

PRIM Board Quarterly Update

Fourth Quarter 2023



PRIM Executive Director and Chief Investment Officer Michael G. Trotsky, CFA provided the following information to the PRIM Board at its February 15, 2024 meeting:

Executive Director and Chief Investment Officer Report

The PRIT Fund returns surged during the December quarter and performed strongly for the full calendar year 2023. For the December quarter, the PRIT Fund was up 6.2% gross (6.1% net) and for calendar year 2023 the PRIT Fund was up 11.4% gross (11.0% net). This return equates to a net investment gain of \$10 billion, and the PRIT Fund reached \$101 billion in assets at the end of December 2023.

In the December quarter of 2022, financial markets were just beginning to rebound from a double-digit downturn. The consensus view of economists and market pundits at the time was that the economy would dip into a mild recession in calendar 2023. That did not occur; instead, the economy continued to grow; inflation fell; bond yields peaked; and the markets took off. The S&P 500 returned more than 26% and bonds returned more than 5% in calendar 2023; nobody would have predicted these strong returns a year ago. Once again, these outcomes support PRIM's core investment beliefs: Nobody can predict the future, so we don't try, and nobody can predict the direction of the financial markets, so we don't try.

It is important to emphasize PRIM doesn't alter asset allocations based on economic or market forecasts. Instead, we construct a well-diversified long-term portfolio with components that will perform well in a variety of market environments, and we are laser focused on controlling costs. We modestly adjust the portfolio each year using our internally developed asset allocation tools to improve the probability of achieving our mandate of funding the pension liability.

At the February 2023 Board meeting, we made very small adjustments to our long-term strategic allocation, and similarly this year's recommendation is also modest: a 1% increase in the Value-Added Fixed Income target range to 6%-12% with a focus on Other Credit Opportunities (OCO), and a 1% decrease in the Global Equities target range to 31%-41% funded from Developed Markets. These small changes increase the probability of achieving our investment objectives. The OCO allocation seeks unique exposures to credit sectors with returns targeted in the low double-digit range.

We also have discussed the fact that market downturns often create attractive investment opportunities. Throughout the downturn in the markets in 2022, the PRIM team deployed approximately \$5.7 billion in new investments which was enabled by our carefully planned commitment pacing models. We were investing steadily while other peers were pulling back. With the strong market returns during calendar 2023, that turned out to be very good timing. We continue to find attractive opportunities.

The world is full of difficult challenges, but the markets have been very strong mainly because of several factors: bond yields have peaked; inflation is trending downward; the economy has avoided a recession; employment remains strong; the Fed has stopped raising rates, and corporate earnings have remained healthy. We remain cautiously optimistic, but also acknowledge that risks remain. The main risks going forward are familiar: that inflation spikes again or remains too high; business spending or corporate earnings could weaken, or other unanticipated conditions could emerge that result in an economic slowdown or disruptions that impact financial markets. There are many moving pieces in the global economy and in the world’s geopolitical situation. We can’t control any of that, but we do believe the PRIT Fund is well constructed to perform well in any environment.

PRIT Fund Performance

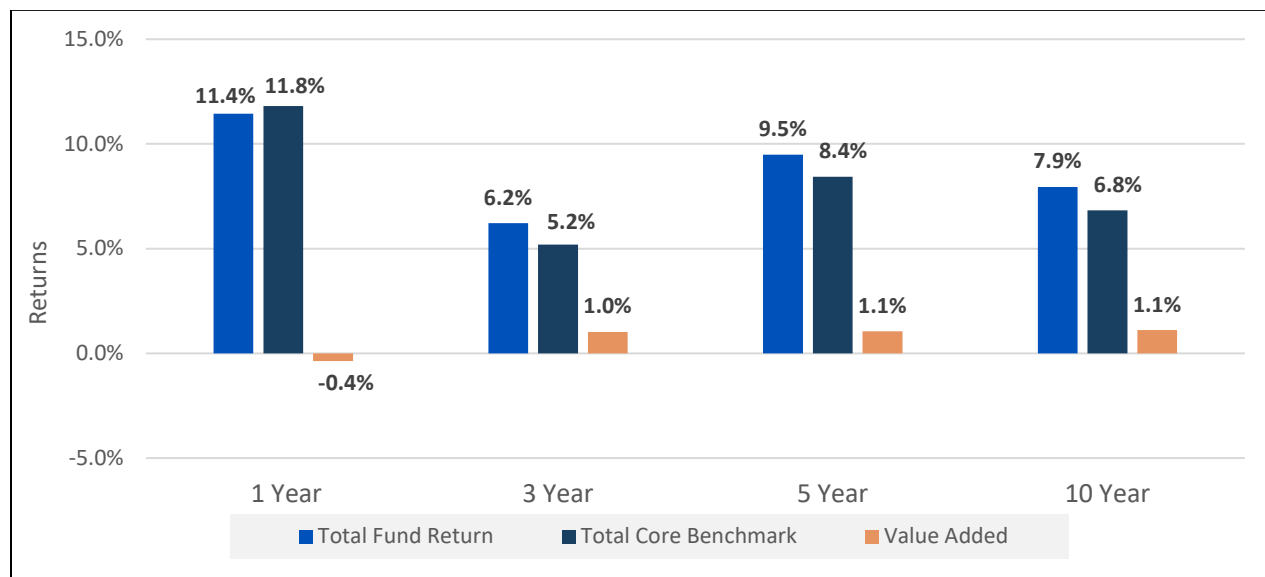
For the one-year ended December 31, 2023, the PRIT Fund was up 11.4%, (11.0% net), underperforming the total core benchmark of 11.8% by 37 basis points (84 bps net).

- This performance equates to an investment gain of \$10.0 billion, net of fees.
- This underperformance equates to \$770 million of value below the benchmark return, net of fees.
- Net total outflows to pay benefits for the one-year ended December 31, 2023 were approximately \$992 million.

The following charts summarize the PRIT Fund performance for the one-year ended December 31, 2023.

Total PRIT Fund Returns

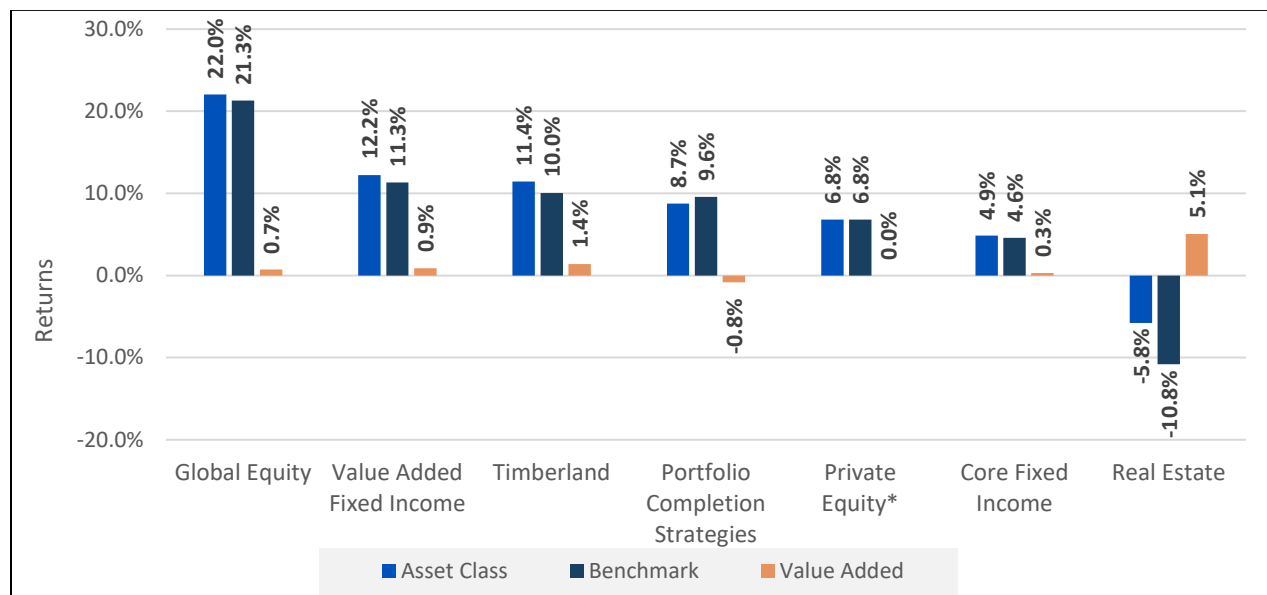
Annualized Returns as of December 31, 2023 (Gross of Fees)



Source: BNY Mellon. Total Core Benchmark includes private equity benchmark.

PRIT Asset Class Performance Summary

One Year ended December 31, 2023 (Gross of Fees)



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

PRIT Fund Annualized Returns By Asset Class

(December 31, 2023 - Gross of Fees)

1 Year	3 Year	5 Year	10 Year
GLOBAL EQUITY 22.0%	PRIVATE EQUITY 19.2%	PRIVATE EQUITY 19.2%	PRIVATE EQUITY 19.5%
VALUE-ADDED FIXED INCOME 12.2%	TIMBER 10.4%	GLOBAL EQUITY 12.0%	REAL ESTATE 8.8%
TIMBER 11.4%	REAL ESTATE 9.1%	REAL ESTATE 7.9%	GLOBAL EQUITY 8.2%
PCS 8.7%	GLOBAL EQUITY 6.1%	TIMBER 7.0%	TIMBER 6.3%
PRIVATE EQUITY 6.8%	VALUE-ADDED FIXED INCOME 5.8%	VALUE-ADDED FIXED INCOME 6.3%	VALUE-ADDED FIXED INCOME 5.0%
CORE FIXED INCOME 4.9%	PCS 5.0%	PCS 4.7%	PCS 3.7%
REAL ESTATE (5.8%)	CORE FIXED INCOME (5.0%)	CORE FIXED INCOME 1.4%	CORE FIXED INCOME 2.8%

Source: BNY Mellon. Returns as of December 31, 2023

Organizational Updates

PRIM Board Members **Theresa McGoldrick** and **Dennis Naughton** were both re-elected to their seats. They have been thoughtful and engaged Board members, and we thank them for their continued service on the PRIM Board. Theresa represents the Massachusetts State Employees' Retirement System (MSERS) and her term's duration is three years. Dennis represents the Massachusetts Teachers' Retirement System (MTRS) and his term's duration is four years.

Since the last Board meeting, we hired one new employee and promoted four outstanding individuals on the PRIM staff. We look forward to their continued success.

Raluca Zelinschi joined the Real Estate and Timberland team in February as an Investment Officer reporting to John La Cara. Raluca will work with John on the private and public real estate portfolios and timberland investments. Before joining PRIM, Raluca was an Associate Director of Portfolio Management at Intercontinental Real Estate, where she worked on a \$3 billion private real estate portfolio invested across various sectors and geographies. She also has prior experience at STAG Industrial and AEW Capital Management. Raluca holds a Master of Arts degree in International Economics and Finance from the Brandeis International Business School, is a graduate of Whittier College, and is a CFA Charter holder.

Tim Doyle was promoted to Investment Officer on the Private Equity team. He joined the team as an Investment Analyst in February of 2022. Prior to PRIM, Tim spent three years at Cambridge Associates, first as an Investment Associate and then he was promoted to Team Leader and eventually to Senior Investment Associate in their Pension Practice. Previously, he was an Investment Analyst at Mass General Brigham Investment Office. Tim has made a significant contribution to new manager underwritings and has taken over leading manager coverage responsibilities at PRIM. Tim's contributions to the team's market mapping and proactive sourcing efforts have been outstanding. Tim holds a Bachelor of Science in Finance from Boston College.

Eliza Haynes was promoted to Investment Officer on the Private Equity team. She joined PRIM as an Investment Analyst on the team in September of 2020. Eliza graduated from Holy Cross and had interned in their Investment Office. Upon graduation, she was hired as an Investment Fellow at the Investment Office and worked there for more than two years. During her three plus years at PRIM, Eliza's contributions have been impactful. She has contributed to and led the evaluation of many private equity funds and co-investment opportunities. In 2023, Eliza received the Treasurer's citation for outstanding performance. Eliza is also leading the design and implementation of PRIM's GP-led secondary investment strategy and process.

John La Cara, Senior Investment Officer on the Real Estate and Timberland team was promoted to Senior Investment Officer and Director of Listed Real Estate and Debt Capital Markets. John joined the Real Estate and Timberland team as an Investment Officer in 2008 and was promoted to Senior Investment Officer in 2016. John's contributions are extensive. His responsibilities include oversight of private real estate and private timberland investments across various regions, property types and investment vehicles. Additionally, John manages the listed real estate investment mandates (REITS) and the private real estate leverage program, which has issued more than \$2 billion in innovative and low-cost debt facilities since 2013. Prior to PRIM, John held positions at Fidelity Investments, New England Securities, and Citizens Financial Group. John holds a Master of Science degree in Investment Management from the Boston University School of Management and is a graduate of Lesley University.

Joy Seth was promoted to Senior Investment Officer on the Portfolio Completion Strategies team. He joined PRIM in March of 2020 as an Investment Officer. Joy pursued his undergraduate degree from the University of Texas, Austin, and graduate degree from the University of Washington. He started his career as a Software Engineer at Microsoft. He then worked for the Employees Retirement System of Texas as a

Senior Investment Analyst and was there for almost seven years before joining PRIM. Joy is a CFA Charter holder. During the past four years, Joy has grown to be a vital member of the team. He has become a key strategist covering Stable Value Hedge Funds; he developed PRIM's industry-leading Digital Platform by automating analytics and designing our internally designed back testing tools; and he has emerged as a thought leader in technology topics, hosting seminars to demystify complex concepts for PRIM colleagues. He actively contributes to the FUTURE Initiative by searching and vetting emerging diverse fund managers. He also dedicates significant effort to recruiting and mentoring interns from diverse backgrounds.

Colleen Nulty, Corporate Accountant, successfully completed the CFA Investment Foundations exam.

PRIM Board Actions

Asset Allocation Recommendation

The PRIM Board approved the 2024 asset allocation recommendation of a 1% increase in the Value-Added Fixed Income target range (5%- 11% to 6%-12%) and a corresponding 1% decrease in the Global Equities target range (32%-42% to 31%-41%). The small increase in the Value-Added Fixed Income will be focused on increasing Other Credit Opportunities.

Public Markets

New Investment Recommendation: Economic Index Associates

The PRIM Board approved an initial investment of up to \$500 million to the Economic Index Associates IFED-LG Index ("Index") through RhumbLine Advisers. The Index is a U.S. large capitalization, rules-based, replicable, and transparent index.

Portfolio Completion Strategies

New Investment Recommendation: FourSixThree SMA

The PRIM Board approved an initial investment of up to \$175 million to FourSixThree Capital, to be invested through a PRIM separately managed account. FourSixThree provides an opportunistic special situations strategy managed by a talented and motivated senior team. FourSixThree will be added to the Portfolio Completion Strategies (PCS) co-investment program in accordance with the Board-approved PCS and OCO co-investment guidelines in assessing opportunities.

Private Equity

Follow-on Investment Recommendation: Spark Capital VIII, L.P. & Spark Capital Growth V, L.P.

The PRIM Board approved a commitment of up to \$17 million to Spark Capital VIII, L.P. and a commitment of up to \$34 million to Spark Capital Growth V, L.P. Spark Capital makes venture capital investments in seed, early, and growth stage companies across a variety of sectors. PRIM has invested in eleven prior Spark funds since 2005.

Follow-on Investment Recommendation: Flagship Pioneering Fund VIII, L.P.

The PRIM Board approved a commitment of up to \$60 million to Flagship Pioneering Fund VIII, L.P. PRIM has invested in eight prior Flagship Pioneering, Inc. ("Flagship") funds since 2004. Flagship employs an incubation model to launch seed and early-stage companies in the biotechnology, health technology, and agricultural technology markets.

Stewardship and Sustainability

PRIM's Stewardship Policy Statement

The PRIM Board approved the Stewardship Policy Statement which lays out the objectives and principles to ensure that PRIM's responsible stewardship efforts are rooted in fiduciary duty and commitment to long-term value creation.

2024 Proxy Voting Guidelines

The PRIM Board approved the 2024 Custom Proxy Voting Guidelines. The recommended proxy voting enhancements are designed to clarify PRIM’s rationale, set clear expectations, and enhance PRIM’s impact on key issues.

The Client Services team will continue to meet with the retirement boards of PRIM’s member retirement systems throughout the year. To schedule an investment review, please contact Francesco at fdaniele@mapension.com, Laura at lstrickland@mapension.com, Emily at egreen@mapension.com, or call 617-946-8401. We look forward to seeing you soon.

