent entity, or subsidiary of, or any entity under common ownership or control with, any entity described in Sections III F(1) and (2) of this Policy.

(G) "State" means the State of South Carolina.

IV. Identification of Persons subject to Divestment. In accordance with the requirements of the Act, the State Fiscal Accountability Authority ("Authority") has engaged the services of a specialized research firm ("Advisor") to (i) identify Persons doing business in Iran, as defined in the Act, and (ii) provide a list of such Persons (the "State's Scrutinized Persons List"). The State's Scrutinized Persons List will be updated on or about January 1 and July 1 of each year.

V. Procurement and General Contracting (Article 3 of the Act)

(A) Prohibition. A Person identified on the State's Scrutinized Persons List as a Person engaging in Investment Activities in Iran is ineligible to contract with RSIC. Any Person that contracts with RSIC, including a contract renewal or assumption, shall not utilize any subcontractor that is identified on the State's Scrutinized Persons List for purposes of fulfilling the contract. Any contract entered into with an ineligible Person shall be void ab initio.

(B) Delegation to the Chief Executive Officer. The Commission has delegated authority to the Chief Executive Officer ("CEO") to make determinations and take actions necessary under Section V of this Policy.

(C) Exceptions. A Person identified on the State's Scrutinized Persons List may contract with RSIC upon the CEO determining that:

(1) The Investment Activities in Iran were made before January 1, 2015, the Investment Activities have not been expanded or renewed after September 7, 2014, and the Person has adopted, publicized, and is implementing a formal plan to cease the Investment Activities in Iran and to refrain from engaging in any new Investments in Iran; or

(2) The commodities or services are necessary to perform RSIC's functions and that, absent such an exemption, RSIC would be unable to obtain the commodities or

services for which the contract is offered. Any such determination must be entered into the procurement record.

(D) Exclusion. The Act does not apply to any procurement or contract valued at ten thousand dollars or less.

(E) Contract Certifications. RSIC shall require a Person that attempts to contract with RSIC, including a contract renewal or assumption, to certify, at the time the bid is submitted or the contract is entered into, renewed, or assigned, that the Person or the assignee is not identified on the State's Scrutinized Persons List. Persons who contract with RSIC also shall not enter into a subcontract with any Person that is identified on the State's Scrutinized Persons List. RSIC shall include certification information about the Person or assignee in the procurement record, along with any certification language specified by the Authority.

(F) Opportunity to Respond. The Act provides that:

(1) Upon RSIC receiving information that a Person who has made the certification required under Section V(E) of this Policy is in violation thereof, RSIC shall review such information and offer the Person an opportunity to respond; and

(2) If the Person fails to demonstrate to the CEO that it has ceased its Investment Activities, which is in violation of this Policy, within ninety days after the determination of such violation, RSIC shall take such action as may be appropriate and provided for by law, rule, or contract, including, but not limited to, imposing sanctions, seeking compliance, recovering damages, or declaring the Person in default.

VI. Investment-Related Provisions of the Act (Article 7 of the Act)

(A) Prohibition. The Act provides that the Commission may not, subject to the other provisions of the Act described below, invest funds with a Person that is identified on the State's Scrutinized Persons List.

(B) Delegation to the Chief Investment Officer. The Commission has delegated authority to the Chief Investment Officer ("CIO") to, in consultation with the CEO, make determinations and take actions necessary under Section VI of this Policy.

(C) Exception to the Prohibition (§11-57-710 of the Act). The Act provides that, notwithstanding the general prohibition summarized above in Section VI(A) of this Policy, an Investment may be made in a Person engaged in Investment Activities in Iran if the CIO makes a determination that:

(1) The Investment Activities in Iran were made before September 7, 2014, the Investment Activities have not been expanded or renewed after September 7, 2014, and the Person has adopted, publicized, and is implementing a formal plan to cease the Investment Activities in Iran and to refrain from engaging in any new Investments in Iran; or

(2) The Investments are necessary to perform RSIC's functions.

(D) Exclusion. The Act does not apply to Investments that constitute indirect beneficial ownership through index funds, commingled funds, limited partnerships, derivative instruments, or the like.

(E) Assistance of Staff. RSIC Staff ("Staff") will be responsible for assisting the CIO, as necessary, to determine whether this exclusion, and any other exclusion or exemption set forth in the Act, applies.

(F) Other Determinations to be made by the CIO. The Act states that nothing in Article 7 of the Act requires the Commission or its agents or contract investment managers to take action as described in Article 7 of the Act unless it is determined, in good faith, that the actions described in Article 7 of the Act are consistent with the fiduciary responsibilities of the Commission or its agents or contract investment managers as set forth in §9-16-10 et seq., and there are appropriated funds of the State to absorb the expenses necessary to implement such divestments. §11-57-720. Accordingly, whenever the CIO is asked to consider taking action under the terms of the Act or this Policy, Staff will assist the CIO in making the determinations required to be made as described in this Section VI(E).

VII. Reporting

(A) Reporting to State Fiscal Accountability Authority. RSIC shall provide reports to the Authority at the times and in the format required by the Authority.

(B) Reporting to the Commission. Staff shall, following the close of RSIC's fiscal year, prepare a formal report to the Commission regarding actions taken pursuant to the Act. RSIC shall also publish the report. The report shall include all of the following information with respect to the previous fiscal year:

(1) The State's Scrutinized Persons List;
(2) A list of all Persons added to or removed from the State's Scrutinized Persons List;
(3) A summary of correspondence with Persons engaged by RSIC under the Act;
(4) A list of all Persons upon which RSIC imposed sanctions, sought compliance, recovered damages, or declared the Person in default in accordance with Section V of this Policy;
(5) A list of all Persons that RSIC will continue to engage concerning their Investment Activities in Iran;
(6) A list of all Investments RSIC sold, redeemed, divested, or withdrawn in accordance with Section VI of this Policy; and
(7) A list of all Investments that were retained by RSIC pursuant to a determination by the CIO as set forth in Section VI(F).

VIII. Expiration. The restrictions in the Act shall apply only until:

(A) The President or Congress of the United States, by means including, but not limited to, legislation, executive order, or written certification, declares that divestment provided for under this Policy interferes with the conduct of United States foreign policy; or
(B) The United States revokes its current sanctions against Iran.

IX. Indemnification. The Act provides that present, future, and former authority members, officers, and employees of the Commission, the Public Employee Benefit Authority, the State Budget and Control Board, and the Authority, and contract investment managers and agents retained by the Commission, as well as present, future, and former State Treasurers, officers, and employees of the State Treasurer, and contract investment managers and agents retained by the State Treasurer, must be indemnified from the General Fund of the State and held harmless by the State from all claims, demands, suits, actions, damages, judgments, costs, charges, and expenses, including court costs and attorney's fees, and against all liability, losses, and damages of any nature whatsoever that these present, future, or former authority members, officers, employees, agents, or contract investment managers shall or may at any time sustain by reason of any decision to restrict, reduce, or eliminate Investments pursuant to the Act.

IX. SUDAN DIVESTMENT POLICY

I. Background. The State of South Carolina has enacted a Sudan divestment law, codified at S.C. Code Ann. §9-16-55 ("Act"). The uncodified preamble to the Act notes that "[d]ivestment is a course of last resort that should be used sparingly and under extraordinary circumstances," but states that "the genocide occurring in the Sudan is reprehensible and abhorrent," warranting this type of legislative response. The Act, which applies solely to the South Carolina Retirement Systems Group Trust ("Group Trust") managed by the South Carolina Retirement System Investment Commission ("Commission" as the governing body, "RSIC" as the agency), sets forth various criteria that are to be considered by the Commission in making the determinations required by the Act.

II. Purpose. The purpose of this Sudan Divestment Policy ("Policy") is to document the manner in which the Act is administered. The Commission has the exclusive authority to invest and manage the assets of the Group Trust pursuant to S.C. Code Ann. §9-16-20. The Commission also has the fiduciary duty to manage the assets of the Group Trust solely in the interests of the retirement systems, participants, and beneficiaries. The Commission must discharge these responsibilities in a manner consistent with all applicable statutes, regulations, and policies, including the Act.

III. Definitions. The Act utilizes the following defined terms:

(A) "Active Business Operations" means a Company engaged in Business Operations that provide revenue to the Government of Sudan or a Company engaged in Oil-Related Activities.

(B) "Business Operations" means maintaining, selling, or leasing equipment, facilities, personnel, or any other apparatus of business or commerce in Sudan, including the ownership or possession of real or personal property located in Sudan.

(C) "Company" means a sole proprietorship, organization, association, corporation, partnership, venture, or other entity, its subsidiary or affiliate that exists for profit-making purposes or to otherwise secure economic advantage. "Company" also means a Company owned or controlled, either directly or indirectly, by the Government of Sudan, that is established or organized under the laws of or has its principal place of business in the Sudan.

(D) "Government of Sudan" means the Government of Sudan or its instrumentalities as further defined in the Darfur Peace and Accountability Act of 2006.

(E) "Investment" means the purchase, ownership, or control of stock of a Company, association, or corporation, the capital stock of a mutual water Company or corporation, bonds issued by the government or a political subdivision of Sudan, corporate bonds, or other debt instruments issued by a Company.

(F) "Military Equipment" means weapons, arms, or military defense supplies.

(G) "Oil-Related Activities" means, but is not limited to, the export of oil, extracting or producing oil, exploration for oil, or the construction or maintenance of a pipeline, refinery, or other oil field infrastructure.

(H) "Public Employee Retirement Funds" means those assets as defined in §9-16-10(1).

(I) "Scrutinized Companies" means any of the following:

(1) The Company is engaged in Active Business Operations in Sudan; and

(i) The Company is engaged in Oil-Related Activities or energy or power-related operations, or contracts with another Company with Business Operations in the oil, energy, and power sectors of Sudan, and the Company has failed to take Substantial Action related to the Government of Sudan because of the Darfur genocide; or

(ii) The Company has demonstrated complicity in the Darfur genocide.

(2) The Company is not engaged in Oil-Related Activities and lacks significant Business Operations in the eastern, southern, and western regions of Sudan; and

(i) The Company is engaged in Oil-Related Activities or energy or power-related operations, or contracts with another Company with Business Operations in the oil, energy, and power sectors of Sudan, and the Company has failed to take Substantial Action related to the Government of Sudan because of the Darfur genocide; or

(ii) The Company has demonstrated complicity in the Darfur genocide.

(3) The Company supplies Military Equipment within the borders of Sudan.[2]

(J) "State" means the State of South Carolina.

(K) "Substantial Action" means a boycott of the Government of Sudan, curtailing business in Sudan until that time described in Section XI of this Policy, selling Company assets, equipment, or real and personal property located in Sudan, or undertaking significant humanitarian efforts in the eastern, southern, or western regions of Sudan.

(L) "Sudan" means the Republic of the Sudan, a territory under the administration or control of the Government of Sudan, including, but not limited to, the Darfur region, or an individual, Company, or public agency located in Khartoum, northern Sudan, or the Nile River Valley that supports the Republic of the Sudan.

IV. Identification of Companies

(A) Identifying Scrutinized Companies. RSIC Staff ("Staff") has engaged the services of a specialized research firm ("Advisor") to (i) identify companies doing business in Sudan, as defined in the Act, and (ii) provide Staff with a list of such Scrutinized Companies ("Scrutinized Companies List").

(B) Updates to Scrutinized Companies List. Staff shall ensure that the Scrutinized Companies List is updated on or about January 1 and July 1 of each year.

V. Engagement

(A) Determining Scrutinized Status. For each Company identified by the Advisor pursuant to Section IV(A) of this Policy, RSIC (either via Staff or the Advisor) shall send a written notice informing the Company that it may become subject to divestment by RSIC. The notice shall offer the Company the opportunity to clarify its Sudan-related activities within 90 days in order to avoid qualifying for potential divestment.

(B) Compliance. If, following RSIC's notification (either via Staff or the Advisor) to a Company pursuant to Section V(A) of this Policy, that Company ceases the activities that caused the Company to be added to the Scrutinized Companies List, as determined by the Advisor,

[2] If a Company provides equipment within the borders of Sudan that may be readily used for military purposes, including but not limited to, radar systems and military-grade transport vehicles, there is a strong presumption against investing in the Company unless that Company implements safeguards to prevent the use of that equipment for military purposes.

the Company shall be removed from the Scrutinized Companies List, and the provisions of this Section V shall cease to apply to the Company unless it resumes the activities that caused the Company to be added to the Scrutinized Companies List.

VI. Determinations to be made by the Chief Investment Officer

(A) Delegation to the Chief Investment Officer. The Commission has delegated authority to the Chief Investment Officer ("CIO") to, in consultation with RSIC's Chief Executive Officer, make the determinations required under the Act and to take actions necessary to implement this Policy.

(B) General. If, following RSIC's engagement with a Company pursuant to Section V(A) of this Policy, the Company continues to be a Scrutinized Company, Staff will present the CIO with detailed information gathered from the Advisor, affected investment managers, and others regarding the Company, its Business Operations, the Group Trust's holdings, and any other information required by the Act and this Policy. The CIO will make determinations as to (i) whether Staff should sell, redeem, divest, or withdraw the Group Trust's interests in the Company, and (ii) the timing of any such sale, redemption, divestment, or withdrawal. The CIO will also make the determinations described in Section IX of this Policy.

VII. Prohibition. RSIC shall not use Public Employee Retirement Funds to acquire new Investments in Companies on the Scrutinized Companies List, except as provided in this Policy.

VIII. Permissible Investments under the Act

(A) The Act does not apply to the following types of Investments:

(1) Investments in a Company that is primarily engaged in supplying goods or services intended to relieve human suffering in Sudan;

(2) Investments in a Company that promotes health, education, journalistic, or religious activities in or welfare in the western, eastern, or southern regions of Sudan;

(3) Investments in a United States Company that is authorized by the federal government to have Business Operations in Sudan; and

(4) Investments that constitute indirect beneficial ownership through index funds, commingled funds, limited partnerships, derivative instruments, or the like.

(B) In developing the Scrutinized Companies List, the Advisor shall determine, in good faith and with due professional care, whether any of the foregoing exemptions and exclusions set forth in the Act apply.

IX. Determinations required to be made by the CIO pursuant to §9-16-55(D)(1). The Act states that nothing in the Act "requires the [C]ommission to take action as described in [the Act] unless the [C]ommission determines, in good faith, that the action described in [the Act] is consistent with the fiduciary responsibilities of the [C]ommission as described in [Title 9, Chapter 16 of the Code] and there are appropriated funds of the State to absorb the expenses of the [C]ommission to implement this [Act]." §9-16-55(D)(1). Accordingly, whenever the CIO is asked to consider taking action under the terms of the Act or this Policy, Staff will assist the CIO in making the determinations required to be made as described in this Section IX.

X. Reporting. Staff shall, following the close of RSIC's fiscal year, prepare a formal report to the Commission regarding actions taken pursuant to the Act. RSIC shall also publish the report. The report shall include all of the following information with respect to the previous fiscal year:

(A) The Scrutinized Companies List;
(B) A list of all Companies added to or removed from the Scrutinized Companies List;
(C) A summary of correspondence with Companies engaged by RSIC under the Act;
(D) A list of all Companies that RSIC will continue to engage concerning their Business Operations in Sudan;
(E) A summary of all Investments sold, redeemed, divested, or withdrawn under the Act; and
(F) A list of all Investments that were retained by RSIC pursuant to a determination by the CIO as set forth in Section IX.

XI. Expiration. The restrictions in the Act shall apply only until:

(A) The Government of Sudan halts the genocide in Darfur for twelve months as determined by both the Department of State and the Congress of the United States; or
(B) The United States revokes its current sanctions against Sudan.

XII. Indemnification. The Act provides that present and former board members, officers, and employees of the State Fiscal Accountability Authority, present, future, and former directors, officers, and employees of the South Carolina Public Employee Benefit Authority, the Commission, and contract investment managers retained by the Commission must be indemnified from the general fund of the State and held harmless by the State from all claims, demands, suits, actions, damages, judgments, costs, charges, and expenses, including court costs and attorney's fees, and against all liability, losses, and damages of any nature whatsoever that these present, future, or former board members, officers, employees, or contract investment managers shall or may at any time sustain by reason of any decision to restrict, reduce, or eliminate Investments pursuant to the Act.

X. Investment Authority Delegation Policy

I. Pursuant to Section 9-16-330(B) of the 1976 Code, the Commission delegates to the Chief Investment Officer ("CIO") the final authority to invest subject to the oversight of the Chief Executive Officer ("CEO") and the requirements and limitations of this policy. The size of any one investment made pursuant to this policy is limited to the percentage of total plan assets that applies to the particular asset class to which the investment pertains as provided in Section III of this policy and subject to any other limitation the Commission may place on this authority at any given time. The value of total plan assets to which the percentage limitations apply must be the estimated total value of plan assets included in the most recent quarterly investment performance report prepared pursuant to Section 9-16-90(A). For purposes of this policy, a co-investment is considered a separate and distinct investment from an investment in a commingled fund, fund of one structure, or an amount committed to a separately managed account and is separately subject to the limitations and requirements of this policy. Individual investments made in a separately managed account or a fund of one structure are not considered separate investments for purposes of this policy and are subject in aggregate to the limitations and requirements of this policy regardless of whether some degree of discretion is retained by staff regarding individual investments to be included in the applicable account.

II. The investment process for any investment made pursuant to this policy must be substantially similar to the investment process employed prior to the adoption of this policy, but for the requirement that the Commission approve the investment prior to closing the investment and must adhere to RSIC's Due Diligence Guidelines and Policies [link to policy: http://investment/forms/Due%20Diligence%20Documents/RSIC%20New%20Investment%20Due%20Diligence%20Policy.pdf]. Notwithstanding the authority granted by this policy, an investment must be presented to the Commission for its approval if it meets any of the following criteria:

a. The investment is the initial investment in a new asset class;
b. The majority of the underlying assets comprising the investment have not been previously included in the investment portfolio;
c. The strategy to be employed by the investment manager is not substantially similar to an investment that has been previously subject to the Commission's investment due diligence process; or
d. The investment strategy, other than in publicly traded assets, has important direct connections to South Carolina residents, state policymakers, or South Carolina focused businesses, and/or a majority of the assets of the investments would be principally located in South Carolina.

III. The amount of delegation for new investments approved pursuant to this policy shall not exceed 5% of the total value of Plan assets between regularly scheduled Commission meetings. The size of an individual investment made pursuant this policy is subject to the following limitations provided for the asset class applicable to the investment:

a. Public Markets - 2% of the total value of plan assets, unless it is reasonable to believe that due to the particulars of the investment strategy that liquidating the investment would ordinarily require longer than ninety days and, in such case, the limit is 1% of the total value of plan assets, for:

i. Global Public Equity,
ii. Equity Options,
iii. Portable Alpha,
iv. Global Asset Allocation,
v. Mixed Credit,
vi. Emerging Market Debt,
vii. Other Opportunistic Strategies,
viii. Core Fixed Income, and
ix. Cash and Short Duration.

b. Publicly-Traded Real Estate - 1% of the total value of plan assets.
c. Private Markets - 75 bps of the total value of plan assets for:

i. Private Equity,
ii. Private Debt,
iii. Private Real Estate,
iv. Infrastructure, and
v. Opportunistic Hedge Funds.

For purposes of this policy, the asset classes indicated in this section are as they are described in the Annual Investment Plan.

IV. Pursuant to Section 9-16-330(B)(2), the closing documentation of any investment made pursuant to this policy must include the CEO's certification that the investment conforms to the amount and extent of delegation provided by this policy.

V. The Commission must be informed of a proposed investment to be made pursuant to this policy no less than three days before the closing of the investment and must be provided with all applicable documentation and reports produced or relied upon by staff when making the investment recommendation including, but not limited to:

a. investment due diligence report,
b. operational due diligence report,
c. key terms sheet,
d. memorandum and/or reports from the general or specialty consultant,
e. Internal Investment Committee action summary,
f. Completeness check certification, and
g. Final draft versions of pertinent legal documents, including the Investment contract, limited partnership agreement, and/or other applicable closing documents.

VI. An investment made pursuant to this policy must be reviewed with the Commission at the next regularly scheduled Commission meeting.

VII. The CIO must provide the Commission with an updated proposed investment pipeline on a monthly basis.

VIII. The delegation of the final authority to invest pursuant to this section includes the authority to terminate an investment manager if the investment was made pursuant to this policy or the amount of capital committed to the manager by the Commission would fall within the applicable limits provided in Section III. The CIO must approve any termination of a manager made pursuant to this policy, subject to the oversight of the CEO. The CIO must provide a memorandum to the Commission summarizing his justification for terminating the manager within three days of terminating the manager. The CIO must provide a review of the termination to the Commission at the next Commission meeting.

IX. Review and History

a. The Commission will review this policy annually to ensure that it remains relevant and appropriate, or when there has been an amendment to state law relevant to any section of this policy, or a Commission approved change in the responsibilities, duties or operations of the Commission or its Committee generally, or as otherwise deemed appropriate by the Commission.
b. No provision of this policy shall apply to the extent that it is in conflict with any provision of the Code of Laws of South Carolina, 1976, as amended. In the event of such conflict, the applicable Code provision shall apply in all respects.
c. This policy was adopted by the Commission on September 28, 2017, subject to final approval by the Chair of the incorporation of certain amendments into the policy. The Chair issued final approval of the policy on October 23, 2017.

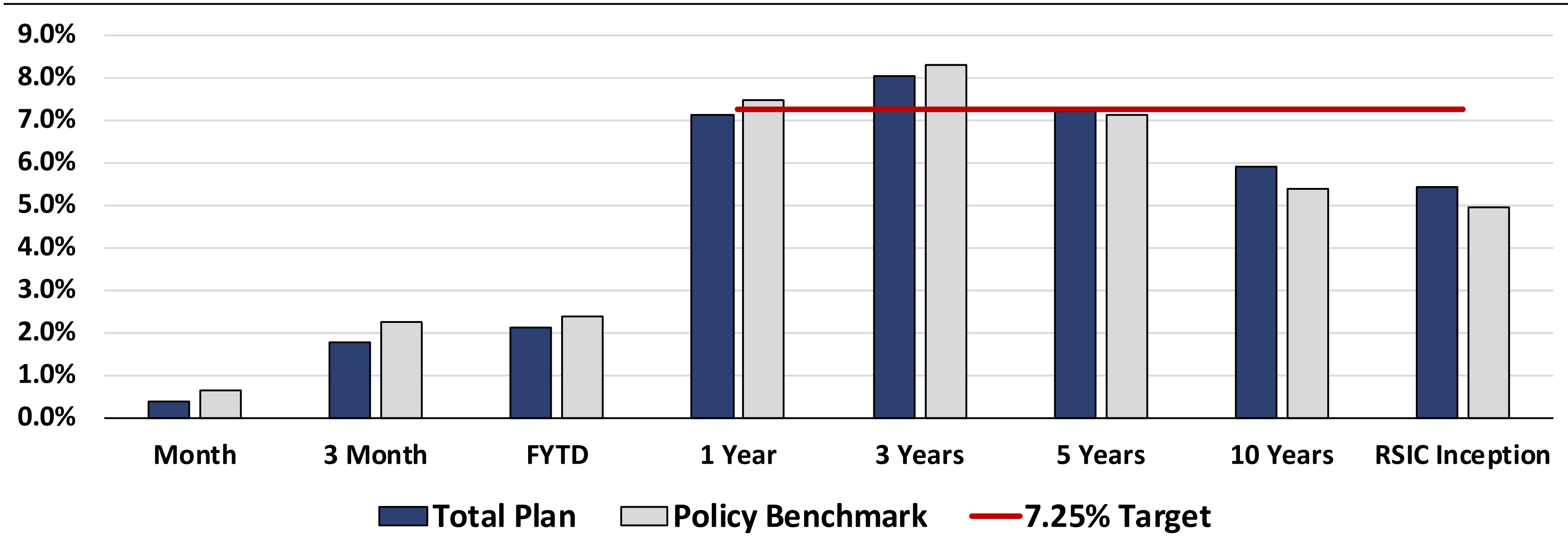
RETIREMENT SYSTEM
INVESTMENT COMMISSION

Performance Update

RSIC 10/24/18 Video Performance Update
Data as of August 31st, 2018

Performance - Plan & Policy Benchmark[2]

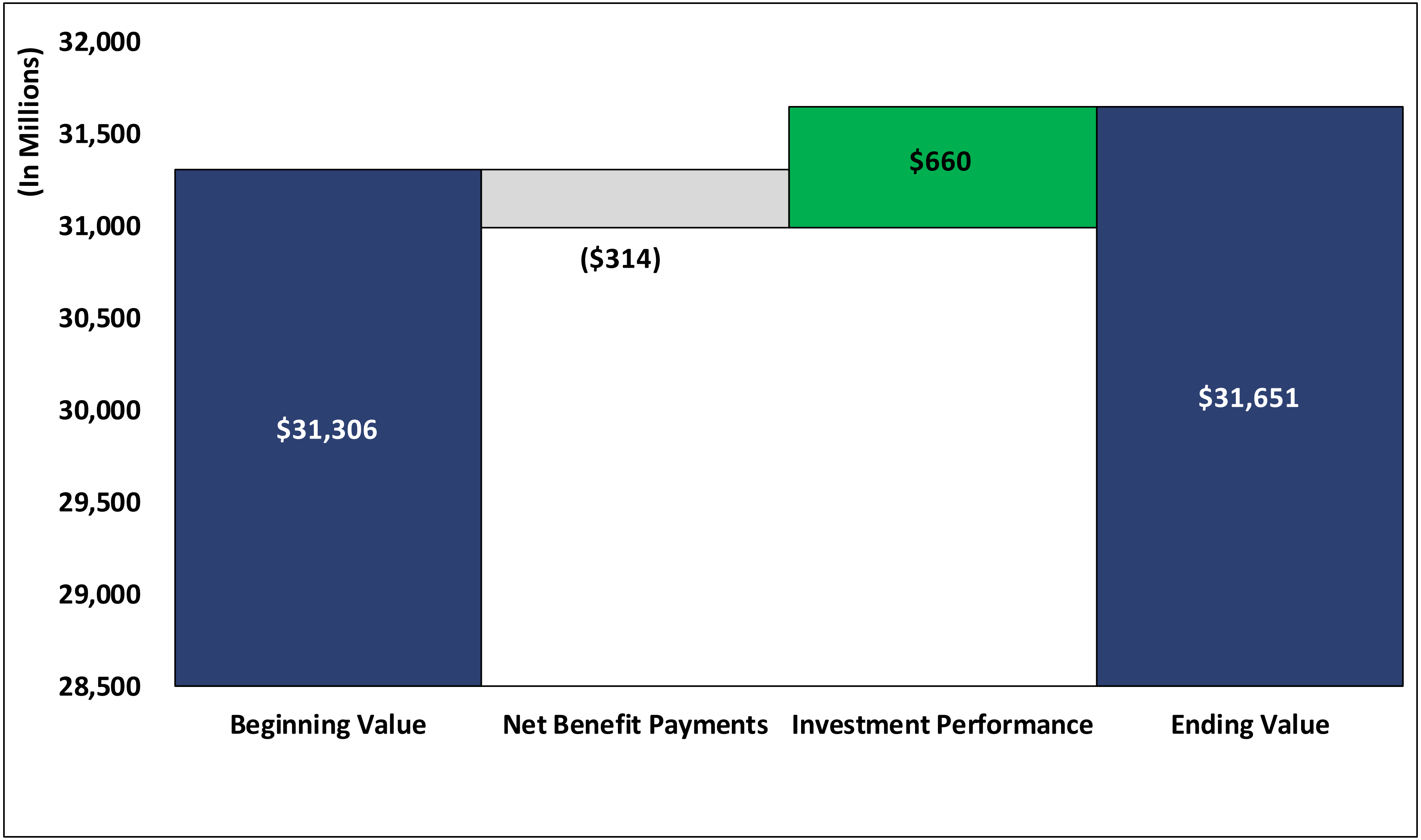
As of August 31, 2018



Historic Plan Performance As of 08/31/18	Market Value (In Millions)	Month	3 Month	FYTD	1 Year	Annualized 3 Years	5 Years	10 Years	RSIC Inception
Total Plan	**$31,651**	**0.38%**	**1.78%**	**2.10%**	**7.12%**	**8.01%**	**7.21%**	**5.87%**	**5.40%**
Policy Benchmark		0.64%	2.24%	2.38%	7.44%	8.30%	7.12%	5.36%	4.93%
Excess Return		-0.26%	-0.46%	-0.28%	-0.32%	-0.28%	0.09%	0.52%	0.47%
Net Benefit Payments (In Millions)		($76)	($458)	($314)	($1,369)	($3,439)	($5,529)	($10,203)	($12,700)
Current 3-month Roll off Return:			*0.11%*	*N/A*	*3.01%*	*-3.68%*	*-0.57%*	*-6.23%*	*N/A*
Next 3-month Roll off Return:			*1.78%*	*N/A*	*3.42%*	*0.86%*	*5.91%*	*-25.95%*	*N/A*

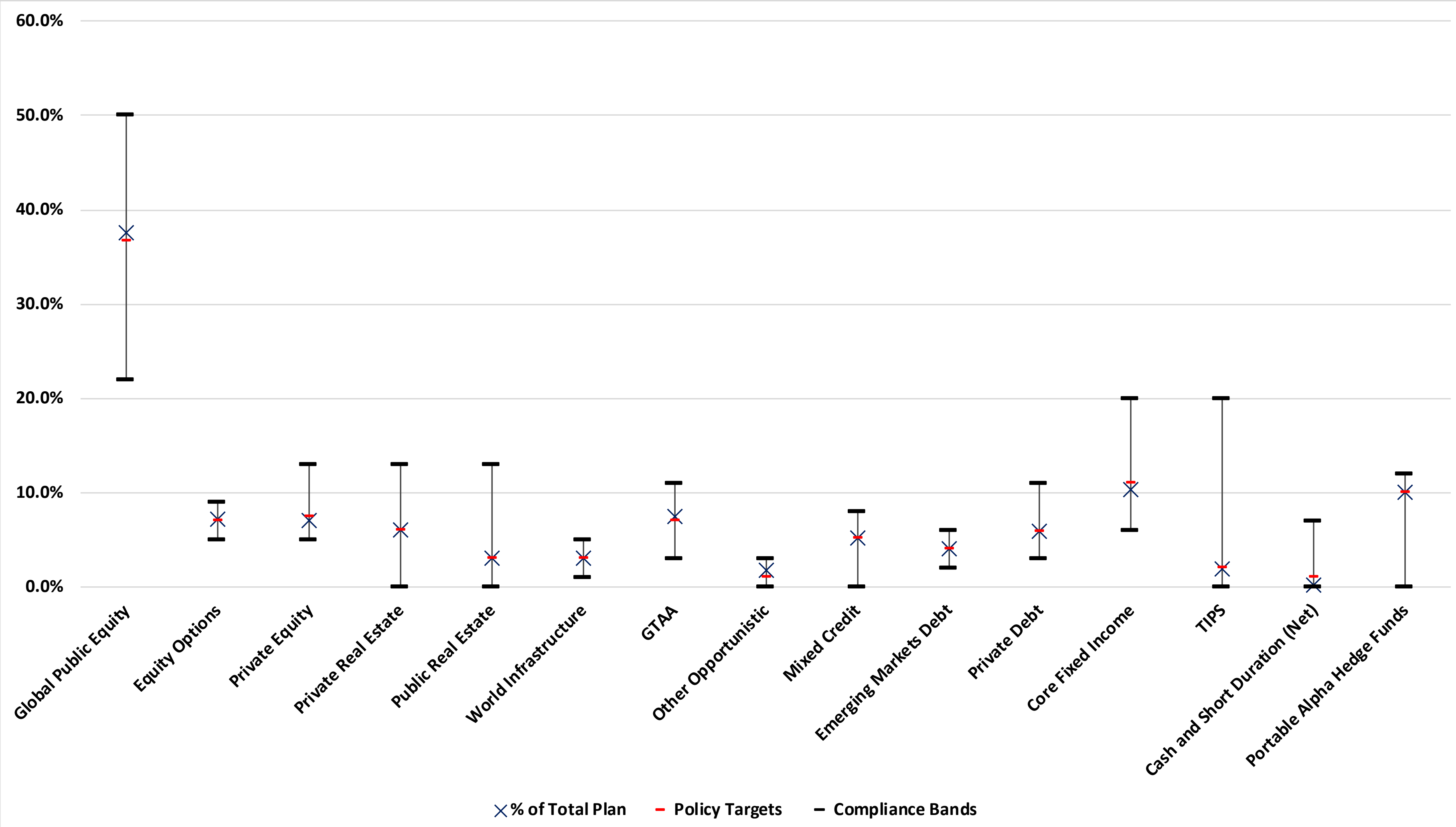
FYTD Benefits and Performance[2]

FYTD as of August 31, 2018



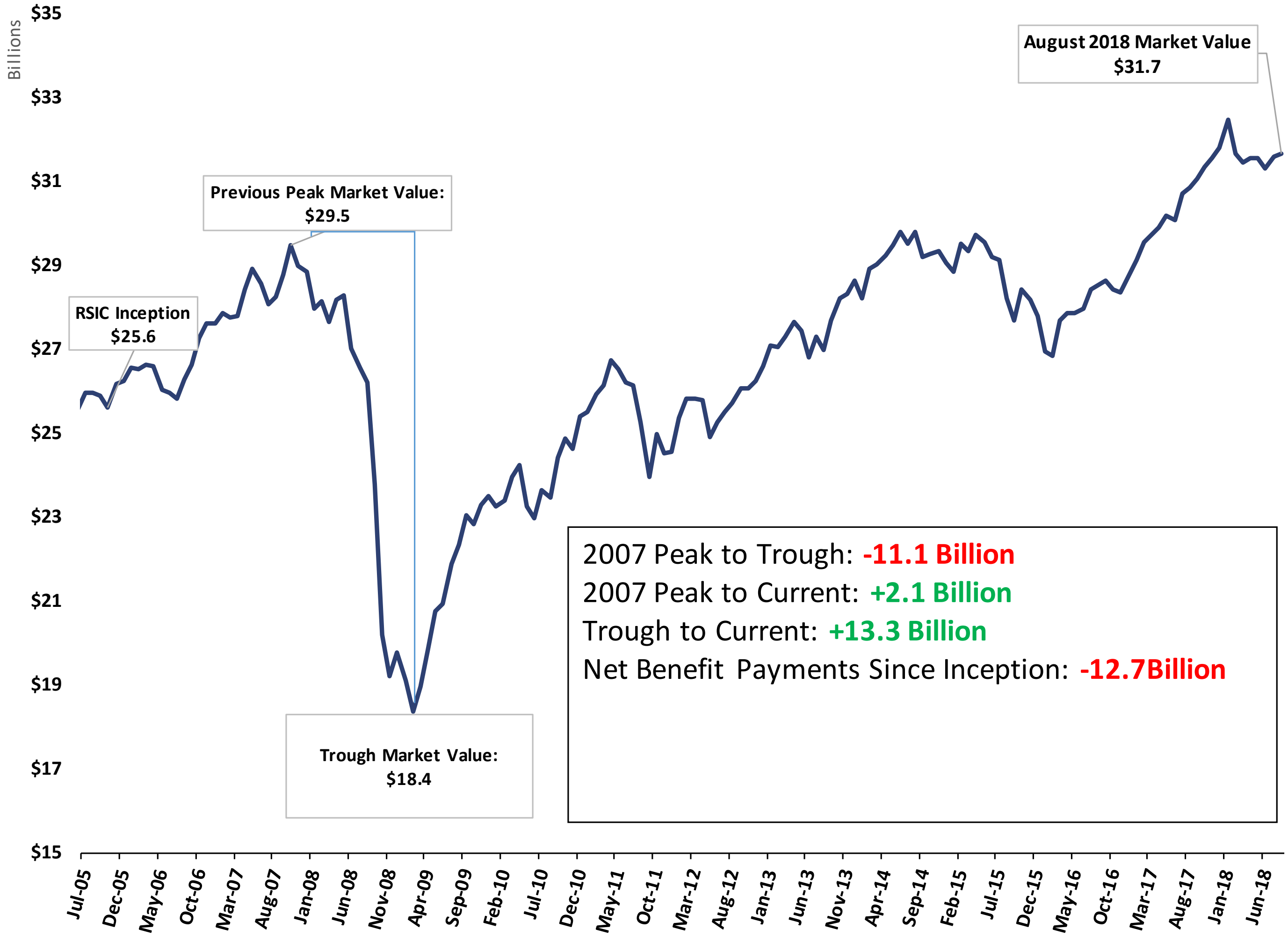
Portfolio Exposure & Policy Weights [4,8]

As of August 31, 2018



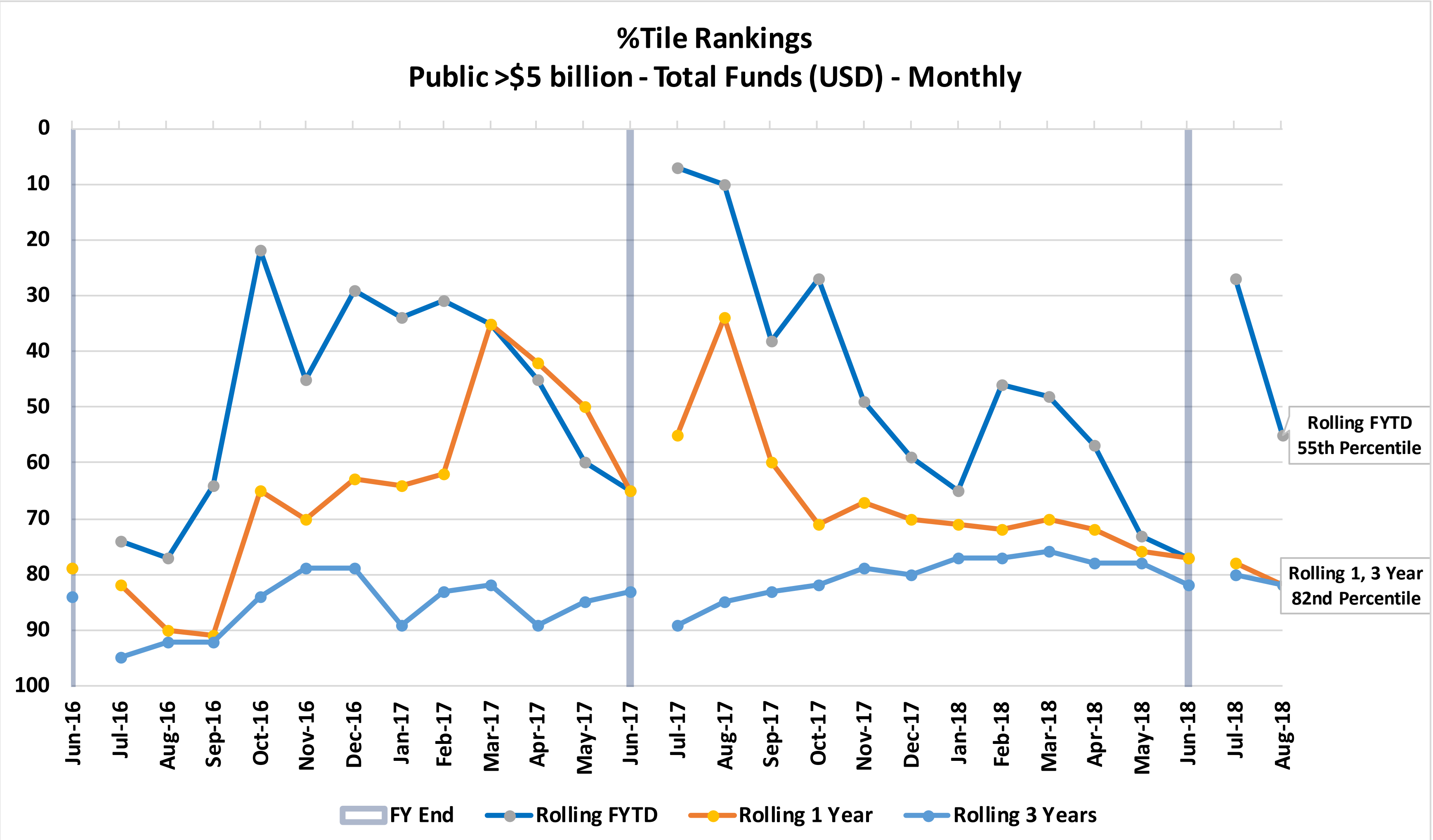
RSIC Market Value Through Time

As of August 31, 2018



RSIC Universe Rankings[11]

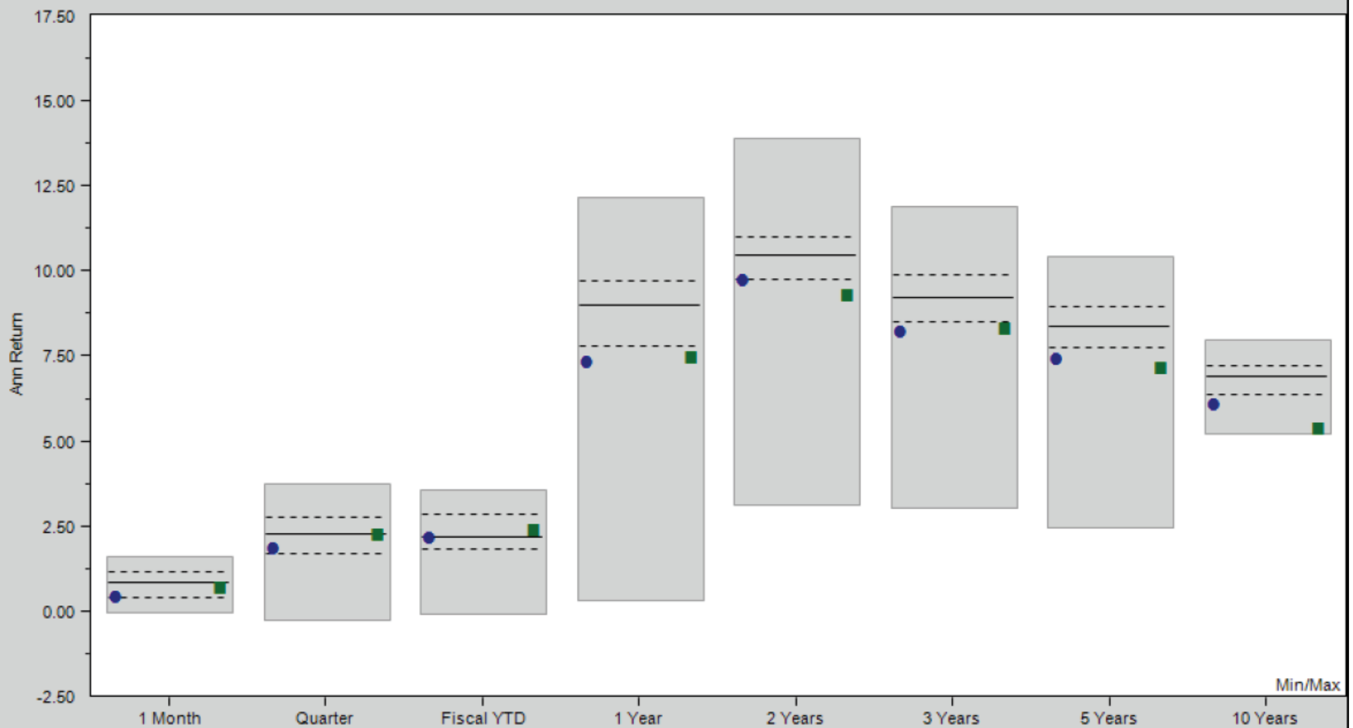
As of August 31, 2018



Bank of New York Public Funds > $5 billion[11]

As of August 31, 2018

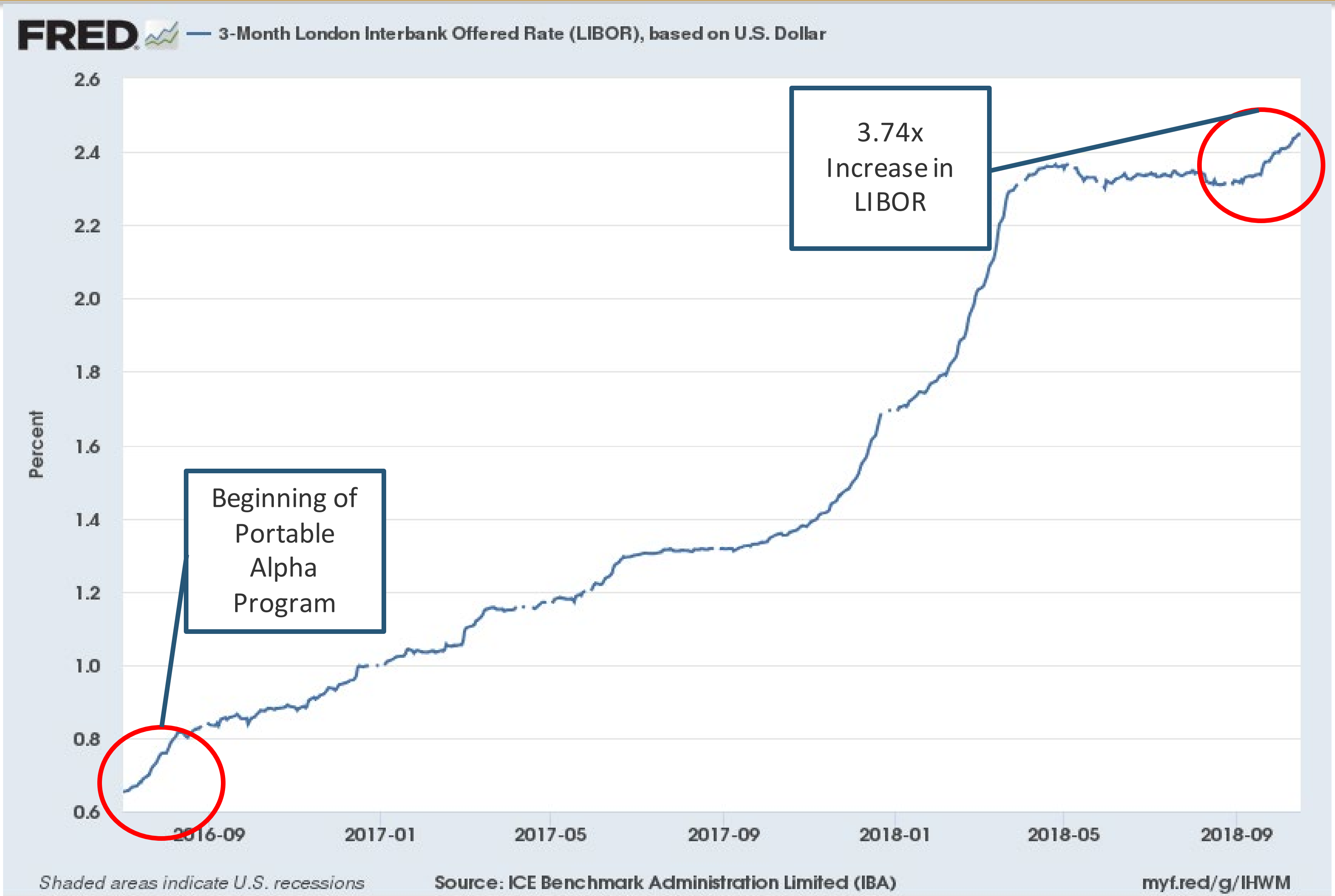
Public > $5 Billion - Total Funds (USD) - Monthly
As of August 31, 2018
Quartile



	1 Month Value	1 Month %Tile	Quarter Value	Quarter %Tile	Fiscal YTD Value	Fiscal YTD %Tile	1 Year Value	1 Year %Tile	2 Years Value	2 Years %Tile	3 Years Value	3 Years %Tile	5 Years Value	5 Years %Tile	10 Years Value	10 Years %Tile
Maximum	1.59		3.72		3.58		12.14		13.91		11.91		10.40		7.98	
25th Percentile	1.17		2.77		2.85		9.71		10.99		9.90		8.95		7.23	
Median Percentile	0.85		2.27		2.18		8.97		10.48		9.22		8.35		6.90	
75th Percentile	0.40		1.69		1.81		7.79		9.73		8.51		7.73		6.36	
Minimum	-0.03		-0.27		-0.11		0.30		3.09		3.02		2.44		5.19	
# of Portfolios	36		36		36		36		36		36		34		33	
● **Total SC with Overlay**	0.40	76	1.82	68	2.14	55	7.30	82	9.70	76	8.19	82	7.37	83	6.07	86
■ **SC Policy Benchmark**	0.64	56	2.24	55	2.38	41	7.44	81	9.27	80	8.30	80	7.12	87	5.36	96

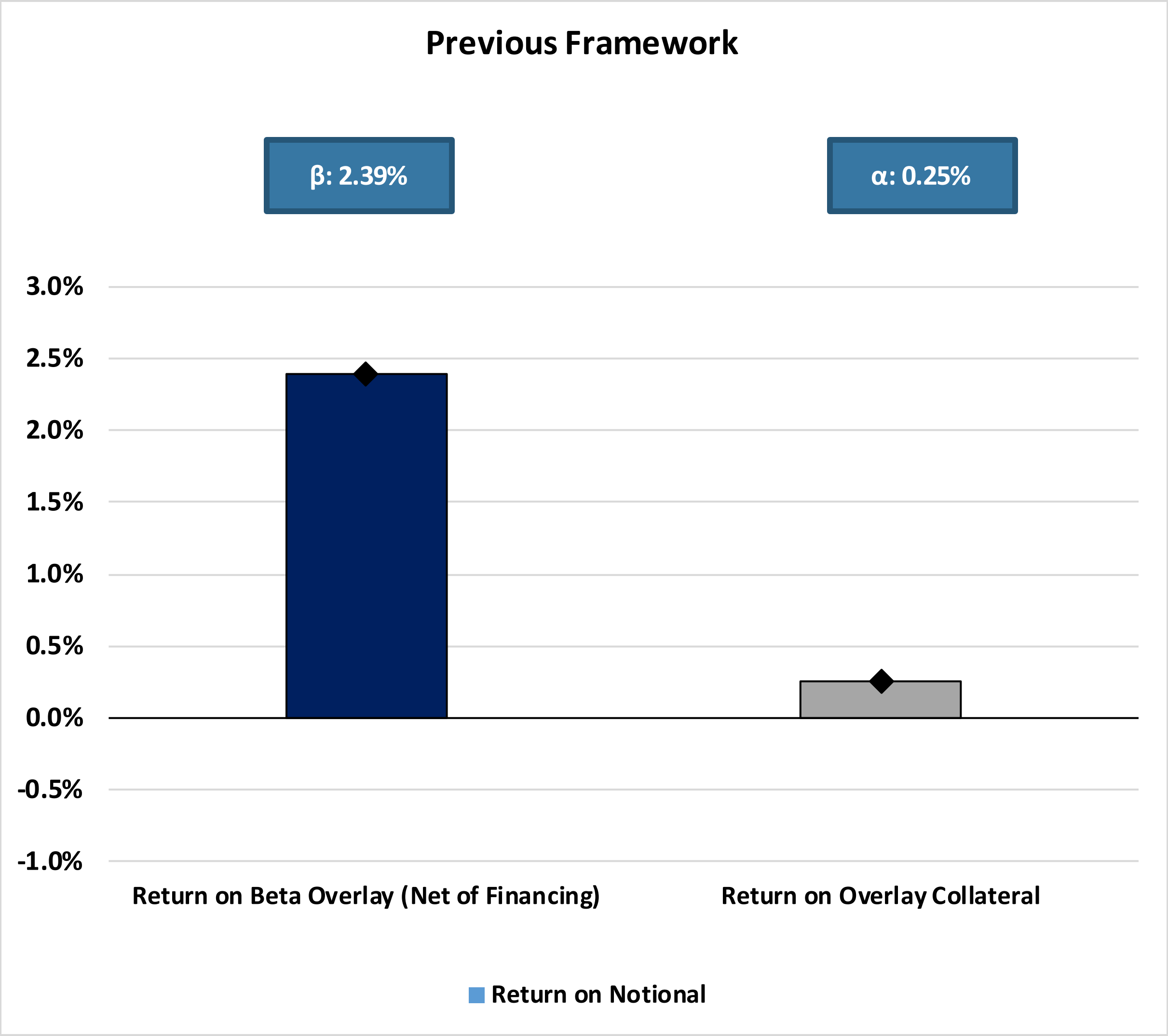
Universe Source: The Bank of New York Mellon Corporation; Universe Status: Final, Calculated

Attributing Finance Costs to Collateral



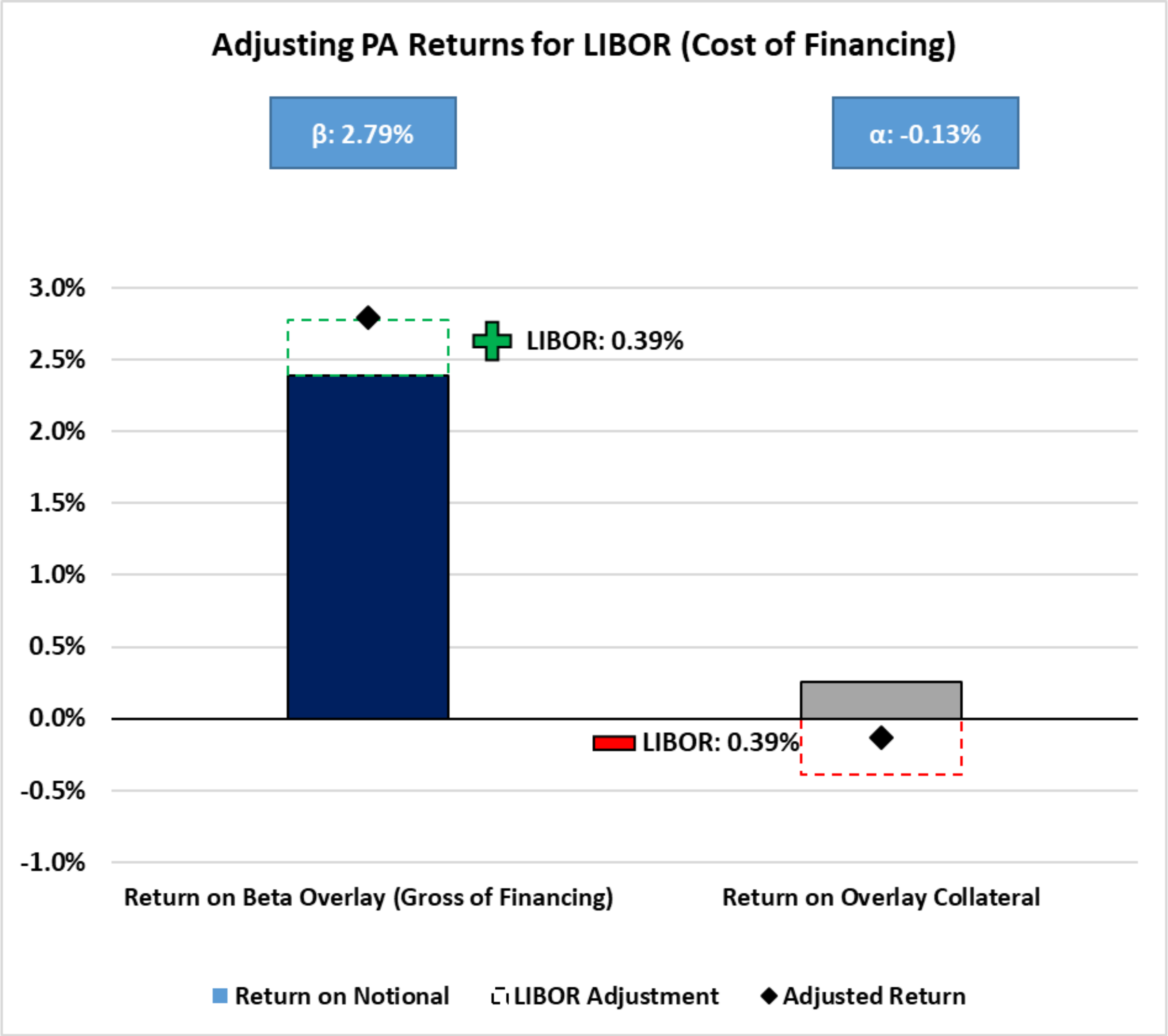
Attributing Finance Costs to Collateral

FYTD as of August 31, 2018



Attributing Finance Costs to Collateral

FYTD as of August 31, 2018



Performance – Plan & Asset Classes[1,3,4,10]

As of August 31, 2018

Asset Class / Benchmark returns as of 08/31/18	Plan Weight	Month	3 Month	YTD	FYTD	Annualized 1 Year	Annualized 3 Years	Annualized 5 Years
Total Plan	100.0%	0.38%	1.78%	2.39%	2.10%	7.12%	8.01%	7.21%
Policy Benchmark		0.64%	2.24%	2.95%	2.38%	7.44%	8.30%	7.12%
Global Public Equity	37.5%	0.82%	2.26%	2.34%	3.51%	10.42%	11.49%	9.54%
Global Public Equity Blend		0.75%	2.89%	3.32%	3.51%	11.56%	11.94%	9.73%
Equity Options	7.2%	1.78%	4.21%	4.14%	3.93%	8.77%	n/a	n/a
Blended Equity Options BM		1.72%	4.47%	6.39%	4.53%	10.37%	n/a	n/a
Private Equity	**7.02%**	0.69%	3.05%	9.29%	2.33%	15.02%	11.24%	12.95%
Private Equity Blend		2.11%	1.58%	9.60%	3.22%	16.64%	12.46%	14.49%
GTAA	7.4%	-0.31%	0.65%	-0.55%	1.54%	3.21%	6.00%	4.88%
GTAA Benchmark Blend		0.47%	2.36%	1.92%	2.45%	5.83%	7.64%	5.85%
Other Opportunistic	1.7%	1.72%	5.21%	8.13%	4.48%	10.22%	n/a	n/a
GTAA Benchmark Blend		0.47%	2.36%	1.92%	2.45%	5.83%	n/a	n/a
Core Fixed Income	10.3%	0.61%	0.63%	-0.81%	0.67%	-0.85%	1.92%	2.54%
Barclays US Aggregate Bond Index		0.64%	0.54%	-0.96%	0.67%	-1.05%	1.76%	2.49%
TIPS	1.9%	0.72%	n/a	n/a	0.13%	n/a	n/a	n/a
Barclays US Treasury Inflations Notes		0.67%	n/a	n/a	0.28%	n/a	n/a	n/a
Cash and Short Duration (Net)	0.2%	0.20%	0.34%	0.68%	0.34%	0.78%	0.91%	0.75%
ICE BofA Merrill Lynch 3-Month T-Bill		0.18%	0.51%	1.15%	0.34%	1.52%	0.79%	0.49%
Mixed Credit	5.1%	0.45%	1.38%	2.29%	1.12%	4.53%	4.95%	3.97%
Mixed Credit Blend		0.57%	1.75%	2.66%	1.49%	4.14%	6.04%	5.02%
Private Debt	5.9%	-0.27%	1.48%	3.60%	0.38%	7.06%	5.42%	6.70%
S&P/LSTA Leveraged Loan + 150 Bps on a 3-month lag		0.30%	1.30%	4.16%	0.87%	5.70%	5.52%	5.36%
Emerging Markets Debt	3.9%	-5.33%	-5.62%	-9.37%	-3.29%	-8.76%	4.55%	2.50%
Emerging Markets Debt Blend		-3.91%	-3.76%	-7.46%	-1.77%	-6.68%	4.22%	2.16%
Private Real Estate	6.0%	0.48%	2.12%	6.64%	1.52%	10.79%	10.44%	13.63%
NCREIF ODCE Net Index + 100bps		0.08%	2.08%	4.54%	0.17%	8.47%	9.38%	11.03%
Public Real Estate	3.0%	3.10%	8.36%	4.66%	3.59%	7.55%	n/a	n/a
FTSE NAREIT Equity REITs Index		2.59%	7.93%	4.47%	3.42%	6.01%	n/a	n/a
World Infrastructure	3.0%	-0.34%	4.04%	-0.65%	1.20%	-0.21%	n/a	n/a
Dow Jones Brookfield Global Infrastructure Net Index		-1.36%	3.15%	-0.84%	0.46%	-1.69%	n/a	n/a
Portable Alpha Hedge Funds	10.0%	*-1.04%*	*-0.99%*	*0.39%*	*-0.70%*	*2.89%*	*2.53%*	*5.90%*
Portable Alpha HF Blend		*0.39%*	*0.76%*	*0.76%*	*0.76%*	*0.76%*	*0.42%*	*1.76%*
Portable Alpha Collateral	19.7%	-0.15%	-0.21%	-0.06%	-0.13%	0.34%	n/a	n/a
Portable Alpha Benchmark		0.20%	0.39%	0.39%	0.39%	0.39%	n/a	n/a

*Overlay Returns are displayed gross of LIBOR in blended returns. Portable Alpha Collateral and Hedge fund returns are shown net of LIBOR. 3 and 5-year portable alpha hedge fund returns are considered supplemental information provided by Staff to illustrate the performance of these hedge funds even though they were classified under a different asset class during these periods.

Performance – Plan & Asset Classes[1,3,4,10]

As of August 31, 2018

Asset Class / Benchmark returns as of 08/31/18	Plan Weight	Month	3 Month	YTD	FYTD	Annualized 1 Year	Annualized 3 Years	Annualized 5 Years
Total Plan	100.0%	0.38%	1.78%	2.39%	2.10%	7.12%	8.01%	7.21%
Policy Benchmark		0.64%	2.24%	2.95%	2.38%	7.44%	8.30%	7.12%
Global Public Equity	37.5%	0.82%	2.26%	2.34%	3.51%	10.42%	11.49%	9.54%
Global Public Equity Blend		0.75%	2.89%	3.32%	3.51%	11.56%	11.94%	9.73%
Equity Options	7.2%	1.78%	4.21%	4.14%	3.93%	8.77%	n/a	n/a
Blended Equity Options BM		1.72%	4.47%	6.39%	4.53%	10.37%	n/a	n/a
Private Equity	**7.02%**	0.69%	3.05%	9.29%	2.33%	15.02%	11.24%	12.95%
Private Equity Blend		2.11%	1.58%	9.60%	3.22%	16.64%	12.46%	14.49%
GTAA	7.4%	-0.31%	0.65%	-0.55%	1.54%	3.21%	6.00%	4.88%
GTAA Benchmark Blend		0.47%	2.36%	1.92%	2.45%	5.83%	7.64%	5.85%
Other Opportunistic	1.7%	1.72%	5.21%	8.13%	4.48%	10.22%	n/a	n/a
GTAA Benchmark Blend		0.47%	2.36%	1.92%	2.45%	5.83%	n/a	n/a
Core Fixed Income	10.3%	0.61%	0.63%	-0.81%	0.67%	-0.85%	1.92%	2.54%
Barclays US Aggregate Bond Index		0.64%	0.54%	-0.96%	0.67%	-1.05%	1.76%	2.49%
TIPS	1.9%	0.72%	n/a	n/a	0.13%	n/a	n/a	n/a
Barclays US Treasury Inflations Notes		0.67%	n/a	n/a	0.28%	n/a	n/a	n/a
Cash and Short Duration (Net)	0.2%	0.20%	0.34%	0.68%	0.34%	0.78%	0.91%	0.75%
ICE BofA Merrill Lynch 3-Month T-Bill		0.18%	0.51%	1.15%	0.34%	1.52%	0.79%	0.49%
Mixed Credit	5.1%	0.45%	1.38%	2.29%	1.12%	4.53%	4.95%	3.97%
Mixed Credit Blend		0.57%	1.75%	2.66%	1.49%	4.14%	6.04%	5.02%
Private Debt	5.9%	-0.27%	1.48%	3.60%	0.38%	7.06%	5.42%	6.70%
S&P/LSTA Leveraged Loan + 150 Bps on a 3-month lag		0.30%	1.30%	4.16%	0.87%	5.70%	5.52%	5.36%
Emerging Markets Debt	3.9%	-5.33%	-5.62%	-9.37%	-3.29%	-8.76%	4.55%	2.50%
Emerging Markets Debt Blend		-3.91%	-3.76%	-7.46%	-1.77%	-6.68%	4.22%	2.16%
Private Real Estate	6.0%	0.48%	2.12%	6.64%	1.52%	10.79%	10.44%	13.63%
NCREIF ODCE Net Index + 100bps		0.08%	2.08%	4.54%	0.17%	8.47%	9.38%	11.03%
Public Real Estate	3.0%	3.10%	8.36%	4.66%	3.59%	7.55%	n/a	n/a
FTSE NAREIT Equity REITs Index		2.59%	7.93%	4.47%	3.42%	6.01%	n/a	n/a
World Infrastructure	3.0%	-0.34%	4.04%	-0.65%	1.20%	-0.21%	n/a	n/a
Dow Jones Brookfield Global Infrastructure Net Index		-1.36%	3.15%	-0.84%	0.46%	-1.69%	n/a	n/a
Portable Alpha Hedge Funds	10.0%	*-1.04%*	*-0.99%*	*0.39%*	*-0.70%*	*2.89%*	*2.53%*	*5.90%*
Portable Alpha HF Blend		*0.39%*	*0.76%*	*0.76%*	*0.76%*	*0.76%*	*0.42%*	*1.76%*
Portable Alpha Collateral	19.7%	-0.15%	-0.21%	-0.06%	-0.13%	0.34%	n/a	n/a
Portable Alpha Benchmark		0.20%	0.39%	0.39%	0.39%	0.39%	n/a	n/a

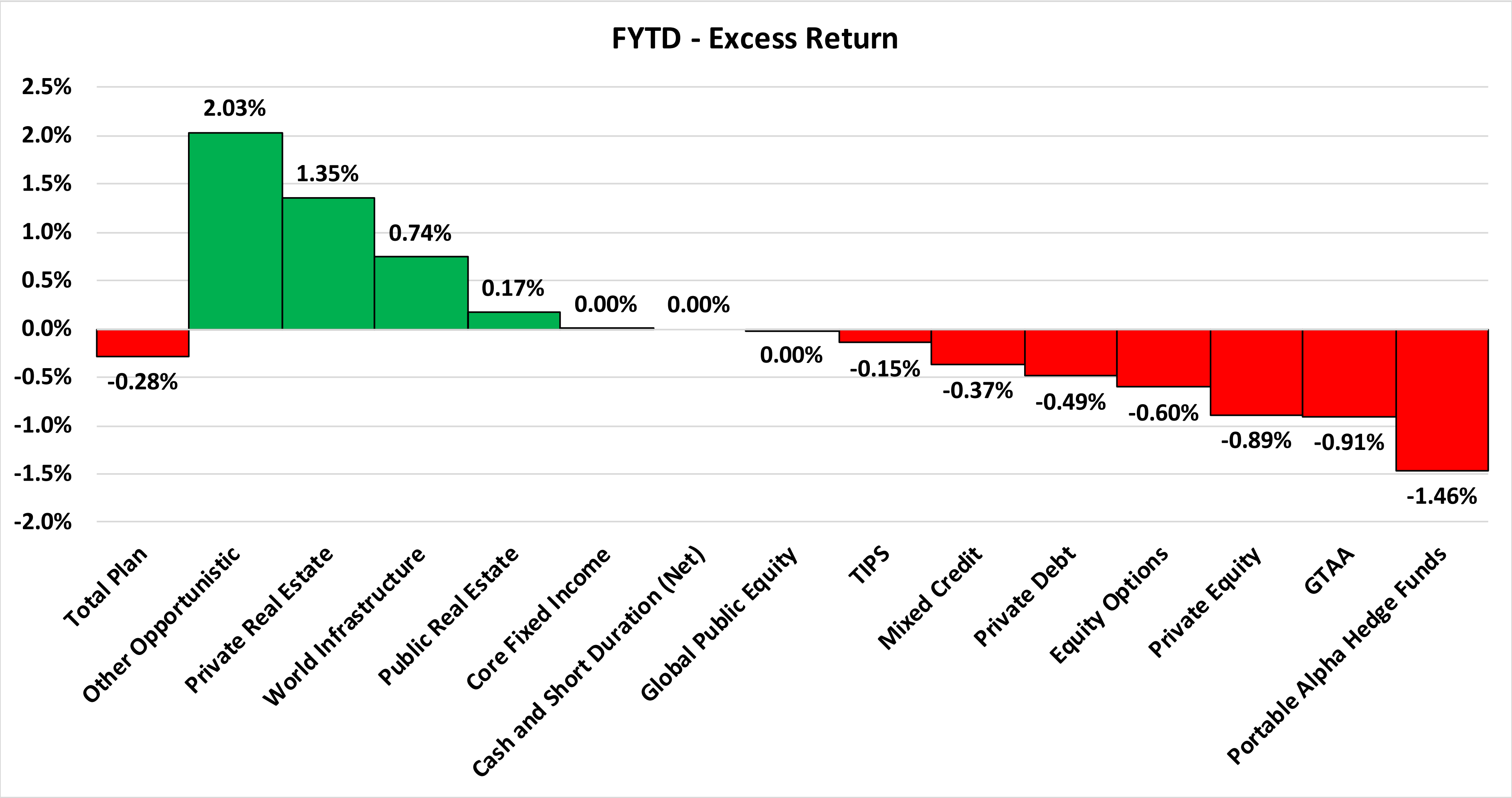
+ LIBOR

− LIBOR

*Overlay Returns are displayed gross of LIBOR in blended returns. Portable Alpha Collateral and Hedge fund returns are shown net of LIBOR. 3 and 5-year portable alpha hedge fund returns are considered supplemental information provided by Staff to illustrate the performance of these hedge funds even though they were classified under a different asset class during these periods.

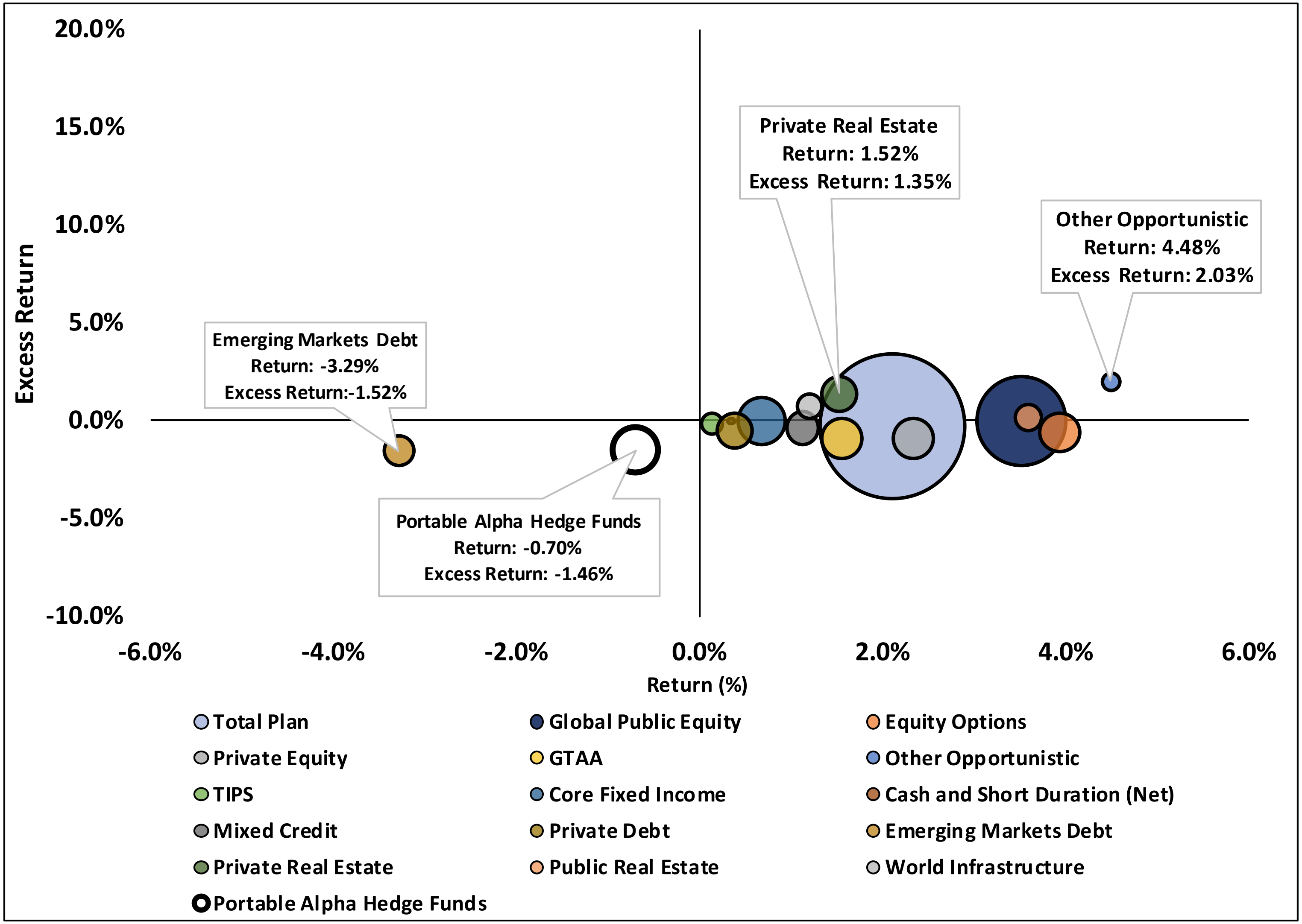
Relative Performance to Policy Benchmarks[3,4,10]

FYTD as of August 31, 2018



Asset Class Return & Excess[3,4,5]

FYTD as of August 31, 2018



Attribution of Plan Excess Returns to Policy Benchmark

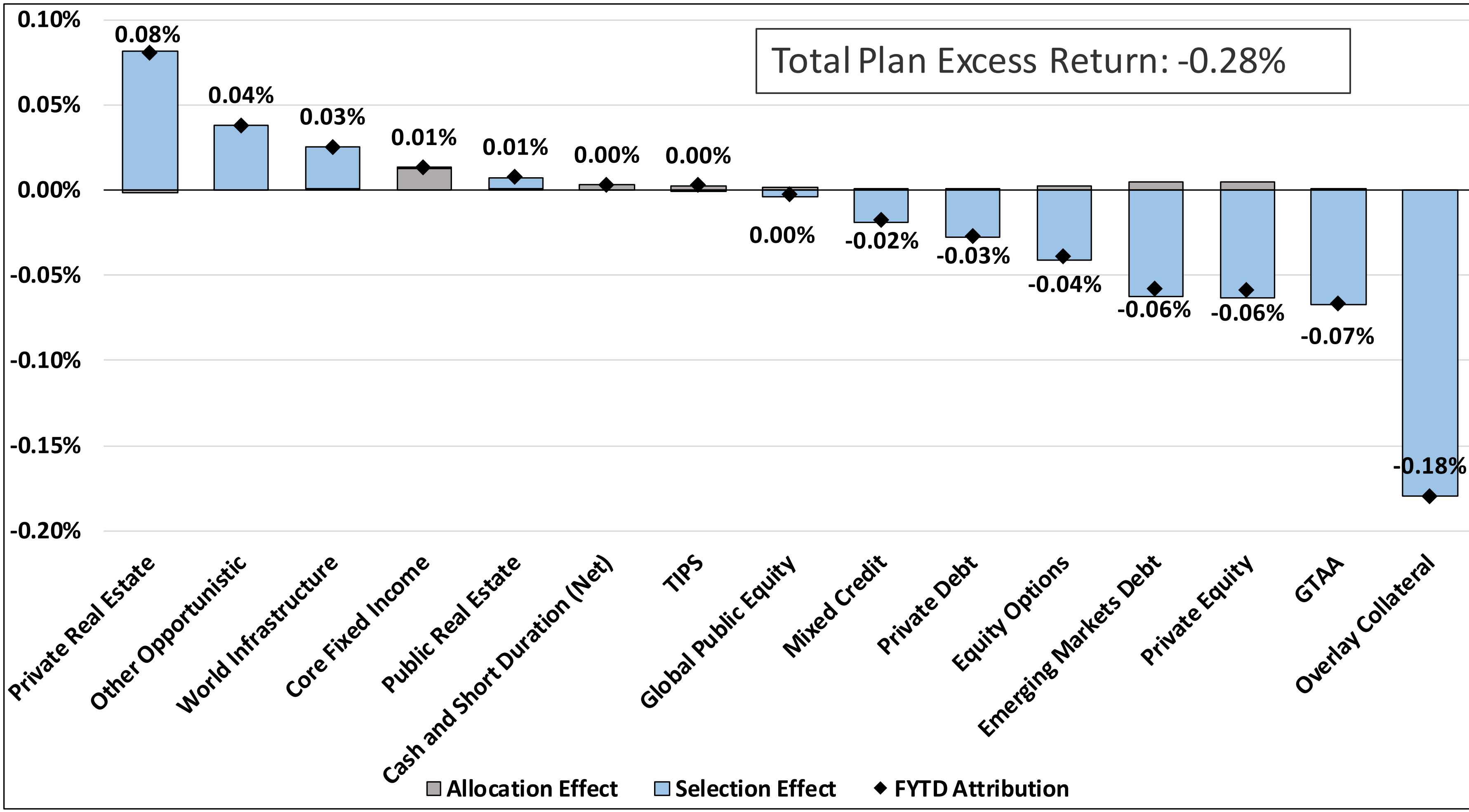
FYTD as of August 31, 2018

Fiscal Year Attribution	Total Attribution	Allocation Effect	Selection Effect	Average O/U Weight	Asset Class FY Return	Asset Class BM Return
Private Real Estate	0.08%	0.00%	0.08%	0.04%	1.52%	0.17%
Other Opportunistic	0.04%	0.00%	0.04%	0.70%	4.48%	2.45%
World Infrastructure	0.03%	0.00%	0.02%	-0.03%	1.20%	0.46%
Core Fixed Income	0.01%	0.01%	0.00%	-0.72%	0.67%	0.67%
Public Real Estate	0.01%	0.00%	0.01%	-0.08%	3.59%	3.42%
Cash and Short Duration (Net)	0.00%	0.00%	0.00%	-0.38%	0.34%	0.34%
TIPS	0.00%	0.00%	0.00%	-0.11%	0.13%	0.24%
Global Public Equity	0.00%	0.00%	0.00%	0.32%	3.51%	3.52%
Mixed Credit	-0.02%	0.00%	-0.02%	-0.14%	1.12%	1.49%
Private Debt	-0.03%	0.00%	-0.03%	0.00%	0.38%	0.87%
Equity Options	-0.04%	0.00%	-0.04%	0.11%	3.93%	4.53%
Private Equity	-0.06%	0.00%	-0.06%	-0.16%	2.33%	3.22%
Emerging Markets Debt	-0.06%	0.00%	-0.06%	0.03%	-3.29%	-1.77%
GTAA	-0.07%	0.00%	-0.07%	0.41%	1.54%	2.45%
Overlay Collateral	-0.18%	0.00%	-0.18%	0.08%	-0.13%	0.39%
Portable Alpha Hedge Funds	-0.15%	0.00%	-0.15%	0.08%	-0.71%	0.76%
Ported Short Duration	-0.01%	0.00%	-0.01%	n/a	0.55%	0.39%
Ported Cash	-0.02%	0.00%	-0.02%	n/a	0.35%	0.39%

	Total Plan Excess Return	**Allocation Effect**	**Selection Effect**	**Interaction / Other**	**RSIC Return**	**RSIC Policy Benchmark Return**
FYTD Total	-0.28%	0.03%	-0.31%	0.00%	2.10%	2.38%

Attribution of Plan Excess Returns to Policy Benchmark

FYTD as of August 31, 2018



Appendix

Asset Allocation and Targets

Asset Allocation	Market Value as of 08/31/18	Overlay Exposures	Net Position	% of Total Plan	Policy Targets	Difference	Allowable Ranges	SIOP Compliance
Equities	**13,267**		**16,370**	**51.7%**	**51.0%**	**0.7%**	**31% - 59%**	YES
Global Public Equity	9,211	2,666	11,877	37.5%	36.6%	0.9%	22% - 50%	YES
Equity Options	1,835	437	2,272	7.2%	7.0%	0.2%	5% - 9%	YES
Private Equity	2,221	0	2,221	7.0%	7.4%	-0.4%	5% - 13%	YES
Real Assets	**3,789**		**3,789**	**12.0%**	**12.0%**	**0.0%**	**7% - 17%**	YES
Private Real Estate	1,907		1,907	6.0%	5.9%	0.1%	0% - 13%	YES
Public Real Estate	944		944	3.0%	3.1%	-0.1%	0% - 13%	YES
World Infrastructure	937		937	3.0%	3.0%	0.0%	1% - 5%	YES
Opportunistic	**2,882**		**2,882**	**9.1%**	**8.0%**	**1.1%**		
GTAA	2,339	0	2,339	7.4%	7.0%	0.4%	3% - 11%	YES
Other Opportunistic	543	0	543	1.7%	1.0%	0.7%	0% - 3%	YES
Credit	**4,700**		**4,700**	**14.8%**	**15.0%**	**-0.2%**	**10% - 20%**	YES
Mixed Credit	1,606		1,606	5.1%	5.2%	-0.1%	0% - 8%	YES
Emerging Markets Debt	1,241		1,241	3.9%	4.0%	-0.1%	2% - 6%	YES
Private Debt	1,853		1,853	5.9%	5.8%	0.0%	3% - 11%	YES
Rate Sensitive	**3,840**		**3,910**	**12.4%**	**14.0%**	**-1.6%**	**4% - 24%**	YES
Core Fixed Income	727	2,532	3,259	10.3%	11.0%	-0.7%	6% - 20%	YES
TIPS	0	601	601	1.9%	2.0%		0% - 20%	YES
Cash and Short Duration (Net)	3,113	-3,062	51	0.2%	1.0%	-0.8%	0% - 7%	YES
Portable Alpha Hedge Funds	3,174	-3,174	0	10.0%*	10.0%	0.0%	0% - 12%	YES
Total Plan	**$31,651**	-	**$31,651**	**100.0%**	**100.0%**			
Total Hedge Funds	3,400		**$3,400**	**10.7%**	n/a	n/a	0% - 20%	YES
Total Private Markets	5,981	-	**$5,981**	**18.9%**	n/a	n/a	14% - 25%	YES

Total Hedge Fund exposure: 10.7% and consisted of: 10.0% Portable Alpha Hedge Funds, 0.7% to a hedge fund in Mixed Credit. *Portable Alpha Hedge Funds 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.

Portable Alpha Hedge Funds are presented separate from the Opportunistic Asset Class as net exposure and benchmarked to the policy benchmark.

Footnotes & Disclosures

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, 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: [Asset Class Weight – Policy Weight] * [Benchmark Return – Plan Policy Benchmark]
   Selection Effect: [Asset Class Return – Policy Benchmark Return] * 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.

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.

Footnotes & Disclosures

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% Citi 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 HFs 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*

F U N D E V A L U A T I O N R E P O R T

South Carolina Retirement System

Performance Report
As of August 31, 2018

Total Retirement System

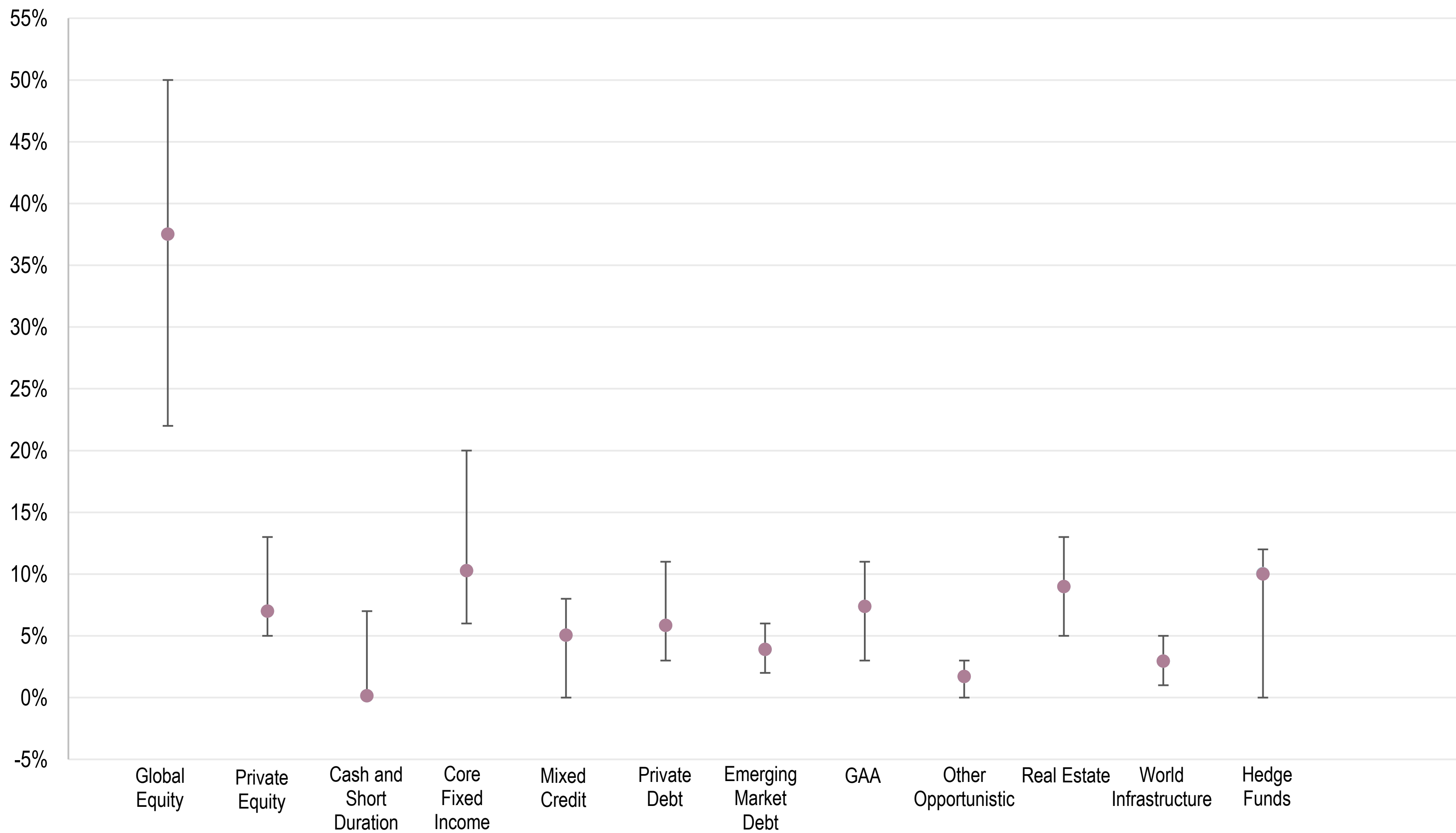
As of August 31, 2018

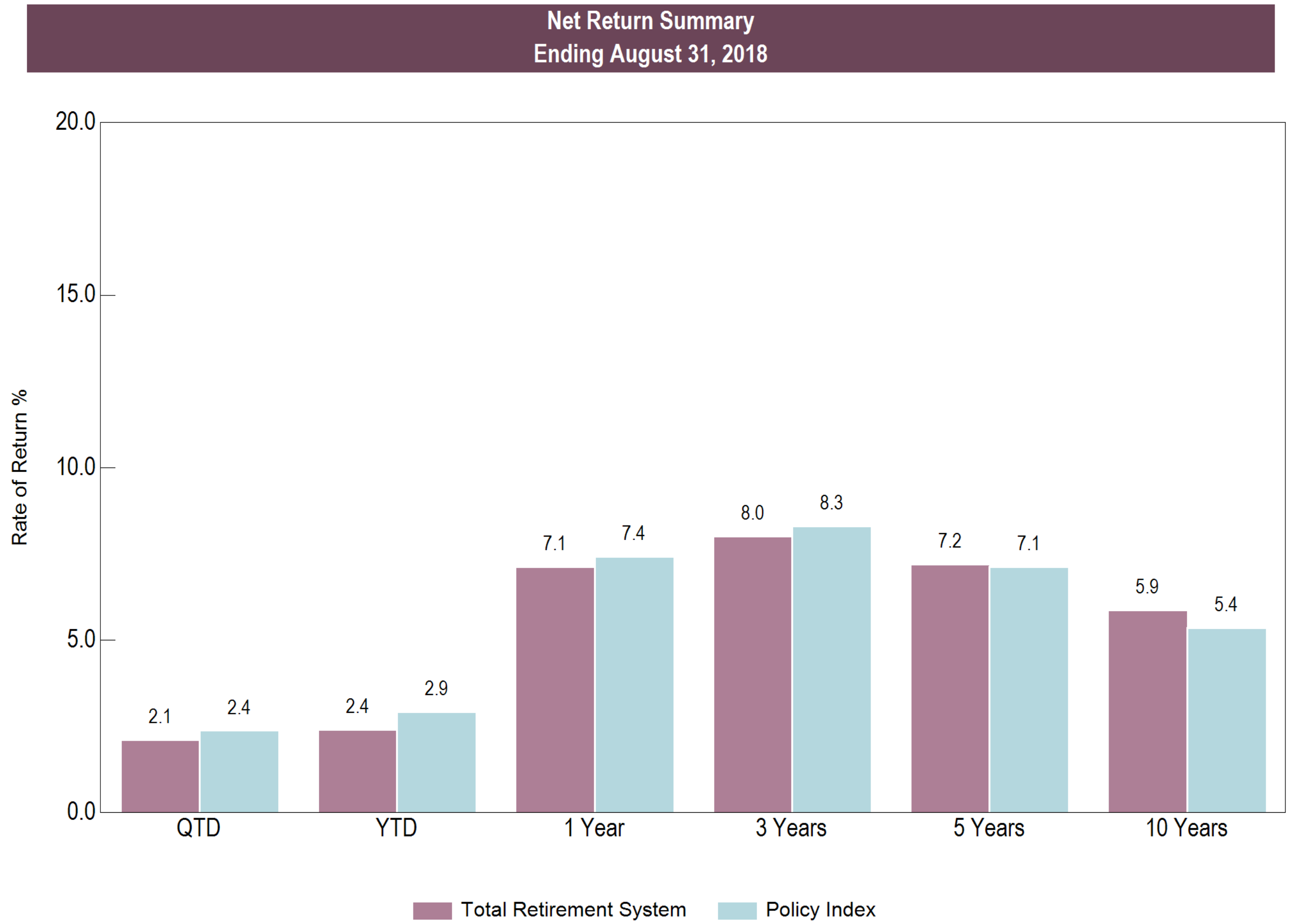
Allocation vs. Targets and Policy

	MV at 8/31/18	Overlay Exposures	Net Position	% of Total System	% of Total System (Net)	FY 19 Policy Targets	Allowable Ranges	SIOP Compliance?
Total System	**31,651,251,883**	**-**	**31,651,251,883**	**100%**	**100%**	**110%**	**-**	**-**
Equity	**13,266,784,396**	**3,109,244,036**	**16,369,660,327**	**42%**	**52%**	**51%**	**31-59%**	**Yes**
Global Equity	9,211,038,686	2,665,907,019	11,876,945,705	29%	38%	37%	22-50%	Yes
Private Equity	2,220,957,048	-	2,220,957,048	7%	7%	7%	5-13%	Yes
Equity Options	1,834,788,662	436,968,912	2,271,757,574	6%	7%	7%	5-9%	Yes
Conservative Fixed Income	**3,839,689,922**	**70,808,800**	**3,910,498,723**	**12%**	**12%**	**14%**	**4-24%**	**Yes**
Cash and Short Duration	3,112,565,896	(3,061,646,896)	50,919,000	10%	0%	1%	0-7%	Yes
Core Fixed Income	727,124,026	2,531,723,734	3,258,847,761	2%	10%	11%	6-20%	Yes
TIPS	-	600,731,962	600,731,962	0%	2%	2%	0-5%	Yes
Diversified Credit	**4,700,180,747**	**-**	**4,700,180,747**	**15%**	**15%**	**15%**	**10-20%**	**Yes**
Mixed Credit	1,606,482,897	-	1,606,482,897	5%	5%	5%	0-8%	Yes
Private Debt	1,852,640,475	-	1,852,640,475	6%	6%	6%	3-11%	Yes
Emerging Markets Debt	1,241,057,375	-	1,241,057,375	4%	4%	4%	2-6%	Yes
Opportunistic	**2,882,198,965**	**-**	**2,882,198,965**	**9%**	**9%**	**8%**	**12-24%**	**Yes**
GAA	2,338,877,850		2,338,877,850	7%	7%	7%	3-11%	Yes
Other Opportunistic	543,321,115	-	543,321,115	2%	2%	1%	0-3%	Yes
Real Assets	**3,788,713,121**	**-**	**3,788,713,121**	**12%**	**12%**	**12%**	**7-17%**	**Yes**
Public Real Estate	944,070,123	-	944,070,123	3%	3%	3%	0-13%	Yes
Private Real Estate	1,907,168,721	-	1,907,168,721	6%	6%	6%	0-13%	Yes
World Infrastructure	937,474,277	-	937,474,277	3%	3%	3%	1-5%	Yes
Hedge Funds PA	3,173,684,731	(3,173,684,731)	(0)	10%	0%	10%	0-12%	**Yes**

Includes cash in the Russell Overlay separate account.
Percentages may not sum to 100% due to rounding.
Range and Compliance threshold for opportunistic includes the gross Hedge Funds PA exposure.

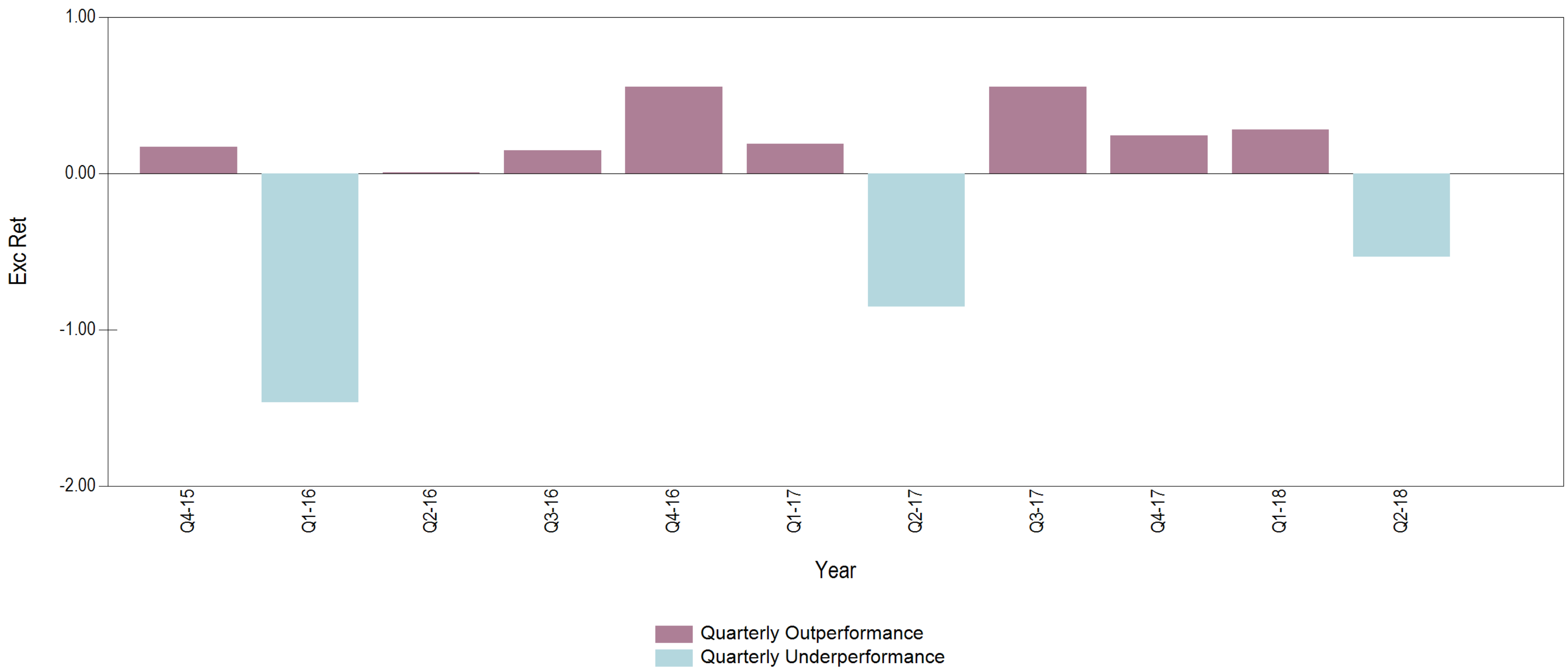
Actual vs. Policy Ranges:
(Including Overlay)





Returns for periods greater than one year are annualized.

Quarterly Excess Performance vs. Policy Benchmark



Total Retirement System

As of August 31, 2018

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	**31,651,251,883**	**100.0**	**2.1**	**2.4**	**7.1**	**8.0**	**7.2**	**5.9**	**6.4**	**Jul-94**
Policy Index			*2.4*	*2.9*	*7.4*	*8.3*	*7.1*	*5.4*	*5.8*	*Jul-94*
Global Public Equities	**9,211,038,686**	**29.1**	**3.0**	**1.8**	**9.9**	**11.7**	**9.4**	**6.8**	**4.8**	**Jun-99**
FY '19 Global Public Equities Custom Benchmark			*3.5*	*3.3*	*11.6*	*12.0*	*9.7*	*6.7*	*5.2*	*Jun-99*
Private Equity	**2,220,957,048**	**7.0**	**2.3**	**9.3**	**15.0**	**11.1**	**12.9**	**10.3**	**7.9**	**Apr-07**
80% Russell 3000/20% MSCI EAFE + 300 basis points on a 3-month lag			*3.2*	*9.6*	*16.6*	*12.5*	*14.5*	*13.2*	*14.9*	*Apr-07*
Equity Options	**1,834,788,662**	**5.8**	**3.8**	**4.1**	**8.7**	**--**	**--**	**--**	**10.3**	**Jul-16**
FY '19 CBOE 50/50 Put/Buy			*4.5*	*6.4*	*10.4*	*10.1*	*9.1*	*6.0*	*11.1*	*Jul-16*
Short Duration	**1,165,075,454**	**3.7**	**0.6**	**0.8**	**1.0**	**1.6**	**1.5**	**--**	**1.7**	**Mar-10**
BBgBarc US Govt/Credit 1-3 Yr. TR			*0.4*	*0.5*	*0.2*	*0.8*	*0.9*	*1.6*	*1.1*	*Mar-10*
Cash and Overlay	**1,947,490,442**	**6.2**	**0.2**	**0.6**	**0.6**	**0.0**	**-0.2**	**0.1**	**1.0**	**Oct-05**
ICE BofAML 91 Days T-Bills TR			*0.3*	*1.1*	*1.5*	*0.8*	*0.5*	*0.4*	*1.2*	*Oct-05*
Core Fixed Income	**727,124,026**	**2.3**	**0.7**	**-1.0**	**-0.7**	**2.5**	**2.9**	**4.1**	**6.0**	**Jul-94**
BBgBarc US Aggregate TR			*0.7*	*-1.0*	*-1.0*	*1.8*	*2.5*	*3.7*	*5.4*	*Jul-94*
Mixed Credit	**1,606,482,897**	**5.1**	**1.1**	**2.3**	**4.5**	**4.9**	**4.0**	**7.0**	**6.3**	**May-08**
50% S&P LSTA Leveraged Loan Index/50% Barclays High Yield Index			*1.5*	*2.7*	*4.1*	*6.0*	*5.0*	*6.4*	*6.1*	*May-08*
Private Debt	**1,852,640,475**	**5.9**	**0.4**	**3.6**	**7.1**	**5.4**	**6.7**	**7.9**	**7.2**	**Jun-08**
S&P LSTA Leveraged Loan Index + 150 basis points on a 3-month lag			*0.9*	*4.2*	*5.7*	*5.5*	*5.4*	*5.5*	*5.2*	*Jun-08*
Emerging Market Debt	**1,241,057,375**	**3.9**	**-3.2**	**-9.3**	**-8.7**	**4.6**	**2.5**	**--**	**4.5**	**Jul-09**
50% JP Morgan EMBI Global Diversified (USD)/50% JP Morgan EMBI Global Diversified			*-1.8*	*-7.5*	*-6.7*	*4.2*	*2.2*	*4.3*	*4.8*	*Jul-09*
GAA	**2,338,877,850**	**7.4**	**1.9**	**-0.4**	**2.9**	**5.7**	**4.8**	**4.8**	**5.0**	**Aug-07**
Total System Policy Benchmark ex-Private Markets			*2.4*	*1.9*	*5.8*	*7.6*	*5.8*	*5.1*	*4.5*	*Aug-07*
Other Opportunistic	**543,321,115**	**1.7**	**4.5**	**7.8**	**9.7**	**--**	**--**	**--**	**11.3**	**Jul-17**
Total System Policy Benchmark ex-Private Markets			*2.4*	*1.9*	*5.8*	*7.6*	*5.8*	*5.1*	*6.7*	*Jul-17*
Hedge Funds Portable Alpha	**3,173,684,731**	**10.0**	**-0.3**	**1.8**	**4.8**	**3.7**	**6.7**	**7.5**	**8.3**	**Jul-07**
ICE BAML 3 Month T-Bill + 250 BPS SC Custom			*0.7*	*1.8*	*2.3*	*1.3*	*0.9*	*0.8*	*1.1*	*Jul-07*
Public Real Estate	**944,070,123**	**3.0**	**3.7**	**4.7**	**7.6**	**--**	**--**	**--**	**3.5**	**Jul-16**
FTSE NAREIT Equity REIT			*3.4*	*4.5*	*6.0*	*9.6*	*10.4*	*7.7*	*2.4*	*Jul-16*
Private Real Estate	**1,907,168,721**	**6.0**	**1.5**	**6.6**	**10.8**	**10.4**	**13.6**	**8.0**	**7.2**	**Jul-08**
NCREIF ODCE Net + 100 BPS SC Custom			*0.2*	*4.7*	*8.8*	*10.7*	*12.2*	*--*	*--*	*Jul-08*
World Infrastructure	**937,474,277**	**3.0**	**1.2**	**-0.6**	**-0.2**	**--**	**--**	**--**	**4.3**	**Jun-16**
DJ Brookfield Global Infrastructure			*0.5*	*-0.8*	*-1.7*	*6.5*	*7.3*	*8.1*	*7.2*	*Jun-16*

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

Total Retirement System

As of August 31, 2018

Statistics Summary

5 Years Ending August 31, 2018

	Anlzd Return	Anlzd Standard Deviation	Information Ratio	Beta	Sharpe Ratio	Tracking Error
Total Retirement System	7.2%	4.7%	0.1	1.0	1.4	1.1%
Policy Index	7.1%	4.7%	--	1.0	1.4	0.0%
Global Public Equities	9.4%	9.9%	-0.2	1.0	0.9	1.5%
FY '19 Global Public Equities Custom Benchmark	9.7%	9.9%	--	1.0	0.9	0.0%
Private Equity	12.9%	4.0%	-0.2	0.1	3.1	9.9%
80% Russell 3000/20% MSCI EAFE + 300 basis points on a 3-month lag	14.5%	9.7%	--	1.0	1.4	0.0%
Short Duration	1.5%	0.6%	1.6	0.7	1.7	0.4%
BBgBarc US Govt/Credit 1-3 Yr. TR	0.9%	0.7%	--	1.0	0.6	0.0%
Cash and Overlay	-0.2%	0.5%	-1.5	0.7	-1.5	0.4%
ICE BofAML 91 Days T-Bills TR	0.5%	0.2%	--	1.0	0.0	0.0%
Core Fixed Income	2.9%	2.7%	0.7	1.0	0.9	0.6%
BBgBarc US Aggregate TR	2.5%	2.7%	--	1.0	0.7	0.0%
Mixed Credit	4.0%	3.2%	-0.7	1.1	1.1	1.5%
50% S&P LSTA Leveraged Loan Index/50% Barclays High Yield Index	5.0%	2.6%	--	1.0	1.7	0.0%
Private Debt	6.7%	3.2%	0.4	0.4	2.0	3.3%
S&P LSTA Leveraged Loan Index + 150 basis points on a 3-month lag	5.4%	2.4%	--	1.0	2.0	0.0%
Emerging Market Debt	2.5%	8.6%	0.2	1.1	0.2	1.5%
50% JP Morgan EMBI Global Diversified (USD)/50% JP Morgan EMBI Global Diversified	2.2%	8.0%	--	1.0	0.2	0.0%
GAA	4.8%	6.0%	-0.4	1.0	0.7	2.8%
Total System Policy Benchmark ex-Private Markets	5.8%	5.5%	--	1.0	1.0	0.0%
Hedge Funds Portable Alpha	6.7%	4.2%	1.4	-2.4	1.5	4.2%
ICE BAML 3 Month T-Bill + 250 BPS SC Custom	0.9%	0.3%	--	1.0	1.6	0.0%
Private Real Estate	13.6%	2.9%	0.3	0.1	4.4	5.1%
NCREIF ODCE Net + 100 BPS SC Custom	12.2%	4.7%	--	1.0	2.5	0.0%

Disclosure Appendix

Item 1.	Fiscal year begins July 1.
Item 2.	All returns are presented net of management fees.
Item 3.	Policy index performance is calculated by multiplying each asset class target weight by the performance of its respective benchmark.
Item 4.	As stipulated in the Statement of Investment Objectives and Policies, the target weights to Private Equity, Private Debt, Real Estate and Private Market Infrastructure will be equal to their actual flow adjusted weights, reported by the custodial bank, as of the prior month end. In the case of Private Equity, the use of the actual flow adjusted weight will affect the target allocation to Global Equity (excluding Equity Options). For example, in FY 18-19, the combined target weight of both of these asset classes shall equal 44% of the Plan. For Private Debt, the use of the actual flow adjusted weight will affect the target allocation to Mixed Credit, such that the combined target weight of both asset classes in FY 18-19 shall equal 11% of the Plan. For private market Real Estate, the use of the actual flow adjusted weight will affect the target allocation to public market Real Estate (REITs), such that the combined target weight of both asset classes in FY 18-19 shall equal 9% of the Plan. For Private Market Infrastructure, the use of the actual flow adjusted weight will affect the target allocation to Public Infrastructure, such that the combined target weight of both asset classes in FY 18-19 shall equal 3% of the Plan.
Item 5.	Overlay exposure is reported from Russell. Market values and performance reported by BNYM are reconciled to manager reported data for public markets strategies.
Item 6.	Total retirement system performance is calculated inclusive of the overlay investments. Individual asset class performance is reported by BNYM excluding synthetic exposure from the overlay program.
Item 7.	Asset classes with less than five years of historical returns are excluded from the risk statistics summary.
Item 8.	Effective July 1, 2018 the Global Public Equities benchmark is a weighted average of the underlying regional sub-asset class targets in the policy portfolio. This consists of the MSCI U.S. IMI Net TR USD for the U.S. Equity allocation, the MSCI World EX U.S. IMI Net TR USD for the Developed Market Equity (non-U.S.), and the MSCI Emerging IMI Net TR USD for the Emerging Market Equity allocation. Prior to July 1, 2018, this benchmark was the MSCI ACWI IMI Net USD. Effective July 1, 2018 the Equity Options benchmark is 50% CBOE S&P 500 Putwrite / 50% CBOE S&P 500 Buywrite. Prior to July 1, 2018, the benchmark was the CBOE S&P 500 Buywrite index. Effective July 1, 2018 the Hedge Funds Portable Alpha benchmark is ICE BAML 2 Month T-Bill +250 bps. Prior to July 1, 2018, the benchmark was 3-month Libor Total Return USD. Effective July 1, 2018 the Private Real Estate benchmark is NCREIF ODCE Net + 100 bps. Prior to July 1, 2018, the benchmark was NCREIF ODCE + 75 bps. Effective July 1, 2018 the GAA and Other Opportunistic and Risk Parity Assets benchmarks are the Total System Policy Benchmark ex-Private Markets and Portable Alpha. Prior to July 1, 2018, the benchmark was 50% MSCI World / 50% Barclays Aggregate Bond Index.

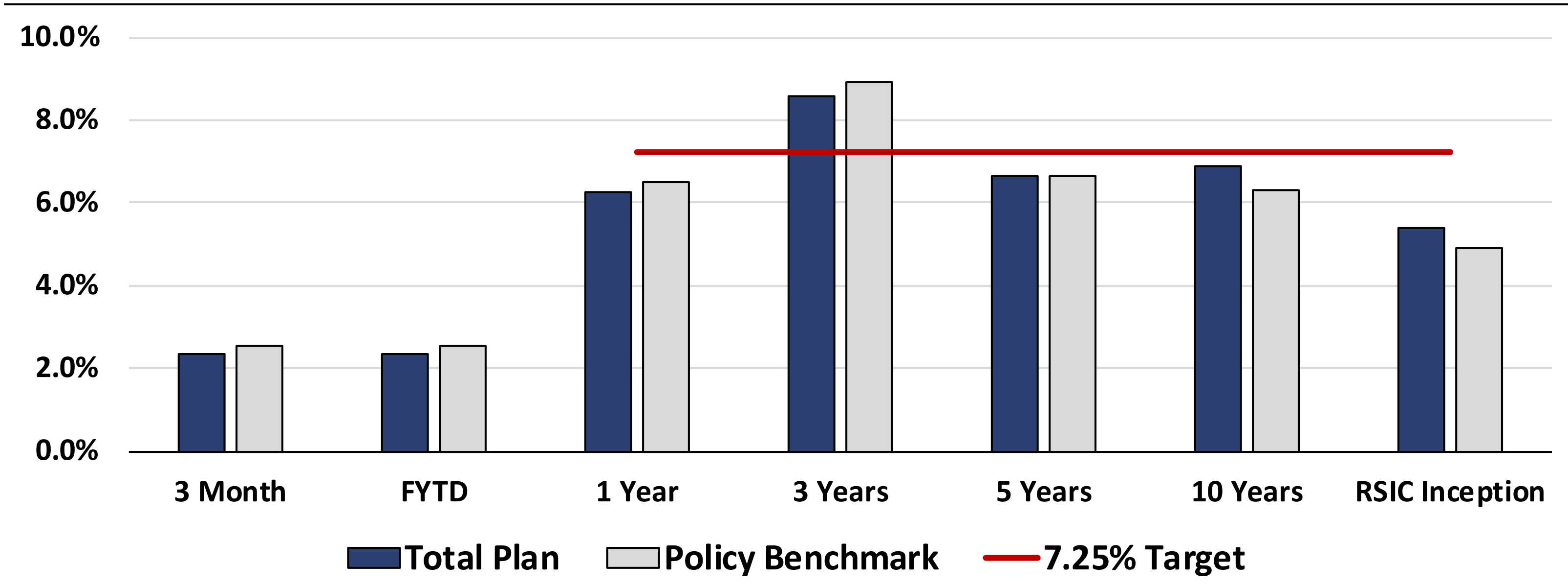
RETIREMENT SYSTEM INVESTMENT COMMISSION

Performance Update

RSIC 11/08/18 Performance Update
Data as of September 30th, 2018

Performance - Plan & Policy Benchmark[2]

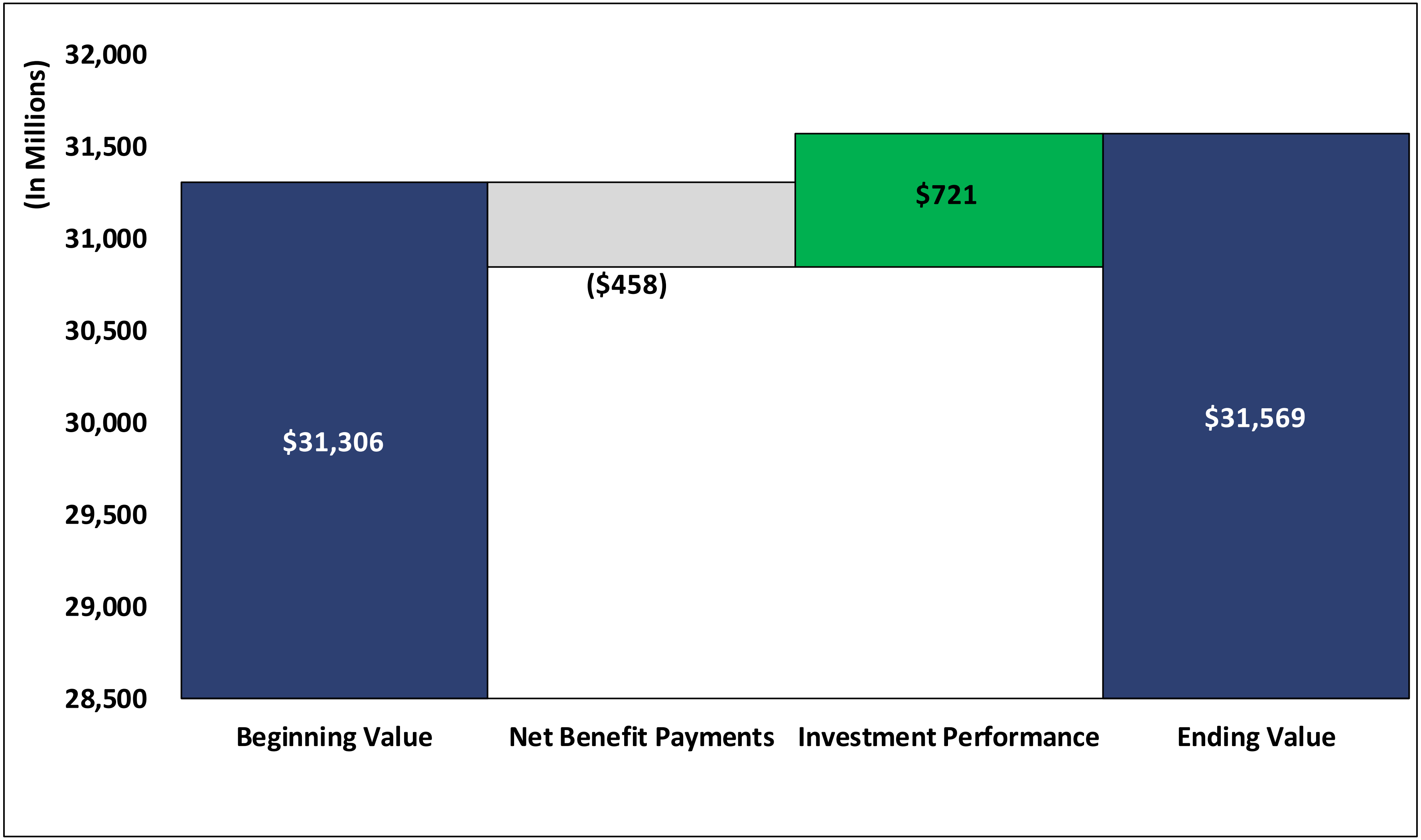
As of September 30, 2018



Historic Plan Performance As of 09/30/18	Market Value (In Millions)	3 Month	FYTD	1 Year	Annualized 3 Years	Annualized 5 Years	Annualized 10 Years	Annualized RSIC Inception
Total Plan	**$31,569**	**2.34%**	**2.34%**	**6.26%**	**8.60%**	**6.66%**	**6.91%**	**5.38%**
Policy Benchmark		2.53%	2.53%	6.50%	8.92%	6.64%	6.29%	4.91%
Excess Return		-0.19%	-0.19%	-0.24%	-0.32%	0.02%	0.63%	0.47%
Net Benefit Payments (In Millions)		($458)	($458)	($1,391)	($3,464)	($5,609)	($10,294)	($12,843)
Current 3-month Roll off Return:		*0.24%*	*N/A*	*3.84%*	*-3.99%*	*4.33%*	*-11.20%*	*N/A*
Next 3-month Roll off Return:		*2.34%*	*N/A*	*3.54%*	*1.11%*	*4.29%*	*-16.12%*	*N/A*

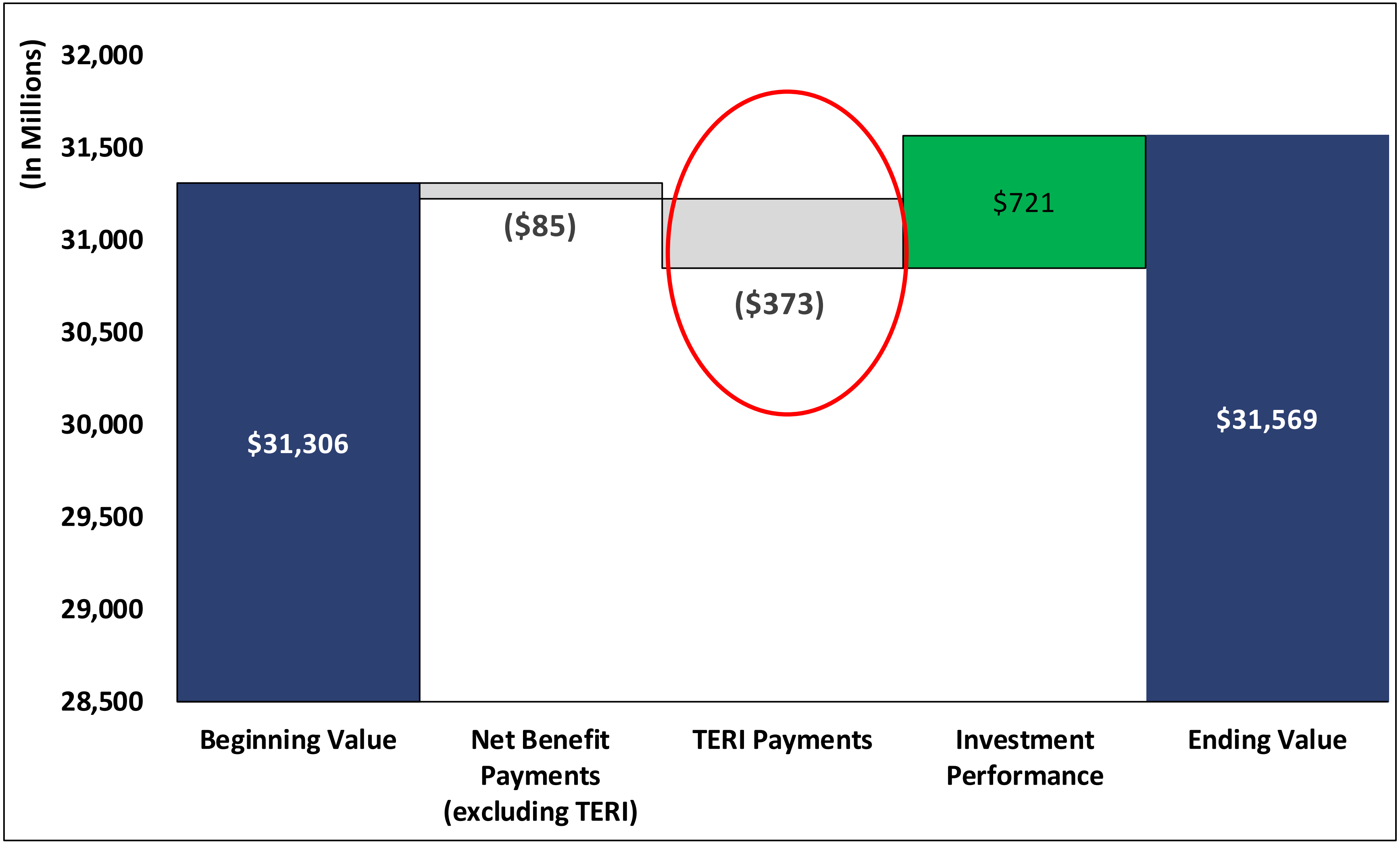
FYTD Benefits and Performance[2]

FYTD as of September 30, 2018



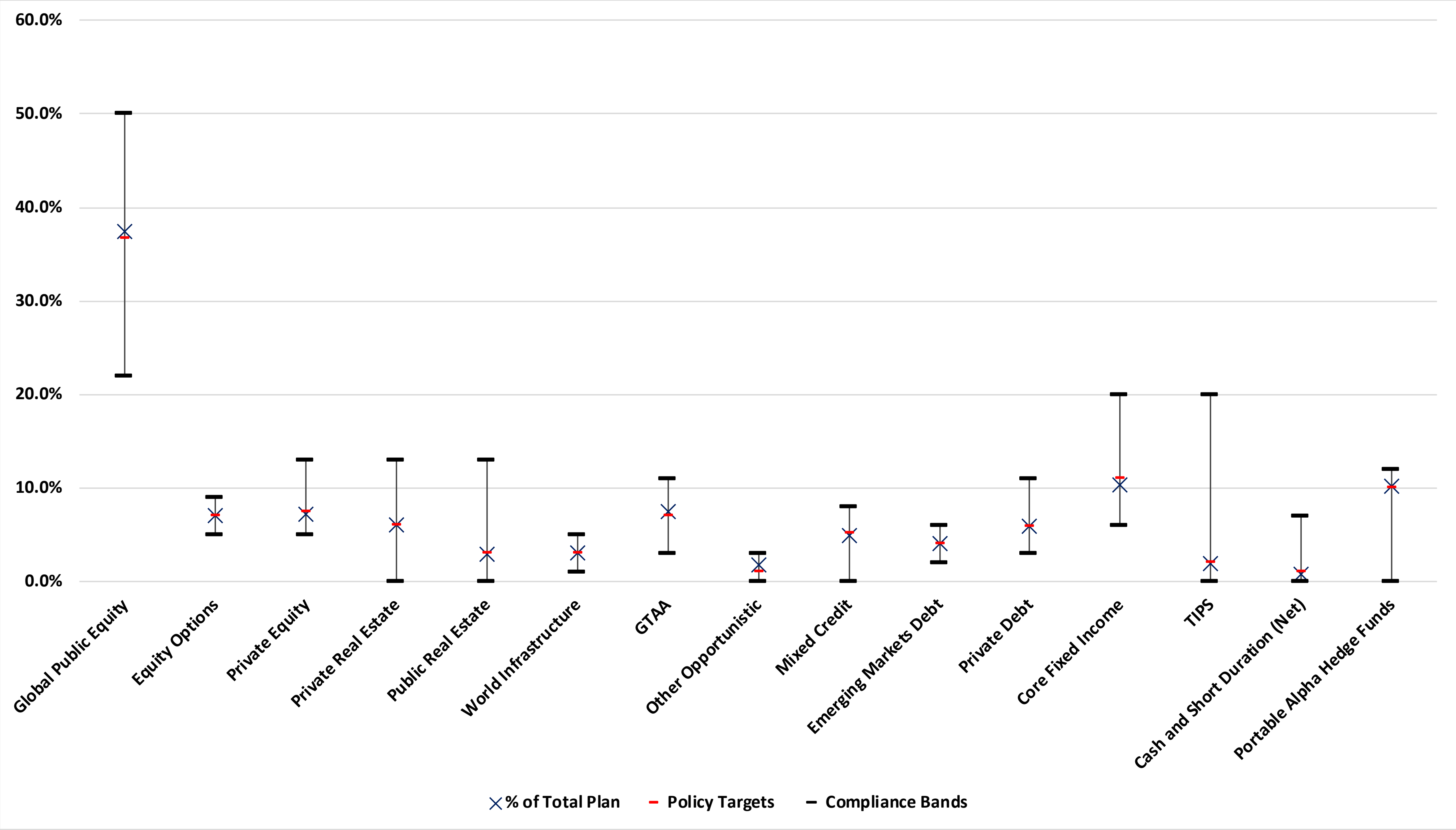
FYTD Benefits and Performance[2]

FYTD as of September 30, 2018



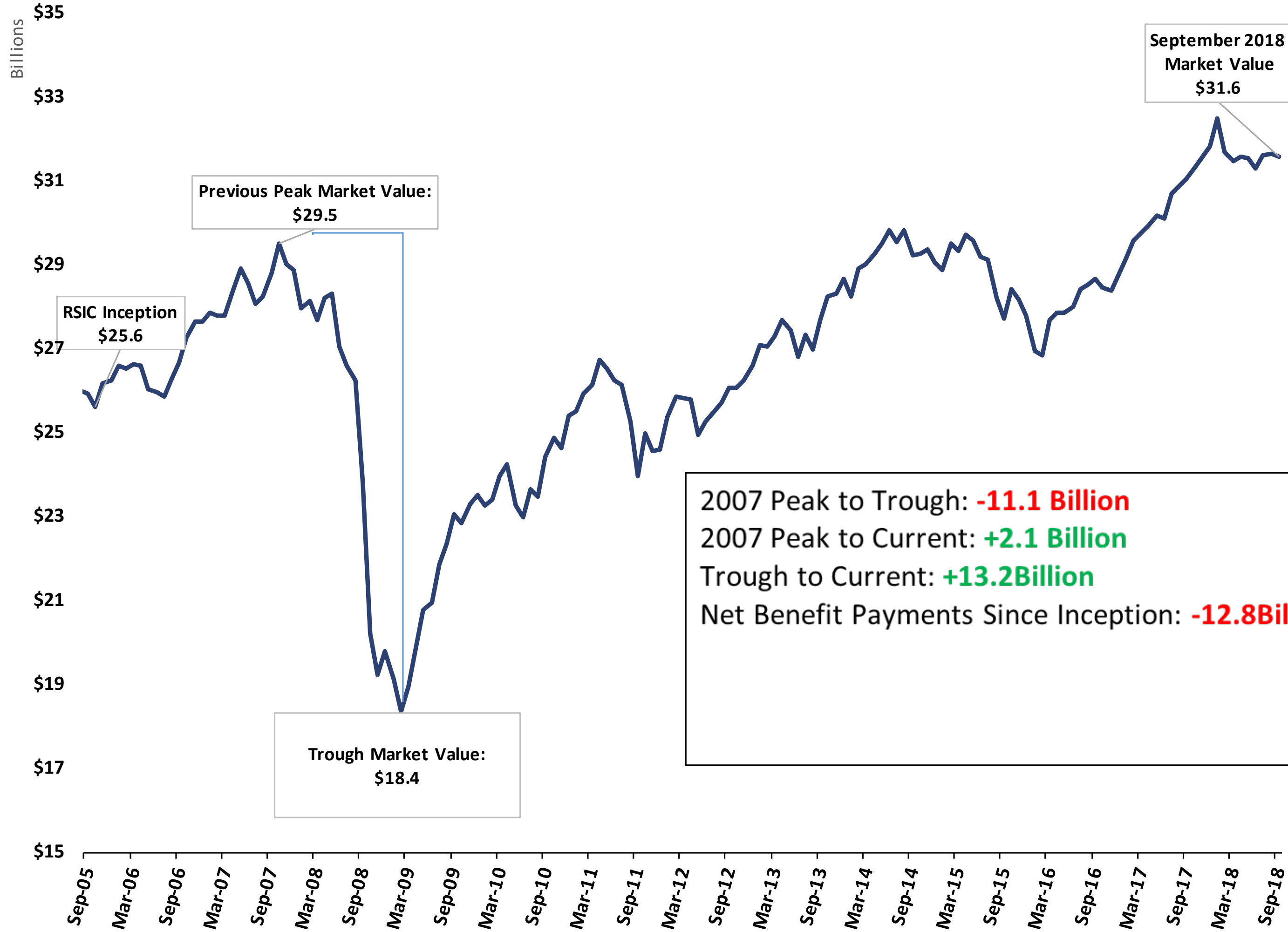
Portfolio Exposure & Policy Weights [4,8]

As of September 30, 2018



RSIC Market Value Through Time

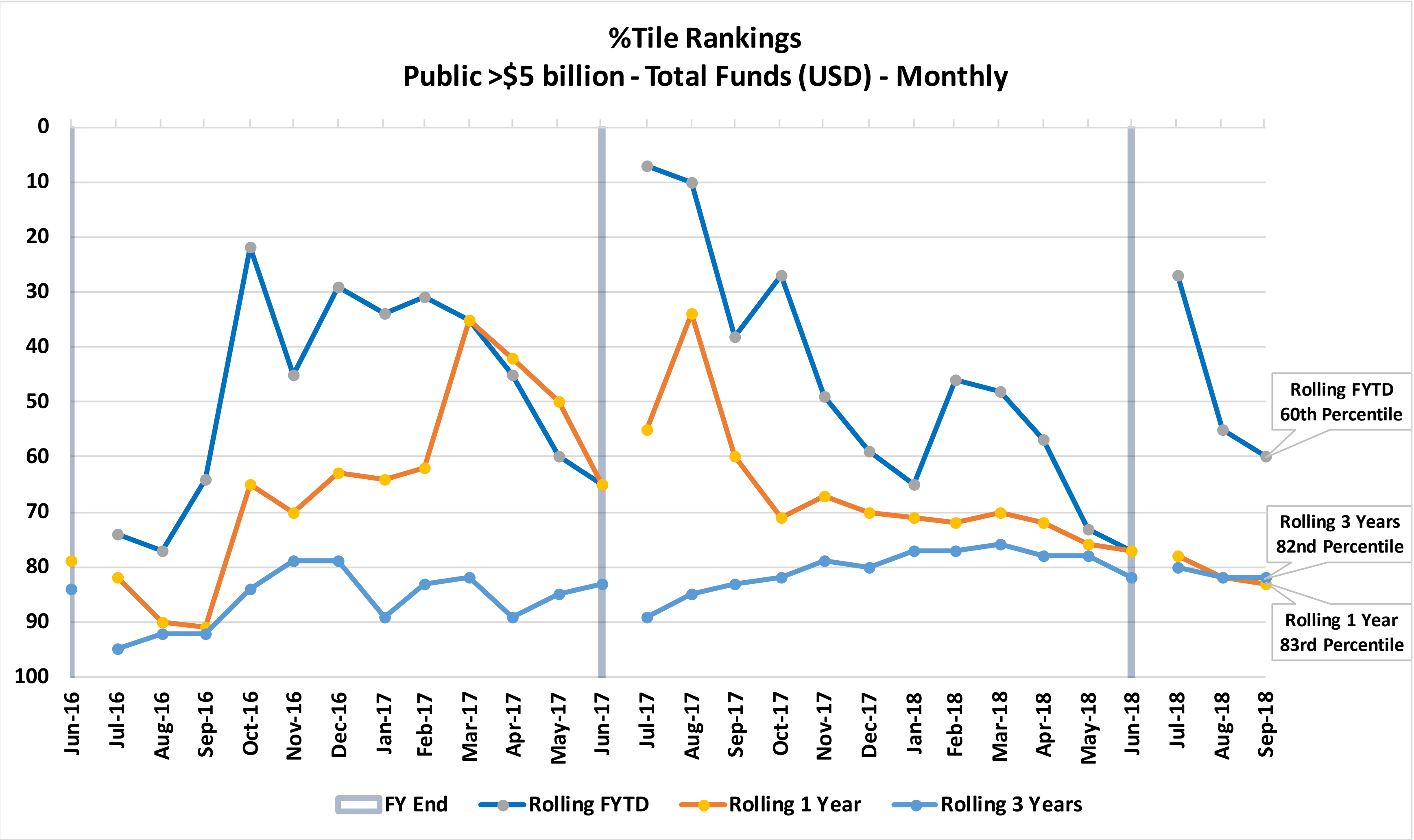
As of September 30, 2018



2007 Peak to Trough: **-11.1 Billion**
2007 Peak to Current: **+2.1 Billion**
Trough to Current: **+13.2Billion**
Net Benefit Payments Since Inception: **-12.8Billion**

RSIC Universe Rankings[11]

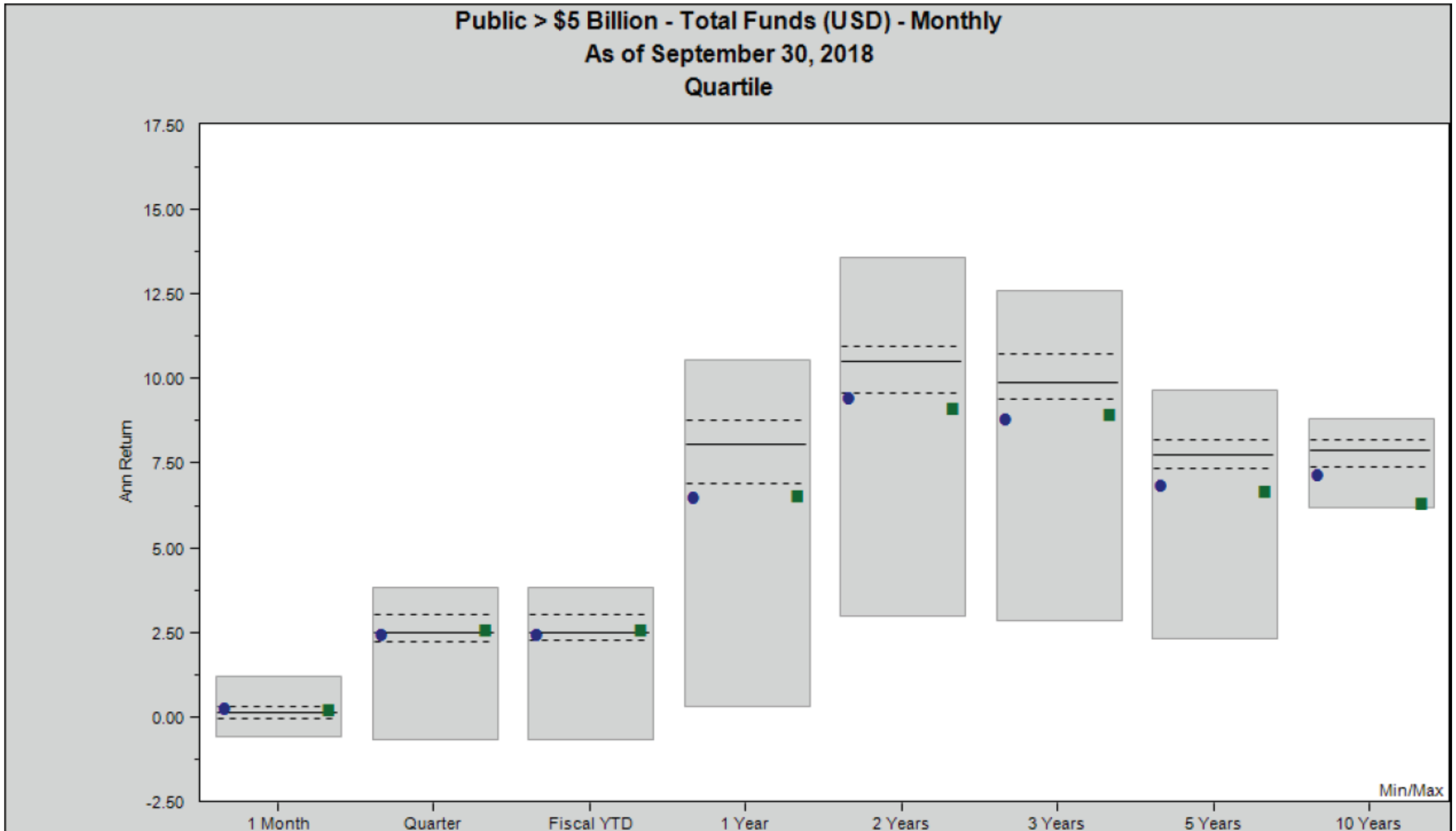
As of September 30, 2018



STATE OF SOUTH CAROLINA
RSIC RETIREMENT SYSTEM INVESTMENT COMMISSION

Bank of New York Public Funds > $5 billion[11]

As of September 30, 2018



	1 Month Value	1 Month %Tile	Quarter Value	Quarter %Tile	Fiscal YTD Value	Fiscal YTD %Tile	1 Year Value	1 Year %Tile	2 Years Value	2 Years %Tile	3 Years Value	3 Years %Tile	5 Years Value	5 Years %Tile	10 Years Value	10 Years %Tile
Maximum	1.21		3.81		3.81		10.57		13.59		12.59		9.64		8.83	
25th Percentile	0.32		3.01		3.01		8.77		10.93		10.74		8.19		8.21	
Median Percentile	0.12		2.48		2.48		8.04		10.50		9.87		7.73		7.86	
75th Percentile	-0.04		2.23		2.26		6.89		9.56		9.40		7.36		7.41	
Minimum	-0.58		-0.69		-0.69		0.29		2.98		2.84		2.31		6.18	
# of Portfolios	36		36		36		36		35		35		33		32	
● Total SC with Overlay	0.24	36	2.38	60	2.38	60	6.45	83	9.40	76	8.78	82	6.82	83	7.11	84
■ SC Policy Benchmark	0.15	42	2.53	43	2.53	43	6.50	83	9.10	78	8.92	81	6.64	86	6.29	96

Universe Source: The Bank of New York Mellon Corporation; Universe Status: Final, Calculated

Appendix

Asset Allocation and Targets[3,4,6]

As of September 30, 2018

Asset Allocation	Market Value as of 09/30/18	Overlay Exposures	Net Position	% of Total Plan	Policy Targets	Difference	Allowable Ranges	SIOP Compliance
Equities	**13,321**		**16,245**	**51.5%**	**51.0%**	**0.5%**	**31% - 59%**	YES
Global Public Equity	9,230	2,546	11,777	37.3%	37.0%	0.3%	22% - 50%	YES
Equity Options	1,842	377	2,220	7.0%	7.0%	0.0%	5% - 9%	YES
Private Equity	2,249	0	2,249	7.1%	7.0%	0.1%	5% - 13%	YES
Real Assets	**3,732**		**3,732**	**11.8%**	**12.0%**	**-0.2%**	**7% - 17%**	YES
Private Real Estate	1,886		1,886	6.0%	5.9%	0.0%	0% - 13%	YES
Public Real Estate	921		921	2.9%	3.1%	-0.1%	0% - 13%	YES
Private Infrastructure	53		53	0.2%	0.2%	0.0%	0% - 5%	YES
Public Infrastructure	872		872	2.8%	2.8%	-0.1%	0% - 5%	YES
Opportunistic	**2,879**		**2,879**	**9.1%**	**8.0%**	**1.1%**		
GTAA	2,340	0	2,340	7.4%	7.0%	0.4%	3% - 11%	YES
Other Opportunistic	539	0	539	1.7%	1.0%	0.7%	0% - 3%	YES
Credit	**4,649**		**4,649**	**14.7%**	**15.0%**	**-0.3%**	**10% - 20%**	YES
Mixed Credit	1,535		1,535	4.9%	5.2%	-0.3%	0% - 8%	YES
Emerging Markets Debt	1,276		1,276	4.0%	4.0%	0.0%	2% - 6%	YES
Private Debt	1,837		1,837	5.8%	5.8%	0.0%	3% - 11%	YES
Rate Sensitive	**3,791**		**4,065**	**12.9%**	**14.0%**	**-1.1%**	**4% - 24%**	YES
Core Fixed Income	721	2,516	3,237	10.3%	11.0%	-0.7%	6% - 20%	YES
TIPS	0	596	596	1.9%	2.0%		0% - 20%	YES
Cash and Short Duration (Net)	3,071	-2,838	232	0.7%	1.0%	-0.3%	0% - 7%	YES
Portable Alpha Hedge Funds	3,197	-3,197	0	10.1%*	10.0%	0.1%	0% - 12%	YES
Total Plan	**$31,569**	**-**	**$31,569**	**100.0%**	**110.0%**			
Total Hedge Funds	3,413		**$3,413**	**10.8%**	n/a	n/a	0% - 20%	YES
Total Private Markets	6,024	-	**$6,024**	**19.1%**	n/a	n/a	14% - 25%	YES

Total Hedge Fund exposure: 10.8% and consisted of: 10.1% Portable Alpha Hedge Funds, 0.7% to a hedge fund in Mixed Credit *Portable Alpha Hedge Funds 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.

Portable Alpha Hedge Funds are presented separate from the Opportunistic Asset Class as net exposure and benchmarked to the policy benchmark.

Footnotes & Disclosures

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, 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: [Asset Class Weight – Policy Weight] * [Benchmark Return – Plan Policy Benchmark]
 Selection Effect: [Asset Class Return – Policy Benchmark Return] * 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.

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.

Footnotes & Disclosures

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 HFs 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*

Asset Allocation 2.0

A New Approach To Building A Risk-Based Framework

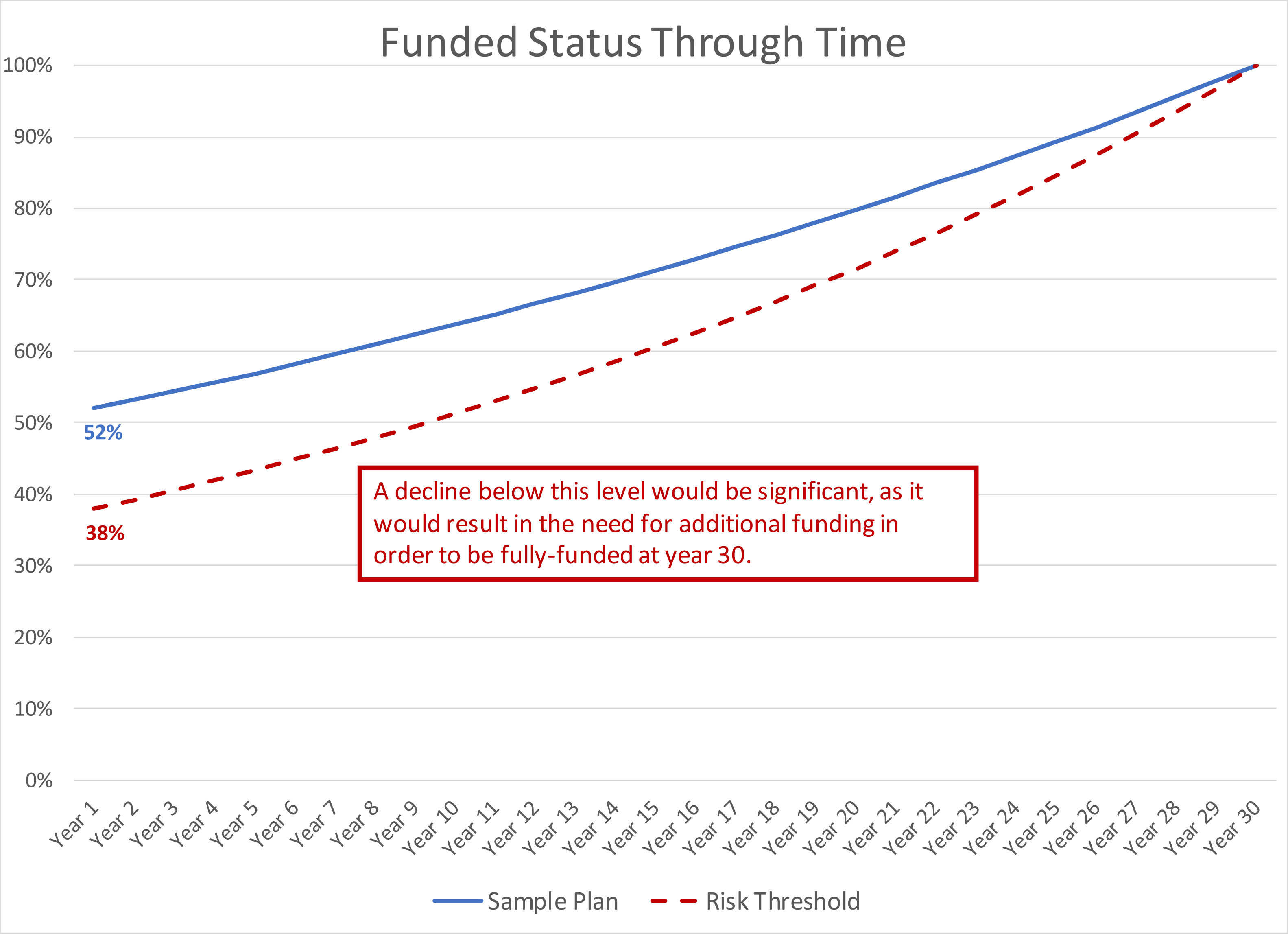
Improving RSIC's Asset Allocation Process

- Existing process anchored to improving current portfolio metrics
  - Focus on evaluating ways to incrementally improve the risk/return of the portfolio
  - Current portfolio is the reference point used to judge new portfolios
  - Does not employ any hard risk thresholds to differentiate acceptable/unacceptable portfolios

- We are proposing a risk framework to help the Commission evaluate different asset allocation decisions.
  - Integrates unique plan characteristics
  - Identifies logical risk thresholds
  - Allows for funding and liability scenarios to affect risk thresholds
  - Incorporates asset class forecasts from an array of sources

- Approach establishes a connection between key plan risks and asset allocation choices

How Far Can Funded Status Fall Before Additional Funding Needed?



The "Black Hole" Effect

- The "Black Hole" effect typically refers to the presence of two conditions:
  - Low funded status, and
  - High annual net benefit distribution ("NBD"), as a share of the expected return
- Declines in plan value can exacerbate the net benefit distribution percentage ("NBDP").
- The greater the NBDP, the harder it is to improve funded status
  - Consider a pension plan with a 7.25% return expectation and a 3% NBD. This 3% distribution is expected to consume 41% of the expected annual return.
  - If this plan experiences a 45% loss of value, the same dollar amount of benefits now equates to 5.5% of the plan value. This is almost 75% of the expected annual return.

Sample Plan (100% Funded)	
Net Benefit Distribution (Year 1)	**1.0%**
NBD Share Of 7.25%	13.8%
After 25% Decline In Plan Value	
Net Benefit Distribution	1.3%
NBD Share Of 7.25%	18.4%
After 45% Decline In Plan Value	
Net Benefit Distribution	1.8%
NBD Share Of 7.25%	25.1%

Sample Plan (50% Funded)	
Net Benefit Distribution (Year 1)	**2.0%**
NBD Share Of 7.25%	27.6%
After 25% Decline In Plan Value	
Net Benefit Distribution	2.7%
NBD Share Of 7.25%	36.8%
After 45% Decline In Plan Value	
Net Benefit Distribution	3.6%
NBD Share Of 7.25%	50.2%

Sample Plan (33% Funded)	
Net Benefit Distribution (Year 1)	**3.0%**
NBD Share Of 7.25%	41.4%
After 25% Decline In Plan Value	
Net Benefit Distribution	4.0%
NBD Share Of 7.25%	55.2%
After 45% Decline In Plan Value	
Net Benefit Distribution	5.5%
NBD Share Of 7.25%	75.2%

The "Black Hole" Effect

- We suggest selecting a secondary risk limit based upon a desire to avoid the "Black Hole" effect.
  - Commission may ask for feedback from Staff and the Consultant in setting this level
  - Limit may be expressed either in terms of a funded status or a NBD share of the assumed rate of return
  - Level is highly sensitive to level of employee & employer contributions. For this reason, Commission will need to track implementation of 2017 pension reform.
- Our research suggests this threshold is currently ~35-40%, but will rise over time.

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Sample Plan (50% Funded)	
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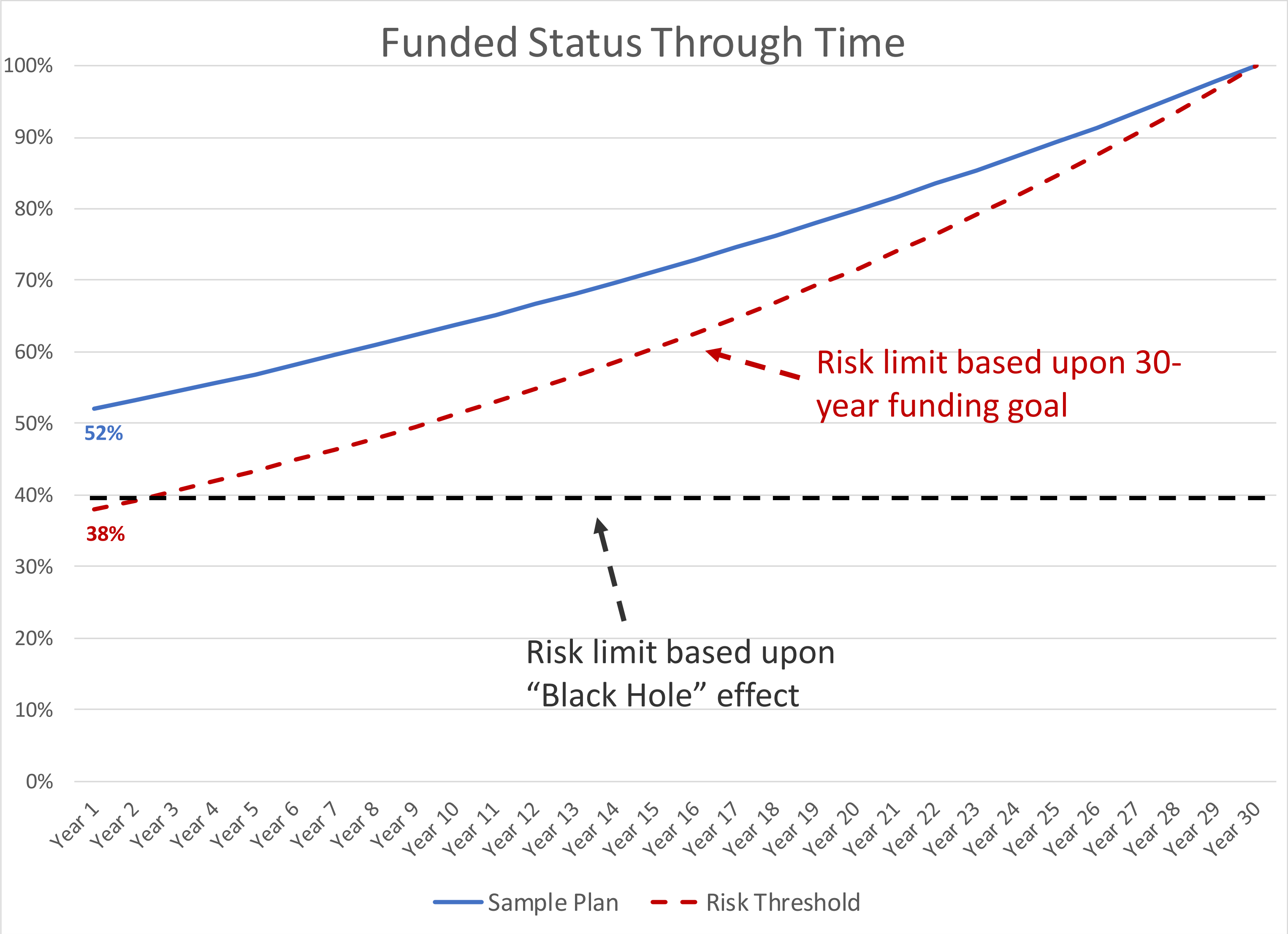
Combined Risk Limit Approach



What Decisions Do We Need To Make Using This Framework?

- Which risk limit do we wish to use? Do we wish to use a dual-limit approach?
- What probability of a shortfall are we willing to tolerate? 1%? 5%? 10%?
- What forward time period do we focus on? 3 years? 5 years? 10 years?
- Which return assumptions do we use? Meketa? Horizon? Proprietary?

- What non-investment risks do we need to consider?
  - Failure to fully-implement the 2017 reforms?
  - Changes to the liabilities?
  - Structural changes to the system?

Conclusion

- RSIC staff and Meketa should incorporate these principles into the asset allocation process:
  - Asset allocation choices should be characterized in relation to key Plan risks
  - A complete picture of SCRS’ unique liability structure should be incorporated into the analysis
  - A full range of outcomes should be incorporated, not simply point estimates, for both asset and liability variables
  - A range of capital market assumptions should be considered

Asset Allocation 2.0

Illustrative Application for SCRS

Framework

Key Plan Risks Considered

We suggest incorporating at least four key Plan risks in setting strategic asset allocation:

1. The risk that SCRS experiences a loss great enough to derail achievement of full funding inside of 30 years

2. The risk that SCRS experiences a loss great enough to trigger contribution rate increases beyond those provided for in the 2017 legislation

3. The risk that SCRS experiences a loss great enough to cause the Plan to risk exhausting its assets

4. The risk that SCRS experiences a loss great enough to cause the Plan to need to sell illiquid assets in order to secure its ability to pay benefits

Assumptions

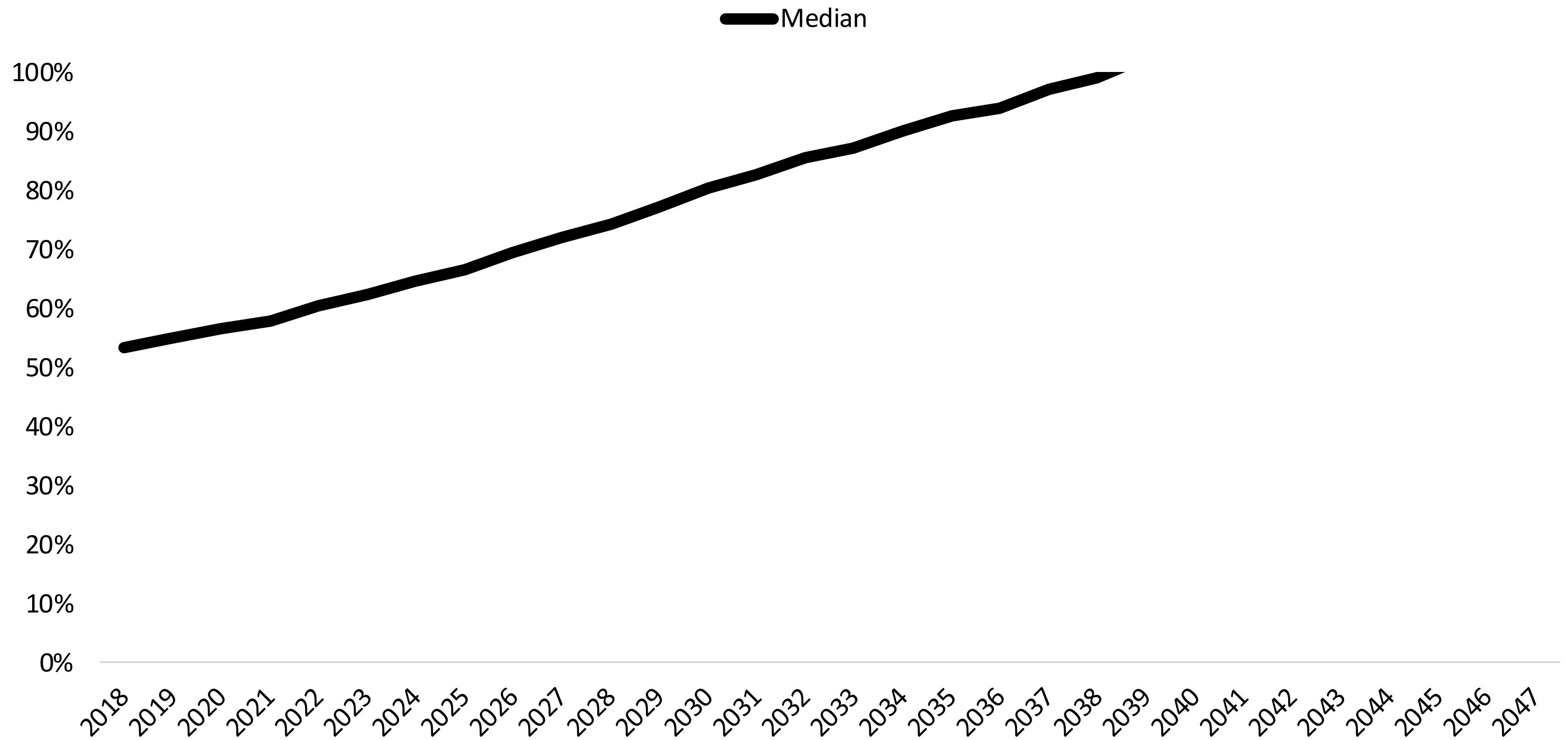
Plan Design	Capital Market	Liability	Risk	Confidence	Fwd Period
2017 Legislation	*Horizon*	*GRS Baseline*	*100% Funded <30 yrs*	*99%*	*30 yrs*
2019 Funding Freeze	*Meketa L/T*	*Payroll Growth Δ*	*Contribution Rate Increase*	*95%*	*10 yrs*
2021 Assumed Rate Δ	*Meketa S/T*	*Mortality Δ*	*"Pay as you go"*	*90%*	*5 yrs*
DB Closure	*Historical*	*ORP Selection Δ*	*Liquidity crunch*	*85%*	*1 yr*

How Far Can Funded Status Fall Before Additional Funding Needed?

Assumptions

Plan Design	Capital Market	Liability	Risk	Confidence	Fwd Period
2017 Legislation	*Meketa L/T*	*GRS Baseline*			

Output: Funded Ratio Projection (MVA basis)



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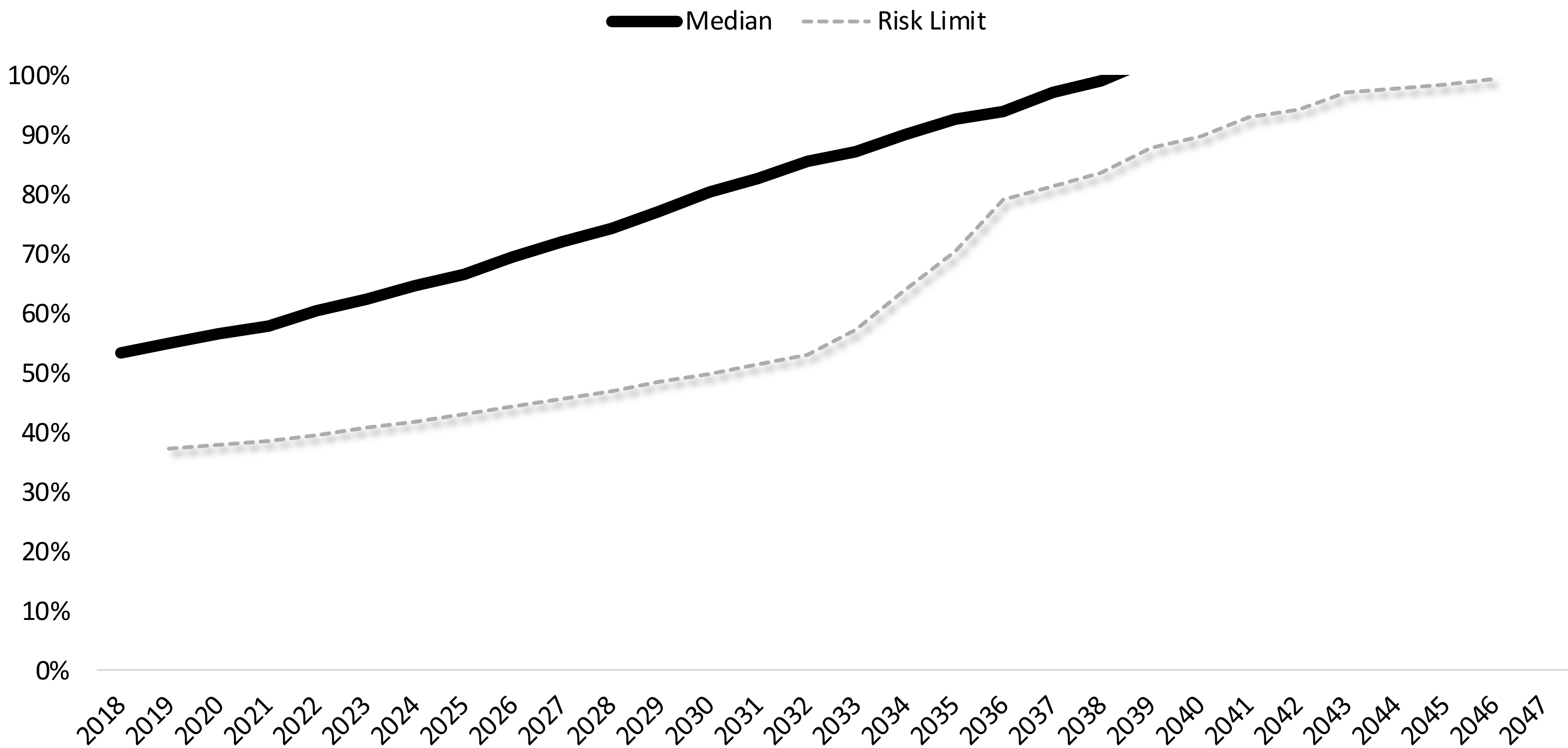

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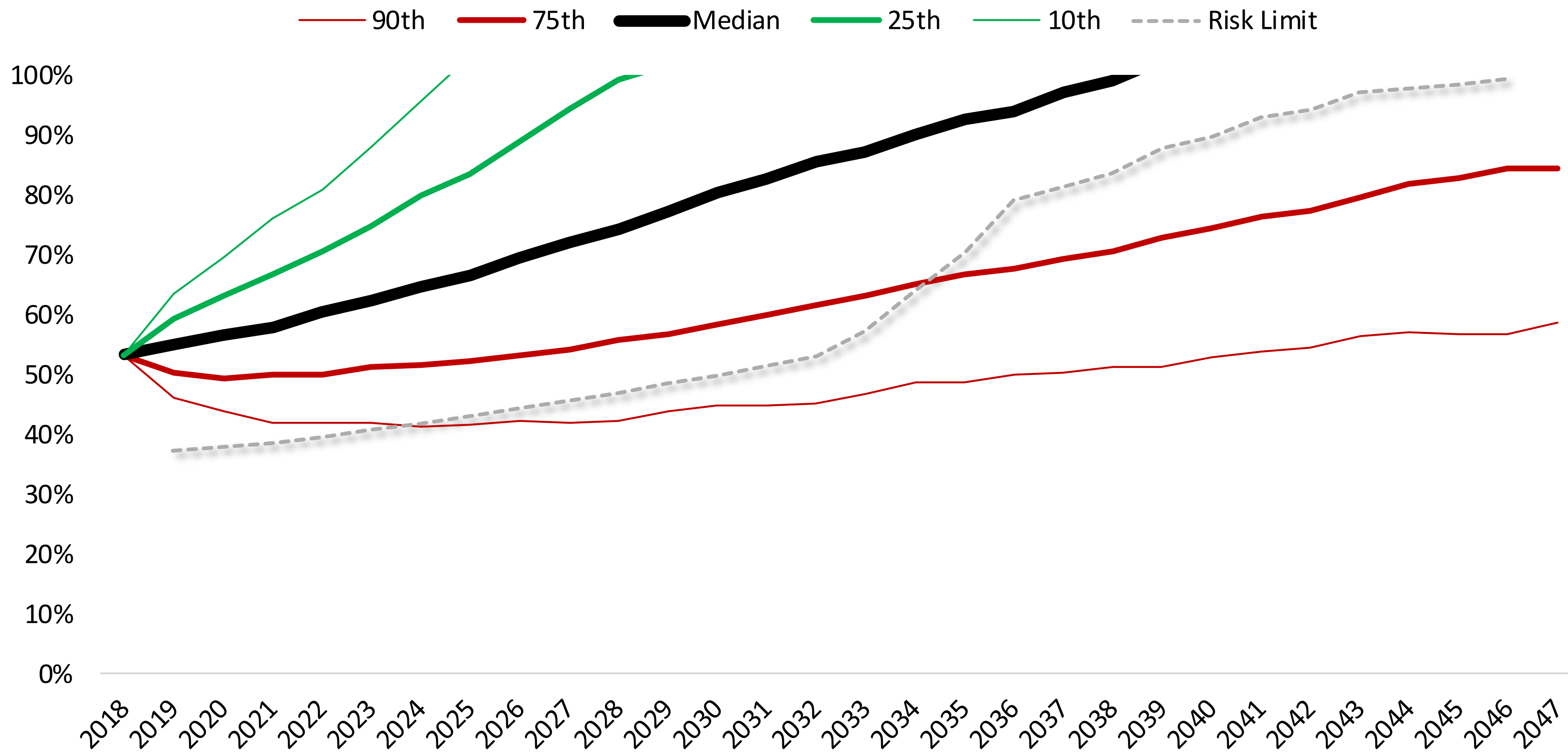
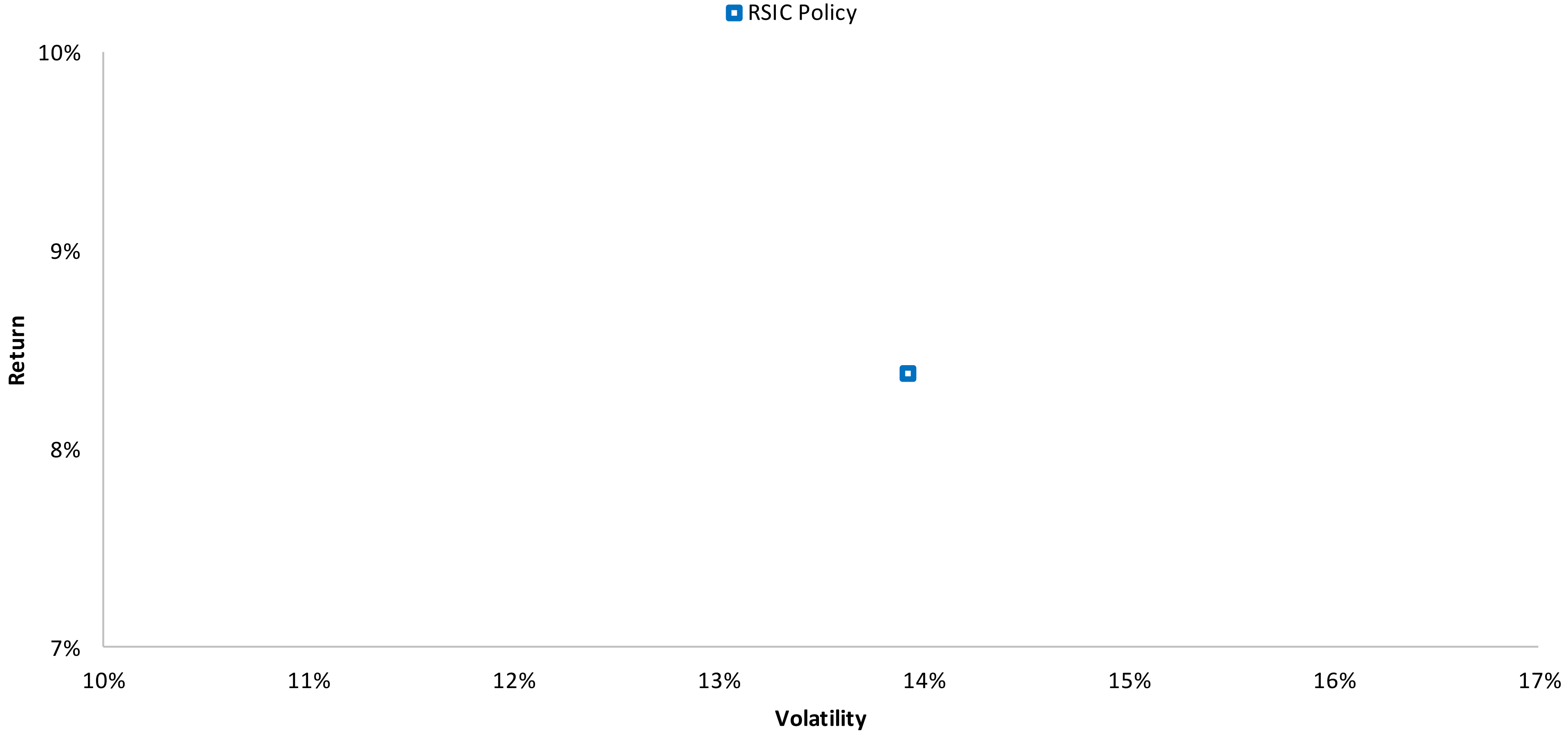


Implications for Asset Allocation: Efficient Frontier Analysis

Assumptions

Plan Design	Capital Market	Liability	Risk	Confidence	Fwd Period
	Meketa L/T				

Output: Risk/Return



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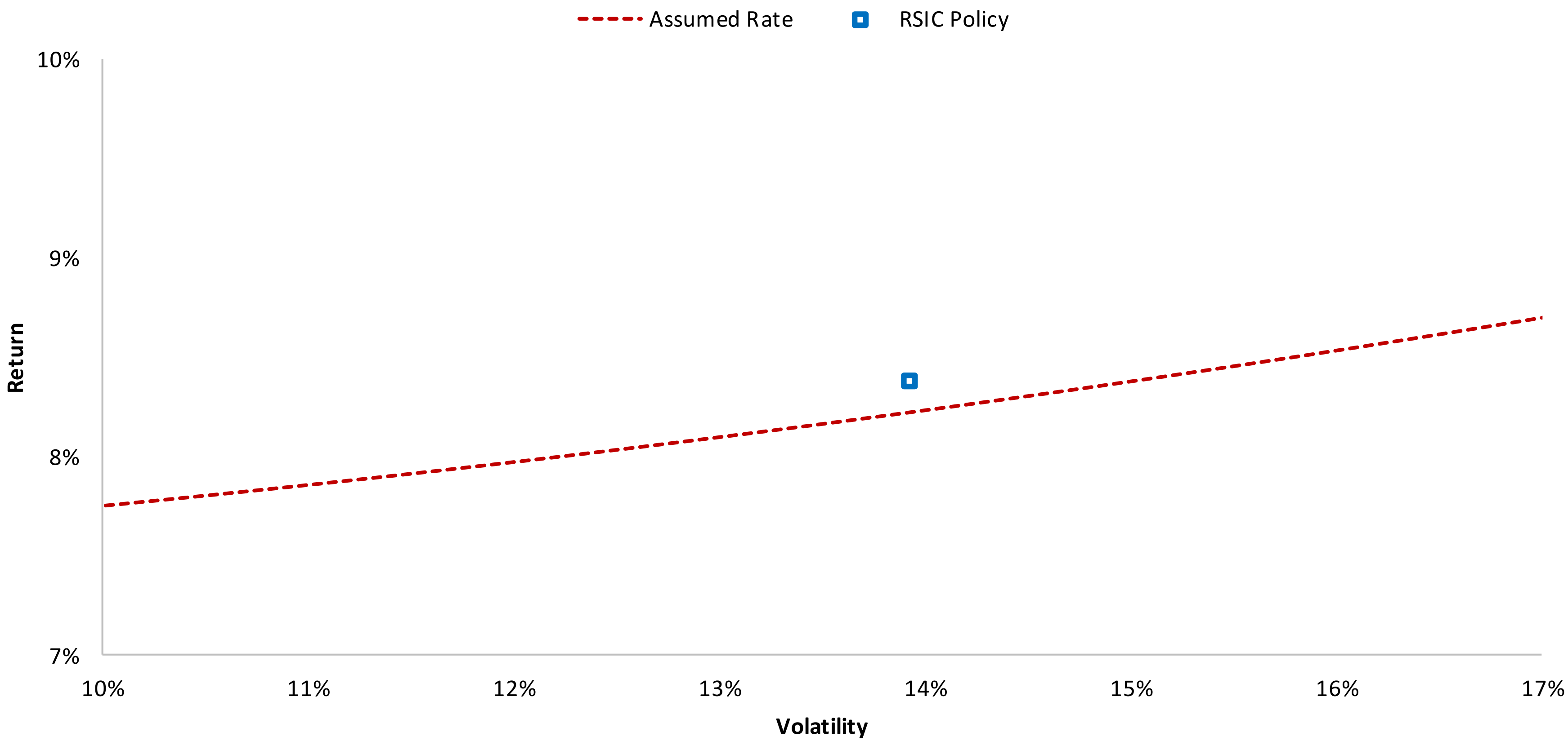

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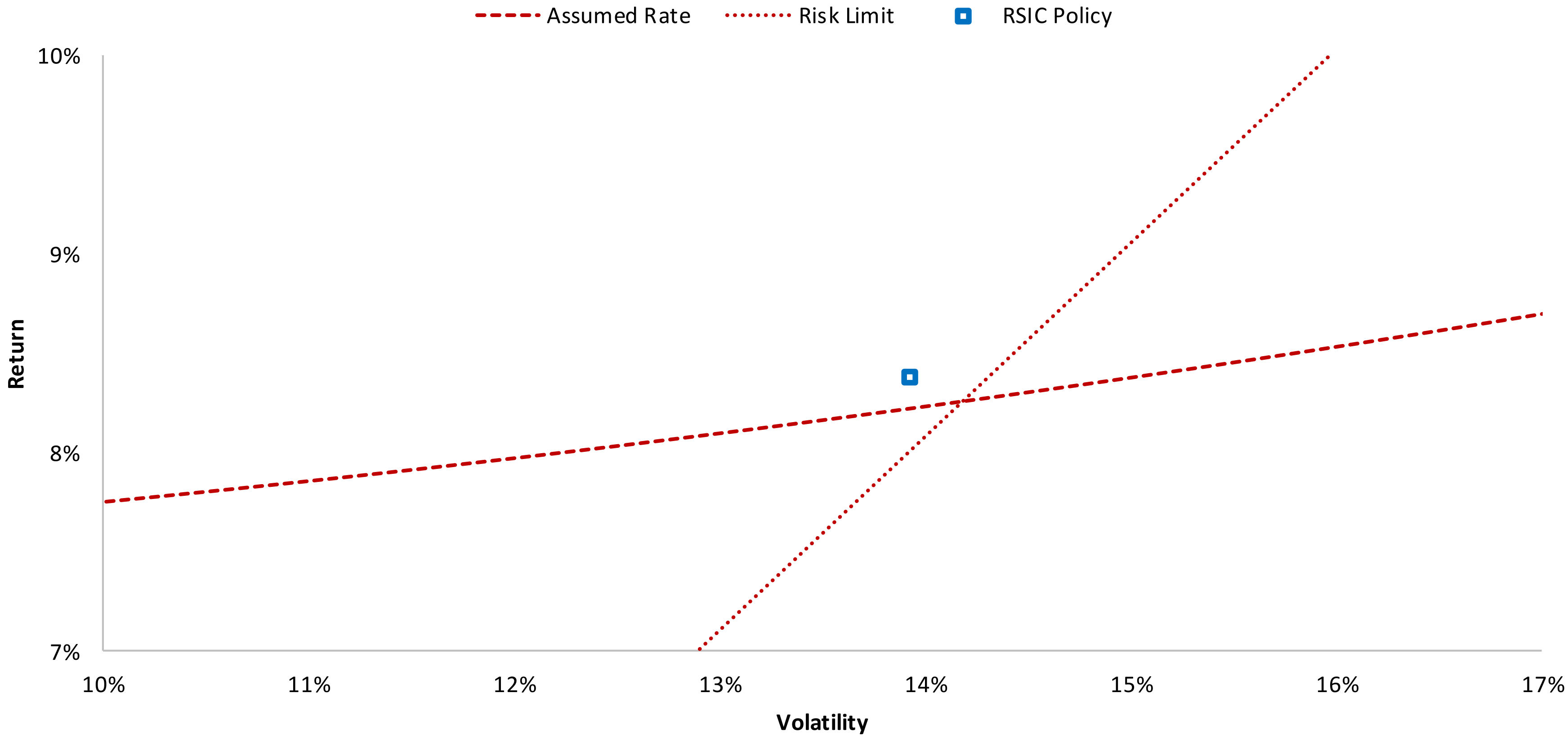

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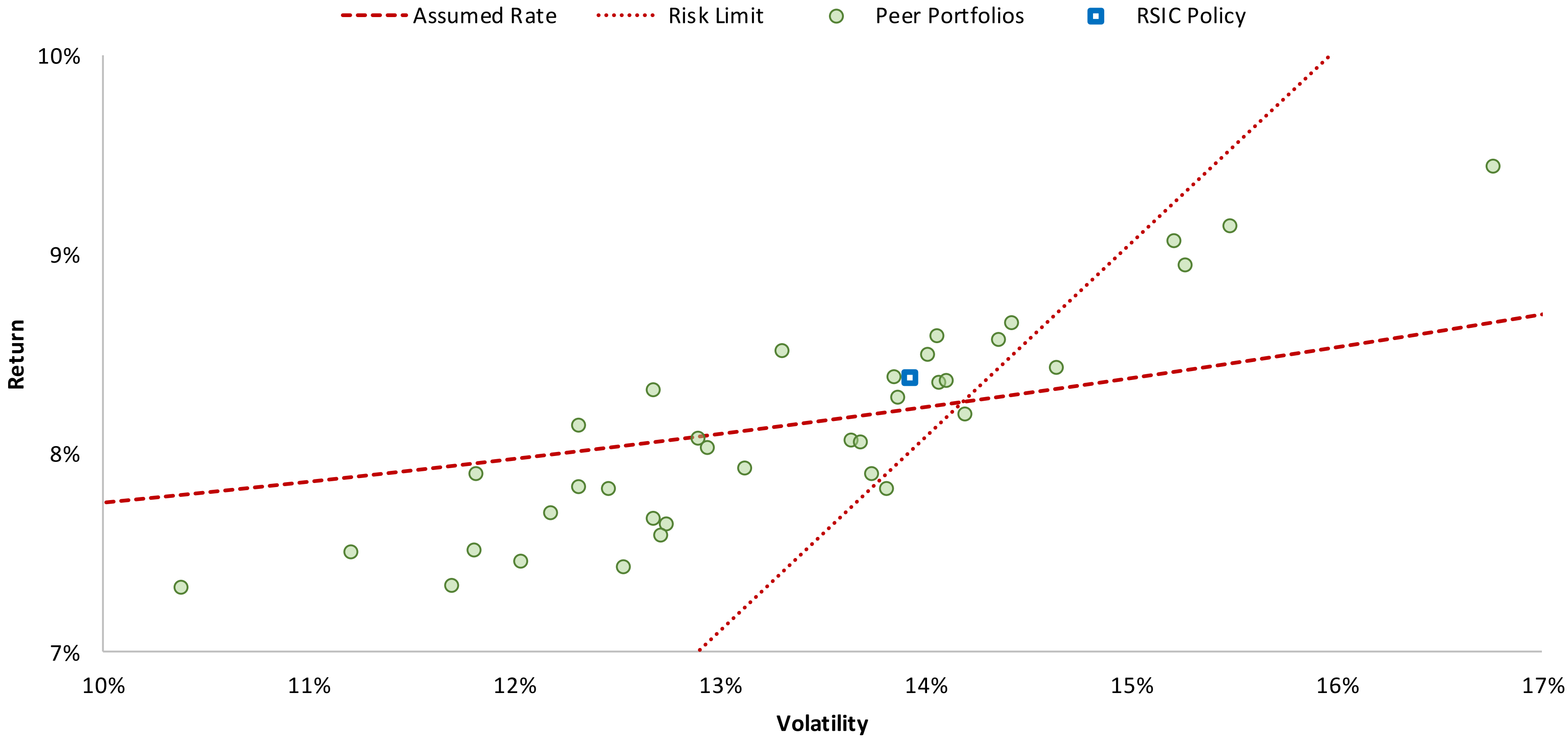


South Carolina Retirement System Investment Commission

Fiscal Year 2018 Review

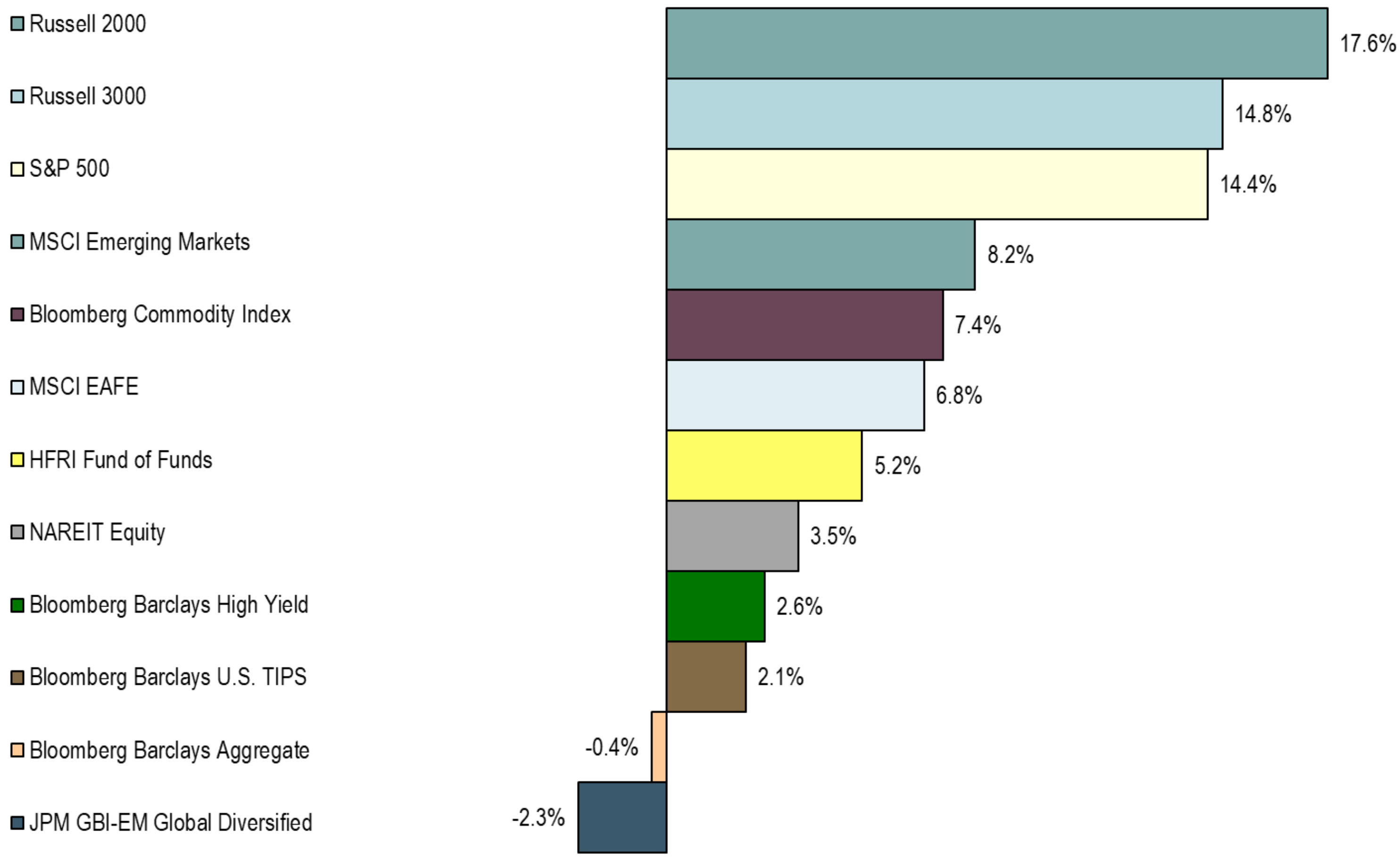
Executive Summary

Category	Results	Notes
Total System Performance	**Positive**	+7.8%, +$2.3 bb
Performance vs. Benchmark	**Outperformed**	7.8% vs. 7.3% Policy Index
Performance vs. Actuarial Target	**Beat**	7.8% vs. 7.25% Actuarial Target
Performance vs. Peers	**Trailed**	77^{th} Percentile (BNYM), 87^{th} Percentile (IF)
Active Management – Impact	**Additive**	+0.46% total = Overlay, Real Estate, Private Debt and Other Opportunistic
Active Management – Hit Ratio	**Less than Half**	Only 7 of 15 asset classes outperformed
Compliance with Targets	**Yes**	All asset classes within tolerance ranges

High Level Performance Observations

Asset Class	Observations
Public Equities	Global public equity was one of the best performing asset classes (specifically domestic equity). As the largest exposure within the Retirement System, this was the largest contributor to RSIC's absolute performance in the fiscal year. But active manager underperformance (and regional weighting) resulted in global equity being the biggest detractor from relative returns.
Private Equity	Private equity produced strong absolute returns (nearly 15%) but failed to outpace the public market benchmark (as one might expect in a strong equity year).
Fixed Income	Rate increases by the U.S. Federal Reserve contributed to a flattening U.S. Yield Curve during the fiscal year. Most investment grade bonds produced negative returns in the fiscal year. RSIC's exposure was no exception. Core fixed income lost more than 1%. It was one of the only two asset classes that produced negative returns. Emerging market debt was the other negative asset class (-2.6%). Both private debt and mixed credit produced positive absolute returns and contributed 17 bps of outperformance relative to the policy benchmark.
Real Estate	The strong real estate cycle continued. Both public and private real estate produced positive absolute and relative returns during the fiscal year. Private real estate produced double digit net returns and beat its benchmark, while public real estate ended the year close to 7% positive, and significantly above its benchmark.
Portable Alpha	Portable alpha was additive in the year (especially in relative terms vs. its benchmark). The program generated a net return of 7.8% vs. benchmark performance of 1.7%. This was the biggest contributor of relative outperformance for the Retirement System vs. its policy benchmark.

Market Review - Fiscal Year 2018[1]

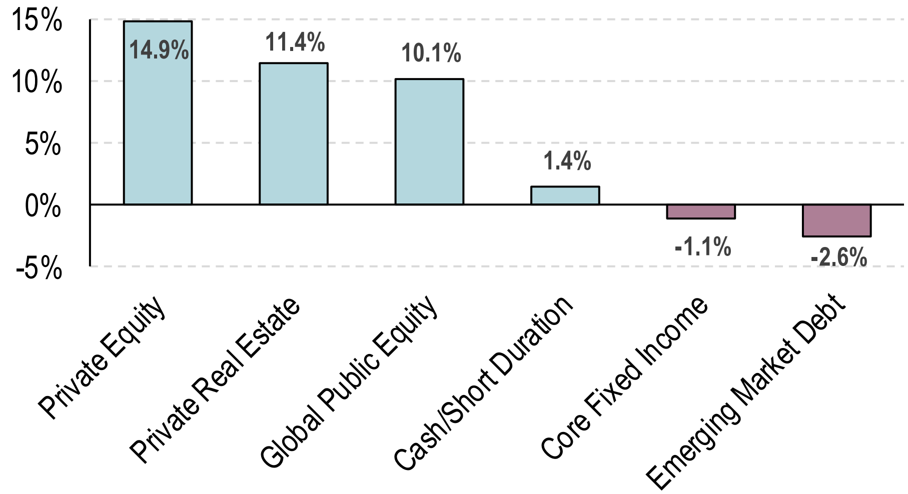


- U.S. Equities were the best performing asset class during the fiscal year.

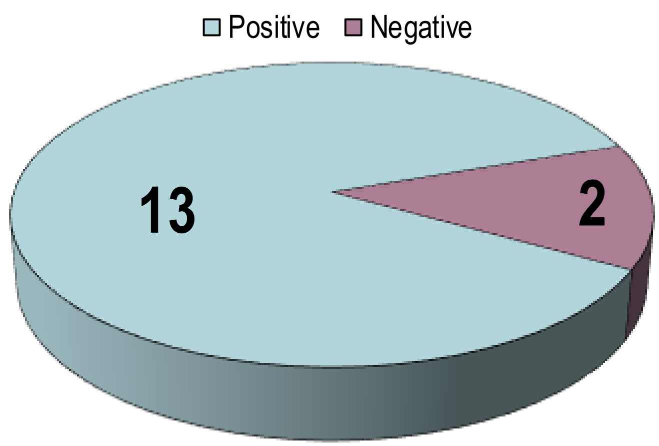
[1] Source: InvestorForce.

RSIC – Absolute Performance

Top/Bottom Three Absolute Asset Classes



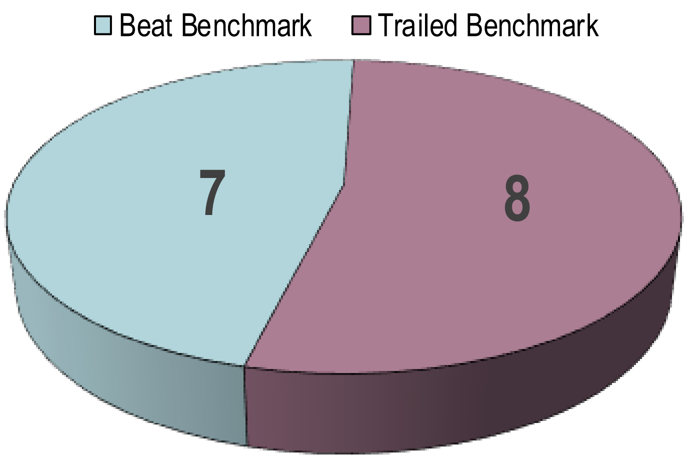
Asset Class Absolute Performance



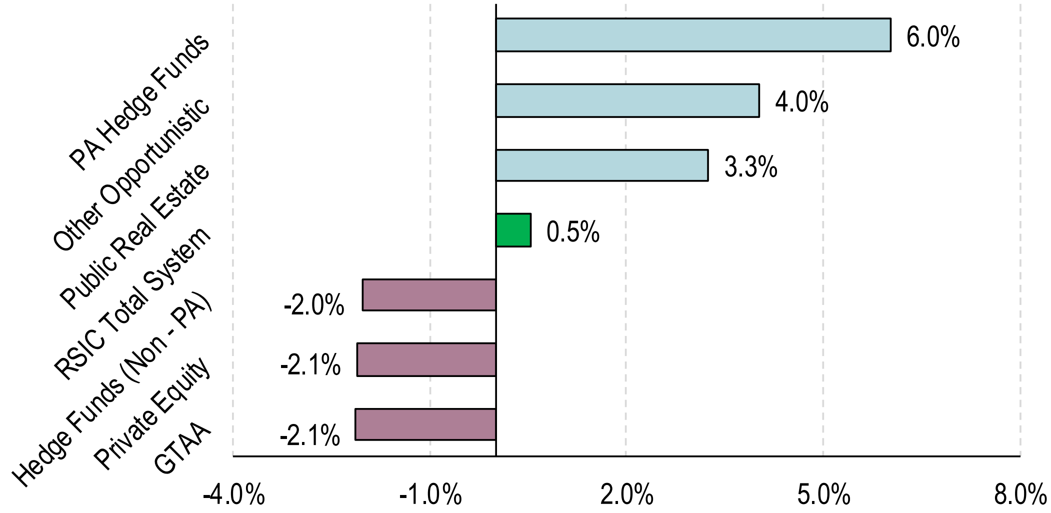
- In the fiscal year, thirteen out of fifteen asset classes generated positive absolute performance.
- The three best performing asset classes (in absolute terms) represented approximately 50% of the total System at the end of the fiscal year. The bottom three performing asset classes (of which only two produced negative returns) represented approximately 20% of the total System at the end of the fiscal year.

RSIC - Relative Performance

Asset Classes vs. Benchmarks



Top Three and Bottom Three Asset Classes vs. Benchmarks



- Seven of the fifteen asset classes delivered positive relative performance versus their respective benchmarks.
- The best relative performance came from portable alpha hedge funds, other opportunistic, and public real estate.
- Non-portable alpha hedge funds, private equity, and GTAA had the worst relative performance.

Attribution vs. Policy Benchmark

Asset Class	Total Attribution
Portable Alpha/Overlay Collateral	0.78%
Private Real Estate	0.14%
Public Real Estate	0.13%
Other Opportunistic	0.11%
Private Debt	0.10%
Mixed Credit	0.07%
World Infrastructure	0.00%
Cash and Short Duration (net)	-0.01%
Hedge Funds (Non-PA)	-0.02%
Equity Options	-0.02%
Emerging Markets Debt	-0.04%
Core Fixed Income	-0.06%
Private Equity	-0.14%
GTAA	-0.16%
Global Public Equity	-0.30%
Total System	**0.54%**

- Portable alpha was the biggest driver of excess return vs. the policy benchmark. The biggest detractor (global public equity) was the System's largest allocation (approximately 36% at the end of the fiscal year).

Fiscal Year 2018 RSIC – Meketa Recap

Month	Action
August 2017	Meketa Investment Group ("Meketa") met with Chair and Vice Chair to discuss objectives for the fiscal year.
September 2017	Meketa presented Initial Fund Review to the Commission. No red flags were identified but a number of action items were discussed with a focus on "Priority One" items with targeted completion in Fiscal Year 2018. Additional Priority Two and Priority Three items were identified for completion over the next six to thirty six months.
September 2017	Meketa presented its Delegation Report findings which summarized the level of manager selection discretion granted to investment staff at other large public pension plans across the country. Almost half of the retirement systems surveyed delegated investment manager selection to staff.
December 2017	First round of asset allocation discussion was conducted with education sessions focused specifically on TIPS, long duration U.S. Treasuries and infrastructure. Follow up work was requested, including: deep-dive review of portable alpha and asset/liability stress testing.
February 2018	Second round of asset allocation discussion was conducted with a focus on three investable policy options and comparison to peer plans. New asset allocation was adopted which resulted in a small increase in target allocations to core bonds, global equities and core real estate. The increased allocations were sourced from minor reduction in target weights from credit, GTAA and risk parity.
April 2018	Recommended changes to the asset class target ranges and benchmarks were discussed and adopted. The changes to the asset class benchmarks resulted in an expected 25 bps increase in total System Policy Benchmark.
April 2018	Additional asset/liability analysis was conducted with the Commission focusing on potential funded status under scenarios with potential decreased future contributions if/when the Retirement System reaches fully funded status.
June 2018	Review of Portable Alpha implementation was conducted with focus on comparison to peer implementation and program's historic correlation to equity market returns. Minor clarifications to benchmarks/ranges were also discussed and approved.

Initial Fund Review Recommendations - Status Update

Fund Governance	Original Priority	Status
Investment Policy Statement • Consider enhancements to Statement of Investment Objectives and Policies	2	In process
Investment Manager Guidelines • Review all investment manager guidelines to ensure they are consistent with each manager's mandate	3	Work with Staff as requested
Other Internal Policies • Consider minor edits at next regularly scheduled revision date	3	Work with Staff as requested
Asset Allocation & Portfolio Construction	**Original Priority**	**Status**
Asset Allocation Policy • Conduct a comprehensive asset allocation review, including comparison to several alternative portfolios and peers • Review the merits of each individual strategy in those asset classes with some overlap exposure • Consider increasing passive exposure in relatively efficient asset classes • Consider a factor-based approach for investing a portion of the equity portfolio	1-2	Complete/ In-Progress
Equity • Reduce the small cap overweight to a close-to-neutral stance within total equity exposure • Ensure the active international equity strategies are complementary and likely to add value (net of fees) • Consider carving out a small portion of the emerging market allocation for dedicated small cap and frontier market stocks • Explore ways to reduce the costs of investing in private equity • Have a constructive dialogue on the pros and cons of equity options relative to traditional equity exposure	2 - 3	Some items complete, others FY 2019

Initial Fund Review Recommendations - Status Update

Asset Allocation & Portfolio Construction (continued)	Original Priority	Status
Conservative Fixed Income • Recommend adding a dedicated allocation to long-term Treasuries during the next asset allocation review • Recommend adding a dedicated allocation to TIPS and remove TIPS from "other opportunistic strategies" group	**1**	**Complete**
Diversified Credit • Agree with the use of active managers in high yield and bank loans. • Agree with the use of a mix of dedicated local currency and hard currency emerging market debt strategies. • Explore ways to reduce the cost of investing in private debt	**2 or No Action Needed**	**Co-investment program could reduce costs**
Opportunistic Strategies • Recommend clarifying what role the opportunistic allocation should play • Agree with the decision to liquidate the dedicated hedge fund allocation • Recommend a review of what the ideal allocation to the risk parity strategy should be • Recommend slightly reducing GAA target	**2-3**	**Complete**
Real Assets • Recommend reviewing the allocation to core vs. non-core real estate as part of the next asset allocation discussion. • Focus infrastructure program on private market investments. Use an index fund for public markets exposure.	**1-2**	**Real estate discussion complete**
Other Strategies • Continue to carefully execute the Overlay program while considering if there are more cost effective approaches. • Recommend a thorough review of the portable alpha strategies.	**2-3**	**Complete**

Initial Fund Review Recommendations - Status Update

Operations	Original Priority	Status
Custody Services • Conduct a full review of accounting and other services	**3**	**2020**
Transition Management • Retain Russell as the transition manager and consider retaining a panel of transition managers	**3**	**2020**
Securities Lending • Review oversight process and discuss the objectives of the securities lending program	**3**	**2020**
Expenses • Conduct a thorough review of the Retirement System's investment costs, seeking opportunities for reductions.	**2**	**Continuous**
Cash Sweep • No action needed. The current use of a government STIF vehicle is in line with industry standard	**No action needed**	**N/A**
Commission Recapture • No action needed. Only implement commission recapture if it is not restrictive on managers' ability to seek best execution	**No action needed**	**N/A**
Proxy Voting • Meketa Investment Group is prepared to assist the Retirement System in a review of third party proxy voting vendors	**3**	**Work with Staff as requested**

South Carolina Retirement System Investment Commission

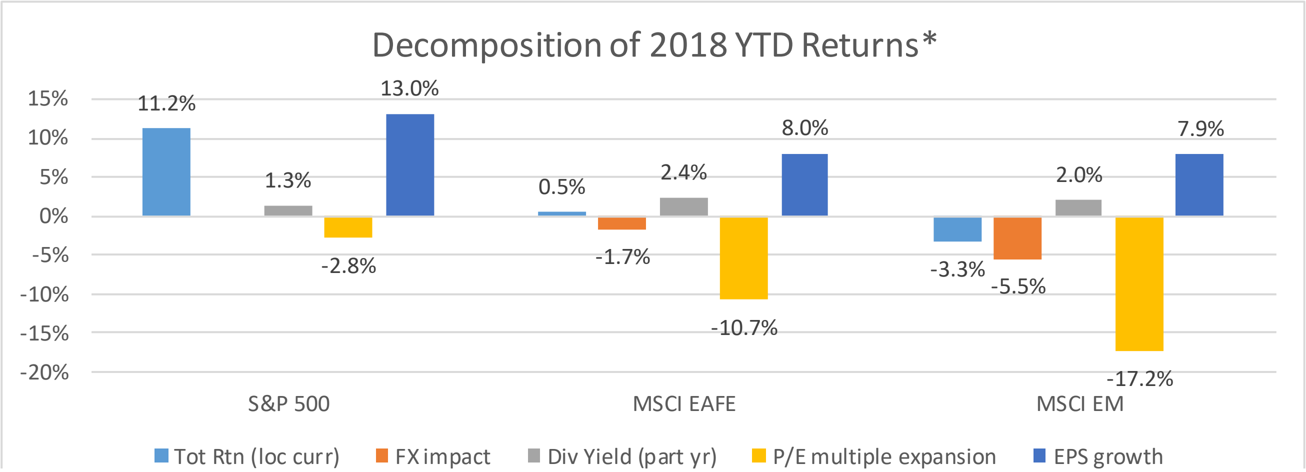
Why Invest Outside the U.S.

M E K E T A   I N V E S T M E N T   G R O U P
100 LOWDER BROOK DRIVE   SUITE 1100   WESTWOOD MA 02090
781 471 3500   fax 781 471 3411   www.meketagroup.com

Why have non-U.S. stocks underperformed in 2018 YTD?

The main driver has been valuations: reduced investor sentiment for foreign equity, as expressed by lower P/E ratios.

- Slightly lower earnings growth and a stronger US dollar have also played a role.

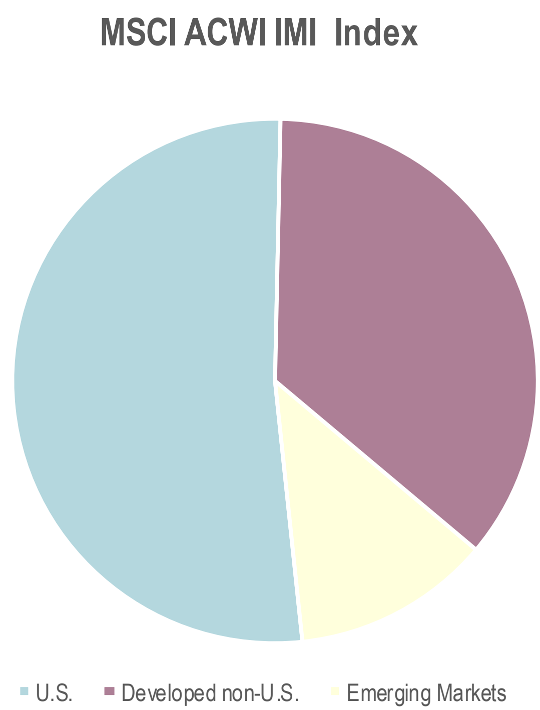


- Year-to-date, the S&P 500 has delivered a total return of +11.2%. Of this, 1.3% has come from dividends. Sentiment has been slightly negative (P/E contraction by -2.8%), but has been offset by EPS growth of 13.0%.
- In local currency, the MSCI EAFE has returned +0.5%. The stronger dollar reduces this to -1.7% in USD terms. Dividends contributed 2.4%, but P/E has fallen by -10.7%, more than negating EPS growth of 8.0%.
- In local currency, the MSCI EM has returned -3.3%; this is reduced by -5.5% when converting to USD. Dividends contributed 2.0%, but P/E has plummeted by -17.2%, a tough headwind against 7.9% EPS growth.
- Had valuations remained unchanged, local currency total returns for the three indices would have been nearly equal: S&P 500 +14.3%, EAFE +12.1%, EM +15.3%.

*Through Sept. 20, 2018.

Overview

- The United States represents roughly half of the investable universe[1].
- Most sophisticated investors have fully diversified portfolios with investments around the globe.



[1] Proxied by market cap weighted investable equity index.

Why Invest Outside the U.S.

- The three most common reasons pension plans have diversified into foreign investments and non-U.S. dollar investments include:

    1. Non – Correlated benefits

        - Different regions perform better (or worse) at different times (i.e. non correlated). Combining them in a portfolio allows investors to benefit from the assets' different behaviors and reduce risk.

    2. Growth opportunities outside the United States

        - Countries outside of the United States, specifically emerging market and frontier nations, have a lower starting point of economic activity and favorable demographics, on average. Younger and larger populations that can import technology (cheaply) from developed nations may result in large increases in GDP growth over the coming decades.

    3. Valuations are Less Expensive Outside United States

        - U.S. equity valuations (based on cyclically adjusted P/E ratios) are currently more than one standard deviation above the historical average. Both developed (non-U.S.) and emerging market equities are priced below their long term averages and significantly below the U.S. equity market.

1. Non- Correlated Benefits

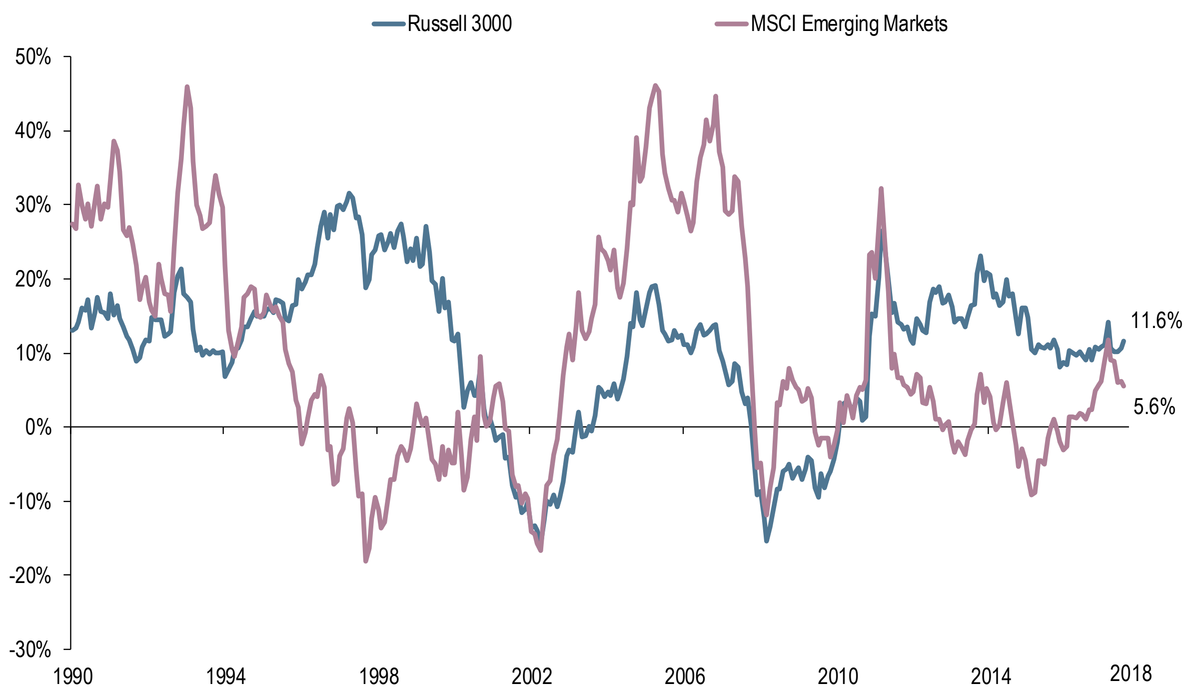
- It is impossible to predict which region or asset class will perform the best in any given year.

2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Emerging Equity 55.8%	Emerging Equity 25.6%	Emerging Equity 34.0%	Emerging Equity 32.2%	Emerging Equity 39.4%	Bonds 5.2%	Emerging Equity 78.5%	Emerging Equity 18.9%	Real Estate 14.3%	Emerging Equity 18.2%	US Equity 32.4%	Private Equity 16.1%	Real Estate 13.3%	High Yield 17.1%	Emerging Equity 37.3%
EAFE Equity 39.1%	Emerging Markets Debt 23.0%	Private Equity 30.4%	EAFE Equity 26.3%	Private Equity 26.6%	Cash 1.7%	High Yield 58.2%	Commodities 16.7%	TIPS 14.1%	EAFE Equity 17.3%	EAFE Equity 22.8%	US Equity 13.7%	Private Equity 11.6%	US Equity 12.0%	EAFE Equity 25.0%
High Yield 29.0%	EAFE Equity 20.6%	Commodities 21.4%	Private Equity 18.6%	Emerging Markets Debt 18.1%	TIPS -1.1%	EAFE Equity 31.8%	Private Equity 15.7%	Private Equity 12.0%	Emerging Markets Debt 16.8%	Private Equity 18.1%	Real Estate 11.8%	US Equity 1.4 %	Commodities 11.8%	US Equity 21.8%
US Equity 28.7%	Private Equity 15.9%	Real Estate 20.1%	Real Estate 16.6%	Commodities 16.2%	Emerging Markets Debt -5.2%	US Equity 26.5%	Emerging Markets Debt 15.7%	Bonds 7.8%	US Equity 16.0%	Real Estate 11.0%	Bonds 6.0%	Bonds 0.5%	Emerging Equity 11.2%	Emerging Markets Debt 9.5%
Commodities 24.0%	Real Estate 14.5%	EAFE Equity 13.5%	US Equity 15.8%	Real Estate 15.8%	Real Estate -6.5%	Emerging Markets Debt 22.0%	High Yield 15.1%	High Yield 5.0%	High Yield 15.8%	Hedge Funds 8.7%	TIPS 3.6%	Cash 0.0%	Emerging Markets Debt 10.2%	Private Equity 8.9%
Hedge Funds 19.5%	High Yield 11.1%	Hedge Funds 9.3%	Emerging Markets Debt 15.2%	TIPS 11.6%	Private Equity -7.1%	Hedge Funds 20.0%	US Equity 15.1%	US Equity 2.1%	Private Equity 14.5%	High Yield 7.4%	Hedge Funds 3.3%	Hedge Funds -0.3%	Real Estate 8.0%	High Yield 7.5%
Emerging Markets Debt 6.9%	US Equity 10.8%	Emerging Markets Debt 6.3%	Hedge Funds 12.9%	EAFE Equity 11.2%	Hedge Funds -19.0%	Commodities 18.9%	Real Estate 13.1%	Cash 0.1%	Real Estate 10.5%	Cash 0.0%	High Yield 2.5%	EAFE Equity -0.8%	TIPS 4.7%	Hedge Funds 6.9%
Real Estate 8.9%	Commodities 9.2%	US Equity 4.9%	High Yield 11.9%	Hedge Funds 10.0%	High Yield -26.2%	TIPS 10.0%	Hedge Funds 10.2%	Emerging Markets Debt -1.8%	TIPS 7.3%	Bonds -2.0%	Emerging Markets Debt 0.9%	TIPS -1.4%	Bonds 2.7%	Real Estate 5.1%
TIPS 8.3%	Hedge Funds 9.0%	Cash 3.0%	Cash 4.6%	Bonds 7.0%	Commodities -35.6%	Bonds 5.9%	EAFE Equity 7.8%	Hedge Funds -5.2%	Hedge Funds 6.4%	Emerging Equity -2.6%	Cash 0.0%	High Yield -4.5%	Private Equity 1.8%	Bonds 3.5%
Private Equity 7.3%	TIPS 8.5%	TIPS 2.8%	Bonds 4.3%	US Equity 5.5%	US Equity -37.0%	Cash 0.1%	Bonds 6.5%	EAFE Equity -12.1%	Bonds 4.2%	Emerging Markets Debt -9.0%	Emerging Equity -2.2%	Emerging Markets Debt -6.3%	EAFE Equity 1.0%	TIPS 3.0%
Bonds 4.1%	Bonds 4.3%	High Yield 2.7%	Commodities 2.1%	Cash 4.7%	EAFE Equity -43.4%	Private Equity -6.6%	TIPS 6.3%	Commodities -13.4%	Cash 0.1%	TIPS -9.4%	EAFE Equity -4.9%	Emerging Equity -14.9%	Hedge Funds 0.7%	Commodities 1.7%
Cash 1.0%	Cash 1.2%	Bonds 2.4%	TIPS 0.5%	High Yield 1.9%	Emerging Equity -53.3%	Real Estate -16.9%	Cash 0.1%	Emerging Equity -18.4%	Commodities -1.1%	Commodities -9.5%	Commodities -17.0%	Commodities -24.7%	Cash 0.2%	Cash 0.8%

1. Non- Correlated Benefits

- U.S. stocks have experienced long periods of underperformance and outperformance relative to non-U.S. stocks
- By owning investments around the world, investors can smooth out their return stream.

Rolling Three Year Return Comparison[2]

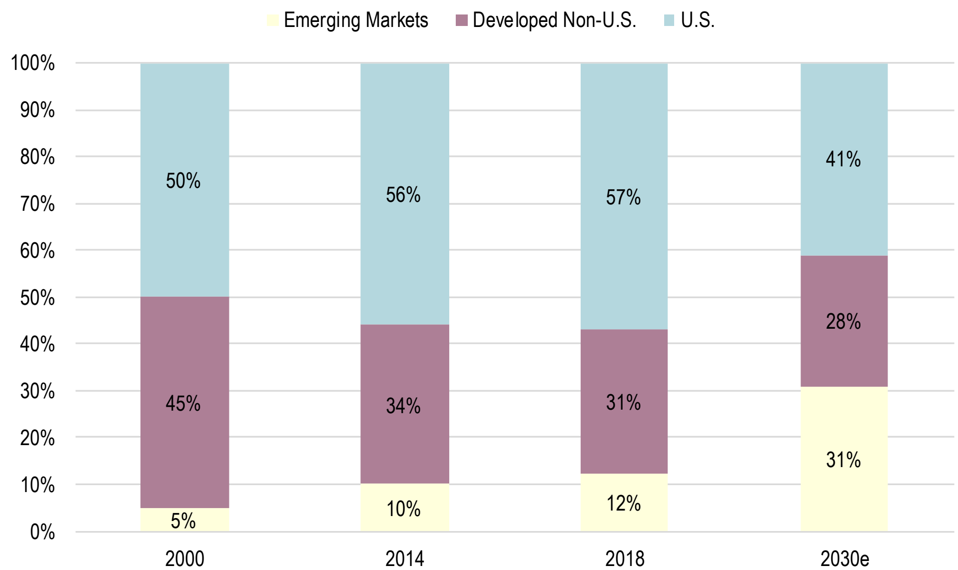


[2] Source: InvestorForce.

2. Growth Outside the U.S.

- The size and liquidity of the non-U.S. investable marketplace are both expected to continue[3] to increase.
- Emerging markets comprise roughly 80% of the world's population, approximately 40% of global economic output[4], but only approximately 12% of the investable equity universe.

MSCI ACWI Index Market Weights

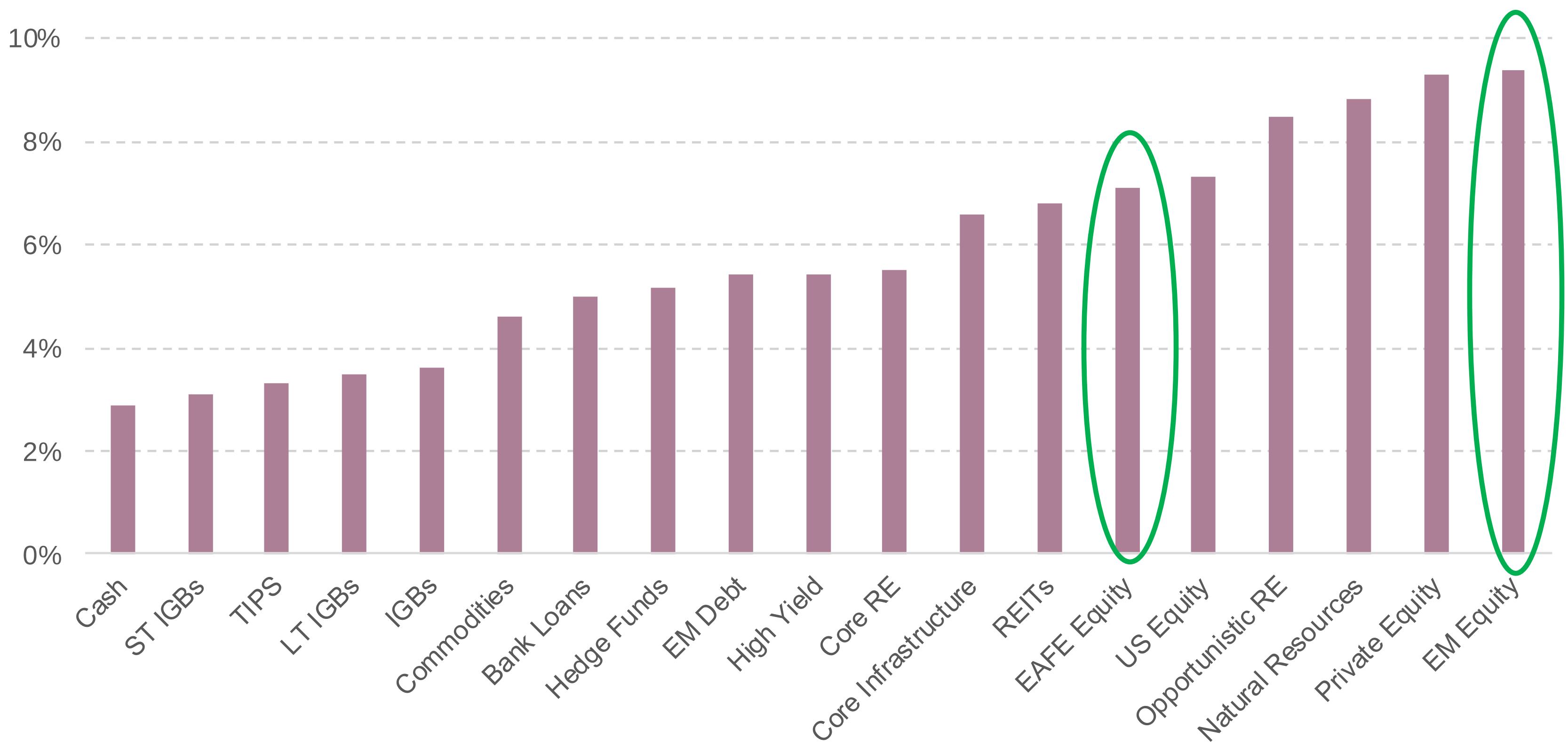


[3] Projections for 2030 are from Goldman Sachs Global ECS Research. Data is free-float adjusted.
[4] Source: IMF, World Bank.

2. Growth outside the U.S.

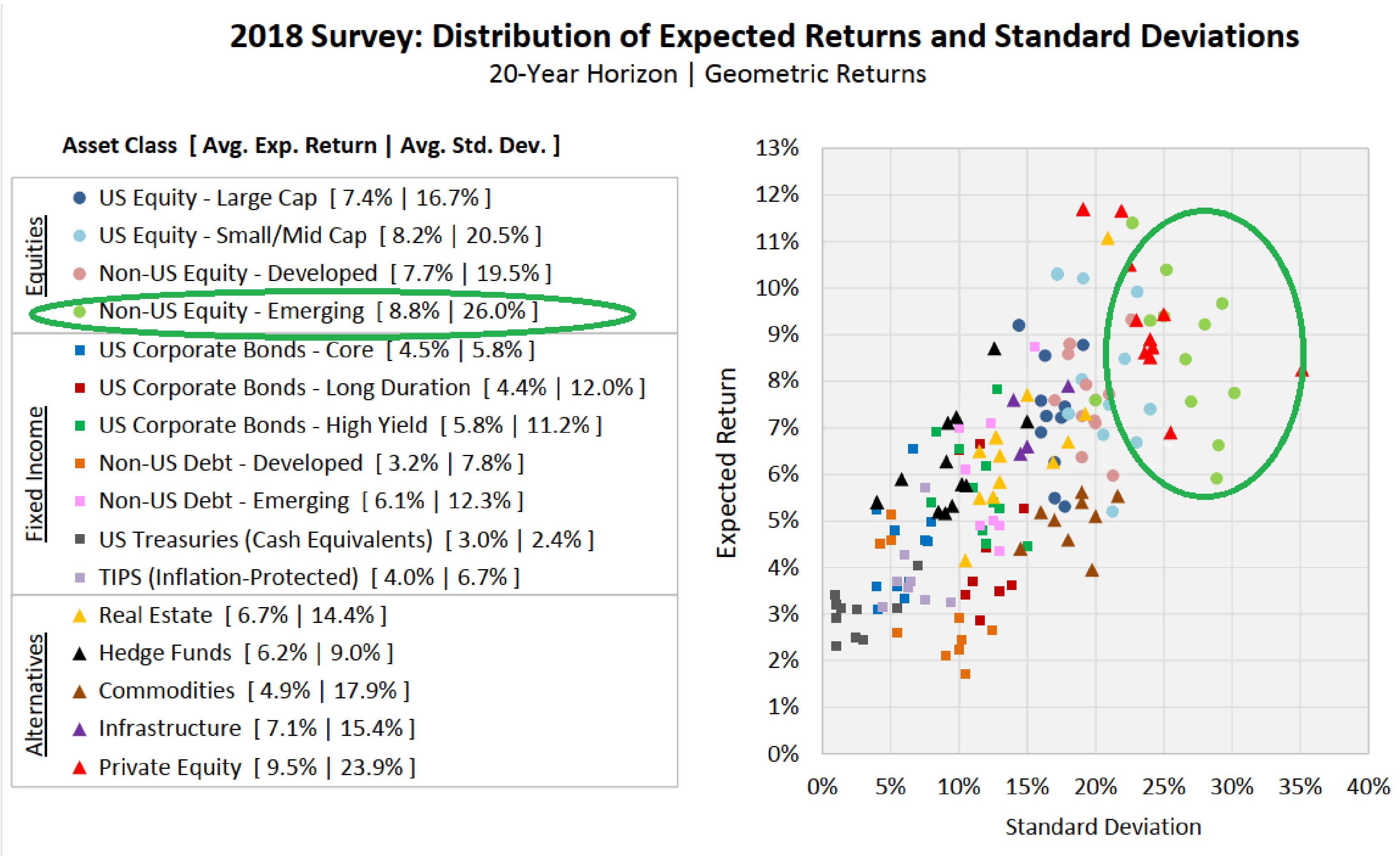
- Emerging market equity has the highest long term return expectation in Meketa Investment Group's asset study. International developed (ex-U.S.) has similar return expectations to U.S. equity but with correlation benefits.

Meketa Investment Group Long Term Return Projections[5]



[5] Twenty-year expected returns based upon Meketa Investment Group's 2018 Annual Asset Study.

2. Growth outside The U.S. - The Industry[6] Has Similar Expectations



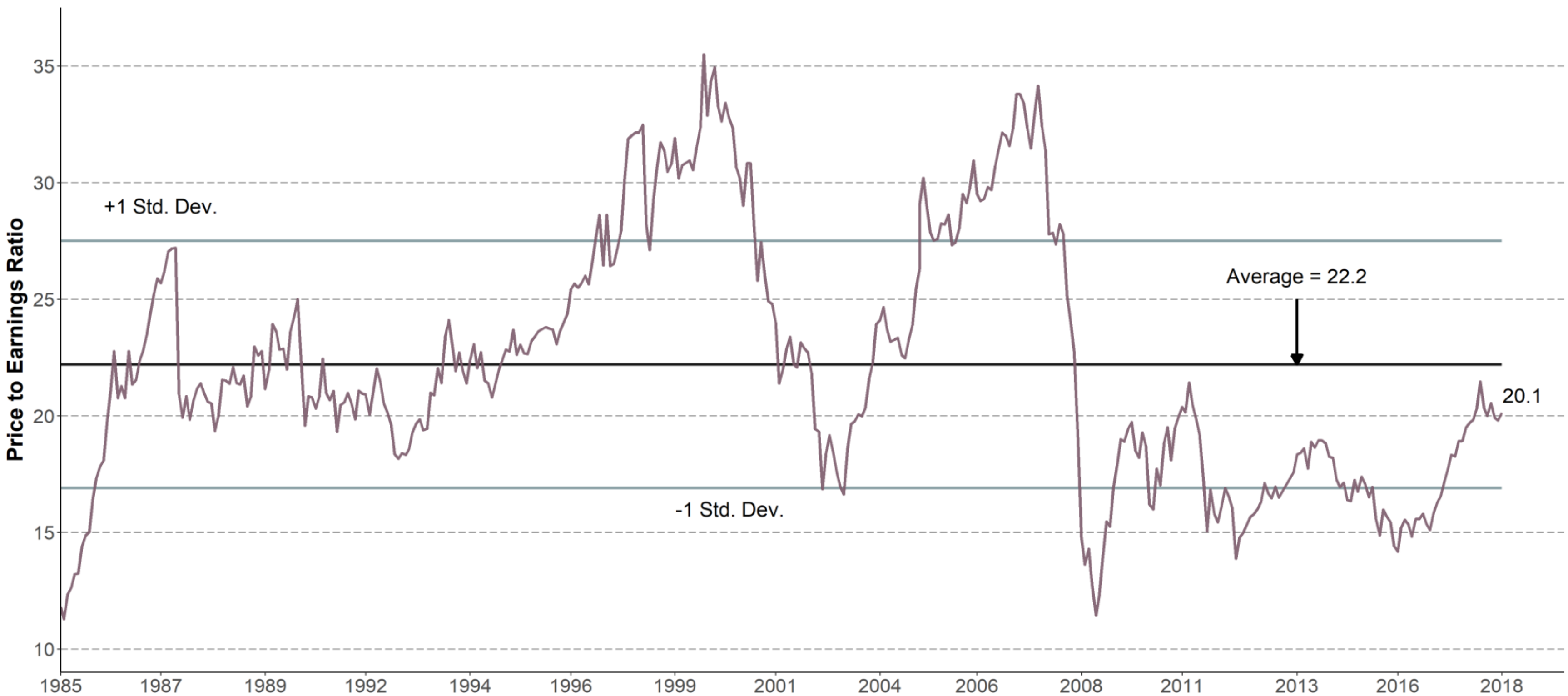
[6] Source: Horizon Actuarial Survey of Capital Market Assumptions, 2017 Edition, survey of 35 investment advisors.

3. Valuations - U.S. Equity Market is Expensive

- As of July 16th, the cyclically adjusted P/E[7] ratio for the S&P 500 was 31.8x, which is above its historical average of 16.9x.

[7] Source: Robert Shiller and Yale University. Data is from January 31, 1881 to July 16, 2018.

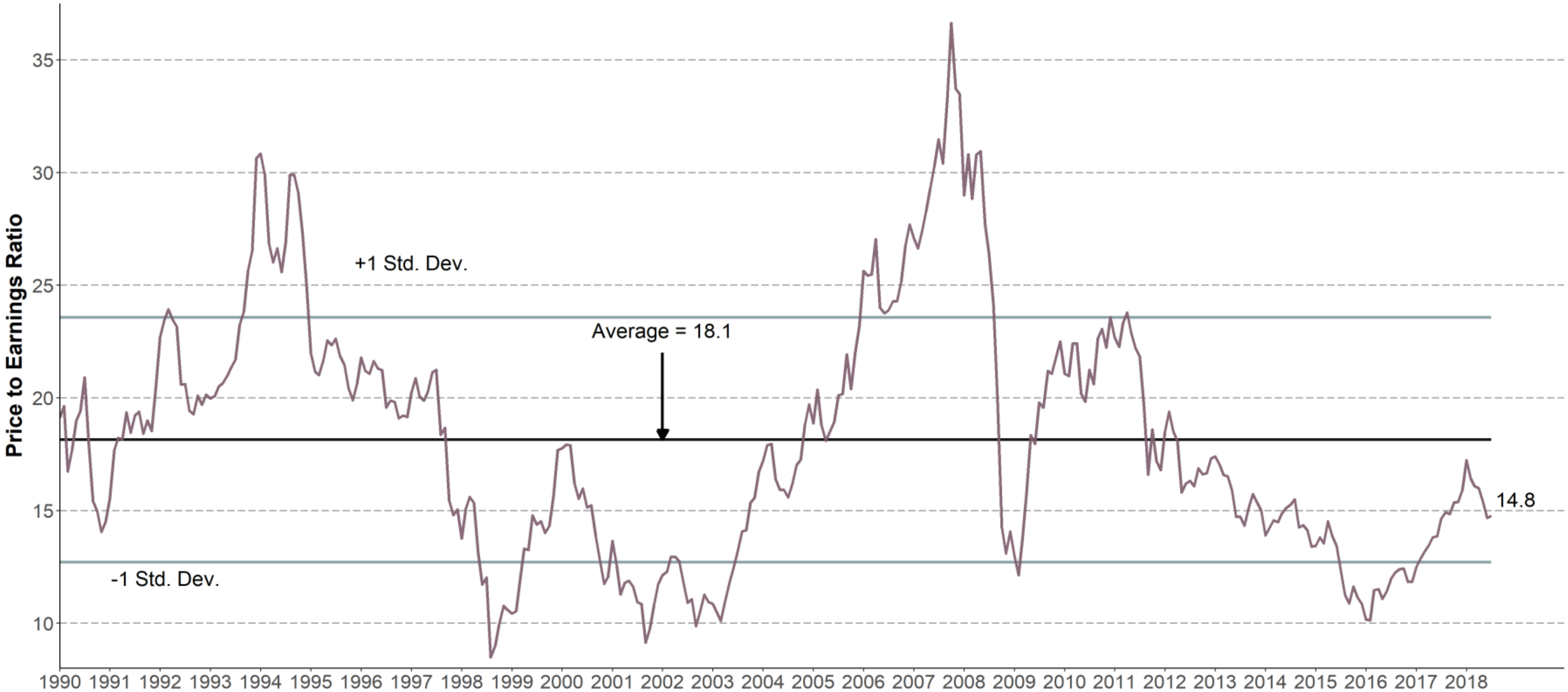
3. Valuations - Developed International Equity Market is Cheaper[8]



- As of July 16th, the price to earnings valuation for the MSCI EAFE (ex-Japan) is slightly below the historical average.
- Recently, a strengthening U.S. dollar and political uncertainty in Europe, particularly in Italy, hurt valuations.

[8] Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of July 16, 2018.

3. Valuations - Emerging Market Equities are the Cheapest[9]

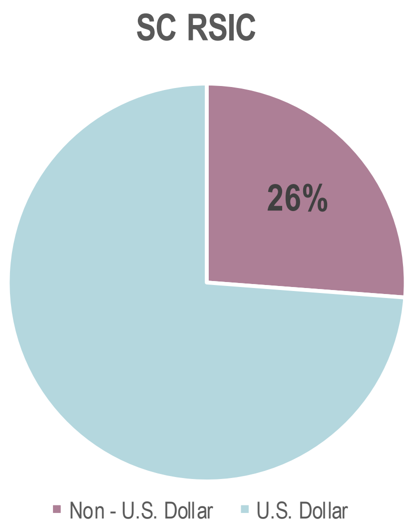


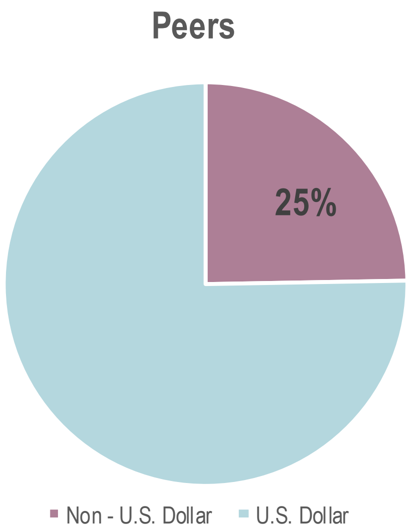
- Emerging market equities (MSCI Emerging Markets) are priced below their (brief) historical average.
- By this metric, emerging market equities are trading at a much lower valuation than U.S. equities, and at a lower valuation than non-U.S. developed market equities.

[9] Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of July 16, 2018.

Peers

- Most sophisticated investors have diversified portfolios with investments around the globe.
- RSIC has similar exposure to non-dollar denominated assets as peer pension plans[10].





[10] Over $5 billion

Conclusion

- RSIC is not an outlier (relative to peers) with its current non-U.S. dollar exposure.
- The three most common reasons to diversify into foreign investments and non-U.S. dollar investments include:
  - Non (low) correlation benefits
  - Growth opportunities outside the United States
  - Valuations are less expensive outside United States
- It is appropriate for RSIC to maintain a fully diversified portfolio with investment exposure around the globe.

South Carolina Retirement System Investment Commission

Currency Hedging

M E K E T A   I N V E S T M E N T   G R O U P
100 LOWDER BROOK DRIVE   SUITE 1100   WESTWOOD MA 02090
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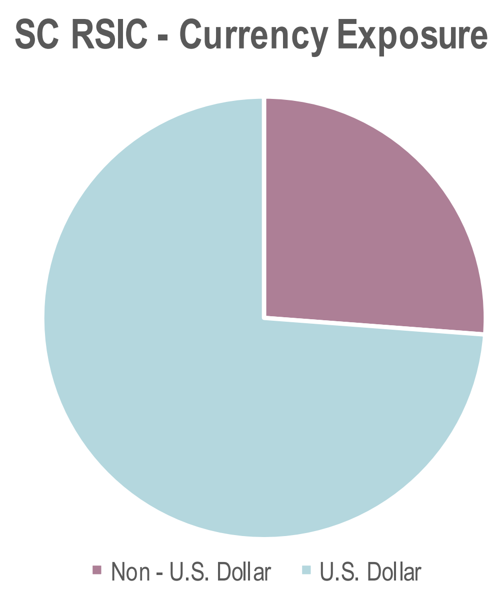
Investing in Foreign Currency Assets

- The vast majority of institutional investors in the U.S. diversify their portfolios by investing in foreign assets.
- We estimate[1] that roughly one quarter (26.2%) of RSIC's investments are in non-USD investments.
- This is consistent with peer plans (24.7%).



[1] Non-USD defined as developed ex-U.S. equity, emerging market equity, emerging market debt, foreign bonds and half of the exposure in each of the following asset classes: infrastructure and GAA. Peers are defined as public pension plans with more than $5 billion in assets. If you estimate that 20% of private equity, private debt and private real estate are invested in non-USD investments, RSIC's exposure increases to 33% and the peer exposure increases to 29%.

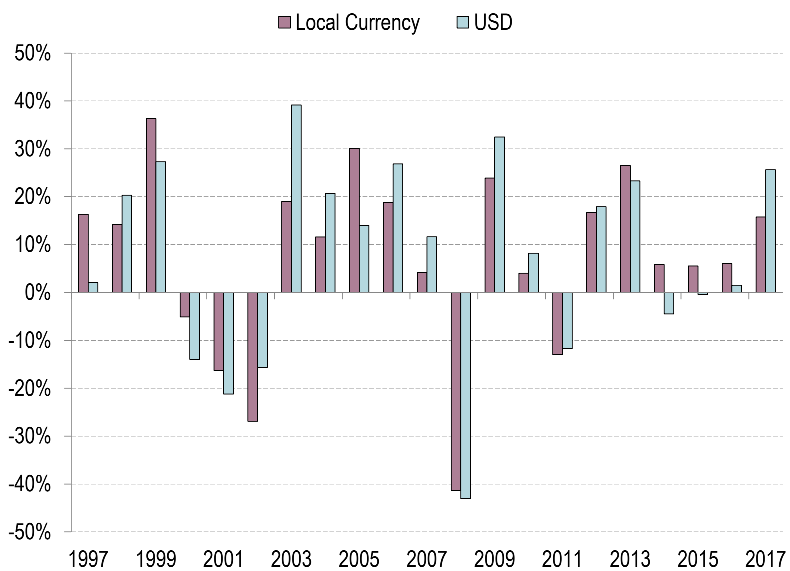
Currency Risk

- Investing in foreign assets exposes portfolios to a new risk: currency risk.

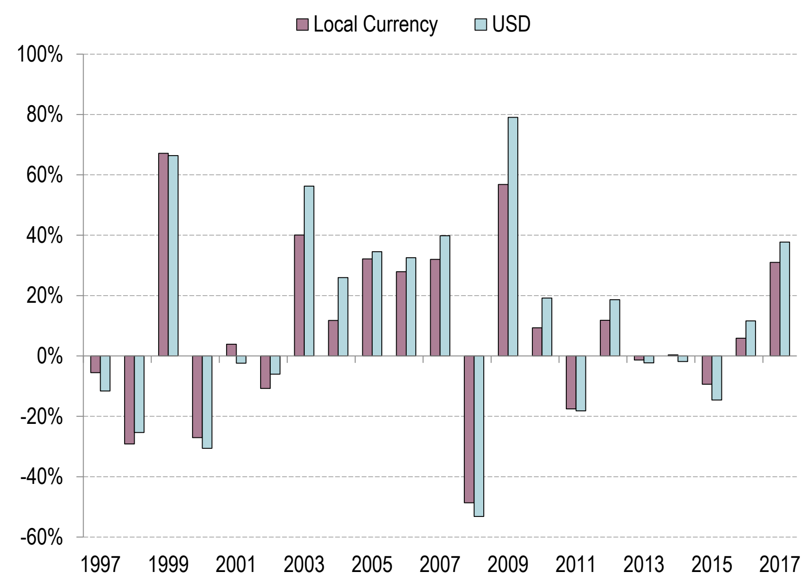
Currency Effect on Foreign Asset Returns

Calendar Year Returns: 1997 – 2017

MSCI EAFE



MSCI Emerging Markets

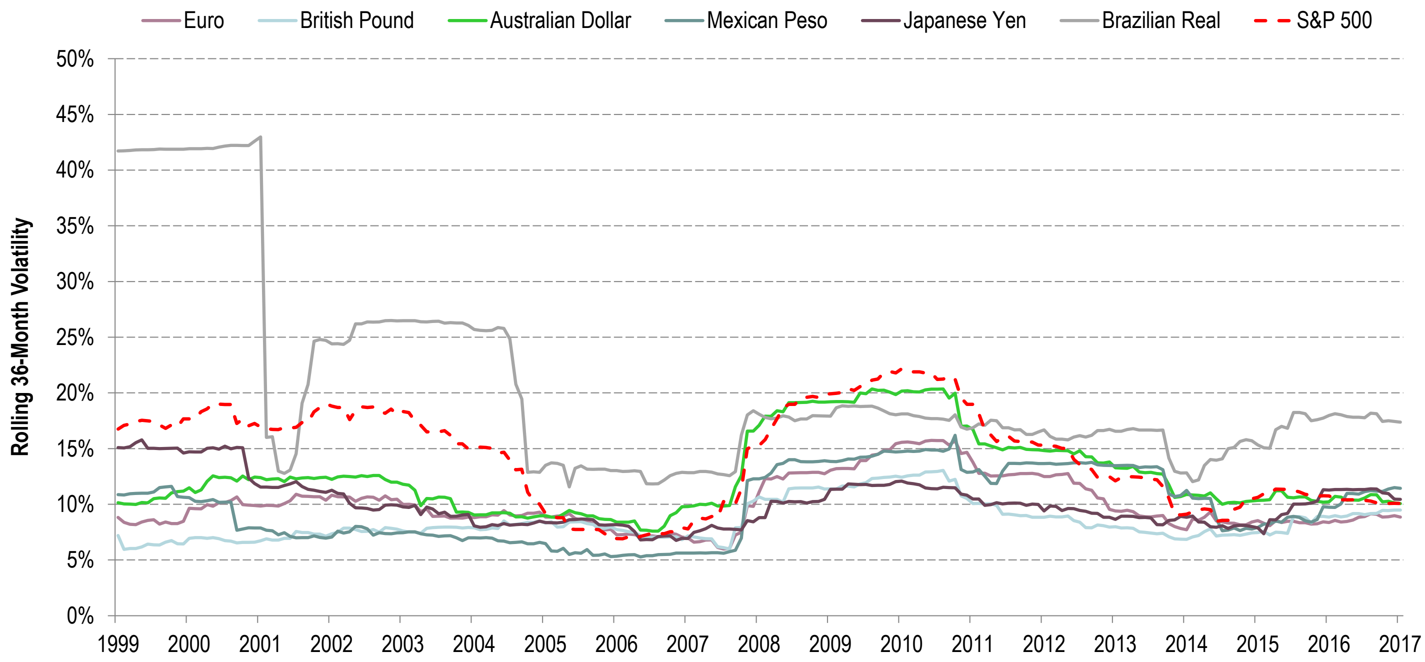


Currency Risk

- The majority of the value of the world's currencies is in free-floating currencies, meaning their value is for the most part determined by supply and demand dynamics in the open market.
- This dynamic introduces currency risk to foreign investments, because the future value of a currency cannot be accurately determined in advance.

Currency Volatilities Relative to U.S. Dollar

Monthly Returns: January 1997 – December 2017



Foreign Asset Returns

- The return of any foreign asset comes from two factors: the return of the assets in foreign currency and the return from the foreign currency relative to U.S. dollars (for a U.S. investor):

$$Foreign\ Asset\ Return_{USD} \approx Foreign\ Asset\ Return_{LC} + Foreign\ Currency\ Return$$

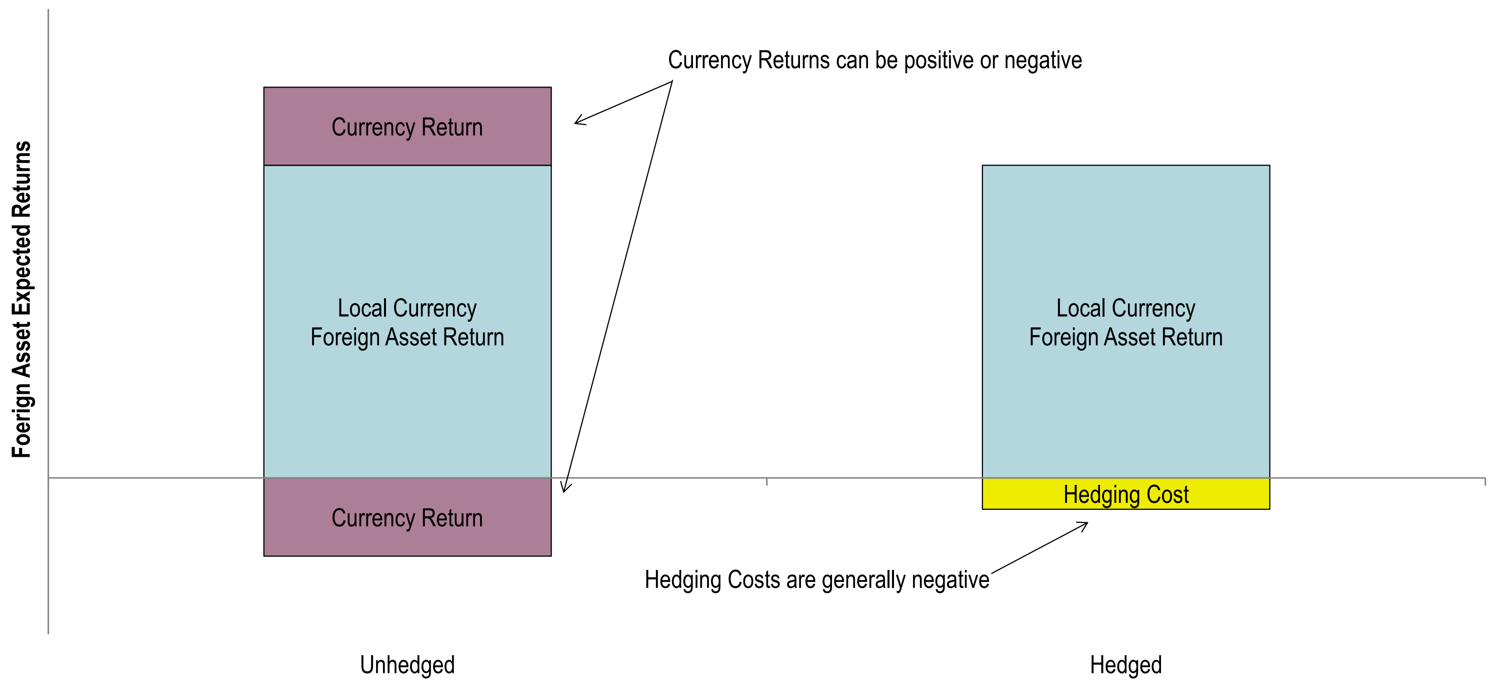
- In addition to affecting the total return of a foreign asset, foreign currency returns will also influence its risk:

$$Foreign\ Asset\ Risk_{USD} \approx Foreign\ Asset\ Risk_{LC} + Foreign\ Currency\ Risk + Correlation$$

Currency Hedging Introduction

- Investors that wish to reduce or eliminate exposures to unwanted risks in their portfolios may consider implementing a currency hedging strategy.
- Hedging currency risk requires entering into positions that counter the implied exposures introduced by investments in foreign currency assets.
- Currency hedges are most commonly managed using forwards, futures, options, and/or swaps.

Currency Hedging



Currency Hedging as an Investment Decision

Institutional investors can make a decision about how to deal with currency risk in their portfolios. The decision to hedge currency risk should be based on several factors, including:

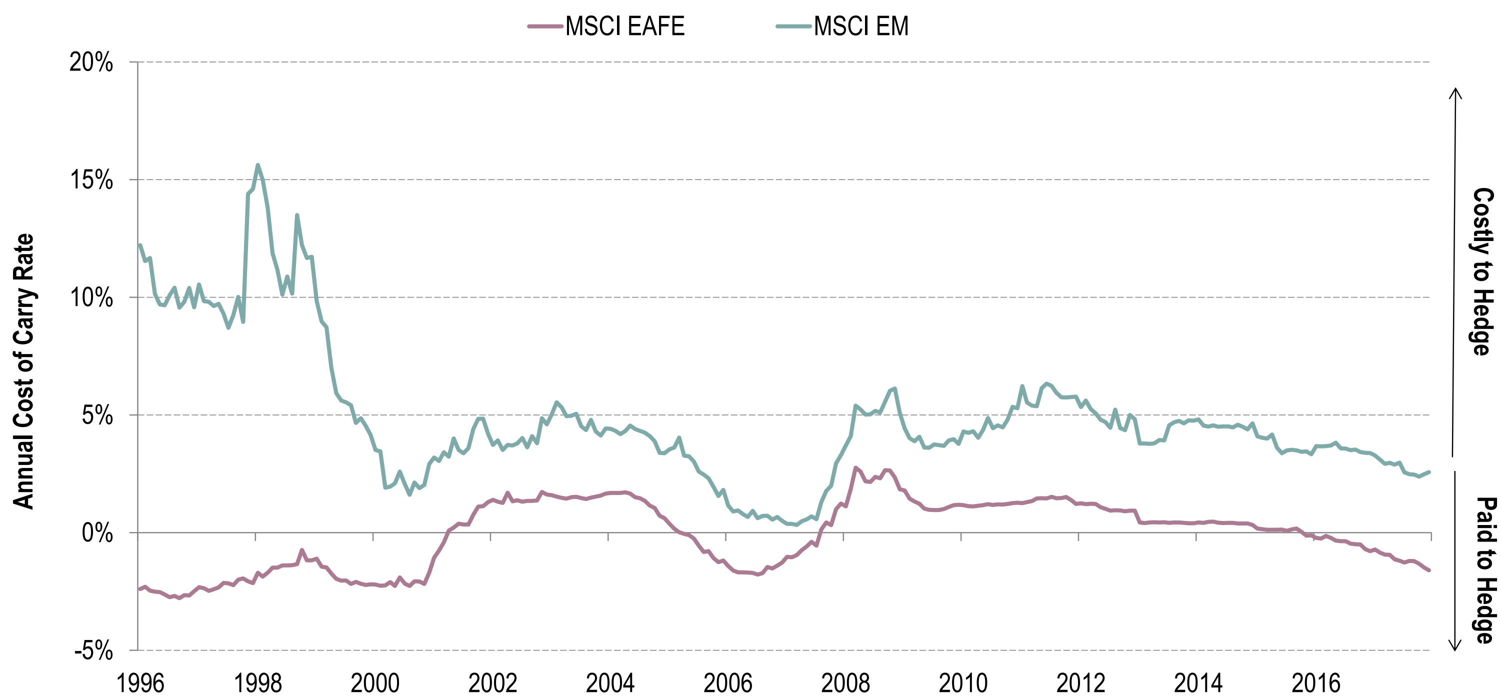
- Currency Outlook: If an investor expects positive returns from its currency exposures, hedging them will not be warranted.
  - From the perspective of a U.S.-based investor, a positive currency return will occur if the foreign currency is expected to appreciate against the U.S. dollar (i.e., the dollar is "weakening").
- Size of Foreign Currency Exposure: The larger the allocation to foreign investments, the more foreign currency risk there is in a portfolio.

Currency Hedging as an Investment Decision (Continued)

- Cost of Hedging: Hedging currency exposure through derivatives such as forwards and futures can be relatively inexpensive for developed market currencies. However, hedging emerging markets currencies tends to be more expensive.

Cost of Hedging[2]

Annual Rates: January 2006 – December 2017



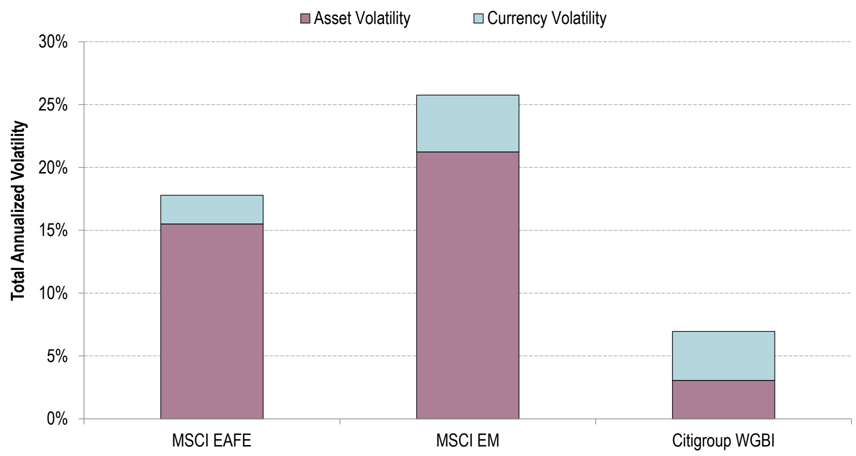
[2] Cost of Hedging defined as cost of carry, or the difference between the 3-month government bond rate of the given country and the 3-month U.S. Treasury bill rate. For each index, the weighted average cost is calculated based on a representative sample of currency exposures.

Currency Hedging as an Investment Decision (continued)

- Less volatile assets such as developed market investment-grade bonds can have their currency exposure hedged away with lower basis risk[3] than more volatile asset classes such as emerging market equities.
  - However, a hedged foreign bond portfolio will behave much like a U.S. bond portfolio (see chart), thus reducing the diversification benefits.

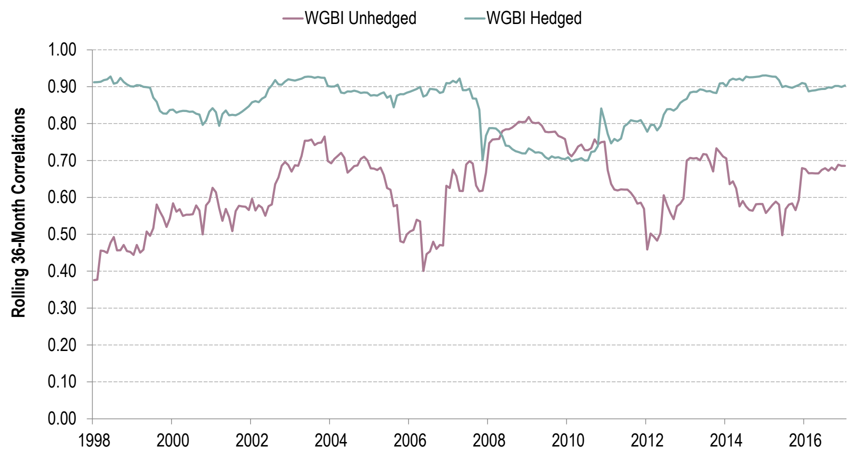
Asset and Currency Volatility

Monthly Returns: January 1997 – December 2017



Rolling Three-Year Correlations to Barclays U.S. Aggregate

Monthly Returns: January 1985 – December 2017



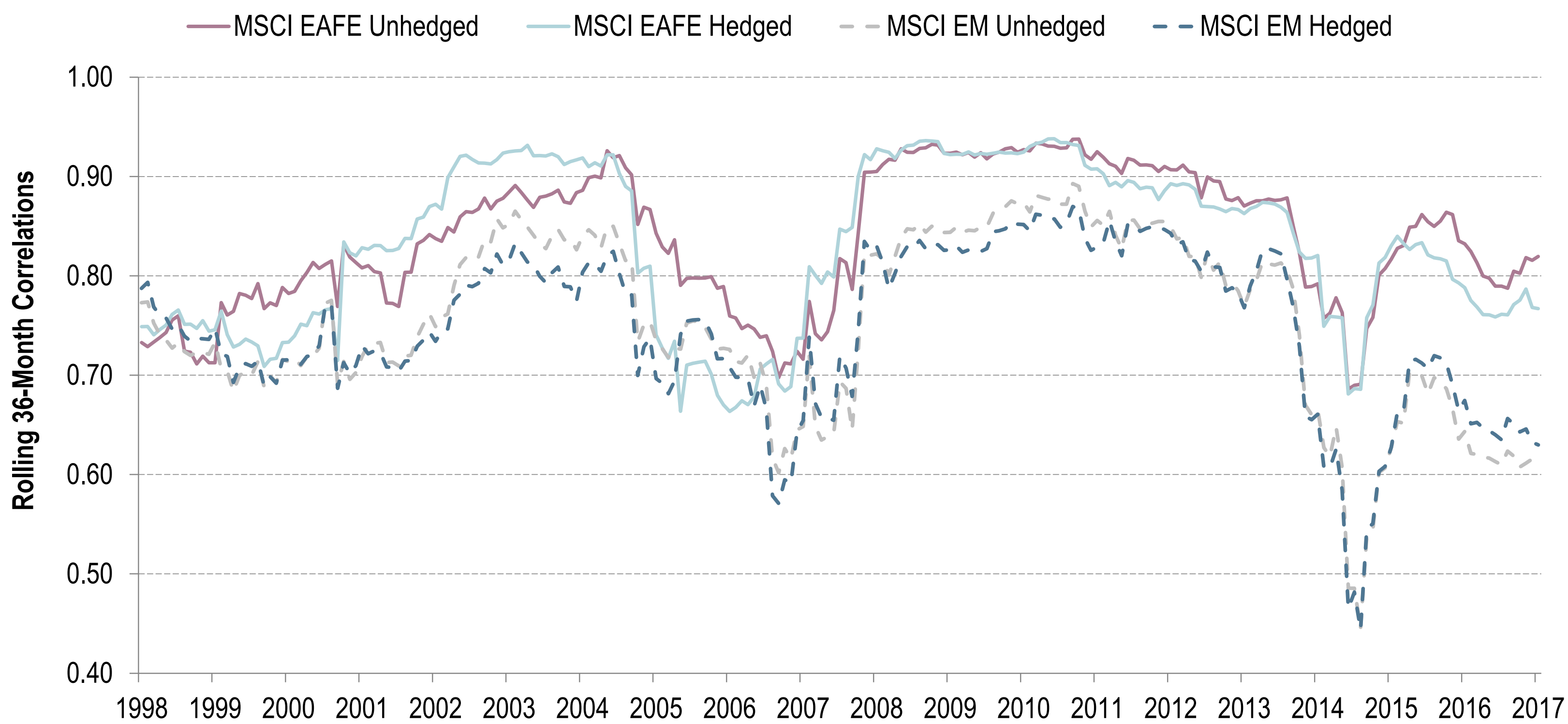
[3] Basis risk in this context refers to the mismatch between an established fixed currency hedge level and the variable rate of return of the foreign currency asset. If at the end of the hedging period, the value of the asset differs from the estimation used to establish the hedge, an undesired exposure remained.

Currency Hedging as an Investment Decision (continued)

- For international equities, on the other hand, hedging out their currency exposure has not led to a substantial increase in correlations to domestic equities historically.

Rolling Three-Year Correlations to S&P 500

Monthly Returns: January 1971– December 2017

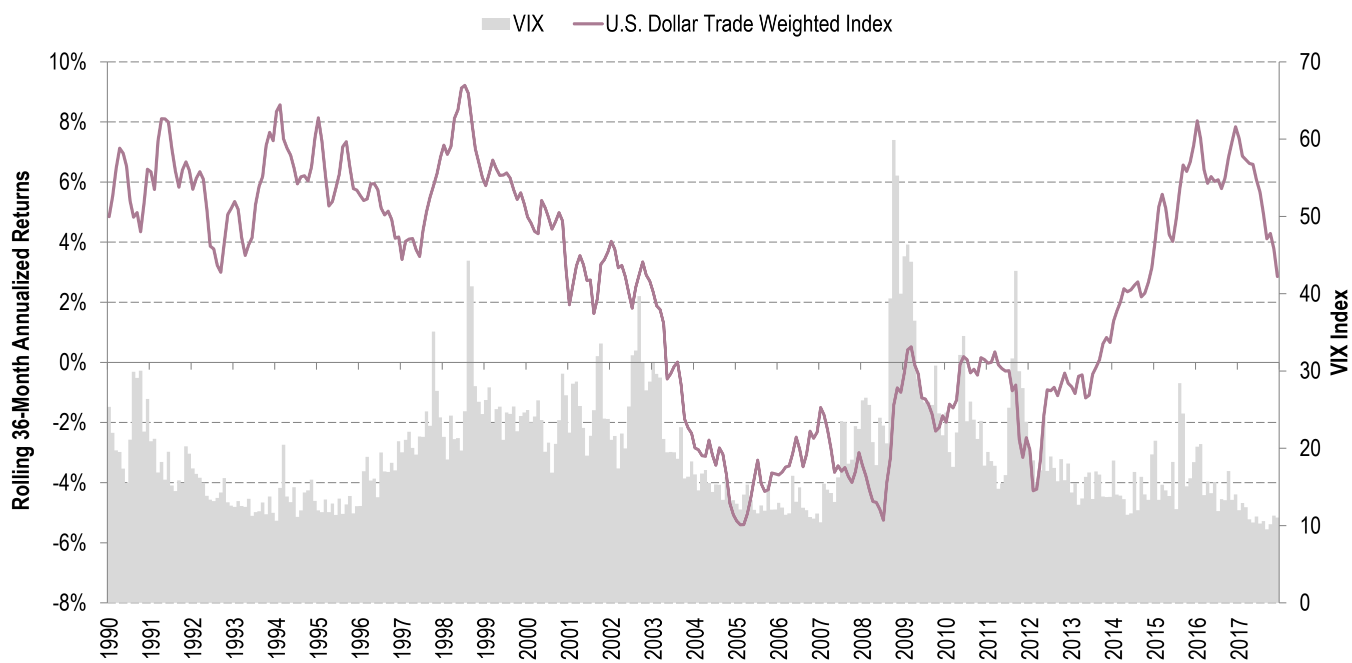


Currency Hedging as an Investment Decision (continued)

- Correlation between foreign currencies and securities: Currency returns with negative correlations to asset returns can be risk diversifiers to a foreign investment. However, correlations vary over time and tend to rise in periods of stress.
  - In general, the higher the correlation between a currency and a foreign asset, the stronger the case for hedging the exposure.

Foreign Asset and Currency Return Correlations

Monthly Returns: January 1988– December 2017



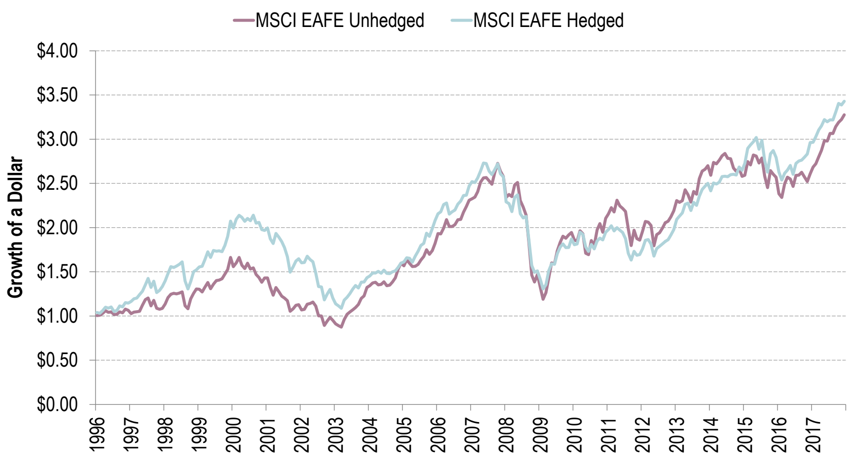
Recent History as a Guide

- The case for hedging based on historical returns varies by region and asset class.
  - For example, U.S.-based investors would have been better off hedging their foreign currency exposure to developed market equities over the last 20 years.
  - In contrast, fully hedging would have proved highly detrimental in emerging market equities.

Growth of a Dollar

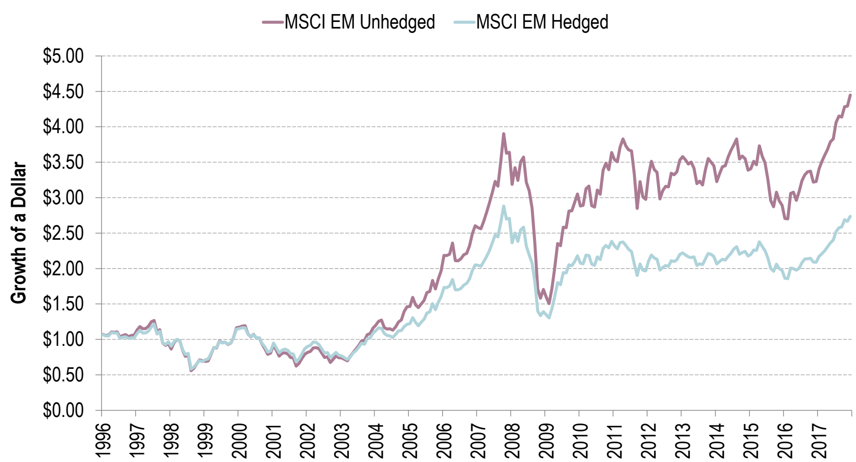
International Developed Markets Equities[4]

Monthly Returns: January 1996 – December 2017



Emerging Markets Equities

Monthly Returns: January 1996 – December 2017



4 Hedged returns for MSCI EAFE (Chart 9), MSCI EM (Chart 10), and WGBI (Chart 11) include cost of hedging based on cost of carry analogous to the cost of hedging seen in Chart 4.

How Much to Hedge

- With regard to the amount of foreign currency exposure to hedge, generally defined as the "hedge ratio[5]," practitioners and academics have advocated for various levels:
  - No hedge at all (a 0% hedge ratio).
  - Full hedge (100% hedge ratio).
  - A 50% hedge ratio, the midpoint between full hedging and no hedging, is often chosen as a starting point for a currency hedging program, as it is viewed as minimizing regret (it is "half right all the time" rather than "fully wrong half the time").
- Meketa Investment Group recommends determining the amount of currency risk to hedge under a total portfolio framework, taking into account the tradeoffs of the various risks that foreign assets introduce to a portfolio.

[5] Hedge Ratio = % Foreign Currency Exposure Hedged / Total Foreign Currency Exposure.

How Much to Hedge – Historical Example

- Historically, a diversified portfolio would have produced the highest absolute return by only hedging its developed markets foreign currency exposure, but only with a slight outperformance.
- This portfolio would also have produced the best risk-adjusted returns.

Impact of Hedging on Historical Return & Risk for a Diversified Portfolio[6]

Monthly Returns: January 1996 – December 2017

	Unhedged Portfolio	Fully Hedged Portfolio	Half-Hedged Portfolio	Portfolio That Fully Hedges Developed Markets Only
Annualized Return	8.0%	7.8%	7.9%	8.1%
Standard Deviation	12.1%	11.3%	11.7%	11.7%
Sharpe Ratio	0.48	0.49	0.48	0.50

[6] The Diversified Portfolio is represented as 40% US equities, 10% EAFE equities, 10% EM equities, 10% core real estate, 10% US bonds, 10% US TIPS, 5% high yield bonds, 5% foreign bonds. Returns are net of estimated cost of hedging.

How Much to Hedge – Historical Example (continued)

- Hedged portfolios have tended to do better during periods of extreme market stress.
- This was notably true during the two most negative scenarios of the past twenty years: the GFC and the popping of the dot.com bubble.

Historical Return Scenario Analysis for a Diversified Portfolio[7]

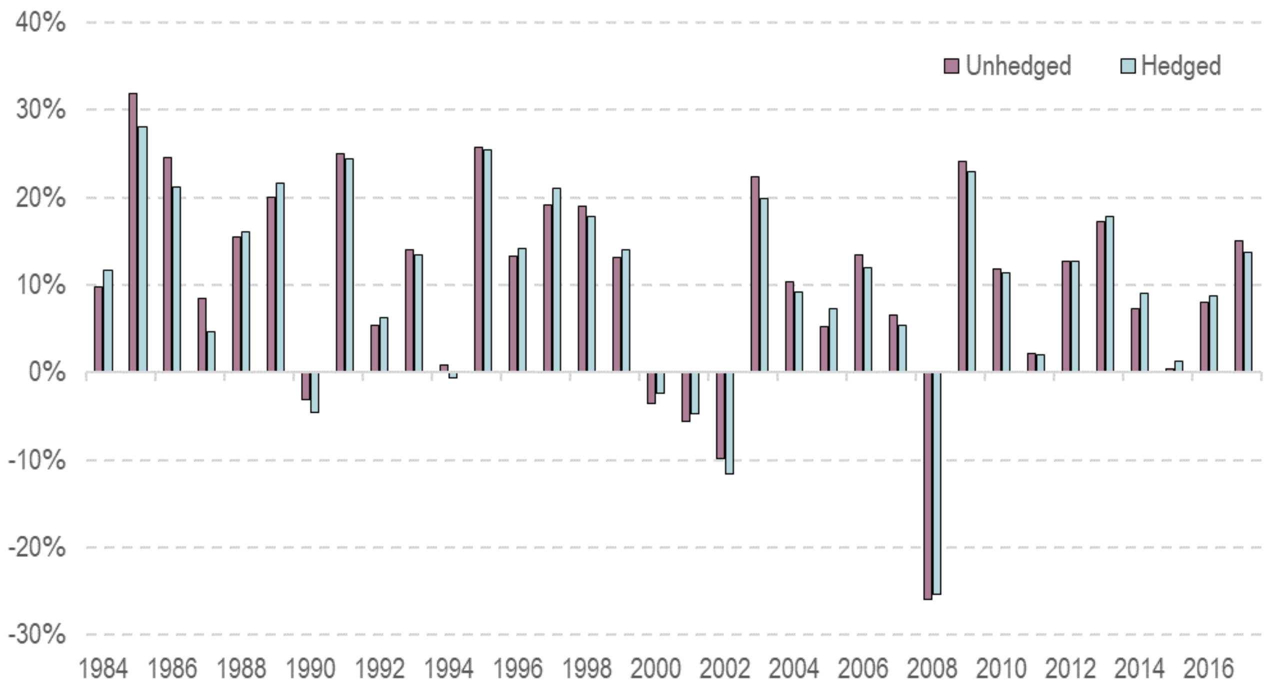
Scenario:	Unhedged Portfolio (%)	Fully Hedged Portfolio (%)	Half-hedged Portfolio (%)	Portfolio That Fully Hedges Developed Markets Only (%)
Global Financial Crisis (4Q07 thru 1Q09)	-30.1	**-28.7**	-29.4	-29.8
Popping of dot.com Bubble (2Q00 thru 3Q02)	-16.9	**-15.1**	-16.0	-16.5
Interest Rate Spike (1994)	1.3	**1.8**	1.6	0.5
Crash of 1987 (Sept thru Nov 1987)	**-13.9**	-15.5	-14.7	-14.5
Strong U.S. Dollar (1Q81 thru 3Q82)	1.8	**8.5**	5.2	4.4
Volcker Recession (January thru March 1980)	-5.5	**-4.0**	-4.8	-4.9
Stagflation (1Q73 thru 3Q74)	-24.5	**-25.4**	-24.9	-24.8

[7] The Diversified Portfolio is represented as 40% US equities, 10% EAFE equities, 10% EM equities, 10% core real estate, 10% US bonds, 10% US TIPS, 5% high yield bonds, 5% foreign bonds. The cost of hedging is not included in these historical scenarios.

Potential Differences vs. Peers

- Hedging would introduce additional tracking error as most public pension plans do not hedge their foreign currency exposure.
- In any given year, a hedge could be additive or detractive, depending on the performance of the US dollar.
  - On average, the difference has been 0.3% per year, but has been as much as 3.9% per year.

Calendar Year Performance of Hedged vs. Unhedged 60/40 Portfolio[8]



[8] The 60/40 portfolio is represented as 45% US equities, 15% EAFE equities, 30% US bonds, 10% high yield bonds. The cost of hedging is not included.

Implementation Options

- Some of the most common ways for institutional investors to establish currency-hedging programs that function as overlays to their portfolio exposures are the following:
  - In-House Currency Management: Requires sufficient governance and infrastructure capabilities to managed currency derivatives trading.
  - Passive Management: A passively-managed program will define some basic rules regarding hedge ratio, currencies to hedge, and tenor of hedges[9] to establish rules-based static hedging programs. This is the least expensive solution in terms of fees, yet is also the least flexible.
  - Semi-Active Management: Similar to passive managers, semi-active managers employ systematic, rules-based programs to manage currency hedging, with the advantage of having more flexibility to implement time-varying hedging ratios.[10]
  - Active Currency Management: Return rather than hedging oriented.

[9] The tenor of hedges refers to the maturity of the derivatives, generally forwards, used to implement the currency hedge. One to three month maturity contracts are the most widely used.
[10] A semi-active currency hedging strategy may have a 50% hedge ratio target but flexibility to vary the hedging ratio between 30% and 70% to attempt to capture additional currency returns.

Potential Challenges

- Many investors who have considered engaging in currency hedging have opted against it. Some of the challenges include:
  - Most of their peers do not do it.
  - Short-term divergence from the benchmark (i.e., tracking error).
  - It makes performance attribution harder to calculate.
  - Challenging to explain to stakeholders and beneficiaries.
  - Bad experience with timing (e.g., starting a hedging program when the USD is weakening).
  - Adds complexity, particularly via margin calls or monitoring an overlay manager.

Conclusions

- While strategic currency hedging decisions can provide risk reduction, slight risk-adjusted return improvements, and a better match between assets and liabilities, this comes with the trade-off of added hedging costs and operational complexity.
- When evaluating the decision of hedging foreign currency exposure, investors need to consider several factors, including:
  - Outlook on the prospective returns and volatility of foreign currencies: any currency with an expected negative return and/or high volatility is a better candidate for being hedged.
  - Expected correlation between foreign assets and foreign currency returns: the higher the correlation the more likely the exposure should be hedged.
  - Size of foreign currency exposure in portfolio: the larger the size of the overall exposure to foreign currencies, the more likely that at least a portion of it should be hedged.
  - Types of foreign assets in the portfolio (equities, bonds, or others): contrary to foreign bonds, hedging currency exposures of foreign equities has not led to increased correlations to their domestic counterparts.
  - Perhaps most importantly, the cost of hedging: the higher the cost of hedging, the more likely that the given currency exposure should be left unhedged.

Recommendations

- We recommend that RSIC consider *strategically* hedging some or all of its currency exposures for international developed market equities.
- Emerging market currencies are generally much more expensive to hedge, so we prefer to leave their exposures unhedged.
- Meketa Investment Group does not recommend implementing *tactical* currency hedging decisions or programs.
  - Currencies can be very volatile and we believe it is quite difficult to predict their expected return over the long term.
- Because RSIC has dedicated investment staff, it has multiple options available for hedging.
  - Its options include managing an internal overlay, using an external overlay manager, or using "hedged" products when offered by managers in public and private markets.
- A hedging program would require constant monitoring.
  - The decision to hedge should be re-evaluated periodically, as changes in interest rates can lead to changes in hedging costs.

Delegated Investments (June 15, 2018 – November 7, 2018)

Asset Class	Investment	Investment Amount	Closing Date
Private Equity	Providence Equity Partners VIII, LP	$150 M	7/6/18
Global Public Equity	Man Numeric Emerging Markets Small Cap	Up to 1% of Plan Assets	7/30/18
Private Equity	Hellman and Friedman Capital Partners IX, LP	$60 M	9/24/18
Private Credit	Owl Rock First Lien Fund	$200 M	9/28/18
Real Estate	Brookfield Strategic Real Estate Partners III	$100 M	10/2/18
Private Equity	Brookfield Capital Partners V	$150 M	10/12/18
Private Credit	KKR Lending Partners III, LP	$215 M	11/2/18

Providence Equity VIII

Derek Connor, CFA, CAIA

Providence Equity VIII Investment Summary

- $150M commitment to upper middle market buyout fund focused on TMT and Education sectors
- Targets companies between $500M-$2B enterprise value
- Focused on investing in companies based in North America and Europe
- Develops investment themes across its targeted industries that drive sourcing
- Pursues platform opportunities in which growth can be accelerated through accretive M&A opportunities
- Turnaround story after period of underperformance

Providence Equity Overview

New Relationship for RSIC

- Recently committed $75M to Providence's growth equity product (PSG III)
- Experience executing buy and build playbook is attractive in current environment

Firm

- Providence was founded in 1989 and has buyout, growth equity and credit products
- Team of 50 investment professionals dedicated to Providence Equity
- Significant organizational and investment process changes implemented in 2012
- Invested over $24B across 136 companies and executed 283 add-ons

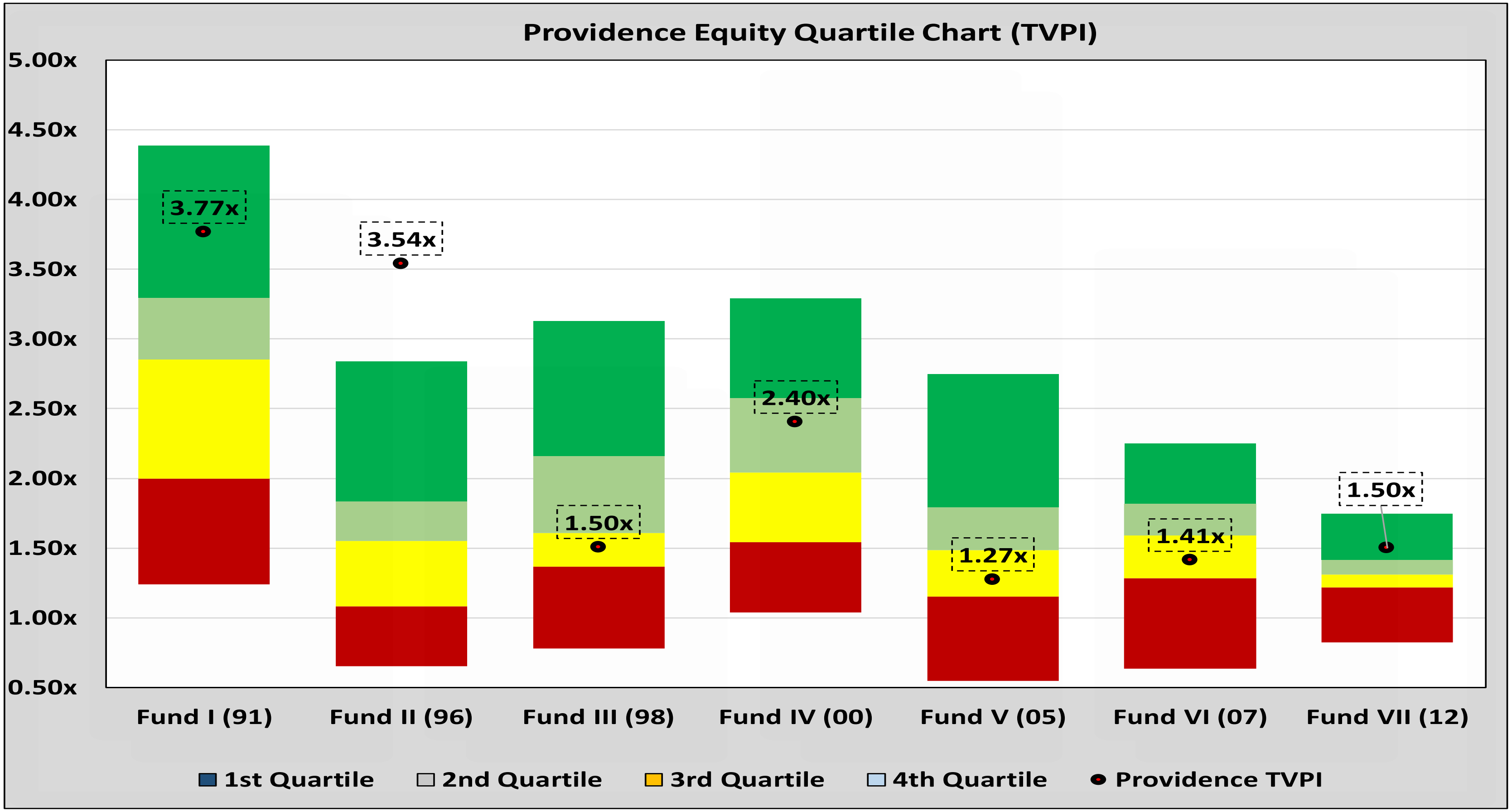
Performance

- Fund VII is experiencing top quartile performance relative to Cambridge private equity universe and significant outperformance compared to RSIC PE policy benchmark
- Strong track record in Europe with ability to leverage resources of a global firm

Concerns/Risks

- Performance of Fund V and Fund VI
- Large unrealized portfolio of legacy assets

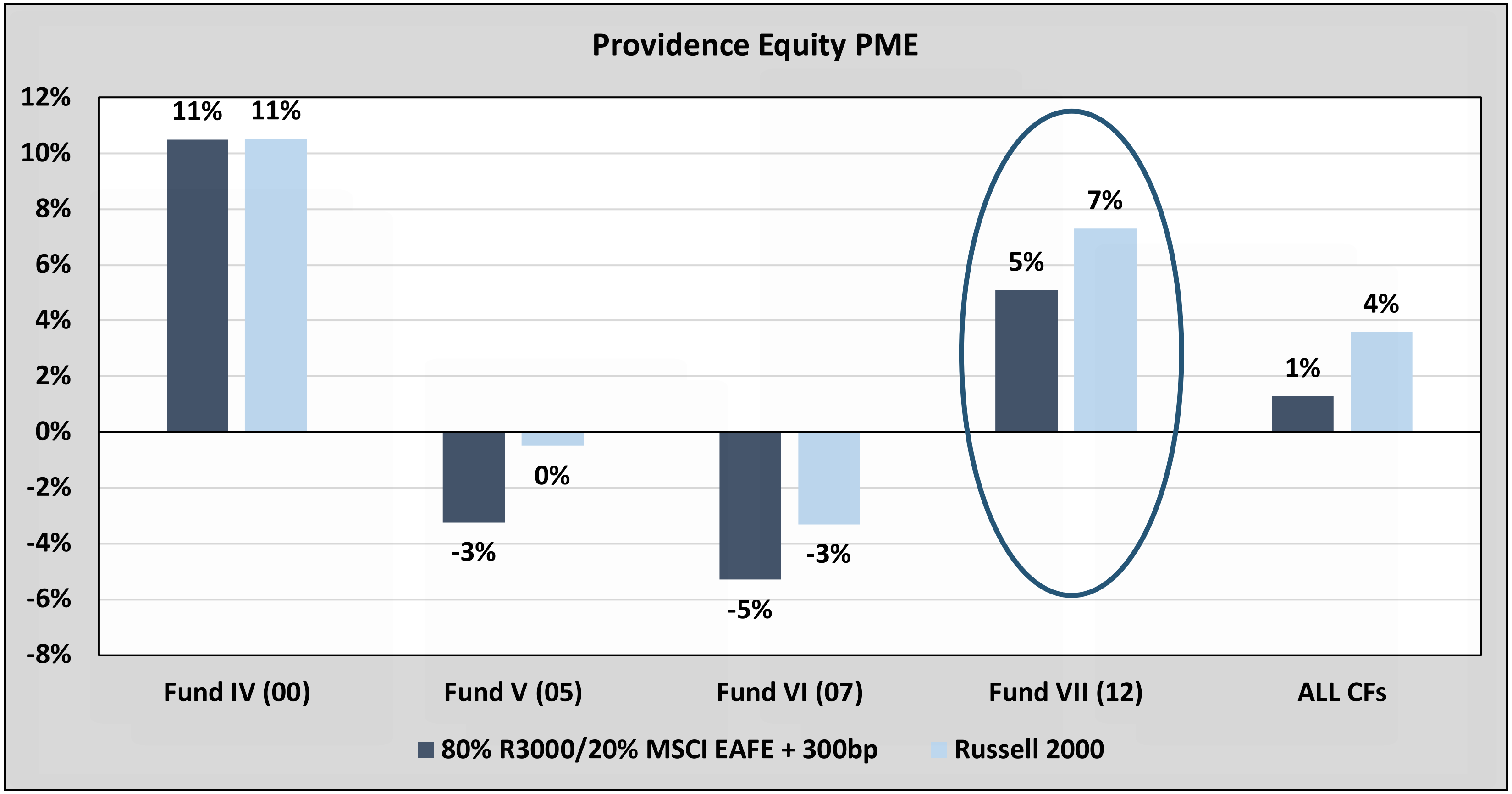
Providence Equity Performance Quartiles (TVPI) 199



- ***Fund V (vintage 2005) and Fund VI (vintage 2007) underperformed relative to Cambridge universe***
- ***Fund VII (vintage 2012) is top quartile and reflective of organizational and investment process changes***

Data Source: Providence (as of 9/30/17) and Cambridge Associates U.S. and European Buyout universe (as of 6/30/17)

Providence Equity PME Analysis



- *Fund V and Fund VI underperform both Russell 2000 and RSIC PE policy benchmarks*
- *Providence VII is exhibiting significant outperformance vs. public benchmarks*

Note:
* Policy benchmark is 80% Russell 3000 + MSCI EAFE + 300 basis points (lagged one quarter)

Providence VIII Terms

Commitment Allocation:	$150M
Fund Size:	$5B
GP Commitment:	At least 5% of aggregate commitments
Investment Period:	6 Years
Management Fee:	1.5% on committed capital
Carried interest:	20%
Preferred Return:	8%; 100% catchup
Term:	10 Years ; Three 1 year extensions with Advisory Committee consent
Timing:	March 2019 (estimated)

Man Numeric Emerging Market Small Cap Core Equity

Kevin Matherly
Alan Bevard

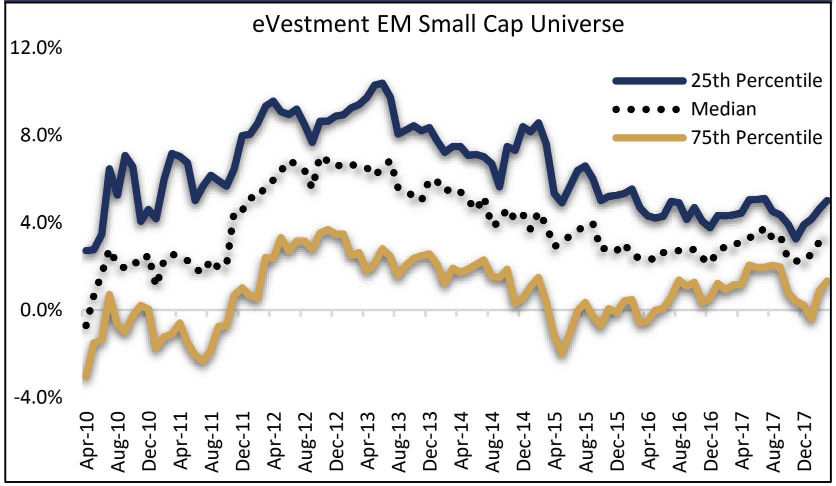
Investment Summary

- Investment gives the portfolio dedicated core exposure to Emerging Market small cap equity
- Expands relationship with a high conviction manager
- Numeric uses fundamentally based stock selection models to identify attractive stocks with the goal of outperforming a passive benchmark
- Negotiated a performance based fee

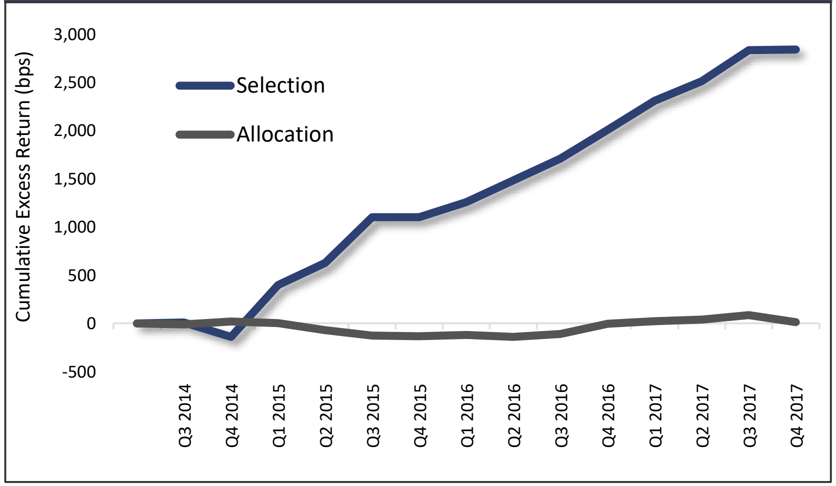
Investment Rationale

- Dedicated exposure to EM small cap equity
  - Logical portfolio fit & higher historical returns vs. large cap
  - Positive market outlook
- Compelling case for active management
  - Inefficient market segment
  - High percentage of active managers outperforming the benchmark
  - Expectations: 3.0-5.0% excess return
- Why Man Numeric?
  - Strong evidence of consistent alpha generation from systematic approach
  - Firm culture and alignment with clients

Active management: Rolling 3YR excess return



Stock selection driving consistent outperformance



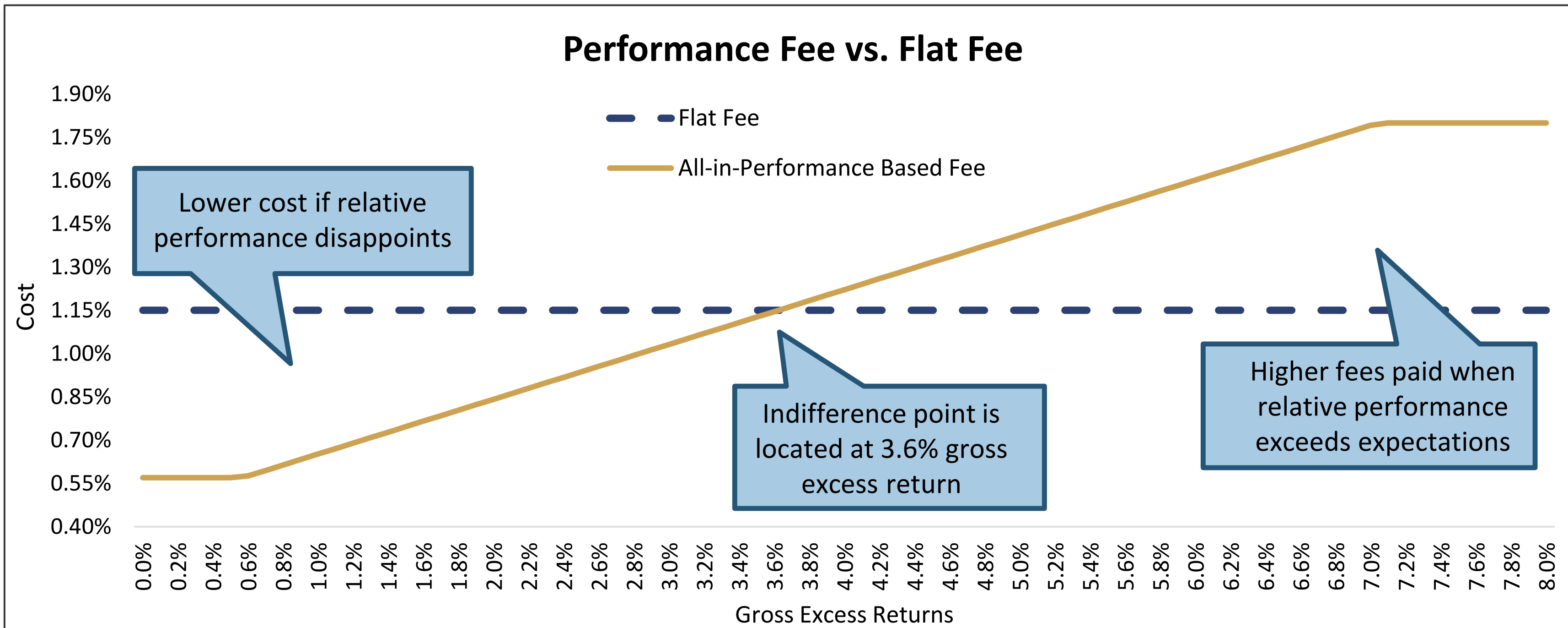
Considerations

- Short track record
  - Mitigant: Subset of broader EM strategy dating back to April 2010
- Concentrated client base in the strategy
  - Mitigant: Preference for stringent capacity limits
- Key person risk: Head of International Strategies
  - Mitigant: Member of Investment Committee

Performance Fee vs. Flat Fee Comparison

- Typical flat management fees in this asset class are 100-125bps
- Performance fee offers RSIC downside protection if relative returns disappoint with a tradeoff of paying a higher all-in fee if the strategy exceeds expectations

	Flat Fee	Base + Performance Fee					
	Mgmt Fee	Mgmt Fee	Carry	Cap	Indifference Point	Max Payout	Alpha Kept at Max Payout
Numeric EME SC	1.15%	0.57%	19%	1.8%	3.6%	7.0%	74%



Investment Overview

- Allocation up to 1.0% of Plan assets to Numeric Emerging Markets Small Cap Core Offshore Fund Ltd.
- Base + Performance Fee:
  - Base Fee: 57bps
  - Performance Fee: 19% carry on excess returns over the benchmark net of base fee
  - Max Fee Cap: 1.8%
- RSIC Operational Due Diligence team provided a Pass Rating

Hellman & Friedman IX ("H&F IX")

Derek Connor, CFA, CAIA

H&F IX Investment Summary

- $60M commitment to Hellman & Friedman IX ("H&F IX")
- Target Company Size: $500M-$3B equity
- Primarily invests in North America and Europe
- Pursues buyout investments in broad range of industries
- Invests in high quality companies with strong and defensible positions
- Concentrates resources on small basket of companies

H&F Overview

New Relationship for RSIC

- Buyout is a core strategy for the RSIC PE portfolio
- Best in class large cap buyout general partner will upgrade PE portfolio

Firm

- H&F was founded in 1984 and raised first institutional fund in 1987
- Invested nearly $27B across 82 companies
- Single product buyout firm

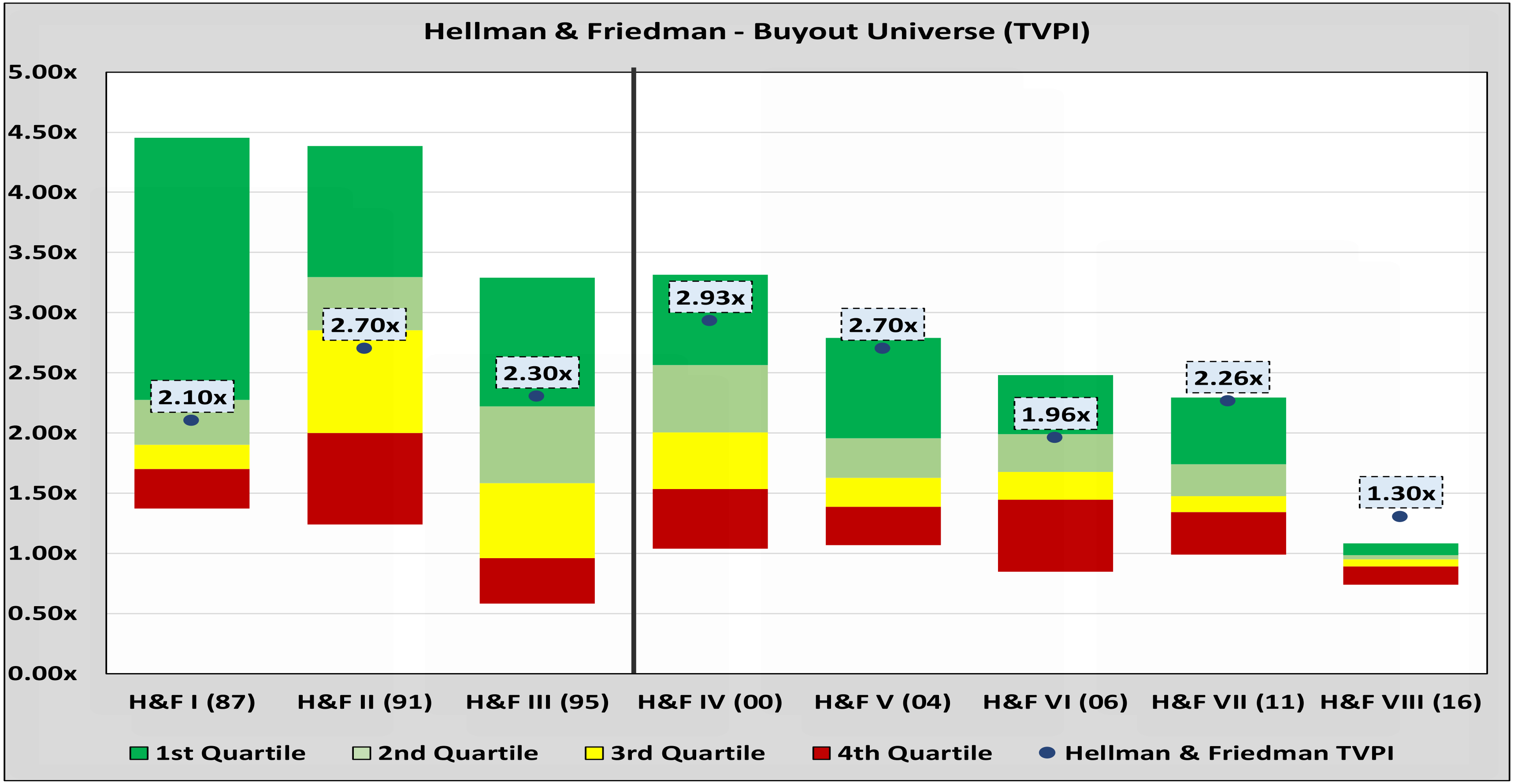
Performance

- H&F has consistently outperformed public and private markets
- Strong returns across sectors, geographies and deal types

Concerns/Risks

- H&F IX does not have a hurdle rate
- Succession plans

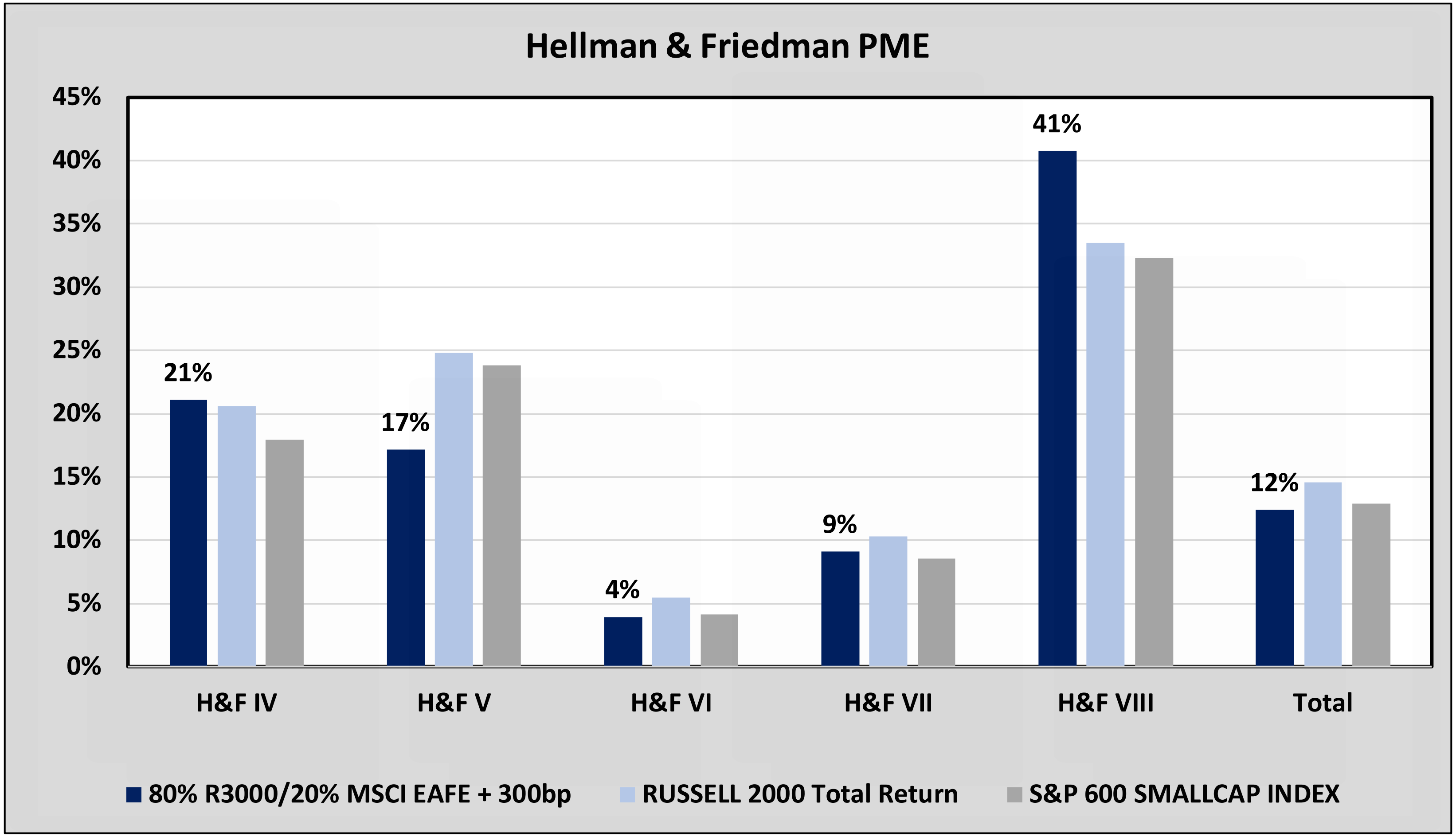
H&F Performance Quartiles Net TVPI



- *5 of the last 6 H&F funds are top quartile based on TVPI (consistent with IRR)*
- *Fund VI (vintage 2006) on the cusp of top quartile vs. Cambridge universe*

Source: Cambridge Associates – US and Europe Buyout Universe

H&F Fund-Level PME Analysis



- *Last 5 funds significantly outperforming all three public market benchmarks*
- *Fund IV – Fund VIII aggregate outperformance of 1,200 basis points vs. policy benchmark*

H&F IX Terms

Commitment Allocation:	$60M
Fund Size:	$15B
GP Commitment:	At least $1B
Investment Period:	6 Years
Management Fee:	1.50% on committed capital during IP
Carried interest:	20%
Preferred Return:	None
Term:	10 Years; One two year extension with Advisory Committee consent
Timing:	Fund Close 9/13/2018 (estimated)

Brookfield Capital Partners V ("BCP V")

Derek Connor, CFA, CAIA

BCP V Investment Summary

- $150M commitment to Brookfield Capital Partners V (“BCP V”)
- Target Company Size: $200M-$600M equity
- Leverage broader Brookfield platform’s real assets expertise
- Focus on buyout and distress for control investments in industrials, energy, real estate services, and infrastructure services
- Pursues contrarian approach to finding value
- Operations-oriented approach to investing

BCP V Overview

Existing Relationship for RSIC

- Buyout and distressed for control are two core strategies of RSIC PE portfolio
- Brookfield is a core RSIC private markets manager
- Potential for significant co-investment opportunities

Firm

- Brookfield's PE team was founded in 2001 and invested over $11B
- BCP has team of 75 investment professionals with fully-integrated Operations team
- Brookfield also manages Real Estate and Infrastructure platforms

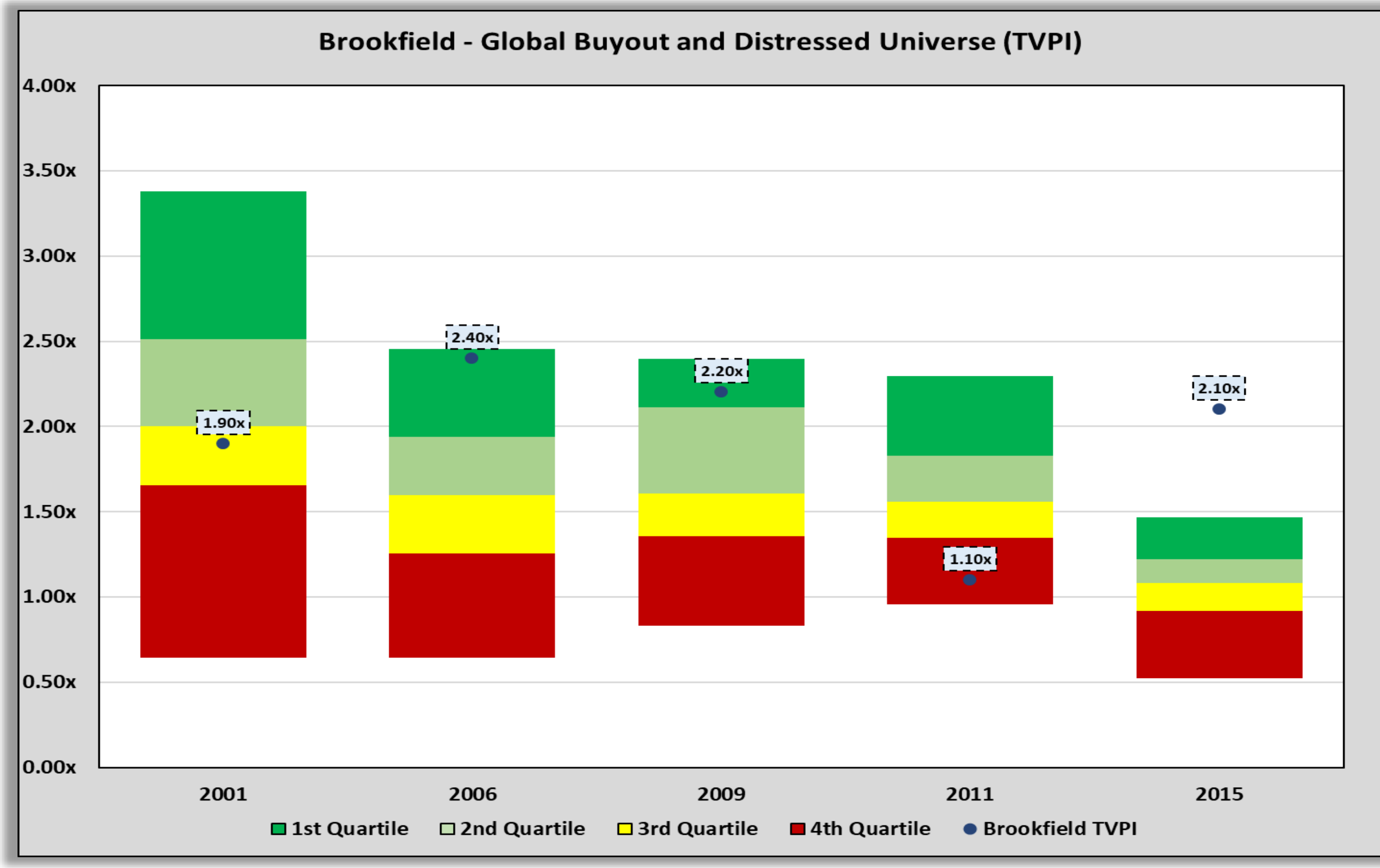
Performance

- Strong track record of performance across market cycles

Concerns/Risks

- Poor performance of Fund III and potential style drift
- Turnover within the senior ranks of BCP

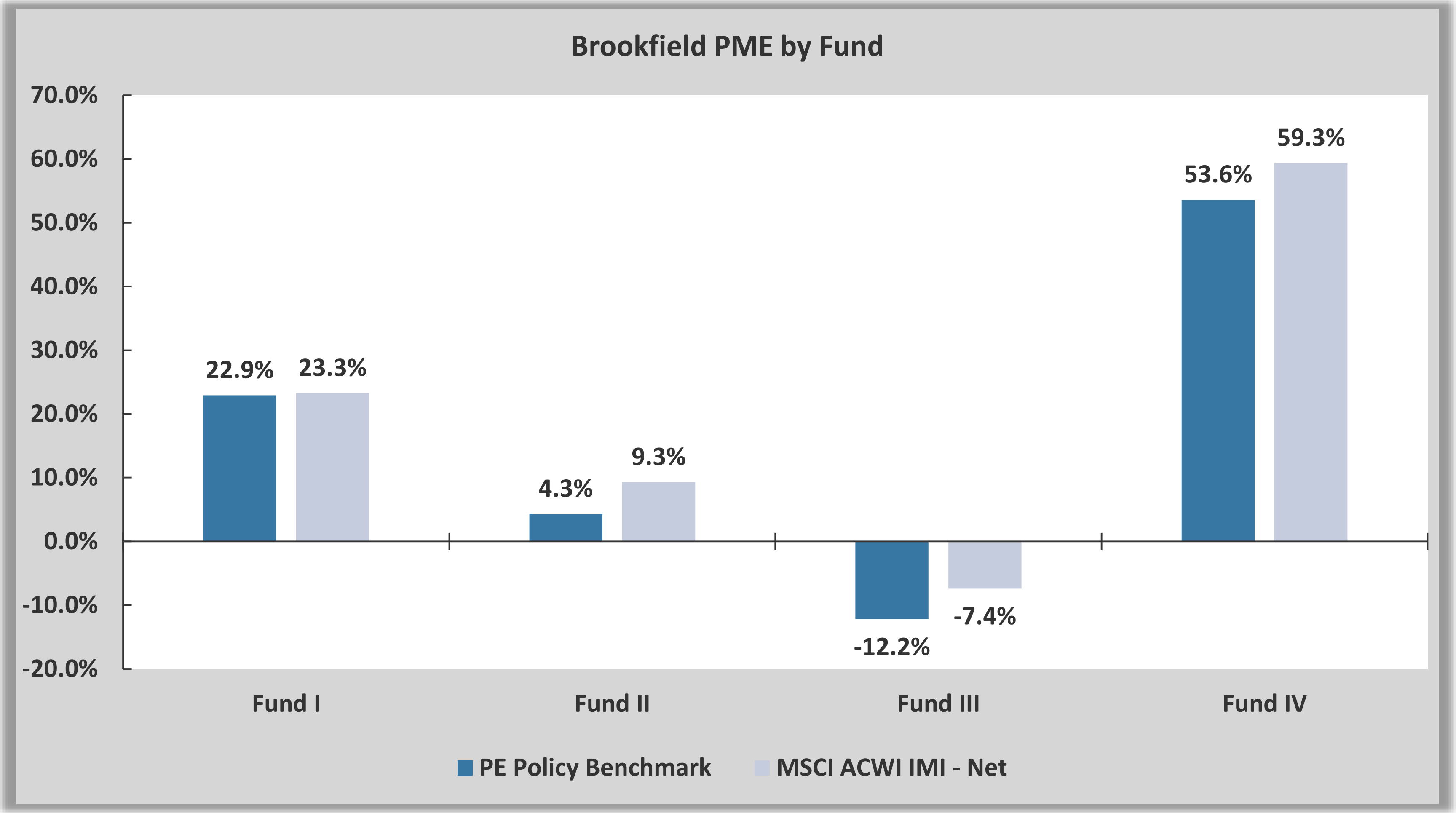
BCP Performance Quartiles Net TVPI



- ***3 of the 5 BCP funds are top quartile based on TVPI vs. Cambridge universe***

Source: Cambridge Associates Global Buyout and Distressed universe

BCP Fund-Level PME Analysis



- ***BCP I, BCP II, and BCP IV experiencing significant outperformance vs. public benchmarks***

BCP V Terms

Commitment Allocation:	$150M
Fund Size:	$7B
GP Commitment:	At least $3B (funded through BBP)
Investment Period:	4 Years
Management Fee:	1.458% on committed capital during IP
Carried interest:	20%
Preferred Return:	8%
Term:	10 Years; Two one-year extensions with Advisory Committee consent
Timing:	Fund Close 12/31/2018 (estimated)

Brookfield Strategic Real Estate Partners III

Eric Rovelli, CFA
Chris Alexander
Chris Radic, CFA

Investment Summary

- **$100M commitment to Brookfield Strategic Real Estate Partners Fund III**
- **RSIC invested in Funds I & II:** Invested in both of the prior funds within this series
- **Fund size: $11B closed, $14B hard cap**
  - Manager commitment: greater of $2.5B or 25% of the Fund
  - $4.6B already invested across nine transactions
- **Return target:**
  - 20% gross IRR (16% net) and 2.0x gross multiple (1.7x net)
- **Geographic Exposure:**
  - BSREP will invest globally with a 50/50 split between U.S. and non-U.S.
- **Control & Value Investor:**
  - Mostly controlling equity positions but may include distressed loans & toe holds
  - Acquire on a value basis and utilize operational expertise to drive cash flows
- **Contrarian and Complex Deals:**
  - Seek out larger more complex deals and out of favor sectors

Target Fund Investment Profile

- **Large Scale / Portfolio – 70%**
  - Build/Acquire platform and aggregate assets
  - Acquire existing portfolio of assets

- **Single-asset Acquisition – 30%**
  - Acquire large assets one-off

- **Lending and Toe Holds – No target**
  - Distressed loans on assets willing to own
  - Positions in public equity and debt

Brookfield Overview

- **Brookfield:** Since 1987, Brookfield has invested $49B of equity in real estate, including approximately $18.3B through five multi-sector opportunistic funds

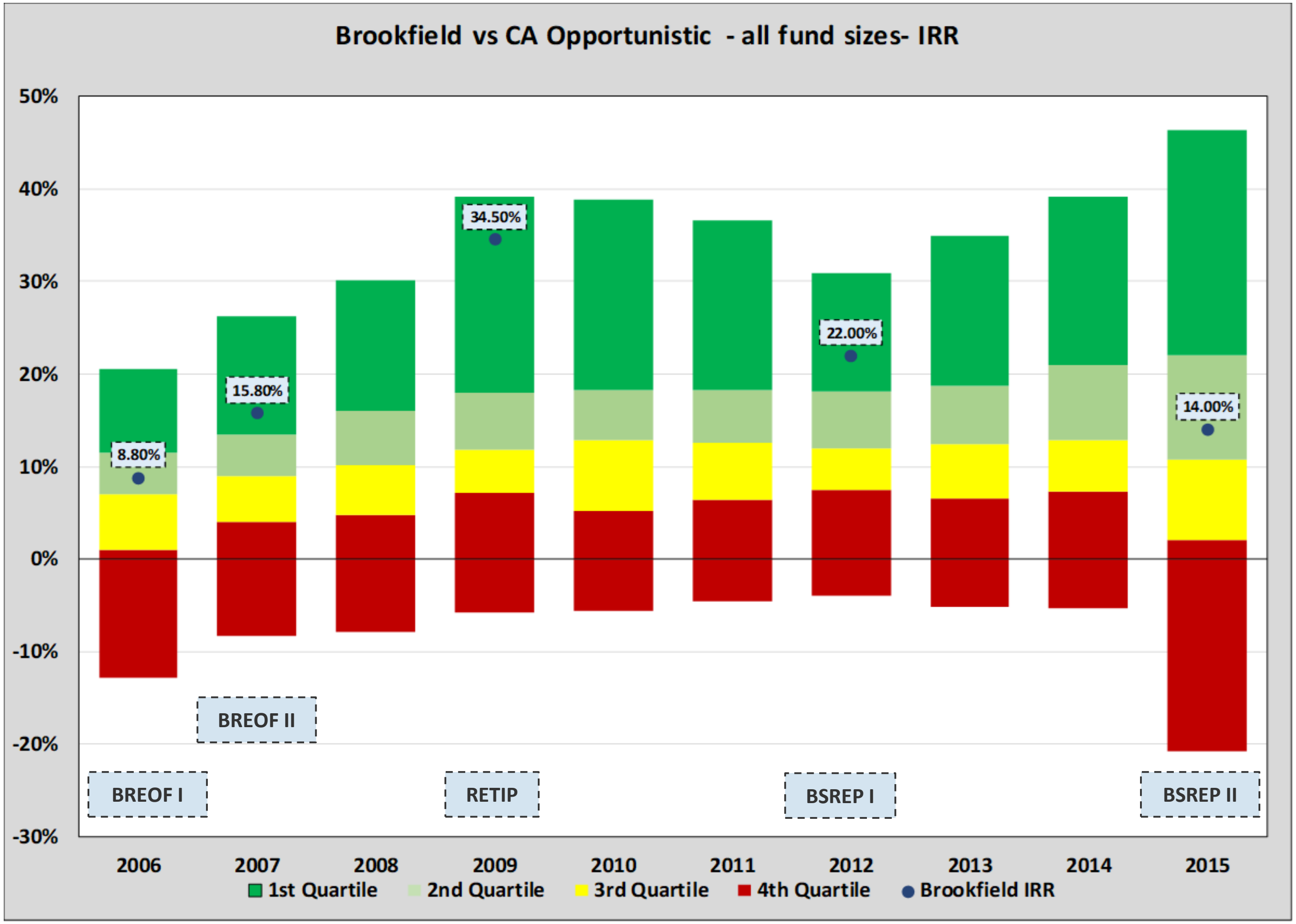
- **Global Platform:** Large global platform with around $155B in AUM and 250 investment professionals

- **Multi-Asset Investor:** Invests across sectors, including: office, retail, multifamily, industrial, hospitality and alternatives (self-storage, student housing, manufactured housing)

- **Across Risk Spectrum:** Invests across the risk spectrum from development to core assets; debt to equity investments

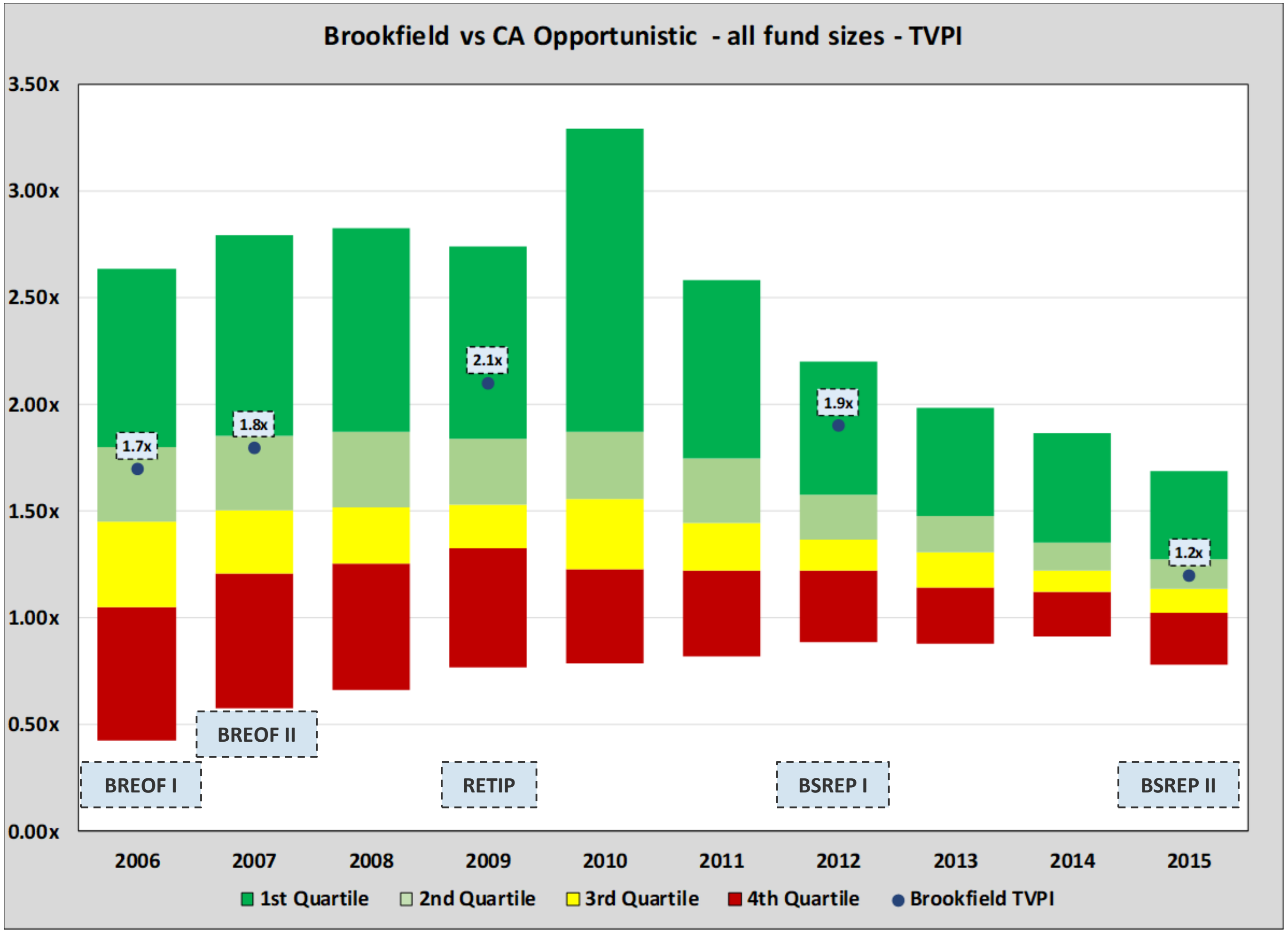
- **Concerns/Risks:**
  - Limited realizations in past two funds
  - Opportunistic strategy in later part of current real estate cycle

Performance: Cambridge Quartile Analysis - IRR



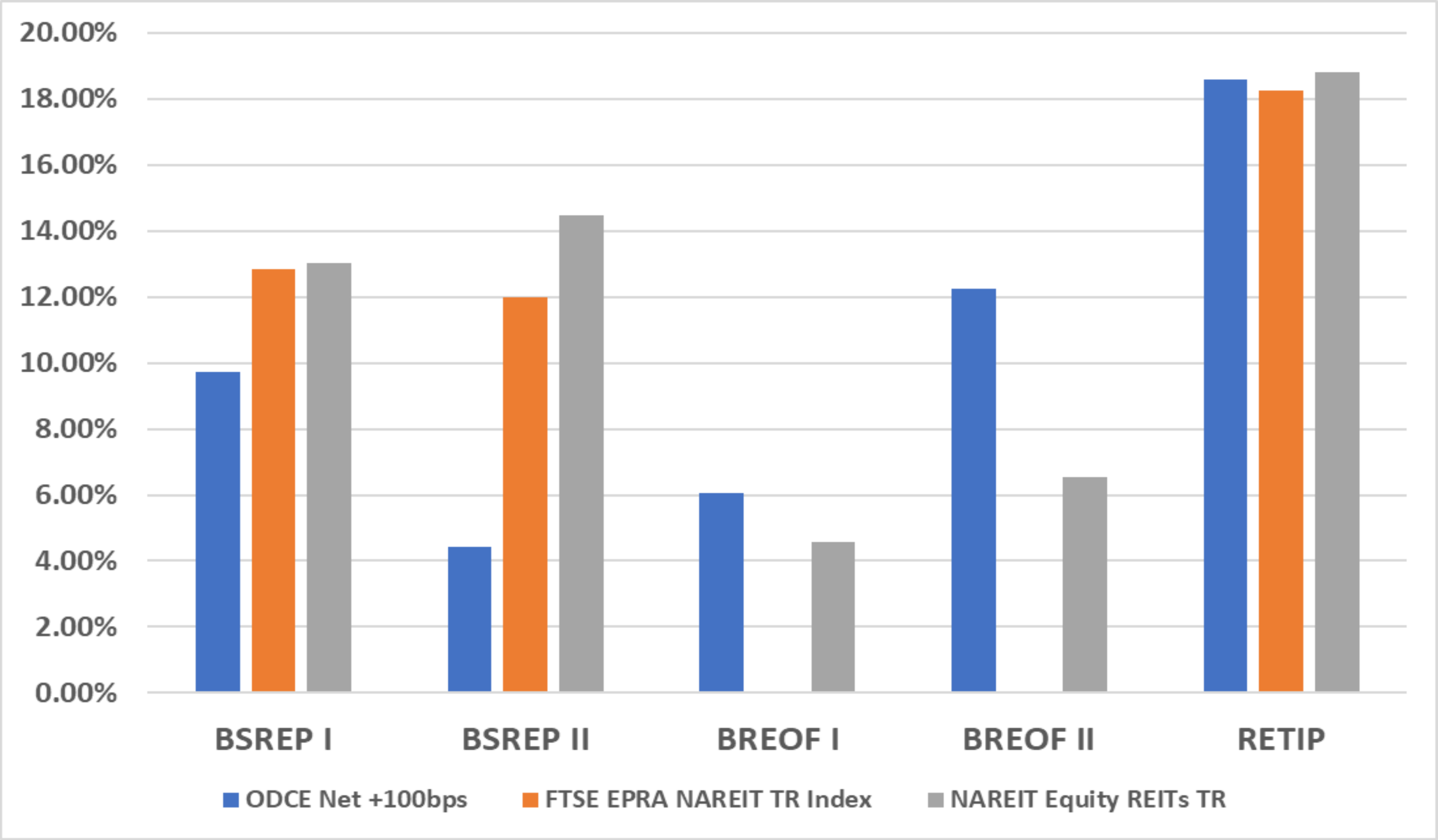
- **All five Opportunity Funds 1st or 2nd quartile**
- **BREOF II, RETIP, BSREP I all 1st quartile**

Performance: Cambridge Quartile Analysis - TVPI



- **All five Opportunity Funds 1st or 2nd quartile**
- **RETIP and BSREP I 1st quartile**

Performance: PME Analysis



- **All Opportunistic funds: 400+ bps above the three benchmarks**
- **RETIP, BSREP I & II range from 400 bps – 1800 bps above benchmarks**

Terms

- **$100M commitment to Brookfield Strategic Real Estate Partners Fund III**
- **Fund size: $10B closed (+$2B hard circled), $14B hard cap**
  - Manager commitment: greater of $2.5B or 25% of the Fund
- **Fund Term:**
  - 4-year investment period
  - 10-year fund life, plus two one-year extensions with Advisory Committee approval
- **Management Fee:**
  - 1.5% on committed capital during IP (Year 1-4); 1.5% on Funded Commitments thereafter
- **Performance Fee:**
  - 20% carry
  - 8% preferred return
  - 60/40 catchup
  - Clawback guaranteed by BAM

RETIREMENT SYSTEM
INVESTMENT COMMISSION

Owl Rock First Lien Fund

Steve Marino, CFA
Alan Bevard

Owl Rock First Lien Fund Investment Summary

Investment Summary	
RSIC Commitment	$200 Million
Targeted Net Return	10% net return to investors
Est. Current Income	8%+ current income
Assets	Loans to upper middle market, private equity backed companies
Business Size	Target loans to businesses with 75M+ EBITDA
Asset Leverage	4.5-5x First Lien Debt to EBITDA
Loan to Value	Less than 50% LTV
Unlevered Yield	6.5%-7.5% (Libor + 450bps + plus upfront fees)
Portfolio Level Leverage	2:1 Debt to Equity Ratio
Est. Cost of Leverage	Libor + 225bps
Average Position Size	1-2%
Max Position Size	5%

Owl Rock Firm Overview

Existing Relationship For RSIC Private Debt

- Currently invested in ORCC (Owl Rock's Private BDC)
- Allocation moves Private Debt Portfolio towards the Asset Class Baseline target to direct lending of 75% from 50% currently

Firm

- Owl Rock was formed in 2015 by former GSO founder Doug Ostrover
- Invested approximately $7.5bn across ORCC, direct lending Joint Venture, and First Lien Fund
- Strong alignment with founders contributing over $125mn of personal capital

Investment Thesis

- Opportunity to invest with an experienced team at an attractive fee structure
- Robust sourcing capability and ability to be selective
- Early underwriting and origination indicates incremental spread and fees over broad middle market

Concerns/Risks

- Short firm track record resulting in more assumptions in RSIC underwriting process
- Key Person Risk – Doug Ostrover
- Rapid growth trajectory of AUM and team

Owl Rock Origination and Underwriting

90 Sponsors have shown 4 or more deals

Owl Rock Deal Funnel

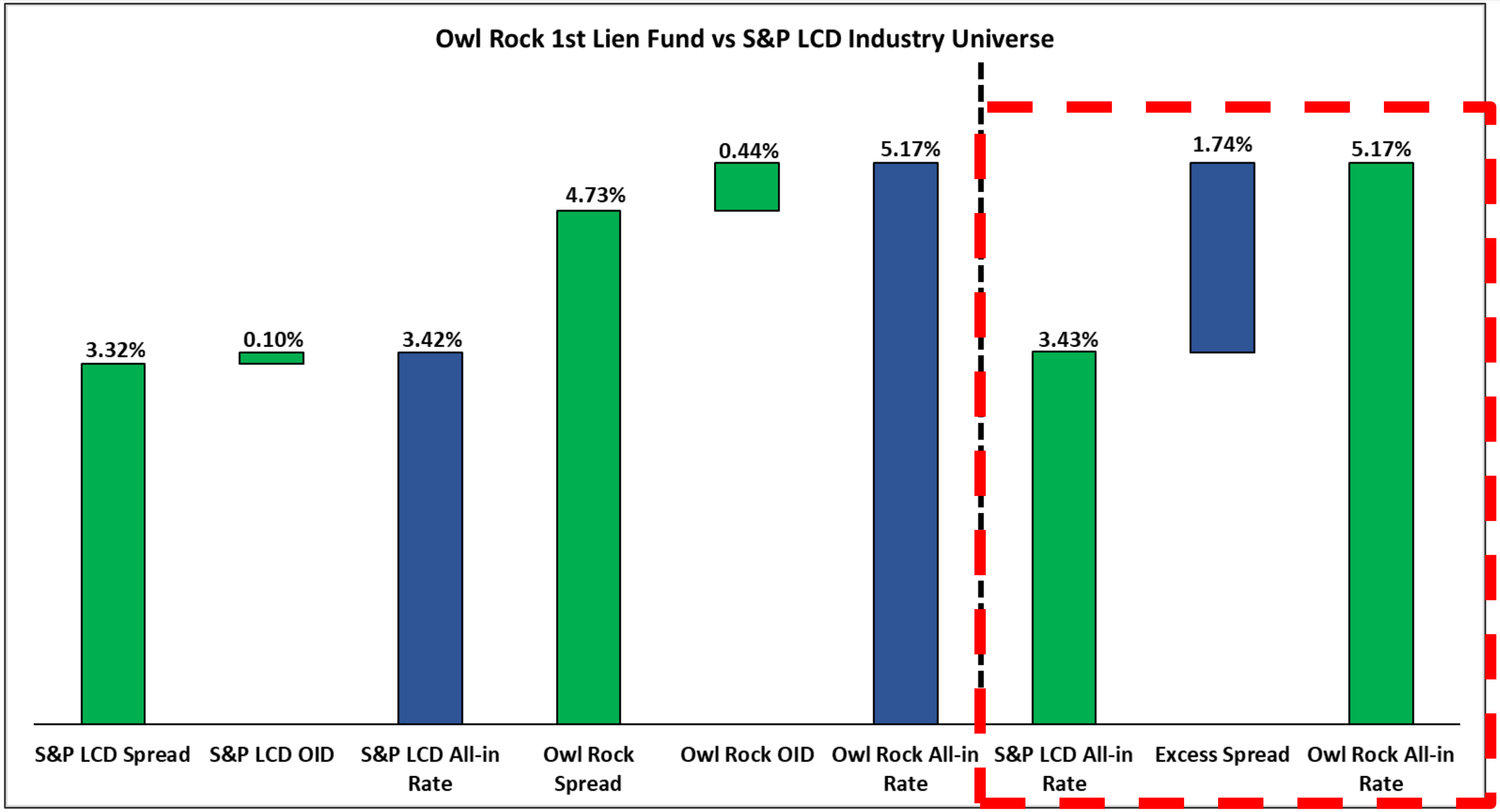
	No. of Deals	% of Deals
Total Deals	2,246	100%
Deals Pursued	1,502	67%
Heads Up Memo to I.C.	340	15%
Full Memo to I.C.	150	7%
Closed	63[1]	3%

Sourced from over 280 sponsors

As of 6/30/18

1. Represents number of portfolio companies Owl Rock Capital Corporation has invested in since inception

Owl Rock Value-Add over Middle Market Comps



	Pricing			Leverage			Risk/Return	
	Spread	OID (3 yr. amort.)	All-in Rate	Total Leverage	Senior Leverage	Interest Coverage	Spread/Turn of Leverage	Spread/Turn of Senior Leverage
Owl Rock First Lien Fund	4.73%	0.44%	5.17%	5.41x	4.49x	1.84x	0.87%	1.05%
S&P LCD Comps	3.32%	0.10%	3.42%	5.05x	5.01x	3.98x	0.66%	0.66%
Difference	**1.41%**	**0.33%**	**1.74%**	**0.36x**	**-0.52x**	**-2.13x**	**0.22%**	**0.39%**

*Owl Rock Par Weighted
Source: Owl Rock, S&P LCD

Owl Rock First Lien Fund Terms

Summary Terms	
Commitment:	$200 Million
Fund Size:	$1.6 Billion
GP Commitment:	No less than 1% of LP Commitments
Investment Period:	3 years from the final close
Management Fee:	1% on Invested Capital and Aggregate Unpaid Commitments
Carried Interest:	None
Preferred Return:	None
Term:	Seven Years; Two one-year extensions with Advisory Board approval
RSIC Closing Date	October 2nd, 2018
LPAC Seat	Yes

RETIREMENT SYSTEM INVESTMENT COMMISSION

KKR Lending Partners III

Steve Marino, CFA
Alan Bevard

KKR Lending Partners III Investment Summary

Investment Summary	
Target Net Return	11-14% net return to investors
Est. Current Income	9%+
Assets	Loans to upper middle market, private equity backed companies
Business Size	Target loans to businesses with $75mn+ EBITDA
Asset Leverage	3.5-5.5x
Target Geographic Exposure	75% North America / 25% Europe
Loan to Value	Less than 50% LTV
Unlevered Yield	7.5-8.5%
Portfolio Level Leverage	1.5:1 Average Debt to Equity Ratio
Est. Cost of Leverage	Libor + 235bps
Average Position Size	1-1.25%
Max Position Size	5%

KKR Firm Overview

Existing Relationship for RSIC Private Debt

- Currently invested in KKR Lending Partners II (10.7% Net IRR as of 6/30)
- Allocation moves Private Debt Portfolio towards the Asset Class Baseline target to direct lending of 75% from 50% currently

Firm

- Publicly traded (NYSE: KKR) global investment firm founded in 1976 with capabilities across private, public, and capital markets
- KKR Credit established in 2004
- $191bn Total Firm AUM, $47.7bn KKR Credit AUM*

Investment Thesis

- Large team with access to sourcing and resources of broader KKR platform
- Underwriting and origination indicates incremental spread and fees over broad middle market with less leverage
- Enhanced returns through investment in a seeded portfolio as last closer

Considerations

- The KKR Credit Team has experienced high turnover over the last several years
- Lending Partners Funds I-II had concentrated position sizes
- Potential for conflict of interest with Franklin Square BDC Platform

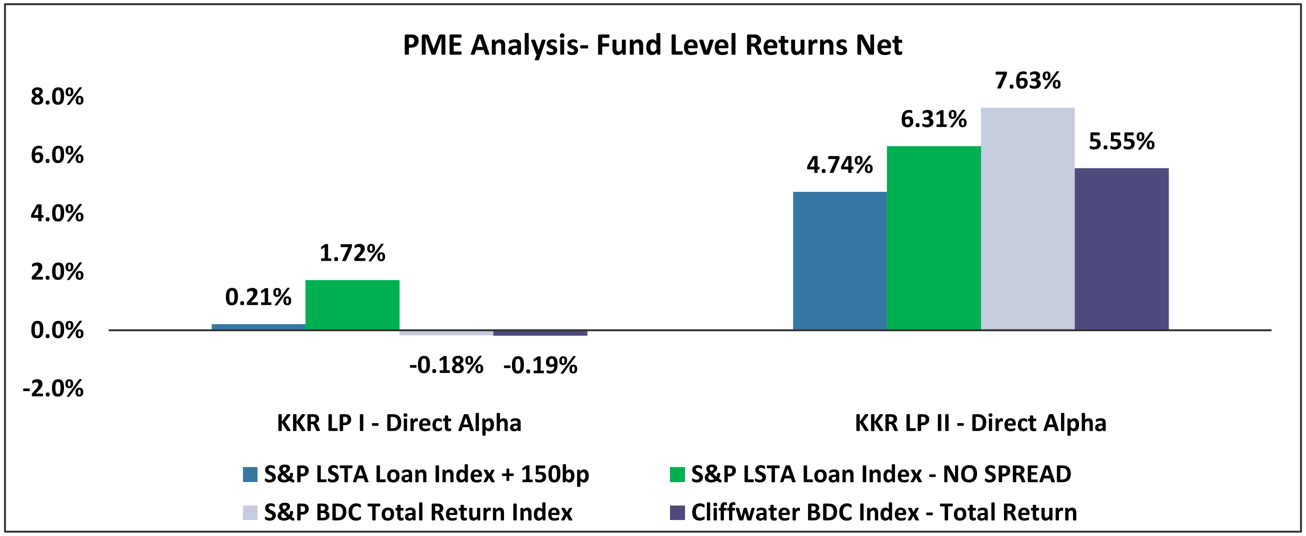
*as of 3/31/2018

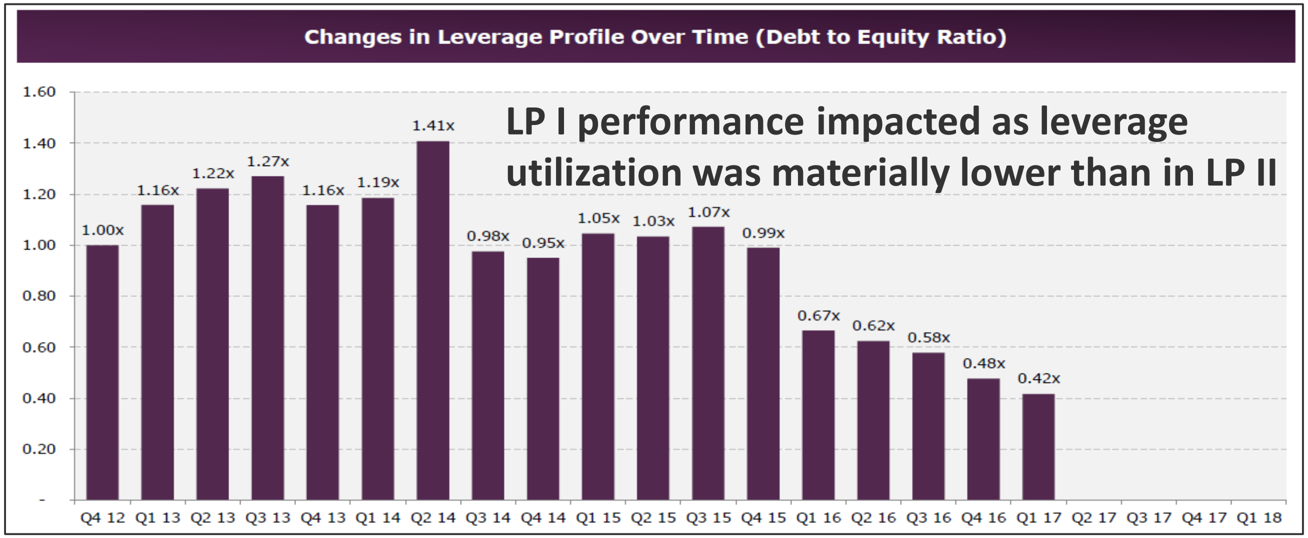
Strong Historical Performance

Fund Level IRR's Net of Mgmt. Fee Net of Carry

KKR LP I
6.12%

KKR LP II
10.6%





Source: RSIC Reporting, as of 6/30/18

KKR Origination and Underwriting

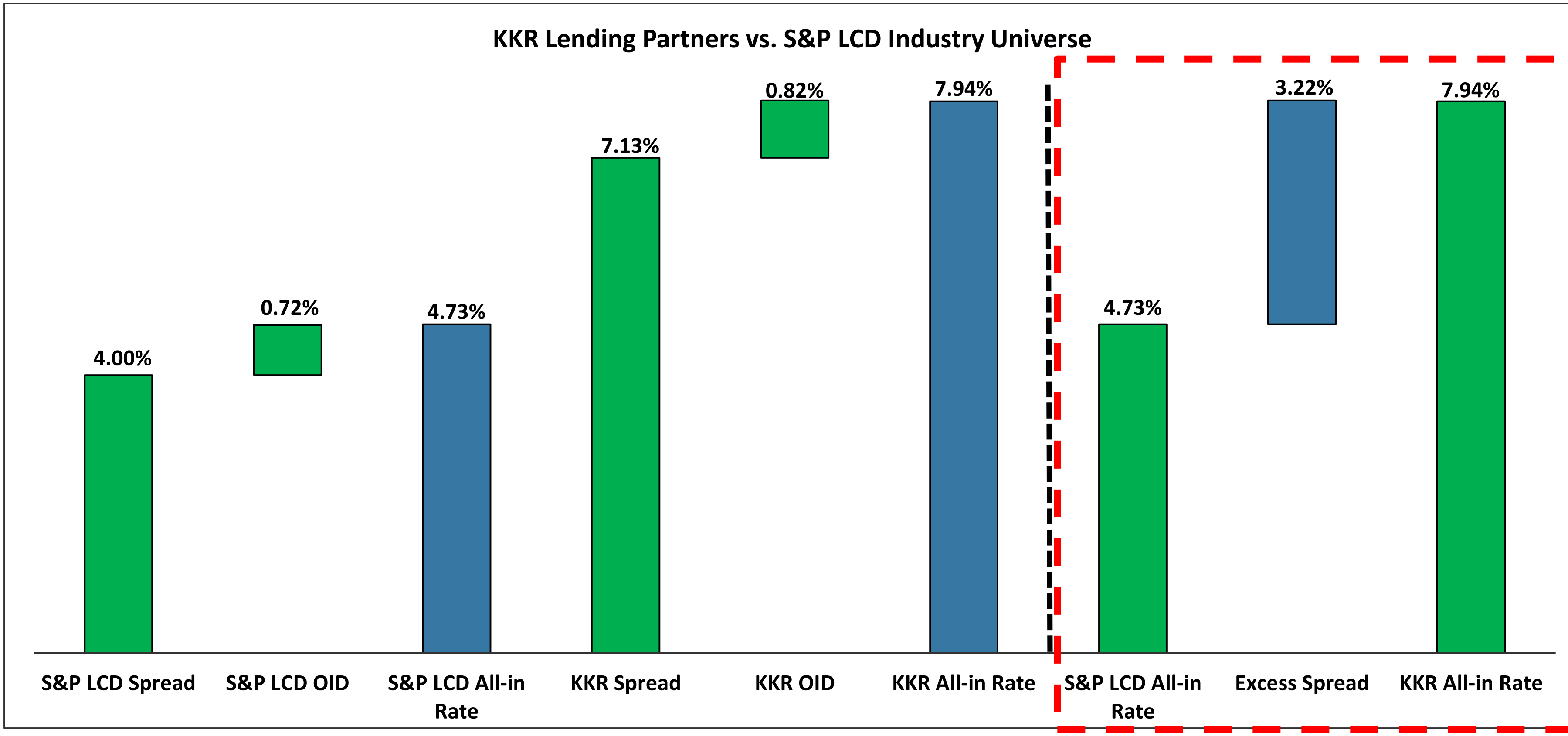
- The Private Credit Investment Team has relationships with over 150 sponsors globally and has worked with 80 sponsors on past transactions
- Firm resources present unique sourcing opportunities via Private Equity
- KKR's scale of capital from its balance sheet, LP asset base, and Franklin Square BDC platform minimizes size constraints and allows for the selection of the best credits

A Closer Look at Our Recent Sourcing Funnel(1)

2015	2016	2017	Pro-Forma YTD 2018(2)
~600 Evaluated	~700 Evaluated	~760 Evaluated	~740 Evaluated
~140 Discussed in Investment Committee	~160 Discussed in Investment Committee	~175 Discussed in Investment Committee	~90 Discussed in Investment Committee
33 Funded	37 Funded	39 Funded	19 Funded

Robust, continuing pipeline feeds comprehensive credit selection process

KKR Value Creation Over Industry Comps



	Pricing			Leverage			Risk/Return	
	Spread	OID (3 yr. amort.)	All-in Rate	Total Leverage	Senior Leverage	Interest Coverage	Spread/Turn of Leverage	Spread/Turn of Senior Leverage
KKR Lending Partners	7.13%	0.82%	7.94%	3.78x	3.41x	3.83x	1.89%	2.09%
S&P LCD Comps	4.00%	0.72%	4.73%	4.73x	4.66x	4.07x	0.85%	0.86%
Difference	**3.12%**	**0.10%**	**3.22%**	**-0.95x**	**-1.25x**	**-0.24x**	**1.04%**	**1.23%**

***KKR Investment Size Weighted**
Source: KKR, S&P LCD

KKR Lending Partners III Terms

Summary Terms	
Commitment:	$215 million Committed Equity
Fund Size:	$1.5 billion
GP Commitment:	Lesser of $50 million or 6% of LP commitments
Investment Period:	3 years from the final close
Management Fee:	1.75% on Invested Capital
Carried Interest:	0%
Preferred Return:	N/A
Term:	6 years from final close; 2 one-year extensions with Advisory Committee approval
RSIC Closing Date:	TBD
LPAC Seat:	Yes