



Minutes of the PRIM Administration and Audit Committee
Thursday, August 2, 2018

Committee members present:

- Robert L. Brousseau, Chair
- Treasurer Deborah B. Goldberg arrived at 10:15 a.m.
- Patrick E. Brock
- Eileen Glovsky
- James Hearty
- Dennis J. Naughton

Committee members not present:

- Ted C. Alexiades, CPFO
- Joseph A. Connolly
- Karen E. Gershman, CPA
- Theresa T. McGoldrick, Esq.
- Michele A. Whitham, Esq.

The PRIM Administration and Audit Committee meeting was called to order at 10:05 a.m.

I. Executive Director / Chief Investment Officer Comments

Michael G. Trotsky, CFA, Executive Director and Chief Investment Officer, made comments to the Committee, including:

Fiscal year 2018 was another exceptionally strong year for PRIM. The PRIT Fund returned 10.0% gross (9.5% net) for the fiscal year, 140 basis points above benchmark, net of fees, and we know of no other fund of our size or larger that outperformed us. Six of seven major asset classes outperformed their benchmarks net of fees. Private Equity returned 19.9% for the year, Global Equities returned 11.7%, Real Estate returned 8.9%, and Timberland returned 7.4%. Portfolio Completion Strategies (PCS), now 13.4% of the total PRIT Fund, returned 6.8% net of fees, 78 basis points above the benchmark while exhibiting low realized volatility of approximately 2.8%.

We evaluate the performance of the PRIT Fund on three equally important metrics: return, risk, and cost. As mentioned earlier, the returns of each asset class and the entire PRIT Fund were very strong both relative to the benchmarks and in absolute terms, and importantly, expenses and risk remained tightly controlled. Even with the Board-approved, larger allocation in the fiscal year to high-performing, actively managed alternative asset classes such as Private Equity and PCS, we are pleased to report that the ratio of total expenses was 53 basis points in fiscal year 2018, compared with 54 basis points in fiscal year 2017. This decrease highlights our continuing efforts related to Project SAVE as well as our focus on lower-fee separately managed accounts in our PCS portfolio, the success of our Private Equity co-investment program, and new direct Real Estate investments, among other things. Moreover, the 9.5% return of the PRIT Fund for the year was achieved with a realized volatility of 4.3%, producing a very high Sharpe ratio of approximately 1.8. We believe this Sharpe ratio, which measures the risk-adjusted return of the PRIT Fund, would be among the highest in the country, meaning our portfolio is higher returning relative to our peers even though it has comparatively lower risk, and low cost. PRIM's strong performance in both up markets such as fiscal year 2018 and calendar year 2017, combined with our strong outperformance in down markets like we had in fiscal year 2016 (nation-leading, positive performance), gives us confidence that our investment program is performing as designed.

PRIT Fund Performance Summary

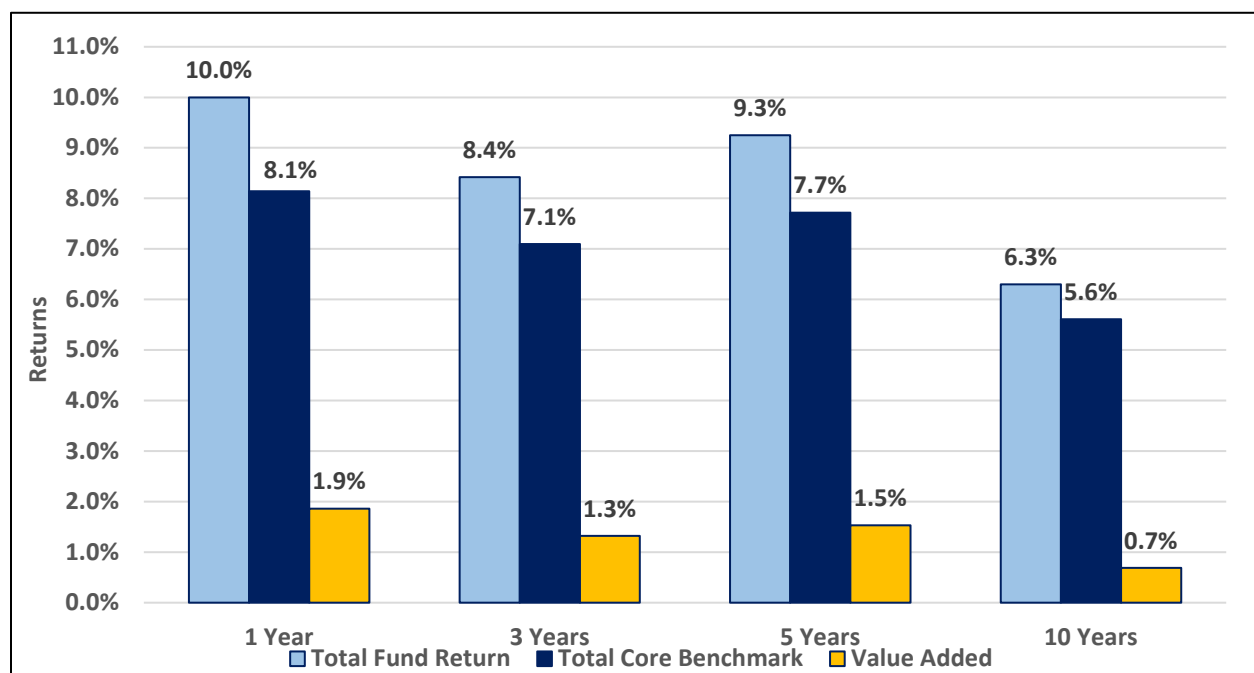
In this environment, the PRIT Fund has performed well:

As of June 30, 2018, the PRIT Fund net asset value stood at \$71.8 billion. For the one-year ended June 30, 2018, the PRIT Fund rose 10.0% gross (9.5% net), outperforming the total core benchmark of 8.1% by 186 basis points (140 bps net).

- This performance equates to an investment gain of \$6.4 billion, net of fees.
- This outperformance equates to \$935 million of value above the benchmark return, net of fees.
- Six of the seven major asset classes outperformed their respective benchmarks.
- Net total outflows to pay benefits for the one-year ended June 30, 2018, were approximately \$1.4 billion.

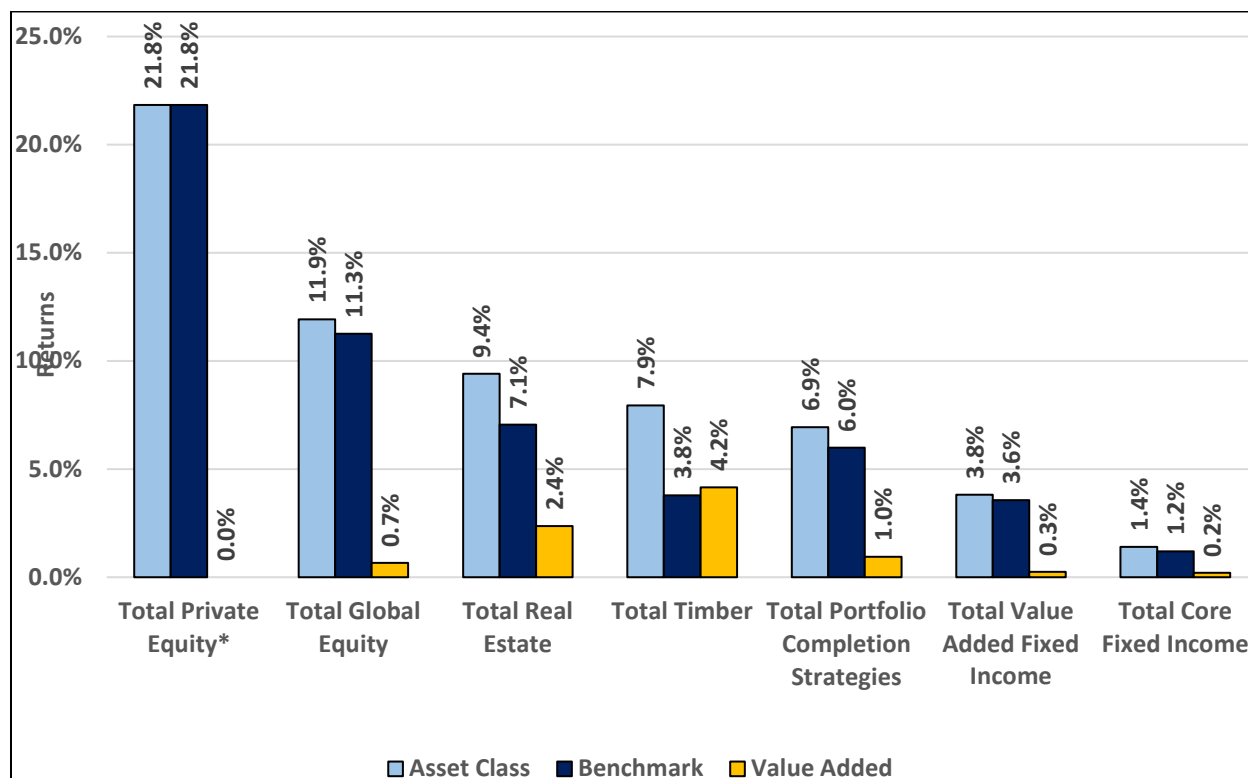
Mr. Trotsky made reference in his remarks to the following charts:

Total PRIT Fund Returns (Gross of Fees)
Annualized Returns as of June 30, 2018



PRIT Asset Class Performance (Gross of Fees)

One Year Ended June 30, 2018



PRIT Core Fund Performance Summary

Gross of Fees Performance

Trailing 1-Year Performance as of June 30, 2018

Trailing 1-Year Performance: June 30, 2018	Return	Benchmark Return	Over/(Under) Benchmark (bps)	\$Value (millions)	% of PRIT Fund
Total PRIT Fund	10.0%	8.1%	186	71,802	100%
Total Global Equity	11.9%	11.3%	66	30,064	41.9%
<i>Domestic Equity</i>	<i>15.6%</i>	<i>15.4%</i>	<i>25</i>	<i>13,696</i>	<i>19.1%</i>
<i>International Developed</i>	<i>8.7%</i>	<i>8.0%</i>	<i>69</i>	<i>11,831</i>	<i>16.5%</i>
<i>Emerging Markets</i>	<i>9.1%</i>	<i>7.8%</i>	<i>129</i>	<i>4,537</i>	<i>6.3%</i>
Private Equity	21.8%	21.8%	0	7,735	10.8%
Real Estate	9.4%	7.1%	236	6,455	9.0%
Total Timberland	7.9%	3.8%	415	2,434	3.4%
Total PCS	6.9%	6.0%	95	9,622	13.4%
Value Added Fixed Income	3.8%	3.6%	25	5,760	8.0%
Core Fixed Income	1.4%	1.2%	20	9,154	12.8%

PRIT Asset Class Performance (Gross of Fees)

Annualized Returns as of June 30, 2018

1 Year	3 Year	5 Year	10 Year
PRIVATE EQUITY 21.8%	PRIVATE EQUITY 18.3%	PRIVATE EQUITY 19.4%	PRIVATE EQUITY 13.6%
GLOBAL EQUITY 11.9%	REAL ESTATE 9.4%	REAL ESTATE 10.8%	REAL ESTATE 6.9%
REAL ESTATE 9.4%	GLOBAL EQUITY 9.1%	GLOBAL EQUITY 10.0%	VALUE-ADDED FIXED INCOME 6.8%
TIMBER 7.9%	TIMBER 5.5%	TIMBER 7.6%	GLOBAL EQUITY 6.6%
PORTFOLIO COMPLETION STRATEGIES 6.9%	VALUE-ADDED FIXED INCOME 5.0%	PORTFOLIO COMPLETION STRATEGIES 4.8%	TIMBER 4.6%
VALUE-ADDED FIXED INCOME 3.8%	CORE FIXED INCOME 3.6%	VALUE-ADDED FIXED INCOME 4.4%	CORE FIXED INCOME 4.0%
CORE FIXED INCOME 1.4%	PORTFOLIO COMPLETION STRATEGIES 3.3%	CORE FIXED INCOME 4.3%	PORTFOLIO COMPLETION STRATEGIES 3.2%

Organizationally, fiscal 2018 was another outstanding year. One senior-level employee departed, the first such departure in several years, and consistent with the Board-approved hiring plans, we filled six staff vacancies with top talent. We are staffed with exceptional investment and finance professionals, and all our job postings attract literally hundreds of talented and well-qualified applicants. Our team continues to be recognized around the nation for the success and innovation of our investment program and for the transparency and completeness of our financial reporting. Our comparatively small staff researched and deployed approximately \$5.4 billion in new Board-approved investments in fiscal year 2018 – a new milestone for PRIM’s productivity.

We have never been stronger or more productive, but retention of key employees remains my primary concern. The employment environment in the nation and in the region is strong – meaning there are numerous opportunities for our employees outside of PRIM - and we have spent considerable time and effort on retention strategies for PRIM employees. We continue to ensure that we provide a challenging and rewarding opportunity for all our employees, and that PRIM continues to maintain a positive culture and working environment that our employees enjoy and value. We owe a great deal of gratitude to our Board and committees for providing the support necessary to advance our investment program and to attract and retain the highly-qualified employees who have created one of the best performing public pension plans in the nation.

We are truly privileged to have volunteers of such high caliber and professional achievement on the PRIM committees and Board, and we recognize that our success is due in large part to your dedication, hard work, and expert oversight.

Recent Recognition

The *American Investment Council* ranked PRIM Private Equity **#1 in private equity returns** among 163 U.S. public pension fund in 2018 based on trailing 10-year performance. PRIM is the only fund that has been in the Top 5 of all private equity portfolios in every year the *American Investment Council* has performed the study (since 2012) – including previous #1 rankings in 2015 and 2013.

In May, and for the 13th consecutive year, PRIM was awarded the *Government Finance Officer Association's* Certificate of Achievement for Excellence in Financial Reporting for the completeness and timeliness of our Comprehensive Annual Financial Report.

Michael McGirr, Senior Investment Officer on the Private Equity team, was awarded the Treasurer's 2018 Citation for Outstanding Performance. Those selected for this honor have made notable contributions to the office of the Treasurer, and the citizens of Massachusetts.

Michael Trotsky, CFA, Executive Director and Chief Investment Officer, was elected Vice-Chair of the *CFA Society Boston* in late June. In the ordinary course of succession at the CFA, the Board's Vice-Chair is likely to serve as Chair of the Board in the following year. The *CFA Society Boston* serves more than 5,700 members in the greater Boston area. Last August, Michael completed his 3-year term as a Governor of the *CFA Institute*. The *CFA Institute* is the global parent of the *CFA Society Boston*, serving more than 150,000 members worldwide.

New PRIM employees

Jennifer Kuhn joined in May as Director of Human Resources. Jennifer was employed for nearly 15 years at Big Brothers Big Sisters of Massachusetts Bay, where she was most recently the Director of Human Resources. She began her career as a portfolio administrator at The Colony Group, and was also the Assistant Director of Development at Horizons for Homeless Children. She holds a bachelor's degree in Business Administration from Elon University.

David Griswold joined in June as the Director of Information Technology. David has more than 20 years of information technology and communications experience and is joining us after 12 years at The Hancock Natural Resource Group (HNRG) and Forest Capital Partners. During his time at HNRG and Forest Capital, David was responsible for managing an international team of engineers and analysts, covering a variety of technology functions. David holds a bachelor's degree in Business Management with a concentration in Computer Science from Bentley College.

Sylvia Argiropoulos joined in June as Administrative Assistant. She will support the Real Estate and Timberland and the Portfolio Completion Strategies team. Sylvia brings 25 years of administrative experience to PRIM, most recently an Executive Assistant at Ernst & Young supporting their audit and consulting partners. Sylvia has her Associate Degree from Cape Cod Community College.

This summer we are pleased to welcome two interns from the Treasurer's *Women in Finance* initiative. **Anmei Zhi** is working with the Real Estate and Timber team and is a rising junior from Smith College. **Isabelle Tabak** is working with the Public Markets team and is a rising junior from Babson College.

Additionally, we welcome one intern who joins us from the national program, Girls Who Invest. **Alexis Sabbaghian** is a rising junior from Boston College and is working with the Private Equity team.

I also want to congratulate **Andre Abouhala**, Investment Analyst on the Public Markets Team, who earned an MBA from Boston University in May.

II. Approval of Minutes (Voting Item)

The PRIM Administration & Audit Committee unanimously approved the minutes of its April 30, 2018 meeting.

III. Executive Directors Fiscal Year 2019 Goals and Objectives (Voting Item)

Robert Brousseau, Chair, noted that the Administration and Audit Committee, pursuant to the PRIM Charters, is tasked with reviewing and potentially revising the Executive Director's proposed goals and objectives, and recommending them to the PRIM Board for approval. Mr. Trotsky noted that his FY 2019 Goals and Objectives are largely consistent with those of prior years. Mr. Trotsky highlighted a few of his new FY 2019 goals and objectives, including adding staff to the investment team, and Project SAVE Phase II – identifying and implementing direct investment management.

Dennis J. Naughton asked for some additional information on the annual plan item regarding dynamic risk modeling from the Strategy and Portfolio Completion Strategies section of the Executive Director and Chief Investment Officer's FY 2019 Goals and Objectives. Bill Li, CFA, CAIA, Senior Investment Officer – Portfolio Completion Strategies, explained that dynamic risk modeling is an extension from last year's asset allocation research. He explained that his team developed a factor-based framework, that summarizes commonality across asset classes and that factor-based modeling informs portfolio management from a different lens. PRIM staff plans to identify investment vulnerability, through researching interconnectedness among asset classes and among managers of each asset class, and staff is going to collaborate with University of California - on this project.

Mr. Naughton then asked for some information on cyber security and the information technology audit process. Anthony J Falzone, Chief Operating Officer, indicated that information technology internal and external penetration testing is performed annually, and that PRIM has done well with no significant findings from this testing. David Griswold, Director of Information Technology, provided his view as a fresh perspective on PRIM's cyber security posture by explaining that due to the size and design of PRIM's network, PRIM is not highly exposed on the internet with multiple points of presence, nor are we hosting significant services requiring internal access or providing outward facing services, therefore PRIM's technology footprint is easier to maintain and defend.

Mr. Falzone noted that there is a delicate balance between usability and security, especially for an entity like PRIM that has many of its users frequently traveling and requiring remote access.

Mr. Trotsky noted that the goals and objectives have a "DRAFT" watermark, so everyone is aware that they are just a draft, and that he welcomes all input and suggestions.

The Committee voted (unanimously) to recommend to the PRIM Board that the Board approve the Executive Director and Chief Investment Officer's FY 2019 Proposed Goals and Objectives, as contained in Appendix D of the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

IV. Proposed 2019 PRIM Board and Committee Meeting Schedule

Mr. Falzone referred Committee members to the proposed 2019 Calendar and Meeting Schedule, attached as Appendix E, and asked Committee members to inform Steffanny Rosario, Administrative Assistant, of any potential schedule conflicts. Mr. Falzone informed the Committee that staff will bring a finalized schedule to the Committee for a vote at its November meeting.

V. Recommendations from 2017 PRIM Board Self-Evaluation

Mr. Falzone noted that based on the 2017 Board Self-Evaluation, administered by Cortex, and the discussions held at the April 2018, Administration and Audit Committee meeting and the May 2018 Board meeting regarding the results of the Board Self-Evaluation, PRIM staff has proposed four action items.

Board Education

Mr. Falzone noted that there was discussion about extending the Board retreat to two days and creating an education plan. PRIM is in the planning stage of the Board retreat scheduled for September 25, and understanding the Board wants more consistent fiduciary education opportunities, staff will be adding a date to the annual calendar as a placeholder for future Board education sessions. Staff is also looking into the options for extending the day past lunch to add more content. Mr. Falzone reminded the Committee that there were mixed feelings expressed by Board Members about extending the retreat to two days.

Succession Planning

Mr. Falzone noted that succession planning was an area where staff was asked to be proactive. He reminded the Committee that PRIM's professional development program allows high performers to grow their expertise beyond their normal day to day responsibilities and that part of succession planning is developing and growing competencies within the organization and that this program supports that. He also mentioned that management will be working closely with PRIM's new HR Director to identify and develop new leaders who can potentially step in and fill vacancies when they arise.

Staffing and Compensation

Mr. Falzone also mentioned that a review of benchmarks and comparators for compensation and staffing levels was a topic raised in the summary of findings. He informed the Committee that this was discussed at the prior Investment Committee meeting and that each asset class head was challenged to add to their team and that many of the new initiatives will require it. Mr. Falzone mentioned that PRIM's new HR Director would be of significant assistance in this area. Mr. Falzone then addressed the concerns around compensation benchmarks by describing the process created by PRIM's 2012 Board approved compensation philosophy. He reminded the Committee that PRIM's compensation philosophy directs PRIM to periodically perform a comprehensive analysis on peer group comparisons and compensation levels to ensure PRIM can continue to support its mission and long-term needs.

Environmental, Social and Governance (ESG)

Mr. Falzone presented the fourth item, Environmental, Social and Governance (ESG), as a topic that continues to be discussed among Board and committee members. He mentioned that the definition of ESG varies widely and can mean different things to different people. Mr. Falzone noted that it could be said that PRIM already incorporates ESG factors in its investment process. He gave the following examples: utilizing custom proxy voting guidelines that address Board composition, and including questions in requests for proposals (RFPs) regarding an organization's practices promoting diversity of thought and wage equality.

Mr. Falzone mentioned that a strategy may need to be developed that could be used to create a policy that would address many of the ESG areas. He mentioned that PRIM may need some additional help on this topic.

VI. Board Governance Manual Review (Voting Item)

Mr. Falzone noted that the Committee requested at its April 2018 meeting, that Cortex immediately proceed with a general "cosmetic cleanup" of the existing PRIM Board Governance Manual. Mr. Falzone referred to Appendix G, a memorandum from Cortex introducing these proposed cosmetic revisions, along with a redlined version of the proposed revised PRIM Board Governance Manual at Appendix H, and also a clean version, at Appendix I.

Mr. Falzone noted that he, along with PRIM's General Counsel had reviewed the revisions proposed by Cortex, and had several discussions with Cortex during the process, to ensure that the proposed changes were truly cosmetic in nature and that no substantive revisions were included. Mr. Falzone also thanked the Treasurer and her staff for their assistance in the process.

Mr. Naughton asked about the removal of language in the Board Governance Manual on page 3 that referred to an Outside Committee Member Policy. Patrick E. Brock reminded the Committee that during the last Board Governance Manual review in 2012, an Outside Committee Member Policy was proposed, but not accepted, and this language is left over and should have been removed at that time and the change was appropriate. Mr. Falzone thanked Mr. Brock for the added context and no other questions were asked.

The Committee voted unanimously to recommend to the PRIM Board to approve and adopt Cortex's proposed cosmetic revisions (as set forth in Appendix I of the Expanded Agenda) to the Board Governance Manual, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

VII. Legal/Legislative Update

Mr. Falzone related to the Committee that PRIM's General Counsel has indicated that there are no legal or legislative matters of significance that require discussion at the Committee meeting today.

VIII. Other Matters

The Committee members briefly discussed the following topics:

- a. June 2018 Operating PRIM Budget
- b. Travel
- c. Client Service

The PRIM Administration and Audit Committee meeting adjourned at 11:05 a.m.

List of documents and exhibits used during the meeting:

- *Minutes of the PRIM Administration and Audit Committee Meeting of April 30, 2018*
- *PRIT Fund Performance Report*
- *BNY Mellon Gross of Fees Performance Report*
- *Executive Director and Chief Investment Officer's Fiscal Year 2019 Proposed Goals & Objectives*
- *Proposed 2019 PRIM Board and Committee Meeting Schedule*
- *Recommendations from 2017 PRIM Board Self-Evaluation*
- *Cortex Memo Regarding Proposed Cosmetic Revisions to PRIM Board Governance Manual*
- *Cortex Proposed Cosmetic Revisions to PRIM Board Governance Manual (redlined)*
- *Cortex Proposed Cosmetic Revisions to PRIM Board Governance Manual (clean)*
- *June 2018 PRIM Operating Budget*
- *Travel*