

The Impact of Management Fees on Value

What's Left After Wall Street is Paid?



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Deciphering Added Value Over the Past 10 Years

We have estimated the 10 year cumulative dollar impact of fees using:

- Top down public fee rates from appendix of quarterly reports to trustees (for 2005-2013 data).
- Bottom up public fees from internal analysis by Bureau of Asset Management (for 2014 data).
- Estimated annualized net cash flows.



Deciphering Added Value Over the Past 10 Years

Combined Systems	12/31/2004 AUM* (\$ Mil)	12/31/2014 AUM (\$ Mil)	2014 Variance vs. Benchmark
Benchmark Portfolio <i>Adjusted for Estimated Cash Flows</i>	\$ 88,675	\$ 158,955	
Pension Funds - Gross <i>Before Public Market Fees, After Private Fees</i>	\$ 88,675	\$ 159,190	+ \$ 0.235 billion
Pension Funds - Net <i>After Estimated Public & Private Fees</i>	\$ 88,675	\$ 157,167	- \$ 1.788 billion

* AUM = Assets Under Management
All values are estimated.



External Managers Failed to Keep Up With the Benchmark Over the Past 10 Years

Net Value Added - Asset Allocation	\$0.725 billion
Net Value Added - External Managers	- \$2.513 billion
Net Value vs. Benchmark After Fees	- \$1.788 billion

All values are estimated.



Detail of Private Markets Impact

Net Value Added - Public Markets	\$0.040 billion
Net Value Added - Private Markets	- \$2.553 billion
Net Value vs. Benchmark After Fees	- \$2.513 billion

All values are estimated.



In Private Markets, Private Equity & Real Estate Have Lagged

Asset Class	Total Value Added
Opportunistic Fixed Income	\$0.061 billion
Hedge Funds	\$0.051 billion
Infrastructure	\$0
Private Real Estate	- \$0.934 billion
Private Equity	- \$1.734 billion
Net Value Added – Private Assets	- \$2.55 billion

All values are estimated.



Only Opportunistic Fixed Income Has Delivered Returns Above Public Market Equivalent (PME) Benchmark

	# of Funds *	Cum IRR*	PME IRR	% above PME
Private Equity Funds	181	9.6%	13.1%	25%
Private Real Estate Funds	47	6.9%	8.2%	28%
Opportunistic Fixed Income	14	13.0%	6.1%	86%

* Funds used across all five systems. Excludes results for funds in 2012, 2013 and 2014 vintages with less than 50% of assets drawn.



In Public Markets, We Were Narrowly in the Black

Net Value Added - Public Markets	\$0.040 billion
Net Value Added - Private Markets	- \$2.553 billion
Net Value Added After Fees	- \$2.513 billion

All values are estimated.



But We Paid Nearly All of the Value Created to Wall Street

Value Added Before Public Fees	\$2.063 billion
Present Value of Public Fees Paid	- \$2.023 billion
Net Value Added After Fees	\$ 0.040 billion

All values are estimated.



