



# Macro Scenarios and Investment Outlook: Q1 2024

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**Joyce Huang, CFA**

Vice President  
Senior Client Portfolio Manager

**Jeremy Deering, CFA**

Director, Portfolio Construction Analytics

# Macroeconomic Outlook:

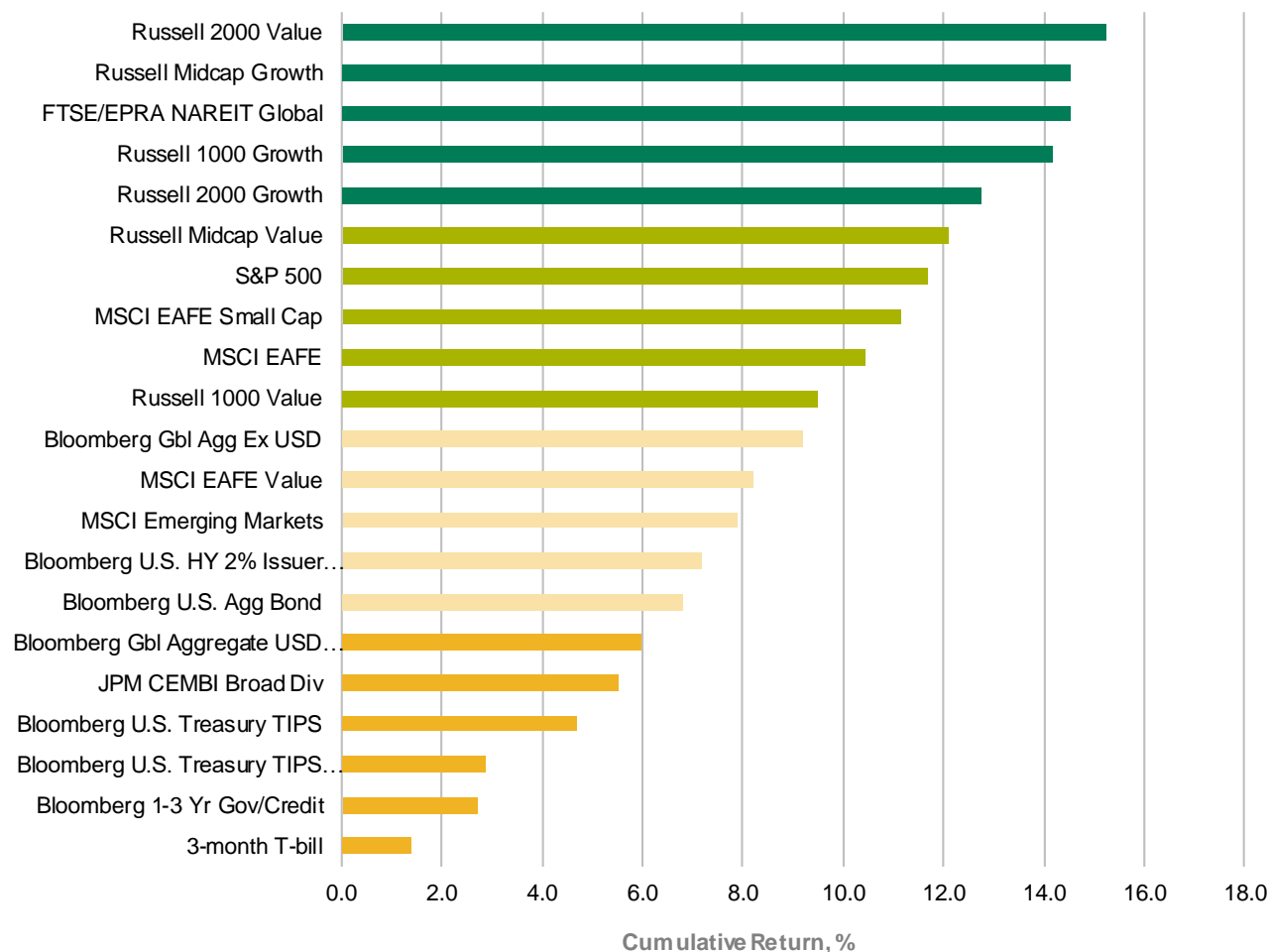
## Resilient U.S. Consumer Pushed Out Timing for Slowdown and Federal Reserve (Fed) Pivot

|                        |  |
|------------------------|--|
| <b>Inflation</b>       | <ul style="list-style-type: none"><li>▪ While inflation has slowed considerably from last year's multidecade highs, it remains above the Fed's target</li><li>▪ Persistent wage pressures suggest services inflation may remain resilient</li><li>▪ Inflation has fallen more rapidly in the EU and UK</li></ul>     |
| <b>Monetary Policy</b> | <ul style="list-style-type: none"><li>▪ Monetary policy tightening effects yet to be fully felt</li><li>▪ Rates likely to remain higher for longer than market is currently pricing</li><li>▪ Developed market central banks have all peaked</li></ul>   |
| <b>Interest Rates</b>  | <ul style="list-style-type: none"><li>▪ We believe attractive yields plentiful across duration and credit spectrum today</li><li>▪ Intermediate rates likely to fall first due to recession risk followed by short rates once Fed cuts are imminent</li></ul>  |
| <b>Global Economy</b>  | <ul style="list-style-type: none"><li>▪ Goldilocks? Inconsistent with history or Fed's inflation goal</li><li>▪ U.S. consumer and corporate data beginning to weaken but job market remains surprisingly resilient</li><li>▪ Global growth (Europe, China, Emerging Markets (EM)) is even more challenged.</li></ul> |

**Duration:** Duration is an important indicator of potential price volatility and interest rate risk in fixed income investments. It measures the price sensitivity of a fixed income investment to changes in interest rates. The longer the duration, the more a fixed income investment's price will change when interest rates change. Duration also reflects the effect caused by receiving fixed income cash flows sooner instead of later. Fixed income investments structured to potentially pay more to investors earlier (such as high-yield, mortgage, and callable securities) typically have shorter durations than those that return most of their capital at maturity (such as zero-coupon or low-yielding noncallable Treasury securities), assuming that they have similar maturities.

# Pivot Rally Arrives in Time for the Holidays

## Asset Class Benchmark Index Returns 10/1/2023 - 12/31/2023



- Global asset prices rose in a worldwide pivot rally to close out 2023 on a high note.
- Most stock and bond indices ended the year with positive returns. Domestic and global equity markets finished the year strong, with the S&P 500 up 26.3% and the MSCI EAFE up 18.2%.
- Long-term yields fell in Q4 as investors priced in three rate cuts for the first half of 2024.
- The 10-Year U.S. Treasury yield peaked in October at 4.9% and has declined since, ending the year at 3.9%.

Data from 10/1/2023 to 12/31/2023.

Source: FactSet.

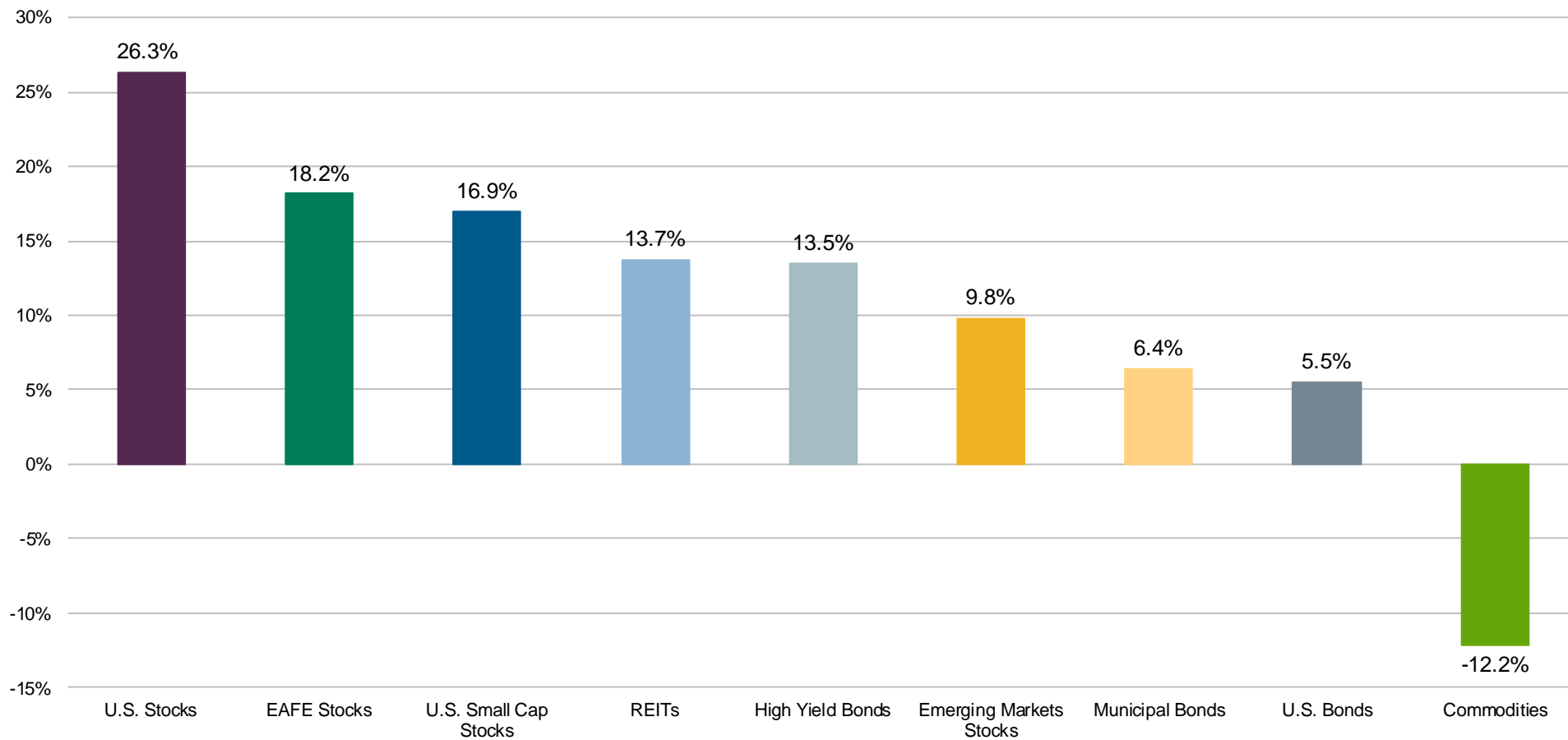
Past performance is no guarantee of future results.

Please see slide 19 for glossary.



# Most Asset Classes in the Black for 2023

## Financial Market Review - Asset Class Returns



These charts are for illustrative purposes only and are not intended to represent any particular investment product.

Data from 1/1/2023 to 12/31/2023

Source: FactSet

**Past performance is no guarantee of future results.**

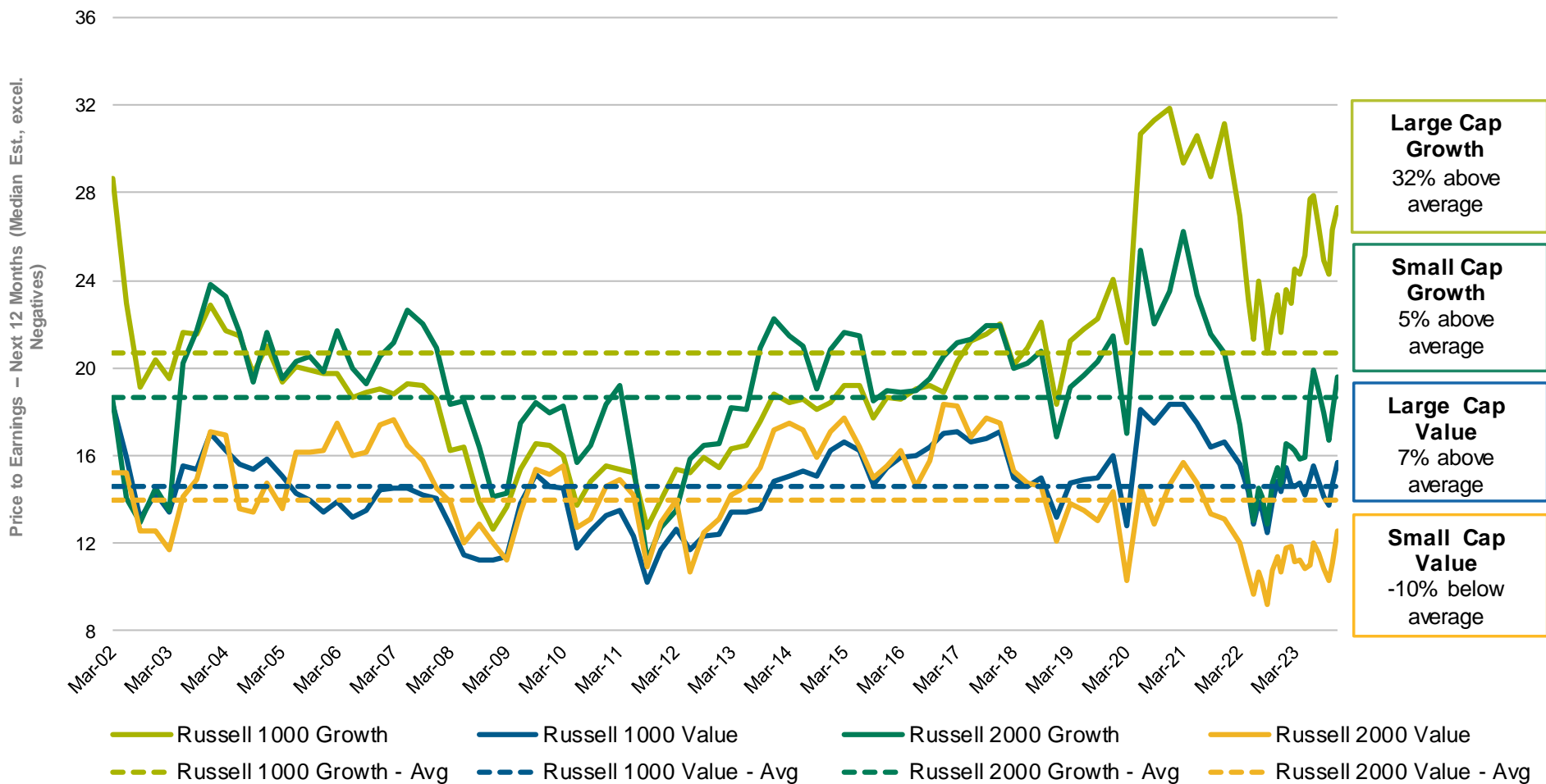
Asset classes consist of the following: Commodities represented by the S&P GSCI® (Goldman Sachs Commodities Index), Municipal Bonds represented by the Bloomberg Municipal Bond Index, High Yield Bonds represented by the ICE BofA US High Yield Constrained Index (Unhedged), U.S. Bonds represented by the Bloomberg US Aggregate Bond Index, U.S. Stocks represented by the S&P 500® Index, U.S. Small Cap Stocks represented by the Russell 2000® Index, EAFE Stocks represented by the MSCI EAFE (Europe, Australasia, Far East) Index, Emerging Markets Stocks represented by the MSCI Emerging Markets Index, and Real Estate represented by the MSCI U.S. REIT Index.

Please see slide 19 for glossary.



# U.S. Equity Valuations

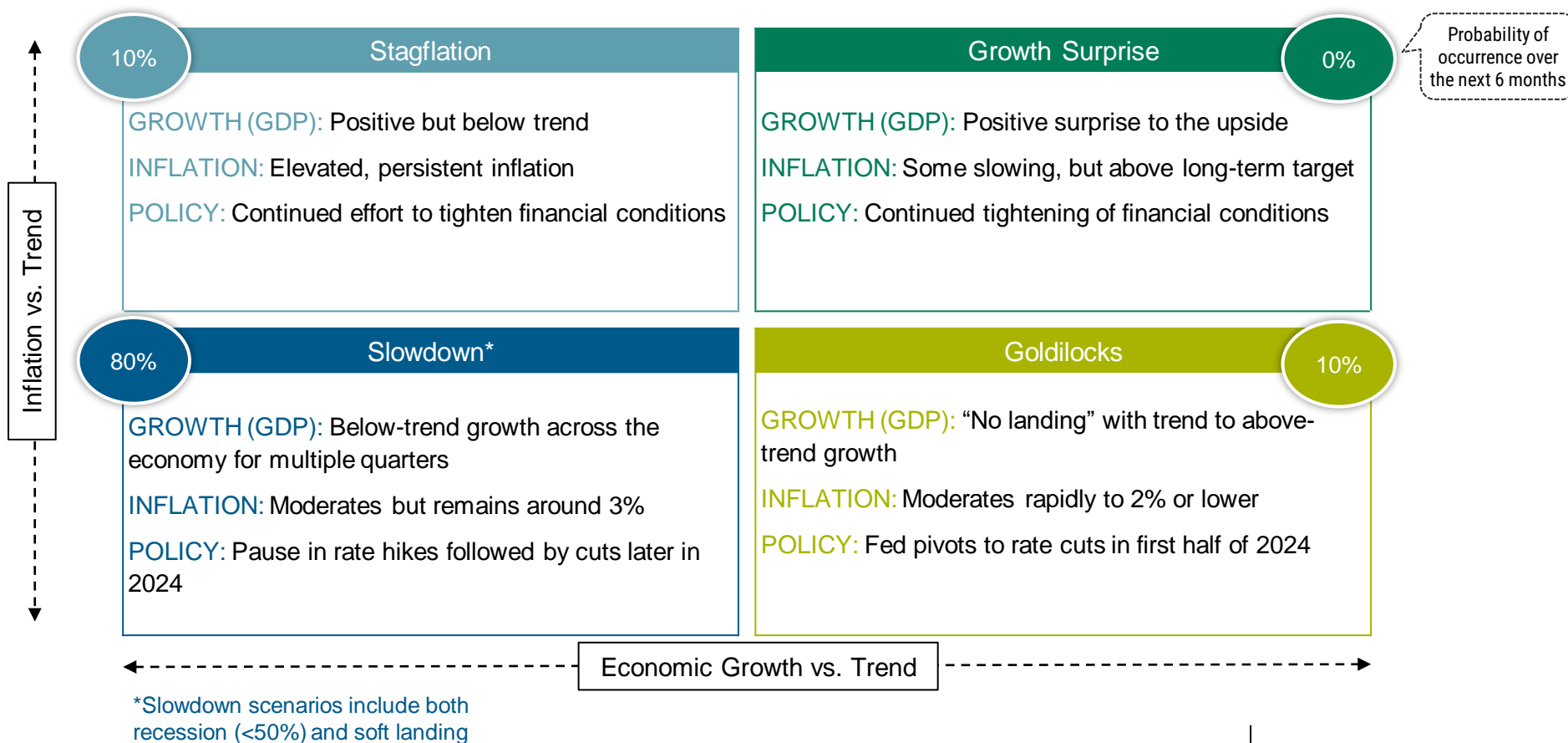
Next 12 Month Valuations as of 12/31/2023



Data from 3/28/2002 to 12/31/2023. | Source: FactSet



# American Century Investments 6-Month Macro Scenarios



Source: American Century Investments. Opinion as of 12/31/2023.

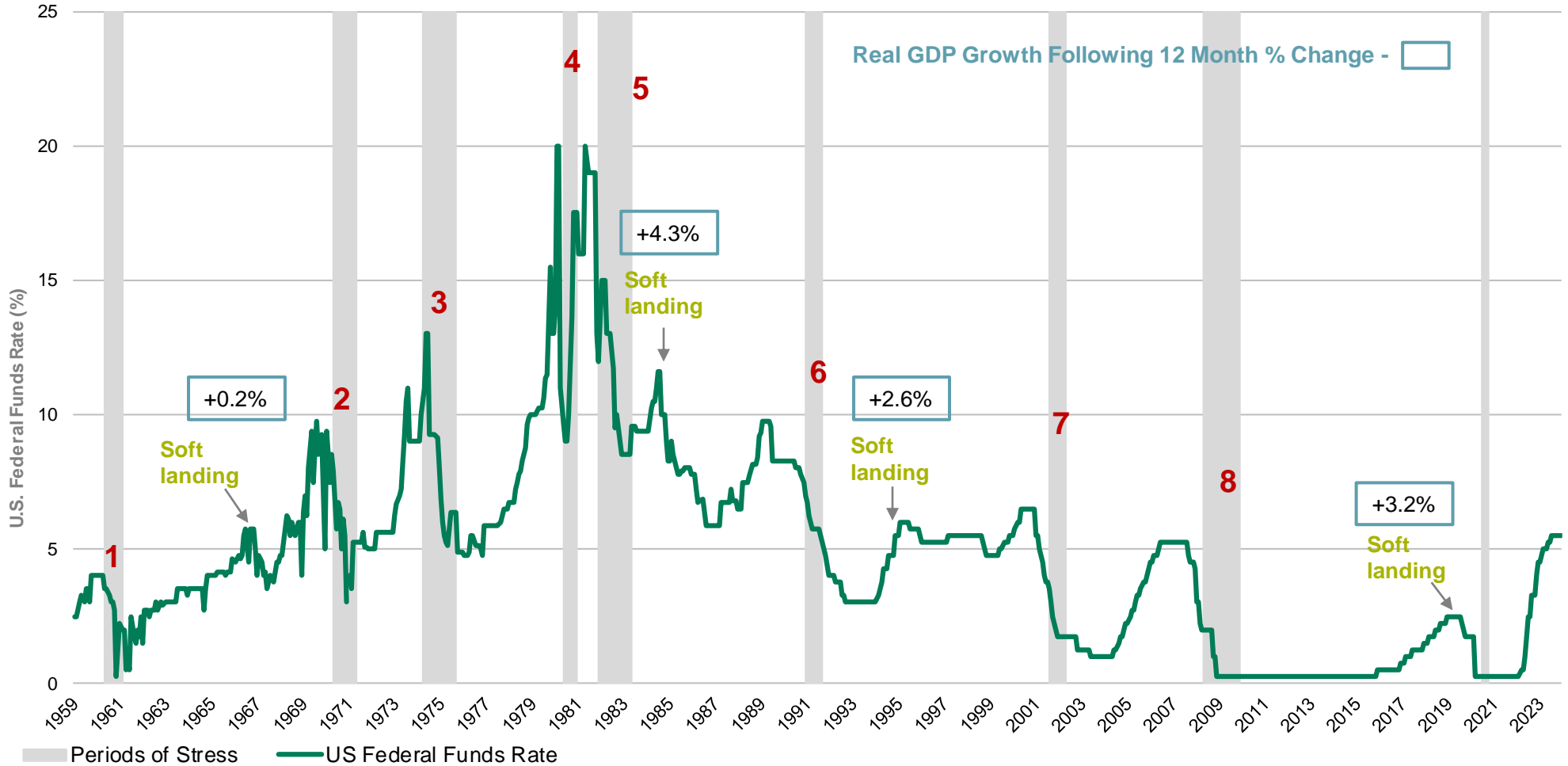
Opinions and estimates offered constitute our judgment and along with other portfolio data, are subject to change without notice.

The opinions expressed are those of American Century Investments (or the fund manager) and are no guarantee of the future performance of any American Century Investments fund.



# There Have Been 12 Fed Tightening Cycles Since 1960: 8 Hard Landings, 4 Soft Landings

U.S. Federal Funds Rate



Data from 1/30/1959 to 12/29/2023

Source: Factset

Recession of 1957-1958: 8/31/1957-4/30/1958, Recession of 1960-1961: 4/30/1960 - 2/28/1961, Recession of 1969-70: 12/31/1969-11/31/1970, 1973-1975 Recession: 11/30/1973-3/31/1975, 1980 Recession: 1/31/1980-7/31/1980, 1981-1982 Recession: 7/31/1981-11/31/1982, Early 1990's Recession: 7/31/1990-3/31/1991, Early 2000's Recession: 3/31/2001-11/30/2001, Great Recession: 12/31/2007-5/30/2009, Covid-19 Recession: 2/28/2020-4/31/2020










## Consumer Spending Trend Positive But Falling

- Retailers started promotions early this season and consumers hunted for the best deals and promotions.
- While spending was up from last year, it was on practical items: gifts, food, clothing and shoes, and less on electronics. This figure is also not adjusted for inflation.
- Consumers spent more on apparel and food — especially in restaurants, where spending was up by 7.8% over 2022 — while sales of higher ticket electronics and jewelry were down year over year (YoY).
- Holiday Retail Sales was predicted to be +3.7% at the start of Q4 and 2022 was +7.8%.

### U.S. Holiday Retail Sales

November 1 – December 24

2023 vs. 2022

|   |                                |       |
|---|--------------------------------|-------|
|   | <b>Total Retail (ex. Auto)</b> | +3.1% |
|    | <b>In-Store</b>                | +2.2% |
|   | <b>Online</b>                  | +6.3% |
|  | <b>Apparel</b>                 | +2.4% |
|  | <b>Electronics</b>             | -0.4% |
|  | <b>Grocery</b>                 | +2.1% |
|  | <b>Jewelry</b>                 | -2.0% |
|  | <b>Restaurants</b>             | +7.8% |

Data as of 12/31/2023  
Source: Mastercard



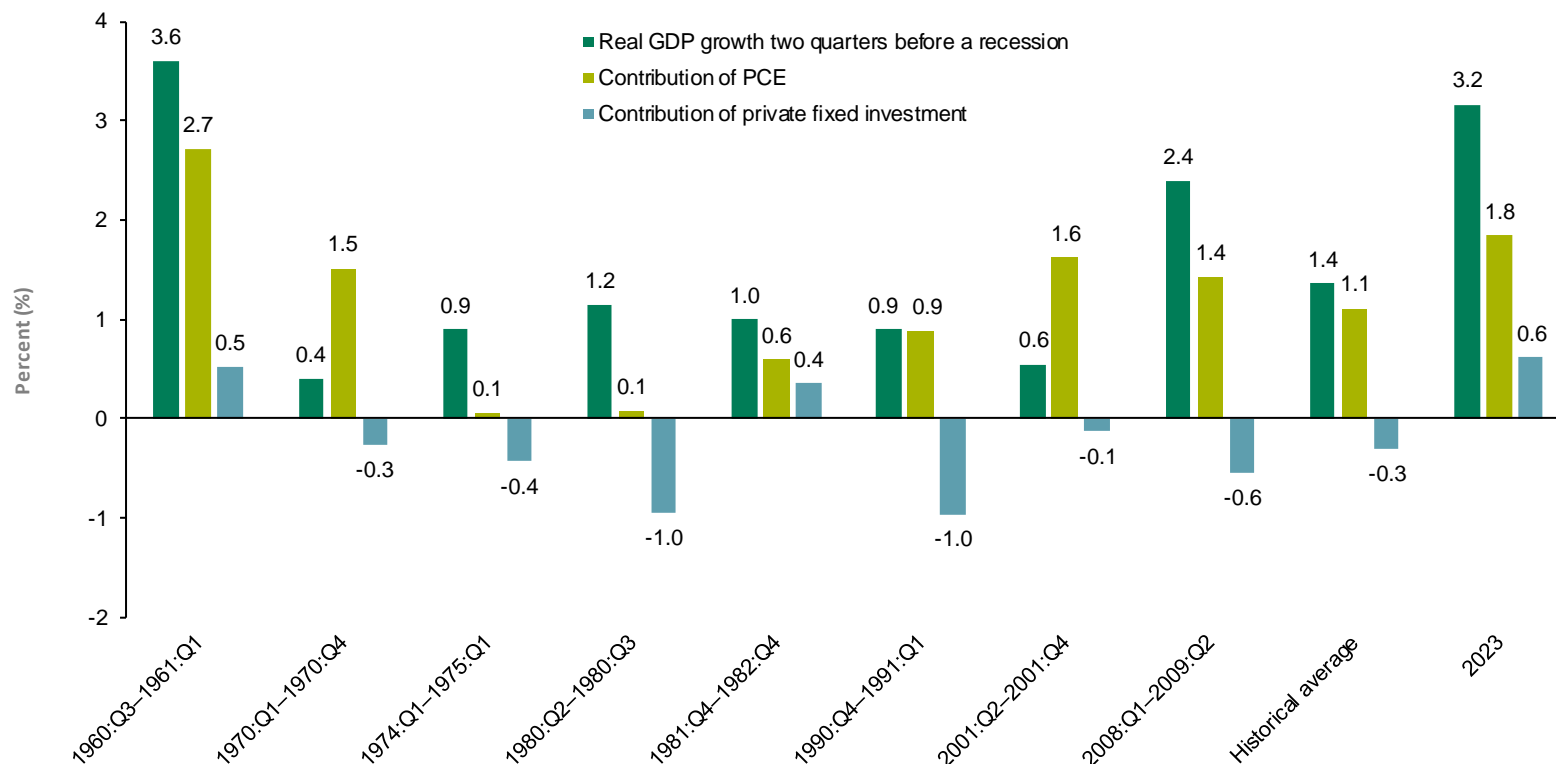


## Growth in Consumer Spending Often Occurs Right Before Recession

- In every recessionary episode since the 1960s, consumption grew in the two quarters before a recession. Consumption was also the main driver of GDP growth during the two-quarter period.
- The economy expanded 1.4 % on average prior to a recession and 1.1% of that increase came from consumption.
- This cycle mirrors the historical average, only difference is private fixed investment is still positive. This is primarily driven by relative strength of residential investment (housing) this cycle compared to history where residential investment was the primary drag on GDP growth.

### Investment Declined, Consumption Grew Before Previous Recessions

Percent change annualized, quarterly average

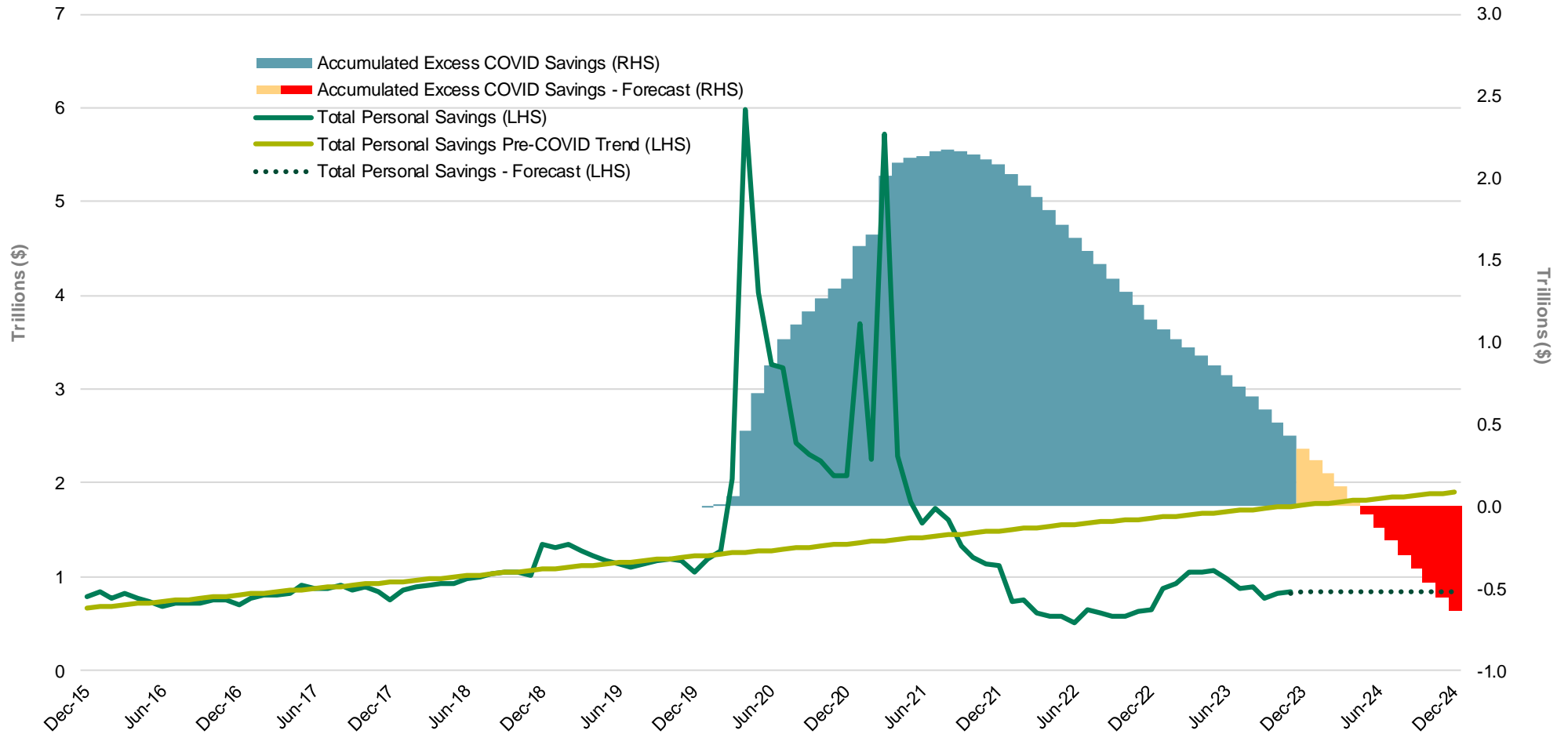


Data from 7/1/1960 to 12/31/2023.  
Source: Federal Reserve Bank of Dallas



# Consumers Are Facing Headwinds As Savings Run Out.....

## Household Excess COVID Savings Likely Gone by End-2023



Data from: 12/31/2015 to 11/30/2023

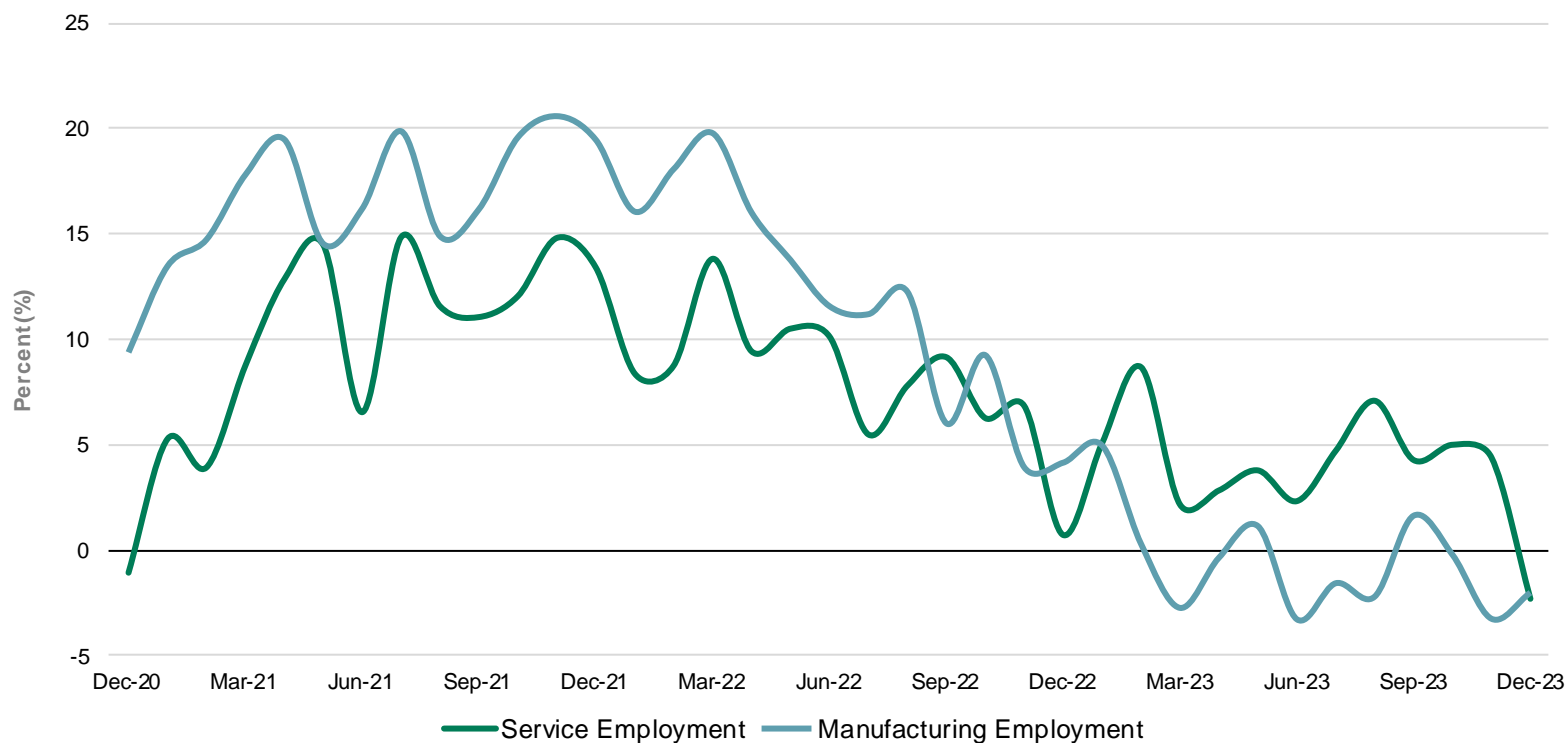
Source: Factset

Personal Savings Pre-COVID Trend: 12/31/2015 - 2/28/2020; Personal Savings Forecast: Personal Savings Trend from 11/30/2022 - 11/30/2023; Accumulated Excess COVID Savings - Forecast: Difference between Personal Savings Pre-COVID Trend and Personal Savings Forecast

## ....And Employment is Weakening

- The service employment composite dropped significantly in Dec (from 4.4 in Nov to -2.3 Dec), and the negative reading is the lowest level since Aug, 2020.
- On the other hand, manufacturing employment has been slightly below zero for a while and is at -2 of Dec.

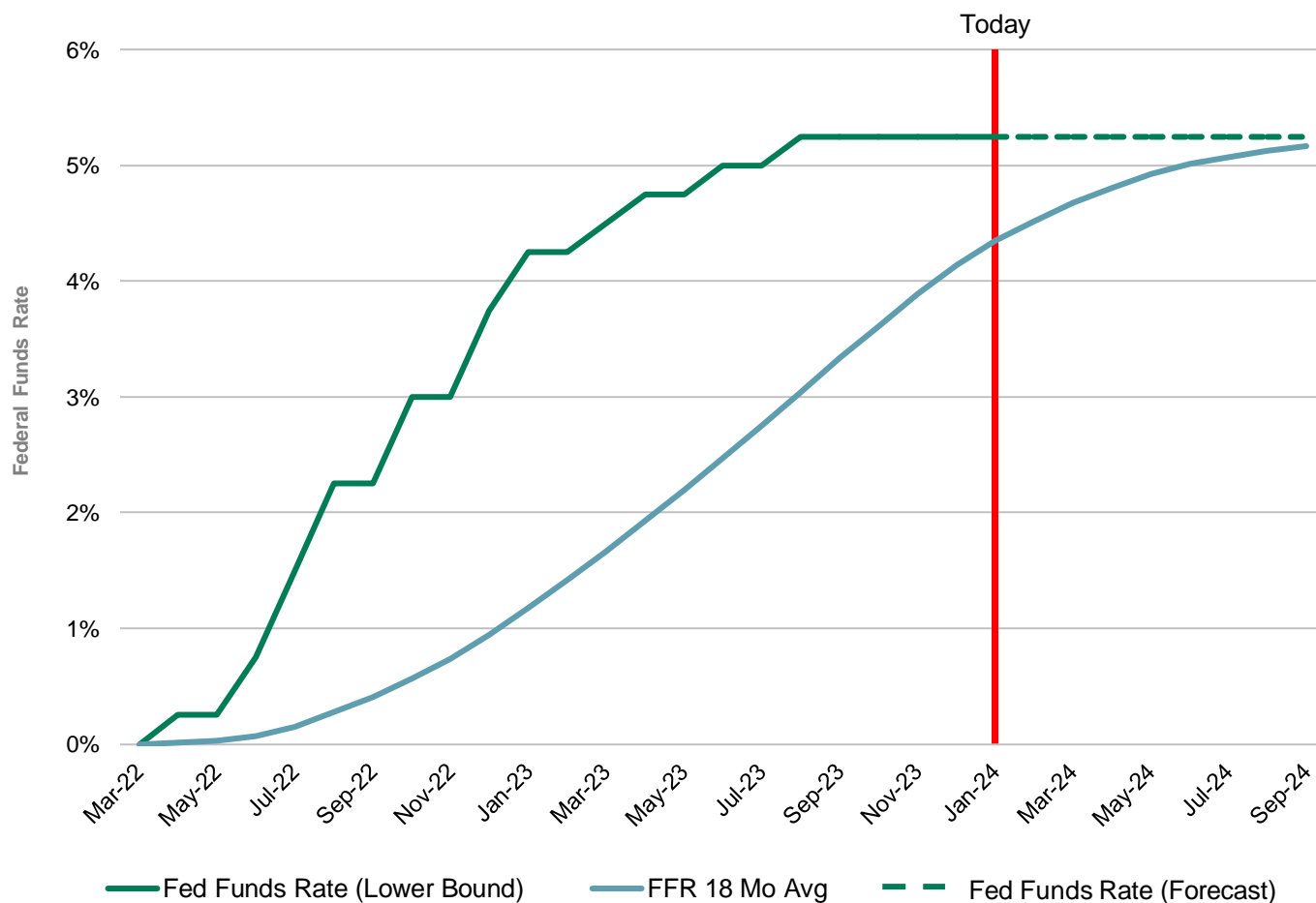
PMI Composite Employment Component



Data from 12/31/2020 to 12/31/2023.  
Source: Bloomberg



## Full Effect of Fed Policy Yet to Be Felt...Cuts Not Expected in 1Q



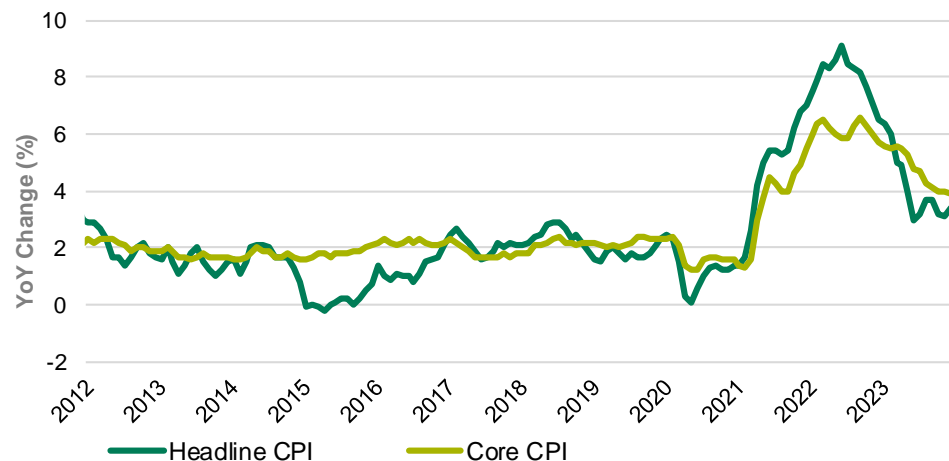
- Can take up to 18 months for full effect of each rate hike to be felt.
- Final impact to be felt in the next 6 months, coinciding with our view of Slowdown.

Data from 3/31/2022 and 12/31/2023  
Source: FactSet, American Century Investments



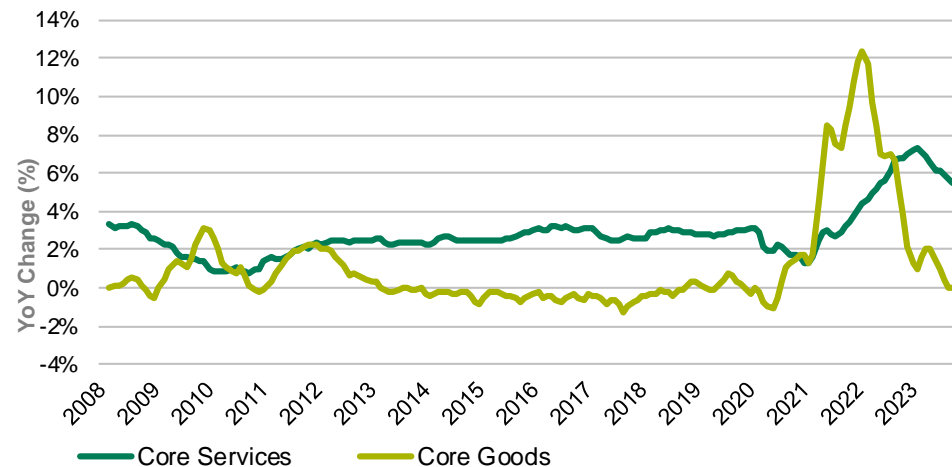
# Inflation Declining But Services Remains Sticky Due to Labor Markets

## United States Inflation



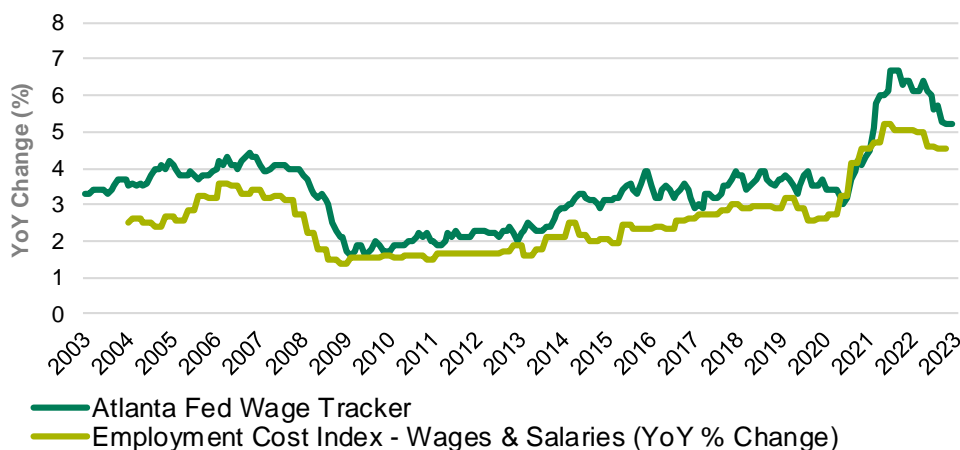
Data from: 7/29/2011 to 12/29/2023  
Source: Factset

## CPI Core Services vs. Core Goods



Data from: 3/31/2008 to 12/29/2023  
Source: Factset

## Wage Growth Still Robust With Strong Labor Markets



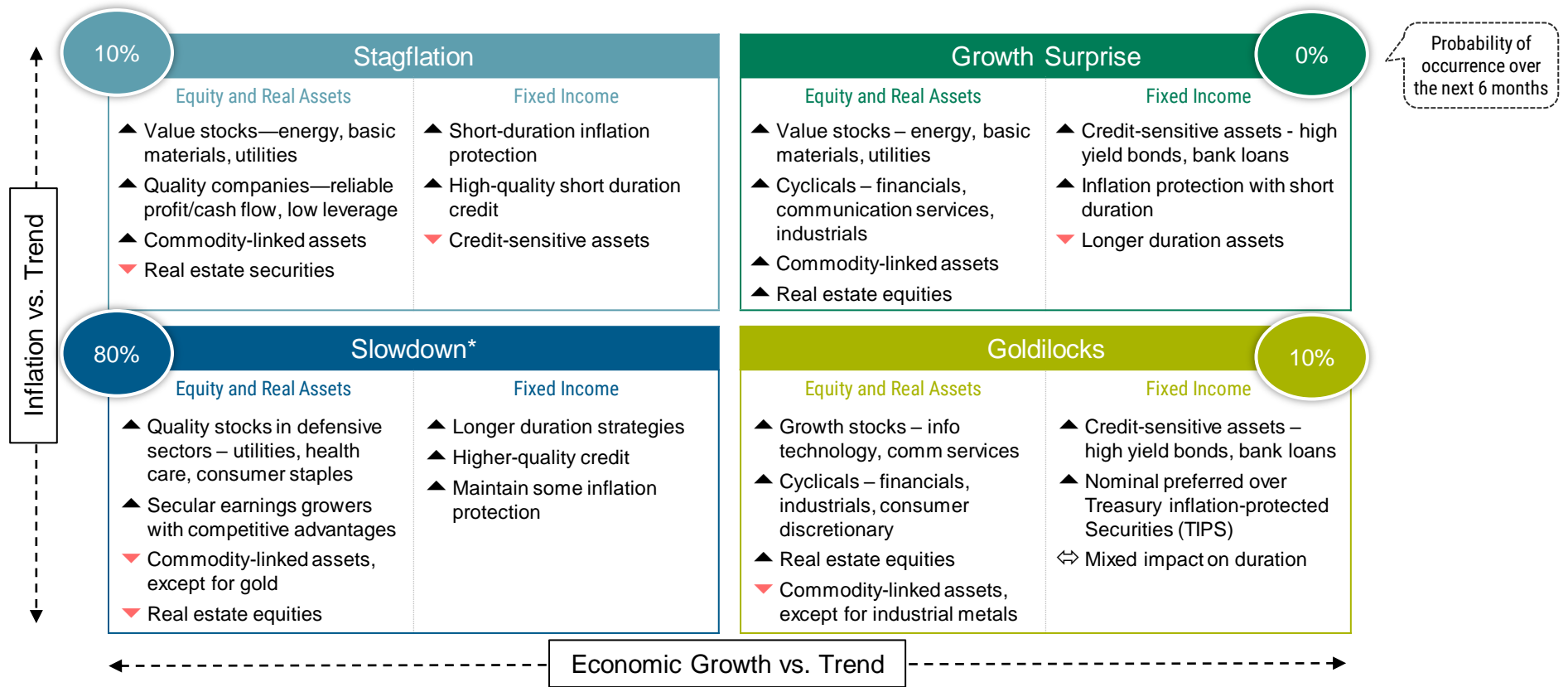
Data from: 12/31/2003 to 12/31/2023  
Source: Factset

## U.S. Labor Force Participation Rate



Data from: 10/31/2007 to 12/31/2023  
Source: Factset

# Portfolio Implications



Direction of arrows show what investment type has historically done in this environment.

\*Slowdown scenarios include both recession (<50%) and soft landing

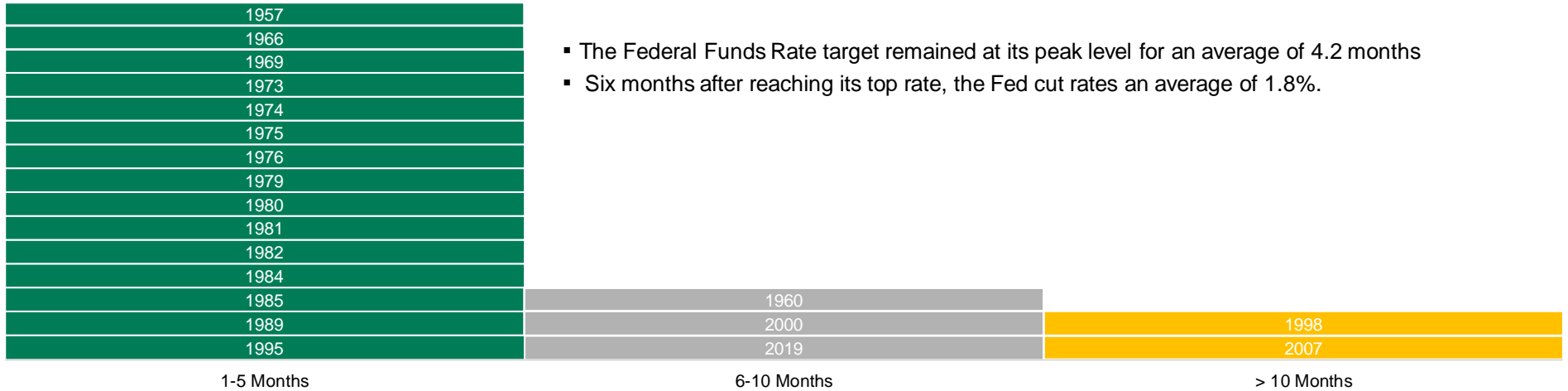
Source: American Century Investments as of December 31, 2023. Opinions and estimates offered constitute our judgment and along with other portfolio data, are subject to change without notice. Forecasts are not a reliable indicator of future performance. The opinions expressed are those of American Century Investments (or the fund manager) and are no guarantee of the future performance of any American Century Investments fund. For each asset class, American Century develops a set of assumptions for return, risk, and correlation. Because asset class returns and relationships are ultimately grounded in economic fundamentals, we forecast over the equivalent of a complete economic and market cycle. We arrive at our return forecasts through various modeling techniques, such as a classic valuation approach, a risk-premium approach, and an historical risk and return analysis. In addition to this quantitative process, we employ a qualitative review, recognizing that there are elements that can't be easily captured by a quantitative process.



# Reinvestment Risk is the Biggest Risk Your Clients May be Ignoring

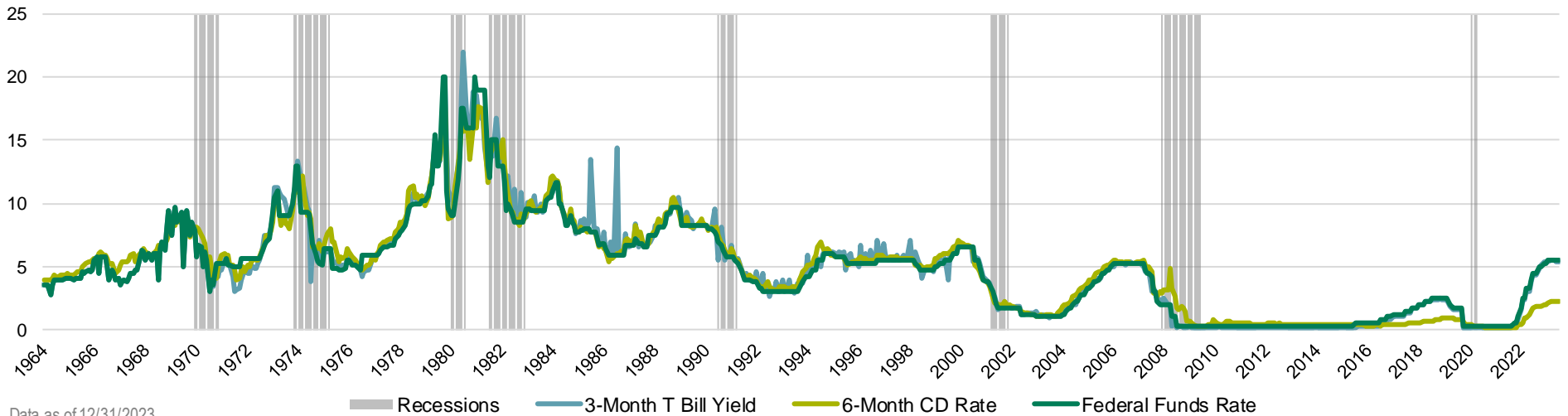
## Peak Rates Have Been Short-Lived

Years When Federal Funds Rate Sat at a Terminal Level



- The Federal Funds Rate target remained at its peak level for an average of 4.2 months
- Six months after reaching its top rate, the Fed cut rates an average of 1.8%.

## Peak Rates Tend to be Associated With Recession



Data as of 12/31/2023  
Source: Factset





# PORTFOLIO OPTIMIZATION AND ANALYSIS TOOL

## Portfolio Construction Case Studies

- De-Risking Fixed Income Sleeve
- Extending Duration

## SAMPLE ANALYSIS

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## Case Study 1: De-Risking Fixed Income Sleeve

### Advisor Discovery Call Notes / Model:

- **Macro Views:**
  - Advisor believes strongly that recession coming in 2024
  - Feels “something has to give”, growing less positive about equities
- **Primary Concern:**
  - Fixed income sleeve is the part of model he is least comfortable with
  - Worried taking on too much risk here
  - Also concerned about overlap across these positions
- **Goals/Research Agenda:**
  - De-risking fixed income sleeve, doesn’t want to be taking unnecessary risk
  - Interested in any consolidation opportunities, especially in terms of bond positions

|         | Asset Class          | Category                            | Client Model |
|---------|----------------------|-------------------------------------|--------------|
| Fund 1  | U.S. Equity          | US Fund Large Value                 | 10.00%       |
| Fund 2  | U.S. Equity          | US Fund Large Value                 | 10.00%       |
| Fund 3  | U.S. Equity          | US Fund Large Growth                | 8.00%        |
| Fund 4  | U.S. Equity          | US Fund Large Growth                | 8.00%        |
| Fund 5  | U.S. Equity          | US Fund Mid-Cap Value               | 3.00%        |
| Fund 6  | U.S. Equity          | US Fund Mid-Cap Growth              | 3.00%        |
| Fund 7  | U.S. Equity          | US Fund Small Blend                 | 6.00%        |
| Fund 8  | International Equity | US Fund Foreign Large Growth        | 4.50%        |
| Fund 9  | International Equity | US Fund Foreign Large Value         | 4.50%        |
| Fund 10 | International Equity | US Fund Diversified Emerging Mkts   | 3.00%        |
| Fund 11 | Taxable Bond         | US Fund Intermediate Core-Plus Bond | 10.00%       |
| Fund 12 | Taxable Bond         | US Fund Intermediate Core-Plus Bond | 10.00%       |
| Fund 13 | Taxable Bond         | US Fund Multisector Bond            | 8.00%        |
| Fund 14 | Taxable Bond         | US Fund Nontraditional Bond         | 6.00%        |
| Fund 15 | Taxable Bond         | US Fund Short-Term Bond             | 4.00%        |
| Fund 16 | Money Market         | US Fund Money Market - Taxable      | 2.00%        |
| Fund 17 | Taxable Bond         | US Fund Intermediate Core Bond      |              |

Category Source: Morningstar  
 Funds and current portfolio weights provided by client  
 Past performance is no guarantee of future results

## Tail Risk Assessment

|                | Asset Class          | Category                           | 99% Conf<br>CVaR<br>(Tail Risk) |
|----------------|----------------------|------------------------------------|---------------------------------|
| <b>Fund 1</b>  | U.S. Equity          | US Fund Large Value                | -45.35%                         |
| <b>Fund 2</b>  | U.S. Equity          | US Fund Large Value                | -40.36%                         |
| <b>Fund 3</b>  | U.S. Equity          | US Fund Large Growth               | -32.71%                         |
| <b>Fund 4</b>  | U.S. Equity          | US Fund Large Growth               | -31.99%                         |
| <b>Fund 5</b>  | U.S. Equity          | US Fund Mid-Cap Value              | -57.34%                         |
| <b>Fund 6</b>  | U.S. Equity          | US Fund Mid-Cap Growth             | -35.14%                         |
| <b>Fund 7</b>  | U.S. Equity          | US Fund Small Blend                | -54.85%                         |
| <b>Fund 8</b>  | International Equity | US Fund Foreign Large Growth       | -30.35%                         |
| <b>Fund 9</b>  | International Equity | US Fund Foreign Large Value        | -54.32%                         |
| <b>Fund 10</b> | International Equity | US Fund Diversified Emerging Mkts  | -30.57%                         |
| <b>Fund 11</b> | Taxable Bond         | US Fund Intermediate Core-Plus Boi | -15.96%                         |
| <b>Fund 12</b> | Taxable Bond         | US Fund Intermediate Core-Plus Boi | -15.51%                         |
| <b>Fund 13</b> | Taxable Bond         | US Fund Multisector Bond           | -20.51%                         |
| <b>Fund 14</b> | Taxable Bond         | US Fund Nontraditional Bond        | -24.08%                         |
| <b>Fund 15</b> | Taxable Bond         | US Fund Short-Term Bond            | -15.53%                         |
| <b>Fund 16</b> | Money Market         | US Fund Money Market - Taxable     | 0.00%                           |
| <b>Fund 17</b> | Taxable Bond         | US Fund Intermediate Core Bond     | -10.61%                         |

- Conditional Value at Risk (CVaR) measures the amount of tail risk an investment has
- Assesses likelihood or probability that an investment will incur extreme losses
- High quality core bond can have much lower tail risk than core plus, multisector and nontraditional bond strategies

Source: Morningstar Direct and Capital Market Assumption Methodology.

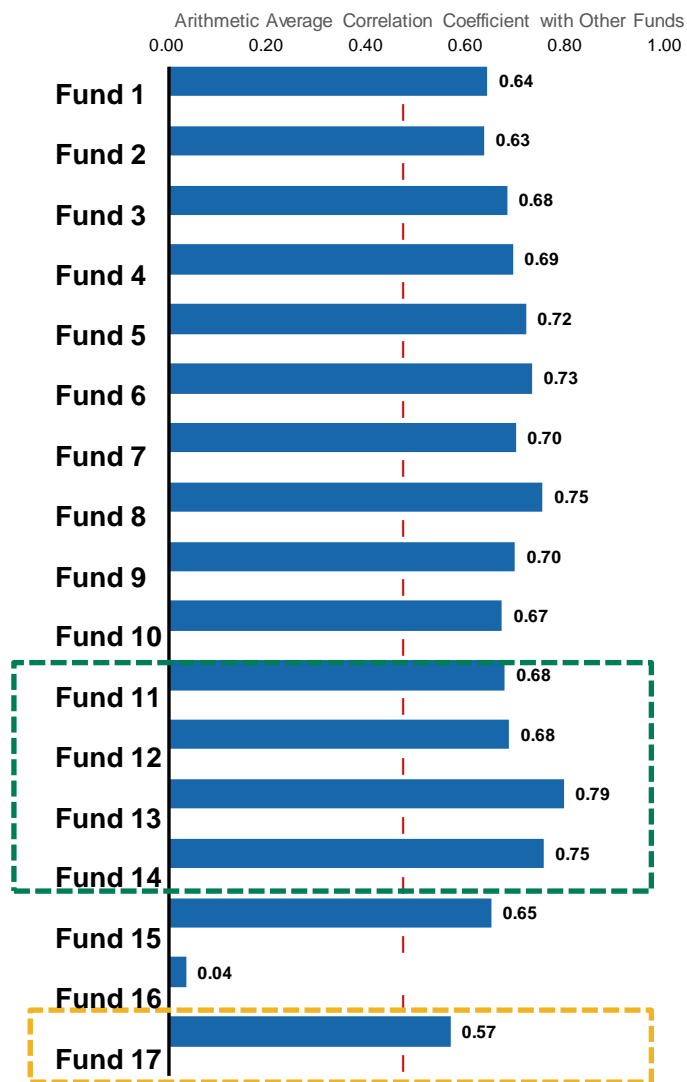
The Appendix describes our Capital Market Assumption methodology. The timeframe for these estimates is a full market cycle (typically 7 to 10 years). The data are expected annual average values over this full market cycle.

Data as of 12/31/2023

**Past performance is no guarantee of future results**

## Average Correlations

### Average Correlation Coefficient of Fund with All Other Client and ACI Portfolio Funds

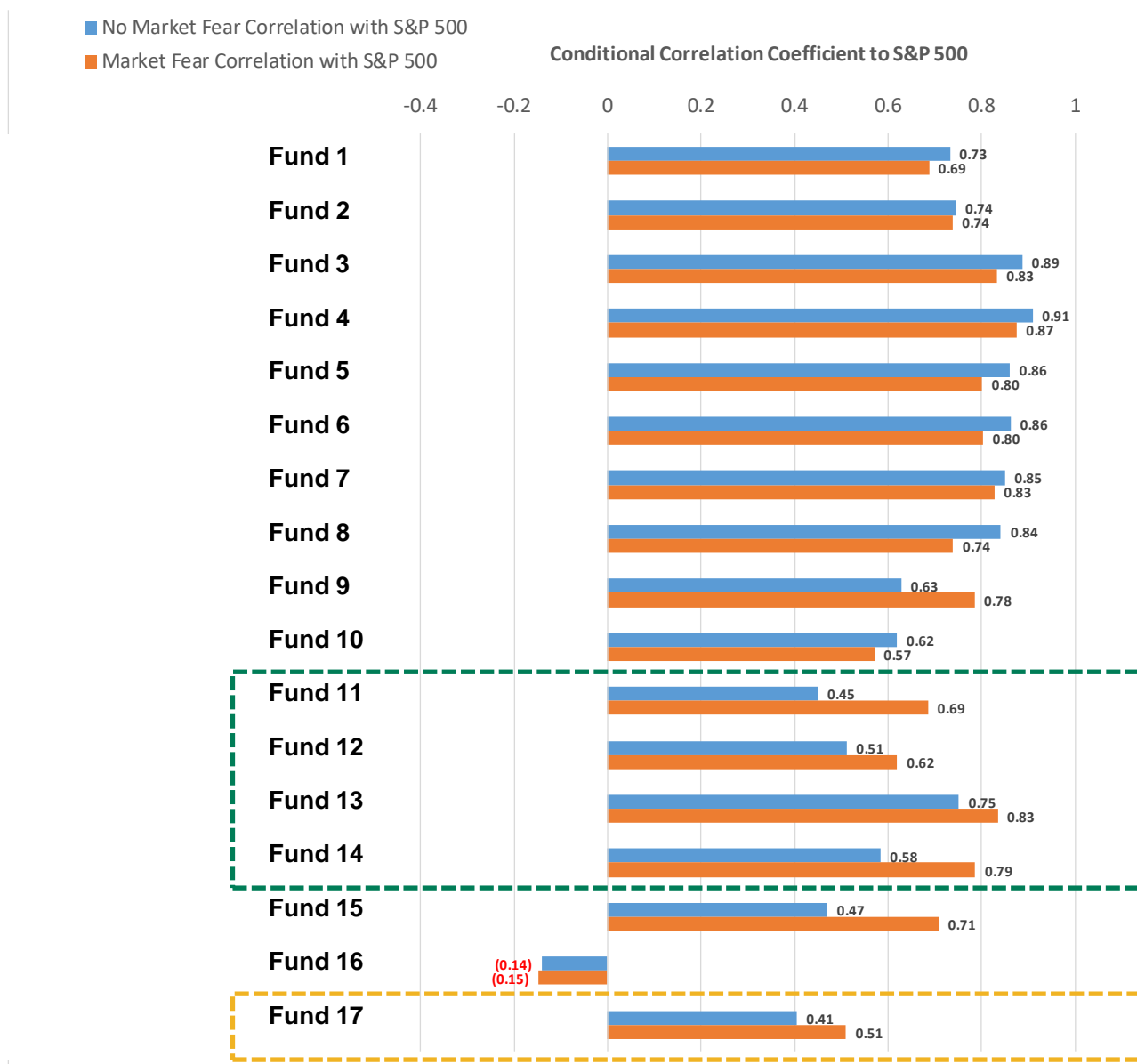


- Average correlation coefficient of each position with all others in model or being tested.
- Illustrates which positions offering most diversification benefit within model.
- High quality core bond can provide much stronger diversification than core plus, multisector and nontraditional bond strategies.

Source: Morningstar Direct and Capital Market Assumption Methodology, The Appendix describes our Capital Market Assumption methodology. The timeframe for these estimates is a full market cycle (typically 7 to 10 years). The data are expected annual average values over this full market cycle. Data as of 12/31/2023.

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## Conditional Correlations to the S&P 500



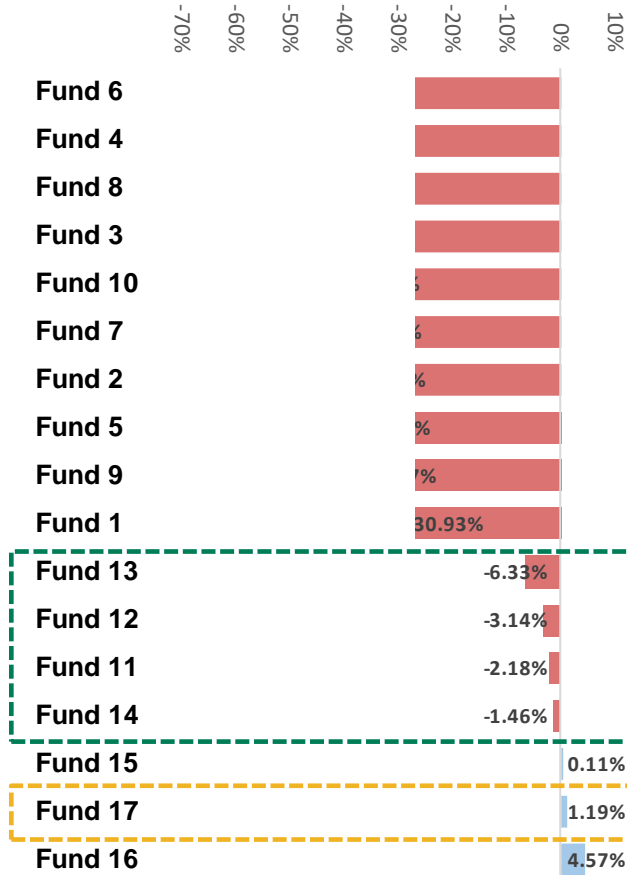
- Monthly return correlations of each position to S&P 500 under two market conditions:
  - Blue bar - VIX indicating “no market fear”
  - Orange bar - VIX indicating “market fear”
- Demonstrates how correlations might change in the event of a sudden increase in market volatility
- High quality core bond strategies tend to better retain their diversification benefit during times when models need it the most

VIX is known as the “Market Fear Gauge” and high positive VIX returns (i.e. >5% monthly) are associated with large jumps in equity market volatility and increased market risk aversion  
 Source: Morningstar Direct and Capital Market Assumption Methodology  
 Data as of 12/31/2023.

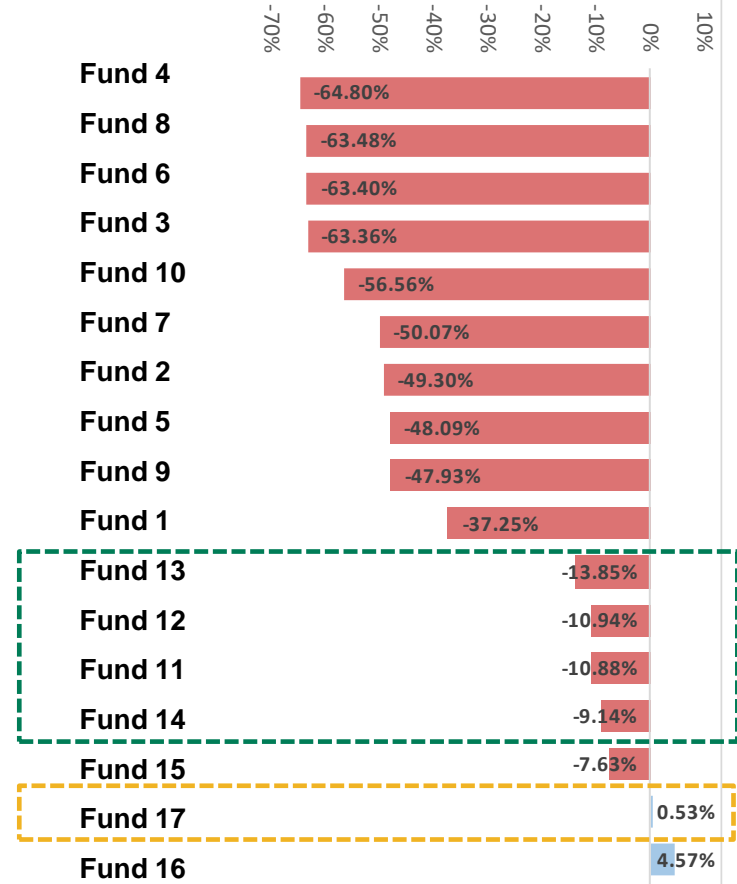
**Past performance is no guarantee of future results**

# Stress Testing: Hypothetical Recessions

SP Valuation: 21 CAPE - Pandemic Lows Stress Test Event Return



SP Valuation: 17 CAPE - Long Term Average Stress Test Event Return



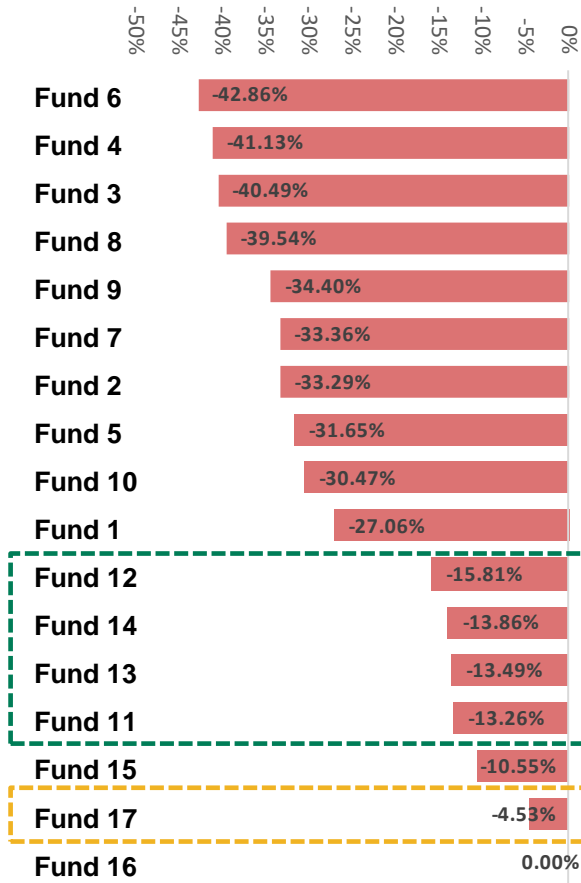
Source: HiddenLevers and Capital Market Assumption Methodology.  
Data as of 12/31/2023

See Index of Terms page for definitions of Monte Carlo Simulation and Simulated Estimates and HiddenLevers™ Portfolio Stress Testing methodology/disclaimers

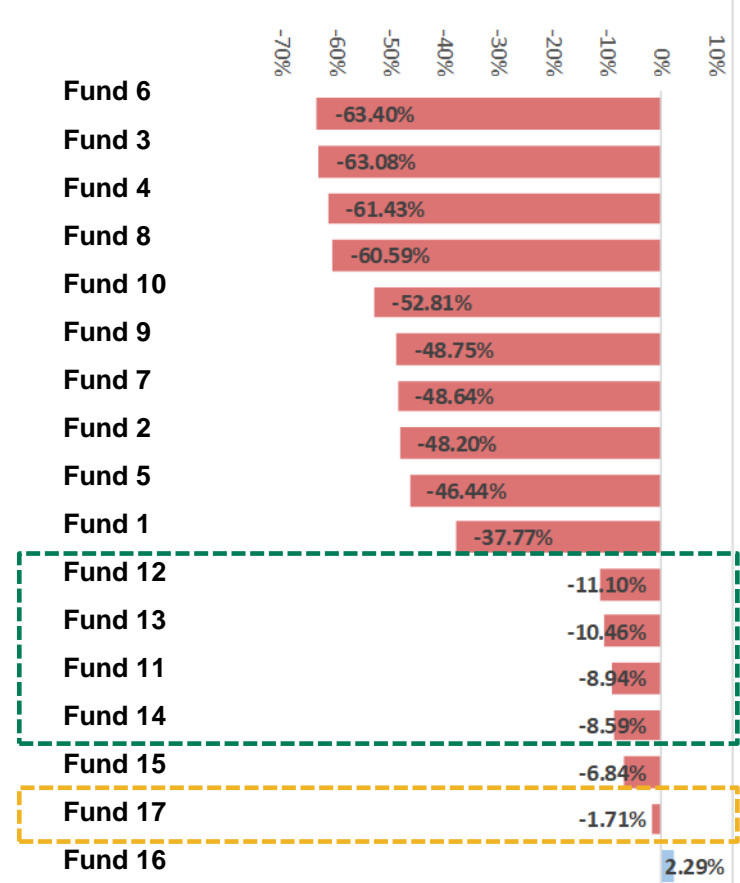
**Past performance is no guarantee of future results**

# Stress Testing: Historical Crashes

Past Crashes: March 2020 COVID19 Crash Stress Test Event Return



Past Crashes: Financial Crisis 9/1/08 - 3/9/09 Stress Test Event Return



Source: HiddenLevers and Capital Market Assumption Methodology.

Data as of 12/31/2023

See Index of Terms page for definitions of Monte Carlo Simulation and Simulated Estimates and HiddenLevers™ Portfolio Stress Testing methodology/disclaimers

**Past performance is no guarantee of future results**

## Optimization: Client Model plus ACI Ideas with Lower/Upper Constraints

|                | Asset Class          | Category                                   | Client Model  | Lower Bound  | Upper Bound   |
|----------------|----------------------|--|---------------|--------------|---------------|
| Fund 1         | U.S. Equity          | US Fund Large Value                        | 10.00%        | 8.00%        | 12.00%        |
| Fund 2         | U.S. Equity          | US Fund Large Value                        | 10.00%        | 8.00%        | 12.00%        |
| Fund 3         | U.S. Equity          | US Fund Large Growth                       | 8.00%         | 6.00%        | 10.00%        |
| Fund 4         | U.S. Equity          | US Fund Large Growth                       | 8.00%         | 6.00%        | 10.00%        |
| Fund 5         | U.S. Equity          | US Fund Mid-Cap Value                      | 3.00%         | 2.00%        | 4.00%         |
| Fund 6         | U.S. Equity          | US Fund Mid-Cap Growth                     | 3.00%         | 2.00%        | 4.00%         |
| Fund 7         | U.S. Equity          | US Fund Small Blend                        | 6.00%         | 4.00%        | 8.00%         |
| Fund 8         | International Equity | US Fund Foreign Large Growth               | 4.50%         | 3.50%        | 5.50%         |
| Fund 9         | International Equity | US Fund Foreign Large Value                | 4.50%         | 3.50%        | 5.50%         |
| Fund 10        | International Equity | US Fund Diversified Emerging Mkts          | 3.00%         | 2.00%        | 4.00%         |
| <b>Fund 11</b> | <b>Taxable Bond</b>  | <b>US Fund Intermediate Core-Plus Bond</b> | <b>10.00%</b> | <b>0.00%</b> | <b>12.00%</b> |
| <b>Fund 12</b> | <b>Taxable Bond</b>  | <b>US Fund Intermediate Core-Plus Bond</b> | <b>10.00%</b> | <b>0.00%</b> | <b>12.00%</b> |
| Fund 13        | Taxable Bond         | US Fund Multisector Bond                   | 8.00%         | 7.00%        | 10.00%        |
| Fund 14        | Taxable Bond         | US Fund Nontraditional Bond                | 6.00%         | 5.00%        | 8.00%         |
| Fund 15        | Taxable Bond         | US Fund Short-Term Bond                    | 4.00%         | 3.00%        | 5.00%         |
| Fund 16        | Money Market         | US Fund Money Market - Taxable             | 2.00%         | 2.00%        | 2.00%         |
| Fund 17        | Taxable Bond         | US Fund Intermediate Core Bond             |               | <b>0.00%</b> | <b>20.00%</b> |
| <b>Sum</b>     |                      |  | <b>100.0%</b> |              |               |

**Portfolio Weight Sum Warning**

**Bold/Italics Funds Have 0% Lower Weight Constraint**

Outside funds for consideration are based solely on quantitative screening metrics within the diagnostic tool and are not recommendations based on your or your client's particular needs or situation. American Century Investments is not affiliated with the other listed investment companies. Portfolio weightings are determined by the optimization tool.

Category Source: Morningstar

Funds and current portfolio weights provided by client

**Past performance is no guarantee of future results**

## Optimization: Changes in Weights at Position Level

|               | Morningstar Fund Category           | Client Portfolio Fund Weights | Equal Return & Lower Risk Portfolio with ACI Ideas |                  |
|---------------|-------------------------------------|-------------------------------|--|------------------|
|               |                                     |                               | Fund Weight Change                                 | New Fund Weights |
| Fund 1        | US Fund Large Value                 | 10.0%                         | 2.0%   | 12.0%            |
| Fund 2        | US Fund Large Value                 | 10.0%                         | -2.0%  | 8.0%             |
| Fund 3        | US Fund Large Growth                | 8.0%                          | 2.0%   | 10.0%            |
| Fund 4        | US Fund Large Growth                | 8.0%                          | -2.0%  | 6.0%             |
| Fund 5        | US Fund Mid-Cap Value               | 3.0%                          | 1.0%   | 4.0%             |
| Fund 6        | US Fund Mid-Cap Growth              | 3.0%                          | -1.0%  | 2.0%             |
| Fund 7        | US Fund Small Blend                 | 6.0%                          | -0.8%  | 5.2%             |
| Fund 8        | US Fund Foreign Large Growth        | 4.5%                          | -1.0%  | 3.5%             |
| Fund 9        | US Fund Foreign Large Value         | 4.5%                          | -1.0%  | 3.5%             |
| Fund 10       | US Fund Diversified Emerging Mkts   | 3.0%                          | 1.0%   | 4.0%             |
| Fund 11       | US Fund Intermediate Core-Plus Bond | 10.0%                         | -5.2%  | 4.8%             |
| Fund 12       | US Fund Intermediate Core-Plus Bond | 10.0%                         | -10.0%   | 0.0%             |
| Fund 13       | US Fund Multisector Bond            | 8.0%                          | -1.0%  | 7.0%             |
| Fund 14       | US Fund Nontraditional Bond         | 6.0%                          | -1.0%  | 5.0%             |
| Fund 15       | US Fund Short-Term Bond             | 4.0%                          | -1.0%  | 3.0%             |
| Fund 16       | US Fund Money Market - Taxable      | 2.0%                          | 0.0%   | 2.0%             |
| Fund 17       | US Fund Intermediate Core Bond      | 0.0%                          | 20.0%  | 20.0%            |
| <b>TOTALS</b> |                                     | <b>100.0%</b>                 | <b>0.0%</b>  | <b>100.0%</b>    |

### Color Key

Increase in Weight

Decrease in Weight

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Source: Morningstar Direct and Capital Market Assumption Methodology

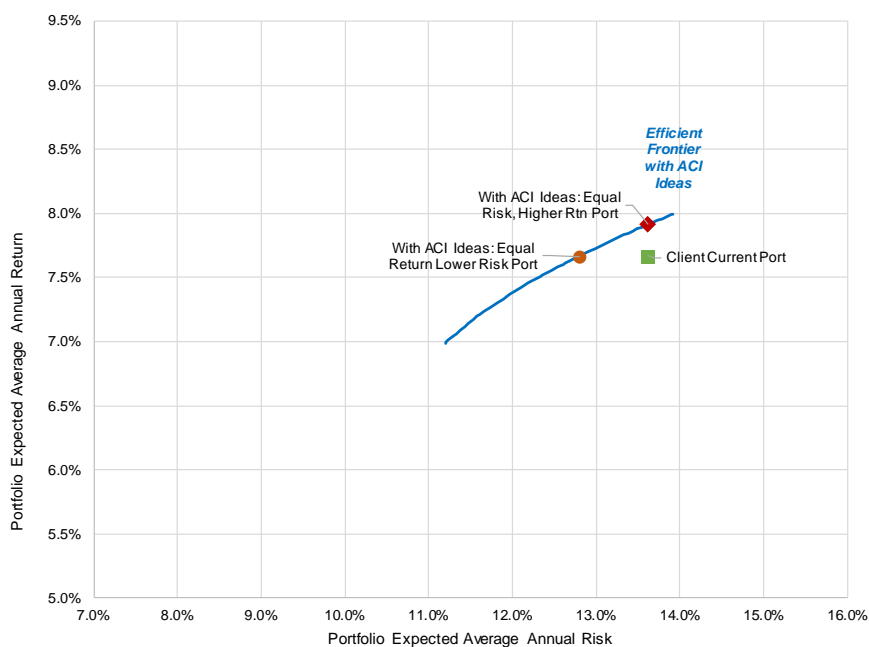
The data are expected annual average values over this full market cycle. Data as of 12/31/2023

**Past performance is no guarantee of future results**



## Optimization: Efficient Frontier and Model Impact

Efficient Frontier: Portfolio with ACI



|                                      | Current Portfolio | Equal Return Lower Risk Portfolio w ACI Ideas |
|--------------------------------------|-------------------|---|
| Average Annual Expected Return       | 7.68%             | 7.68%   |
| Average Annual Expected Risk         | 13.67%            | 12.80%  |
| Portfolio Rtn Dist Skew              | (0.521)           | (0.509)                                       |
| Portfolio Rtn Dist Kurtosis          | 4.029             | 3.921   |
| Sharpe Ratio                         | 0.397             | 0.424   |
| Fixed Income Duration                | 5.589             | 5.616   |
| 12 Month Yield                       | 3.08%             | 3.09%   |
| Total Expense Ratio (TER)            | 0.54%             | 0.51%   |
| Weighted Ave. Correlation            | 0.707             | 0.648   |
| % Risk Reduction (St. Dev.)          | -12.2%            | -17.7%  |
| Wtd. Ave Portfolio Return %ile Rank  | 53%               | 43%   |
| Wtd. Ave. Portfolio Sharpe %ile Rank | 56%               | 45%   |
| Downside Capture (vs S&P 500)        | 87.5%             | 82.3%   |
| Upside Capture (vs S&P 500)          | 86.2%             | 82.8%   |
| Overall Capture Ratio (vs S&P 500)   | 98.6%             | 100.5%  |
| % Invest Grade Credit Quality        | 79.8%             | 85.8%   |
| 99% CVaR                             | -31.66%           | -29.24%                                       |

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Source: Morningstar Direct and Capital Market Assumption Methodology

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## Case Study 2: Extending Duration

### Advisor Discovery Call Notes / Model:

- **Macro Views:**
  - Advisor thinking slowdown/ankle-deep recession
  - Believes rate cuts coming by middle of 2024
- **Primary Concern:**
  - Duration is his main worry, as feels he is too short. Currently sitting at about 1.5
  - Been heavily tilted short duration for some time. While has worked out, thinking time to pull back
- **Goals/Research Agenda:**
  - Extending duration, but wants to move in “baby steps”
  - Looking to lower model’s risk profile a bit
  - Considering replacing real estate with another sector, looking for ideas
  - Any new ideas need to be ETFs

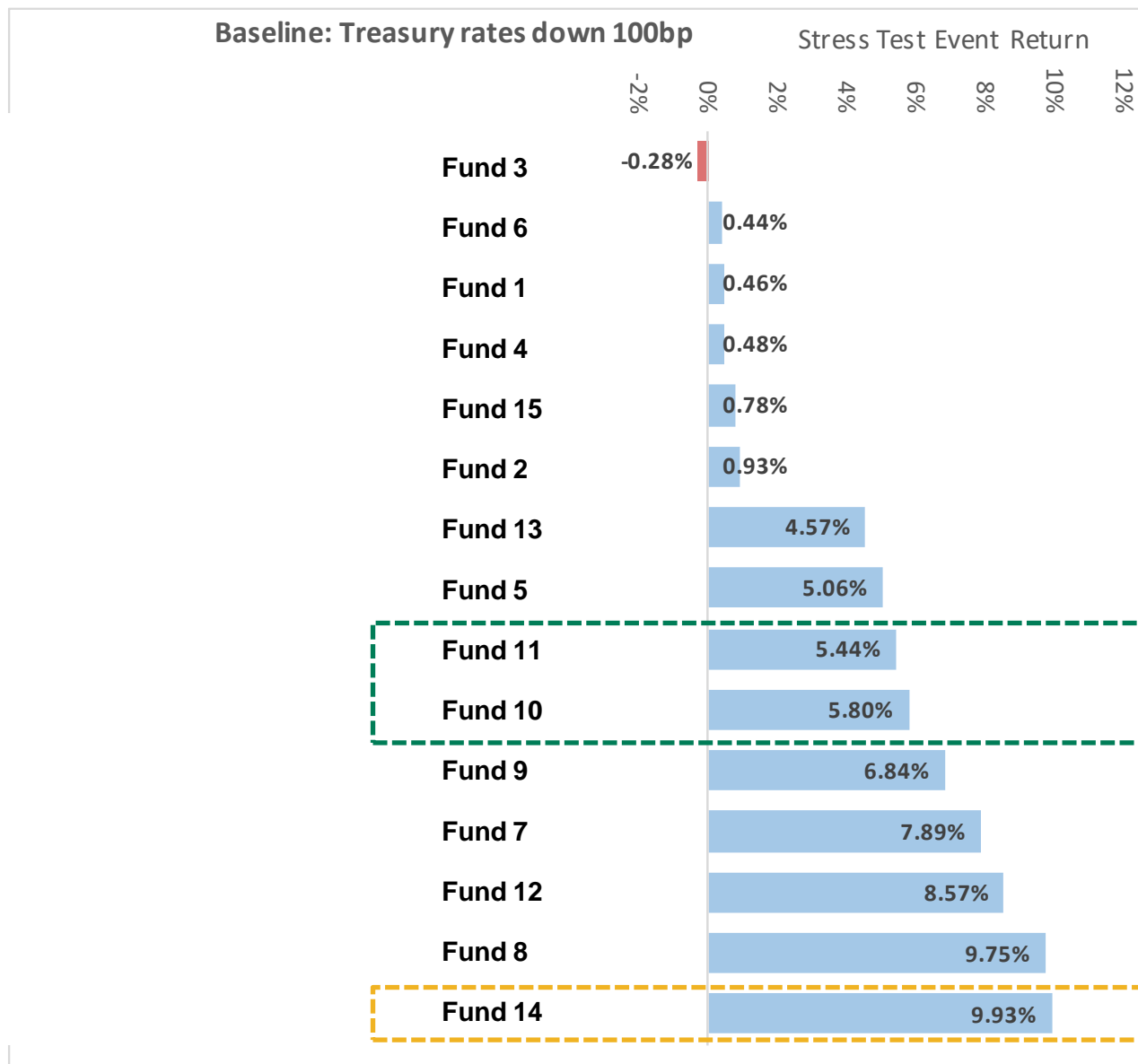
|         | Asset Class    | Category                       | Client Model |
|---------|----------------|--------------------------------|--------------|
| Fund 1  | U.S. Equity    | US Fund Large Blend            | 26.00%       |
| Fund 2  | U.S. Equity    | US Fund Large Blend            | 10.00%       |
| Fund 3  | U.S. Equity    | US Fund Large Growth           | 14.00%       |
| Fund 4  | U.S. Equity    | US Fund Mid-Cap Blend          | 13.00%       |
| Fund 5  | Sector Equity  | US Fund Real Estate            | 3.00%        |
| Fund 6  | Sector Equity  | US Fund Communications         | 4.00%        |
| Fund 7  | Taxable Bond   | US Fund Preferred Stock        | 3.00%        |
| Fund 8  | Municipal Bond | US Fund Muni National Intern   | 3.00%        |
| Fund 9  | Taxable Bond   | US Fund Short-Term Bond        | 5.00%        |
| Fund 10 | Taxable Bond   | US Fund Ultrashort Bond        | 7.00%        |
| Fund 11 | Taxable Bond   | US Fund Ultrashort Bond        | 8.00%        |
| Fund 12 | Taxable Bond   | US Fund Bank Loan              | 2.00%        |
| Fund 13 | Money Market   | US Fund Money Market - Taxable | 2.00%        |
| Fund 14 | Taxable Bond   | US Fund Corporate Bond         |              |
| Fund 15 | Sector Equity  | US Fund Health                 |              |

Category Source: Morningstar

Funds and current portfolio weights provided by client

Past performance is no guarantee of future results

## Stress Testing: Treasury Rates Down 100



Source: HiddenLevers and Capital Market Assumption Methodology.

Data as of 12/31/2023

See Index of Terms page for definitions of Monte Carlo Simulation and Simulated Estimates and HiddenLevers™ Portfolio Stress Testing methodology/disclaimers

**Past performance is no guarantee of future results**

## Optimization: Changes in Weights at Position Level

|                           |                                | Client Portfolio Fund Weights | Equal Return & Lower Risk Portfolio with ACI Ideas |                  |
|---------------------------|--------------------------------|-------------------------------|--|------------------|
| Morningstar Fund Category |                                |                               | Fund Weight Change                                 | New Fund Weights |
| Fund 1                    | US Fund Large Blend            | 26.0%                         | -2.0%  | 24.0%            |
| Fund 2                    | US Fund Large Blend            | 10.0%                         | 2.0%   | 12.0%            |
| Fund 3                    | US Fund Large Growth           | 14.0%                         | -2.0%  | 12.0%            |
| Fund 4                    | US Fund Mid-Cap Blend          | 13.0%                         | -2.0%  | 11.0%            |
| Fund 5                    | US Fund Real Estate            | 3.0%                          | -3.0%  | 0.0%             |
| Fund 6                    | US Fund Communications         | 4.0%                          | -2.0%  | 2.0%             |
| Fund 7                    | US Fund Preferred Stock        | 3.0%                          | -1.0%  | 2.0%             |
| Fund 8                    | US Fund Muni National Interm   | 3.0%                          | 1.0%   | 4.0%             |
| Fund 9                    | US Fund Short-Term Bond        | 5.0%                          | 1.0%   | 6.0%             |
| Fund 10                   | US Fund Ultrashort Bond        | 7.0%                          | 2.0%   | 9.0%             |
| Fund 11                   | US Fund Ultrashort Bond        | 8.0%                          | -6.0%  | 2.0%             |
| Fund 12                   | US Fund Bank Loan              | 2.0%                          | -2.0%  | 0.0%             |
| Fund 13                   | US Fund Money Market - Taxable | 2.0%                          | 0.0%   | 2.0%             |
| Fund 14                   | US Fund Corporate Bond         | 0.0%                          | 10.0%  | 10.0%            |
| Fund 15                   | US Fund Health                 | 0.0%                          | 4.0%   | 4.0%             |
| <b>TOTALS</b>             |                                | <b>100.0%</b>                 | <b>0.0%</b>  | <b>100.0%</b>    |

### Color Key

Increase in Weight

Decrease in Weight

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Source: Morningstar Direct and Capital Market Assumption Methodology

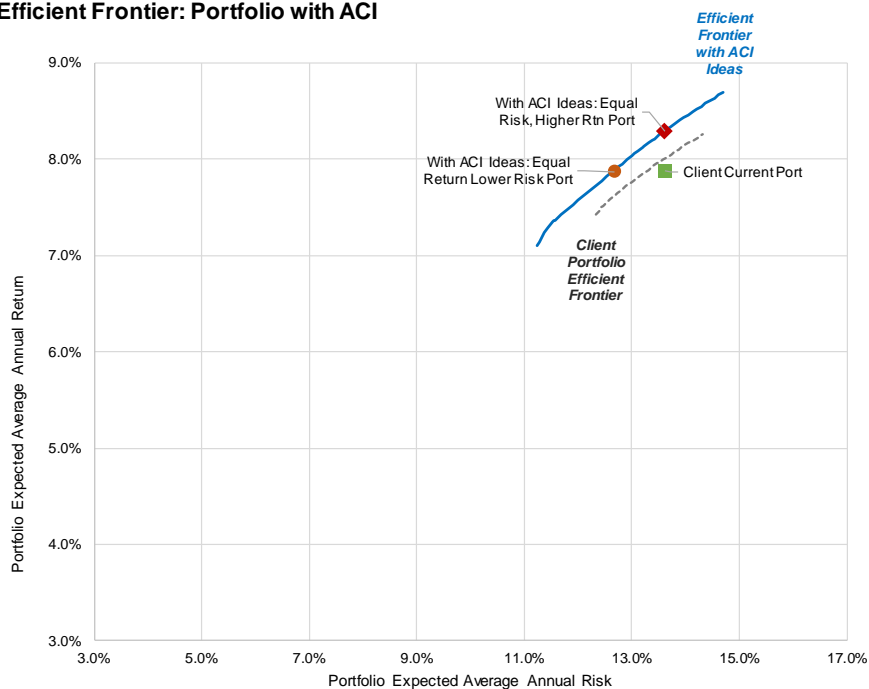
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Data as of 12/31/2023

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## Optimization: Efficient Frontier and Model Impact

Efficient Frontier: Portfolio with ACI



|                                      | Current Portfolio | Equal Return Lower Risk Portfolio w ACI Ideas |
|--------------------------------------|-------------------|---|
| Average Annual Expected Return       | 7.90%             | 7.90%   |
| Average Annual Expected Risk         | 13.68%            | 12.67%  |
| Portfolio Rtn Dist Skew              | (0.423)           | (0.370)                                       |
| Portfolio Rtn Dist Kurtosis          | 3.386             | 3.272   |
| Sharpe Ratio                         | 0.413             | 0.446   |
| Fixed Income Duration                | 1.477             | 2.636   |
| 12 Month Yield                       | 2.54%             | 2.53%   |
| Total Expense Ratio (TER)            | 0.26%             | 0.25%   |
| Weighted Ave. Correlation            | 0.592             | 0.640   |
| % Risk Reduction (St. Dev.)          | -6.3%             | -13.2%  |
| Wtd. Ave Portfolio Return %ile Rank  | 32%               | 26%   |
| Wtd. Ave. Portfolio Sharpe %ile Rank | 30%               | 24%   |
| Downside Capture (vs S&P 500)        | 80.4%             | 74.9%   |
| Upside Capture (vs S&P 500)          | 83.7%             | 79.3%   |
| Overall Capture Ratio (vs S&P 500)   | 104.1%            | 105.9%  |
| % Invest Grade Credit Quality        | 90.3%             | 97.5%   |
| 99% CVaR                             | -28.43%           | -25.33%                                       |

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Data as of 12/31/2023

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# American Century Investments

- **Performance Focused for 60 Years**
- **Pure-Play Business Model**
- **Privately Controlled and Independent**
- **Prosper With Purpose®**

## Managing Money, Making an Impact

American Century Investments® is a leading asset manager focused on delivering investment results and building long-term client relationships while supporting research that can improve human health and save lives. It's how we and our clients together Prosper With Purpose.®

Every day, people focus on making the world a better place for themselves, their families and their organizations. It is possible to live a more meaningful and impactful life and give back something that's more valuable than money.

When you invest with us, you can also invest in the future of others and have the potential to impact the lives of millions. That's possible because of the distinct relationship with the Stowers Institute for Medical Research, which owns more than 40% of American Century Investments. Our dividend payments provide ongoing financial support for the Institute's work of uncovering the causes, treatments and prevention of life-threatening diseases, like cancer.

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