

Total Plan and Investment Manager Benchmarking

Michael D. Joyce, CEBS

Senior Vice President,
Senior Investment Consultant
Segal Marco Advisors
Boston, Massachusetts



The opinions expressed in this presentation are those of the speaker. The International Foundation disclaims responsibility for views expressed and statements made by the program speakers.

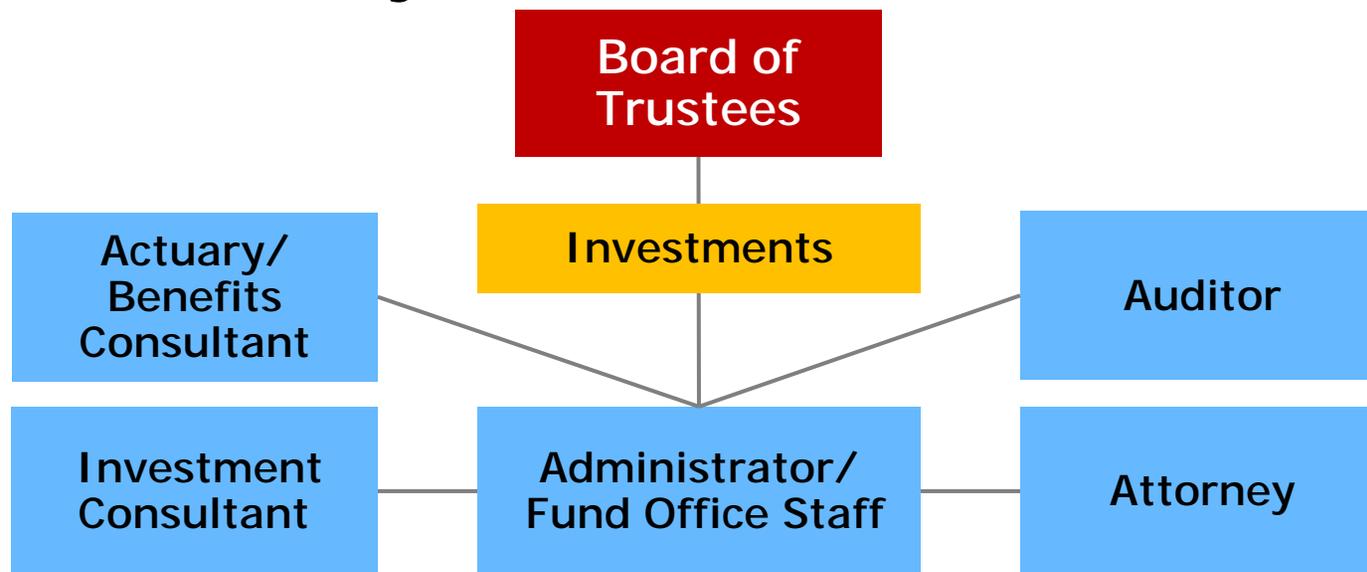
International Foundation
OF EMPLOYEE BENEFIT PLANS 

Total Plan and Investment Manager Benchmarking

- Governance—Functions, roles and responsibilities
- Setting expectations for performance
- Defining success
- Monitoring performance
- Benchmarking alternative assets
- Takeaways

Benefit Fund Governance

Governance provides structures and relationships that drive organizational performance. It is the system by which organizations are directed and managed.

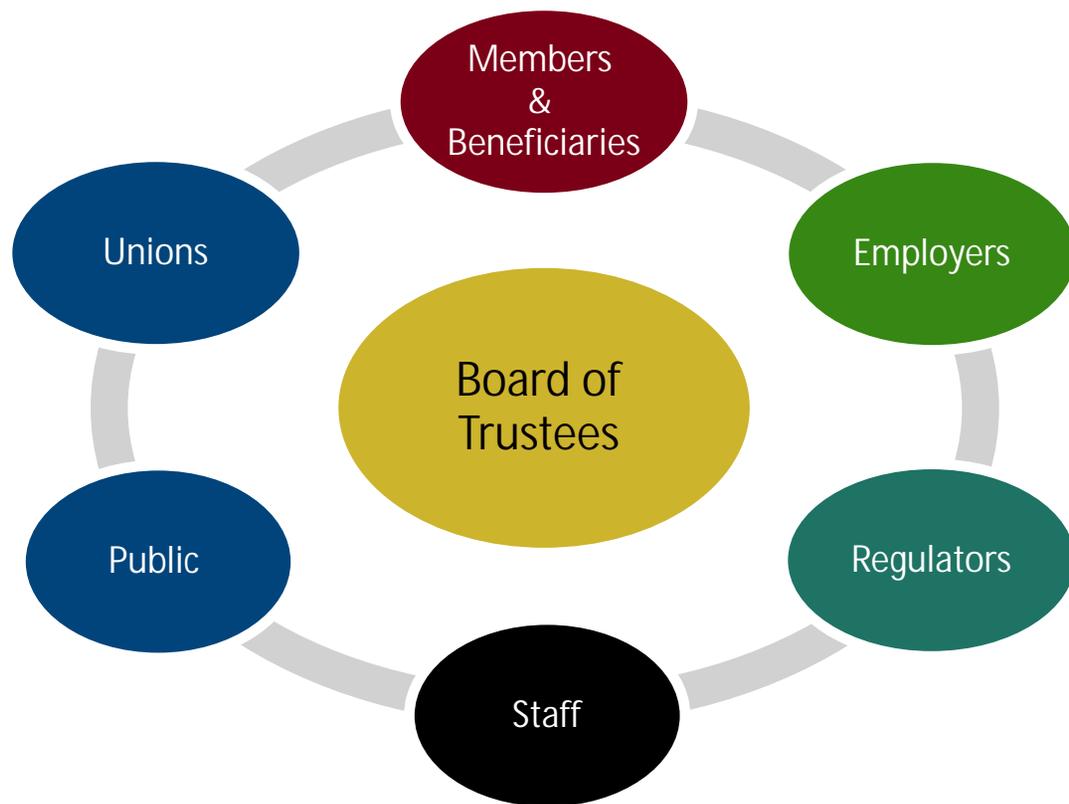


Governance Impacts Benchmarks



*Not all inclusive

How Do Results Need to Be Communicated?



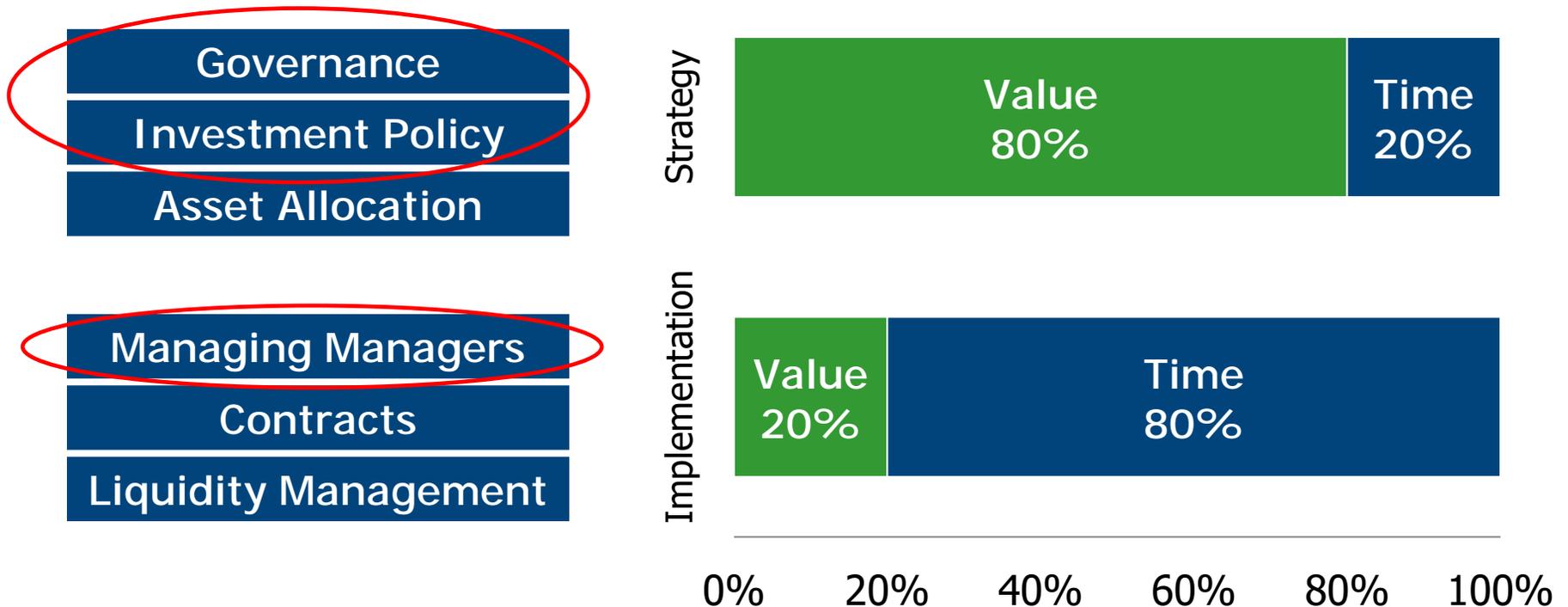
Key Performance Benchmarks Defined

Measure	Description
Funded Ratio	<ul style="list-style-type: none">• Ratio of Fund Assets to Fund Liabilities according to Actuarial and Market Value measures
Actuarial Accrued Liability	<ul style="list-style-type: none">• Future value of benefits owed to members as measured by actuarial accrued liability
Net Assets Available for Benefits	<ul style="list-style-type: none">• Net assets available to pay benefits and changes thereto as reported in annual audit
Annualized Investment Returns	<ul style="list-style-type: none">• Net-of-fee Annualized Investment Returns over multiple periods relative to Assumed Return and Benchmarks

*Measures are not all inclusive.

Governance: Fiduciary Challenges

Pareto's Perplexing Principle



Benchmarking the Effectiveness of Your Plan

Duty to Monitor

- Under trust law, a trustee has a continuing duty to monitor trust investments and remove imprudent ones. This continuing duty exists separate and apart from the trustee's duty to exercise prudence in selecting investments at the outset.
- A trustee must systematically consider all the investments of the trust at regular intervals to ensure that they are appropriate.
- When the trust includes assets that are inappropriate as trust investments, the trustee is ordinarily under a duty to dispose of them within a reasonable time.

Current DOL Rule on ERISA Investment Duties (Including Consideration of ESG)

Prudence and loyalty in selecting and monitoring plan investments and exercising shareholder rights

- Final rule issued Nov. 22, 2022 remains in effect.
- Sept. 2023, U.S. District Court backed the DOL in a suit by 26 Attorneys General.
- Requires fiduciaries to rely on risk-return factors whether or not they are ESG factors. Restates the long-held standards.
 - “Fiduciary may not subordinate the interests of the participants and beneficiaries...”
- Reinstates ESG considerations as the tie-breaker when deciding between similar investment options. In other words, collateral benefits are fair game to consider.

Benchmarking

- Expectations of plan and manager performance
- Appropriateness of various benchmarks
- Appropriateness of peer group comparisons
- Understanding performance measurement
 - Fees (net or gross), universes, timeframes and cycles

“How did your Plan or Investment
Manager do last year?”
“...Compared to what?”

Benchmark and Risk Considerations for Different Plans

Plan Type	Plan Broad Benchmark Consideration(s)	Risk Consideration(s)
Defined benefit (single employer, multiemployer, public)	Actuarial assumption rate (calculation varies by type)	Higher volatility given longer time horizon
Variable annuity defined benefit plan	Hurdle rate (also floor and ceiling rates to monitor)	More moderate volatility (e.g., Annual or shorter-term rolling periods)
Defined contribution plan—Trustee directed	No regulatory requirement; varies on role of plan	Generally moderate given the variety of participants a plan covers
Defined contribution plan—Participant directed	Not applicable; participant controls goal	Not applicable; participant controls goal

Return and Risk Considerations for Different Plans

Plan Type	Plan Broad Benchmark Consideration(s)	Risk Consideration(s)
Health and welfare plan	Inflation target or modest absolute return relative to cash	Lower volatility; cash flows and reserves impact risk
Ancillary plans (training, legal services, vacation, strike fund, HSA, supplemental benefits...)	Inflation target or modest absolute return relative to cash	Often lower volatility; purpose of the fund, cash flows and reserves impact risk

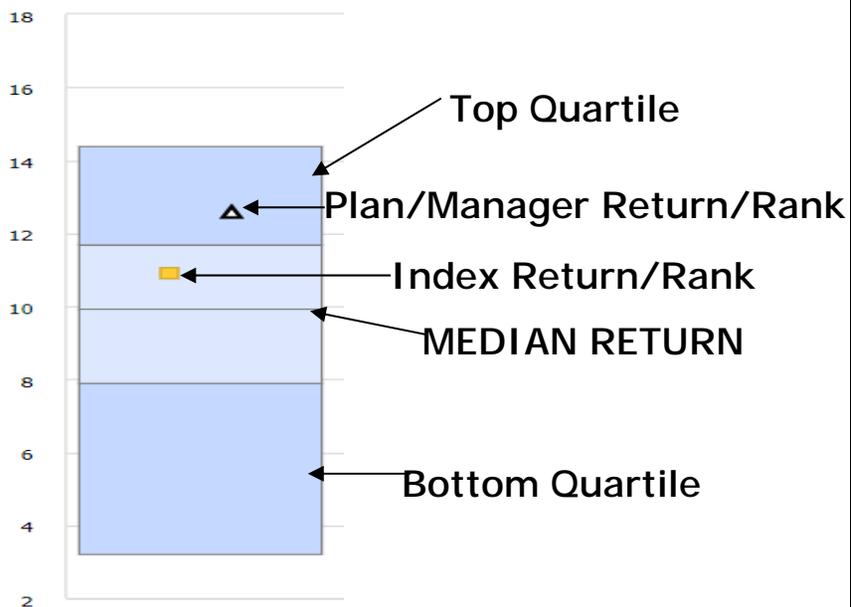
Investment Manager Evaluation*

- Investment process and philosophy
- Portfolio characteristics/risk
- Commitment to style
- Employee turnover
- Performance
- Fees
- Assets/clients lost or gained
- Portfolio management structure
- Capacity
- Succession planning
- Operational infrastructure

*Not all inclusive

Performance Evaluation—Peer Groups

Return Ranking

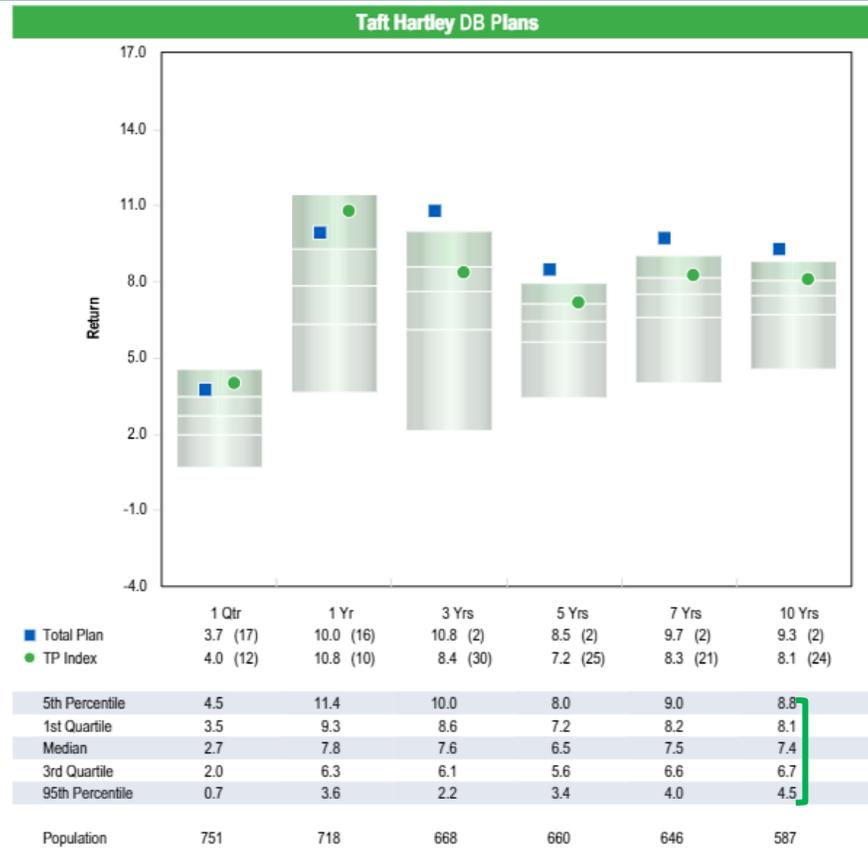


*Not all inclusive

Universes*

- By asset class and style
 - Large, mid, small cap equity
 - Value, core, growth equity
 - Core, core plus fixed income...
- By sector
 - Multiemployer, public, corporate, E&F...
- By plan type
 - DB pension, health, DC trustee directed

Benchmarking of Your Plan

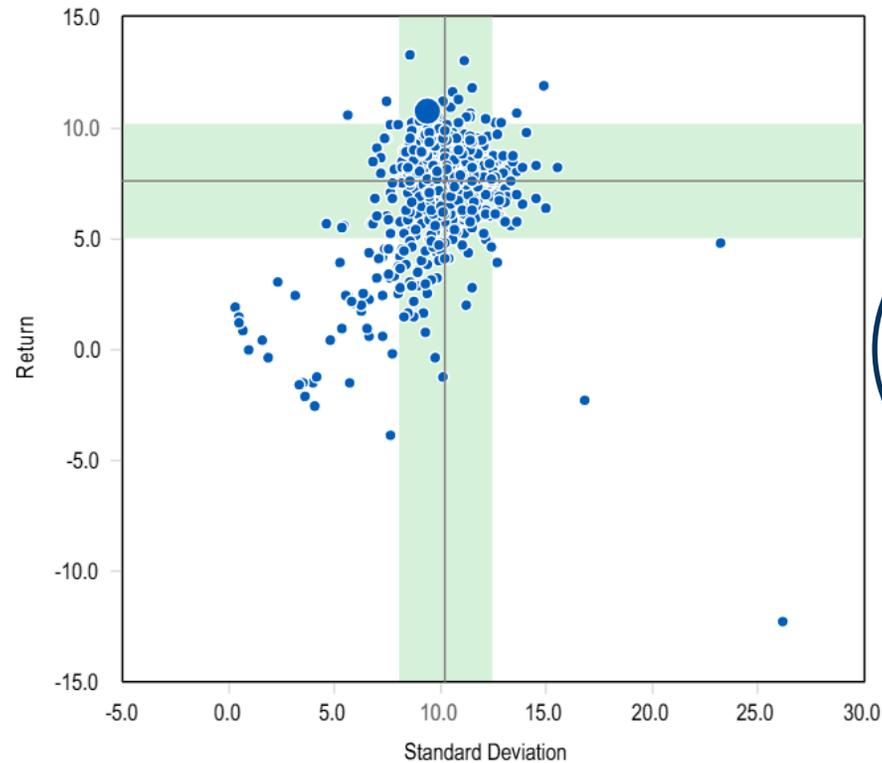


How did your plan do?

Investment Metrics TH Defined Benefit Universe

Benchmarking of Your Plan

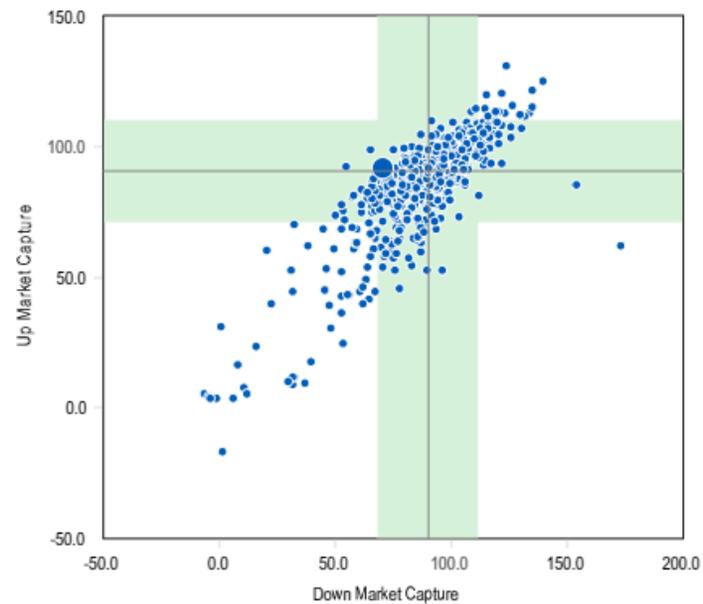
3 Years Annualized Return vs. Annualized Standard Deviation



Risk is an important benchmark measure

Benchmarking of Your Plan

3 Years Upside Capture Ratio vs. Downside Capture Ratio



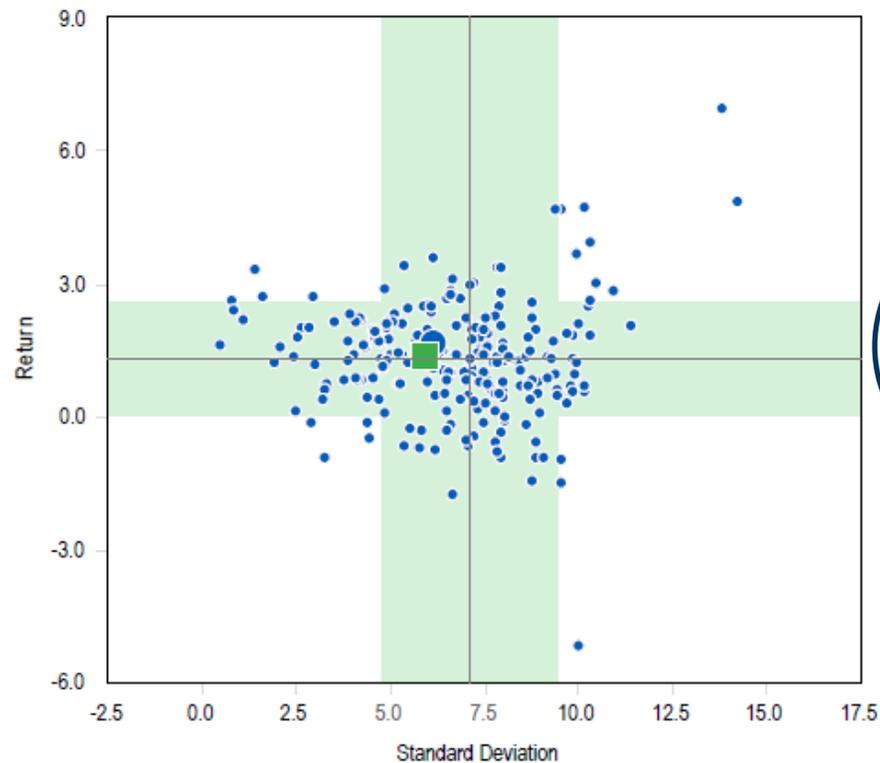
	Up Market Capture	Down Market Capture
● Total Plan	91.9	70.2
— Median	90.8	89.9
Population	668	668

Investment Metrics TH Defined Benefit Universe

Governance
and policy
impact risk
and
performance

Benchmarking of Your Plan

3 Years Annualized Return vs. Annualized Standard Deviation

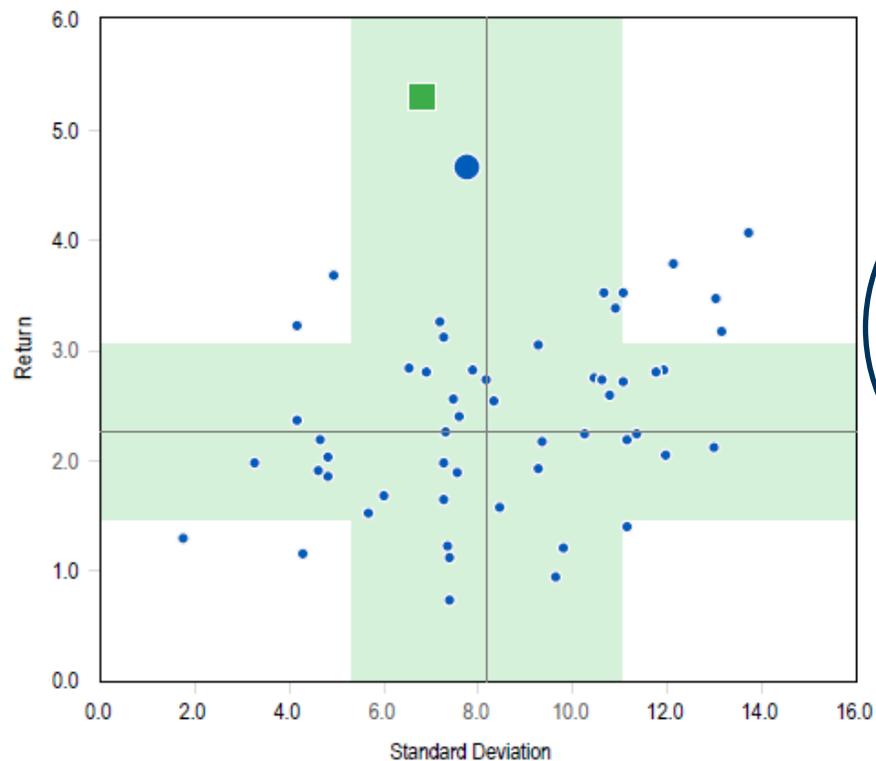


Peer group comparisons have limits

Investment Metrics TH Health Fund Universe

Benchmarking of Your Plan

3 Years Annualized Return vs. Annualized Standard Deviation



Your plan's
goals are
important
considerations
in
benchmarking

Investment Metrics TH Defined Contribution (Trustee Directed) Universe

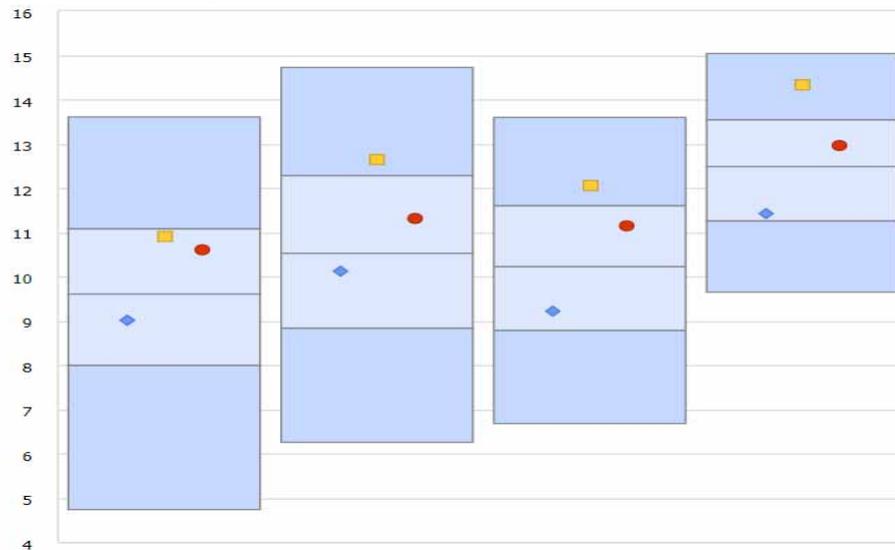
Benchmarking of Your Managers



Investment Metrics LCV
Universe

Performance Evaluation: Equity Managers Example 1

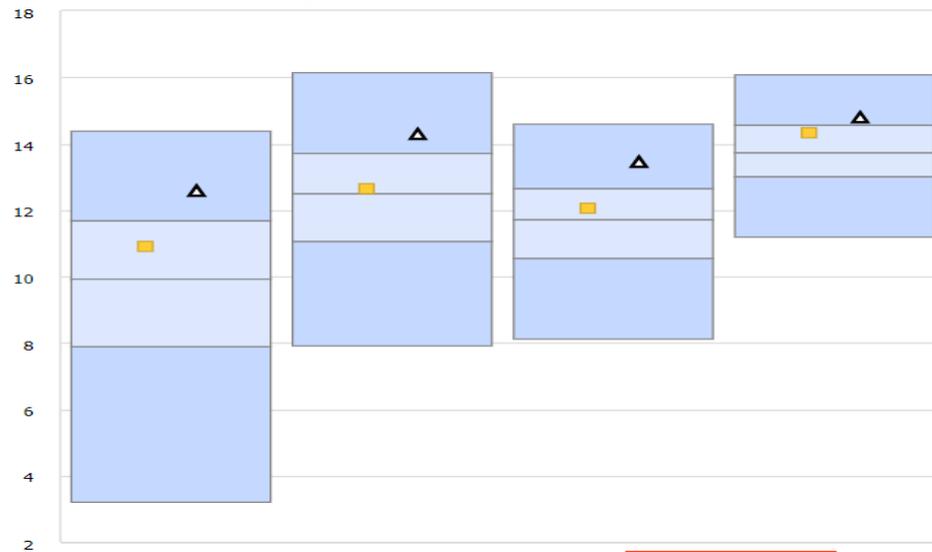
Large Cap Equity Manager Rates of Return for Periods Ending June 2022



	3 Years		5 Years		7 Years		10 Years	
Median	9.60		10.5		10.2		12.5	
Manager A	10.9	27	12.6	19	12.1	16	14.3	13
Manager B	9.0	61	10.1	56	9.2	68	11.4	71
S&P 500	10.6	33	11.3	37	11.1	33	13.0	39

Performance Evaluation: Growth Manager

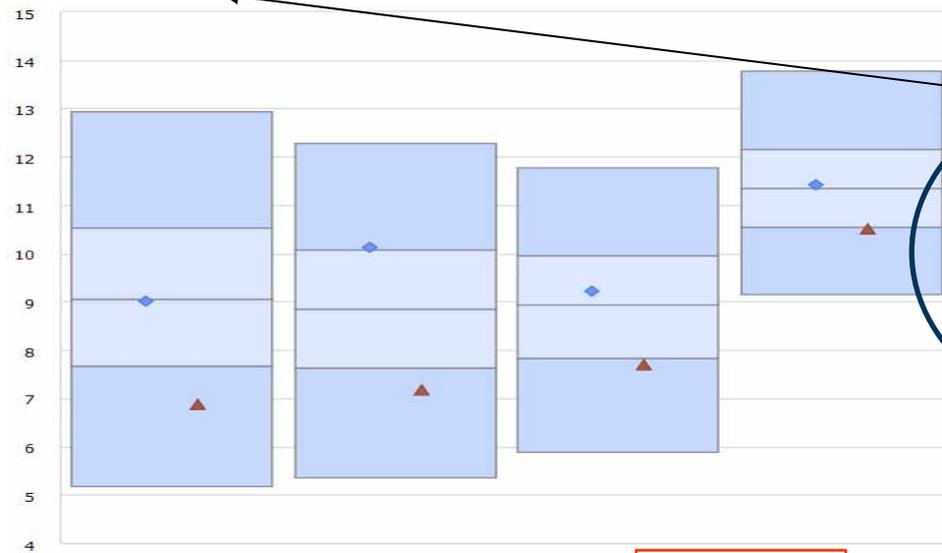
Large Cap Growth Equity Manager Rates of Return for Periods Ending June 2022



		3 Years		5 Years		7 Years		10 Years	
Median		9.9		12.5		11.7		13.7	
■ Growth	Manager A	10.9	34	12.6	47	12.1	40	14.3	35
▲ Index	Russell 1000 Growth	12.6	15	14.3	19	13.5	14	14.8	19

Performance Evaluation: Value Manager

Large Cap Value Equity Manager Rates of Return for Periods

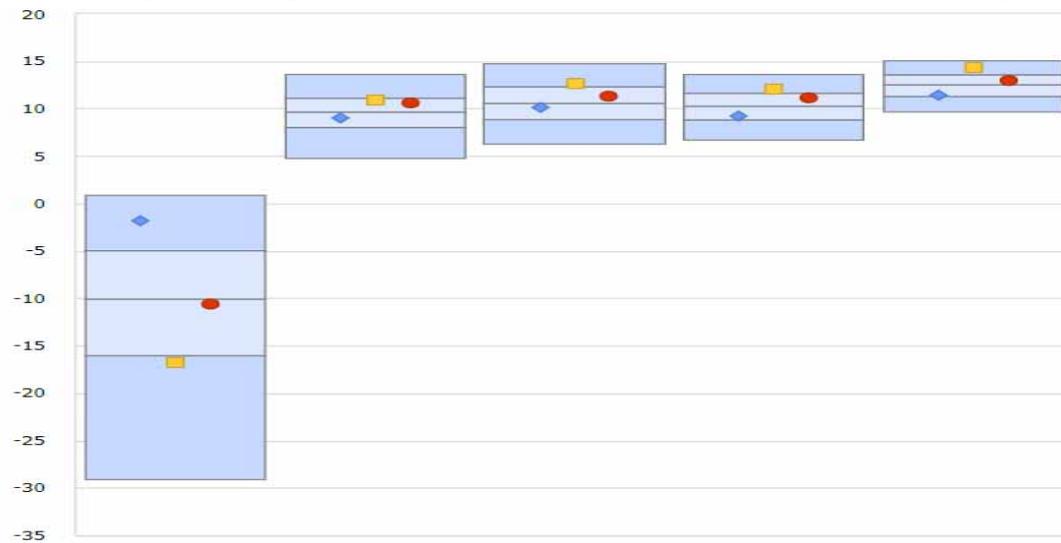


Relevant peer group universe is important

		3 Years		5 Years		7 Years		10 Years	
	Median	9.0		8.8		8.9		11.3	
◆ Value	Manager B	9.0	51	10.1	24	9.2	41	11.4	46
▲ Index	Russell 1000 Value	6.9	86	7.2	81	7.7	78	10.5	76

Performance Evaluation: Equity Managers Example 2

Large Cap Equity Manager Rates of Return for Periods Ending June 2022



		1 Year		3 Years		5 Years		7 Years		10 Years	
	Median	-10.1		9.60		10.5		10.2		12.5	
■ Growth	Manager A	-16.8	77	10.9	27	12.6	19	12.1	16	14.3	13
◆ Value	Manager B	-1.8	12	9.0	61	10.1	56	9.2	68	11.4	71
● Index	S&P 500	-10.6	52	10.6	33	11.3	37	11.1	33	13.0	39

Private Equity Benchmarking Overview

Review of Performance Calculations

Performance in private equity investing is traditionally measured by a few metrics:

i. **Internal Rate of Return (“IRR”)**: The annualized effective compound rate of return using daily cash flows and the period’s beginning and ending value. Unlike a “Time-Weighted Return” which neutralizes the timing of cash flows, an IRR, also known as “Dollar-Weighted Return”, reflects the timing of cash flows given that private fund managers determine when cash is being called from and distributed back to the investor.

ii. **TVPI**: *Total Value to Paid In* = $\frac{\text{Total Value}}{\text{Total Paid In Capital}}$

- *Total Value = Net Asset Value + Total Distributions*

iii. **DPI**: *Distributions to Paid In* = $\frac{\text{Total Distributions}}{\text{Total Paid In Capital}}$

iv. **RVPI**: *Residual Value to Paid In* = $\frac{\text{Net Asset Value}}{\text{Total Paid In Capital}}$

Private Equity Benchmarking Overview

Total Fund Level and Composite Level

- Throughout a private equity fund's term and at its liquidation, relative performance is generally compared to peer groups organized by vintage year and strategy
- Other relative performance metrics have been developed in recent years, offering a more nuanced view of performance over the life of the fund, and by various adjustments offer a return picture that is more comparable to the performance of public equity markets and other liquid asset classes.

Private Equity Benchmarking Overview

Public Market Equivalent (PMe)

Private Equity Peer Group Universe Composite Reporting

Standard private equity asset class performance comparisons

- Industry standard benchmarks include Refinitiv* (formerly ThomsonOne), Burgiss, and more recently Preqin and Pitchbook
- Primarily evaluate performance through relative comparison categories (based on client PE inception):
 - Total private equity composite relative to “All Private Equity” or “All Private Equity FoFs”
 - Strategy level sub-composite relative performance (buyout, venture capital, secondaries, etc.) and, depending on the benchmark provider, further segmentation into market-cap, fund size or company stage
 - Vintage year level-relative performance comparison
 - Region specific, or depending on the benchmark provider, a combination of regions

Private Equity Benchmarking Overview

Total Fund Level and Composite Level

Asset Allocation and Investment Policy Statement Guidelines

Private Equity Asset Allocation Parameters

- Time-weighted return (“TWR”) calculations are utilized when modelling private equity asset allocation parameters as well as the total fund/plan level performance
 - Russell 3000 + 300 bps has historically been a benchmark used for return expectations
 - While over the long-term this has proven to be a decent benchmark, the past decade has presented numerous anomalies and changes to its composition.
 - Adjusting the spread may be a consideration to reflect the expected market returns over the next decade

Private Equity Benchmarking Overview

Total Fund Level and Composite Level

Asset Allocation and Investment Policy Statement Guidelines

Private Equity Asset Allocation Parameters

- Depending on underlying private equity strategy and geographic composition of the portfolio may warrant a change in benchmark to reflect a more aggregate relative comparison such as the following examples:
 - Russell 3000 (65%) + MSCI ACWI ex-US (35%)
 - DJ Total Stock Market (65%) + MSCI ACWI ex-US (35%)
 - S&P 500 (65%) + MSCI ACWI ex-US (35%)

*Refinitiv is a software solution for private market data that uses Cambridge Associates private market indices as its underlying raw data provider.

Private Equity Benchmarking Overview

Public Market Equivalent (PMe)

Enhanced Public Markets Relative Performance Evaluation

Multiple PMe methodologies provide unique private equity performance analysis

- While Segal Marco Advisors does not endorse any one PMe methodology, Direct Alpha and KS-PMe are the two primary methods reported.
 - PMe measures the wealth multiple effect of investing in the PE fund versus the index. It represents the market-adjusted equivalent to the traditional TVPI. The PMe incorporates the performance contribution of a public market index by compounding each fund cash flow—both capital calls and distributions—based on index performance.
 - When the fund's actual NAV is added to the compounded distributions and divided by the compounded capital calls, KS PMe produces a multiple that represents the out/underperformance of the PE fund relative to the market index.
 - If the KS PMe is greater than 1, the PE fund outperformed the public market index.

Private Equity Benchmarking Overview

Public Market Equivalent (PMe)

Enhanced Public Markets Relative Performance Evaluation

Multiple PMe methodologies provide unique private equity performance analysis

- The Direct Alpha method is similar to KS-PMe as it uses the same methodology to adjust the cash flows (compounding by index performance). The key difference is that Direct Alpha quantifies the out/underperformance of the PE fund by calculating the IRR of the compounded cash flows plus fund NAV, rather than a multiple of performance.
 - Direct Alpha reports an annualized excess return, describing the relative performance of a PE fund

Private Equity Benchmarking Overview

Public Market Equivalent (PME) Example

ABC Client

Comparative Performance—IRR

As of March 31, 2021

	QTD	YTD	1YR	3YR	5YR	7YR	10YR	Since Inception	Inception Date
Private Equity LLC	10.3	10.3	41.8	21.0	18.1	16.6	15.8	14.9	12/19/2006
Direct Alpha (Russell 3000 Index)	3.7	3.7	-12.1	2.0	0.5	2.2	0.9	0.2	
KS-PME (Russell 3000 Index)	1.0	1.0	0.9	1.0	1.0	1.1	1.0	1.0	
Burgiss 2006—2021 Private Equity and Debt	9.8	9.8	53.2	21.2	19.0	17.5	15.4	13.1	
CA PEFoF 2006—2021 Vintage Years	10.9	10.9	68.1	26.3	21.0	17.6	15.2	13.3	

Key Takeaways

- Benchmarks are established through the governance process and are imbedded in a plan's policy—Performance of a plan is important to the stakeholders
- Fiduciaries have an obligation to benchmark to prudently monitor a plan and its managers
- Benchmarking comes in different forms
- Peer group universes are useful, but understand that benchmarking has its imperfections and nuances
- Risk is an important consideration of benchmarking, especially relative to peers
- Benchmarking alternative assets presents additional challenges and measures
- Benchmarking will help with investor patience and understanding performance cycles.

Your Feedback
Is Important.
Please Scan
This QR Code.

Session Evaluation



Appendix—Case Study

Past Performance Review: Decide to Invest



	HRQ		YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
		Rk		Rk		Rk		Rk		Rk		Rk		Rk
5th percentile	9.3		9.3		88.6		22.1		23.5		20.9		18.5	
25th percentile	6.8		6.8		68.5		12.3		14.5		15.1		14.8	
Median	4.8		4.8		60.1		7.8		10.3		11.8		12.3	
75th percentile	2.9		2.9		52.2		3.6		7.1		8.8		9.9	
95th percentile	-0.5		-0.5		45.1		-2.1		1.1		5.6		7.2	
# of Observations	294		294		276		239		186		134		83	
ABC Investment Manager	9.3	5	9.3	5	64.7	32	17.1	11	23.3	6	20.2	6	20.7	1
XYZ Index	5.6	37	5.6	37	63.2	38	5.4	69	2.3	93	5.0	97	6.4	100

- This manager investment performance looked strong at the time of the search.
- The manager exhibited top decile performance versus their peers and have added significant excess returns over their benchmark (index) over the 3-, 5-, 7-, and 10-year periods.

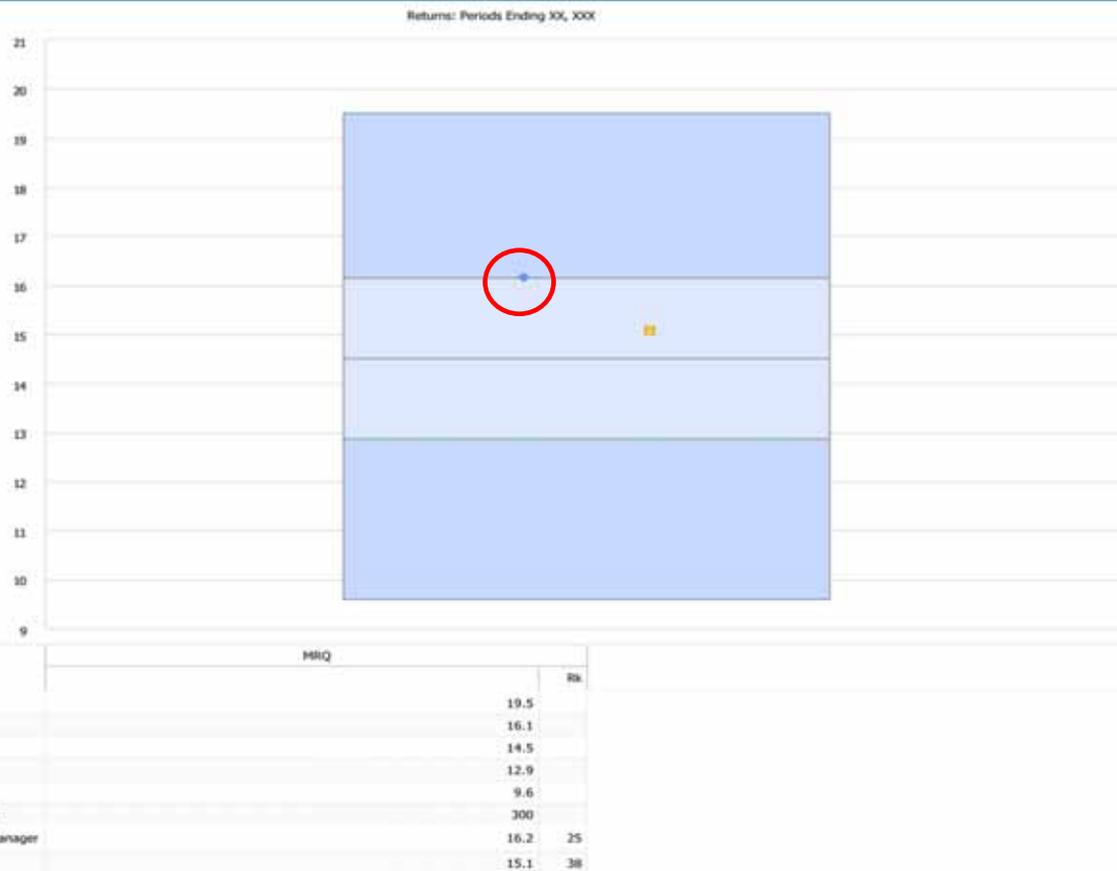
Past Performance Review: Decide to Invest



	1996	Rk	1997	Rk	1998	Rk	1999	Rk	2000	Rk	2001	Rk	2002	Rk	2003	Rk
5th percentile	37.4		33.8		27.5		146.6		32.3		22.3		-12.2		74.2	
25th percentile	25.1		24.6		14.0		93.1		9.4		3.3		-21.2		54.9	
Median	20.0		17.6		6.0		58.9		-3.3		-7.6		-26.2		47.6	
75th percentile	14.6		12.8		-0.6		31.1		-13.2		-14.7		-32.6		40.7	
95th percentile	7.2		1.3		-10.8		7.6		-25.3		-28.9		-41.6		33.9	
# of Observations	112		134		160		188		215		250		268		276	
ABC Investment Manager	18.3	59	29.4	14	2.9	64	20.2	87	39.3	2	29.3	3	-18.5	18	40.0	79
XYZ Index	11.3	87	12.9	74	1.2	70	43.1	67	-22.4	91	-9.2	55	-30.3	69	48.5	47

- The 8 consecutive calendar years prior to hiring showed a decent amount of volatility (over/under performance) around the index.
- The investment manager outperformed the index in 6 of the 8 calendar years with an average calendar year excess return of 13.3%.

Performance Review: Since Inception



- The investment began right after the end date of the previously chart.
- This chart represents the Plan Sponsor's first quarter of performance with the investment manager.
- Absolute and (relative) performance is strong.

Performance Review: Since Inception



	MRQ	Rk	YTD	Rk	1 Year	Rk
5th percentile	12.6		15.7		33.6	
25th percentile	8.3		8.2		24.8	
Median	6.3		5.5		20.9	
75th percentile	4.7		3.3		17.2	
95th percentile	1.7		-1.8		12.6	
# of Observations	303		297		288	
ABC Investment Manager	-0.6	99	1.5	86	17.9	70
XYZ Index	6.3	48	2.5	79	18.0	70

- Trustees are reviewing the first full year of returns. Results are not awful, but also aren't great.
- Over the trailing 1 year, the manager underperformed the index by 10 bps (gross of fees). It looks like most of that underperformance came from the most recent quarter.

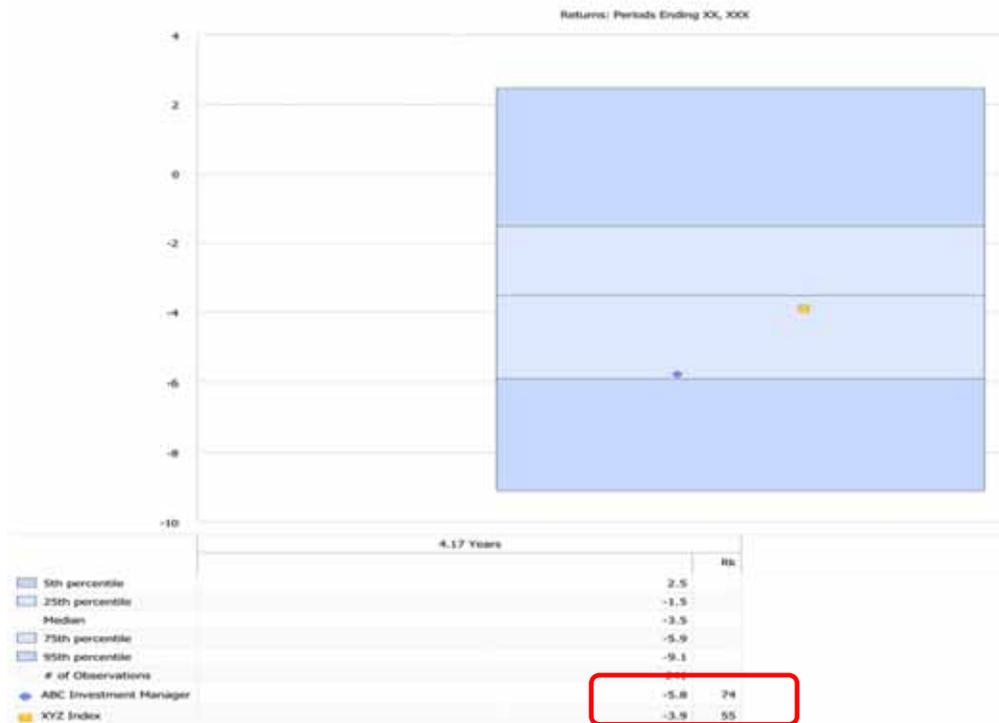
Performance Review: Since Inception



- Trustees are reviewing 4 years of performance. At this point, Trustees have grown tired of this underperformance versus the index and peers.
- The 4-year return is in the bottom 81st percentile of its peer universe and is underperforming the index by 3.1%.
- Since inception return (4-year return) is still positive (making money) but given up in opportunity cost.

	HRQ		YTD		1 Year		2 Years		3 Years		4 Years	
		Rk		Rk		Rk		Rk		Rk		Rk
5th percentile	-1.4		-10.5		-12.9		4.7		6.2		10.7	
25th percentile	-5.8		-16.3		-18.7		0.8		3.2		7.3	
Median	-9.4		-20.0		-22.3		-2.2		0.5		5.2	
75th percentile	-12.9		-24.0		-26.6		-5.1		-2.2		2.9	
95th percentile	-18.2		-30.8		-33.5		-9.9		-6.0		-0.9	
# of Observations	305		307		337		281		208		247	
ABC Investment Manager	-4.8	21	-18.9	41	-19.8	33	-4.8	73	-2.5	77	2.3	81
XYZ Index	-7.0	29	-15.3	18	-17.1	18	-0.7	38	1.5	41	5.4	48

Performance Review: Since Inception

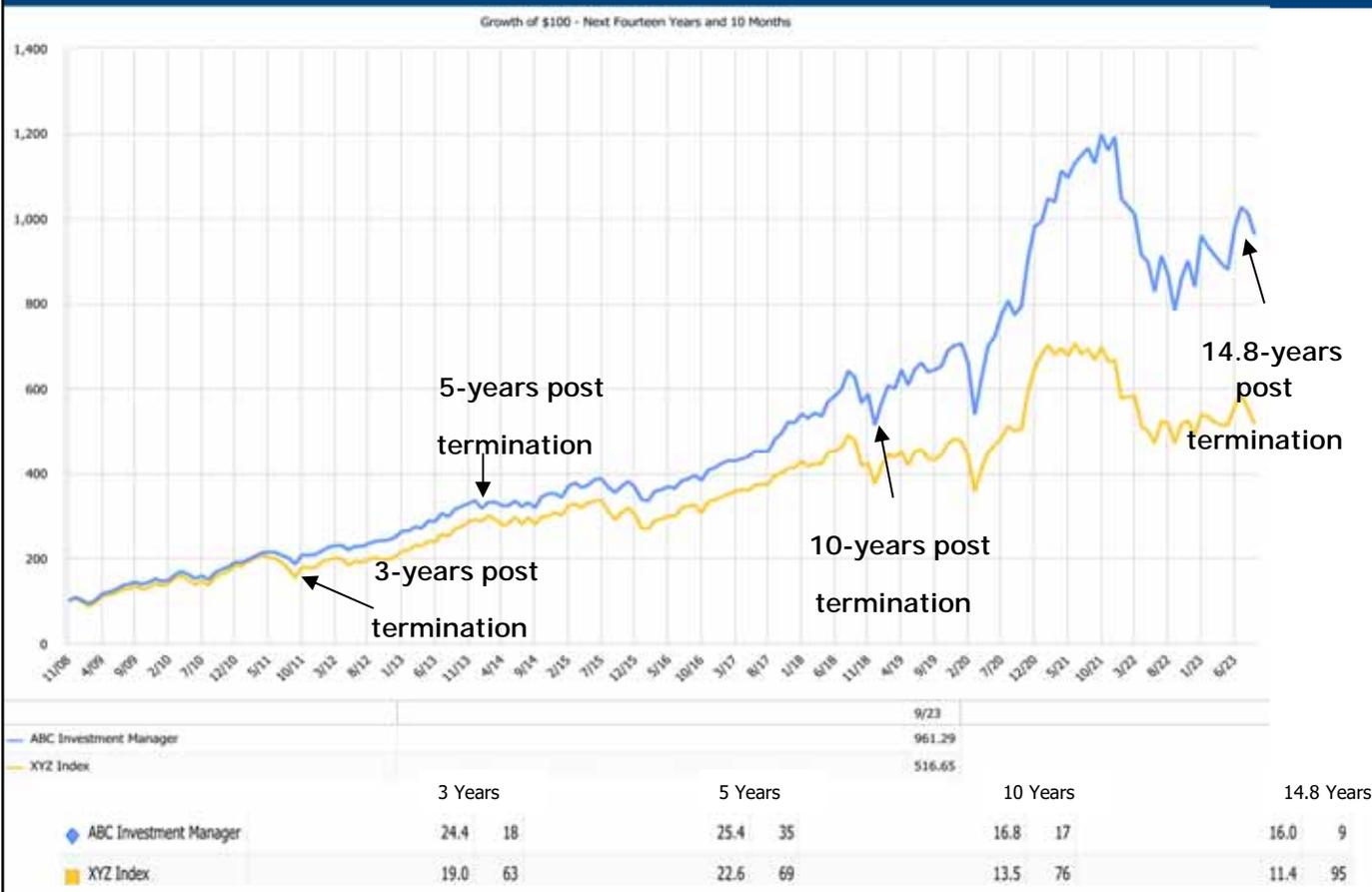


- The Trustees decided to terminate the manager. The chart represents the since inception performance at termination. Plan was invested with the manager for a total a four years and two months.
- The managers since inception annualized return underperformed the index by 1.9%

Performance Benchmarking

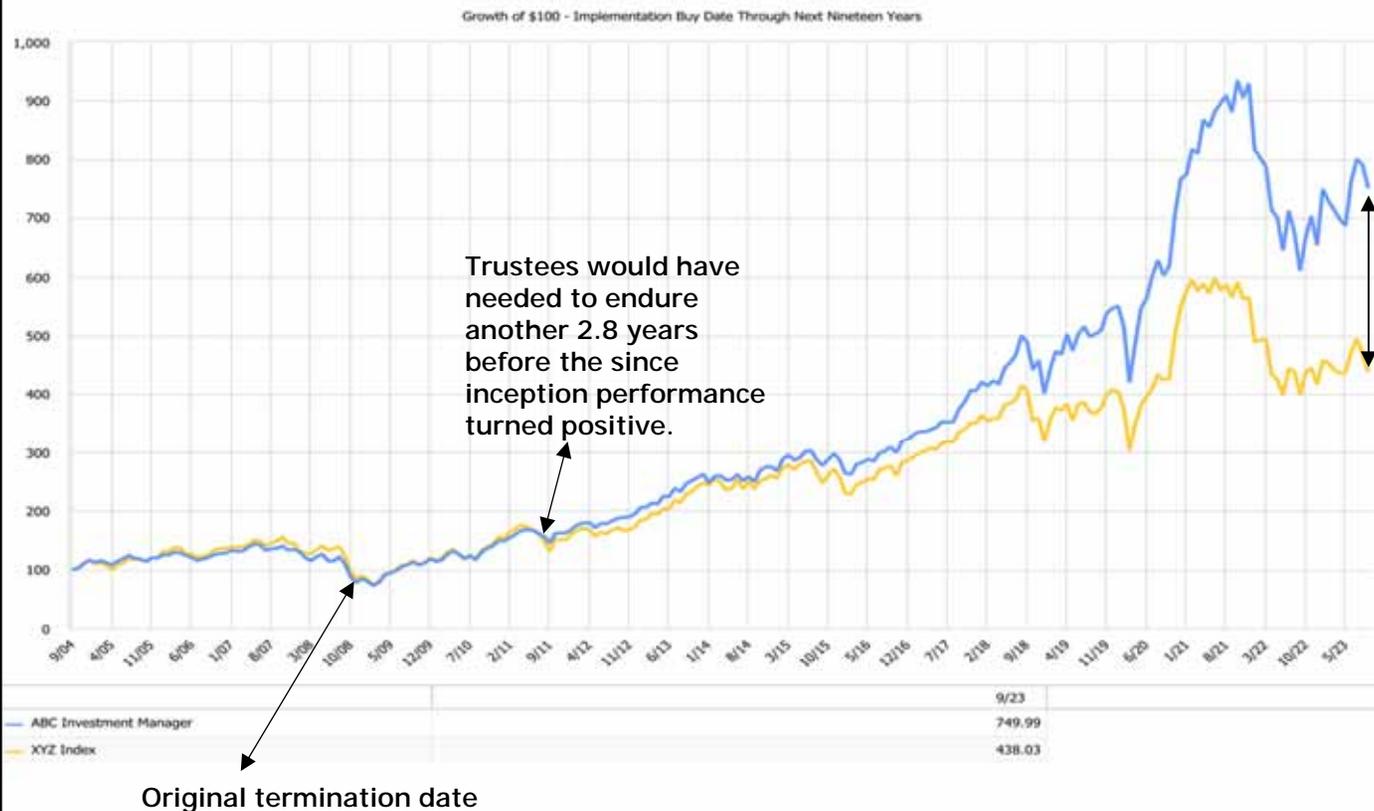
- Did the Trustees do the right thing?
- Was this not a good manager? What something missed? Was this level of underperformance and time normal or not?
- Was terminating the manager the correct decision?
- Should the Trustees have given the manager more time? If so, how much longer?
- Is 4+ years a long time to continually get disappointing performance news quarter after quarter?
- Trustees observed some years of underperformance during the search process, should this have informed them of what to expect over intermediate and longer periods with this manager.
- Was this a case in investing at the wrong time?
- What has the performance been since the manager terminated?

What Happened After Termination?



- The experience with the investment manager was not representative of the past performance track record reviewed when deciding to invest.
- The chart shows the growth of \$100 beginning on termination date over the next 14 years and 10 months.
- The performance was ahead of benchmarks the subsequent 14+ years.

Performance: What If Trustees Did Not Terminate?



- The since inception performance was not what the Plan had hoped for after 4+ years. However, there was very strong performance post termination date.
- The chart on this page shows the growth of \$100 beginning with the Trustees original inception date and continuing for the next 14 years and 10 months.