



COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Investment Expenses Report FY 2017

John Kemp, Managing Director, Investment Operations and Risk
Jarid Snyder, Intermediate Investment Professional

December 7, 2017

2017 Events

- Creation of Staff-level Fee Committee
 - Chair: Tom Bauer
 - Re-negotiated fee terms with 7 different managers
 - Covered 12 portfolios, total of \$3.1 Billion AUM
 - Staff-level Fee Policy
- Auditor General Performance Audit
 - “PSERS’ management of investment expenses within its asset allocation strategy/policy appears standard however woefully unfair to the taxpayers. PSERS should take a leadership role in the public pension sector by continuing to improve its reporting of investment expenses and fund performance.”
 - Transition to more internal management where prudent
 - Requiring ILPA template since May 2016
 - Additional disclosures (gross and net returns, longer time spans)
 - “PSERS failed to document its investment manager fee negotiations and lacked adequate written procedures for monitoring manager performance.”
 - “Adequate procedures” but developing more robust documentation of negotiations
- Act 5 Legislation created a 5-person Investment Review Committee

Total Investment Expenses

- How PSERS defines Total Investment Expenses

External Manager Expenses

- Public Markets
 - Base Fees
 - Profit Share
- Private Markets (i.e., Limited Partnership structures)
 - Base Fees
 - Profit Share (where separately reported by manager)

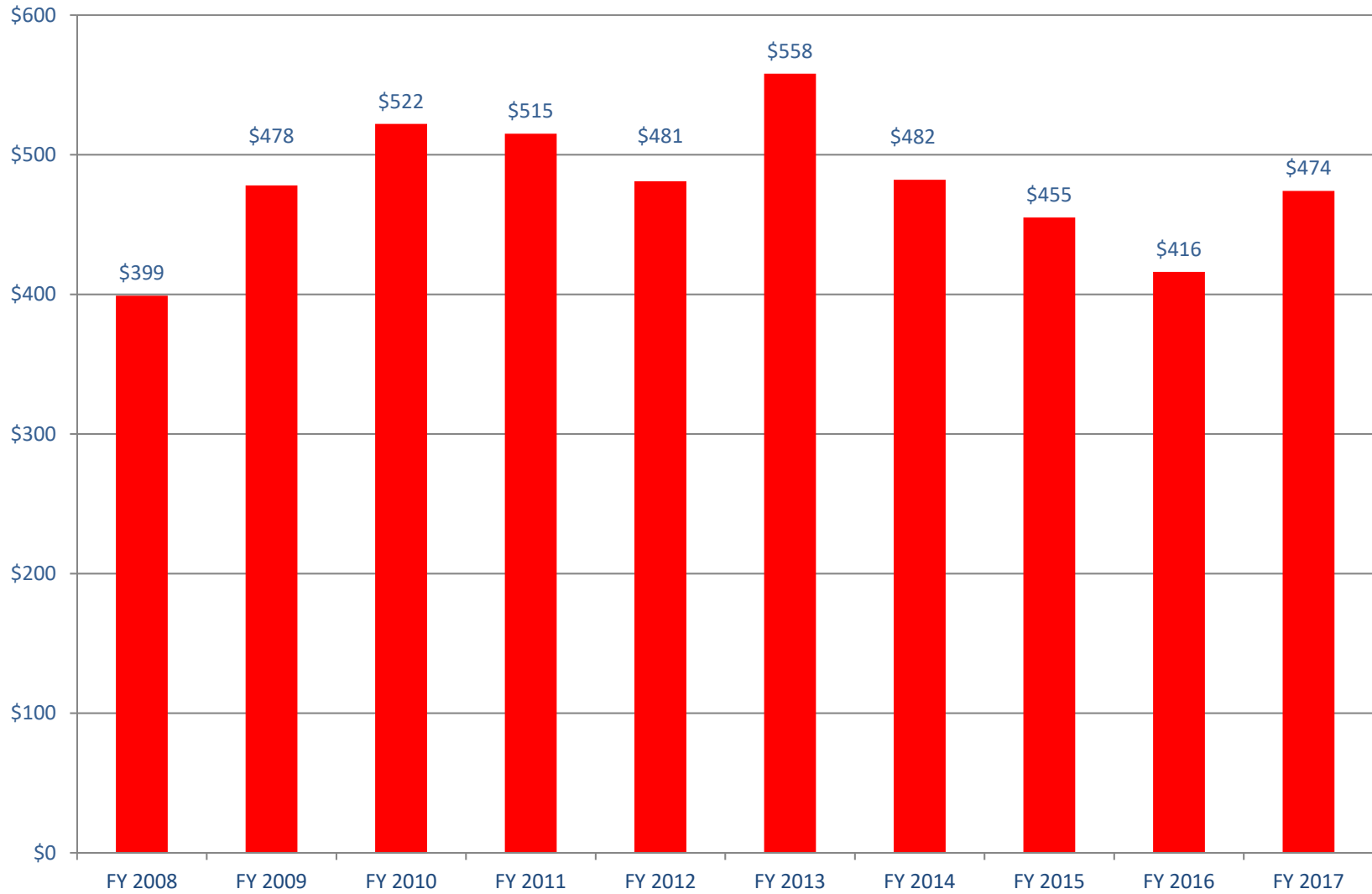
+ Internal Management Expenses

- Compensation and Benefits
- Technology Services
- Miscellaneous Service Providers

+ Other Expenses

- Consultants (e.g., Aon Hewitt, Portfolio Advisors, Courtland, Aksia)
- Legal
- Overhead

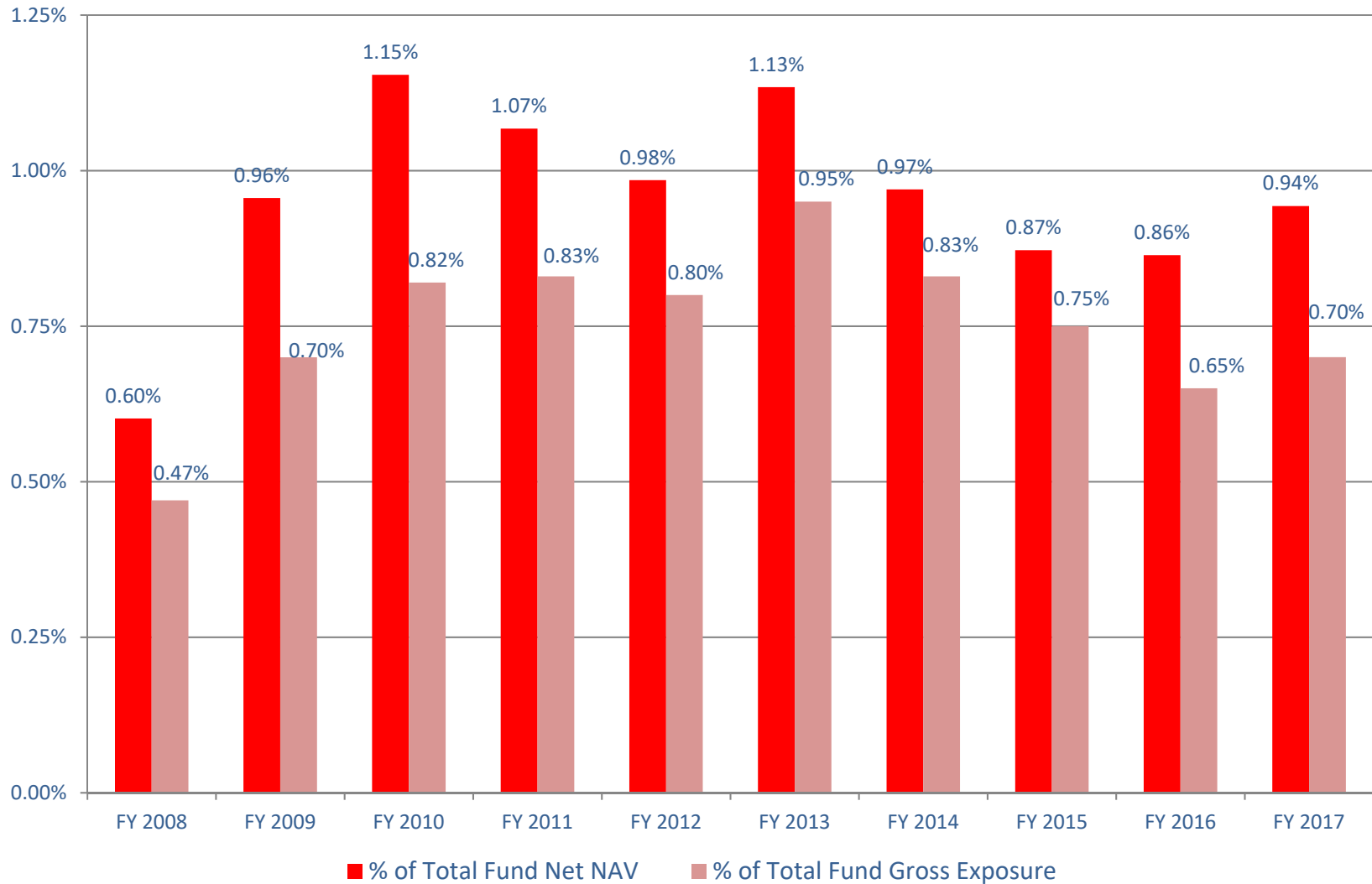
Total Investment Expenses



Amounts in millions of dollars



Total Investment Expenses



Calculated based upon quarterly NAV and gross exposure, i.e., NAV plus leverage and undrawn commitments

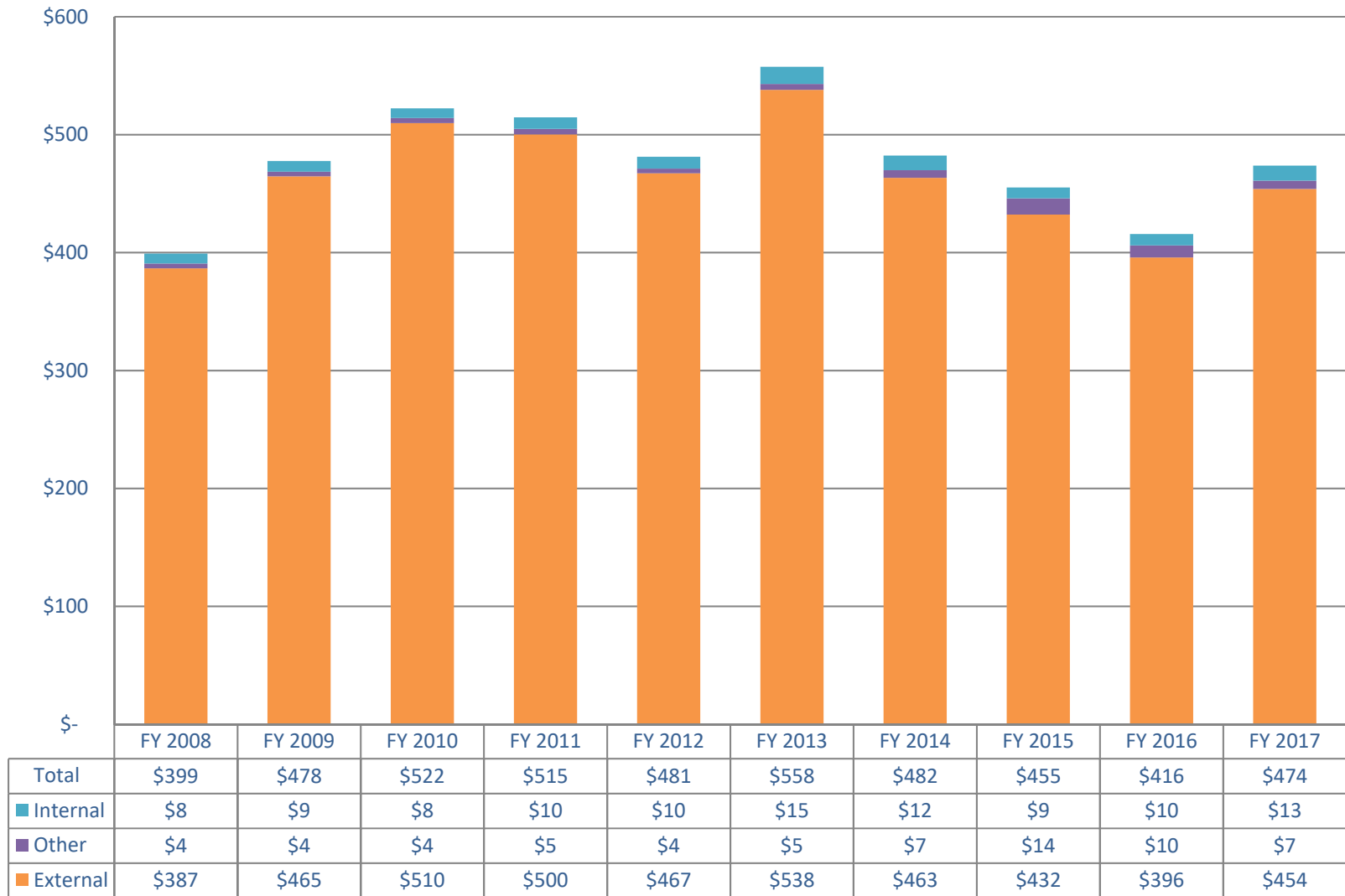


The Expense Analysis Challenge

- Peer to peer comparisons are not “apple to apple”
 - No uniform reporting convention exists
 - No uniform analysis framework exists
 - No guidance from GASB, GIPS, GFOA, etc.
 - Public Pension Funds can and do report and disclose differently

- PSERS’ Framework
 - Do the benefits justify the costs?
 - Evaluate the **outperformance (Alpha)** we earned over Board-approved policy benchmarks against the **investment expenses we paid**

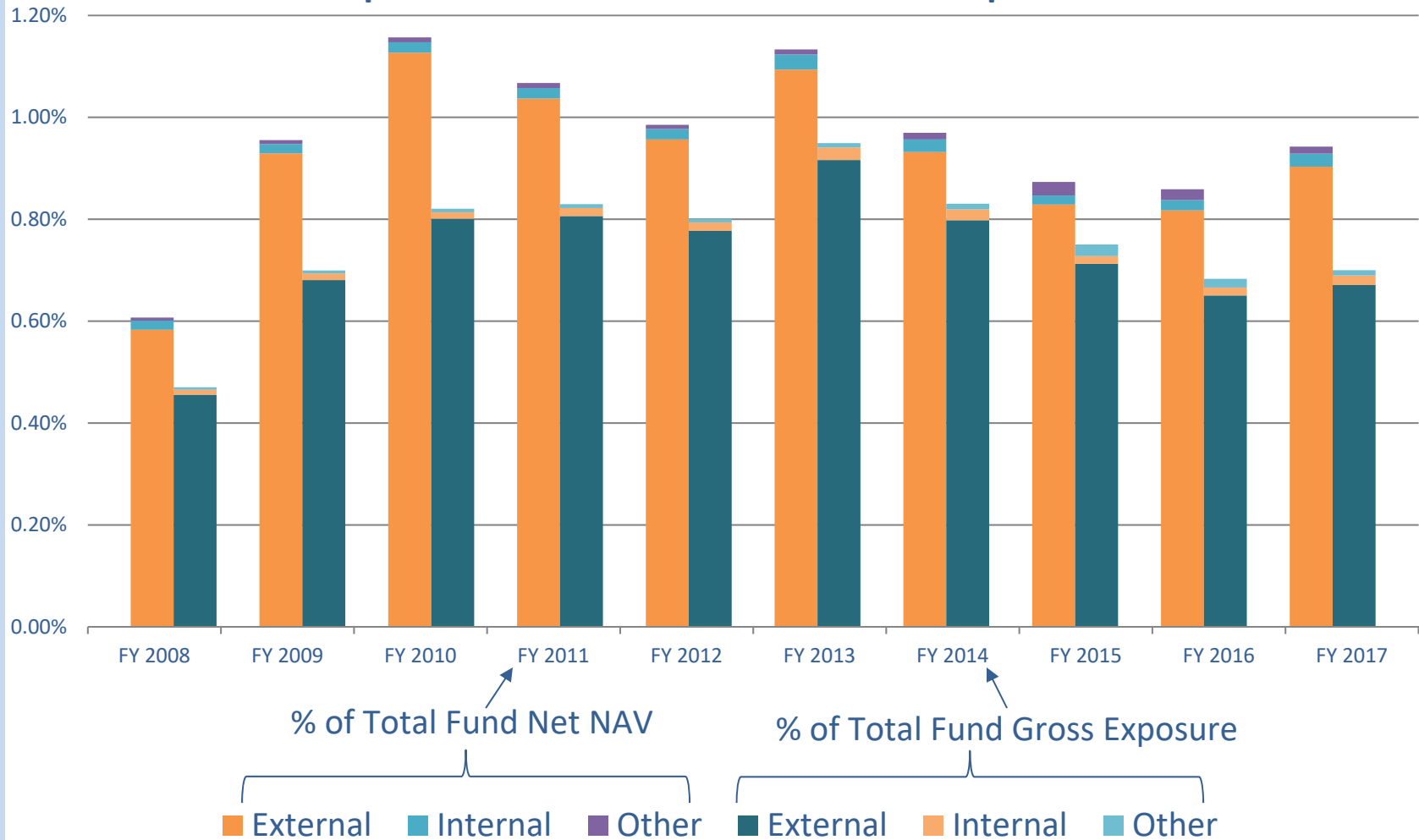
Total Expenses Breakdown



Amounts in millions of dollars

Total Expenses Breakdown

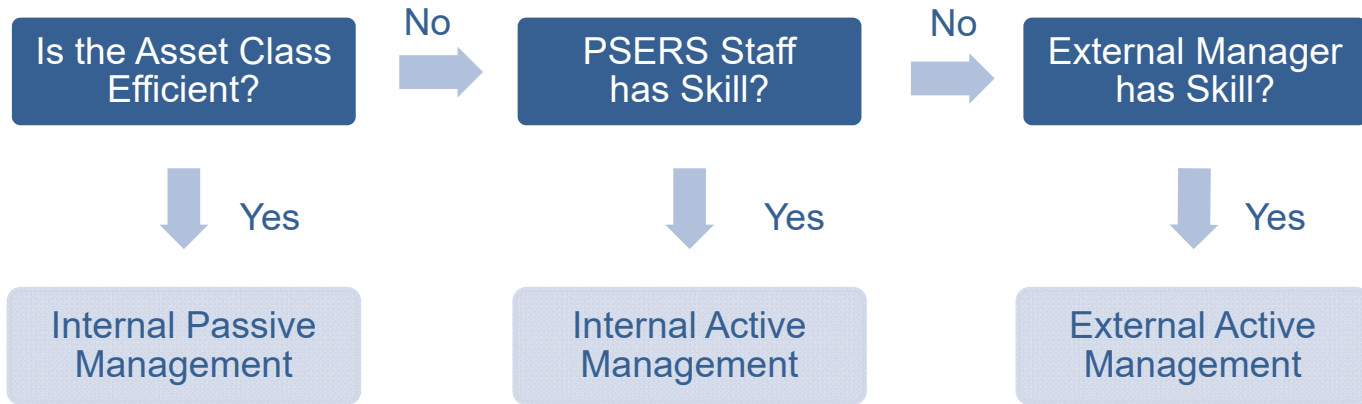
Expenses as % of Net NAV and Gross Exposure



Calculated based upon quarterly NAV and gross exposure, i.e., NAV plus leverage and undrawn commitments



Why use External Managers?



Features
Very Low Expenses
Low or Zero Alpha

Examples
US Public Equity
Gold

Very Low Expenses
Attractive Alpha

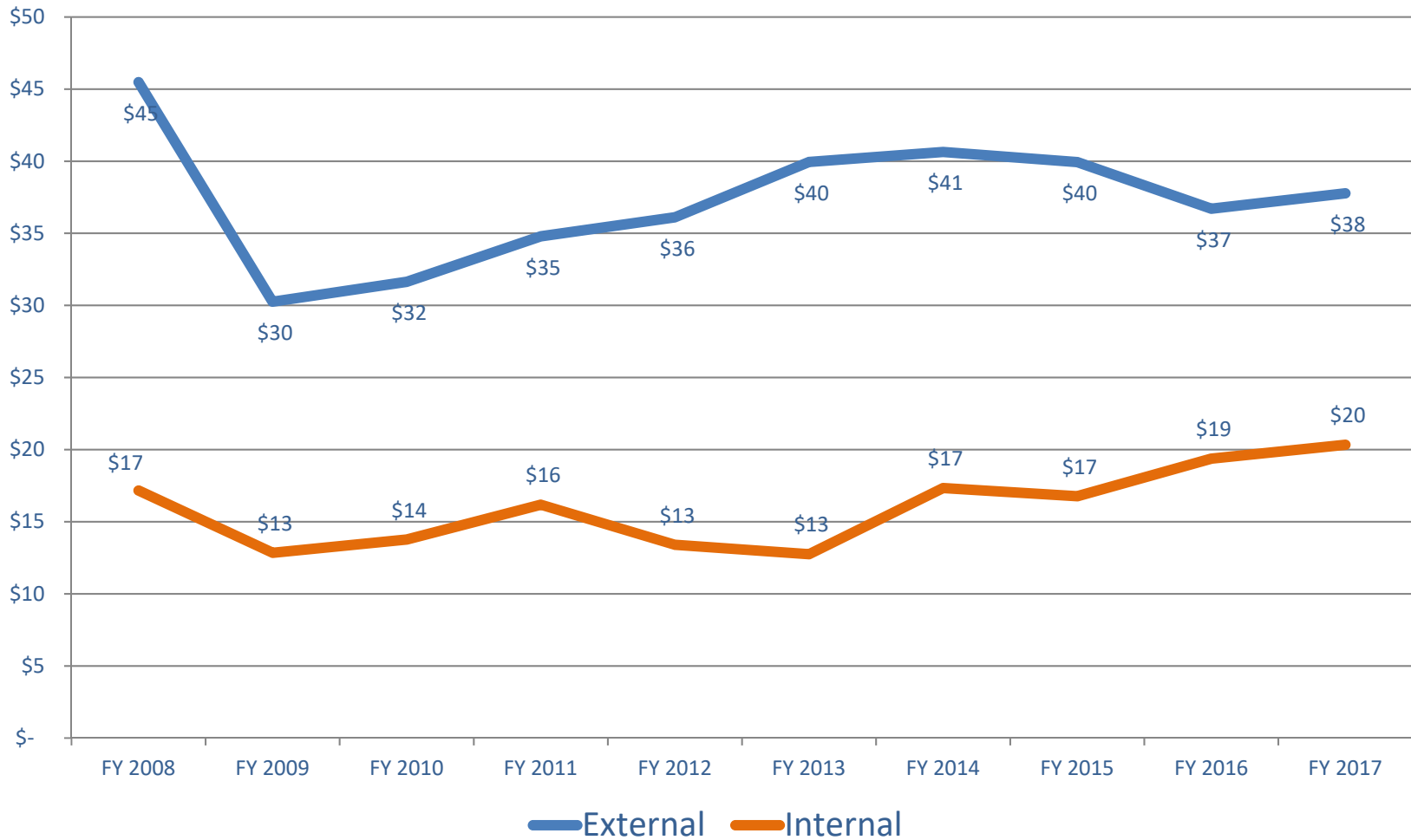
US Core Fixed Income
LIBOR Plus Fund

Higher Expenses
Attractive Alpha

Private Equity
Absolute Return

External vs Internal

External AUM v Internal AUM (Gross Exposure)



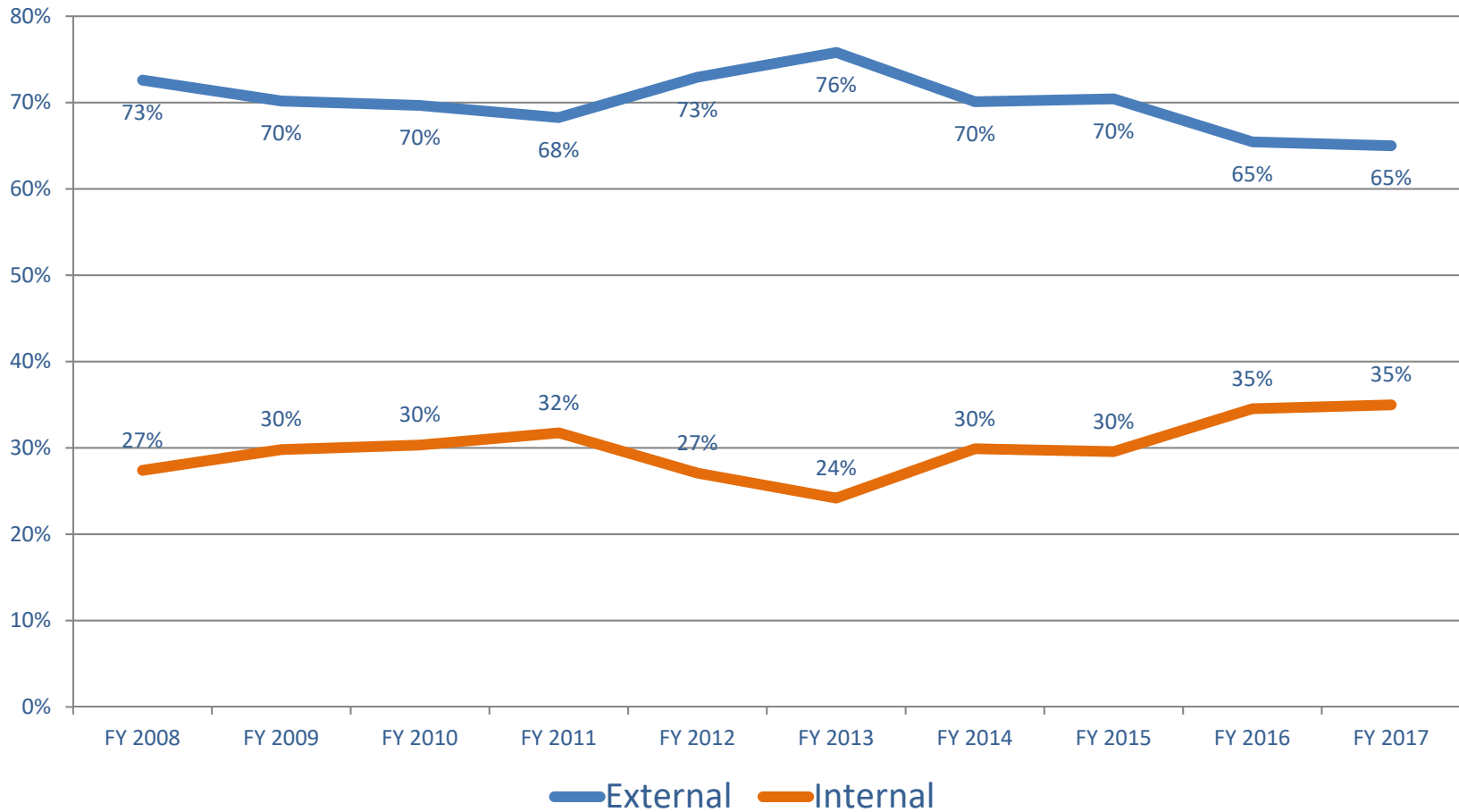
Amounts in billions of dollars

Calculated based upon monthly average gross exposure, i.e., NAV plus leverage



External vs Internal

External AUM v Internal AUM as a % of the Total Fund (Gross Exposure)



Calculated based upon monthly average gross exposure, i.e., NAV plus leverage



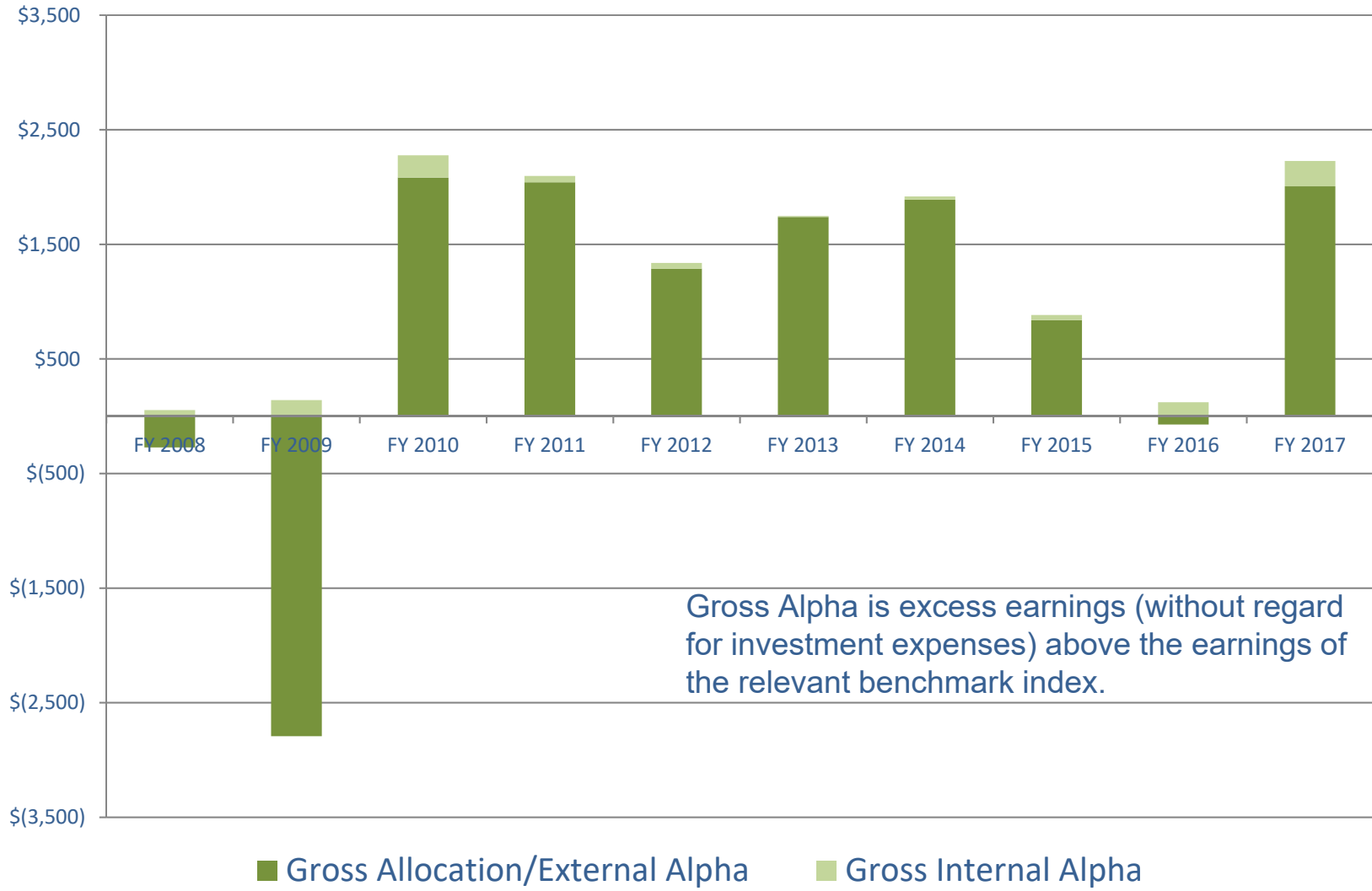
Total Gross Alpha



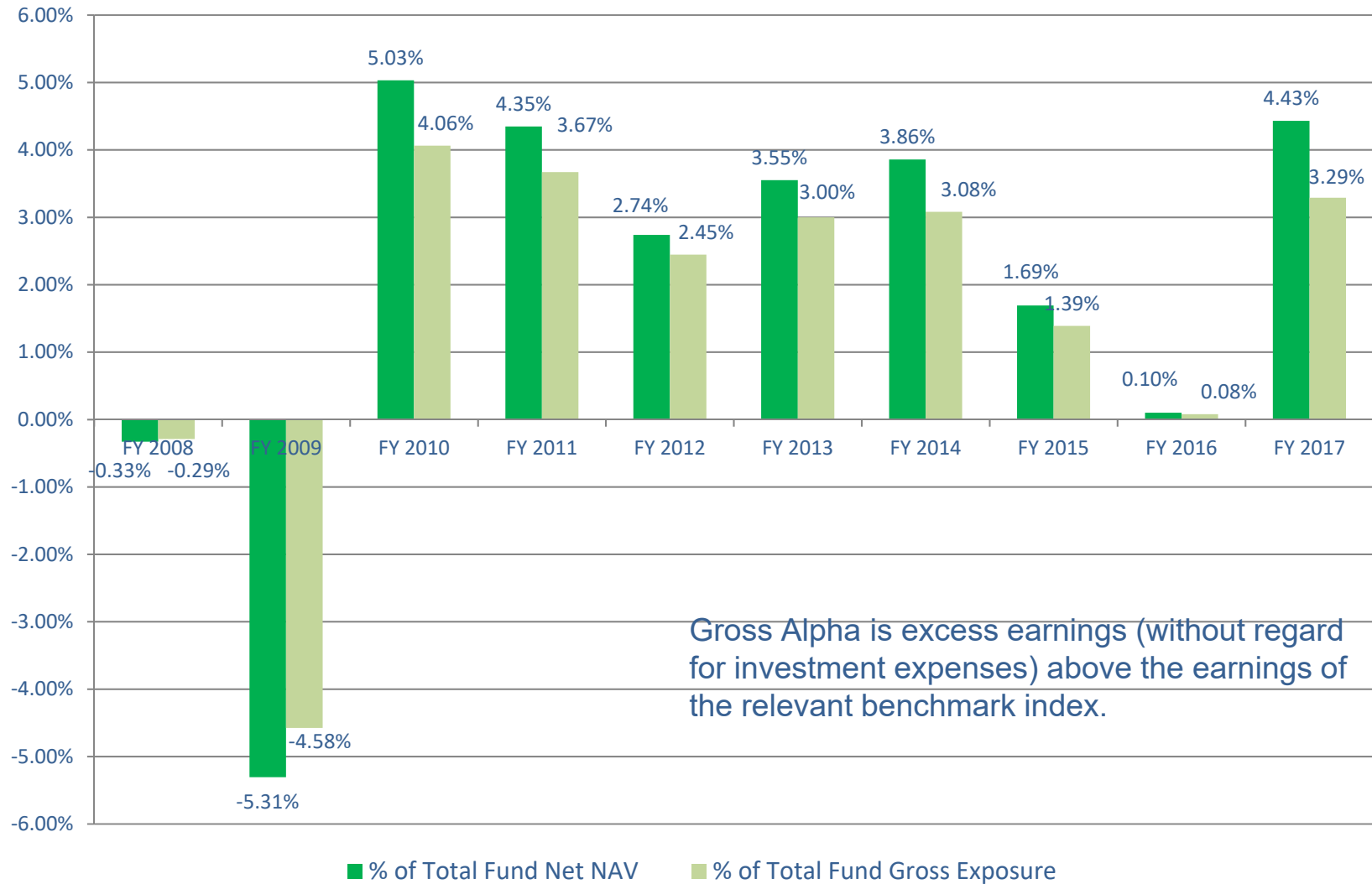
Gross Alpha is excess earnings (without regard for investment expenses) above the earnings of the relevant benchmark index.



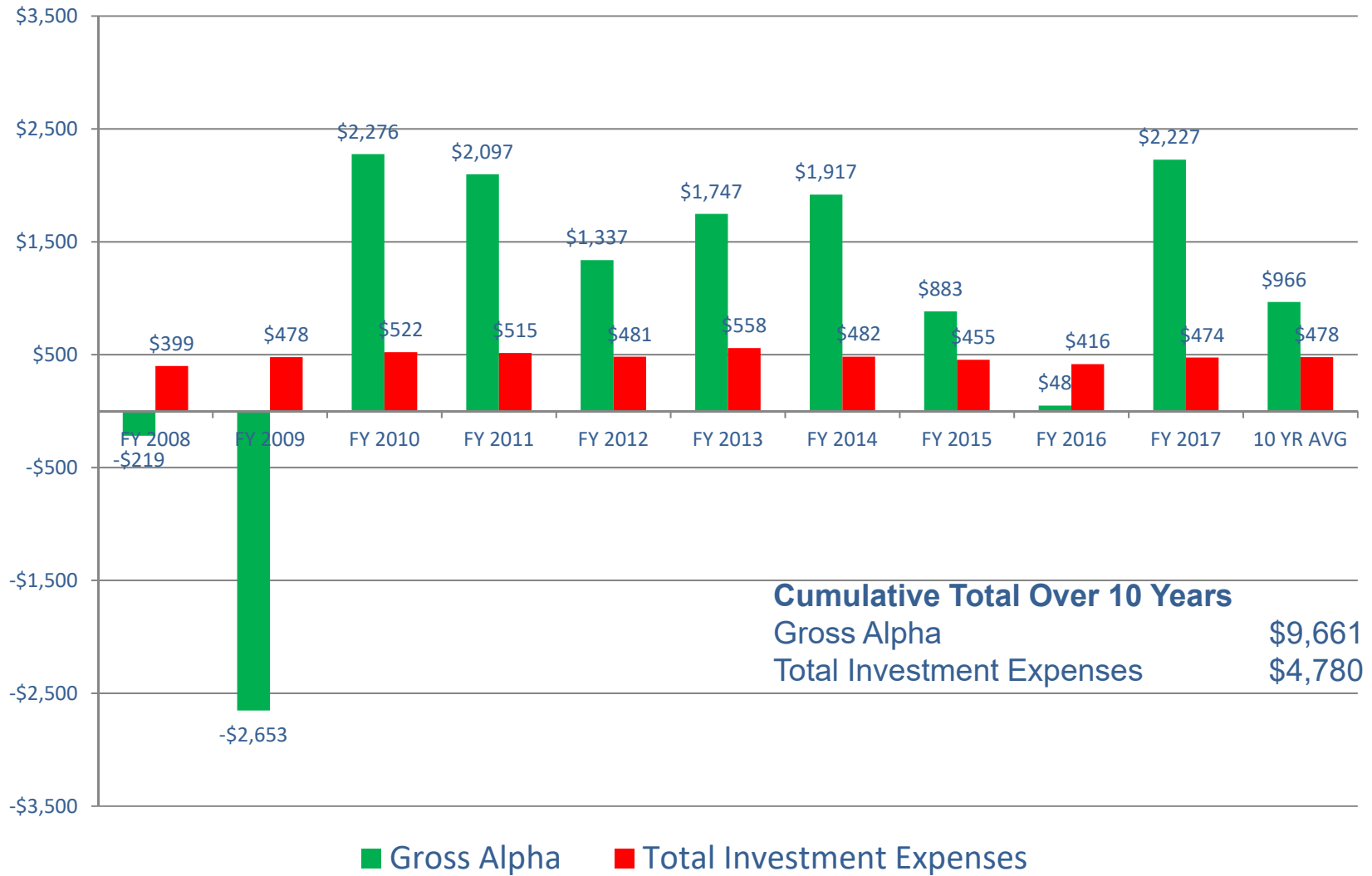
Total Gross Alpha



Total Gross Alpha



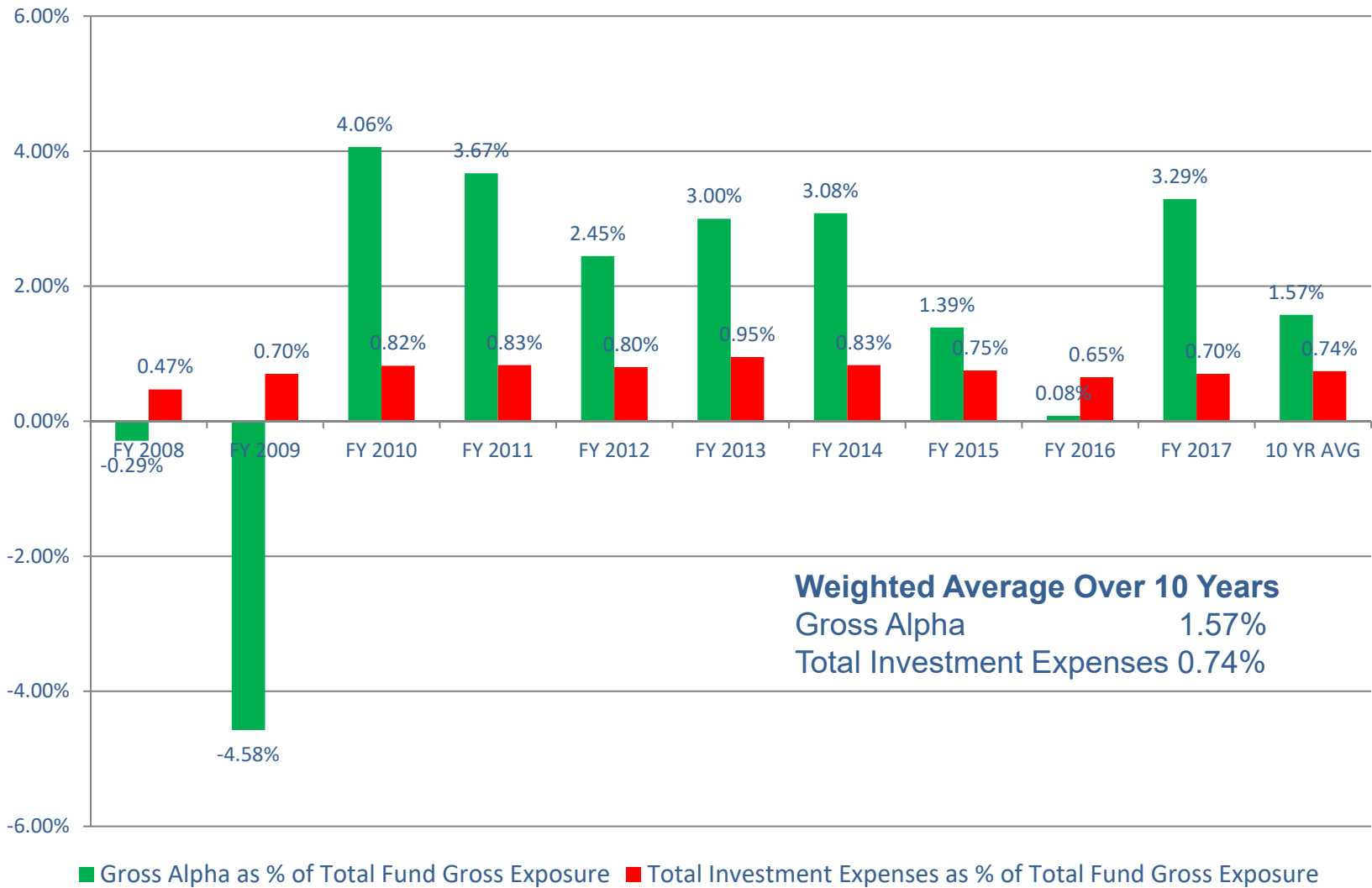
Total Investment Expenses vs Gross Alpha



Dollar amounts in millions



Total Investment Expenses vs Gross Alpha



Total Investment Expenses vs Gross Alpha

- **\$4.70 Gross Alpha vs \$1 Total Investment Expenses for FY 2017**
- **\$2.02 of Gross Alpha vs \$1 of Total Investment Expenses for 10 YR AVG**

Asset Class Summary

INVESTMENT EXPENSES BY ASSET CLASS				
	FY 2014	FY 2015	FY 2016	FY 2017
External Management				
U.S. Equities	\$ 3	\$ 3	\$ 3	\$ 3
Non-U.S. Equities	\$ 18	\$ 24	\$ 24	\$ 25
Master Limited Partnerships	\$ 11	\$ 12	\$ 8	\$ 9
Fixed Income	\$ 82	\$ 84	\$ 82	\$ 109
Commodities	\$ 11	\$ 8	\$ 6	\$ 10
Real Estate	\$ 74	\$ 69	\$ 52	\$ 51
Private Equity	\$ 117	\$ 102	\$ 99	\$ 103
Absolute Return	\$ 141	\$ 117	\$ 102	\$ 123
Risk Parity	\$ 6	\$ 13	\$ 18	\$ 23
External Management Total	\$ 463	\$ 432	\$ 396	\$ 455
Internal Management	\$ 12	\$ 9	\$ 10	\$ 13
Other	\$ 7	\$ 14	\$ 10	\$ 7
Total Investment Expenses	\$ 482	\$ 455	\$ 416	\$ 474
External Gross Exposure	\$ 40,642	\$ 39,934	\$ 36,709	\$ 37,778

Breakdown of Internal and Other Expenses

FY 2017			
Other Expenses		Internal Management Expenses	
Investment Consultants		Staff Compensation (salary and benefits)	\$7,379,000
Aksia, LLC	\$700,000		
Courtland Partners	\$71,250	Specialized Service Providers	
CP Cogent Securities	\$167,537	BlackRock Solutions (Risk)	\$604,582
STP Investment Services (ABOR)	\$651,904	Cornerstone Macro	\$75,000
Glass Lewis	\$178,681	Misc Service Providers	\$81,174
Aon Hewitt	\$694,738		
Portfolio Advisors	\$1,200,000		
Misc Consultants	\$729,101	Overhead	\$2,393,414
Misc. Legal Service Providers	\$90,867	GASB 68 Pension Expense	\$1,195,113
BNY Mellon (Custody)	\$2,475,686	Miscellaneous Expenses	\$1,059,189
Total Other Expense	\$6,959,764	Total Internal Management Expenses	\$12,787,472

Breakdown of Internal and Other Expenses

- Board Discretion
 - Investment Consultants Excluding STP
- Investment Office Discretion
 - Specialized Service Providers
 - Technology Providers
- Other Discretion
 - Misc. Legal Service Providers
 - STP Investment Services
 - BNY Mellon Custody Fee
 - Investment Office Overhead
- Shared Discretion
 - Staff Compensation

2018 Investment Expense Initiatives

- Add staff to bolster and backstop internal management
- For external managers in public markets
 - Reduce the base fee and create better alignment of interests by moving to a lower base fee coupled with a profit share
 - Enter into arrangements for netting of profit shares for managers with multiple PSERS mandates
- For external managers in private markets
 - Continue to grow co-investments (lower fee and profit share)
 - Move away from paying on commitment and towards paying on invested capital on private credit
 - Continue to push managers to adopt ILPA template
- CAVEAT: Ability to negotiate fees downward depends upon supply and demand of a manager's services:
 - High demand and/or low supply gives PSERS limited negotiating leverage

Key Takeaways

1. Internal Management

- Utilize where we have the internal capability
- Utilize where passive management is the optimal strategy for that asset class
- Internal PMs benefit from having External Managers

2. External Management

- Seek to manage Base Fee lower as % of AUM
- Accept that Profit Shares will be highly variable
- Accept that Profit Shares will increase when Alpha increases

3. Benefits vs Costs

- **Over the past 10 years we realized a 100% return on each dollar spent in investment expenses (\$2.02/1 – 1)**

Key Takeaways

- **\$4.70 Gross Alpha vs \$1 Total Investment Expenses for FY 2017**
- **\$2.02 of Gross Alpha vs \$1 of Total Investment Expenses for 10 YR AVG**



COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Investment Expenses Report FY 2017

John Kemp, Managing Director, Investment Operations and Risk
Jarid Snyder, Intermediate Investment Professional

December 7, 2017

NEXT