

TARGET DATE FUNDS TO SUPPORT RETIREMENT

AAII HOUSTON RETIREMENT SIG

NOVEMBER 14, 2024

CHARLES LUCEY



WHAT TARGET DATE FUNDS (TDF) ARE

- TDFs are a unique method of LT investing over decades that allocate & vary the asset mix on your behalf to arrive at a relatively predictable sum of money at Retirement
- May leave TDF any time the provider allows
- At Retirement, may continue with the TDF or manage the funds yourself
- Suitable for younger unsophisticated investors per Motley Fool

TDF MECHANICS

- Allocations begin with a high ratio of stocks to fixed income
 - Based on a younger age & more years to recover
- Over time, they “glide” to greater fixed income percentage & aim to arrive at a relatively safe adequate number for Retirement
- Typically rebalance quarterly to follow target allocations
- Most Providers offer Mutuals but have been reticent to offer ETFs
- TSP program is a very large TDF & Used as an example herein

TDF SUITABILITY

- For those disinterested in investing themselves
- A vehicle from which to maximize offer-matching programs by employers
- Upon retirement, one may rollover into an IRA or retain plan
- Management are likely also enrolled so have incentive to select good plans & provide high levels of matching
- Very good vehicle for College & other funding in addition to retirement
- Allows “a safe bucket” as backstop for using more attractive investment styles elsewhere:
 - Value vs Growth, Active vs Passive, Precious Metals, Private investing, or Individual Stocks, et al

TDF MARKET SIZE & TOP PLAYERS - FROM MORNINGSTAR

Source: Morningstar (2023). In some instances, the sum of individual fund assets may not match total funds managed due to rounding.

MANAGER	FUND	ASSETS (BILLIONS)
Vanguard	Vanguard Target Retirement	\$1,056
T. Rowe Price	T. Rowe Price Retirement	\$297
BlackRock	BlackRock LifePath Index	\$247
American Funds	American Funds Target Date Retirement	\$225
Fidelity	Fidelity Freedom	\$177
Fidelity	Fidelity Freedom Index	\$145

Vanguard owns 35% of the market at \$1T while the next 4 players round to 18%. Market is quite concentrated.

TDF ANNUAL RETURNS - EXAMPLE OF 3 TSP FUNDS

	Low Risk Fund	Medium Risk Fund	Medium High Risk Fund
One year returns	8.04%	12.94%	14.56%
Three year returns	4.07%	4.95%	5.09%
Five year returns	4.70%	8.01%	8.94%
10 year returns	4.17%	6.99%	7.74%
Five Funds Offered:			
90 day T-Bills			
Barclays Agg Index			
S&P 500 Stock Index			
Small & Midcap Stock index			
MSCI EAFE Stocks			
Asset Mix (Fixed Income %)	74%	40%	28%
Asset Mix (Equities %)	26%	60%	72%

Source: Federal Govt TSP website

BENEFITS OF TARGET DATE FUNDS

- They seek to provide a relatively safe retirement fund using a balance of risk & reward
- Attractive to people who want experts to do the investing
- Ultra low-costs are possible with passive index funds
- Works on Autopilot, removing emotions from decision-making
 - Annual allocations, \$ cost averaging, quarterly balancing, etc

CONCERNS WITH TARGET DATE FUNDS

- Little control by Investor, other than choosing the TDF provider
- No adjustments can be made for Business & Market Cycles or FED moves
- Zero adjustments made for Opportunity Cost of other security types or Market Timing
- Zero adjustments for benefits of a broader Diversification
 - Real estate, Commodities, Privates & other Low Correlation assets
- Zero adjustments for conservative “Glide Path” through TDF life

DEEPER CONCERNS WITH TDFS

- “Opportunity Cost” of a TDF are those returns you would have made in a regularly allocated & balanced portfolio vs those made by the TDF formula
 - How to measure the Opportunity Cost foregone?
 - Few Benchmarks available to rank TDF providers; only ad hoc studies
- How to judge which Funds have better risk-adjusted returns?
- Plans allow very little discretion to change once you are locked in
 - Like a life sentence for investing

BETTER DIVERSIFY OVERALL PORTFOLIO - TO OPTIMIZE TDF' LOWER RISK PROFILE

- Expand number of asset classes to diversify & improve the risk profile of total portfolio...as many as you can manage
- Examples:
 - Optimize allocations: aggressively during Accumulation Phase
 - More conservative allocations entering retirement & during deaccumulation
 - With Lo-Rtn/Hi-Risk assets, add the opposite - Midcaps/HiYld bonds
 - With Hi-Volatility assets, add the opposite - Bonds or Privates
 - If highly correlated to the S&P500, add the opposite - Gold & Real Estate
 - Own real assets in Privates to protect from inflation - Oil & Metals

6 NUMBERS YOU SHOULD KNOW IN ANY PORTFOLIO – ESPECIALLY A TDF

- Asset Allocation – you with your advisor
- Expense Ratio – from broker
- PF Overall Rate of Return – from advisor or broker
- Benchmark Return for your Equity/Debt mix - from broker
- Benchmark Return for every fund you own – from broker
- Tax Efficiency of your non-IRA Taxable Assets (Goal < 30%)

Source: Jonathan Guyton

TWO RECENT TDF STUDIES

- By Deloitte Consulting & Advance Analytics Consulting on behalf of the US Department of Labor
- By Morningstar on behalf of TDF investors & the Investment Community

STUDY FOR US DEPT OF LABOR – BY DELOITTE & ADVANCED ANALYTICS CONSULTING

- Study characterizes TDF landscape, analyzes expenses, asset allocation & risk-adjusted performance
- Finds that, overall, TDFs live up to their objectives of diversification & gradual reduction of risk exposure
- As expected, returns move largely in tandem with domestic & Int'l stocks
 - Fluctuations in valuations are more muted for TDFs that are close to/ or past their target year
- Returns of some 2030 funds were more volatile than those of some 2020 funds but can easily use a relative volatility metric to compensate

STUDY POINTS CONTINUED

- Finds large differences among TDFs, even those with the same target year
- Adjusted for risk, finds large differences in returns, only partially explained by funds' expense ratios
- Also finds that a fund's target year is not necessarily indicative of the extent to which it tolerates risk
- These are quite concerning defects!

STUDY BY MORNINGSTAR - REPORT IN GENERAL

- Report provides a wealth of information on strengths & weaknesses of Provider TDFs
 - See great detail on rates of return, expense ratios, fund choices & flexibilities, many other stats
- The report is 42 pages & well worth the time to study
- Particularly for young investors in process of choosing a TDF to lock-into for decades

STUDY BY MORNINGSTAR – 2021 SELECTED COMMENTS

- American Funds TDFs described as a “Stalwart series”
- BlackRock Life-Path Index Series remains a “First-class TDF”
- Fidelity Freedom Index Series “A thoughtful approach at a low cost makes this a strong choice for TDFs”
- Pimco Real-Path Blend Series “This TDF offers the best of both worlds”
- State Street TDF Series “Enjoys durable advantages”

PLEASE SEE WHITE PAPER ON TDF FOR MORE INFORMATION

- Contains references and helpful links for further reading
- My thanks to John O'Keefe & others for their help & input
- Find on www.aaiihouston.org

QUESTIONS & CONCERNS



Appendix – Compare / Contrast

- 6 +2.5 Questions - Illustration

OBJECTIVE:

Compare and contrast two very similar TDFs to define the impact of key elements of the Fund offering.

Vanguard Target Retirement 2030 Fund VTHRX ★★★★

American Funds 2030 Target Date Retirement Fund® Class A AAETX ★★★★★

Voya Index Solution 2030 Portfolio Class Z VSZCX ★★★★

Source: Finra.org, Mstar

Category: Target Date 2030 on 10/31/23

Index: Mstar Lifetime Mod 2030 TR USD

Category Benchmark: " " "

Appendix – Compare / Contrast

- 6 +2.5 Questions - Revisited

- **MANAGERS** - Issuers, Managers – Who, what really is this fund ... of funds?
- **ASSETS** - Asset Allocations – Fund of funds, Equity vs Fix Inc, US vs Int
- **RETURN** - PF Overall Rate of Return, Risk & Vol. – from advisor or broker
- **BENCHMARK** - Asset mix vs the Index Benchmarks for Equity and Fixed Income
- **GLIDE PATH** - The Asset Mix “to and through” Retirement or Fund Terminus
- **COSTS** - Expense Ratio by Share Class
- **F&F* IRS** - Tax Efficiency of your non-IRA Taxable Assets (Goal < 30%)
- **CITs – FYI&E** - CITs (Cept of Labor) vs TDF (SEC)

Source: Morningstar June 2024 Survey, CIT – Collective Investment Trusts, * Friends and Family,

Appendix – PROFILE the FUNDS

Vanguard Target Retirement 2030 Fund VTHRX ★★★★

American Funds 2030 Target Date Retirement Fund® Class A AAETX ★★★★★

PROFILE

VTHRX ★★★★

NAV / 1-Day Return 39.70 / -0.70%	Total Assets 96.7 Bil	Adj. Expense Ratio <small> ⓘ</small> 0.080%	Expense Ratio 0.080%	Fee Level Low	Load None
---	--------------------------	--	-------------------------	------------------	--------------

AAETX ★★★★★

NAV / 1-Day Return 18.04 / -0.66%	Total Assets 50.0 Bil	Adj. Expense Ratio <small> ⓘ</small> 0.670%	Expense Ratio 0.670%	Fee Level Low	Load 5.75%
---	--------------------------	--	-------------------------	------------------	---------------

Good Practice
Check Multiple Share Classes

VTHRX ★★★★

Category US Fund Target-Date 2030	Investment Style Large Blend	Credit Quality / Interest Rate Sensitivity High/Moderate	Status Open	SEC Yield / TTM Yield 2.72% / 2.36%	Turnover 0%
--------------------------------------	---------------------------------	---	----------------	--	----------------

AAETX ★★★★★

Category US Fund Target-Date 2030	Investment Style Large Blend	Credit Quality / Interest Rate Sensitivity High/Moderate	Status Open	SEC Yield / TTM Yield 1.97% / 1.79%	Turnover 0%
--------------------------------------	---------------------------------	---	----------------	--	----------------

Good Practice
Reconcile the Return Arithmetic

Appendix – PROFILE the FUNDS

Voya Index Solution 2030 Portfolio Class Z VSZCX ★★★★

VSZCX

IDXFX

PROFILE

VSZCX

★★★★

NAV / 1-Day Return
17.08 / 0.00%

Total Assets
948.0 Mil

Adj. Expense Ratio ①
0.170%

Expense Ratio
0.170%

Fee Level
Low

Load
None

Good Practice
Check Multiple
Share Classes

VSZCX

★★★★

Category
US Fund Target-Date
2030

Investment Style
Large Blend

Credit Quality / Interest Status
Rate Sensitivity
—

Open

SEC Yield / TTM Yield
— / 1.46%

Turnover
131%

Good Practice
Reconcile
the Return
Arithmetic

Appendix - MANAGERS

Vanguard Target Retirement 2030 Fund **VTHRX** ★★★★

American Funds 2030 Target Date Retirement Fund® Class A **AAETX** ★★★★★

MANAGERS - EXPERIENCE

VTHRX ★★★★

Inception Date	Number of Managers	Longest Tenure	Average Tenure	Advisor(s)
Jun 07, 2006	4	11.8 Years	4.3 Years	Vanguard Group Inc

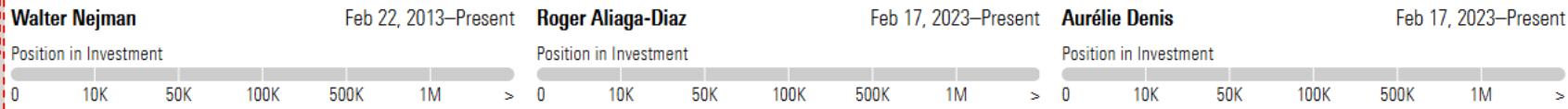
AAETX ★★★★★

Inception Date	Number of Managers	Longest Tenure	Average Tenure	Advisor(s)
Feb 01, 2007	8	12.8 Years	4.3 Years	Capital Research and Management Company

Good Practice
Why Staffing 2x?

MANAGERS - VESTED INTEREST

VTHRX ★★★★



AAETX ★★★★★



Skin in Game?
Vs Independent Management

Appendix - MANAGERS

Voya Index Solution 2030 Portfolio Class Z VSZCX ★★★★

MANAGERS - EXPERIENCE

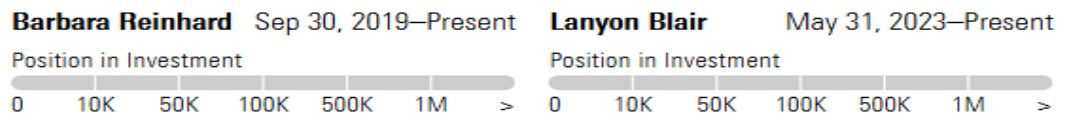
VSZCX ★★★★

Inception Date	Number of Managers	Longest Tenure	Average Tenure	Advisor(s)
May 01, 2015	2	5.2 Years	3.3 Years	Voya Investments, LLC
Sub-Advisor				Voya Investment Management Co. LLC

Good Practice
Why Staffing 2x?

MANAGERS - VESTED INTEREST

VSZCX ★★★★



Skin in Game?
Vs Independent Management

Appendix - ASSETS a - A Fund of 6 Funds

Vanguard Target Retirement 2030 Fund VTHRX ★★★★

ASSETS - FUND of FUNDS

VTHRX ★★★★	Current Portfolio Date	Equity Holdings	Bond Holdings	Other Holdings	% Assets in Top 10 Holdings	Reported Turnover %
	Sep 30, 2024	0	0	6	99	3.00

VTHRX ★★★★	Holdings	% Portfolio Weight	Market Value	Prospectus Net Expense Ratio	1-Year Return	Total Assets	Morningstar Category
	Vanguard Total Stock Mkt Idx Instl Pls	36.71	36,356,755,895	0.02	37.87	1.73 Tri	US Fund Large Blend
	Vanguard Total Bond Market II Idx Inv	26.63	26,372,101,110	0.09	10.40	0.31 Tri	US Fund Intermediate Core Bond
	Vanguard Total Intl Stock Index Inv	24.74	24,496,570,851	0.18	23.32	0.44 Tri	US Fund Foreign Large Blend
	Vanguard Total Intl Bd II Idx Insl	11.32	11,213,850,003	0.07	9.57	0.12 Tri	US Fund Global Bond-USD Hedged
	Mktliq 12/31/2049	0.60	594,194,981	—	—	—	—
	Us Dollar	0.00	503,676	—	—	—	—

Good Practice

**Is Simplest
The Best? ...**

Use 6 funds

Appendix - ASSETS a - A Fund of 24 Funds

American Funds 2030 Target Date Retirement Fund® Class A AAETX ★★★★☆

ASSETS – FUND of FUNDS

AAETX ★★★★☆

Current Portfolio Date	Equity Holdings	Bond Holdings	Other Holdings	% Assets in Top 10 Holdings	Reported Turnover %
Sep 30, 2024	0	0	24	60	2.00

Good Practice

Does Complexity Drive Value?
- Return, Risk

AAETX ★★★★☆

Holdings	% Portfolio Weight	Market Value	Prospectus Net Expense Ratio	1-Year Return	Total Assets	Morningstar Category
American Funds American Balanced R6	7.99	4,036,970,838	0.25	26.84	239.52 Bil	US Fund Moderate Allocation
American Funds American Mutual R6	7.12	3,596,956,453	0.27	29.48	105.58 Bil	US Fund Large Value
American Funds Capital World Gr&Inc R6	6.98	3,529,151,238	0.41	29.89	127.72 Bil	US Fund Global Large-Stock Blend
American Funds Bond Fund of Amer R6	6.55	3,310,507,517	0.24	10.55	90.60 Bil	US Fund Intermediate Core Bond
American Funds AMCAP R6	6.07	3,067,531,724	0.34	38.26	92.25 Bil	US Fund Large Growth
American Funds Inflation Linked Bd R6	5.84	2,950,984,424	0.29	8.36	13.56 Bil	US Fund Inflation-Protected Bond
American Funds Washington Mutual R6	5.12	2,585,575,061	0.26	32.91	194.52 Bil	US Fund Large Blend
American Funds Global Balanced R6	4.97	2,510,429,434	0.48	21.55	26.67 Bil	US Fund Global Allocation
American Funds Mortgage R6	4.89	2,473,866,059	0.26	10.26	11.03 Bil	US Fund Intermediate Government
American Funds US Government Sec R6	4.89	2,473,145,664	0.25	9.13	22.22 Bil	US Fund Intermediate Government

- Uses 24 Funds

Appendix - ASSETS a - A Fund of 12 Funds

Voya Index Solution 2030 Portfolio Class Z VSZCX ★★★★

ASSETS - FUND of FUNDS

Current Portfolio Date	Equity Holdings	Bond Holdings	Other Holdings	% Assets in Top 10 Holdings	Reported Turnover %
Sep 30, 2024	0	0	12	98	131.00

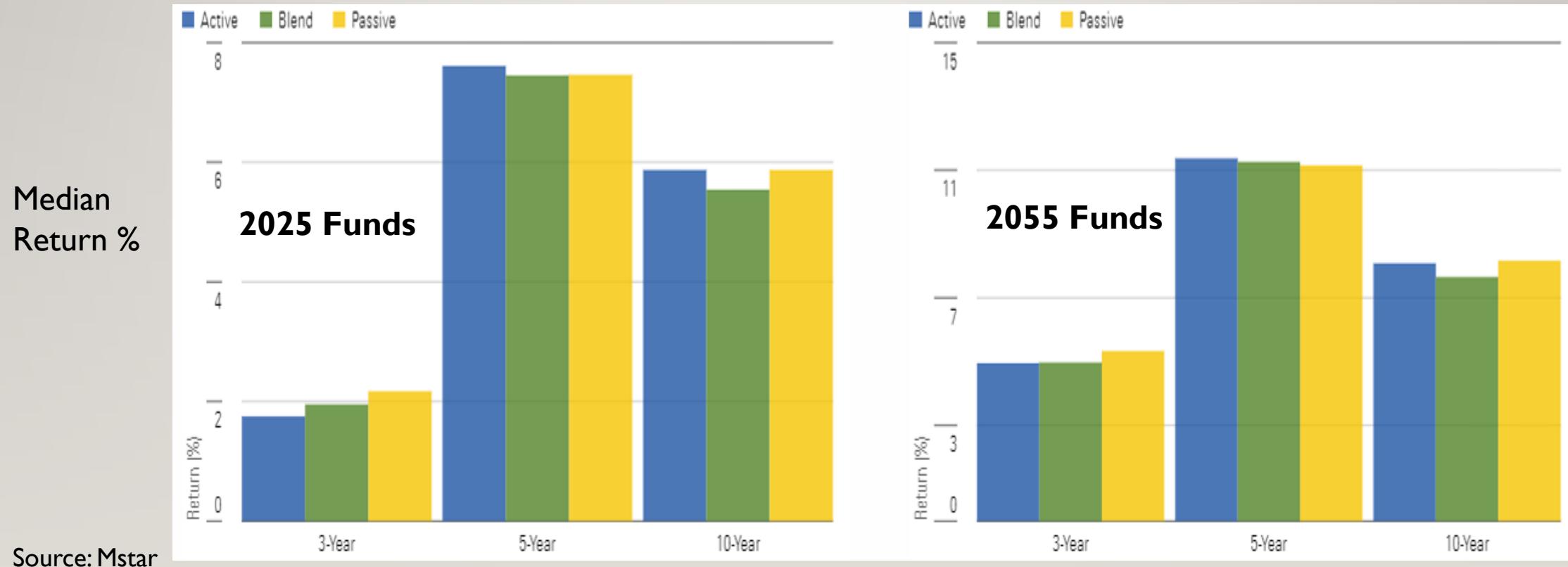
Holdings	% Portfolio Weight	Market Value	Prospectus Net Expense Ratio	1-Year Return
Voya VACS Index S	35.58	351,261,038	0.15	37.77
WisdomTree Voya Yld Enh USD Unvsl Bd Fd	24.75	244,377,274	0.15	11.03
VOYA VACS Index Series I Portfolio	15.56	153,655,905	0.15	22.07
Voya VACS Index MC	5.00	49,398,298	0.15	35.26
Voya US Bond Index Port I	4.98	49,211,060	0.36	10.09
VOYA VACS Index Series SC Portfolio	3.00	29,602,609	0.15	33.86
Schwab US TIPS ETF™	2.98	29,418,468	0.03	8.62
VOYA VACS Index Series EM Portfolio	2.02	19,969,426	0.15	23.44
Xtrackers USD High Yield Corp Bd ETF	2.00	19,727,907	0.05	16.21
Voya Short Duration Bond R6	1.99	19,670,875	0.30	7.11

Good Practice

**Is Simplest
The Best? ...**

Use 6 funds

Appendix – RETURN Asset Class Medians



Appendix - RETURN

Vanguard Target Retirement 2030 Fund **VTHR** ★★★★

American Funds 2030 Target Date Retirement Fund® Class A **AAETX** ★★★★★

Total Return %	VTHR ★★★★												AAETX ★★★★★				VSZCX ★★★★			
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	YTD	2021	2022	2023	YTD	2021	2022	2023	YTD	
Investment	7.17	-1.03	7.85	17.52	-5.86	21.07	14.10	11.38	-16.27	16.03	11.89	12.74	-14.75	14.08	11.77	12.64	-16.31	15.52	11.85	
Category	5.04	-1.79	7.33	16.57	-6.25	20.07	12.99	11.68	-16.01	14.40	-	11.68	-16.01	14.40	11.12	11.68	-16.01	14.40	10.88	
Index	6.01	-2.30	9.26	16.59	-5.82	21.24	13.69	11.69	-17.94	13.33	-	11.69	-17.94	13.33	10.41	11.69	-17.94	13.33	-	
Quartile Rank	■■	■■	■■	■■	■■	■■	■■	■■	■■	■■	-	■■	■■	■■	■■	■■	■■	■■	-	
Percentile Rank	5	31	32	34	37	32	38	61	44	12	-	25	22	70	33	27	44	26	-	
# of Invest. in Cat.	228	237	221	234	239	241	224	221	221	211	-	221	221	211	208	221	221	211	209	
Category Name	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	TH	

Source: Finra.org, MStar

Appendix - RISK & VOLATILITY

Vanguard Target Retirement 2030 Fund **VTHR** ★★★★

American Funds 2030 Target Date Retirement Fund® Class A **AAETX** ★★★★★

	VTHR	AAETX	Category	Index
Trailing	Investment			
Alpha	0.68	1.58	0.02	-0.89
Beta	1.01	0.98	0.98	1.08
R ²	98.64	98.50	98.16	99.52
Sharpe Ratio	-0.05	0.47	-0.10	-0.17
Standard Deviation	12.80	12.19	12.53	13.63

	VTHR	AAETX	Category	Index
Capture Ratios	Investment			
Upside		104	99	104
Downside		100	99	110
Drawdown	Investment %			
Maximum	-21.60	-20.69	-21.22	-23.79
Drawdown Peak Date	Drawdown Valley Date			
Jan 01, 2022	Sep 30, 2022			
			Max Drawdown Duration	
			9 Months	

Source: Finra.org, Mstar

Category: Target Date 2030 on 10/31/23

Index: Mstar Lifetime Mod 2030 TR USD

Category Benchmark: " " " "

Appendix - BENCHMARK the EQUITY

Vanguard Target Retirement 2030 Fund **VTHRX** ★★★★

American Funds 2030 Target Date Retirement Fund® Class A **AAETX** ★★★★★

ASSETS - EQUITY

Asset Class	VTHRX					AAETX Net
	Net	Short	Long	Cat.	Index	
U.S. Equity	36.62	0.00	36.62	34.55	39.04	42.01
Non-U.S. Equity	24.15	0.00	24.15	15.73	17.94	15.65
Fixed Income	36.46	0.04	36.50	33.17	41.11	37.35
Other	0.03	0.00	0.03	15.95	1.91	0.41
Cash	2.71	7.77	10.48	3.59	0.00	4.47
Not Classified	0.03	0.00	0.03	0.09	0.00	0.11

Value & Growth Measures	Investment	VTHRX		AAETX Investment
		Cat.	Average	
Price/Earnings	16.94		17.84	17.59
Price/Book	2.49		2.84	2.55
Price/Sales	1.81		2.07	1.89
Price/Cash Flow	11.20		12.28	11.59
Dividend Yield %	2.16		1.98	2.15
Long-Term Earnings %	11.60		11.70	11.15
Historical Earnings %	5.40		12.51	5.27
Sales Growth %	7.01		7.70	7.37
Cash-Flow Growth %	5.68		6.84	6.42
Book-Value Growth %	5.08		5.33	5.75

Appendix - BENCHMARK the FIXED INCOME

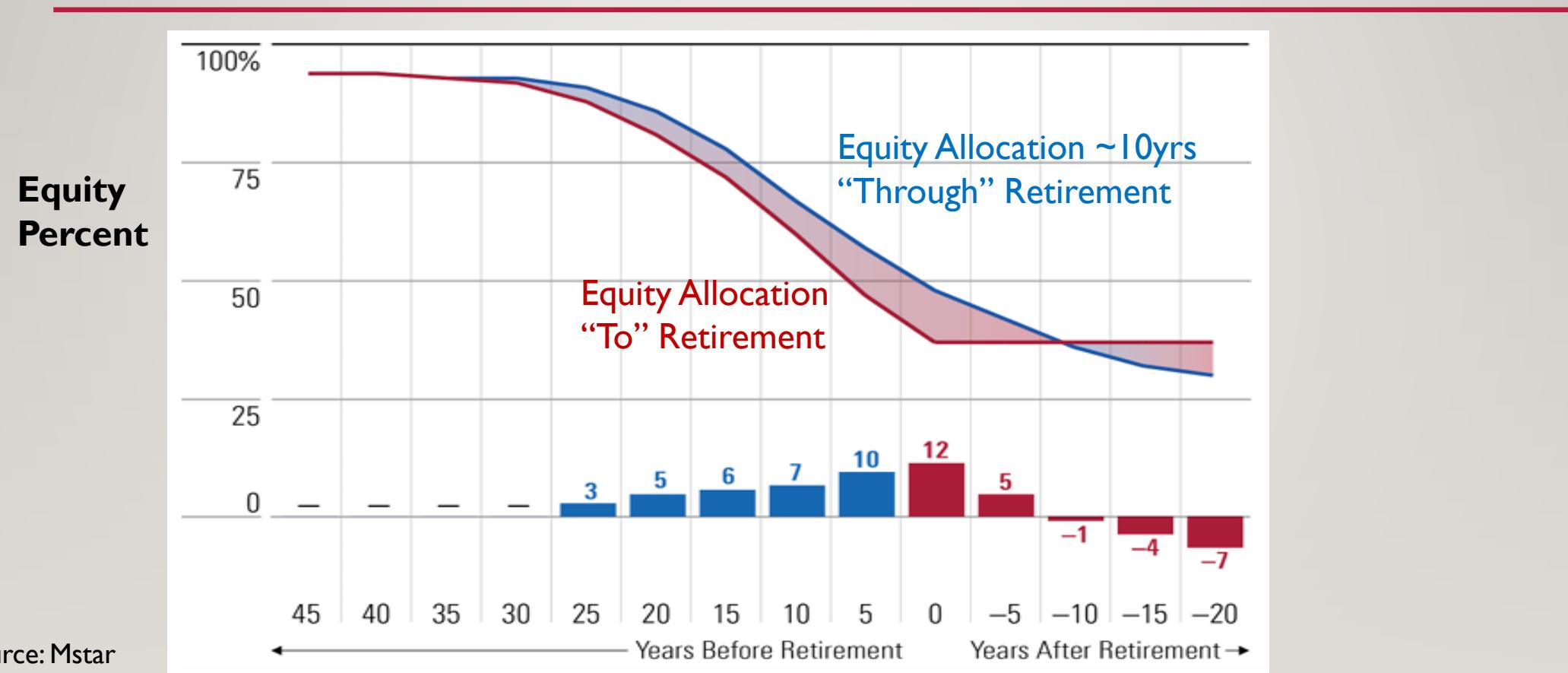
Vanguard Target Retirement 2030 Fund **VTHR** ★★★★

American Funds 2030 Target Date Retirement Fund® Class A **AAET** ★★★★★

ASSETS - FIXED INCOME

	VTHR					AAET					VTHR				
Asset Class	Net	Short	Long	Cat.	Index	Net	Sectors	Cat %	Investment %	Investment %	Grades	Cat %	Investment %	Investment %	Investment %
U.S. Equity	36.62	0.00	36.62	34.55	39.04	42.01	Government	41.82	46.41	28.42	AAA	20.64	57.85	57.85	73.18
Non-U.S. Equity	24.15	0.00	24.15	15.73	17.94	15.65	Municipal	0.24	0.29	0.32	AA	51.29	10.08	10.08	3.10
Fixed Income	36.46	0.04	36.50	33.17	41.11	37.35	Corporate	23.86	17.85	16.63	A	10.90	16.60	16.60	8.96
Other	0.03	0.00	0.03	15.95	1.91	0.41	Securitized	23.60	13.16	35.88	BBB	12.14	14.65	14.65	8.30
Cash	2.71	7.77	10.48	3.59	0.00	4.47	Cash & Equivalents	8.08	5.79	18.73	BB	2.05	0.00	0.00	3.41
Not Classified	0.03	0.00	0.03	0.09	0.00	0.11	Other	2.39	16.50	0.00	B	1.01	0.00	0.00	1.44

Appendix - GLIDE PATH the Equity -> FInc Shift



Appendix - ASSETS GLIDE PATH

Vanguard Target Retirement 2030 Fund VTHRX ★★★★

American Funds 2030 Target Date Retirement Fund® Class A AAETX ★★★★★

HOW dynamic are the Equity allocations?

VTHRX ★★★★

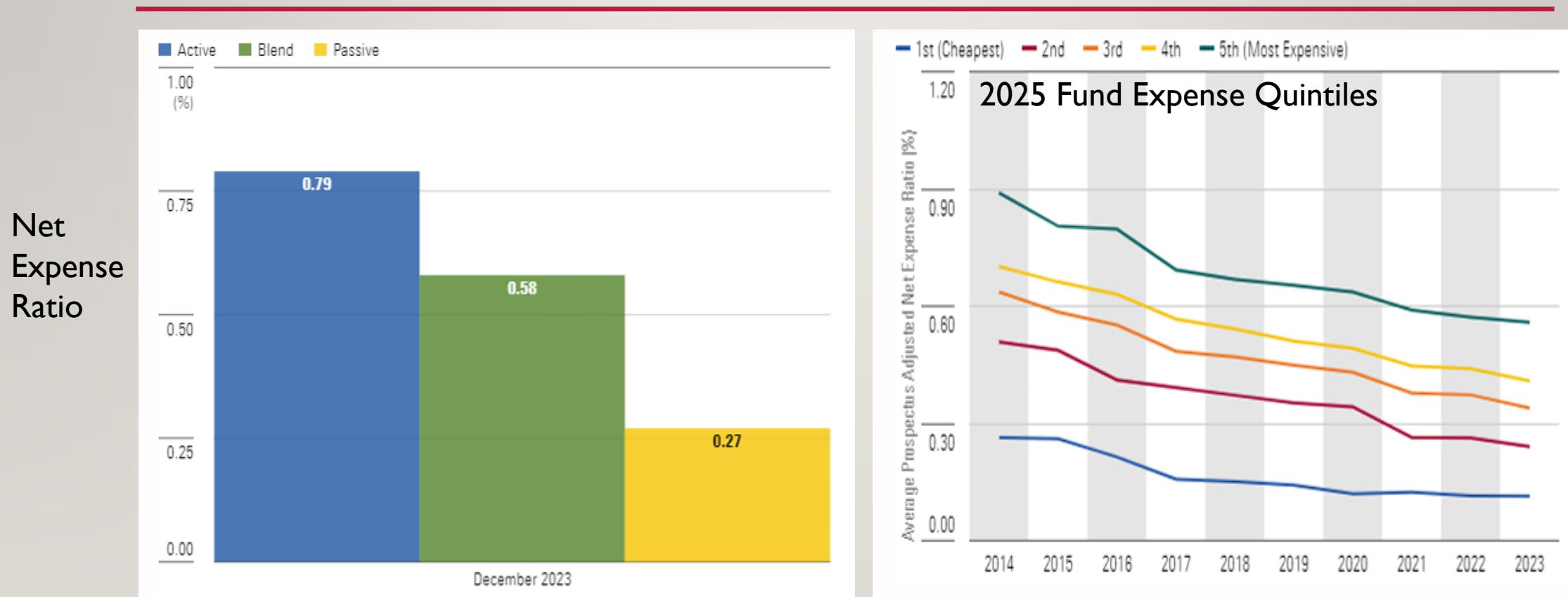
Year	Category	Style	Equity %
2024	US Fund Target-Date 2030	█ Large Blend	56.37
2023	US Fund Target-Date 2030	█ Large Blend	60.18
2022	US Fund Target-Date 2030	█ Large Blend	61.46
2021	US Fund Target-Date 2030	█ Large Blend	62.56
2020	US Fund Target-Date 2030	█ Large Blend	67.64

AAETX ★★★★★

Year	Category	Style	Equity %
2024	US Fund Target-Date 2030	█ Large Blend	54.98
2023	US Fund Target-Date 2030	█ Large Blend	55.03
2022	US Fund Target-Date 2030	█ Large Blend	52.92
2021	US Fund Target-Date 2030	█ Large Blend	60.65
2020	US Fund Target-Date 2030	█ Large Blend	59.69

AAETX

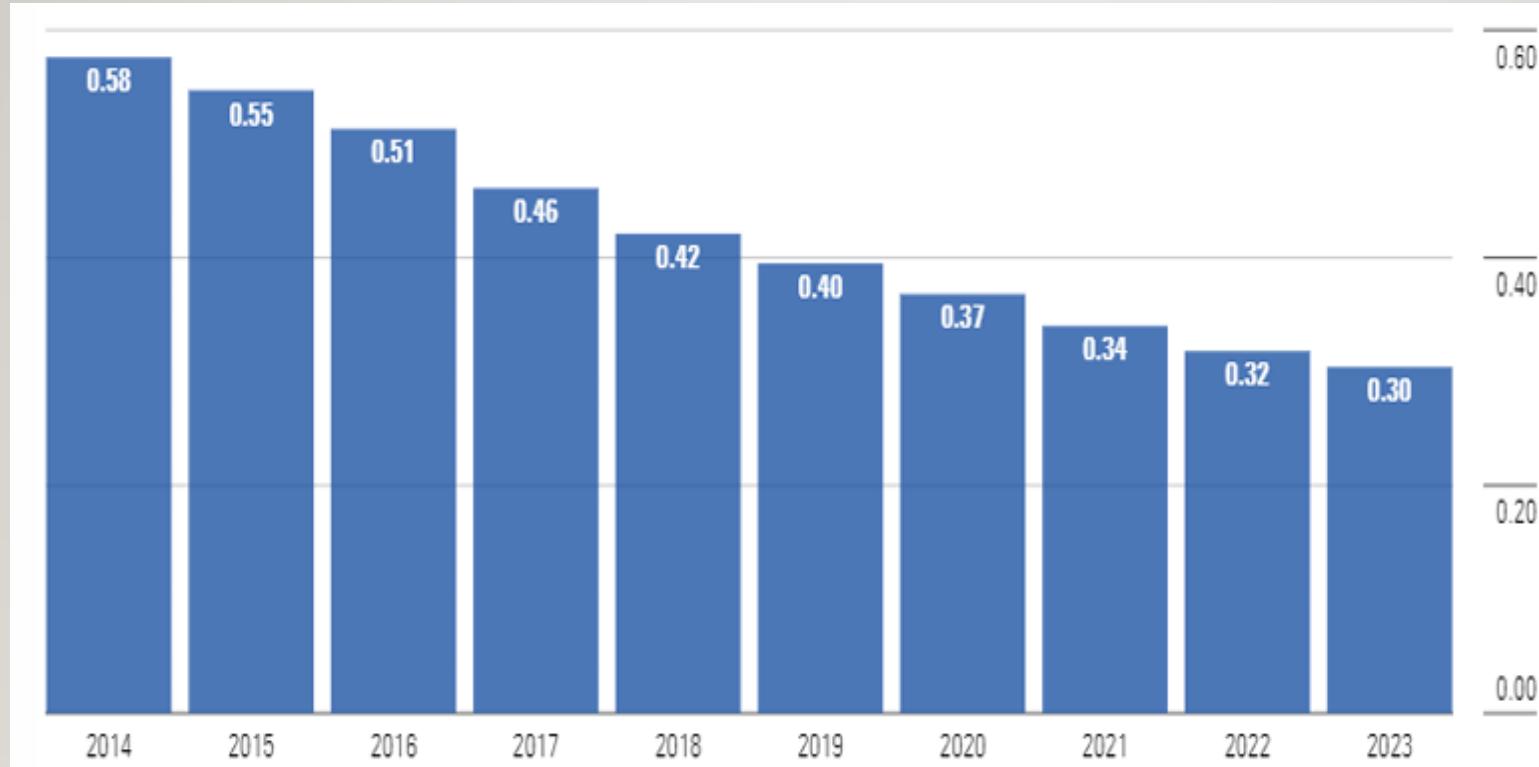
Appendix – COST EXPENSE RATIOS



Source: Mstar

Appendix – COST HISTORY

TDF – Net Expenses



Source: Mstar

Appendix - COSTS

Vanguard Target Retirement 2030 Fund VTHRX ★★★★

American Funds 2030 Target Date Retirement Fund® Class A AAETX ★★★★★

VTHRX

Maximum Sales Fees

Ongoing Fee Level ^①

Front Load Deferred Load

Net Expense Ratio

—

—

Investment Target Retirement 2026-
0.080 2030 No Load

Redemption Load

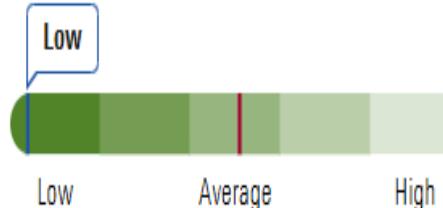
Min. Initial
Investment

0.080

0.555

1,000.00

USD



As of Oct 31, 2024

AAETX

Maximum Sales Fees

Ongoing Fee Level ^①

Front Load Deferred Load

Net Expense Ratio

5.75%

—

Investment

Target Retirement 2026-
2030 Front Load

Redemption Load

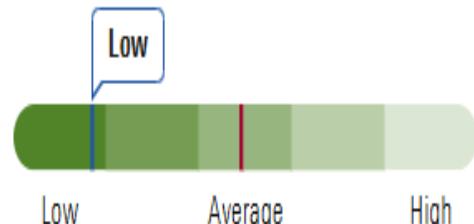
Min. Initial
Investment

0.670

250.00

0.840

USD



Appendix - COST VARIATIONS f(Share Class)

Vanguard Target Retirement 2030 Fund **VTHR** ★★★★

American Funds 2030 Target Date Retirement Fund® Class A **AAET** ★★★★★

Ticker	Name	Average Credit Quality	Morningstar Rating for Funds (3Y)	Morningstar Rating for Funds (Overall)	Medalist Rating (Overall)	Morningstar Return Rating (Overall)	Morningstar Risk Rating (Overall)	Adjusted Expense Ratio	Total Return (3Y)	3Y Return Rank in Category	Standard Deviation (3Y Monthly)	
RFETX	American Funds 2030 Trgt Date Retire R6	A	5	5	Gold	High	Below Average	0.33	3.10153	8	12.079	
FCETX	American Funds 2030 Trgt Date Retire F3	A	5	5	Gold	High	Below Average	0.33	3.11234	8	12.071	
REETX	American Funds 2030 Trgt Date Retire R5	A	5	5	Gold	High	Below Average	0.38	3.05212	8	12.04	
FBETX	American Funds 2030 Trgt Date Retire F2	A	5	5	Silver	High	Below Average	0.42	3.01425	9	12.059	
RHETX	American Funds 2030 Trgt Date Retire R5E	A	5	5	Silver	High	Below Average	0.48	2.95152	11	12.063	
AAETX	American Funds 2030 Trgt Date Retire A	A	4	AAETX	5	Silver	High	Below Average	0.67	2.76186	14	12.069
RDETX	American Funds 2030 Trgt Date Retire R4	A	4	5	Silver	High	Below Average	0.68	2.73737	14	12.058	
FAETX	American Funds 2030 Trgt Date Retire F1	A	4	5	Silver	High	Below Average	0.69	2.72596	14	12.065	
VTHR	Vanguard Target Retirement 2030 Fund	A	4	VTHR	4	Silver	Above Average	Average	0.08	2.543	20	12.803
RCETX	American Funds 2030 Trgt Date Retire R3	A	4	4	Bronze	Above Average	Below Average	0.98	2.44607	22	12.063	
RBEEX	American Funds 2030 Trgt Date Retire R2E	A	4	4	Bronze	Average	Below Average	1.13	2.30102	30	12.055	
CCETX	American Funds 2030 Trgt Date Retire C	A	3	3	Neutral	Average	Below Average	1.40	2.00831	46	12.064	
RAETX	American Funds 2030 Trgt Date Retire R1	A	3	3	Neutral	Average	Below Average	1.42	1.98848	47	12.051	
RBETX	American Funds 2030 Trgt Date Retire R2	A	3	3	Neutral	Average	Below Average	1.42	1.96822	48	12.078	

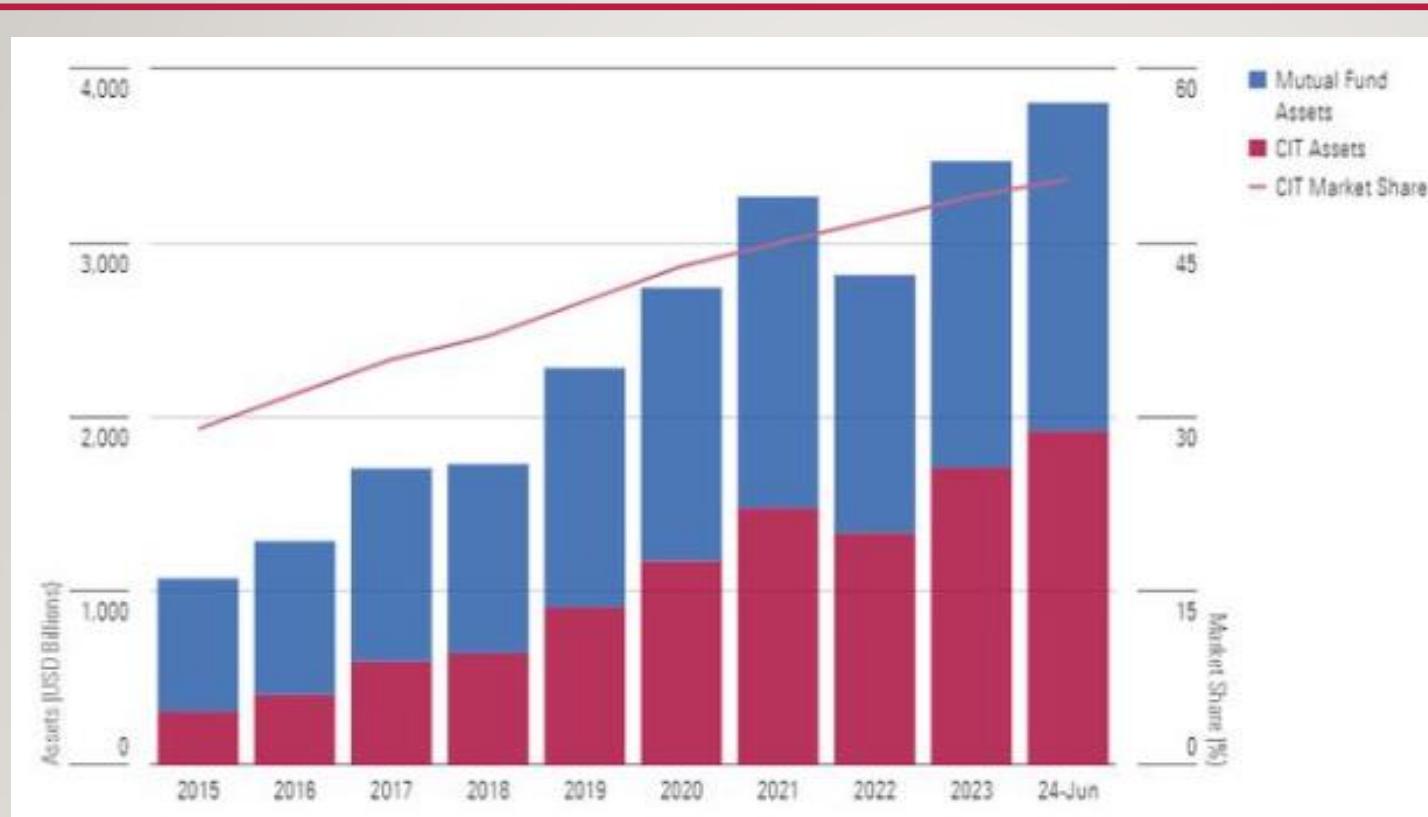
Appendix - COST VARIATIONS f(Share Class)

Voya Index Solution 2030 Portfolio Class Z VSZCX ★★★★

Ticker	Name	Average Credit Quality	Morningstar Rating for Funds (3Y)	Morningstar Rating for Funds (Overall)	Medalist Rating (Overall)	Morningstar Return Rating (Overall)	Morningstar Risk Rating (Overall)	Equity Style Box (Funds)	Adjusted Expense Ratio	Total Return (3Y)	3Y Return Rank in Category	Standard Deviation (3Y Monthly)	
VSZCX	Voya Index Solution 2030 Port Z	4	4	Bronze	Above Average	Average	Large Blend	0.17	2.65093	20		13.001	
IDXGX	Voya Index Solution 2030 Port I	3	3	Bronze	Average	Average	Large Blend	0.23	2.51114	26		13.005	
IDXHX	Voya Index Solution 2030 Port S	3	3	Neutral	Average	Average	Large Blend	0.48	2.26404	41		12.966	
IDXIX	Voya Index Solution 2030 Port S2	3	3	Neutral	Average	Average	Large Blend	0.63	2.11353	48		13.02	
IDXFX	Voya Index Solution 2030 Port ADV	3	3	Neutral	Average	Average	Large Blend	0.73	2.0132	52		13.03	
VTRFX	Voya Target Retirement 2030 R6	BBB	3	3	Neutral	Above Average	Above Average	Large Blend	0.25	2.42323	32		13.139
IRSMX	Voya Target Retirement 2030 I	BBB	3	3	Neutral	Average	Above Average	Large Blend	0.4	2.37402	37		13.206
VTREX	Voya Target Retirement 2030 A	BBB	3	3	Neutral	Average	Above Average	Large Blend	0.65	2.12172	48		13.187
VRRIX	Voya Target Retirement 2030 R	BBB	2	3	Negative	Average	Above Average	Large Blend	0.9	1.90986	59		13.164
ISNGX	Voya Solution 2030 Port I	BBB	3	3	Neutral	Average	Above Average	Large Blend	0.72	2.16208	45		13.157
ISNHX	Voya Solution 2030 Port S	BBB	2	3	Negative	Average	Above Average	Large Blend	0.97	1.87346	64		13.173
ISNIX	Voya Solution 2030 Port S2	BBB	2	2	Negative	Average	Above Average	Large Blend	1.12	1.74246	72		13.185
ISNFX	Voya Solution 2030 Port ADV	BBB	2	2	Negative	Below Average	Above Average	Large Blend	1.22	1.64314	77		13.162

Appendix

TARGET DATE ASSETS - \$4t, Split 50/50



Source: Morningstar June 2024 Survey, CIT – Collective Investment Trusts

Appendix - CITs – Collective Investment Trusts

- **Lower Admin and Distribution costs, not regulated by SEC like mutual funds.**
- **Regulated by OCC Office of the Comptroller of the Currency**
- **Pension Protection Act of 2006 made CITs the default option for defined contribution plans used in Corporate Benefit Programs.**
- **Tax Efficiency** - CITs are available only in qualified retirement plans, thus, unlike mutual funds, are tax deferred.
- **Asset Selection** – Fewer restrictions on asset selection.
- **DoL – Department of Labor restrictions apply to mutual funds used in TDFs.**
- **Disclosure – CITs do not have disclosure Managers, Experience or Strategy.**
- **Disclosure – ERISA of 1974 does require due diligence of Fund Sponsors**

Appendix – Compare / Contrast

- 6 +2.5 Questions - Revisited

- **MANAGERS** - Issuers, Managers – Who, what really is this fund ... of funds?
- **ASSETS** - Asset Allocations – Fund of funds, Equity vs Fix Inc, US vs Int
- **RETURN** - PF Overall Rate of Return, Risk & Vol. – from advisor or broker
- **BENCHMARK** - Asset mix vs the Index Benchmarks for Equity and Fixed Income
- **GLIDE PATH** - The Asset Mix “to and through” Retirement or Fund Terminus
- **COSTS** - Expense Ratio by Share Class
- **F&F* IRS** - Tax Efficiency of your non-IRA Taxable Assets (Goal < 30%)
- **CITs – FYI&E** - CITs (Cept of Labor) vs TDF (SEC)

Source: Morningstar June 2024 Survey, CIT – Collective Investment Trusts, * Friends and Family,