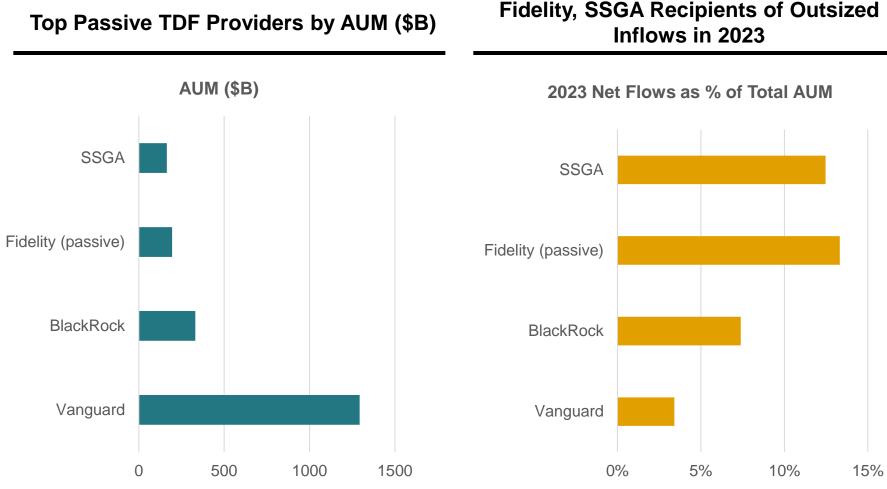
# A Look at the Target Date Fund Universe Passive TDF Mutual Funds

**CalSavers Retirement Savings Board** November 19, 2024

For Investment Professionals Only.

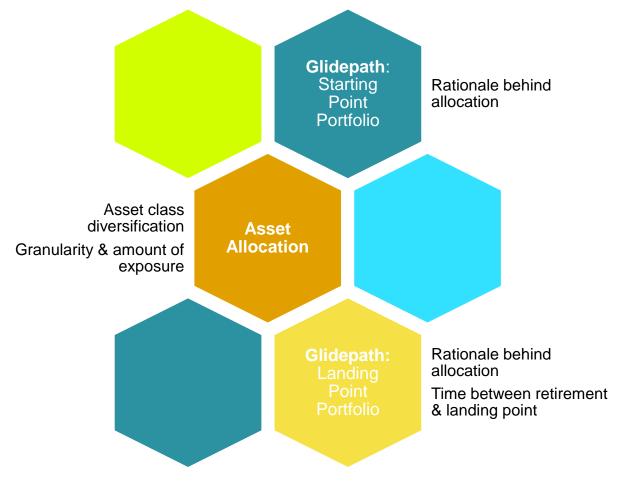
### **Passive TDF Universe Overview**



Source: Morningstar 2024 Target-Date Strategy Landscape, Data as of 12/31/2023.

### Passive TDF Universe Comparison

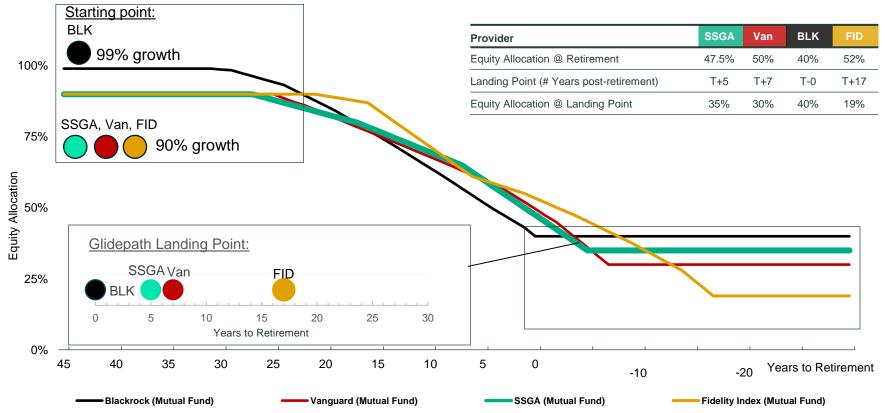
A Few Key Points of Comparison



### **Glidepath Comparison**

### (Including REITs, Commodities & Real Assets)

State Street Global Advisors, Vanguard, and Fidelity utilize *"through"* retirement glidepaths with slightly different landing points, while Blackrock offers a *"to"* retirement glidepath



Source: State Street Global Advisors Defined Contribution, December 31, 2023. Updated Annually. Competitor info sourced from fact sheets and/or prospectus. Glidepath data is typically available in 5 year increments and is linearly interpolated between vintages.

The information contained above is for illustrative purposes only. Diversification does not ensure a profit or guarantee against loss. Please refer to the disclosure slide for additional risk disclosures. Characteristics are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Assumptions and forecasts used by SSGA in developing the Portfolio's asset allocation glide path may not be in line with future capital market returns and participant savings activities, which could result in losses near, at or after the target date year or could result in the Portfolio not providing adequate income at and through retirement.

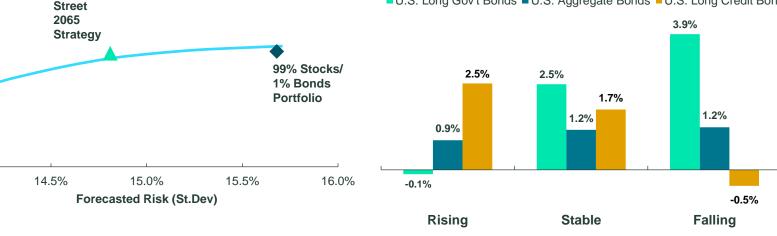


### SSGA Glidepath: **Starting Point Portfolio Construction** 90% Growth / 10% Fixed Income:

### **Downside protection via U.S Government Bonds**

Fixed Income performance through different Equity market regimes since 2000<sup>2</sup>

■U.S. Long Gov't Bonds ■U.S. Aggregate Bonds ■U.S. Long Credit Bonds



Compared to a 99% stock portfolio, State Street 2065 fund is ٠ expected to deliver approximately 99% of return at 94% of risk

US Government bonds have provided strongest diversification benefits • during equity market selloffs, driving efficient wealth accumulation

<sup>1</sup> State Street Global Advisors. Forecasted Risk and Return based on SSGA's Investment Solutions Group long-term forecasts as of December 31, 2023, updated annually. Efficient Frontier for illustrative purposes only. Hypothetical 99% Stocks / 1% Bonds portfolio comprised of 99% allocation to MSCI ACWI Index and 1% to Bloomberg US Aggregate Bond Index. Diversification does not ensure a profit or guarantee against loss.

<sup>2</sup> State Street Global Advisors, Factset, as of December 31, 2023, updated annually. Past performance is not a guarantee of future results. Index returns are unmanaged and do not reflect the deduction of any fees or expenses. Index returns reflect all items of income, gain or loss and the reinvestment of dividends and other income. You cannot invest directly in an index. Equity markets defined by S&P500 Quarterly return: Rising >2.5%, Stable 2.5%, Falling <-2.5%, US Gov't Bond Allocation represents BBG US Long Gov't Bond Index. US Aggregate Bonds and US Long Credit Bond returns are of the respective Bloomberg indices.

**An Efficient Starting Point** Efficient Frontier<sup>1</sup>

State

Illustrative Purposes Only

8%

7%

6%

5%

4% 14.0%

<sup>-</sup>orecasted Return





### **Asset Class Exposure**

Exposure	Symbol
Direct	×
Indirect	•
None	×

#### **Passive Providers**

- SSGA offers the broadest diversification within US fixed income
- SSGA and Blackrock offer more diversification within Inflation Management
- Vanguard and Fidelity are the only managers to offer a Non-US fixed income allocation

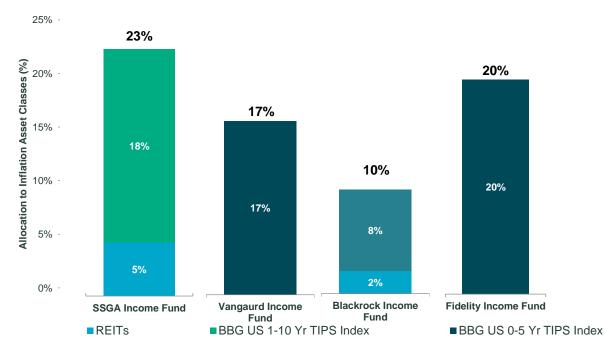
Asset Clas	ses	SSGA (Mutual Fund)	Vanguard (Mutual Fund)	Blackrock (Mutual Fund)	Fidelity (Mutual Fund)
Equity	US Large Cap	✓	✓	✓	✓
	US Small and Mid Cap	✓	✓	1	✓
	International Developed	✓	✓	1	✓
	International Small Cap	✓	✓	1	×
	Emerging Markets	✓	✓	✓	✓
Fixed	Long Treasury	✓	•	✓	✓
Income	Intermediate Treasury	•	•	✓	•
	Core Aggregate	✓	✓	✓	✓
	Long Credit	•	•	✓	•
	Intermediate Credit	•	•	✓	•
	Securitized Bonds	•	•	✓	•
	Cash or ST Gov't/Credit	✓	•	26	✓
	US High Yield	✓	*	*	×
	International Developed Debt	×	1	*	✓
	Emerging Markets Debt	×	*	×	×
Inflation	Inflation-linked Bond (TIPS)	✓	✓	✓	✓
Protection	REITS	✓	•	✓	•

Source: SSGA Defined Contribution. Characteristics pulled from provider's fact sheets and websites. As of December 31, 2023. Diversification does not ensure a profit or guarantee against loss.

# **Case Study: Inflation Management**

### SSGA holds the highest relative allocation to inflation management asset classes within the Income Fund, in order to preserve the purchasing power of participants near or in retirement

- Blackrock uses a similarly diversified approach to inflation but reduces its allocation to REITs into retirement
- SSGA utilizes 1–10 TIPS index near and through retirement to address interest rate risk. Vanguard takes a similar approach by allocating to 0–5 TIPS while Blackrock holds a smaller allocation to the broad TIPS index.
- Vanguard and Fidelity use only TIPS for inflation management.



BBG US TIPS Index

The information shown above is intended for illustrative purposes only.

Source: State Street Global Advisors Defined Contribution, as of December 31, 2023. Slide Updated Annually. Competitor glidepath info sourced from fact sheets and/or prospectus. Past performance is not a guarantee of future results. Please refer to the disclosure slide for additional risk disclosures. Allocations are as of roll down schedule date indicated, are subject to change, and should not be relied upon as current thereafter.



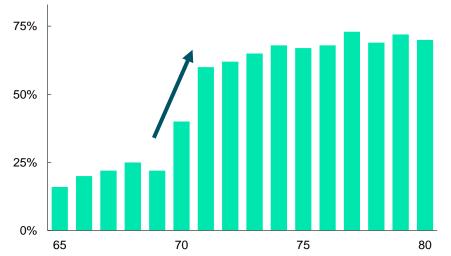
### **SSGA Glidepath: Landing Point Portfolio**

### **Choosing the Landing Point**

Research has found that most participants don't take withdrawals until required (i.e. Required Minimum Distributions, or RMD's)

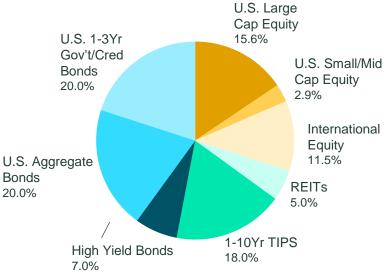
 The data suggest that the RMD is becoming the de facto default distribution option for newly-retired participants<sup>2</sup>

% of Participants Redeeming from Retirement Accounts by Age (e.g. 401k, IRA)<sup>1</sup>



### **Strategic Asset Allocation**

- 35% stocks, 65% bonds; Emphasis on **market risk** and **purchasing power protection**
- Strategic underweight to US Small/Mid Cap intended to reduce market risk
- Bond portfolio designed to minimize interest rate risk
- · Diversified mix of inflation hedging assets



<sup>1</sup>National Bureau Economic Research (2011): "The Drawdown of Personal Retirement Assets," by James Poterba, Steven Venti, and David Wise, 2011. <sup>2</sup> National Bureau Economic Research (2022): "Trends In Retirement And Retirement Income Choices By TIAA Participants: 2000–2018," by Jeffrey Brown, James Poterba and David Richardson. © 2022 by Jeffrey R. Brown, James M. Poterba, and David P. Richardson. All rights reserved.



# Appendix A: Glidepath Details and Returns

### **Summary of Characteristics**

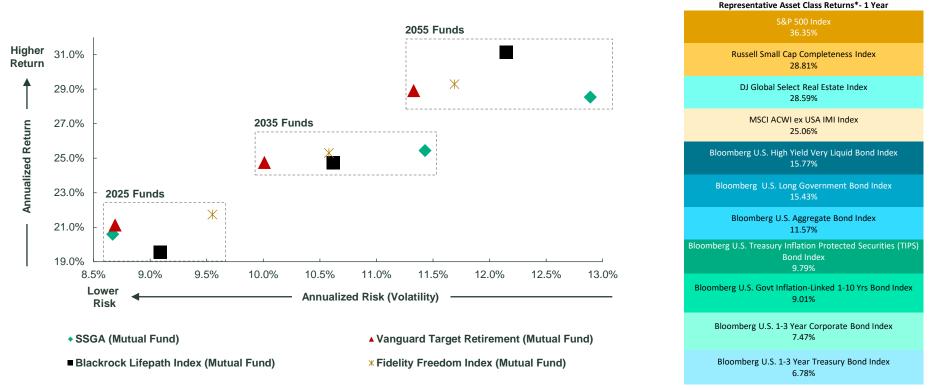
Comparison of key features of the largest 'passive' target date managers

		State Street Global Advisors	Vanguard	Blackrock	Fidelity		
Glidepath	Starting Point	90% Growth	90% Growth	99% Growth	90% Growth		
	Landing Point	5 Years <b>Through</b> Retirement	7 Years <b>Through</b> Retirement	To Retirement	17 Years <b>Through</b> Retirement		
Strategic Asset Allocation	Diversification	Broadly diversified across equities, fixed income, & real assets	Broadly diversified across equities and fixed income.	Broadly diversified across equities, fixed income, & real assets	Broadly diversified across equity markets and fixed income.		
	Granularity	<b>10</b> underlying funds. Seeks to evolve risk more precisely with participants through time	1 2	<b>11</b> underlying funds Uses building blocks to evolve portfolios with participants over time	8 underlying funds Uses total market cap for equities, with a slight focus on fixed income building blocks		
Differentiato	ors	Uses sub-asset class exposures to fine-tune the glidepath allocation Most robust inflation protected portfolio Glidepath rolldown in the middle of all providers & driven by participant spending behavior	Focus on simplicity achieves broad exposures Inflation management only via 0-5 TIPS	Uses sub-asset class exposures (to a slightly lesser extent) Most aggressive starting point portfolio "To" glidepath	Some use of sub-asset class exposure, depends on intermediate market outlook Strategic inflation management only via 0-5 TIPS Longest glidepath rolldown (17 years)		

Source: State Street Global Advisors as of December 31, 2023. Updated Annually. Diversification does not ensure a profit or guarantee against loss. Characteristics are subject to change, and should not be relied upon as current thereafter. Competitor info sourced from fact sheets and/or prospectus.

STATE STREET GLOBAL ADVISOR

• 1-Year returns have been driven by equities, particularly large cap US equities

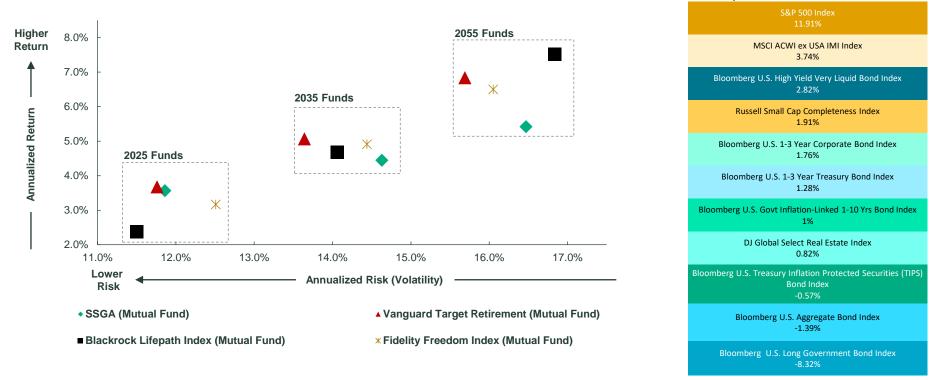


The information shown below is intended for illustrative purposes only.

Source: FactSet, Morningstar, State Street Global Advisors Defined Contribution, as of September 30, 2024. Observations based upon voluntarily self-reported data to eVestment. The performance figures contained herein are provided on a net of fees basis. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in US dollars. Past performance is not a reliable indicator of future performance. The index returns are unmanaged and do not reflect the deduction of any fees or expenses. The index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Please refer to the disclosure slide for additional risk disclosures. See Appendix for full time horizon performance. \* Representative asset class returns are for illustrative purposes only and use the State Street Global Advisors indices for a given asset class, where available. Please refer to Appendix A for the specific indices used for each asset class by competitor.

STATE STREET GLOBAL ADVISOR

- 3-Year returns have been driven by equities.
- US Large Caps have outperformed, driven by a narrow group of stocks



The information shown below is intended for illustrative purposes only.

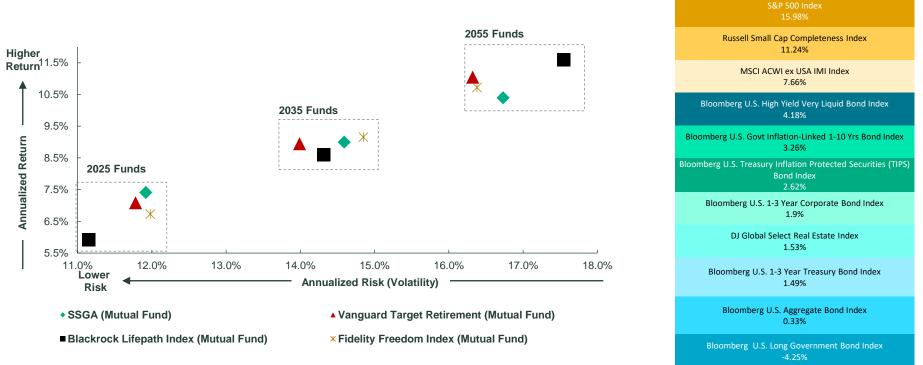
Source: FactSet, Morningstar, State Street Global Advisors Defined Contribution, as of September 30, 2024. Observations based upon voluntarily self-reported data to eVestment. The performance figures contained herein are provided on a net of fees basis. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in US dollars. Past performance is not a reliable indicator of future performance. The index returns are unmanaged and do not reflect the deduction of any fees or expenses. The index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Please refer to the disclosure slide for additional risk disclosures. See Appendix for full time horizon performance. \* Representative asset class returns are for illustrative purposes only and use the State Street Global Advisors indices for a given asset class, where available. Please refer to Appendix A for the specific indices used for each asset class by competitor.



Representative Asset Class Returns\*- 3 Year

- Five-year returns have been driven by risk-on asset classes, specifically domestic equities.
- SSGA outperformed in earlier-dated vintages due to our inflation and duration management approach closer to retirement while we lagged peers in later dated vintages due in part to our long bond exposure for younger participants.

Representative Asset Class Returns\*- 5 Year

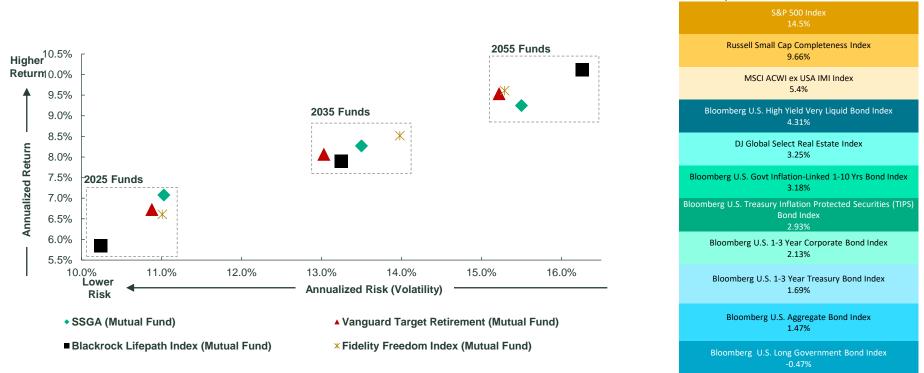


The information shown below is intended for illustrative purposes only.

Source: FactSet, Morningstar, State Street Global Advisors Defined Contribution, as of September 30, 2024. Observations based upon voluntarily self-reported data to eVestment. The performance figures contained herein are provided on a net of fees basis. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in US dollars. Past performance is not a reliable indicator of future performance. The index returns are unmanaged and do not reflect the deduction of any fees or expenses. The index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Please refer to the disclosure slide for additional risk disclosures. See Appendix for full time horizon performance. \* Representative asset class returns are for illustrative purposes only and use the State Street Global Advisors indices for a given asset class, where available. Please refer to Appendix A for the specific indices used for each asset class by competitor. Please note that the Vanguard Institutional share class does not have a 5 year track record, so the lowest available fee share class with a 5 year track record is used for this comparison (12-15 bps Net Expense Ratio).



· Seven-year returns have been driven by domestic equities, with notable outperformance from US Large Caps



Representative Asset Class Returns\*- 7 Year

STATE STREET

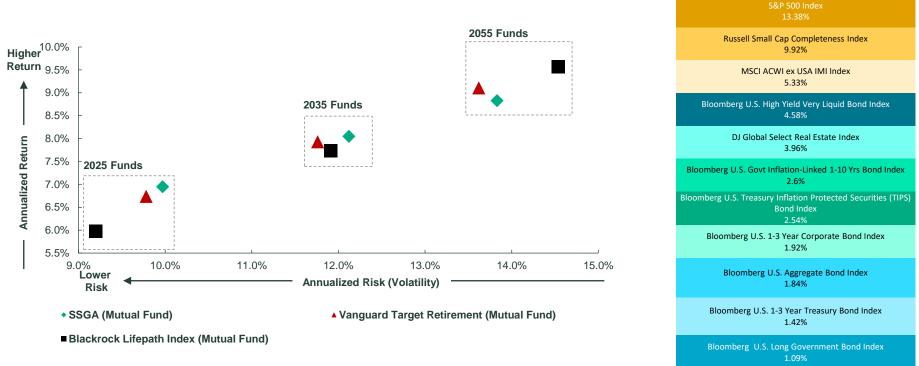
The information shown below is intended for illustrative purposes only.

Source: FactSet, Morningstar, State Street Global Advisors Defined Contribution, as of September 30, 2024. Observations based upon voluntarily self-reported data to eVestment. The performance figures contained herein are provided on a net of fees basis. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in US dollars. Past performance is not a reliable indicator of future performance. The index returns are unmanaged and do not reflect the deduction of any fees or expenses. The index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Please refer to the disclosure slide for additional risk disclosures. See Appendix for full time horizon performance. \* Representative asset class returns are for illustrative purposes only and use the State Street Global Advisors indices for a given asset class, where available. Please refer to Appendix A for the specific indices used for each asset class by competitor. Please note that the Vanguard Institutional share class does not have a 5 year track record, so the lowest available fee share class with a 5 year track record is used for this comparison (12-15 bps Net Expense Ratio).

• Ten-year returns have been driven by risk-on asset classes with strong performance from domestic equities and high yield bonds

Representative Asset Class Returns\*- 10 Year

STATE STREET



The information shown below is intended for illustrative purposes only.

Source: FactSet, Morningstar, State Street Global Advisors Defined Contribution, as of September 30, 2024. Observations based upon voluntarily self-reported data to eVestment. The performance figures contained herein are provided on a net of fees basis. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in US dollars. Past performance is not a reliable indicator of future performance. The index returns are unmanaged and do not reflect the deduction of any fees or expenses. The index returns reflect all items of income, gain and loss and the reinvestment of dividends and other income. Please refer to the disclosure slide for additional risk disclosures. See Appendix for full time horizon performance. \* Representative asset class returns are for illustrative purposes only and use the State Street Global Advisors indices for a given asset class, where available. Please refer to Appendix A for the specific indices used for each asset class by competitor. Please note that the Vanguard Institutional share class does not have a 5 year track record, so the lowest available fee share class with a 5 year track record is used for this comparison (12-15 bps Net Expense Ratio).

# SSGA Glidepath: Starting Point Portfolio Construction

# Help participants efficiently address accumulation risk

- 90% stocks, 10% bonds; Emphasis on efficient wealth accumulation
- Bond portfolio designed to maximize diversification
- Strategic overweight to US Small/Mid Cap stocks improves expected return
  - 40 bps higher annualized return expectation compared to US Large Cap

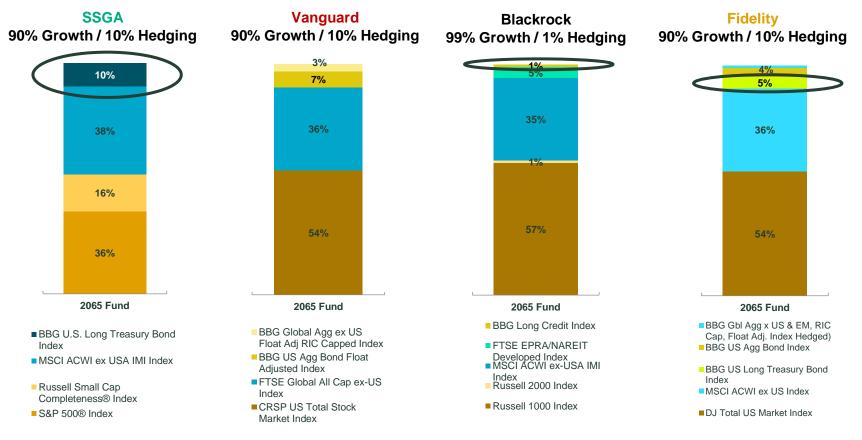
### State Street 2065 Fund: Strategic Asset Allocation



The information contained above is for illustrative purposes only. Asset allocation is a method of diversification which positions assets among major investment categories. Asset Allocation may be used in an effort to manage risk and enhance returns. It does not, however, guarantee a profit or guarantee against a loss.

# **TDF Universe: Starting Point Portfolio**

- At the starting point, State Street Global Advisors holds 90% in growth assets and 10% in Long US Gov't Bonds. Vanguard starts at 90% equity but uses Aggregate Bonds for Fixed Income. Fidelity also starts at 90% and uses both Long US Gov't and Aggregate Bonds.
- Blackrock holds a more aggressive starting point, at 99%, and uses Long Credit for its Fixed Income exposure.



Source: State Street Global Advisors as of December 31, 2023. Updated Annually. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Assumptions and forecasts used by SSGA in developing the Portfolio's asset allocation glide path may not be in line with future capital market returns and participant savings activities, which could result in losses near, at or after the target date year or could result in the Portfolio not providing adequate income at and through retirement.

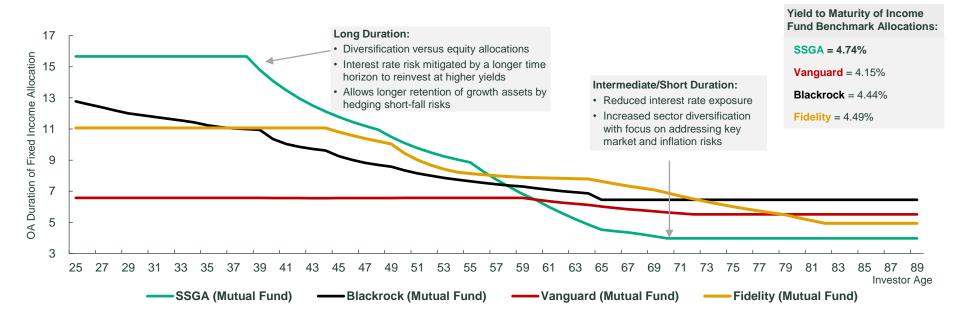


STATE STREET

### **Managing Fixed Income Exposures**

Each manager takes a different approach to Risk Management within Fixed Income

- State Street Global Advisors uses longer duration instruments (US Long Treasuries) early in the glidepath before introducing shorter duration instruments nearer to retirement, while adding yield through inclusion of High Yield
- Vanguard holds relatively static duration profiles throughout glidepath, concentrated in Aggregate and Global Aggregate ex US benchmarks, with allocations to TIPS approaching retirement. Blackrock employs long duration credit and TIPS early in the glidepath before introducing Long Gov't, Intermediate Credit, Intermediate Gov't, and Securitized Bonds later towards retirement.
- · Fidelity introduces Short Term bonds in order to modestly reduce duration for participants in retirement

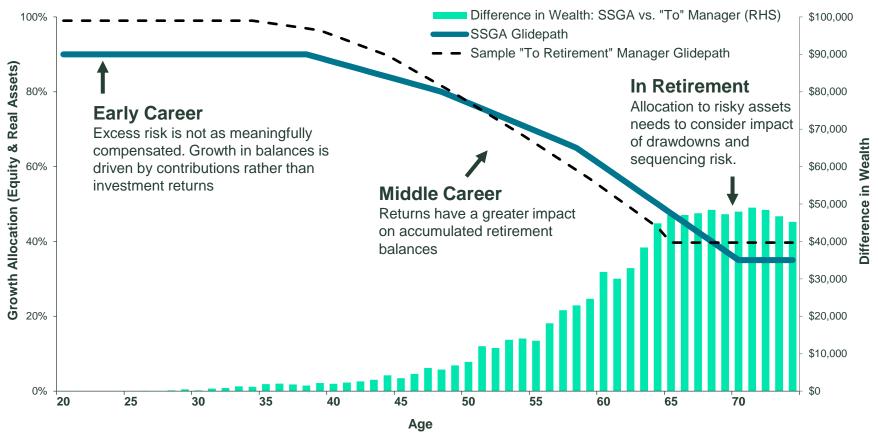


The information shown above is intended for illustrative purposes only.

Source: State Street Global Advisors Defined Contribution, as of December 31, 2023. Slide Updated Annually. Competitor glidepath info sourced from fact sheets and/or prospectus. Fixed Income asset class statistics sourced from Factset, as of December 31, 2023. Yield to worst calculation is a weighted average of the yield of each underlying index per Factset as of December 31, 2023. Past performance is not a reliable indicator of future performance. Please refer to the disclosure slide for additional risk disclosures. Allocations are as of roll down schedule date indicated, are subject to change, and should not be relied upon as current thereafter. Ages and expected dates of retirement are approximate and may not accurately reflect the age or retirement date of each participant at each stage of the product. Participants are responsible for selecting their own target retirement date.

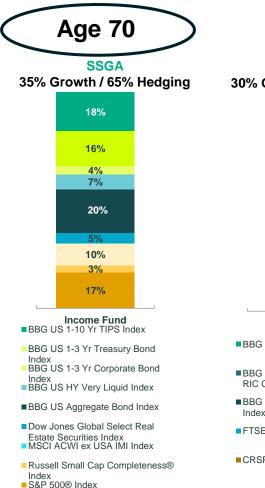
# **Intelligently Managing Risk Reduction**

• SSGA's approach to de-risking leads to higher expected balances in retirement versus 'to' approach



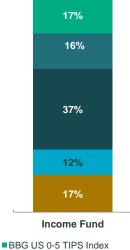
Source: State Street Global Advisors. As of December 31, 2023. Wealth accumulation assumes starting age of 21, retirement age of 65, starting salary of \$30,000 growing at 2.5% per year, savings rate of 11%, drawdown rate at retirement of 3.7%. Monte Carlo simulations based on 100,000 simulations and median (50<sup>th</sup> percentile) return. Simulations based on Expected Returns and Risk from managers glidepaths and SSGA's ISG long term asset class forecast as of December 31, 2023 and are for illustrative purposes only. Updated Annually. Comparison glidepath selected as an illustrative example of the largest index-based 'to retirement' provider. Ages and expected dates of retirement are approximate and may not accurately reflect the age or retirement date of each participant at each stage of the product. Participants are responsible for selecting their own retirement date.

### **TDF Universe: Landing Point Portfolio**



### Age 72

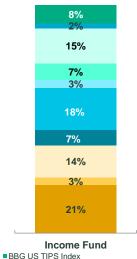
Vanguard 30% Growth / 70% Hedging



- BBG Global Agg ex US Float Adj RIC Capped Index
- BBG US Agg Bond Float Adjusted Index
- FTSE Global All Cap ex-US Index
- CRSP US Total Stock Market Index



Blackrock 40% Growth / 60% Hedging



FTSE EPRA/NAREIT Developed Index

BBG Securitized MBS, ABS, and CMBS

Bloomberg U.S Intermediate Credit Index

Bloomberg U.S Long Credit Index

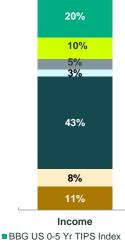
Bloomberg U.S Long Treasury

MSCI ACWI ex-USA IMI Index

Bloomberg U.S Intermediate Treasury

Age 82

Fidelity 19% Growth / 81% Hedging



 BBG U.S. 3-6 Month Treasury Bill Index
BBG Glb Agg x US Flt-adj

- RIC Capp Index
- Bloomberg U.S. Long
- Treasurv
  - BBG US Aggregate Bond Index
  - MSCI All Country World ex
  - DJ US Total Market Index

Russell 2000 Index

Russell 1000 Index

Index

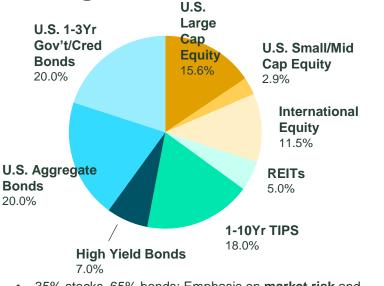
Source: State Street Global Advisors as of December 31, 2023, updated Annually. Competitor info sourced from fact sheets and/or prospectus. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Assumptions and forecasts used by SSGA in developing the Portfolio's asset allocation glide path may not be in line with future capital market returns and participant savings activities, which could result in losses near, at or after the target date year or could result in the Portfolio not providing adequate income at and through retirement.

```
20
```



### SSGA Glidepath: Landing Point Portfolio Construction

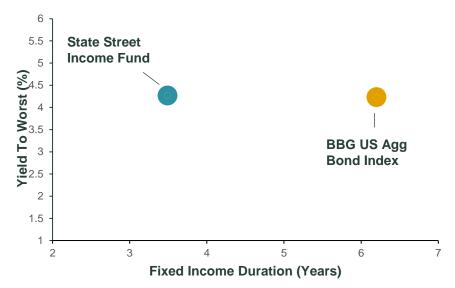
### State Street Income Fund: Strategic Asset Allocation



- 35% stocks, 65% bonds; Emphasis on market risk and purchasing power protection
- Strategic underweight to US Small/Mid Cap intended to reduce market risk
- · Bond portfolio designed to minimize interest rate risk
- · Diversified mix of inflation hedging assets

### Balancing Income and Interest Rate Risk

#### Yield & Duration (Fixed Income Only)

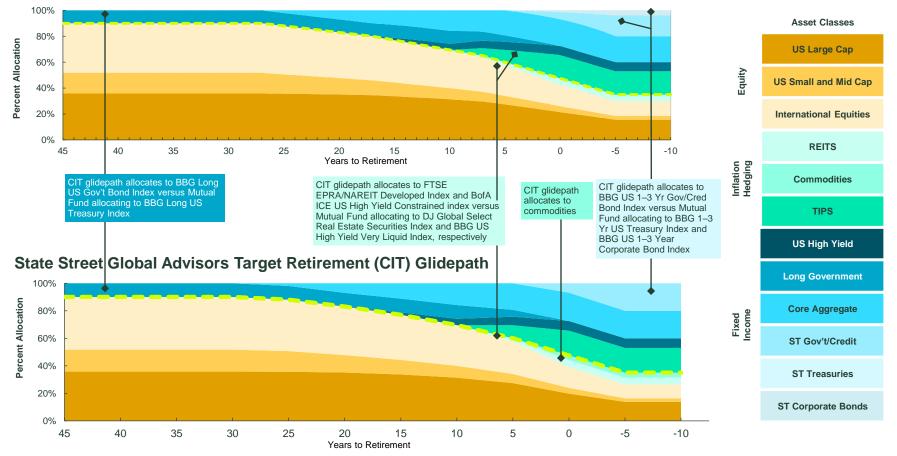


• A more efficient tradeoff between **yield** and **duration** provides higher income in retirement while taking on less interest rate risk, with potentially more resilience during periods of **inflation** 

Source: State Street Global Advisors Defined Contribution, as of September 30, 2024. Asset allocation is a method of diversification which positions assets among major investment categories. Asset Allocation may be used in an effort to manage risk and enhance returns. It does not, however, guarantee a profit or guarantee against a loss.

### **Glidepath Differences: CIT versus MF**

#### State Street Target Retirement (Mutual Fund) Glidepath



Source: Strategic asset allocation roll-down schedules based on asset allocation effective September 30, 2024. The information contained above is for illustrative purposes only. Please refer to the disclosure slide for additional risk disclosures. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Assumptions and forecasts used by State Street Global Advisors in developing the Portfolio's asset allocation Glidepath may not be in line with future capital market returns and participant savings activities, which could result in losses near, at or after the target date year or could result in the Portfolio not providing adequate income at and through retirement.

STATE STREET GLOBAL ADVISOR

# **CIT vs Mutual Fund Comparison**

- Within this presentation we compare the characteristics and performance history of Collective Investment Trusts and Mutual Funds. Key differences between vehicles exist.
- While mutual funds are typically available to both retail and institutional investors, CITs are generally only available to certain qualified retirement plans and do not have publicly available fund information and tickers, amongst other differences.

### CITs versus Mutual Funds: Differences at a Glance

Characteristics	CITs	Mutual Funds						
What Are     Commingled investment vehicles typically maintained by a bank or to company and only offered to certain qualified retirement plans		Commingled investment vehicles typically maintained by an asset management company and available to most retirement plans as well as the general public						
Oversight and Regulation	Often regulated by Office of the Comptroller of Currency (OCC) and the IRS and DOL	Regulated by the Securities and Exchange Commission (SEC), among other statutes, under the Investment Company Act of 1940, as amended						
-	Fund Trustee can be subject to ERISA standards aimed at protecting plan participants	Manager not held to ERISA standards						
Governing     May be governed by a Declaration of Trust and investment/ operating guidelines		Primarily a prospectus and Statement of Additional Information						
	For participants, usually provide fund fact sheets or work with third party provider to create them	For participants, usually provide fund fact sheets or work with third part provider to create them						
Reporting	Audited Financial Statements	Annual Report						
	Subject to DOL and ERISA reporting requirements, including but not limited to Form 5500 Schedule C and Sections 404a-5 and 408(b)(2) of ERISA	Subject to DOL and ERISA reporting requirements, including but not limited to Form 5500 Schedule C and Sections 404a-5 and 408(b)(2) of ERISA						
Fee Structure	May have multiple share classes. Potential for negotiated pricing arrangements.	May have multiple share classes.						
Trading	Most can trade via NSCC	NSCC trading						
	Usually daily valuation	Usually daily valuation						

Source: State Street Global Advisors as of December 31, 2023.

Information Classification: Limited Access

## **Mutual Fund Strategy Allocations**

#### **Target Strategic Allocations**

Effective close of business September 30, 2024

Asset Class and Underlying Index	Target Retirement Fund	2065	2060	2055	2050	2045	2040	2035	2030	2025	2020	Income
	Years to Retirement	40.25	35.25	30.25	25.25	20.25	15.25	10.25	5.25	0.25	-4.75	-5.00
US Large Cap Stocks S&P 500 <sup>®</sup> Index		35.80	35.80	35.80	35.67	35.09	33.80	31.48	27.68	21.75	15.87	15.57
US Small/Mid Cap Stocks Russell Small Cap Completeness <sup>®</sup> Index		15.95	15.95	15.95	15.07	12.78	10.69	8.70	6.71	4.65	3.01	2.93
International stocks MSCI ACWI ex-USA IMI Index		38.25	38.25	38.25	37.51	35.38	32.88	29.70	23.86	16.84	11.75	11.50
	Equities	90.00	90.00	90.00	88.25	83.25	77.38	69.88	58.25	43.25	30.63	30.00
US Aggregate Bonds BBG US Aggregate Bond Index		-	-	-	1.75	6.75	11.03	15.54	18.93	20.62	20.25	20.00
Long Term Treasury Bonds BBG US Long Treasury Bond Index		10.00	10.00	10.00	10.00	10.00	10.00	10.00	5.25	0.25	-	-
Short Term Treasury Bonds BBG US 1–3 Year Treasury Bond Index		-	-	-	-	-	-	-	-	5.15	15.30	16.00
Short Term Corporate Bonds BBG US 1–3 Year Corporate Bond Index		-	-	-	-	-	-	-	-	1.29	3.83	4.00
High Yield Bonds BBG US High Yield Very Liquid Bond Index		-	-	-	-	-	1.59	4.58	6.15	6.97	7.00	7.00
Intermediate TIPS BBG 1–10 Year Gov't Inflation—Linked Bond In	ndex	-	-	-	-	-	-	-	9.04	17.60	18.00	18.00
	Fixed Income	10.00	10.00	10.00	11.75	16.75	22.63	30.13	39.38	51.88	64.38	65.00
Real Estate (REITs) Dow Jones Global Real Estate Index		-	-	-	-	-	-	-	2.38	4.88	5.00	5.00
	Alternatives	_	_	_	—	—	—	—	2.38	4.88	5.00	5.00

Source: State Street Target Retirement Strategies strategic asset allocation roll-down schedule as of close of business September 30, 2024. The information contained above is for illustrative purposes only. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. This information should not be used or construed as an offer to sell, a solicitation of an offer to buy, or a recommendation for any security listed. Please refer to the disclosure slide for additional risk disclosures.

STATE STREET GLOBAL ADVISORS

# Vanguard Target Retirement Index Glidepath (Mutual Fund)

#### **2024 Strategic Allocations**

Effective close of business December 31, 2023

Target Retirement Fund	2070	2065	2060	2055	2050	2045	2040	2035	2030	2025	2020	Income
Years to Retirement	46	41	36	31	26	21	16	11	6	1	-4	-7
US All Cap Stocks CRSP US Total Market Index	54.00%	54.00%	54.00%	54.00%	54.00%	51.90%	47.50%	42.80%	38.10%	32.00%	24.00%	17.50%
International stocks FTSE Global All-Cap ex-US Index	36.00%	36.00%	36.00%	36.00%	36.00%	33.50%	30.30%	27.70%	25.00%	21.80%	16.40%	12.00%
Equities	90.00%	90.00%	90.00%	90.00%	90.00%	85.40%	77.80%	70.50%	63.10%	53.80%	40.40%	29.50%
<b>US Aggregate Bonds</b> Bloomberg US Agg Float-Adj. Index	7.00%	7.00%	7.00%	7.00%	7.00%	10.40%	15.60%	20.50%	25.70%	28.60%	32.90%	37.10%
International Bonds												
BBG Glob. Agg ex-USD Float-Adj. RIC Capped Index	3.00%	3.00%	3.00%	3.00%	3.00%	4.20%	6.60%	9.00%	11.20%	12.70%	14.80%	16.30%
TIPs Bloomberg 0–5 Yr US TIPS Index	-	-	-	-	-	-	-	-	-	4.90%	11.90%	17.10%
Fixed Income	10.00%	10.00%	10.00%	10.00%	10.00%	14.60%	22.20%	29.50%	36.90%	46.20%	59.60%	70.50%

Source: Vanguard Target Retirement Index Strategies asset allocation as of close of business December 31, 2023, the most current available at the time this presentation was created. Updated Annually or if there is a material change to the glidepath. The information contained above is for illustrative purposes only. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Please refer to the disclosure slide for additional risk disclosures.

2792994.11.2.AM.INST

STATE STREET GLOBAL ADVISO

# Fidelity Index Glidepath (Mutual Fund)

#### **2024 Strategic Allocations**

Effective close of business December 31, 2023

Target Retirement Fund	2065	2060	2055	2050	2045	2040	2035	2030	2025	2020	2015	2010	2005	Income
Years to Retirement	41	36	31	26	21	16	11	6	1	-4	-6	-9	-19	-17
US All Cap Stocks Dow Jones U.S. Total Stock Market Index	54.00%	54.00%	54.00%	54.00%	54.00%	52.00%	44.00%	37.00%	33.00%	28.00%	23.00%	17.00%	12.00%	11.00%
International stocks MSCI All Country World ex US Index	36.00%	36.00%	36.00%	36.00%	36.00%	35.00%	30.00%	24.00%	22.00%	19.00%	15.00%	11.00%	8.00%	8.00%
Equities	90.00%	90.00%	90.00%	90.00%	90.00%	87.00%	74.00%	61.00%	55.00%	47.00%	38.00%	28.00%	20.00%	19.00%
US Aggregate Bonds Bloomberg US Aggregate Bond Index	4.00%	4.00%	4.00%	4.00%	4.00%	6.00%	17.00%	26.00%	28.00%	32.00%	36.00%	39.00%	43.00%	43.00%
Long Term Treasury Bonds Bloomberg U.S. Long Treasury Index	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	4.00%	4.00%	3.00%	3.00%	3.00%	3.00%
International Bonds Bloomberg Global Aggregate Treasury ex USD, ex Emerging Markets, RIC Capped, Float Adjusted Index (USD Hedged)	1.00%	1.00%	1.00%	1.00%	1.00%	2.00%	4.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Long-Term TIPs Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 5+ Year Index	-	-	-	-	-	-	-	4.00%	8.00%	8.00%	5.00%	3.00%	0.00%	0.00%
Short-Term TIPs Bloomberg U.S. Treasury Inflation-Protected Securities (TIPS) 0-5 Year Index	-	-	-	-	-	-	-	-	-	3.00%	8.00%	14.00%	19.00%	20.00%
US Short Term Treasury Bonds Bloomberg U.S. 3-6 Month Treasury Bill Index	-	-	-	-	-	-	-	-	-	2.00%	4.00%	7.00%	10.00%	10.00%
Fixed Income	10.00%	10.00%	10.00%	10.00%	10.00%	13.00%	26.00%	40.00%	45.00%	54.00%	61.00%	71.00%	80.00%	81.00%

Source: Fidelity Strategies strategic asset allocation roll-down schedule as of close of business December 31, 2023, the most current available at the time this presentation was created. Updated Annually or if there is a material change to the glidepath. The information contained above is for illustrative purposes only. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Please refer to the disclosure slide for additional risk disclosures.

2792994.11.2.AM.INST



# Blackrock Lifepath Index Glidepath

### (Mutual Fund)

#### 2024 Actual Allocations

Effective close of business December 31, 2023

Target Retirement Fund	2065	2060	2055	2050	2045	2040	2035	2030	2025	Income
Years to Retirement	41	36	31	26	21	16	11	6	1	0
US large Cap Stocks Russell 1000 Index	56.68%	56.45%	56.40%	55.40%	51.97%	46.33%	39.69%	32.66%	25.07%	20.94%
US Small Cap Stocks Russell 2000 Index	1.03%	1.06%	1.06%	1.06%	1.07%	1.38%	1.87%	2.38%	2.84%	3.23%
International stocks MSCI All Country World ex US IMI Index	35.35%	35.57%	35.81%	35.02%	32.87%	29.43%	25.43%	21.26%	16.69%	14.15%
Equities	93.06%	93.08%	93.27%	91.48%	85.91%	77.14%	66.99%	56.30%	44.60%	38.32%
Long Term Treasury Bonds BBG US Long Treasury Bond Index	-	-	-	0.03%	0.44%	2.37%	3.91%	5.29%	6.89%	6.64%
Intermediate Term Treasury Bonds BBG US Intermediate Treasury Bond Index	-	-	-	-	-	1.34%	4.41%	8.39%	13.81%	18.26%
US Long Credit Bonds BBG US Long Credit Index	1.01%	0.88%	0.79%	1.84%	3.90%	4.43%	4.55%	4.78%	3.97%	3.40%
US Intermediate Credit Bonds BBG US Intermediate Credit Index	-	-	-	-	0.02%	1.55%	3.37%	4.82%	6.59%	7.15%
US Securitized Bonds BBG US Securitized MBS, ABS, and CMBS Index	-	-	-	-	1.90%	4.24%	7.01%	10.06%	13.55%	15.40%
TIPs Bloomberg US TIPS Index	-	0.14%	0.22%	0.77%	2.23%	3.94%	5.42%	6.66%	7.59%	7.91%
Fixed Income	1.01%	1.02%	1.01%	2.64%	8.49%	17.87%	28.67%	40.00%	52.40%	58.76%
Real Estate FTSE EPRA/NAREIT Developed Real Estate Index	4.64%	4.66%	4.67%	4.65%	4.35%	3.88%	3.32%	2.74%	2.14%	2.21%
Alternatives	4.64%	4.66%	4.67%	4.65%	4.35%	3.88%	3.32%	2.74%	2.14%	2.21%

Source: Blackrock actual asset allocation as of close of business December 31, 2023, the most current available at the time this presentation was created. Updated Annually or if there is a material change to the glidepath. The allocations above represent the Blackrock lending portfolios, sourced from factsheets and other publically available information. The information contained above is for illustrative purposes only. Allocations are as of the date indicated, are subject to change, and should not be relied upon as current thereafter. Please refer to the disclosure slide for additional risk disclosures.



# Appendix: Historical Risk & Return

#### Annualized Risk & Return As of September 30, 2024

				Re	turn			Volatility/Risk						
Description	QTD*	1 Year	3 Year	5 Year	7 Year	10 Year	Since Inception	1 Year	3 Year	5 Year	7 Year	10 Year	Since Inception	Since Inception Date
State Street Income (Mutual Fund)	1.10%	8.71%	1.19%	4.58%	4.79%	-	4.46%	7.97%	9.05%	8.53%	7.67%	-	7.91%	09-2014
State Street 2025 (Mutual Fund)	1.15%	10.51%	1.40%	6.41%	6.74%	-	6.49%	10.22%	11.88%	11.87%	11.01%	-	12.30%	09-2014
State Street 2035 (Mutual Fund)	1.23%	12.52%	1.80%	7.77%	7.91%	-	7.53%	13.49%	14.70%	14.56%	13.48%	-	15.16%	09-2014
State Street 2055 (Mutual Fund)	1.25%	14.72%	2.47%	8.99%	8.88%	-	8.29%	15.30%	16.58%	16.72%	15.48%	-	17.65%	09-2014
Vanguard Target Retirement Fund 2025 (Mutual Fund)	1.26%	11.02%	1.51%	6.12%	6.39%	6.03%	6.62%	10.33%	11.79%	11.74%	10.85%	9.83%	15.49%	10-2003
Vanguard Target Retirement Fund 2035 (Mutual Fund)	1.55%	13.52%	2.65%	7.77%	7.76%	7.12%	7.48%	12.02%	13.72%	13.98%	13.02%	11.83%	18.69%	10-2003
Vanguard Target Retirement Fund 2055 (Mutual Fund)	2.02%	16.61%	4.15%	9.67%	9.24%	8.24%	10.09%	13.73%	15.83%	16.34%	15.21%	13.69%	17.83%	08-2010
Blackrock: Lifepath Index 2025 (Mutual Fund)	1.00%	8.79%	0.29%	4.96%	5.48%	5.22%	5.93%	10.62%	11.49%	11.10%	10.21%	9.24%	11.56%	05-2011
Blackrock: Lifepath Index 2035 (Mutual Fund)	1.43%	12.63%	2.23%	7.41%	7.53%	6.88%	7.44%	12.64%	14.13%	14.30%	13.22%	11.96%	15.51%	05-2011
Blackrock: Lifepath Index 2055 (Mutual Fund)	2.16%	17.94%	4.66%	10.16%	9.73%	8.60%	9.09%	14.76%	17.01%	17.58%	16.25%	14.60%	19.90%	05-2011
TIAA CREF Lifecycle Index 2025 (Mutual Fund)	1.45%	11.14%	1.85%	6.45%	6.70%	6.24%	7.83%	10.44%	11.75%	11.56%	10.69%	9.68%	12.79%	09-2009
TIAA CREF Lifecycle Index 2035 (Mutual Fund)	1.77%	13.75%	3.05%	8.17%	8.22%	7.51%	9.17%	12.11%	13.80%	13.92%	12.98%	11.79%	16.10%	09-2009
TIAA CREF Lifecycle Index 2055 (Mutual Fund)	2.27%	17.34%	4.68%	10.34%	9.99%	8.95%	9.43%	13.91%	16.16%	16.67%	15.59%	14.00%	18.51%	04-2011
Fidelity Freedom Index 2025 (Mutual Fund)	1.20%	10.16%	0.91%	5.72%	6.22%	-	5.95%	11.33%	12.52%	11.93%	10.97%	-	12.30%	06-2015
Fidelity Freedom Index 2035 (Mutual Fund)	1.58%	13.25%	2.40%	7.99%	8.25%	-	7.79%	12.71%	14.55%	14.85%	13.97%	-	16.85%	06-2015
Fidelity Freedom Index 2055 (Mutual Fund)	2.01%	16.17%	3.77%	9.43%	9.29%	-	8.59%	14.19%	16.19%	16.39%	15.28%	-	18.43%	06-2015
Schwab Target Index 2025 (Mutual Fund)	1.20%	10.39%	1.80%	6.02%	6.30%	-	6.63%	10.45%	11.68%	11.28%	10.39%	-	12.21%	08-2016
Schwab Target Index 2035 (Mutual Fund)	1.62%	13.86%	3.26%	8.01%	7.95%	-	8.37%	12.65%	14.23%	14.10%	13.05%	-	15.96%	08-2016
Schwab Target Index 2055 (Mutual Fund)	1.90%	16.70%	4.37%	9.74%	9.37%	-	9.91%	14.60%	16.52%	16.84%	15.67%	-	19.87%	08-2016
Voya Target Index 2025 (Mutual Fund)	1.10%	10.98%	1.58%	6.27%	6.45%	-	5.94%	10.77%	11.81%	11.70%	10.75%	-	12.43%	05-2015
Voya Target Index 2035 (Mutual Fund)	1.51%	14.13%	2.71%	7.97%	7.95%	-	7.25%	12.88%	14.51%	14.70%	13.64%	-	16.48%	05-2015
Voya Target Index 2055 (Mutual Fund)	1.98%	17.22%	4.45%	9.94%	9.43%	-	8.41%	14.59%	16.64%	17.06%	15.83%	-	19.51%	05-2015

Source: Morningstar, SSGA Defined Contribution, as of September 30, 2024. \*Note: Performance returns for periods of less than one year are not annualized. QTD risk is not provided as the time period is too short for a relevant sample. The performance figures contained herein are provided on a net of fees basis. The performance includes the reinvestment of dividends and other corporate earnings and is calculated in US dollars. Past performance is not a reliable indicator of future performance. The information contained above is for illustrative purposes only. Please refer to the disclosure slide for additional risk disclosures.

# Appendix B: Important Risk Disclosures



# **Important Disclaimers (1)**

#### For institutional / professional investors use only.

All information is from SSGA unless otherwise noted and has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such.

Investing involves risk including the risk of loss of principal.

The whole or any part of this work may not be reproduced, copied or transmitted or any of its contents disclosed to third parties without State Street Global Advisor's express written consent.

The funds presented herein have different investment objectives, costs and expenses. Each fund is managed by a different investment firm, and the performance of each fund will necessarily depend on the ability of their respective managers to select portfolio investments. These differences, among others, may result in significant disparity in the funds' portfolio assets and performance. For further information on the funds, please review their respective prospectuses.

The information provided does not constitute investment advice and it should not be relied on as such. It should not be considered a solicitation to buy or an offer to sell a security. It does not take into account any investor's particular investment objectives, strategies, tax status or investment horizon. You should consult your tax and financial advisor.

The MSCI indexes are the exclusive property of MSCI Inc. ("MSCI"). MSCI and the MSCI index names are service mark(s) of MSCI or its affiliates and have been licensed for use for certain purposes by SSGA. The financial securities referred to herein are not sponsored, endorsed, or promoted by MSCI, and MSCI bears no liability with respect to any such financial securities. The [Prospectus] contains a more detailed description of the limited relationship MSCI has with SSGA and any related financial securities. No purchaser, seller or holder of this product, or any other person or entity, should use or refer to any MSCI trade name, trademark or service mark to sponsor, endorse, market or promote this product without first contacting MSCI to determine whether MSCI's permission is required. Under no circumstances may any person or entity claim any affiliation with MSCI without the prior written permission of MSCI.

Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. Russell Indexes are a trademark of Russell Investment Group.

The Dow Jones Indexes are a product of Dow Jones Indexes, the marketing name and a licensed trademark of CME Group Index Services LLC ("CME Indexes"). "Dow Jones®" and "Dow Jones Indexes" are service marks of Dow Jones Trademark Holdings, LLC ("Dow Jones"), have been licensed to CME Indexes and sublicensed for use for certain purposes by State Street Global Advisors. Investment products based on Dow Jones Indexes are not sponsored, endorsed, sold or promoted by CME Indexes, Dow Jones or their respective affiliates, and CME Indexes, Dow Jones and their respective affiliates make no representation regarding the advisability of trading in such products.

Standard & Poor's (S&P) Indexes are a registered trademark of Standard & Poor's Financial Services LLC.

All rights in the Index vest in FTSE. FTSE is a trade mark of LSEG and is used by FTSE under licence.

Companies with large market capitalizations go in and out of favor based on market and economic conditions. Larger companies tend to be less volatile than companies with smaller market capitalizations. In exchange for this potentially lower risk, the value of the security may not rise as much as companies with smaller market capitalizations.

STATE STREE

## **Important Disclaimers (2)**

Asset Allocation is a method of diversification which positions assets among major investment categories. Asset Allocation may be used in an effort to manage risk and enhance returns. It does not, however, guarantee a profit or protect against loss.

Equity securities may fluctuate in value in response to the activities of individual companies and general market and economic conditions.

Bonds generally present less short-term risk and volatility than stocks, but contain interest rate risk (as interest rates rise bond Prices usually fall); issuer default risk; issuer credit risk; liquidity risk; and inflation risk. These effects are usually pronounced for longer-term securities. Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss.

Increase in real interest rates can cause the price of inflation-protected debt securities to decrease. Interest payments on inflation-protected debt securities can be unpredictable.

Investing in REITs involves certain distinct risks in addition to those risks associated with investing in the real estate industry in general. Equity REITs may be affected by changes in the value of the underlying property owned by the REITs, while mortgage REITs may be affected by the quality of credit extended. REITs are subject to heavy cash flow dependency, default by borrowers and self-liquidation. REITs, especially mortgage REITs, are also subject to interest rate risk (i.e., as interest rates rise, the value of the REIT may decline).

Diversification does not ensure a profit or guarantee against loss.

Generally, among asset classes, stocks are more volatile than bonds or short-term instruments. Government bonds and corporate bonds generally have more moderate short-term price fluctuations than stocks, but provide lower potential long-term returns. US Treasury Bills maintain a stable value if held to maturity, but returns are generally only slightly above the inflation rate.

Investing in foreign domiciled securities may involve risk of capital loss from unfavorable fluctuation in currency values, withholding taxes, from differences in generally accepted accounting principles or from economic or political instability in other nations.

Investments in emerging or developing markets may be more volatile and less liquid than investing in developed markets and may involve exposure to economic structures that are generally less diverse and mature and to political systems which have less stability than those of more developed countries.

The views expressed in this material are the views of the State Street Global Advisors Defined Contribution Team through the period ended November 5, 2024 and are subject to change based on market and other conditions. This document contains certain statements that may be deemed forward-looking statements. Please note that any such statements are not guarantees of any future performance and actual results or developments may differ materially from those projected.

The trademarks and service marks referenced herein are the property of their respective owners. Third party data providers make no warranties or representations of any kind relating to the accuracy, completeness or timeliness of the data and have no liability for damages of any kind relating to the use of such data.

Performance of the asset allocation funds depends on the underlying funds. These funds may be subject to the volatility of global financial markets (domestic and international) and additional risks associated with investing in high-yield, small-cap, and foreign securities. Please see the prospectus for further information on these and other risk considerations.



### **Important Disclaimers (3)**

Investments in small-sized companies may involve greater risks than in those of larger, better known companies.

Investments in mid-sized companies may involve greater risks than in those of larger, better known companies, but may be less volatile than investments in smaller companies.

Investing in high yield fixed income securities, otherwise known as junk bonds is considered speculative and involves greater risk of loss of principal and interest than investing in investment grade fixed income securities. These Lower-quality debt securities involve greater risk of default or price changes due to potential changes in the credit quality of the issuer.

There are risks associated with investing in Real Assets and the Real Assets sector, including real estate, precious metals and natural resources. Investments can be significantly affected by events relating to these industries.

SSGA Target Date Fund are designed for investors expecting to retire around the year indicated in each fund's name. When choosing a Fund, investors should consider whether they anticipate retiring significantly earlier or later than age 65 even if such investors retire on or near a fund's approximate target date. There may be other considerations relevant to fund selection and investors should select the fund that best meets their individual circumstances and investment goals. The funds' asset allocation strategy becomes increasingly conservative as it approaches the target date and beyond. The investment risks of each Fund change over time as its asset allocation changes.

Distributor: State Street Global Advisors Funds Distributors, LLC, member FINRA, SIPC, an indirect wholly owned subsidiary of State Street Corporation. References to State Street may include State Street Corporation and its affiliates. The SSGA© Funds pay State Street Bank and Trust Company for its services as custodian, transfer agent and shareholder servicing agent and pays SSGA Funds Management, Inc. for investment advisory services.

### Before investing, consider the funds' investment objectives, risks, charges and expenses. To obtain a prospectus or summary prospectus which contains this and other information, call 1-800-997-7327 or visit www.ssgafunds.com. Read it carefully.

#### Not FDIC Insured • No Bank Guarantee • May Lose Value

United States: State Street Global Advisors, One Iron Street, Boston, MA 02210-1641.

Web: www.ssga.com

© 2024 State Street Corporation — All Rights Reserved.

Information Classification: Limited Access

Tracking Number: 7264436.2.1.AM.INST

Expiration Date: December 31, 2024

32