

---

# State Street Global Advisors

**Patrick Hearne**

**Brian Murtagh, CFA**

October 10, 2024

CFA® and Chartered Financial Analyst are trademarks of the CFA Institute.

---

# Important Disclosures

This presentation is educational in nature and is not a recommendation of any specific investment product or strategy. The following material should not be considered investment advice. Participants should carefully consider all of the investment alternatives available under the Plan before deciding to invest and contact their Plan Administrator or financial advisor for more information on the plan's available alternatives.

---

# Table of Contents

---

State Street Global Advisors Firm Overview

---

State Street Global Advisors Index Strategies

---

Market Update

---

Appendices:

A) Biographies

B) Important Disclosures

---

The information contained in this document is current as of the date presented unless otherwise noted.

---

---

# Firm Overview

---

# State Street Corporation at a Glance

---

## Lines of Business

---

### Investment Services

Improving operational excellence and achieving growth with a complete front-to-back perspective through State Street Alpha®, delivering best-in-class operations outsourcing, technology and data platforms across traditional and alternative assets.

---

### Markets and Financing

Enhancing and preserving the value of your portfolios with leading multi-asset class trading and securities financing, FX solutions and data-driven investment research and market insights.

---

### Investment Management

Helping the world's investors achieve their financial goals with a universe of index and active strategies as the 4th largest asset manager in the world.

---

**230+ years**

of experience

---

**\$44.3T**

in assets under custody and/or administration<sup>1</sup>

---

**100+**

Geographic markets<sup>3</sup>

---

**~11.5%**

World's assets<sup>2</sup> responsible for

---

**~53,000**

Employees worldwide<sup>3</sup>

<sup>1</sup> This represents State Street's 2024 Q2 Assets Under Custody and Administration, AUCA, (USD \$44.3T) as of June 30, 2024.

<sup>2</sup> Represents State Street AUC/A divided by Global Financial Assets, including Global Equity, Global Debt Securities and Global Broad Money (M3), as of December 31, 2022. Sources: SIFMA, OECD, World Bank.

<sup>3</sup> As of June 30, 2024

---

# About State Street Global Advisors

---

# \$4.37T

Assets Under Management<sup>1</sup>

---

# \$2.95T

AUM with Institutional clients<sup>2</sup>

---

# #1

US's first, and world's largest, ETF<sup>3</sup>

---

# 58

Countries with clients<sup>4</sup>

---

# \$1.42T

AUM with Financial Intermediary clients<sup>2</sup>

---

# 45 years

Managing investments

---

# 10

Global investment centers<sup>4</sup>

<sup>1</sup> This figure is presented as of June 30, 2024 and includes ETF AUM of \$1,393.92 billion USD of which approximately \$ 69.35 billion USD is in gold assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated. Please note all AUM is unaudited.

<sup>2</sup> Source: State Street Global Advisors Finance; Institutional AUM includes Cash

<sup>3</sup> Bloomberg Finance L.P., as of June 30, 2024

<sup>4</sup> As of June 30, 2024

---

# We've Established Leadership Positions Across a Variety of Investment Solutions

---

## #1

---

Passive global & non-US equity manager

---

Global endowment & foundation assets manager

---

Global government retirement plan assets manager

---

## #2

---

US defined benefit manager

---

Passive US bonds manager

---

Central bank assets manager

---

## #3

---

Global ETF provider

---

Global index manager

---

Passive US equity manager

---

Passive global/non-US bonds manager

---

## Top 10

---

US defined contribution manager

---

Global active ETF provider

---

Institutional Money Market provider<sup>1</sup>

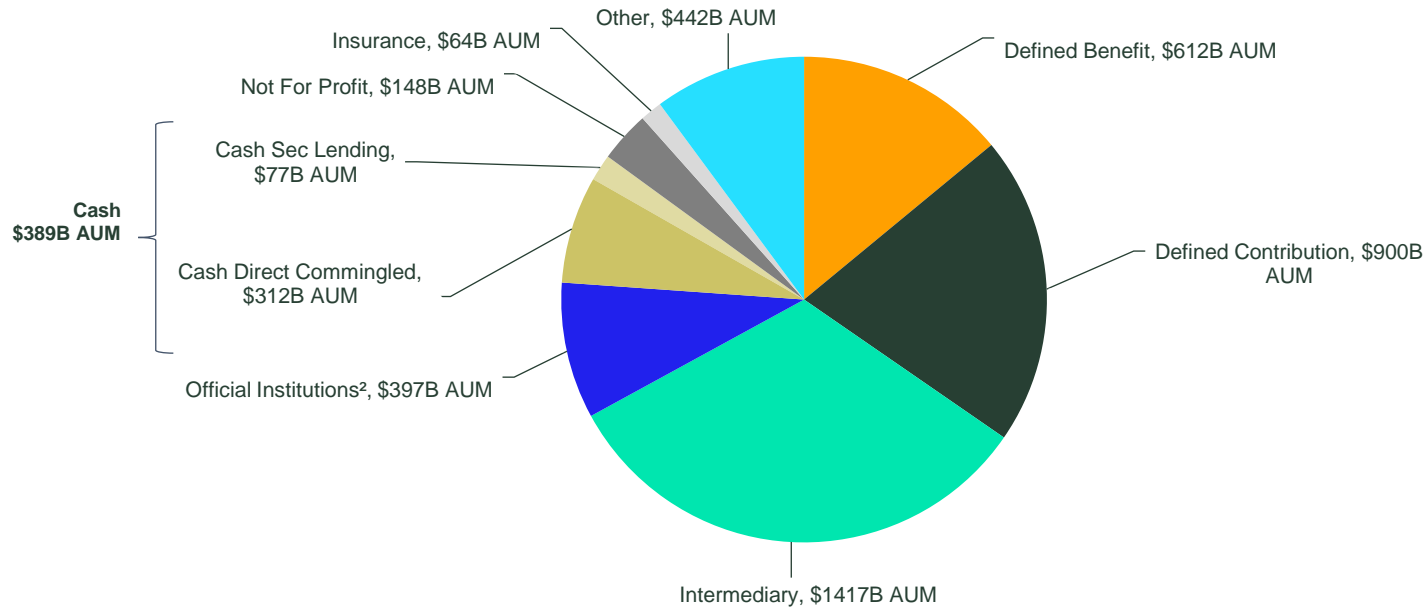
---

Outsourced Chief Investment Officer (OCIO) services

Source: Pensions & Investments Research Center, as of December 31, 2023. Updated annually.  
1 iMoneyNet (Institutional Money Market Provider) as of June 30, 2024.

# Our US \$4.37T AUM Makes Us the 4<sup>th</sup> Largest Asset Manager in the World

## Clients by AUM



Source: State Street Global Advisors Finance Team.

This figure is presented as of June 30, 2024 and includes ETF AUM of \$1,393.92 billion USD of which approximately \$ 69.35 billion USD is in gold assets with respect to SPDR products for which State Street Global Advisors Funds Distributors, LLC (SSGA FD) acts solely as the marketing agent. SSGA FD and State Street Global Advisors are affiliated. Please note all AUM is unaudited.

<sup>2</sup> Official Institutions is a client type that includes all plan type assets including DB and DC.



---

# State Street Global Advisors Index Strategies

# SSGA Investment Options in the MSRP

Asset Class	Investment Option	Fund Benchmark
US Large Cap Equity	State Street S&P 500 Index Fund	S&P 500 Index
US Mid Cap Equity	State Street S&P MidCap Index Fund	S&P MidCap 400 Index
US Small Cap Equity	State Street Russell Small Cap Index Fund	Russell 2000 Index
International Equity	State Street International Index Fund	MSCI EAFE Index
US Fixed Income	State Street US Bond Index Fund	Bloomberg US Aggregate Bond Index

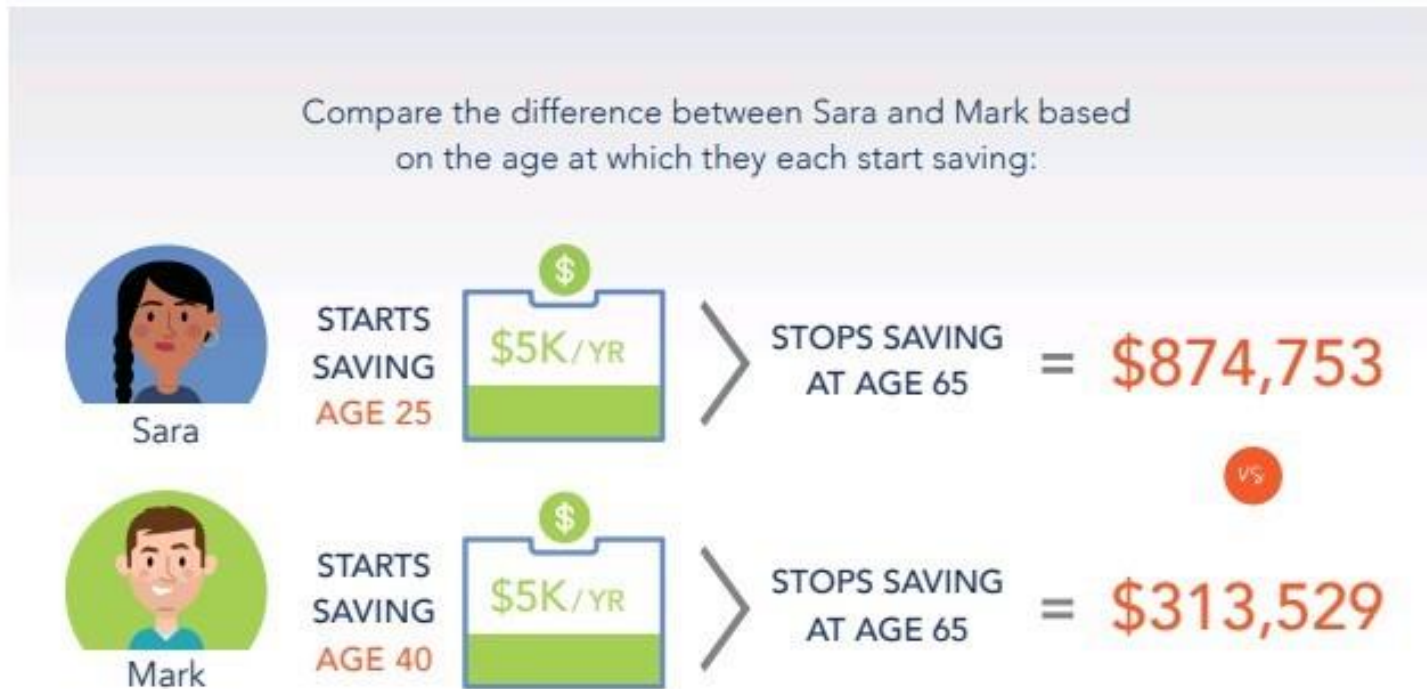
The example shown above is intended for illustrative purposes only.

---

# Saving for YOUR FUTURE

# Save for Your Tomorrow

“Time is money.” That old adage means a lot when it comes to saving for retirement — because the earlier you begin to save, the further your money may be able to take you.



Source: State Street Global Advisors

The example shown above is intended for illustrative purposes only. This hypothetical illustration is not intended as a projection or prediction of future investment results, nor is it intended as financial planning or investment advice. It assumes 6% annual rate of return and reinvestment of earnings with no withdrawals. Rates of return may vary. The illustration does not reflect any associated charges, expenses or fees. The tax-deferred accumulation shown would be reduced if these fees had been deducted.

# The Power of Compounding

Money you invest has the potential to grow exponentially over time as your invested savings can generate additional earnings of their own.

**Example:** Over time, Jaclyn's steady increases mean she has nearly \$200,000 more than Randi when they both reach age 65.



Jaclyn raises her contribution by one percentage point (1%) each year until she reaches 10%



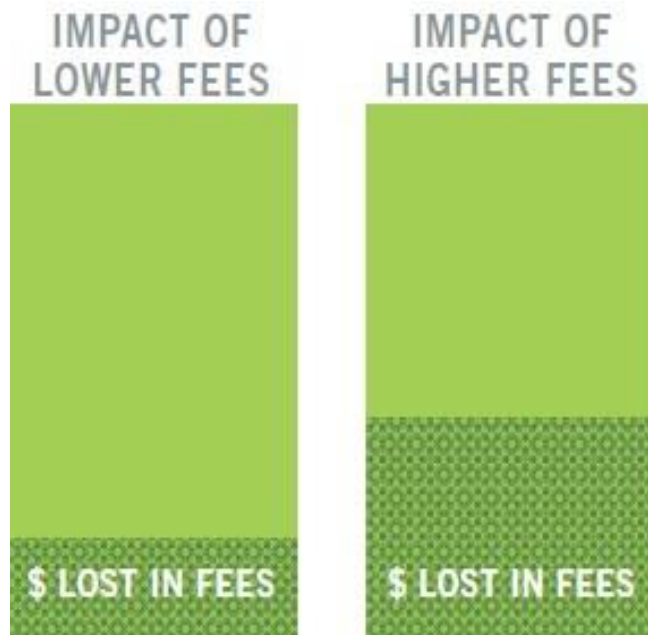
Randi keeps a steady contribution rate of 5%



Source: State Street Global Advisors

The example shown above is intended for illustrative purposes only. This hypothetical illustration is not intended as a projection or prediction of future investment results, nor is it intended as financial planning or investment advice. It assumes 6% annual rate of return and reinvestment of earnings with no withdrawals. It assumes a starting salary of \$45,000 that increases 1% per year with inflation, and an initial contribution rate of 5% with a starting balance of \$50,000. Rates of return may vary. The illustration does not reflect any associated charges, expenses or fees. The tax-deferred accumulation shown would be reduced if these fees had been deducted.

# The Impact of Fees



*Images are not to scale and are meant for illustrative purposes only.*

- Fees can have a big impact on your savings overtime.
- \$10,000 investment producing 6% annual returns
- 0.5% -> \$49,000 over 30 years
- 1.5% - > \$36,000
- A difference of \$13,000

Source: SSGA. Assumes a \$10,000 starting balance, \$5,000 annual contributions and a 6% average annual rate of return over a 30 year period. With a 0.5% fee, that investment would grow to more than \$49,000 over 30 years. Increase the fee to 1.5% and the same investment would be worth almost \$13,000 less.

---

# Understanding & Managing Risk

---

# Understanding Investment Risks

The length of your runway to retirement can help you think about the risks you may face and two investment tactics that can help you manage them: **diversification** and **asset allocation**.



Not Saving Enough



Down Markets



Inflation Increasing



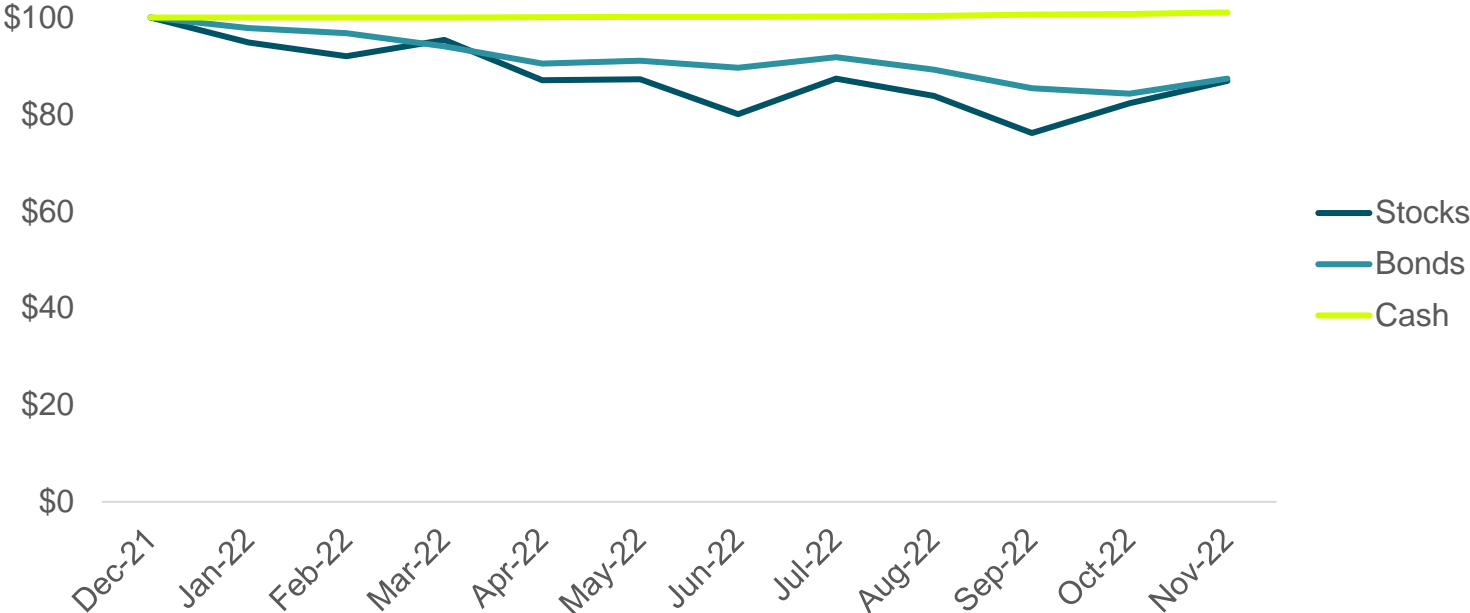
Outliving Savings

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



# How Different Investments Have Performed Over Time

Growth of \$100 in Stocks, Bonds and Cash Alternatives Over the Course of 2022 (e.g. 1 year)

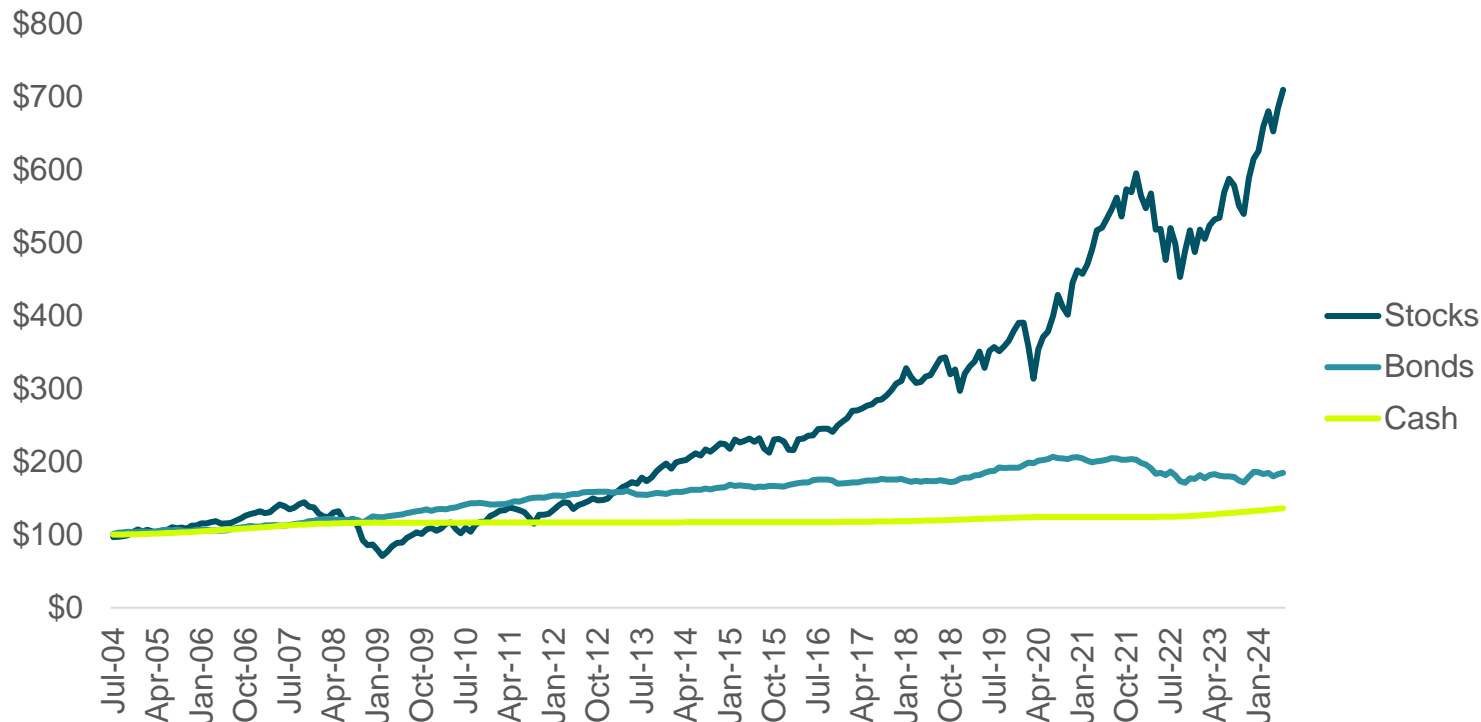


FOR ILLUSTRATIVE PURPOSES ONLY. Returns are presented per year on average. Source: State Street Global Advisors. Stocks = S&P 500 Index, Bonds = Bloomberg US Aggregate Index, and Cash = ICE BoFA US 3 Month Treasury Bill Index. A benchmark index is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. Therefore, typical performance of a fund will generally be less than its benchmark index. You cannot invest in a benchmark index. The indices shown are meant to represent types of investments and are not comprehensive of the entire asset class. Past performance is not a guarantee of future results.

As of August 31, 2024

# How Different Investments Have Performed Over Time

Growth of \$100 in Stocks, Bonds and Cash Alternatives Over Past 20 Years



FOR ILLUSTRATIVE PURPOSES ONLY. Returns are presented per year on average. Source: State Street Global Advisors. Stocks = S&P 500 Index, Bonds = Bloomberg US Aggregate Index, and Cash = ICE BoFA US 3 Month Treasury Bill Index. A benchmark index is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. Therefore, typical performance of a fund will generally be less than its benchmark index. You cannot invest in a benchmark index. The indices shown are meant to represent types of investments and are not comprehensive of the entire asset class. Past performance is not a guarantee of future results.

As of August 31, 2024

# Diversification and Your Investments

The more diverse your portfolio, the more it may help smooth your ride as an investor. Holding a mix of funds across equities and fixed income asset classes may help improve portfolio diversification.

**One Fund**



*Less Diverse*

**Multiple Funds**



*More Diverse*

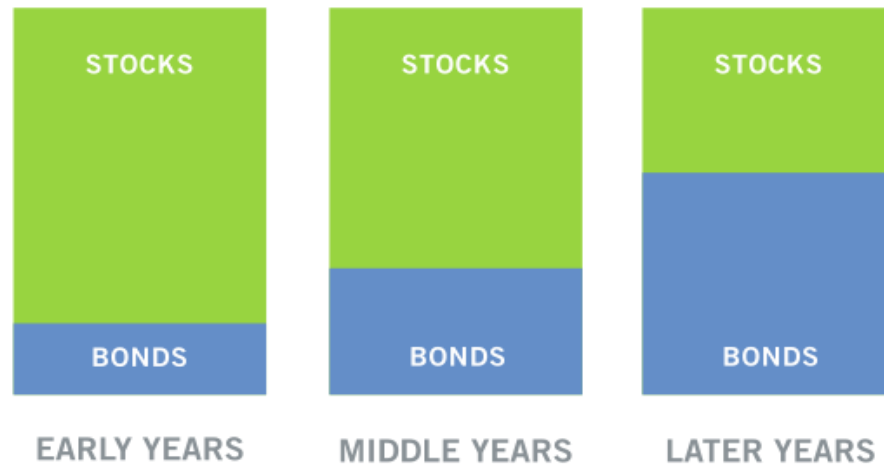
**Example:** Two different investment portfolios over a 17-year period. One portfolio contains a stock fund, like an S&P 500® Index Fund, while the other portfolio contains a diversified mix of stocks and bonds.



Source: SSGA. The example shown above is intended for illustrative purposes only. Diversification does not ensure a profit or guarantee against loss, but over the long term, a well-diversified portfolio can help your savings grow and protect you from some investment risks. S&P 500® Index is a registered trademark of Standard & Poor's Financial Services LLC, and is an unmanaged index considered indicative of the domestic Large-Cap equity market. An index is not actively managed, does not have a defined investment objective, and does not incur fees or expenses. Therefore, performance of a fund will generally be less than its benchmark index. You cannot invest directly in a benchmark index. Past performance is not a guarantee of future results. Index returns reflect capital gains and losses, income, and the reinvestment of dividends.

# Balance Risk and Reward

- How you spread your savings across investment products is called **asset allocation**.
- Many long-term investors will build a portfolio based on the number of years until they plan to retire and adjust the mix of stocks and bonds accordingly over time.



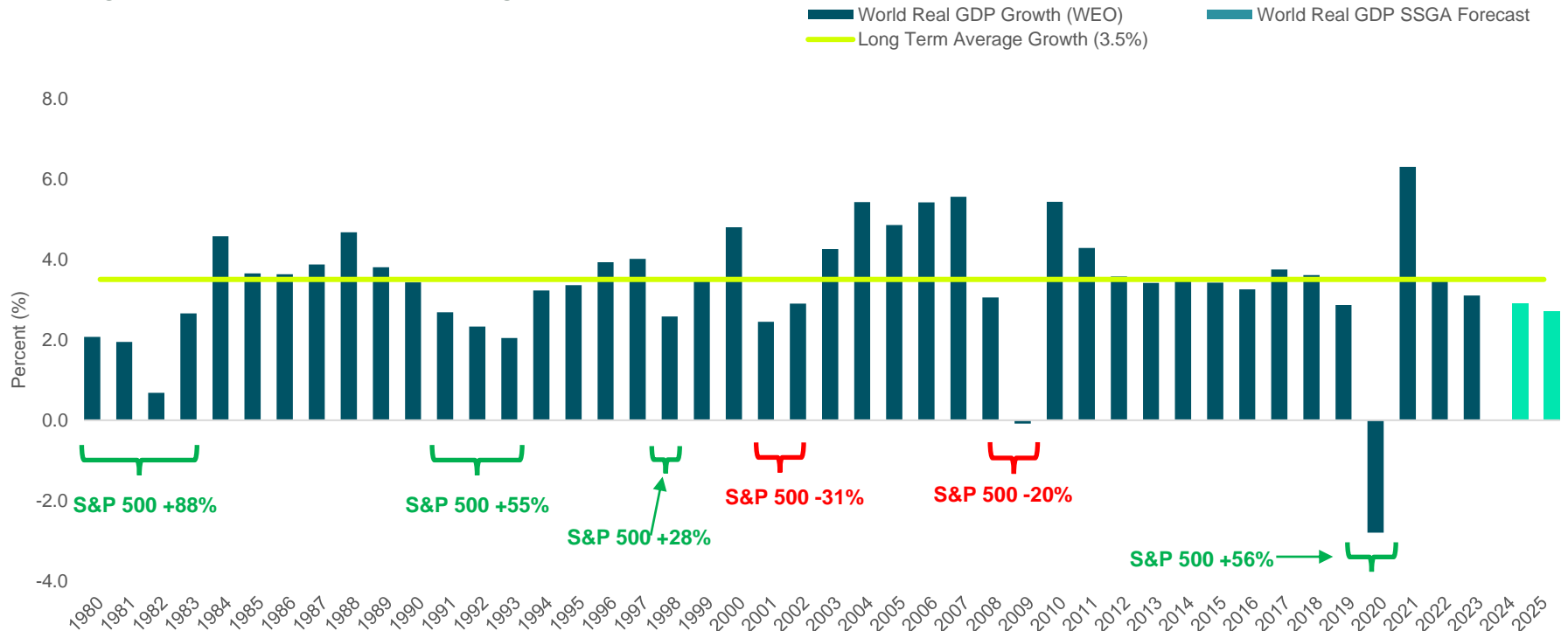
The example shown above is intended for illustrative purposes only. Asset Allocation is a method of diversification which positions assets among major investment categories. Asset Allocation may be used in an effort to manage risk and enhance returns. It does not, however, guarantee a profit or protect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

---

# Market Update

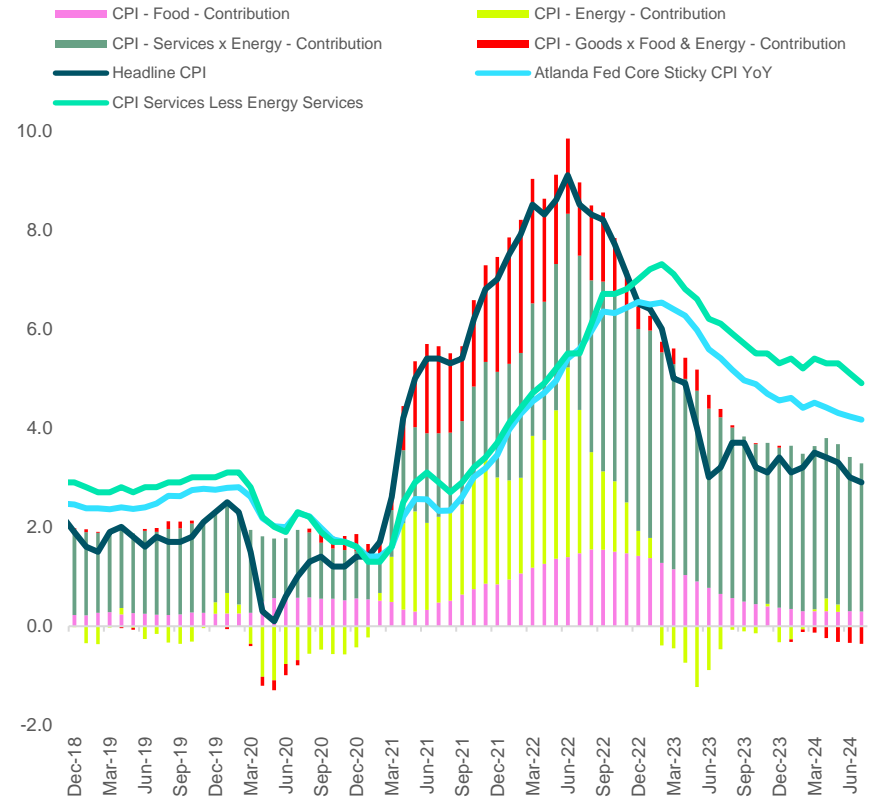
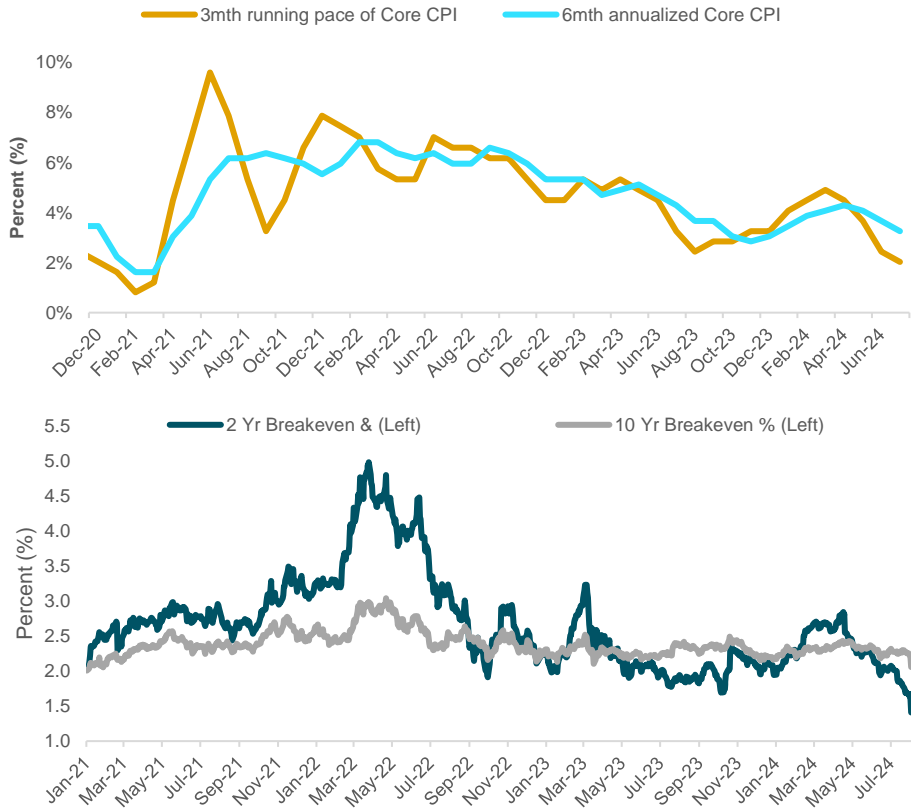
# Global Economic Growth

- We continue to anticipate slower growth ahead
  - Recession risks have risen, but it's not our base case
- Labor markets cooled considerably and wage growth continued to ease, but the current situation isn't dire
- Signs of stress have emerged for consumers



As of August 29, 2024. S&P 500 returns are from FactSet and are cumulative for the years covered. Source: IMF WEO and SSGA. The above targets are estimates based on certain assumptions and analysis made by SSGA. There is no guarantee that the estimates will be achieved.

# Inflation



- Market-based Inflation expectations as measured by break-evens have moved lower since the last quarter. Survey-based expectations as measured by the University of Michigan also moved in the same direction
- Recent CPI and PCE inflation prints suggest disinflation has resumed. Deflation in core goods continued, while core services have started to show signs of cooling
- Elevated geopolitical tensions, additional stimulus, and the potential for shelter to re-accelerate are risks that could alter the disinflationary trend

As of August 29, 2024. Inflation data as of June 30, 2024. Source: Bloomberg and SSGA.

# Key risks to our view

## To the upside

- Fed rate cuts and falling bond yields support risk appetite
- Corporate profits exceed expectations
- Artificial Intelligence (AI) creates a productivity boom
- More stimulus in China fuels a recovery in economic growth
- Fiscal spending in the US

## To the downside

- The Fed commits a policy mistake
- Inflation re-accelerates or “sticky” parts don’t fall as much as anticipated
- Risk appetite deteriorates from numerous threats
- Consumers retreat on slowing/declining real income growth
- Geopolitical tensions escalate – China/US, Iran, Russia/Ukraine, the Middle East and elsewhere
- BOJ becomes more restrictive, while other central banks begin to ease
- Global elections
- Rising deficits

Sources: SSGA ISG. As of August 28, 2024.



---

# Appendix A: Biographies

---

# Biographies



## Patrick J. Hearne

Patrick is a Vice President of State Street Global Advisors and a Relationship Manager responsible for managing institutional client relationships across the United States. Prior to his current role, Patrick was a Client Service Manager responsible for managing client relationships across the Northeast U.S. Patrick also worked as a Senior Product Analyst within the Consultant Relations Department at State Street Global Advisors. He was responsible for new business development through the completion of Requests for Proposals for passive equity strategies. He also provided marketing and product support to the Consultant Relations, Sales and Relationship Management Teams.

Prior to his role as a product analyst, Patrick was a Database Analyst within the Consultant Relations Group at State Street Global Advisors.

Patrick graduated from the Northeastern University with a Bachelor of Science in Business Administration and Finance. He holds the FINRA series 7 and 63 registrations.



## Brian Murtaugh, CFA®

Brian is a Vice President of State Street Global Advisors and an Investment Strategist within the Defined Contribution team. He is responsible for representing SSGA's DC investment strategies, supporting existing relationships and expanding SSGA's DC initiative. As a member of the Defined Contribution team, he also serves as an internal expert on DC plan design architecture and key regulatory and legislative topics affecting the retirement industry for Plan Sponsors, Consultants and Regulators.

Prior to joining the Defined Contribution team, Brian worked as a Portfolio Administrator, supporting Portfolio Management teams across a variety of SSGA's strategies in Developed and Emerging Markets.

Brian earned a B.A. in Economics from Connecticut College. He earned the Chartered Financial Analyst designation and is a member of the Boston Security Analysts Society and CFA Institute. Brian holds FINRA series 7 and 63 licenses.

---

CFA ® and Chartered Financial Analyst are trademarks of the Institute.

---

# Appendix B: Important Disclosures

---

# Important Disclosures (1)

The information contained herein is not designed to be a recommendation of any specific investment product or strategy or for any other purpose. Any examples used or expressed herein are completely hypothetical. Neither State Street Global Advisors nor its affiliates or representatives (“SSGA”) engages or has engaged in the delivery of investment advice to plans or plan participants. The information contained herein does not suggest taking or refraining from any course of action and should not be viewed as an investment recommendation because they are provided as part of the general marketing and advertising activities of State Street Global Advisors. This communication material is educational in nature and solely for the purpose of facilitating independent decision-making by plan participants. This communication material should be reviewed by your own legal and compliance advisors to ensure you are meeting any fiduciary obligations prior to further distribution.

**All plan participants should carefully consider all of the investment alternatives available under the Plan before deciding to invest, consult with their own financial advisor and contact their Plan Administrator for more information on the plan’s available alternatives.**

Investing involves risk including the risk of loss of principal.

Past performance is not a guarantee of future results.

The whole or any part of this work may not be reproduced, copied or transmitted or any of its contents disclosed to third parties without SSGA’s express written consent.

Diversification does not ensure a profit or guarantee against loss.

All material has been obtained from sources believed to be reliable. There is no representation or warranty as to the accuracy of the information and State Street shall have no liability for decisions based on such information.

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

Source: Barclays POINT/Global Family of Indices. ©2021 Barclays Inc. Used with permission.

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

Standard & Poor’s, S&P and SPDR are registered trademarks of Standard & Poor’s Financial Services LLC (S&P); Dow Jones is a registered trademark of Dow Jones Trademark Holdings LLC (Dow Jones); and these trademarks have been licensed for use by S&P Dow Jones Indices LLC (SPDJI) and sublicensed for certain purposes by State Street Corporation.

State Street Corporation’s financial products are not sponsored, endorsed, sold or promoted by SPDJI, Dow Jones, S&P, their respective affiliates and third party licensors and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability in relation thereto, including for any errors, omissions, or interruptions of any index.

Assumptions and forecasts used by State Street Global Advisors in developing the target date funds asset allocation glide path may not be in line with future capital market returns and participant savings activities, which could result in losses near, at or after the target date year or could result in the target date fund not providing adequate income at and through retirement.

BLOOMBERG®, a trademark and service mark of Bloomberg Finance L.P. and its affiliates. Bloomberg Barclays US High Yield 2% Cap Index has been licensed for use in connection with the listing of the Bloomberg High Yield Very Liquid Index.

---

# Important Disclosures (2)

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

This document may contain certain statements deemed to be forward-looking statements. All statements, other than historical facts, contained within this document that address activities, events or developments that State Street Global Advisors expects, believes or anticipates will or may occur in the future are forward-looking statements. These statements are based on certain assumptions and analyses made by State Street Global Advisors in light of its experience and perception of historical trends, current conditions, expected future developments and other factors it believes are appropriate in the circumstances, many of which are detailed herein. Such statements are subject to a number of assumptions, risks, uncertainties, many of which are beyond SSGA's control. Please note that any such statements are not guarantees of any future performance and that actual results or developments may differ materially from those projected in the forward-looking statements.

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

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

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

Passively managed funds invest by sampling the index, holding a range of securities that, in the aggregate, approximates the full Index in terms of key risk factors and other characteristics. This may cause the fund to experience tracking errors relative to performance of the index.

The guaranteed lifetime income benefit is a type of deferred income annuity, called a qualified longevity annuity contract (QLAC), which is an insurance product that guarantees money at a future date, typically for the rest of an individual's life. Participants who redeem from the fund prior to the QLAC purchase will not be eligible for the QLAC benefits. The QLAC is subject to regulatory limitations. The QLAC purchase is subject to market availability and cannot be guaranteed in any given year. The QLAC is not provided by or guaranteed by SSGA or any affiliate of SSGA. Neither IncomeWise nor the QLAC are insured by the FDIC or by another governmental agency; they are not obligations of the FDIC or deposits or obligations guaranteed by SSGA. You cannot reverse the purchase of the QLAC.

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

Web: [www.ssga.com](http://www.ssga.com)

© 2024 State Street Corporation — All Rights Reserved.

Information Classification: Limited Access

Tracking Code: 5983157.2.1.AM.RTL

Expiration Date: November 30, 2024