



PENSION RESERVES  
**INVESTMENT**  
MANAGEMENT BOARD

# ***Presentation to the State Retiree Benefits Trust Fund Board***

***PRIM Board Organizational Update  
PRIT Fund and SRBT Fund Performance Review  
Municipal Outreach Update***

***Thursday, August 1, 2019***

***By***

***Paul W. Todisco, Senior Client Services Officer, PRIM Board  
Francesco Daniele, Senior Client Services Officer, PRIM Board***

***Deborah B. Goldberg, Treasurer and Receiver General, Chair  
Michael G. Trotsky, CFA, Executive Director and Chief Investment Officer***



# Mission

---

- ❑ **PRIM is a \$74.8 billion investment fund that invests public employee pension benefits.**
  - PRIM does not administer benefits.
  - PRIM has a highly talented, experienced and focused investment staff.
- ❑ **PRIM's Mission is to relieve the pension funding burden on the taxpayer.**
  - PRIM is a self-funded agency which generates asset returns for Massachusetts.
  - In the past five years, PRIM's returns have contributed over \$19.9 billion to pension funding (\$3.6 billion over benchmark).
  - The Project SAVE initiative realized over \$150 million in value for the fund annually.
- ❑ **PRIM is independent and governed by a nine-member Board of Trustees.**
  - The Massachusetts State Treasurer is the Chair of the PRIM Board.
  - A robust committee structure lends advice regarding investments and operations.



# ***PRIT Fund Overview***

---

## **❑ Oversight and staffing:**

- 9 appointed and elected trustees
- 4 advisory committees, consisting of 37 industry professionals and Board members
- Staff of 45 professionals
  - 2 Ph.D's
  - 9 CFA's
  - 6 CPA's
  - 2 CAIA's
  - 20 CFA Investment Foundations Program Certificate Holders

## **❑ Core Fund Facts**

- \$74.8 billion AUM as of 06/30/2019
- 46 public markets portfolios
- 14 real estate, timber and REIT managers
- 100+ private equity managers; 200+ partnerships
- 39 portfolio completion strategies managers



# ***Top 10 Accomplishments***

---

1. Stable organization: Exceptional staff with low turnover supported by a strong, stable Board and Committee structure.
2. National recognition for PRIM and its staff
3. Strong relative and absolute investment performance
4. Sophisticated risk management platform and framework
5. Timely asset allocation decisions
6. Project SAVE
7. Re-engineered Hedge Fund program – Portfolio Completion Strategies
  - a. Direct hedge funds
  - b. Hedge fund replication
  - c. Alternative risk premia harvesting strategies
  - d. Equity risk mitigation
8. Enhanced manager search and selection process
9. Private Equity co-investment
10. Direct Real Estate





## ***PRIM Board Organizational Update***



# PRIM Board Membership



# ***External Advisors***

---

## **Fund Advisors:**

- **NEPC** - Asset Allocation
- **Callan Associates** - Public Markets
- **Aberdeen/Arden** - Hedge Fund Investments
- **Hamilton Lane** - Private Equity
- **The Townsend Group**- Real Estate & Timber
- **The International Woodland Company** - Timber

## **Independent Auditors:**

- **KPMG, LLP** - PRIM Board and PRIT Fund, Real Estate, Timber, and SASE 16 Reviews
- **Deloitte & Touche, LLP** – PRIM Board tax Consultant

## **Custodian:**

- **BNY Mellon Corporation**



# PRIM Advisory Committees Membership

## Investment Committee

(12 Members)

*The Committee advises the Board with respect to the asset allocation policy of PRIM and related investment policies, and assist the Board in overseeing the investment program. The mandate of the Investment Committee does not include real estate and timber.*

1. Deborah B. Goldberg, Chair, Ex Officio Board Member
2. Paul E. Shanley, Board Member
3. Ruth Ellen Fitch, Board Member
4. Joseph C. Bonfiglio, Massachusetts & Northern New England Laborers' District Council
5. C. LaRoy Brantley, Investment Consultant
6. Michael Even, CFA, Retired President and CEO, Numeric Investors
7. Constance M. Everson, CFA, Managing Director, Capital Markets Outlook Group
8. James B. G. Hearty, Partner, Clough Capital
9. Peter Monaco, Managing Director, Raptor Group
10. Philip Rotner, Chief Investment Officer, Boston Children's Hospital
11. Glenn P. Strehle, CFA, Treasurer Emeritus, MIT
12. Timothy L. Vaill, Special Advisor

## Real Estate Committee

(10 Members)

*The Committee advises the Board in setting investment policy within the real estate and timber portfolios and assist the Board in overseeing these portfolios.*

1. Deborah B. Goldberg, Ex Officio Board Member
2. Lydia Chesnick, Esq., Partner, Bernkopf Goodman LLP
3. Robert Gifford, Robert Gifford Advisory
4. Jill S. Hatton, Chair, CRE, Real Estate Investment Professional
5. Anthony E. Hubbard, Esq., CVS Corporation
6. Jack Lutz, PhD., Forest Research Group
7. William F. (Bill) McCall, Jr., CRE, McCall & Almy, Inc.
8. Garlan Morse, Jr., CRE, Morris and Morse Company, Inc.
9. Peter F. O'Connell, Marina Bay Company
10. Carly Rose, Public Safety Union Member





# ***PRIM Advisory Committees Membership***

---

## **Administration and Audit Committee**

**(10 Members)**

*The Committee assists the Board in overseeing all issues related to the governance, administration, and audit functions of PRIM, and to provide recommendations for the Board's consideration.*

1. Deborah B. Goldberg, Ex Officio Board Member
2. Robert L. Brousseau, Chair, Board Member
3. Theresa T. McGoldrick, Esq., Board Member
4. Patrick E. Brock, Chairman of the Hampshire County Retirement Board
5. Joseph A. Connolly, Senior Managing Director Strategic Development, TerraCap
6. Karen E. Gershman, CPA, Retired Chief Operating Officer, Health Advances
7. Eileen Glovsky, Treasurer Appointee
8. James B. G. Hearty, Retired Investment Professional
9. Dennis J. Naughton, Board Member
10. Michele A. Whitham, Esq., Founder & Principal, Whitham Law LLC

## **Compensation Committee**

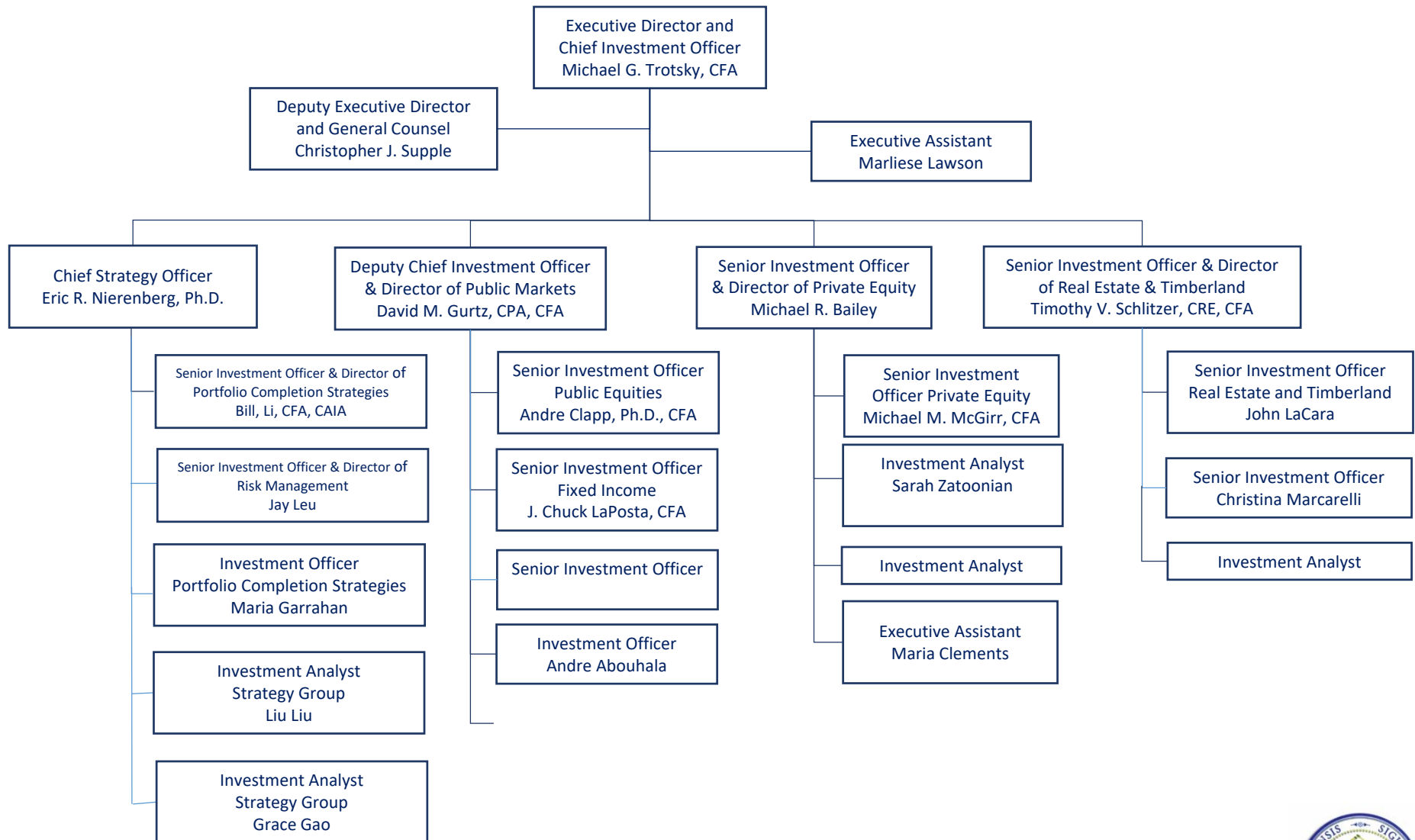
**(5 Members)**

*The Committee assists the Board in overseeing staff compensation and benefit policies. The Administration and Audit Committee is responsible for assisting the Board on other human resource matters.*

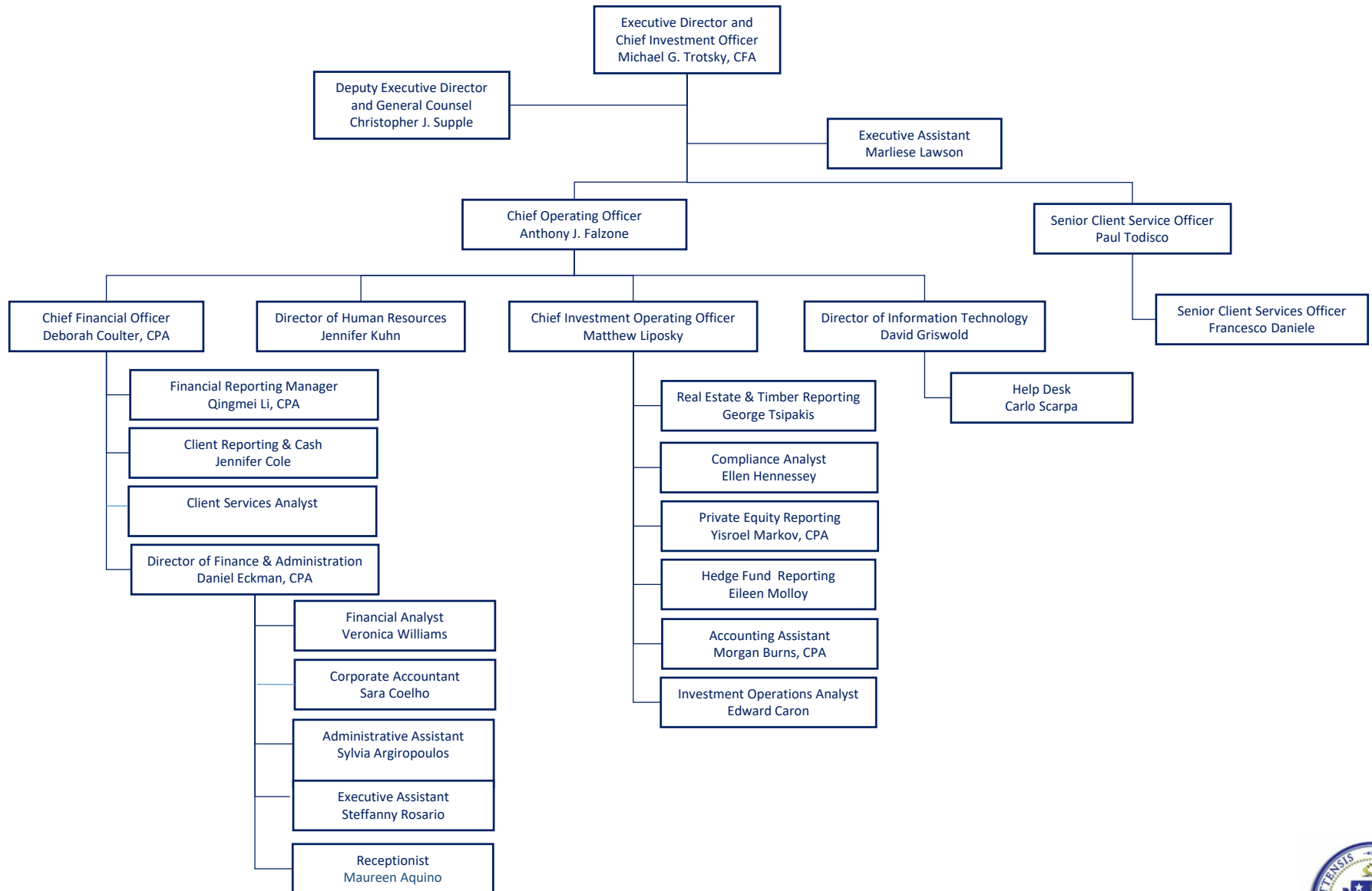
1. Deborah B. Goldberg, Ex Officio Board Member
2. Robert L. Brousseau, Board Member
3. Patrick E. Brock, Chairman, Hampshire County Retirement Board
4. Joseph A. Connolly, Senior Managing Director Strategic Development, TerraCap
5. Michele A. Whitham, Esq., Founder & Principal, Whitham Law LLC



# PRIM Investment Organizational Chart



# PRIM Finance and Operations Organizational Chart



# Summary of Recent National Recognition

---

- ❑ For the second consecutive year, PRIM's Private Equity Portfolio has been ranked #1 among 163 U.S. public pension funds based on 10 year performance by the American Investment Council's Public Pension Study. PRIM is the only fund that has been in the Top 5 of all private equity portfolios in every year the study has been conducted. (July 2019)
- ❑ PRIM was awarded the **Government Finance Officer Association's Certificate of Achievement for Excellence in Financial Reporting** for the 14<sup>th</sup> consecutive year. (May 2019)
- ❑ For an unprecedented fourth year in a row, PRIM has been nominated for "Public Plan of the Year" at the Institutional Investor Hedge Fund Industry Awards, to be held in New York on June 27, 2019. PRIM won this award in 2016. The other nominees this year are Ontario Municipal, New Mexico, Wisconsin, Texas Teachers and Illinois Teachers. (May 2019)
- ❑ PRIM's Portfolio Completion Strategies (PCS) Director Bill Li, CFA, CAIA was inducted into the EQDerivatives Investing Hall of Fame's 2019 Class, which "recognizes those individuals that have led the line in volatility and alternative risk premia thought leadership. (May 2019)
- ❑ PRIM has adopted the CFA Institute's Global Investment Performance Standards of integrity and transparency, effective January 1<sup>st</sup> 2019. The **GIPS** standards are an important part of our commitment to maintain the highest level of integrity and transparency possible.
- ❑ CFA Society Boston has elected Michael Trotsky, CFA, Executive Director and Chief Investment Officer to serve as Chair of the Board of Directors. The CFA Society Boston serves 6,000 professionals representing 650 companies and is part of the CFA Institute with nearly 200,000 members. (June 2019)
- ❑ For the second year in a row, Eric Nierenberg has been listed on Institutional Investor's "Most Wanted Allocators" list. For the past two years, Institutional Investor has published a global "Top 50" list of allocators they deem as most coveted for potential future chief investment officer roles.
- ❑ Chris Supple, Deputy Executive Director and General Counsel, was reappointed to a 2<sup>nd</sup> term as Chair of the Securities Litigation Committee at the National Association of Public Pension Attorneys (NAPPA)

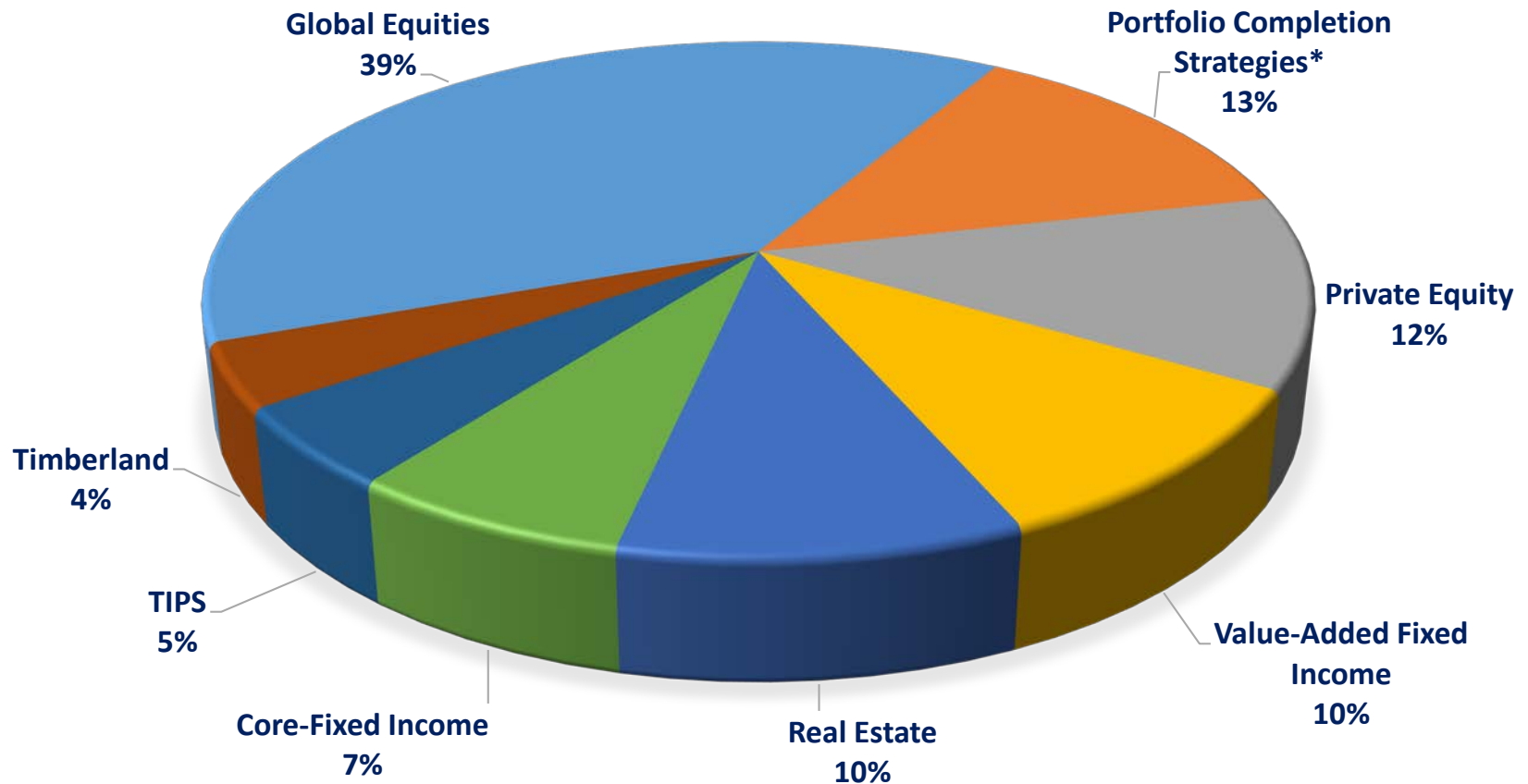




# ***Asset Allocation Review***



# ***PRIT Fund Overview – Current Asset Allocation Targets***



\*PCS Includes 9% allocation to Hedge Funds.



# Detailed Summary: Target Range Proposal

---

## Increase in Allocation Range

### *Core Fixed Income: Target Band moves up 3%*

- ❑ The net increase will be funded across the US Treasury curve.



US Short Term Fixed Income

- ❑ Within Core Fixed Income, there will be an increase across the US Treasury curve which will be funded through a reduction in Global Inflation-Linked Bonds.

### *Portfolio Completion Strategies: Target Band moves up 1%*

### *Private Equity: Target Band moves up by 1%*

## Decrease in Allocation Range

### *Global Equity: Target Band moves down 3%*

- ❑ The decrease will be sourced from Developed International and Emerging Markets Equities.
- ❑ Within Global Equities, the increase in the Hedged Equity program will be funded by US and International Equities.

### *Value Fixed Income: Target Band moves down by 2%*

## Same Allocation Range

### *Real Estate: Target Band remains the same*

- ❑ As Private Real Estate deals are sourced, the team may fund from REITS.

### *Timber: Target Band remains the same*



# PRIM Asset Allocation Mid-Point Target

Asset Class Allocations	Current AA Target Range	2019 AA Target Range	2019 AA Target Mid-Point	Mid-Point AA Change From 2018
<b>Global Equity</b>	<b>37% - 47%</b>	<b>34% - 44%</b>	<b>39%</b>	<b><u>-3.0%</u></b>
US Equity			13%	-4.5%
Int'l Developed Equities			13%	-2.5%
Emerging Int'l Equities			5%	-1.0%
Hedged Equity			8%	5.0%
<b>Core Fixed Income</b>	<b>9% - 15%</b>	<b>12% - 18%</b>	<b>15%</b>	<b><u>3.0%</u></b>
Core Bonds			6%	1.0%
Short-Term Fixed Income			2%	2.0%
Long Duration Treasury			3%	1.0%
Inflation-Linked Bonds			4%	-1.0%
<b>Value-Add Fixed Income</b>	<b>7% - 13%</b>	<b>5% - 11%</b>	<b>8%</b>	<b><u>-2.0%</u></b>
<b>Private Equity</b>	<b>9% - 15%</b>	<b>10% - 16%</b>	<b>13%</b>	<b><u>1.0%</u></b>
<b>Real Estate</b>	<b>7% - 13%</b>	<b>7% - 13%</b>	<b>10%</b>	-
Private Real Estate			9%	1.0%
Public REITs			1%	-1.0%
<b>Timberland</b>	<b>1% - 7%</b>	<b>1% - 7%</b>	<b>4%</b>	-
<b>PCS</b>	<b>7% - 13%</b>	<b>8% - 14%</b>	<b>11%</b>	<b><u>1.0%</u></b>





# PRIM Asset Allocation

Asset Class Allocations	Current AA Target Range	2019 AA Target Range	2019 AA Target Mid-Point	Mid-Point AA Change From 2018
Global Equity	37% - 47%	34% - 44%	39%	<u>-3.0%</u>
Core Fixed Income	9% - 15%	12% - 18%	15%	<u>3.0%</u>
Value-Add Fixed Income	7% - 13%	5% - 11%	8%	<u>-2.0%</u>
Private Equity	9% - 15%	10% - 16%	13%	<u>1.0%</u>
Real Estate	7% - 13%	7% - 13%	10%	-
Timberland	1% - 7%	1% - 7%	4%	-
PCS	7% - 13%	8% - 14%	11%	<u>1.0%</u>

Capital Market Assumptions <sup>1</sup>	2018 Assumptions Current Target Range	2019 Assumptions 2019 Target Range
5-7 Yr. Returns	6.6%	6.8%
30 Yr. Returns	7.7%	7.9%
Volatility	12.6%	12.1%
Sharpe Ratio 30 Yr.	0.39	0.41

1. Asset classes modeled at the midpoint of the target range



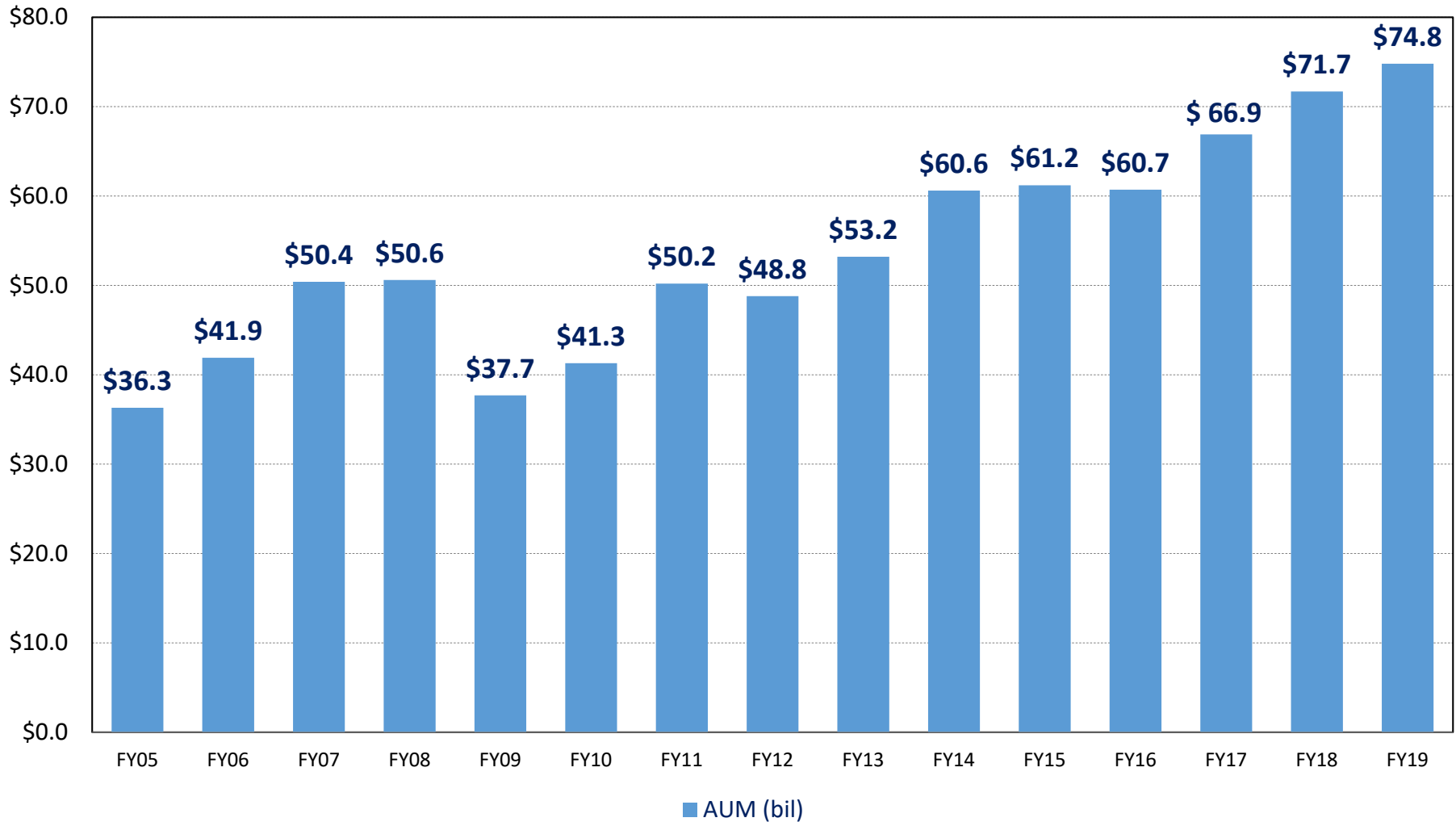


# ***PRIT Fund Performance***

## ***As of June 30, 2019***

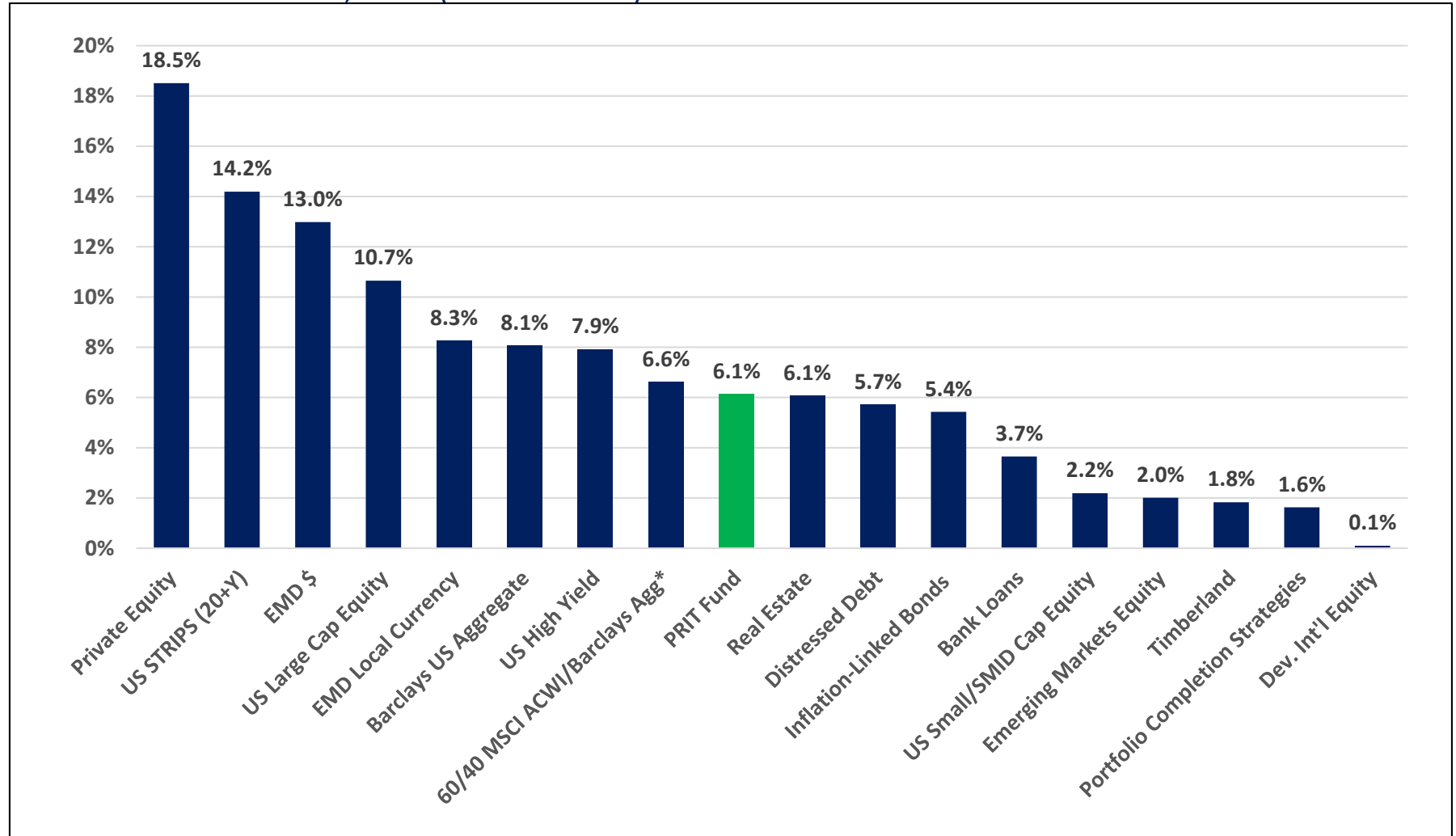


# ***Total PRIT Fund Fiscal Year Market Value (\$Billions)***



# Asset Class Performance Summary

One Year Ended June 30, 2019 (Gross of Fees)



Source: BNY Mellon, FactSet.

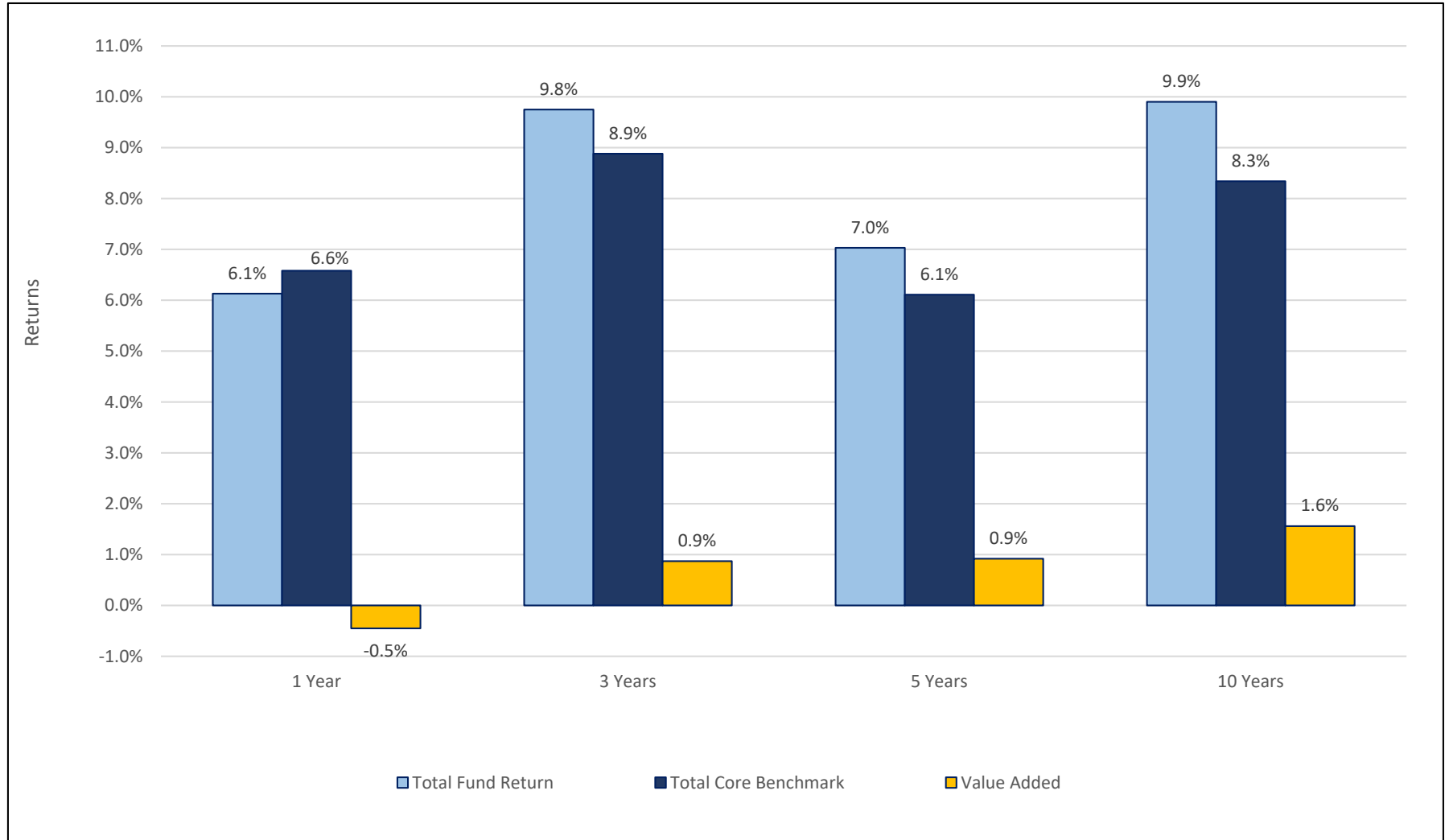
All performance figures reflected are PRIT Fund Asset Class returns.

\*MSCI ACWI/Barclays Aggregate is derived from a 60/40 combination of index returns.



# Total PRIT Fund Returns

Annualized Returns as of June 30, 2019 (Gross of Fees)



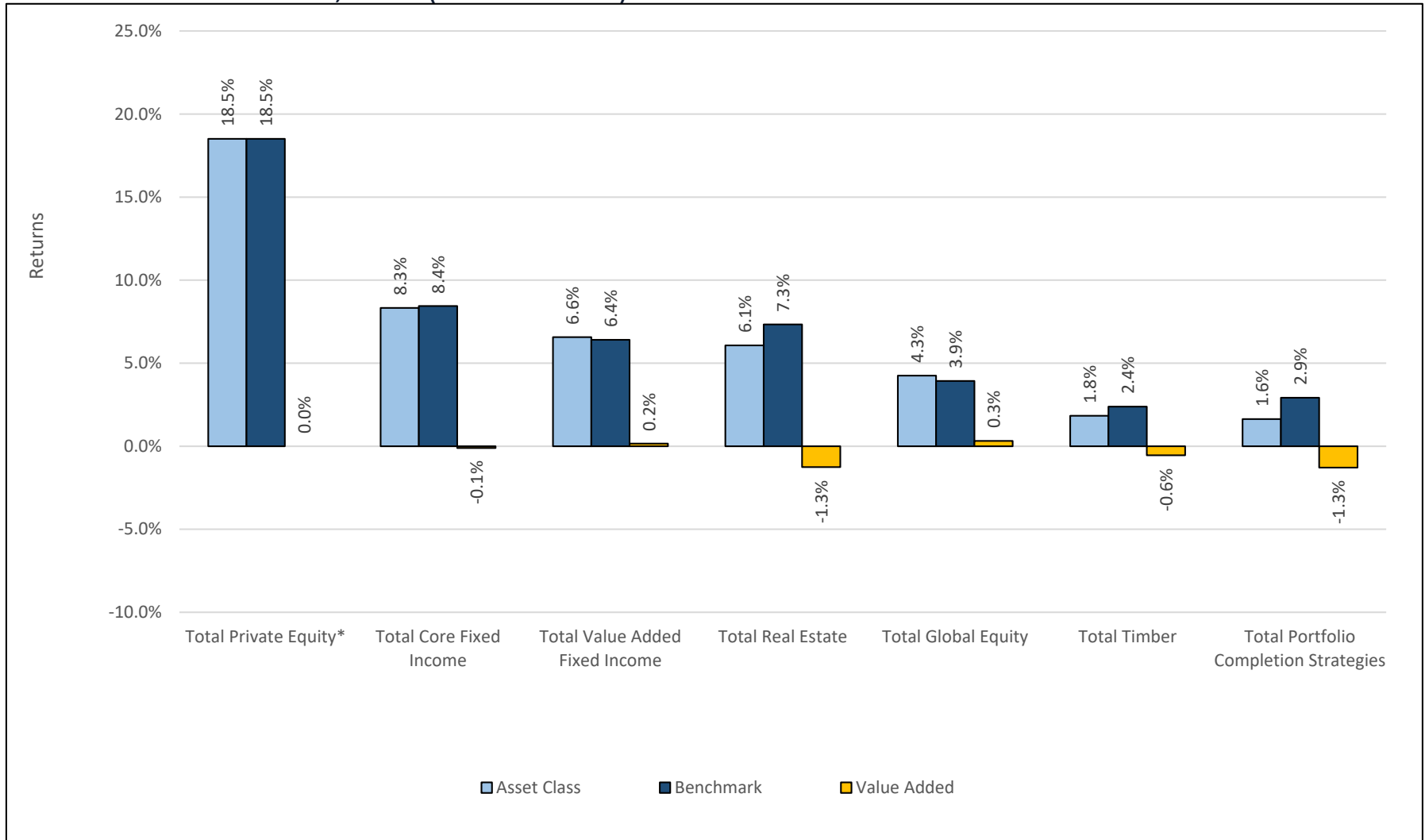
Source: BNY Mellon.

Total Core Benchmark includes private equity benchmark.



# PRIT Asset Class Performance

One Year Ended June 30, 2019 (Gross of Fees)



Source: BNY Mellon.

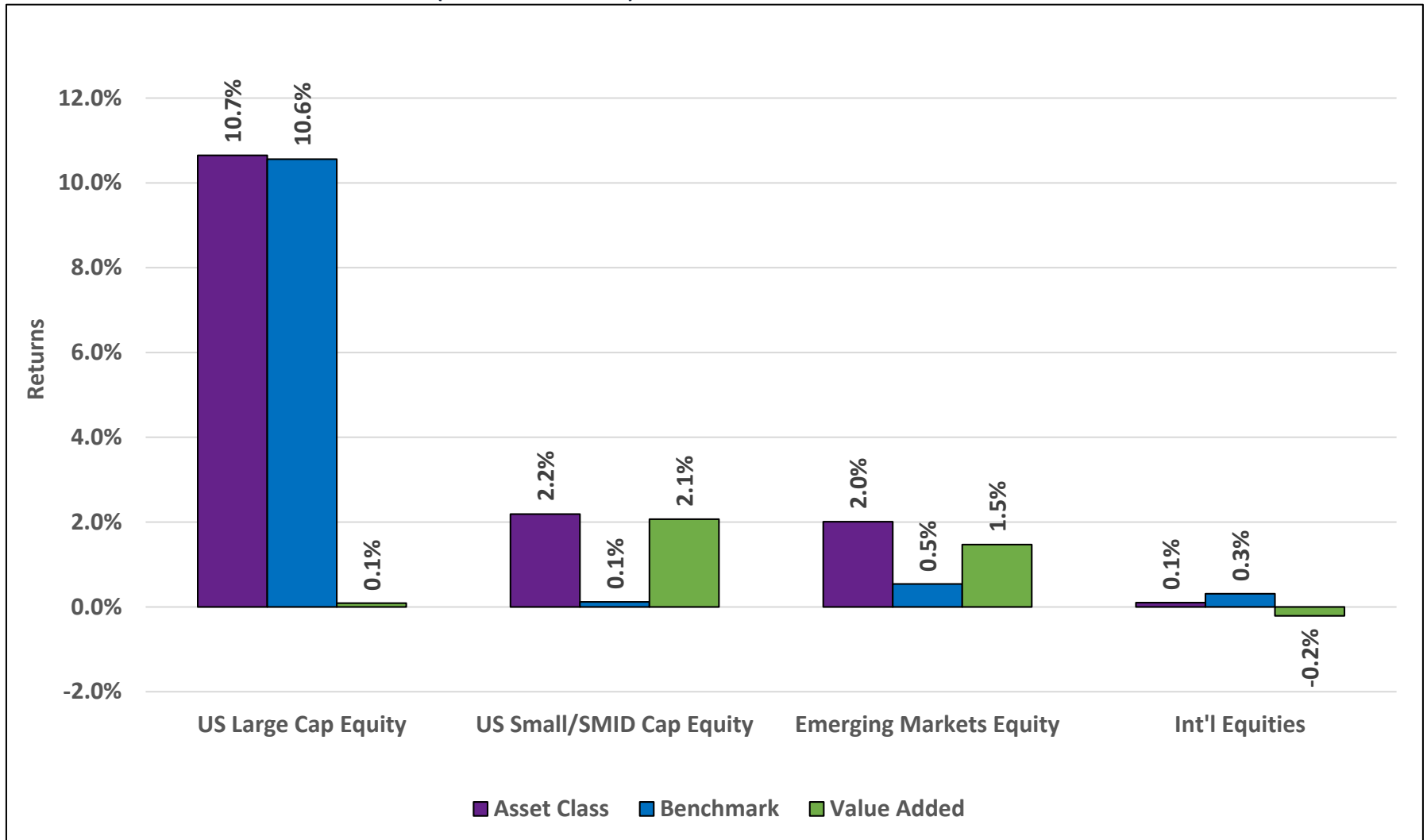
Totals may not add due to rounding.

\*Benchmark is actual performance.



# Public Markets Performance – Equities

One Year Ended June 30, 2019 (Gross of Fees)

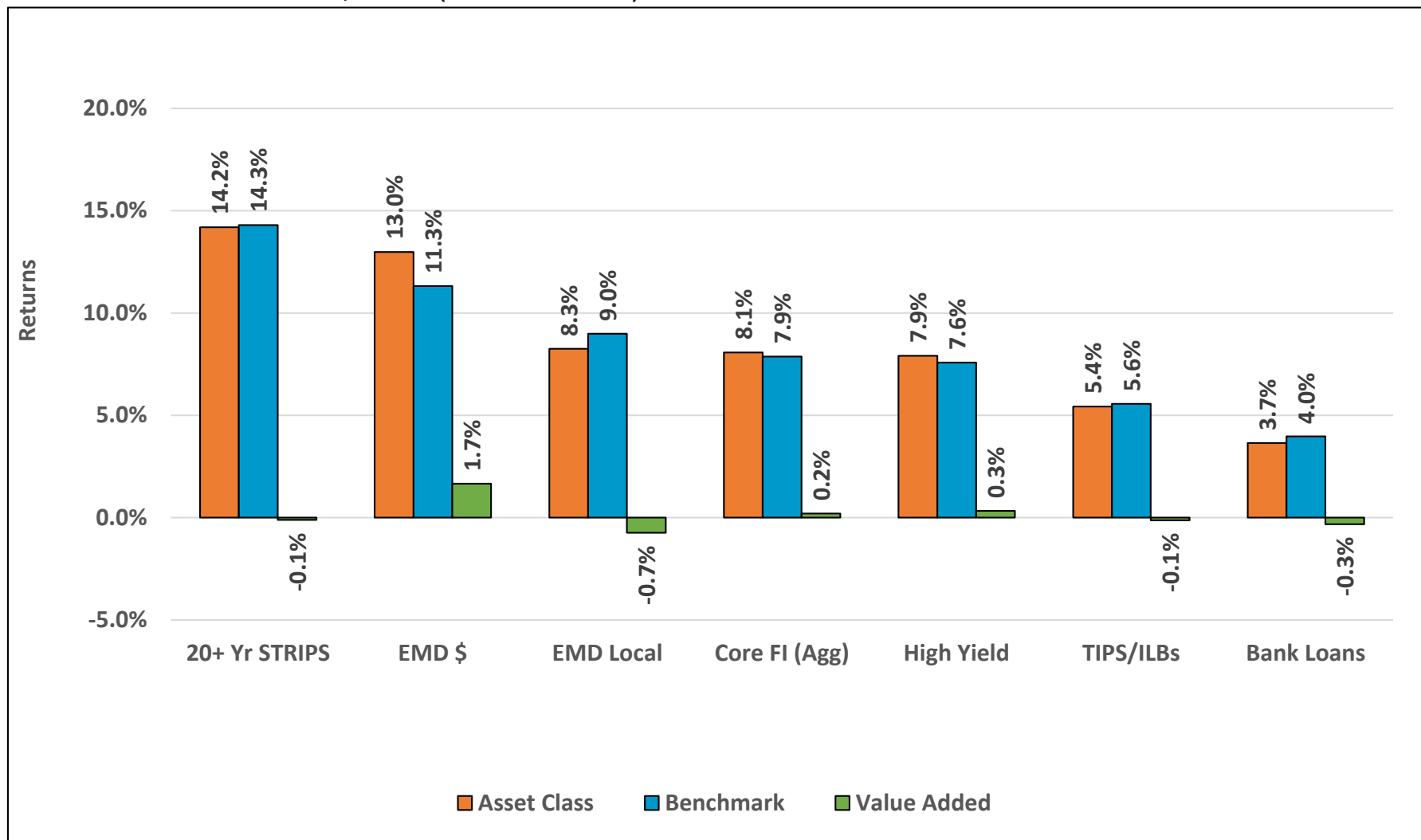


Source: BNY Mellon.  
Totals may not add due to rounding.



# Public Markets Performance – Fixed Income

One Year Ended June 30, 2019 (Gross of Fees)



Source: BNY Mellon.

Totals may not add due to rounding.





# PRIT Asset Class Performance

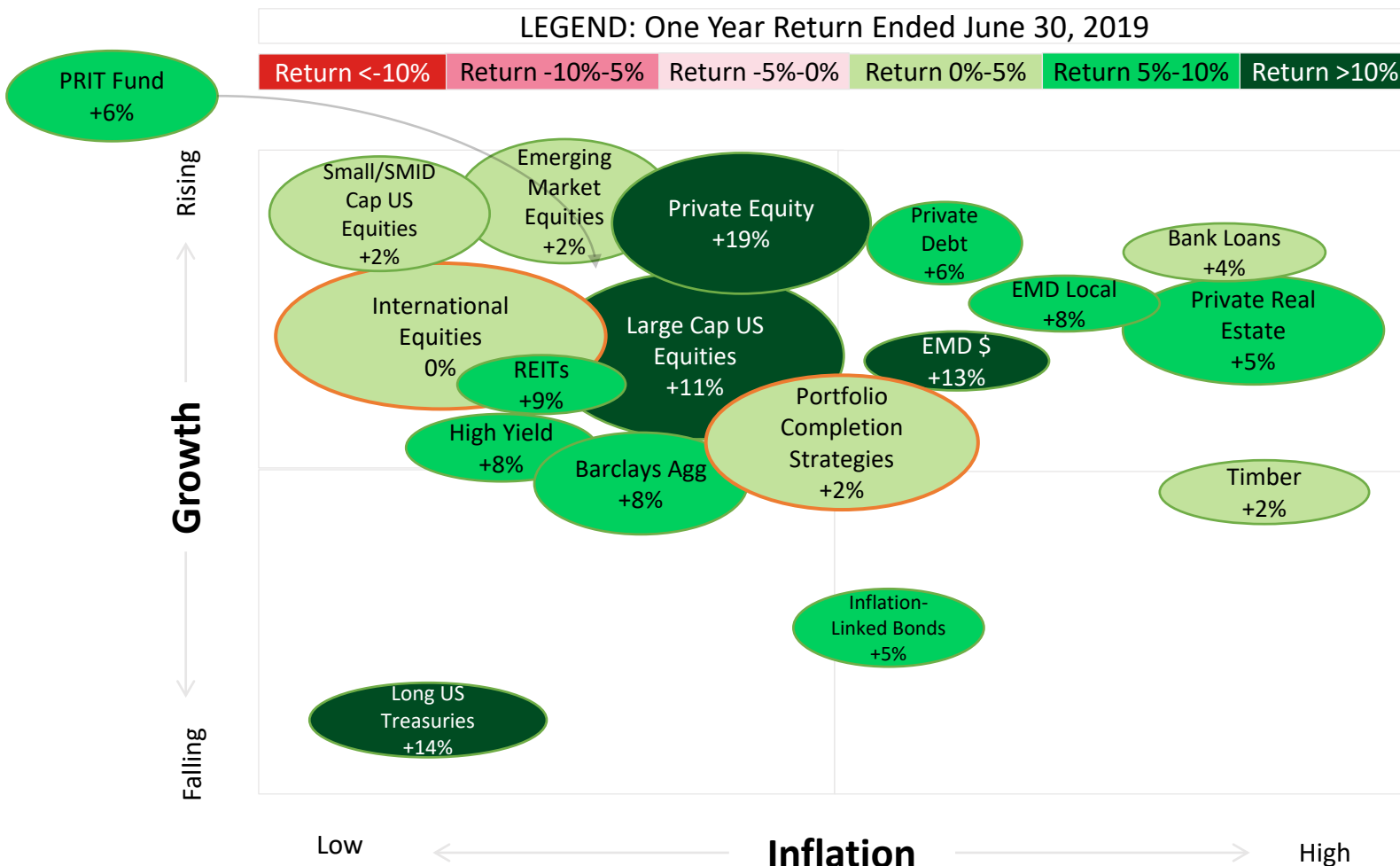
Annualized Returns as of June 30, 2019 (Gross of Fees)

1 Year	3 Year	5 Year	10 Year
PRIVATE EQUITY 18.5%	PRIVATE EQUITY 20.5%	PRIVATE EQUITY 17.8%	PRIVATE EQUITY 18.3%
CORE FIXED INCOME 8.3%	GLOBAL EQUITY 12.1%	REAL ESTATE 9.3%	GLOBAL EQUITY 10.9%
VALUE-ADDED FIXED INCOME 6.6%	REAL ESTATE 7.4%	GLOBAL EQUITY 6.5%	REAL ESTATE 10.5%
REAL ESTATE 6.1%	VALUE-ADDED FIXED INCOME 6.9%	TIMBER 5.6%	VALUE-ADDED FIXED INCOME 8.7%
GLOBAL EQUITY 4.3%	TIMBER 6.0%	CORE FIXED INCOME 4.8%	CORE FIXED INCOME 5.4%
TIMBER 1.8%	PORTFOLIO COMPLETION STRATEGIES 5.4%	VALUE-ADDED FIXED INCOME 3.7%	PORTFOLIO COMPLETION STRATEGIES 5.0%
PORTFOLIO COMPLETION STRATEGIES 1.6%	CORE FIXED INCOME 1.7%	PORTFOLIO COMPLETION STRATEGIES 3.0%	TIMBER 3.3%



# Asset Classes & Regimes – One Year Ended June 30, 2019

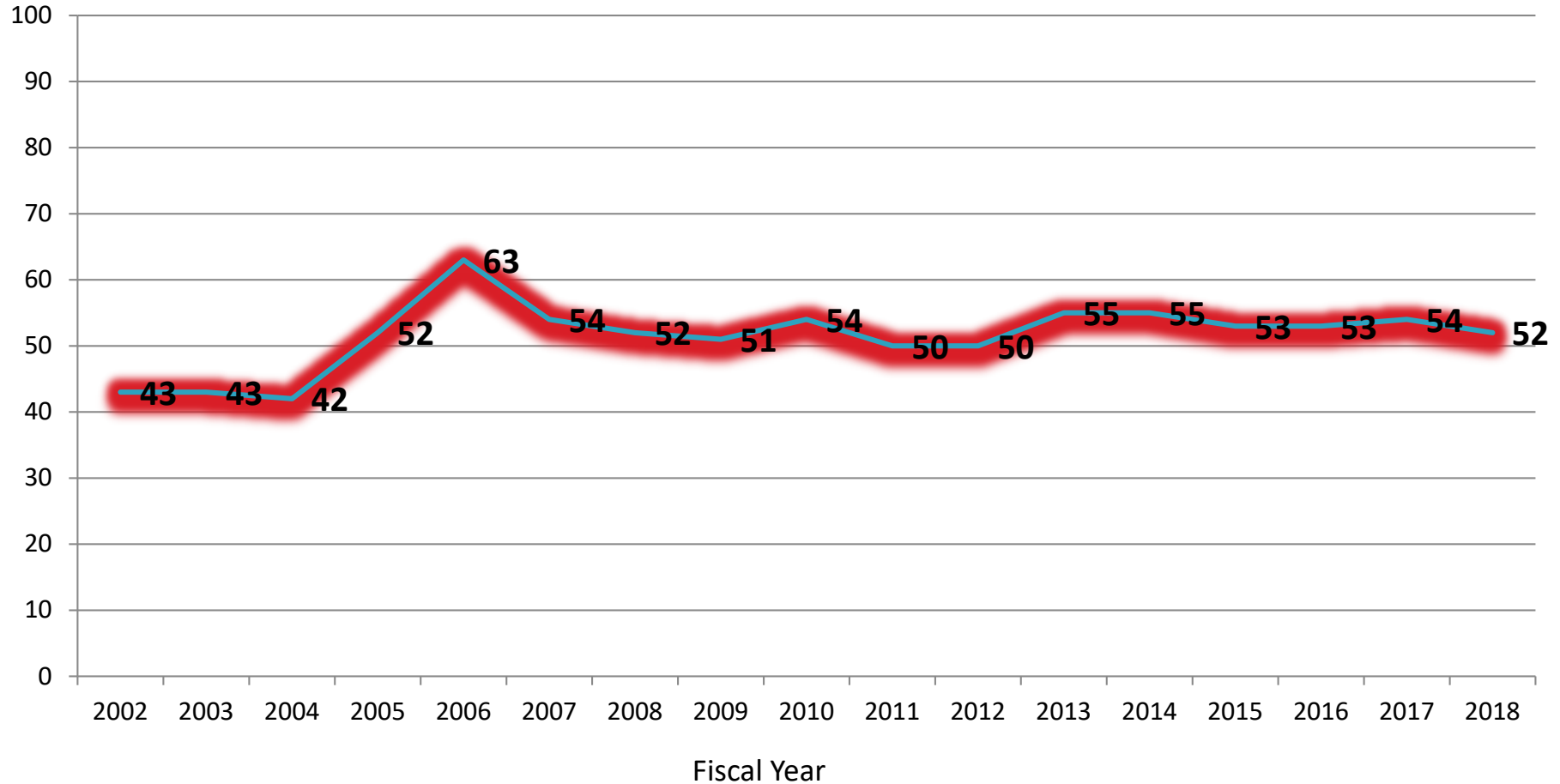
- GDP Growth: +3.2%.
- Core CPI: +2.1%.
- 30yr yields: -47bps.



Asset class returns represent PRIM's actual returns, gross of management fees.



# ***PRIT Fund Ratio of Expenses in Basis Points***





# ***SRBT Fund Performance***

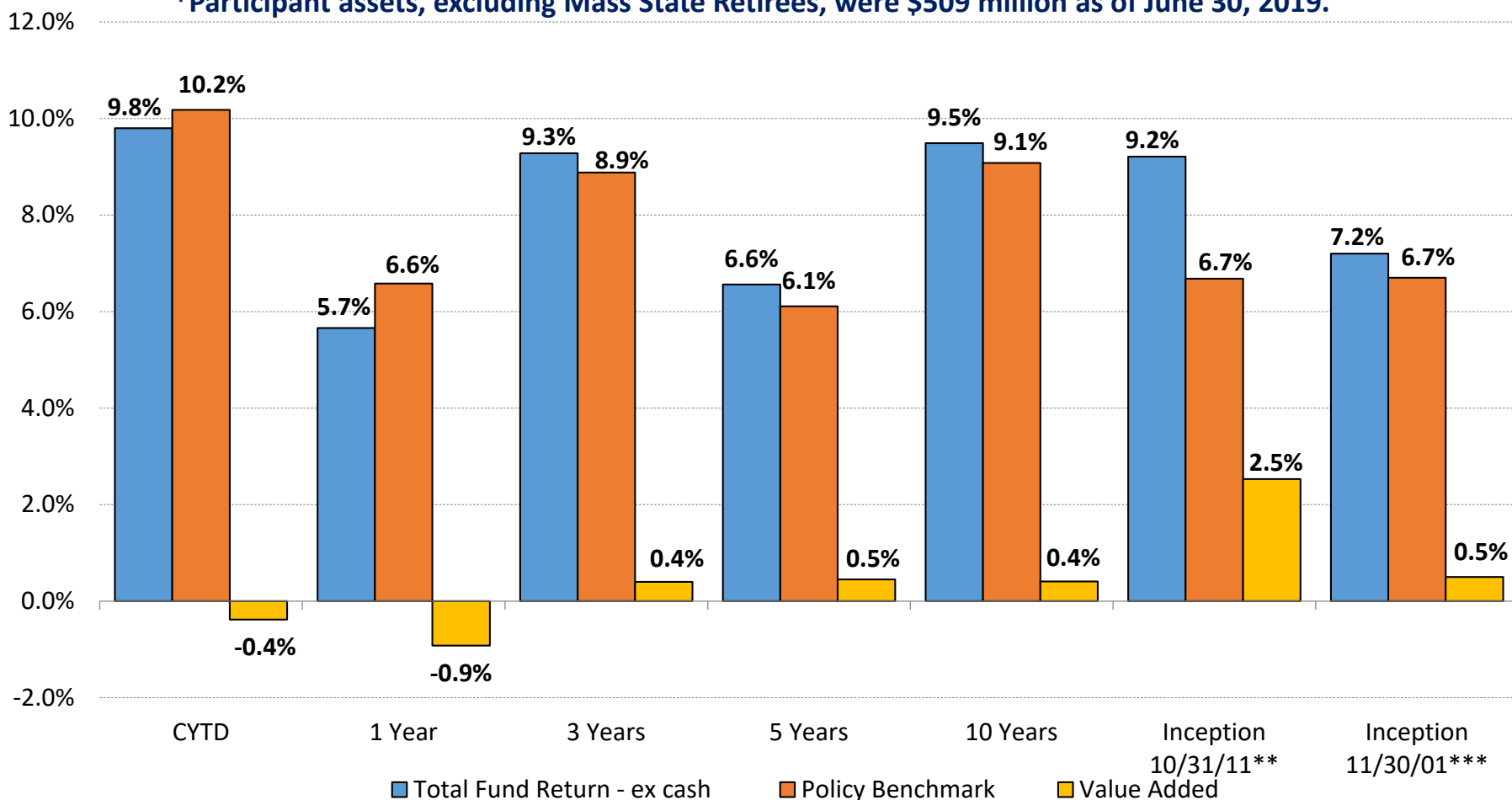
## ***As of June 30, 2019***



# Total SRBT Fund Returns (Net of Fees) - \$1.795 Billion\*

Annualized Returns as of June 30, 2019

\*Participant assets, excluding Mass State Retirees, were \$509 million as of June 30, 2019.



\*\*The inception date for the SRBTF's investment in the PRIT Fund General Allocation Account (PRIT GA) was 10/31/2011, when 82% of the fund was transitioned from separate accounts to PRIT GA. The remaining 18% of separate account assets were transitioned over the following 14 months with 100% of assets invested in PRIT GA by 12/31/2012. **The ITD return of 10.1% reflects the inception-to-date return for PRIT GA assets only.**

\*\*\* The inception date for the TOTAL FUND was 11/30/2001. This ITD value reflects the true inception-to-date return for all SRBTF assets including legacy separate account investments as well as the PRIT GA investments.





## ***Municipal Outreach***



# ***Municipal Outreach***

---

1. Acton-Boxborough Regional School District
2. Amherst-Pelham Regional School District (OPEB committee considering investment options)
3. Andover
4. Ayer Shirley Regional School District
5. Belmont
6. Bernardston
7. Bridgewater
8. Byfield Water District
9. Cape Cod Regional Transit Authority
10. Chelmsford Water District
11. Dartmouth
12. Dracut
13. Freetown
14. Foxboro
15. Greater Lawrence Sanitary District
16. Greater Lowell Technical Regional High School (Renewed interest in October)
17. Greenfield
18. Groton
19. Halifax
20. Haverhill
21. Hull
22. Longmeadow
23. Lynn
24. Massachusetts Association of Regional Planning Agencies (MARPA)
25. Massachusetts Housing Finance Authority
26. Medway
27. Melrose
28. Mohawk/Hawlemont Regional School District (Buckland)
29. Nauset Regional High School
30. Newbury
31. Northfield\*
32. Pepperell
33. Somerset
34. South Hadley Fire District (Scheduling a meeting date)
35. Springfield
36. Sudbury
37. Tri-County Educational Collaborative (Franklin, MA)
38. Truro
39. Waltham
40. West Boylston Municipal Light Department
41. Westford
42. West Newbury
43. Weston\*
44. Woburn



# Governmental Entities Participating in the SRBTF (69 Entities)

Town of Acton  
 Town of Amherst  
 Town of Ayer  
 Town of Bedford  
 City of Beverly  
 BiCounty Educational Collaborative, Franklin, MA  
 Town of Blackstone  
 Boston Redevelopment Authority  
 Town of Boxford  
 Town of Braintree  
 Town of Brewster  
 Town of Brookline  
 Town of Burlington  
 Byfield Water District  
 Town of Chelmsford  
 Concord Area Special Education (CASE) Collaborative  
 Town of Cohasset  
 Town of Dalton  
 Town of Dracut  
 Town of Dedham  
 Fall River Housing Authority  
 City of Fitchburg  
 Town of Franklin  
 Franklin Regional Council of Governments  
 Town of Harvard  
 Town of Hingham  
 Town of Holliston  
 Town of Ipswich  
 Town of Lancaster  
 Lawrence Housing Authority  
 Town of Lenox  
 City of Leominster  
 Town of Lincoln  
 Lincoln-Sudbury Regional School District  
 Town of Longmeadow  
 Lowell Regional Transit Authority (LRTA)  
 Lower Pioneer Valley Educational Collaborative  
 Town of Manchester-By-The-Sea

Manchester Essex Regional School District  
 Town of Marblehead  
 Marblehead Municipal Light Department  
 Massachusetts School Building Authority  
 Mass State Retirees (SRBTF)  
 Mass Water Resources Authority  
 Town of Medfield  
 Town of Middleton  
 Town of Milton  
 Town of Montague  
 Nashoba Regional School District  
 Town of Needham  
 City of New Bedford  
 City of Newburyport  
 City of Newton  
 Town of North Andover  
 Town of Northborough  
 Old Rochester Regional School District  
 Town of Orleans  
 Pilgrim Area Collaborative (PAC), Pembroke, MA  
 Town of Provincetown  
 Shawsheen Valley Technical High School, Billerica, MA  
 Town of Sherborn  
 Town of Stockbridge  
 Town of Tewksbury  
 Town of Wakefield  
 Wakefield Municipal Gas & Light Department  
 Town of Wayland  
 Town of Wellesley  
 Town of Westwood  
 Town of Wilmington

