

PRIM Executive Director and Chief Investor Officer Michael G. Trotsky, CFA provided the following information to the PRIM Board at its May 26, 2021, meeting:

Executive Director and Chief Investment Officer Report

Markets and PRIT Fund Performance

We are extremely proud to have added \$21 billion to the pension fund in a period we will not soon forget, a period in which so many in the world and in our communities have suffered. Our strong returns represent both pension security for our beneficiaries and an important gain for the Commonwealth's finances: the fund's growth of \$21 billion in one year is nearly half the size of the entire annual state budget. The carefully constructed PRIT Fund continues to perform well in both strong periods, like the last year, but more importantly, in weak markets, too, like we had a year ago with the onset of the COVID-19 pandemic.

The PRIT Fund assets reached \$90.1 billion for the quarter ended March 31, 2021, which is an all-time high. The PRIT Fund gained 30%, net of fees, over the one-year period, an investment gain of \$21 billion. Moreover, the one-year return was more than 4% above the benchmark return, which is an indication that our managers are doing a very good job. All recent time periods - the 3-, 5-, and 10-year returns -- were all strong and above the benchmark. Returns during all time periods exceeded the actuarial rate of return requirement of 7.0%.

For the one-year period ended March 31, 2021 on a net basis:

- Global Equities was the best performing sleeve, up 58.5%
- Private Equity achieved one of its highest annual returns in PRIM's history, up 35.9%
- Value-added fixed income (Emerging Markets Debt, High Yield Bonds, and Bank Loans) was up 17%
- Portfolio Completion Strategies (Hedge Funds, Real Assets) was up 14.1%
- Real Estate was up 9.3%
- The PRIT Fund's 3-, 5-, and 10-year returns of 9.7%, 10.5%, and 8.5% are all above benchmark returns and significantly exceed the actuarial return of 7.0%.

Markets are up more than 90% since the March 2020 lows and the economic news is encouraging. Still, we adhere to our fundamental core beliefs at PRIM: (1) nobody can predict the future, so we do not try, and (2) nobody can predict the direction of financial markets, so we do not try. Our mission at PRIM is to construct a portfolio with components that will perform well no matter what the future holds.

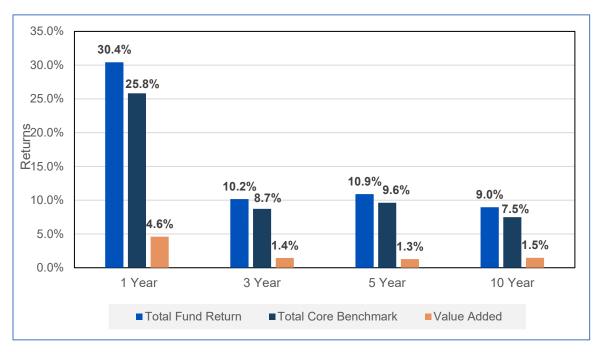
Nevertheless, we are keeping the following market themes in mind as we move forward:

- 1. We have seen evidence in recent months of the start of a sustainable rebound in economic activity that could last for several years as the new Administration seems intent on utilizing its slim majority control of Congress to advance its stimulus measures. The stimulus measures may last for many years and it is possible that the economy and the markets will benefit well into the future.
- 2. The Department of Treasury and the Federal Reserve Bank seem to be acting as a team and are not so worried about what they describe as "transitory inflation." As a result, they will likely keep the Fed Funds rate low and bond purchases ongoing well beyond the time when inflation stays above 2%.
- 3. The markets are broadening beyond the growth stocks that drove returns for many quarters. In fact, value stocks outperformed growth stocks in Developed International Markets this last period. There is a good chance that the markets will continue to broaden as the recovery takes hold.
- 4. The main risk to the strength of the markets is that the virus flares up again, causing the economy to stagger despite the stimulus.
- 5. There is a risk that supply chain shortages and higher commodity prices will dampen expected growth.
- 6. And finally, there is a risk that even though the Fed has pledged not to raise rates, investors will begin to factor in non-transitory inflation and, worse, much higher interest rates, causing the markets to decline.

We are confident that the PRIT Fund will perform well in a variety of potential outcomes.

Total PRIT Fund Returns

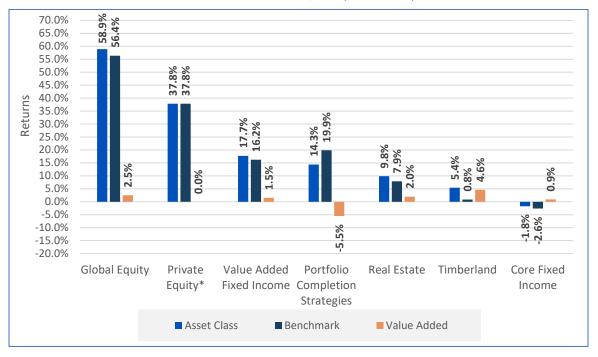
Annualized Returns as of March 31, 2021 (Gross of Fees)





PRIT Asset Class Performance Vs. Benchmark

One Year Ended March 31, 2021 (Gross of Fees)



^{*}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 March 31, 2021

1 Year	3 Year	5 Year	10 Year
GLOBAL EQUITY	PRIVATE EQUITY	PRIVATE EQUITY	PRIVATE EQUITY
58.9%	24.5%	22.6%	19.9%
PRIVATE EQUITY	GLOBAL EQUITY	GLOBAL EQUITY	GLOBAL EQUITY
37.8%	11.9%	13.7%	9.7%
VALUE-ADDED FIXED	REAL ESTATE	REAL ESTATE	REAL ESTATE
INCOME	6.8%	7.1%	9.6%
17.7%			
PCS	CORE FIXED INCOME	VALUE-ADDED FIXED	VALUE-ADDED FIXED
14.3%	5.8%	INCOME	INCOME
		6.7%	5.4%
REAL ESTATE	VALUE-ADDED FIXED	PCS	CORE FIXED INCOME
9.8%	INCOME	5.0%	4.8%
	5.0%		
TIMBER	PCS	TIMBER	TIMBER
5.4%	3.6%	4.3%	4.7%
CORE FIXED INCOME	TIMBER	CORE FIXED INCOME	PCS
(1.8%)	2.4%	3.8%	4.2%

Source: BNY Mellon. Returns as of March 31, 2021



The FUTURE Initiative

In January 2021, "An Act Enabling Partnerships for Growth" was signed into law, which includes a provision to increase the diversity of PRIM's investment managers and contractors to at least 20% and increase access for minorities, women, and disabled investment managers and business partners. Treasurer Goldberg and her team created the legislation and strongly advocated for its passage. They worked directly with Representative Chynah Tyler and Senator Paul Feeney, who filed the bill.

The new legislation is an extension of the important diversity and inclusion work PRIM has been doing for several years during Treasurer Goldberg's tenure to further increase access for minorities, women, and people with disabilities. These efforts are focused both internally - on our own staff - and also externally as we seek diverse investment managers and vendors. The new law sets goals and formalizes procedures and reporting requirements for investment managers and other vendors.

We believe the **FUTURE Initiative** is comprehensive and industry leading. The FUTURE Initiative provides a new and improved pathway for emerging diverse managers to work with PRIM. Specifically, the FUTURE Initiative targets emerging diverse managers with a short track record and/or small AUM. We believe the FUTURE Initiative will strengthen PRIM's leadership position in the industry with regard to diversity and inclusion practices, and similar to our initiatives and innovations in other important areas of our investment program, we believe the FUTURE Initiative will position PRIM as a leader in our industry.

We are very proud of our progress over the last several years on our diversity and inclusion efforts, and this program will make us even stronger. As a reminder, over the last five years, PRIM has successfully increased the use of diverse managers.

- PRIM is in the top 10 of peer pension plans with assets managed by diverse managers. Pensions and Investments ranked PRIM #6 in the nation as of February. We already outrank many pension funds that are larger than we are in dollar terms.
- \$5.3 billion, or nearly 6% of the PRIT Fund, is allocated to diverse investment managers, up from \$1 billion five years ago. This is in an industry where only 1.5% of all managers are diverse.
- \$2.4 billion, or approximately 5% of PRIM's Public Markets portfolio, is managed by diverse investment managers.
- \$1.5 billion, or approximately 20% of PRIM's Hedge Fund portfolio, is managed by diverse investment managers.
- \$1.4 billion, or approximately 11% of PRIM's Private Equity portfolio, is managed by diverse investment managers.

We are proud of our progress to date, but there is so much more to do, and we will keep you posted on our progress.

¹ Pensions and Investments, February 8, 2021







Organizational Updates

PRIM Board

We would like to congratulate **Theresa McGoldrick** for her recent election victory in which she secured her seventh 3-year term on the Mass State Employees Retirement System Board. It is through this seat that she earns a seat on the PRIM Board. Congratulations Theresa.

Promotions and New Hires

We announced changes to the Client Services team shortly after Paul Todisco's retirement at the end of March. **Francesco Daniele** was promoted to Director of Client Services and will report to our CFO, Deb Coulter. Francesco joined PRIM in December of 2016, with 20 years of experience in finance and administration. We are fortunate that Paul recruited, hired, trained, and mentored Francesco over the last four years.

Emily Green was promoted to Senior Client Services Analyst. Emily joined PRIM in 2019 as a Client Services Analyst and has quickly become a valuable asset to the team.

Recently, Laura Strickland joined PRIM as a Senior Client Services Officer. Laura has 20 years of finance and client service experience. Most recently, Laura was a Director of Business Development and Relationship Management at DDJ Capital Management in Boston, where she managed institutional relationships and was responsible for business development and consultant relations in the Midwest and Northeast United States. Prior to that, Laura was a Vice President and Relationship Manager at Standish Mellon Asset Management. She has a Bachelor of Science in Finance and an MBA from DePaul University. We are very confident that the Client Services team will continue to seamlessly deliver the outstanding service our clients are used to well into the future. It's a very strong team.

We also had two additional new hires since the last board meeting. **Colleen Nulty** joined PRIM as a Corporate Accountant on the Finance team, reporting to Dan Eckman. Colleen most recently worked as an Accountant at Education First in Cambridge, MA. Prior to that, Colleen was a Marketing Assistant at Boston University. Colleen holds a bachelor's degree in Accounting from Suffolk University and a master's degree in Accounting also from Suffolk University.



George Defina joined PRIM as a Senior Investment Officer on the Research team, reporting to Maria Garrahan. George brings close to 20 years of investment industry experience, including 12 years at Mellon, Inc. (formerly The Boston Company) as a Senior Quantitative Analyst and Portfolio Manager. Prior to that, George served as a Quantitative Analyst, Developer, and Manager at Independence Investment Associates. George has designed, managed, and developed data systems throughout his career, and his expertise will be valuable to our internal data infrastructure project and other research initiatives. George holds a Bachelor of Science in Computer Science and Engineering from the University of Connecticut. Welcome to Laura, Colleen and George – our newest employees.

Project SAVE Update

The spirit of Project SAVE is deeply imbedded in our everyday activities at PRIM. We have more than doubled the original goal of \$100 million in annual cost savings and value enhancing activities and have identified more than \$200 million of Project SAVE activities. At the committee meetings we highlighted the three most recent SAVE initiatives worth an annual savings of \$15 million. We often say that we value a basis point of cost reduction more than a basis point of returns. The reason is simple; cost savings recur each year and these savings compound over time, we can control our costs, but we can never predict the markets – remember our core beliefs.

Three outstanding senior staff members were able to identify these opportunities because of their many years of relevant experience in the industry; opportunities that were not immediately obvious to any of our consultants or business partners. Jay Leu and the Real Estate team are working on an enhanced leverage program that will reduce our borrowing costs by nearly \$7 million annually. Andre Clapp and Dave Gurtz developed an internal crossing program for stock trades throughout the public markets portfolio that will save approximately \$3 million annually in trading costs. They also renegotiated some public market fees that will result in more than \$5 million in annual savings. These are the type of activities that occur every day at PRIM that nobody necessarily knows about, and it would probably go unnoticed if we didn't mention it from time to time. Our objective is to leave no stone unturned, and we are proud of these employees and their recent findings, but prouder that the entire PRIM team has Project SAVE in our DNA.

PRIM Board Actions

Strategy Group

Portfolio Completion Strategies: Power Pacific China A-Shares Absolute Return Managed Account

The PRIM Board approved an initial allocation of up to \$200 million to the Power Pacific China A-Shares Absolute Return Separately Managed Account, subject to satisfactory contract negotiations. The Strategy seeks to generate attractive risk-adjusted returns via investing in well-managed Chinese companies with robust financials and growth potential. Power Pacific Investment Management ("the Manager") is a fundamental-based, bottom-up focused, long-term, absolute return investor. The team seeks to invest in well-managed companies with robust financials and growth potential at a fair price. The Manager has a disciplined approach of moving to cash when market opportunities are insufficient. Typical time horizon when selecting stocks is 3-5 years, although the Manager can hold for longer or shorter periods depending on whether the opportunity is still attractive or not.

Risk: Benchmarking Recommendations

The PRIM Board approved the Benchmarking Recommendations. PRIM staff and Verus Investments, PRIM's benchmark consultant, presented benchmark recommendations for Developed International and Emerging Markets Equities and Private Equity. These recommendations included:



- Utilize a single asset class benchmark for Developed International (MSCI World Ex-U.S. IMI) instead of a combination of three benchmarks;
- Utilize a single asset class benchmark for Emerging Markets Equities (MSCI Emerging Markets IMI) instead of a combination of two benchmarks;
- Utilize a single asset class benchmark for non-U.S. equities (MSCI ACWI Ex-U.S. IMI) instead of a combination of two benchmarks;
- Add a private equity peer universe benchmark in addition to the current benchmark (Russell 3000* + 3%) to address the time-period mismatch with the current benchmark.

Public Markets

Other Credit Opportunities: Oaktree Fund-of-One

The PRIM Board approved an initial allocation of up to \$250 million to the Oaktree Fund-of-One, as part of the Other Credit Opportunities ("OCO") allocation, subject to satisfactory contract negotiations. The Vehicle will invest alongside two of Oaktree's funds, Real Estate Debt Fund and European Capital Solutions Fund. Oaktree will be added to the OCO co-investment program in accordance with the Board-approved PCS and OCO co-investment guidelines in assessing the opportunities. PRIM has invested in Oaktree's flagship distressed fund series since 2004. However, PRIM's focus has shifted to performing debt strategies through an "all-weather" approach, which will ensure capital is deployed across market cycles. PRIM and Oaktree have worked together to identify two specific performing credit strategies that are accretive to PRIT Fund performance and offer exposure to sectors like real estate debt, where PRIM currently has limited exposure.

Private Equity

Follow-on Investment Recommendation: Hellman & Friedman Capital Partners Fund X, L.P.

The PRIM Board approved a commitment of up to \$350 million to Hellman & Friedman Capital Partners Fund X, L.P. PRIM has invested in seven prior Hellman & Friedman Capital Partners ("H&F") funds since 1995. H&F's senior team has an average tenure of 18 years at the firm. All of H&F's funds are at or near Cambridge Associates' first quartile for fund performance. H&F targets buyouts of large businesses in North America and Europe in the software, financial services, business & information services, healthcare, internet & media, energy & industrials, and retail & consumer sectors.

Follow-on Investment Recommendation: TA Associates XIV, L.P. and TA Select Opportunities Fund II, L.P.

The PRIM Board approved commitments of up to \$350 million to TA XIV, L.P. and up to \$115 million to TA Select Opportunities Fund II L.P. PRIM has invested in seven prior TA Associates ("TA") funds since 1997. TA's senior team has worked together for over 17 years. With the exception of TA X, all of TA's funds are in Cambridge Associates' first or second quartiles for fund performance. TA targets middle-market growth companies located in North America, Europe and Asia operating in technology, healthcare, financial services, consumer and business services sectors.

- TA XIV is a private equity fund being established to continue TA's successful approach of investing in middle-market growth companies located in North America, Europe and Asia.
- TA Select Opportunities Fund II is a private equity fund being established to continue the strategy of investing in a select group of high-performing TA portfolio companies.

Follow-on Investment Recommendation: Providence Strategic Growth Fund V, L.P.

The PRIM Board approved a commitment of up to \$175 million to Providence Strategic Growth Fund V, L.P. PRIM has invested in two prior PSG funds since 2018. PSG V will target private equity investments in growth-oriented, lower middle-market companies in the software and tech-enabled services industries primarily located in the United States.



Follow-on Investment Recommendation: Insight Venture Partners XII, L.P., Insight Partners XII Buyout Annex Fund, L.P., and Insight Partners Fund X Follow-On Fund, L.P.

The PRIM Board approved commitments of up to \$150 million to Insight Venture Partners XII, L.P., up to \$50 million to Insight Partners XII Buyout Annex Fund, L.P., and up to \$75 million to Insight Partners Fund X Follow-On Fund, L.P. These funds provide the PRIT Fund with an attractive risk/return profile. Insight has a stable and highly experienced team and a strong and consistent track record.

- Insight Partners is establishing Fund XII to continue Insight's focus on investing in growth-stage software, software-enabled services, and internet businesses.
- The Buyout Annex Fund is a vehicle dedicated solely to leveraged buyout investments and will coinvest alongside Fund XII.
- Insight's Fund X Follow-On Fund will exclusively make follow-on investments in the existing portfolio companies of Insight Ventures Partners X, L.P. ("Fund X"), a current investment in PRIM's private equity portfolio.

Follow-on Investment Recommendation: Quad-C Partners, X, L.P.

The PRIM Board approved a commitment of up to \$175 million to Quad-C Partners X, L.P. PRIM has invested in five prior Quad-C Management, Inc. ("Quad-C") funds since 2001. Quad-C's senior team has an average tenure of 20 years at the firm. With the exception of Fund VII and Fund VII Co-investment Fund, all of Quad-C's funds are either in Cambridge Associates' first or second quartile for fund performance. Quad-C targets buyouts of middle-market businesses in the United States in the healthcare, business and consumer services, transportation and logistics, industrials, and specialty distribution sectors.

Follow-on Investment Recommendation: Thompson Street Fund VI, L.P.

The PRIM Board approved a commitment of up to \$150 million to Thompson Street Capital Partners Fund VI, L.P. PRIM made its first investment with Thompson Street Capital Partners ("Thompson Street") in 2018. Thompson Street's senior team has worked together for an average of 13 years. Thompson Street targets buyouts of small businesses in the Midwest and Mid-South regions of the United States in the software and technology services; healthcare and life science services and consumer and business services sectors. The majority of Thompson Street's funds are in Cambridge Associates' first or second quartile for fund performance.

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

The PRIM Board approved a commitment of up to \$30 million to Flagship Pioneering Fund VII, L.P. In March 2020, the PRIM Board approved a commitment of up to \$25 million to Flagship Pioneering Fund VII, L.P. ("Fund VII" or "the Fund"). Flagship Pioneering ("Flagship") is re-opening Fund VII to accept additional Limited Partner commitments. With this re-opening, Flagship will combine its flagship seed and early-stage fund series with its later-stage Flagship Special Opportunities (FSO) fund series, expanding Fund VII's investment mandate to cover the full lifecycle – creation, development, and growth – of Flagship's portfolio companies.

PRIM has invested in seven prior Flagship funds since 2004. Flagship makes venture capital investments in seed, early- and late-stage companies in therapeutics, health technology, and agricultural technology markets. The majority of Flagship's funds are in the first or second quartile in venture capital industry peer performance rankings.

Finance & Administration

PRIM Board Fiscal Year 2022 Budget

The PRIM Board approved the Fiscal Year 2022 Budget. The Fiscal Year (FY) 2022 Operating Budget reflects the investment management, advisory, and operational costs necessary to implement, measure, and monitor the approximated \$90 billion in investments of the Pension Reserves Investment Trust (PRIT) Fund.



The projected FY 2022 budget of \$474 million is 52.7 basis points (bps) of projected average PRIT Fund assets (\$90 billion), a \$42.5 million, or 9.8%, budget increase from the prior year. As is our custom, budgeted expenses for FY 2022 are conservative and foresee continued asset growth. Actual expenses incurred may vary because most expenses are a function of asset levels and investment performance is not predictable.

Investment Management Fees and Third-Party Service Providers comprise \$453.3 million, or 95.6%, of the projected total budget. Investment Management Fees increased by \$37.5 million, or 9.5%, due primarily to a projected growth in assets. Projected costs for Third-Party Service Providers increase by \$3.2 million, or 16.7%, mainly due to support of new initiatives and asset growth within Managed Account Platforms.

Operations comprise \$20.7 million, or 4.4%, of the total budget.

Request for Proposals (RFP) for Proxy Voting Services

The PRIM Board approved the issuance of a Proxy Voting Services RFP. The current contract for proxy voting services expires on December 31, 2021.

2021 PRIM Investor Conference

On Wednesday June 9, 2021, PRIM hosted the 2021 PRIM Investor Conference. Our Keynote Speaker was Noubar Afeyan, Founder and CEO of Flagship Pioneering, one of PRIM's very highest performing Private Equity managers. He is also the Chairman and Co-Founder of Moderna. Moderna was among the very first companies to discover and produce a COVID-19 vaccine, the vaccine utilized the groundbreaking mRNA technology. Flagship Pioneering and Noubar created the company from before it even had a name, and PRIM was one of only 12 initial investors in the company. We are very happy that we were among the first to fund Moderna with enabling capital through Flagship Pioneering. The Moderna investment is very gratifying from both a public health and an investment standpoint. Moderna and Flagship have been among the highest returning investments in PRIM's history.

The Client Services team -- Francesco Daniele, Laura Strickland and Emily Green – 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 <u>fdaniele@mapension.com</u>, Laura at <u>lstrickland@mapension.com</u>, Emily at <u>egreen@mapension.com</u>, or call 617-946-8401. We look forward to seeing you soon.

