



**PENSION RESERVES
INVESTMENT
MANAGEMENT BOARD**

Minutes of the PRIM Real Estate and Timberland Committee Meeting
Wednesday, February 5, 2020

Committee members present:

- Treasurer Deborah Goldberg (arrived 10:01am)
- Lydia Chesnick, Esq.
- Anthony Hubbard, Esq.
- Jack Lutz, Ph.D.
- William McCall, Jr., CRE (via telephone)

Committee members not present:

- Carly Rose
- Peter O’Connell
- Jill Hatton, CRE, Chair
- Garlan Morse, Jr., CRE
- Robert Gifford

The PRIM Real Estate and Timberland Committee meeting was called to order at 9:31 a.m. The meeting was properly noticed as an open meeting but was without a full quorum physically present (four members were physically present, and one participated remotely by phone, but a quorum requires six to be physically present).

I. Approval of the Minutes (Voting Item)

The approval of the minutes of the October 30, 2019, Real Estate and Timberland Committee was postponed due to the lack of a full physically-present quorum.

II. Executive Director/Chief Investment Officer Comments

a. Market and PRIT Fund Performance Summary

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

Calendar 2019 was a very strong and surprising year. What a difference a year makes. At this time last year, we discussed the challenging and volatile financial markets of calendar 2018. Particularly, the fourth quarter of 2018 was dismal with the S&P down 13.5%, and international markets similarly very weak. A 60/40 mix of stocks and bonds was down 7% in the December quarter of 2018 and down 5.6% for calendar year 2018. The PRIT Fund was down, but much less, down 1.8% (2.3% net of fees) for calendar 2018.

Last year at this meeting, we highlighted data that showed slowing global growth with many geopolitical and economic uncertainties. We discussed a U.S. economy still relatively strong, but slowing, and Europe, China and Japan slowing to a point where we were beginning to worry about contraction. We discussed weakening worldwide manufacturing trends, slowing earnings growth, weak retail sales, weak housing, weak consumer confidence, lower industrial material prices, and tight dollar liquidity. We discussed vulnerabilities in the global economy including tariffs and trade tensions with our trading partners and political gridlock and a “war-like” atmosphere in our government.

And indeed, many of our fears and predictions played out as worldwide economies slowed dramatically last year, some to the point of contraction. Trade tensions, lower material prices, weak consumer demand, tight dollar liquidity, and political infighting continues unabated. And despite our

recognition of the ominous conditions and just about everything we feared coming true, calendar 2019 was the second strongest year in the last 10 years at PRIM with the PRIT Fund up 16.6% (16.1% net) , the S&P up more than 31%, DI markets up 22% and emerging markets up 23%. (The PRIT Fund was up 17.7% in 2017.) What's even more surprising, bonds were also very strong. We have often discussed that it is unusual for both the bond market and the equity markets to be simultaneously so strong. Usually falling yields and a strong bond market indicate that investors are fearful about future growth. Diversified bonds were up 9% and long bonds were up 21% in 2019, as yields fell. Today the 10-year Treasury is more than a full percentage point lower than this time last year, hardly a beacon of hope about future prospects.

The market has been climbing "the proverbial wall of worry" as the U.S. Federal Reserve Bank and central banks globally simultaneously implemented easing policies to stimulate their economies. The U.S. Federal Reserve Bank lowered rates three times during 2019. 2019 highlighted the "don't fight the Fed" philosophy that so many on Wall St. adhere to- the belief that the Fed has and will continue to protect our economy from an economic contraction. Some hope that this is the new normal. An investment manager recently wrote a research piece entitled, "*The End of the Boom-Bust Cycle as We Know It,*" a clear indication that some in the investment community think that this time is truly different. And these sentiments, coinciding with some more encouraging economic news, resulted in the large and impressive rally in stocks and bonds that defined calendar year 2019. But will this be the lasting inflection point leading to a sustained and strong worldwide recovery that is needed to sustain this market strength?

We are very grateful for such a strong year for the PRIT Fund even though we didn't anticipate such strong markets going into the year. Our performance of 16.6% gross (16.1% net) in calendar 2019 means that we added a staggering \$11.1 billion to the pension fund, which now stands at \$79 billion. That is 25% of the entire budget of the Commonwealth of Massachusetts of \$43.3 billion for fiscal 2020! Moreover, our performance over the last 1-, 3-, 5-, and 10-years is comfortably above our actuarial target return of 7.25%. The PRIT Fund trailing 10-year return, net of fees, is 8.6%. All this was accomplished while we have been strategically and gradually lowering our global equities exposure (lowering our risk profile) during the past 10-year market rally. It's really reassuring that our portfolio is performing so strongly in both up markets like CY2019 and down markets like CY2018.

Recently we acknowledged the strength in some recent economic news. For example, GDP growth was reported at 2.1% in Q4 and up 2.3% in 2019. This was better than we feared last year, however it was a slowdown from the 2.9% reported in 2018. The employment picture remains strong, inflation is low and in January, US manufacturing PMI showed strength, but that was after posting 5 straight quarters of contraction including hitting a decade low in December of 47.2.

However, we also highlighted some lingering risks. For example, a prominent economics firm reported the GDP growth rate in Q4 as, "*an optical illusion as the most recent three quarters mark the worst performance since the 2016 slump.*" They point out that 70% of the reported growth in the quarter was from an artificial boost caused by the trade calculation. Imports fell 9% in a period when exports increased by 1.4%. That gives the GDP an artificial boost of 1.5%, but falling imports are not necessarily a sign of continued and sustainable economic strength. Also, government spending was up 4.3% for the year, the highest spending growth since 2009. That adds to GDP growth, but business investment fell 1.5% in Q4 and consumer spending slowed to an annualized rate of 1.5% in Q4 versus 4% in Q2 and Q3.

Amid this uncertainty and some improving economic data we outlined six major points at the Investment Committee meeting on February 4th that give us confidence the PRIT Fund is appropriately

positioned while we watch the economic news for more confirming data to support recently rising equity markets. The six major points:

1. There is still a lot of positive spin being applied to the economic data releases. An example of which would be the Q4 GDP report described above.
2. Some economic indicators may appear to be bottoming, but it is off very low level and there is not a lot of room for economies to absorb a large shock.
3. Manufacturing still remains very weak across the board.
4. Hourly earnings growth and wage growth may not adequately support a consumer with the means to drive consumer spending, which is 70% of the U.S. economy.
5. A large part of the recent market rebound (especially in the second half of 2019) may have been fueled by the Fed’s aggressive intervention in the REPO market (a form of back door quantitative easing), which one expert described as “rocket fuel” for leveraged investors – Hedge Funds in particular.
6. The market remains narrow, with a few stocks, mainly tech stocks like Apple and Microsoft, propelling the markets higher. Material and industrial shares, international and emerging markets have been left behind.

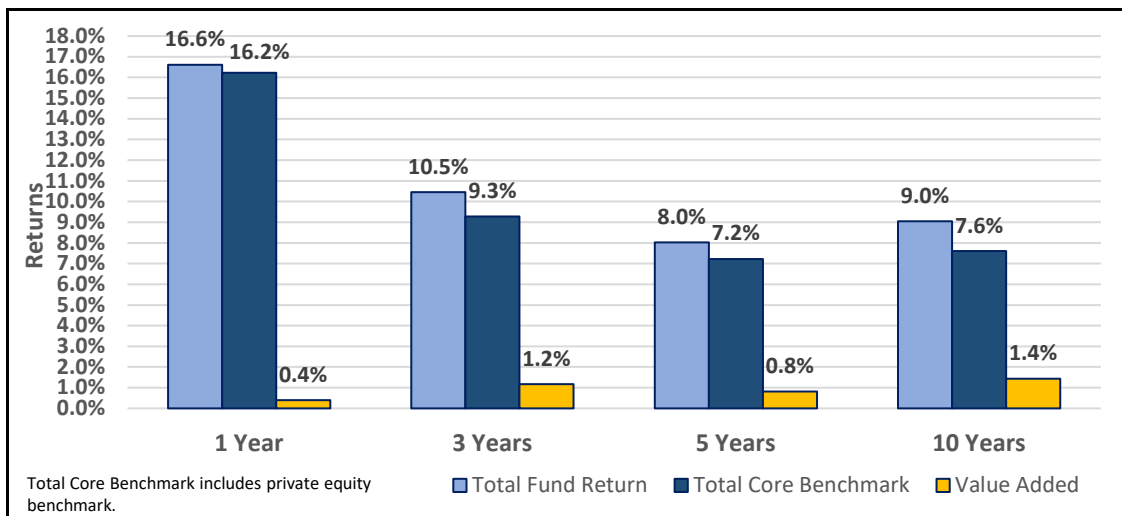
In conclusion, we are pleased with the strong calendar year 2019 performance of the PRIT Fund, continue to believe it is appropriately positioned for the long run, and we will be watching closely for more confirming data to support the recently rising equity markets.

PRIT Fund Performance Summary

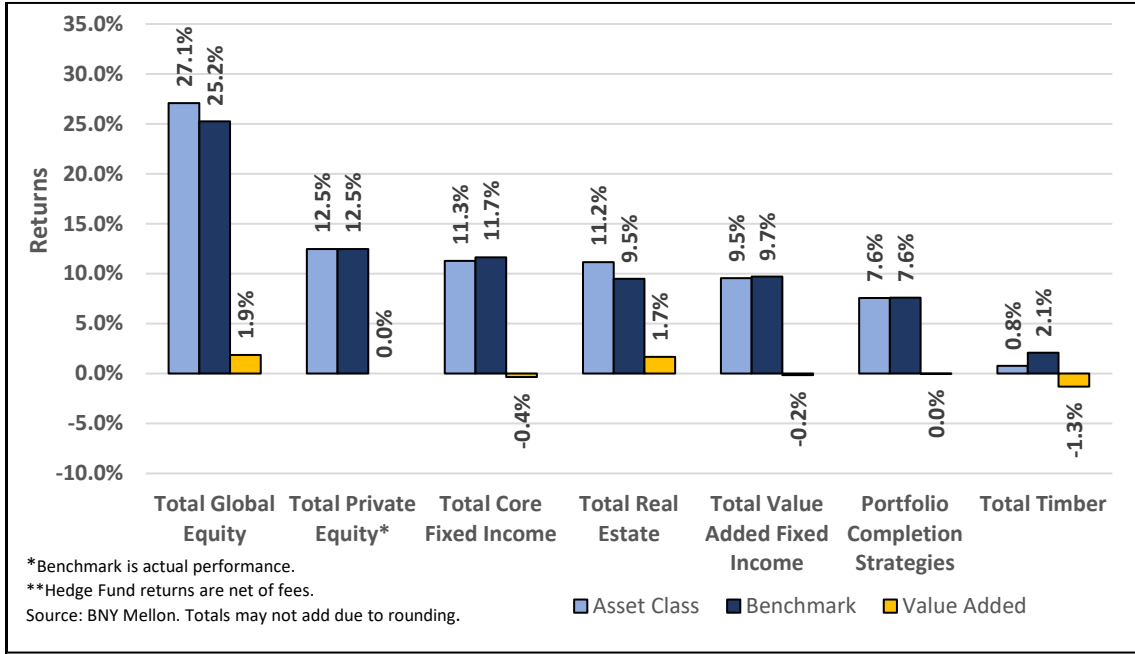
- As of December 31, 2019, the PRIT Fund net asset value stood at \$79.1 billion.
- For the one-year as of December 31, 2019, the PRIT Fund was up 16.6% (16.1% net), outperforming the total core benchmark of 16.2% by 39 basis points (-9 bps, net).
- This performance equates to an investment gain of \$11.5 billion (\$11.1 billion, net of fees).
- Net total outflows to pay benefits for the one-year ended December 31, 2019, 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 December 31, 2019



PRIT Asset Class Performance (Gross of Fees)
One Year Ended as of December 31, 2019



Periodic Table of Returns by Asset Class (Gross of Fees)
Annualized Returns as of December 31, 2019

1 Year	3 Year	5 Year	10 Year
GLOBAL EQUITY 27.1%	PRIVATE EQUITY 20.3%	PRIVATE EQUITY 18.2%	PRIVATE EQUITY 18.2%
PRIVATE EQUITY 12.5%	GLOBAL EQUITY 12.9%	REAL ESTATE 9.0%	REAL ESTATE 11.0%
CORE FIXED INCOME 11.3%	REAL ESTATE 8.5%	GLOBAL EQUITY 8.9%	GLOBAL EQUITY 9.5%
REAL ESTATE 11.2%	VALUE-ADDED FIXED INCOME 6.7%	VALUE-ADDED FIXED INCOME 5.1%	VALUE-ADDED FIXED INCOME 6.8%
VALUE-ADDED FIXED INCOME 9.5%	CORE FIXED INCOME 5.2%	TIMBER 3.7%	CORE FIXED INCOME 5.1%
TOTAL PCS 7.6%	TOTAL PCS 4.5%	CORE FIXED INCOME 3.5%	TIMBER 5.1%
TIMBER 0.8%	TIMBER 3.9%	TOTAL PCS 3.1%	TOTAL PCS 4.5%

- The *PRIT Fund Performance Report* of December 31, 2019, is attached as **Appendix B**.
- The BNY Mellon Gross of Fees Performance Report of December 31, 2019, is attached as **Appendix C**.

Organizational Update

Promotions/Recognition

In December we announced two promotions. It is extremely satisfying for me to recognize and reward talented, hard-working staff members whose work enables us to remain a leader in our industry.

Sarah Coelho was promoted to Senior Corporate Accountant. Sarah joined PRIM as a Corporate Accountant in 2018. She quickly became a valuable member of the Finance team, where she has taken the lead on streamlining the quarterly close and annual budget processes. Sarah has taken on additional responsibilities after the retirement of Finance Manager, Cathy Hodges, and will soon be responsible for PRIM’s benefits administration. Sarah’s role will continue to expand in the finance and benefits areas. Sarah reports to Dan Eckman, Director of Finance and Administration.

Maria Garrahan was promoted to Senior Investment Officer and Director of Research. Maria joined PRIM as an Investment Officer in 2018. She has designed a thorough asset allocation framework, helped implement PRIM’s proprietary suite of analytics across the organization, developed a data infrastructure playbook, collaborated on projects such as senior housing research with the Real Estate team and the Public Markets microcap research project, and she created the ESG Primer: “A Three Pillar Approach” which was presented at the Board retreat, and she continues to work on PRIM’s ESG Framework. Maria and her team are responsible for coordinating investment research across all asset classes to help drive innovation at PRIM. She will be responsible for the buildout of the PRIM research team and she will continue to report to Eric Nierenberg, Ph.D., Chief Strategy Officer. The research team will become the third pillar of the Strategy group along with Risk, headed by Jay Leu, and PCS, headed by Bill Li.

Sarah Zatoonian, Investment Officer, Private Equity, recently passed the CFA Level I exam.

Real Estate Committee member, **Lydia Chesnick**, was recognized as one of Connect CRE’s Women in Real Estate honorees. The organization selected inspirational women from around the country who play important roles in the real estate industry — because of their talent, drive and fresh ideas.

Also, I was honored on December 3, 2019 with **Institutional Investor Magazine’s Lifetime Achievement** award at a ceremony in New York City. That was a great honor for me and entire PRIM staff and committee and Board members, whose work enabled the recognition. It was recently pointed out to me that with nearly 10 years as Executive Director, I am the longest serving Executive Director (and Chief Investment Officer) in PRIM’s history. It has been a very rewarding experience. But as I said before, I feel like we are just getting started.

Also, on a more personal level, in December I was named a Governing Trustee on the **Dana Farber Cancer Institutes’ Board**. I would like to thank Treasurer Goldberg for her support and for her endorsement as I went through Dana Farber’s screening and selection process last fall. I am extremely excited to give back to an institution that is one of the world’s finest cancer centers. The Dana Farber is near and dear to me and my family. I can’t be more thrilled to help in any way I can to help maintain Dana Farber’s world-class status and to continue to make its leading-edge treatments available to those in need. It is a humbling honor that I will relish.

b. Summary of 2020 Annual Plans

Mr. Trotsky described that each year, each senior staff member and each asset class head prepares an annual plan for 2020. Mr. Trotsky noted that PRIM's Investment Team's Annual Plans are attached as Appendix D and staff is seeking feedback and comment so that the plans may then be presented to the Board at its February 26th meeting for its feedback and comment.

III. Research – Asset Allocation Overview

Michael G. Trotsky, CFA, Executive Director and Chief Investment Officer, presented an overview of **Appendices E and F**. PRIM's asset allocation framework seeks to identify the optimal mix of available investment strategies to maximize the probability of achieving the dual mandate (objective) of meeting the required actuarial rate of return (7.25%) with an acceptable drawdown risk (not more than 20%). He noted that the ranges in the PRIM asset allocation reflect the long-standing use of bands around a midpoint.

The 2020 asset allocation study is consistent with last year's study in which we concluded that an increase in private equity and private real estate would increase the probability of meeting the dual mandate. Since the current actual weights in the portfolio are at the low end of their target ranges and rapidly increasing these investments is difficult because they are illiquid private investments, staff have concluded that no change to the strategic asset allocation is necessary in 2020. Because of this, there is sufficient headroom within the current asset allocation policy to increase these investments. Therefore, PRIM staff recommended no changes to the current asset allocation ranges for 2020.

IV. Performance Review and Market Update

Timothy Schlitzer, CRE, CFA, Senior Investment Officer - Director of Real Estate and Timberland, updated the Committee on Real Estate and Timberland performance.

Mr. Schlitzer provided a summary of performance information as follows:

- Real estate ended the year at 9.5% of the PRIT Fund. Timber was at 3.5%. The real estate company completed net acquisitions of \$365 million in private real estate assets. There were no timberland transactions.
- As presented to the Board by John La Cara and Maria Garrahan last year, staff is funding certain acquisitions directly with sales of REITs. REITs had a strong year at 23.5%, more in line with the public equity markets, which provided a robust environment for these sales.
- Total real estate returned 11.2% for the year, 167 basis points over the asset class benchmark.
- All three strategies (core, non-core, REITs) outperformed their respective benchmarks.
PRIM's portfolio debt was written down as interest rates dropped. The write-down is a "paper loss" and was offset by asset appreciation resulting in little dilution to the separate account returns.
- Timberland returned 0.8% for the year versus the asset class benchmark at 2.10%. The unlagged benchmark returned 1.3%, a meaningful decrease. This resulted in actual underperformance of approximately 50 basis points versus the benchmark.
- PRIM's Southern and Australian investments both outperformed the index for the year.
- The underperformance came from the Pacific Northwest holdings. This portfolio was written down approximately 8%.
- A key driver of the change came from methodology changes resulting from an appraiser rotation. Timber prices and harvest schedules were modeled differently which had a significant impact on valuation.

- Additionally, the operating environment in timberland has presented some challenges. Regional prices have been negatively impacted by a slowing Chinese economy, tariffs, low U.S. construction rates and now potentially, Covid-19.

V. Real Estate Debt - Investment Policy Recommendation (Voting Item)

Mr. Schlitzer summarized the recommendation as described in the Expanded Agenda. The proposed revisions include modifying language within the real estate leverage policy related to the debt service coverage ratio (“Coverage Ratio”) and the spread between property returns and borrowing rates.

The current language requires that the Coverage Ratio be tested using ‘free cash flow’, a term that often has various interpretations. The updated language changes the numerator in the Coverage Ratio from ‘free cash flow’ to ‘portfolio EBITDA’, a metric calculated quarterly based on the portfolio’s audited financials. Additionally, the current policy requires deleveraging if the Coverage Ratio falls below 1.25x. The updated language removes the deleveraging requirement in order to eliminate a possible scenario where PRIM pays down debt that is accretive to the portfolio and assumes a punitive prepayment penalty that would be detrimental. The language used to determine the spread between property returns and borrowing rates was modified in order to further clarify the calculation. The revised language replaces the term ‘NOI’ with property portfolio operating yield; this will allow PRIM to easily analyze this metric when considering additional financings.

PRIM staff and the unanimous consensus of the Real Estate and Timberland Committee members present and on the phone agreed to recommend that the PRIM Board adopt the real estate debt policy revisions as described in **Appendices H and J**.

VI. Real Estate and Timberland Consulting – RFP Issuance (Voting Item)

Mr. Schlitzer summarized the recommendation as described in the Expanded Agenda. He noted that PRIM’s contracts with its incumbent consulting service providers expire on June 30, 2020, with an option to extend for an additional period of up to one year. PRIM plans to exercise this option.

PRIM staff and the unanimous consensus of the Real Estate and Timberland Committee members present and on the phone agreed to recommend that the PRIM Board issue an RFP for General Real Estate Consulting Services, Timberland Consulting Services and/or Project Consulting Services.

VII. 2020 Real Estate and Timberland Annual Plan

Mr. Schlitzer presented the 2020 Real Estate and Timberland Annual Plan as described in **Appendix K**.

VIII. 2020 Real Estate Internal Management Plan

Mr. Schlitzer presented the Real Estate Internal Management Plan as described in **Appendix L**.

The PRIM Real Estate and Timberland Committee meeting adjourned at 11:17 a.m.

List of documents and exhibits used during the meeting:

- *Minutes of the PRIM Real Estate and Timberland Committee Meeting of October 30, 2019*
- *PRIT Fund Performance Report*
- *BNY Mellon Gross of Fees Performance Report*
- *2020 Investment Team Annual Plans*
- *2020 Asset Allocation Presentation*
- *NEPC Asset Allocation Presentation*

- *Real Estate and Timberland Performance Charts*
- *Real Estate Debt Revised Policy – Clean*
- *Real Estate Debt Revised Policy – Redlined*
- *Real Estate Debt Policy Recommendation - Chatham Financial*
- *2020 Real Estate and Timberland Annual Plan*
- *2020 Real Estate Internal Management Plan*