Oregon Retirement Savings Board Meeting

OST-Tigard Office
Mt. Hood Board Room

Tuesday, 12/11/2018
9:00 AM - 12:00 PM PT

1. **Agenda (9:00 am)**
   2018.12.11AmendedORSBAgenda - Page 2
2. **Review and Approve October 9 and October 15, 2018 Board Minutes Presented By: Treasurer Read (9:05 am)**
   2018.10.09ORSBMinutes.DFT - Page 4
   2018.10.15ORSBMinutes.DFT - Page 7
3. **Review and Approve Cannabis Amendment Presented By: Kim Olson and David Elott (9:10 am)**
   Oregon SSRP PMA Amendment No 3 (Board) - Page 8
4. **Executive Director's Report Presented By: Michael Parker (9:35 am)**
   - **a. Program financial & budgetary overview**
   - **b. Contracts and amendments update**
5. **Program Implementation and Administration**
   OregonSaves - Program Implementation Administration December 2018 v2 - Page 12
   - **a. Implementation / program numbers Presented By: Joel Metlen (9:50 am)**
   - **b. Outreach Presented By: Kasey Krifka (10:00 am)**
   - **c. Program administration Presented By: Matt Golden (10:10 am)**
   - **d. Enhancements Presented By: Matt Golden (10:20 am)**
6. **Financial Statements Audit Presented By: Patti Weed, Randy Milligan, & Greg Walker (10:30 am)**
   OregonSaves Presentation - Page 18
   OregonSaves FS Draft - Page 24
   OregonSaves AU-C 260 Letter Draft - Page 38
7. **Program Investment Review Presented By: Wendy Carter & Craig Chaikin (11:10 am)**
   REPORT_ OregonSaves Retirement Savings Program ended 9_30_18 - Page 41
   - **a. Performance update through 11/30/18 Presented By: Craig Chaikin (11:20 am)**
     Segal - OregonSaves November - Page 115
8. **Public Comment (11:25 am)**

Oregon Retirement Savings Board
*Amended Agenda

Tuesday, December 11, 2018
9:00am – 12:00pm

OST – Tigard Office
Mt. Hood Board Room
16290 SW Upper Boones Ferry Road
Tigard, Oregon

Conference Line #: 877.336.1828
Access Code: 1691288

CALL TO ORDER 9:00

There will be an opportunity for public comment before the end of the meeting.

2019 Meeting Dates:

February 5, 2019	1pm-4pm	August 6, 2019	1pm – 4pm
May 7, 2019	1pm -4pm	November 5, 2019	1pm – 4pm

ACTION ITEMS

1. **Review and Approve October 9 and October 15, 2018 Board Minutes** — **Treasurer Tobias Read**, ORSB Chair — 9:05

2. **Review and Approve Cannabis Amendment** — **Kim Olson,** Policy Director; **David Elott,** Legal Counsel — 9:10

INFORMATION ITEMS:

3. **Executive Director's Report** — **Michael Parker**, Executive Director, Oregon Savings Network — 9:35
   a. Program financial & budgetary overview
   b. Contracts and amendments update

Tobias Read Treasurer Chair	Kara Backus Member	Lee Beyer Senator	Edward Brewington Member	VACANT Member	Pam Marsh Representative	Cory Streisinger Member	Michael Parker Executive Director Oregon Savings Network

4.	**Program Implementation and Administration**		
	a. Implementation / program numbers	**Joel Metlen,** Operations Director	9:50
	b. Outreach	**Kasey Krifka**, Engagement Director	10:00
	c. Program administration	**Matt Golden,** Ascensus	10:10
	d. Enhancements		
5.	**Financial statements audit**	**Patti Weed, Randy Milligan, Greg Walker,** Landmark	10:30
6.	**Program Investment Review**	**Wendy Carter,** Segal	11:10
	a. Performance update through 11/30/18*	**Craig Chaikin,** Segal	11:20
PUBLIC COMMENT:			11:30

Next Meeting of the Oregon Retirement Savings Board: February 5, 2019

Adjournment

Oregon Retirement Savings Program
Board Minutes
October 9, 2018
9:00am – 12:00pm

Members Present:	Treasurer Tobias Read, Chair Kara Backus Senator Lee Beyer Edward Brewington Representative Pam Marsh Cory Streisinger
Treasury Staff:	David Bell, Deputy Director, Oregon Savings Network David Elott, Legal Counsel Kasey Krifka, Engagement Director, Oregon Savings Network Ryan Mann, Legislative Director Joel Metlen, Operations Director, Oregon Savings Network Kim Olson, Policy Director Michael Parker, Executive Director, Oregon Savings Network Jen Peet, Corporate Governance Director Missy Simpson, Executive Coordinator, Oregon Savings Network James Sinks, Director of Communications and Stakeholder Relations Stephanie Swetland, Plan Specialist, Oregon Savings Network John Valley, Outreach Director, Oregon Savings Network
Others Present:	Ted Bender, Ascensus Kevin Boyles, Millennium Trust Wendy Carter, Segal Craig Chaiken, Segal Joyce DeMonnin, AARP Matt Golden, Ascensus Jeff Gudman, Lake Oswego Council Ryan Harvey, Sellwood Consulting Brian Hogan, Ascensus John Horvick, DHM Research Carolyn Kohout, SEIU – Local 99 Vidur Mehra, SSgA Scott Morrison, Ascensus Sonya Park, SSgA

Treasurer Tobias Read, Chair, called the Oregon Retirement Savings Board meeting to order at 9:03 a.m.

Agenda Item 1 – Review and approval of the minutes of the June 13, 2018 Oregon Retirement Savings Board meeting (ACTION ITEM)

MOTION: Cory Streisinger moved approval of the minutes of the June 13, 2018 meeting of the Oregon Retirement Savings Program. Kara Backus seconded the motion. The minutes were approved by a 4/0 vote.

Agenda Item 2 – Review and Approve Rule Changes (ACTION ITEM)
Kim Olson, Policy Director, updated the Board on the Rulemaking Committee meetings and hearings that took place this summer and some of the comments that were heard by the committee. Ms. Olson presented the rule changes to the Board to review and approve. A copy of the Rulemaking Summary is included as a part of the records for the Oregon Retirement Savings Program's Board meeting.

MOTION: Cory Streisinger moved to approve the rule changes. Edward Brewington seconded the motion. The rule changes were approved by a 4/0 vote.

Agenda Item 3 – Approval of Schedule for Specific Dollar Amount Auto-Escalation (ACTION ITEM)
Kim Olson, Policy Director, discussed the schedule for the specific dollar amount auto-escalation. A copy of the Automatic Escalation Schedule for Specific Dollar Amount Contributions is included as a part of the records for the Oregon Retirement Savings Program's Board meeting.

MOTION: Edward Brewington moved approval of the schedule for specific dollar amount auto-escalation. Kara Backus seconded the motion. The schedule was passed by a 4/0 vote.

Agenda Item 4 – Executive Director's Report (INFORMATION ITEM)
Mr. Parker introduced Kasey Krifka as the Engagement Director for the Oregon Savings Network, and updated the Board on the budget. Staff is working on a more simplified version of the budget so the Board will be able to see every quarter. Staff has hired Landmark to do the financial audits for the program.

Agenda Item 5 – Program / Investment Review

a. SSgA presentation:

Sonya Park and Vidur Mehra from SSgA, presented the Board with an investment review. On September 4, 2018, fees were reduced in the target date funds from 13 basis points to 9 basis points. September 21, 2018, fees were reduced on the S&P 500 from 6 basis points to 2 basis points. Stable Value is at 12 basis points. Overall investment funds have been positive. The SSgA Update to Oregon Retirement Savings Board is included as a part of the records for the Oregon Retirement Savings Program's Board meeting.

b. **Retirement Environment:**

Wendy Carter, Segal, introduced Craig Chaiken, who will be presenting the investment review. Ms. Carter updated the Board on the Retirement Environment with other states. The Private Sector Retirement Savings presentation is included as a part of the records for the Oregon Retirement Savings Program's Board meeting.

c. **Investment Review:**

Craig Chaikin, Segal, presented the investment performance for the 2nd quarter. A copy of the Analysis of Investment Performance is included as a part of the records for the Oregon Retirement Savings Program's Board meeting. Assets grew to approximately $4.5 million as of June 30th, up from $1.8 million as of March 31st. All investment options experienced positive returns in the quarter and performed in line with expectations.

Agenda Item 6 - Program Implementation and Administration (INFORMATION ITEM)

a. Implementation / program numbers

b. Outreach

Joel Metlen, Operations Director, Oregon Savings Network, updated the Board with the progress of implementing employers in the OregonSaves program. Wave 3 notices will go out November 15 for the December 15 deadline, including auto exemption notices. Individual opt in functionality is in place and ready for testing. Traditional IRA will be an option around January / February 2019. Mr. Metlen gave a quick update on the outreach of the program. There is funding available to do promotions starting in

November, which will include TV ads. A copy of Mr. Metlen's presentation is included as a part of the records for the Oregon Retirement Savings Program's Board meeting.

c. Opt in functionality

d. Program Administration

Matt Golden, Ascensus, gave an update to the Board on the client service experience. Notifications will be going out to Wave 3, which will increase the call volume in November / December. Client Services is engaging in outcall campaigns to provide onboarding and will continue support to employers. Mr. Golden gave a summarization of some of the updates and enhancements that were made to the Platform. A copy of Mr. Golden's presentation is included as a part of the records for the Oregon Retirement Savings Program's Board meeting.

Mr. Golden discussed the standard elections for individuals who opt in to OregonSaves. The Board discussed the options and made a motion in regards to the standard elections.

MOTION: Treasurer Read moved that the prefilled amount be $100 and that the standard elections parallel those of automatically enrolled participants. The first $1,000.00 will go into the Capitol Preservation fund, and everything after that will go into the Target Date fund. Both can be altered by the saver participant if they so choose. Edward Brewington seconded the motion. The motion passed by a 4/0 vote.

Agenda Item 7 – Consumer Survey Research

Joel Metlen, Operations Director, introduced John Horvick, DHM Research, who presented to the Board the results of the telephone survey that was conducted for OregonSaves in 2018. A copy of Mr. Horvick's presentation is included as a part of the records for the Oregon Retirement Savings Program's Board meeting.

Agenda Item 8 – Legislative Overview

a. Full participation

b. WR form

Ryan Mann, Legislative Director, and Kim Olson, Policy Director presented the Board with the Legislative concepts for 2019. There will be three statutory changes that are high level the Board needs to be aware of: 1.) Full participation, ensuring compliance with the requirement that employers either provide a retirement plan or facilitate OregonSaves; 2.) A tax form mechanism for employers to exempt themselves as easy as possible; and 3.) Allow for partnerships. OregonSaves team would be able to manage funds from other States that have secure choice programs.

Public Comment: Carolyn Kohout, personal support worker, homecare worker, SEIU Local 99, thanked the Board for the opportunity to speak. Ms. Kohout's main reason for public comment was for the Board to take into consideration those whose income are so little and have a harder time contributing, and to keep the program simple and accessible.

Meeting adjourned at 11:20 a.m.

Oregon Retirement Savings Program
Interim Board Meeting Conference Call
Minutes
October 15, 2018
11:45am – 12:00pm

Members Present:	Treasurer Tobias Read, Chair Kara Backus Senator Lee Beyer Edward Brewington Representative Pam Marsh Cory Streisinger
Treasury Staff:	David Bell, Deputy Director, Oregon Savings Network Joel Metlen, Operations Director, Oregon Savings Network Kim Olson, Policy Director Michael Parker, Executive Director, Oregon Savings Network Missy Simpson, Executive Coordinator, Oregon Savings Network

Treasurer Tobias Read, Chair, called the Oregon Retirement Savings Board meeting to order at 11:45 a.m.

Agenda Item 1 – Discuss and approve the temporary rule to exempt employees using the 5500 form (ACTION ITEM)
Kim Olson, Policy Director discussed the temporary rule to exempt employers using the 5500 form.

MOTION: Board Member Cory Streisinger moved to approve the temporary rule to exempt employees using the 5500 form, seconded by Board Member Edward Brewington. The temporary rule was approved by a 4/0 vote.

Public Comment:
None

Meeting adjourned at 11:57 am.

STATE OF OREGON - OREGON STATE TREASURY

AMENDMENT NO. 003 TO PLAN ADMINISTRATION AND MANAGEMENT AGREEMENT NO. 1136 FOR THE OREGON RETIREMENT SAVINGS PLAN

Amendment No. 003 ("**Amendment**") to that certain Plan Administration and Management Agreement No. 1136 dated April 3, 2017 (as amended from time to time, the "**Agreement**") dated as of December [__], 2018, is entered into by and between the State of Oregon, acting by and through the Oregon Retirement Savings Board (sometimes referred to in the original Agreement and prior amendments as the Oregon State Retirement Savings Board) (the "**Board**"), and Ascensus College Savings Recordkeeping Services, LLC (the "**Provider**"). This Amendment will become effective as of the date hereof (the "**Effective Date**"). Capitalized terms used but not otherwise defined in this Amendment shall have the meaning given to those terms in the Agreement.

For good and sufficient consideration, the Parties agree as follows:

1. Amendments

a. Section 1 of the Agreement is hereby amended by replacing the reference to "Participating Employer" in the definition of "Employer" with the following: "Facilitating Employer".

b. Section 1 of the Agreement is hereby amended by replacing the reference to "division 200" in the definition of "Program Rules" with the following: "division 80".

c. Section 2(a) of the Agreement is hereby amended to include the following new Schedule:

Schedule E - Cannabis Industry

The terms set forth in Schedule E (attached hereto), which are incorporated into this Amendment by this reference, shall apply during the Term of the Agreement.

d. In Section 15, the contact information for the Board with a copy to the Oregon Department of Justice shall be deleted in its entirety and replaced with the following:

"Oregon Retirement Savings Board
c/o Oregon State Treasury
16290 SW Upper Boones Ferry Road
Tigard, Oregon 97224
Attn: Executive Director, Michael Parker
Email: Michael.Parker@ost.state.or.us"

2. Except as expressly amended herein, all other terms and conditions of the Agreement shall remain in full force and effect and Section 21 (*Governing Law; Forum*) of the Agreement shall apply to this Amendment.

3. Provider certifies that the representations, warranties and certifications contained in the Agreement are true and correct as of the Effective Date of this Amendment and with the same effect as though made at the time of this Amendment.

4. This Agreement may be executed in multiple counterparts, all of which shall constitute one and the same instrument, and each of which shall be deemed to be an original.

Certification: By signature on this Amendment for Provider, the undersigned hereby certifies for Provider under penalty of perjury that the undersigned is authorized to act on behalf of Provider and that Provider is, to the best of the undersigned's knowledge, not in violation of any Oregon Tax Laws. For purposes of this certification, "Oregon Tax Laws" means a state tax imposed by ORS 320.005 to 320.150 and 403.200 to 403.250 and ORS chapters 118, 314, 316, 317, 318, 320, 321 and 323 and local taxes administered by the Department of Revenue under ORS 305.620.

PROVIDER: YOU WILL NOT BE PAID FOR SERVICES RENDERED PRIOR TO NECESSARY STATE APPROVALS

AGREED:

ASCENSUS COLLEGE SAVINGS RECORDKEEPING SERVICES LLC

_____

Authorized by: Title:

Contractor TIN #:_____

OREGON RETIREMENT SAVINGS BOARD

_____

Authorized by: Michael Parker Title: Director

APPROVED FOR LEGAL SUFFICIENCY

_____

Approved by: David Elott Title: Special Assistant Attorney General

SCHEDULE E

Cannabis Industry

1. **Cannabis Employers and Cannabis Employees.** The Board desires that the Program be available to Employers operating cannabis and cannabis related businesses, duly licensed under Oregon's Adult and Medical Use of Cannabis Act (ORS 475B.010 to 475B.545) (the "**Cannabis Act**"), and their respective employees. In this Agreement, such Employers are referred to as "Cannabis Employers" and such employees are referred to as "Cannabis Employees".

2. **Delivery of Service.** Provider shall include Cannabis Employers and Cannabis Employees within the scope of Services that Provider delivers under the Agreement in the same manner as other Employers and their employees are included in such Services. Any policies and procedures applicable to any Cannabis Employer or Cannabis Employee ("Cannabis Procedures") shall be mutually agreed to by the Parties and approved by each of the Provider and the Executive Director of the Oregon Savings Network (the "**Program Director**"). No material modifications shall be made to such policies and procedures without the consent of the Program Director, which approval shall not be unreasonably withheld. Other than in accordance with the approved Cannabis Procedures, no Cannabis Employer or Cannabis Employee shall be excluded by Provider from the Program.

3. **Cannabis Employer Information.** The Board will, on a weekly basis, provide to Provider, or direct the Oregon Liquor Control Commission ("**OLCC**") to provide to Provider, via a mutually agreed upon secure transfer method, a .csv file containing the following data fields for every cannabis business licensed under the Cannabis Act:

    a. OLCC License Number;
    b. Business Name;
    c. Whether the license is active or not;
    d. Oregon Business Identified Number ("**BIN**"); and
    e. Federal Employer Identification Number ("**FEIN**").

    If OLCC has no record of the BIN or FEIN for a business, the following additional data fields will be provided for that business:

    f. Licensee name;
    g. Address;
    h. City;
    i. State; and
    j. Zip Code.

    The Board shall use commercially reasonable efforts to provide additional information on Cannabis Employers and Cannabis Employees as Provider may reasonably request to perform the Services. All data and information furnished to Provider under this Section 3 shall be considered Program Confidential Information under this Agreement and Provider shall use such information solely to deliver the Services as part of Program administration.

4. **Cannabis Validity Claims.** With respect to any civil Claims filed against any Provider Defendant arising solely from the Services that relate to the cannabis nature of a Cannabis Employer's business, the Board shall, to the extent allowed by Oregon law, cooperate and assist such Provider Defendant in the defense and dismissal of such Claim. The Board shall pay for the reasonable costs to defend and dismiss such Claim in accordance with the second sentence of Section 13(g) of the Agreement. If a civil Claim is brought under federal law, the third sentence of Section 13(g) of the Agreement shall apply.

5. **Change of Law or Other Circumstances.**

   (a) Adverse MRB Impact. If there are additional regulatory or compliance requirements, or changes thereto, or other change in circumstances, that in Provider's reasonable judgment may materially and adversely impact its ability to provide Services to Cannabis Employers or Cannabis Employees (each, an "Adverse MRB Impact"), Provider shall send written notice to the Board that includes an explanation of such Adverse MRB Impact. Following delivery of such notice, the parties agree to work together, in good faith, to determine how to address such Adverse MRB Impact, which could include modification of this Agreement or Provider's obligation to service Cannabis Employers/Employees to minimize or eliminate the Adverse MRB Impact to the Provider. Provider shall make commercially reasonable efforts to continue to provide Services to Cannabis Employers and Cannabis Employees given the facts and circumstances of the Adverse MRB Impact. For the purposes of this paragraph, an Adverse MRB Impact may include, but is not limited to: (i) change in state or federal laws, rules, regulations or enforcement policy, (ii) increase in financial expense or risk exposure, (iii) direction from regulators (iv) direction by the Board of the IRA Custodian arising from regulatory issues or constraints, and (v) the inability to contract with third parties essential to the provision of Services (e.g., vendors or subcontractors) on reasonable terms, in each such case which materially and adversely impacts Provider's ability to provide Services to Cannabis Employers or Cannabis Employees.

   (b) Discontinuation of Services to Cannabis Employers. If the parties are unable, after reasonable efforts have been made, to minimize or eliminate the Adverse MRB Impact, then Provider, in its sole discretion, may, after written notice to the Board, discontinue the provision of Services to Cannabis Employers. Notwithstanding the discontinuation of Services to Cannabis Employers, Provider shall continue to provide Services to Cannabis Employees, other than through Cannabis Employer payroll deduction. The parties agree to work in good faith to transition certain Accounts to another service provider, if needed, in order to mitigate the Adverse MRB Impact or to comply with applicable law.

Program Implementation and Administration Update

Oregon Retirement Savings Board

December 11, 2018

Implementation

The latest numbers and milestones

- **Overall numbers**
  - Employers
  - Employees
  - Individuals
  - Assets

- **Program milestones**
  - Audit completed
  - Wave 3 registration deadline Dec. 15
  - Annual report by Dec. 31
  - Auto escalation starts Jan. 1
  - Possible multi-state collaboration

Outreach Update

Saver and employer experience

- We are working with our research partners on data collection and testing, including:
  - Another round of employer and employee demographic surveys to begin in the new year
  - An intervention study with Duke/Common Cents Lab for wave 3 employees
  - Saver interviews with Commonwealth

Outreach

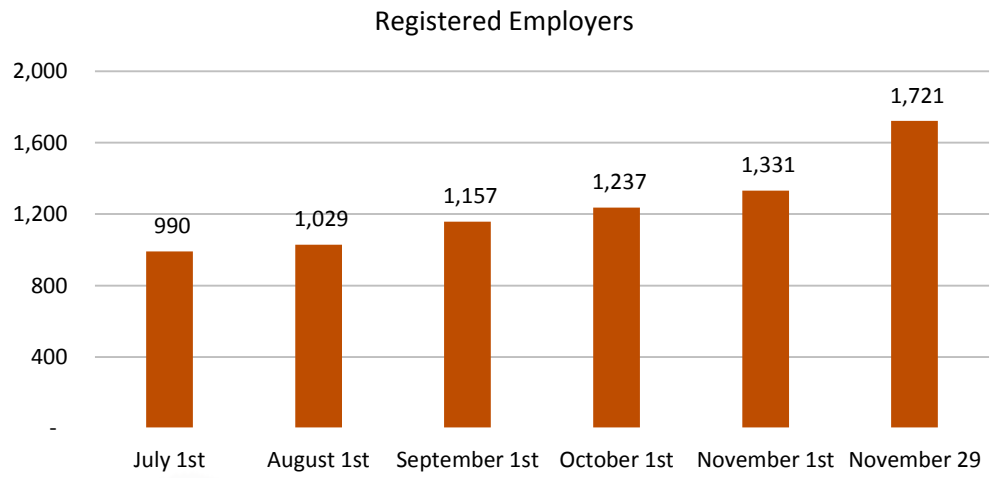
- Promotion of individual opt-in began 11/12/18.
- A second round of individual opt-in promotion will take place in January.
- We're continuing to develop video and written testimonial content.
- Automated emails started to encourage employers to work with the field team.
- Employer and employee education sessions continue to significantly increase.
- We're working with IL and CA to coordinate payroll provider engagement.

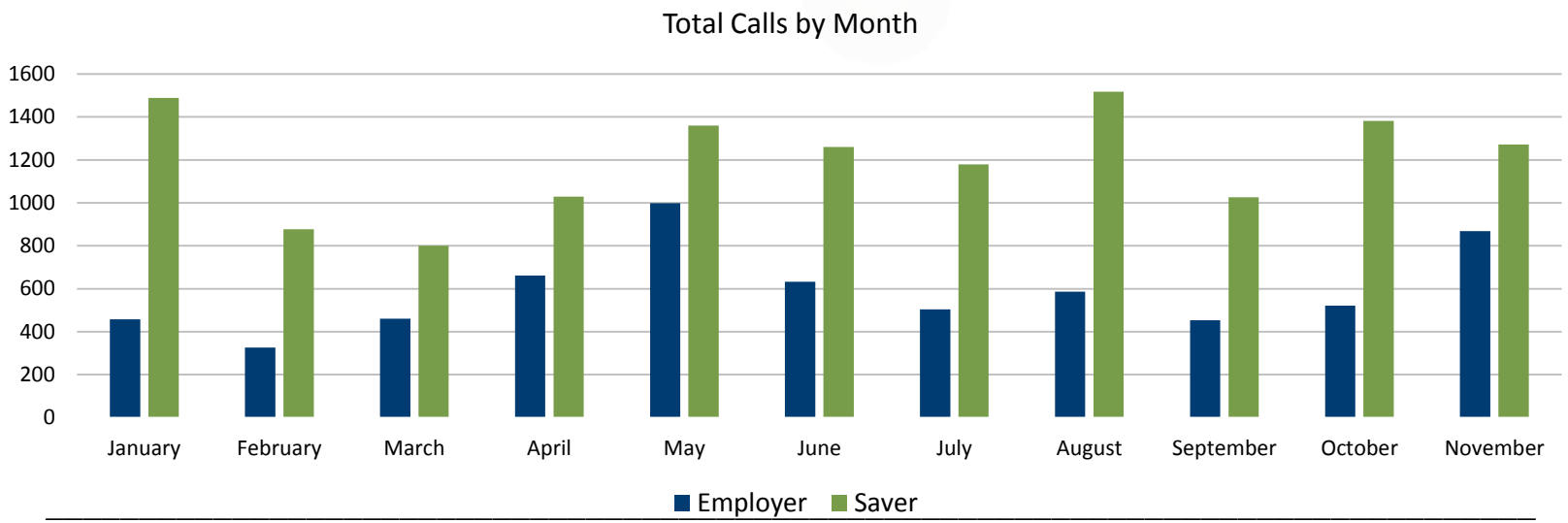
Client Service Experience

Contact Volumes and Service Levels
January 1st, 2018 – November 29th, 2018:

Saver Calls Answered	**13,189**
Employer Calls Answered	**6,474**
Employer Outbound Calls	**10,062**
Emails Handled	**5,175**
Spanish Line Calls	**1,092**

Service Level (Percentage of calls answered within 30 seconds)**: 98%**
Call Abandon Rate: 0.19%





Platform Update

November

- Auto escalation notices

December

- Auto escalation contribution rate increase
- Employer portal search grid enhancements
- Disable Employer ability to opt-out EEs (Phase 2)

January

- Enhancements to census and contributions files
  - Saver unique external payroll identification number
  - Additional fields for mailing address and phone numbers

Platform Update

Enhancement Pipeline

Enhancement	Origin	Live Date	Estimated Dev Start	Comments
Payroll Change Summary	Payroll Provider Input	2/1/2019	9/1/2017	Simplifies payroll updates for Large ERs and Payroll Providers; first iteration is in place now. Next enhancement is to add unique external payroll id.
Disable ER opt-out for EE (phase 2)	Program	12/15/2019	10/19/2018	Remove ability for ER to adjust EE contribution rate and auto escalation
Auto-Escalation	Oregon SOW	1/1/2019	10/1/2018	Includes ER and EE communications
Traditional IRAs	Oregon SOW	TBD	6/30/2018	Requires new account type and support materials/tools. Significant development required for tax reporting and distribution reporting.
Rollovers In	Oregon SOW	6/1/2019	3/1/2019	Systems, forms and service model need to be developed.

Audit Presentation

December 11, 2018

Randy Milligan, Technical Review Partner

Pattie Weed, Engagement Partner

Greg Walker, Senior Manager

oregonsaves

Audit Presentation

- **Landmark PLC Qualifications and Experience**

Technical Review Partner

Randy Milligan is the managing partner of our Little Rock office. In this capacity, Randy is responsible for ensuring that all professional standards are observed in the conduct of our engagements. As *technical review partner* on the team, Randy performs a detailed review of all reports and communications issued to ensure compliance with applicable professional standards. Randy also consults with the engagement team on the audit plan and any accounting or auditing issues that may arise.

Randy joined Thomas & Thomas LLP in 1988 after completing his Bachelor of Business Administration in Accounting at the University of Central Arkansas in Conway, Arkansas. He is licensed to practice as a Certified Public Accountant in Arkansas, Maine and Massachusetts and is a member of the AICPA, the Arkansas Society of Certified Public Accountants (ASCPA) and the Association of Government Accountants (AGA). Randy recently served as a member of the Peer Review Board of the AICPA, is the chairman of the Arkansas Peer Review Committee, and is an instructor of accounting and audit classes for the ASCPA.

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Audit Presentation

- **Landmark PLC Qualifications and Experience *(Continued)***

Engagement Partner

Pattie Weed is an audit partner in our Little Rock office. In addition to performing routine audit services, a significant portion of Pattie's career has been devoted to working with clients to evaluate and design business processes and internal controls. As *engagement partner* on the team, Pattie is responsible for overall planning and execution of our services, including development of the audit plan, obtaining and documenting our understanding of significant processes and controls, supervising the work of all audit team members and communicating the status and results of our work directly with representatives of the state, the program manager and the investment manager.

Pattie graduated with honors from Hendrix College in Conway, Arkansas, with a Bachelor of Arts Degree in Economics, and she joined Thomas & Thomas LLP in 1999 after working for approximately six years for Deloitte. She is licensed to practice as a Certified Public Accountant in Arkansas, Maine and Massachusetts and is a member of the AICPA, the ASCPA and the AGA. Pattie was appointed by the GASB to serve as a member of the GASB Task Force on Fiduciary Responsibilities, and she has been an instructor of accounting and audit classes for the ASCPA and Hendrix College.

LANDMARK CERTIFIED PUBLIC ACCOUNTANTS

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Audit Presentation

- **Landmark PLC Qualifications and Experience *(Continued)***

Engagement Manager

Greg Walker is an audit manager in our Little Rock office. As *engagement manager* on the team, Greg is directly responsible for executing planned audit procedures, assisting Pattie in documenting significant processes and controls and supervising and reviewing the work of senior, in-charge and staff accountants assigned to the engagement.

Greg joined Thomas & Thomas LLP in 2008 after completing his Bachelor of Business Administration in Accounting and a Master of Accountancy at the University of Central Arkansas in Conway, Arkansas. Greg has been a part of our 529 professional services team since he joined our firm 10 years ago, and he serves as engagement manager on all of our 529 plan engagements. He is licensed to practice as a Certified Public Accountant in Arkansas and is a member of the AICPA and the ASCPA.

LANDMARK CERTIFIED PUBLIC ACCOUNTANTS

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Audit Presentation

- **Landmark PLC Qualifications and Experience *(Continued)***

Plan Name	Number of Years Served	Total Assets
GIFT College Investing Plan	11	$ 395,888,000
North Dakota's College SAVE	10	$ 469,287,000
Pennsylvania 529 Investment Plan	9	$ 2,610,543,000
ideal - Idaho College Savings Program	9	$ 445,332,000
SSGA Upromise 529 Plan	9	$ 1,436,863,000
HI529 - Hawaii's College Savings Program	9	$ 80,459,000
iShares 529 Plan	8	$ 395,888,000

Plan Name	Number of Years Served	Total Assets
New York ABLE Savings Program	1	$ 714,000
New York's 529 Advisor Guided College Savings Program	5	$ 5,024,413,000
CollegeChoice Advisor 529 Savings Plan	4	$ 2,181,832,000
NextGen College Investing Plan	3	$ 9,447,362,000
Rhode Island Higher Education Savings Trust	1	$ 6,190,513,000
ABLE Consortium Trust	1	$ 11,080,000

LANDMARK CERTIFIED PUBLIC ACCOUNTANTS

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Audit Presentation

- Independent Auditor's Report
- Basic Financial Statements
- Notes to Financial Statements
- Testing Discussion
  - Investments
  - Participant transactions
  - Administrative fees
- Audit Results Communication Letter
- Management Letter

LANDMARK CERTIFIED PUBLIC ACCOUNTANTS

OREGON RETIREMENT SAVINGS PROGRAM
BASIC FINANCIAL STATEMENTS
June 30, 2018
(With Independent Auditor's Report Thereon)

Preliminary Draft
November 28, 2018

LANDMARK
CERTIFIED PUBLIC ACCOUNTANTS

OREGON RETIREMENT SAVINGS PROGRAM
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Preliminary Draft
November 28, 2018

LANDMARK
CERTIFIED PUBLIC ACCOUNTANTS

INDEPENDENT AUDITOR'S REPORT

Mr. Michael Parker, Executive Director
Members of the Oregon Retirement Savings Board
Ascensus Government Savings Recordkeeping Services, LLC, Program Administrator
Oregon Retirement Savings Program

Report on the Basic Financial Statements

We have audited the accompanying statement of fiduciary net position and statement of changes in fiduciary net position of the **Oregon Retirement Savings Program,** also known as **OregonSaves** (the Program)**,** as of June 30, 2018 and for the year then ended, and the related notes to the financial statements, which collectively comprise the Program's basic financial statements.

Management's Responsibility for the Basic Financial Statements

Management is responsible for the preparation and fair presentation of these basic financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Preliminary Draft
November 28, 2018

Auditor's Responsibility

Our responsibility is to express an opinion on these basic financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the basic financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the basic financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the basic financial statements referred to on the preceding page present fairly, in all material respects, the fiduciary net position of the Program as of June 30, 2018, and the changes in fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matter

Management has elected to omit management's discussion and analysis, that accounting principles generally accepted in the United States of America require to be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, as it is considered to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. Our opinion on the basic financial statements is not affected by this matter.

Certified Public Accountants

November 30, 2018
Little Rock, Arkansas

Preliminary Draft
November 28, 2018

Basic Financial Statements

Preliminary Draft
November 28, 2018

oregonsaves

STATEMENT OF FIDUCIARY NET POSITION
June 30, 2018

ASSETS	
Investments	$ 4,561,158
Cash and cash equivalents	56,230
Receivables for investments sold	153
Total Assets	4,617,541
LIABILITIES	
Payables for investments purchased	46,977
Withdrawals payable	8,509
Accrued administrative fees	2,948
Total Liabilities	58,434
FIDUCIARY NET POSITION	$ 4,559,107

STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
Year Ended June 30, 2018

ADDITIONS	
Contributions	$ 4,944,886
Investment income:	
Dividend income	20,042
Net appreciation in fair value of investments	5,141
Net investment income	25,183
Total Additions	4,970,069
DEDUCTIONS	
Withdrawals	400,876
Administrative fees	10,086
Total Deductions	410,962
NET INCREASE	4,559,107
FIDUCIARY NET POSITION, BEGINNING OF YEAR	-
FIDUCIARY NET POSITION, END OF YEAR	$ 4,559,107

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See accompanying notes to financial statements.

NOTES TO FINANCIAL STATEMENTS
June 30, 2018

NOTE 1: ORGANIZATION AND NATURE OF OPERATIONS

The following provides a brief description of the Oregon Retirement Savings Program, also known as OregonSaves (the Program). For more information and disclosures about the Program, refer to the Program Description available at saver.oregonsaves.com or call 1-844-661-6777.

(a) General

The Program was developed and established by the Oregon Retirement Savings Board (the Board) as mandated under Oregon Revised Statutes 178.200 to 178.245, as amended, to allow eligible employees who earn compensation in Oregon to contribute to a retirement savings account through payroll deduction. The Board, established in the Office of the State Treasurer, is responsible for the establishment, implementation and maintenance of the Program. The Board intends that the Program be operated in a manner consistent with applicable guidance provided by the U.S. Department of Labor relating to payroll deduction individual retirement account (IRA) programs that are not pension plans under Title I of the Employee Retirement Income Security Act (ERISA).

Each eligible employer in the state of Oregon must offer employees the opportunity to participate in the Program unless the employer offers a qualified retirement plan, including but not limited to a plan qualified under section 401(a), section 401(k), section 403(a), section 403(b), section 408(k), section 408(p) or section 457(b) of the Internal Revenue Code. The Program provides for automatic enrollment of employees, and employees are allowed to opt out of the Program. The employers make no contributions to participating employee accounts. Employee accounts in the Program are structured as Roth IRAs, which provide tax-free withdrawals of contributions and qualified distributions of earnings.

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The Program offers a range of investment options, from conservative to aggressive, designed to meet the risk tolerances and investment objectives of participating employees. Each investment option invests in a single underlying mutual fund. Account owners purchase units of investment options, not shares of the underlying mutual fund. These units are municipal securities.

The state of Oregon and employers that facilitate the Program have no proprietary interest in contributions to or earnings on amounts contributed to accounts established under the Program. The Board acts as a fiduciary with respect to the investments offered by the Program.

The Office of the State Treasurer and the Board incur costs in providing administrative oversight with respect to the Program. These costs are not included in the accompanying financial statements.

(b) Program Administrator

The Board has entered into a contract with Ascensus College Savings Recordkeeping Services, LLC (ACSR), pursuant to which ACSR serves as the Program Administrator. The Program Administrator and its affiliates are responsible for day-to-day program operations, including recordkeeping and administrative services.

NOTE 1: ORGANIZATION AND NATURE OF OPERATIONS (Continued)

(c) IRA Custodian
Ascensus Trust Company, an affiliate of the Program Administrator, serves as the IRA Custodian responsible for establishing the employee accounts, processing account owner instructions as directed, issuing account statements, fulfilling IRS reporting requirements, non-discretionary trustee duties and other responsibilities under Section 408(a) and other applicable provisions of the Internal Revenue Code.

(d) Municipal Securities Custodian
The Bank of New York Mellon is the Program's custodian of the municipal securities (i.e., the units issued to account owners) and is responsible for maintaining the assets that are contributed to each investment option.

(e) Investment Manager
SSGA Funds Management, Inc. (State Street) manages the underlying mutual funds that comprise each investment option.

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NOTE 2: SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Accounting
In accordance with accounting principles generally accepted in the United States of America applicable to fiduciary fund types prescribed by the Governmental Accounting Standards Board (GASB), the Program's financial statements are prepared using the flow of economic resources measurement focus and accrual basis of accounting.

(b) Income Taxes
The Program is exempt from federal and state income tax.

(c) Estimates
The preparation of financial statements, in conformity with generally accepted accounting principles, requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results may differ from those estimates.

(d) Investments
The Program invests in mutual funds, which are reported at fair value, based on net asset value per share as of the close of the New York Stock Exchange (NYSE) on the reporting date. Net realized and unrealized gains (losses) are included in "net appreciation (depreciation) in fair value of investments" on the statement of changes in fiduciary net position. Purchases and sales of shares of mutual funds are recorded on a trade-date basis. Dividends and capital gain distributions are recorded on the ex-dividend date and are automatically reinvested in additional shares of the respective mutual fund.

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Continued)

(d) Investments *(Continued)*

Accounting standards categorize fair value measurements according to a hierarchy based on valuation inputs that are used to measure fair value. Level 1 inputs are quoted prices for identical assets in active markets that can be accessed at the measurement date. Level 2 inputs are inputs other than quoted prices that are observable for an asset, either directly or indirectly. Level 3 inputs are unobservable. The fair values of mutual funds are determined using Level 1 inputs.

(e) Cash and Cash Equivalents

Cash and cash equivalents generally include contributions received from account owners that have not yet been invested in the underlying mutual funds and/or redemption proceeds from mutual fund sales for withdrawals that have not yet been distributed in accordance with account owners' instructions.

Contribution and withdrawal transactions are processed through deposit accounts held at JPMorgan Bank, N.A. in the name of the IRA Custodian for the benefit of account owners. The combined bank balance of these accounts at June 30, 2018, totaled $98,347. Balances in these accounts are insured by the Federal Deposit Insurance Corporation (FDIC), subject to applicable FDIC limits. Amounts in excess of FDIC insurance limits are not collateralized or covered by supplementary insurance.

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(f) Contributions

Each employer deducts contributions from payroll based on each participating employee's current contribution elections, which can be either the standard elections or alternate elections, and transfers those payroll deductions to the Program Administrator. Amounts deducted are required to be transmitted to the Program Administrator as soon as administratively possible, not to exceed seven business days from the date of deduction.

Contributions received by the Program Administrator from employers in good order prior to the close of the New York Stock Exchange (NYSE) are credited to account owners and recorded as increases in fiduciary net position on the same business day.

Employee contributions are invested in one or more of the following investment strategies, depending upon employee elections:

> **OregonSaves Capital Preservation Fund** is an investment option that seeks to help investors preserve the value of their savings by investing in underlying funds that invest in money market securities.

NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Continued)

(f) Contributions *(Continued)*

OregonSaves Target Retirement Funds are investment options that correspond with the year closest to when the account owner will be 65 or plans to retire. Each OregonSaves Target Retirement Fund has a specific "target date" (e.g., 2035, 2045, 2055) and invests in an underlying fund that invests in a mix of stock and bond funds. Each underlying fund seeks growth for younger investors and becomes more conservative over time in order to help its investors preserve savings as the underlying funds near their target dates.

OregonSaves Growth Fund is an investment option that seeks to match the return of large companies in the U.S. stock market by investing in companies included in the S&P500® Index.

If an employee has not opted out of the Program or has not chosen alternate elections, he or she will be enrolled using the following standard elections:

- The initial rate of contribution to the Program is 5% of compensation.
- Contribution rates will be automatically increased by 1% on January 1 each year, beginning January 1, 2019, until a maximum of 10% is reached.
- The first $1,000 in contributions will be invested in the OregonSaves Capital Preservation Fund.
- All subsequent contributions will be invested in the OregonSaves Target Retirement Fund based on the account owner's age and year of retirement (assuming a retirement age of 65).

Employees who do not want to enroll using the standard elections may change their contribution elections, subject to a minimum of 1% and a maximum of 100%, up to federal annual contribution limits. Employees may also choose to opt out of auto-escalation.

Additionally, account owners who do not want to use the standard election investment options may choose the investment option(s) into which their contributions will be invested. Although account owners can select the investment options in which their contributions are invested, they cannot direct the selection of the mutual funds that compose each investment option.

(g) Withdrawals

Account owners may request withdrawals online or by calling the Program Administrator. Withdrawals are recorded as deductions from fiduciary net position on the date the withdrawal request is received if such request is found to be in good order and is received prior to the close of the NYSE.

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NOTE 2: SIGNIFICANT ACCOUNTING POLICIES (Continued)

(h) Exchanges

Transfers of funds between investment options due to account owners changing their investment elections are referred to as "exchanges." The amounts of contributions and withdrawals reported on the statement of changes in fiduciary net position do not include exchanges, as these types of transactions have no impact on the overall financial position of the Program.

(i) Unit Valuation

Each account owner's full and/or fractional interest in an investment option is evidenced by a unit. The net asset value of a unit is calculated daily based on the fair value of the mutual fund held in that investment option, adjusted for the effects of transactions such as accrued fees and investment income. The value of any individual account is determined by multiplying the number of units in an investment option attributable to that account owner by the net asset value per unit of that investment option.

NOTE 3: INVESTMENTS

(a) Investments by Type

The mutual funds held by OregonSaves at June 30, 2018, are as follows:

Investment Option	Underlying Fund	Fair Value
OregonSaves Target Retirement Fund	State Street Target Retirement Fund	$ 6,549
OregonSaves Target Retirement Fund 2015	State Street Target Retirement Fund 2015	10,712
OregonSaves Target Retirement Fund 2020	State Street Target Retirement Fund 2020	24,513
OregonSaves Target Retirement Fund 2025	State Street Target Retirement Fund 2025	38,919
OregonSaves Target Retirement Fund 2030	State Street Target Retirement Fund 2030	46,432
OregonSaves Target Retirement Fund 2035	State Street Target Retirement Fund 2035	65,763
OregonSaves Target Retirement Fund 2040	State Street Target Retirement Fund 2040	49,770
OregonSaves Target Retirement Fund 2045	State Street Target Retirement Fund 2045	53,627
OregonSaves Target Retirement Fund 2050	State Street Target Retirement Fund 2050	46,471
OregonSaves Target Retirement Fund 2055	State Street Target Retirement Fund 2055	20,101
OregonSaves Target Retirement Fund 2060	State Street Target Retirement Fund 2060	11,655
OregonSaves Target Retirement Fund 2065	State Street Target Retirement Fund 2060	4,100
OregonSaves Growth Fund	State Street Equity 500 Index Fund	52,703
OregonSaves Capital Preservation Fund	State Street Institutional Liquid Reserves Fund	4,129,843
Total Investments		$ 4,561,158

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NOTE 3: INVESTMENTS (Continued)

(b) Net Appreciation in Value of Investments

The following table calculates the net change in the fair value of investments during the year ended June 30, 2018:

Fair value of investments, end of period	$ 4,561,158
Less cost of investments purchased and investment income reinvested during the period	(4,652,843)
Plus proceeds from investments sold during the period	96,826
Less fair value of investments, beginning of period	-
Net appreciation in fair value of investments	$ 5,141

(c) Investment Risk

The mutual funds in which Program assets are invested include in their asset holdings various investment securities, such as corporate debt and equity securities, obligations of the United States government and government agencies and international equity securities. These securities are exposed to interest rate, market and credit risk, and it is at least reasonably possible that changes in their fair values could occur in the near term, materially affecting account owner balances and the amounts reported in the Program's financial statements.

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Accounting standards require that certain disclosures be made related to the Program's investment policy and its exposure to credit risk, interest rate risk and foreign currency risk, which are included in the paragraphs that follow.

Investment Policy

The Board has adopted an investment policy statement that sets forth investment objectives and performance monitoring requirements applicable to the Program. The overarching objective is to provide account owners with a range of easy-to-understand investment options, allowing for diverse levels of risk tolerance, return expectations and time horizons. The policy requires analysis of investment managers and funds to assess performance and to determine adherence to investment policy guidelines. There are no provisions of the policy that specifically address credit risk, interest rate risk, concentrations of credit risk or foreign currency risk.

Credit Risk

Certain mutual funds in which Program assets are invested may include in their asset holdings bonds issued by corporations, foreign governments, the United States government and its agencies and instrumentalities. Through its investment in these mutual funds, the Program may be indirectly exposed to credit risk, which is the risk that a bond issuer will fail to pay interest and principal, when due, as a result of adverse market or economic conditions.

NOTE 3: INVESTMENTS (Continued)

(c) Investment Risk *(Continued)*

Credit Risk *(Continued)*

The Program's mutual funds are not exposed to custodial credit risk, which is the risk that the Program will not recover the value of investments that are in the possession of an outside party.

None of the mutual funds in which the Program invests are rated by a nationally recognized statistical rating organization.

Foreign Currency Risk

Certain mutual funds in which Program assets are invested may include in their asset holdings foreign debt and equity securities. There are certain inherent risks involved when investing in international securities that are not present with investments in domestic securities, such as foreign currency exchange rate fluctuations, adverse political and economic developments and the possible prevention or delay of currency exchange due to foreign governmental laws or restrictions.

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NOTE 4: ADMINISTRATIVE FEES

(a) Administrative Fees

Administrative fees presented on the statement of changes in fiduciary net position include program administration fees and state fees, as described below.

Program Administration Fees

The Program Administrator receives a program administration fee as compensation for providing administrative services to the Program. This fee, which is accrued daily and paid monthly, was 0.85% of fiduciary net position until June 1, 2018, at which time it was reduced to 0.75%.

State Fees

The Board receives a state fee to be used to cover expenses related to oversight and administration of the Program. This fee, which is accrued daily and paid monthly, was 0.05% of fiduciary net position until June 1, 2018, at which time it was increased to 0.15%.

Administrative fees for the year ended June 30, 2018 are as follows:

Program administration fees	$	9,195
State fees		891
Total administrative fees	$	10,086

NOTE 4: ADMINISTRATIVE FEES (Continued)

(b) Underlying Fund Expenses

Fees related to management of the mutual funds in which Program assets are invested (Underlying Fund Expense) reduce the amount of income available for distribution to the Program. These expenses are not direct expenses paid from Program assets, and therefore, are not included in administrative fees in the Program's financial statements.

Preliminary Draft
November 28, 2018

LANDMARK
CERTIFIED PUBLIC ACCOUNTANTS

Mr. Michael Parker, Executive Director
Members of the Oregon Retirement Savings Board
Ascensus Government Savings Recordkeeping Services, LLC, Program Administrator
Oregon Retirement Savings Program

We have audited the statements of fiduciary net position and the statement of changes in fiduciary net position of the **Oregon Retirement Savings Program**, also known as **OregonSaves** (the Program), for the year ended June 30, 2018. Professional standards require that we provide you with information about our responsibilities under generally accepted auditing standards, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated October 9, 2018. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Matters

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by the Program are described in Note 2 to the financial statements. As this was the initial year of operations for the Program, all accounting policies were adopted effective July 1, 2017. The application of these policies was not changed during the year ended June 30, 2018. We noted no transactions entered into by the Program during the year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

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November 28, 2018

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The fair market values of the Program's investments are the most sensitive and significant estimates affecting the Program's financial statements. While the fair values of the Program's investments were determined based on published net asset values of the underlying mutual funds as of June 30, 2018, these fair values may experience significant fluctuations due to changing economic conditions, and such fluctuations may have a material impact on the Program's financial statements and the balances of account owners participating in the Program.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit. The completion of our audit was somewhat delayed due to the fact that we did not receive timely responses to our requests for confirmation of investments balances and activity from the Program's investment manager. In addition, we did not receive responses from all employers with whom we attempted to confirm certain participant activity, and therefore, we had to perform detailed alternative procedures to test the information we attempted to confirm, which also resulted in a delay in the completion of our audit procedures.

Significant Audit Matters *(Continued)*

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. There were no misstatements identified as a result of our audit procedures.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated November 30, 2018.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to the Program's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management as part of our engagement acceptance and continuance procedures. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We observed certain matters pertaining to account owner directed tax withholdings and the accuracy of tax forms mailed to account owners and filed with the Internal Revenue Service. These matters, which have no impact on our opinion, are communicated in a separate letter dated November 30, 2018.

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November 28, 2018

Restriction on Use

This information is intended solely for the information and use of the Executive Director, the members of the Oregon Retirement Savings Board and the Program Administrator of the Oregon Retirement Savings Program and is not intended to be, and should not be, used by anyone other than these specified parties.

Very truly yours,

Certified Public Accountants

November 30, 2018
Little Rock, Arkansas

Preliminary Draft
November 28, 2018

Segal Marco Advisors

OregonSaves

ANALYSIS OF INVESTMENT PERFORMANCE

Retirement Savings Program

September 2018

Craig Chaikin, CFA
Vice President

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ANALYSIS OF INVESTMENT PERFORMANCE

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This performance report ("Report") is based upon information obtained by Segal Marco Advisors ("SMA") from third parties over which SMA does not exercise any control. Although the information collected by SMA is believed to be reliable, SMA cannot verify or guarantee the accuracy or validity of such information or the uniformity of the manner in which such information was prepared. The rates of return reflected herein are time weighted and geometrically linked on a monthly basis using a modified Dietz method. Monthly valuations and returns are calculated based on the assumptions that all transactions and prices are accurate from the custodian and /or investment manager. The client to whom Segal Marco Advisors delivers this Report ("Client") agrees and acknowledges that this Report has been prepared solely for the benefit of Client. SMA disclaims any and all liability that may arise in connection with Client's conveyance (whether or not consented to by SMA) of this Report (in whole or in part) to any third party. Client further agrees and acknowledges that SMA shall have no liability, whatsoever, resulting from, or with respect to, errors in, or incompleteness of, the information obtained from third parties. Client understands that the prior performance of an investment and /or investment manager is not indicative of such investment's and/or investment manager's future performance. This Report does not constitute an offer or a solicitation of an offer for the purchase or sale of any security nor is it an endorsement of any custodian, investment and/or investment manager.

Executive Summary

Overview

Economy & Capital Markets

- U.S. GDP grew at an annualized rate of 3.5% in the third quarter of 2018, down from the 4.2% growth in the second quarter. Personal consumption expenditures (PCE), state and local government spending, federal government spending and nonresidential fixed investment were all additive while reductions in exports and residential fixed investment detracted. Imports increased in Q3.
- The unemployment rate fell to 3.7% in Q3. Employment grew across all sectors except for hospitality and leisure.
- Consumer confidence improved as trade worries eased somewhat and the U.S economic backdrop remained solid. Personal consumption expenditures continued to increase during the quarter.
- The Federal Reserve (Fed) raised rates again in September, the third hike of 2018 and continued to hint that four rate hikes in total are likely this year. Treasury yields rose across all tenors in Q3 as the Fed continued to tighten monetary policy. The Bloomberg Barclays Index returned 0.02% in Q3.
- U.S. equity markets gained in Q3, with the S&P 500 index increasing 7.7%. A healthy economy and robust earnings led stocks to rise despite global trade concerns.
- Global equity markets continued to increase in the third quarter, with the MSCI World Index returning 5.0%. Solid economic and earnings data outweighed global policy uncertainty among investors.

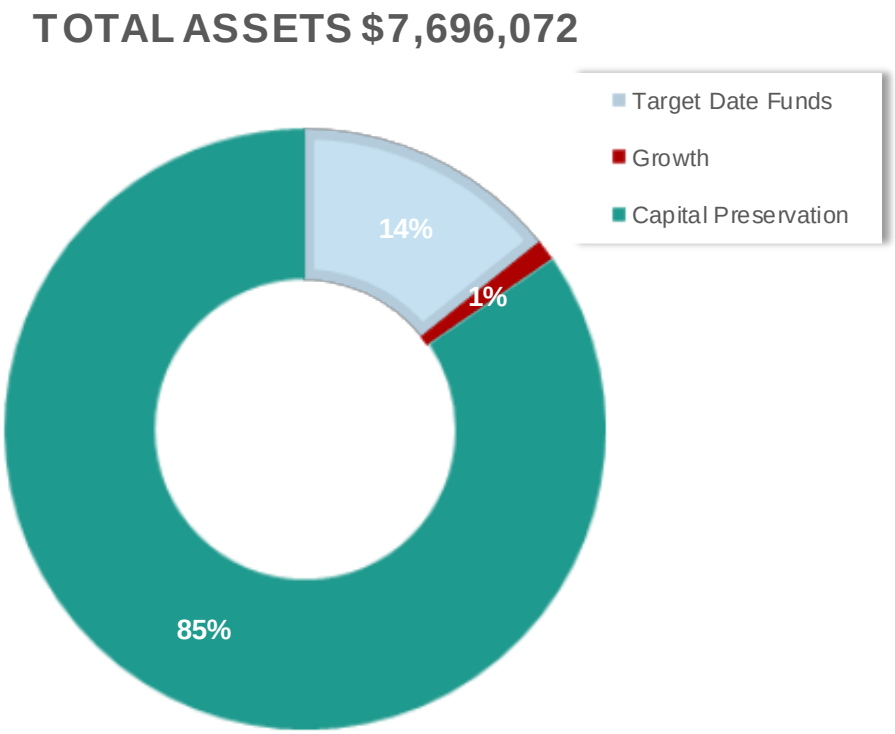
Portfolio Summary

- Assets grew to approximately $7.7 million as of September 30, up from $4.5 million as of June 30.
- The Capital Preservation investment option, at $6,510,997, represents 85% of assets. Under standard election rules, the first $1,000 in contributions is invested in Capital Preservation.
- Short term interest rates continued to rise in the third quarter as the Capital Preservation yield rose from 2.08% as of June 29 to 2.18% as of September 28. Fed tightening continues to decrease the probability that the yield will fall below 0%.
- All investment options experienced positive returns in the quarter and performed in line with expectations.

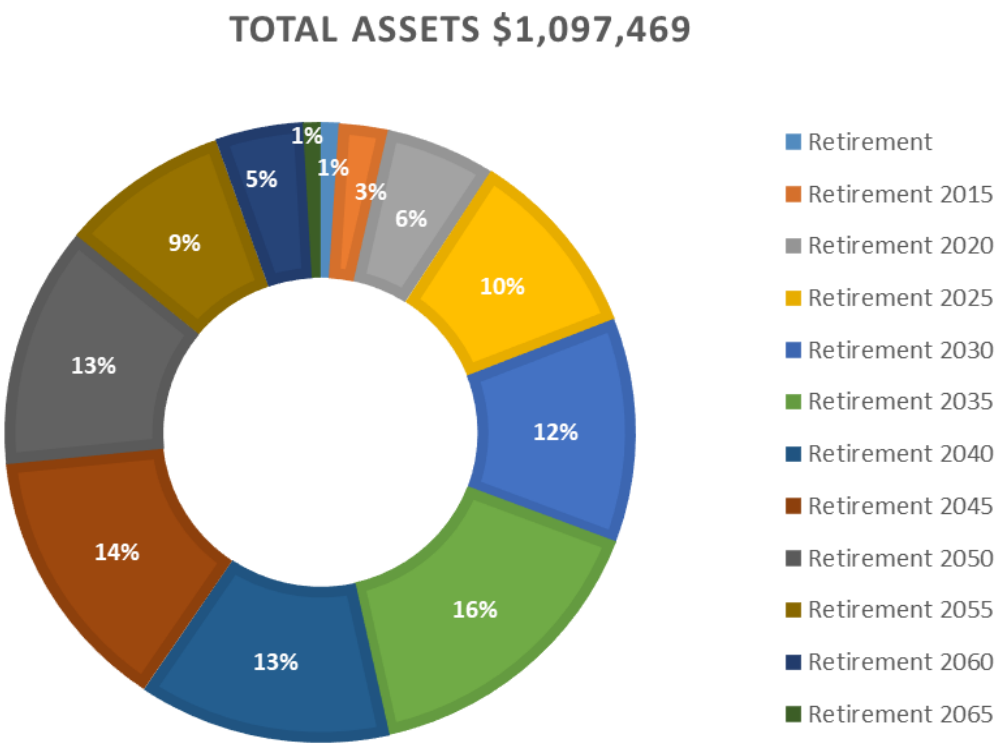
Interest Rate Modeling as of September 30, 2018

	September 2018	September 2019	September 2020	September 2021	September 2022	September 2023
95th Percentile	2.38%	4.37%	5.09%	5.62%	6.06%	6.33%
75th percentile	2.38%	3.33%	3.78%	4.00%	4.23%	4.38%
Median	2.38%	2.65%	2.79%	2.89%	2.87%	2.87%
25th Percentile	2.38%	1.93%	1.77%	1.68%	1.56%	1.44%
5th percentile	2.38%	0.87%	0.34%	0.04%	-0.38%	-0.56%
Probability below 0.90%	**0.0%**	**5.3%**	**10.1%**	**12.7%**	**15.8%**	**17.2%**

As of September 30, 2018



As of September 30, 2018



As of September 30, 2018

	Market Value ($000)	1 Quarter	Jul-2018 To Sep-2018	Expense Ratio
Oregon Saves	7,696			
OregonSaves Capital Preservation Fund	**6,511**	**0.31**	**0.31**	
State Street Institutional Liquid Reserves (SSIXX)	6,511	0.53	0.53	0.12
90 Day U.S. Treasury Bill		0.49	0.49	
OregonSaves Growth Fund	**88**	**7.44**	**7.44**	
State Street Equity 500 Index (SSSYX)	88	7.66	7.66	0.06
S&P 500		7.71	7.71	
Oregon Saves Target Retirement Fund	**11**	**1.46**	**1.46**	
State Street Target Retirement K	11	1.68	1.68	0.13
S&P Target Date Retirement Income Index		1.55	1.55	
Oregon Saves Target Retirement Fund 2015	**27**	**1.53**	**1.53**	
State Street Retirement 2015 K	27	1.75	1.75	0.13
S&P Target Date 2015 Index		2.11	2.11	
Oregon Saves Target Retirement Fund 2020	**62**	**2.17**	**2.17**	
State Street Target Retirement 2020 K	62	2.39	2.39	0.13
S&P Target Date 2020 Index		2.33	2.33	
Oregon Saves Target Retirement Fund 2025	**109**	**2.59**	**2.59**	
State Street Target Retirement 2025 K	109	2.81	2.81	0.13
S&P Target Date 2025 Index		2.72	2.72	
Oregon Saves Target Retirement Fund 2030	**129**	**2.87**	**2.87**	
State Street Target Retirement 2030 K	129	3.09	3.09	0.13
S&P Target Date 2030 Index		3.15	3.15	

As of September 30, 2018

	Market Value ($000)	1 Quarter	Jul-2018 To Sep-2018	Expense Ratio
Oregon Saves Target Retirement Fund 2035	**173**	**3.14**	**3.14**	
State Street Target Retirement 2035 K	173	3.36	3.36	0.13
S&P Target Date 2035 Index		3.52	3.52	
Oregon Saves Target Retirement Fund 2040	**142**	**3.19**	**3.19**	
State Street Target Retirement 2040 K	142	3.41	3.41	0.13
S&P Target Date 2040 Index		3.72	3.72	
Oregon Saves Target Retirement Fund 2045	**153**	**3.42**	**3.42**	
State Street Target Retirement 2045 K	153	3.64	3.64	0.13
S&P Target Date 2045 Index		3.81	3.81	
Oregon Saves Target Retirement Fund 2050	**138**	**3.44**	**3.44**	
State Street Target Retirement 2050 K	138	3.66	3.66	0.13
S&P Target Date 2050+ Index		3.87	3.87	
Oregon Saves Target Retirement Fund 2055	**95**	**3.35**	**3.35**	
State Street Target Retirement 2055 K	95	3.57	3.57	0.13
S&P Target Date 2055 Index		3.88	3.88	
Oregon Saves Target Retirement Fund 2060	**50**	**3.46**	**3.46**	
State Street Target Retirement 2060 K	50	3.68	3.68	0.13
S&P Target Date 2055 Index		3.88	3.88	
Oregon Saves Target Retirement Fund 2065 K	**9**	**3.46**	**3.46**	
State Street Target Retirement 2065 K	9	3.68	3.68	0.13
S&P Target Date 2055 Index		3.88	3.88	

Underlying Investment Fund Analysis

As of September 30, 2018

	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Expense Ratio
Oregon Saves							
State Street Liquid Reserves (SSIXX)	0.53	1.42	1.74	0.99	0.62	0.47	0.12
90 Day U.S. Treasury Bill	0.49	1.30	1.59	0.80	0.50	0.32	
Difference	0.04	0.12	0.15	0.19	0.12	0.15	
IM U.S. Taxable Money Market (MF) Median	0.41	1.04	1.23	0.53	0.33	0.21	
State Street Liquid Reserves (SSIXX) Rank	3	2	2	3	3	3	
State Street Equity 500 Index (SSSYX)	7.66	10.55	17.79	17.25	N/A	N/A	0.06
S&P 500	7.71	10.56	17.91	17.31	13.95	11.97	
Difference	-0.05	-0.01	-0.12	-0.06	N/A	N/A	
IM U.S. Large Cap Equity (MF) Median	7.10	9.76	16.86	15.97	12.56	11.20	
State Street Equity 500 Index (SSSYX) Rank	34	44	45	35	N/A	N/A	
State Street Target Retirement K (SSFOX)	1.68	1.59	3.59	5.69	N/A	N/A	0.13
S&P Target Date Retirement Income Index	1.55	1.44	3.71	5.35	4.37	5.10	
Difference	0.13	0.15	-0.12	0.34	N/A	N/A	
IM Mixed-Asset Target Alloc Consv (MF) Median	1.47	0.65	2.50	5.22	4.07	5.49	
State Street Target Retirement K (SSFOX) Rank	34	19	25	37	N/A	N/A	
State Street Retirement 2015 K (SSBHX)	1.75	1.66	4.08	6.72	N/A	N/A	0.13
S&P Target Date 2015 Index	2.11	2.18	5.09	7.42	5.85	6.53	
Difference	-0.36	-0.52	-1.01	-0.70	N/A	N/A	
IM Mixed-Asset Target 2015 (MF) Median	1.79	1.53	4.17	7.14	5.42	6.41	
State Street Retirement 2015 K (SSBHX) Rank	57	41	55	69	N/A	N/A	
State Street Target Retirement 2020 K (SSBOX)	2.39	2.20	5.51	8.43	N/A	N/A	0.13
S&P Target Date 2020 Index	2.33	2.49	5.78	8.36	6.49	7.09	
Difference	0.06	-0.29	-0.27	0.07	N/A	N/A	
IM Mixed-Asset Target 2020 (MF) Median	2.02	1.65	4.59	7.57	5.58	6.58	
State Street Target Retirement 2020 K (SSBOX) Rank	18	28	19	17	N/A	N/A	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.

As of September 30, 2018

	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Expense Ratio
State Street Target Retirement 2025 K (SSBSX)	2.81	2.81	6.97	10.00	N/A	N/A	0.13
S&P Target Date 2025 Index	2.72	3.02	6.86	9.45	7.13	7.59	
Difference	0.09	-0.21	0.11	0.55	N/A	N/A	
IM Mixed-Asset Target 2025 (MF) Median	2.34	2.31	5.76	8.80	6.32	7.34	
State Street Target Retirement 2025 K (SSBSX) Rank	18	26	9	8	N/A	N/A	
State Street Target Retirement 2030 K (SSBYX)	3.09	3.00	7.60	10.85	N/A	N/A	0.13
S&P Target Date 2030 Index	3.15	3.60	7.99	10.47	7.78	8.02	
Difference	-0.06	-0.60	-0.39	0.38	N/A	N/A	
IM Mixed-Asset Target 2030 (MF) Median	2.75	2.78	6.77	9.93	6.95	7.54	
State Street Target Retirement 2030 K (SSBYX) Rank	20	43	28	17	N/A	N/A	
State Street Target Retirement 2035 K (SSCKX)	3.36	3.44	8.47	11.69	N/A	N/A	0.13
S&P Target Date 2035 Index	3.52	4.10	8.99	11.44	8.39	8.39	
Difference	-0.16	-0.66	-0.52	0.25	N/A	N/A	
IM Mixed-Asset Target 2035 (MF) Median	3.15	3.44	7.91	11.00	7.76	8.11	
State Street Target Retirement 2035 K (SSCKX) Rank	28	51	35	26	N/A	N/A	
State Street Target Retirement 2040 K (SSCQX)	3.41	3.67	8.98	12.27	N/A	N/A	0.13
S&P Target Date 2040 Index	3.72	4.42	9.68	12.11	8.79	8.67	
Difference	-0.31	-0.75	-0.70	0.16	N/A	N/A	
IM Mixed-Asset Target 2040 (MF) Median	3.40	3.72	8.50	11.46	8.09	8.20	
State Street Target Retirement 2040 K (SSCQX) Rank	49	53	37	24	N/A	N/A	
State Street Target Retirement 2045 K (SSDEX)	3.64	4.15	9.66	12.88	N/A	N/A	0.13
S&P Target Date 2045 Index	3.81	4.54	9.98	12.54	9.05	8.79	
Difference	-0.17	-0.39	-0.32	0.34	N/A	N/A	
IM Mixed-Asset Target 2045 (MF) Median	3.53	4.08	9.10	12.13	8.52	8.57	
State Street Target Retirement 2045 K (SSDEX) Rank	41	47	33	21	N/A	N/A	
State Street Target Retirement 2050 K (SSDLX)	3.66	4.17	9.70	12.84	N/A	N/A	0.13
S&P Target Date 2050+ Index	3.87	4.67	10.26	12.92	9.29	8.96	
Difference	-0.21	-0.50	-0.56	-0.08	N/A	N/A	
IM Mixed-Asset Target 2050 (MF) Median	3.58	4.08	9.18	12.10	8.53	8.51	
State Street Target Retirement 2050 K (SSDLX) Rank	46	45	36	23	N/A	N/A	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.

As of September 30, 2018

	1 Quarter	Year To Date	1 Year	3 Years	5 Years	10 Years	Expense Ratio
State Street Target Retirement 2055 K (SSDQX)	3.57	4.25	9.76	12.89	N/A	N/A	0.13
S&P Target Date 2055 Index	3.88	4.69	10.32	13.13	9.42	9.10	
Difference	-0.31	-0.44	-0.56	-0.24	N/A	N/A	
IM Mixed-Asset Target 2055 (MF) Median	3.61	4.19	9.32	12.37	8.67	N/A	
State Street Target Retirement 2055 K (SSDQX) Rank	54	46	39	26	N/A	N/A	
State Street Target Retirement 2060 K (SSDYX)	3.68	4.11	9.61	12.77	N/A	N/A	0.13
S&P Target Date 2055 Index	3.88	4.69	10.32	13.13	9.42	9.10	
Difference	-0.20	-0.58	-0.71	-0.36	N/A	N/A	
IM Mixed-Asset Target 2055 (MF) Median	3.61	4.19	9.32	12.37	8.67	N/A	
State Street Target Retirement 2060 K (SSDYX) Rank	47	56	43	32	N/A	N/A	
State Street Target Retirement 2065 K	3.68	4.11	9.61	12.77	N/A	N/A	0.13
S&P Target Date 2055 Index	3.88	4.69	10.32	13.13	9.42	9.10	
Difference	-0.20	-0.58	-0.71	-0.36	N/A	N/A	
IM Mixed-Asset Target 2055 (MF) Median	3.61	4.19	9.32	12.37	8.67	N/A	
State Street Target Retirement 2065 K Rank	47	56	43	32	N/A	N/A	

Returns for periods greater than one year are annualized.
Returns are expressed as percentages.

State Street Liquid Reserves (SSIXX)

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Institutional Liquid Reserves Fund; Premier Cl	Portfolio Assets :	$13,399 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Team Managed
Ticker :	SSIXX	PM Tenure :	
Inception Date :	08/12/2004	Fund Style :	IM U.S. Taxable Money Market (MF)
Fund Assets :	$11,581 Million	Style Benchmark :	90 Day U.S. Treasury Bill

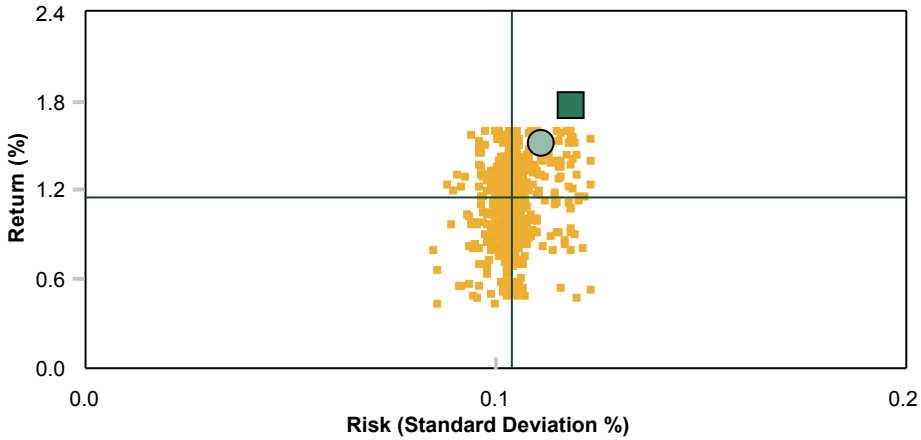
Fund Investment Policy

The Fund seeks to maximize current income, to the extent consistent with the preservation of capital and liquidity, by investing in U.S. dollar-denominated money market securities. It invests substantially all of its investable assets in the Money Market Portfolio, which has similar investment policies to the Fund.

Historical Statistics (08/01/17 - 09/30/18) *

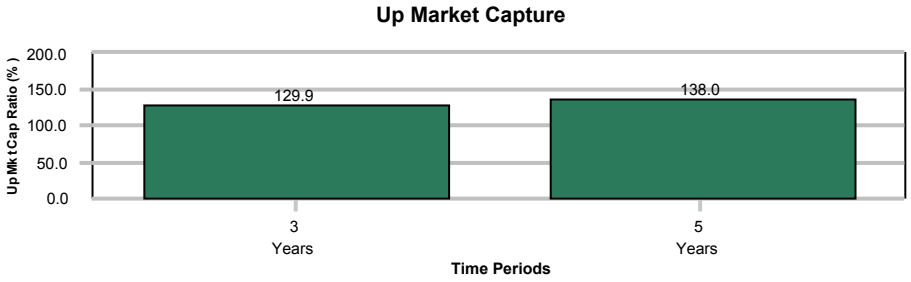
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Liquid Reserves (SSIXX)	1.77	0.12	4.17	0.35	0.93	0.76	0.06	4.17	0.06	08/01/2017
90 Day U.S. Treasury Bill	1.52	0.11	N/A	0.00	1.00	1.00	0.00	N/A	0.00	08/01/2017

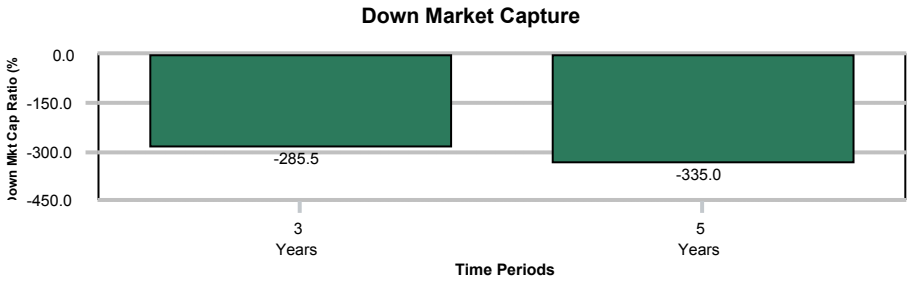
Peer Group Scattergram (08/01/17 to 09/30/18)



	Return	Standard Deviation
State Street Liquid Reserves (SSIXX)	1.77	0.12
90 Day U.S. Treasury Bill	1.52	0.11
Median	1.15	0.10

Up Down Market Capture





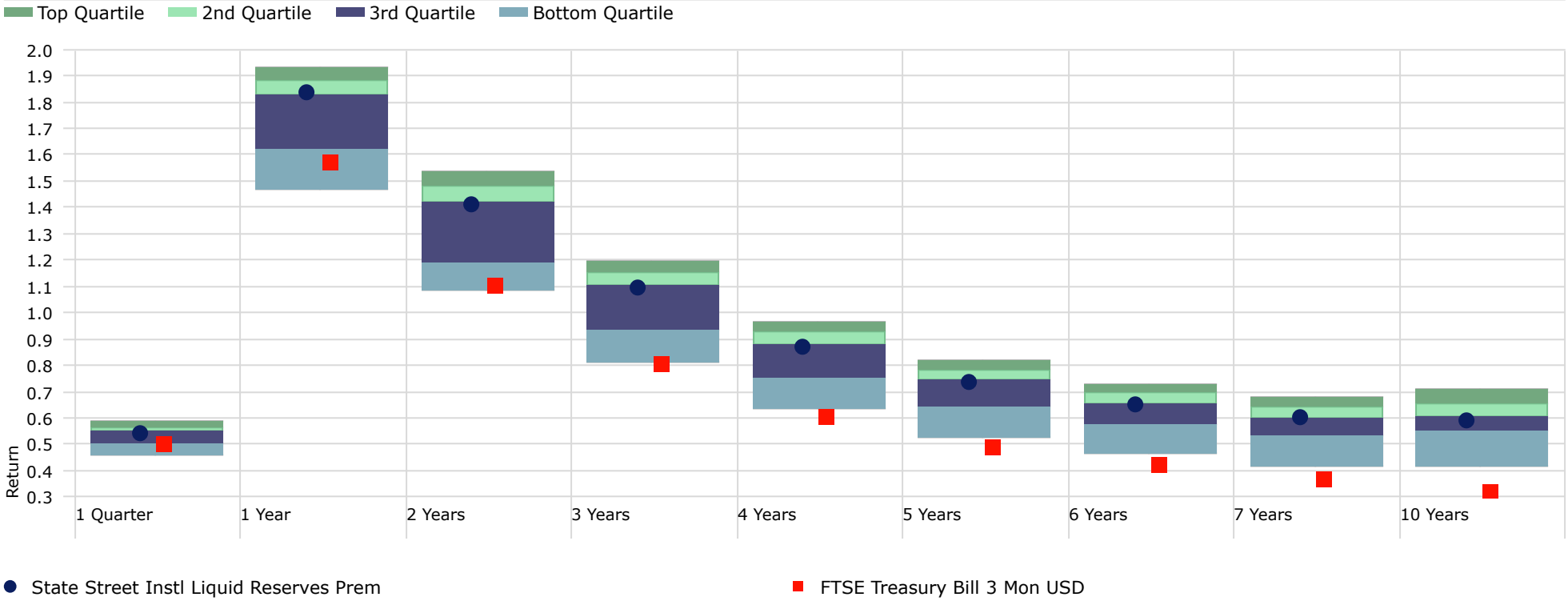
* Monthly periodicity used.

Oregon Saves

State Street Liquid Reserves Fund

As of 09/30/2018

As of Date: 9/30/2018 Peer Group (5-95%): Money Market Funds - U.S. - Prime Money Market



Calendar Year Returns

Data Point: Return Calculation Benchmark: FTSE Treasury Bill 3 Mon USD

	Qtr	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Instl Liquid Reserves Prem	0.54	56	1.84	48	0.87	49	1.10	52	0.54	51	0.74	51	0.61	46	0.59	61
FTSE Treasury Bill 3 Mon USD	0.50	77	1.57	85	0.56	96	0.80	95	0.29	98	0.49	97	0.37	97	0.32	99
Count	289		289		253		252		242		242		237		223	
5th Percentile	0.59		1.93		0.98		1.20		0.62		0.82		0.68		0.71	
25th Percentile	0.57		1.88		0.94		1.15		0.59		0.78		0.64		0.65	
50th Percentile	0.55		1.83		0.86		1.10		0.54		0.74		0.60		0.61	
75th Percentile	0.50		1.62		0.69		0.93		0.46		0.64		0.53		0.55	
95th Percentile	0.46		1.47		0.58		0.81		0.34		0.53		0.42		0.42	

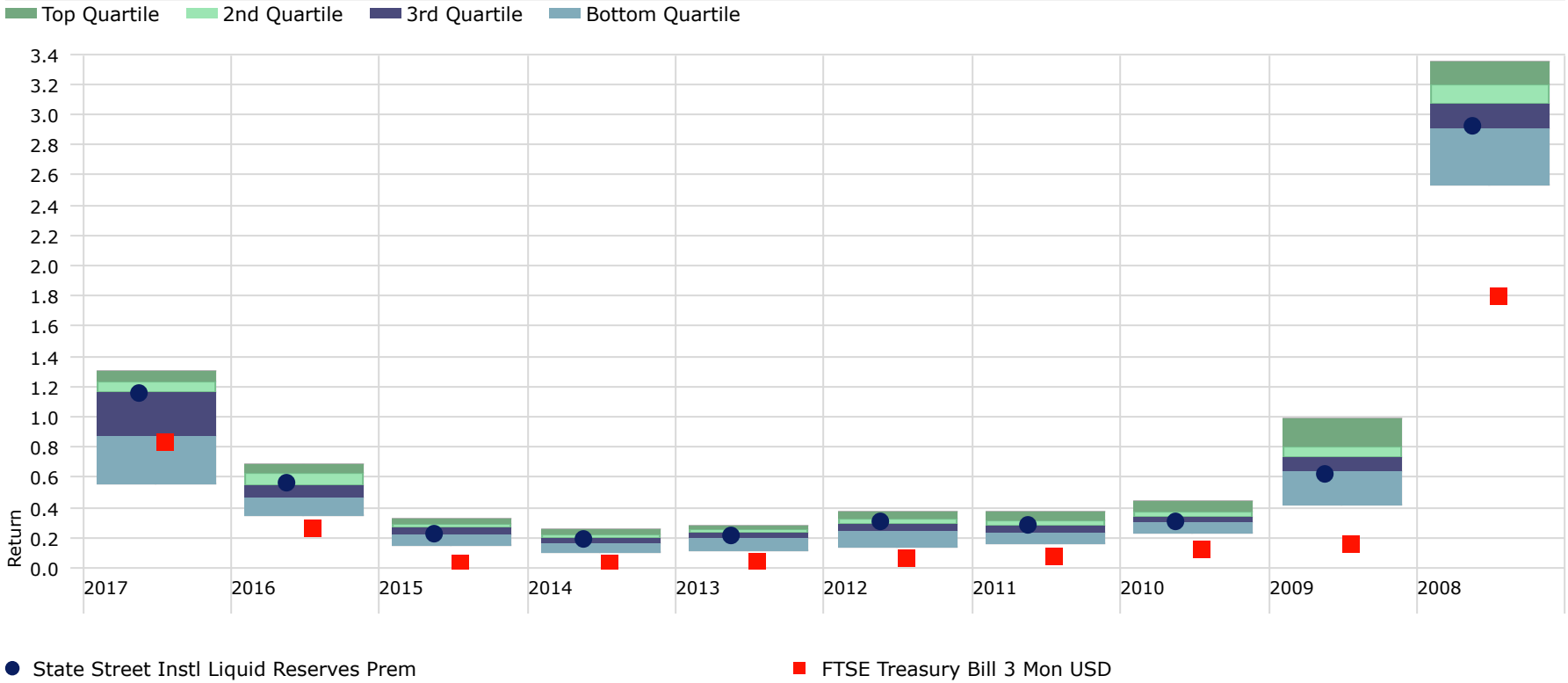
Source: Morningstar Direct

Oregon Saves

State Street Liquid Reserves Fund

As of 9/30/2018

Peer Group (5-95%): Money Market Funds - U.S. - Prime Money Market



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Instl Liquid Reserves Prem	1.16	49	0.57	44	0.23	72	0.19	60	0.22	59	0.31	32	0.29	47	0.31	68	0.63	75	2.93	71
FTSE Treasury Bill 3 Mon USD	0.84	77	0.27	99	0.03	100	0.03	100	0.05	100	0.07	100	0.08	100	0.13	100	0.16	98	1.80	99
Count	311		278		270		268		266		262		262		252		247		243	
5th Percentile	1.30		0.69		0.33		0.25		0.28		0.37		0.37		0.44		0.99		3.35	
25th Percentile	1.23		0.63		0.29		0.23		0.26		0.32		0.31		0.37		0.81		3.20	
50th Percentile	1.16		0.55		0.26		0.20		0.23		0.29		0.28		0.34		0.73		3.07	
75th Percentile	0.87		0.46		0.22		0.16		0.19		0.24		0.23		0.30		0.63		2.90	
95th Percentile	0.55		0.35		0.15		0.10		0.11		0.13		0.16		0.23		0.42		2.54	

Source: Morningstar Direct

State Street Equity 500 Index (SSSYX)

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Equity 500 Index Fund; Class K Shares	Portfolio Assets :	$2,461 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Schneider/Scofield/Feehily
Ticker :	SSSYX	PM Tenure :	2014--2017--2014
Inception Date :	09/17/2014	Fund Style :	IM U.S. Large Cap Equity (MF)
Fund Assets :	$491 Million	Style Benchmark :	S&P 500

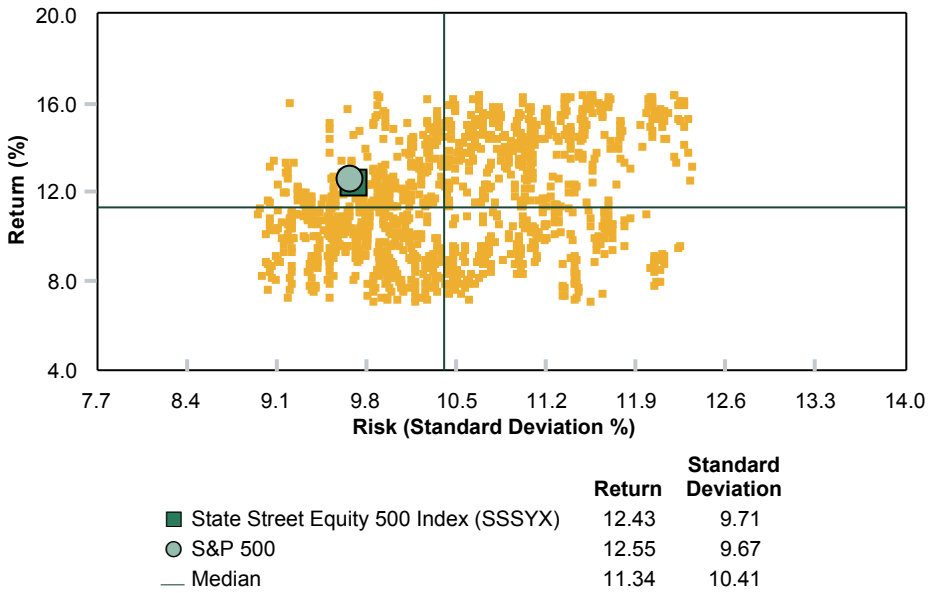
Fund Investment Policy

The Fund seeks to replicate as closely as possible the performance of the Standard & Poor's 500 Index. The Fund seeks to achieve its objective by investing substantially all of its investable assets in a corresponding portfolio that uses a passive management strategy designed to track the performance of the Index.

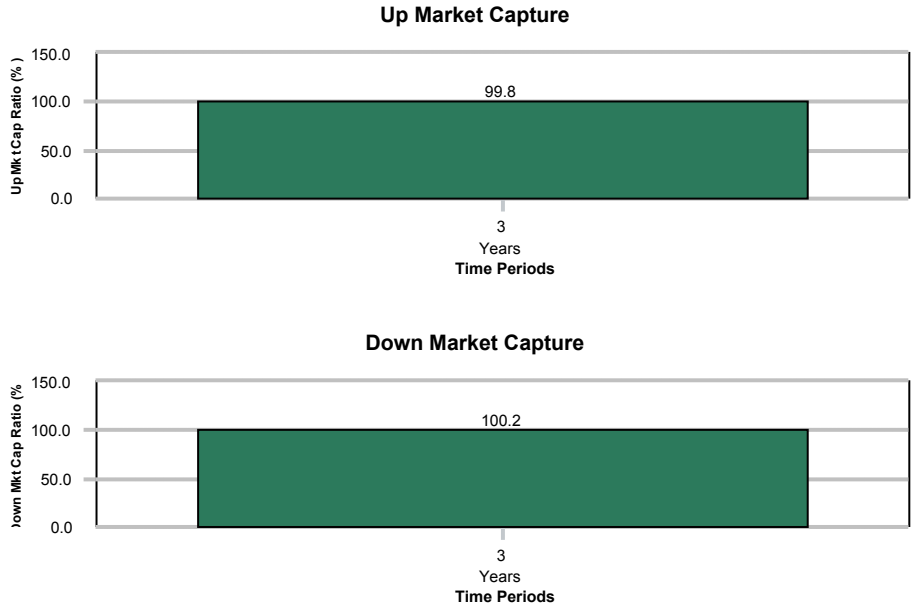
Historical Statistics (10/01/14 - 09/30/18) *

	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Equity 500 Index (SSSYX)	12.43	9.71	1.20	-0.15	1.00	1.00	0.15	-0.68	9.69	10/01/2014
S&P 500	12.55	9.67	1.22	0.00	1.00	1.00	0.00	N/A	9.65	10/01/2014
90 Day U.S. Treasury Bill	0.61	0.19	N/A	0.58	0.00	0.02	9.65	-1.22	0.00	10/01/2014

Peer Group Scattergram (10/01/14 to 09/30/18)

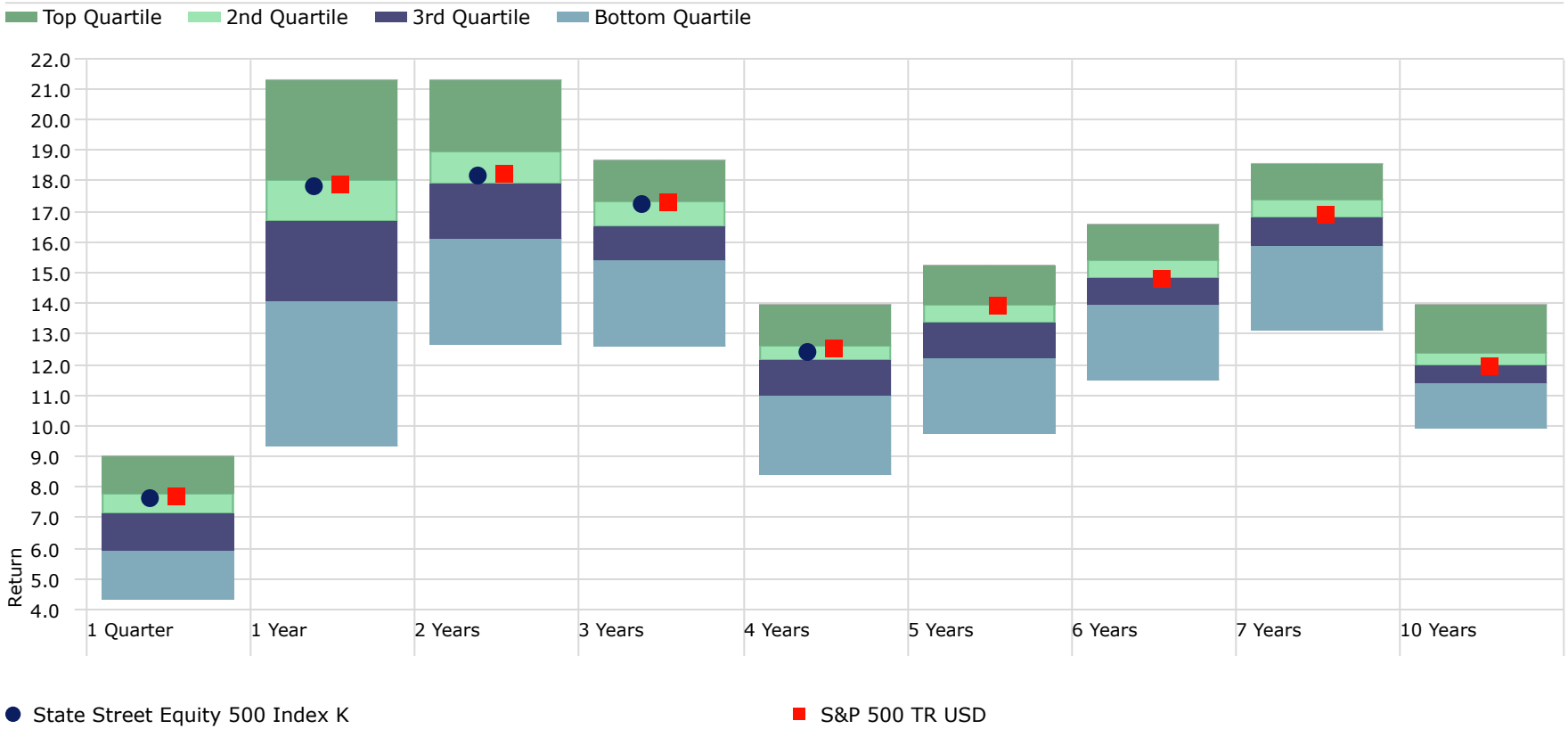


Up Down Market Capture



* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Large Blend

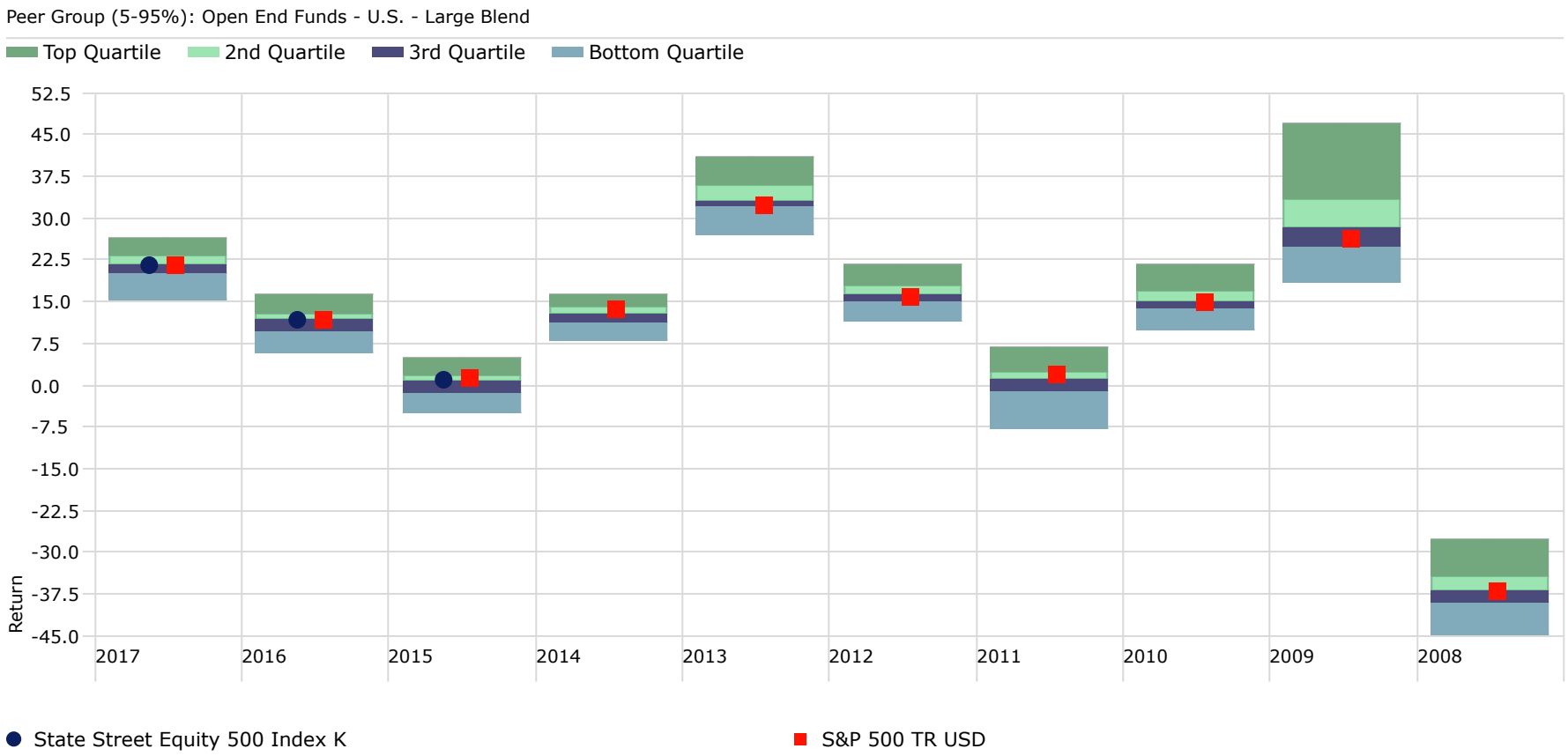


Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Equity 500 Index K	7.67	37	17.83	37	18.17	45	17.27	34	12.45	39								
S&P 500 TR USD	7.71	31	17.91	32	18.26	40	17.31	30	12.55	33	13.95	29	14.83	45	16.91	41	11.97	52
Count	1,307		1,298		1,203		1,147		1,085		1,033		980		924		791	
5th Percentile	9.00		21.28		21.27		18.65		13.92		15.24		16.55		18.52		13.96	
25th Percentile	7.76		18.04		18.97		17.34		12.58		13.96		15.38		17.38		12.39	
50th Percentile	7.16		16.69		17.90		16.49		12.16		13.36		14.80		16.81		11.99	
75th Percentile	5.94		14.06		16.12		15.43		10.96		12.21		13.94		15.85		11.40	
95th Percentile	4.33		9.35		12.68		12.64		8.43		9.79		11.52		13.15		9.92	

Source: Morningstar Direct



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Equity 500 Index K	21.64	56	11.93	47	1.28	43														
S&P 500 TR USD	21.83	50	11.96	44	1.38	39	13.69	35	32.39	66	16.00	65	2.11	35	15.06	56	26.46	68	-37.00	56
Count	1,295		1,224		1,158		1,097		1,033		981		931		885		837		775	
5th Percentile	26.53		16.45		4.82		16.33		40.90		21.58		6.77		21.79		47.16		-27.53	
25th Percentile	23.34		12.95		1.87		14.13		35.86		17.99		2.37		16.91		33.54		-34.28	
50th Percentile	21.83		11.79		0.78		12.99		33.21		16.43		1.11		15.14		28.23		-36.86	
75th Percentile	20.14		9.65		-1.54		11.34		32.09		14.97		-0.96		13.79		24.93		-38.90	
95th Percentile	15.44		5.80		-5.02		7.98		27.06		11.71		-7.63		10.11		18.68		-44.65	

Source: Morningstar Direct

State Street Target Retirement K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement Fund; Class K Shares	Portfolio Assets :	$195 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSFOX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target Alloc Consv (MF)
Fund Assets :	$194 Million	Style Benchmark :	S&P Target Date Retirement Income Index

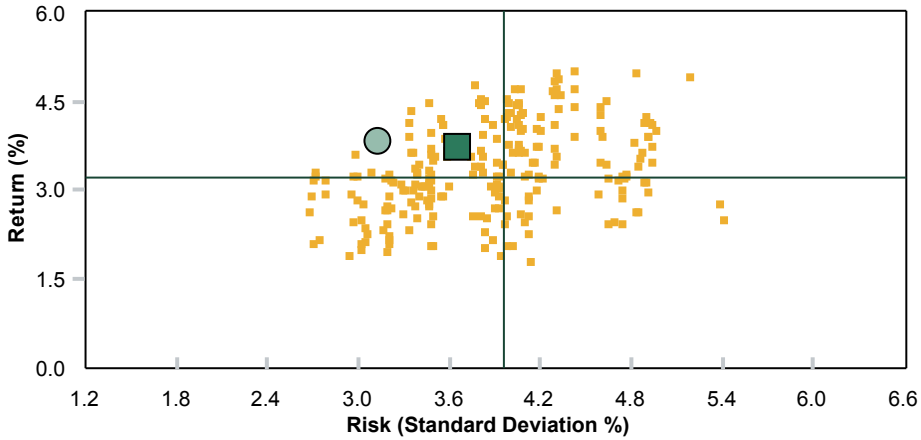
Fund Investment Policy

The Fund seeks current income and, secondarily, capital growth. The Funds assets are allocated according to a target asset allocation strategy that emphasizes fixed income and smaller allocation to equity. It is intended for use as part of an overall investment strategy by an investor who is already in retirement.

Historical Statistics (11/01/14 - 09/30/18) *

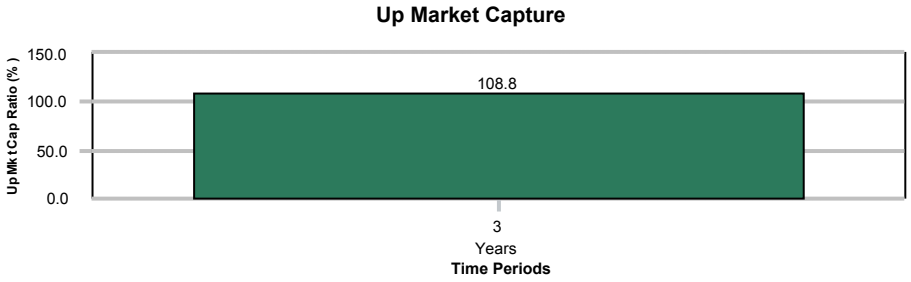
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement K	3.73	3.65	0.86	-0.64	1.15	0.97	0.79	-0.10	3.63	11/01/2014
S&P Target Date Retirement Income Index	3.83	3.13	1.02	0.00	1.00	1.00	0.00	N/A	3.11	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.59	0.01	0.01	3.11	-1.02	0.00	11/01/2014

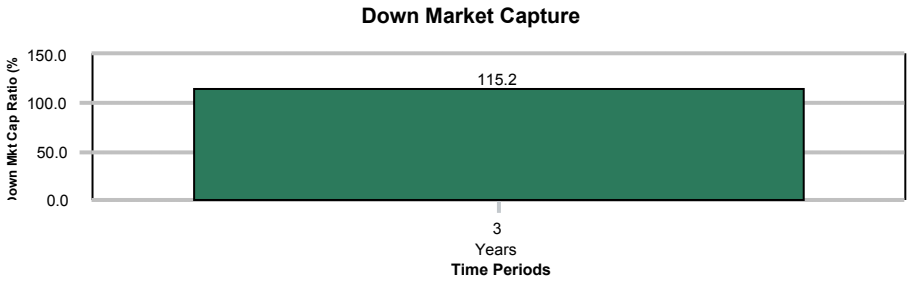
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement K	3.73	3.65
S&P Target Date Retirement Income Index	3.83	3.13
Median	3.22	3.97

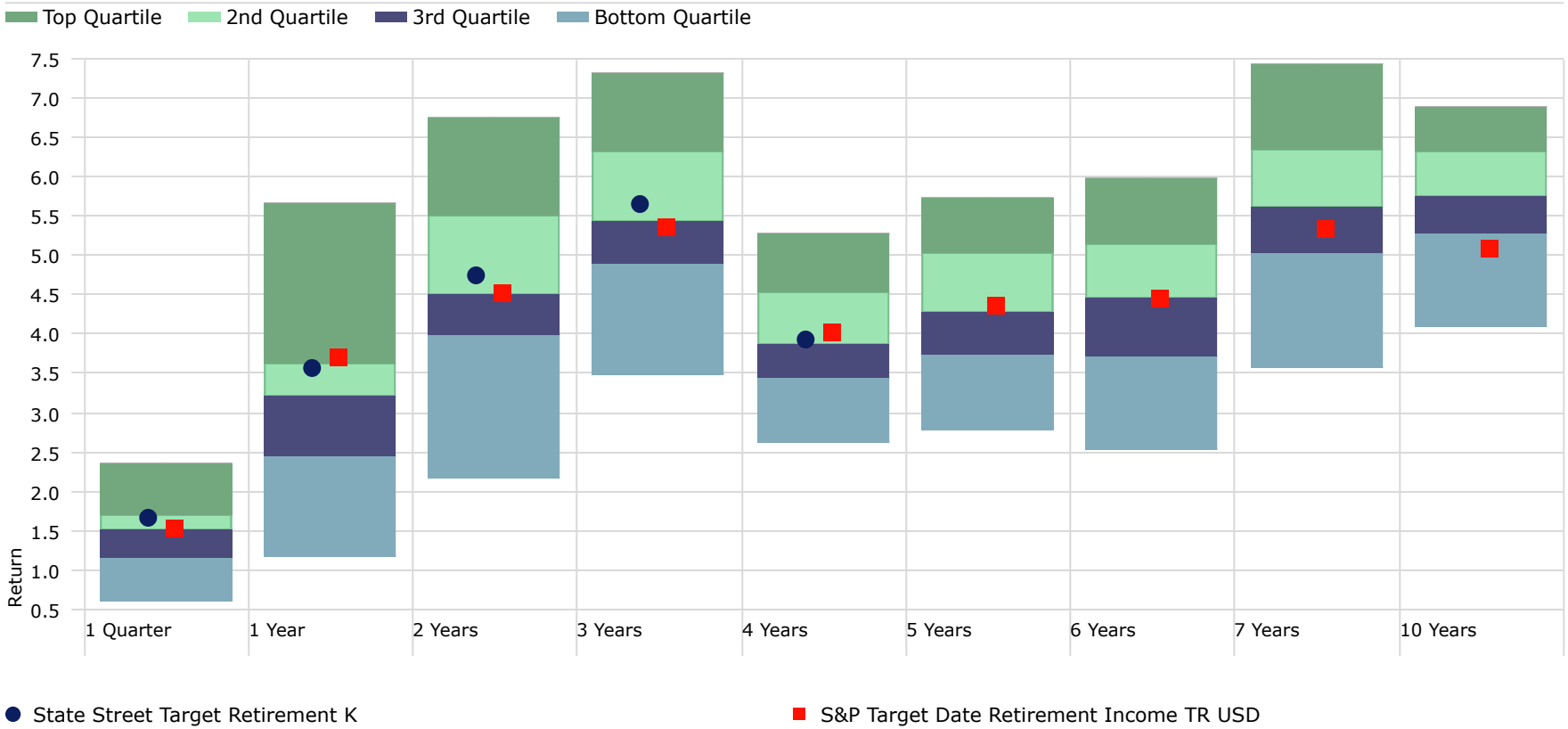
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date Retirement



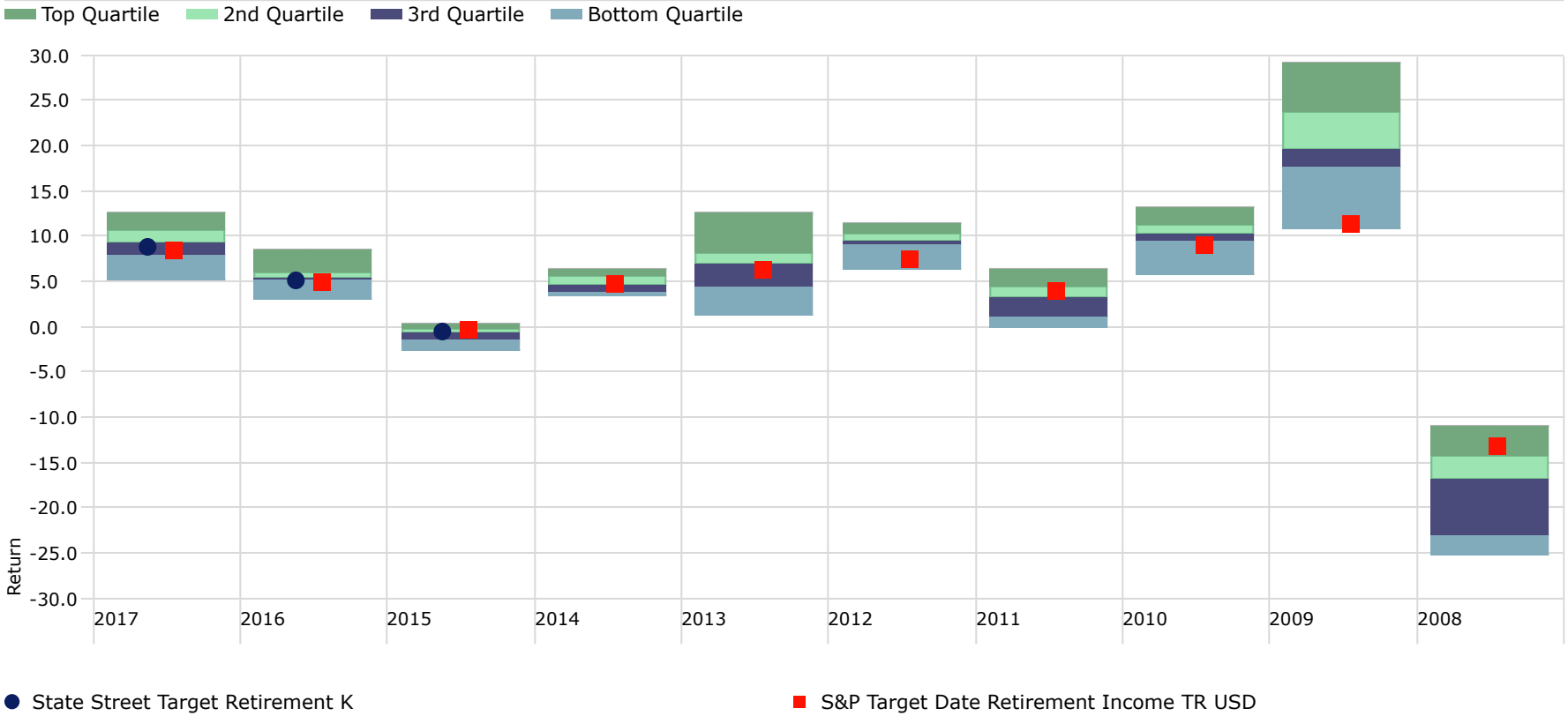
Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement K	1.68	34	3.57	26	4.76	43	5.66	40	3.93	46								
S&P Target Date Retirement Income TR USD	1.55	47	3.71	24	4.53	48	5.35	54	4.03	41	4.37	47	4.45	50	5.34	54	5.10	79
Count	189		188		176		163		143		137		128		119		92	
5th Percentile	2.36		5.66		6.74		7.31		5.28		5.73		5.98		7.43		6.89	
25th Percentile	1.71		3.63		5.51		6.31		4.53		5.03		5.15		6.33		6.31	
50th Percentile	1.52		3.21		4.50		5.44		3.86		4.27		4.45		5.62		5.74	
75th Percentile	1.15		2.45		3.98		4.90		3.45		3.74		3.72		5.03		5.27	
95th Percentile	0.61		1.19		2.18		3.50		2.64		2.79		2.54		3.59		4.10	

Source: Morningstar Direct

Peer Group (5-95%): Open End Funds - U.S. - Target-Date Retirement



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement K	8.81	98	5.20	100	-0.41	1														
S&P Target Date Retirement Income TR USD	8.54	99	5.01	100	-0.18	1	4.86	14	6.28	88	7.51	94	3.98	2	9.09	100	11.37	100	-13.09	1
Count	183		178		174		169		157		147		140		137		125		122	
5th Percentile	19.32		32.56		-15.56		6.54		19.25		17.27		-3.07		28.86		72.45		-38.32	
25th Percentile	18.21		25.34		-18.57		4.02		15.02		13.78		-8.21		24.22		60.99		-43.33	
50th Percentile	16.76		22.70		-20.42		2.49		12.21		12.00		-10.92		23.39		58.62		-46.09	
75th Percentile	14.81		20.33		-22.79		1.23		9.55		9.60		-13.69		21.48		52.19		-47.49	
95th Percentile	12.53		15.64		-25.60		-2.21		5.85		7.47		-18.36		16.84		48.81		-49.76	

Source: Morningstar Direct

State Street Retirement 2015 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2015 Fund; Class K Shares	Portfolio Assets :	$280 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSBHX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2015 (MF)
Fund Assets :	$280 Million	Style Benchmark :	S&P Target Date 2015 Index

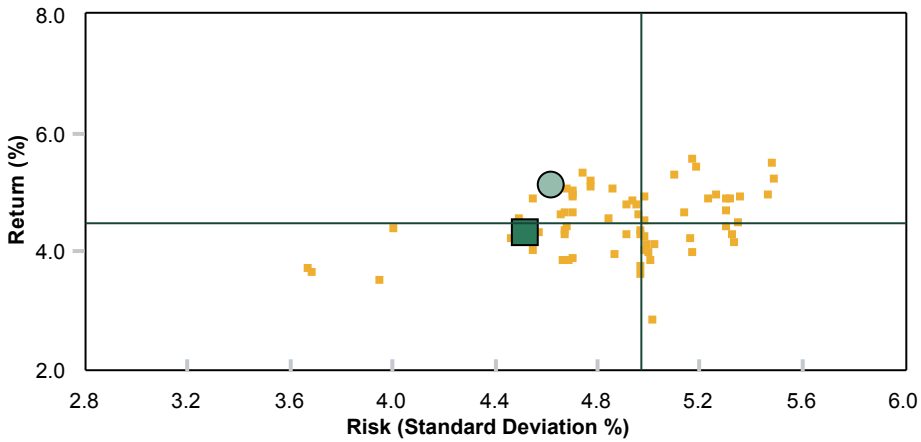
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2015 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

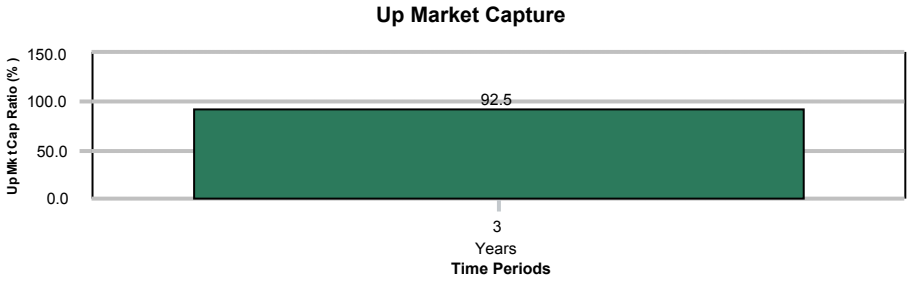
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Retirement 2015 K	4.31	4.52	0.82	-0.58	0.96	0.97	0.84	-0.92	4.50	11/01/2014
S&P Target Date 2015 Index	5.11	4.62	0.97	0.00	1.00	1.00	0.00	N/A	4.61	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	4.61	-0.97	0.00	11/01/2014

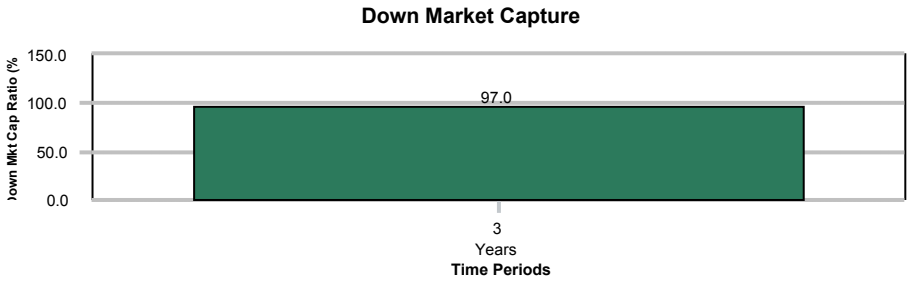
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Retirement 2015 K	4.31	4.52
S&P Target Date 2015 Index	5.11	4.62
Median	4.48	4.97

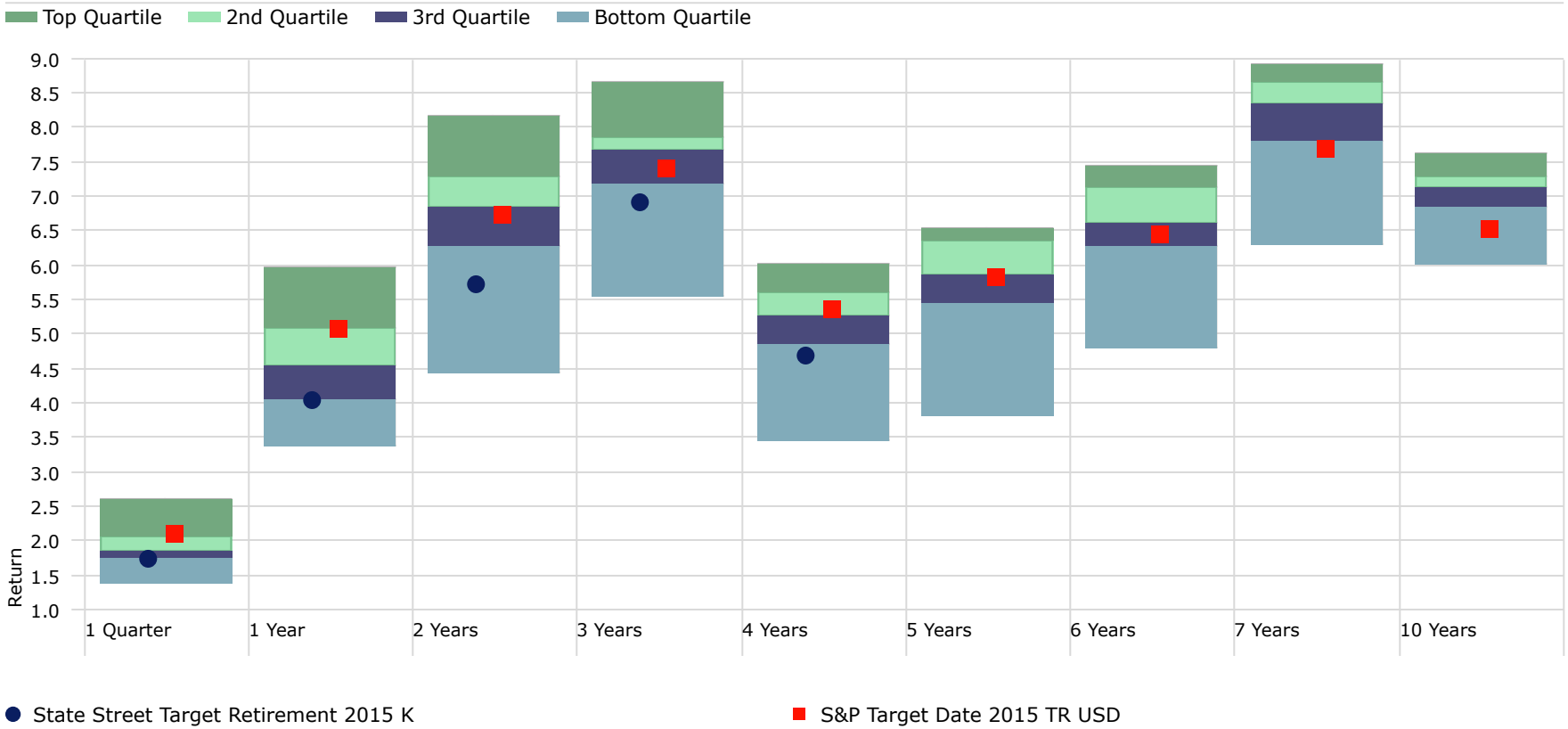
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2015



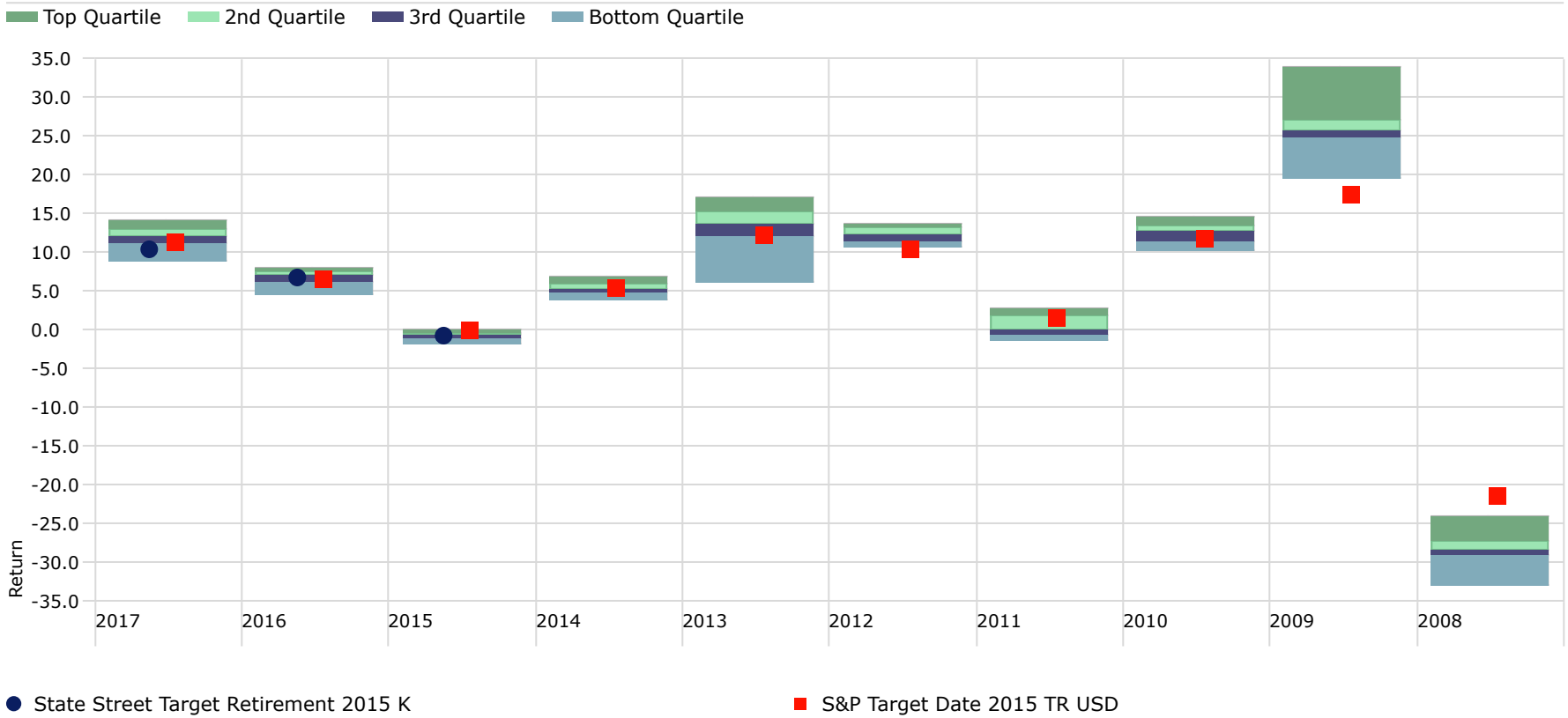
Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2015 K	1.75	75	4.06	74	5.73	86	6.93	84	4.69	85								
S&P Target Date 2015 TR USD	2.11	25	5.09	25	6.75	58	7.42	66	5.38	39	5.85	58	6.45	71	7.69	79	6.53	81
Count	136		135		121		110		94		77		72		67		49	
5th Percentile	2.61		5.97		8.17		8.66		6.02		6.53		7.45		8.91		7.61	
25th Percentile	2.07		5.09		7.29		7.86		5.61		6.35		7.14		8.67		7.29	
50th Percentile	1.86		4.54		6.85		7.67		5.27		5.87		6.61		8.35		7.12	
75th Percentile	1.75		4.04		6.28		7.17		4.84		5.44		6.28		7.81		6.83	
95th Percentile	1.40		3.38		4.44		5.55		3.47		3.83		4.81		6.30		6.02	

Source: Morningstar Direct

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2015



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2015 K	10.37	78	6.84	56	-0.80	51														
S&P Target Date 2015 TR USD	11.39	64	6.56	60	-0.16	19	5.49	42	12.16	71	10.32	95	1.53	26	11.85	66	17.48	95	-21.32	5
Count	131		119		102		82		74		68		65		62		49		42	
5th Percentile	13.93		7.78		0.03		6.74		17.09		13.65		2.62		14.51		33.77		-24.06	
25th Percentile	12.77		7.44		-0.43		5.87		15.11		13.14		1.71		13.24		27.01		-27.28	
50th Percentile	11.91		7.04		-0.76		5.13		13.61		12.24		-0.16		12.63		25.62		-28.44	
75th Percentile	11.16		6.18		-1.16		4.69		11.88		11.32		-0.85		11.29		24.76		-29.10	
95th Percentile	8.87		4.49		-1.88		3.82		6.02		10.53		-1.45		10.18		19.55		-32.96	

Source: Morningstar Direct

State Street Target Retirement 2020 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2020 Fund; Class K Shares	Portfolio Assets :	$886 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSBOX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2020 (MF)
Fund Assets :	$885 Million	Style Benchmark :	S&P Target Date 2020 Index

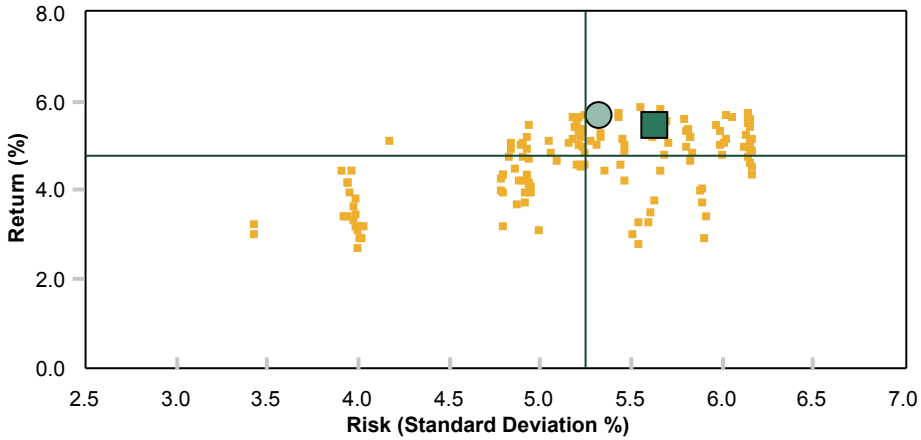
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2020 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

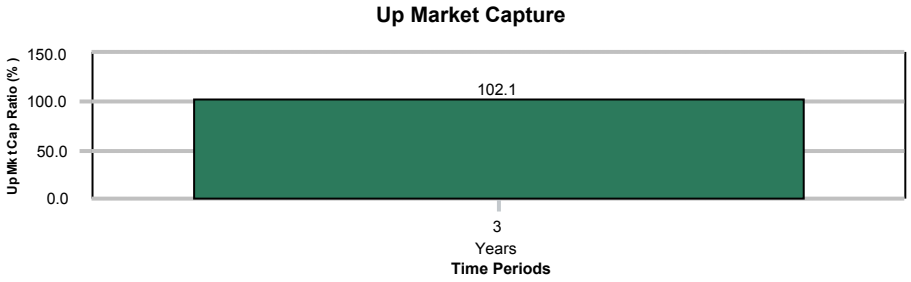
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2020 K	5.43	5.64	0.86	-0.50	1.05	0.98	0.84	-0.28	5.62	11/01/2014
S&P Target Date 2020 Index	5.69	5.32	0.96	0.00	1.00	1.00	0.00	N/A	5.31	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	5.31	-0.96	0.00	11/01/2014

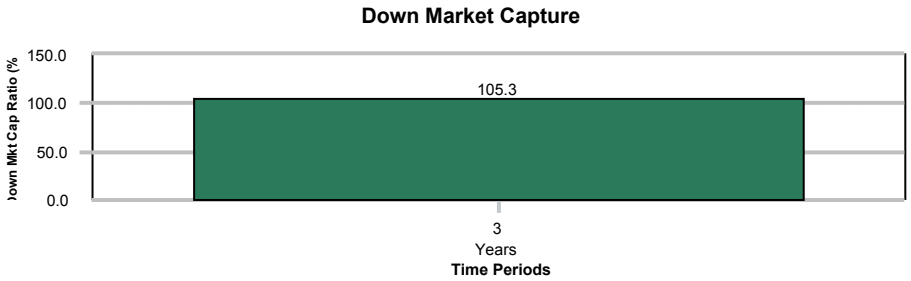
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement 2020 K	5.43	5.64
S&P Target Date 2020 Index	5.69	5.32
Median	4.80	5.24

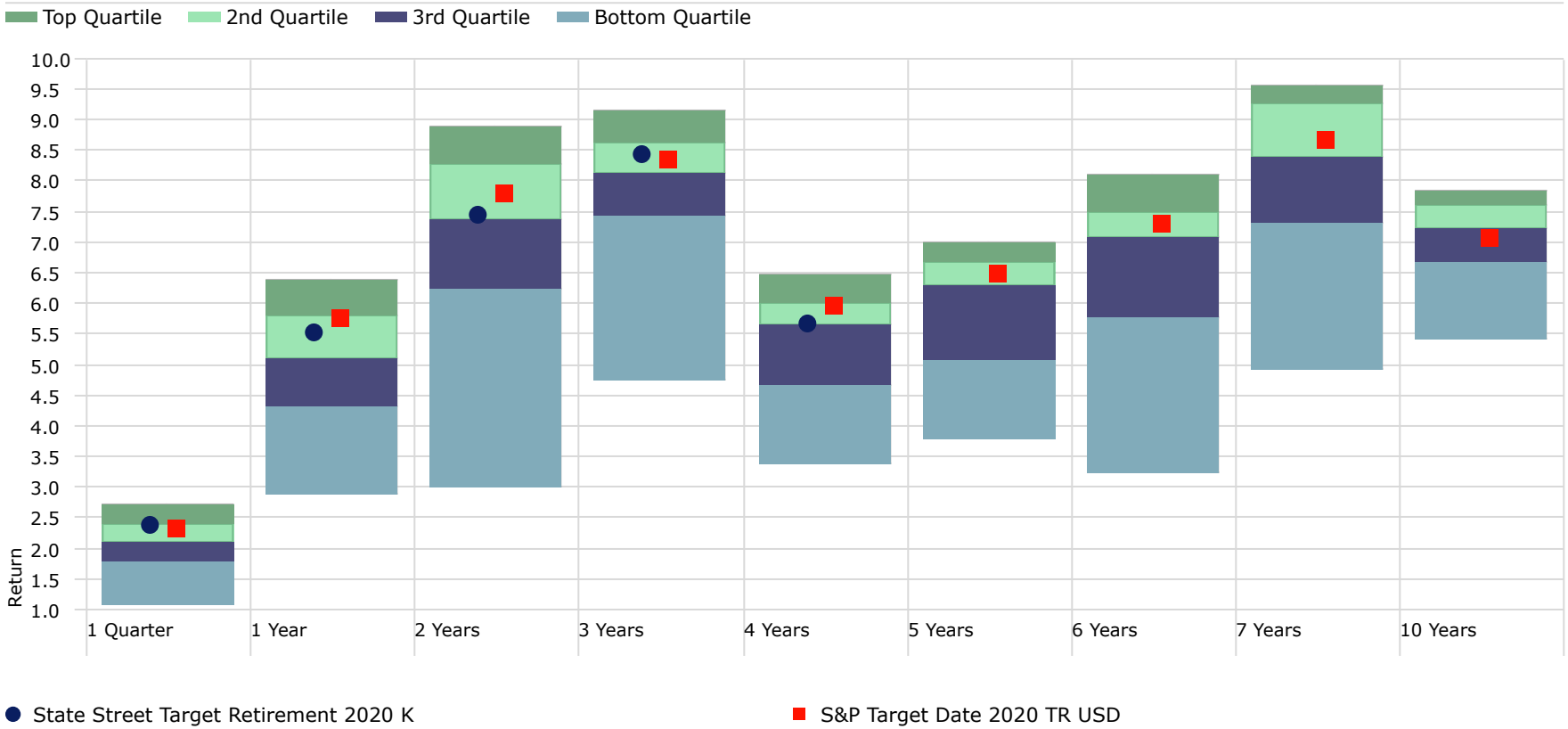
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2020



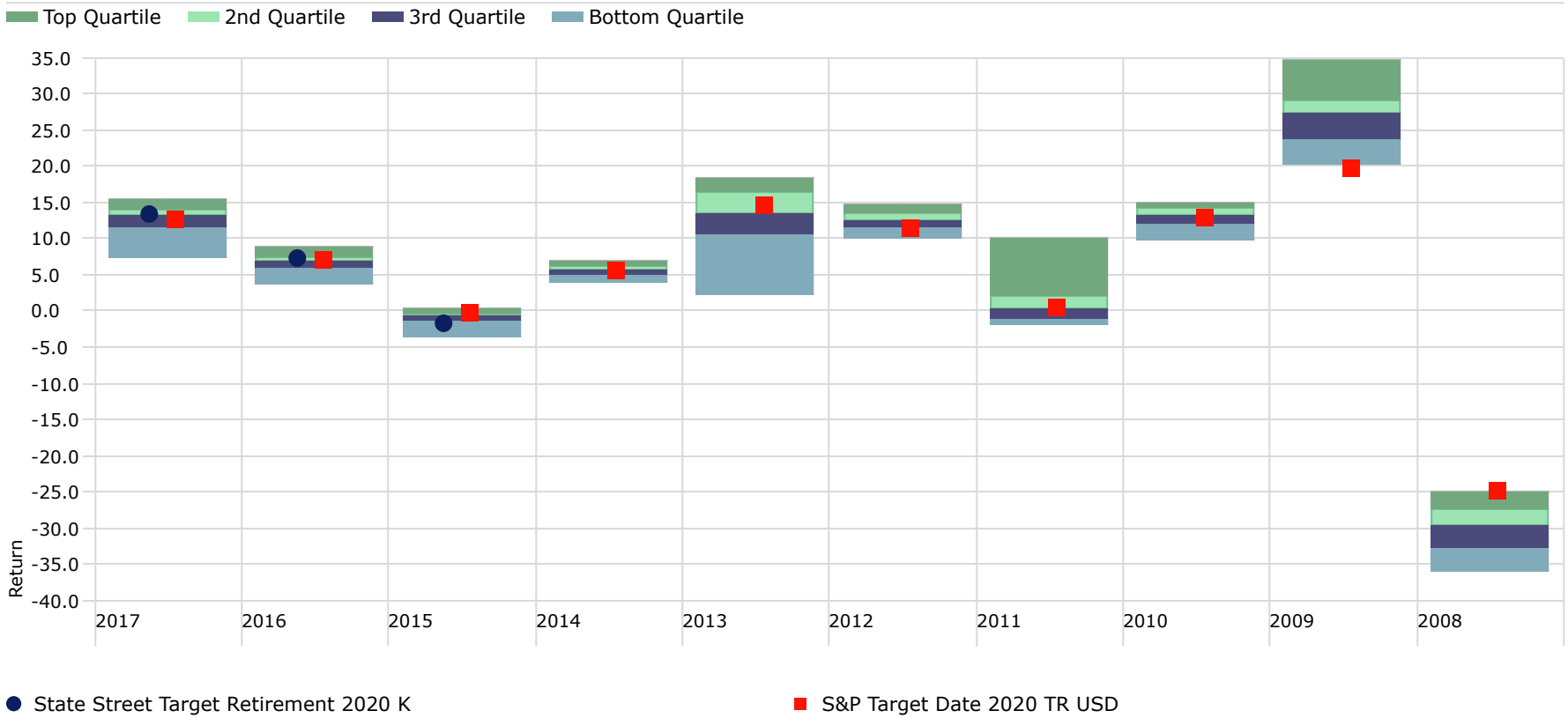
Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2020 K	2.39	25	5.53	33	7.47	43	8.44	35	5.68	49								
S&P Target Date 2020 TR USD	2.33	28	5.78	26	7.80	41	8.36	46	5.98	27	6.49	41	7.33	35	8.69	43	7.09	56
Count	252		249		232		204		185		171		156		137		107	
5th Percentile	2.73		6.38		8.88		9.14		6.47		7.01		8.11		9.54		7.85	
25th Percentile	2.38		5.81		8.27		8.63		6.00		6.68		7.50		9.27		7.62	
50th Percentile	2.12		5.09		7.38		8.12		5.67		6.31		7.08		8.40		7.22	
75th Percentile	1.78		4.31		6.22		7.43		4.67		5.07		5.77		7.32		6.66	
95th Percentile	1.08		2.89		3.02		4.76		3.37		3.78		3.24		4.94		5.42	

Source: Morningstar Direct

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2020



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2020 K	13.40	45	7.42	24	-1.55	79														
S&P Target Date 2020 TR USD	12.80	60	7.22	31	-0.19	22	5.67	49	14.76	34	11.48	75	0.58	47	12.93	54	19.95	100	-24.78	5
Count	239		215		197		173		159		146		130		123		115		93	
5th Percentile	15.37		8.98		0.34		6.92		18.32		14.73		10.04		14.93		34.61		-24.84	
25th Percentile	14.05		7.39		-0.28		6.20		16.33		13.39		2.02		14.18		29.10		-27.31	
50th Percentile	13.14		6.85		-0.74		5.64		13.61		12.54		0.35		13.22		27.35		-29.48	
75th Percentile	11.48		5.98		-1.40		4.89		10.55		11.53		-1.09		11.96		23.64		-32.64	
95th Percentile	7.53		3.70		-3.50		4.04		2.30		10.00		-1.93		9.87		20.35		-35.87	

Source: Morningstar Direct

State Street Target Retirement 2025 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2025 Fund; Class K Shares	Portfolio Assets :	$1,029 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSBSX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2025 (MF)
Fund Assets :	$1,027 Million	Style Benchmark :	S&P Target Date 2025 Index

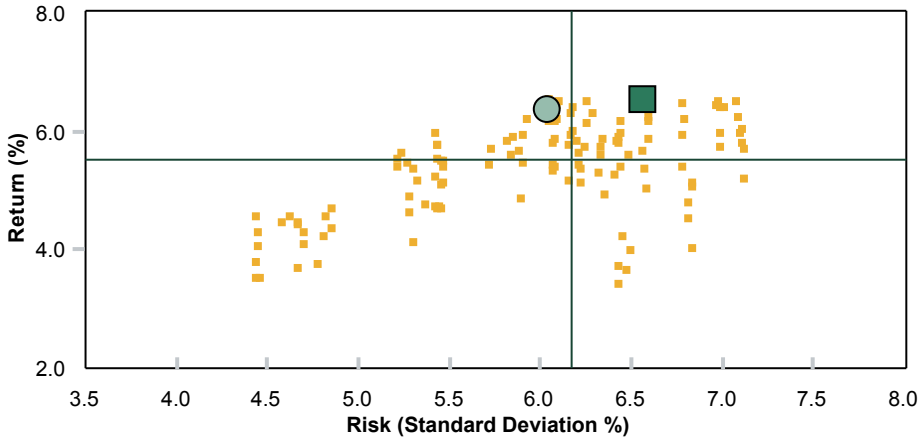
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2025 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

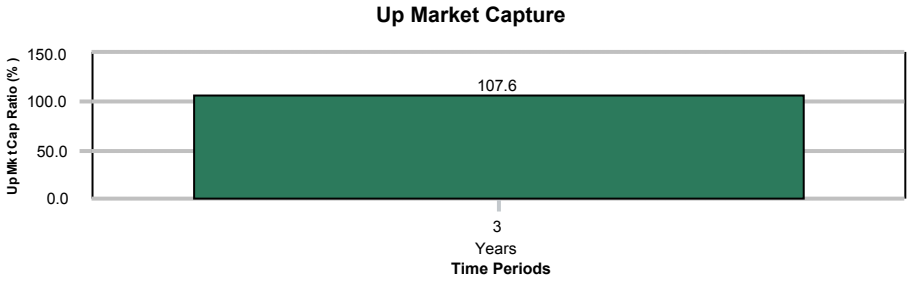
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2025 K	6.51	6.57	0.90	-0.31	1.08	0.98	1.02	0.18	6.55	11/01/2014
S&P Target Date 2025 Index	6.35	6.04	0.95	0.00	1.00	1.00	0.00	N/A	6.02	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	6.02	-0.95	0.00	11/01/2014

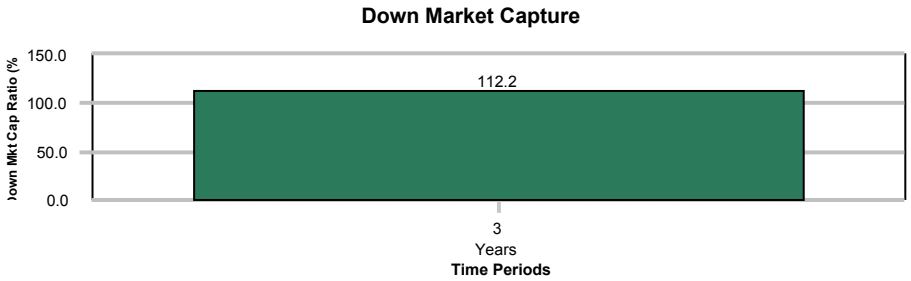
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement 2025 K	6.51	6.57
S&P Target Date 2025 Index	6.35	6.04
Median	5.52	6.18

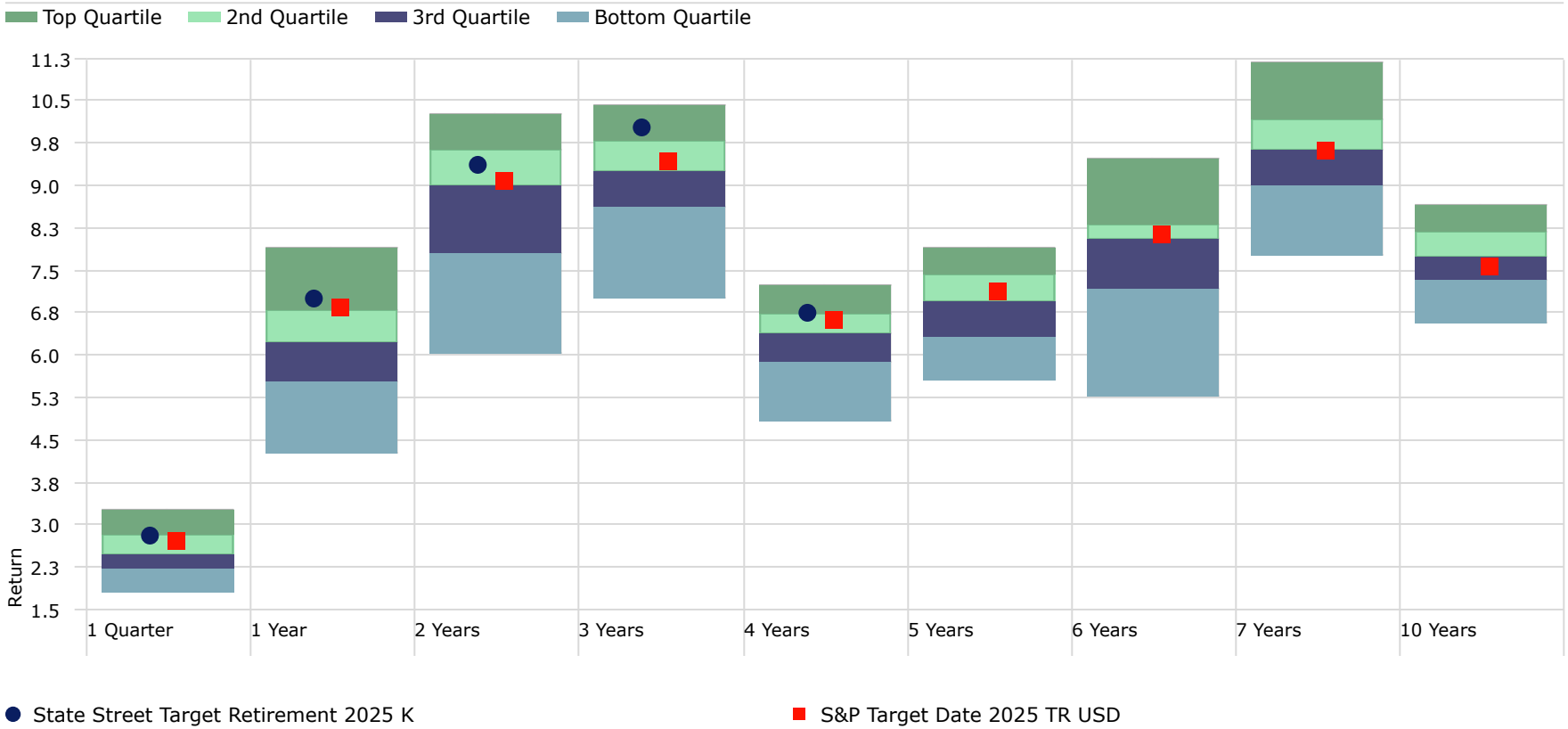
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2025



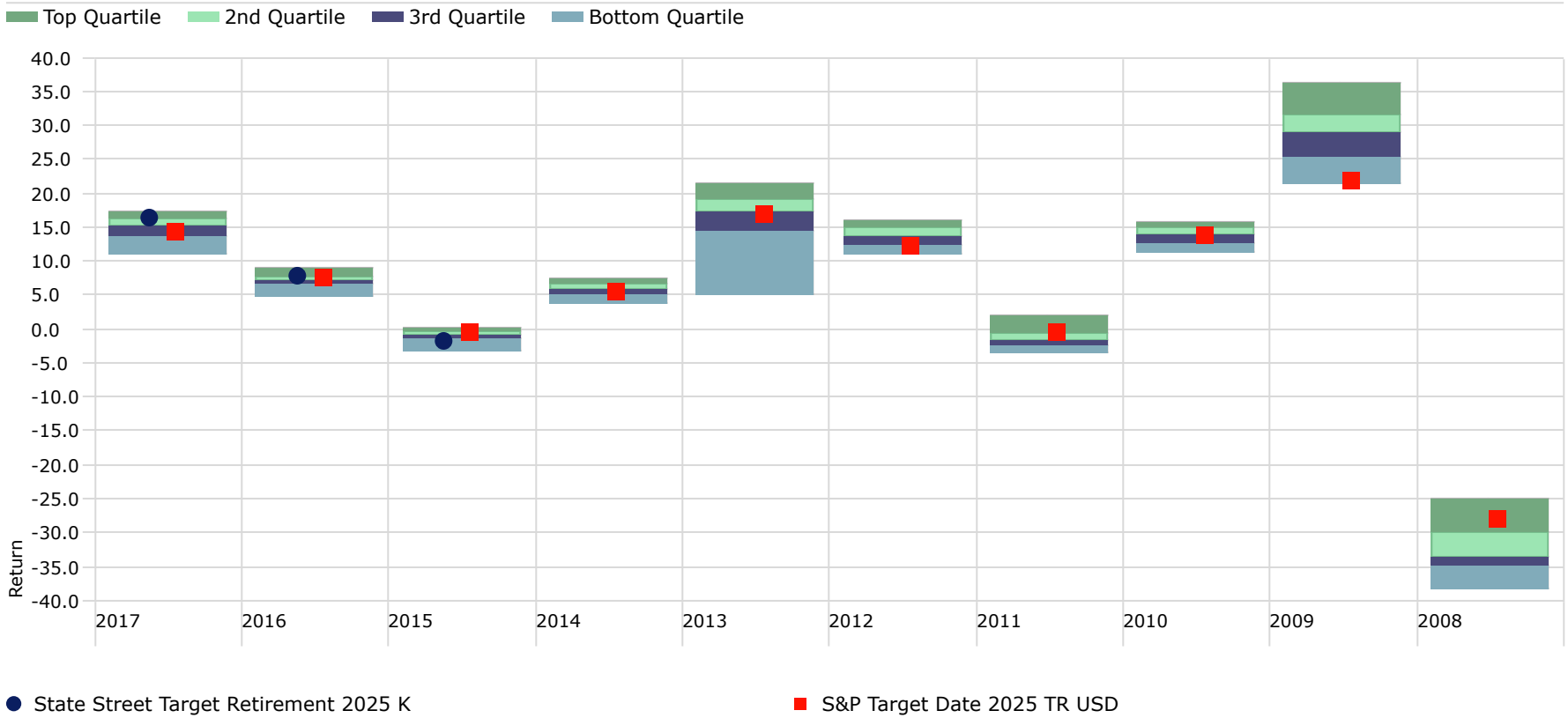
Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2025 K	2.82	25	7.01	17	9.37	34	10.04	17	6.76	24								
S&P Target Date 2025 TR USD	2.72	31	6.86	23	9.10	38	9.45	43	6.64	32	7.13	44	8.16	40	9.62	50	7.59	64
Count	223		222		205		179		158		141		124		106		72	
5th Percentile	3.26		7.89		10.25		10.42		7.24		7.89		9.47		11.16		8.67	
25th Percentile	2.82		6.78		9.62		9.80		6.73		7.43		8.31		10.17		8.18	
50th Percentile	2.47		6.22		9.00		9.25		6.40		6.96		8.07		9.65		7.73	
75th Percentile	2.23		5.52		7.82		8.64		5.87		6.33		7.16		9.00		7.33	
95th Percentile	1.82		4.28		6.05		7.01		4.84		5.56		5.28		7.77		6.56	

Source: Morningstar Direct

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2025



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2025 K	16.57	14	8.08	21	-1.75	87														
S&P Target Date 2025 TR USD	14.55	67	7.82	27	-0.25	24	5.56	59	17.03	54	12.51	73	-0.28	24	13.82	58	22.03	90	-27.75	10
Count	209		190		170		146		136		112		98		88		73		62	
5th Percentile	17.25		8.93		0.26		7.33		21.54		16.02		1.98		15.65		36.23		-24.94	
25th Percentile	16.31		7.84		-0.26		6.68		19.10		15.11		-0.71		15.05		31.70		-30.04	
50th Percentile	15.32		7.30		-0.93		5.86		17.30		13.76		-1.59		14.04		28.91		-33.63	
75th Percentile	13.79		6.73		-1.32		5.04		14.46		12.37		-2.37		12.69		25.45		-34.82	
95th Percentile	11.09		4.74		-3.10		3.84		5.23		11.20		-3.49		11.33		21.46		-38.22	

Source: Morningstar Direct

State Street Target Retirement 2030 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2030 Fund; Class K Shares	Portfolio Assets :	$999 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSBYX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2030 (MF)
Fund Assets :	$997 Million	Style Benchmark :	S&P Target Date 2030 Index

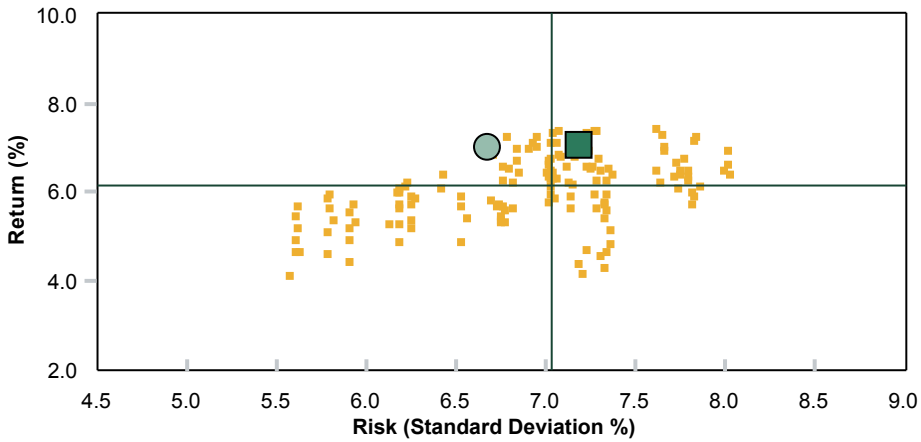
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2030 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

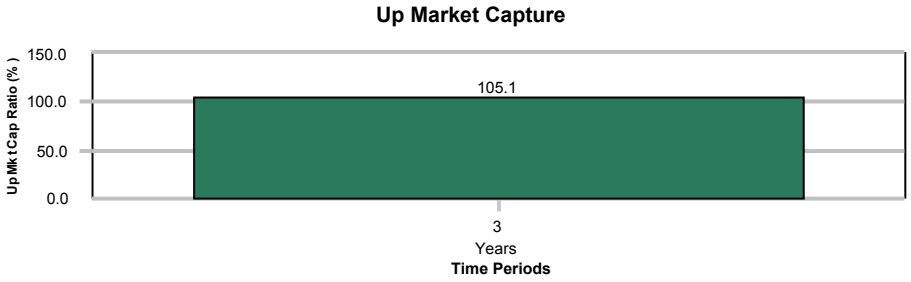
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2030 K	7.07	7.19	0.90	-0.36	1.07	0.98	1.06	0.10	7.17	11/01/2014
S&P Target Date 2030 Index	7.00	6.68	0.96	0.00	1.00	1.00	0.00	N/A	6.66	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	6.66	-0.96	0.00	11/01/2014

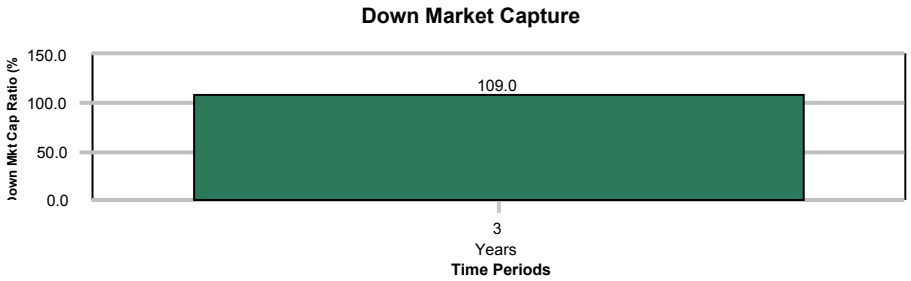
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement 2030 K	7.07	7.19
S&P Target Date 2030 Index	7.00	6.68
Median	6.14	7.04

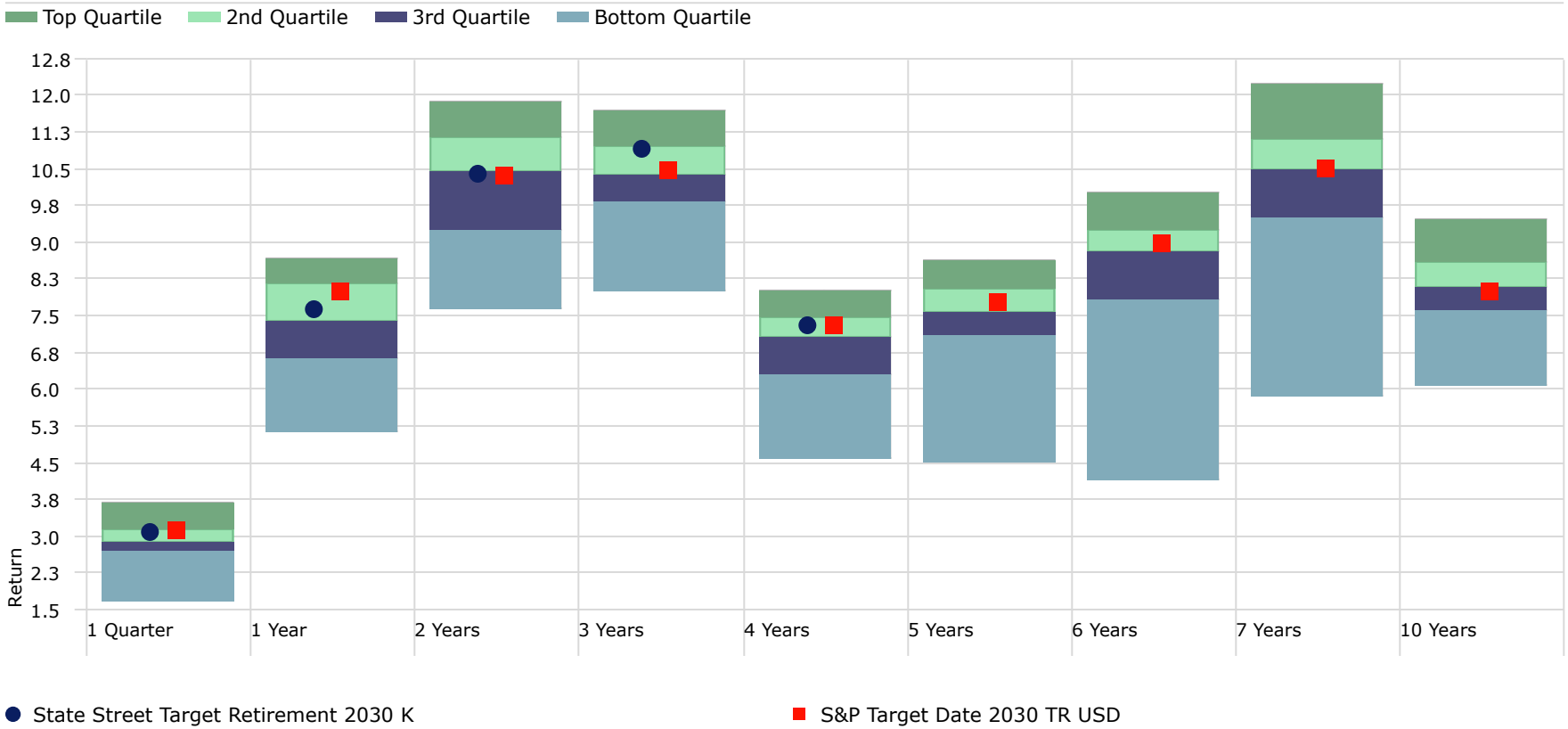
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2030



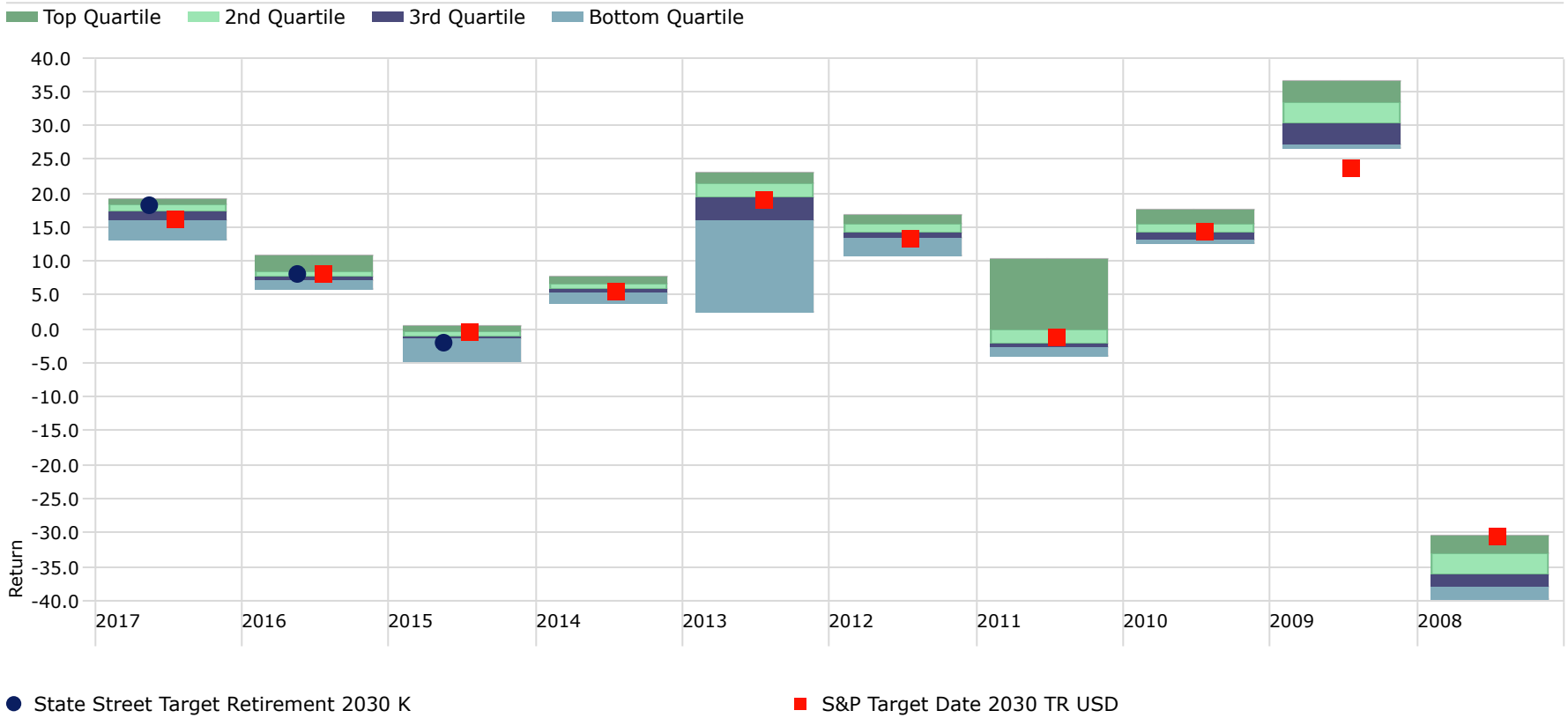
Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2030 K	3.10	30	7.66	40	10.40	52	10.92	27	7.33	34								
S&P Target Date 2030 TR USD	3.15	24	7.99	29	10.36	52	10.47	43	7.30	35	7.78	44	8.97	43	10.51	48	8.02	62
Count	241		238		222		194		175		161		146		127		97	
5th Percentile	3.68		8.68		11.87		11.67		8.01		8.64		10.01		12.21		9.46	
25th Percentile	3.14		8.16		11.15		10.97		7.46		8.06		9.23		11.10		8.58	
50th Percentile	2.90		7.38		10.43		10.38		7.06		7.59		8.80		10.48		8.10	
75th Percentile	2.72		6.62		9.23		9.85		6.32		7.09		7.84		9.49		7.59	
95th Percentile	1.67		5.15		7.66		8.01		4.59		4.53		4.14		5.87		6.08	

Source: Morningstar Direct

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2030



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2030 K	18.42	25	8.27	31	-1.80	84														
S&P Target Date 2030 TR USD	16.19	73	8.35	29	-0.30	25	5.64	67	19.14	52	13.43	75	-1.17	36	14.52	45	23.70	96	-30.48	2
Count	229		205		187		163		149		136		120		113		105		83	
5th Percentile	19.18		10.83		0.54		7.74		23.06		16.83		10.38		17.70		36.64		-30.53	
25th Percentile	18.41		8.46		-0.37		6.75		21.49		15.62		-0.15		15.57		33.33		-32.96	
50th Percentile	17.33		7.68		-1.01		6.02		19.28		14.22		-2.06		14.19		30.33		-36.16	
75th Percentile	16.09		7.24		-1.50		5.43		16.04		13.45		-2.71		13.18		27.30		-37.88	
95th Percentile	13.29		5.77		-4.71		3.75		2.59		10.88		-4.02		12.64		26.57		-39.85	

Source: Morningstar Direct

State Street Target Retirement 2035 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2035 Fund; Class K Shares	Portfolio Assets :	$825 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSCKX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2035 (MF)
Fund Assets :	$825 Million	Style Benchmark :	S&P Target Date 2035 Index

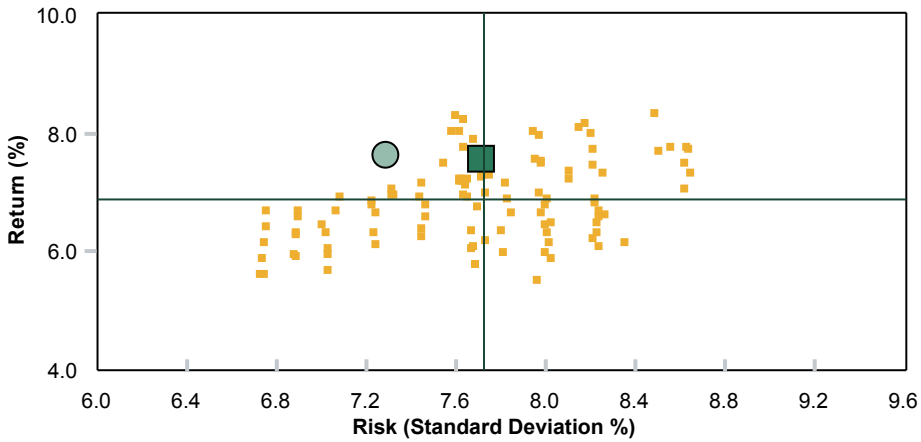
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2035 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

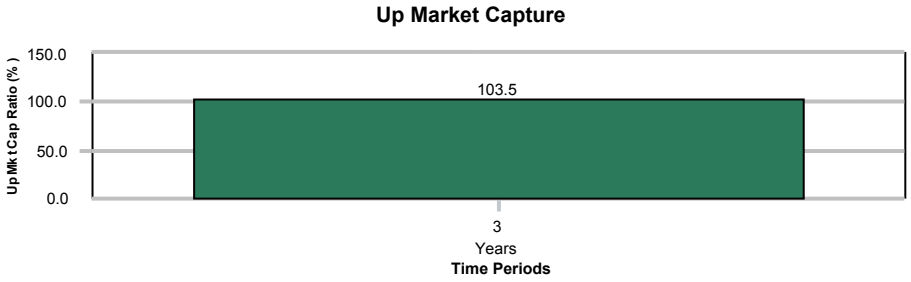
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2035 K	7.56	7.72	0.91	-0.39	1.05	0.98	1.07	-0.02	7.70	11/01/2014
S&P Target Date 2035 Index	7.61	7.29	0.96	0.00	1.00	1.00	0.00	N/A	7.27	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	7.27	-0.96	0.00	11/01/2014

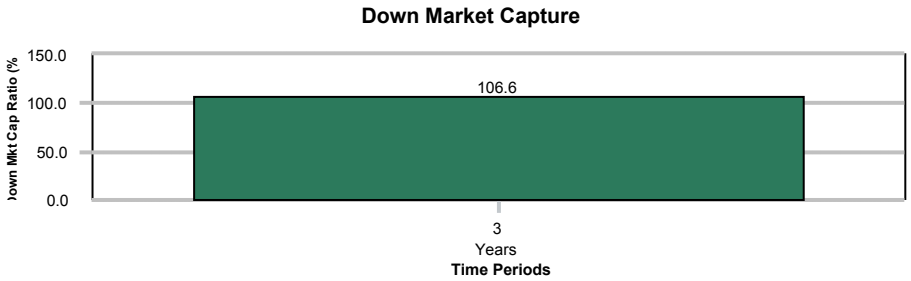
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement 2035 K	7.56	7.72
S&P Target Date 2035 Index	7.61	7.29
Median	6.89	7.73

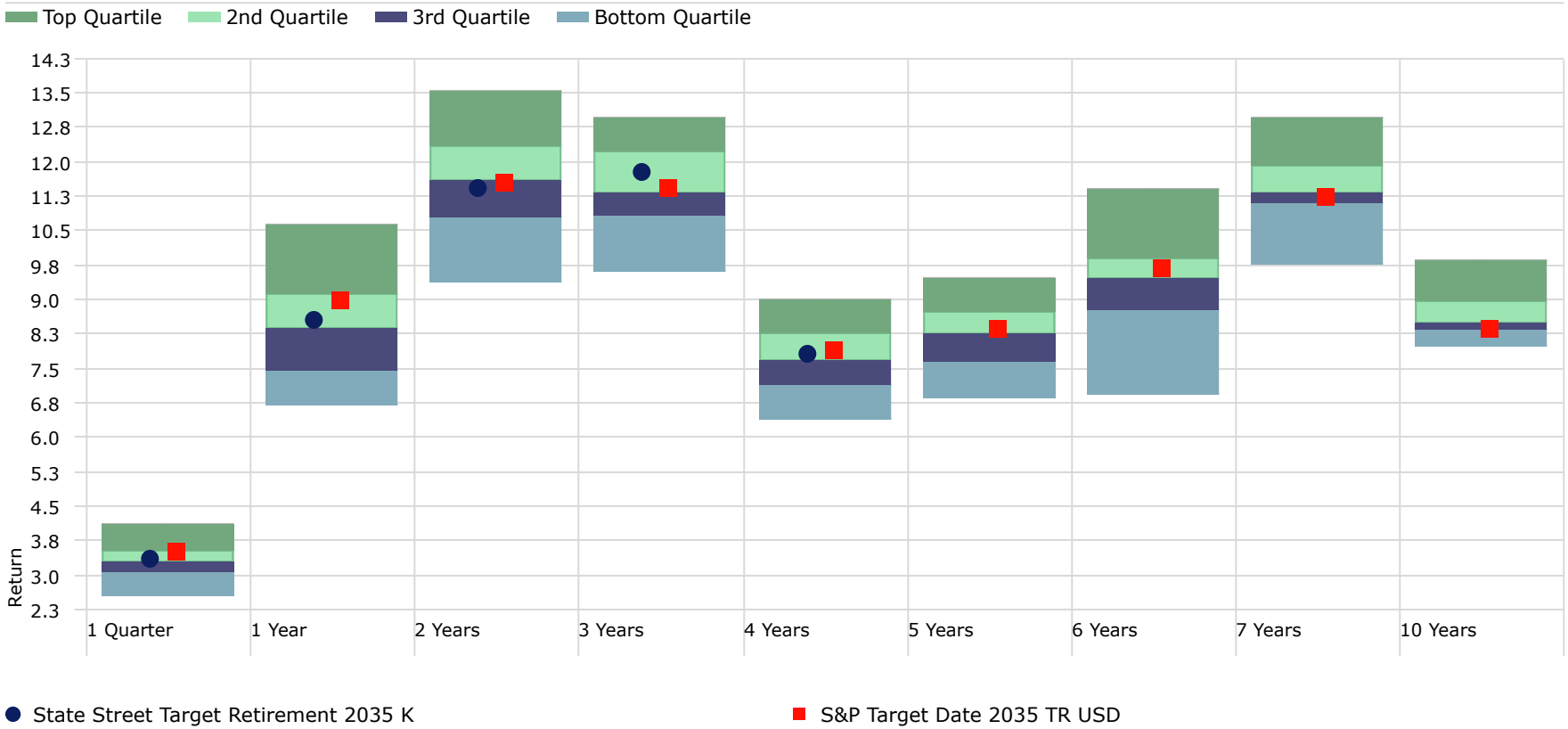
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2035



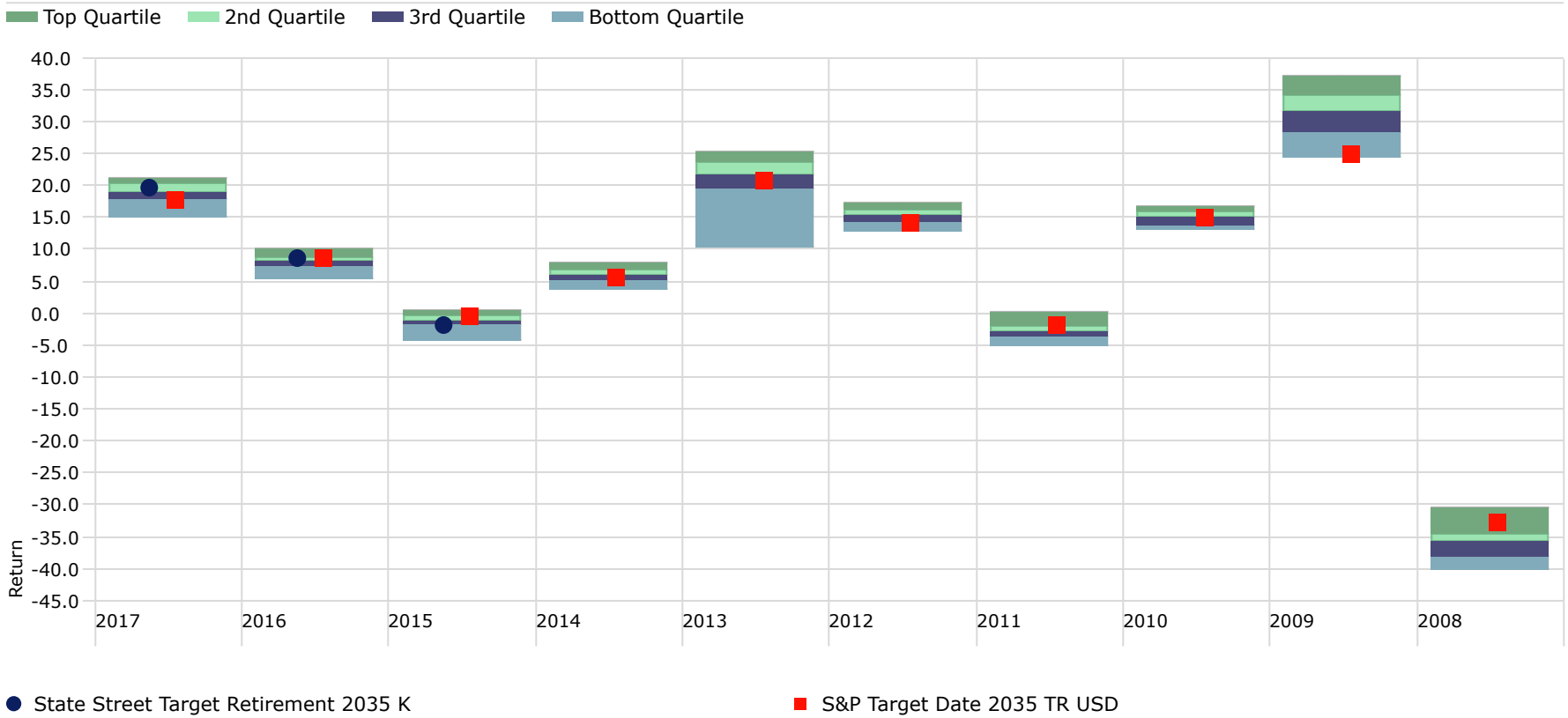
Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2035 K	3.38	42	8.56	41	11.45	59	11.78	37	7.85	38								
S&P Target Date 2035 TR USD	3.52	29	8.99	34	11.56	51	11.44	45	7.93	35	8.39	41	9.68	48	11.26	60	8.39	61
Count	215		214		197		174		153		136		119		101		67	
5th Percentile	4.10		10.65		13.54		12.97		8.99		9.48		11.40		12.97		9.86	
25th Percentile	3.54		9.12		12.33		12.21		8.25		8.72		9.91		11.92		8.97	
50th Percentile	3.29		8.39		11.59		11.32		7.70		8.25		9.46		11.34		8.48	
75th Percentile	3.08		7.45		10.80		10.83		7.12		7.65		8.78		11.10		8.34	
95th Percentile	2.55		6.71		9.40		9.64		6.39		6.85		6.95		9.77		7.99	

Source: Morningstar Direct

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2035



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2035 K	19.83	35	8.66	34	-1.85	84														
S&P Target Date 2035 TR USD	17.78	76	8.85	24	-0.35	29	5.69	61	20.84	62	14.12	83	-1.71	16	15.02	52	24.99	89	-32.60	7
Count	204		185		165		141		131		107		93		83		68		57	
5th Percentile	21.09		10.17		0.54		7.88		25.38		17.40		0.17		16.75		37.03		-30.45	
25th Percentile	20.26		8.73		-0.25		6.84		23.56		16.10		-2.10		16.00		34.10		-34.47	
50th Percentile	19.01		8.27		-1.10		6.10		21.64		15.46		-2.93		15.14		31.70		-35.66	
75th Percentile	17.87		7.37		-1.67		5.27		19.62		14.33		-3.67		13.73		28.32		-38.04	
95th Percentile	14.94		5.32		-4.33		3.74		10.45		12.92		-4.97		13.06		24.56		-40.01	

Source: Morningstar Direct

State Street Target Retirement 2040 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2040 Fund; Class K Shares	Portfolio Assets :	$667 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSCQX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2040 (MF)
Fund Assets :	$665 Million	Style Benchmark :	S&P Target Date 2040 Index

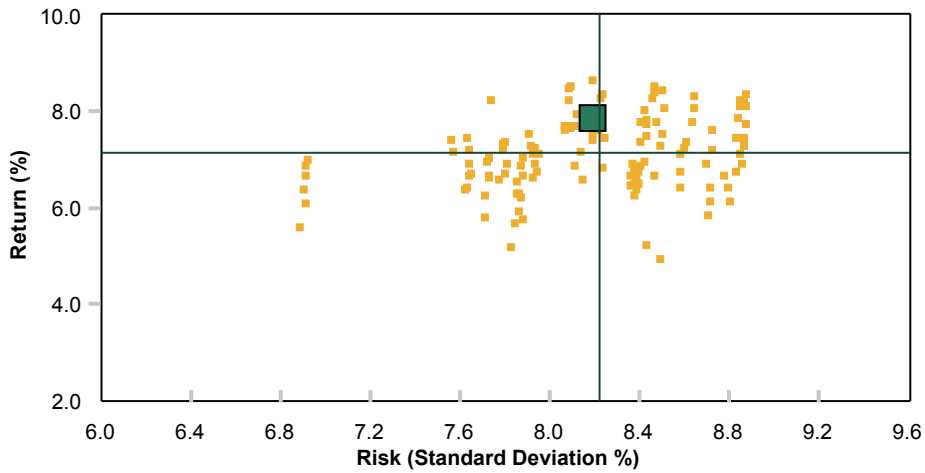
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2040 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

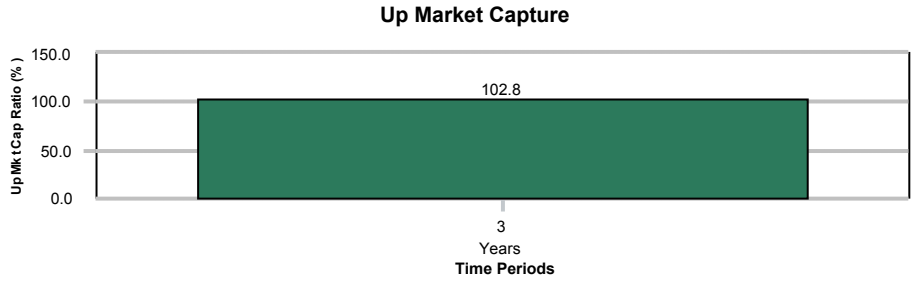
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2040 K	7.85	8.20	0.89	-0.56	1.05	0.99	1.07	-0.12	8.18	11/01/2014
S&P Target Date 2040 Index	8.02	7.73	0.96	0.00	1.00	1.00	0.00	N/A	7.71	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	7.71	-0.96	0.00	11/01/2014

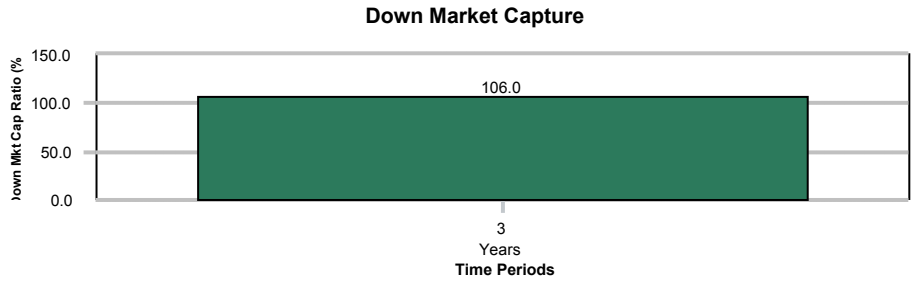
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement 2040 K	7.85	8.20
Median	7.17	8.22

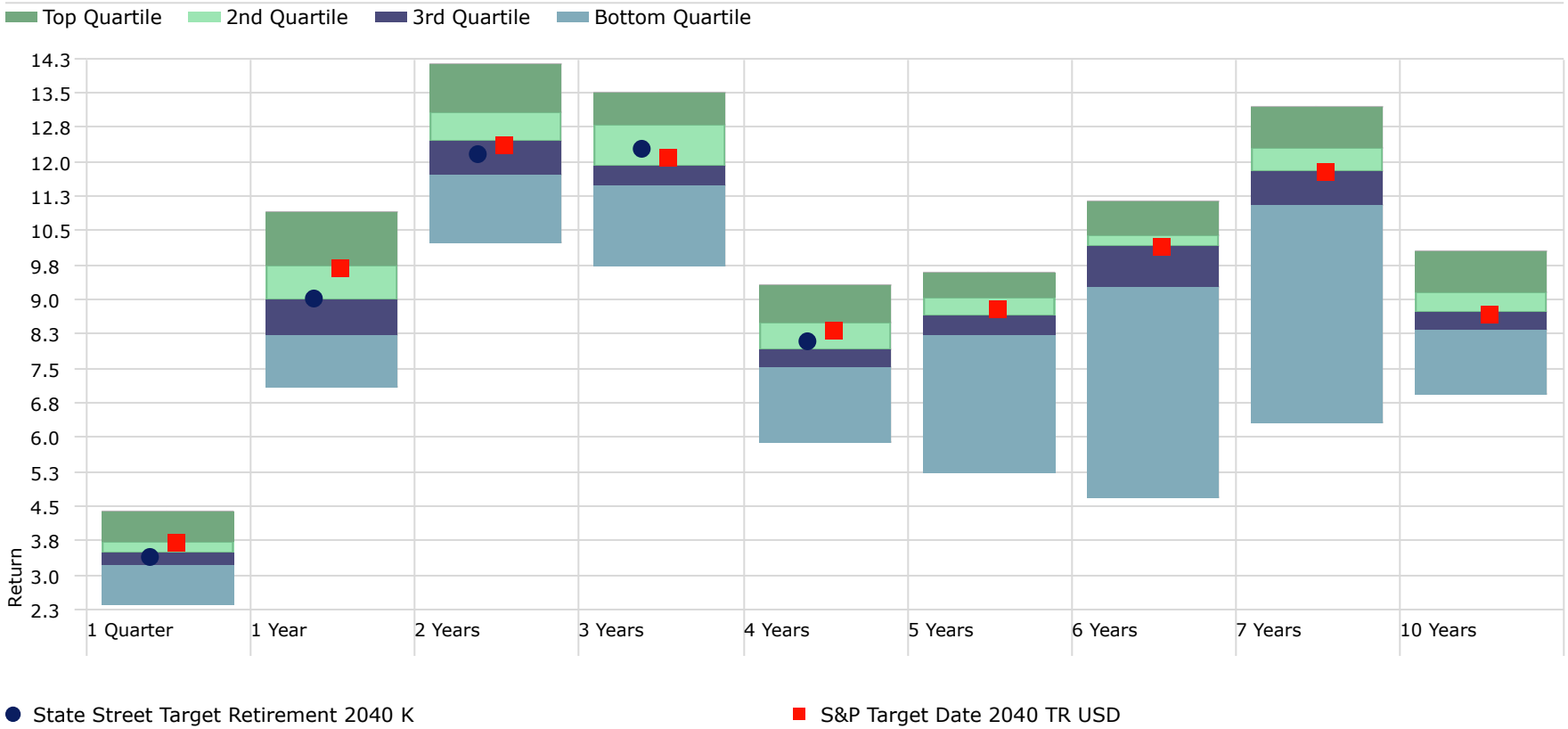
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2040



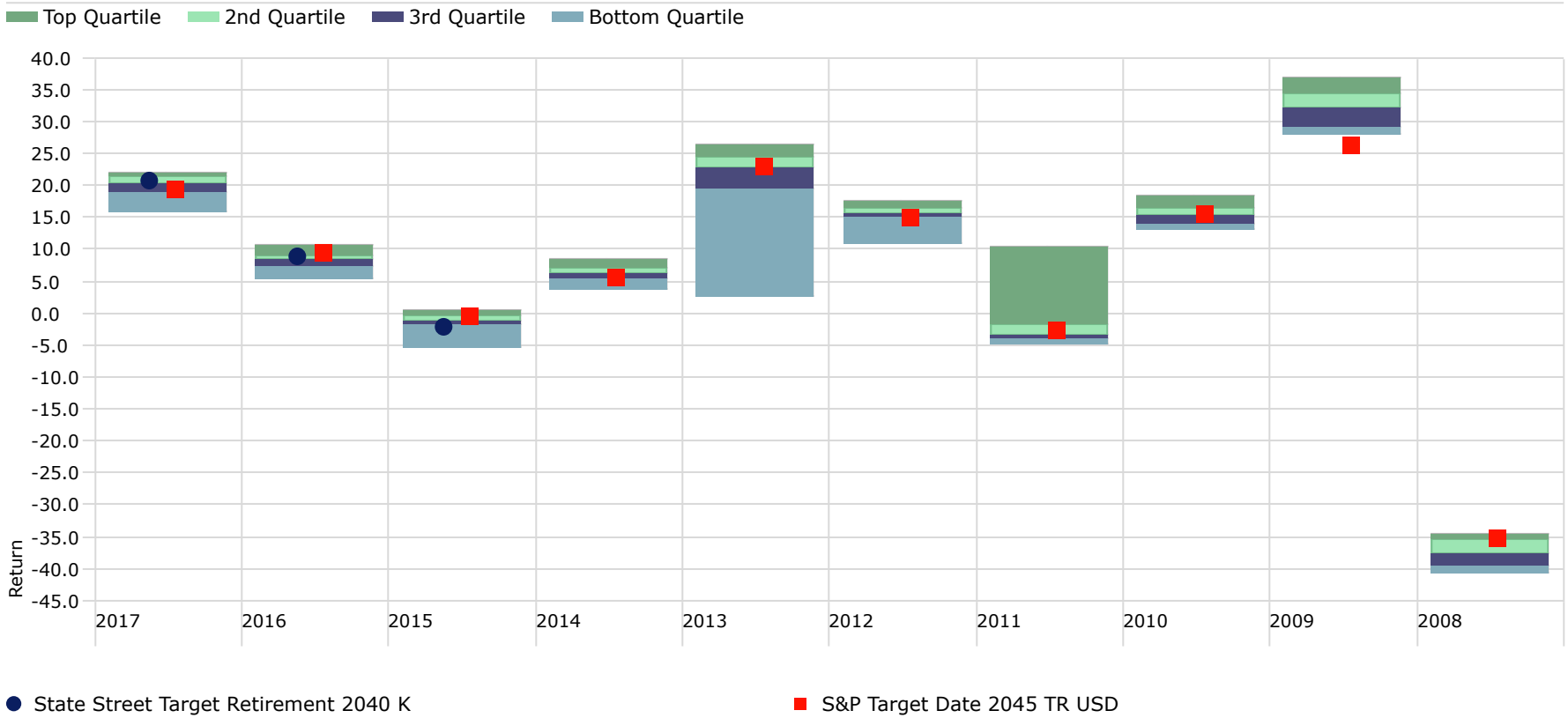
Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2040 K	3.43	74	9.05	64	12.16	78	12.32	59	8.11	65								
S&P Target Date 2040 TR USD	3.72	45	9.68	43	12.38	70	12.11	66	8.34	52	8.79	68	10.18	66	11.79	81	8.67	79
Count	215		214		197		174		153		136		118		97		66	
5th Percentile	4.53		11.64		14.78		13.76		9.52		9.97		11.86		13.42		10.14	
25th Percentile	4.03		10.35		13.47		13.09		8.82		9.23		10.72		12.52		9.38	
50th Percentile	3.66		9.47		13.08		12.56		8.38		9.02		10.33		12.31		8.90	
75th Percentile	3.41		8.61		12.31		11.87		8.03		8.74		9.89		11.87		8.70	
95th Percentile	3.03		7.83		11.42		11.29		6.98		7.31		7.97		11.17		8.43	

Source: Morningstar Direct

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2040



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2040 K	20.77	56	8.99	40	-2.16	85														
S&P Target Date 2040 TR USD	18.87	88	9.23	26	-0.40	26	5.69	66	22.10	71	14.69	87	-2.17	16	15.38	58	25.97	100	-34.00	14
Count	204		185		165		141		130		103		92		82		67		57	
5th Percentile	23.41		10.46		0.62		8.68		26.43		17.61		-0.57		16.70		37.43		-33.50	
25th Percentile	21.83		9.28		-0.39		7.10		25.21		16.79		-2.32		16.40		34.22		-35.37	
50th Percentile	21.18		8.48		-1.25		6.14		23.79		15.98		-3.63		15.64		31.54		-37.31	
75th Percentile	19.77		7.50		-1.79		5.01		21.24		15.63		-4.50		14.17		29.29		-39.63	
95th Percentile	17.77		5.54		-4.20		3.85		13.99		13.26		-4.99		13.02		26.64		-41.20	

Source: Morningstar Direct

State Street Target Retirement 2045 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2045 Fund; Class K Shares	Portfolio Assets :	$473 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSDEX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2045 (MF)
Fund Assets :	$472 Million	Style Benchmark :	S&P Target Date 2045 Index

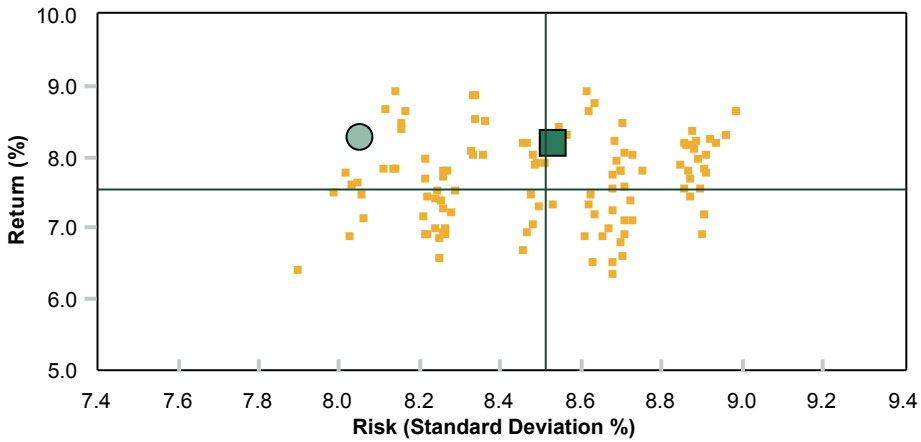
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2045 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

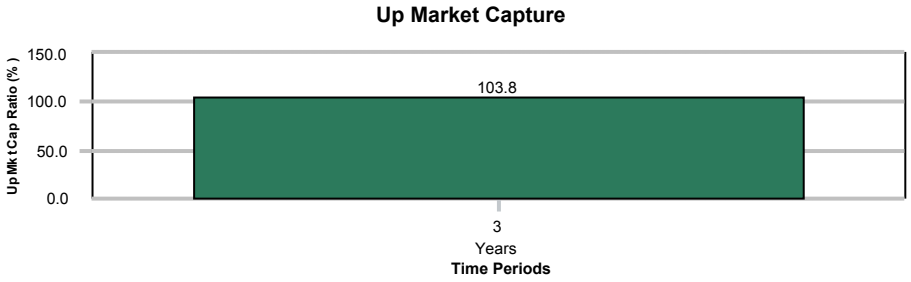
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2045 K	8.19	8.53	0.90	-0.47	1.05	0.99	1.11	-0.04	8.51	11/01/2014
S&P Target Date 2045 Index	8.27	8.05	0.96	0.00	1.00	1.00	0.00	N/A	8.03	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	8.03	-0.96	0.00	11/01/2014

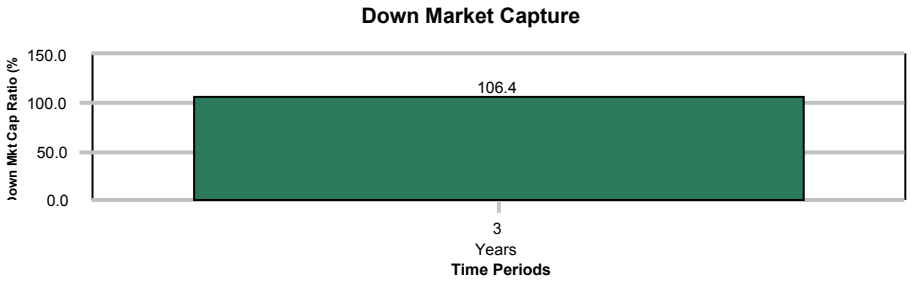
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement 2045 K	8.19	8.53
S&P Target Date 2045 Index	8.27	8.05
Median	7.55	8.51

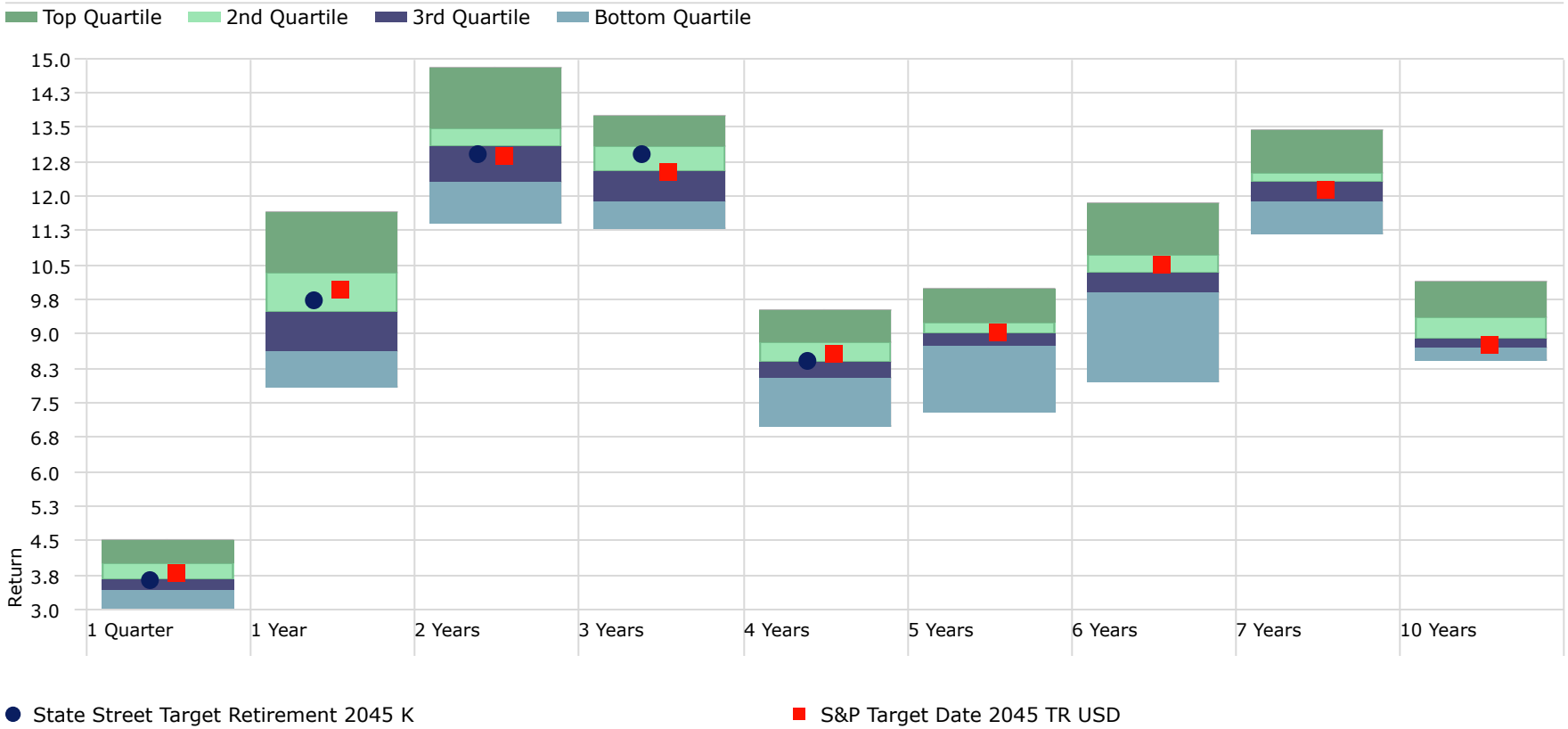
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2045

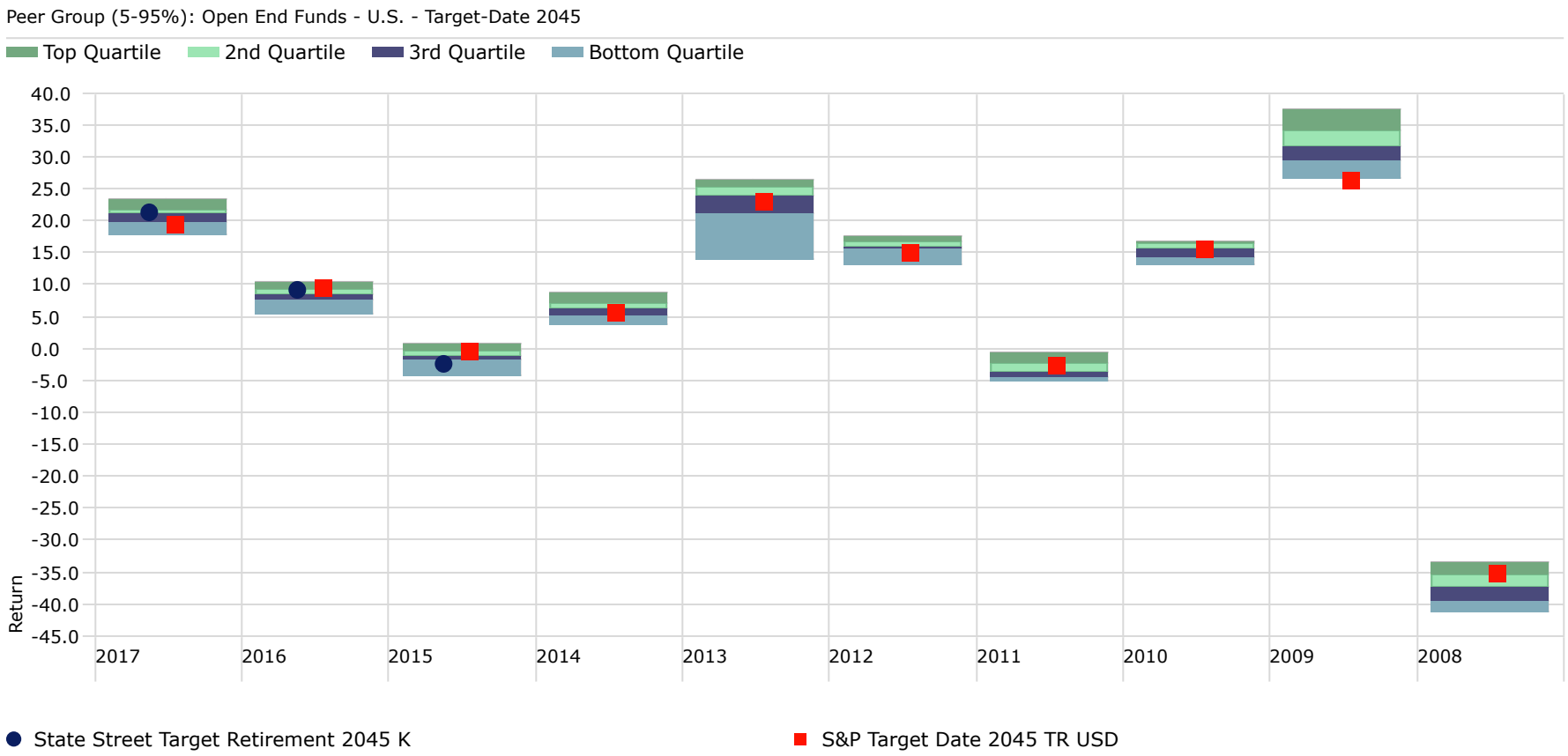


Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2045 K	3.66	50	9.74	42	12.92	58	12.94	36	8.45	45								
S&P Target Date 2045 TR USD	3.81	34	9.98	31	12.88	59	12.54	52	8.60	37	9.05	49	10.52	44	12.16	57	8.79	68
Count	215		214		197		174		153		136		118		97		66	
5th Percentile	4.53		11.64		14.78		13.76		9.52		9.97		11.86		13.42		10.14	
25th Percentile	4.03		10.35		13.47		13.09		8.82		9.23		10.72		12.52		9.38	
50th Percentile	3.66		9.47		13.08		12.56		8.38		9.02		10.33		12.31		8.90	
75th Percentile	3.41		8.61		12.31		11.87		8.03		8.74		9.89		11.87		8.70	
95th Percentile	3.03		7.83		11.42		11.29		6.98		7.31		7.97		11.17		8.43	

Source: Morningstar Direct



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2045 K	21.54	34	9.42	19	-2.44	93														
S&P Target Date 2045 TR USD	19.56	83	9.54	19	-0.46	28	5.67	66	23.14	58	15.15	84	-2.56	32	15.62	52	26.40	100	-35.24	25
Count	204		185		165		141		130		103		92		82		67		57	
5th Percentile	23.41		10.46		0.62		8.68		26.43		17.61		-0.57		16.70		37.43		-33.50	
25th Percentile	21.83		9.28		-0.39		7.10		25.21		16.79		-2.32		16.40		34.22		-35.37	
50th Percentile	21.18		8.48		-1.25		6.14		23.79		15.98		-3.63		15.64		31.54		-37.31	
75th Percentile	19.77		7.50		-1.79		5.01		21.24		15.63		-4.50		14.17		29.29		-39.63	
95th Percentile	17.77		5.54		-4.20		3.85		13.99		13.26		-4.99		13.02		26.64		-41.20	

Source: Morningstar Direct

State Street Target Retirement 2050 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2050 Fund; Class K Shares	Portfolio Assets :	$308 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSDLX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2050 (MF)
Fund Assets :	$307 Million	Style Benchmark :	S&P Target Date 2050+ Index

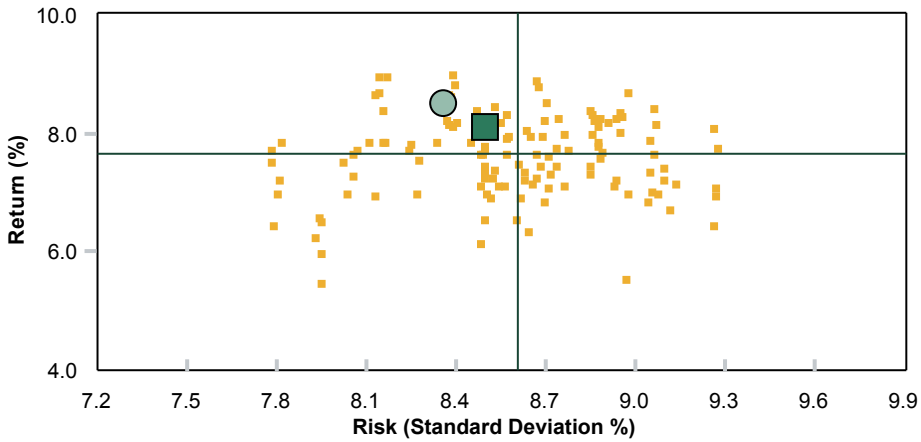
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2050 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

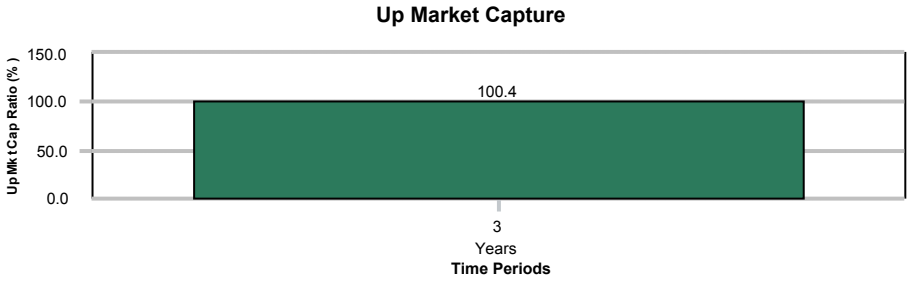
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2050 K	8.10	8.50	0.89	-0.42	1.01	0.98	1.12	-0.32	8.48	11/01/2014
S&P Target Date 2050+ Index	8.50	8.36	0.95	0.00	1.00	1.00	0.00	N/A	8.34	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	8.34	-0.95	0.00	11/01/2014

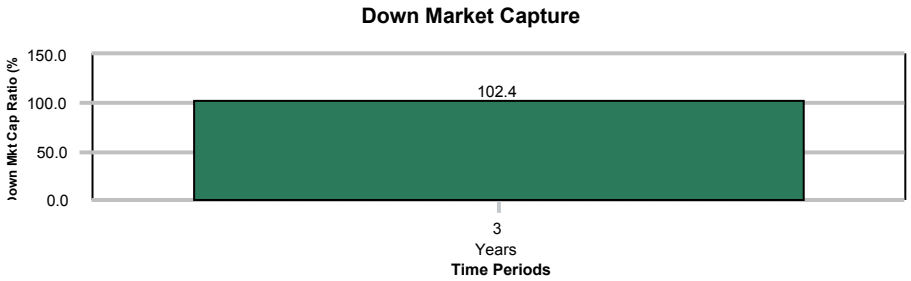
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement 2050 K	8.10	8.50
S&P Target Date 2050+ Index	8.50	8.36
Median	7.64	8.61

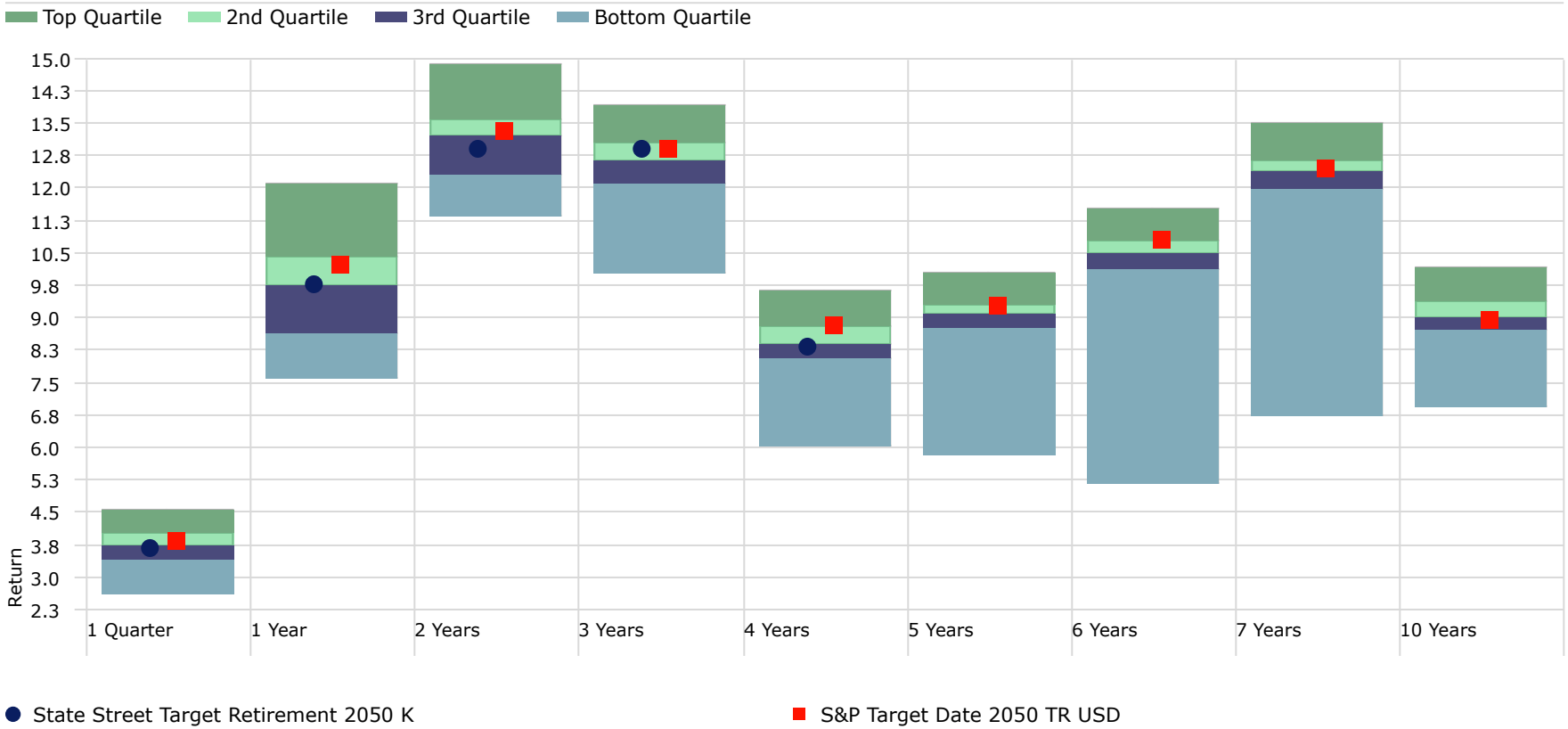
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2050

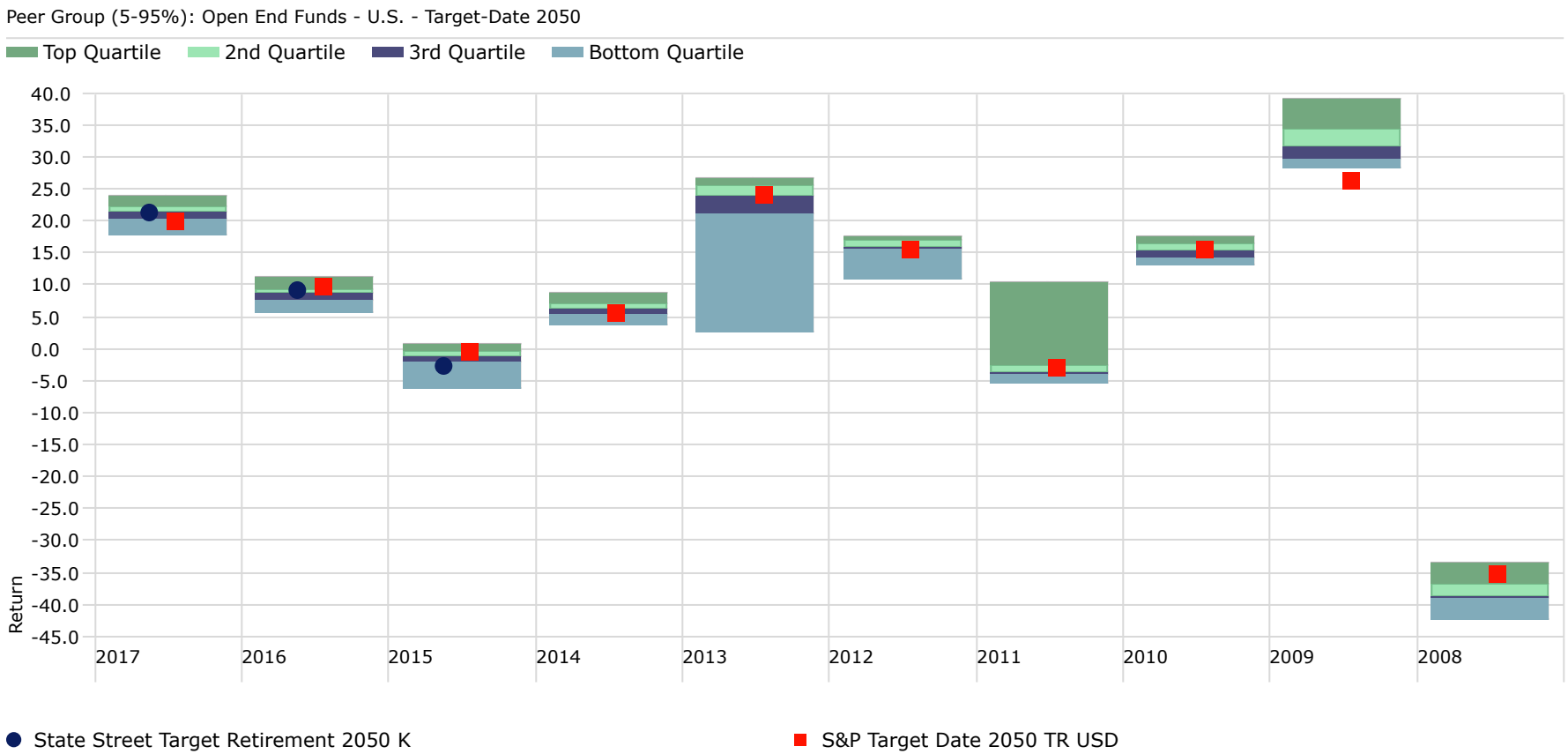


Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2050 K	3.68	52	9.78	49	12.91	63	12.91	40	8.37	60								
S&P Target Date 2050 TR USD	3.87	34	10.26	28	13.35	44	12.92	37	8.83	23	9.29	23	10.84	20	12.48	38	8.96	54
Count	237		234		218		189		170		156		138		113		74	
5th Percentile	4.56		12.12		14.84		13.93		9.64		10.03		11.51		13.49		10.18	
25th Percentile	4.03		10.41		13.60		13.04		8.82		9.28		10.78		12.66		9.40	
50th Percentile	3.72		9.77		13.20		12.64		8.40		9.08		10.49		12.38		9.01	
75th Percentile	3.39		8.63		12.32		12.11		8.06		8.77		10.13		12.00		8.74	
95th Percentile	2.62		7.60		11.34		10.04		6.06		5.84		5.20		6.76		6.94	

Source: Morningstar Direct



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2050 K	21.50	45	9.35	26	-2.64	90														
S&P Target Date 2050 TR USD	20.18	78	9.74	19	-0.47	26	5.69	73	24.13	41	15.49	75	-2.87	29	15.62	47	26.40	100	-35.24	10
Count	225		200		182		158		143		122		104		90		82		55	
5th Percentile	23.77		11.14		0.64		8.81		26.62		17.60		10.43		17.50		39.04		-33.53	
25th Percentile	22.15		9.36		-0.42		7.15		25.67		16.95		-2.59		16.50		34.32		-36.84	
50th Percentile	21.30		8.63		-1.30		6.27		23.89		16.01		-3.61		15.30		31.64		-38.72	
75th Percentile	20.34		7.54		-1.93		5.56		21.27		15.50		-4.09		14.19		29.81		-38.96	
95th Percentile	17.80		5.60		-6.07		3.67		2.68		10.85		-5.38		13.11		28.31		-42.26	

Source: Morningstar Direct

State Street Target Retirement 2055 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2055 Fund; Class K Shares	Portfolio Assets :	$126 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSDQX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2055 (MF)
Fund Assets :	$126 Million	Style Benchmark :	S&P Target Date 2055 Index

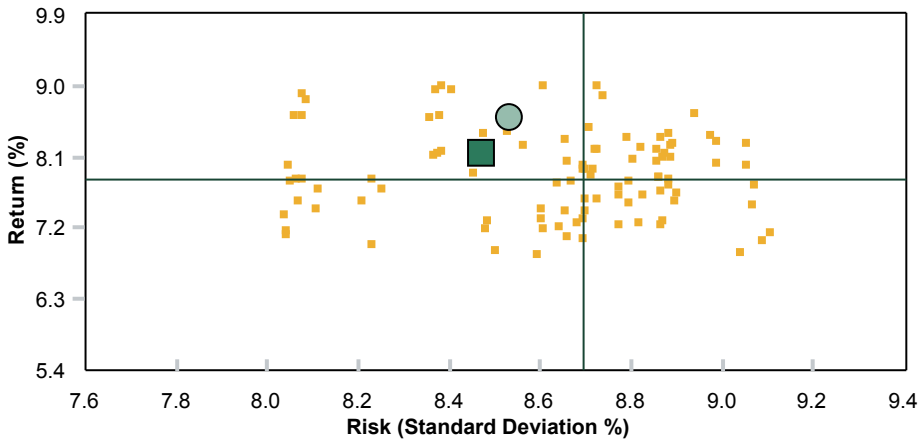
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2055 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

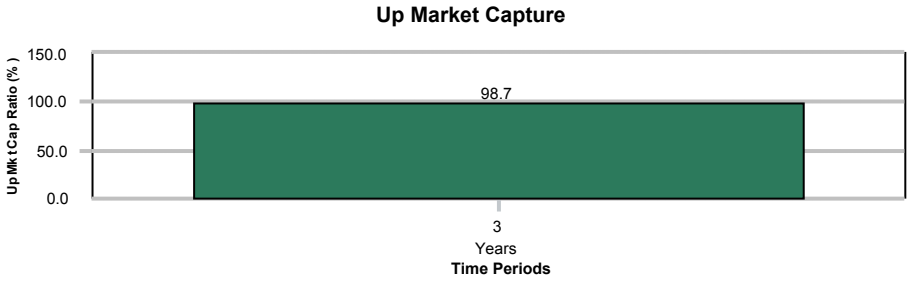
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2055 K	8.13	8.47	0.90	-0.30	0.98	0.98	1.13	-0.38	8.45	11/01/2014
S&P Target Date 2055 Index	8.60	8.53	0.94	0.00	1.00	1.00	0.00	N/A	8.51	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	8.51	-0.94	0.00	11/01/2014

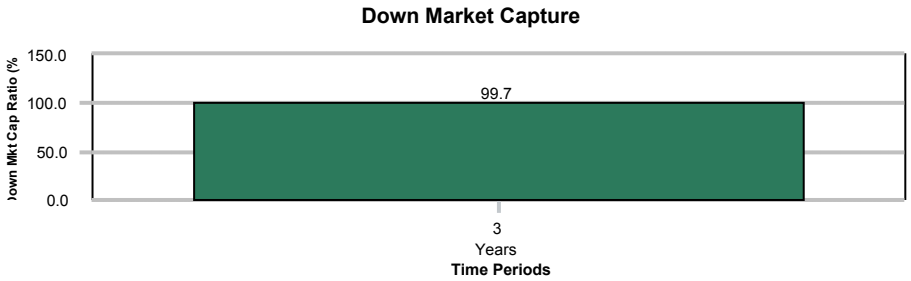
Peer Group Scattergram (11/01/14 to 09/30/18)



	Return	Standard Deviation
State Street Target Retirement 2055 K	8.13	8.47
S&P Target Date 2055 Index	8.60	8.53
Median	7.82	8.70

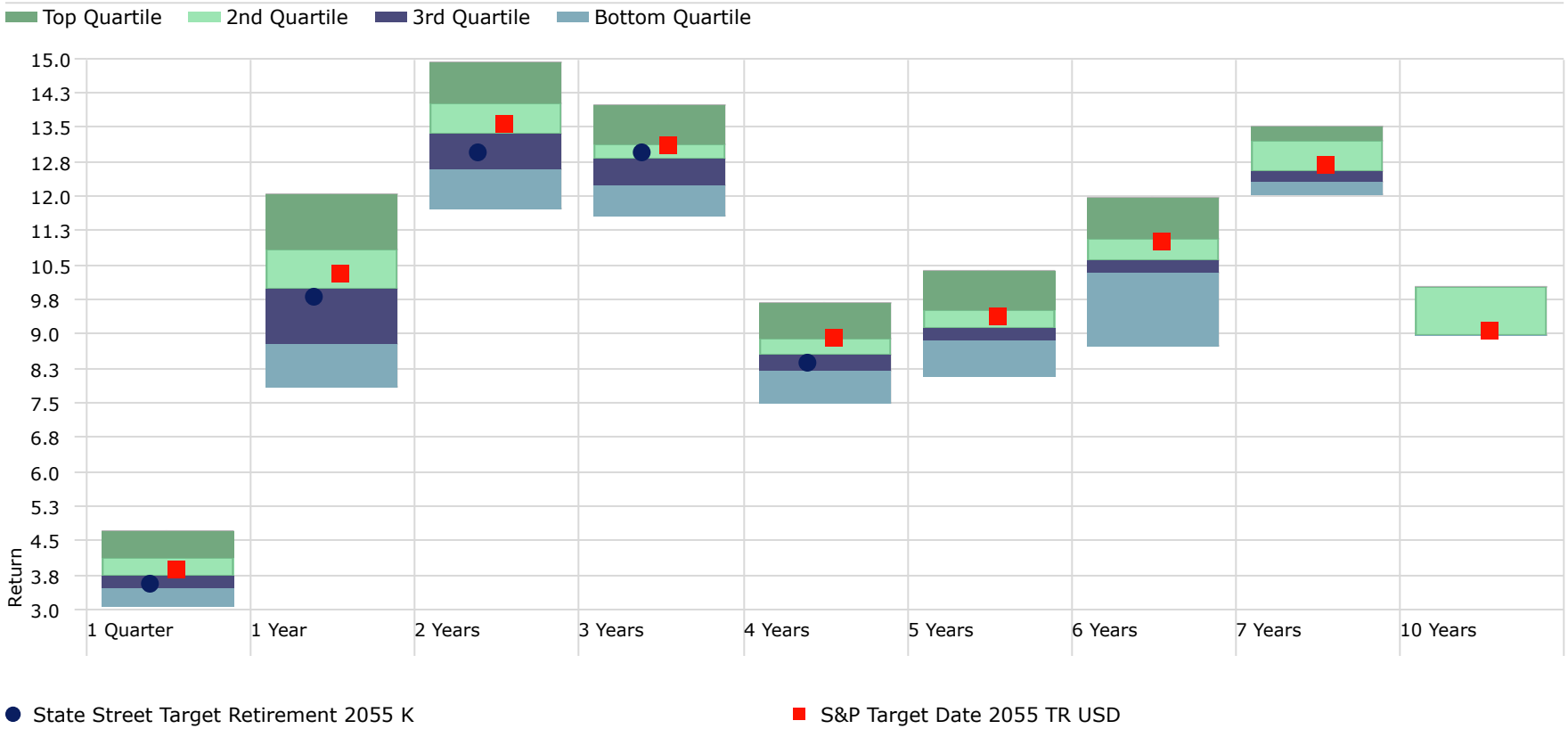
Up Down Market Capture





* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2055

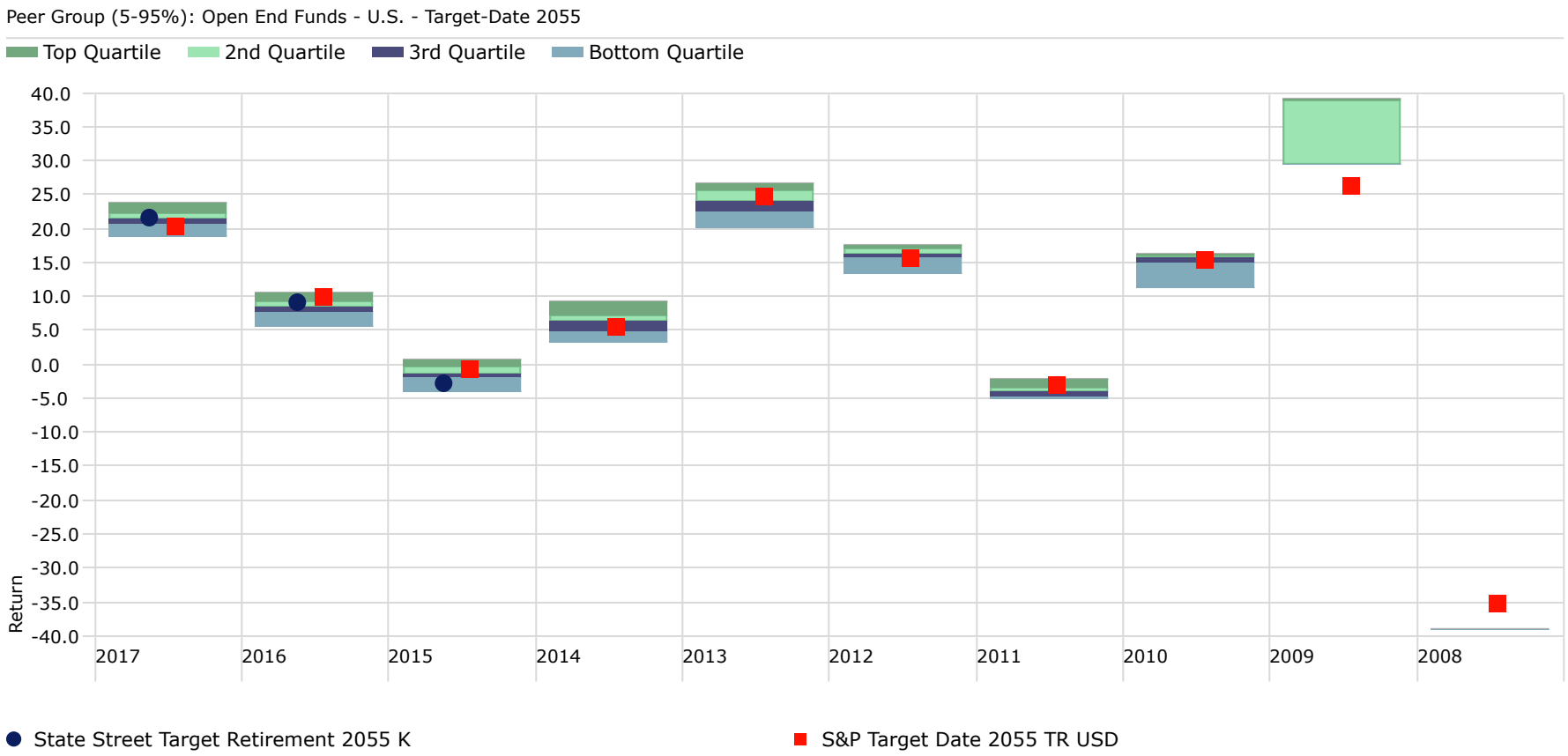


Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2055 K	3.59	65	9.84	54	12.98	68	12.97	36	8.40	64								
S&P Target Date 2055 TR USD	3.88	38	10.32	35	13.58	35	13.13	25	8.93	23	9.42	31	11.04	31	12.68	42	9.10	34
Count	218		217		198		172		142		112		89		71		9	
5th Percentile	4.69		12.03		14.93		14.00		9.66		10.37		11.95		13.51		10.03	
25th Percentile	4.11		10.82		14.03		13.12		8.91		9.53		11.08		13.21		10.03	
50th Percentile	3.74		9.99		13.34		12.80		8.56		9.13		10.61		12.55		8.97	
75th Percentile	3.47		8.77		12.60		12.25		8.19		8.87		10.32		12.32		8.97	
95th Percentile	3.07		7.85		11.72		11.59		7.51		8.09		8.74		12.03		8.97	

Source: Morningstar Direct



Trailing Returns

Data Point: Return

	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2055 K	21.61	43	9.34	27	-2.68	93														
S&P Target Date 2055 TR USD	20.48	77	9.94	15	-0.54	29	5.64	63	24.96	30	15.81	71	-2.87	17	15.62	60	26.40	100	-35.24	1
Count	202		183		158		115		100		77		48		15		9		3	
5th Percentile	23.84		10.50		0.63		9.27		26.76		17.59		-2.24		16.38		39.12		-38.89	
25th Percentile	22.32		9.36		-0.45		7.17		25.63		17.05		-3.38		15.91		38.97		-38.90	
50th Percentile	21.51		8.55		-1.26		6.31		23.98		16.24		-4.03		15.82		29.63		-38.92	
75th Percentile	20.58		7.66		-1.83		4.95		22.47		15.75		-4.68		14.93		29.57		-38.92	
95th Percentile	18.99		5.69		-4.05		3.41		20.11		13.43		-5.01		11.44		29.52		-38.93	

Source: Morningstar Direct

State Street Target Retirement 2060 K

Fund Information

Fund Name :	State Street Institutional Investment Trust: State Street Target Retirement 2060 Fund; Class K Shares	Portfolio Assets :	$21 Million
Fund Family :	State Street Bank and Trust Company	Portfolio Manager :	Narkiewicz/McGinn
Ticker :	SSDYX	PM Tenure :	2018--2014
Inception Date :	09/30/2014	Fund Style :	IM Mixed-Asset Target 2060+ (MF)
Fund Assets :	$20 Million	Style Benchmark :	S&P Target Date To 2060+ Index

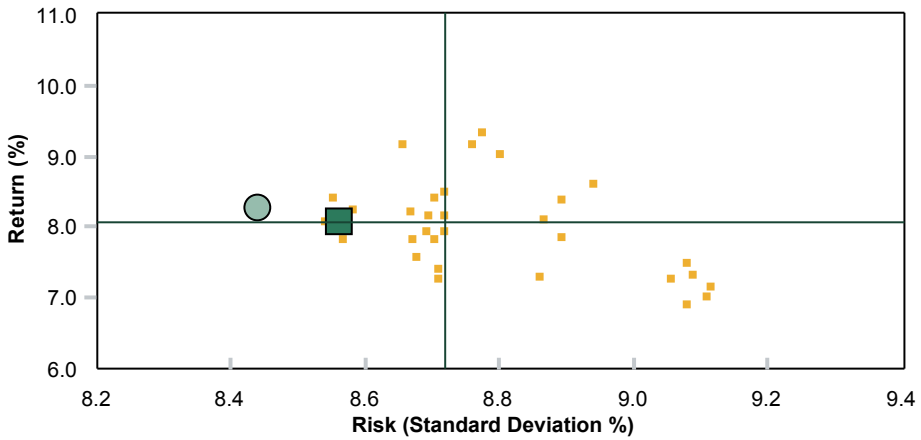
Fund Investment Policy

The Fund seeks capital growth and income over the long term. It is intended for investors expecting to retire around the year 2060 and likely to stop making new investments in the Fund at that time. It is designed for an investor who plans to withdraw the value of the investors account gradually following that date.

Historical Statistics (11/01/14 - 09/30/18) *

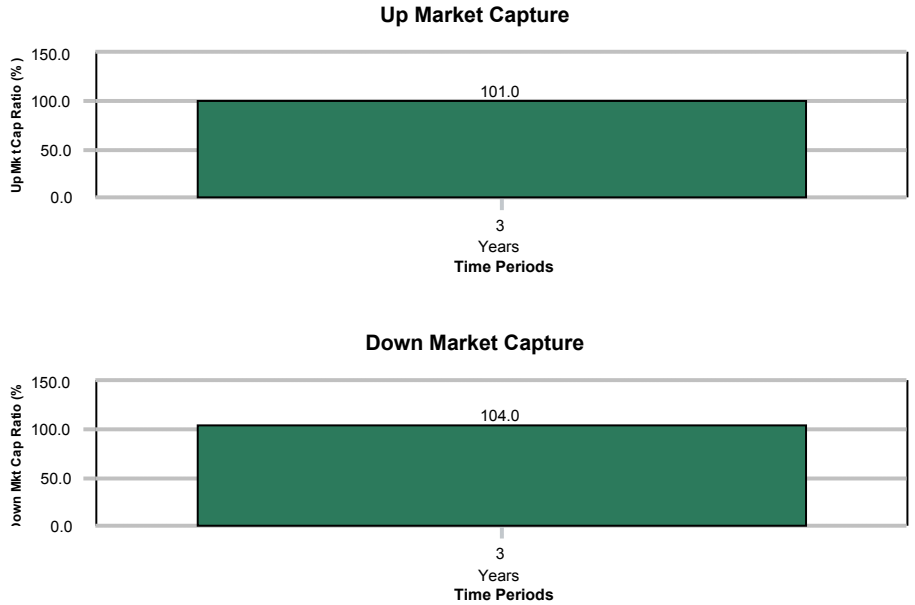
	Return	Standard Deviation	Sharpe Ratio	Alpha	Beta	R-Squared	Tracking Error	Information Ratio	Excess Risk	Inception Date
State Street Target Retirement 2060 K	8.08	8.56	0.88	-0.20	1.00	0.98	1.23	-0.14	8.54	11/01/2014
S&P Target Date To 2060+ Index	8.27	8.44	0.92	0.00	1.00	1.00	0.00	N/A	8.42	11/01/2014
90 Day U.S. Treasury Bill	0.62	0.19	N/A	0.60	0.00	0.01	8.42	-0.92	0.00	11/01/2014

Peer Group Scattergram (11/01/14 to 09/30/18)



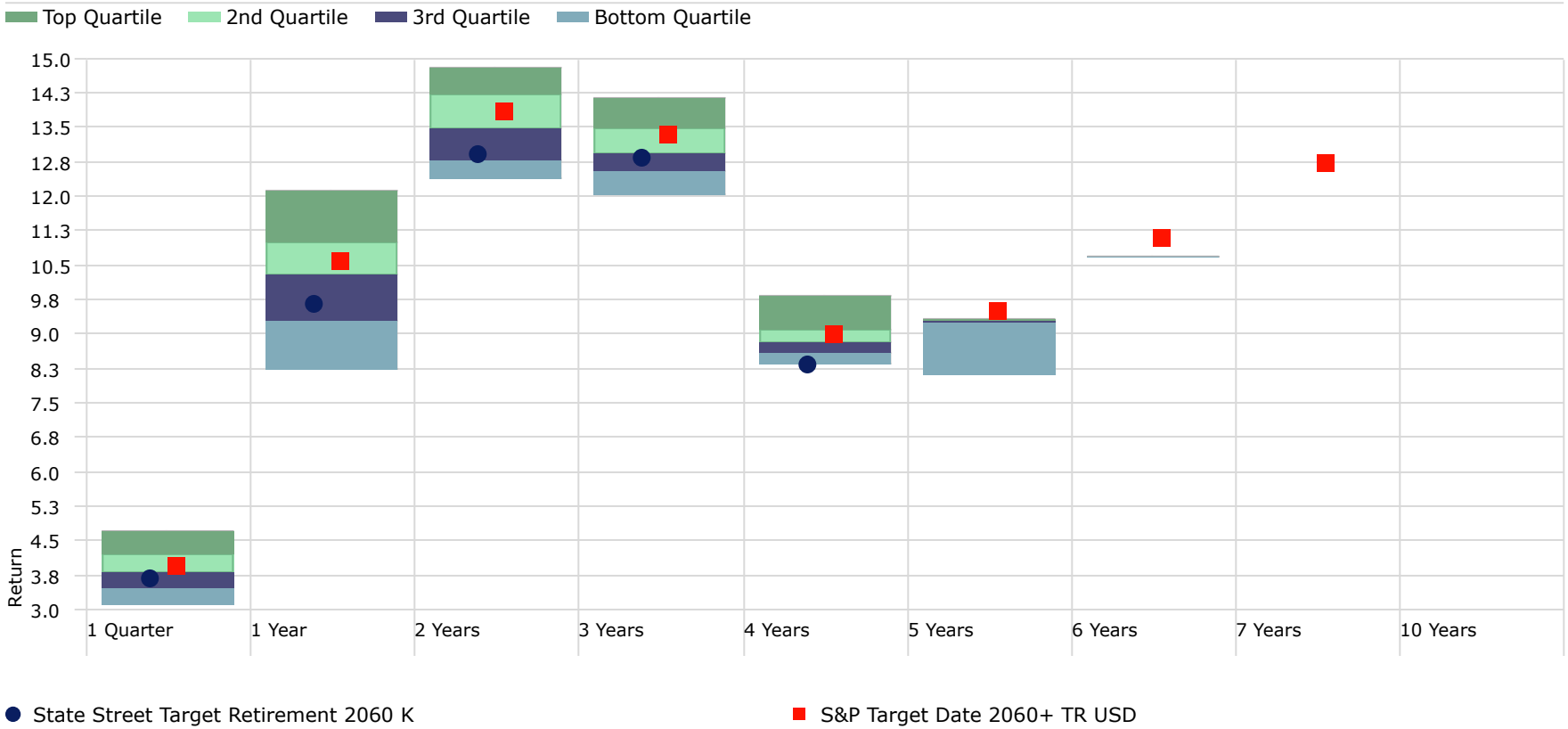
	Return	Standard Deviation
State Street Target Retirement 2060 K	8.08	8.56
S&P Target Date To 2060+ Index	8.27	8.44
Median	8.07	8.72

Up Down Market Capture



* Monthly periodicity used.

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2060+



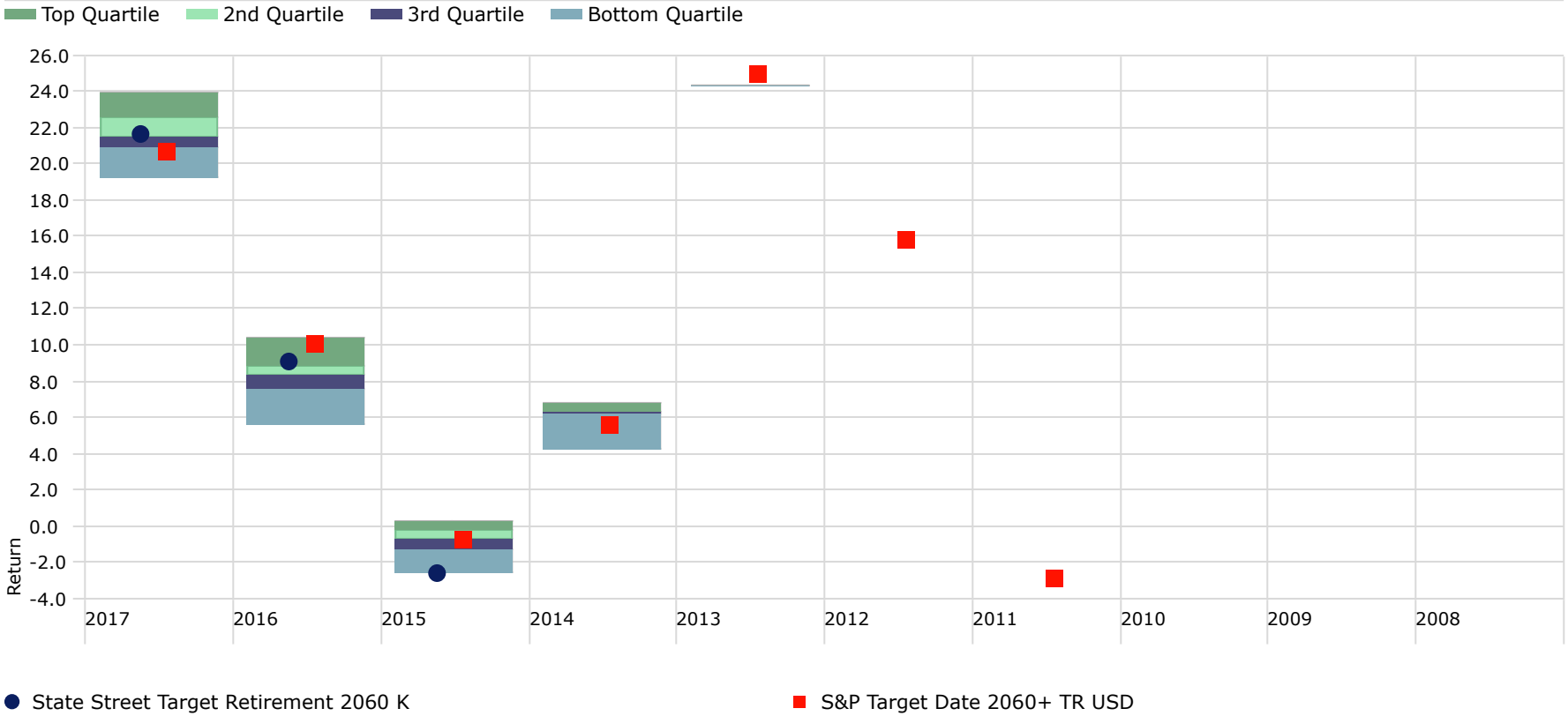
Trailing Returns

Data Point: Return

	1 Quarter	Peer group percentile	1 Year	Peer group percentile	2 Years	Peer group percentile	3 Years	Peer group percentile	4 Years	Peer group percentile	5 Years	Peer group percentile	6 Years	Peer group percentile	7 Years	Peer group percentile	10 Years	Peer group percentile
State Street Target Retirement 2060 K	3.70	64	9.69	68	12.94	72	12.86	57	8.34	93								
S&P Target Date 2060+ TR USD	3.97	34	10.60	35	13.87	37	13.34	37	9.03	27	9.50	1	11.11	1	12.75	1		
Count	188		185		139		74		30		9		1					
5th Percentile	4.71		12.10		14.79		14.12		9.82		9.33		10.69					
25th Percentile	4.20		10.97		14.21		13.48		9.11		9.28		10.69					
50th Percentile	3.81		10.29		13.46		12.93		8.82		9.27		10.69					
75th Percentile	3.46		9.28		12.78		12.55		8.57		9.26		10.69					
95th Percentile	3.10		8.26		12.37		12.04		8.34		8.12		10.69					

Source: Morningstar Direct

Peer Group (5-95%): Open End Funds - U.S. - Target-Date 2060+



Trailing Returns

Data Point: Return

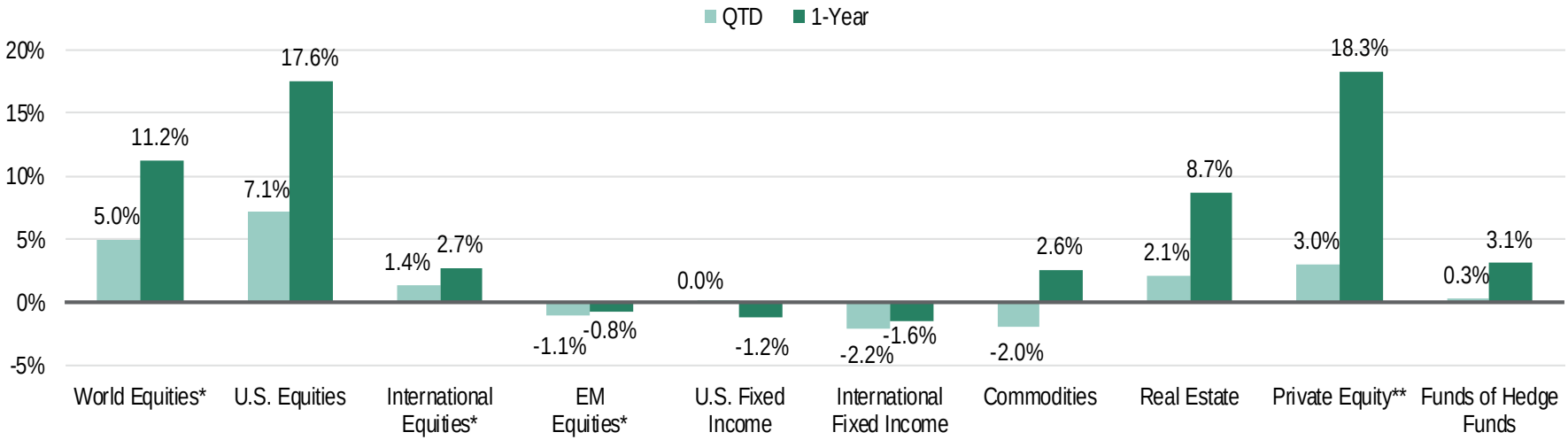
	2017	Peer group percentile	2016	Peer group percentile	2015	Peer group percentile	2014	Peer group percentile	2013	Peer group percentile	2012	Peer group percentile	2011	Peer group percentile	2010	Peer group percentile	2009	Peer group percentile	2008	Peer group percentile
State Street Target Retirement 2060 K	21.66	44	9.09	23	-2.57	100														
S&P Target Date 2060+ TR USD	20.75	79	10.08	11	-0.66	47	5.64	89	24.96	1	15.81	1	-2.87	1						
Count	150		100		36		9		1											
5th Percentile	23.94		10.41		0.23		6.81		24.35											
25th Percentile	22.53		8.86		-0.20		6.28		24.35											
50th Percentile	21.49		8.36		-0.69		6.26		24.35											
75th Percentile	20.92		7.54		-1.30		6.21		24.35											
95th Percentile	19.23		5.64		-2.54		4.27		24.35											

Source: Morningstar Direct

Financial Market Analysis

Q3 2018 In Review

Summary of Investment Returns



Quarterly Synopsis

- World equity markets rose in Q3. Solid economic and earnings data outweighed global policy uncertainty among investors.
- U.S. equity gained during the quarter. A healthy economy and robust earnings led stocks to rise despite global trade concerns.
- International equity was boosted by stronger economic news and the European Central Bank's statement that it would not hike interest rates until at least the summer of 2019.
- Emerging market equity declined again in Q3 amid U.S. dollar strength, slowing growth in China and nervousness about the collapse of the Turkish lira.
- U.S. fixed income was flat for the quarter. Short-term interest rates rose again in Q3, though longer-term yields increased as well.
- Non-U.S. fixed income declined in Q3 as Italian bonds slid.
- Hedge funds were slightly positive in the quarter. Multi-strategy and macro funds were among the best YTD performers.

* Net of Dividends
** Performance as of Q1 2018 because Q2 2018 and Q3 2018 performance data is not yet available.
Sources: Investment Metrics, Thomson One, FactSet

Q3 2018 Index Returns

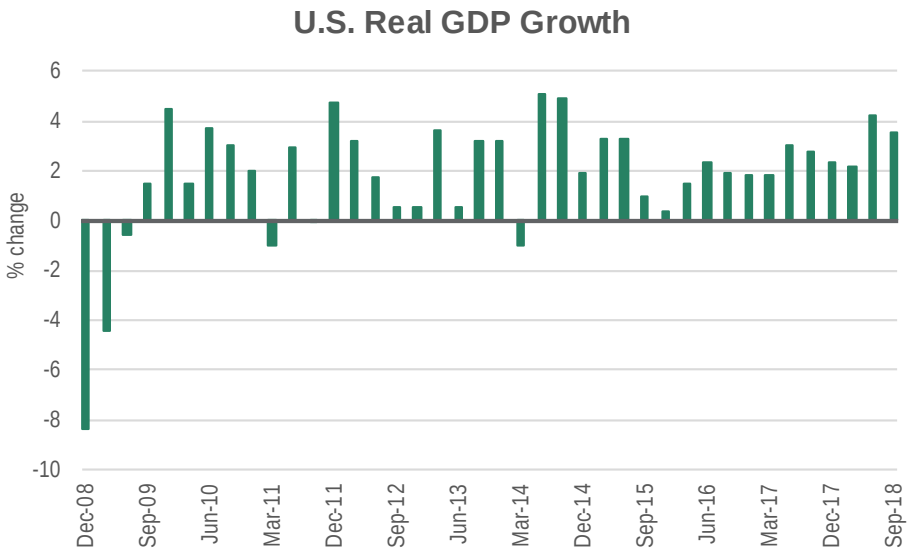
Asset Class	Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World Equity	MSCI World[1]	4.98	5.43	11.24	13.54	9.28	8.56
U.S. Equity	Russell 3000	7.12	10.57	17.58	17.07	13.46	12.01
Non-U.S. Equity	MSCI EAFE[1]	1.35	-1.43	2.74	9.23	4.42	5.38
Emerging Market Equity	MSCI EM[1]	-1.09	-7.68	-0.81	12.36	3.61	5.40
U.S. Fixed Income	Bloomberg Barclays U.S. Aggregate	0.02	-1.60	-1.22	1.31	2.16	3.77
Non-U.S. Fixed Income	FTSE[2] Non-U.S. WGBI (Unhedged)	-2.19	-3.09	-1.57	2.39	-0.23	1.99
Commodities	Bloomberg Commodity Index	-2.02	-2.03	2.59	-0.11	-7.18	-6.24
Private Real Estate	NFI-ODCE	2.09	6.48	8.68	8.80	10.72	5.58
Private Equity	Thomson Reuters Private Equity[3]	3.03	3.03	18.32	12.43	13.96	9.51
Hedge Funds	HFRI Fund of Funds Composite	0.27	0.99	3.08	3.29	3.18	2.55

[1] Net of Dividends
[2] Formerly Citigroup Non-U.S. WGBI. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and will all be rebranded to FTSE by July 31, 2018. FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG.
[3] Performance as of Q1 2018 because Q2 2018 and Q3 2018 performance data is not yet available.
Sources: Investment Metrics, Thomson One, FactSet

Q3 2018 In Review: U.S. Economy

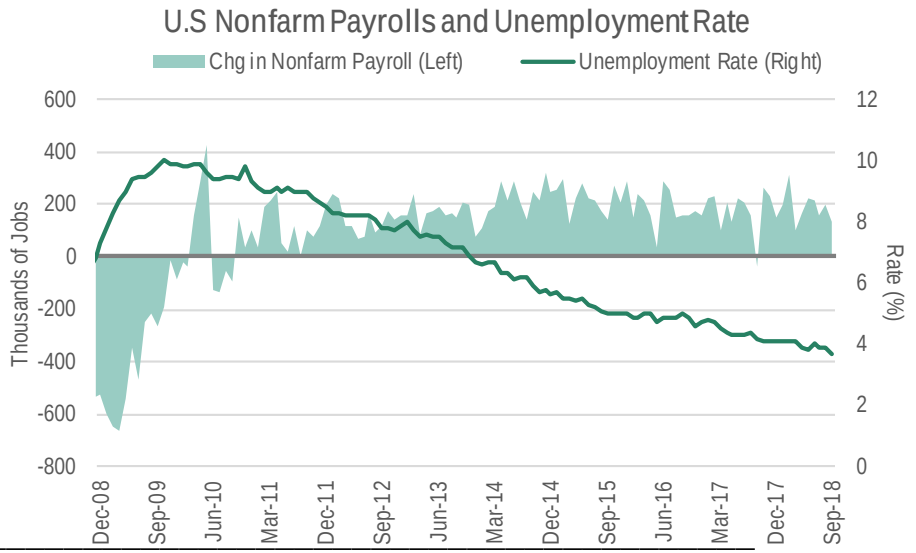
GDP Growth

- Real GDP grew at a rate of 3.5% in Q3 2018. Real GDP growth for Q2 was revised upward from 4.1% to 4.2%.
- GDP growth in Q3 came from personal consumption expenditures (PCE), state and local government spending, federal government spending and nonresidential fixed investment.
- These contributions were offset by reductions in exports and residential fixed investment. Imports increased in Q3.



Employment Picture

- The unemployment rate fell to 3.7% in September. Nonfarm payrolls rose by 569,000 over the quarter.
- Employment grew across almost all sectors, led by gains in professional and business services, health care, transportation, construction, mining, and manufacturing. Employment in hospitality and leisure fell.

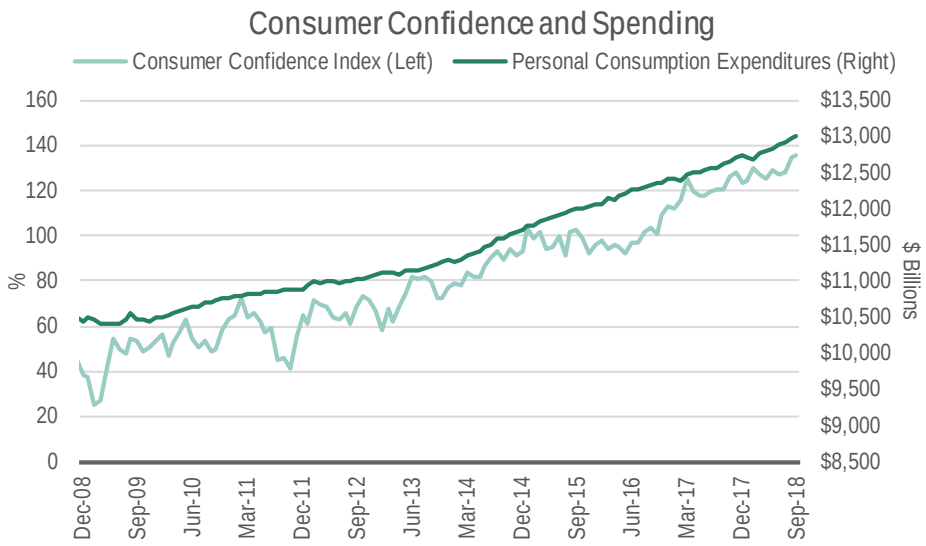


Source this page: FactSet

Q3 2018 In Review: U.S. Economy

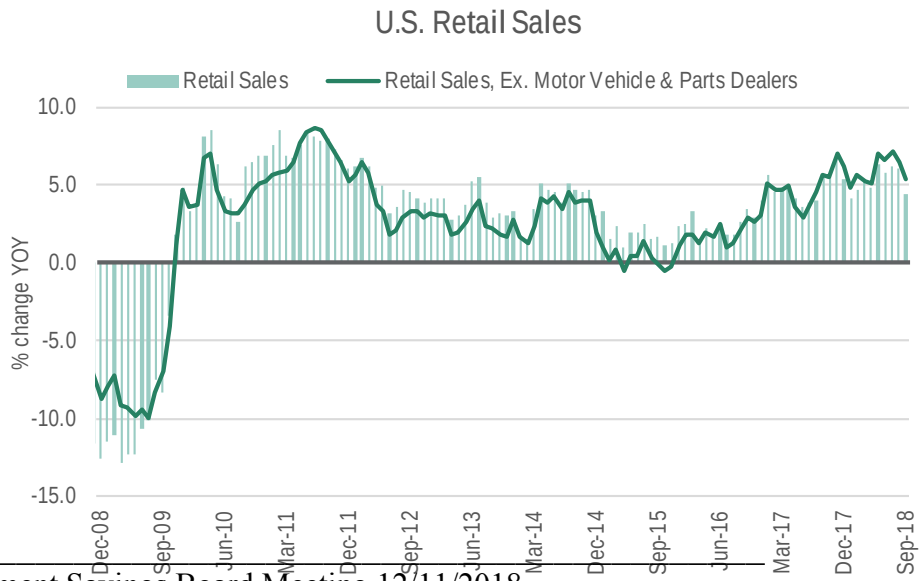
Consumer Confidence and Spending

- Sentiment rose in Q3, as the Conference Board's Consumer Confidence Index increased from 126.4 at the end of June to 135.3 at the end of September.
- Personal consumption expenditures increased during the quarter.
- Consumer confidence improved as trade worries eased somewhat and the U.S. economic backdrop remained solid.



Retail Sales

- Retail sales slowed in August*, but ended the month up 6.1% from one year ago.
- The deceleration was largely due to fewer motor vehicle and clothing purchases.
- July retail sales data was revised upward, keeping expectations in place for strong results overall for Q3.

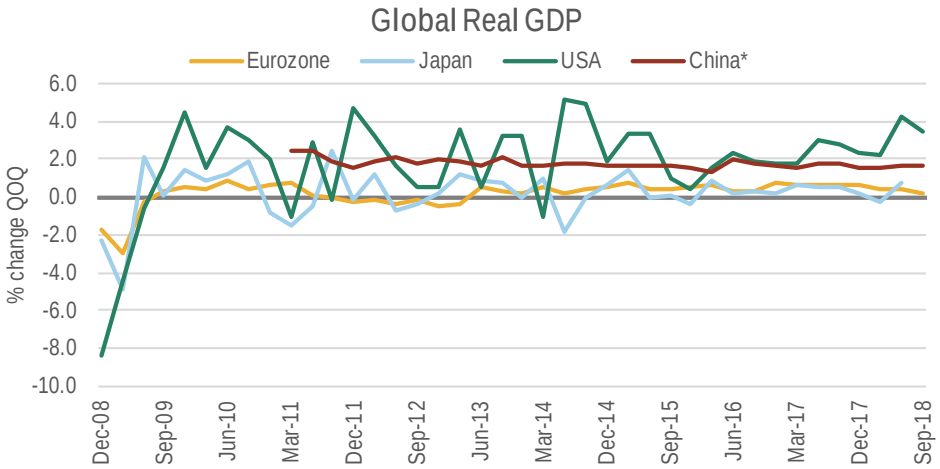


*The most recent data available.
Source this page: FactSet

Q3 2018 In Review: Global Economy

World GDP Growth

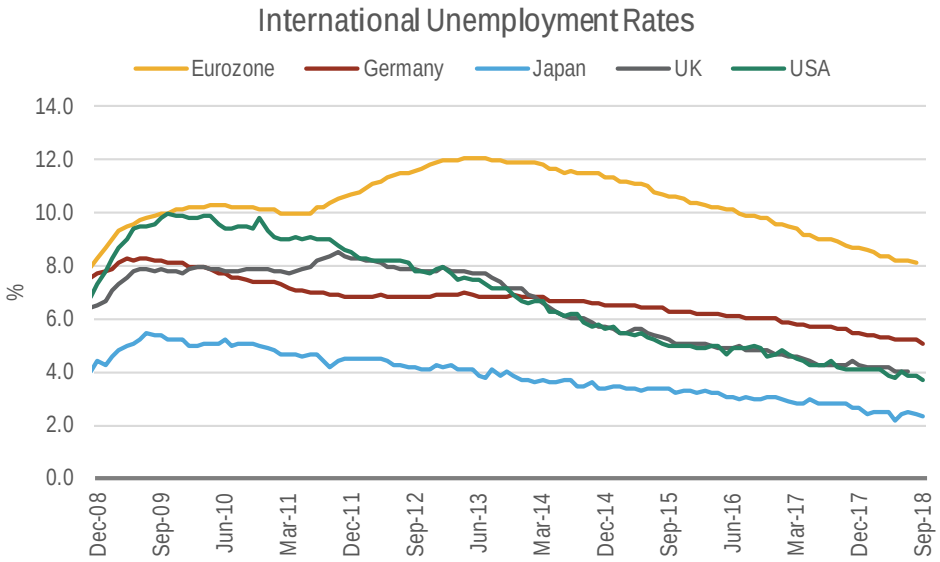
- Eurozone GDP growth slowed in Q3 to its weakest rate in four years amid worries about Italy's budget crisis and a strong USD. The Eurozone's annual growth rate fell to 1.7% in Q3.
- China's GDP growth declined by 0.2% quarter over quarter (QoQ) to 1.6%. The country's annual growth rate fell to 6.5%.
- Japan's GDP rose 0.74% QoQ in Q2**. The Japanese economy's annual growth rate is 1%.



Note that the figures in the graph above represent the percent change in real GDP from the previous quarter, not the annual growth rate of these economies.

Global Employment Picture

- Eurozone unemployment fell to 8.1% in August 2018**, the region's lowest-recorded rate since November 2008. The Eurozone's recent economic strength has led to this reduction in unemployment, although economic momentum has slowed there this year.
- Japan's unemployment rate ticked down to 2.3% in September. While a bit higher than its earlier historic low of 2.2%, unemployment remained quite modest in Japan.



*Quarter over quarter data calculations began in 2011.
**Most recent data available.
Source this page: FactSet

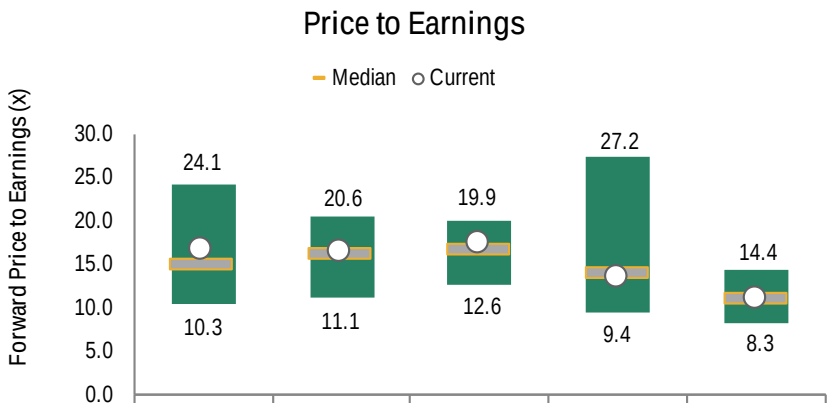
Q3 2018 In Review: Global Equity Overview

Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	7.71	10.56	17.91	17.31	13.95	11.97
MSCI Europe, Australasia and Far East (EAFE)*	1.35	-1.43	2.74	9.23	4.42	5.38
MSCI Emerging Markets (EM)*	-1.09	-7.68	-0.81	12.36	3.61	5.40

All data in the table are percentages.
* Net of dividends

Global Equity Performance and Valuations

- U.S. equities outperformed international and emerging equity markets in Q3. Positive earnings momentum and supportive economic data in the U.S. helped to lift domestic equities despite uncertainty about global trade disputes. U.S. dollar strength was a headwind to international and emerging market equities.
- Over the 3-, 5-, and 10-year periods, U.S., non-U.S. developed, and emerging market equities are all in positive territory.
- The current P/E multiple for U.S. large cap is above median and its 10-year average, indicating it may be overvalued. U.S. small cap appears to be slightly overvalued compared to its median and long-term average multiple, while mid cap seems to be near fair value.
- The current MSCI EAFE P/E multiple is below its median and slightly above its 10-year average. As such, international equities appear to be close to fairly valued according to this measure.
- The MSCI EM P/E multiple at the end of Q3 was just north of its median and exactly at its 10-year average; therefore, emerging market equities look as if they are close to fair value by this measure.



	S&P 500	S&P 400	S&P 600	MSCI EAFE	MSCI EM
High	24.1	20.6	19.9	27.2	14.4
Low	10.3	11.1	12.6	9.4	8.3
Median	15.0	16.2	16.6	13.9	11.0
Current	16.8	16.3	17.5	13.6	11.2
10-Year Av.	14.5	15.8	17.0	13.1	11.2

Data range is from 12/31/99-9/30/18. P/E ratios are forward 12 months.

Source this page: FactSet

Q3 2018 In Review: U.S. Equity

U.S. Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
S&P 500	7.71	10.56	17.91	17.31	13.95	11.97
Russell 1000	7.42	10.49	17.76	17.07	13.67	12.09
Russell 1000 Growth	9.17	17.09	26.30	20.55	16.58	14.31
Russell 1000 Value	5.70	3.92	9.45	13.55	10.72	9.79
Russell 2000	3.58	11.51	15.24	17.12	11.07	11.11
Russell 2000 Growth	5.52	15.76	21.06	17.98	12.14	12.65
Russell 2000 Value	1.60	7.14	9.33	16.12	9.91	9.52
Russell 3000	7.12	10.57	17.58	17.07	13.46	12.01

All data in the tables are percentages.

Performance

- Strong corporate earnings and positive U.S. economic data continued to benefit U.S. equities in Q3.
- Large cap stocks outpaced small cap stocks during the quarter, a reversal from Q1 and Q2.
- Growth continued to outperform value over the short and long term.
- All sectors of the S&P 500 Index were positive in Q3, but Healthcare posted the strongest return. Energy and Materials' returns were muted due to uncertainty surrounding tariffs imposed by China.

S&P 500 Sector Returns	QTD	1-Year
Consumer Discretionary	8.07	32.00
Consumer Staples	5.45	2.02
Energy	0.40	12.95
Financials	4.21	8.14
Healthcare	14.38	17.76
Industrials	9.84	10.54
Information Technology	8.71	30.99
Materials	0.21	3.39
Telecommunications Services*	9.47	2.71
Utilities	2.12	1.85

*At the end of September 2018, the Telecommunications Sector sector was renamed Communications Services and was expanded to include some companies from the Consumer Discretionary and Information Technology sectors.
Sources this page: Investment Metrics, FactSet

Q3 2018 In Review: International Equity

MSCI International Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
World ex. U.S.	1.31	-1.50	2.67	9.32	4.24	5.18
EAFE	1.35	-1.43	2.74	9.23	4.42	5.38
EAFE Local Currency	2.36	1.38	5.09	9.38	7.87	6.70
Europe	0.80	-2.46	-0.30	7.71	3.70	4.85
Europe ex U.K.	1.77	-2.38	-1.49	8.33	4.33	4.76
U.K.	-1.66	-2.69	2.87	6.19	2.23	4.92
Pacific ex Japan	-0.55	-2.56	4.27	12.73	3.86	7.66
Japan	3.68	1.58	10.20	12.13	6.76	5.96

All data in the tables are percentages and net of dividends.

Performance

- International equity markets had a restrained third quarter, which was characterized by political uncertainty and trade issues.
- The U.K. equity market suffered as the outcome of Brexit remains cloudy. European financial stocks were subdued following a challenging Italian budget announcement and concerns over potential spillover of issues in emerging markets. Japan was the strongest major region, with exporters benefiting from a weaker yen.
- In a continuation of the trend we saw in Q2, many major currencies, including the euro, British pound, and Japanese yen, weakened against the U.S. dollar, which was a drag on USD-denominated returns.
- Sector returns were mixed in Q3. Healthcare posted a strong return, and Telecom also performed well. The Energy and Industrials sectors delivered returns in line with long-term averages. All other sectors were flat or negative, but the traditionally defensive Utilities sector fared the worst, as rising oil prices continued to drag on corporate profit margins.

MSCI EAFE Sector Returns	QTD	1-Year
Consumer Discretionary	-0.70	0.77
Consumer Staples	-0.55	-0.30
Energy	2.21	18.79
Financials	0.12	-8.05
Healthcare	5.20	4.31
Industrials	2.07	1.42
Information Technology	0.06	4.95
Materials	-0.52	2.55
Telecommunications Services	3.22	-7.71
Utilities	-1.40	-3.22

Sources this page: Investment Metrics, Bloomberg

Q3 2018 In Review: Emerging Market Equity

MSCI EM Equity Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Emerging Markets	-1.09	-7.68	-0.81	12.36	3.61	5.40
EM Local Currency	-0.04	-2.86	2.65	12.18	7.26	7.72
Asia	-1.83	-6.79	1.00	13.50	6.74	8.23
EMEA	-1.63	-12.48	-2.22	6.26	-2.34	1.14
Latin America	4.77	-6.91	-9.09	13.67	-2.27	0.66

All data in the tables are percentages and net of dividends.

Performance

- Emerging market equities were volatile in Q3 and ultimately declined in the quarter.
- The EM Index gained in July, but fell in August and September, as Turkey and Argentina's economic and currency crises emerged and global tensions persisted, such as the ongoing trade disputes between the U.S. and China.
- Latin America was a bright spot for emerging markets, as Brazil and Mexico posted strong returns in Q3.
- U.S. dollar strength continued to be a headwind to returns. Though they were both negative, the EM local currency index finished the quarter 1.05% ahead of the USD-based index.
- Sector returns were mixed in Q3. Energy posted the strongest gain and Consumer Discretionary registered the steepest loss.

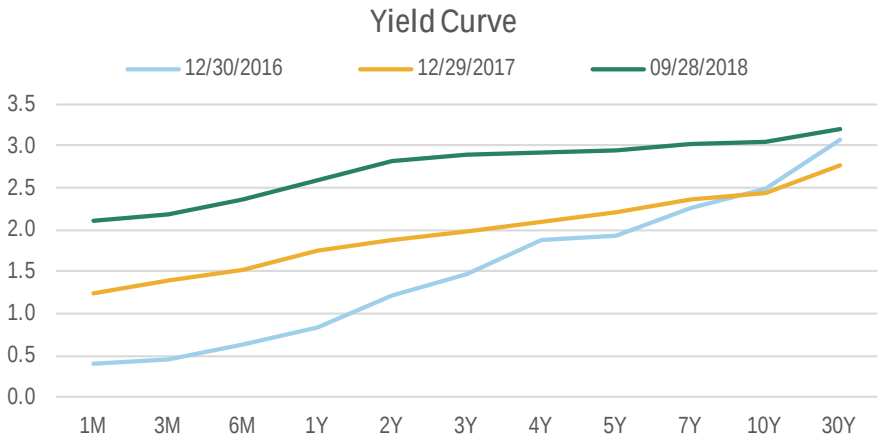
MSCI EM Sector Returns	QTD	1-Year
Consumer Discretionary	-10.46	-14.91
Consumer Staples	-2.78	-2.09
Energy	14.30	26.35
Financials	1.31	-0.34
Healthcare	-7.15	10.01
Industrials	3.13	-4.54
Information Technology	-4.58	-0.96
Materials	4.07	7.71
Telecommunications Services	1.62	-8.97
Utilities	-1.90	-5.81

Sources this page: Investment Metrics, Bloomberg

Q3 2018 In Review: Fixed Income Overview

Yield Curve

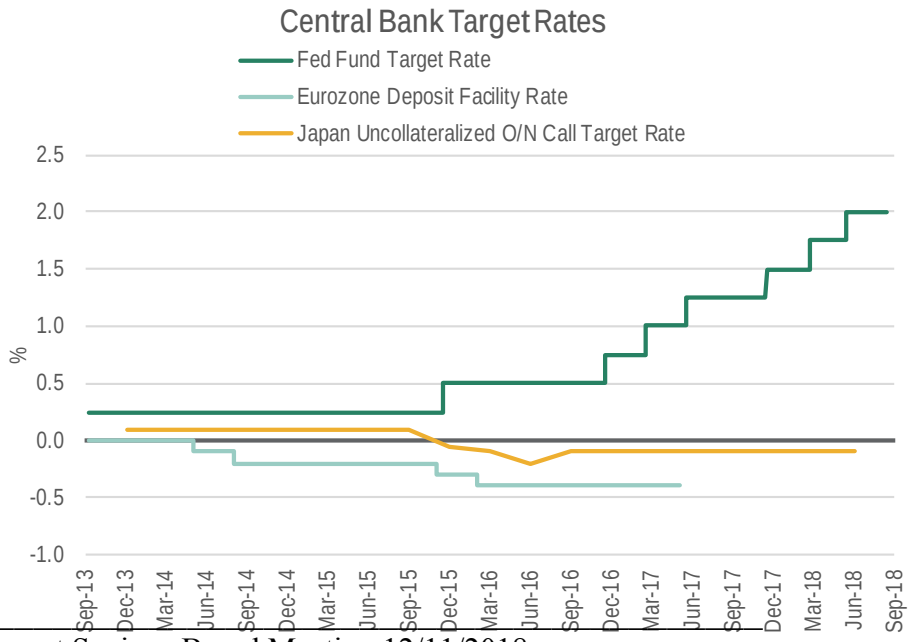
- Treasury yields rose across all maturities in Q3 as the Fed continued to tighten monetary policy.
- Global demand accentuated the yield curve's flattening trajectory, with long-term Treasury yields failing to rise at the same pace as short-term yields.
- The 30-year Treasury ended the quarter yielding 3.20%, 21 basis points (bps) higher than it was at the end of Q2, while the 2-year Treasury ended the quarter at 2.81%, which was 29 bps higher than the prior quarter.



Monetary Policies/Global Interest Rates

- Central bank deposit rates remained negative in the Eurozone and Japan.
- The U.S. is the exception—the Federal Reserve (Fed) raised rates again in September, the third hike of 2018.
- The Fed indicated that a fourth rate hike is likely this year.

Interest Rates	Fed Funds Rate	EZ Deposit Facility Rate
Average	5.72% (1971-2018)	1.28% (1999-2018)
Max	20.0% (Mar. 1980)	3.75% (Oct. 2000)
Min	0.25% (Dec. 2008)	-0.40% (Mar. 2016)



Source this page: FactSet

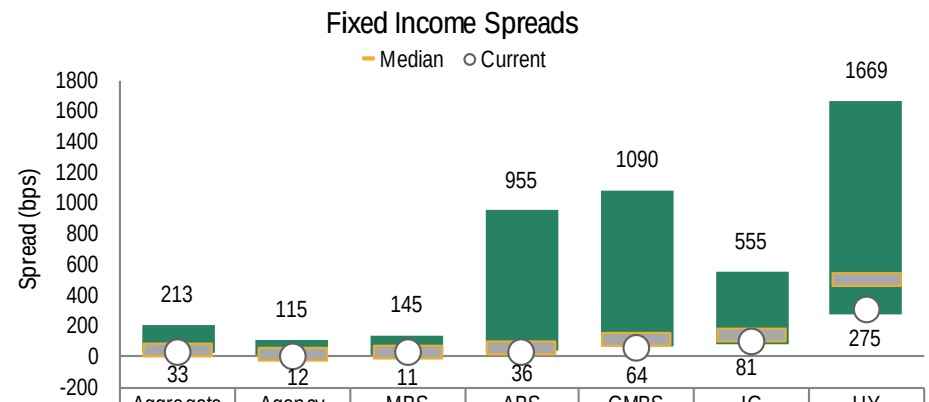
Q3 2018 In Review: U.S. Fixed Income

U.S. Fixed Income Indices*	QTD	YTD	1-Year	3-Year	5-Year	10-Year
U.S. Aggregate	0.02	-1.60	-1.22	1.31	2.16	3.77
Government/Credit	0.06	-1.85	-1.37	1.45	2.23	3.95
Government	-0.57	-1.62	-1.57	0.26	1.34	2.66
Investment Grade Corporate	0.97	-2.33	-1.19	3.12	3.54	6.35
Investment Grade CMBS	0.55	-0.63	-0.24	1.66	2.41	5.64
U.S. Corporate High Yield	2.40	2.57	3.05	8.15	5.54	9.46
FTSE** 3-Month T-Bill	0.50	1.29	1.57	0.80	0.49	0.32
Hueler Stable Value	0.56	1.63	2.15	1.94	1.85	2.29

* Bloomberg Barclays Indices, unless otherwise noted.
** Formerly Citigroup. Citigroup's fixed income indices were purchased by London Stock Exchange Group (LSEG) and will all be rebranded to FTSE by July 31, 2018. FTSE Russell is a unit of LSEG's Information Services Division and a wholly owned subsidiary of LSEG.
All data in the table are percentages.

Performance and Spreads

- The U.S. Aggregate Index was modestly positive in Q3. Performance was driven by the Investment Grade Corporate sector, where spreads fell 17 bps.
- High yield generated a 2.40% return in Q3 as interest rates rose while credit fundamentals remained strong.
- Domestic fixed income spreads are low by historical measures. Absent from current market conditions are some of the themes that would signal the end of a credit cycle (e.g., aggressive central bank rate hikes, economic deterioration, and rapidly rising debt levels), so the environment for credit remains positive despite elevated valuations.



	Aggregate	Agency	MBS	ABS	CMBS	IG	HY
Max	213	115	145	955	1090	555	1669
Min	33	12	11	36	64	81	275
Median	54	26	40	65	115	145	511
Current	39	12	28	38	68	106	316
10-Year Av.	63	23	40	108	243	171	573

Data range is from 9/30/00-9/30/18

Sources this page: Investment Metrics, Hueler Analytics, FactSet

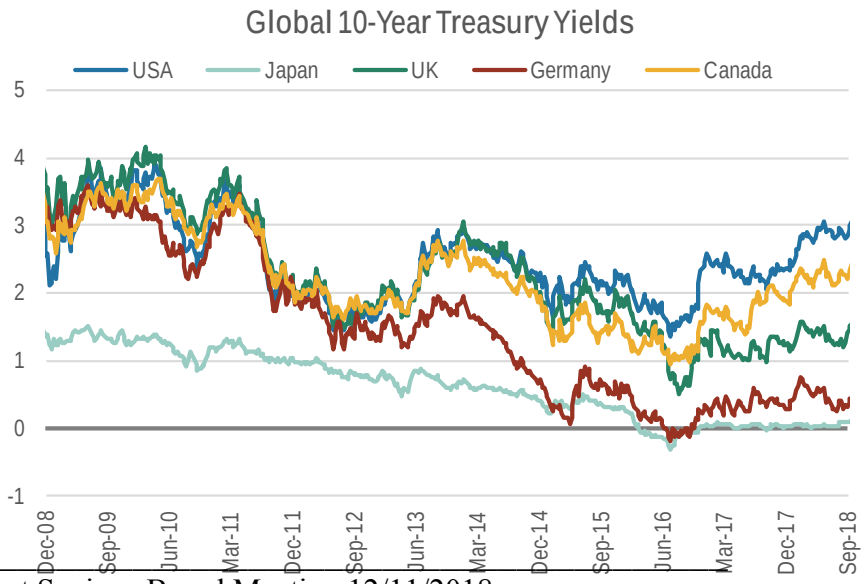
Q3 2018 In Review: International Fixed Income

Global Fixed Income Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Barclays Global Aggregate	-0.92	-2.36	-1.31	1.98	0.75	2.89
Bloomberg Barclays Global Aggregate (Hgd)	-0.05	0.02	0.83	2.36	3.13	4.07
FTSE Non-U.S. WGBI*	-2.19	-3.09	-1.57	2.39	-0.23	1.99
FTSE Non-U.S. WGBI (Hgd)	-0.55	1.17	2.29	2.97	3.98	4.08
JPM EMBI Global Diversified**	2.30	-3.04	-1.92	6.04	5.38	7.55
JPM GBI-EM Global Diversified***	-1.83	-8.15	-7.40	5.17	-1.68	2.70

All data in the table are percentages.
* Formerly Citigroup. The FTSE Non-U.S. World Government Bond Index (WGBI) measures the performance of fixed-rate, local currency, investment grade sovereign bonds excluding the U.S.
** The JP Morgan Emerging Market Bond Index (EMBI) Global Diversified index measures government bonds in hard currencies.
*** The JP Morgan Government Bond Index – Emerging Markets (GBI-EM) Global Diversified index measures government bonds in local currencies.

Global Performance and Yields

- Currency depreciation negatively impacted both developed and emerging market economies in Q3.
- In developed markets, the euro, British pound, and Japanese yen all depreciated relative to the U.S. dollar. In emerging markets, steep currency depreciation occurred in Turkey, South Africa and Argentina.
- The European Central Bank announced it will likely end its quantitative easing program in December and it will taper down asset purchases from €30 billion to €15 billion per month in Q4. The BOJ made a few changes to policy to make its stimulus program more flexible, causing the 10-year Japanese government bond to break 10 bps for the first time in over 2 years.



Sources this page: FactSet, Investment Metrics

Q3 2018 In Review: Absolute Return Strategies

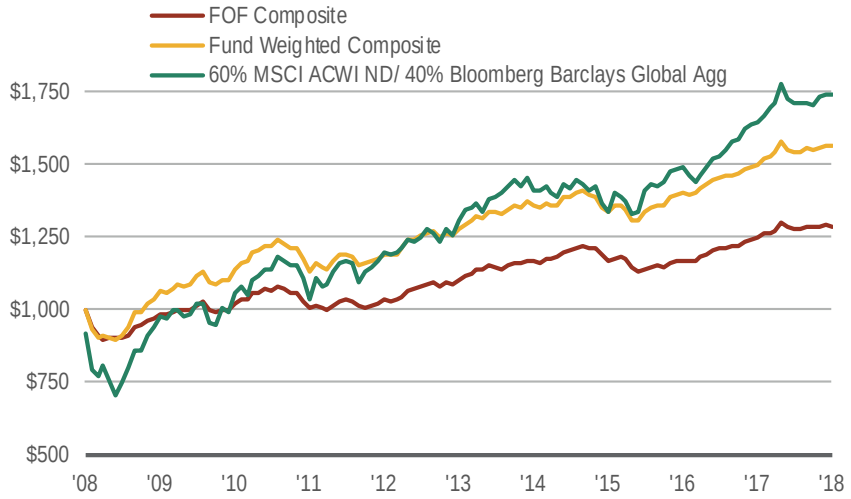
HFRI Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Fund of Funds Composite	0.27	0.99	3.08	3.29	3.18	2.55
Fund Weighted Composite	0.55	1.37	3.98	5.34	4.11	4.56
Event Driven	0.78	2.79	4.76	6.79	4.35	5.58
Equity Hedge	0.48	1.66	5.07	7.31	5.09	5.16
Macro	-0.03	-1.82	0.54	0.41	1.48	1.64
Emerging Markets	-3.19	-6.78	-3.19	6.75	3.05	3.69
Relative Value	1.31	2.99	4.09	5.16	4.36	6.01

All data in the table are percentages.
Returns for periods greater than one year are annualized.

Hedge Fund Performance

- The HFRI Fund Weighted Composite gained 0.6%. Strong performance from Technology and Event-Driven strategies was somewhat offset by the volatility associated with trade and tariffs towards the end of Q3.
- Relative Value led all major hedge fund strategies during the quarter. Yield alternatives gained in areas such as MLPs and REITS due to their floating rate dividends and low-duration nature.
- Emerging Markets' performance was negative in Q3. Currency declines and fears of a spillover from the crisis in Turkey, as well underperformance by Asian stocks due to ongoing U.S.-China trade uncertainties, contributed to the losses.
- The Fund Weighted and Fund of Funds Composite indices gained during Q3 but underperformed the 60/40 Balanced MSCI ACWI*/Bloomberg Barclays Global Aggregate index, which increased 2.3% during the quarter.

HFR Hedge Fund and Fund of Fund Weighted Composite Growth of

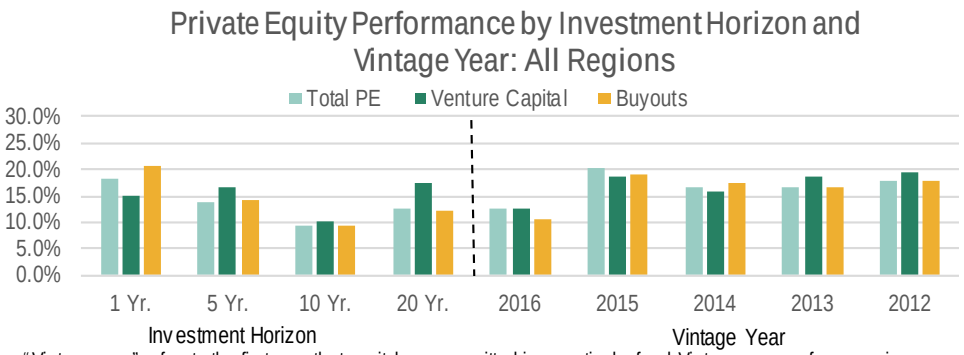


Sources this page: FactSet, eVestment

Q3 2018 In Review: Private Equity

Performance

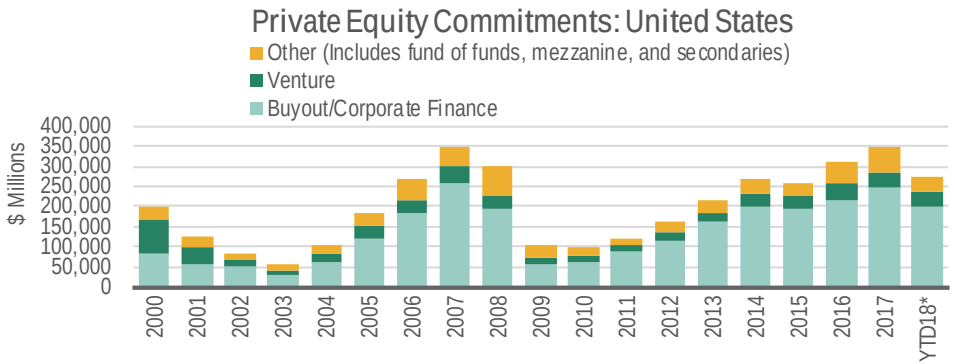
- The total return for private equity funds, comprising performance across all regions and strategies, was 3.0% in Q1 2018* and 18.3% over the 1-year period ending Q1.
- The 3-, 5- and 20-year returns for private equity funds were 12.4%, 14.0% and 12.6%, respectively, at the end of Q1. The 10-year return of 9.5% was lower than other time periods due to the impact of the Global Financial Crisis.
- All funds from recent vintage years are performing in line with our longer-term expectations for private equity.



"Vintage year" refers to the first year that capital was committed in a particular fund. Vintage-year performance is calculated as the median percentile returns of all funds reporting as pooled IRRs.

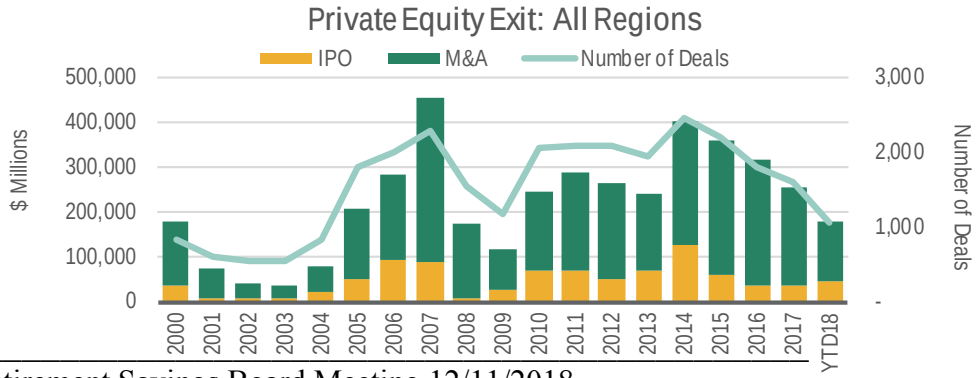
Fundraising

- U.S. private equity funds raised approximately $275.5 billion across 864 funds through September 17, 2018*.
- With continued strong fundraising levels, the amount of private equity dry powder globally has exceeded $1 trillion.
- Increasing competition for high quality assets has driven up purchase price multiples causing private equity funds to be more selective when putting capital to work. This is one explanation for the record growth in dry powder.



Exit Activity

- There were 1,066 private equity-backed exit deals completed during the first three quarters of 2018, on par with the same period last year. Aggregate deal value, however, increased significantly to $43.9 billion from $25.6 billion over the same period in 2017, largely due to a few major IPOs and M&A deals in China and the United States.
- The largest IPO in this quarter, Chinese tech company Meituan-Dianping, made a strong stock market debut in September raising $4.2 billion from investors. The newly issued shares were priced near the top of its target range.



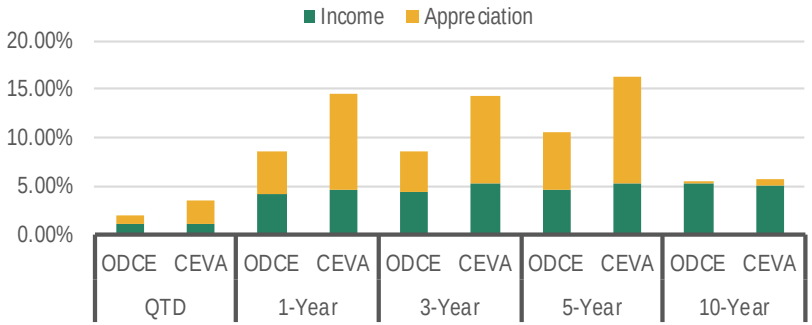
*The most recent data available. **Dry powder is capital raised that hasn't yet been invested.
Sources this page: Thomson Reuters, *Private Equity Analyst*, Preqin

Q3 2018 In Review: Real Estate

Real Estate Performance

- Comparing the most recent performance of core real estate, as measured by the NFI-ODCE index (Q3 2018), and value add real estate, as measured by the CEVA index (Q2 2018), the CEVA outperformed the ODCE by 149 bps. Most of the CEVA's outperformance came from the appreciation component of the return.
- Income for both ODCE and CEVA remains in lock step, with both experiencing minimal decreases QoQ. Appreciation's contribution to returns increased by 100 bps for CEVA with only a 5 bps increase in the ODCE.
- The CEVA Index continued to outperform the ODCE over the QTD, 1, 3, 5, and 10-year rolling periods, on a gross basis. However, over the same trailing periods, the CEVA has a much wider gross/net return spread relative to the ODCE, with a median spread of 2.83%.
- On an equal-weighted basis for Q3 2018, the CEVA gross/net returns are 2.55%/2.06% relative to the ODCE's 2.09%/1.88%.

NCREIF Fund Index (NFI) Open-End Diversified Core (ODCE) and Closed End Value-Add (CEVA) Real Estate Performance



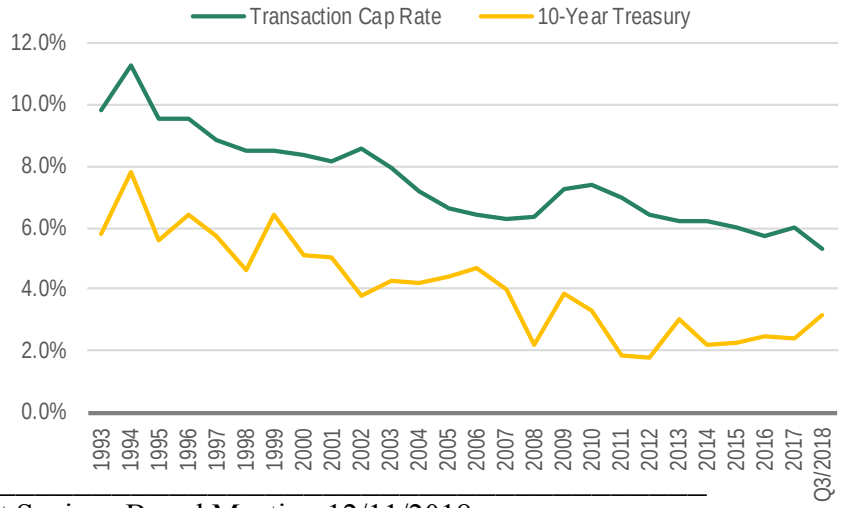
The NFI-ODCE (Open-end Diversified Core Equity) is defined by NCREIF as a fund-level cap-weighted, gross of fee, time-weighted return index with an inception date of December 31, 1977.

The NFI-CEVA Index, which is a quarter lagged in performance reporting, is defined by NCREIF as a capitalization-weighted, gross of fees, time-weighted return index. Funds included in the index must be closed-end with a value-add strategy operated for U.S. institutional investors and must comply with NCREIF's data collection and reporting standards.

Real Estate Capitalization Rates vs. Treasuries

- Prime assets have seen strong capital flow, which has kept investment values generally stable. However, there are concerns that values may have peaked or are even poised to decline after significant appreciation and due to higher interest rates. Lower quality assets are at the greatest risk of price declines.
- Prevailing cap rates* have been buoyed by historically wide spreads versus financing costs and persistent demand for real estate.
- Further compounding the cap rate spread issue, there is a record level of capital available to invest in real estate.

Capitalization Rates & 10-Year U.S. Treasury



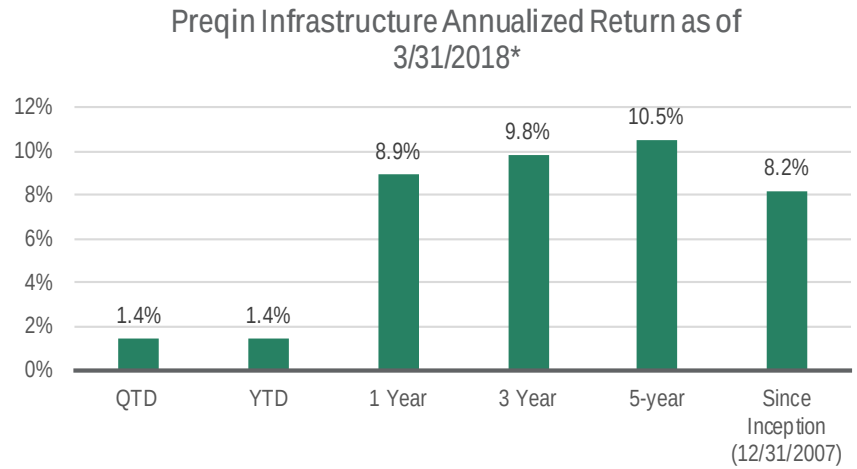
*A cap rate is the potential rate of return on a real estate investment. Assuming no change in net operating income, real estate valuations rise when cap rates fall. Comparing cap rates to the 10-year U.S. Treasury provides investors with an estimated spread for expected returns from real estate (higher risk) vs. fixed rate bond (lower risk) investments.

Sources this page: NCREIF, Bloomberg

Q3 2018 In Review: Infrastructure

Infrastructure Performance

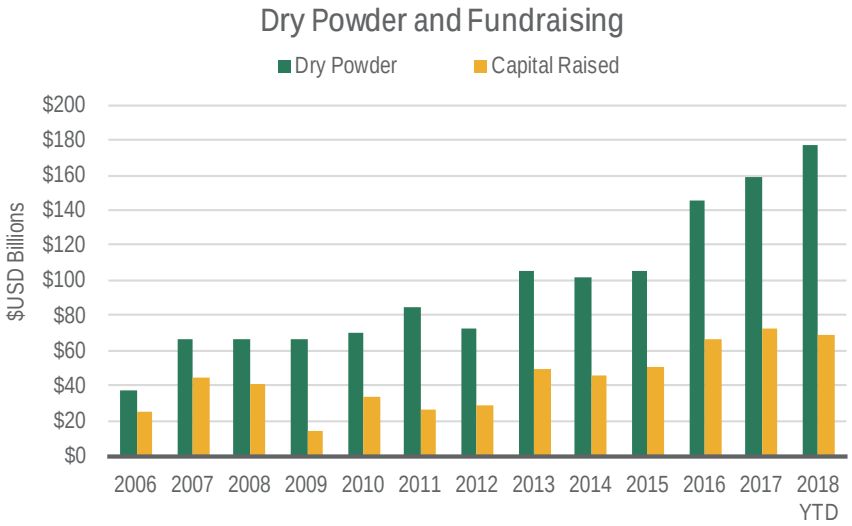
- Private infrastructure gained 1.4% in Q1 2018*. The 1-year return is in line with private infrastructure's annual return expectations.
- The 1-, 3-, and 5-year results exceeded the since-inception return, indicating the asset class has recovered well from the global financial crisis. Private infrastructure started off 2018 with returns below expectations, partly because the number of deals dropped from a historic high of 942 in Q4 2017 to 695 in Q1 2018.
- Public infrastructure rose 0.70% in Q3 2018, as per the FTSE Global Infrastructure 50/50 Index. The Communications and Utilities sectors gained, while Transportation and Energy declined.



According to Preqin, the Preqin Infrastructure Index captures the average returns earned by investors in their infrastructure portfolios, based on the actual amount of money invested. The Preqin Infrastructure index is calculated on a quarterly basis using data from Preqin's Infrastructure Online services.

Dry Powder and Fundraising

- Infrastructure fundraising in Q3 2018 soared to a record high of $37.9 billion. The previous record was $31.6 billion in Q1 2017. The average fund size on a quarterly basis also hit a high of $1.9 billion in Q3 2018 relative to the average quarterly fund size of $832.1 million.
- Dry powder** increased slightly in Q3 amid strong fundraising globally. Funds raised $37.9 billion during the quarter and dry powder increased by $2 billion.
- The average deal size increased from $334.9 million in 2017 to $395.8 million in 2018, which helped managers deploy more capital and keep dry powder growth in check. Despite this, dry powder still stands at $177 billion YTD.



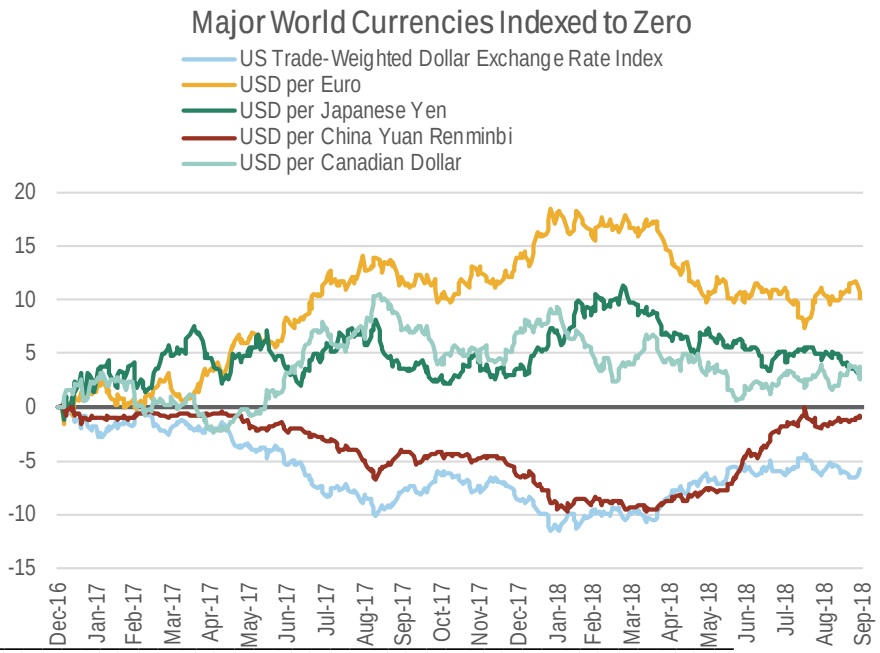
*The most recent data available.
**Dry powder is capital raised that hasn't yet been invested.
Sources this page: Preqin

Q3 2018 In Review: Commodities and Currencies

BCOM Indices	QTD	YTD	1-Year	3-Year	5-Year	10-Year
Bloomberg Commodity Index (BCOM)	-2.02	-2.03	2.59	-0.11	-7.18	-6.24
Energy	4.39	17.63	28.13	0.39	-12.72	-16.06
Agriculture	-5.45	-10.92	-12.71	-7.50	-10.03	-4.54
Industrial Metals	-6.88	-11.82	-2.36	7.87	-1.35	-2.75
Precious Metals	-6.00	-10.66	-8.83	1.02	-4.16	2.25
Livestock	2.88	-2.38	0.85	-1.83	-2.70	-4.48

Commodity and Currency Highlights

- The Bloomberg Commodity Index fell during Q3 with mixed performance across the underlying sectors.
- The Energy sector was the top performer. The price of crude oil and petroleum products increased, while inventories dropped due to OPEC's decision not to increase production and the first round of U.S. sanctions on Iran took effect.
- Industrial Metals fell as a result of global trade disputes. The prospects of higher tariffs and weakening demand from China contributed to declines in nickel, lead, zinc and copper. Precious Metals lost ground due to a strong U.S. economy and the Federal Reserve raising short-term interest rates, as higher interest rates lessen the appeal of holding gold and silver.
- The U.S. dollar continued to strengthen in Q3, though not at the pace it did during Q2.
- The euro stabilized in Q3 as trade tensions between the U.S. and Eurozone eased.

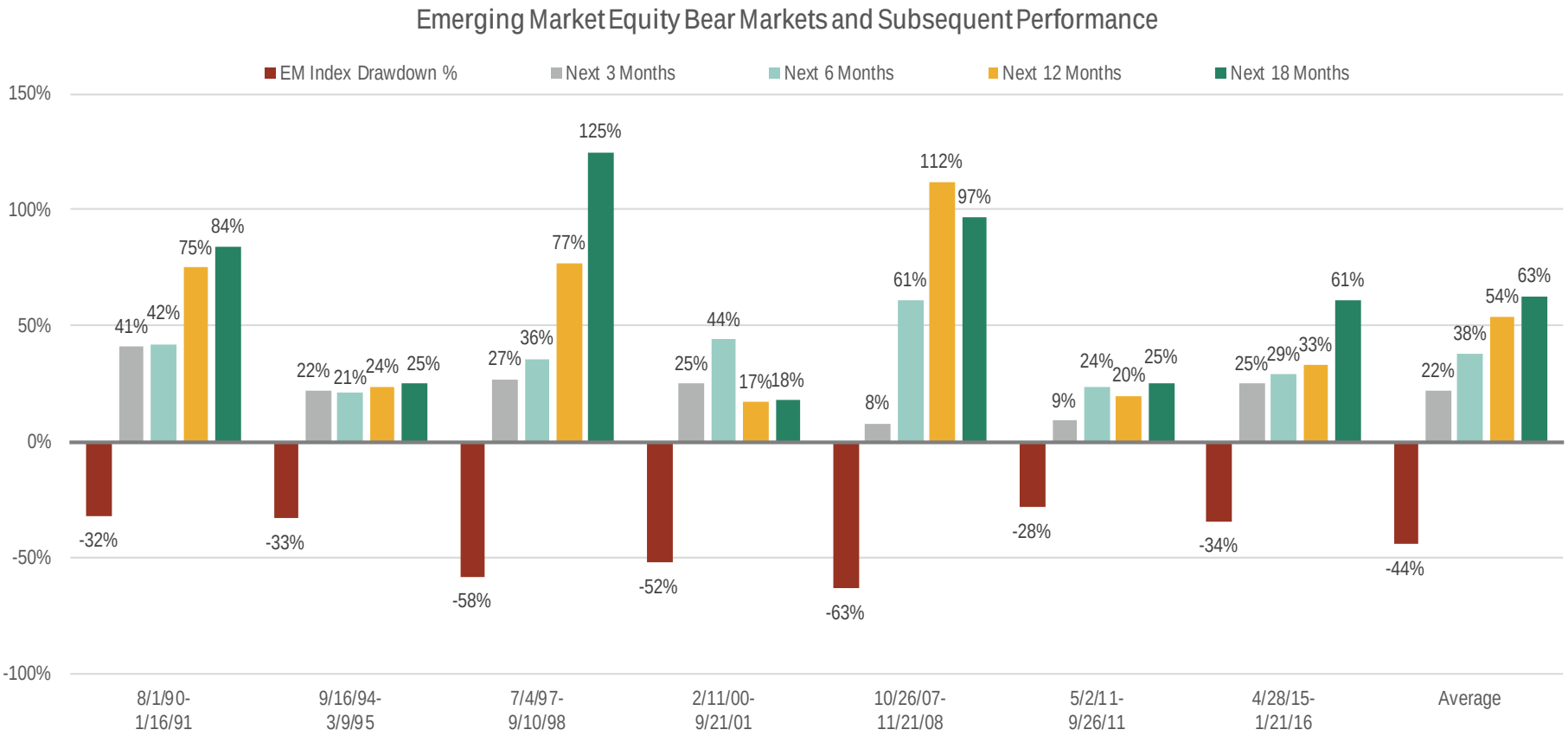


Source this page: FactSet

Q3 2018 In Review: Noteworthy Developments

Emerging Market Equity - Rebounds After Drawdowns

- Emerging market equity returns have been extremely volatile over the last 30 years, but most major declines have been followed by recoveries that have often been nearly as robust as the declines were precipitous.
- The message with EME, therefore, is clear – patience seems to be rewarded over time, but investors with sensitivity to extremes should be aware of that requirement.



Source this page: Morningstar

Q3 2018 In Review: Noteworthy Developments

Revised Life Expectancy's Impact on Plans

- A Bloomberg study measured the health care efficiency of almost 200 economies, using average lifespan, determining medical costs both as a percentage of income and in absolute dollars.
- Americans' life expectancy declined for the second year in a row. Per the CDC, deaths from drug overdoses, chronic liver disease, suicide, Alzheimer's and blood infections have all gone up, resulting in a shortened average life span.
- Impact on pension plans: Lower life expectancy results in higher mortality tables, which reduces pension liabilities.
- The Society of Actuaries (SOA) annually updates the mortality improvement scale for pension plans. For 2017 and 2018 (which reflects age-adjusted U.S. population mortality rates for 2014-15 and 2015-16, respectively), the mortality rates suggest that life expectancies declined slightly each year. Declines two years in a row are rare – the last time life expectancy fell two years in a row, was 1962-63:
  - The 2017 study suggests the new rates could reduce a pension plan's obligations by 0.7% to 1.0% (using a 4% discount rate).
  - The 2018 study suggests the new rates could reduce a pension plan's obligations by 0.3% to 0.5% (using a 4% discount rate).

Bloomberg Health Care Efficiency

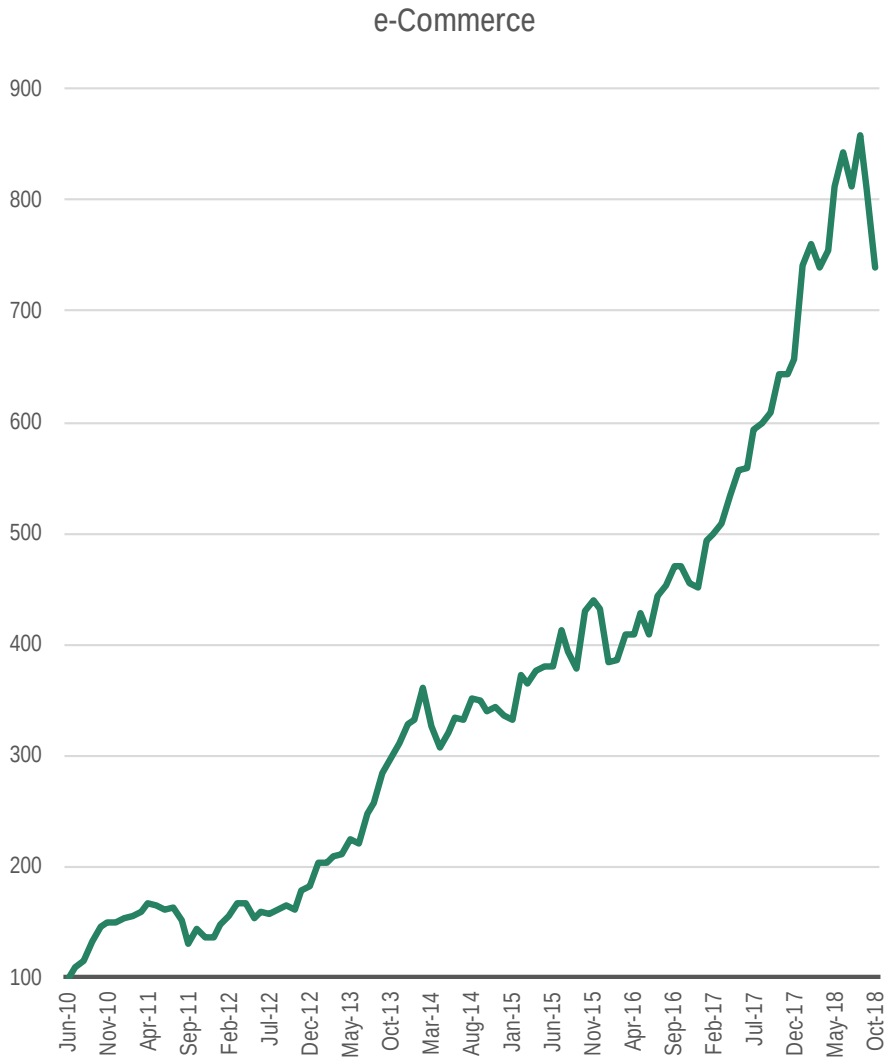
Rank	Rank 1 Year Ago	Change	Economy	Efficiency Score	Life Expectancy	Relative Cost %	Absolute Cost $
1	1	-	Hong Kong	87.3	84.3	5.7	2,222
2	2	-	Singapore	85.6	82.7	4.3	2,280
3	3	-	Spain	69.3	82.8	9.2	2,354
4	6	+2	Italy	67.6	82.5	9.0	2,700
5	4	-1	South Korea	67.4	82.0	7.4	2,013
6	7	+1	Israel	67.0	82.1	7.4	2,756
7	5	-2	Japan	64.3	83.8	10.9	3,733
8	10	2	Australia	62.0	82.4	9.4	4,934
54	50	-4	U.S.	29.6	78.7	16.8	9,536

Source this page: Bloomberg

Q3 2018 In Review: Noteworthy Developments

Is e-Commerce in Bubble Territory?

- The Dow Jones Internet Commerce Index, which measures the 15 biggest and most actively traded e-commerce stocks (chart at right), is up more than 8x since June 2010 and may now be in bubble territory.
- Increased central bank liquidity, *i.e.* easier access to credit, could be creating an environment for an asset price bubble. Also, the free cash flow yield of the Internet Commerce Index is lower than that of the tech sector in the late 90s (dot-com bubble), making e-Commerce valuations appear frothy in comparison.
- On the other hand, the digital era has fostered business models that lower marginal costs. Many digital technologies are scalable, in that they can be replicated at low or no cost, which is beneficial for the company and, ultimately, the consumer. Improved and less expensive AI capabilities could translate into more product sales, higher subscription premiums or better-focused advertising for internet companies.
- As outlined above, there are points and counterpoints to the question of whether e-Commerce is in a valuation bubble. But it seems likely that investors will see changes to the top players in e-Commerce as technology continues to evolve and digital disruptions keep occurring.



Source this page: Bloomberg

Annual Asset Class Performance

As of September 30, 2018

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	YTD
Best	31.47	34.54	35.93	39.78	5.24	79.02	29.09	13.56	18.64	43.30	30.38	5.67	31.74	37.75	17.09
	25.95	14.02	32.59	11.81	1.80	58.21	28.47	8.68	18.53	38.82	13.45	2.52	21.31	30.21	15.76
	22.25	12.11	26.86	11.63	-2.35	37.21	26.85	8.46	18.05	34.52	13.24	1.23	17.34	25.62	11.51
	20.70	10.74	23.48	11.63	-10.91	34.47	24.50	7.84	17.90	33.48	13.05	0.92	17.13	22.17	10.49
	18.33	7.05	22.25	7.05	-20.30	32.46	19.20	4.98	17.78	33.11	5.97	0.65	12.05	21.69	7.14
	16.49	6.27	18.37	6.97	-26.16	28.61	16.71	2.64	17.51	32.53	5.60	0.55	11.60	14.65	3.92
	14.31	5.66	15.46	6.28	-28.92	28.43	16.10	1.50	16.42	23.29	5.53	0.03	11.32	13.66	2.57
	11.75	5.26	13.35	5.77	-33.79	28.19	15.51	0.39	16.35	7.90	4.89	-0.39	10.19	9.32	2.30
	11.40	4.71	11.86	4.74	-36.85	27.17	15.12	0.06	15.81	7.44	4.22	-1.38	8.60	7.84	1.98
	11.14	4.55	9.86	1.87	-37.60	24.67	13.16	-2.44	15.26	2.47	3.64	-1.44	7.08	7.50	1.29
	8.46	4.15	9.07	1.81	-37.98	20.58	12.06	-2.91	14.59	0.06	3.40	-3.83	6.36	5.07	-0.84
	8.20	3.01	8.99	-0.17	-38.44	19.69	8.21	-4.18	8.18	-2.02	2.45	-4.41	4.68	4.09	-0.98
	6.30	2.84	4.76	-1.57	-38.54	11.41	6.54	-5.50	6.98	-2.27	0.02	-4.47	2.65	3.54	-1.60
	4.34	2.74	4.34	-9.78	-43.06	5.93	6.31	-11.73	4.21	-6.58	-1.82	-7.47	1.51	3.01	-3.46
Worst	1.24	2.43	0.49	-16.81	-53.18	0.16	0.10	-18.17	0.09	-8.61	-4.48	-14.60	0.27	0.84	-7.39
	Russell 1000 Index	Russell 1000 Value Index	Russell 1000 Growth Index	Russell 2000 Index	Russell 2000 Value Index	Russell 2000 Growth Index	MSCI EAFE Index	MSCI Emerging Markets Index	MSCI U.S. REIT Index	Barclays Agg.	Blmbg. Barc. U.S. TIPS	Blmbg. Barc. U.S. Corp: High Yield	JPM EMBI Global (USD)	HFRI RV: Multi-Strategy Index	FTSE 3 Month T-Bill

Segal Marco Advisors

As of November 30, 2018

	Allocation	Performance (%)						
	Market Value ($000)	1 Month	1 Quarter	Year To Date	1 Year	3 Years	5 Years	Expense Ratio
Oregon Saves	**9,863**							
OregonSaves Capital Preservation Fund	7,962	0.12	0.32	0.97	0.99	0.20	-0.20	
State Street Institutional Liquid Reserves (SSIXX)		0.19	0.55	1.80	1.90	1.10	0.70	0.12
90 Day U.S. Treasury Bill		0.21	0.53	1.69	1.80	0.94	0.57	
OregonSaves Growth Fund	113	2.04	-4.59	4.27	5.34	11.08	N/A	
State Street Equity 500 Index (SSSYX)		2.11	-4.38	5.13	6.29	12.07	N/A	0.06
S&P 500		2.04	-4.40	5.11	6.27	12.16	11.12	
OregonSaves Target Retirement Fund	18	0.78	-2.51	-1.29	-0.70	3.24	N/A	
State Street Target Retirement K (SSFOX)		0.85	-2.29	-0.47	0.20	4.17	N/A	0.13
S&P Target Date Retirement Income Index		0.83	-2.32	-0.70	-0.02	3.88	3.51	
OregonSaves Target Retirement Fund 2015	43	0.87	-2.66	-1.37	-0.74	3.94	N/A	
State Street Target Retirement 2015 K (SSBHX)		0.94	-2.44	-0.55	0.16	4.88	N/A	0.13
S&P Target Date 2015 Index		1.02	-2.98	-0.69	0.09	5.17	4.60	
OregonSaves Target Retirement Fund 2020	97	1.01	-3.58	-1.87	-1.05	4.89	N/A	
State Street Target Retirement 2020 K (SSBOX)		1.08	-3.36	-1.06	-0.16	5.83	N/A	0.13
S&P Target Date 2020 Index		1.09	-3.30	-0.73	0.09	5.75	5.06	
OregonSaves Target Retirement Fund 2025	180	1.15	-4.60	-2.26	-1.20	5.81	N/A	
State Street Target Retirement 2025 K (SSBSX)		1.22	-4.38	-1.45	-0.31	6.77	N/A	0.13
S&P Target Date 2025 Index		1.22	-3.81	-0.79	0.13	6.42	5.50	
OregonSaves Target Retirement Fund 2030	196	1.31	-5.14	-2.64	-1.47	6.28	N/A	
State Street Target Retirement 2030 K (SSBYX)		1.38	-4.92	-1.83	-0.58	7.23	N/A	0.13
S&P Target Date 2030 Index		1.36	-4.37	-0.87	0.13	7.02	5.93	
OregonSaves Target Retirement Fund 2035	259	1.46	-5.51	-2.69	-1.50	6.77	N/A	
State Street Target Retirement 2035 K (SSCKX)		1.53	-5.29	-1.88	-0.61	7.73	N/A	0.13
S&P Target Date 2035 Index		1.48	-4.88	-0.97	0.11	7.59	6.33	

As of November 30, 2018

	Allocation	Performance (%)						
	Market Value ($000)	1 Month	1 Quarter	Year To Date	1 Year	3 Years	5 Years	Expense Ratio
OregonSaves Target Retirement Fund 2040	226	1.53	-5.87	-2.77	-1.57	7.09	N/A	
State Street Target Retirement 2040 K (SSCQX)		1.60	-5.65	-1.96	-0.68	8.05	N/A	0.13
S&P Target Date 2040 Index		1.55	-5.20	-1.01	0.11	7.99	6.61	
OregonSaves Target Retirement Fund 2045	242	1.53	-6.22	-2.76	-1.48	7.45	N/A	
State Street Target Retirement 2045 K (SSDEX)		1.60	-6.01	-1.95	-0.59	8.41	N/A	0.13
S&P Target Date 2045 Index		1.59	-5.39	-1.10	0.06	8.24	6.77	
OregonSaves Target Retirement Fund 2050	236	1.62	-6.25	-2.77	-1.57	7.40	N/A	
State Street Target Retirement 2050 K (SSDLX)		1.69	-6.03	-1.97	-0.68	8.37	N/A	0.13
S&P Target Date 2050+ Index		1.63	-5.52	-1.12	0.06	8.46	6.95	
OregonSaves Target Retirement Fund 2055	177	1.54	-6.32	-2.69	-1.43	7.45	N/A	
State Street Target Retirement 2055 K (SSDQX)		1.61	-6.10	-1.88	-0.54	8.41	N/A	0.13
S&P Target Date 2055 Index		1.64	-5.55	-1.12	0.06	8.59	7.03	
OregonSaves Target Retirement Fund 2060	99	1.59	-6.25	-2.82	-1.57	7.34	N/A	
State Street Target Retirement 2060 K (SSDYX)		1.66	-6.03	-2.01	-0.68	8.30	N/A	0.13
S&P Target Date 2055 Index		1.64	-5.55	-1.12	0.06	8.59	7.03	
OregonSaves Target Retirement Fund 2065	14	1.59	-6.25	-2.82	-1.57	7.34	N/A	
State Street Target Retirement 2065 K		1.66	-6.03	-2.01	-0.68	8.30	N/A	0.13
S&P Target Date 2055 Index		1.64	-5.55	-1.12	0.06	8.59	7.03	