

# Can a Recession be Avoided?

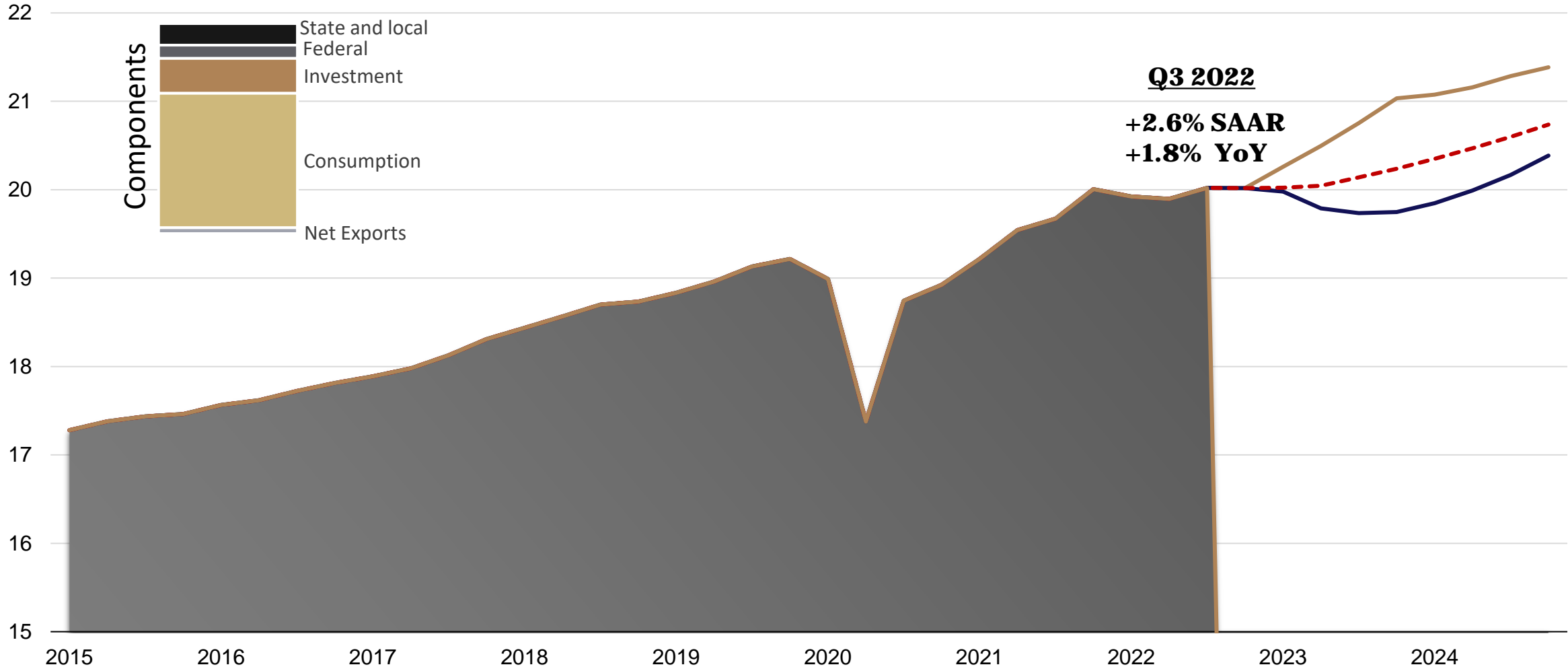
Colorado Roofing Association



**Richard Wobbekind**  
Senior Economist and Associate Dean  
for Business and Government Relations  
Business Research Division  
University of Colorado Boulder

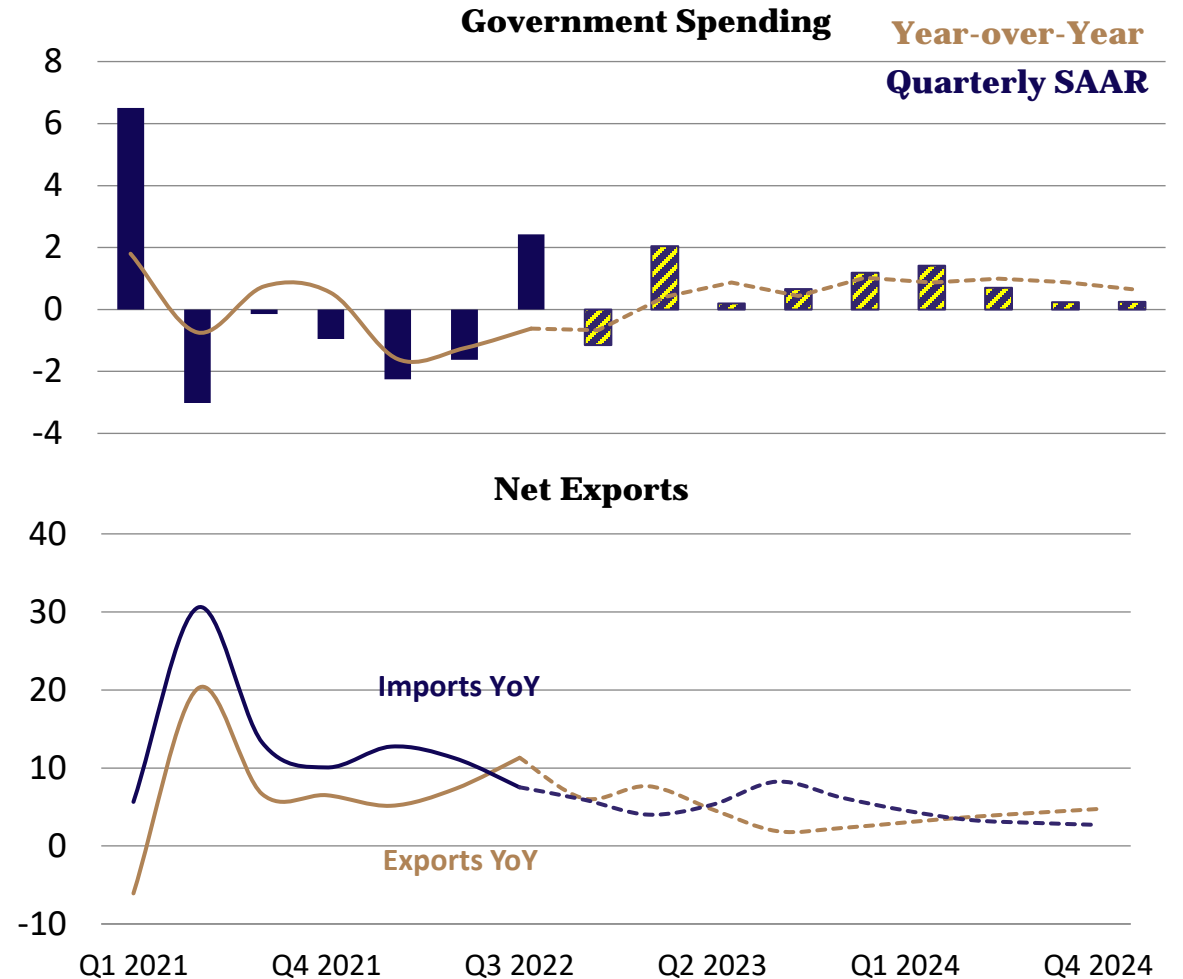
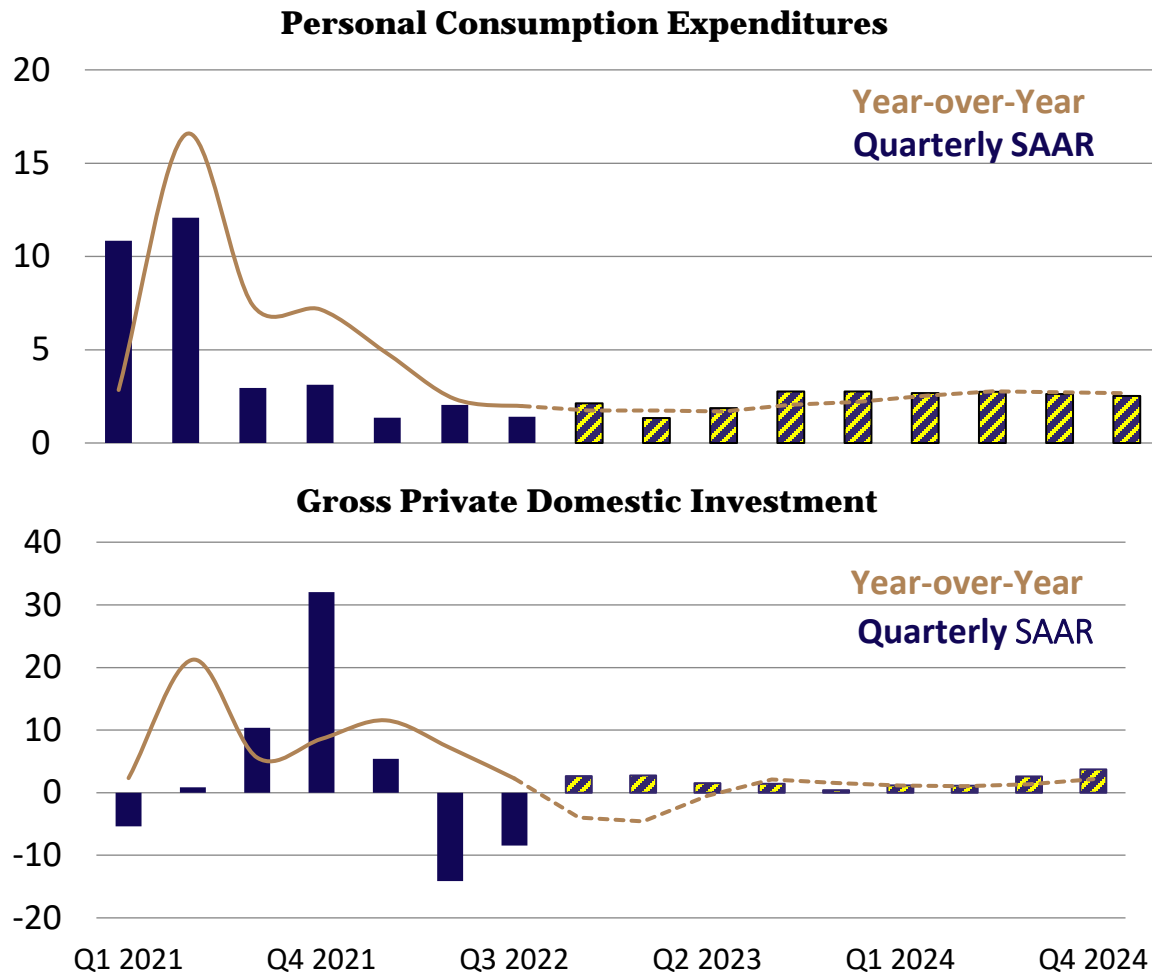
# U.S. Real GDP

## U.S. Quarterly GDP, \$ Trillions



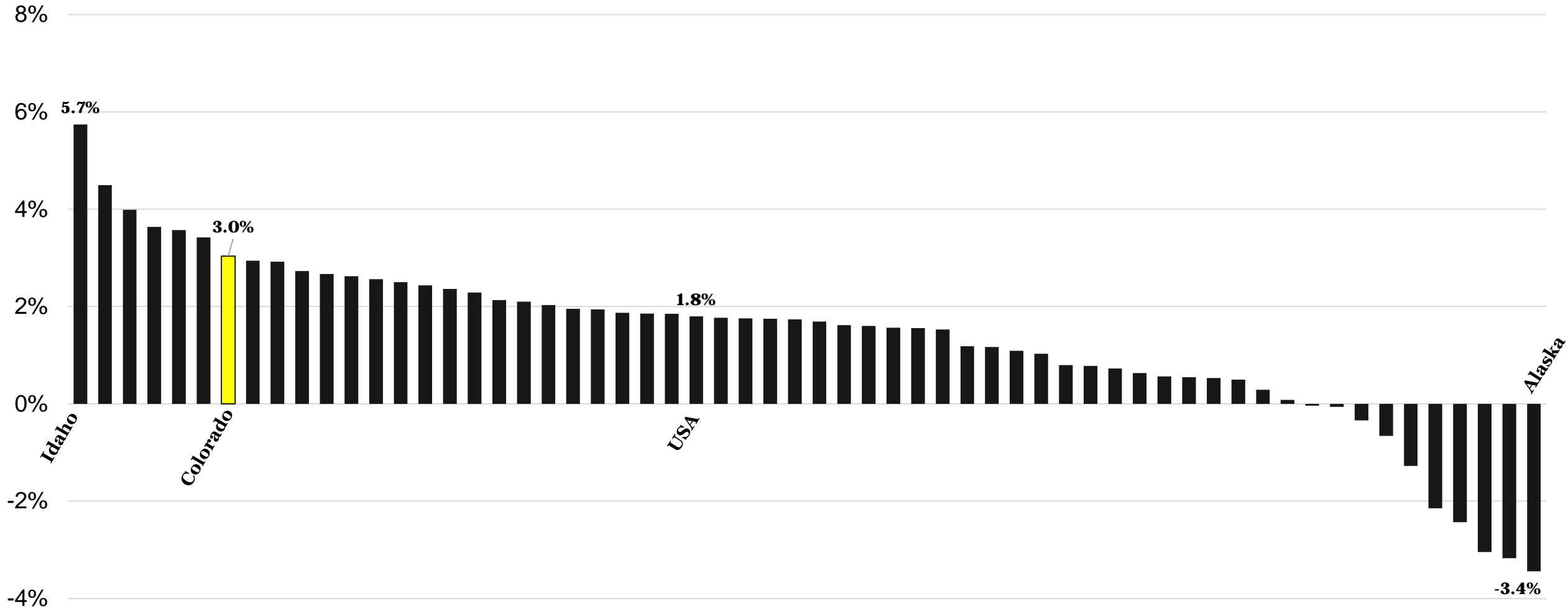
# Economic Growth

## Components of GDP: C+I+G+X

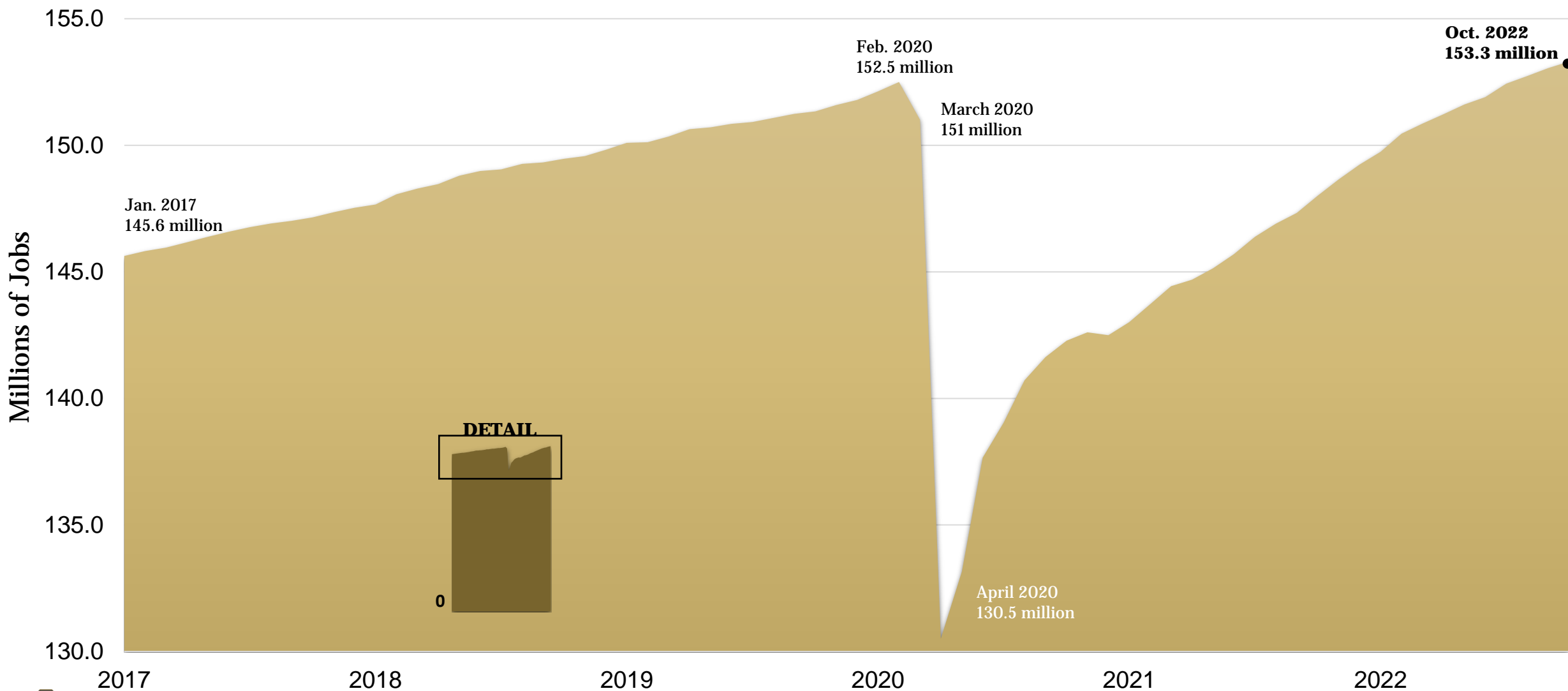


# Real GDP growth by State

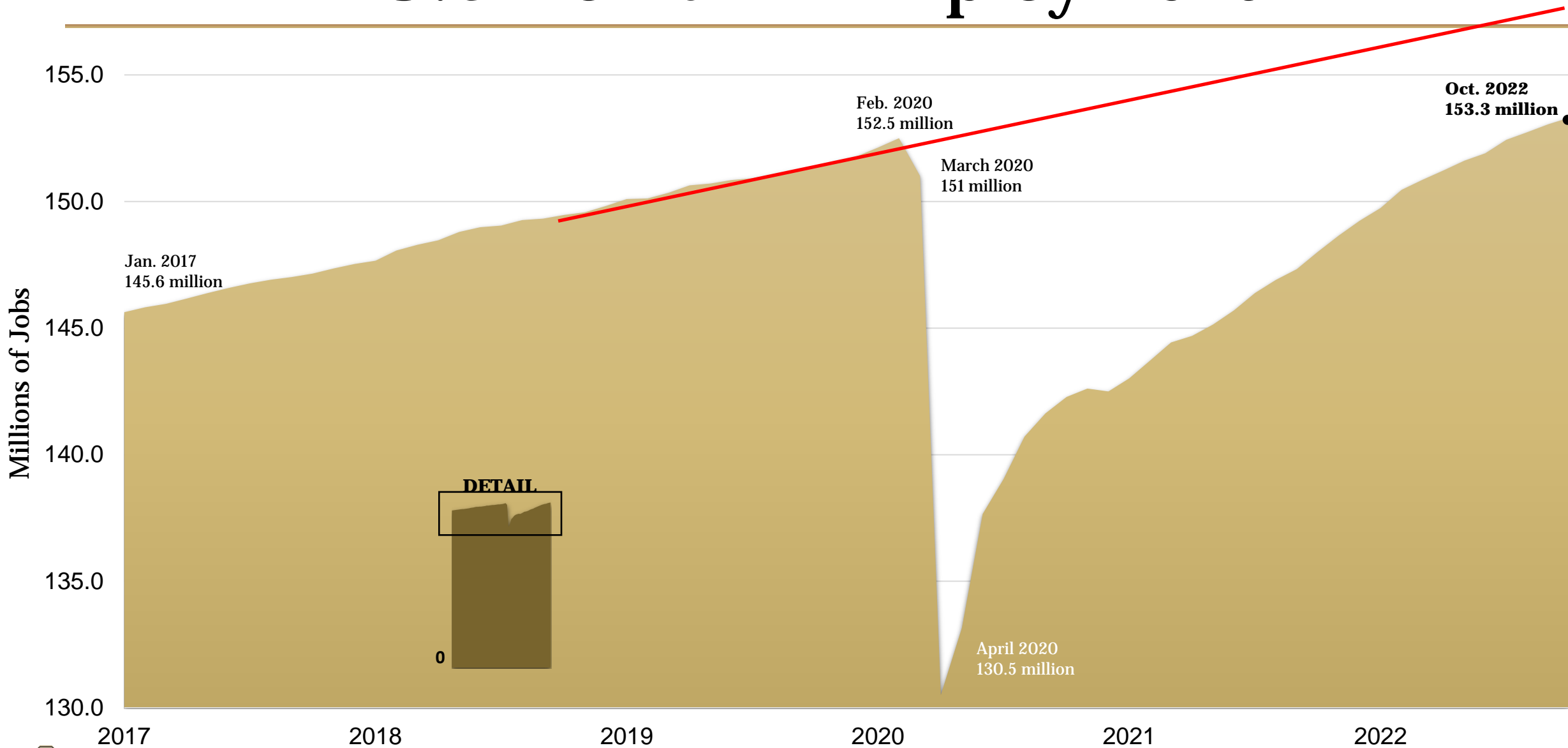
Year-over-Year, Q2 2022



# U.S Nonfarm Employment

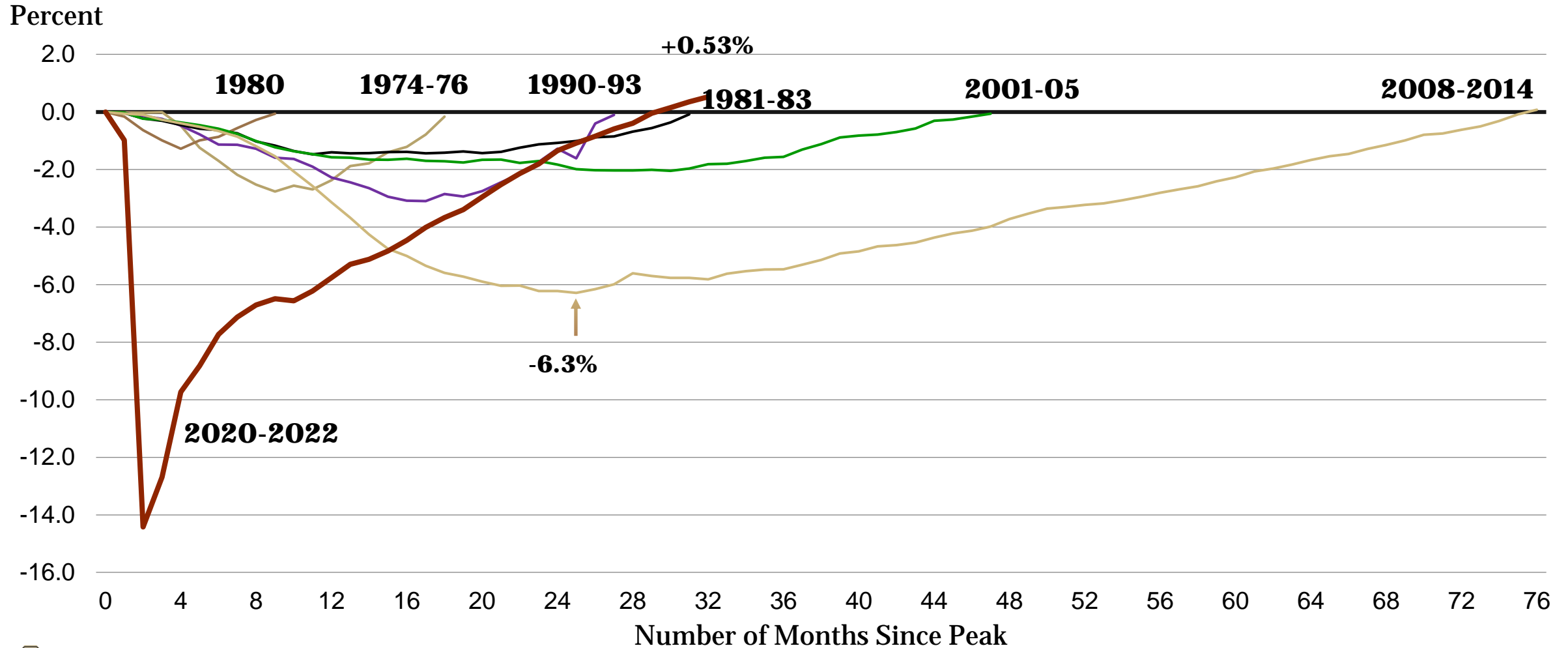


# U.S Nonfarm Employment



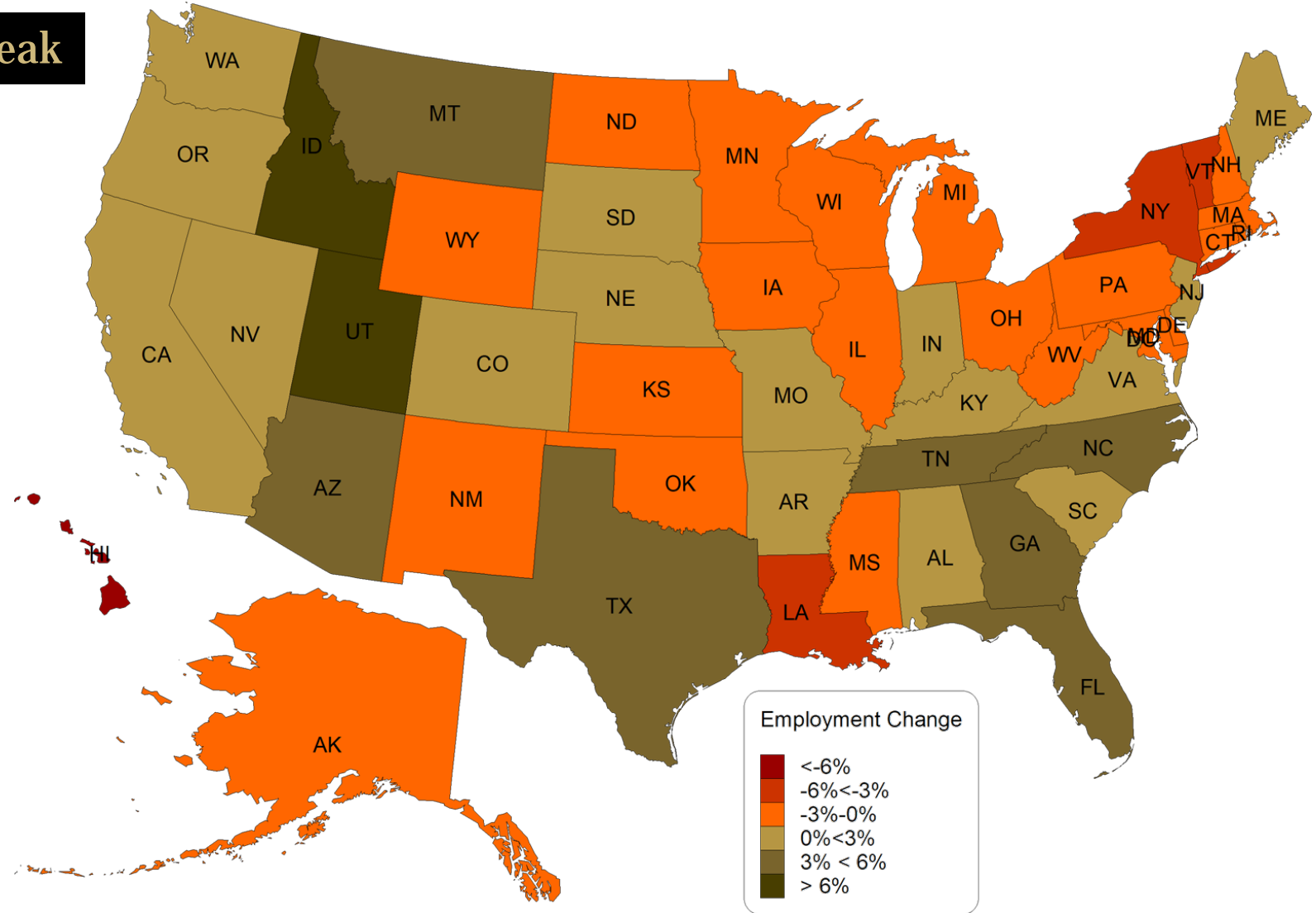
# National Employment

## Months to Recovery



# Employment Recovery

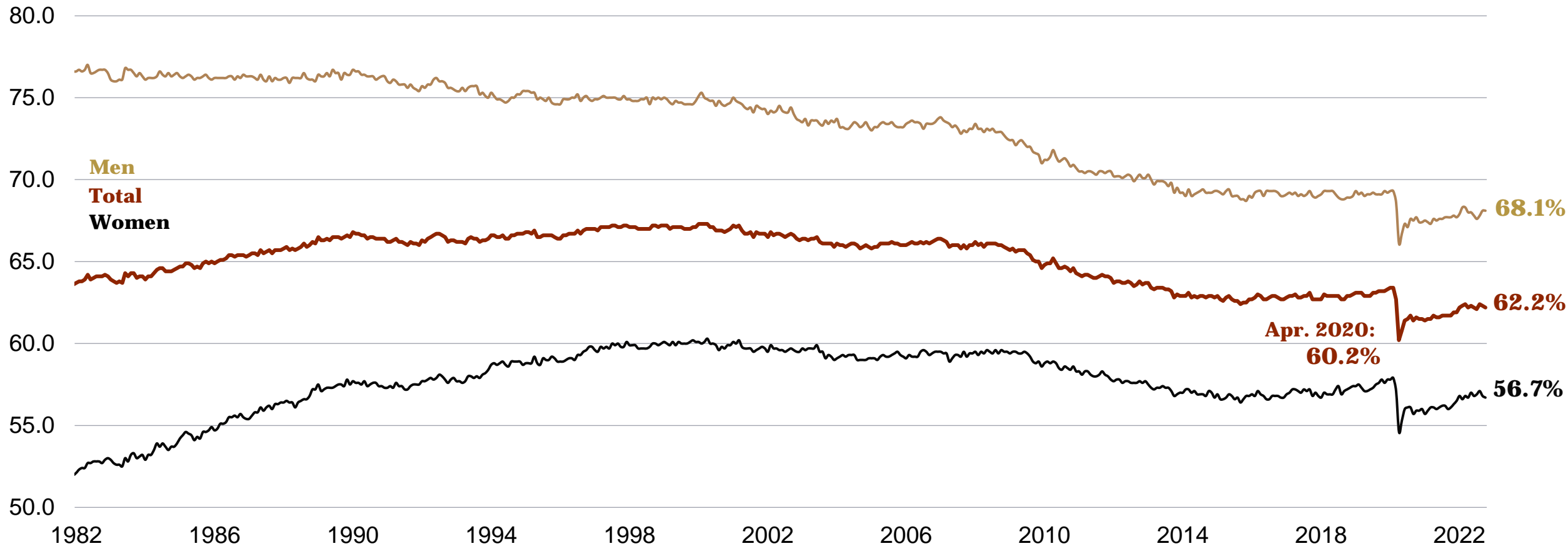
Change from Prerecession Peak





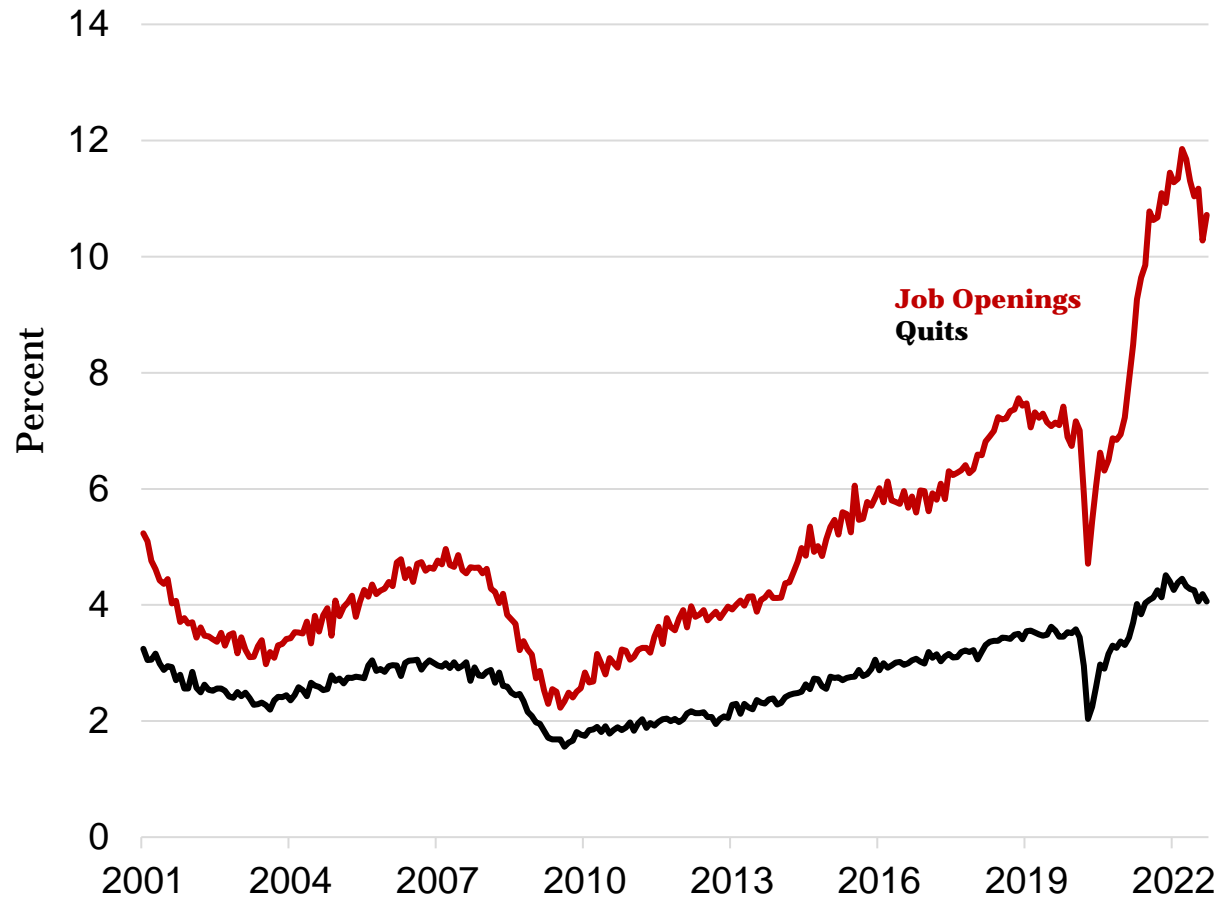
# Labor Force Participation Rate

Percent of Population, 16 and Over

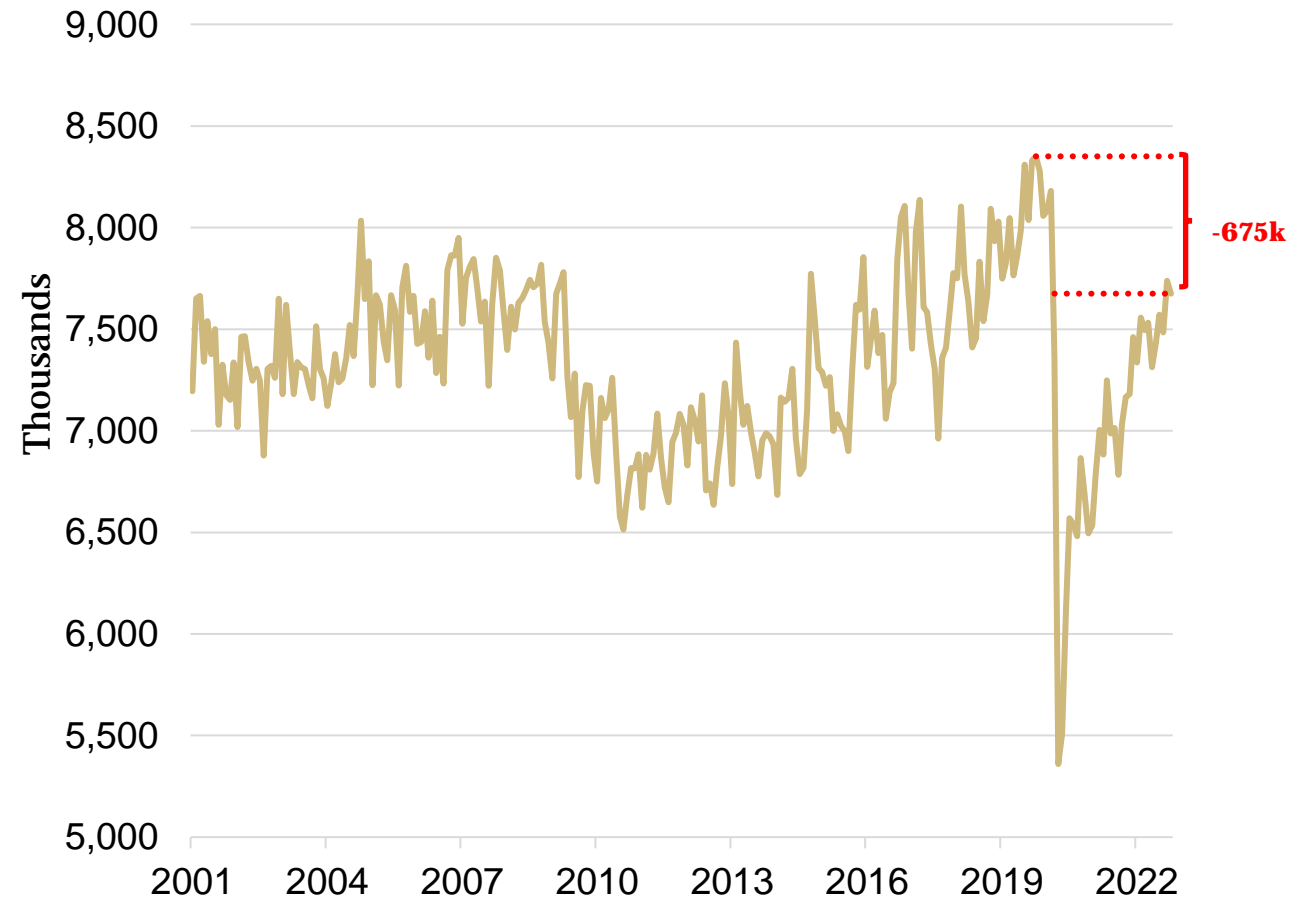


# Labor Shortage

### Job Openings and Quits

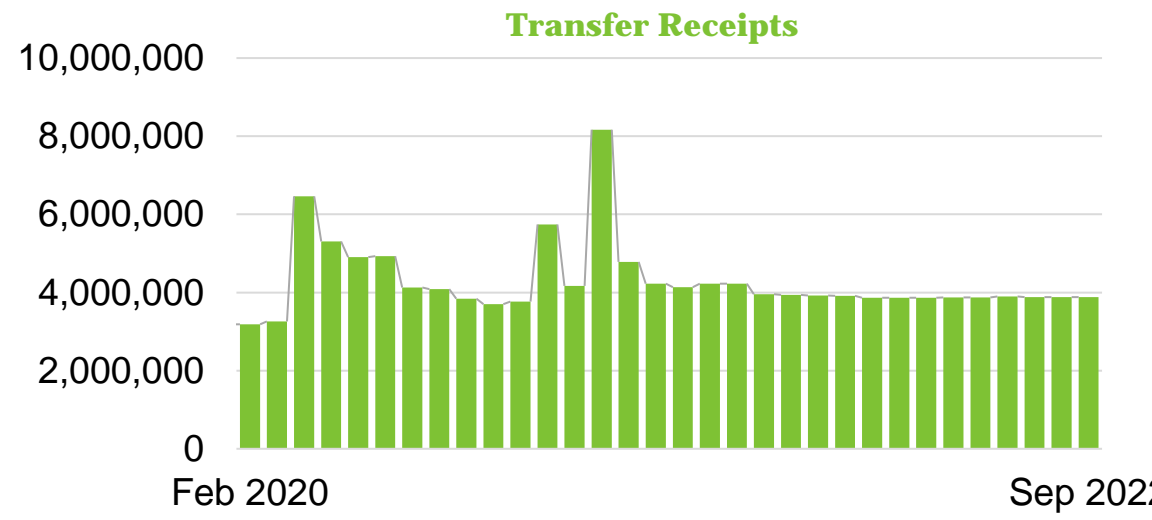
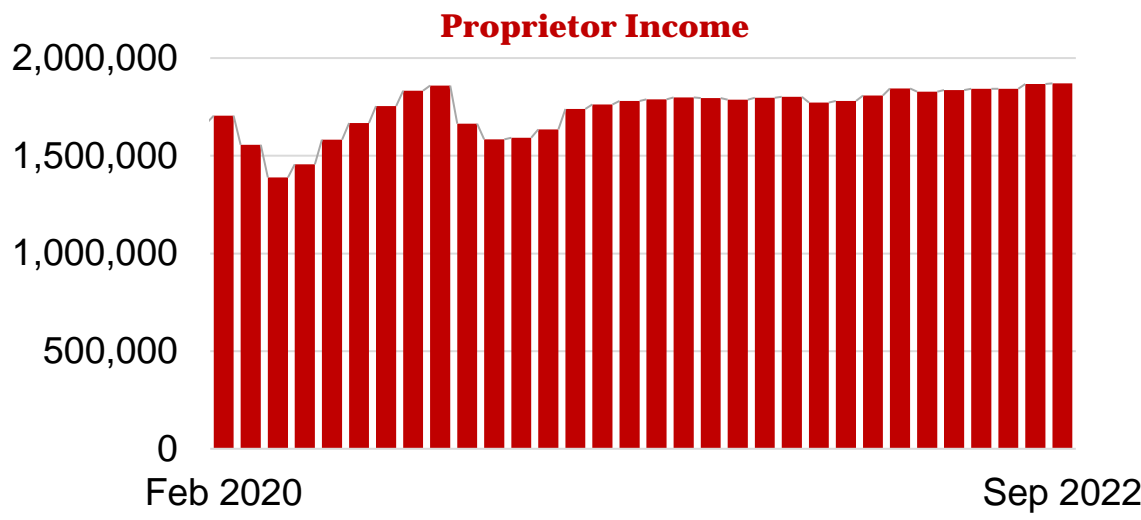
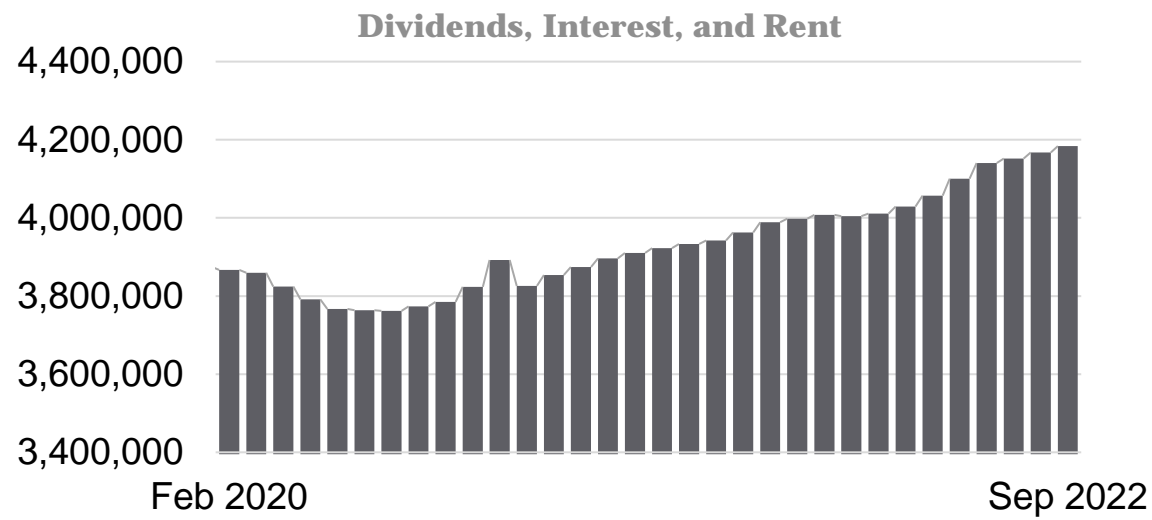
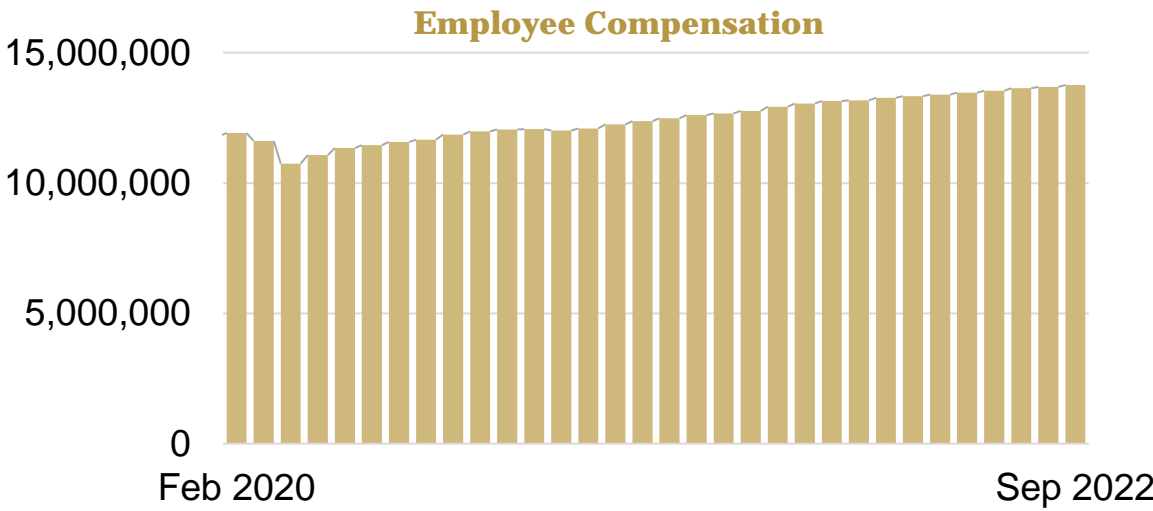


### National Multiple Jobholders

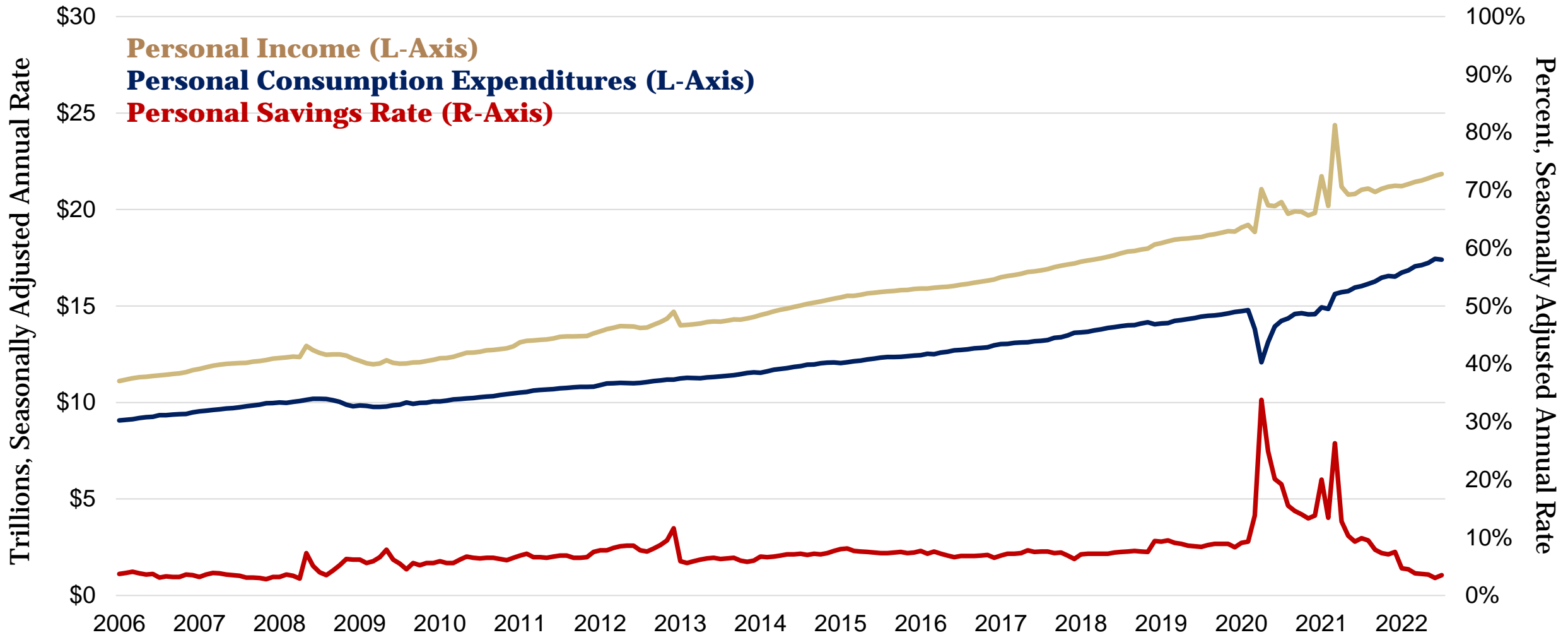


# National Personal Income

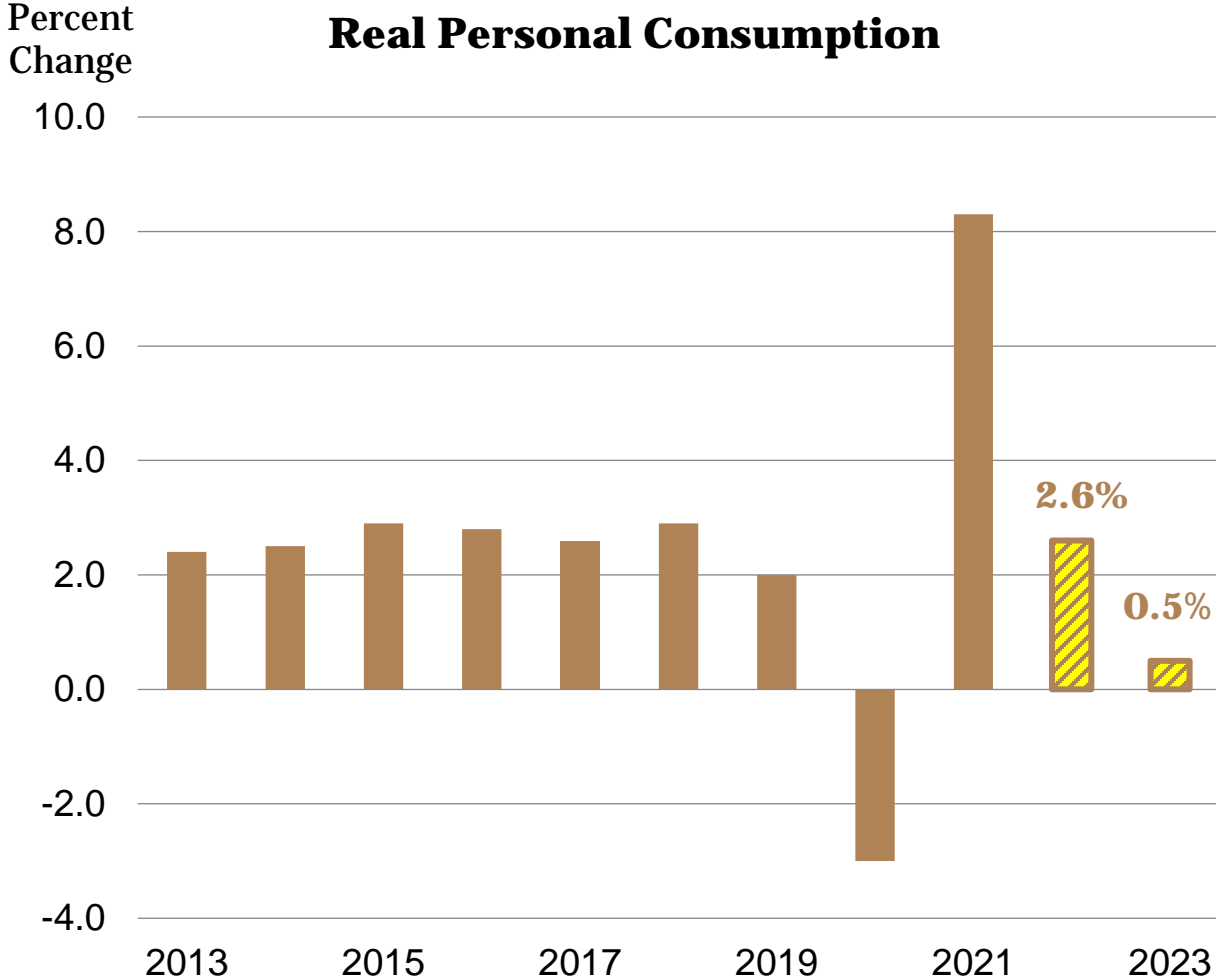
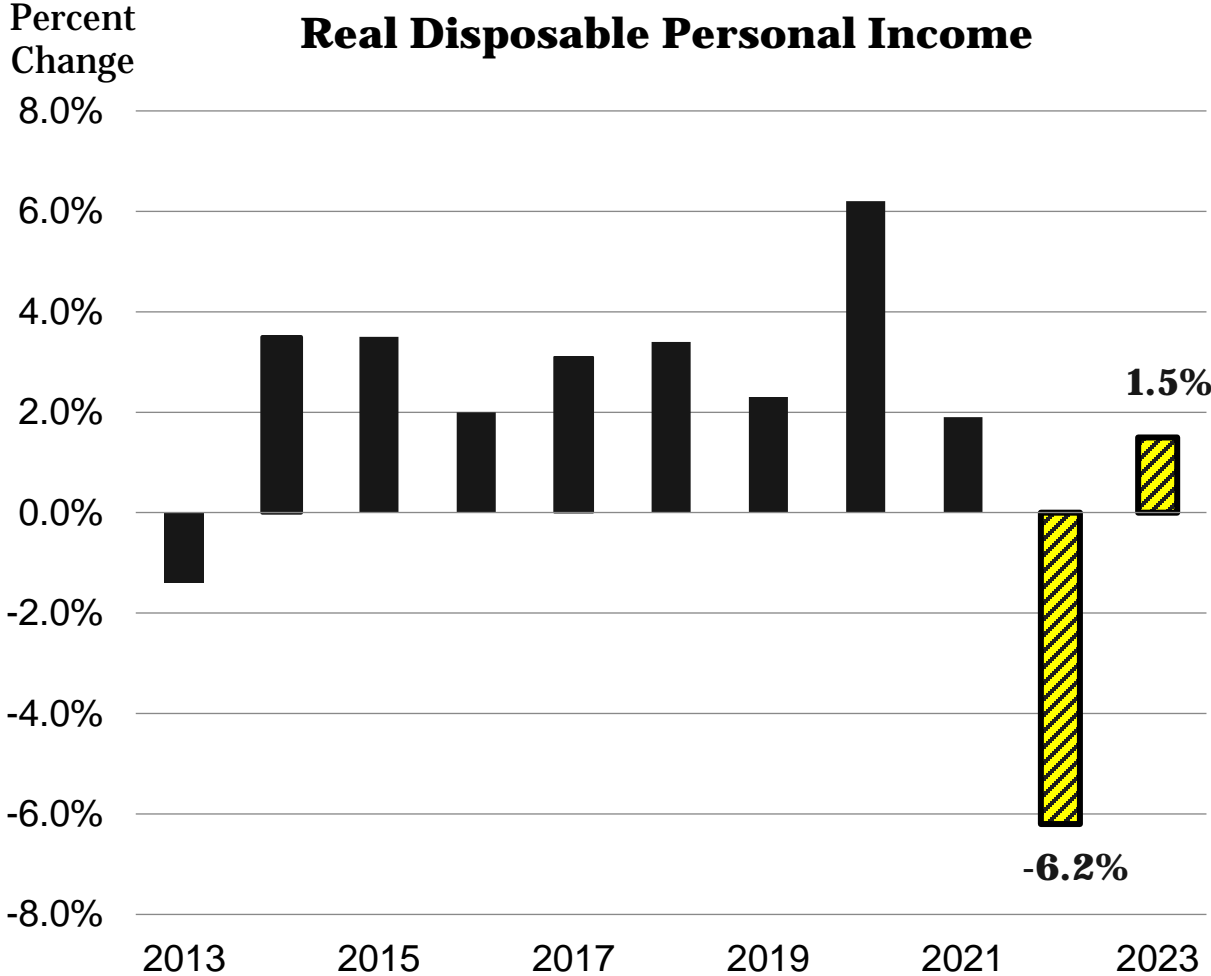
\$ Billions, Seasonally Adj. Annual Rate



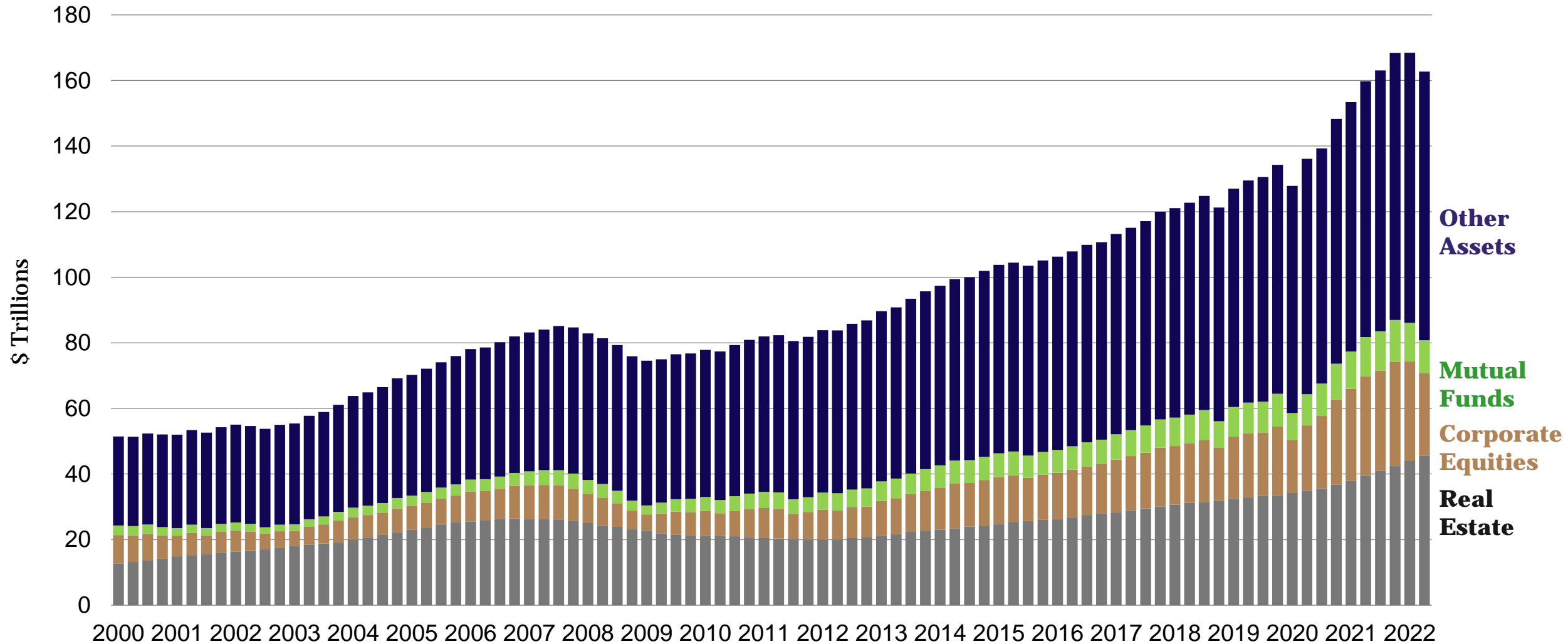
# Personal Income and Savings



# U.S. Income and Consumption

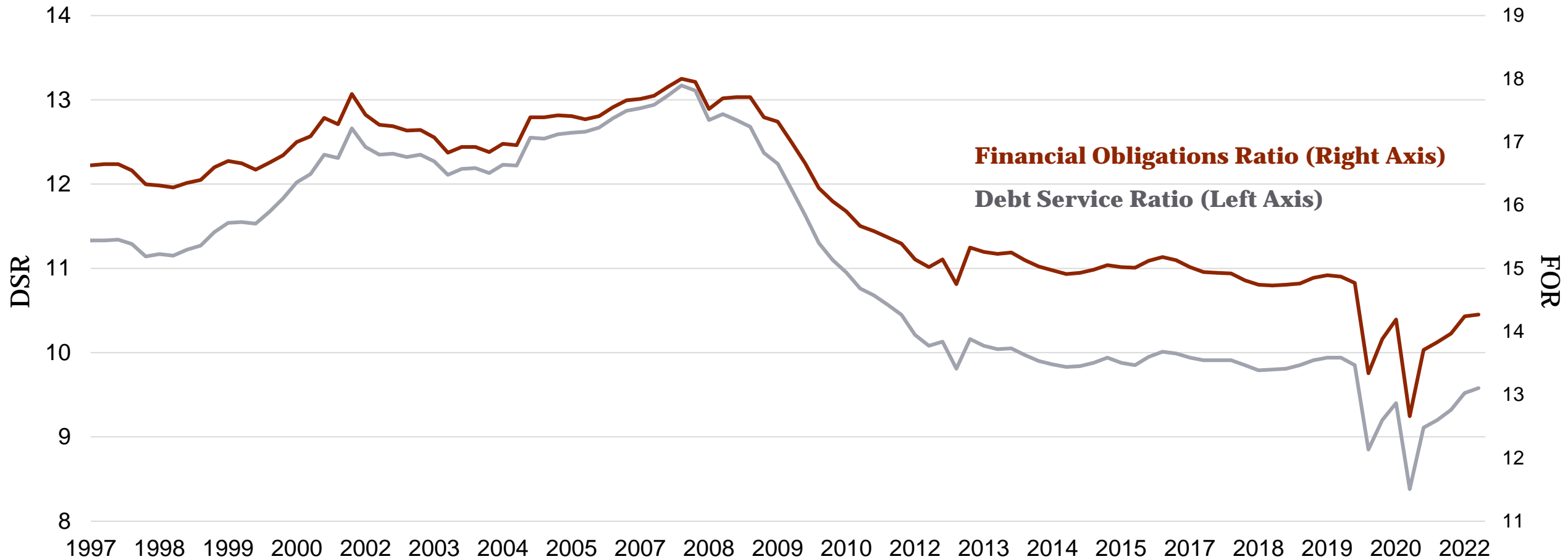


# Household Wealth

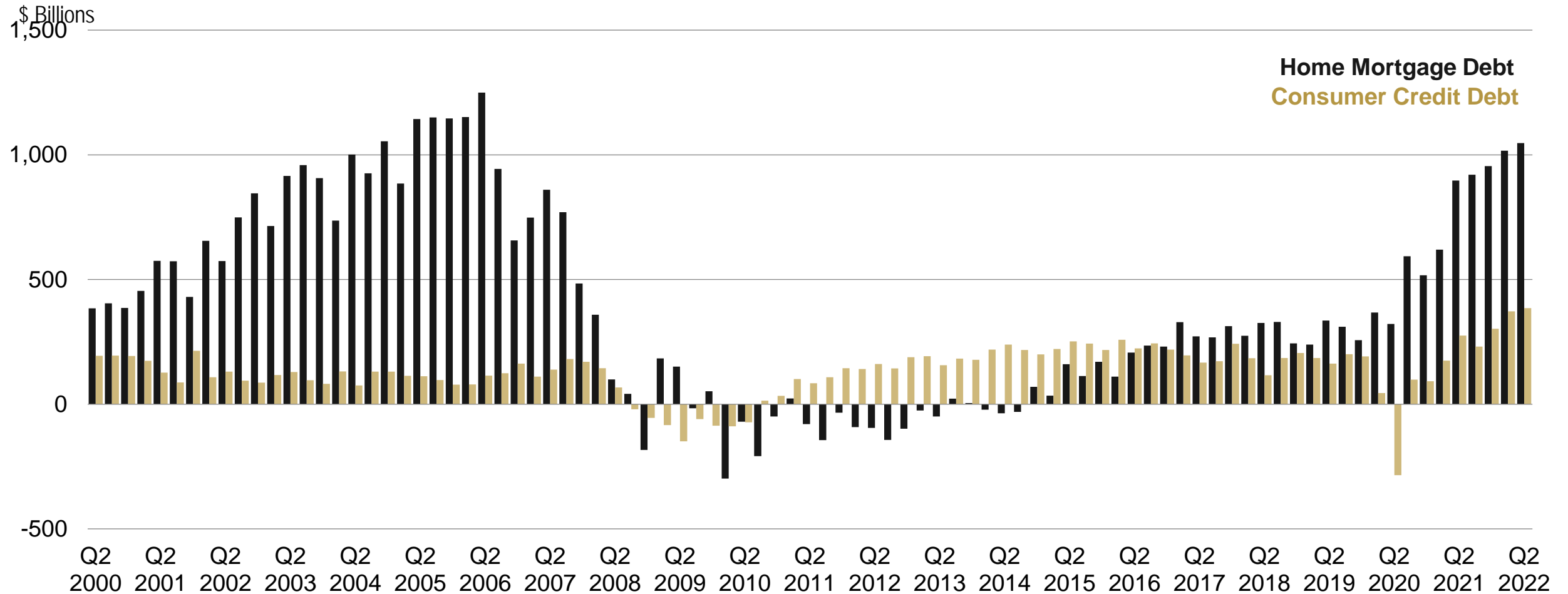


# Household Debt Burden

Percent of Disposable Income



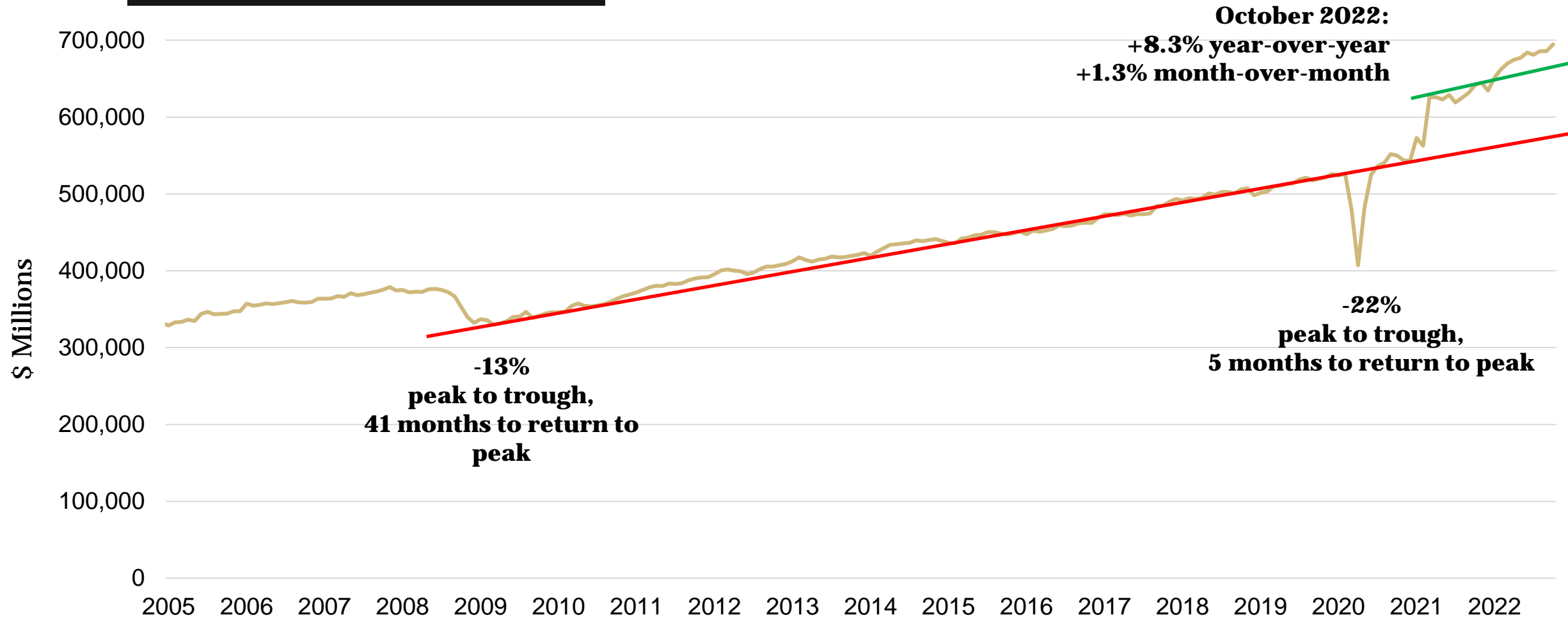
# Household Debt Growth



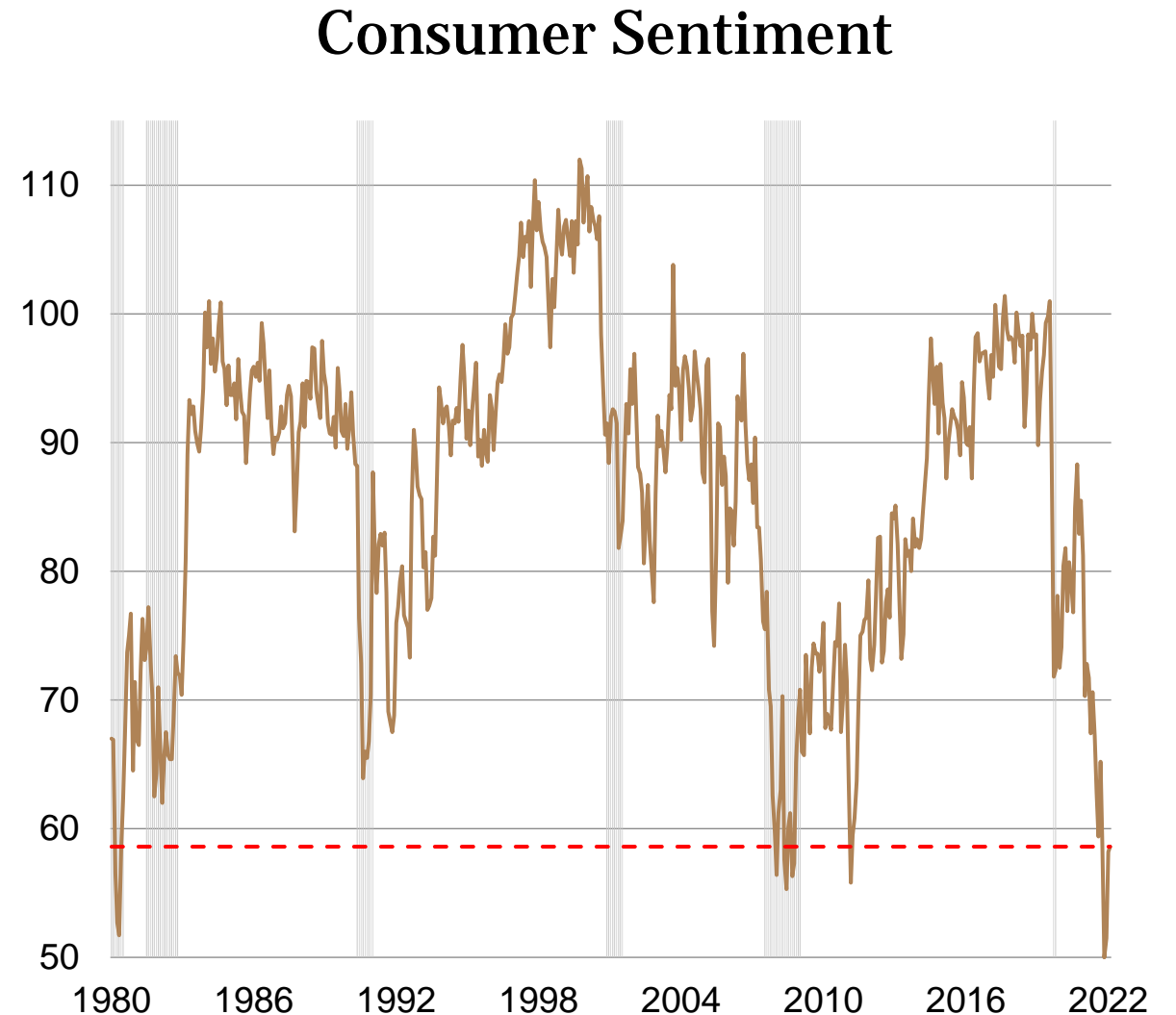
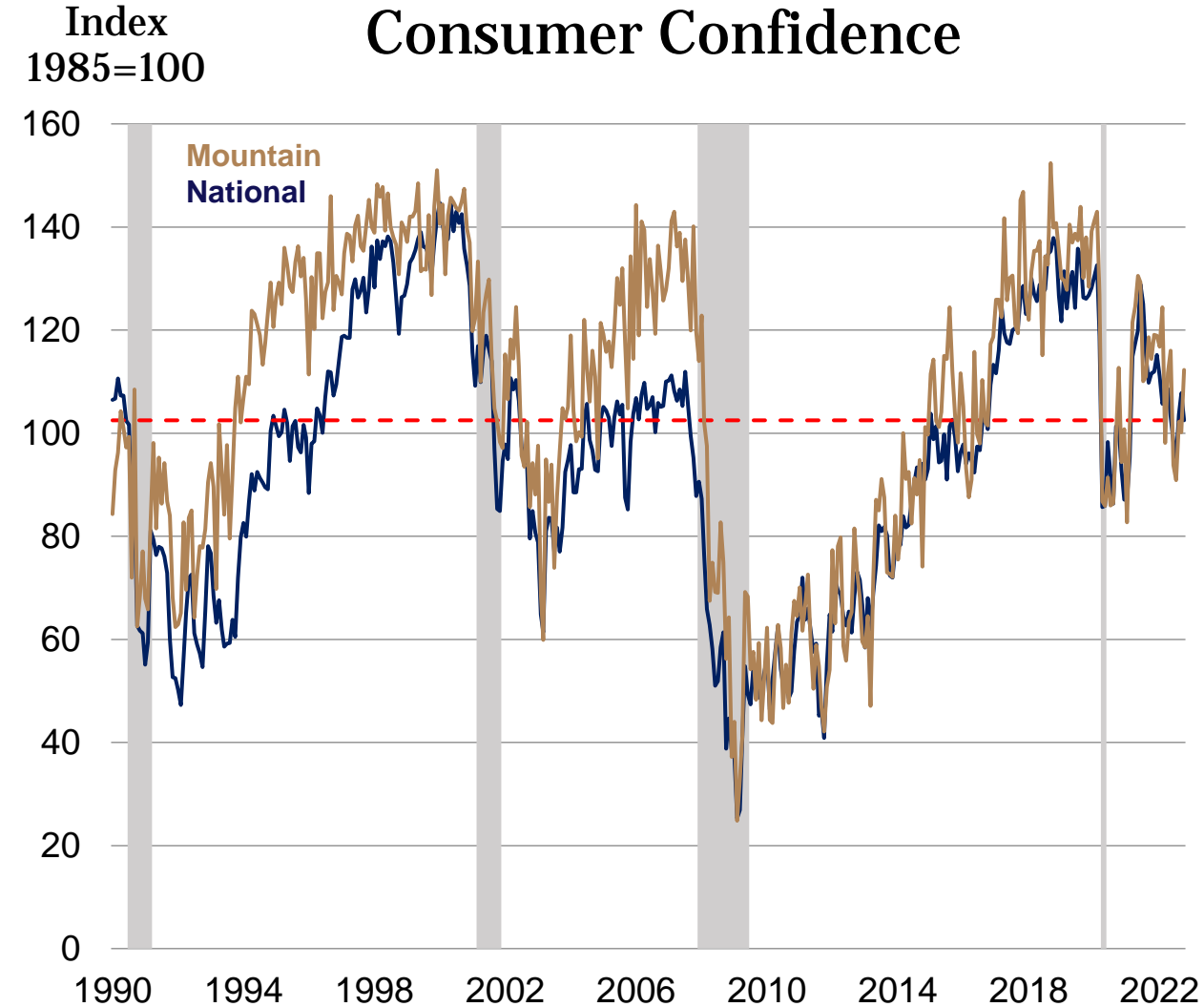


# National Retail Sales

## Trend vs. Recent Volatility

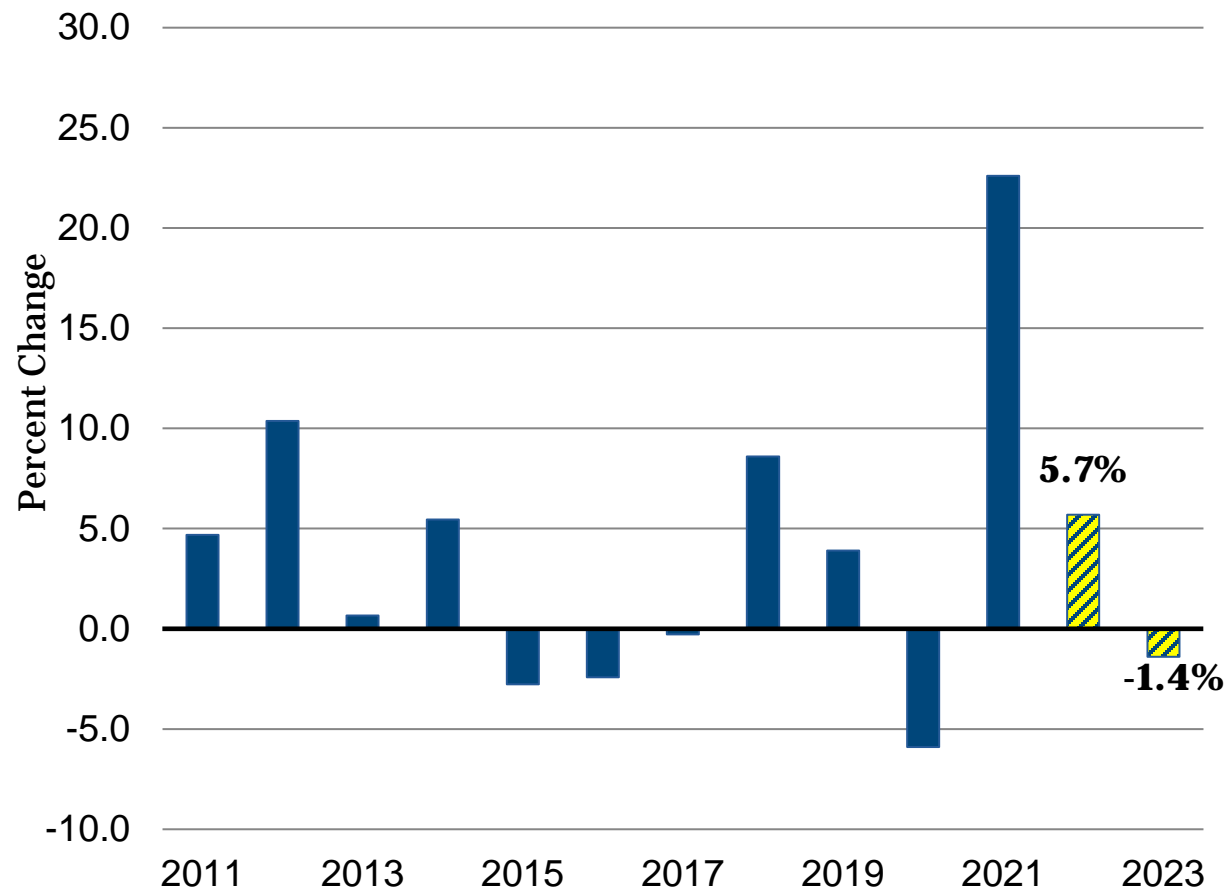


# Index of Consumer Confidence

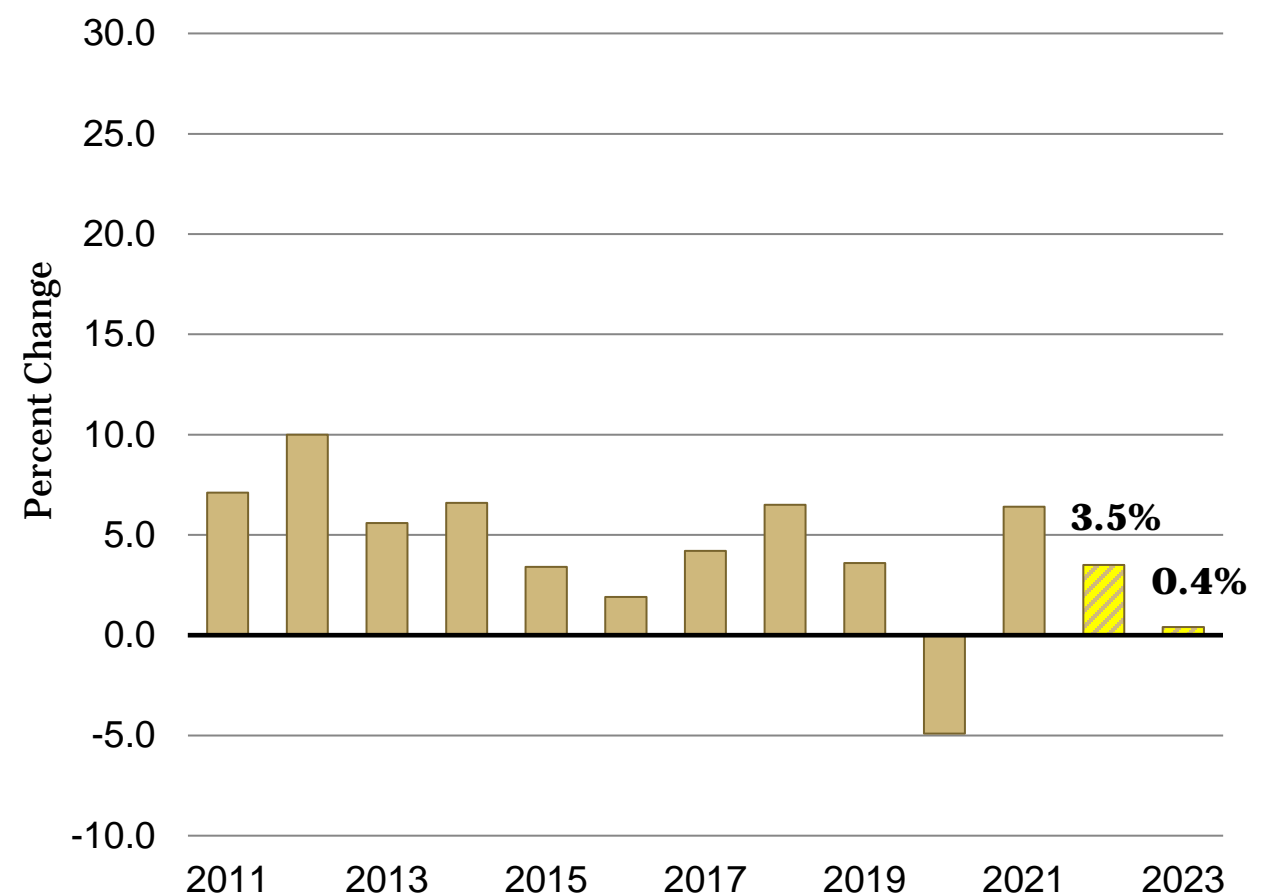


# Nominal Corporate Profits and Business Fixed Investment

## Nominal Pre-Tax Corporate Profits

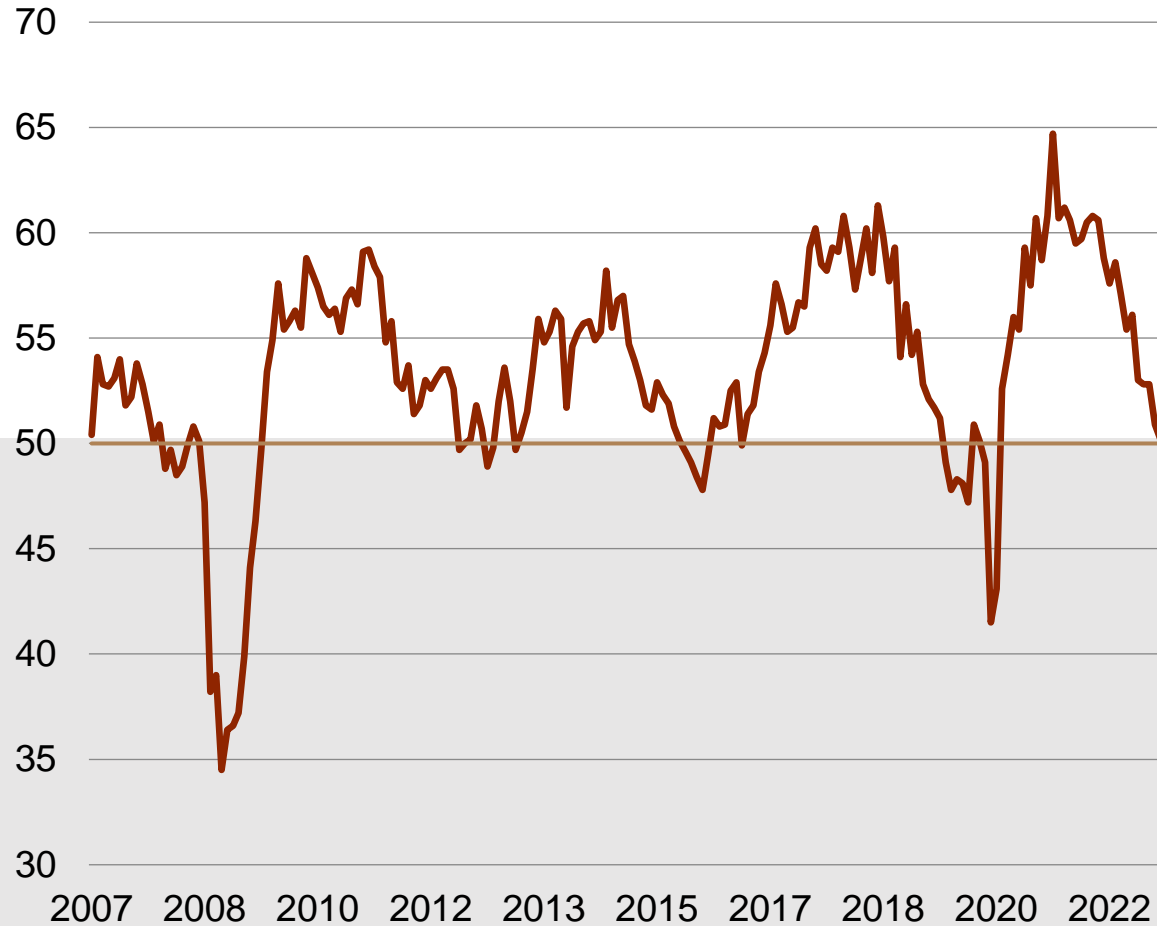


## Business Fixed Investment

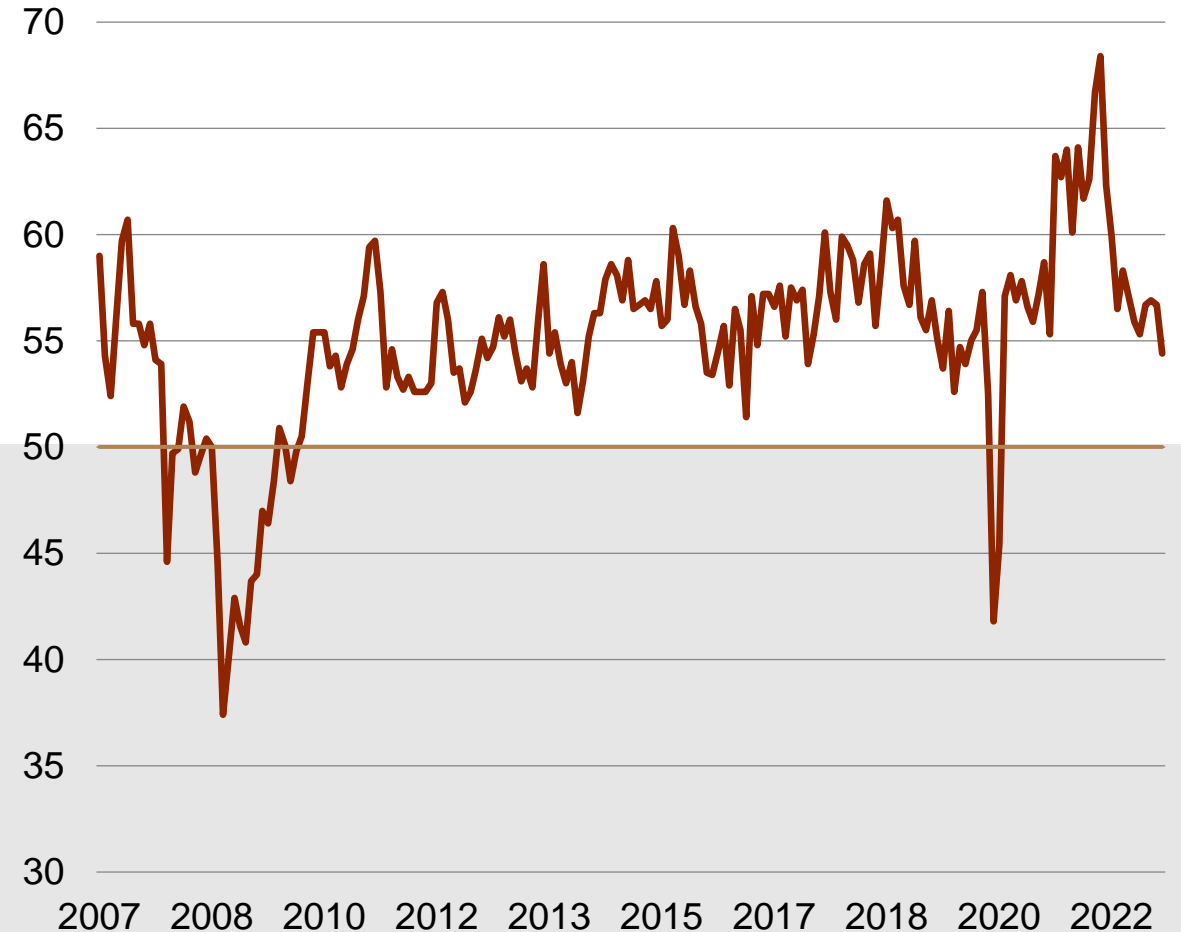


# ISM Indices

## ISM Manufacturing PMI® Index

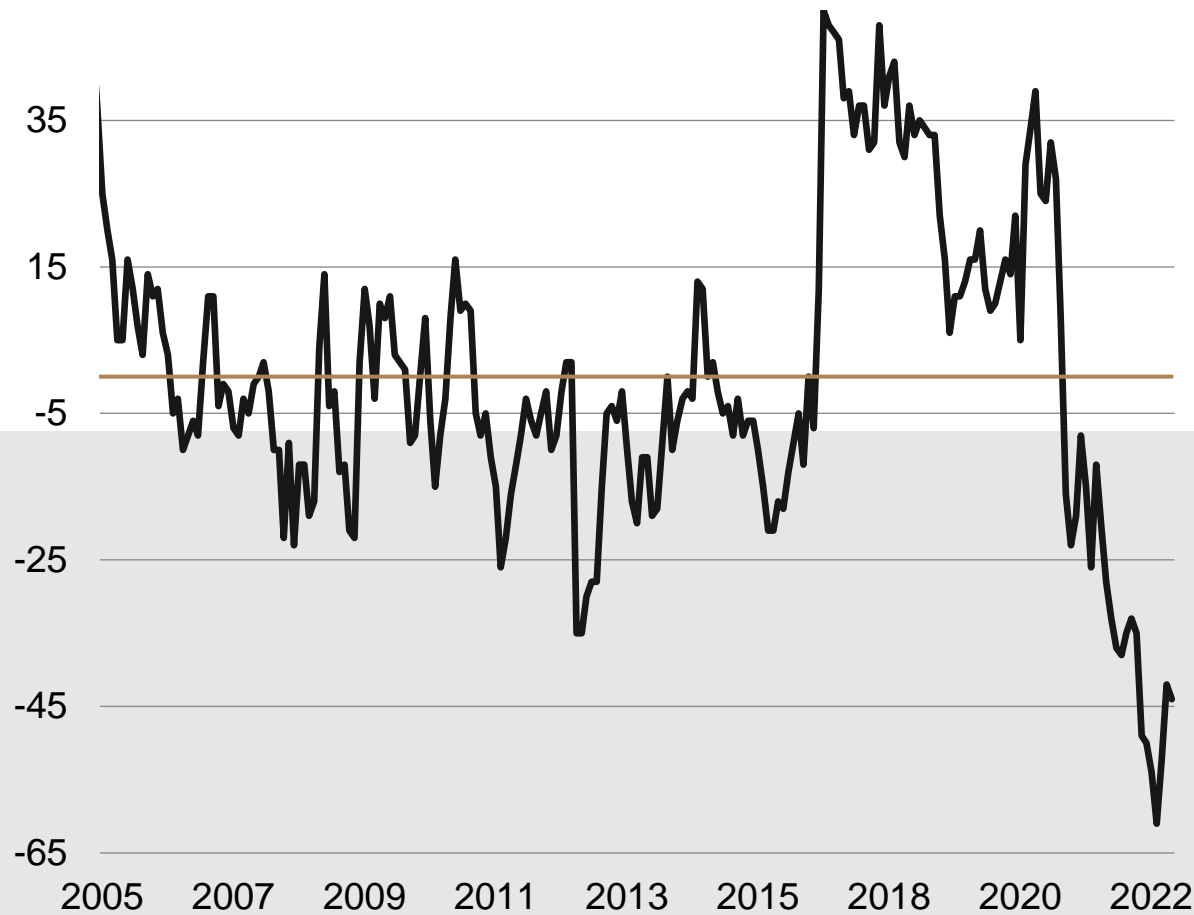


## ISM Services PMI® Index



# Small Business Outlook

## Business Conditions

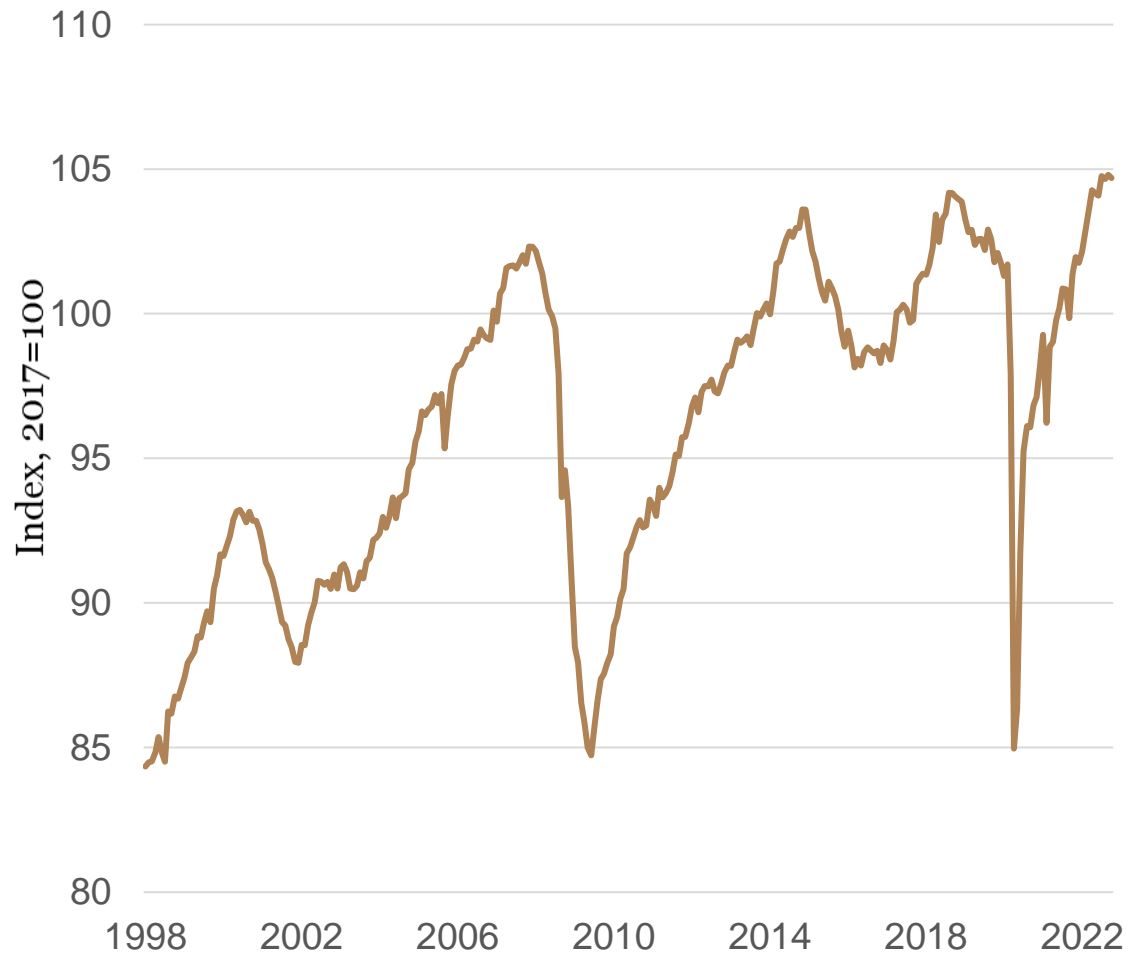


## Optimism Index



# Industrial Production and Capacity Utilization

## Industrial Production

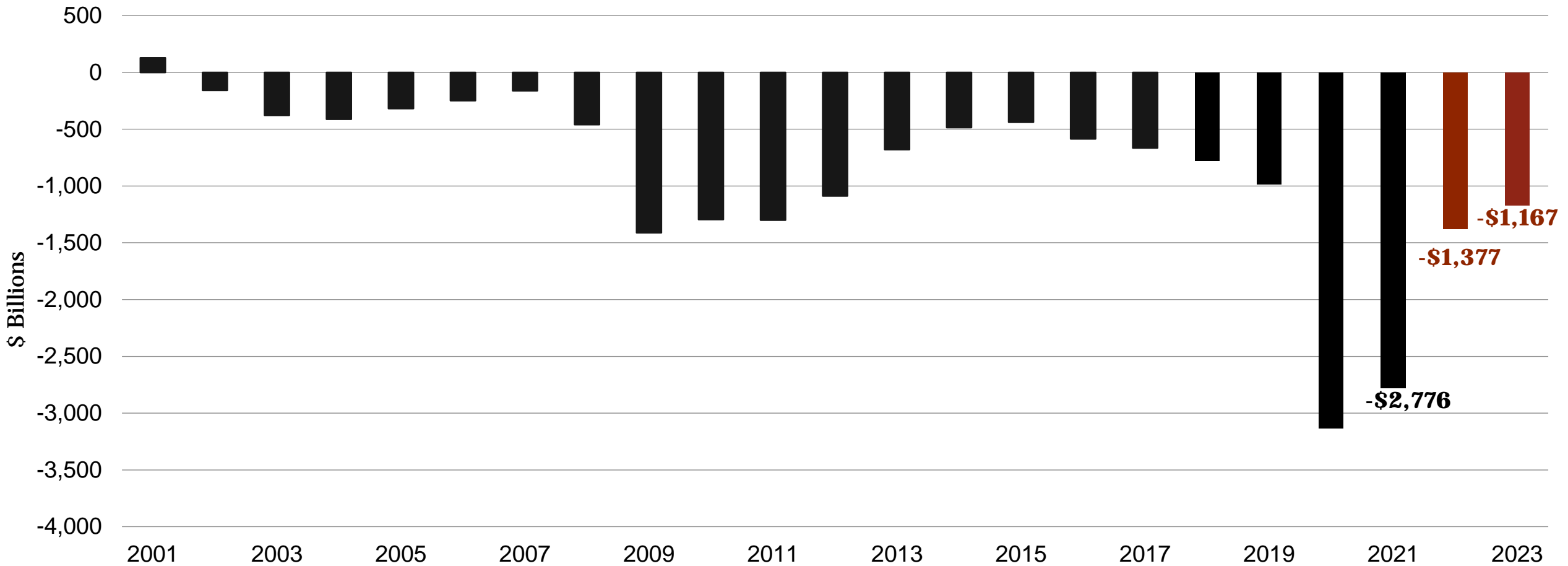


## Capacity Utilization



# Federal Budget Balance

2001 to 2023

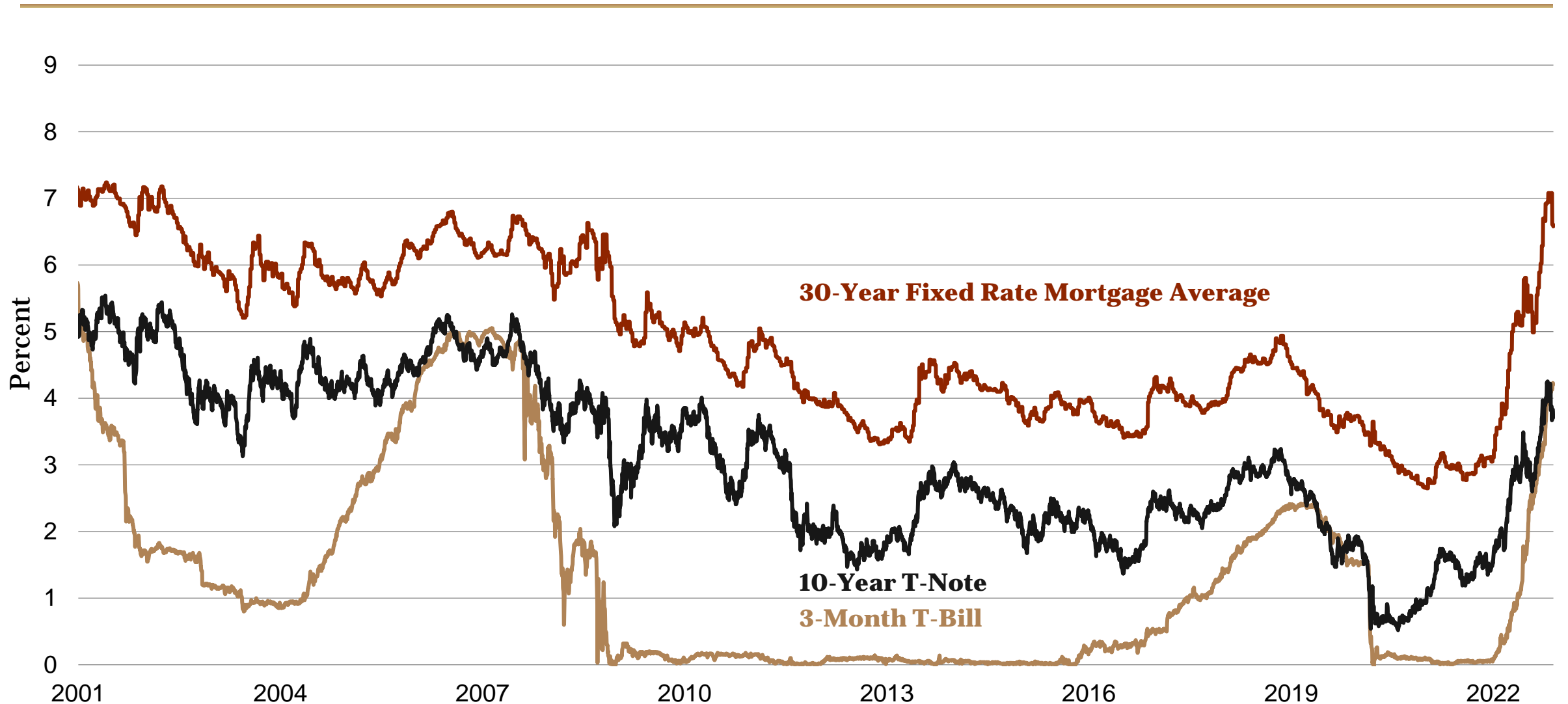


# Money and Prices

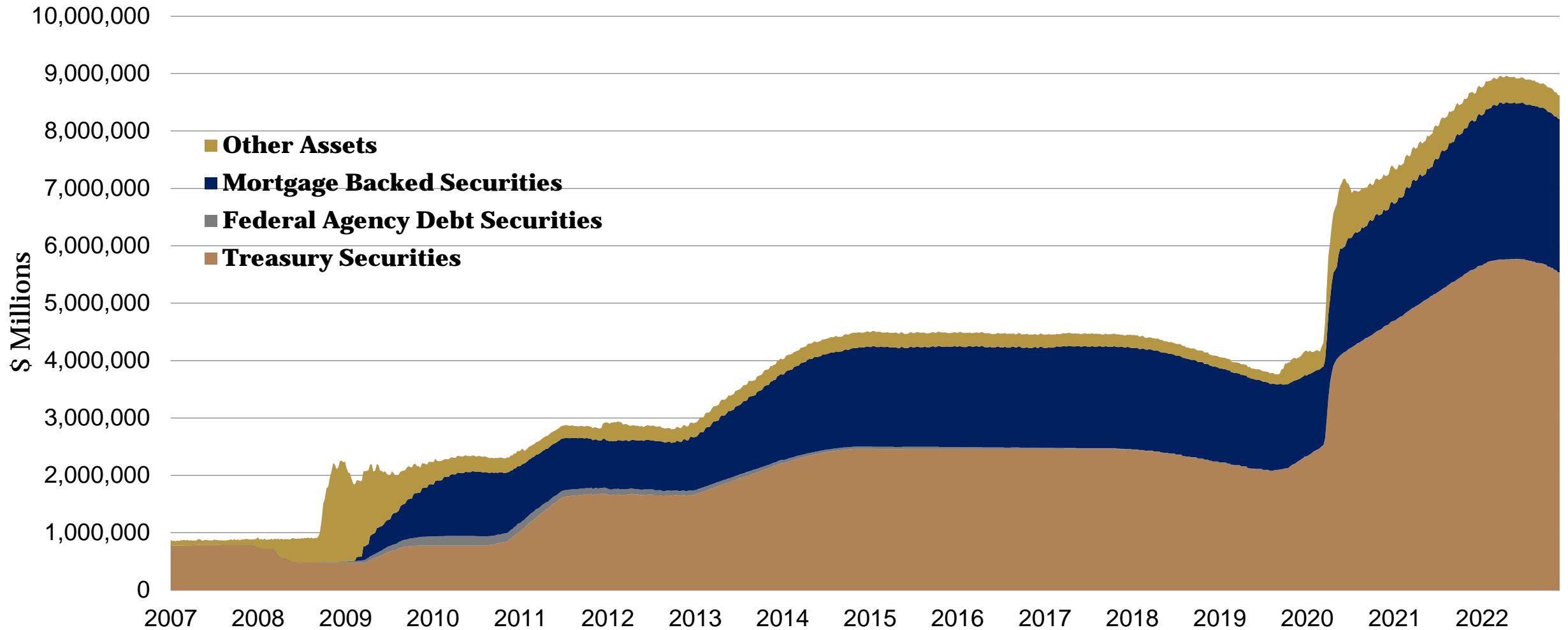




# Interest Rates

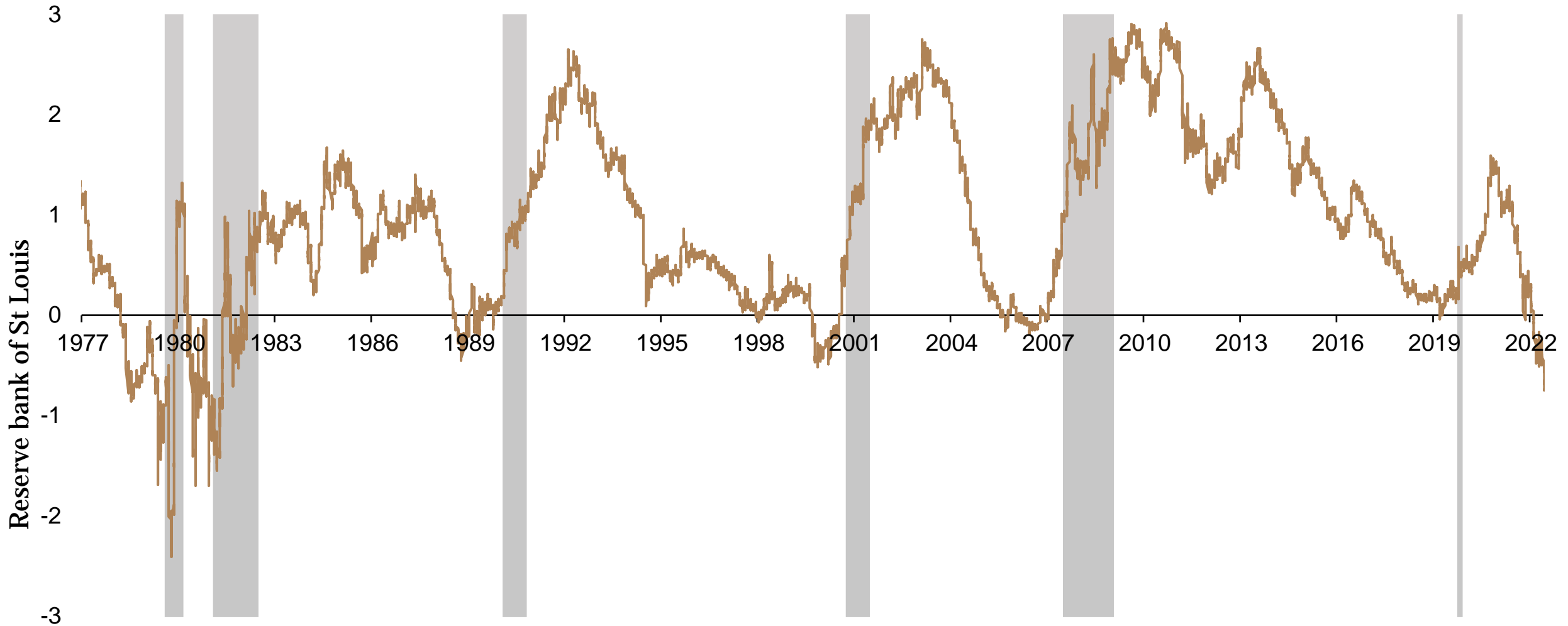


# The FED





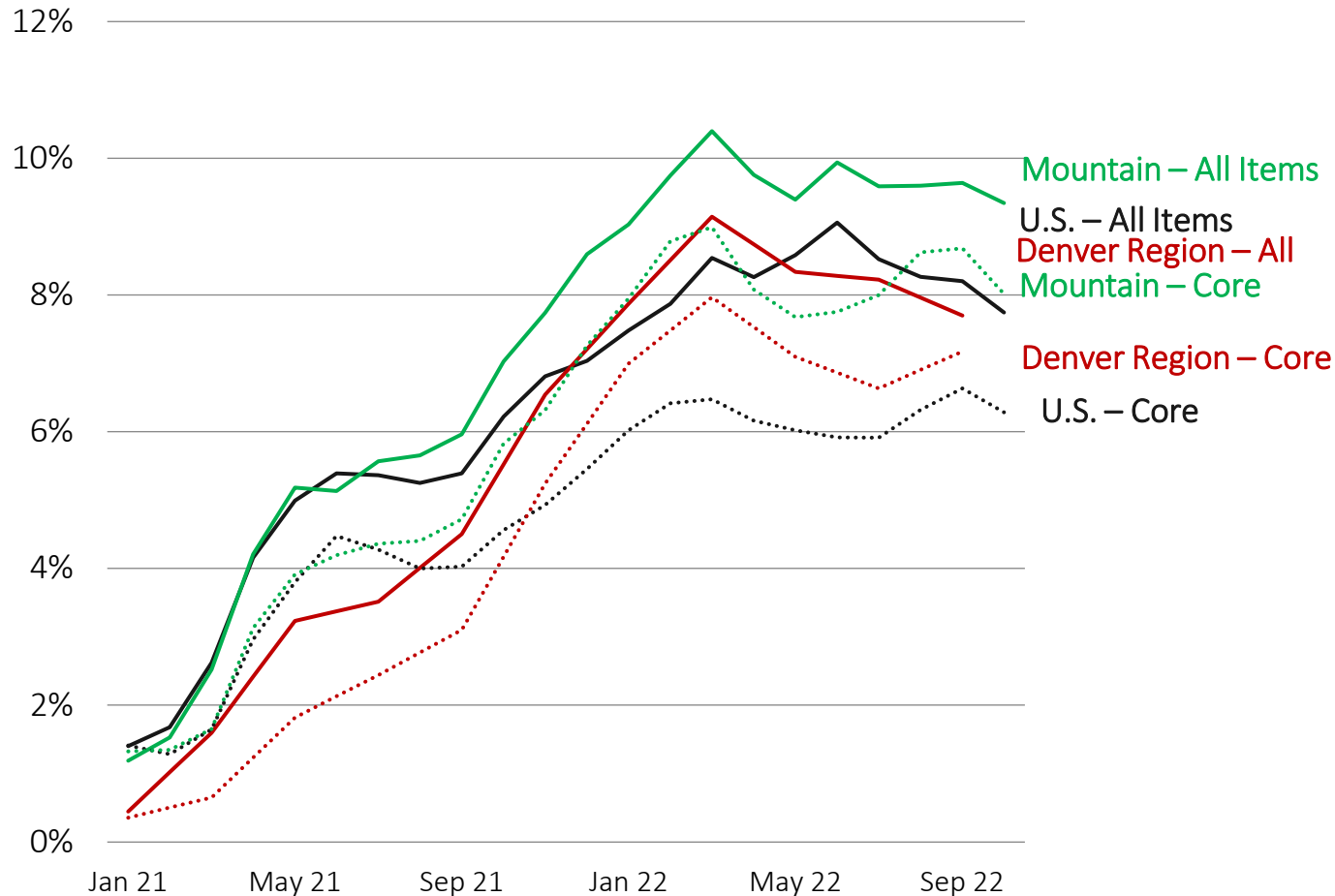
# 10-Year Treasury Minus 2-Year Treasury



Sources: Federal Reserve Bank of St. Louis and the National Bureau of Economic Research.

# Inflation

## Consumer Price Index, Percent Change Year-Over-Year

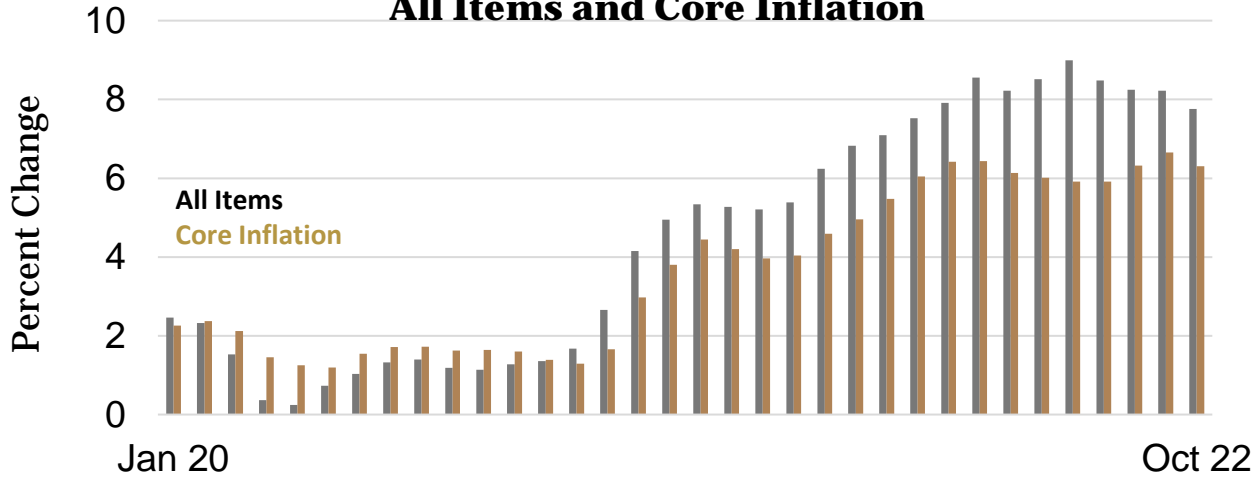


Items	U.S. City Average	Denver-Aurora-Lakewood	Item Weights
All items	7.7%	7.7%	100.0%
Food and beverages	10.6%	11.3%	14.3%
Housing	7.9%	8.2%	42.4%
Apparel	4.1%	-0.4%	2.5%
Transportation	11.2%	7.0%	18.2%
Medical care	5.0%	NA	8.5%
Recreation	4.1%	3.5%	5.1%
Education and Comm.	0.0%	-0.5%	6.4%
Other goods and services	6.5%	8.0%	2.7%
<b>Core Inflation</b>	<b>6.3%</b>	<b>7.2%</b>	

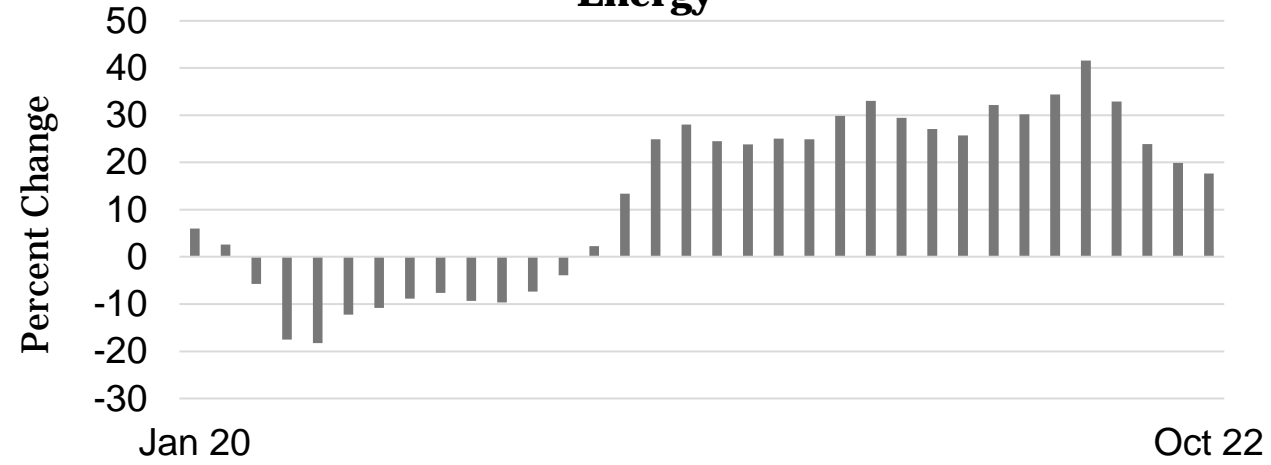
Source: Bureau of Labor Statistics, CPI for All Urban Consumers (CPI-U).  
 Note: Denver-Aurora-Lakewood values as of Sept 2022, Mountain and U.S. as of Oct.

# Inflation

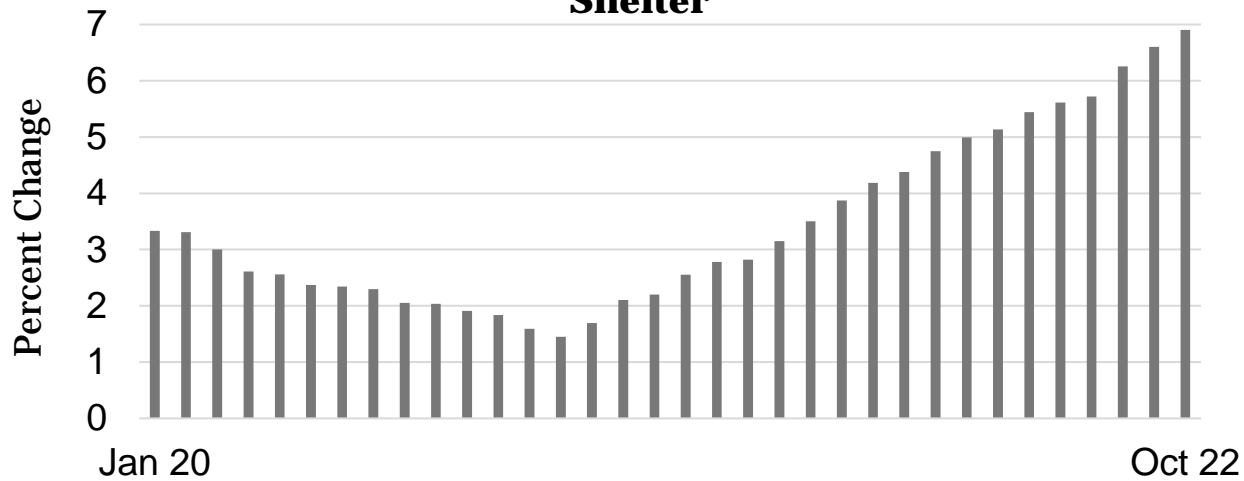
### All Items and Core Inflation



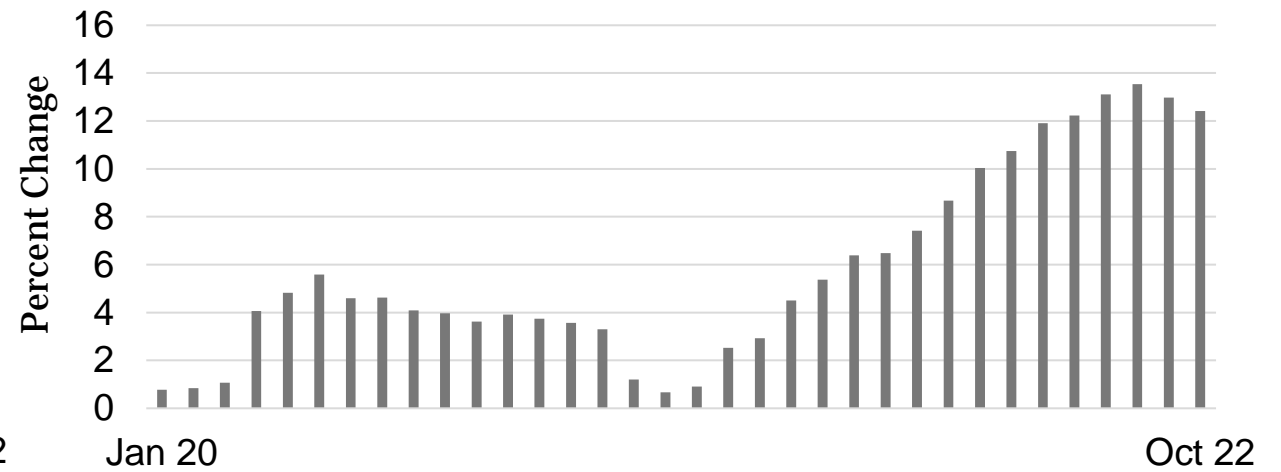
### Energy



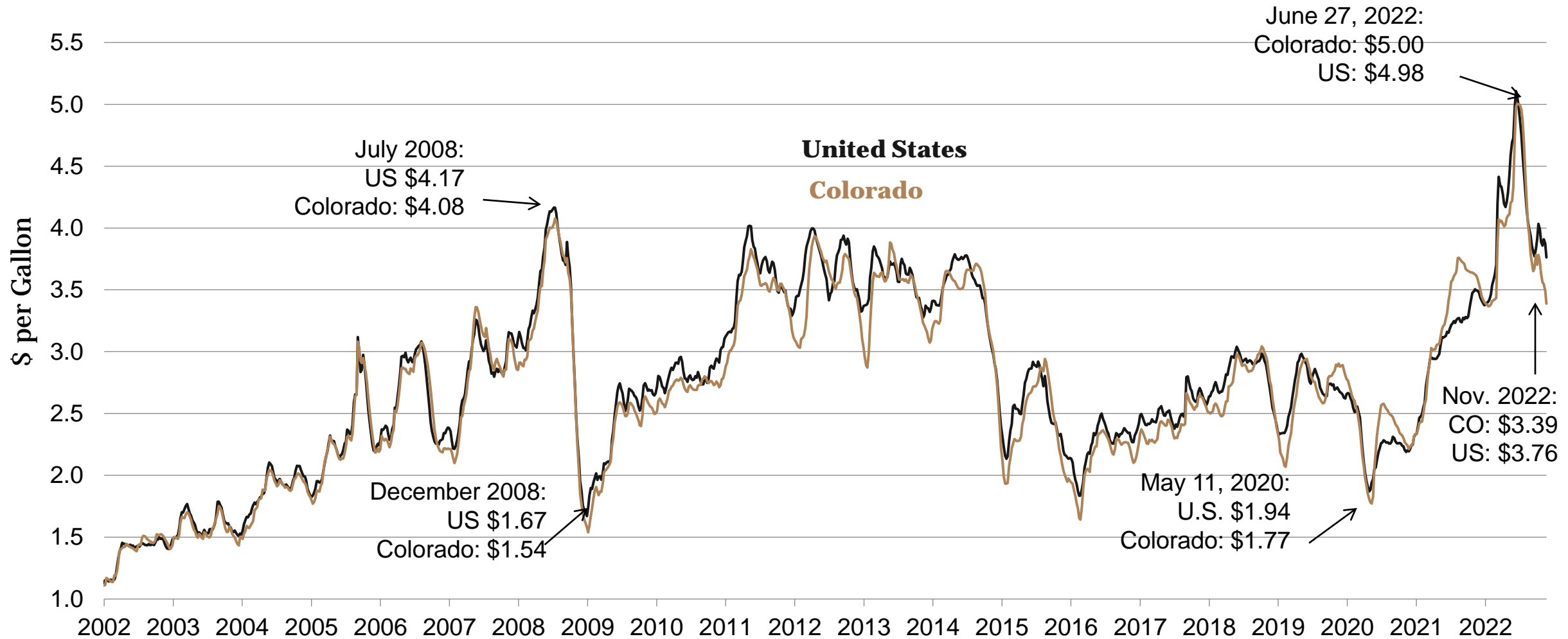
### Shelter



### Food at Home



# Retail Gasoline



Source: Energy Information Administration (All Grades). Data through August 01, 2022.

# Construction Producer Price Index

Year-over-Year Percent Change







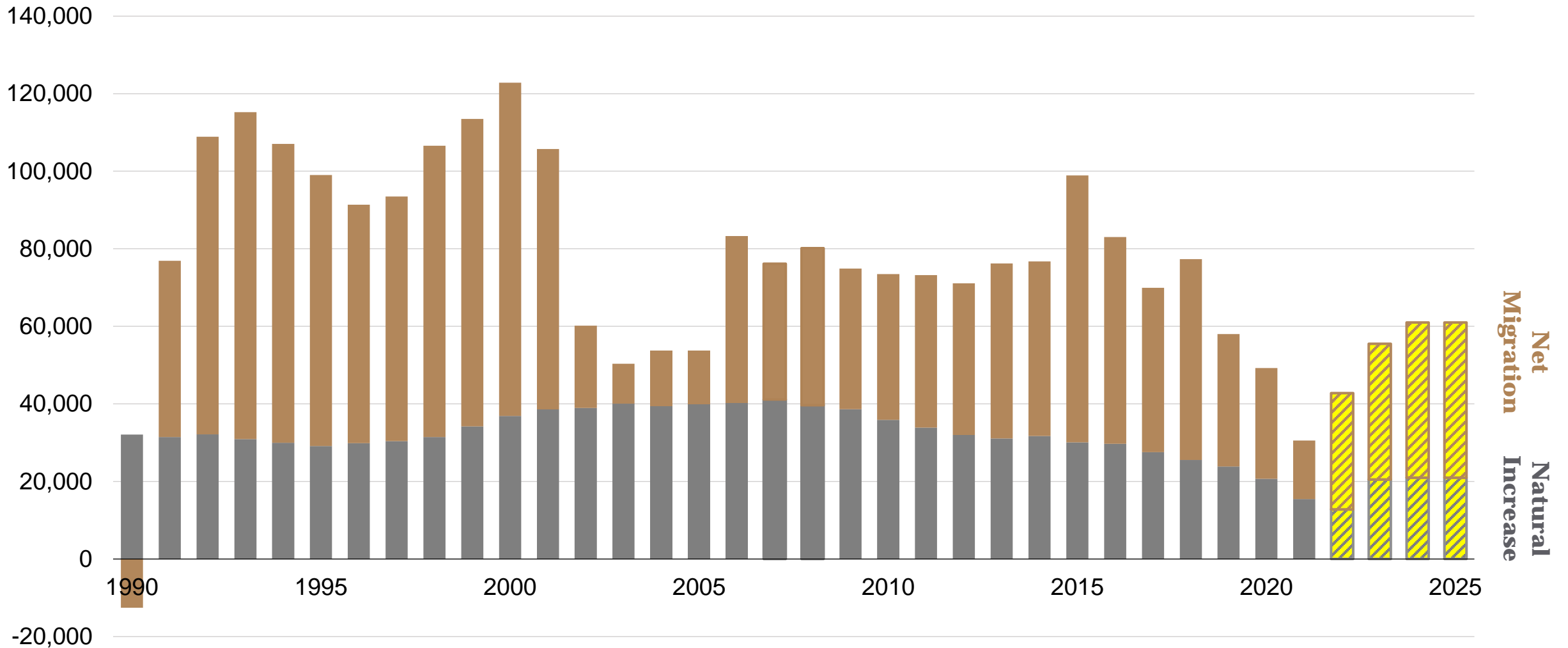
# Colorado Rank Among Other States

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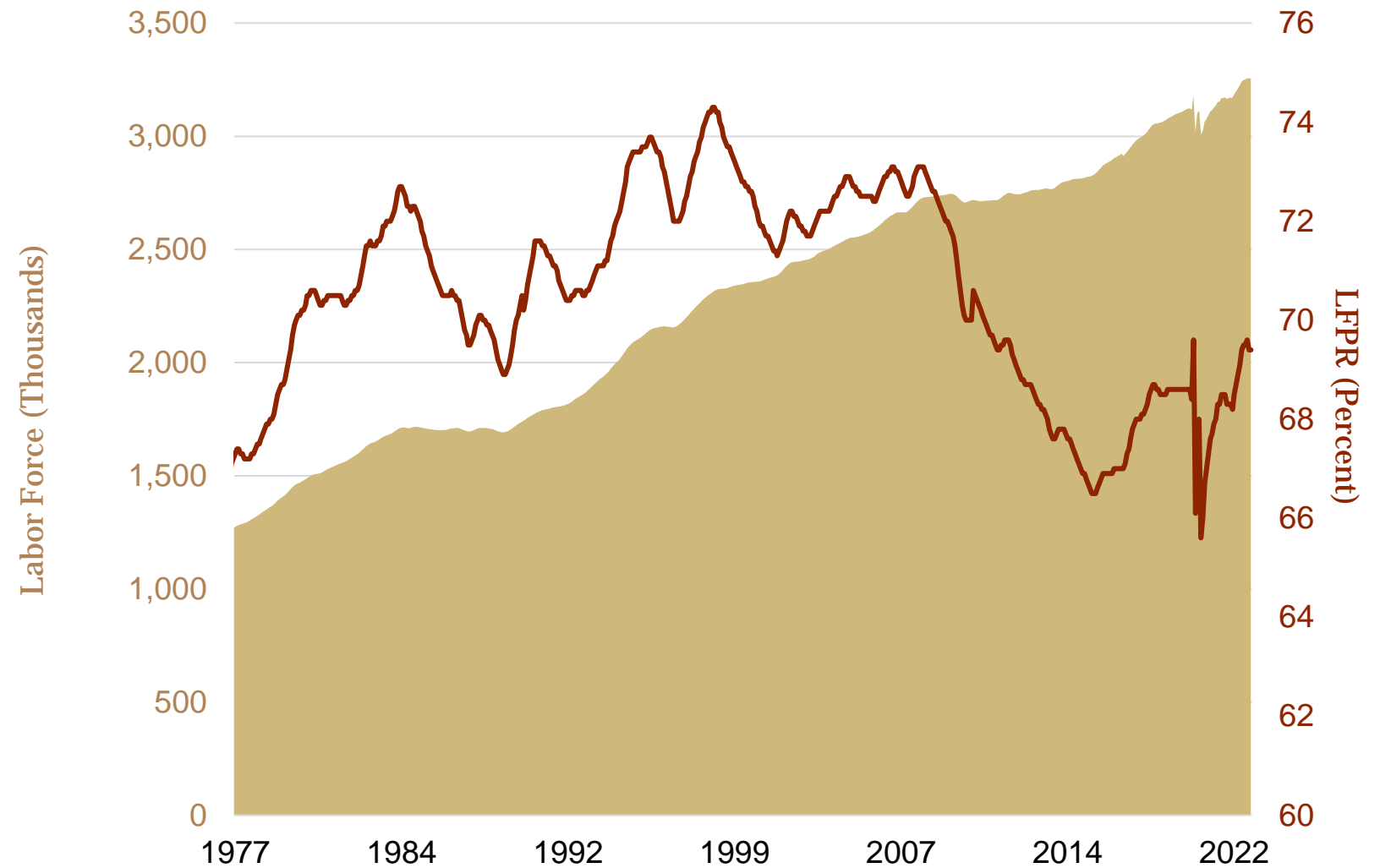
<b>Metric</b>	<b>1-Year Change</b>	<b>1-Year Rank</b>
Real GDP Growth	3.0%	7
Employment Growth	4.2%	7
Population Growth	0.5%	17
Personal Income Growth	6.6%	3
PCPI Growth	6.0%	1
PCPI	\$73,357	8
Average Hourly Wage % Growth	6.1%	12
Average Annual Pay % Growth	8.1%	11
Average Annual Pay	\$72,076	8
Unemployment Rate	3.6	28
Labor Force % Growth	2.7%	6
LFPR	69.4	2
FHFA Home Price Index Growth	17.7%	19

Data Sources: Bureau of Economic Analysis (2021), Bureau of Labor Statistics (10/22), U.S. Census Bureau (2021), Bureau of Labor Statistics (2022), Federal Housing Finance Agency All Transactions Index (Q2 2022), BRD calculations. \*Unemployment rate for the last month.

# Colorado Change in Population



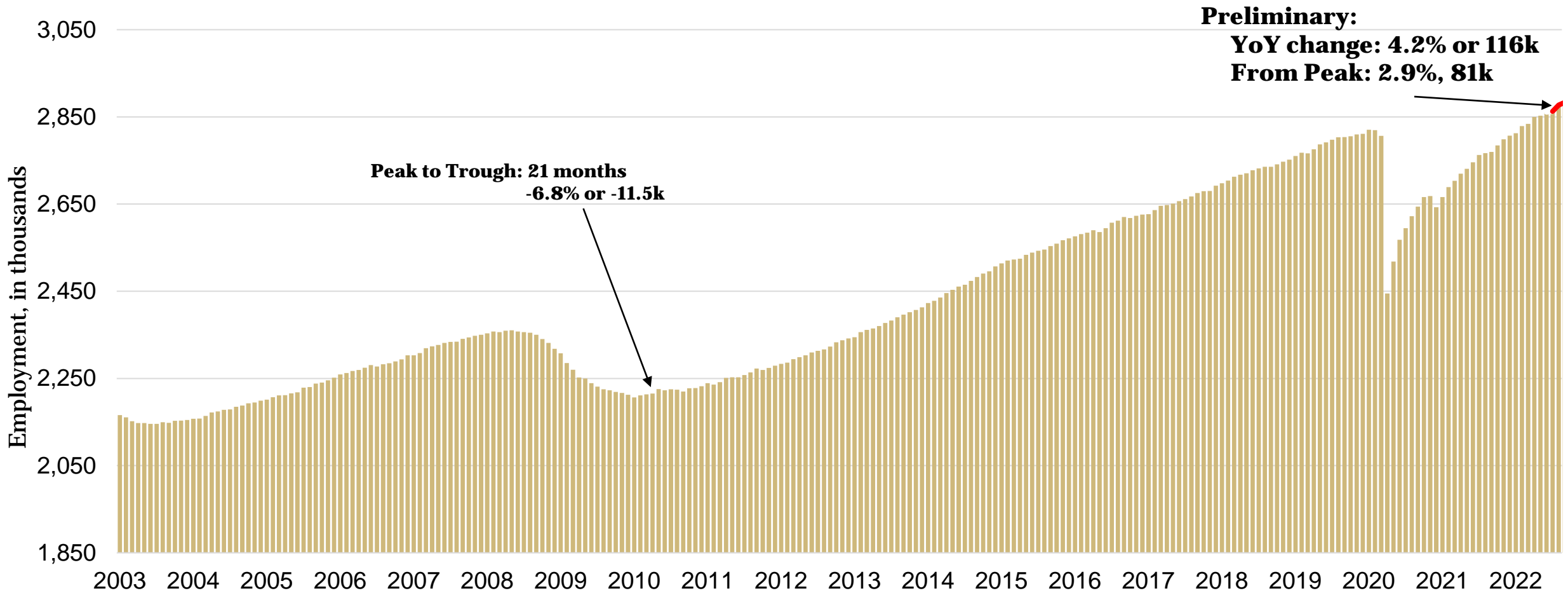
# Colorado Labor Force



- **LFPR rebounding:**
  - 68.6% January 2020
  - 69.4% October 2022
- **2<sup>nd</sup>-highest nationally**
- **Colorado peak = 74.3% (1998)**

# Employment

Colorado (October)

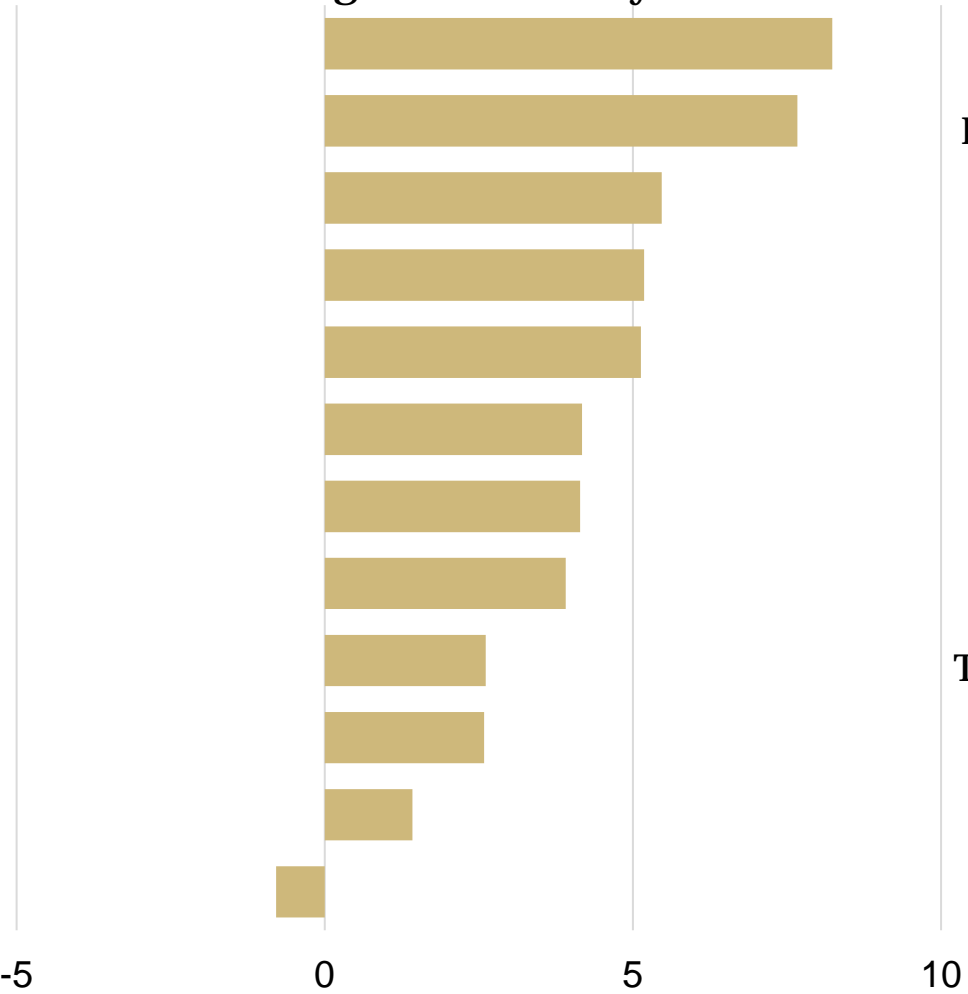


**Preliminary:**  
**YoY change: 4.2% or 116k**  
**From Peak: 2.9%, 81k**

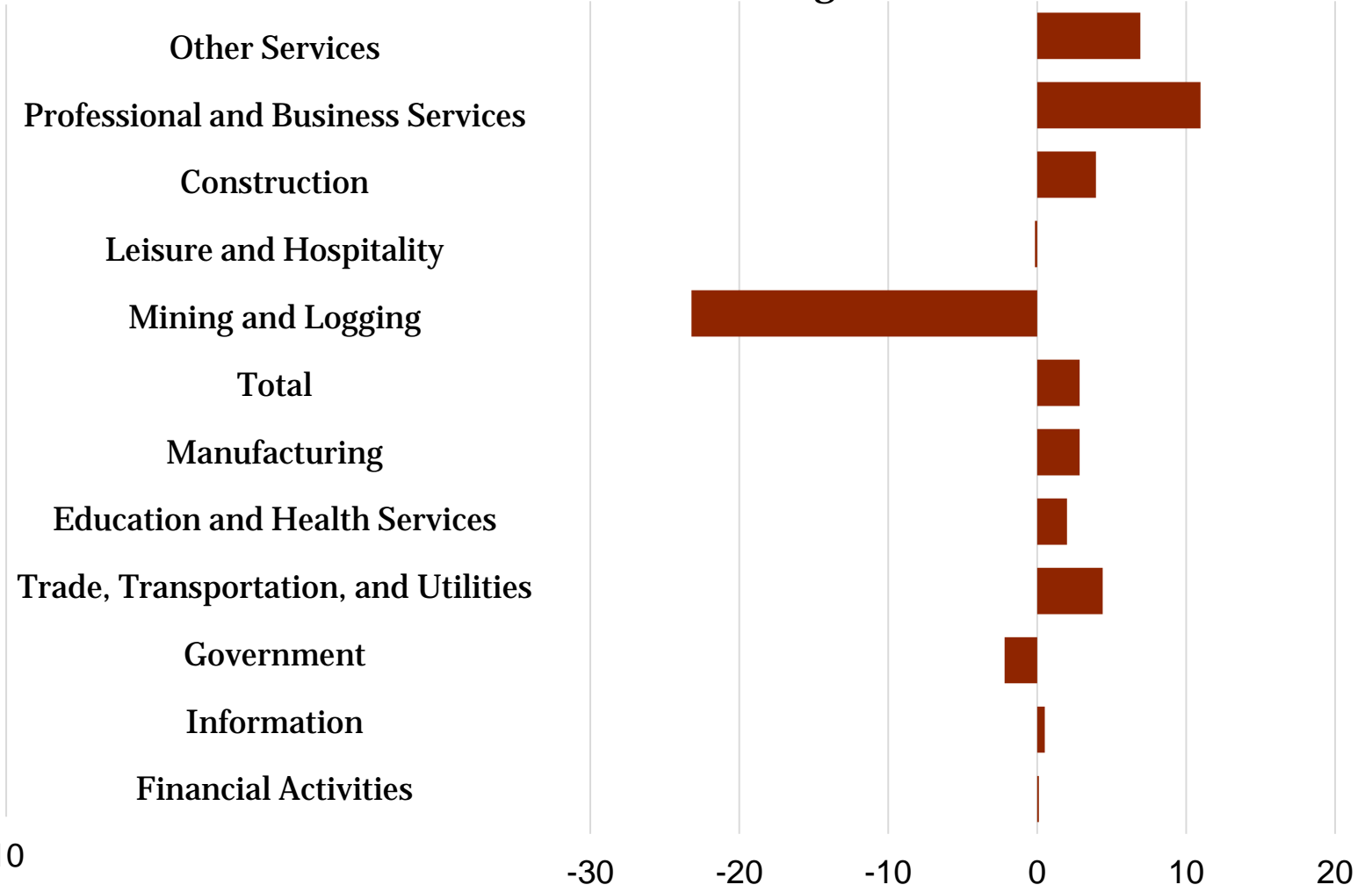
**Peak to Trough: 21 months**  
**-6.8% or -11.5k**

# Colorado Employment Change (as of Oct. 2022)

Pct. Change, Year-over-year

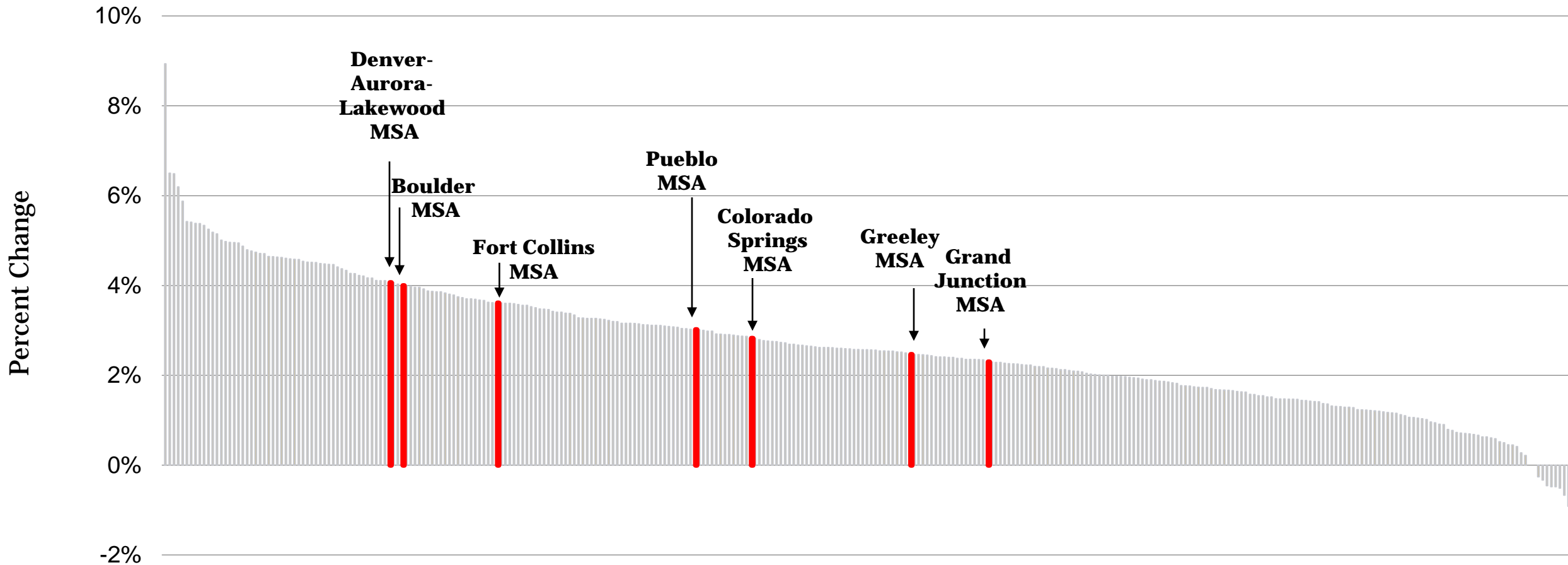


Pct. Change, Jan. 2020-Oct. 2022



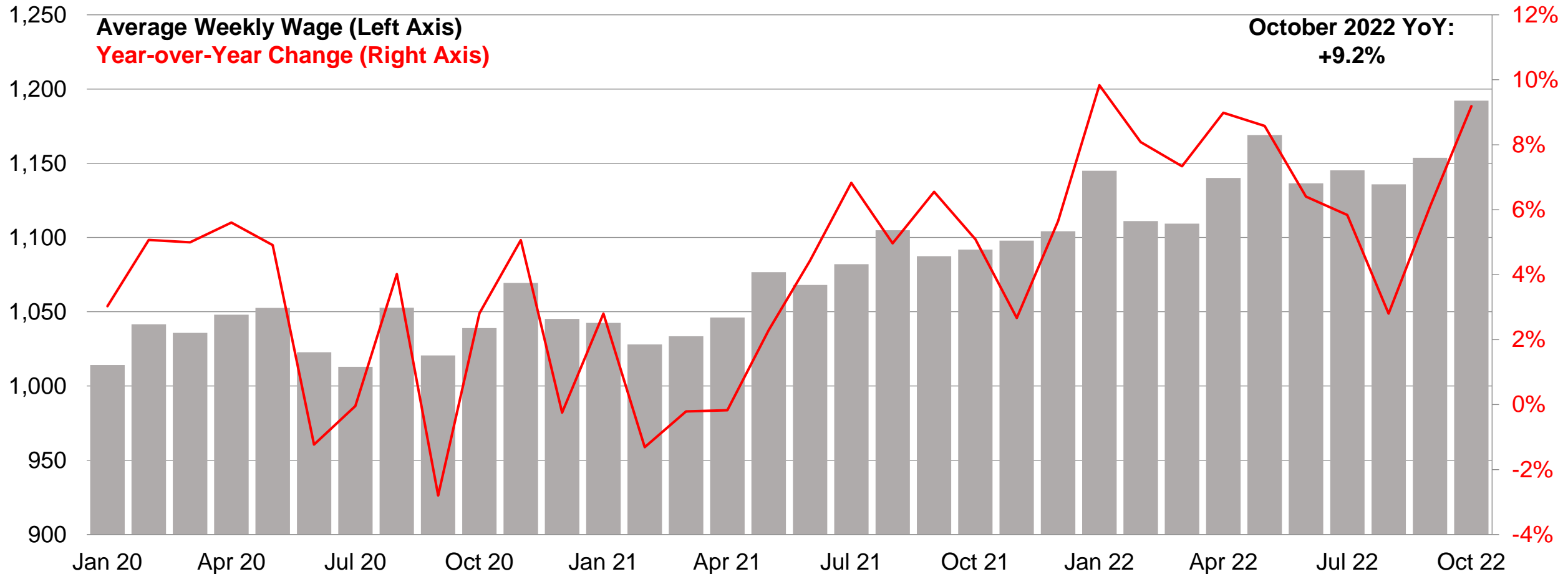
# Employment by MSA

1-Year Change, October 2022



# Colorado Private Sector Wages

## Average Weekly Wage



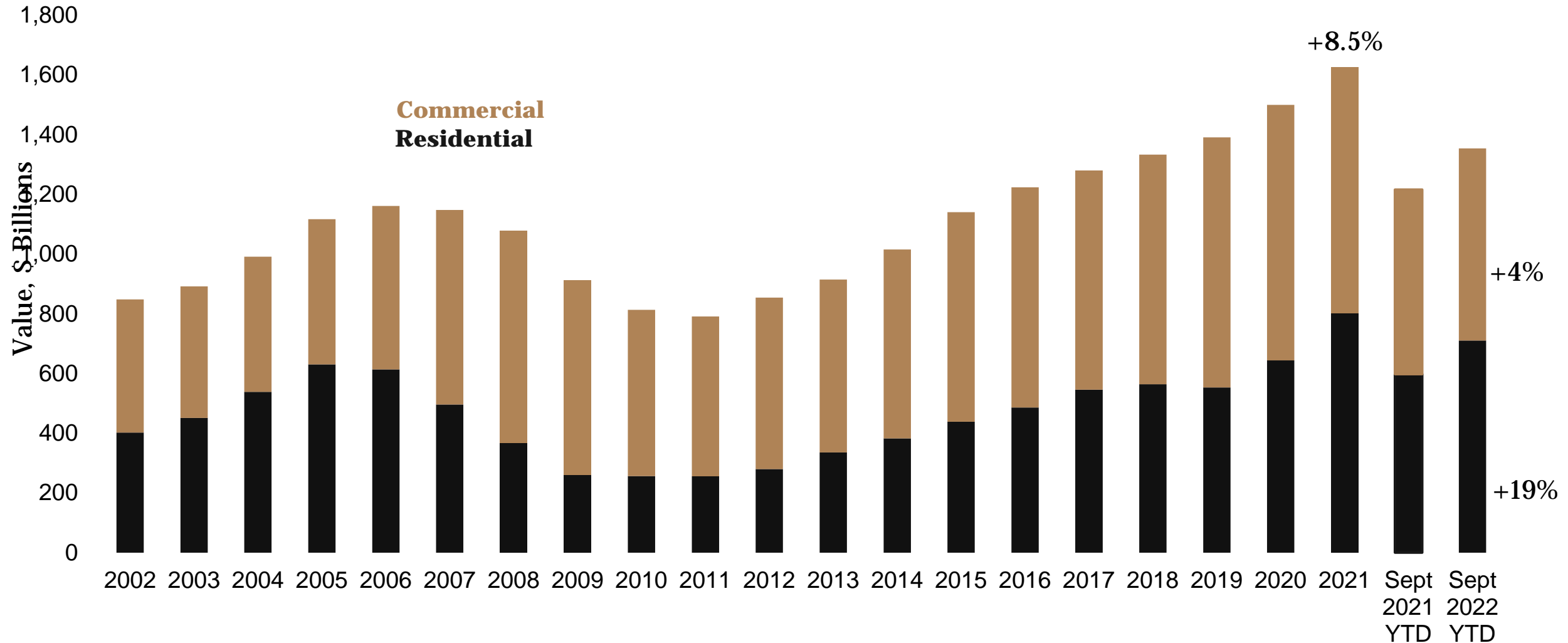




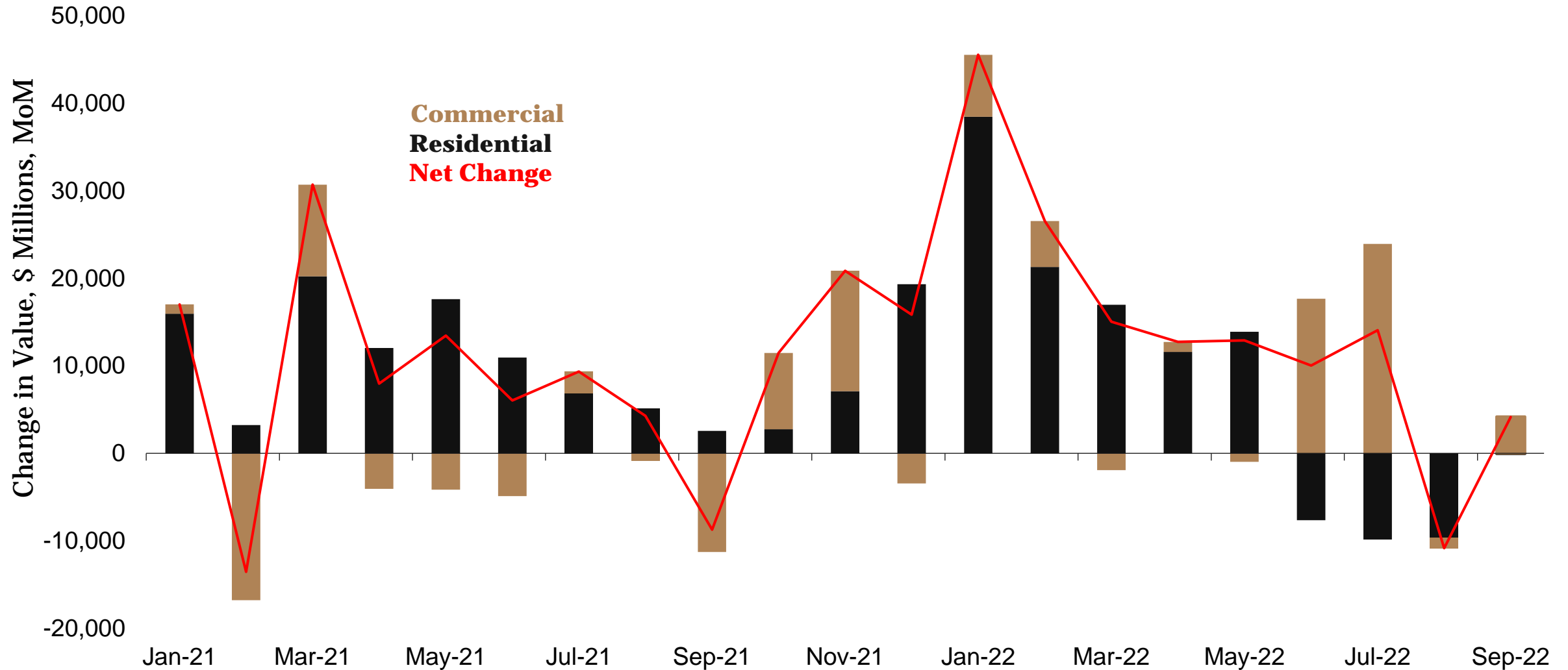
# Construction & Real Estate

Photo courtesy of Denver International Airport.

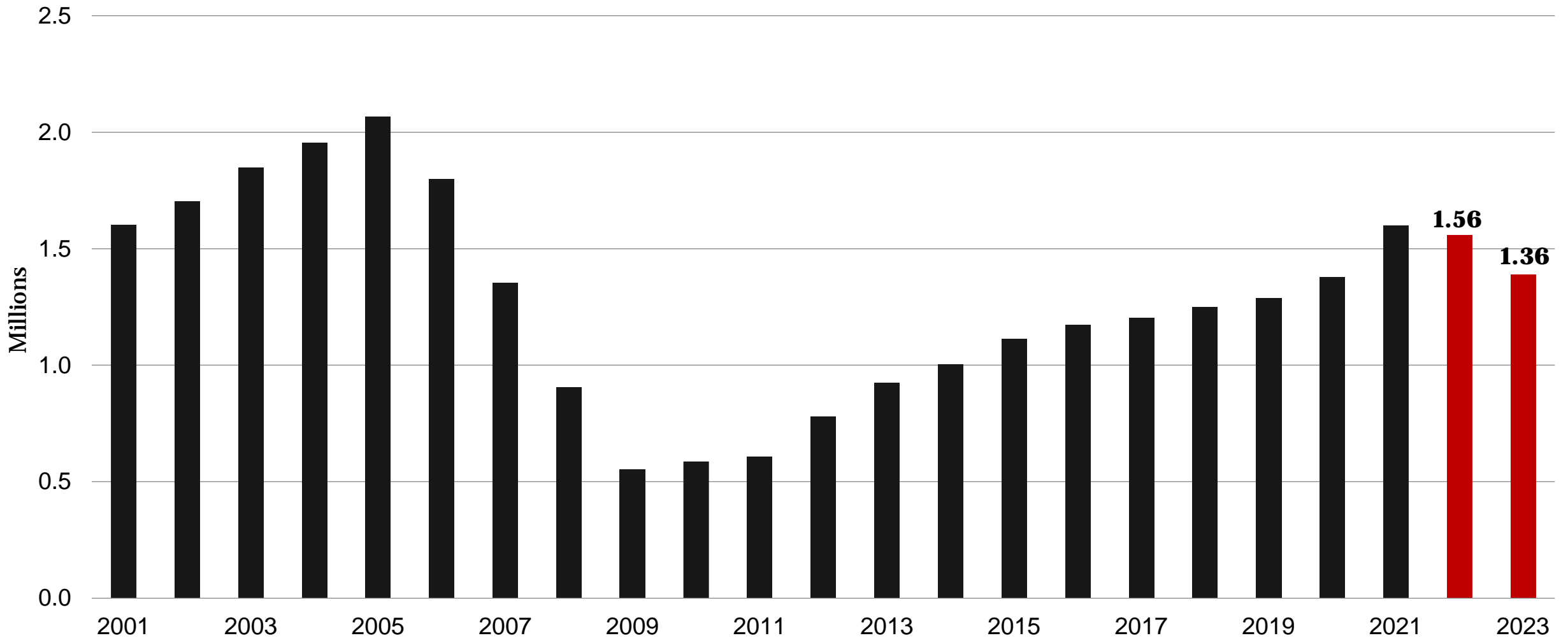
# National Value of Construction



# National Value of Construction



# National Housing Starts

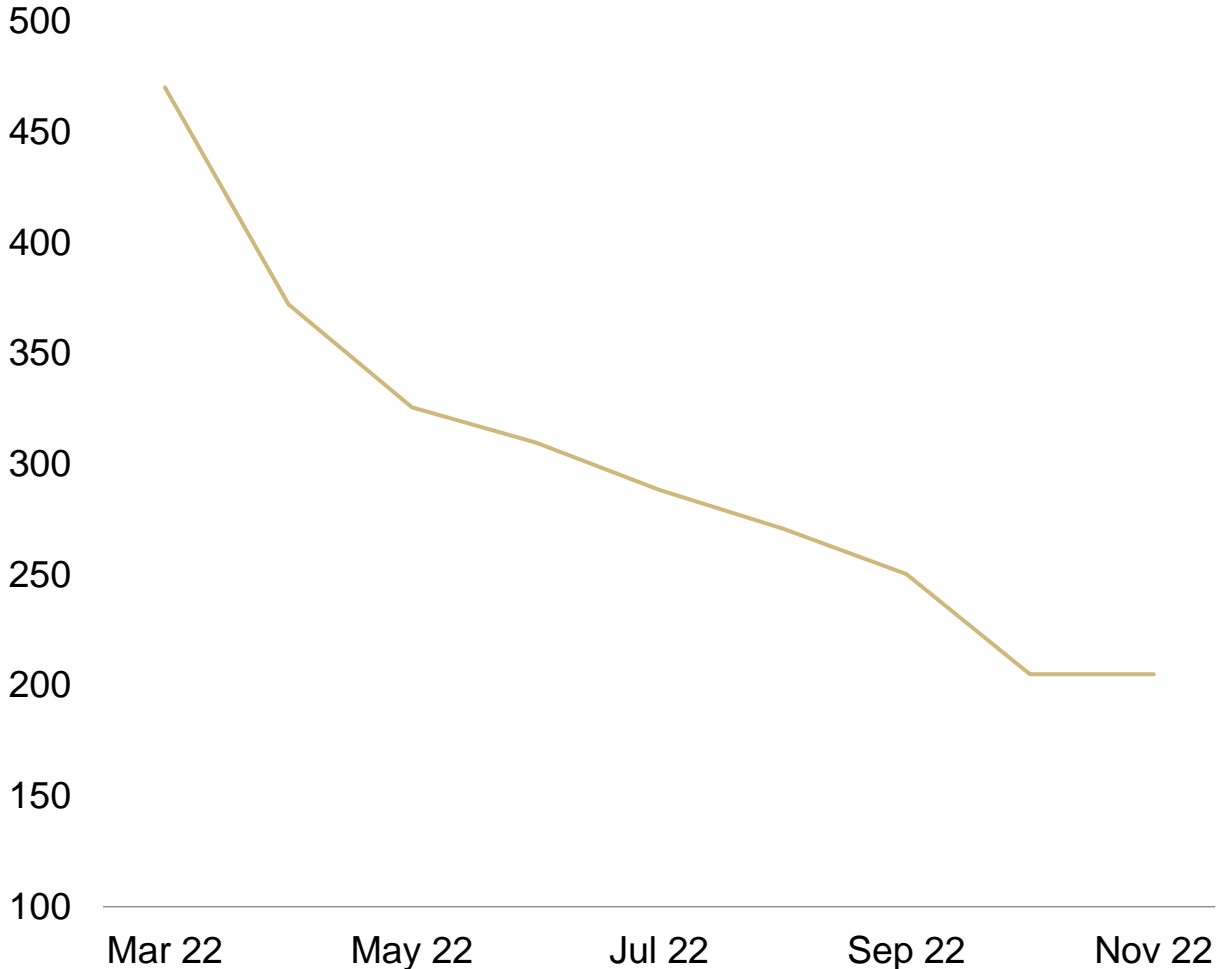


# NAHB Housing Market Index

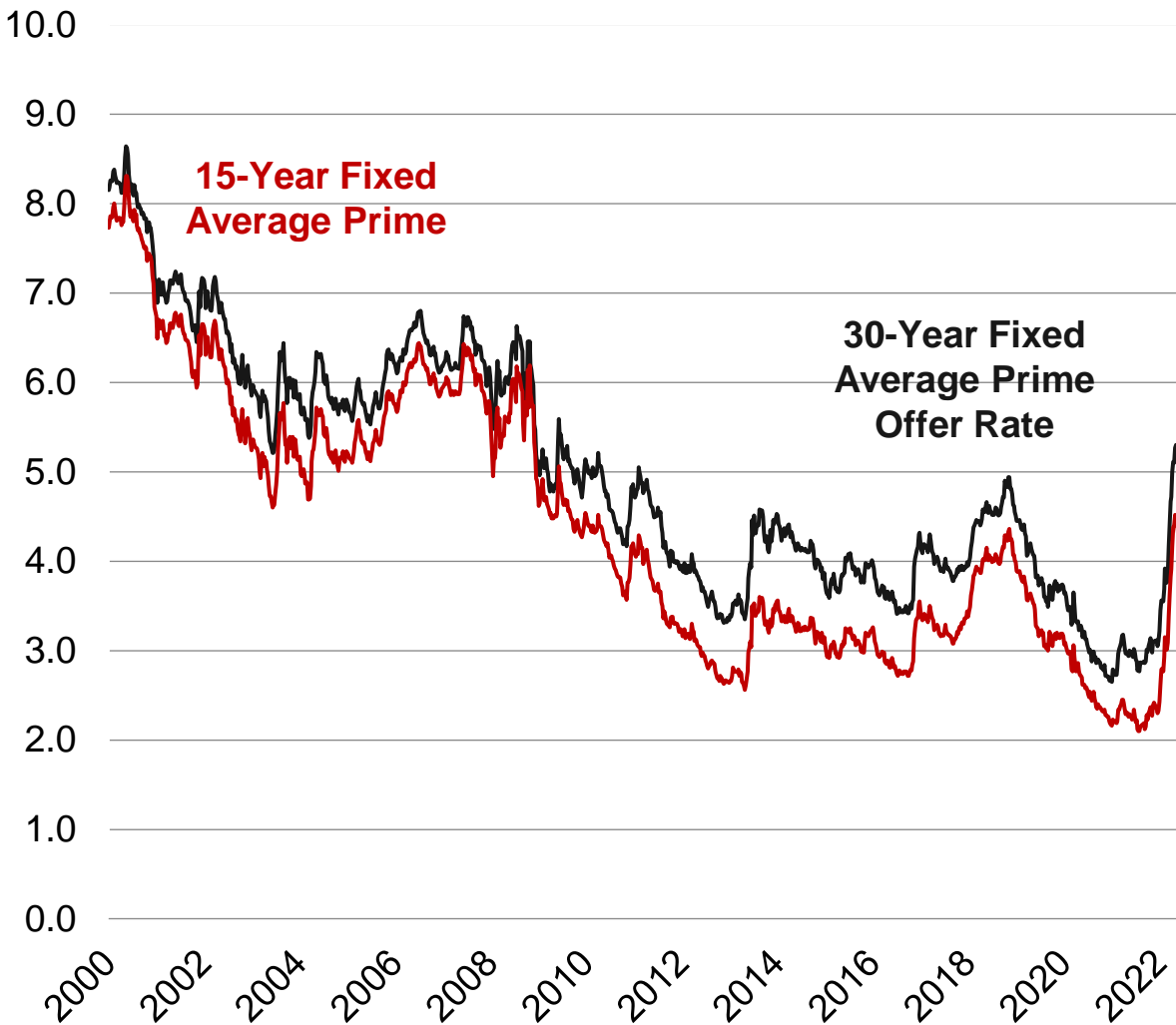


# Mortgage Applications & Rates

Composite Index,  
March 1990=100

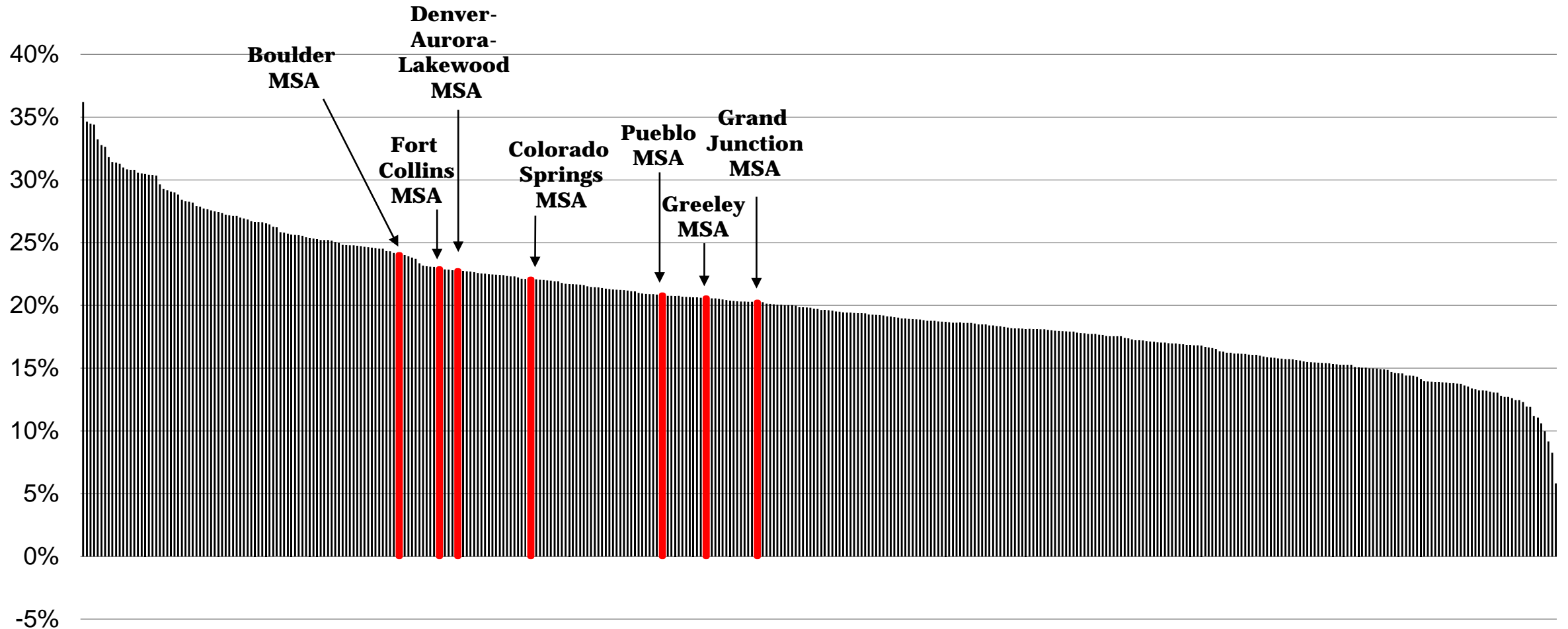


Percent

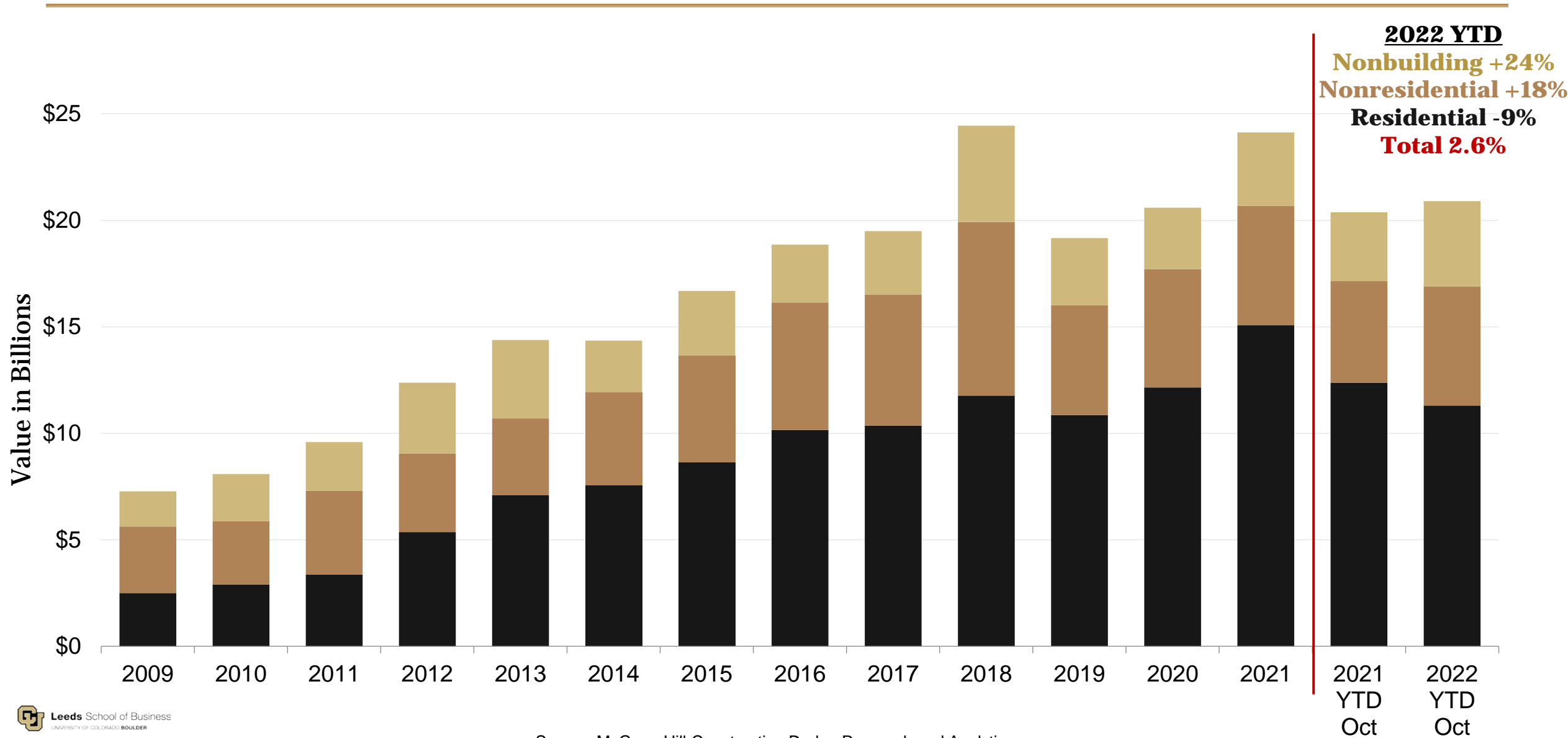


# FHFA Home Price Index by MSA

## 1-Year Home Price Change, Q2 2022

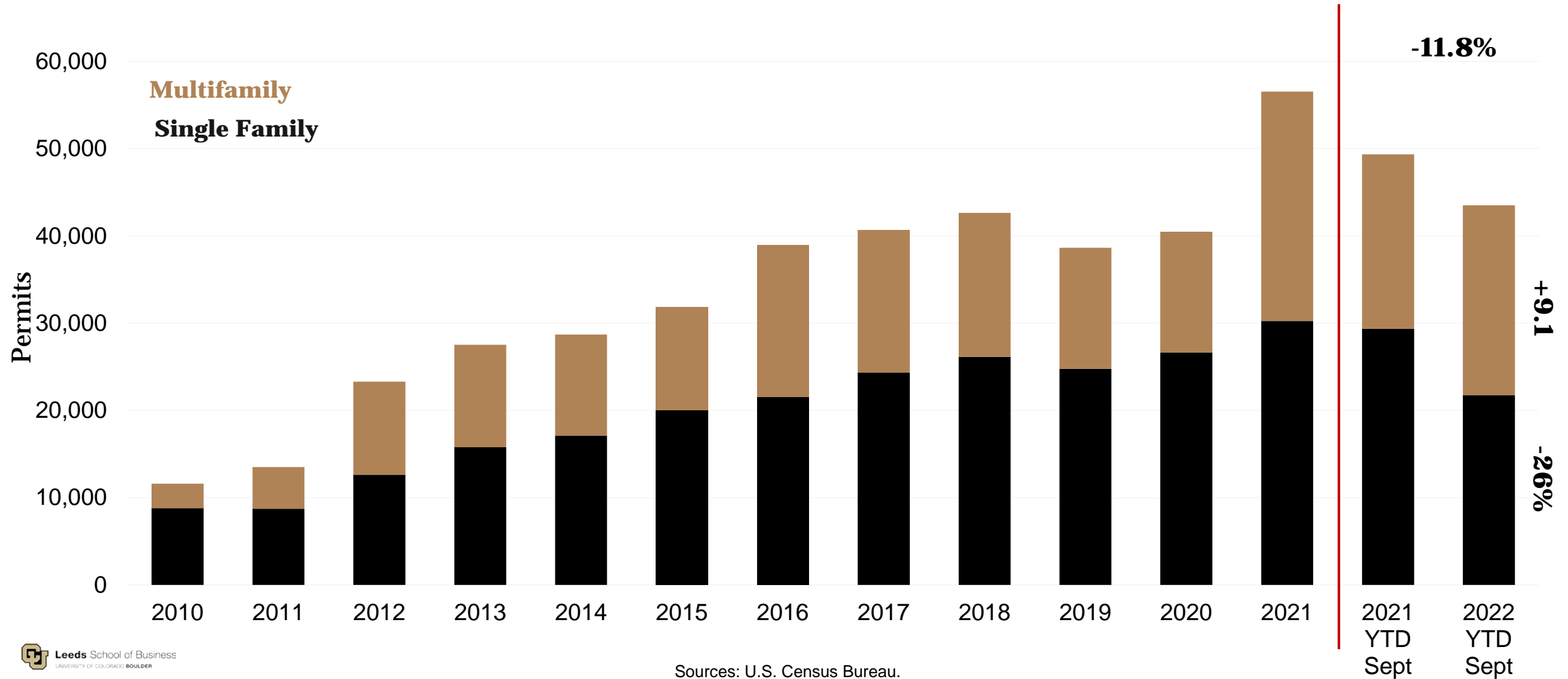


# Colorado Value of Construction





# Colorado Residential Building Permits



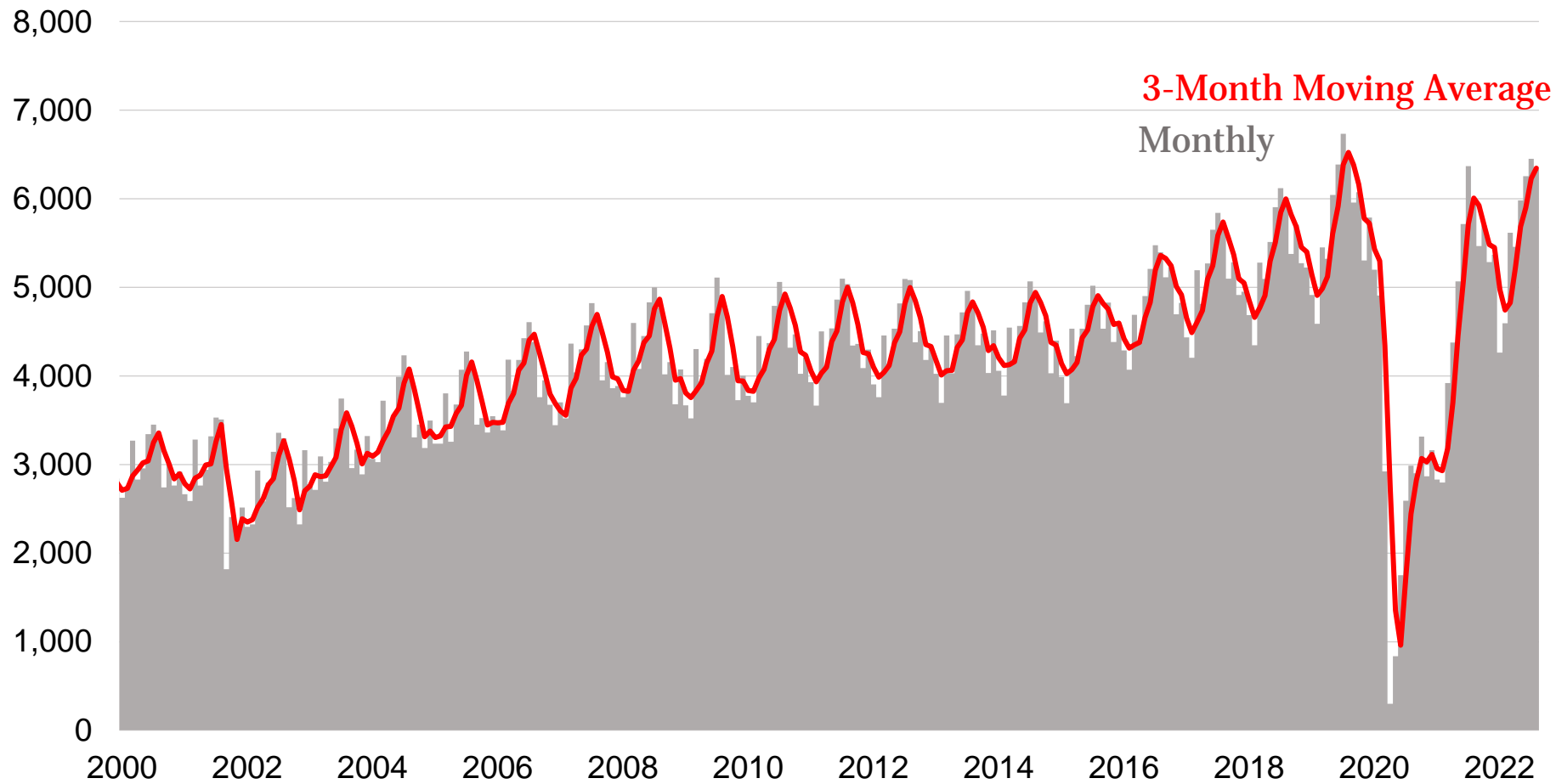
# Leisure and Hospitality

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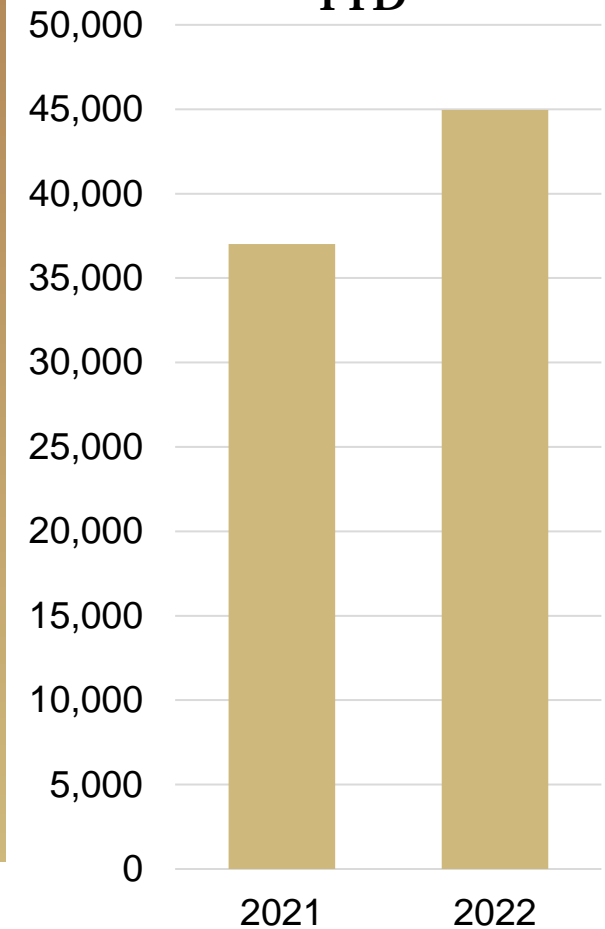


# DIA Enplanements and Deplanements

DIA Monthly Passenger Traffic, Thousands, 2001-2021

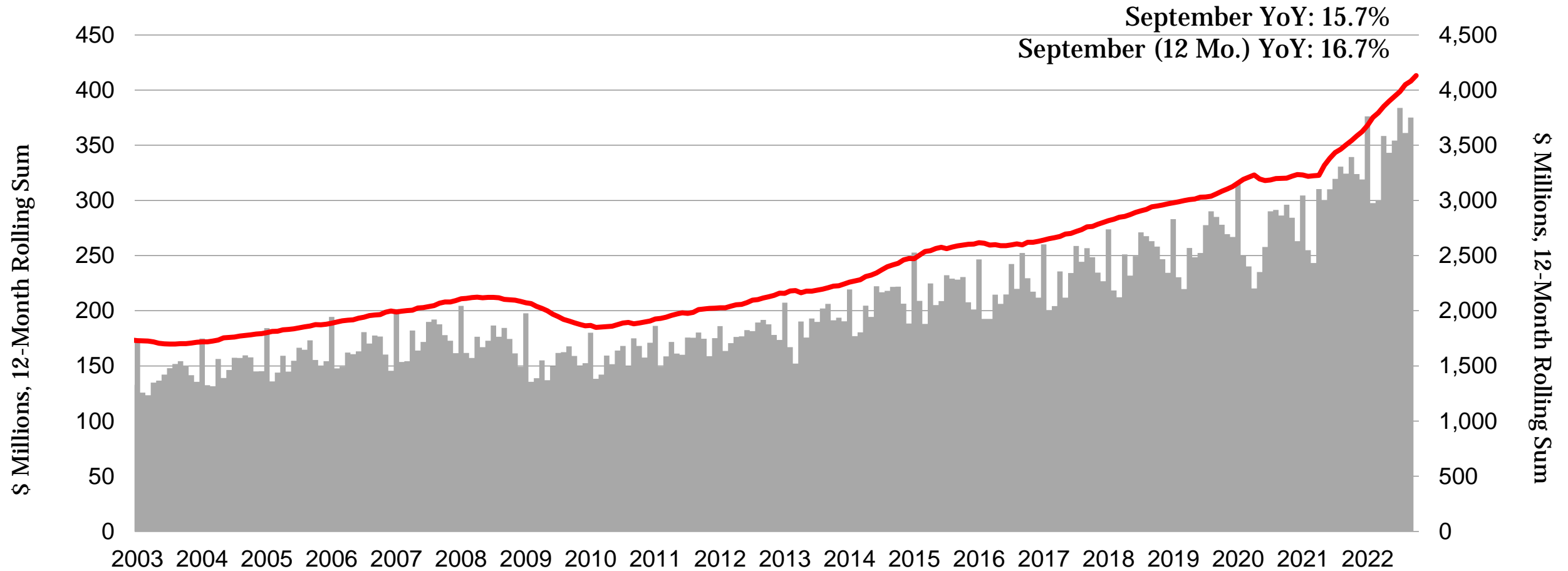


August  
YTD



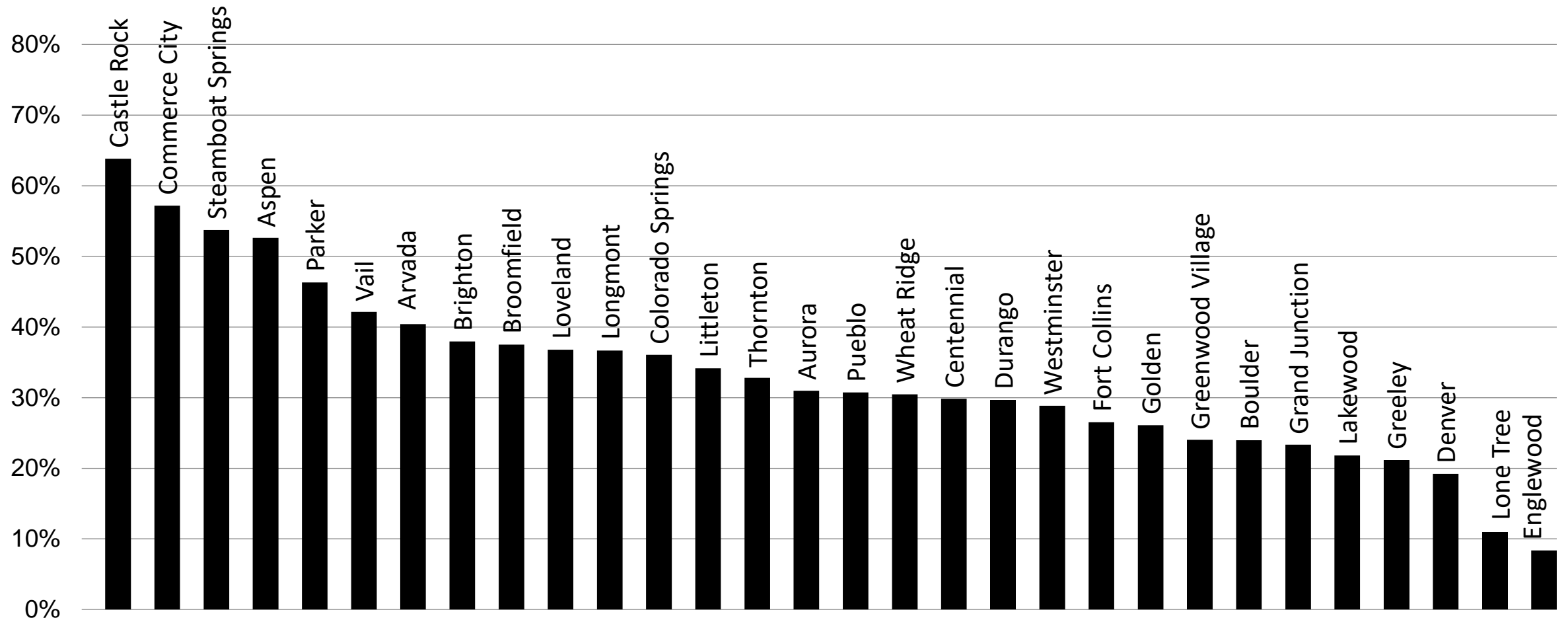
# Sales Tax Collections

## State of Colorado



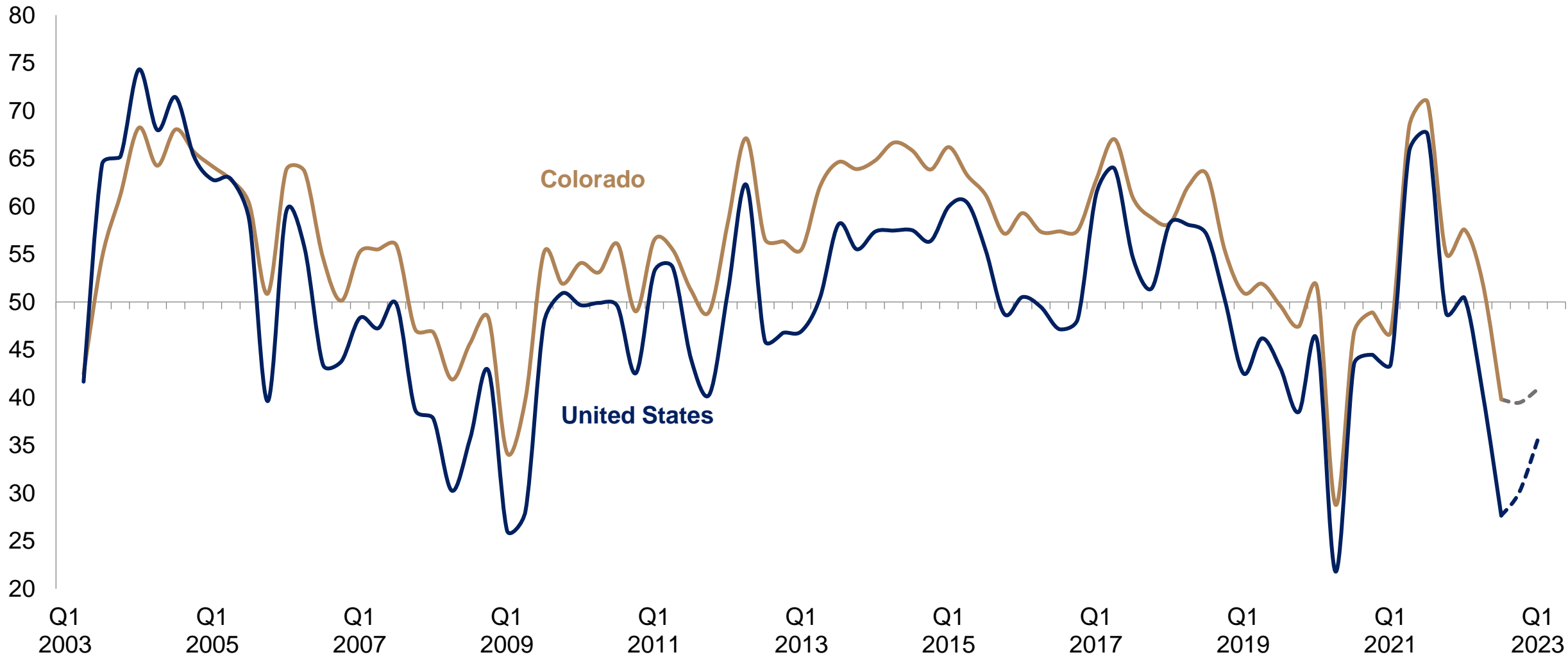
# Colorado Taxable Sales by City

2022 YTD Compared to 2019 YTD September



# National and State Expectations

Index (50=Neutral)



## Tailwinds

Employment Growth  
Wage Growth  
Consumption  
Retail Sales  
Income Growth  
Infrastructure Spending  
Trade Deficit

## Headwinds

Gross Domestic Product  
Ukraine Conflict  
Inflation  
Interest Rates  
Supply Chain Disruptions  
Worker Shortages  
Fed Policy  
Labor Participation  
Energy Prices  
Manufacturing

## Unknowns

COVID Variants  
Human Behavior  
China  
Migration  
Birth Rates  
Work from Home

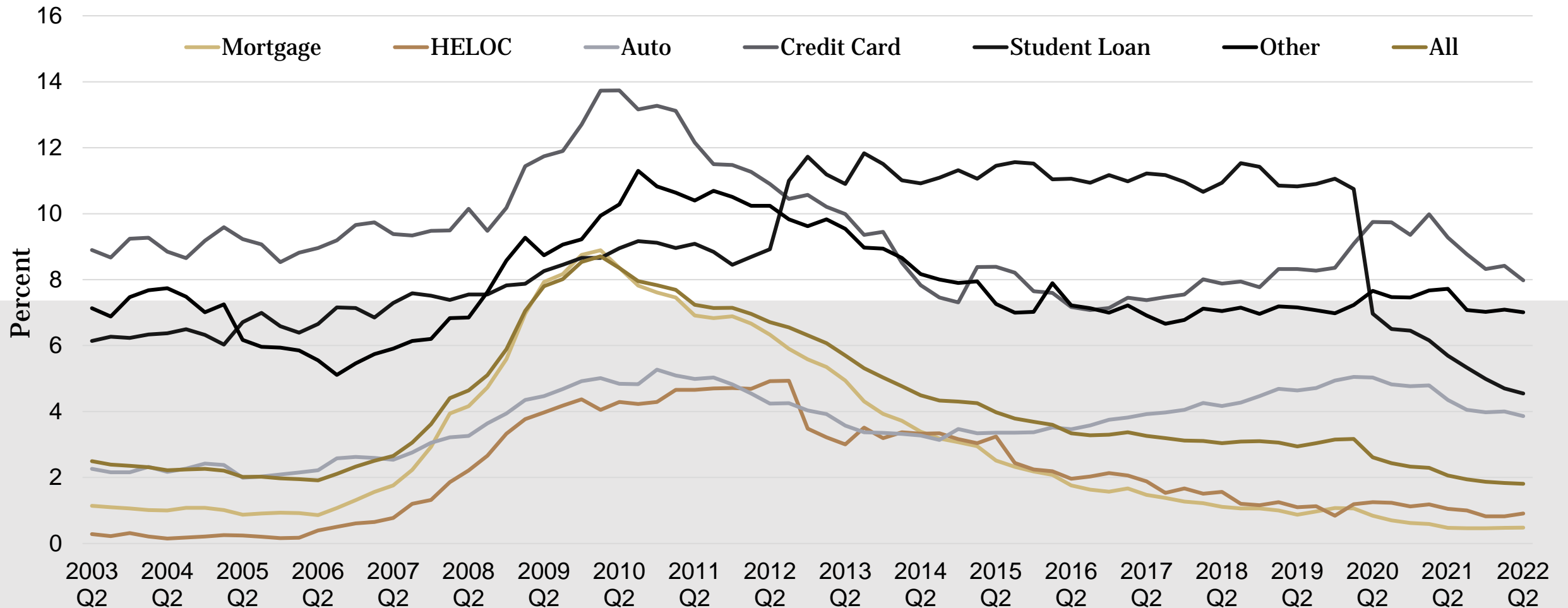
# Q&A



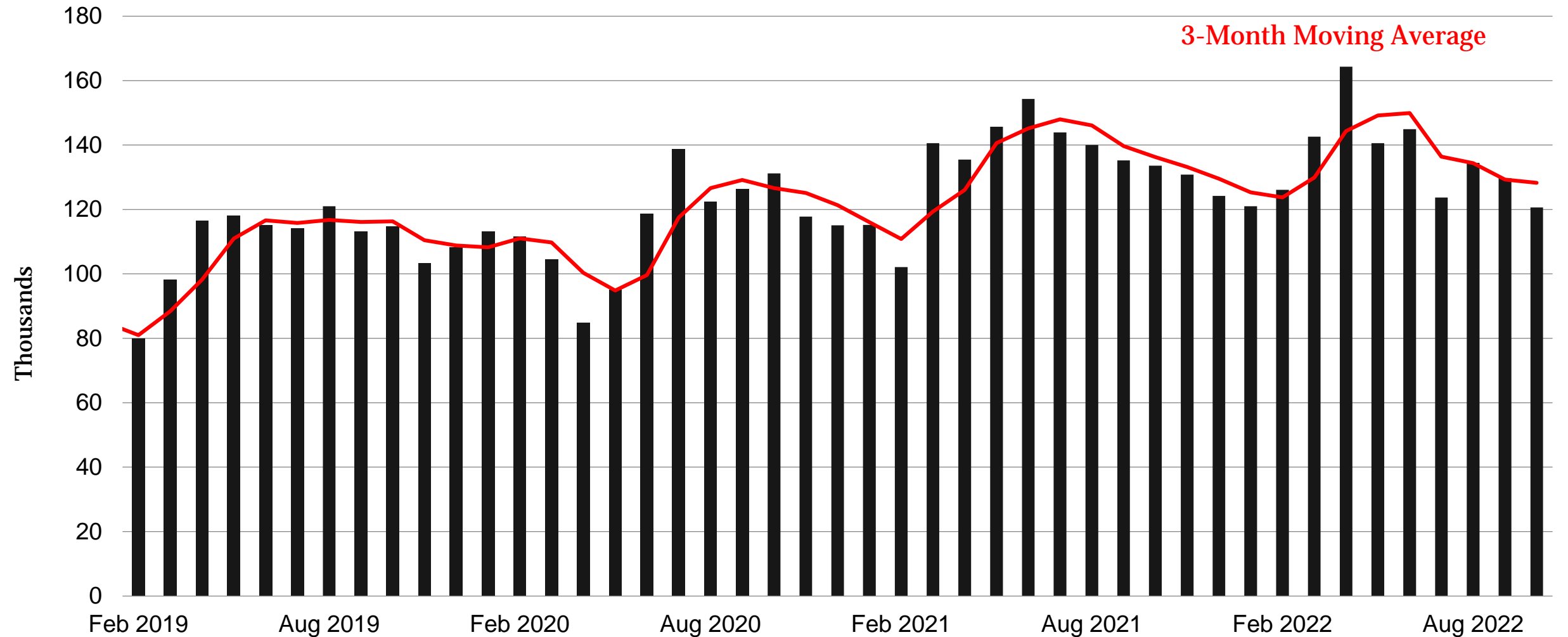


# Loan Delinquency

Percent of Balance 90+ Days Delinquent by Loan Type



# National Housing Starts



# U.S. Housing

## Supply, Inventory, and Permits

New SF Home Inventory  
(thousands)

(Months)

