

PRIM Board Quarterly Update

Second Quarter 2022



PRIM Executive Director and Chief Investment Officer Michael G. Trotsky, CFA provided the following information to the PRIM Board at its August 17, 2022, meeting:

Executive Director and Chief Investment Officer Report

PRIM's internally-developed investment tools have allowed us to construct a portfolio that performs well in both strong and weak markets, and the heightened volatility of the markets over the last two fiscal years has provided an extraordinary test. Last year, in the strong markets of fiscal year 2021, the PRIT Fund recorded its best performance in PRIM's entire history with a return of 30% (29.5%, net) and was at the top of our peer group. The Fund also outperformed its benchmark by a record-setting 8.9%. This year, in fiscal year 2022 (FY 2022), during the weakest market since the Global Financial Crisis (GFC) more than thirteen years ago, the PRIT Fund also performed very strongly and was down only 3% (-3.4%, net), outperforming broad market indices by a wide margin and its benchmark by 1.5% (net). We believe the PRIT Fund results for FY 2022 will similarly rank PRIM at the top of the peer group. Performing strongly in both up and down markets is the hallmark of a well-constructed portfolio with proven, skillful managers.

The challenges during the fiscal year were unusual and unexpected. Continuing COVID flare-ups with new variants worldwide, rising interest rates, inflation at multi-decade highs, the Russian invasion of Ukraine, supply chain disruptions, food and energy shortages, labor constraints, and economies worldwide that, at best, are teetering on the edge of recession, provided a backdrop too much for markets to bear. For the one-year period ending in June of 2022, U.S. stocks were down 10.6%, developed international stocks were down 17.7%, and emerging markets stocks were down 25.2%, while diversified bonds were down 10.3%. A 60%/40% mix of global stocks and bonds was down 13.5% in FY 2022. The PRIT Fund return of -3.0% (-3.4%, net) for FY 2022 is a strong result in a weak market. We should expect market declines and economic cycles to impact the PRIT Fund periodically, and we remain pleased with the resiliency of the fund and its performance over all time periods and throughout several different market environments. The PRIT Fund's trailing 3-, 5-, and 10-year returns remain strong and consistently above benchmarks, and above the actuarial rate of return.

We have recently described the current investment environment as requiring “all hands on deck”; we have asked each team to examine every strategy in the portfolio and to increase our communications with each manager. We have assembled a group of highly trained and talented professionals and we are extremely proud that they are attentive to every detail in the portfolio. We believe market downturns, while painful, also create opportunities to improve the portfolio and we continue to identify compelling new investment opportunities. In fact, our deployment of \$6.9 billion of capital to new ideas in FY 2022 was a 58 percent increase over the prior year. Additionally, during times of increased volatility, we adhere to our monthly rebalancing discipline, which enables us to redeploy capital to areas hit hardest, while maintaining our commitment to staying within our long-term strategic allocation, which we believe has and will continue to serve us well.

Operationally, even while navigating the difficult investment environment, we had an extremely productive year. We hired and onboarded eleven new full-time employees, an increase from seven the prior year, and eight are diverse; promoted four of our highest-performing staff members (five last year), and all are female; and sponsored ten interns, all of whom are diverse. PRIM also became a founding signatory to the new CFA Institute Diversity, Equity, and Inclusion (DEI) Code for the Investment Profession.

We successfully launched the FUTURE Initiative, a plan to increase the diversity of PRIM’s investment managers and vendors to at least 20% by increasing access for minorities, women, disabled investment managers, and business partners. We are proud of our fast progress. PRIM invested approximately \$3.4 billion with diverse managers over five asset classes during the fiscal year. Additionally, PRIM committed \$1 billion to a new Emerging-Diverse Manager Program utilizing five new expert advisors, and more than \$200 million has already been deployed. The PRIT Fund currently invests more than \$7.7 billion, or more than 8% of the PRIT Fund with diverse investment managers. PRIM was ranked seventh among the largest 200 funds in the U.S. for assets managed by diverse managers, far above our rank in size.

On Environmental, Social and Governance (ESG) issues, we began work on creating the structure and charter of the new and unique ESG advisory committee. This new ESG Committee will advise the Board on ESG-related matters. PRIM voted 11,369 proxy ballots aligned with PRIM’s progressive proxy voting guidelines on areas such as board diversity requirements, over-boarded directors, gender pay gaps, labor and human rights, and executive compensation, and adopted a new proxy voting guideline to vote against all directors at companies targeted by the Climate Action 100+. PRIM continues to support the MIT Sloan School of Management’s Aggregate Confusion Project (ACP) as its first founding member. The goal of ACP is to develop tools to address inconsistencies in the measurement of ESG data, which has become widely recognized as an obstacle in ESG investing. PRIM was ahead of the curve on this, and we expect to launch strategies based on the advancements over the course of the next year. The project also welcomed four additional new members: MFS Investment Management, AQR Capital Management, Qontigo, and Asset Management One. These members represent a range of geographic and professional perspectives in the investment world.

And last, we launched a new series of educational seminars during the year, 13 in total, on subjects including: PRIT Fund Leverage Finance Options, Public/Private Crossover Funds, Venture Capital Investing, ESG Landscape, Climate Finance, Cash Transaction Processes and Procedures, Cyber Security, Private Equity Replication, a primer on the Blockchain Ecosystem, a primer on Insider Trading, and a training on external communications protocols. These seminars were provided to PRIM Board and Committee members, staff, and clients.

The list of non-investment projects was longer than usual during the fiscal year and many projects were unexpected and unavoidable; these diversions of resources came at a time when the markets were exceedingly turbulent. For example, we spent approximately six weeks providing technical assistance to

the Legislature, the Governor, and the Treasurer’s team in support of the newly passed Russian divestment law. Other resource intensive and unexpected projects include a PERAC Audit, a State Auditor audit, a comprehensive IT security review in light of the recent global uptick in nefarious activities, support of the Attorney General’s lawsuit against Exxon Mobile, support of a securities class action lawsuit on foreign exchange trading, and support and response to an unprecedented level of media requests and public information requests for matters related to our investment program, proxy voting policies, diversity, inclusion and ESG-related matters.

The focus and efforts of our team were nothing short of remarkable under the unique circumstances of the year. We must all realize that PRIM is currently resource constrained; we will continue to recruit talent and grow the team as quickly as possible, but that is no small feat in today’s employment environment.

We are proud of how our staff responded during crisis after crisis, and how we overcame the challenges to deliver not only strong investment performance in a difficult environment, but also extraordinary non-investment innovation and responsiveness. We are thankful to the entire PRIM staff and to our Board and committee members, for their support, dedication, and hard work over the past year.

PRIT Fund Performance



The PRIT Fund was down 3.0% (-3.4% net) for the fiscal year ended June 30, 2022, outperforming the benchmark by 1.5% net of fees. All seven major asset classes either outperformed or were in line with their benchmarks. Assets under management at year end were \$92.4 billion and net outflows were \$30 million.

The PRIT Fund’s trailing 3-, 5-, and 10-year returns remain strong, above benchmark, and above the Actuarial Rate of Return, which is currently 7.00%.

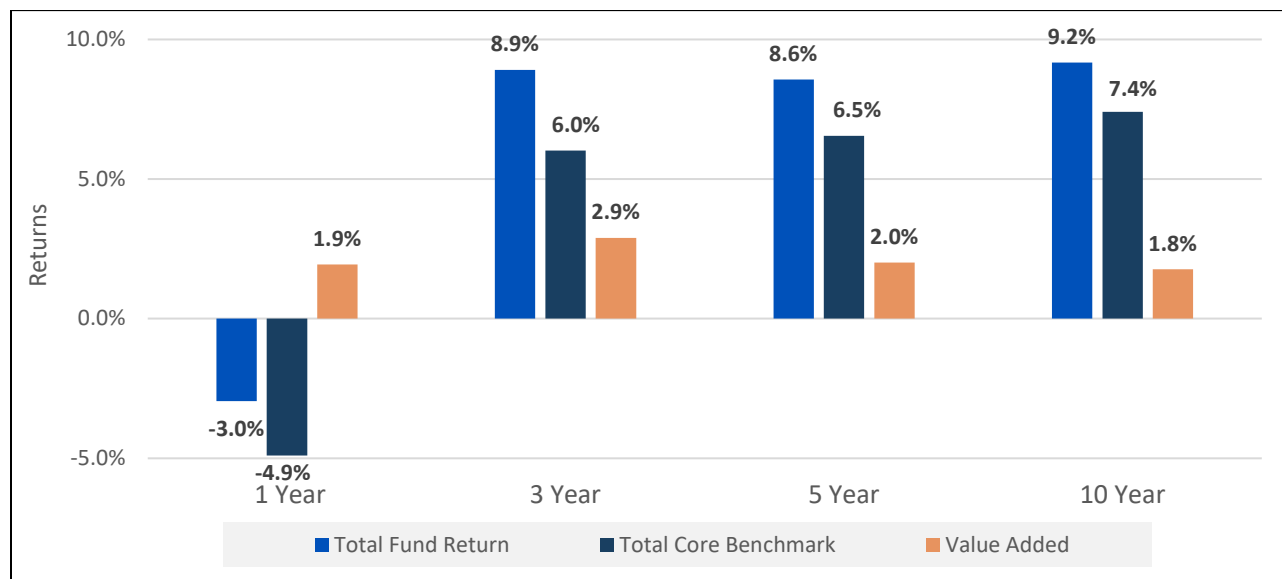
Risk

The Sharpe Ratio for the PRIT Fund, a standard measure of risk adjusted returns, has been consistently higher than a passive 60/40 mix of global stocks and bonds for all time periods. This, combined with our consistent outperformance, is an indication that the PRIT Fund is consistently delivering higher returns and lower risk than the popular diversified portfolio benchmark. The PRIT Fund’s overall return, manager selection, asset allocation, and diversification are achieved in a risk efficient manner.

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Total PRIT Fund Returns

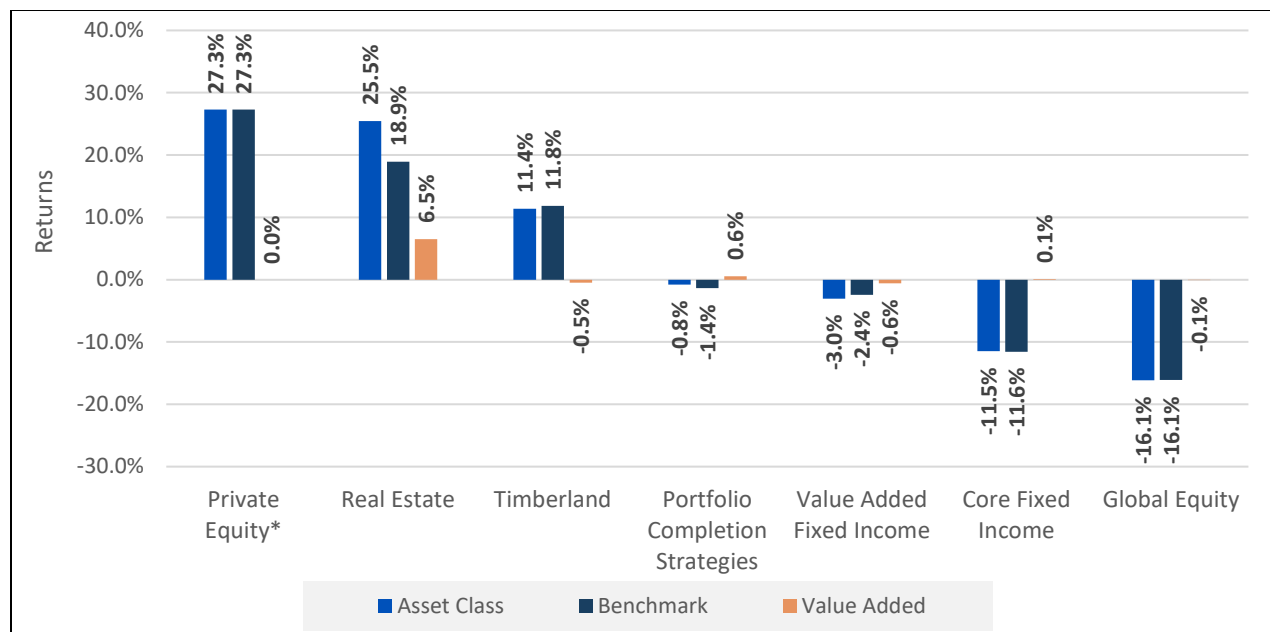
Annualized Returns as of June 30, 2022 (Gross of Fees)



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

PRIT Asset Class Performance Summary

One Year ended June 30, 2022 (Gross of Fees)



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

PRIT Fund Annualized Returns By Asset Class

(June 30, 2022 - Gross of Fees)

1 Year	3 Year	5 Year	10 Year
PRIVATE EQUITY 27.3%	PRIVATE EQUITY 31.9%	PRIVATE EQUITY 27.1%	PRIVATE EQUITY 22.4%
REAL ESTATE 25.5%	REAL ESTATE 14.1%	REAL ESTATE 11.5%	REAL ESTATE 11.5%
TIMBER 11.4%	GLOBAL EQUITY 6.3%	GLOBAL EQUITY 7.0%	GLOBAL EQUITY 9.1%
PCS (0.8%)	TIMBER 5.8%	TIMBER 5.4%	TIMBER 6.4%
VALUE-ADDED FIXED INCOME (3.0%)	VALUE-ADDED FIXED INCOME 3.6%	VALUE-ADDED FIXED INCOME 4.2%	VALUE-ADDED FIXED INCOME 4.7%
CORE FIXED INCOME (11.5%)	PCS 2.9%	PCS 3.5%	PCS 4.6%
GLOBAL EQUITY (16.1%)	CORE FIXED INCOME 0.0%	CORE FIXED INCOME 1.9%	CORE FIXED INCOME 2.9%

Source: BNY Mellon. Returns as of June 30, 2022

Recent Recognition

PRIM's **Private Equity** Portfolio was ranked #3 among 176 U.S. public pension funds based on 10-year performance by the American Investment Council's Public Pension Study. PRIM is the only fund that has been in the top five every year the study has been conducted, including #1 rankings in 2019, 2018, 2015, and 2013.

PRIM was nominated as a finalist in the *Institutional Investor* 5th Annual Allocator's Choice Award in the "Partnership of the Year" category for the MIT Sloan Sustainability Initiative's Aggregate Confusion Project, along with MIT, MFS Investment Management, AQR Capital Management, and Asset Management One for "working to reduce the level of noise in ESG measurement by improving data available to managers and allocators."

In June, **PRIM** was awarded the Government Finance Officer Association's Certificate of Achievement for Excellence in Financial Reporting for the 17th consecutive year.

PRIM Board Actions

Public Markets

Developed International Value Equity – Manager Recommendations: Columbia, Causeway, and Pzena

The PRIM Board approved initial allocations of up to \$450 million to Columbia Threadneedle Investments (Columbia); \$300 million to Causeway Capital Management (Causeway); and \$250 million to Pzena Investment Management (Pzena) to provide active investment management services for a World ex-US Value equity mandate.

Portfolio Completion Strategies

Follow-on Investment Recommendation: JEN 8 LP

The PRIM Board approved an initial allocation of up to \$125 million to JEN 8 LP. PRIM has invested in three prior JEN Partners funds since 2015. JEN is a land-oriented residential real estate manager that makes short duration investments in select submarkets across the U.S.

Private Equity

Follow-on Investment Recommendation: TowerBrook Investors VI, L.P.

The PRIM Board approved a commitment of up to \$200 million to TowerBrook Investors VI, L.P. (“TCP VI”). PRIM has invested in four prior TowerBrook Capital Partners funds since 2008. TowerBrook invests in businesses that are characterized by complexity but have attractive growth prospects in partnership with highly capable management teams headquartered in North America and Western Europe. TowerBrook invests across multiple industries, and core sectors include healthcare, consumer & distribution, financial services, technology, media & services, and industrials.

Real Estate

Real Estate Appraisal Request for Proposals (RFP) Recommendation

The PRIM Board approved that the Altus Group’s engagement for private real estate appraisal services be extended for three years.

New Co-Investment Recommendation: Berkshire Co-Investment

The PRIM Board approved Up to \$300 million investment in the Project Journey Co-Investment Opportunity (the “Co- Investment Portfolio”), subject to satisfactory completion of due diligence.

Finance and Administration

ESG Committee Charter Recommendation

The PRIM Board adopted the amended PRIM Board Governance Manual, which includes the Draft ESG Committee Charter and the amended Administration and Audit Committee Charter to reflect the corresponding changes in proxy voting policy responsibilities.

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