

# Forecasting Strategy and Economic Insights

Idaho Economic Outlook and Revenue Assessment Committee  
January 4, 2024



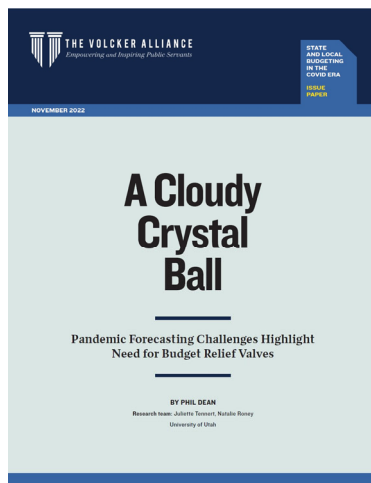
## Setting the Stage

- 1. Forecasting Strategy Amid Uncertainty**
- 2. 2024 Forecast – Uncertain Normalcy**
- 3. Intentionally Select Risk Tolerance Level Considering Overall Fiscal Health**

# Budget Forecast Strategy

## A Cloudy Crystal Ball

*Pandemic Forecasting Challenges Highlight Need for Budget Relief Valves*

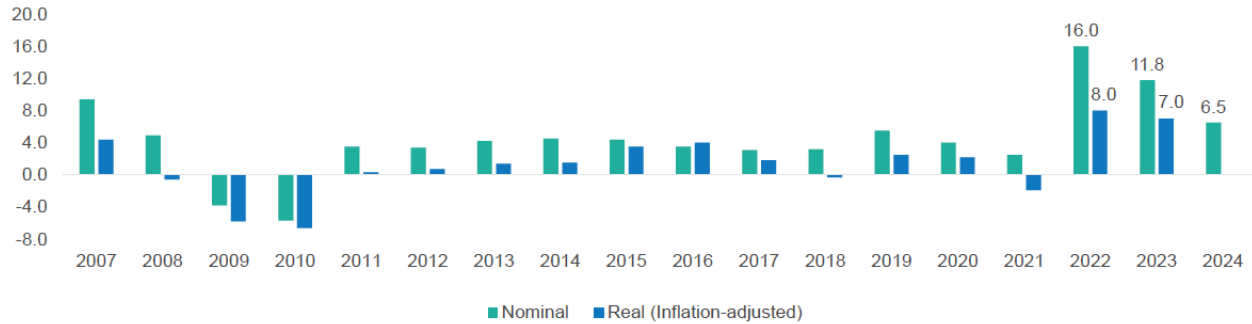


- Highlights forecasting and budget management lessons learned from the pandemic
- Tool kit on various best practices and how states forecast budgets

[https://www.volckeralliance.org/sites/default/files/2022-11/ACloudyCrystalBall\\_113022.pdf](https://www.volckeralliance.org/sites/default/files/2022-11/ACloudyCrystalBall_113022.pdf)

# Extremely Strong Nominal State Revenue Growth in Recent Years Normalizing

Annual General Fund Spending Changes, Fiscal 2007 To Fiscal 2024 (Percentage Change)



Note: Fiscal 2023 figure is based on preliminary actual data; fiscal 2024 figure is based on states' enacted budgets.

Source: National Association of State Budget Officers

## Select Forecast Risk Considering Overall Fiscal Health (Strength or Weakness of Other Budget Tools)

### STRENGTH OF OTHER BUDGET MANAGEMENT TOOLS

(including revenue stability, reserve accounts, and long-term liabilities)

WEAK

STRONG

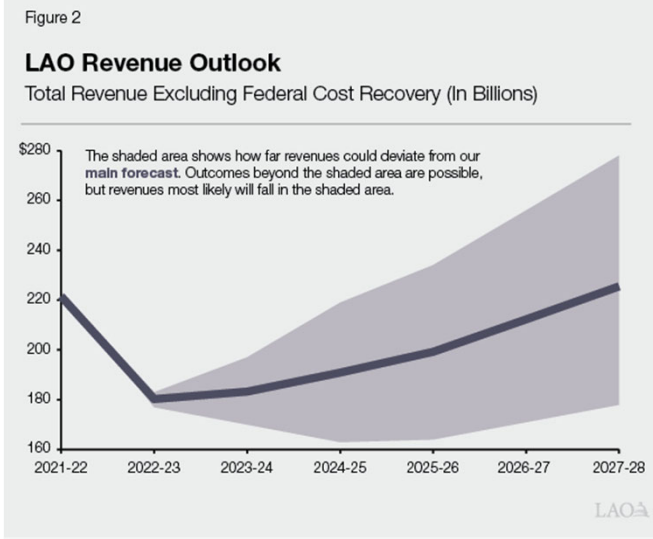
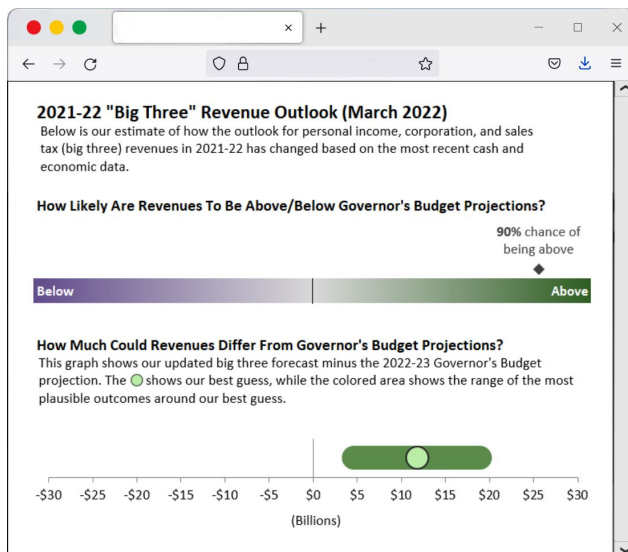
EMPLOY VERY LOW-RISK FORECAST

EMPLOY 50-50 FORECAST

### States control broad range of budget management tools

- Revenue system design
- Budget reserves
  - Formal rainy day funds
  - Other balances in special/restricted accounts
- Cash flow management
- State spending levels

# Forecast Represents One Point in a Range of Possibilities – What’s Your Risk Tolerance Level?



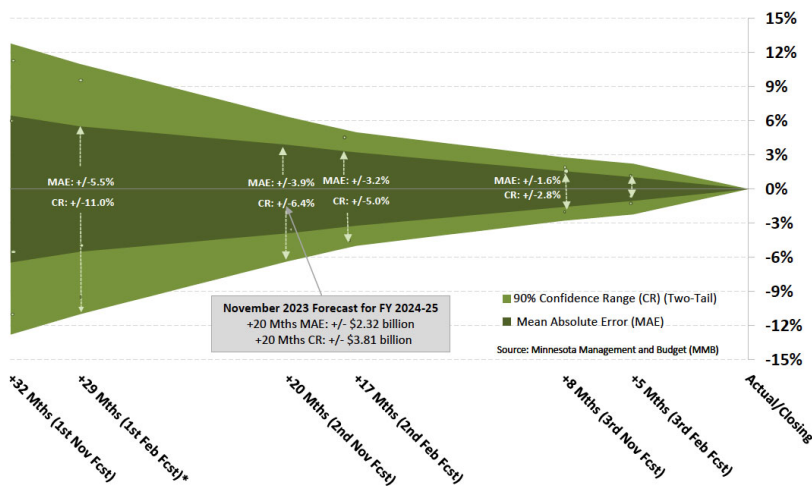
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SOURCE California Legislative Analyst's Office  
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## Forecasts are Inherently Uncertain

### Average Revenue Forecast Uncertainty over Minnesota's Budget Cycle

% of Net Non-Dedicated Revenue, Sample Period: FY1990-91 to FY2022-23

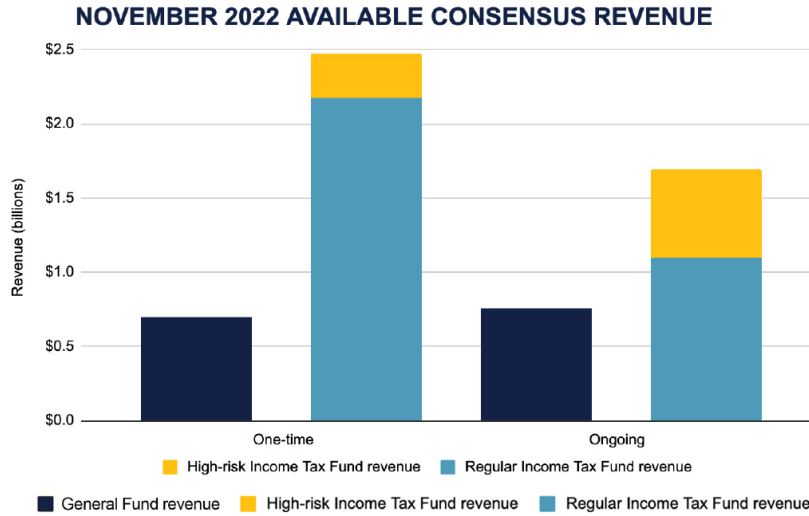


\* +29 Mths (1st Feb) represents the MMB forecast on which the original budget for the biennium was based.  
Notes: Adjusted for the effects of legislation, MMB uses the mean-absolute error (MAE) as a measure of accuracy in its evaluation of forecast uncertainty. MAE is calculated by averaging forecast deviations from actual without regard to arithmetic sign. Under the assumption that tax policies do not significantly change, a 90% confidence range (CR) is a measure based on our sample budget data, reporting that 90% of the times the lightest range will contain the actual value for total revenues.

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SOURCE Minnesota Office of Management & Budget  
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## Utah Formally Incorporated Risk Assessment into FY 2023 Forecast



SOURCE Utah Governor's Office of Planning and Budget

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## Utah's Forecast Risk Assessment Kept Budget on Track When FY 2023 Revenues Closed Out Short of Target

### MONTHLY STATE REVENUE SNAPSHOT JULY 2023

based on the Utah State Tax Commission Monthly Revenue Summary (Report TC-23)

| General Fund                               | Projected Growth Rate - February Estimates (Annual) | YoY Growth Rate | Projected Range in Collections    |                         |                         |              |              |              |              |
|--|---|-----------------|-----------------------------------|-------------------------|-------------------------|--------------|--------------|--------------|--------------|
|  |   |                 | Through 12 Months                 | Actual Collections      | Year-End Forecast       | Mar-23       | Apr-23       | May-23       | Jun-23       |
| Sales & Use Tax                            | 6.4%  | 5.8%            | \$2,968,000,000 - \$3,628,000,000 | \$3,300,305,784         | \$3,297,805,000         | 8.1%         | 6.4%         | 5.5%         | 5.8%         |
| All Other Sources                          | 28.9%   | 38.3%           | \$688,000,000 - \$841,000,000     | \$821,007,662           | \$800,493,229           | 31.6%        | 31.9%        | 36.5%        | 38.3%        |
| <b>Subtotal General Fund</b>               | <b>10.2%</b>  | <b>11.0%</b>    |                                   | <b>\$4,121,313,446</b>  | <b>\$4,098,298,229</b>  | <b>11.8%</b> | <b>10.5%</b> | <b>10.6%</b> | <b>11.0%</b> |
| Sales & Use Tax Set-Asides                 | 10.9%   | 7.9%            | \$1,087,000,000 - \$1,328,000,000 | \$1,154,077,713         | \$1,207,400,759         | 11.3%        | 10.4%        | 10.0%        | 7.9%         |
| <b>Income Tax Fund/Uniform School Fund</b> |   |                 |                                   |                         |                         |              |              |              |              |
| Individual Income Tax                      | -1.6%   | -5.3%           | \$5,997,000,000 - \$7,330,000,000 | \$6,422,390,636         | \$6,663,306,667         | 18.0%        | -5.0%        | -5.6%        | -5.3%        |
| Withholding                                |   | 4.9%            |                                   | \$4,968,133,093         |                         | 5.2%         | 6.0%         | 4.9%         | 4.9%         |
| Final Payments (plus SALT Passthrough)     |   | -28.9%          |                                   | \$1,454,257,543         |                         |              | -27.6%       | -28.7%       | -28.9%       |
| Corporate Tax                              | -16.5%  | -7.0%           | \$704,000,000 - \$861,000,000     | \$874,639,803           | \$782,651,333           | -11.6%       | -8.3%        | -8.2%        | -7.0%        |
| All Other Sources                          | 19.3%   | 82.6%           | \$103,000,000 - \$126,000,000     | \$107,643,434           | \$114,556,667           | 76.5%        | 96.1%        | 86.6%        | 82.6%        |
| <b>Subtotal Income Tax Fund</b>            | <b>-3.1%</b>  | <b>-4.8%</b>    |                                   | <b>\$7,404,673,873</b>  | <b>\$7,560,514,667</b>  | <b>14.9%</b> | <b>-4.8%</b> | <b>-5.4%</b> | <b>-4.8%</b> |
| <b>Subtotal GF/ITF/USF</b>                 | <b>1.2%</b>   | <b>0.3%</b>     |                                   | <b>\$11,525,987,320</b> | <b>\$11,658,812,895</b> | <b>13.7%</b> | <b>0.1%</b>  | <b>-0.3%</b> | <b>0.3%</b>  |

SOURCE Utah Governor's Office of Planning and Budget and Office of the Legislative Fiscal Analyst

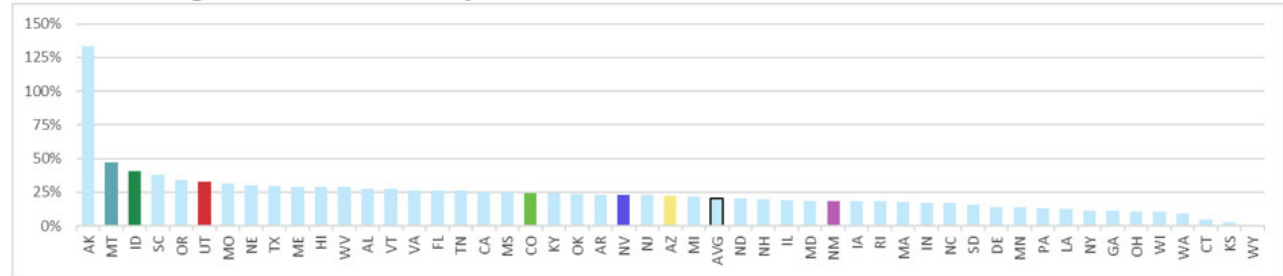
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# State Revenue Forecast Accuracy

**For 2022, the legislatures of every state except Wyoming underestimated the amount collected in taxes and fees.**

*Fiscal 2022 Budget Underestimations by State*



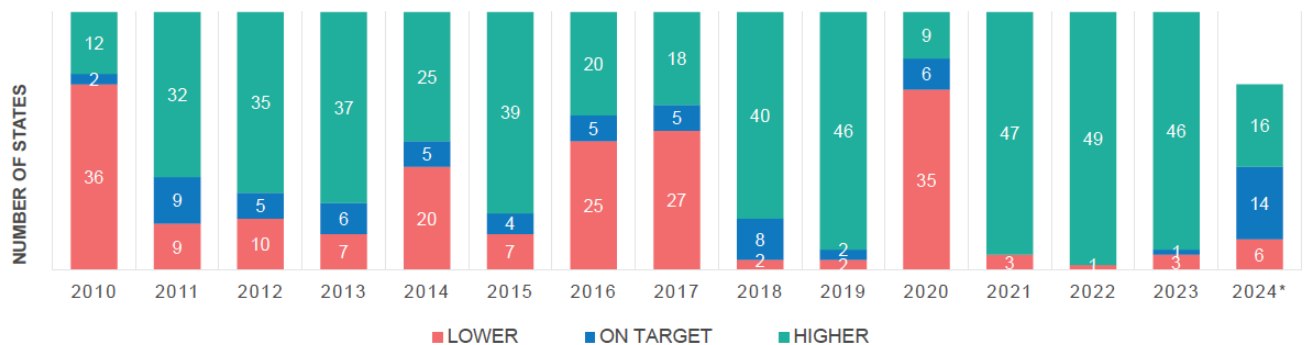
Note: Estimates reflect the figures used when the fiscal 2022 budgets were adopted.

Source: NASBO, Fiscal Survey of States, Fall 2022. Utah Foundation calculations.

Source: Utah Foundation

# State Revenue Forecast Accuracy

General Fund Revenue Collections Compared To Original Revenue Projections (By Fiscal Year)



\*Fiscal 2024 figures were reported early in the fiscal year and are subject to change; not all states were able to report for fiscal 2024 at the time of data collection.

Source: National Association of State Budget Officers

## High and Low Missed Forecasts Carry Different Risks

### Revenue forecast too high (year-end shortfall)

- Risks future budget cuts or tax increases
- Forecast miss leads to drawing down rainy day funds or other reserves
- Most states hedge slightly to avoid shortfalls
- Managing from budget crisis to crisis undermines long-term strategic management, shifting focus to short-term pressures

### Revenue forecast too low (year-end surplus)

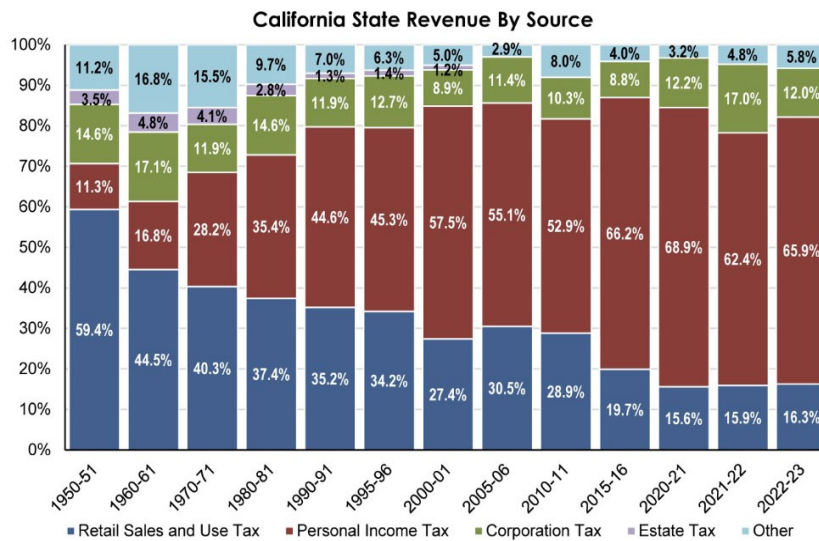
- Risks missing opportunities to productively use funds in high-inflation economy
- May shift funding from ongoing people-oriented programs to one-time object-oriented programs
- Consistent large under-forecast undermines credibility
- Collected funds spendable later
- Avoids forecast-driven future budget cuts or tax increases

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## System Design Impacts State Revenues



Like many states, California's tax system design has selected more volatile income taxes over time, **increasing forecast challenges**

SOURCE California Department of Finance

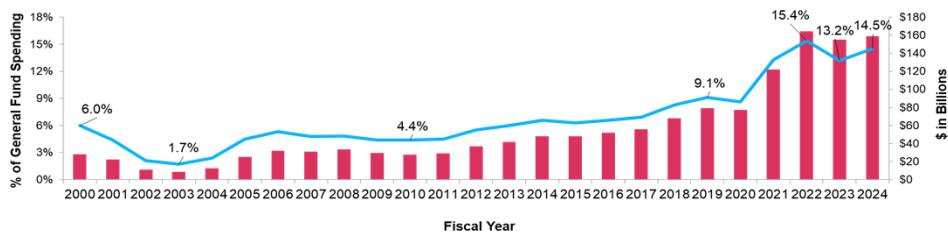
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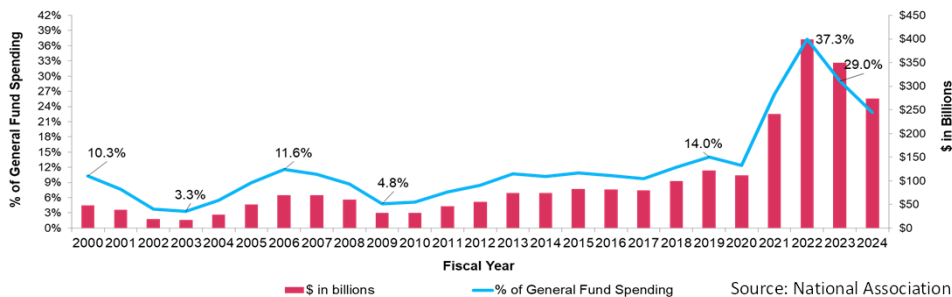
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# State Budget Reserves Nationwide Remain Strong

Rainy Day Fund Balances in Dollars and as a Percentage of General Fund Expenditures



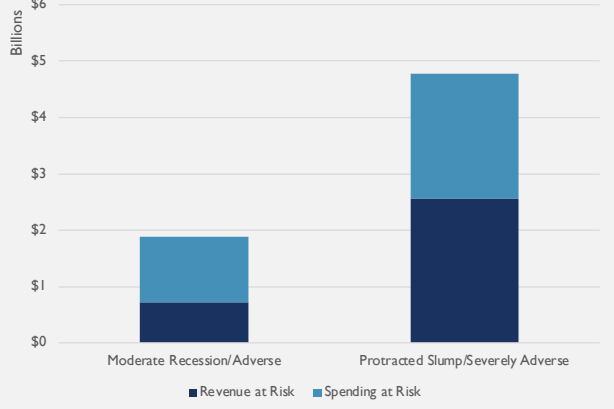
Total Balances in Dollars and as a Percentage of General Fund Expenditures



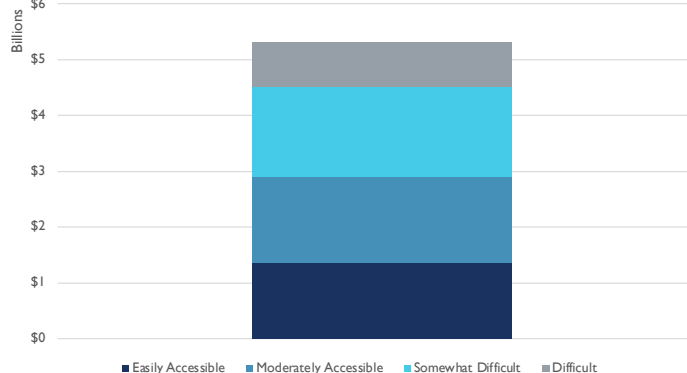
Source: National Association of State Budget Officers

# Budget Stress Testing Can Help States Evaluate Budget Preparation Levels

Total Value at Risk Over Five Years



Reserves/Offsets



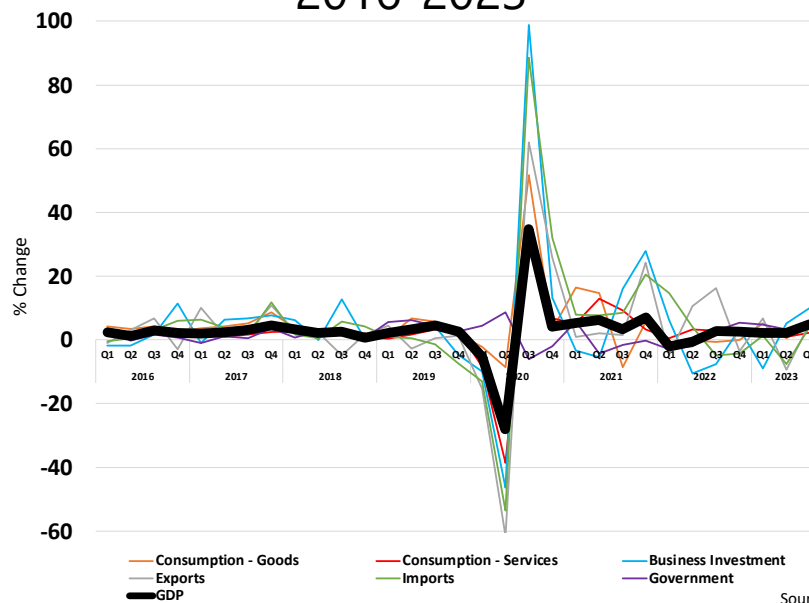
SOURCE Utah Governor's Office of Planning and Budget and Legislative Fiscal Analyst



# Current Economic Conditions

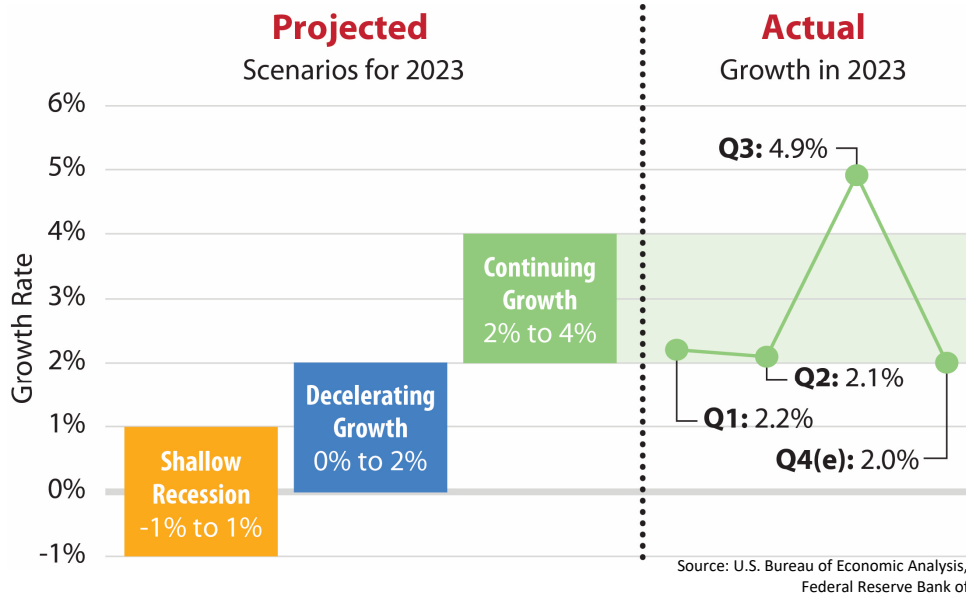
## Stocks and Flows Generational Differences

### Variability in Components of U.S. GDP 2016-2023



Source: U.S. Bureau of Economic Analysis

# 2023 U.S. Real GDP Outperformed Expectations



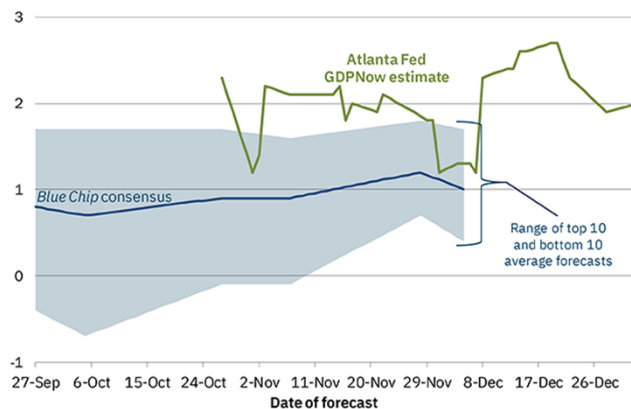
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# Major National Forecasts Underestimating Economic Growth (Still)

Evolution of Atlanta Fed GDPNow real GDP estimate for 2023: Q4  
Quarterly percent change (SAAR)



Sources: Blue Chip Economic Indicators and Blue Chip Financial Forecasts  
Note: The top (bottom) 10 average forecast is an average of the highest (lowest) 10 forecasts in the Blue Chip survey.

Source: Federal Reserve Bank of Atlanta GDPNow

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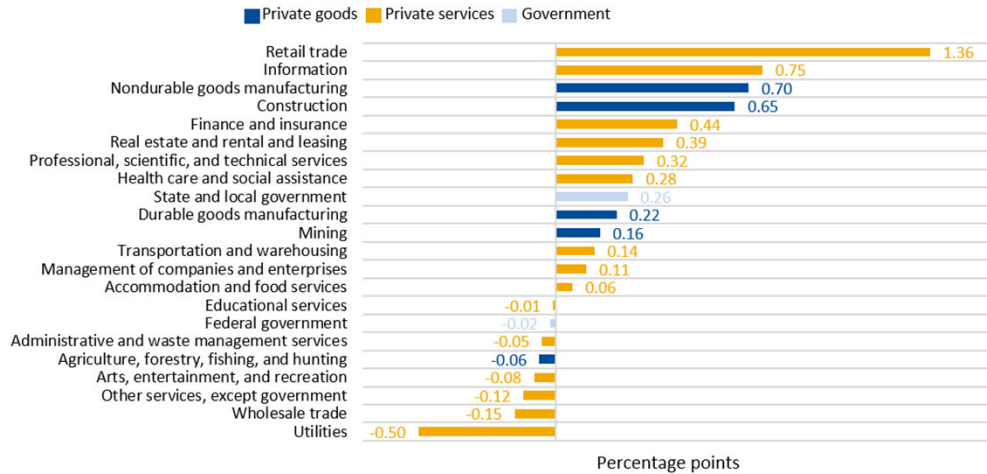
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# 2023 Q3 Most U.S. Industries Grew, but Some Declined

## Contributions to Percent Change in Real GDP by Industry Group, 2023:Q3

Real GDP increased 4.9 percent



U.S. Bureau of Economic Analysis

Seasonally adjusted annual rates

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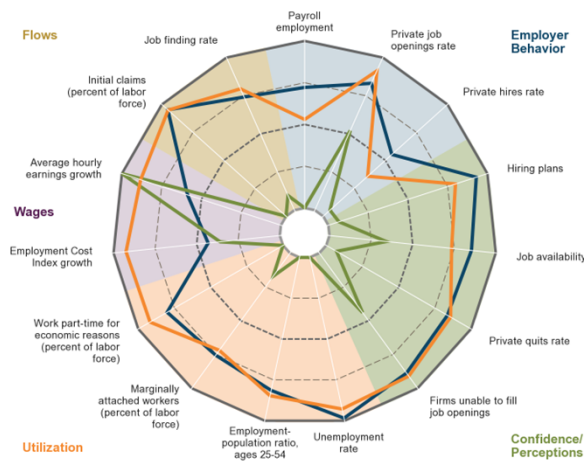
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# Strong U.S. Labor Markets Continue

## Labor Market Distributions Spider Chart

Data since March 1994



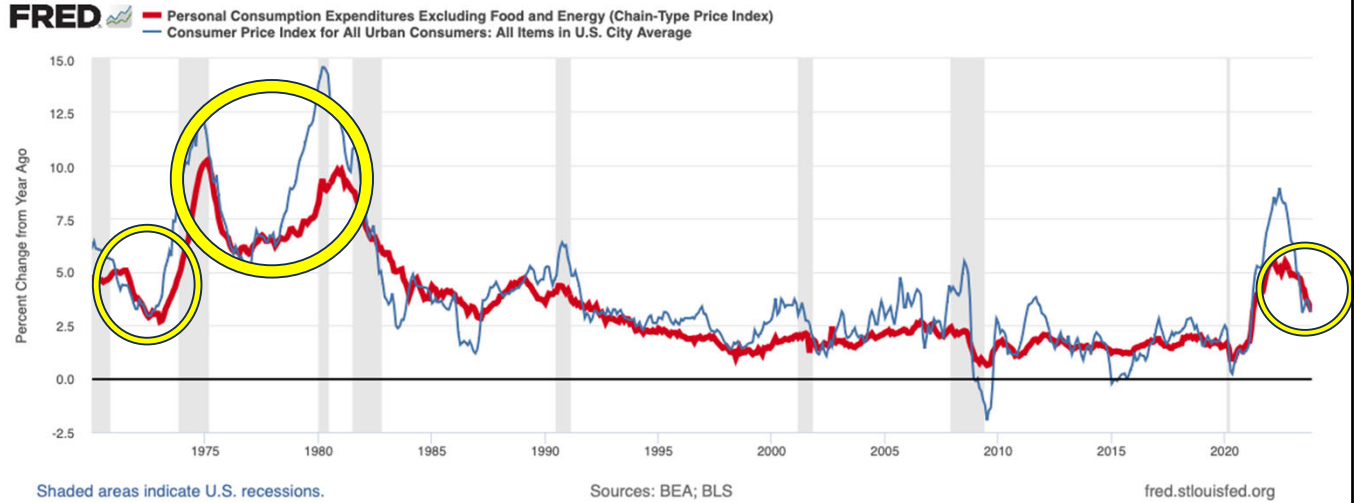
Sources: U.S. Bureau of Labor Statistics, U.S. Department of Labor, National Federation of Independent Business, The Conference Board, and Haver Analytics  
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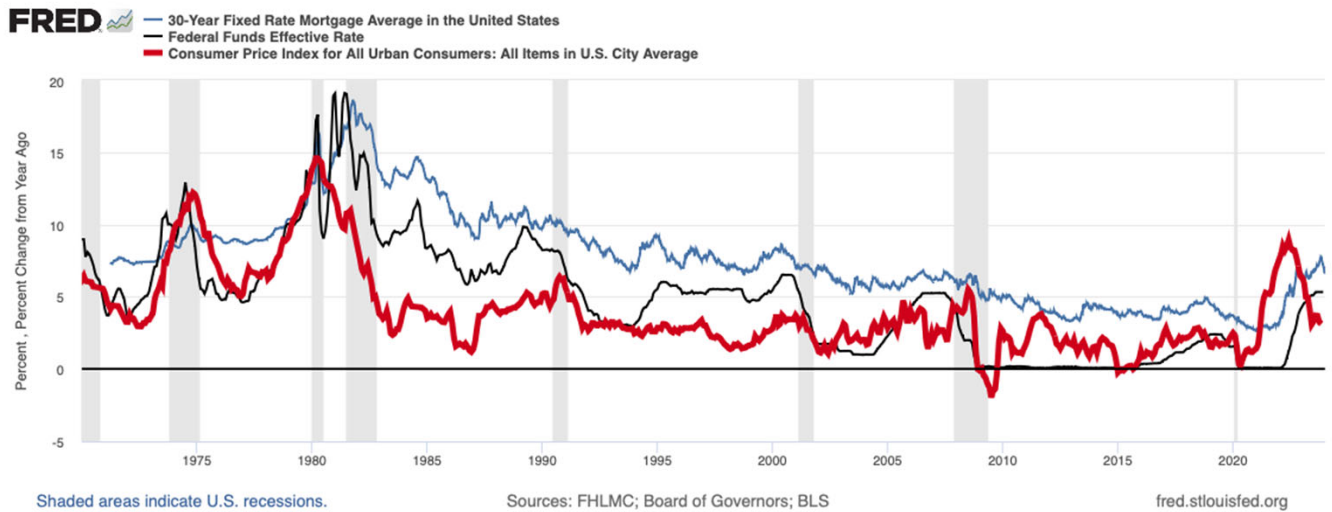
# Inflation Moderating – Head-fake or Continuing?



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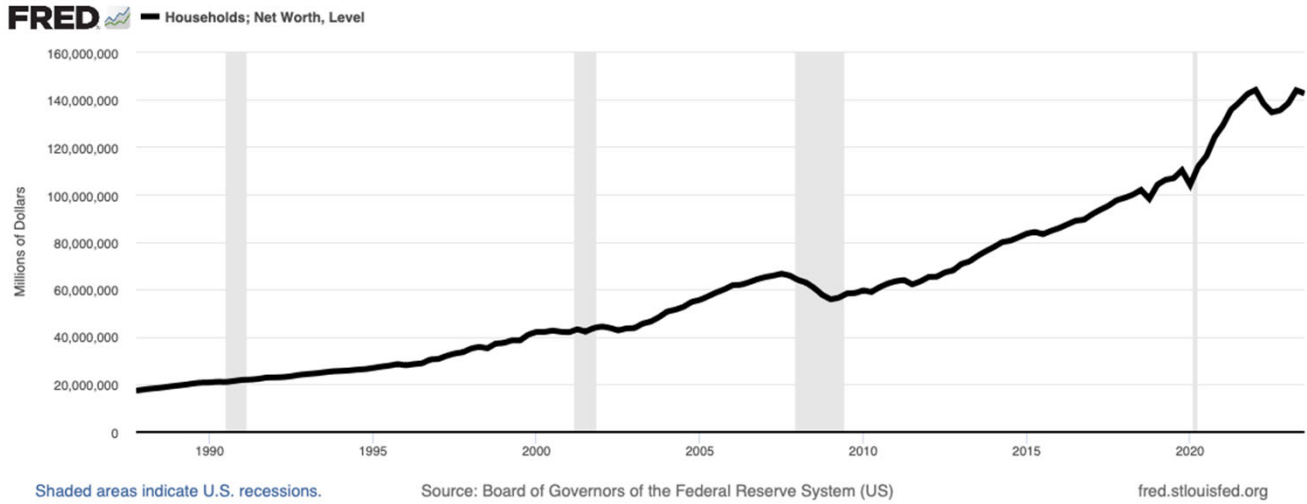
# Mortgage Interest Rates (Finally) Higher than Inflation



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## Mixed Signal: Nominal Household Wealth High, but Flat



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## Mixed Signal: Household Liquidity Continues, but Falling



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## Mixed Signal: Household Liquidity Still Some Room to Run

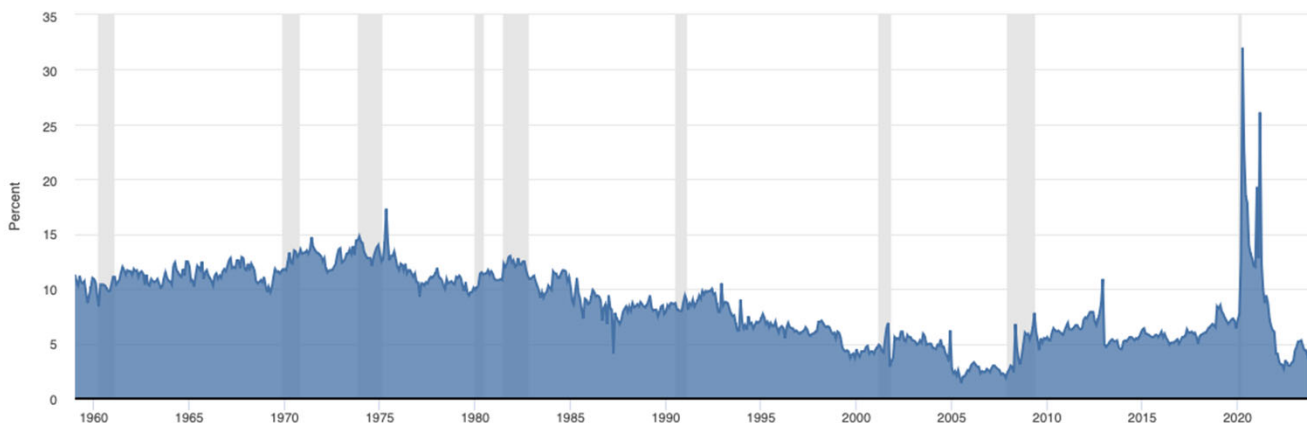
Figure 1: Household excess savings revised higher but falling



Source : BEA, Haver Analytics, Deutsche Bank

## With Balances in Reserve, Flow of Household Savings Low

FRED Personal Saving Rate



Shaded areas indicate U.S. recessions.

Source: U.S. Bureau of Economic Analysis

fred.stlouisfed.org

## Strength Signal: Sustainable Monthly Debt Service Payments, Even with Rising Debt

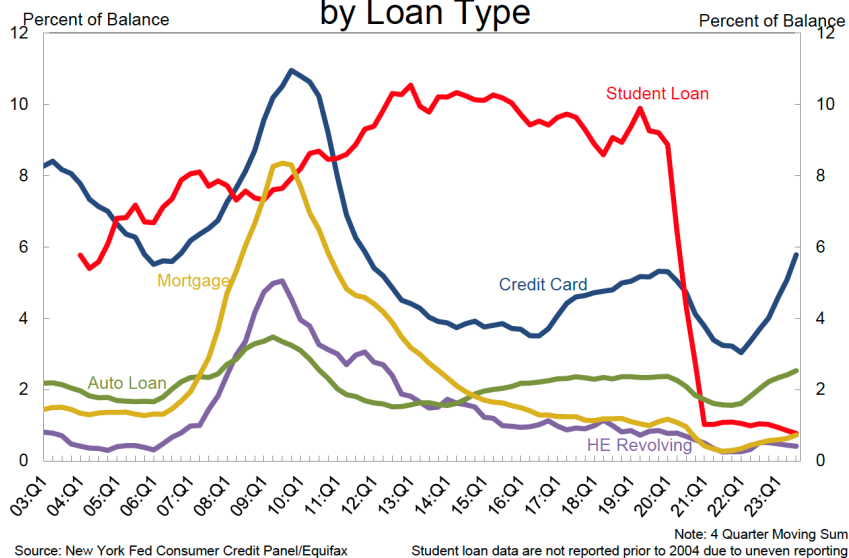


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## Car Loan and Credit Card Delinquencies Increasing

### Transition into Serious Delinquency (90+) by Loan Type



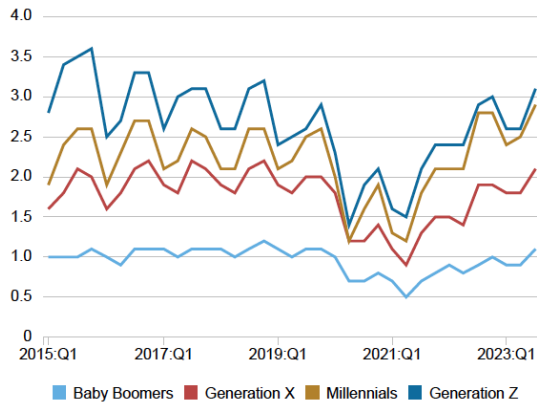
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## Increased Debt & Delinquencies Not Alarmingly High Overall

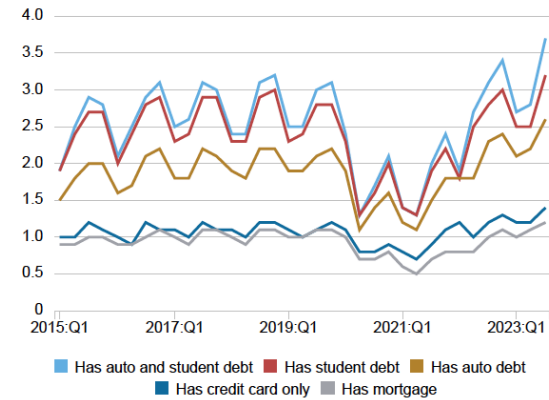
Millennial Credit Card Delinquency Exceeds Pre-Pandemic Levels while Baby Boomers, Generation X, and Generation Z Are at or near Their 2019 Averages

Share of credit card borrowers who are newly delinquent (in percent)



Credit Card Delinquencies Are Rising Particularly Quickly for Those with Auto and Student Loans

Share of credit card borrowers who are newly delinquent (in percent)



Source: Federal Reserve Bank of New York

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## Recurring Takeaways

- **Economic re-sorting continues**
- Structural (long-term) and cyclical (short-term) changes create **pockets of strength and weakness**
- Make your budget systems highly **adaptable to rapidly changing conditions**

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## Amidst Uncertainty, Build Resiliency

- Interpreting past and present conditions challenging due to complex and highly uncertain economic environment. **Forecasting future events even harder.**
- **Scenario plan** and develop **early warning** systems
- **Single-supplier “just in time” systems failed. Consider how you need to redesign your budget systems to enhance resiliency:**
  - (a) build appropriate protective buffers - financial, personnel, supply chain, stock of supplies, etc.
  - (b) reliably deliver value during economy’s ups and downs
  - (c) seize opportunities that arise during uncertain times



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