



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, December 5, 2019***

***By***

***Paul W. Todisco, Senior Client Services Officer, PRIM Board  
Francesco Daniele, Senior Client Services Officer, PRIM Board  
Emily Green, Client Service Analyst, PRIM Board***

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



# Mission

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- ❑ **PRIM is a \$76 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***

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## **❑ 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
  - 10 CFA's
  - 6 CPA's
  - 2 CAIA's
  - 20 CFA Investment Foundations Program Certificate Holders

## **❑ Core Fund Facts**

- \$76 billion AUM as of 09/30/2019
- 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***

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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



# 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***

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## **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**

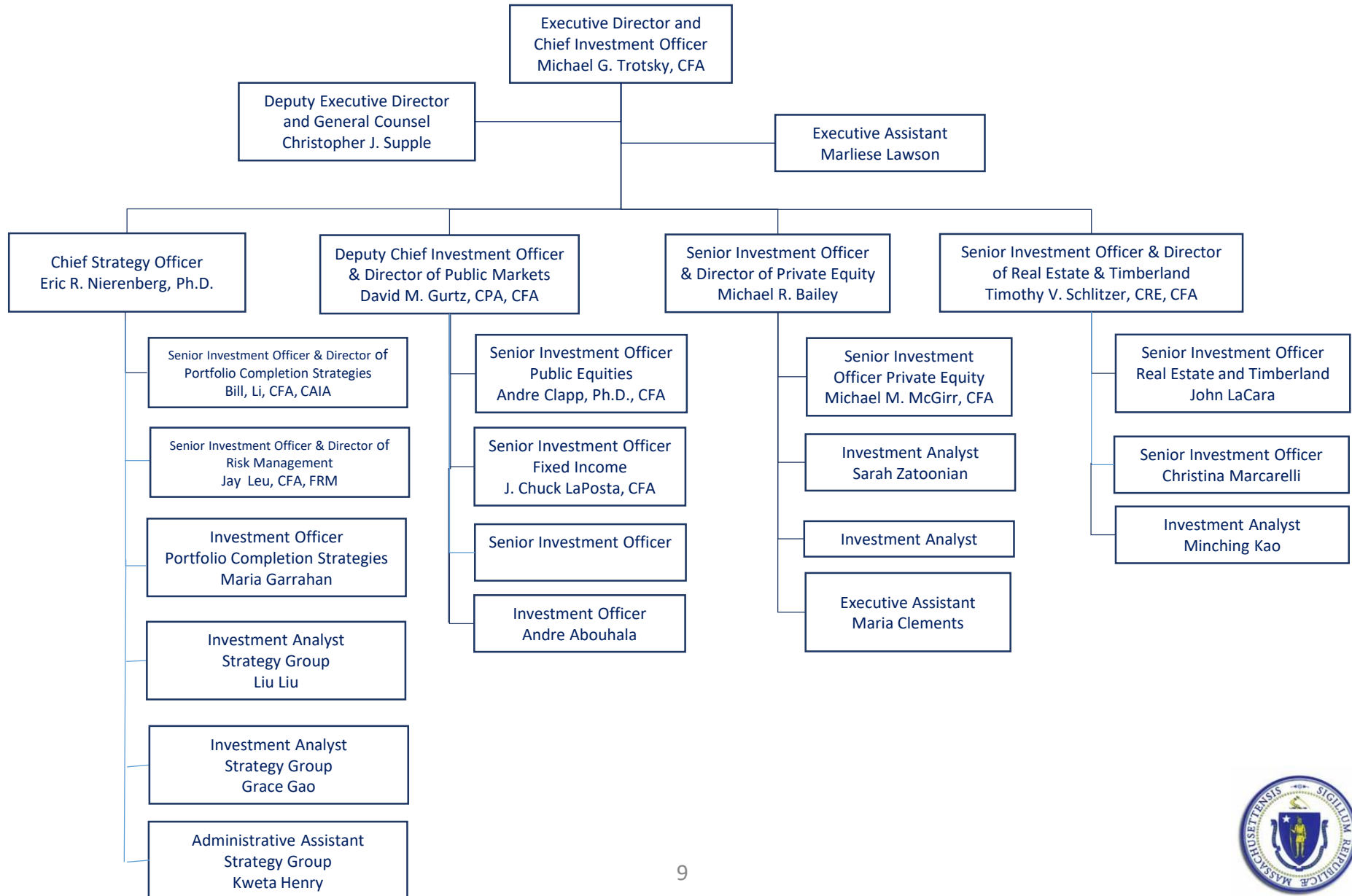
**(5 Members)**

*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.*

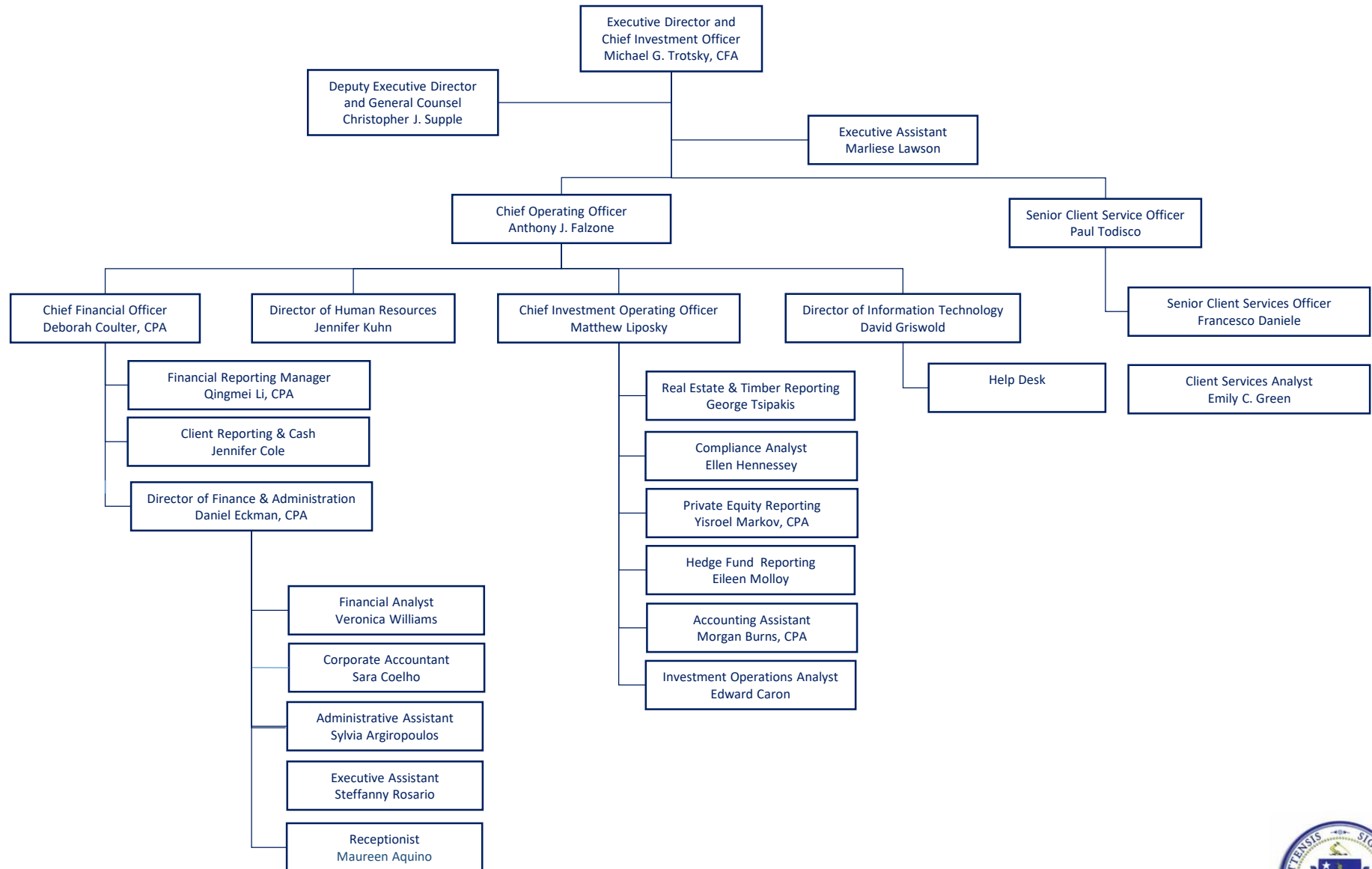
1. Deborah B. Goldberg, Ex Officio Board Member
2. Robert L. Brousseau, Board Member
3. Patrick E. Brock, Chairman, Hampshire County Retirement Board
4. Joseph A. Connolly, Senior Managing Director Strategic Development, TerraCap
5. Michele A. Whitham, Esq., Founder & Principal, Whitham Law LLC



# PRIM Investment Organizational Chart



# PRIM Finance and Operations Organizational Chart



# ***External Advisors***

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## **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**



# Summary of Recent National Recognition

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- ❑ Michael Trotsky, CFA, the Executive Director and Chief Investment Officer of the Massachusetts Pension Reserves Investment Management Board, will be honored with Institutional Investor's Lifetime Achievement Award at the third annual Allocators' Choice Awards on December 3 in New York. (December 2019)
- ❑ Michael M. McGirr, CFA, was selected to be a member of the ILPA's content committee. The content committee is charged with creating and curating content that will be beneficial for the ILPA's membership. (October 2019)
- ❑ Qingmei Li, CPA, received the *Commonwealth's Citation for Outstanding Performance* at a State House ceremony with Treasurer Deborah Goldberg, Chair of the PRIM Board. (October 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. (August 2019)
- ❑ 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)
- ❑ 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. (June 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)
- ❑ 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 Key Investment Beliefs***

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- ***Nobody can predict the future, so we don't try.***
- ***Nobody can predict the stock market, so we don't try.***
- ***We believe that any investment must be evaluated on three equally important parameters: risk, return, and cost.***
- ***We value a basis point of cost reduction more than a basis point of return.***
- ***We are guided by our mandated rate of return, the actuarial rate of return, which in Massachusetts is now 7.25%.***
- ***Every strategic decision we make on asset allocation complies with our “do no harm” rule. We try to find assets or strategies that improve the risk/return profile of the entire fund.***
- ***We stay focused on the long term.***

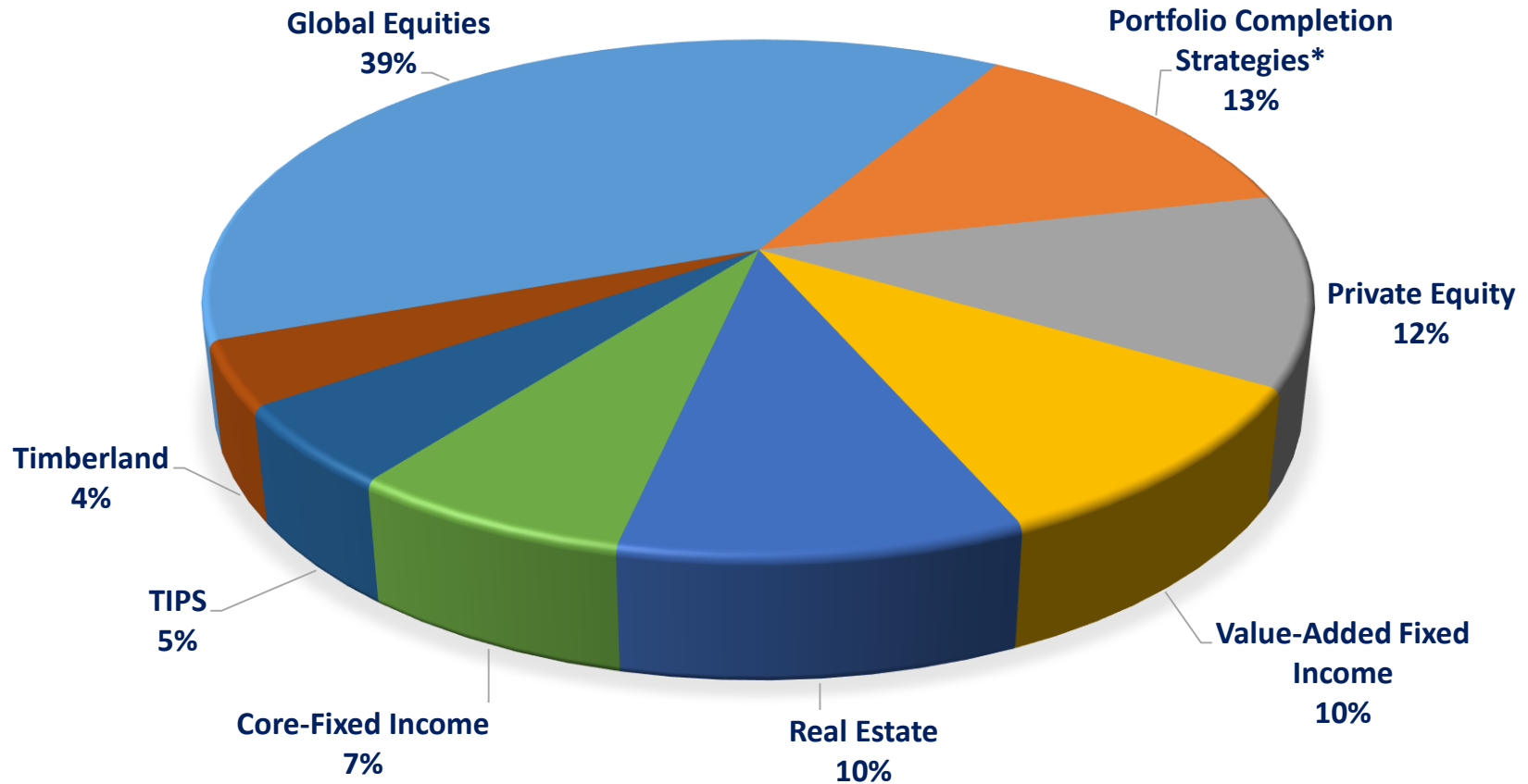




# ***Asset Allocation Review***



# PRIT Fund Overview – Current Asset Allocation Targets



\*PCS Includes 9% allocation to Hedge Funds.



# 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>
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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

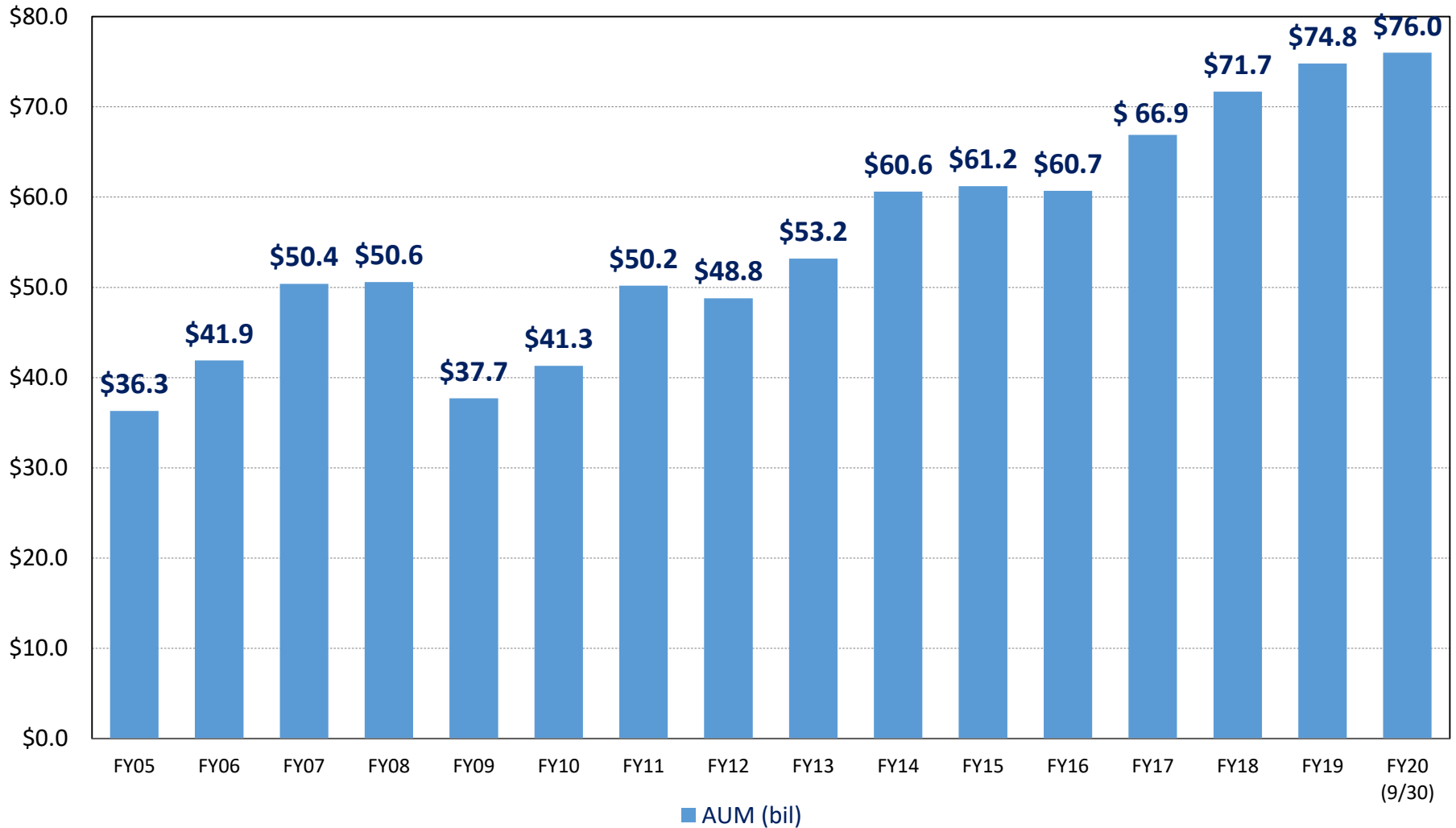




# ***PRIT Fund Performance As of September 30, 2019***

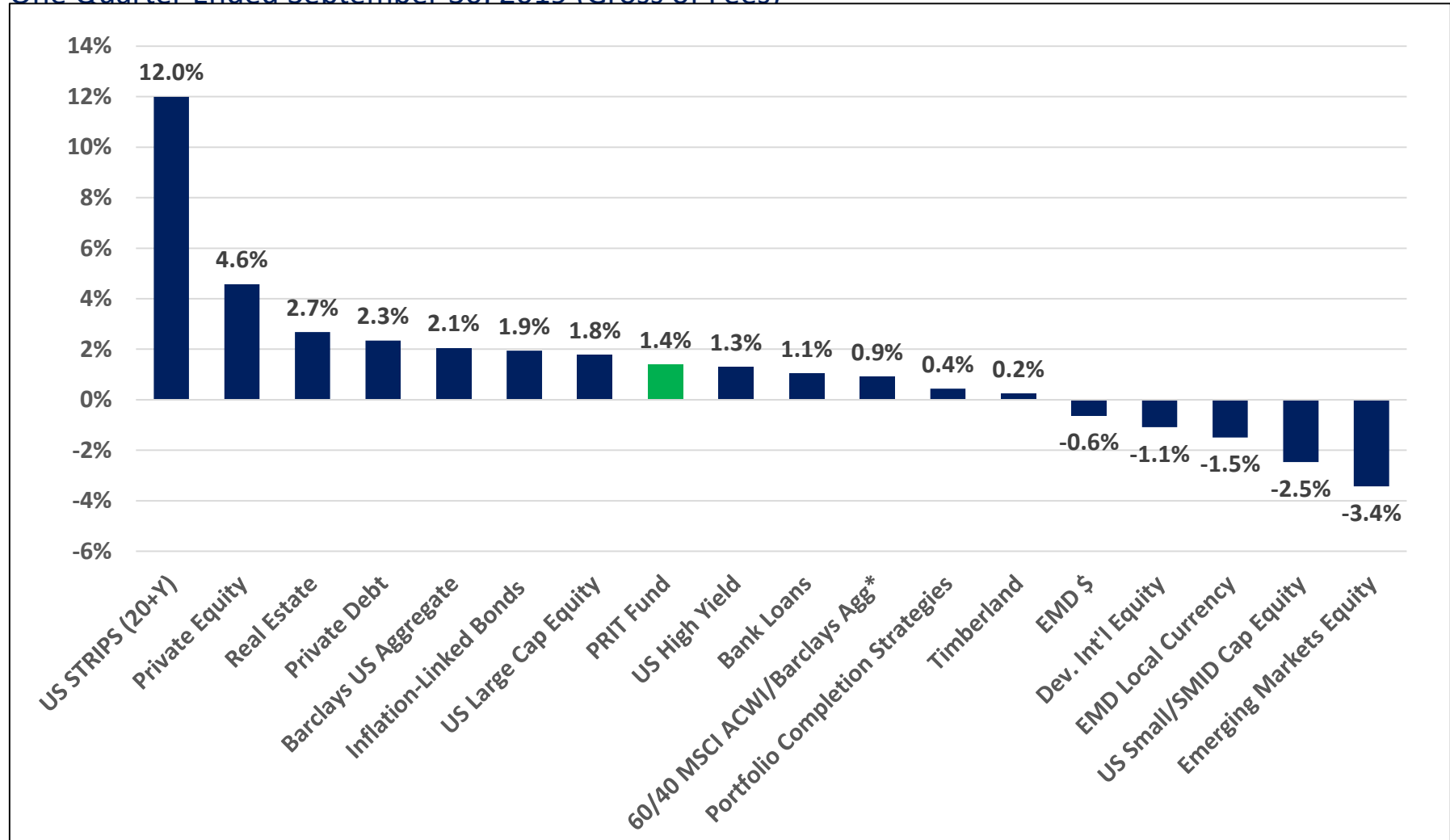


# ***Total PRIT Fund Fiscal Year Market Value (\$Billions)***



# Asset Class Performance Summary

One Quarter Ended September 30, 2019 (Gross of Fees)



Source: BNY Mellon, FactSet.

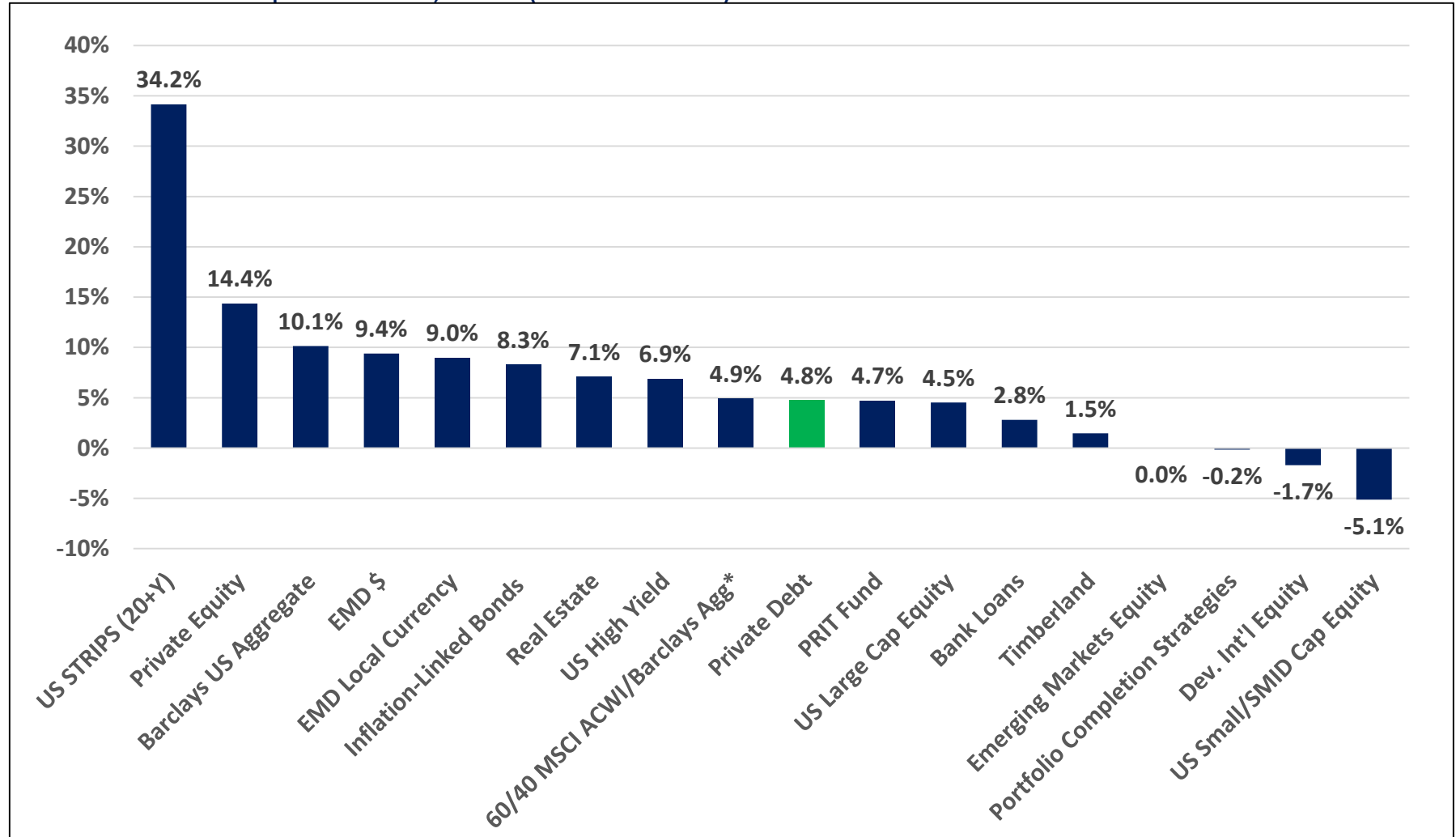
All performance figures reflected are PRIT Fund Asset Class returns.

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



# Asset Class Performance Summary

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



Source: BNY Mellon, FactSet.

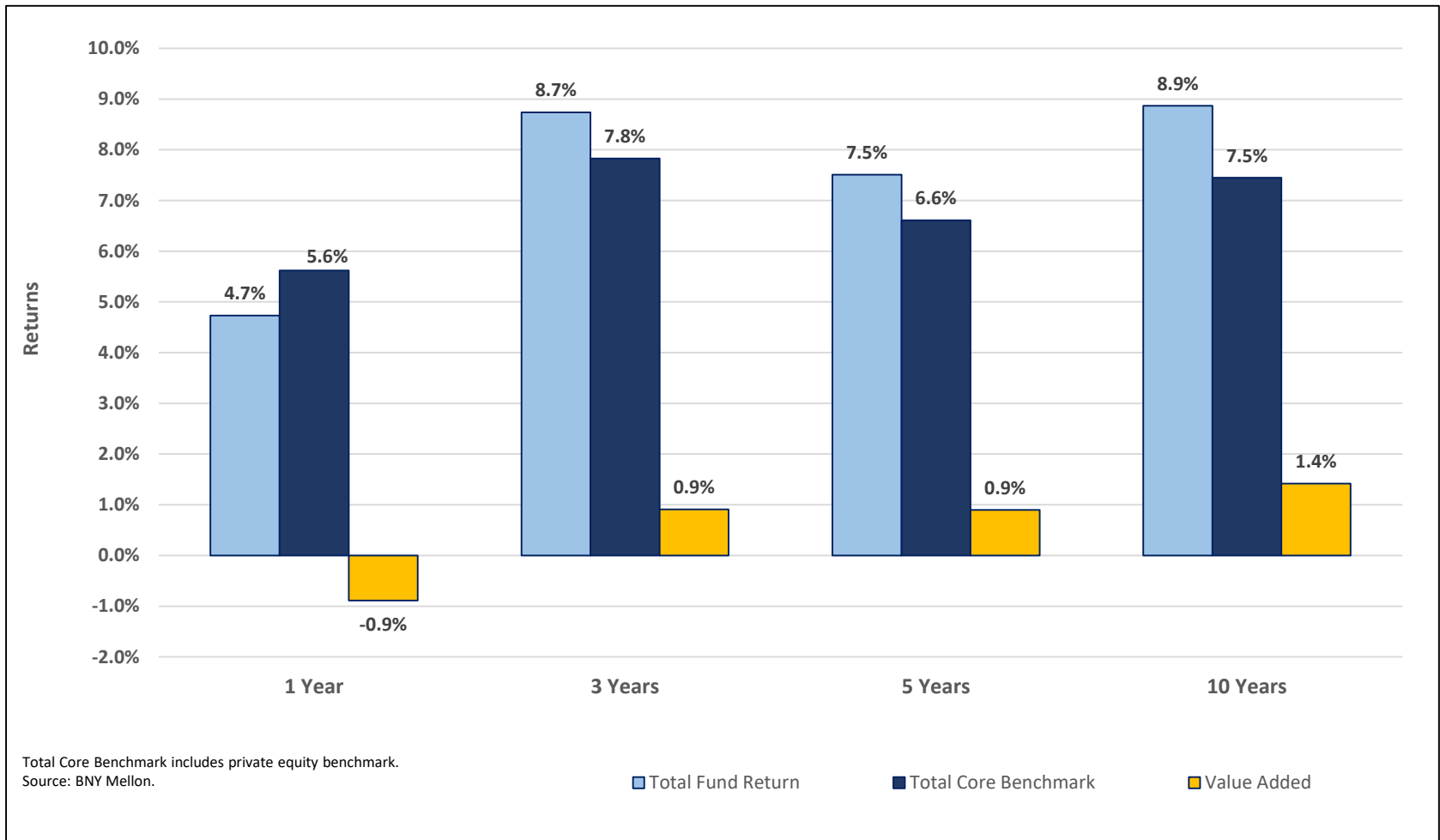
All performance figures reflected are PRIT Fund Asset Class returns.

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



# Total PRIT Fund Returns

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

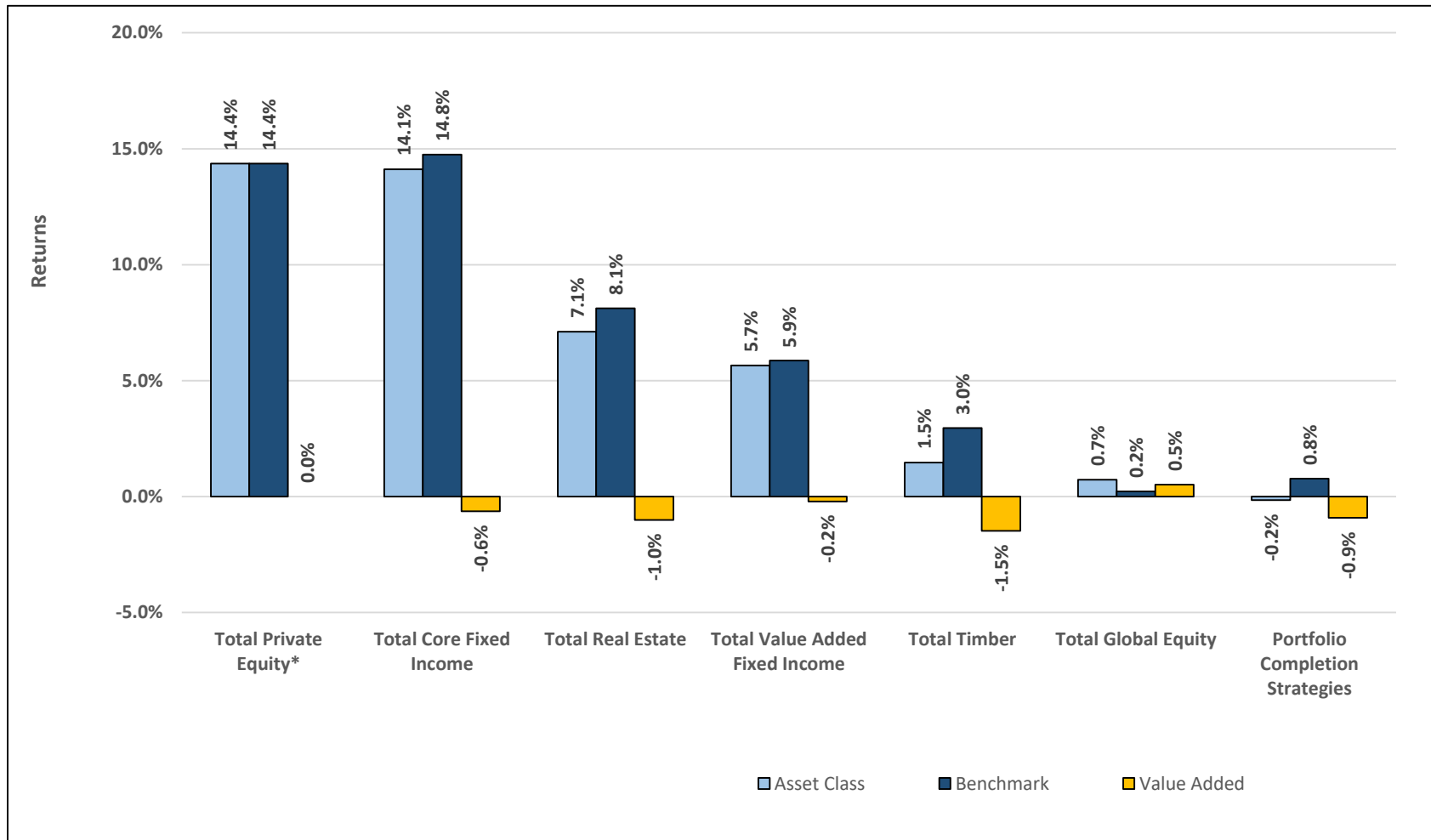


Source: BNY Mellon.  
Total Core Benchmark includes private equity benchmark.



# PRIT Asset Class Performance

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

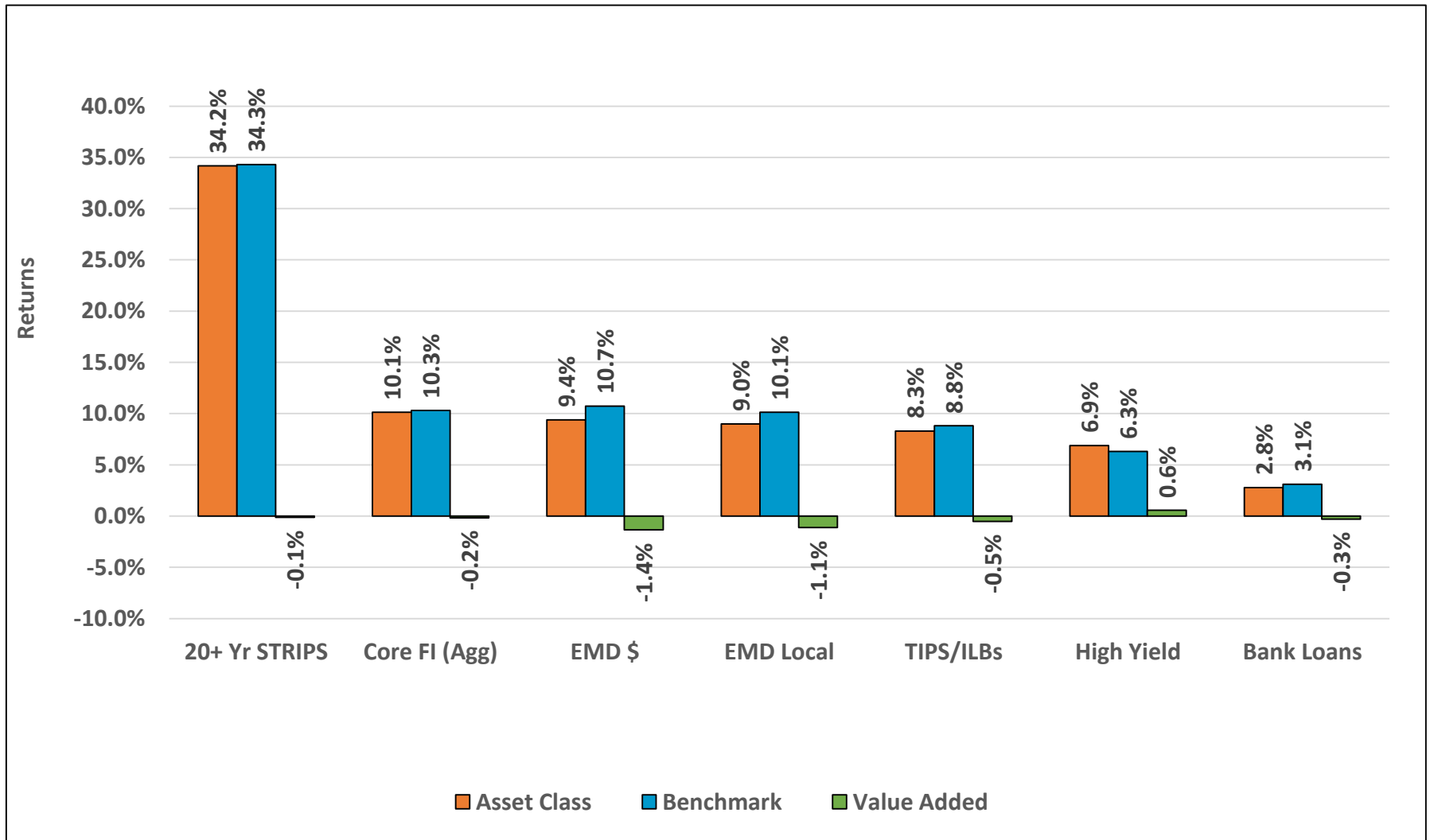


Source: BNY Mellon.  
Totals may not add due to rounding.



# Public Markets Performance – Fixed Income

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



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



# PRIT Asset Class Performance

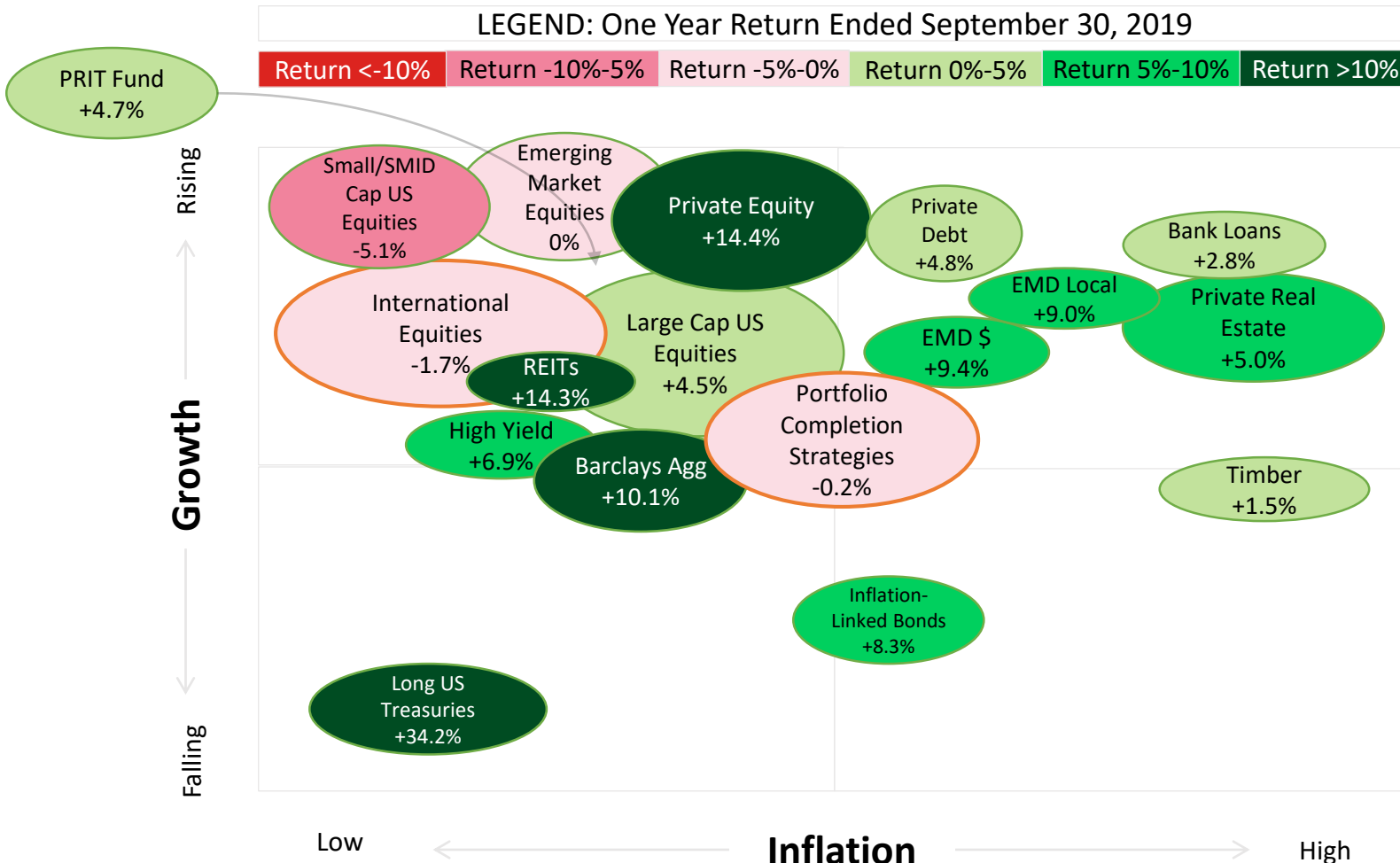
Annualized Returns as of September 30, 2019 (Gross of Fees)

1 Year	3 Year	5 Year	10 Year
PRIVATE EQUITY 14.4%	PRIVATE EQUITY 20.6%	PRIVATE EQUITY 18.0%	PRIVATE EQUITY 18.5%
CORE FIXED INCOME 14.1%	GLOBAL EQUITY 9.8%	REAL ESTATE 9.7%	REAL ESTATE 10.5%
REAL ESTATE 7.1%	REAL ESTATE 7.4%	GLOBAL EQUITY 7.1%	GLOBAL EQUITY 9.0%
VALUE-ADDED FIXED INCOME 5.7%	VALUE-ADDED FIXED INCOME 6.0%	CORE FIXED INCOME 5.3%	VALUE-ADDED FIXED INCOME 7.4%
TIMBER 1.5%	TIMBER 5.7%	TIMBER 5.2%	CORE FIXED INCOME 5.3%
GLOBAL EQUITY 0.7%	PORTFOLIO COMPLETION STRATEGIES 4.7%	VALUE-ADDED FIXED INCOME 4.2%	PORTFOLIO COMPLETION STRATEGIES 4.6%
PORTFOLIO COMPLETION STRATEGIES (0.2%)	CORE FIXED INCOME 2.8%	PORTFOLIO COMPLETION STRATEGIES 3.1%	TIMBER 3.3%



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

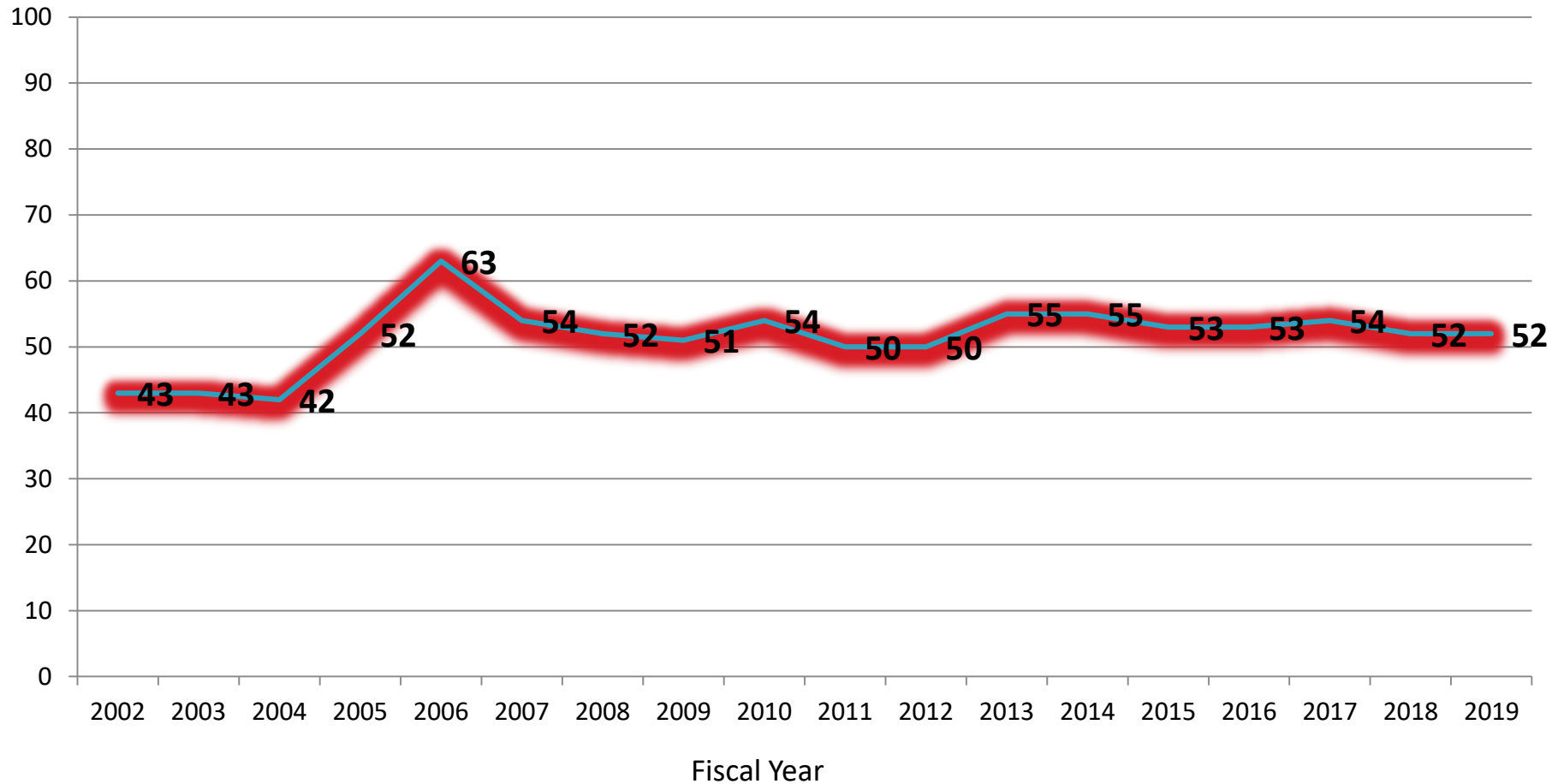
- GDP Growth: +2.3%.
- Core CPI: +2.4%.
- 30yr yields: -107bps.



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



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





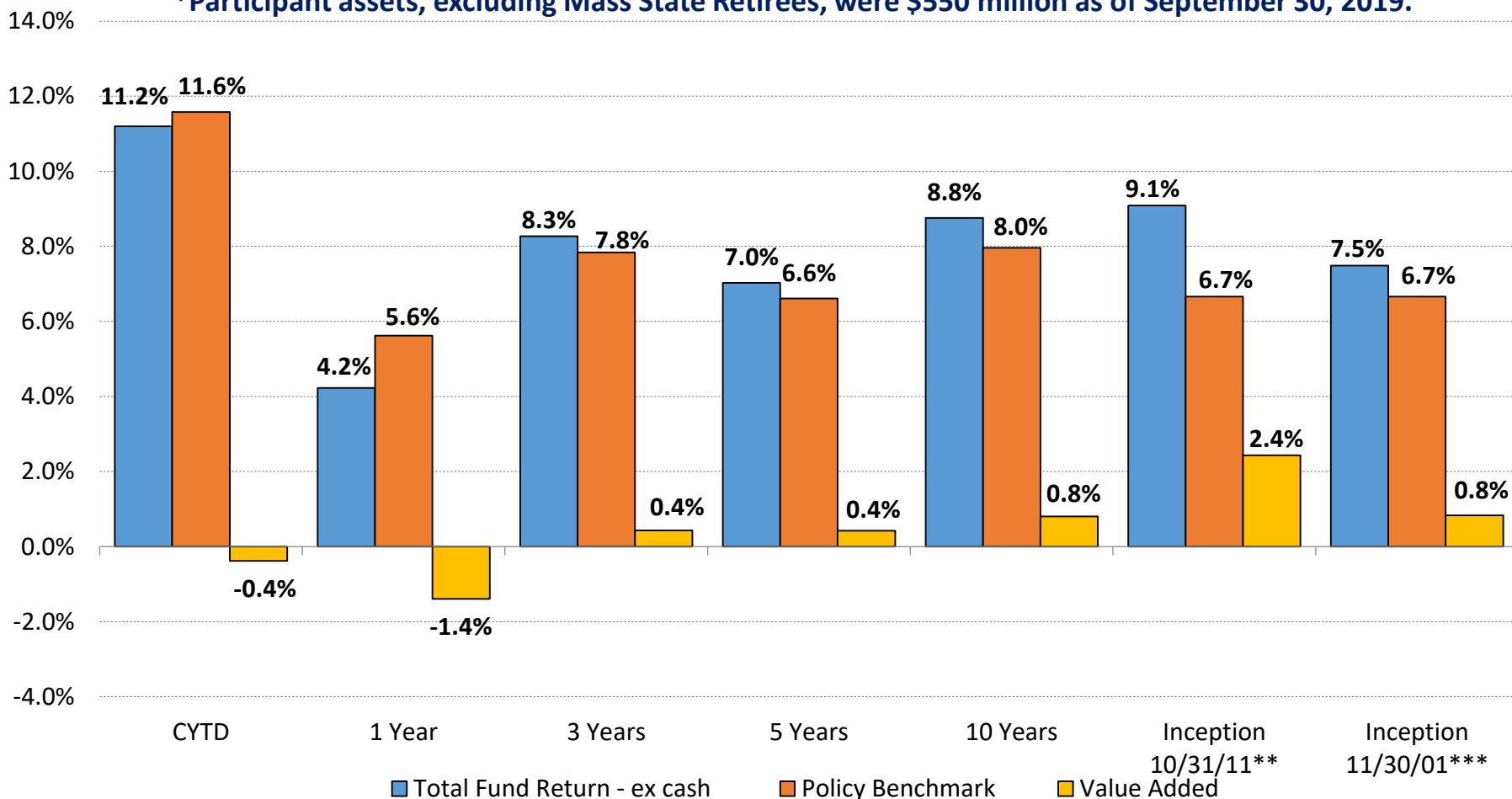
# ***SRBT Fund Performance As of September 30, 2019***



# Total SRBT Fund Returns (Net of Fees) - \$1.863 Billion\*

Annualized Returns as of September 30, 2019

\*Participant assets, excluding Mass State Retirees, were \$550 million as of September 30, 2019.



\*\*The inception date for the SRBT'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 9.1% 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 SRBT assets including legacy separate account investments as well as the PRIT GA investments.





# ***SRBT Fund Performance***

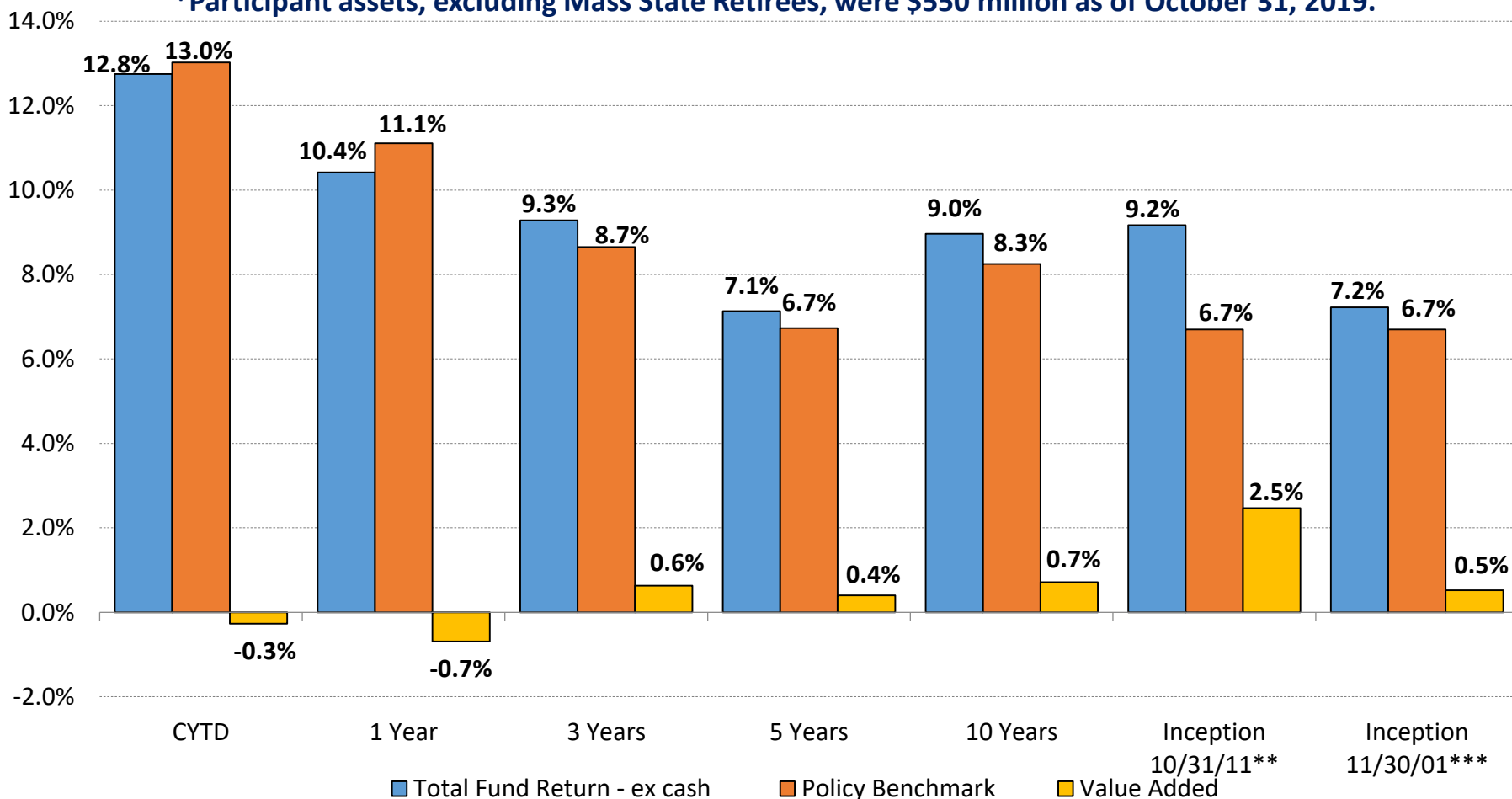
## ***As of October 31, 2019***



# Total SRBT Fund Returns (Net of Fees) - \$1.896 Billion\*

Annualized Returns as of October 31, 2019

\*Participant assets, excluding Mass State Retirees, were \$550 million as of October 31, 2019.



\*\*The inception date for the SRBT'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 9.1% 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 SRBT assets including legacy separate account investments as well as the PRIT GA investments.





## ***Municipal Outreach***



# ***Municipal Outreach***

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1. Acton-Boxborough Regional School District
2. Amherst-Pelham Regional School District
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. Greenfield
17. Groton
18. Halifax
19. Haverhill
20. Hull
21. Longmeadow
22. Lynn
23. Massachusetts Association of Regional Planning Agencies (MARPA)
24. Massachusetts Housing Finance Authority
25. Medway
26. Melrose
27. Mohawk/Hawlemont Regional School District (Buckland)
28. Nauset Regional High School
29. Newbury
30. Pepperell
31. Prospect Hill Academy Charter School\* (Cambridge, MA)
32. Somerset
33. South Hadley Fire District
34. Springfield
35. Stoneham\* (Met with Town Officials on November 26, 2019)
36. Sudbury
37. Tri-County Educational Collaborative (Franklin, MA)
38. Truro
39. Waltham
40. Watertown\*
41. West Boylston Municipal Light Department
42. Westford
43. Weston\* (Met with Town Officials on October 16, 2019)
44. West Newbury
45. Winthrop\* (Met with Town Officials on September 25, 2019)
46. Woburn

\*New listing



# Governmental Entities Participating in the SRBTF

1. Town of Acton	40. Manchester Essex Regional School District
2. Town of Amherst	41. Town of Marblehead
3. Town of Ayer	42. Marblehead Municipal Light Department
4. Town of Bedford	43. Massachusetts School Building Authority
5. City of Beverly	44. Mass State Retirees (SRBTF)
6. BiCounty Educational Collaborative, Franklin, MA	45. Mass Water Resources Authority
7. Town of Blackstone	46. Town of Medfield
8. Boston Redevelopment Authority	47. Town of Middleton
9. Town of Boxford	48. Town of Milton
10. Town of Braintree	49. Town of Montague
11. Town of Brewster	50. Nashoba Regional School District
12. Town of Brookline	51. Town of Needham
13. Town of Burlington	52. City of New Bedford
14. Byfield Water District	53. City of Newburyport
15. Town of Chelmsford	54. City of Newton
16. Concord Area Special Education (CASE) Collaborative	55. Town of North Andover
17. Town of Cohasset	56. Town of Northborough
18. Town of Dalton	57. Town of Northfield
19. Town of Dracut	58. Old Rochester Regional School District
20. Town of Dedham	59. Town of Orleans
21. Fall River Housing Authority	60. Pilgrim Area Collaborative (PAC), Pembroke, MA
22. City of Fitchburg	61. Town of Provincetown
23. Town of Franklin	62. Shawsheen Valley Technical High School, Billerica, MA
24. Franklin Regional Council of Governments	63. Town of Sherborn
25. Greater Lowell Regional Technical School	64. Town of Stockbridge
26. Town of Harvard	65. Town of Tewksbury
27. Town of Hingham	66. Town of Wakefield
28. Town of Holliston	67. Wakefield Municipal Gas & Light Department
29. Town of Ipswich	68. Town of Wayland
30. Town of Lancaster	69. Town of Wellesley
31. Lawrence Housing Authority	70. Town of Westwood
32. Town of Lenox	71. Town of Wilmington
33. City of Leominster	
34. Town of Lincoln	
35. Lincoln-Sudbury Regional School District	
36. Town of Longmeadow	
37. Lowell Regional Transit Authority (LRTA)	
38. Lower Pioneer Valley Educational Collaborative	
39. Town of Manchester-By-The-Sea	



# Contacts

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**E-mail: [fdaniele@mapension.com](mailto:fdaniele@mapension.com)**

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