



**PENSION RESERVES  
INVESTMENT  
MANAGEMENT BOARD**

Minutes of the PRIM Investment Committee Meeting  
Tuesday, November 13, 2018

Committee member attendees:

- Sue Perez, Chair on behalf of Treasurer
- Michael Even, CFA
- Constance M. Everson, CFA
- Ruth Ellen Fitch, Esq.
- Peter Monaco
- Philip Rotner (arrived at 9:45 a.m.)
- Paul E. Shanley, Esq.
- Glenn P. Strehle, CFA
- Timothy L. Vaill

Not Present

- Joseph C. Bonfiglio
- C. LaRoy Brantley
- James B. G. Hearty

The PRIM Investment Committee was called to order at 9:40 a.m.

**I. Approval of Minutes (Voting Item)**

The PRIM Investment Committee unanimously approved the minutes of its July 31, 2018, meeting.

**II. Executive Director/Chief Investment Officer Comments**

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

Mr. Trotsky began by congratulating Treasurer Goldberg on her resounding re-election.

**Organizational Updates**

PRIM has hired five new full-time employees and two interns since the last meeting.

**Iris Sosa** joined PRIM in August as an executive assistant supporting the Executive Director/Chief Investment Officer. She joined us after nearly 15 years of supporting the CEO of Santander Bank. Prior to that, Ms. Sosa was an executive assistant at the Boston Housing Authority.

**Maureen Aquino** also joined PRIM in August as PRIM's new receptionist. Ms. Aquino has almost 20 years of experience as an Office Manager and Receptionist working for AIG in New York and holds a bachelor's degree from William Patterson University.

**Grace Gao** joined PRIM in October as an Investment Research Analyst in the Strategy group, reporting to Eric Nierenberg. Ms. Gao recently received her master's degree in finance from MIT Sloan. She previously interned at Baidu, Bain & Company, and PwC, and earned her bachelor's degree in finance from Peking University in China.

**Liu Liu** joined PRIM in October on a permanent basis as an Investment Analyst after spending 18 months as an intern working in PRIM's Strategy team, reporting to Eric Nierenberg. Ms. Liu received her master's degree in finance from the Brandeis International Business School and earned her bachelor's degree in finance from Shanghai Jiao Tong University in China.

**Sara Coelho** joined PRIM in November as a Corporate Accountant on the Finance team. Ms. Coelho spent several years at Bulger Partners as an accounting analyst and accounts payable clerk, and has a bachelor's degree in finance and accounting management from Northeastern University. She reports to Dan Eckman.

The Strategy group also welcomed two new interns this fall. **Anita Huang** is currently a graduate student at the Brandeis International School of Business, majoring in economics and finance, and **Shijia Chen** recently received her master's degree in International economics and finance from Johns Hopkins University.

Also, we congratulate **Christina Marcarelli**, an Investment Officer on the Real Estate team, on receiving the Chartered Alternative Investment Analyst (CAIA) credential. The CAIA curriculum is designed to provide a broad knowledge in alternative investments including Real Assets, Hedge Funds, Private Equity and structured products. The credential requires the passing of 2 exams, at 2 levels, and typically requires 12-18 months and more than 200 hours of study.

We are now 45 people strong, with the following degrees/certifications: 2 Ph.D., 10 Masters Degrees, one J.D., 10 CFAs, 6 CPAs, 2 CAIAs, and 19 CFA Investment Foundations Program Certificates.

And last, **Andrew Gromer**, an Investment Analyst on the Public Markets team, was appointed Chair of the CFA Boston Society Young Leaders Committee. As Chair, Andrew will organize events for the Society's new generation of investment professionals focused on engagement, career development, and networking. It is a very vibrant and active committee.

The September quarter-end was strong, but market volatility returned in October and November as global equities sold off sharply. The VIX spiked to 21.2 in October after reaching a low of 12.1 during the September quarter. The five-year average for the VIX is 14.8. October 2018 was the third worst month for the S&P 500 since the world financial crisis, with the S&P down 6.8%, the worst month since September 2011 when the S&P was down more than 7%. September 2011 was one month before the US debt downgrade and market sell-off that occurred amid continuing concerns about the European debt crisis. The only other worse month was in May 2010 when the S&P was down 8% in the aftermath of the "Flash Crash", which was caused in part by the early stages of the European debt crisis. One of the big challenges that surfaced recently is the stand-off between Brussels (the EU) and Rome concerning Italy's dire fiscal situation.

This all only adds to the brew of caution that we identified last quarter. At the last meeting of the Board, we discussed the risks in the market and we compared current conditions to those of mid-2014 through early 2016, when there was an unprovoked global economic slowdown that led to a correction in world financial markets. Not much has changed on the economic front in the last few months to change our view. US GDP growth is growing at a 3.5% clip, the employment picture is bright, wages are finally rising, and so too is inflation. With this backdrop, the US Fed seems intent on raising rates one more time this year and three times next year. Meanwhile, economies in the rest of the world, including Europe, China and Japan, are slowing. At our last meeting, we pointed out that we were observing some of the same market characteristics that we observed in the mid 2014 to 2016 downturn – and today we still observe many of the same conditions, namely: 1) narrowing stock markets as the first quarter equity rebound left many global markets, and many US sectors; 2) liquidity issues – it became difficult to secure US dollars from outside the US in 2015, and note that global funding conditions are still very tight for dollar funding; 3) the economic situation – there were vulnerabilities in the global economy before there were tariffs, and tariffs are an additional negative for global growth, and most believe that a change in control of the U.S. House of Representative as a result of the mid-term elections is not likely to impact or restrain the Trump Administration's protectionist trade policies.

We also note that equity markets generally peak at the peak acceleration of earnings, and not on the earnings peak itself, and S&P earnings were up approximately 20% on an 8% growth in sales for the second

quarter and are expected to show similar if not better growth in Q3. Consensus is that it will be hard to maintain that strong level of growth going forward.

And last, in regard to the mid-term elections and the firing of Attorney Jeff Sessions immediately afterward, it seems increasingly likely that we could have two years of political gridlock before the next general election. President Trump warns of a “war-like” atmosphere in Washington, and pundits generally have reduced the prospects of enacting bipartisan fiscal stimulus (infrastructure spending, for example) and have increased the prospects of having a prolonged government shutdown.

We believe the PRIT Fund is appropriately positioned for weakness in world equity markets. Our main focus during the past several years has been to reduce our global equity exposure while identifying diversifying assets in our Portfolio Completion Strategies allocation. However, it is important to note that the PRIT Fund is not completely immune to a global equities downturn, since in order to achieve our long-term 7.35% target return rate, our Fund is by necessity growth and equity focused.

**PRIT Fund Performance Summary**

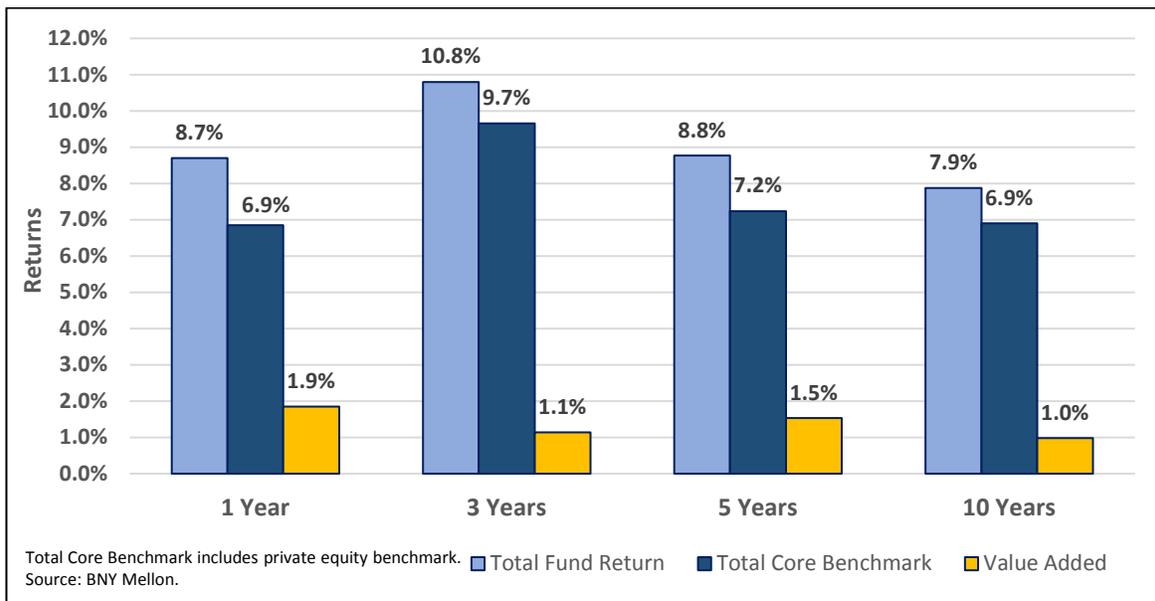
As of September 30, 2018, the PRIT Fund net asset value stood at \$73.8 billion. For the one-year ended September 30, 2018, the PRIT Fund rose 8.7% gross (8.2% net), outperforming the total core benchmark of 6.9% by 182 basis points (136 bps net).

- This performance equates to an investment gain of \$5.7 billion, net of fees.
- This outperformance equates to \$944 million of value above the benchmark return, net of fees.
- All seven major asset classes outperformed their respective benchmarks.
- Net total outflows to pay benefits for the one-year ended September 30, 2018, were approximately \$1.3 billion.

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

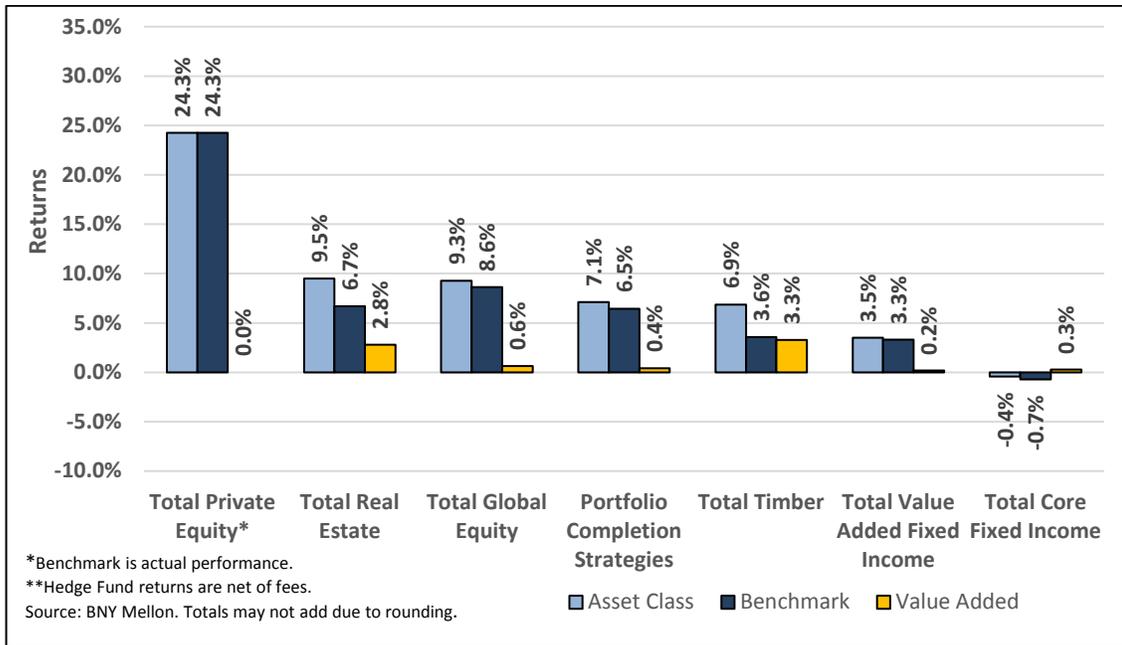
**Total PRIT Fund Returns (Gross of Fees)**

Annualized Returns as of September 30, 2018



**PRIT Asset Class Performance (Gross of Fees)**

One Year Ended September 30, 2018



**PRIT Core Fund Performance Summary**

**Gross of Fees Performance**

Trailing 1-Year Performance as of September 30, 2018

Trailing 1-Year Performance:	Return	Benchmark Return	Over/(Under) Benchmark (bps)	\$Value (millions)	% of PRIT Fund
<b>September 30, 2018</b>					
<b>Total PRIT Fund</b>	<b>8.7%</b>	<b>6.9%</b>	<b>182</b>	<b>73,847</b>	<b>100%</b>
<b>Total Global Equity</b>	<b>9.3%</b>	<b>8.6%</b>	<b>63</b>	<b>31,083</b>	<b>42.1%</b>
<i>Domestic Equity</i>	<i>18.3%</i>	<i>17.8%</i>	<i>48</i>	<i>14,675</i>	<i>19.9%</i>
<i>International Developed</i>	<i>3.6%</i>	<i>3.1%</i>	<i>52</i>	<i>11,916</i>	<i>16.1%</i>
<i>Emerging Markets</i>	<i>-1.3%</i>	<i>-1.7%</i>	<i>33</i>	<i>4,493</i>	<i>6.1%</i>
<b>Private Equity</b>	<b>24.3%</b>	<b>24.3%</b>	<b>0</b>	<b>8,010</b>	<b>10.9%</b>
<b>Real Estate</b>	<b>9.5%</b>	<b>6.7%</b>	<b>281</b>	<b>6,421</b>	<b>8.7%</b>
<b>Total Timberland</b>	<b>6.9%</b>	<b>3.6%</b>	<b>328</b>	<b>2,635</b>	<b>3.6%</b>
<b>PCS</b>	<b>7.1%</b>	<b>6.5%</b>	<b>69</b>	<b>10,036</b>	<b>13.6%</b>
<b>Value Added Fixed Income</b>	<b>3.5%</b>	<b>3.3%</b>	<b>19</b>	<b>5,864</b>	<b>7.9%</b>
<b>Core Fixed Income</b>	<b>-0.4%</b>	<b>-0.7%</b>	<b>29</b>	<b>9,063</b>	<b>12.3%</b>

**PRIT Asset Class Performance (Gross of Fees)**

Annualized Returns as of September 30, 2018

1 Year	3 Year	5 Year	10 Year
<b>PRIVATE EQUITY</b> 24.3%	<b>PRIVATE EQUITY</b> 19.3%	<b>PRIVATE EQUITY</b> 20.1%	<b>PRIVATE EQUITY</b> 14.9%
<b>REAL ESTATE</b> 9.5%	<b>GLOBAL EQUITY</b> 14.1%	<b>REAL ESTATE</b> 10.5%	<b>GLOBAL EQUITY</b> 8.9%
<b>GLOBAL EQUITY</b> 9.3%	<b>REAL ESTATE</b> 9.1%	<b>GLOBAL EQUITY</b> 9.1%	<b>VALUE-ADDED FIXED INCOME</b> 7.5%
<b>TOTAL PCS</b> 7.1%	<b>VALUE-ADDED FIXED INCOME</b> 6.9%	<b>TIMBER</b> 7.2%	<b>REAL ESTATE</b> 7.2%
<b>TIMBER</b> 6.9%	<b>TIMBER</b> 5.6%	<b>TOTAL PCS</b> 4.9%	<b>CORE FIXED INCOME</b> 4.8%
<b>VALUE-ADDED FIXED INCOME</b> 3.5%	<b>TOTAL PCS</b> 5.5%	<b>VALUE-ADDED FIXED INCOME</b> 4.4%	<b>TIMBER</b> 4.6%
<b>CORE FIXED INCOME</b> (0.4%)	<b>CORE FIXED INCOME</b> 2.2%	<b>CORE FIXED INCOME</b> 3.9%	<b>TOTAL PCS</b> 4.6%

Constance M. Everson, CFA, Investment Committee member discussed volatility of the markets and its resemblance to prior years. Mr. Trotsky commented as PRIM plans its asset allocation they are keeping in mind the current concerns of the volatility in the market.

**III. Public Markets Performance Summary**

David Gurtz, CPA, CFA, Deputy Chief Investment Officer – Director of Public Markets, Andre Clapp, Ph.D. CFA, Senior Investment Officer – Public Equities, and Chuck LaPosta, Senior Investment Officer – Fixed Income, provided the Committee with the Public Markets Performance Summary.

Mr. Gurtz noted that the year-ended September 30, 2018, equities performed well – generating a 9% return, net of fees. U.S. equities continued the trend of outperforming International and Emerging Market equities. U.S. equities has outperformed International and Emerging Markets over the last 1, 3, 5 and 10 year periods.

Dr. Clapp updated the Committee on the PRIT Fund’s Global Equity portfolio and his comments included the following:

The S&P 500 posted a very strong 1-year period return of 18.3%, however, in October, S&P 500 was down 7%. The PRIT Fund is 100% indexed to the S&P 500, representing \$11.5B or 15.5% of the PRIT Fund. Within U.S. SMID Cap Equity for the trailing 12 months, Growth significantly outperformed Value by approximately 14%. PRIM’s Small/SMID managers outperformed the asset class benchmark by 2.3% gross

of fees, 1.9% net of fees, which includes the passive allocation, so our active managers did proportionally better with one of our small cap growth managers outperforming by over 13%, net of fees for the 1-year period.

International equities returned 3.4%, net of fees, for the 1-year period, outperforming the benchmark by 29 basis points. For the year, Germany, the weakest large market, was down over 5% and Italy was down nearly 9%.

The Emerging Markets (EM) benchmark returned -1.3% for the trailing year and was down 8.7% in October, in which PRIM is 100% active. For the trailing year, PRIM's EM portfolio outperformed by 33bps gross of fees, underperforming by 16bps net of fees. Slowing Chinese growth was a concern along with US trade tariffs. China fell -2.2% for the trailing year and represents 31% of benchmark. Dr. Clapp noted that total Global Equity outperformed by 63bps, gross of fees, for the trailing year, 40bps net of fees.

Mr. LaPosta updated the Committee on the PRIT Fund's Fixed Income portfolio and his comments included the following:

Core Fixed Income posted slightly negative returns for the trailing year – thanks to four interest rate hikes over the last year. The 10 year Treasury yield rose to its highest level since 2011. Bank Loans, up 5.2%, net of fees, and Inflation Linked Bond strategies, up 1.3%, net of fees, continue to perform well. These two allocations were increased as part of the 2017 asset allocation process as we sought protection from inflation. Bank Loans are floating rate loans and benefit from rising short term rates which are 106bps higher year-over-year. TIPS benefit from rising headline inflation which peaked at 2.9% which is 120bps higher year over year.

Our High Yield portfolio returned 2.8% for the trailing 12 months, slightly underperforming the benchmark on a net of fees basis. High Yields spreads were 30bps tighter on the year and reached a low of 328 before widening in October and November. STRIPS returned negative 4.1% as long rates rose 30bps. Long rates continue to rise at a slower pace than short rates but the greater interest rate sensitivity in the long end leads to the larger price moves.

Mr. LaPosta noted that similar to equities, Emerging Markets Debt (EMD) was the worst performer – returning -2.9% for EMD Dollar denominated and -8.9% in Local currency markets, both net of fees.

#### **IV. Portfolio Completion Strategies (PCS)**

##### **a. Performance Summary**

Eric Nierenberg, Ph.D., Chief Strategy Officer, and Bill Li, CFA, CAIA, Senior Investment Officer for Portfolio Completion Strategies, reviewed PCS performance, which included the following comments:

For last quarter, PRIT's Hedge Fund portfolio returned 0.5%, representing 36bps underperformance. Over the trailing one year, the Hedge Fund portfolio delivered 5.0%, outperforming the customized benchmark by roughly 55bps.

The Emerging Manager Direct Hedge Fund program was another initiative to source differentiated and driven fund managers. Last cycle, the Committee and Board approved the program, that comprises a fluid process of hiring managers. Following the approved process, PRIM's CIO approved and PRIM staff onboarded three managers for a total \$150 million. We expect to continue onboarding approved managers in the future.

The Put Spread Collar equity hedge program, which is 3.5% of total PRIT Fund, returned 7% in 3Q, outperforming the benchmark by over 70bps. Since inception, this strategy has captured roughly 90% of stock market appreciation; while the downside participation has been around 80%. This asymmetric profile is meeting the expectations we underwrote to.

**b. PCS Consulting Services Request for Proposals (RFP) Issuance (Voting Item)**

Mr. Li noted that PRIM's Portfolio Completion Strategies consulting contract with Aberdeen Asset Management expires June 30, 2019. Accordingly, PRIM staff recommended that the Investment Committee recommend that the PRIM Board authorize the issuance of an RFP for PCS consulting services.

The PRIM Investment Committee voted (unanimously) to make a recommendation to the PRIM Board to approve the issuance of a Request for Proposals for Portfolio Completion Strategies consulting services as described in the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

**c. PCS Managed Account Platform Services Request for Proposals (RFP) Issuance (Voting Item)**

Mr. Li noted that PRIM's Portfolio Completion Strategies managed account platform services contract with HedgeMark expires December 31, 2019. Accordingly, PRIM staff recommended that the Investment Committee recommend that the PRIM Board authorize the issuance of an RFP for managed account platform services.

The PRIM Investment Committee voted (unanimously) to make a recommendation to the PRIM Board to approve the issuance of a Request for Proposals for Portfolio Completion Strategies managed account platform services as described in the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

**V. Private Equity Performance Summary**

Michael Bailey, Senior Investment Officer – Director of Private Equity, provided an update on private equity performance.

Mr. Bailey stated the 1-year portfolio return for the year ended September 30, 2018 was 24.3%, gross of fees, exceeding the performance of public equity and private equity industry benchmarks.

The portfolio performed well across buyouts, growth equity and venture capital. A high level of mergers and acquisitions activity continued during the year, including large transactions announced and completed by corporate and private equity sponsors. Credit markets supported private equity transaction activity. Notably, private equity provided liquidity to fund investors even earlier than anticipated, he noted, based on research performed by Hamilton Lane.

Mr. Bailey said that with their approvals at the meeting, the Investment Committee will have approved 15 funds totaling \$1.5 billion in commitments. He mentioned that co-investments completed reached an aggregate of nearly \$150 million in the calendar year, a total that is close to the co-investment target of 10% of total private equity commitments.

The PRIM Investment Committee meeting adjourned at 10:59 a.m.

List of documents and other exhibits used at the meeting:

- *Minutes of the PRIM Investment Committee Meeting of Jul 31, 2018*
- *PRIT Fund Performance Report*
- *BNY Mellon Gross of Fees Performance Report*
- *Handout – Charts for Constance M. Everson, CFA Discussion*