

Minutes of the PRIM Investment Committee Remote Meeting

Tuesday, November 14, 2023

Committee members present:

- Treasurer Deborah Goldberg, Chair
- C. LaRoy Brantley
- Catherine D'Amato
- Michael Even
- Constance Everson, CFA
- Ruth Ellen Fitch, Esq.
- James Hearty
- Peter Monaco
- Phillip Perelmuter
- Philip Rotner (joined at 9:41am)
- Paul Shanley, Esq.
- Glenn Strehle, CFA
- Timothy Vaill

Committee members not present:

Joseph Bonfiglio

The PRIM Investment Committee meeting was called to order at 9:32 a.m. Chair Treasurer Deborah Goldberg announced that the meeting was being held by internet and telephone in accordance with the provisions of Massachusetts Acts of 2022 which was most recently amended on March 29, 2023, to include an extension of the 2020 Executive Order 'Suspending Certain Provisions of the Open Meeting Law' until March 31, 2025. Accordingly, all members of the Committee participated remotely via telephone and/or internet enabled audio and video conferencing, and all votes were taken by roll call. Public access to the deliberations of the Committee was likewise provided via telephone, with presentation materials made available on PRIM's website (www.mapension.com). At the start of the meeting, the names of the members participating remotely were announced.

I. Approval of the Minutes (Voting Item)

The PRIM Investment Committee approved, by roll-call vote, the minutes of its August 1, 2023, meeting.

II. Executive Director / Chief Investment Officer Comments

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

Financial markets declined modestly in the September quarter following three consecutive quarters of robust gains from the end of last year through this past June. In the September quarter, U.S. and emerging markets equities and diversified bonds were down 3% or more, developed international equities were down 4%, while long duration US Treasury STRIPs were down almost 20%. Fortunately, PRIM's alternative investments such as Private Equity, Hedge Funds, Private Debt, Other Credit Opportunities, and Timberland, all posted gains in the September quarter, and as a result, the PRIT Fund fared better; down only 1.7% net of fees in the quarter. This is a strong result in a weak market. The PRIT Fund was down approximately half as much as the markets in the quarter, and this comes after Fiscal Year 2023 (FY2023) ended at a record high level.

We believe the hallmark of a well-constructed portfolio is that it has components that will perform well in any environment. PRIM's trailing one-year gain of 9% through September is strong and well above our

required rate of return. Moreover, the 3-, 5-, and 10-year returns also remain strong, up 7.4%, 6.8%, and 7.8%, respectively again, driven mainly by the strong performance of alternative investments. The PRIT Fund has performed well over a long period of time through strong and weaker markets and through turbulent times; we remain confident in its ability to do so in the future.

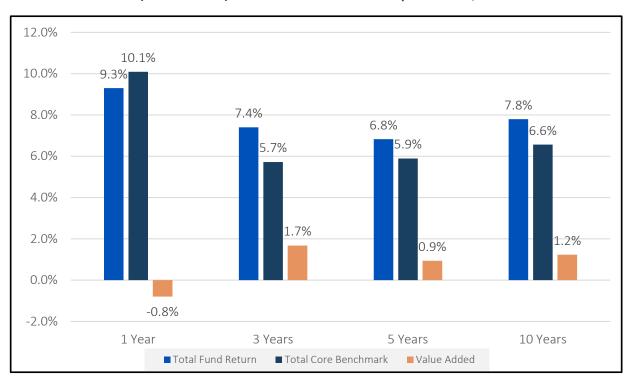
PRIT Fund Performance

For the one-year ended September 30, 2023, the PRIT Fund was up 9.3%, (8.8% net), underperforming the total core benchmark of 10.1% by 79 basis points (124 bps net).

- This performance equates to an investment gain of \$7.8 billion, net of fees.
- This underperformance equates to \$1.1 billion of value below the benchmark return, net of fees.
- Net total outflows to pay benefits for the one-year ended September 30, 2023, were approximately \$1.1 billion.

The following charts summarize the PRIT Fund performance for the fiscal year ended September 30, 2023.

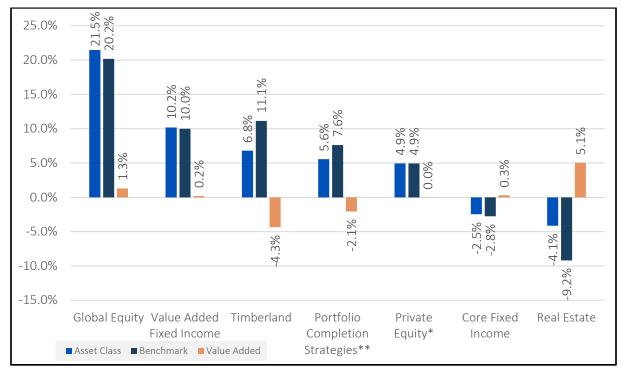
Total PRIT Fund Returns (Gross of Fees) Annualized Returns as of September 30, 2023



 $Source: BNY\ Mellon.\ Totals\ may\ not\ add\ due\ to\ rounding.\ Total\ Core\ Benchmark\ includes\ private\ equity\ benchmark.$

PRIT Performance by Asset Class

(Gross of Fees) Annualized Returns as of September 30, 2023



Source: BNY Mellon. Totals may not add due to rounding, *Benchmark is actual performance. **Hedge Fund returns are net of fees.

PRIT Fund Periodic Table of Returns (Gross of Fees) as of September 30, 2023

1 Year	3 Year	5 Year	10 Year
GLOBAL EQUITY	PRIVATE EQUITY	PRIVATE EQUITY	PRIVATE EQUITY
21.5%	23.0%	20.0%	20.0%
VALUE-ADDED FIXED	REAL ESTATE	REAL ESTATE	REAL ESTATE
INCOME	11.5%	8.2%	9.3%
10.2%			
TIMBER	TIMBER	GLOBAL EQUITY	GLOBAL EQUITY
6.8%	8.5%	6.6%	7.8%
PCS	GLOBAL EQUITY	TIMBER	TIMBER
5.6%	7.9%	5.1%	6.1%
PRIVATE EQUITY	VALUE-ADDED FIXED	VALUE-ADDED FIXED	VALUE-ADDED FIXED
4.9%	INCOME	INCOME	INCOME
	6.0%	4.9%	4.7%
CORE FIXED INCOME	PCS	PCS	PCS
(2.5%)	5.6%	2.6%	3.7%
REAL ESTATE	CORE FIXED INCOME	CORE FIXED INCOME	CORE FIXED INCOME
(4.1%)	(7.4%)	0.0%	1.9%

Source: BNY Mellon. Returns as of September 30, 2023

Organizational Updates

Treasurer Goldberg recently awarded PRIM two Commonwealth Citations for Outstanding Performance. Eliza Haynes was recognized as a key individual on our award-winning private equity team. Eliza's sourcing and underwriting work has helped establish PRIM's Private Equity portfolio as one of the very best performing in the country; it is also the highest performing asset class in the PRIT Fund by a wide margin.

The PRIM Real Estate Leverage Team was also recognized for an innovative program that works across asset classes to save the Commonwealth an estimated \$10 million annually in borrowing costs while bolstering the returns of PRIM's Real Estate portfolio. The award recognizes the collective contributions from across many PRIM teams including Real Estate, Finance, Public Markets, and Risk.

Additionally, Mr. Trotsky noted that he was named to the 2023 CIO Power 100 list by the publication Chief Investment Officer. The designation honors, "[leaders] who continue to guide their funds through volatile times and are disciplined enough to navigate whatever is ahead".

Mr. Trotsky announced one new employee, Richer Leung, who joined PRIM in November as an Investment Officer on the Public Markets Team. Richer joined PRIM from DoubleLine Capital, a Los Angeles-based fixed income manager, where he was a data management analyst. Prior to DoubleLine, he was an assistant vice president working on CDO (collateralized debt obligations) analytics for US Bank in Boston. He received his B.S. in Business Administration and Management from Boston University and is a CFA charter holder Richer has a strong background in data analysis and fixed income analytics, and will be reporting to Chuck LaPosta, PRIM's Director of Fixed Income.

Investment Committee member Contance Everson, CFA, provided her comments on the economy and markets.

III. Investment Performance Reporting Services RFP Recommendation (Voting Item)

Jessica Murphy, Manager of Performance Reporting, presented the Investment Performance Reporting Services Request for Proposals (RFP) recommendation. Ms. Murphy noted the Evaluation Committee for this RFP had two main goals. First, was to find a vendor that can visually enhance the monthly and quarterly performance reporting provided to the Board and Committees, participants, and staff. Secondly, PRIM wanted to find a platform that brings efficiency and automates the performance reporting process. This will benefit the many individuals throughout the firm that currently spend significant hours putting together performance reporting materials. In addition, there are anticipated ancillary benefits, such as a more powerful and detailed attribution; more efficient and accurate exposure analysis; and lastly a shadow book of performance.

The RFP was issued on March 13, with proposals due by April 14, 2023. PRIM received a total of ten proposals. The evaluation committee consisted of Andre Abouhala, Francesco Daniele, Shannon Ericson, Tony Falzone, David Gurtz, Jay Leu, Matthew Liposky, Laura Strickland, David Griswold, and Jessica Murphy. All responses were thoroughly reviewed, and finalists were selected based on criteria detailed in the RFP. The Evaluation Committee selected as finalists: Investment Metrics, SEI Novus, and Solovis. Final interviews were conducted at PRIM offices from August 8th through the 17th.

The Evaluation Committee recommended to the Investment Committee the selection of Solovis, who have demonstrated a powerful platform, comprehensive reporting and analytical capabilities, and experience working with other large peer pension plans. Solovis makes up Nasdaq Asset Owners Solutions along with eVestment, TopQ and RMS and is trusted by over 100 asset owners and allocators. PRIM has been using eVestment since 2012 and TopQ since 2021 and has been impressed with their tools.

Solovis is a multi-asset class, analytics and investment reporting platform that was built specifically for pensions, endowments, and foundations. Solovis provides users with powerful, easy-to-use report writing tools to create customizable reports and visualizations for analyzing performance, risk, and exposure

across asset classes. Their platform utilizes award-winning technology to provide comprehensive data that will allow PRIM to efficiently report total portfolio performance and value across all asset classes to both internal and external stakeholders. PRIM will gain a holistic view of our multi-asset class portfolio and be able to leverage robust analytics and reporting tools.

The PRIM Investment Committee voted, by unanimous roll-call vote, to approve a recommendation to the PRIM Board to approve the selection of Solovis to provide Investment Performance Reporting Services to PRIM as described in the Expanded Agenda, and to authorize the Executive Director to take all actions necessary to effectuate the vote.

IV. Private Equity

A. Performance Summary and Cash Flows

Michael McGirr, Senior Investment Officer - Director of Private Equity, presented PRIM's Private Equity performance. Mr. McGirr noted PRIM's long-term Private Equity performance remains strong with the 3-, 5-, and 10-year performance returning 23%, 20%, and 20% respectively, gross of fees. This was the third straight positive quarter of performance.

This quarter, and as a reminder, with our quarter lag, this is the April to June 2023 period, Private Equity was up 2.5% gross (2.2%, net). The first half of 2023 has been quite strong for public equities, especially technology stocks with the Nasdaq up almost 40% in the first half of 2023. The one-year return for Private Equity was 4.9% gross (3.7%, net).

Mr. McGirr noted that venture capital continued to decline in the quarter while the PRIT Fund's other strategies demonstrated solid performance. PRIM's venture capital portfolio was down 1.6% for the quarter and down 11% for the trailing 1-year period, however, PRIM's 10-year venture capital portfolio returned more than 19%. Growth Equity returned 3% for the quarter and 3.8% for the trailing 1-year period. Buyouts had another positive quarter. SMID buyouts returned 2.6% for the quarter and 4.8% for 1-year period. Mega-Large buyouts performed the best this quarter, returning 3.8% and returned 7.3% for the trailing 1-year period.

This quarter, distributions for PRIM were higher than the previous quarter. Year-to-date, PRIM has received over \$1.2 billion in cash distributions, however, year-to-date contributions outpaced distributions with a modest, negative outflow this quarter. Mr. McGirr noted an important component to consider when evaluating these figures is they are inclusive of co-investments, which are no cost investments. PRIM has remained an active co-investor this year, and excluding this growing part of our portfolio, PRIM would be cash flow positive year-to-date and for this quarter. The fact that PRIM is essentially neutral from a cash flow perspective gives us some comfort given this tough market backdrop, where exit volumes are down more than 40%.

B. GP-Led Secondaries (Voting Item)

Eliza Haynes, Investment Analyst, presented PRIM's recommendation for an updated investment approval process for GP-led secondary transactions. GP-led secondaries have quickly grown to represent nearly half of the secondaries market, and PRIM's Private Equity team is coming across these opportunities at an increasing rate.

A GP-led secondary transaction involves the sale of a portfolio company (or group of companies) from a private equity fund to a separate vehicle controlled by the GP and commonly known as a Continuation Fund. In these transactions, Limited Partners typically have 20 business days to either sell their existing interest to the secondary buyer or roll their interest into the "Continuation Fund" which will continue to own the assets. This represents a full exit for the original fund. Transactions may require rolling investors to contribute additional equity beyond their pro rata share to support future value creation initiatives. These additional capital contributions are small, often between 10%-20% of the equity value.

Research and experience have highlighted a governance constraint due to the quick timeline in which these transactions occur. In these cases, the Private Equity team does not have time to go to the Committee and Board to approve the additional equity commitment. Currently, there is no option to continue owning assets sold to secondary buyers if they require additional equity beyond our Board-approved investment.

For this reason, PRIM is recommending an updated investment approval process to provide our team with the necessary flexibility to evaluate these decisions on a case-by-case basis and preserve optionality. PRIM's view is that these transactions are not going away. Unlike many peers, PRIM is not overallocated to private equity, and it is important to preserve the option to continue owning these investments when this will maximize value.

Ms. Haynes noted the Private Equity team has evaluated 33 continuation funds since 2019, affecting over \$500 million in the portfolio. These transactions are complex and must be evaluated on a case-by-case basis, but the framework is already in place to make this an efficient process given the time sensitivity and small dollars that are often involved. When additional equity is not required, PRIM has elected to roll in situations where it has strong alignment, a high degree of conviction in the GP, and high-quality assets under consideration. One additional benefit of these continuation funds is that they often allow us to continue owning assets for a lower cost relative to a new investment in the GP's flagship fund. This recommendation is to effectively extend the governance model for the Private Equity Co-investment Process to also include GP-led secondaries opportunities.

PRIM staff recommends that the Board delegate authority to PRIM's Executive Director to approve GP-led secondaries investments that require additional capital. The proposed guidelines outline that all continuation funds will be controlled by Board-approved GPs, and new investments will be congruent with PRIM's investment thesis, strategy, and program objectives. New capital contributions will be additional investments in assets PRIM already owns, and they will count against PRIM's Board-approved co-investment budget, which sets a limit of up to 40% of annual private equity commitments.

The PRIM Investment Committee voted, by unanimous roll-call vote, to make a recommendation to the PRIM Board to approve a new investment approval process for GP-Led secondaries as described in the Expanded Agenda and to authorize the Executive Director to take all actions necessary to effectuate the vote.

V. Public Markets Performance Summary

Michael McElroy, Senior Investment Officer - Director of Public Markets, presented the Public Markets Performance Summary noting the third quarter of 2023 saw negative returns in most public market asset classes, after several positive quarters coming out of the lows in 2022. Global equity returns were negative in all major geographies, with not much difference between US and non-US markets as most geographies were down approximately 3% in the quarter. Value stocks led growth stocks in most markets, with the notable exception of US large cap where growth stocks were strong outperformers in the quarter. As a reminder, the PRIT Fund is passively invested in US large cap, so was not impacted by this style divergence. For the one-year period, equity returns were strong, exceeding 20% in most geographies, international stocks being the best performers.

Bonds returns were mixed in Q3. Returns in Core Fixed Income were down approximately 6%, whereas the more credit-sensitive mandates were up approximately 1%. Over the last 12 months, Core Fixed Income was down 3% due to the rapid rise in interest rates, whereas the Value-Added Fixed Income was up 11%, as our bank loan portfolios and high-yield portfolios benefitted from their floating-rate characteristics in the rising rate environment as well as tightening credit spreads. Though US and many developed markets yield curves remain inverted, it appears tightening has paused allowing investors a

chance to assess the influence of these interest rate increases on economic activity and company performance.

Results for the PRIT Fund were mixed in Q3. In Domestic Equities, active managers in smaller stocks outperformed handily, but the disparity in returns between large and small cap stocks in the US led to a slight underperformance relative to the benchmark. Non-US Developed Equities performed in-line with benchmark, and our Emerging Markets managers as a group continued to deliver strong relative returns, approximately 1.4% ahead of benchmark. For the 1-year period, our US managers performed in-line, and our Non-US Developed, and Emerging Markets managers delivered strong outperformance. Fixed income results were mixed in Q3, as Core Fixed Income delivered positive alpha against negative benchmark returns (impacted by long-duration STRIPS), while Value-Added Fixed Income delivered slightly negative alpha against positive benchmark returns. The results for the 1-year period were similar in profile.

Topics that PRIM is discussing with its managers relate to the influence of the higher rates and inflation on operating performance of their companies, and the impacts of potential recession on corporate behavior. Though it is still early to assess the ultimate impact, our managers continue to point to the resilience of consumers and the labor market recently. Global companies continue to report decent fundamentals, and so far, this reporting season US companies are delivering both positive news and upside surprises on both sales and earnings. Consumer activity continues to be robust.

Volatility remains high, so risk management continues to be a focus, both for PRIM staff and the managers. In terms of potential geopolitical hotspots, the aggregate emerging markets equity portfolio remains underweight to both North Asia (China and Taiwan) and the Middle East though clearly the risks present are not isolated to a single country or geography. Across the aggregate equity and fixed income holdings within the Portfolio, PRIM has a very muted relative exposures to regions, sectors, industries, and countries, as well as interest rate or credit risks in the aggregate.

While it appears conditions have stabilized over the past year, there are still catalysts which could lead to market volatility spikes. The public markets portfolio remains well-diversified across geographies, styles, and sectors, and is built to be able to withstand market stress periods. PRIM's managers have performed well in recent periods, and certainly over longer periods. Through several layers of diversification, the aggregate risk of the overall equity and fixed income portfolios remains low.

VI. Portfolio Completion Strategies Performance Summary

Bill Li, Senior Investment Officer - Director of Portfolio Completion Strategies (PCS), presented the performance of the PCS portfolio and noted in Q3, PCS returned 1.53%, which highlights the resilience of Hedge Funds during a time when both equities and bonds sold off. Specifically, Stable Value Funds returned 2.5%, while Directional Funds were down slightly, by 0.6%.

Reviewing relative performance, PRIM's Hedge Funds' performance vs. the peers-based benchmark remains above 100 basis points for the trailing one-year period. However, relative performance vs. the strategic benchmark still lagged by about 70 basis points. As described at the last Investment Committee meeting, this relative figure is still feeling the one-time anomaly, from the March benchmark switch.

Over a longer time, the Hedge Fund portfolio had a 1.4x Return/Risk ratio, which remains above the 0.2x ratio exhibited by a 60/40 market portfolio, which means for each risk unit taken, the Hedge Fund portfolio continues to deliver superior returns. Equity beta continued to be around 0.2x, demonstrating ongoing diversification benefit.

Mr. Li noted that allocators across the board are increasingly positive on Hedge Funds. Some important points to consider are as follows:

1. After the Q3 sell-offs, the valuation gap has widened across various market pockets, making it fertile to invest in a simultaneously long and short manner, to capture that valuation gap.

- 2. Adding to Hedge Funds' attraction is the ever-greater divergence among central banks when countries' economies are moving in different directions; and the divergence trend likely will persist. Again, such diverging Macro situations have created gaps for HFs to trade on.
- 3. Cash return has improved compared to the "zero rate" era. The higher cash yield should boost the expected return of Hedge Funds by another ~200 basis points.

The PRIM Investment Committee meeting was adjourned at 11:11am.

<u>List of documents and exhibits used during the meeting:</u>

- Minutes of the PRIM Investment Committee Meeting on August 1, 2023
- PRIT Fund Performance Report (September 30, 2023)
- BNY Mellon Gross of Fees Performance Report (September 30, 2023)
- Evaluation Committee Report for Investment Performance Reporting Services RFP
- GP-Led Secondaries Presentation