



Minutes of the PRIM Investment Committee Remote Meeting
Tuesday, May 3, 2022

Committee members attending:

- Treasurer Deborah Goldberg, Chair
- C. LaRoy Brantley
- Michael Even
- Constance Everson, CFA
- Ruth Ellen Fitch, Esq. (arrived at 9:59 a.m.)
- James Hearty
- Peter Monaco
- Phillip Perelmuter
- Philip Rotner
- Paul Shanley, Esq.
- Glenn Strehle, CFA
- Timothy Vaill

Committee members not present:

- Joseph Bonfiglio

The PRIM Investment Committee meeting was called to order at 9:34 a.m. Chair Treasurer Deborah Goldberg announced that the meeting was being held by internet and telephone in accordance with the provisions of Massachusetts, “Chapter 22 of the Acts of 2022” which was signed into law on February 15, 2022, which law includes as extension, until July 15, 2022, of the remote meeting provisions of the March 12, 2022, Executive order “Suspending Certain Provisions of the Open Meeting Law”. 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 unanimous roll-call vote, the minutes of its February 1, 2022, meeting.

II. Executive Director / Chief Investment Officer Comments

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

Mr. Trotsky began by extending deepest condolences to Michael McGirr and his family, on the passing of his mother. He wished Michael comfort and peace in this very difficult time. After a moment of silence, Mr. Trotsky continued to the agenda.

Market Update

Mr. Trotsky informed the Committee that conditions had changed since they met in February. At the last meeting, they met to discuss and even briefly celebrate PRIM’s very strong calendar year 2021 performance: a 20% investment gain and record outperformance over our benchmark and reviewed the adjustment to PRIM’s asset allocation. Also discussed was a very strong global economy and strong financial markets. Mr. Trotsky mentioned that it seemed like ancient history. The Russian invasion of

Ukraine on February 24th turned the world upside down. In addition to the humanitarian catastrophe which has caused thousands of war casualties and displaced more than 8 million Ukrainian citizens, the largest refugee crisis since World War II, global financial markets and world economies have been dealt a substantial setback.

Mr. Trotsky continued by describing that the war, combined with new COVID flare-ups, rising inflation and interest rates, and continued supply chain disruptions are expected to cause global economic growth to slow significantly. In late April, the International Monetary Fund reduced its world economic growth forecast for 2022 to 3.6%, down from a projection of 6.1% only a few months ago. The IMF expects US growth to slow from 5.7% in 2021 to 3.7% in 2022, and 2.3% in 2023. GDP contracted 1.4% in the first three months of 2022. Any projections seem to be a moving target, and the situation is expected to last for years, not weeks or months. At a meeting in late April, International Monetary Fund Managing Director, Kristalina Georgieva said that the Russian invasion is “sending shock waves throughout the globe. We are facing crisis on top of crisis”. Moreover, referring to multilateral efforts to end the war, curtail the pandemic, reduce inflation, and secure expensive energy and food supplies for the future, Ms. Georgieva said “This is the most universally complex policy environment or our lifetime, posing tremendously difficult choices.”

Mr. Trotsky relayed that PRIM is still performing at a very high level and expressed how very grateful he was to the entire staff at PRIM. He described the environment at PRIM as “all hands-on deck.” Mr. Trotsky said that the team is paying attention to every detail in the portfolio, and that he has asked the team to examine and re-examine every strategy and to increase communications with every manager.

Mr. Trotsky mentioned that for the quarter ending in March, the PRIT Fund was down only 2.1% (net) and for the trailing 12 months, the fund was up 12.6%, outperforming the benchmark by 5.5%. The 2.1% decline in the quarter compares very favorably to US stocks which declined 4.6%, Developed International stocks declined 5.9%, and Emerging Markets stocks declined 7%. Bonds were down 6% in the quarter and a 60/40 mix of stocks and bonds, a common comparison for a diversified portfolio, was down 5.6% for the quarter. He believed that the PRIT Fund decline of 2.1% was a good outcome for such a turbulent quarter.

Mr. Trotsky promised to provide more information on performance later but shared that at a time when staff obviously must concentrate its efforts on the investment program, never have we had so many non-investment initiatives underway. Some of these initiatives were planned, but many of them were not. All are important, but we are a lean organization and although we have been growing our employees by approximately 10-20% each year we still find ourselves resource constrained in nearly every aspect of our business.

Mr. Trotsky mentioned a common theme of this Board meeting cycle will be RESOURCES. He mentioned that PRIM has been very successful hiring in this environment with 15 new employees alone in the last 14 months, and that is during the COVID pandemic when hiring and onboarding were more difficult. It is becoming more difficult to hire, the employment market is very tight, and additionally, we are nearly out of office space. He mentioned Anthony Falzone, Deputy Executive Director and Chief Operating Officer, and Deborah Coulter, Chief Financial Officer and Chief Administration Officer would be introducing the 2023 PRIM budget which requests resources to grow. He continued by stating the punchline in the budget remains very positive: even with the proposed increases in the budget, the expense ratio will remain constant at 50 basis points of assets under management. Mr. Trotsky believed this is astounding, especially considering that PRIM has deployed more assets to higher performing, but higher cost strategies like private equity over the years.

Mr. Trotsky provided the following list of non-investment projects the team are working on:

1. In addition to the regular PRIM and PRIT Fund audits conducted by KPMG, staff are currently supporting two additional audits from both PERAC, the state’s pension system regulator, and the State Auditor.

These were not anticipated audits even though they occur regularly. It is difficult to plan or schedule for them, they usually arrive unannounced and then we staff a response team with both operations and investment professionals.

2. Staff began a comprehensive IT Audit and a simultaneous effort to enhance PRIM's IT security. As you may have read in the news, both the Federal Government and the Governor have advised all companies to expect more cyber security breach attempts. We have worked to ensure the safety of our digital data and have developed and provided trainings to our clients to inform their cyber security needs. We are also simultaneously evaluating new methods to further enhance our own cash transfer protocols.
3. PRIM expects to receive a subpoena in support of the Attorney General's lawsuit against Exxon Mobile. Renee LeFevre, Chief Legal Officer, and several operations and investment staff members will be involved; support of this case will take a lot of time and effort collecting records, preparing, responding, etc.
4. Similarly, Ms. LeFevre is coordinating the deposition of several current and former PRIM employees in support of a securities class action case on Foreign Exchange trading. The FX trading problems happened a long time ago and the preparation will also take a lot of time and effort.
5. Success and innovation generate a lot of outside attention, and as a result, PRIM is receiving an unprecedented level of media requests and public information requests for matters related to our investment program, proxy voting policies, diversity and inclusion, ESG matters, and very recently Russian divestment.
6. PRIM continues to build the FUTURE Initiative that's the effort to deploy more capital to diverse and emerging managers in support of last year's legislation. The program is sophisticated and requires substantial partnering, contracting, and due diligence, along with new monitoring and reporting requirements.
7. PRIM is nearing completion of a draft ESG Committee charter and framework in support of the Board vote last cycle to create a new ESG Committee. We are working closely with the Treasurer's office and with our outside governance consultant. We have made a lot of progress, but there is much more left to do.
8. Like others across the financial, governmental, and diplomatic sectors, we had to assess our Russia exposures in the aftermath of the invasion. PRIM staff spent approximately 6 weeks providing technical assistance to the Legislature, the Governor, and the Treasurer's team in support of the newly passed Russian divestment law. Now that the law has passed, staff is busy implementing the divestment requirements and its associated reporting requirements. It is no small undertaking.
9. PRIM is expanding staff as quickly as possible, which is difficult in the current strong employment environment, and we have also begun our search to expand our office space requirements for the expected growth. PRIM takes great care in its hiring practices. If done right, hiring and onboarding new employees is very time consuming. There is a lot to learn here at PRIM and it takes a lot of time, training, and mentorship for new employees to become productive.

Mr. Trotsky reiterated that all these projects are vitally important and impactful, some known and planned for, others were somewhat unexpected. The focus and efforts of our team are nothing short of remarkable under these circumstances. PRIM will be successful in meeting the requirements of every one of these initiatives, but given the market environment, staff is at its limit, and may be forced to temporarily postpone or prioritize any additional non-core projects until the financial markets stabilize and our resources grow. He asked for the Committee's understanding in the coming months and for support to increase the PRIM 2023 budget to support PRIM's needs.

Ruth Ellen Fitch, Esq. joined the meeting at 9:59 a.m.

Organizational Update

Mr. Trotsky congratulated Vivian Liang on her transition from Research Intern to Investment Analyst – Research, reporting to Maria Garrahan. Vivian joined as a Research Intern in July 2021 where she worked within multiple areas of research: Asset Allocation, PE Replication, Manager Selection tools, and more. In March, Vivian graduated with an MS degree from the Computational Finance and Risk Management graduate program at the University of Washington.

Mr. Trotsky announced that Tim Doyle started in February as an Investment Analyst on the Private Equity team and will report to Alyssa Fiore. He joined PRIM from the Mass General Brigham investment office. Tim began his career at Cambridge Associates in their pension practice and earned a Bachelor of Science in Finance from Boston College.

Mr. Trotsky introduced Amy MacKay who also joined PRIM in February as an Administrative Coordinator for the Real Estate and Timberland team, reporting to Tim Schlitzer. Amy previously worked in the Finance Department at Meredith & Grew (now Colliers) and the Downtown Leasing Group at Whittier Partners (now CBRE). Amy grew up in Dorchester and is a graduate of Assumption College.

Mr. Trotsky shared that in late March, PRIM became a founding signatory to the CFA Institute's first-ever Diversity, Equity, and Inclusion Code for the investment profession. He added that it was a very proud personal accomplishment for him because he worked very hard as a member of the DEI Code Steering Committee for more than two years to help persuade the CFA Institute to develop this important initiative for the industry. He has also lobbied the fifteen other founding signatories to join the effort. Mr. Trotsky added that this work follows his advocacy many years ago for the CFA's Asset Manager Code of Conduct (AMCC) for which PRIM was a founding sponsor. PRIM has always advocated strongly for all investment managers to adhere to its core principles.

Mr. Trotsky added that by becoming a founding signatory of the DEI Code, PRIM cements its position as an industry leading advocate for a new and better investment industry that more closely represents the make-up of our entire society. He believes that commitment to diversity and inclusion, just like ethics, must come from the top. He added that Treasurer Goldberg shares his passion to make a difference. Many years ago, Mr. Trotsky and Treasurer Goldberg decided to make cultural changes at PRIM to foster a diverse and inclusive environment. They believe that an industry that embraces many voices and perspectives will produce better investment outcomes and a more inclusive future for the investment profession. Mr. Trotsky mentioned that signing the DEI Code means that PRIM is committed to embracing its seven core principles to improve its workplace and its industry. PRIM's human resources policies already capture these principles, and with the implementation of the FUTURE Initiative following Treasurer Goldberg's advocacy for investment equity legislation, PRIM is positioned to continue to lead in this area. While PRIM is proud of its progress there is still more to do.

Mr. Trotsky mentioned that in its February 14th, 2022, issue, Pensions & Investments reported that PRIM was ranked seventh among the largest 200 funds in the nation for assets managed by diverse managers. This is an indication that PRIM's ongoing efforts over the years, combined with its new FUTURE initiative is putting PRIM at the very top of the heap in terms of progress – and many of the funds that have more allocated are far larger than the PRIT Fund. Dave Gurtz, Deputy Chief Investment Officer, and the entire team are doing a terrific job.

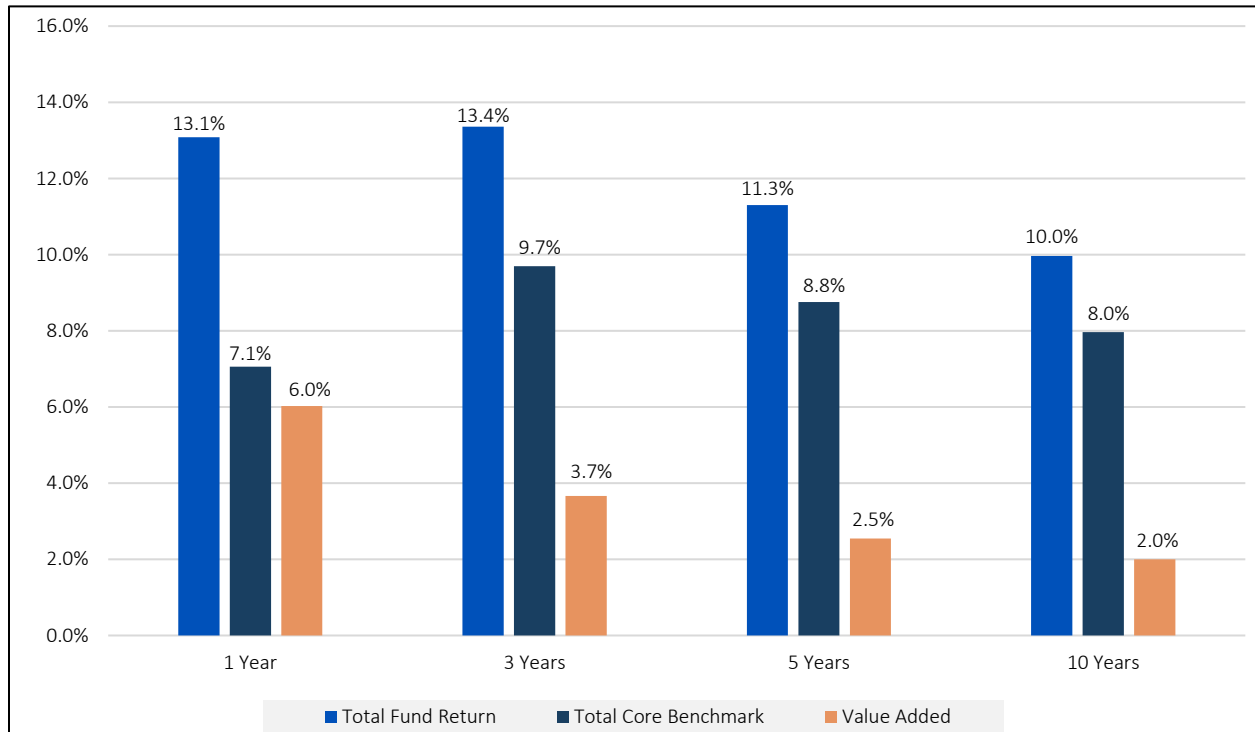
Mr. Trotsky completed his organizational update by reporting that for the 6th straight year, PRIM was nominated for Public Plan of the Year for Institutional Investor's annual HF Industry Awards ceremony. He reminded the Committee that PRIM won the award in 2016 in recognition of our groundbreaking work in separately managed accounts, which is now becoming the industry standard.

PRIT Fund Performance Summary

Mr. Trotsky then discussed the markets and PRIT Fund Performance mentioning all major geographies, the U.S., Europe, and emerging markets were all weak, down 12% or 13% for the calendar year through April. For the first four months of the calendar year the NASDAQ was down 21.2% as we have seen a new trend steering away from growth stocks leaning towards value stocks. Commodity stocks were outpacing all others up 40% for the calendar year and 60% for the trailing 12-months, while energy stocks were up nearly 60% for the calendar year and 96.5% for the trailing 12-months.

Mr. Trotsky referenced the following charts and graphs:

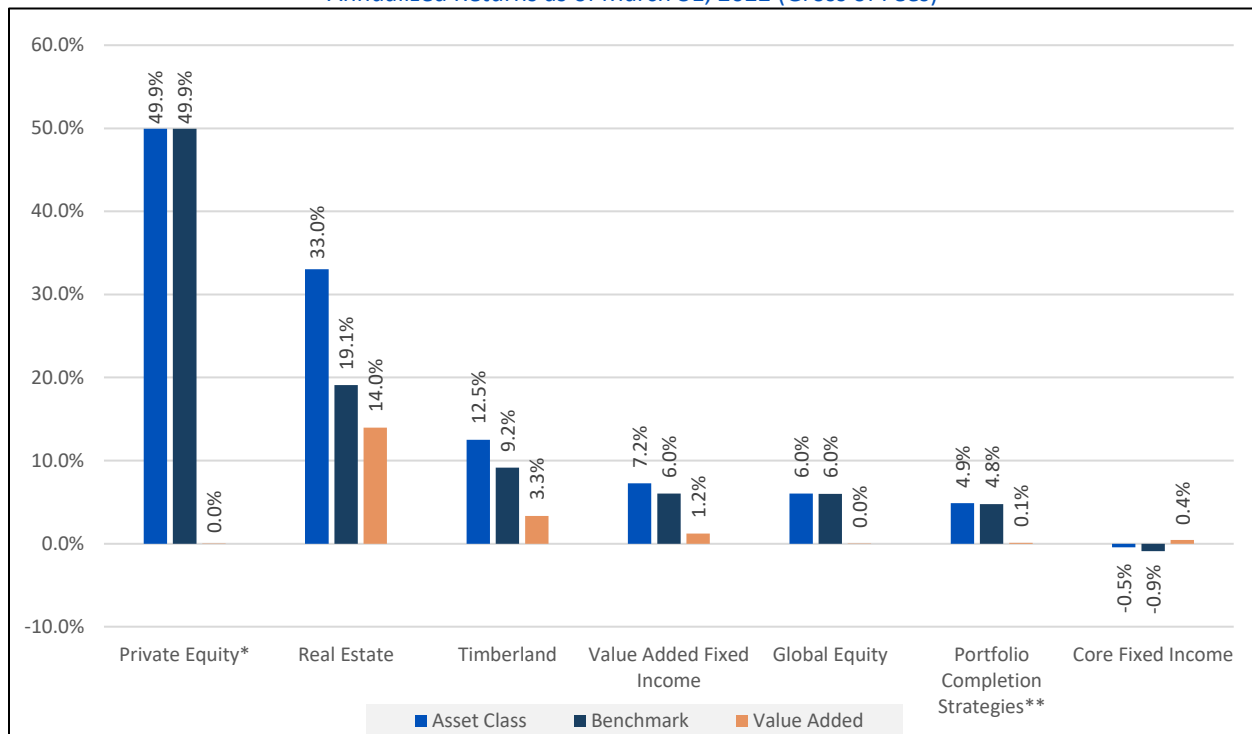
Total PRIT Fund Returns
Annualized Returns as of March 31, 2022 (Gross of Fees)



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

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PRIT Asset Class Performance Summary
Annualized Returns as of March 31, 2022 (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 Annualized Returns By Asset Class
March 31, 2022 (Gross of Fees)

1 Year	3 Year	5 Year	10 Year
PRIVATE EQUITY 49.9%	PRIVATE EQUITY 35.8%	PRIVATE EQUITY 29.3%	PRIVATE EQUITY 23.3%
REAL ESTATE 33.0%	REAL ESTATE 14.0%	REAL ESTATE 11.9%	REAL ESTATE 11.6%
TIMBER 12.5%	GLOBAL EQUITY 13.7%	GLOBAL EQUITY 11.7%	GLOBAL EQUITY 10.3%
VALUE-ADDED FIXED INCOME 7.2%	VALUE-ADDED FIXED INCOME 6.6%	VALUE-ADDED FIXED INCOME 5.9%	TIMBER 6.1%
GLOBAL EQUITY 6.0%	TIMBER 5.3%	TIMBER 5.3%	VALUE-ADDED FIXED INCOME 5.5%
PORTFOLIO COMPLETION STRATEGIES 4.9%	PORTFOLIO COMPLETION STRATEGIES 4.8%	PORTFOLIO COMPLETION STRATEGIES 4.3%	PORTFOLIO COMPLETION STRATEGIES 4.8%
CORE FIXED INCOME (0.5%)	CORE FIXED INCOME 4.1%	CORE FIXED INCOME 3.9%	CORE FIXED INCOME 4.0%

Source: BNY Mellon.

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

III. Risk Management Update

James Leu, CFA, FRM, Senior Investment Officer – Director of Risk Management provided the Risk update, noting the overall characterization of the risk environment in the first quarter, and noted equity risk and credit risk were slightly elevated while interest rate risk was extremely elevated. Growth/value style risk was also extremely elevated, and PRIM staff has worked to manage the value factor exposures in the Global Equity portfolio and its subcomponents shifting allocations among managers to balance our plan. Lastly, staff is analyzing the portfolio holdings and talking to our managers with the goal of understanding the performance attribution and risk exposures in a granular way.

Investment Committee member James Hearty noted his concern that investors are not understanding the risks we face and proposed reducing PRIM's passive Global Equity portfolio by 50%.

IV. Public Markets Performance Summary

Michael McElroy, CFA, Senior Investment Officer - Director of Public Markets provided an update on Public Markets performance. Mr. McElroy noted public markets exposure represents over sixty percent of the PRIT Fund and we expect it should weather most market environments given its diversification.

Mr. McElroy noted the first quarter was a reversal in what we saw in Q4 and over the last year, as developed markets declined by between 5-8% in the quarter. Emerging markets performance was similarly down 6% in the quarter, due in part to continued weakness in Chinese equities down 14% in the quarter, and down over 34% in this fiscal year. The Global Equity portfolio was up 6% over the past year. Value outperformed growth in all markets in Q1, a shift that started last year and we expect will continue. On a benchmark relative basis, our Global Equity portfolio underperformed in Q1, due to weak performance from our growth-oriented Developed International managers. U.S. equity managers performed in-line with benchmarks, and Emerging Markets managers. Even with this mixed performance, diversification kept the overall equity performance in-line with benchmark returns. Fixed income holdings performed well on a benchmark-relative basis both in Q1 and over the past 12-months, though absolute returns were negative in Q1.

Mr. McElroy noted staff will continue to analyze the portfolio's sensitivity to value versus growth. He noted there is good factor balance in the aggregate equity portfolio but staff has been asking our managers how they are positioning for regime changes in these two styles. We remain satisfied with the resilience of the Global Equity portfolio in the first quarter given these strong factor effects.

Finally, he stated that PRIM remains focused on monitoring the portfolio sensitivity to geopolitical and economic risks. The tragic Russian invasion of Ukraine has increased volatility in both equity and fixed income markets, and our inability to trade our existing positions impacted the PRIT portfolio to a small degree. A market with wide dispersion of returns is a good market for our active managers to operate and add value in. Our managers have noted they see attractive valuations in parts of both equities and fixed income markets with the recent sell-off. Because of the diversified nature of our public market's portfolio, the aggregate risk for the overall equity and fixed income exposures remains low on a benchmark-relative basis.

David Gurtz, CPA, CFA, Deputy Chief Investment Officer, provided an update on our FUTRE Initiative since the November, December Committee and Board Meeting cycle where this Committee and then the Board approved the \$1 billion program to invest in Emerging-Diverse Managers.

Mr. Gurtz noted PRIM staff worked diligently to finalize contracts and processes with each of our five manager-of-managers: Xponance for Global Equities; Bivium for Fixed Income; Hamilton Lane for Private

Equity; Cambridge Associates for Real Estate; and PAAMCO will continue for Hedge Funds. More importantly, Mr. Gurtz proudly reported capital has begun to flow to emerging-diverse managers. Xponance allocated the program's first dollars, while Bivium has identified their first few emerging-diverse managers and plan for them to be funded on June 1, 2022. Hamilton Lane, Cambridge Associates and PAAMCO all have strong pipelines of managers and expect capital will be deployed in the coming months.

Mr. Gurtz further stated that during the November committee meeting, Committee members requested a review of PRIM's ETI program, which staff had circulated on January 26, 2022. Based on this review, PRIM staff decided to terminate two of the active Core Fixed Income ETI managers, Community Capital and RBS, due to their performance not meeting expectations.

V. Portfolio Completion Strategies Performance Summary

Bill Li, CFA, CAIA, Senior Investment Officer – Director of Portfolio Completion Strategies, provided an update on PRIM's Hedge Fund portfolios. Mr. Li stated that staff is satisfied with the Hedge Fund's overall positive return in such a volatile market.

Regarding first quarter performance, Mr. Li noted Portfolio Completion Strategies (PCS) delivered a positive 0.85% versus its benchmarks of 0.5%. PRIM's Stable Value Fund delivered 2.3% (versus its benchmark 1.9%) and is serving its purpose of being a diversifier and volatility dampener. Directional Funds understandably had a negative quarter returning -1.5% (versus its benchmark of -2.6%) and Real Assets relative performance of 0.3% (versus its benchmark of 2.7%) continued to drag. He noted that it is a priority to rethink and re-evaluate Real Assets.

Mr. Li noted Hedge Fund allocators can obtain alpha via three channels: tactical trading; security selection; or structural alpha by optimal operation setup such as discounted fees. Most pension allocators who are currently optimistic about Hedge Funds emphasize tactical trading alpha. Commodity Trading Advisor (CTA) and Macro traders performed well last quarter. In comparison, PRIM's Hedge Fund performance mostly came from security selection alpha and structural alpha.

Mr. Li noted the PCS team is focused on existing partnerships to ensure the investments are right and the managers' decision making continues to be sound. In February, the PCS team started a comprehensive review of Real Assets, beginning with agriculture assets. Multiple teams including Real Estate and Risk are providing the team additional support.

VI. Private Equity

Michael McGirr, CFA, Senior Investment Officer - Director of Private Equity provided an update on Private Equity performance. Mr. McGirr noted the private equity industry has slowed down considerably since the start 2022. Global mergers and acquisitions had a strong first quarter, while U.S. private equity saw an increase in deal count and value compared to Q1 2021 figures. New leverage loans are more expensive today given the increase on the cost of capital and leveraged buyout volume has gone up marginally in Q1 2022 versus Q1 2021. Venture Capital began Q1 2022 on a similar pace from 2021, while exits have declined rapidly and very few Initial Public Offerings.

Mr. McGirr noted Private Equity was up 4.1% gross (3.9% net) but did not keep up with the strong public performance from Q4 2021. Our trailing 1-year return remained strong at 49.9% gross (48.3% net) and as we look ahead to Q2, it is prudent to reset expectations for Private Equity performance. Finally, including our recommendation later today, we will have approximately \$2 billion in commitments, which is on track to reach our targeted goal for 2022 of \$2.7 billion to \$3.3 billion capital for the calendar year.

VII. Venture Capital Investment Approval Process Recommendation (Voting Item)

Helen Huang, Senior Investment Officer - Private Equity presented the Venture Capital (VC) Investment Approval Process recommendation.

Ms. Huang noted staff will only underwrite new Venture Capital investments that are congruent with PRIM's investment thesis, strategy, and program objectives. To support the Venture Capital effort, PRIM staff is recommending adding delegated authority to the Chief Investment Officer to approve new Venture Capital commitments, while notifying the Investment Committee and the Board on a quarterly basis, similar to the co-investment process. All re-ups with existing Core VC managers will continue to follow the regular Board and Committee cycles, as well as the interim fund approval process.

Ms. Huang explained pursuant to this recommendation we are further establishing a few criteria for this proposed governance. New VC merger commitment(s) will not exceed 20% of the PE annual commitment budget, the delegated approval process is subject to a cap of \$75 million in any single VC fund investments and only fund commitments, not co-investments are allowed for our current Venture Capital policy.

The PRIM Investment Committee voted, by unanimous roll-call vote, to approve a recommendation to the PRIM Board to approve the enhanced Venture Capital Investment Approval Process, as described in Appendix D of 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 11:41 a.m.

List of documents and exhibits used during the meeting:

- *Minutes of the PRIM Investment Committee Meeting on February 1, 2022*
- *PRIT Fund Performance Report (March 31, 2022)*
- *BNY Mellon Gross of Fees Performance Report (March 31, 2022)*
- *Venture Capital Investment Approval Process Recommendation Presentation*