



Minutes of the PRIM Investment Committee Remote Meeting  
Tuesday, November 16, 2021

Committee members attending:

- Treasurer Deborah Goldberg, Chair
- Joseph Bonfiglio
- C. LaRoy Brantley
- Michael Even (departed at 12:35 p.m.)
- Constance Everson, CFA
- Ruth Ellen Fitch, Esq.
- James Hearty
- Peter Monaco (arrived at 10:00 a.m.)
- Phillip Perelmuter (departed at 12:35 p.m.)
- Philip Rotner (departed at 12:35 p.m.)
- Paul Shanley, Esq.
- Glenn Strehle, CFA
- Timothy Vaill

The PRIM Investment Committee meeting was called to order at 9:35 a.m. Chair Treasurer Deborah Goldberg announced that the meeting was being held by internet and telephone in accordance with the provisions of “An Act Extending Certain COVID-19 Measures Adopted During the State of Emergency” which was signed into law on June 16, 2021. This Act includes an extension, until April 1, 2022, of the remote meeting provisions of the March 12, 2020, Executive Order that allows remote participation by all members of a public body and suspends the requirement that a quorum and the Chair be physically present, provided that the public has access to the meeting through technology that enables the public to clearly follow the proceedings while they are occurring. Accordingly, all members of the Committee participated remotely via telephone and/or internet enabled audio and video conferencing, and 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](http://www.mapension.com)). At the start of the meeting, the names of the members participating remotely were announced.

**I. Minutes (Voting Item)**

The PRIM Investment Committee approved, by unanimous roll-call vote, the minutes, as amended, of its August 3, 2021, meeting.

**II. Executive Director / Chief Investment Officer Report**

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

Mr. Trotsky began by announcing that PRIM staff would be bringing forth a recommendation at the meeting for a new program related to PRIM’s FUTURE Initiative -- a new emerging-diverse manager program with a goal of deploying \$1 billion in capital. With Board approval, PRIM would hire five new managers to deploy capital to emerging managers, defined as small managers with shorter track records, who generally have a very tough time getting started in the industry. Additionally, he highlighted new advances in PRIM’s ESG investment research, the research PRIM started last year in cooperation with the MIT Sloan School and other institutional investors from around the globe. He added that the leading-edge

research will enable PRIM to be among the first investors in the world to utilize more reliable ESG ratings to design and implement more impactful investment programs. The environmental focus will include an assessment of PRIM's investment portfolio carbon footprint – past and current – the goal of which is to measure the carbon footprint over time. He noted that he expects to share much more about these exciting new areas in the coming months.

#### *PRIT Fund Performance*

Mr. Trotsky began by reporting that the September 2021 quarterly results continue to be strong following a record-setting fiscal year (2021) in which the PRIT Fund was up approximately 30%, and nearly 9% above benchmark. For the September quarter, the PRIT Fund was up 2.4% net of fees despite global markets posting modest losses; domestic and developed international equity market returns in the quarter were essentially flat, but emerging market returns were negative 8% as China fell more than 18% with the prospect of an Evergrande bankruptcy and its possible contagion effects. He told the Committee that a 60/40 mix of global stocks and bonds was down 0.6%, but the PRIT Fund fared better and was up 2.4% net of fees for the first fiscal quarter of 2022, well above benchmark. The PRIT Fund ended with a balance of \$98.5 billion, a new record high, and paid out \$523 million in benefits during the quarter. Consistent with recent quarters, Private Equity again led the way with a return of 13.7% for the quarter. Real Estate was up 6.6% and Value-Added Fixed Income was up 2.8%. He mentioned that he would speak more on PRIT Fund performance and the markets later, but he first wanted to give the Committee an organizational update.

#### *Organizational Update*

Mr. Trotsky started by announcing the following promotions:

**Alyssa Fiore** has been promoted to Senior Investment Officer on the Private Equity Team reporting to Michael McGirr. Alyssa joined PRIM in 2016 and has had a big positive impact on PRIM's industry-leading private equity program. Alyssa plays a leading role in sourcing new managers and co-investment opportunities for PRIM and she has been intimately involved in designing and executing the team's unique and disciplined investment process and research agenda. Additionally, last year Alyssa was responsible for managing and mentoring private equity's summer intern who joined from Treasurer Goldberg's Women in Finance Fellowship program.

**Minching Kao** has been promoted to Investment Officer. Minching joined PRIM in 2019 and during the past two years has become a vital member of the Real Estate and Timberland team focusing on investment analysis and modeling, annual performance and budget review, and quarterly valuations. Minching continues to strengthen PRIM's portfolio analytics framework by using her extensive experience in financial modeling, underwriting, and valuation. Her analytical skills are outstanding and the skills she brings to the team are extremely valuable.

**Qingmei Li** has been promoted to Director of Audits and Financial Reporting. Qingmei joined PRIM in 2011 and has been an invaluable member of the Finance team ever since. Mr. Trotsky congratulated her on reaching her 10-year anniversary at PRIM. Qingmei is responsible for the PRIM and PRIT Fund audits, Procurement Process and Benchmarking Agreed Upon Procedures, and the audits of PRIM's separately managed accounts, investment accounts which continue to grow both in size and complexity. She is a trusted resource for the entire Finance team and her responsibilities have increased steadily through her tenure. Qingmei is also responsible each year for PRIM's Annual Comprehensive Financial Report, which has received the GFOA's Certificate of Achievement for Excellence in Financial Reporting for the past 16 years.

**Christina Marcarelli**, has been promoted, adding to her current title of Senior Investment Officer, Real Estate and Timberland, the role and responsibilities of the Director of Real Estate Debt. She will also assume management responsibility for Minching Kao. Christina joined the Real Estate and Timberland

team as an Investment Officer in 2016 and has been extremely productive, taking on an ever-expanding list of responsibilities across the Real Estate and Timberland portfolios. Over the past three years, she has led PRIM's strategic and manager research of the \$4.7 trillion commercial real estate debt market, becoming PRIM's clear subject matter expert in this area. Her efforts have led to the review of more than \$20 billion in real estate debt opportunities and the deployment of \$200 million in capital.

Mr. Trotsky congratulated all four employees and thanked them for their outstanding achievements.

Mr. Trotsky then congratulated **David Gurtz** on taking on a new, but familiar role as Deputy Chief Investment Officer in charge of strategic priorities, projects, and processes. He explained that David is one of his closest advisors helping run the day-to-day business, and he has accumulated much practical experience and has demonstrated good judgement in matters that impact both the investment and finance operations activities at PRIM. As a CPA and a CFA, David brings a unique mix of experience and knowledge from both sides of the business, having formally served as PRIM's Chief Financial Officer and Chief Operating Officer. On the investment side, David was PRIM's very first Director of Risk management before becoming Director of Public Markets and then eventually Deputy Chief Investment Officer. David's role as Deputy Chief Investment Officer has grown substantially over the past few years as PRIM has taken on several new strategic initiatives. David will continue to lead and build out PRIM's FUTURE Initiative, chair the Investment Review Team and Investment Team meetings, coordinate the monthly PRIT Fund rebalancing, provide research and assistance related to communications efforts and requests for information, lead reviews of PRIM's governance documents including the regular review of PRIM's Investment Policy Statement, oversee committee and Board package preparation, help the operations team monitor investment manager guideline compliance, track and monitor legislation that may affect PRIM, participate and help coordinate RFP's and ongoing investment due diligence, and more. Mr. Trotsky explained that this role is a very large and busy assignment encompassing many different areas, and he is delighted that Dave has agreed to take on this role, as he is an invaluable resource to PRIM.

#### *New Employees*

Mr. Trotsky then introduced several new employees. He began by mentioning that with David Gurtz's new important assignment he was very excited to announce **Michael McElroy** has joined PRIM as Senior Investment Officer and Director of Public markets reporting directly to Mr. Trotsky. Michael joins PRIM from Wellington Management where he was a Managing Director for both the systematic and fundamental equity investment teams. Prior to that he was Head of Global Equity for Batterymarch Financial Management where he was the lead portfolio manager for the systematic global equity portfolios. And prior to that, Michael was Head of Global Equities for Citigroup Asset Management, based in London, where he was responsible for all developed markets portfolio management. Michael earned a Bachelor of Science degree in Mathematics, a Master of Science degree in Transportation Planning, both from MIT, and his Master of Science in Management from the Sloan School of Management at MIT. PRIM is very happy to have Michael on board, he is an extremely talented individual.

Next, Mr. Trotsky welcomed **Denise Flynn** who joined PRIM as an Executive Assistant supporting David Gurtz and Michael McElroy. Denise comes to PRIM from the New England Center and Home for Veterans where she served as the Executive Administrative Assistant to the President & Chief Executive Officer. Prior to that, Denise was the Quality Coordinator for Karyopharm Therapeutics, Inc. as well as an Executive Administrative Assistant at Pioneer Investments. Denise has an Associate Degree in Commercial/Advertising Photography from the Rhode Island School of Photography. She will report to Deb Coulter, PRIM's Chief Financial and Administrative Officer.

**Joseph Kamotho** joined PRIM as a Business Systems Analyst on the IT team reporting to David Griswold. He will be working to help support PRIM's IT systems and infrastructure and he will help onboard new technologies. Joseph previously worked at Man Numeric where he was responsible for database design,

management, and administration. Joseph holds a Bachelor of Science in Management Information Systems from Northeastern University.

**Vincent Li** joined the Investment Operations team as an Investment Operations Analyst reporting to George Tsipakis. Vincent comes to PRIM from the Massachusetts Department of Children & Families (DCF), where he was serving as a Management Analyst. Prior to DCF, he was a Rates Analyst at KPN iBasis. Vincent has a Bachelor of Arts in Economics from the University of California San Diego and is currently a Level II candidate in the CFA® program.

**Melissa Ng** joined the Investment Operations team as Manager of Real Estate and Timberland, Accounting and Reporting also reporting to George Tsipakis. Melissa comes to PRIM from Hancock Natural Resource Group, (HNRG) as a Senior Financial Accountant – Client Reporting. Prior to Hancock, she was a Senior Fund Accountant at GMO Renewable Resources. Melissa has a Bachelor's degree in Business Administration from the University of Massachusetts, Isenberg School of Management, with a major in Finance and Operations and is currently pursuing a Master of Business Administration at Endicott College, Van Loan School.

Mr. Trotsky concluded his introductions by welcoming these new employees to PRIM.

#### *Recent Recognition*

Mr. Trotsky then highlighted two employees who had recently received recognition. **Matt Liposky**, PRIM's Chief Investment Operations Officer, was recently selected to the CFA Institute's GIPS Standards Asset Owner Subcommittee. That is a great honor and testimony to his expertise in his field.

Additionally, **Matt Liposky** and **Deb Coulter**, PRIM's Chief Financial Officer and Chief Administration Officer were recently selected by the Treasurer as recipients for this year's performance recognition program. Each of them was awarded a citation for outstanding performance by the Treasurer in a recent ceremony, recognized for their great work in their respective areas. Mr. Trotsky expressed his congratulations and thanked the Treasurer for acknowledging their contributions.

#### *Market Update*

Mr. Trotsky began by mentioning markets have continued to be strong in October and so far in November. In October, the S&P500 was up 7%, developed international markets up 2.5%, and emerging markets up 1%. Diversified bonds were flat and long bonds were up 3.9%. The trend of positive returns is continuing into November. This while GDP growth of 2% in Q3 missed expectations, the Federal Reserve announced their intention to reduce the monthly pace of net asset purchases, and consumer prices, a measure of inflation, surged 6.2% in October, the highest rate in three decades. He reiterated that this usually isn't good for markets. Employment news was somewhat encouraging as the unemployment rate fell to 4.6% in October, the number of unemployed people declined 255K to 7.4 million, and unemployment claims fell to 267K, the lowest level since the pandemic hit. He added that 7.4 million people still unemployed is a lot, and curiously the number of unemployed per job opening is at the highest levels since the 1960s. Moreover, with 4.4 million employees quitting in September alone, the job quit rate rose to a record 3%, leading economists to call it "The Great Resignation." Also, consumer confidence posted an unexpectedly large drop in early November, US Industrial production fell in September as did housing starts, while manufacturing PMI edged downward. Mr. Trotsky said these are some signals to think about, but there is an old saying that sometimes the markets climb the proverbial wall of worry. Connie Everson, PRIM's resident economist and strategist on the Committee, asserted that this is not the inflation environment of the 1970s – in a real prolonged inflation environment, prices don't back off and manufacturing doesn't back off either – she pointed out that the bond market is not indicating prolonged high inflation as the curve has flattened and the 10-year Treasury yield has backed off. Furthermore, the flood of liquidity that hit the market during and immediately after the pandemic has been worked down to the point where the

Fed now has needed to provide additional liquidity to the REPO market due to collateral being in short supply. In other words, liquidity is not flowing rapidly, which is not overly inflationary. Last, she expressed a belief that we don't necessarily need to be afraid of a taper, in a sense with the end of the large COVID stimulus programs already in run-off, the markets are already digesting a taper, not one directly managed by the Fed, but a taper nevertheless – and the markets are strong. The Investment Committee agreed, however, that a policy mistake is what to worry about here. Mr. Trotsky expressed that we are walking a fine line – the Fed response to inflation or lack of response in a timely way, will probably impact markets. If they get it right the markets will be strong, miss and the markets might suffer. It is hard to know what the right path is and harder to know if the responses will be timely.

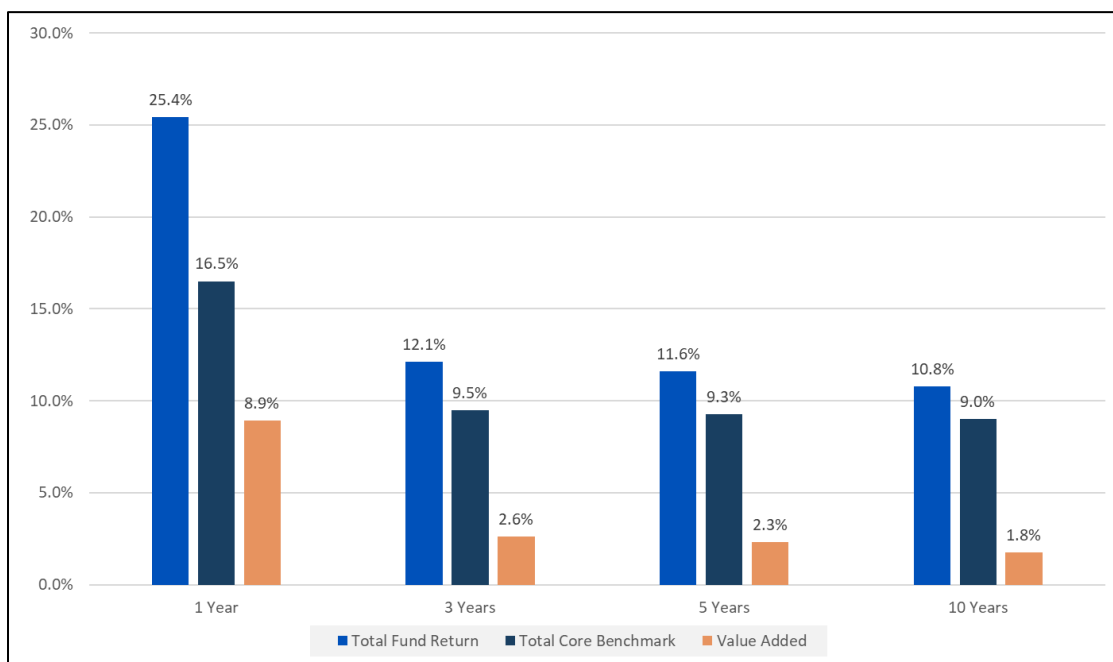
Mr. Trotsky explained that the market has bifurcated into two camps and there is not current consensus on the matter:

1. Those that believe inflation is transitory because of COVID and temporary supply shortages.
2. And those who believe that inflation may spiral out of control because of wage price escalation.

Mr. Trotsky stated that in the meantime, PRIM will stay the course with our long-term, all-weather portfolio with components designed to perform well whatever happens.

Mr. Trotsky referenced the following charts and graphs:

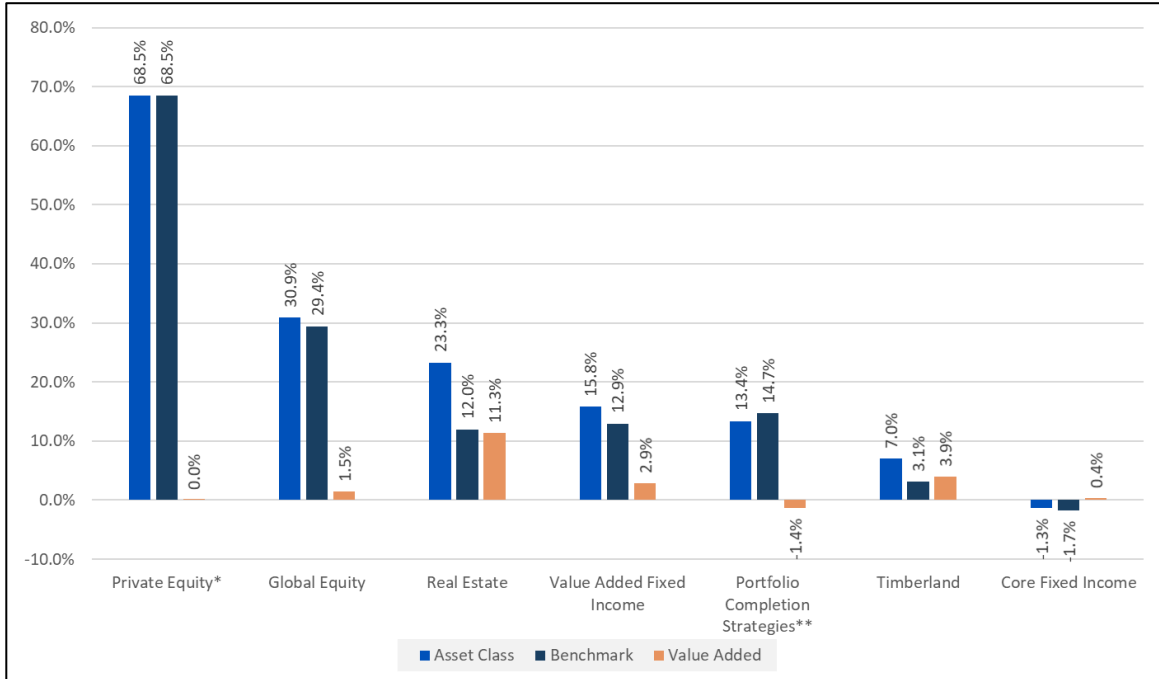
### Total PRIT Fund Returns (Gross of Fees) Annualized Returns as of September 30, 2021



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

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## PRIT Performance by Asset Class (Gross of Fees) Annualized Returns as of September 30, 2021



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 September 30, 2021

1 Year	3 Year	5 Year	10 Year
PRIVATE EQUITY 68.5%	PRIVATE EQUITY 31.0%	PRIVATE EQUITY 28.1%	PRIVATE EQUITY 21.9%
GLOBAL EQUITY 30.9%	GLOBAL EQUITY 12.7%	GLOBAL EQUITY 13.5%	GLOBAL EQUITY 12.4%
REAL ESTATE 23.3%	REAL ESTATE 9.6%	REAL ESTATE 8.8%	REAL ESTATE 10.9%
VALUE-ADDED FIXED INCOME 15.8%	CORE FIXED INCOME 7.6%	VALUE-ADDED FIXED INCOME 6.8%	VALUE-ADDED FIXED INCOME 6.0%
PORTFOLIO COMPLETION STRATEGIES 13.4%	VALUE-ADDED FIXED INCOME 7.3%	PORTFOLIO COMPLETION STRATEGIES 4.8%	PORTFOLIO COMPLETION STRATEGIES 5.1%
TIMBER 7.0%	PORTFOLIO COMPLETION STRATEGIES 3.1%	TIMBER 4.5%	TIMBER 4.9%
CORE FIXED INCOME (1.3%)	TIMBER 2.4%	CORE FIXED INCOME 3.4%	CORE FIXED INCOME 4.8%

Source: BNY Mellon.

Peter Monaco joined the meeting at 10:00 a.m.

### III. FUTURE Initiative - Emerging-Diverse Manager Program (Voting Item)

David Gurtz, CPA, CFA, Deputy Chief Investment Officer, provided the Committee with an update on the FUTURE Initiative. Mr. Gurtz noted that in May, PRIM launched the FUTURE Initiative, the strategic plan to accomplish the goals set forth in Investment Equity legislation that passed in January 2021. The FUTURE Initiative identifies 4 keys to success and he noted that for each one, PRIM had made meaningful progress during the year.

1. Reduce Barriers for Diverse managers
2. Enhance DEI Reporting
3. Improve the Sourcing of Diverse Investment managers
4. Allocating capital to and graduating diverse managers

One of the goals of the legislation is for PRIM to reduce barriers for diverse managers. To reduce barriers PRIM is recommending the creation of the Emerging-Diverse Manager Program, which provides a clear path for diverse managers, regardless of size or track record, to potentially manage assets for PRIM. This Program will utilize manager-of-managers as an extension of PRIM staff to help PRIM source, conduct due diligence, have full discretion to select and monitor a portfolio of emerging-diverse managers.

PRIM staff recommended an initial allocation of up to \$1 billion dollars to this Emerging-Diverse Manager Program, to be invested over the next 2 years, which would give the manager-of-managers sufficient time to source, conduct due diligence, and select the best managers. Additionally, the following firms were recommended to manage the Emerging-Diverse Manager program:

- Bivium Capital for Fixed Income
- Cambridge Associates for Real Estate
- Hamilton Lane For Private Equity
- Xponance for Global Equities
- And PAAMCO – to continue to invest in emerging-diverse Hedge fund managers for PRIM.

Mr. Gurtz noted that the Real Estate and Timberland Committee would be voting on the utilization of Cambridge Associates for the Real Estate portion of the Emerging-Diverse Manager program during their Committee meeting later in the week.

Mr. Gurtz detailed the goals of the program as follows:

1. PRIM expects the program to enhance the risk adjusted returns of the PRIT Fund. PRIM will closely monitor these portfolios and be fully transparent about their performance and risks.
2. PRIM is searching for the next generation of managers that can graduate to manage more significant amounts capital for PRIM. Mr. Gurtz explained that “graduation” is a common term in the manager-of-manager space used to describe when a high-performing manager is promoted out of a manager-of-manager portfolio and promoted to manage more capital directly for the fund.
3. The program is designed to reduce barriers for diverse- emerging managers.

Mr. Gurtz noted that PRIM expects higher turnover in this program relative to the existing portfolio. PRIM staff will work with these five manager-of-managers to identify and graduate the best managers out of the program. PRIM expects to recycle capital within the program - away from underperforming managers into new managers. PRIM expects that each of these 5 firms will invest in 8-12 emerging-diverse managers over the next 2 years, with each emerging-diverse manager managing approximately \$10-\$25 million each.

Committee members asked questions regarding the definitions of terms, the Program's goals and expected turnover. Several Committee members requested a review of PRIM's ETI Program.

The PRIM Investment Committee voted, by unanimous roll-call vote, to approve a recommendation to the PRIM Board to approve:

1. An initial allocation of up to \$1 billion to the Emerging-Diverse Manager Program, to be invested over the next two years; and
2. The following firms to manage the Emerging-Diverse Manager Program for their respective asset classes:
  - Bivium Capital for Fixed Income
  - Hamilton Lane for Private Equity
  - Xponance, Inc. for Global Equities
  - And PAAMCO to continue to invest in emerging-diverse hedge fund managers

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.

#### **IV. Strategy Group**

##### **A. Portfolio Completion Strategies Performance Summary**

Bill Li, CFA, CAIA, Senior Investment Officer - Director of Portfolio Completion Strategies, updated the Committee on the PCS portfolio. He noted that last quarter, PCS returned 40 basis points vs. 46 basis points for the benchmark. Ninety percent of PCS is made up of Hedge Funds. Last quarter, PRIT Hedge Funds had another steady, positive quarter, returning 27 basis points vs. 36 basis points for the benchmarks.

As mentioned at the August Investment Committee meeting, for the last fiscal year, PRIT Hedge Funds experienced a decent absolute return and some relative lag, and that phenomenon has continued into the third quarter. Mr. Li noted PRIM's Hedge Fund portfolio exhibited a lower risk profile than industry average. Realized beta was merely 0.1. Mr. Li noted, on a risk-adjusted basis, for the trailing 1-year performance, the PRIM Hedge Fund Portfolio returned almost 15% with 4% volatility translated to a Sharpe Ratio of 3.6X, significantly better than SP's 2.2X and the Barclay Agg's negative Sharpe Ratio.

Mr. Li noted that the Stable Value sleeve, which is of minimal beta and currently accounts for 2/3rds of PRIM's Hedge Fund Portfolio, delivered 1.4% last quarter, outpacing the benchmark by 63 basis points. Within the Stable Value sleeve, Credit Relative Value strategies, especially structured credits, were major contributors. The remaining 1/3rd are Directional Hedge Funds, which are of moderate beta. After an exceptional fiscal year returning 28%, Directional Funds gave back 1.6% last quarter due to two Event-Driven mandates where some idiosyncratic volatility had been expected.

Mr. Li noted that the Put Spread Collar Enhanced Equity program is slightly over 1% of total PRIT. It continued to perform well and in Q3 of 2021 it returned 83 basis points. The strategy had a temporary lag earlier last year; but for the trailing one year, it has recouped almost 900 basis points of relative performance, partly due to a rich volatility premium.

##### **B. Research - MIT/PRIM Collaboration on ESG Ratings Research Update**

Maria Garrahan, Senior Investment Officer - Director of Research, provided an update on PRIM's involvement in MIT's Aggregate Confusion Project and shared the work her colleagues have been doing regarding ESG. Ms. Garrahan noted under the Treasurer's leadership, PRIM has made, and



continues to make, significant progress on addressing environmental, social, and governance (ESG) issues through custom proxy voting.

Ms. Garrahan noted the Private Equity team made an allocation of capital to an early-stage venture capital fund last year where the climate fund is aimed at identifying solutions that will reduce carbon emissions or draw down Co2 from the atmosphere, while the Real Estate team continues to allocate capital to Timberland, globally. The PRIT Fund has invested in over a million sustainably managed forested acres in our portfolio. The annual carbon sequestration of PRIM's timberland holdings can offset the annual emissions of 205,000 cars, roughly 35% of all Massachusetts car emissions.

Ms. Garrahan noted last year, PRIM became the first founding member of the Aggregate Confusion Project (ACP) led by MIT Sloan Sustainability Initiative. ACP is an ESG research consortium aimed at addressing inconsistencies around the measurement of ESG data. At the end of September 2021, Ms. Garrahan joined the other members of the Aggregate Confusion Project and attended MIT's deep dive workshop on the current research findings to-date. Ms. Garrahan introduced Jason Jay, Director of the Sustainability Initiative at MIT Sloan to the Committee and he proceeded to present an update on the Aggregate Confusion Project.

Mr. Jay noted the MIT Sloan Sustainability has grown their ACP team by hiring a team coordinator, undergraduate and graduate researchers, research scientist, visiting scholars, and collaboration with other universities. ACP continues to make progress in the following areas:

- "Is History Repeating Itself?" which was posted on SSRN where MIT has already engaged with data providers to guide them towards best practices regarding revised datasets.
- "ESG Confusion and Stock Returns: Tackling the Noise Problem" is another paper aimed at identifying noisiness of ESG data, this has also introduced a technique to reduce noise of a data series through a statistical technique called instrumental variables.
- Continued deployment of Attribute Preferences app where they are currently trying capture the population's (baseline) preference across ESG characteristics.

Mr. Jay noted they had their first full member meeting at the end of September and MIT will continue these member meetings going forward and are currently preparing for a workshop on the implementation of instrumental variable technique to reduce noisiness of data series in the first quarter of 2022. MIT is excited for members to be co-developing and implementing alongside their research.

Ms. Garrahan introduced Mimi Kouame a new employee who has been working on an extension of the ESG Primer, A Three Pillar Approach, which was debuted at the Board retreat. This extension focuses on the E within ESG. Lastly, PRIM staff is working on an assessment of PRIM's carbon footprint, both past and current, and the goal is to measure the carbon footprint over time.

### **C. Risk – Benchmark Review (Voting Item)**

Shannon Ericson, CFA, Senior Investment Officer Risk Management, presented a benchmark recommendation for the Private Debt portfolio. Ms. Ericson noted PRIM hired Verus as a benchmark consultant in January 2021. One of the initial objectives for Verus was to help conduct a comprehensive review of all PRIM's benchmarks. So far, PRIM and Verus have completed reviews and recommended changes for PRIM's Private Equity and Global Equity benchmarks. Ms. Ericson presented recommendations for the Core Fixed Income, Public Value-Added Fixed Income and Private Debt portfolios.

Ms. Ericson explained the philosophy for choosing a benchmark was 1) it should be representative of the opportunity set, 2) it should be reflective of the return and risk of the asset class or sub-asset class,

3) it should be investable and known before the fact, and 4) it should be measurable, transparent, and unambiguous.

Ms. Ericson discussed PRIM's Fixed Income portfolio which is divided into two main asset classes - Core Fixed Income and Value-Added fixed income. Verus completed a review of PRIM's Core Fixed Income portfolio which includes investment grade, STRIPS, short-term, TIPS and Inflation-linked bonds. Verus recommended no changes to the current benchmarks. Consistent with Verus, PRIM staff recommended no changes to the Core Fixed Income benchmarks.

Ms. Ericson noted under Value-Added Fixed Income, there are three sub-asset classes 1) Public Value-Added Fixed Income 2) Other Credit Opportunities and 3) Private Debt. The Public Value-Added Fixed Income includes High Yield, Bank Loans and Emerging Market Debt portfolios. Verus reviewed the current benchmarks for Public Value-Added Fixed Income and recommended no changes as the current benchmarks are representative of the risks and returns of the investments and are appropriate. Consistent with Verus, PRIM staff recommended no changes to the Public Value-Added fixed income benchmarks.

Ms. Ericson explained the recommendation for the Private Debt benchmark. PRIM's Private Debt is a collection of private funds that invest primarily in private distressed debt securities. For Private Debt, PRIM staff recommended changing the benchmark from the Altman NYU Solomon Combined Defaulted Public Bond & Bank Loan index to the Burgiss Global Distressed Debt peer benchmark.

Ms. Ericson mentioned the Altman Index is a composite of bonds or bank loans of companies that have defaulted. The Altman Index includes both public and private defaulted securities. The PRIM Private Debt portfolio is focused on private distressed debt assets. So, in terms of underlying investments as well as Altman's focus on public and private assets, it is not the best fit for PRIM's private debt benchmark. The Altman returns have also differed widely from the PRIM Private Debt experience.

Ms. Ericson stated that Verus and PRIM staff were recommending the Burgiss Distressed Debt benchmark. The Burgiss benchmark contains private funds that invest largely in private distressed debt which more closely aligns with the PRIM Private Debt investments. It is more representative of the returns and risks in the Private Debt portfolio than the current benchmark.

The PRIM Investment Committee voted, by unanimous roll-call vote, to approve a recommendation to the PRIM Board to approve the Private Debt benchmark change to the Burgiss Global Distressed Debt benchmark as described in Appendices E and F of the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

#### **D. Risk - PRIT Fund Risk Update**

James Leu, CFA, FRM, Senior Investment Officer - Director of Risk Management provided the Risk update. Mr. Leu provided a review of the various roles of the risk department, PRIM's beliefs, and circumstances, in addition to providing several risk views on the PRIT Fund. In terms of roles of Risk, the Risk team serves as a spyglass or lens on managers, both current managers and prospective managers in searches. PRIM staff attributes historical performance to risk factors to determine if managers are skillful, try to identify and flag any "persistent and meaningful" risk factors in a manager's strategy such as maybe a size bet or an industry bet. Second, Risk assists asset class groups in portfolio construction or position sizing questions and lastly, the team communicates what the overall portfolio looks like and how it might behave based on risk components or illustrating with stress tests.

Mr. Leu spoke next of PRIM's beliefs and circumstances stating one belief is "No one can predict the markets, so we don't try". Some corollaries of that are we do not do tactical allocation but rather we

use a strategic asset allocation to achieve our dual objective in a risk efficient manner and focus on manager selection that is, picking managers that will outperform instead of over and underweighting asset classes. One condition is that we strive to meet our actuarial return target. This necessitates a growth tilt and equity bias to achieve the return. Lastly, the PRIT Fund currently has low liquidity demands of about 1% of portfolio per year which allows the potential for modest allocations to illiquid private asset classes.

Regarding historical returns and ex-post risk, Mr. Leu noted a key takeaway is that PRIT Fund has generated higher returns, lower risk, and a higher Sharpe ratio than a 60/40 blend across one, three, five and ten year-time periods. Performance attribution can be attributed to either allocation, the tactical over/under weighting asset classes, or manager selection. Mr. Leu noted that PRIM has high manager selection, meaning PRIM staff is effective at picking managers. PRIM has low allocation because PRIM does not attempt to predict markets by tactical over and under weights.

Mr. Leu provided a breakdown of portfolio risk into high level risk factors, with equity risk contributing approximately 79% of the total PRIT Fund risk. This again is a reflection for the need to achieve the actuarial return target which causes a growth/equity bias. Interest rate risk acts as a diversifier within the PRIT Fund and actually reduces the total PRIT Fund risk. Private equity risk and private real estate risk contribute 4.6% and 9.4% of total PRIT Fund risk, respectively. The PRIT Fund has significant positions in private asset classes which is facilitated by its long-term time horizon and modest liquidity needs.

Mr. Leu noted the PRIT Fund asset class risk statistics at various points in time over the last year and a half. Risk levels doubled during the pandemic as volatility rose sharply. This increase in risk was not due to changes in PRIT Fund exposures, rather volatility spiked up in the pandemic. Mr. Leu stated there are various other perspectives or metrics like active risk, more granular factor exposures, stress tests, scenario analysis that are not shown today but will be shown in the future.

## **V. Public Markets**

### **A. Performance Summary**

Michael McElroy, CFA, Senior Investment Officer - Director of Public Markets, introduced himself to the Investment Committee and mentioned he is looking forward to working with everyone. He noted his near-term focus has been to get to know the team, meet with and understand the role of the fifty-three public markets managers in the Public Markets portfolio, and to understand, use and improve the tools PRIM has for manager monitoring, evaluation, and risk. Particular areas of our focus are in innovation, collaboration, and continuous improvement. In the area of innovation, we are thinking about topics relating to portfolio structure and manager profile relative to our currently positioning. We are collaborating with our Risk team on tools for fixed income risk analytics and attribution, and we continue to look for ways to be more efficient through cost savings, automation, and analytics.

Mr. McElroy continued by stating much has already been said about the markets in Q3, and over the last year, but added a few additional points. First, growth continues to outperform value around the world, and this has been consistent over the long-term as well as recently. He noted that there are early signs of this trend reversing outside the US. Second, equity returns took a bit of a "pause" in Q3, but we have seen very strong YTD results on both an absolute and benchmark-relative basis, and equity strength has resumed so far in Q4 2021. Lastly, fixed income rates and spreads were largely unchanged in the quarter, though compared to the past year rates are slightly higher and spreads tighter.

Mr. McElroy noted we have been both hearing and asking about certain themes and actions from our equity and fixed income managers. Regarding inflation, there is general agreement that it will persist for a while, and that rates will likely move upward. Fixed income managers have been shortening portfolio duration, and equity managers are understanding companies' pricing power in a rising cost environment. Value versus Growth performance has been another equity topic, trying to understand Growth style portfolio sensitivity to rising rates, as well as just the general valuation levels we see in different markets. Emerging markets and international developed markets offer the best relative value currently, given the strength of US equities. We have to be cautious on emerging markets, however, due to China's large weight. Most of our emerging market managers remain cautious on China, and hold underweight positions to different degrees.

**B. Manager Recommendations - Agra, Artisan and Driehaus (Voting Item)**

Andre Clapp, Ph.D., CFA, Senior Investment Officer presented the recommendation to hire three new managers for the Global Equity portfolio: \$300 million for Agra Investment management, LP (Agra), \$150 million for Artisan Partners LP (Artisan), and \$150 million for Driehaus Capital Management (Driehaus). These three allocations are all relatively small in the context of the approximately \$41 billion Global Equity portfolio.

Mr. Clapp noted these recommendations fall into two categories, Developed International Core and International Small Cap. Agra is recommended for the Developed International Core portfolio. Agra is an existing manager for PRIM within our Xponance portfolio that has performed very well and PRIM staff recommends Agra graduate this diverse-emerging manager. Agra is a disciplined Value manager that does a great deal of work to avoid "Value traps".

Mr. Clapp noted by adding Agra to the Developed International Core portfolio we will gain several benefits. There is currently a Growth tilt in Developed International Core that has become large enough to be a concern and this proposal reduces that tilt by 25%. Adding Agra will reduce the risk of the Developed International Core portfolio, while potentially adding significant alpha. Although Agra would be one of the higher tracking error managers in the International Core portfolio, adding them reduces the expected tracking error of the overall International Core portfolio from 1.5% to 1.3%, primarily due to the reduction in the Growth tilt.

Mr. Clapp noted the second general category is International Small Cap where PRIM staff recommends adding Artisan and Driehaus, with an allocation of \$150 million each. Both of these firms have very impressive fundamental teams with excellent records that will balance systematic managers Acadian and AQR, who currently manage most of the International Small Cap portfolio. Acadian and AQR both lean toward Value, while Artisan and Driehaus are Growth managers. Despite their similarities, Artisan and Driehaus have very different strategies, with Artisan looking quite long term, while Driehaus focuses on "Growth inflection points" with an expected holding period of six to twelve months. Lastly, these additions increase the number of managers in International Small Cap from three to five, which provides us flexibility should one of the existing managers need to be reduced or eliminated.

The PRIM Investment Committee voted, by unanimous roll-call vote, to approve a recommendation to the PRIM Board to approve the graduation and initial allocation of up to \$300 million to Agra Investment Management, LP, an initial allocation up to \$150 million to Artisan Partners LP and an initial allocation of up to \$150 million to Driehaus Capital Management as described in Appendices J, K, L, M, N and O of the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

Michael Even, Phillip Perelmuter, and Philip Rotner departed the meeting at 12:35 p.m.

## **VI. Private Equity**

### **A. Private Equity Co-Investment Update and Recommendation (Voting Item)**

Alyssa Fiore, CFA, Senior Investment Officer Private Equity, provided the Committee with the Private Equity Co-Investment update and recommendation. Ms. Fiore began her presentation with an update on the co-investment program and its contribution to Project SAVE as well as a voting item to increase PRIM's co-investment capacity.

Ms. Fiore noted the co-investment program is meeting and surpassing the goals that were put in place for the program when it received PRIM Board approval in 2014. Ms. Fiore explained co-investments are direct investments in private companies alongside our existing Private Equity managers. This program is internally managed by PRIM staff and there are no management fees or carried interest. PRIM staff evaluated the co-investment portfolio across the three parameters of return, risk, and cost. Our return has a positive signal on performance and the portfolio is outperforming private and public benchmarks. Risk is well diversified across manager, sector, geography and vintage year and the program has not materially changed the risk profile of our Private Equity portfolio. Lastly, cost, since 2014 PRIM has saved \$40 million in fees and carry, and based on the size of the portfolio today, we estimate saving approximately \$38 million annually.

Ms. Fiore made the recommendation to change the Co-Investment Guidelines by increasing the annual co-investment capital deployment guideline to 40% of the upper end of PRIM's forecasted total annual Investment Plan in order to ensure there is sufficient capacity to invest in all qualifying co-investment opportunities in accordance with the PRIM Board approved Co-Investment Guidelines.

The PRIM Investment Committee voted, by unanimous roll-call vote, to approve a recommendation to the PRIM Board to approve the Co-Investment Guideline change to increase the annual co-investment capital deployment guideline to 40% of the upper end of PRIM's forecasted total annual Investment Plan as described in Appendix P of the Expanded Agenda, and further to authorize the Executive Director to take all actions necessary to effectuate this vote.

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