



Minutes of the PRIM Investment Committee Remote Meeting
Tuesday, February 11, 2025

Committee members present:

- Treasurer Deborah Goldberg, Chair
- Joseph Bonfiglio (left at 11:35; returned at 11:44)
- C. LaRoy Brantley (left at 11:05)
- Catherine D'Amato
- Michael Even
- Constance Everson, CFA
- Ruth Ellen Fitch, Esq.
- James Hearty (left at 11:50)
- Peter Monaco
- Phillip Perelmuter
- Philip Rotner (joined at 9:36)
- Glenn Strehle, CFA (left at 11:00; rejoined at 11:30)
- Timothy Vaill

Committee members not present:

- Paul Shanley, Esq.

The PRIM Investment Committee meeting was called to order at 9:30 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 Investment Committee approved, by unanimous roll-call vote, the minutes of its November 12, 2024, meeting.

II. Executive Director/Chief Investment Officer Comments

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

Organizational Updates

In early February, Governor Healey appointed Mark Lapman to the PRIM Board, and he will take Peter Monaco's place. We thank Peter for his nine years of service on the PRIM Board, and we are very pleased that he has elected to remain with us as a member of the Investment Committee. Peter has always been an engaged and thoughtful participant.

Mark has been in the investment management business since 1979 managing equity and fixed income portfolios for public plans and corporations. He started as an analyst at Independence Investments, LLC focusing research on industrial, energy and financial companies. Later, he was instrumental in building

the company's client base—in particular, among large public pension plans, becoming CEO of the firm in 2000. Independence Investments was an early innovator in quantitatively oriented investment management techniques.

In 2009 Mark left Independence and co-founded Cooper Lapman Financial, LLC to provide investment and financial planning services to individuals and families. Cooper Lapman emphasized diversified, passive investing and liability-driven, goal-oriented planning. That company grew steadily and merged in 2023 with Focus Partners, where Mark now serves as a financial advisor.

Mark earned a Ph.D. in History from Harvard University in 1982 and is a holder of the Chartered Financial Analyst designation. Mark has served on several boards over the years including John Hancock Mutual Funds, The Martha's Vineyard Museum, and the Whitehead Institute for Biomedical Research where he was also on the Investment Committee for fifteen years.

In the area of continuing education, **Francesco Daniele**, Director of Client Service, and **Seth Gitell**, Chief External Affairs Officer, recently received the CFA Institute's Private Markets and Alternative Investments certificate. The certificate is earned through the successful completion of five courses designed to equip learners with the basic understanding and skills required for investing in these growing investment classes. In particular, the certificate focuses on private equity, private credit, real estate and infrastructure, commodities, and hedge funds. Additionally, **George Tsipakis**, Director of Investment Operations, **Joseph Kamotho**, Business System Analyst on the IT team, and **Melisa Ng**, RE and Timber Accounting Manager, recently received the CFA Institute's Investment Foundations Certificate. The certificate is earned through the successful completion of six courses designed to provide learners with an overview of the essentials of finance, ethics, and investment roles, providing a clear understanding of the global investment industry including terminology and foundational concepts. Congratulations to them all.

Markets and PRIT Fund Performance

The returns of the PRIT Fund for the calendar year ended December 31, 2024, were strong. The PRIT Fund was up 9.1%, an investment gain of \$9.1 billion, net of fees. Despite elevated policy and market uncertainty, equity market volatility in recent months has remained at or below historical averages and markets have moved higher. The bond market has been more volatile, and yields have moved higher, an indication that investors are trying to decipher the impact of possible new policies and directives on inflation and economic growth. The Fund ended with a balance of \$109.7 billion at December 31, 2024.

The news flow has been overwhelming and deciphering it is difficult. PRIM's investment philosophy is predicated on the belief that it is very difficult to consistently predict the future and the direction of the financial markets. As long-term investors, we believe it is more impactful to evaluate changes that actually occur rather than speculating about the future. It is difficult to predict which of the many proposals will be implemented and even more difficult to predict their impact on the economy or financial markets. No policy change impacts the economy or the markets in isolation.

We have reviewed the strong economic baseline here in the U.S. and noted its resilience. We can now safely say the economy had a soft-landing in 2024, and we are no longer in the early stages of an economic recovery. As always, our job at PRIM is to maintain a diversified portfolio with components that will perform well in any environment and no matter what the future holds. With that as the goal, the staff recommended, and the Investment Committee approved the 2025 asset allocation policy which made no changes to the current allocations – we believe its current balance remains appropriate.

PRIT Fund Performance

For the one-year ended December 31, 2024, the PRIT Fund was up 9.1%, net of fees, underperforming the total core benchmark of 9.7% by 62 basis points.

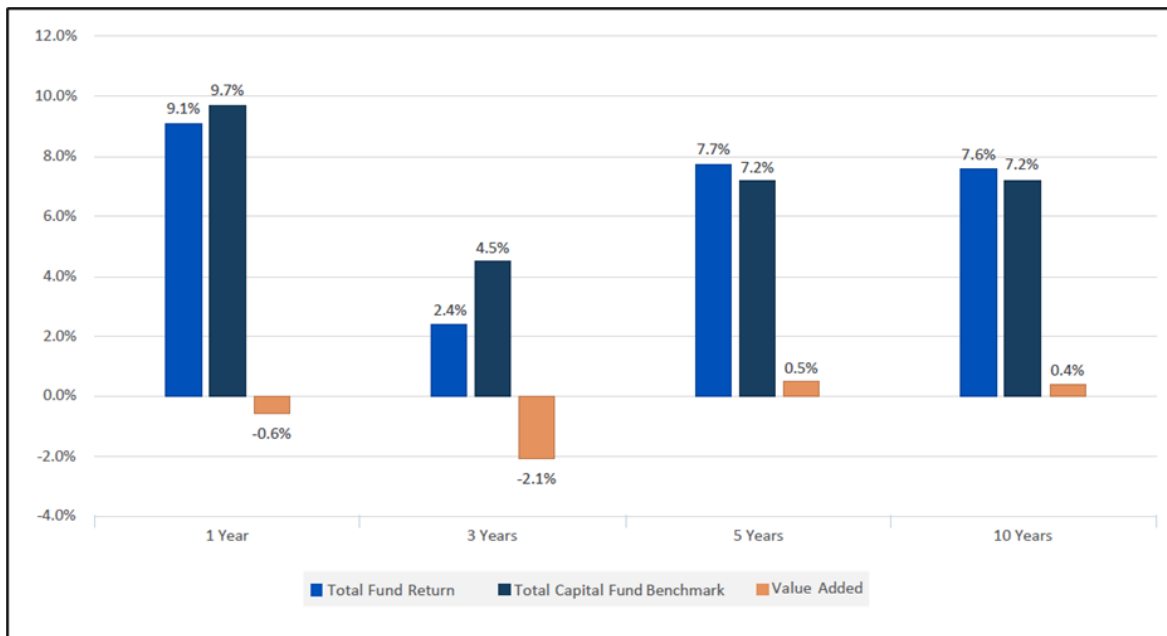
- This performance equates to an investment gain of \$9.1 billion, net of fees.

- This underperformance equates to \$620 million of value below the benchmark return, net of fees.
- Net total outflows for the one-year ended December 31, 2024, were approximately \$18 million.

Mr. Trotsky referred to the following charts:

Total PRIT Fund Returns

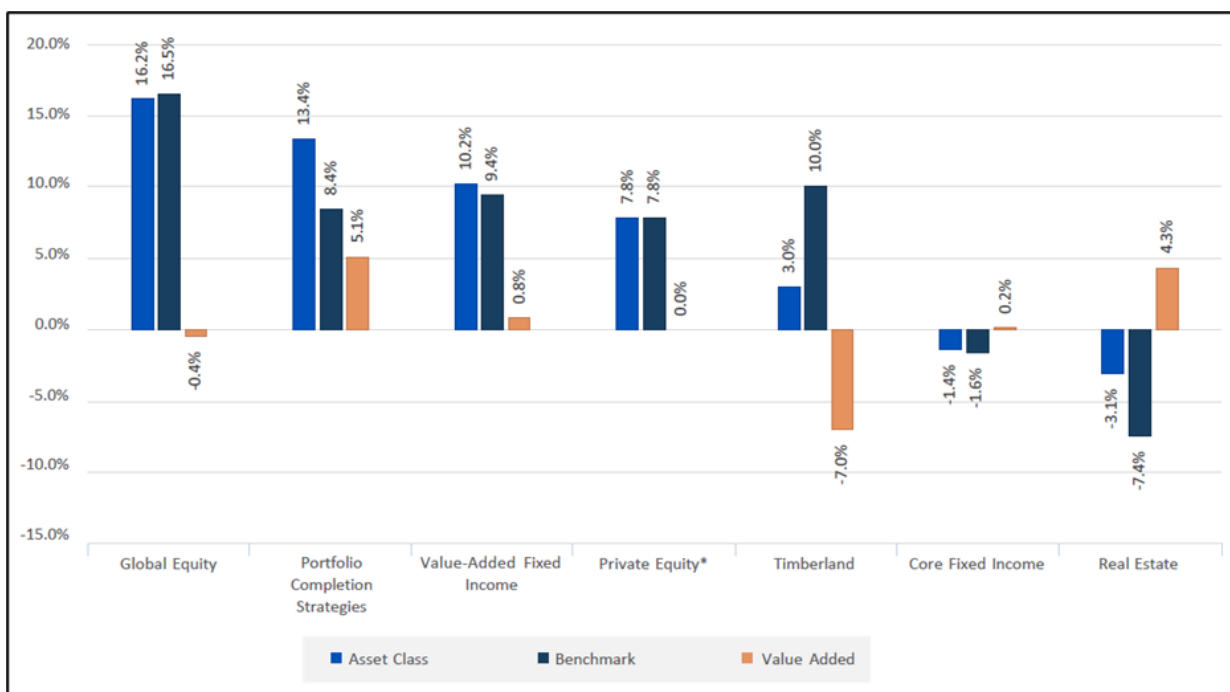
Annualized Returns as of December 31, 2024 (Net of Fees)



Source: BNY. Totals may not add due to rounding. Total Capital Fund Benchmark includes private equity benchmark.

PRIT Asset Class Performance Summary

One Year ended December 31, 2024 (Net of Fees)



Source: BNY. Totals may not add due to rounding. *Benchmark is actual performance.

PRIT Fund Annualized Returns by Asset Class

(December 31, 2024 – Net of Fees)

1 Year	3 Year	5 Year	10 Year
GLOBAL EQUITY 16.2%	TIMBER 7.3%	PRIVATE EQUITY 17.0%	PRIVATE EQUITY 16.7%
PORTFOLIO COMPLETION STRATEGIES 13.4%	PORTFOLIO COMPLETION STRATEGIES 6.4%	GLOBAL EQUITY 9.8%	GLOBAL EQUITY 9.2%
VALUE-ADDED FIXED INCOME 10.2%	GLOBAL EQUITY 5.0%	TIMBER 7.3%	REAL ESTATE 6.5%
PRIVATE EQUITY 7.8%	VALUE-ADDED FIXED INCOME 5.0%	VALUE-ADDED FIXED INCOME 5.9%	TIMBER 5.3%
TIMBER 3.0%	PRIVATE EQUITY 2.4%	PORTFOLIO COMPLETION STRATEGIES 5.6%	VALUE-ADDED FIXED INCOME 5.1%
CORE FIXED INCOME (1.4%)	REAL ESTATE (0.9%)	REAL ESTATE 4.5%	PORTFOLIO COMPLETION STRATEGIES 4.3%
REAL ESTATE (3.1%)	CORE FIXED INCOME (5.5%)	CORE FIXED INCOME (1.1%)	CORE FIXED INCOME 1.1%

Source: BNY

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

III. Asset Allocation Recommendation (Voting Item)

Maria Garrahan, Director of Research, presented the 2025 Asset Allocation recommendation. The new recommendation represented no change to the current approved ranges.

PRIM's Research team leads a robust and comprehensive strategic asset allocation research program which blends both quantitative and qualitative insights into the analysis while focusing on a dual objective. The focus is on crafting a well-diversified strategic asset allocation recommendation centered around the probability of achieving those objectives.

The dual objectives are an actuarial rate of return of 7% over the next 10 years and achieving no cumulative drawdown greater than 20% over the next 3 years.

There are multiple components of the asset allocation research program that contribute to the Asset Allocation recommendation. First is PRIM's Core Asset Allocation framework, which is a probabilistic based approach focused on assessing the dual objective. The framework explores areas of statistical diversification by looking at the factors rather than asset classes to see if it is a well-balanced portfolio.

The internally developed Core Asset Allocation Framework is data-driven and systematic. The Framework utilizes past performance as a starting point and then identifies the principal components or factors present in each return. Thousands of simulations are then conducted for possible future return scenarios to evaluate the likelihood of achieving the objectives.

PRIM couples its Core Framework with NEPC, an asset allocation consultant, who provides their recommendation and key findings utilizing a risk-return optimization process.

The third step of the analysis includes collaborative discussions internally across all asset classes and the Risk team regarding feasibility to deploy capital and the current opportunity set.

Phillip Nelson and Jennifer Appel from NEPC, provided commentary on their capital market assumptions.

The Investment Committee voted, by unanimous roll-call vote, to make a recommendation to the PRIM Board to approve the 2025 Asset Allocation Recommendation, as described in the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

IV. Public Markets

A. Performance Summary

Michael McElroy, CFA, Senior Investment Officer - Director of Public Markets, provided an update on the Public Markets performance. Mr. McElroy noted equity market momentum slowed a bit in the fourth quarter of 2024, with mixed results across geographies. Domestic equities were able to deliver a positive return of +2-3%, coming from both the large cap and small-cap segments of the market. Non-US markets were weak in the quarter, down between 7-8%. For the one-year period, risk assets were strong, with Global Equity returns up more than 16%. Performance was uneven across regions, however, with US equities up nearly 24% (driven by the very largest stocks) while non-US performance returned a more muted 4-7%.

On the heels of last year's S&P 500 return of 26.3%, this year's return of 24.8% marks only the seventh time over the last 100 years where there have been two consecutive years of 20%+ returns (most recent was built-up to TMT bubble). In 2024, the US market performance was driven by the "Magnificent 7" large cap technology stocks, which accounted for more than half (56%) of the S&P 500 total return, and over 20% (22%) of the S&P 500 total earnings. These seven stocks make up over 30% of the S&P 500 weight, having risen from about 20% just two years ago. With this level of concentration and market dynamics, PRIM continues to observe historic performance deviations between the capitalization-weighted indices and the equal-weighted indices, as well as international market valuations at historic discounts to the US market. In terms of styles, growth outperformed value everywhere except in non-US developed markets, and larger stocks outperformed smaller stocks.

Bond returns were also mixed in the fourth quarter, with Core Fixed Income declining by almost 5%, but credit-sensitive portfolios rising around 1%. Rates rose across the yield curve and credit spreads narrowed in the quarter, and there is no longer an inverted yield curve. For the one-year period, the return to Core Fixed Income was slightly negative, -1.6%, while return to Value-Added Fixed Income was around 9%.

Equity results for the PRIT Fund in the fourth quarter slightly lagged the benchmarks, whereas bond investments performed slightly above their benchmarks. Global Equity underperformance was impacted by non-US developed portfolios (both growth and value-oriented). For the one-year period, Global Equity performance lagged the benchmark, as US manager allocations impacted performance, as did International manager performance. For bond investments in 2024, both Core and Value-Added Fixed Income outperformed benchmarks. Within Value-Added, Emerging Market Debt and credit managers performed well.

Finally, as part of PRIM staff's continuous monitoring of managers, PRIM decided to terminate one of the Emerging Markets equity managers, T Rowe Price, due to relative performance not meeting expectations. A second manager, Brandywine, decided to wind down their US micro-cap value portfolio in the fourth quarter, and returned its capital upon this shutdown.

The public markets portfolio delivered strong absolute but mixed relative results over the last quarter and one-year periods, with equities lagging slightly and fixed income delivering positive value-added. These results are within the range of expectations for a portfolio with a low tracking risk relative to the global markets. The Public Markets portfolio remains well-diversified across geographies, styles and sectors, and demonstrates this during market stress periods. The aggregate risk of the overall equity and fixed income portfolios remains low, and managers continue to deliver long-term benchmark-relative value-added.

B. New Investment Recommendation: Ares Management, LLC and Beach Point Capital Management (Voting Item)

Chuck LaPosta, Senior Investment Officer – Director of Fixed Income, presented the recommendation to allocate \$800 million to Ares Management (Ares) and \$400 million to Beach Point Capital Management (Beach Point) to be managed in separate accounts, in the bank loan strategies, benchmarked against the Morningstar LSTA US levered loan index. Funding will be primarily sourced from existing bank loan managers.

Mr. LaPosta noted that out of ten potential candidates, Ares and Beach Point, offered the best combination of return, risk and cost to meet portfolio needs. Ares is a publicly listed firm with over \$460 billion AUM including \$64 billion in liquid credit, \$36 billion of which is in bank loans and \$5 billion in strategies similar to the one being recommended. Ares uses the breadth and depth of its platform to gain information advantages in the form of industry trends from its private credit business as well as company specific information from long standing lending relationships. Additionally, they leverage trading relationships to access or create deal flow.

Beach Point is an employee-owned asset manager dedicated to credit investing with \$18 billion AUM and about \$2 billion in dedicated bank loan strategies. They are supported by a deep team of credit analysts and eight legal professionals on their investment staff. Additionally, Beach Point focuses on smaller and more complex issues to extract excess returns from credits other may be ill equipped to analyze.

In summary these managers have articulated a clearly defined process as to how they may continue to deliver above benchmark returns. They have state-of-the-art risk processes that allow them to understand and control risks while earning extra compensation for bearing such risks. They have also offered to provide this to PRIM at a blended fee that will be about 10 basis points less than the existing strategies.

The Investment Committee voted, by unanimous roll-call vote, to make a recommendation to the PRIM Board to approve initial allocations of up to \$800 million to Ares Management, LLC and \$400 million to Beach Point Capital Management to provide active investment management services in a Bank Loan mandate, as described in the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

C. Benchmark Recommendation: Value-Added Fixed Income (Voting Item)

Jay Leu, Director of Risk, presented two benchmark recommendations for the Value-Added Fixed Income portfolio. Both recommendations are simplifications of the current benchmarks.

Mr. Leu noted the Risk team periodically reviews benchmarks along with Verus, PRIM's benchmark consultant. PRIM's philosophy for choosing a benchmark is: 1) it should be representative of the opportunity set, and 2) it should be reflective of the return and risk of the asset class or sub-asset class.

Value-Added Fixed Income consists of three sub-asset classes: 1. Public Value-Added Fixed Income 2. Other Credit Opportunities (OCO) and 3. Private Debt. The Public Value-Added Fixed Income consists of six strategies, but it really consists of three asset classes: 1) High yield 2) Bank loans and 3) Emerging Market Debt.

The Public Value-Added Fixed Income benchmark is currently a floating-weight roll-up of the six underlying strategy benchmarks. The recommendation is to move to a 40-40-20 fixed weight benchmark of High Yield, Bank Loans, and Emerging Market Debt.

The Total Value-Added Fixed Income benchmark is currently a floating weight roll-up of Private Debt, OCO, and the six sub-strategies of the Public Value-Added Fixed Income. The recommendation is to move to a roll-up of Public Value-Added Fixed Income, OCO, and Private Debt.

Mr. Leu noted that the floating weight roll-up is the best practice approach to benchmarking an asset class with both public and private markets components. Revising the sub-asset class benchmark rollup to be just the three sub-asset class benchmarks from the current two sub-asset class benchmarks plus six Public Value-Added sub-asset class component benchmarks will provide simplification and efficiency in terms of benchmark calculation and reporting. The recommended benchmark also reflects the shift of the Public Value-Added fixed Income sub-asset class from floating weight to fixed weight.

The Investment Committee voted, by unanimous roll-call vote, to make a recommendation to the PRIM Board to approve the Value-Added Fixed Income Benchmark Recommendations, as described in the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

V. Portfolio Completion Strategies Performance Summary

Ethan Spencer, Senior Investment Officer, presented the performance of the PCS portfolio, noting the strong quarter. Mr. Spencer noted two important points regarding the positive returns were: 1) that PRIM did not just ride a market beta tailwind to generate returns, and 2) that in addition to good absolute returns, the risk adjusted returns were also good, implying that there was no undo risk in generating the returns.

While it was a strong 2024 for most equity and fixed income markets, one noteworthy point was the lower correlations and higher dispersion both within and across some asset classes as well as some heightened corporate activity, which will hopefully continue into the new year. Importantly, as markets and asset classes diverge, gaps can be created between price and value, which is usually conducive to alpha generation, and can make for a ripe environment for many hedge fund strategies.

The PRIT Hedge Fund portfolio had another good quarter, up 5.1%, outperforming the benchmark by 399 basis points, to finish a very strong calendar year, up 15.0%, outperforming its benchmark by 632 basis points. While the Directional portfolio led performance at 24.2% for the year, the Stable Value portfolio also delivered strong returns at 10.2%.

Importantly, in addition to the good absolute returns, the risk/return metrics have also remained strong, implying that Hedge Funds have not taken undo risk to achieve these returns. Trailing three-year simple return to risk ratio was 1.8x for the Hedge Fund portfolio vs. 0.2x for a 60/40 market portfolio. These returns have been generated while continuing to maintain quite low equity and credit beta exposures of 0.2 and 0.3, respectively.

VI. Private Equity

A. Performance Summary

Michael McGirr, CFA, Senior Investment Officer - Director of Private Equity, presented PRIM's Private Equity market performance. PRIM's long-term Private Equity performance remains strong. This is the 8th straight positive quarter of performance, up 1.8% net for the July 2024 -September 2024 period. PRIM's long-term Private Equity returns remain strong with the 10-year net return of 16.7% and the 5-year return at 17.0%

Mr. McGirr noted that in the fourth quarter, distributions increased to \$686 million outpacing contributions resulting in a cash inflow for the quarter. Over the course of 2024, PRIM received over \$2.1 billion of distributions resulting in a net cash inflow of \$261 million. Currency was a headwind for European positions as the dollar has strengthened, resulting in a -135 basis points headwind, detracting from performance.

The Private Equity portfolio is primarily comprised of small companies, with no exposure to the Magnificent 7. The Public Markets have been strong. On a look through basis, the top 7 Private Equity holdings account for just 6% of PRIM's Private Equity portfolio, which is much more diversified across a total of 3,902 total companies. With this positive performance, assets grew to \$18.2 Billion, which translates to 16.6% of PRIT Fund.

B. New Investment Recommendation: Tiger Iron Capital Bay State Fund, L.P. (Voting Item)

Helen Huang, Senior Investment Officer, presented the recommendation that PRIM make a commitment of up to \$125 million to Tiger Iron Bay State Fund, L.P. Ms. Huang explained that a core objective to PRIM's Venture Capital program is to achieve attractive risk adjusted return, and leverage PRIM's advantages in finding interest aligned opportunities. In order to position the program for long-term success, PRIM has approached portfolio construction with a core plus emerging philosophy, explained in the following 3 objectives:

- First, continue to scale with existing core Venture Capital firms who have proven to be skilled investors. These are groups that made strong contributions to pensioners' retirement assets;
- Second, proactively gain access to new, highly respected GPs to add to the core portfolio;
- And third, build a portfolio to provide future options by investing with high quality GPs at earlier entry points. Over time, grow allocation and concentration with select managers.

Ms. Huang noted that some of the best performing Venture Capital investments in PRIM's portfolio started as small investments in their first few funds decades ago. Accessing these managers today would be very difficult.

Ms. Huang explained that Tiger Iron will expand PRIM's access to quality early-stage venture managers, by building a bespoke portfolio of early-stage venture capital managers. Tiger Iron was founded in 2016 by two seasoned venture capital allocators, Becky Connolly and Matt Schaefer.

The Investment Committee voted, by unanimous roll-call vote, to make a recommendation to the PRIM Board to approve a commitment of up to \$125 million to Tiger Iron Bay State Fund, L.P., as described in the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

The PRIM Investment Committee meeting adjourned at 11:59 a.m.

List of documents and exhibits used during the meeting:

- A. Minutes of the November 12, 2024, PRIM Investment Committee Meeting
- B. PRIT Fund Performance Presentation (December 31, 2024)
- C. PRIT Fund Performance Report (December 31, 2024)
- D. 2025 PRIM Staff Annual Plans
- E. 2025 Asset Allocation Presentation
- F. 2025 NEPC Asset Allocation Presentation
- G. Bank Loan Recommendation Presentation
- H. Meketa Bank Loan Recommendation Report
- I. Albourne Bank Loan Operational Due Diligence Memorandum
- J. Benchmark Recommendations: Value-Added Fixed Income Presentation
- K. Verus Investments' Benchmark Recommendations Memorandum
- L. Tiger Iron Capital Recommendation Presentation