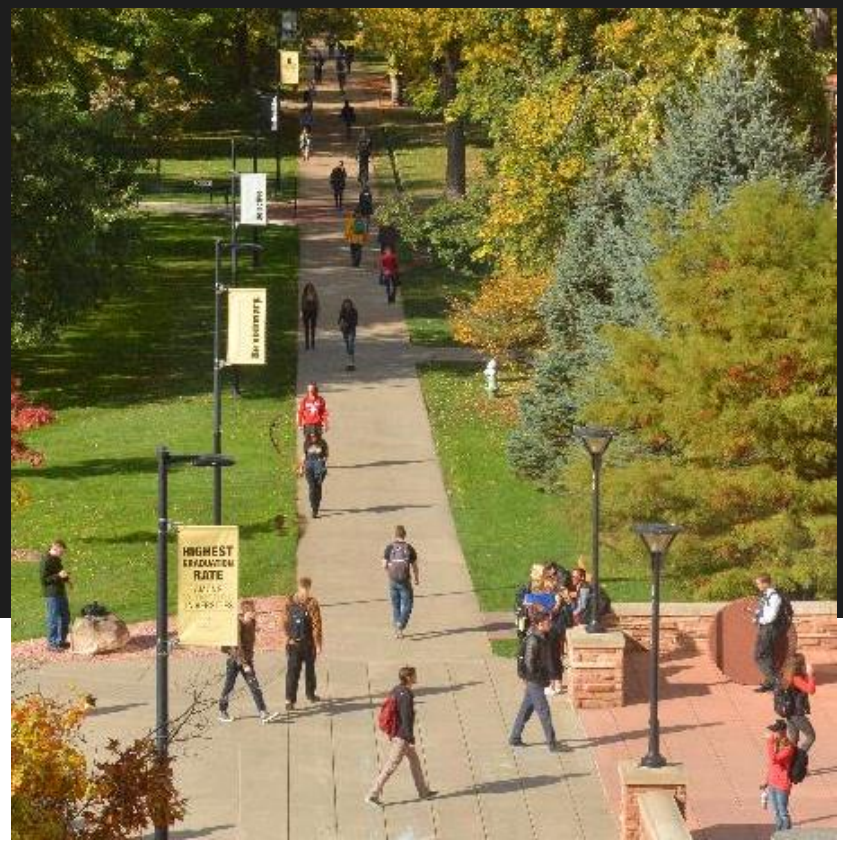
Can a Recession be Avoided?

Boulder Economic Forecast



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Richard Wobbekind
Brian Lewandowski
Business Research Division
University of Colorado Boulder

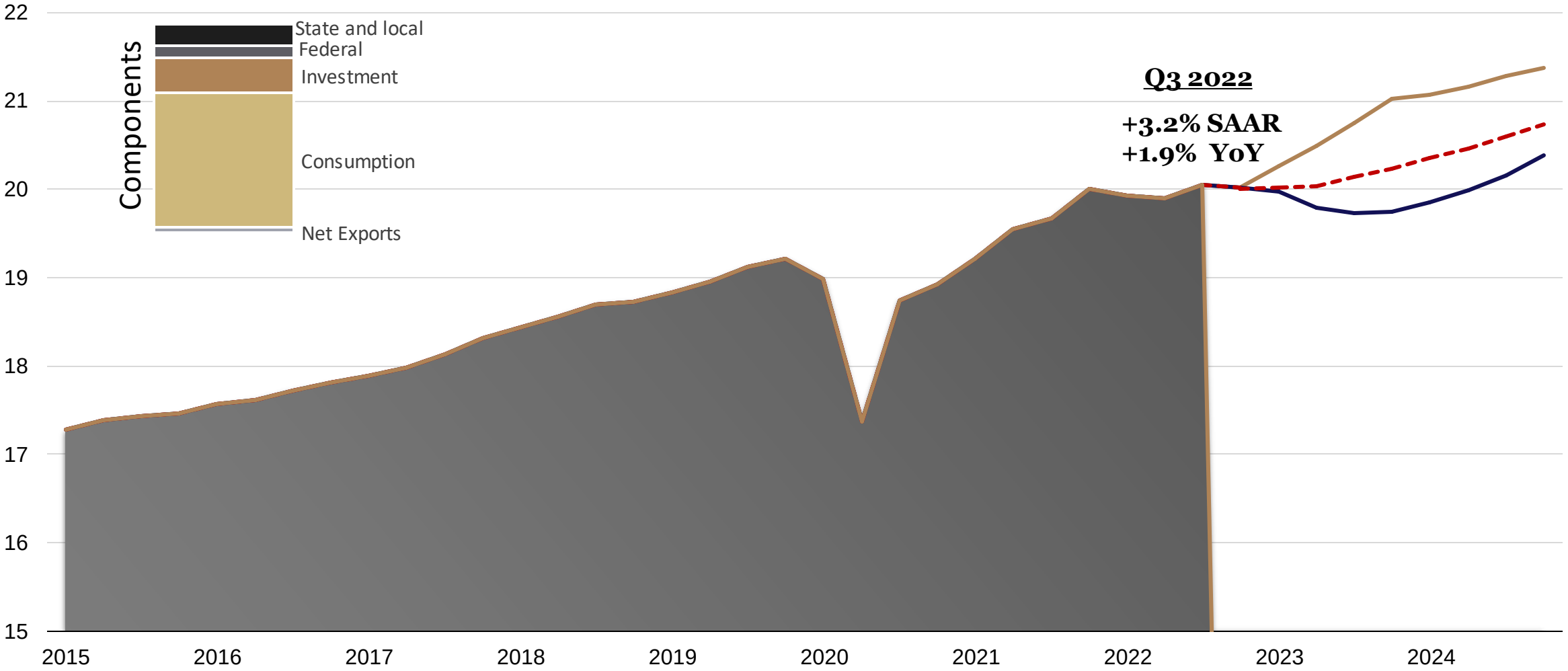
January 19, 2023

National Overview

- GDP rebounded in Q3
- Employment and income up
- ISM slipping
- Confidence bounced
- Consumption wavering
- Prices improving
- Interest rates expected to move higher
- Business confidence mixed
- Debt recording strong growth
- Industrial production leveling
- Capacity utilization leveling
- Labor force leveling

U.S. Real GDP

U.S. Quarterly GDP, $ Trillions



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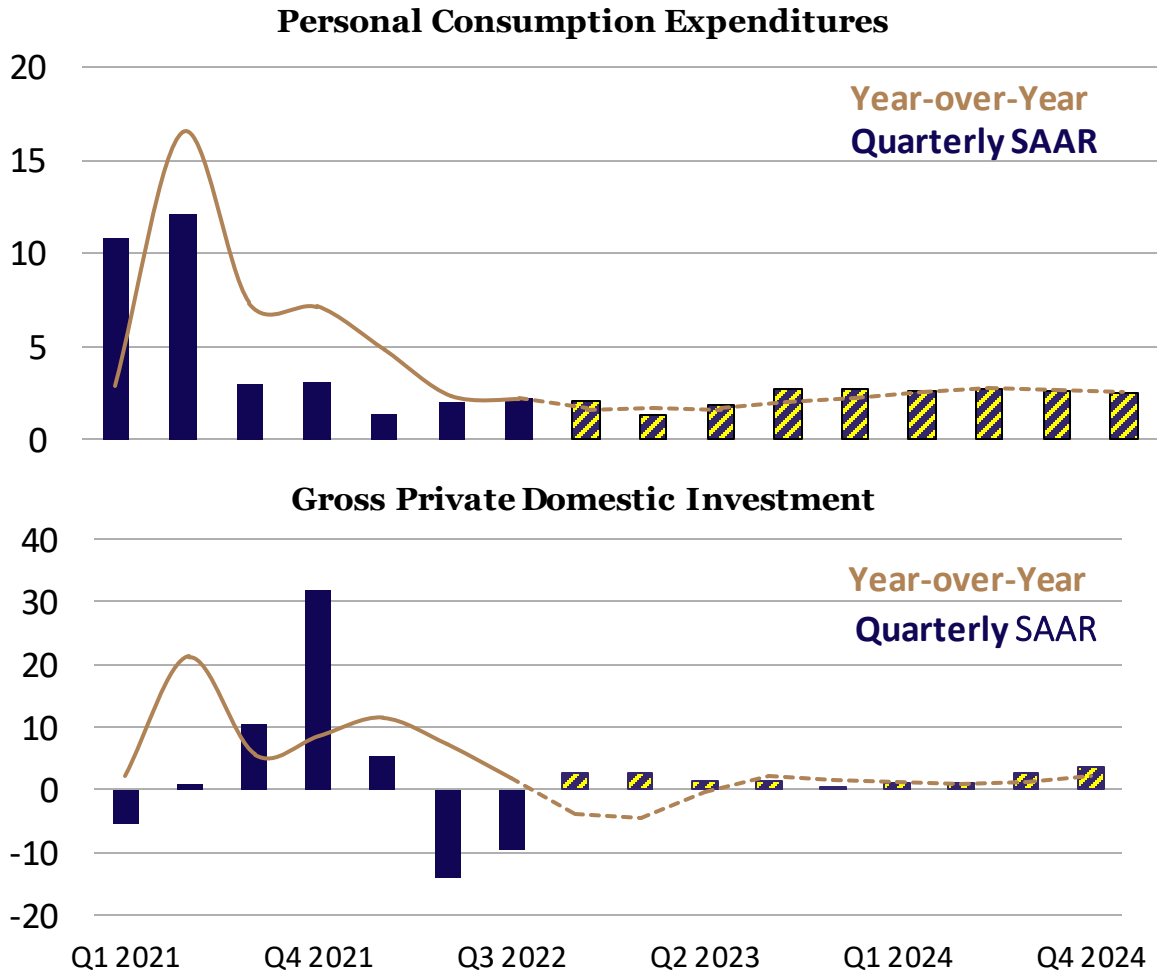
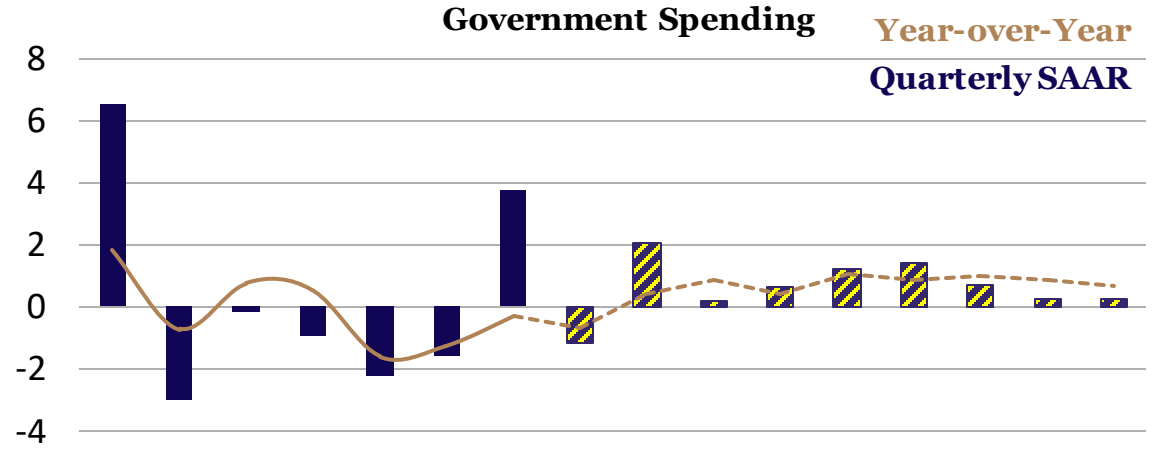
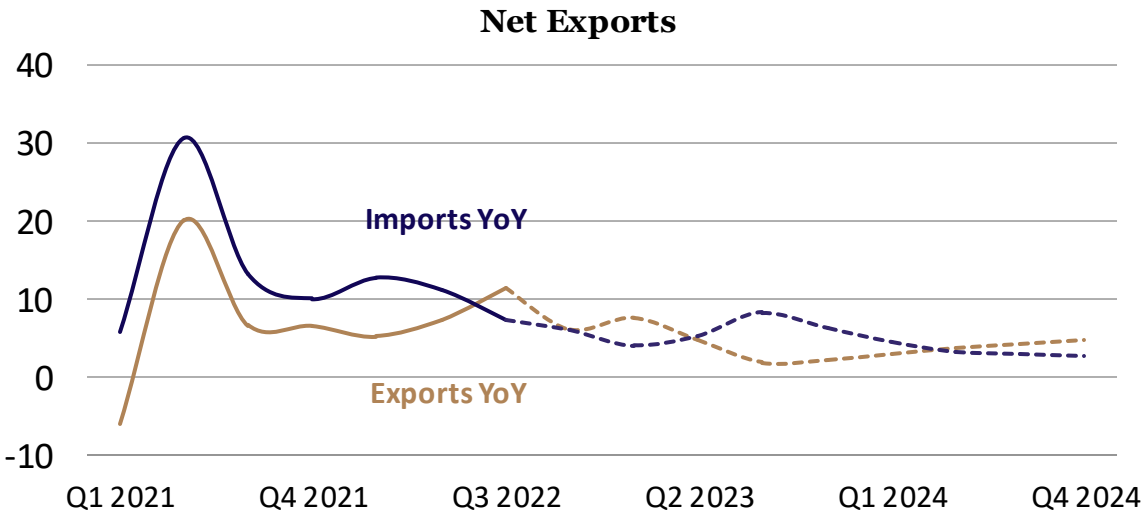
Source: Bureau of Economic Analysis and Moody's Analytics. Moody's scenarios include the Baseline forecast, S1, and S3.

Economic Growth

Components of GDP: C+I+G+X





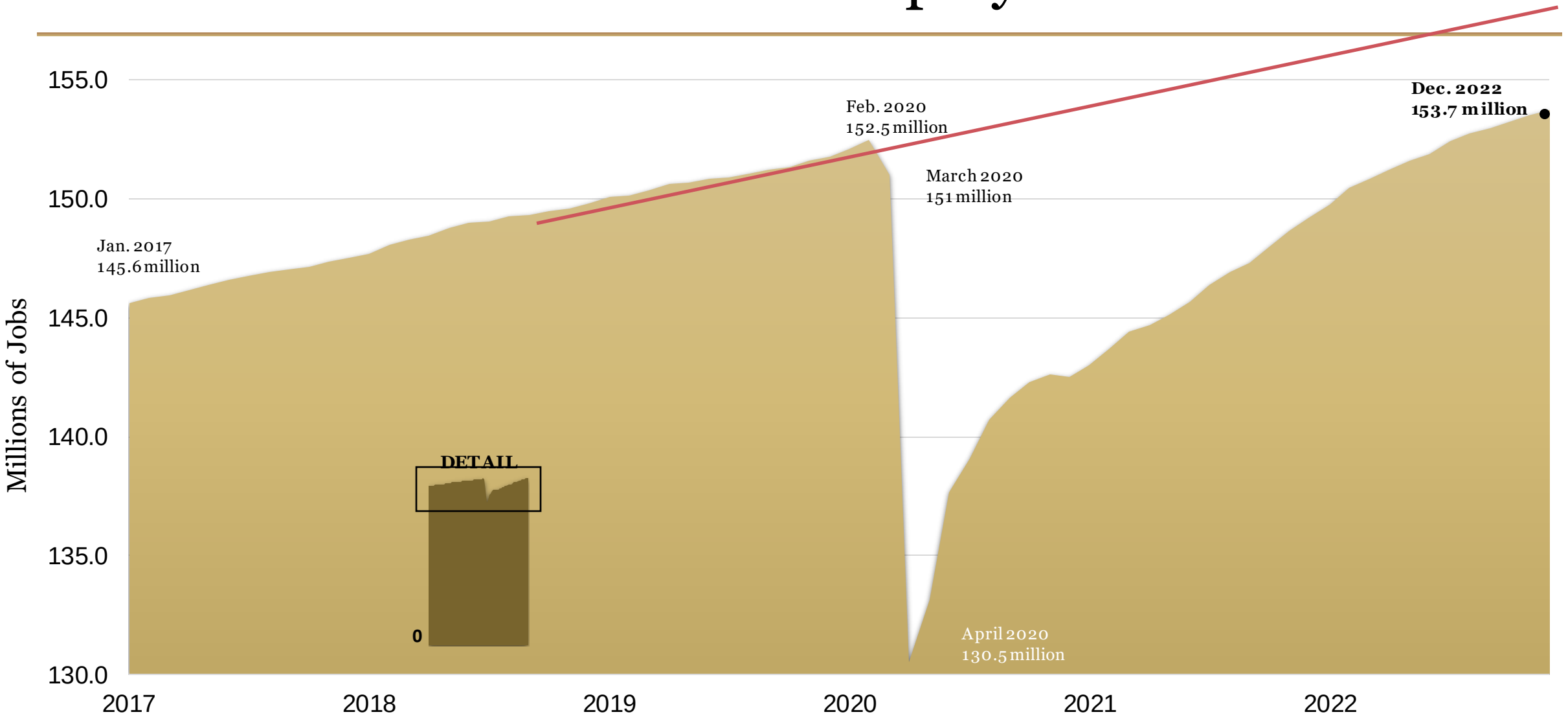


Sources: Bureau of Economic Analysis, Moody's Analytics, and Consensus Forecasts

Jobs

Photo by Alexander Grey on Unsplash.

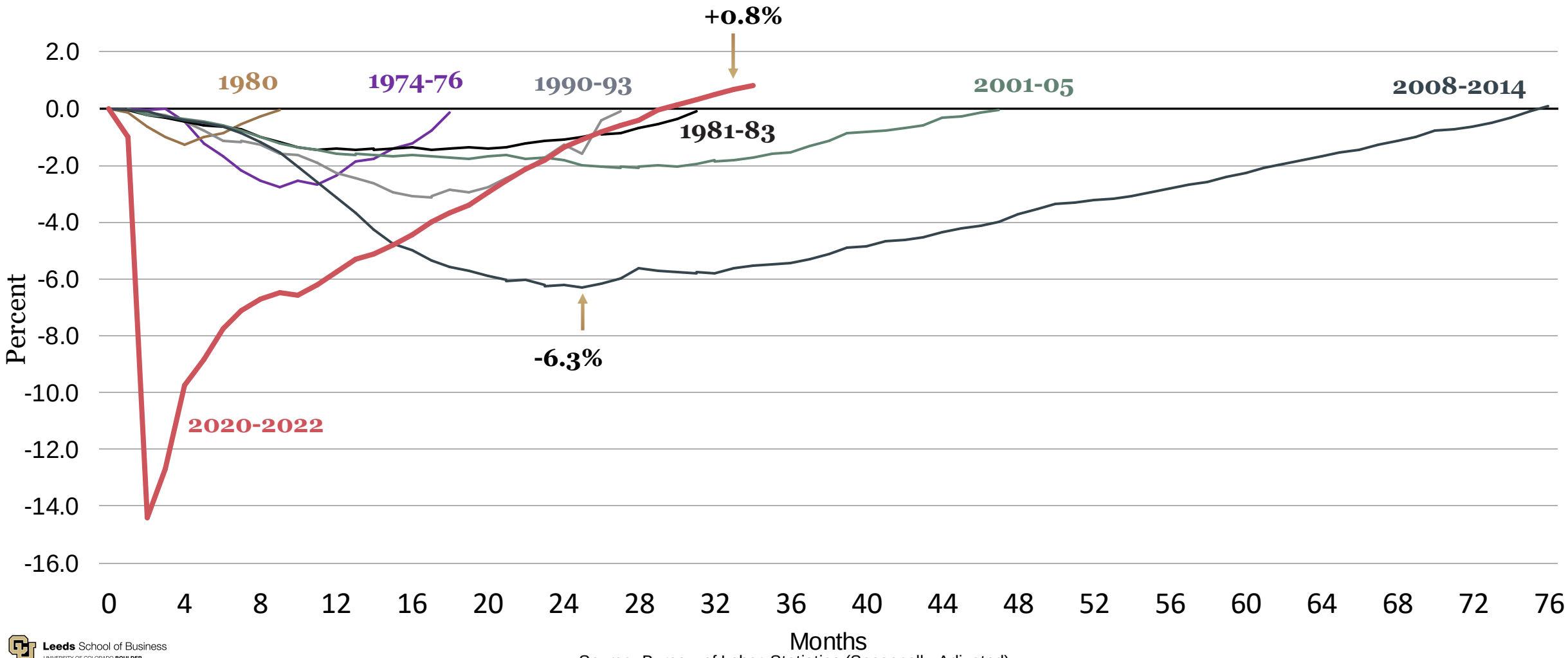
U.S Nonfarm Employment



Source: Bureau of Labor Statistics, CES (Seasonally Adjusted).

National Employment

Jobs Lost and Months to Recovery



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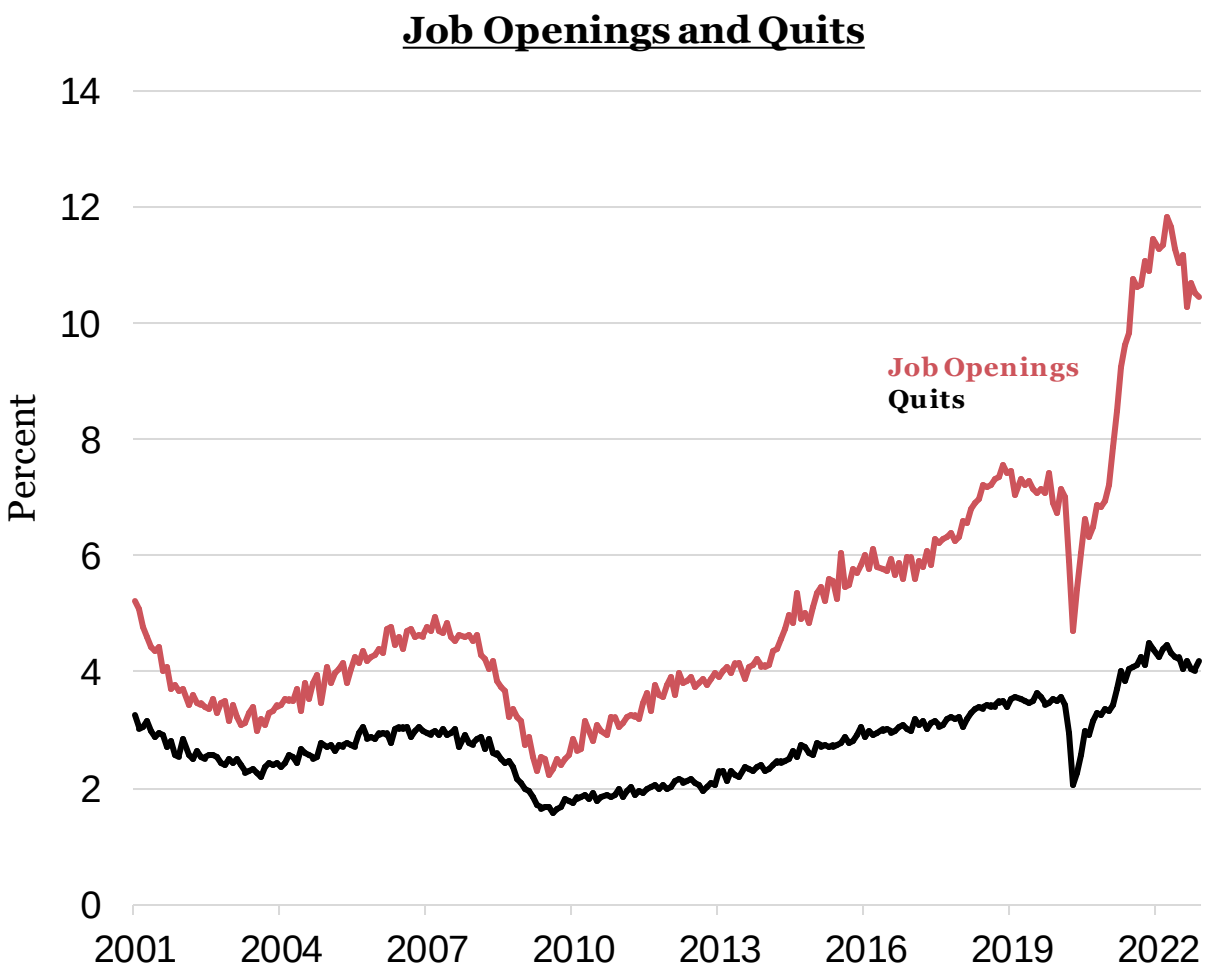
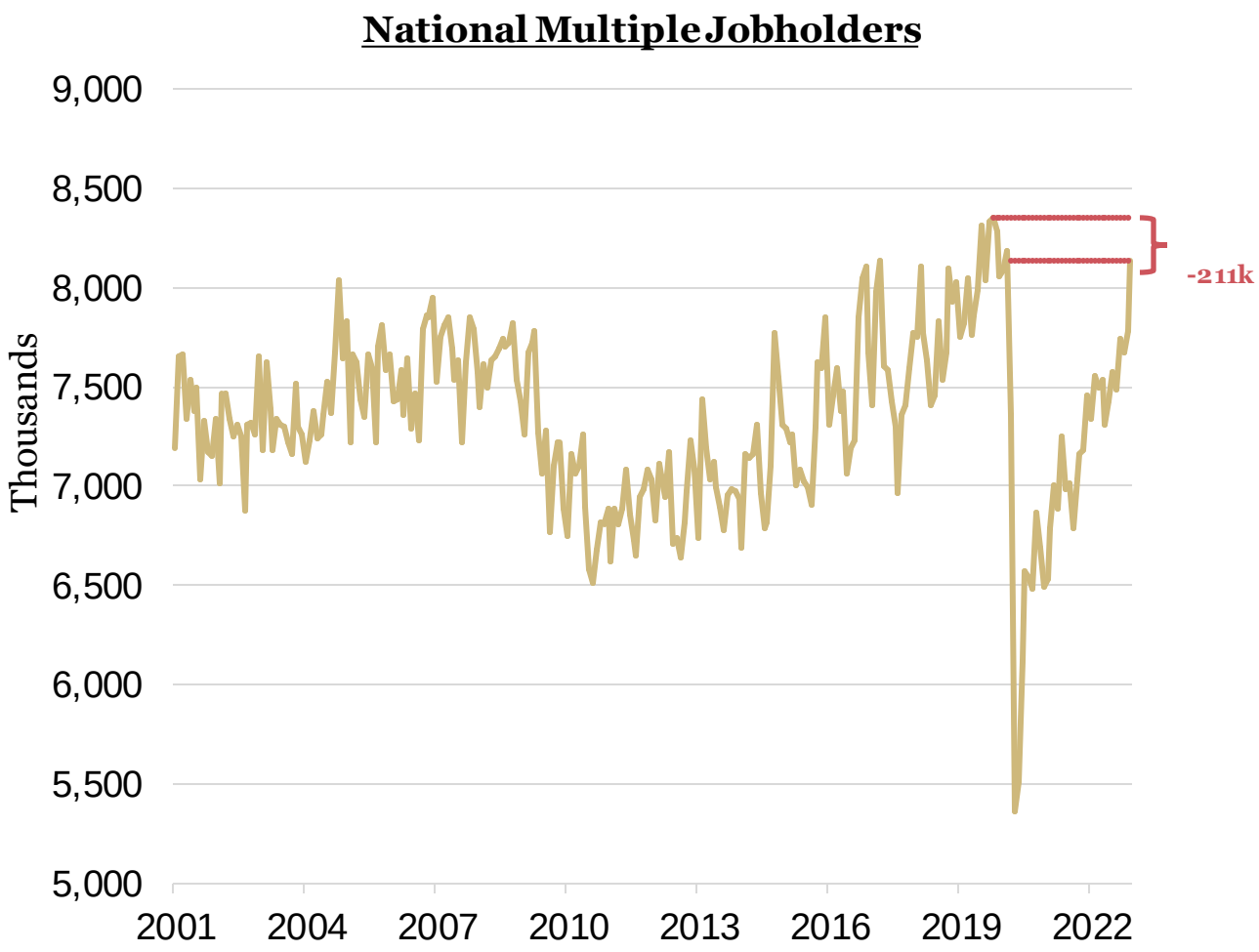
Source: Bureau of Labor Statistics (Seasonally Adjusted).

Labor Shortage





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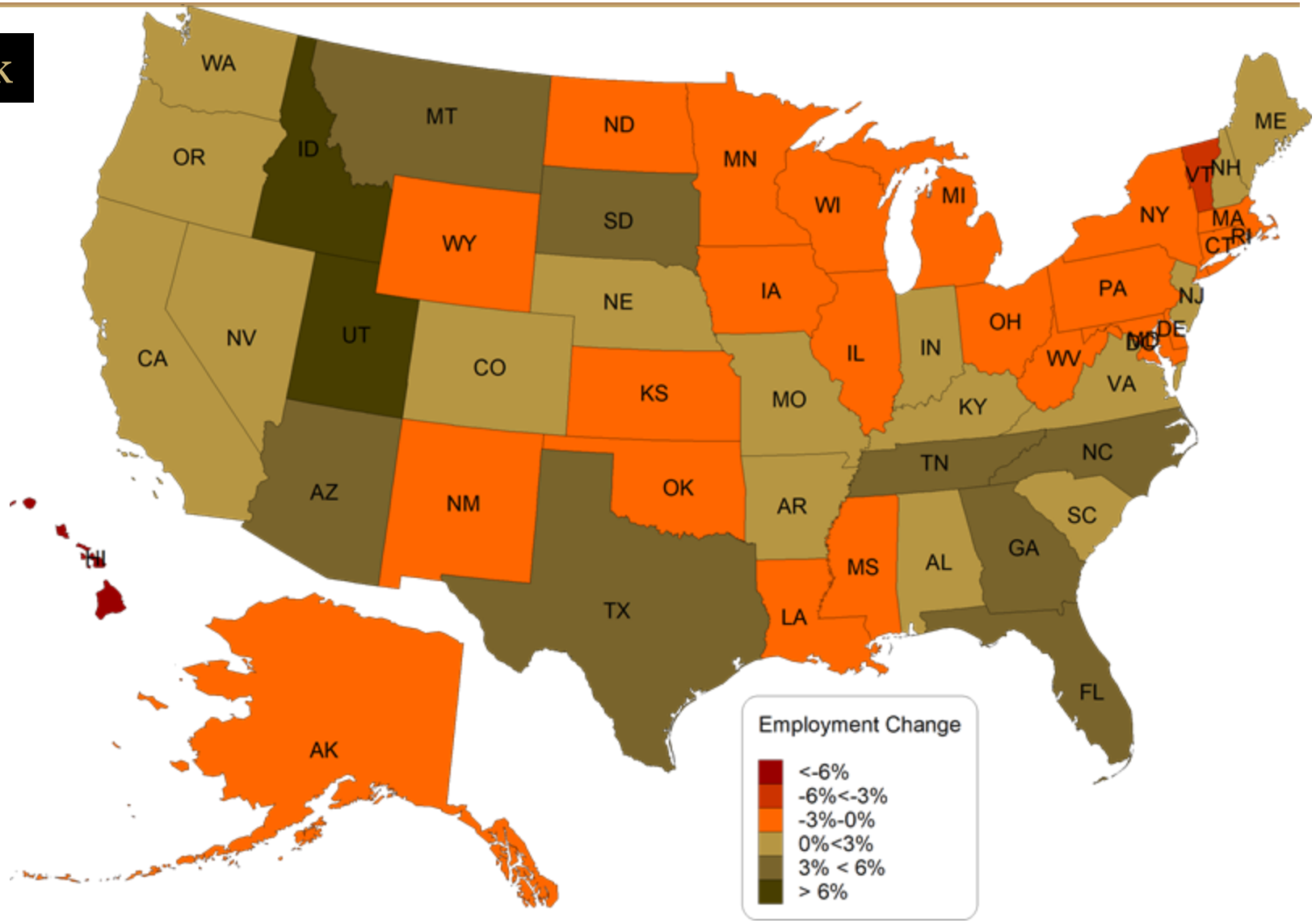
Sources: Bureau of Labor Statistics, JOLTS, and the Current Population Survey (NSA) .

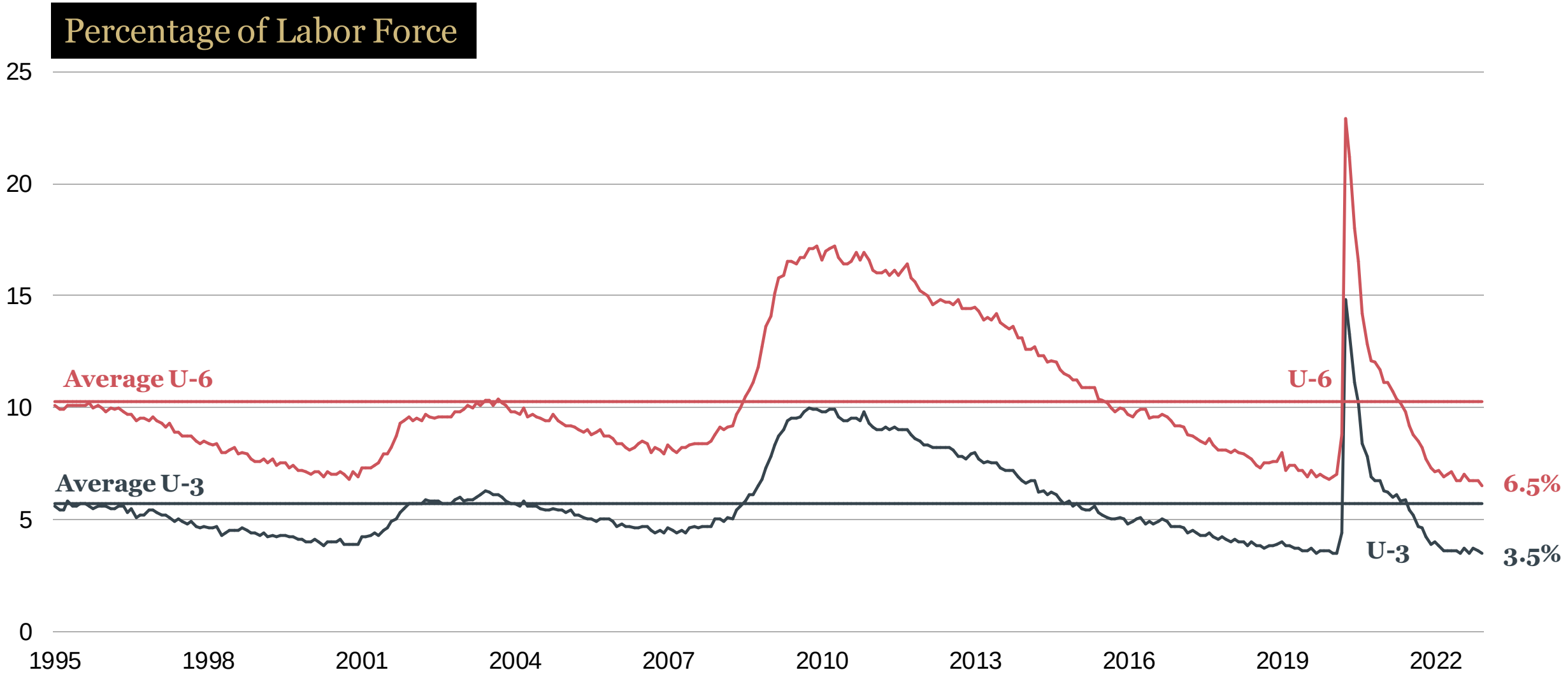
Employment Recovery

Change from Prerecession Peak



Source: Bureau of Labor Statistics, Current Employment Statistics (Seasonally Adjusted), as of November 2022.

Labor Underutilization



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Sources: Bureau of Labor Statistics (Seasonally Adjusted).

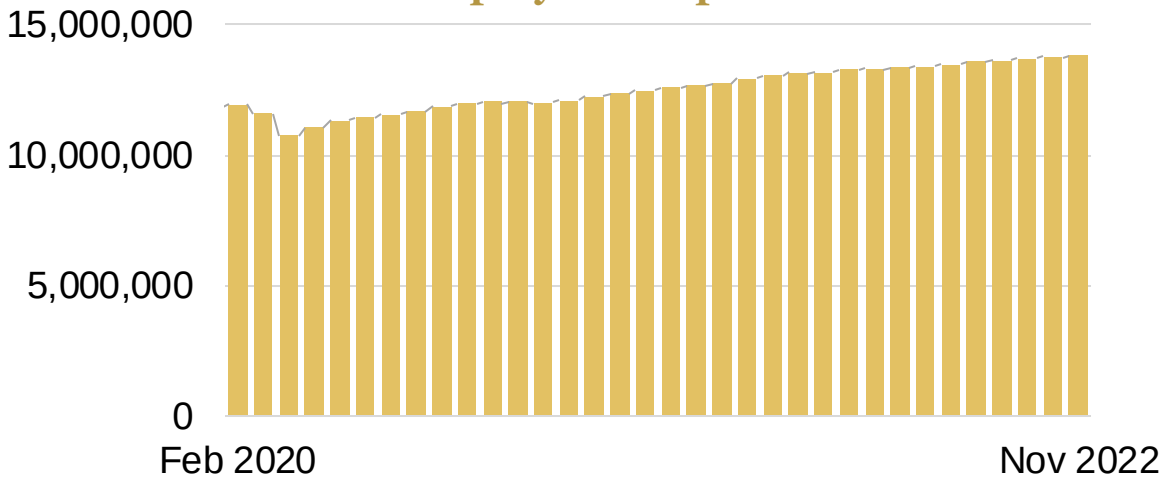
Income

Photo by Alexander Grey on Unsplash.

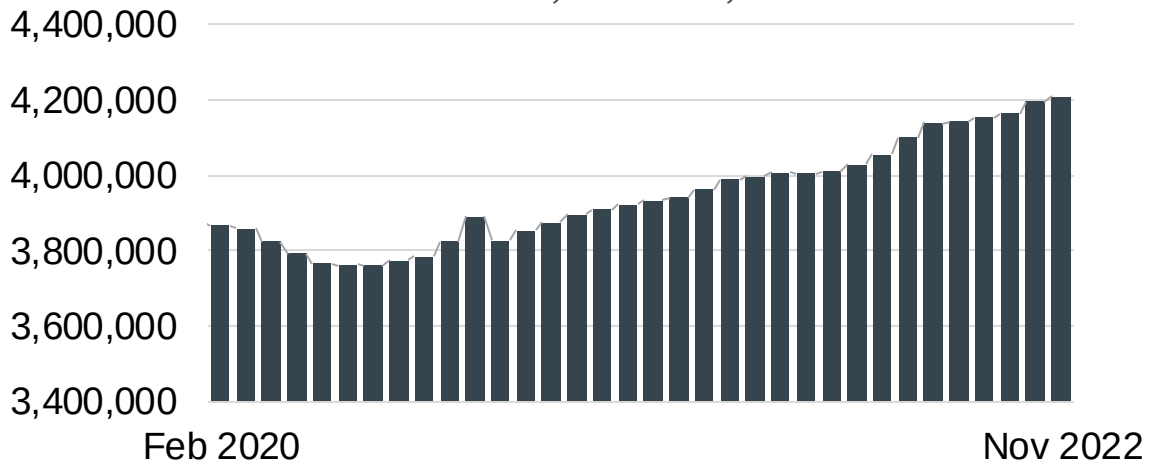
National Personal Income

$ Billions, Seasonally Adj. Annual Rate

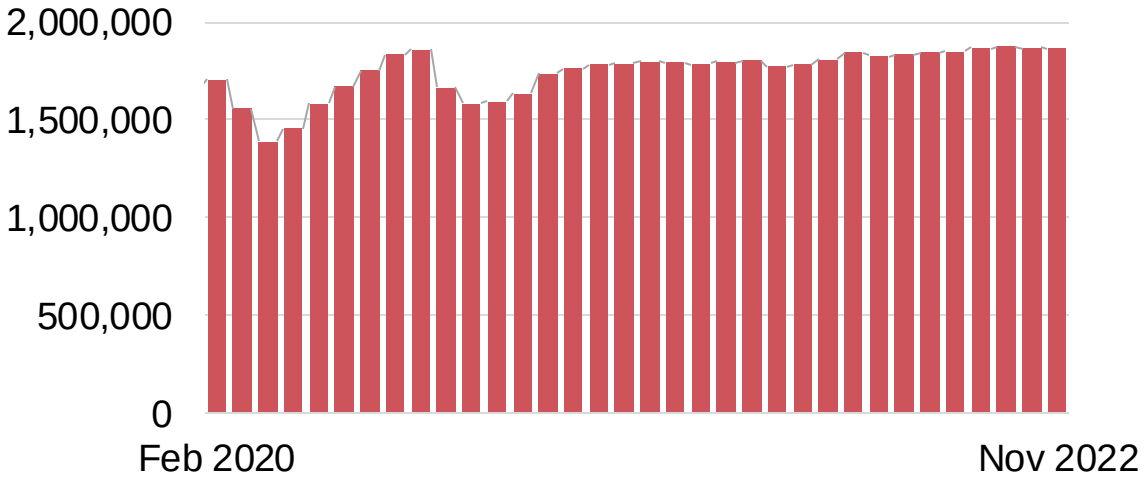
Employee Compensation



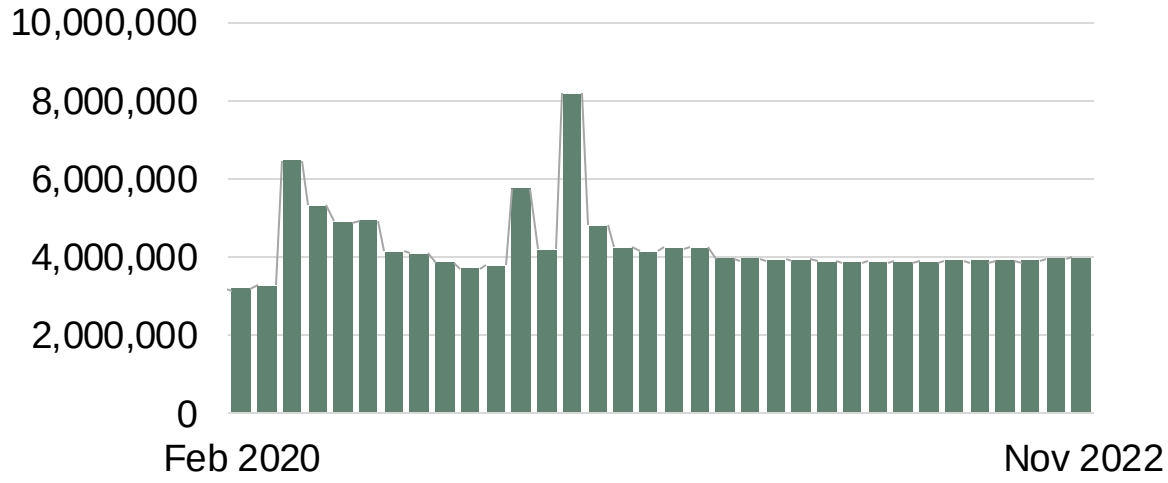
Dividends, Interest, and Rent



Proprietor Income



Transfer Receipts



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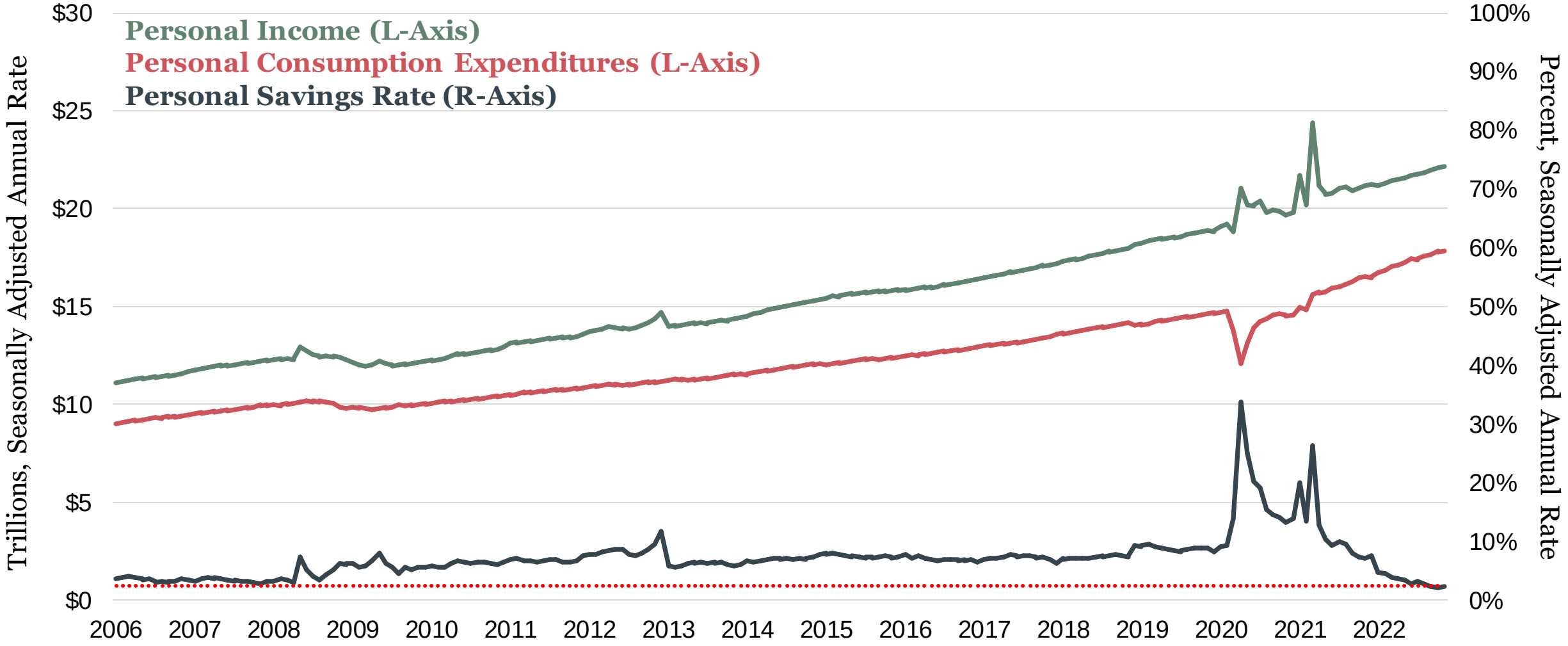
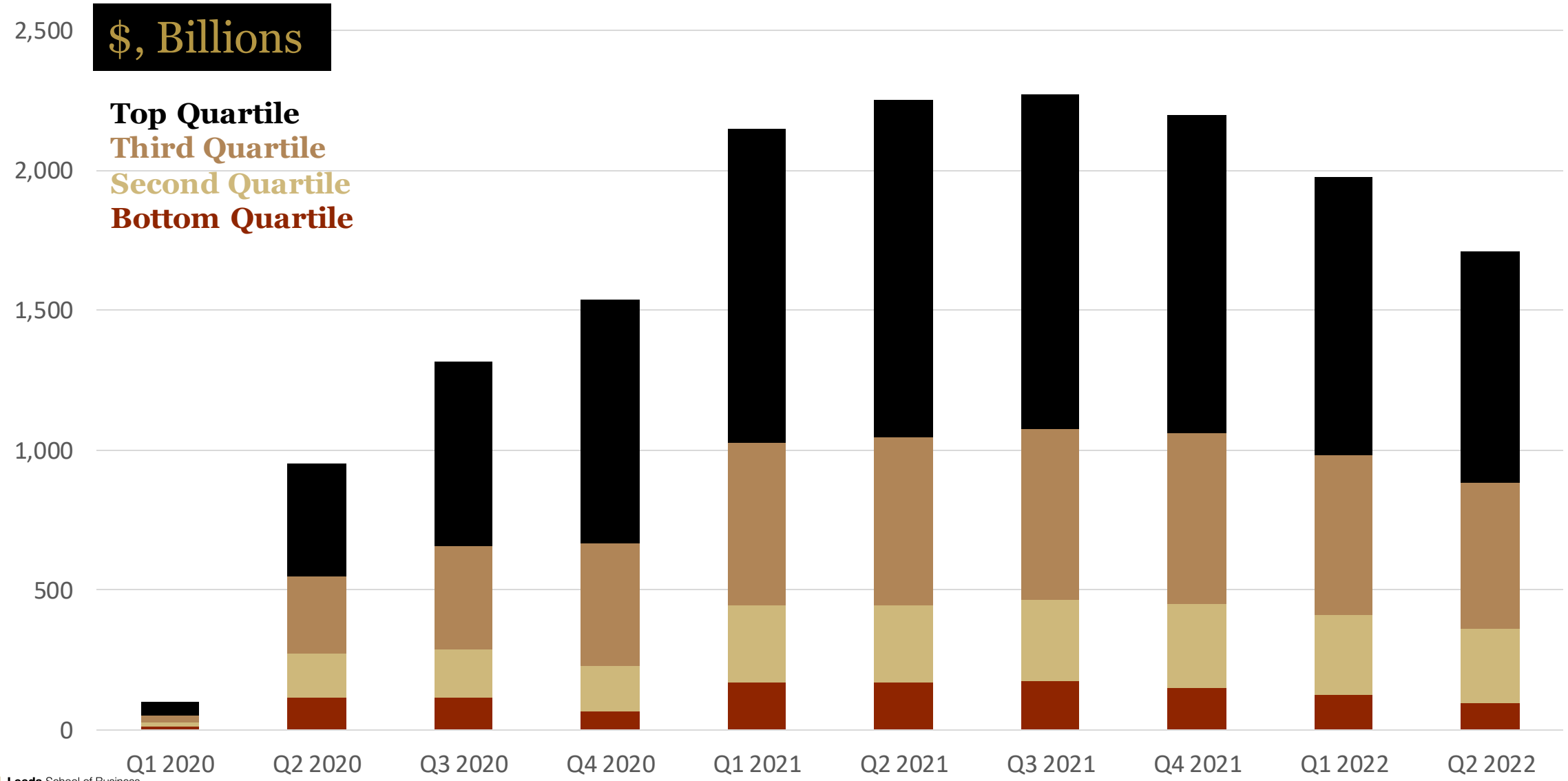
Source: Bureau of Economic Analysis.

Personal Income and Savings

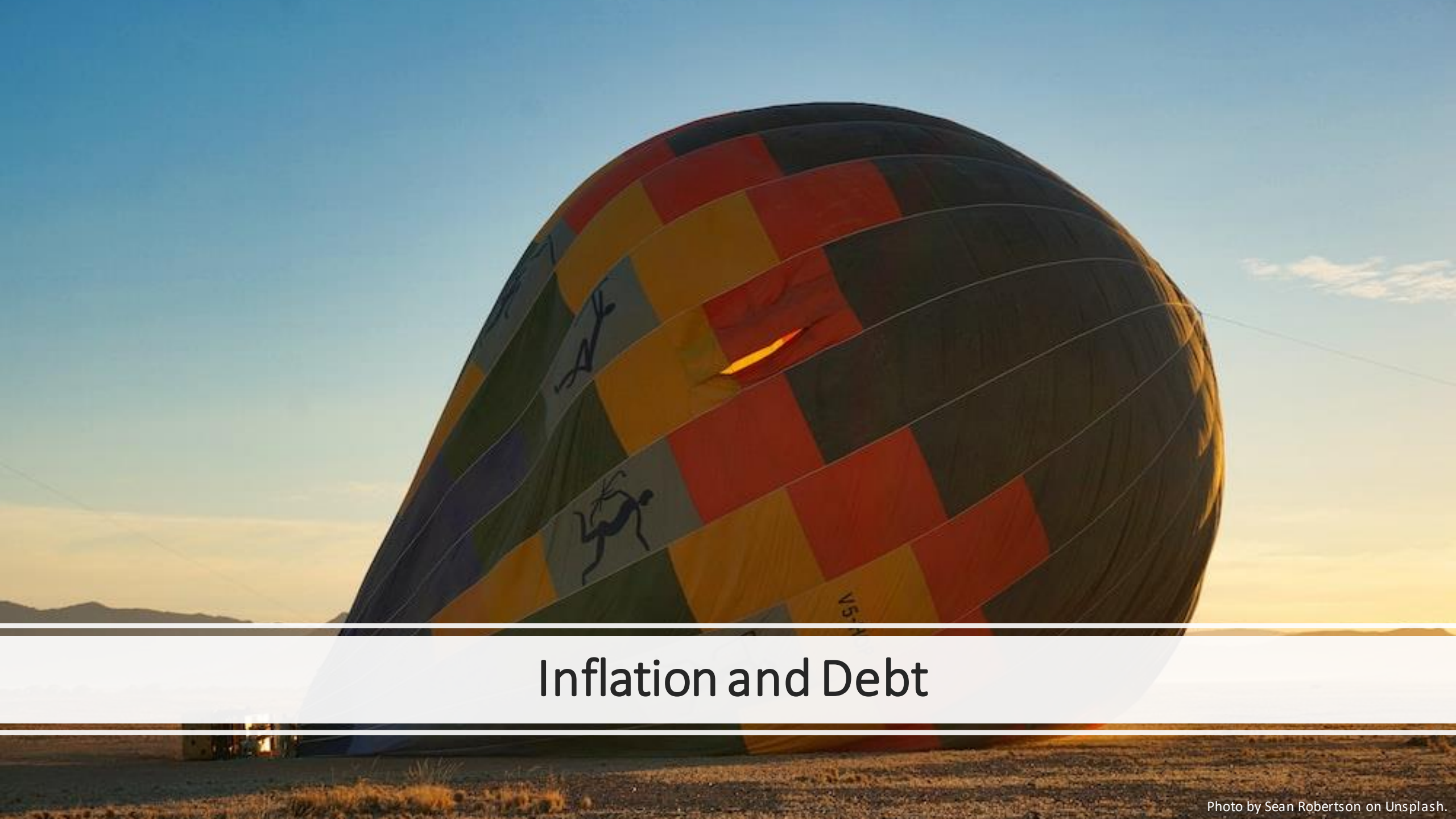


Sources: Bureau of Economic Analysis, Federal Reserve.

Decomposition of Excess Savings: Income Quartiles



Source: Federal Reserve.

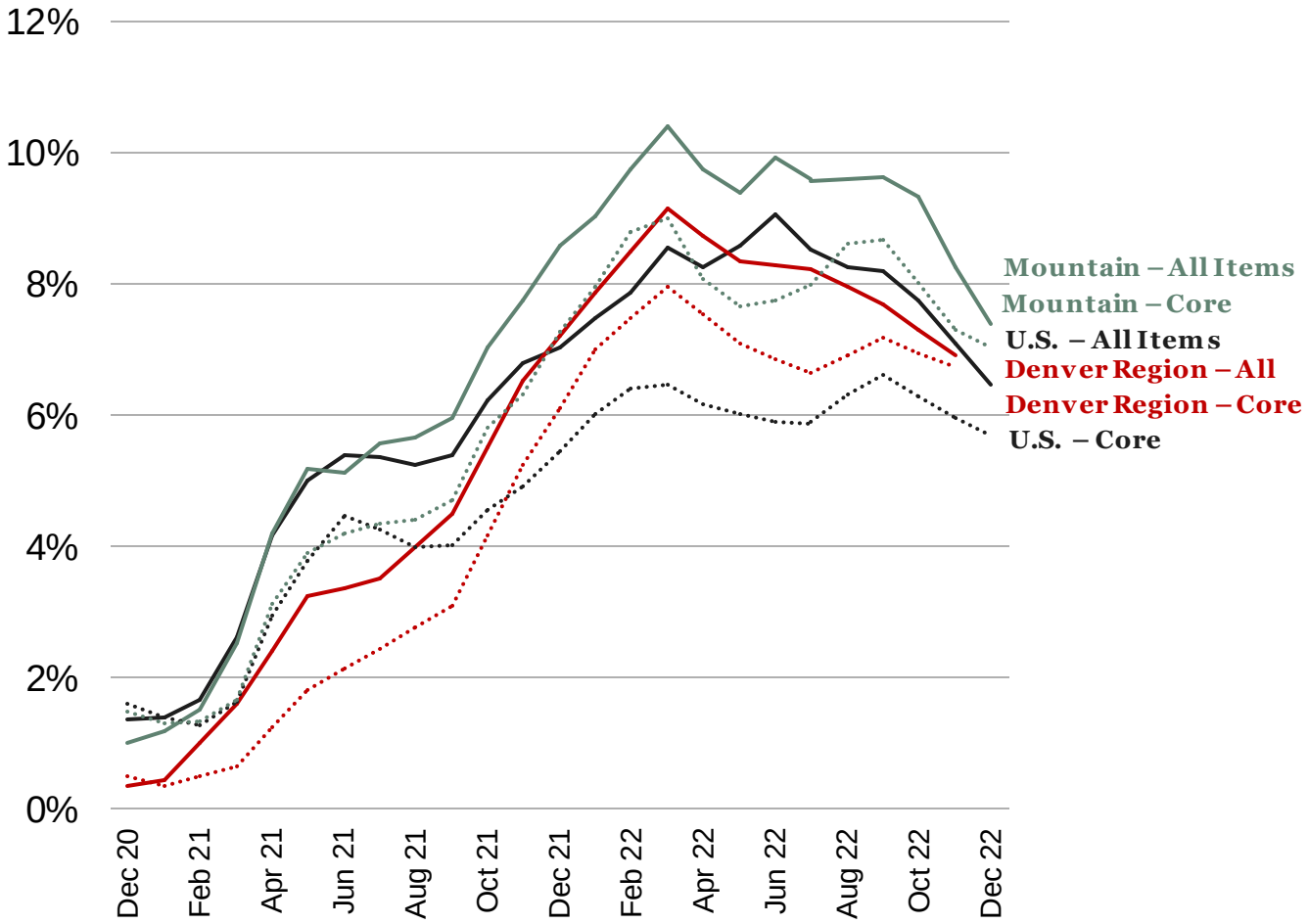


Inflation and Debt

Photo by Sean Robertson on Unsplash.

Inflation

Consumer Price Index, Percent Change Year-Over-Year

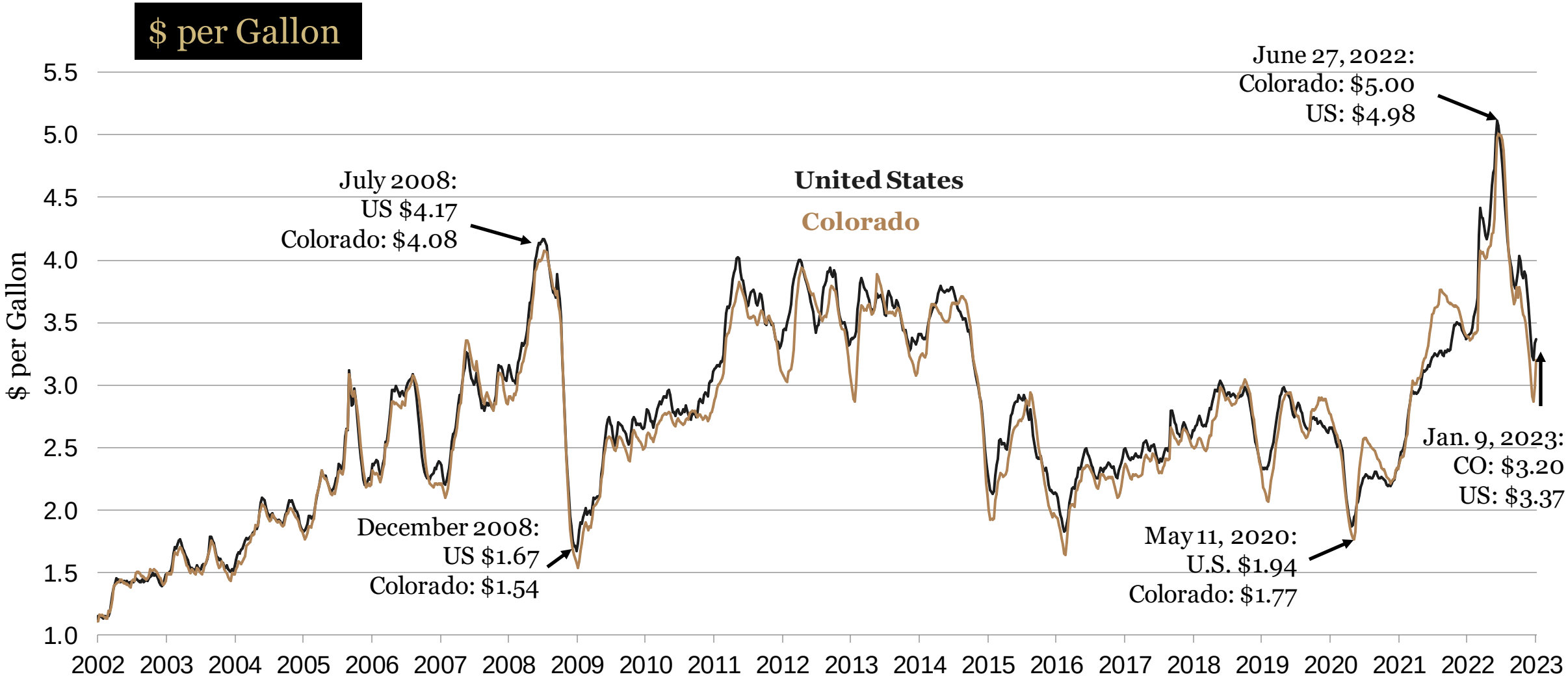


Items	U.S. City Average	Mountain	Denver-Aurora-Lakewood	Item Weights
All items	6.5%	7.4%	6.9%	100.0%
Food and beverages	10.1%	10.6%	9.5%	14.3%
Housing	8.1%	10.1%	9.6%	42.4%
Apparel	2.9%	8.1%	5.3%	2.5%
Transportation	3.9%	4.1%	4.2%	18.2%
Medical care	4.0%	2.1%	3.8%	8.5%
Recreation	5.1%	3.3%	2.3%	5.1%
Education and Comm.	0.7%	2.9%	0.3%	6.4%
Other goods and services	6.4%	3.1%	6.3%	2.7%
Core Inflation	5.7%	7.0%	6.7%	

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

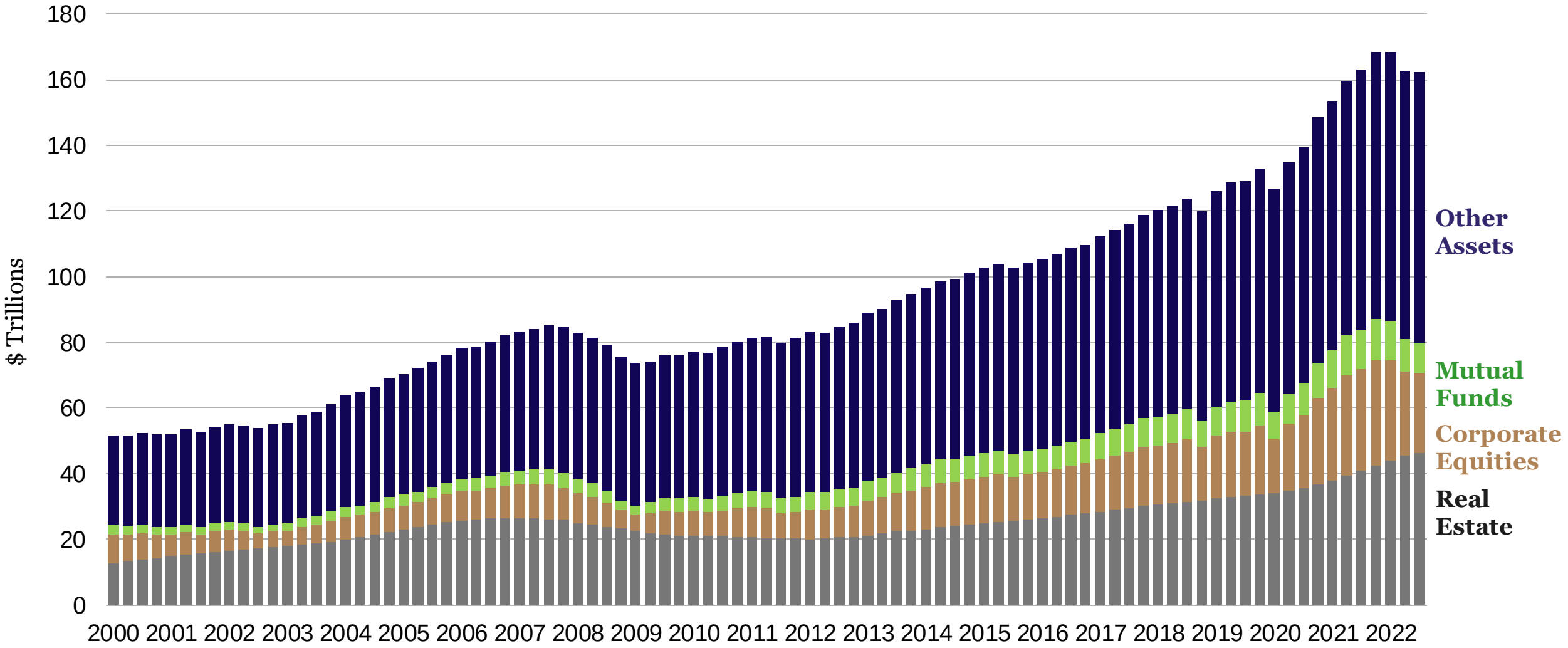
Source: Bureau of Labor Statistics. U.S. and Mountain data through December, Denver region through November.

Retail Gasoline



Source: Energy Information Administration (All Grades).

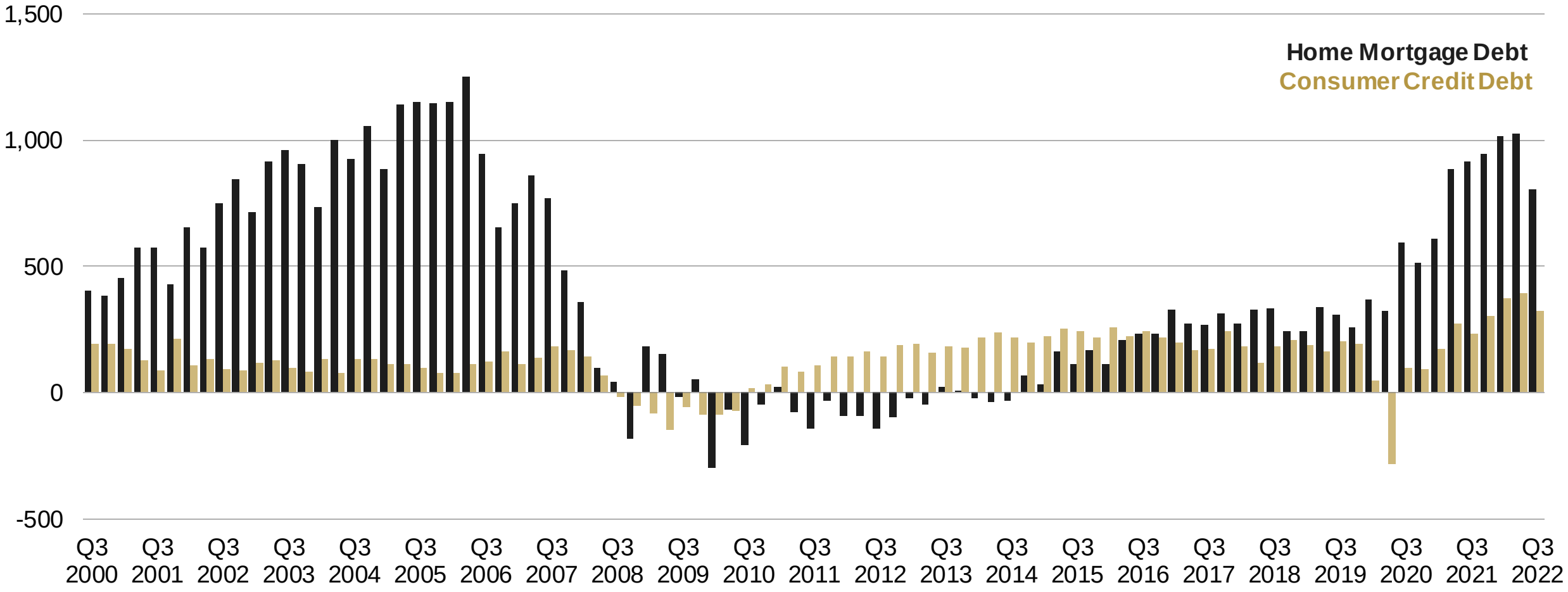
Household Wealth



Source: Federal Reserve Board, Balance Sheet of Households and Nonprofit Organizations (B.101) (Not Seasonally Adjusted).

Household Debt Growth

$, Billions



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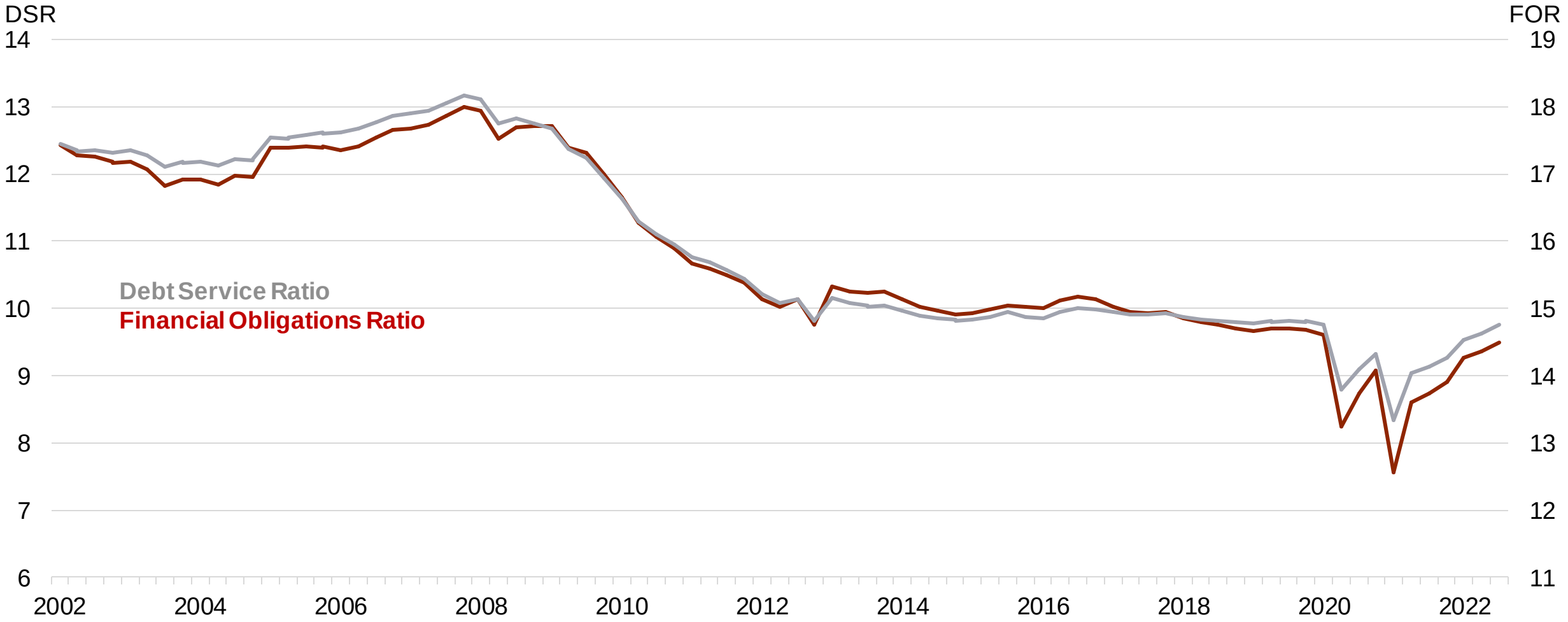
Source: U.S. Flow of Funds Account, Z.1 Data Release.

Household Debt Burden

Percent of Disposable Income



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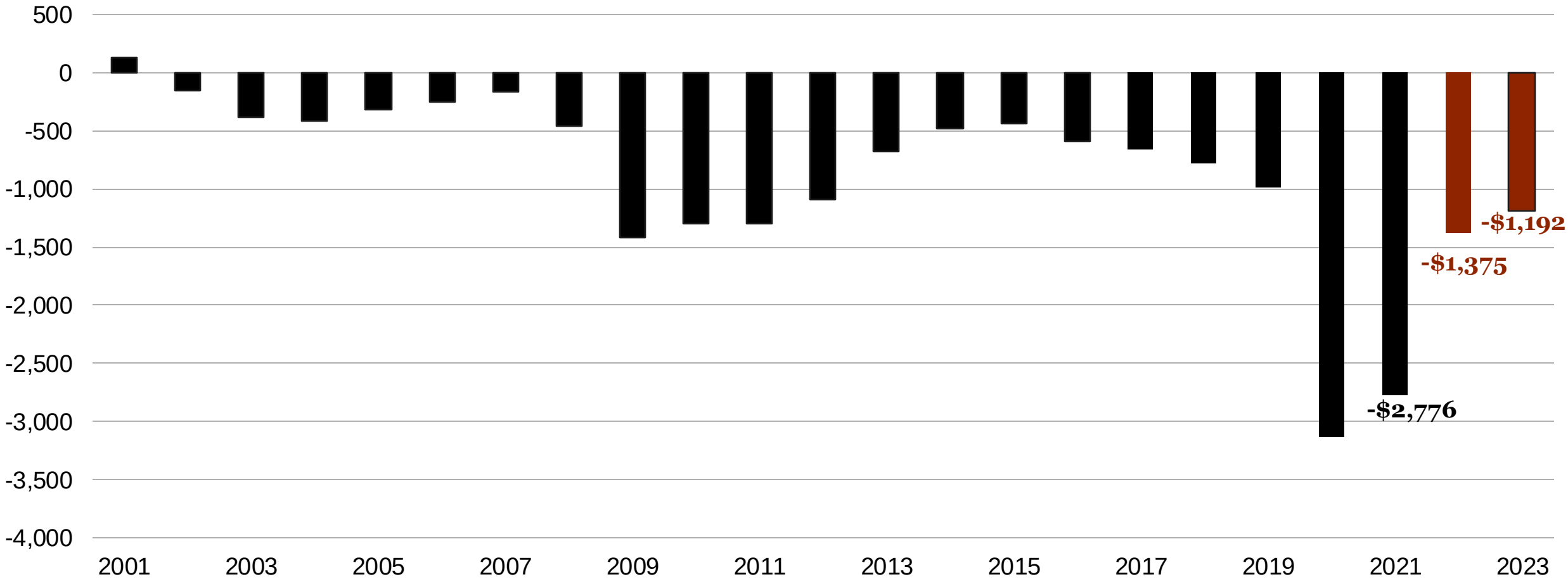
Source: Federal Reserve, Household Debt Service and Obligations Ratios.

Federal Budget Balance

2001 to 2023, $ Billions



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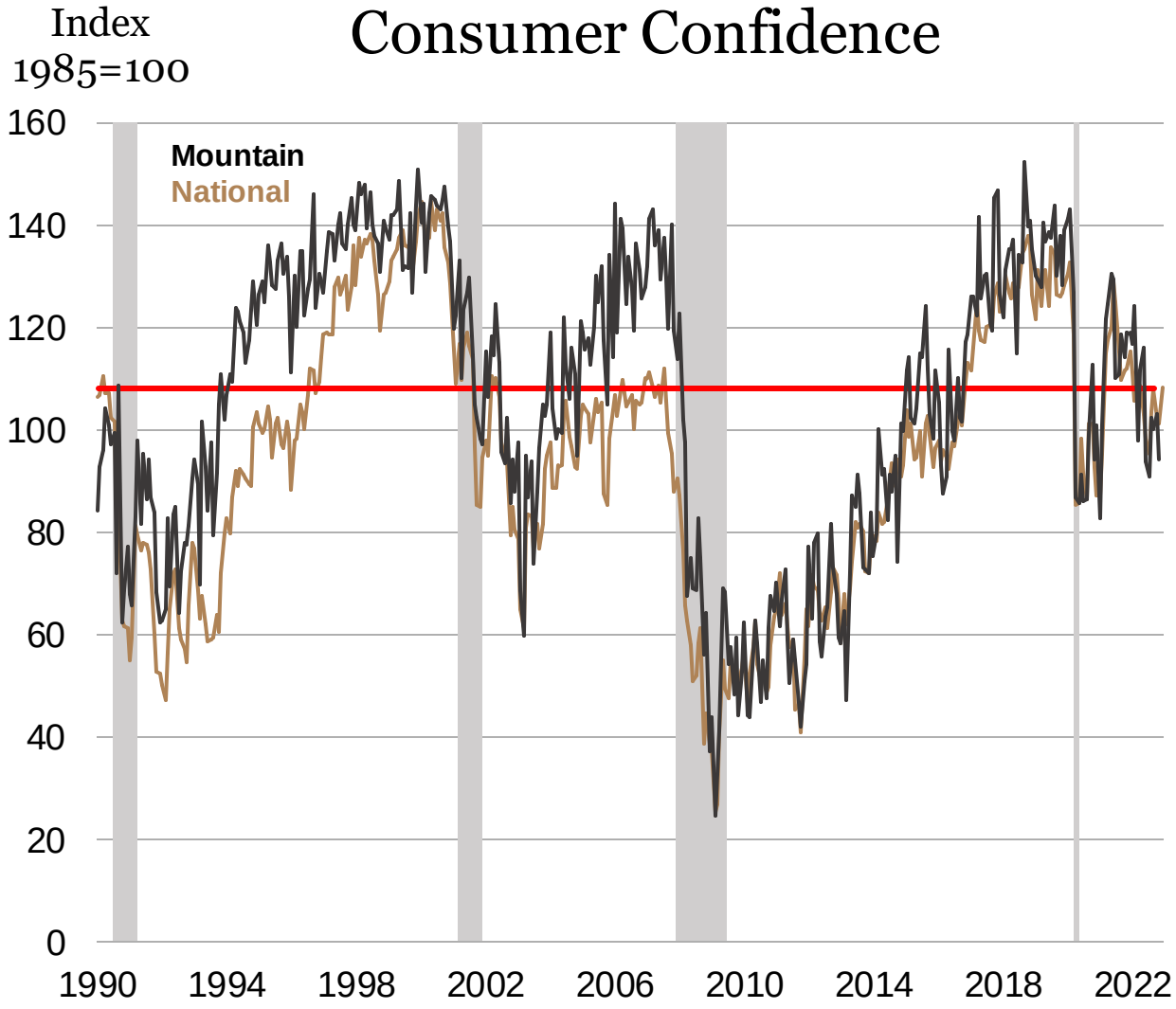
Sources: Office of Management and Budget, Consensus Forecasts, and the Business Research Division.

Confidence

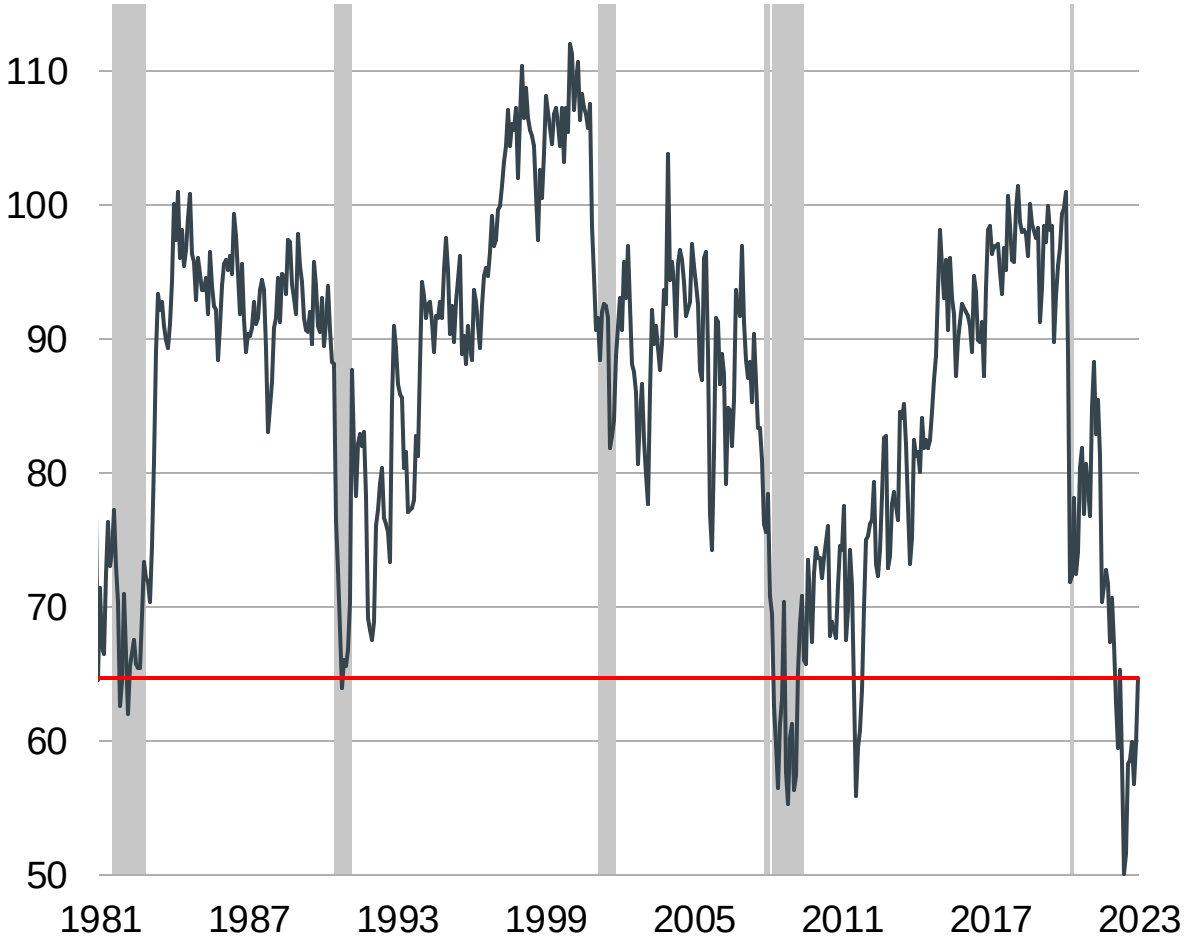
Photo by Jonathan Klok on Unsplash.

Index of Consumer Confidence

Consumer Confidence



Consumer Sentiment



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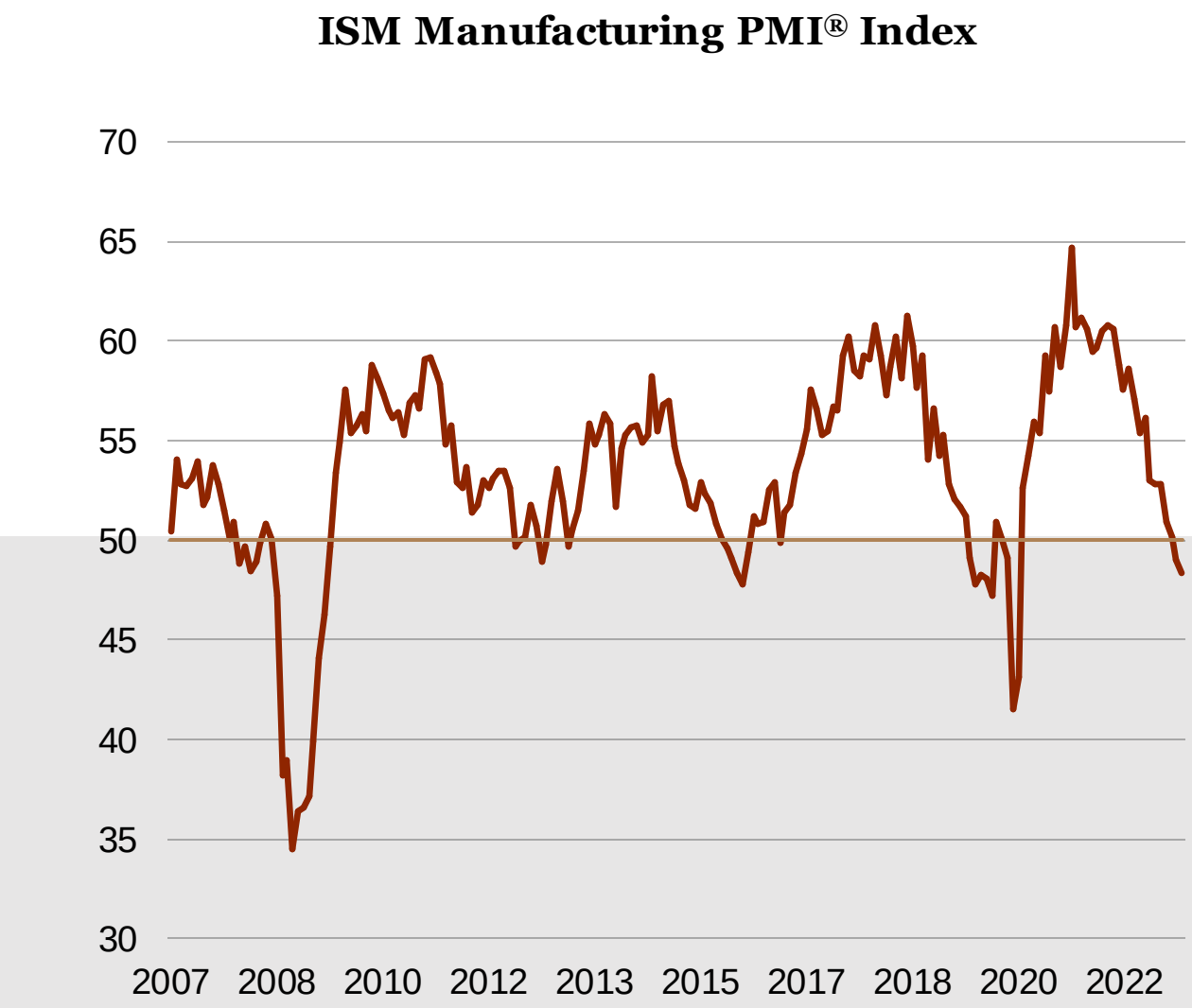
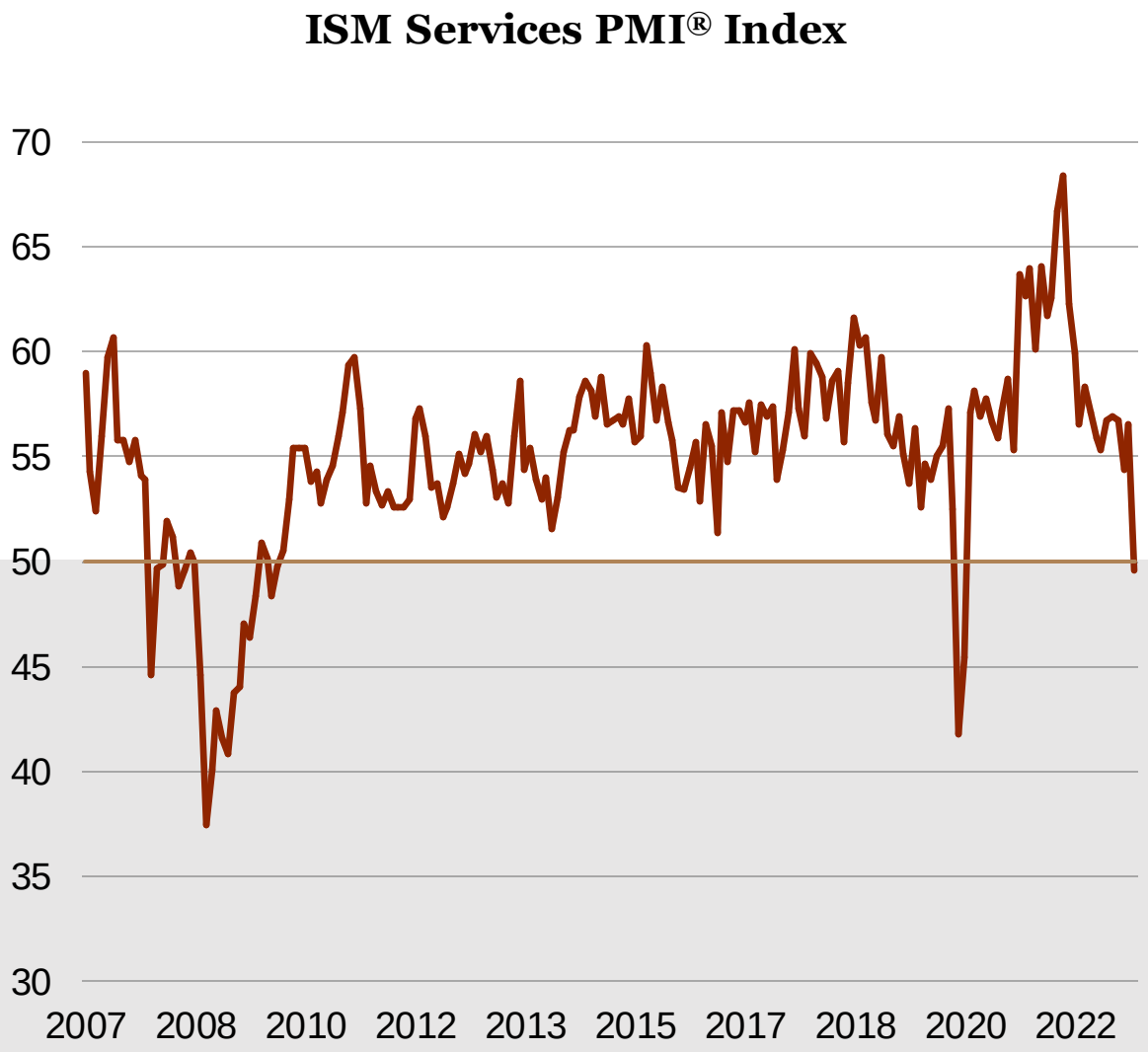
Sources: The Conference Board, National Bureau of Economic Research, University of Michigan.

ISM Indices

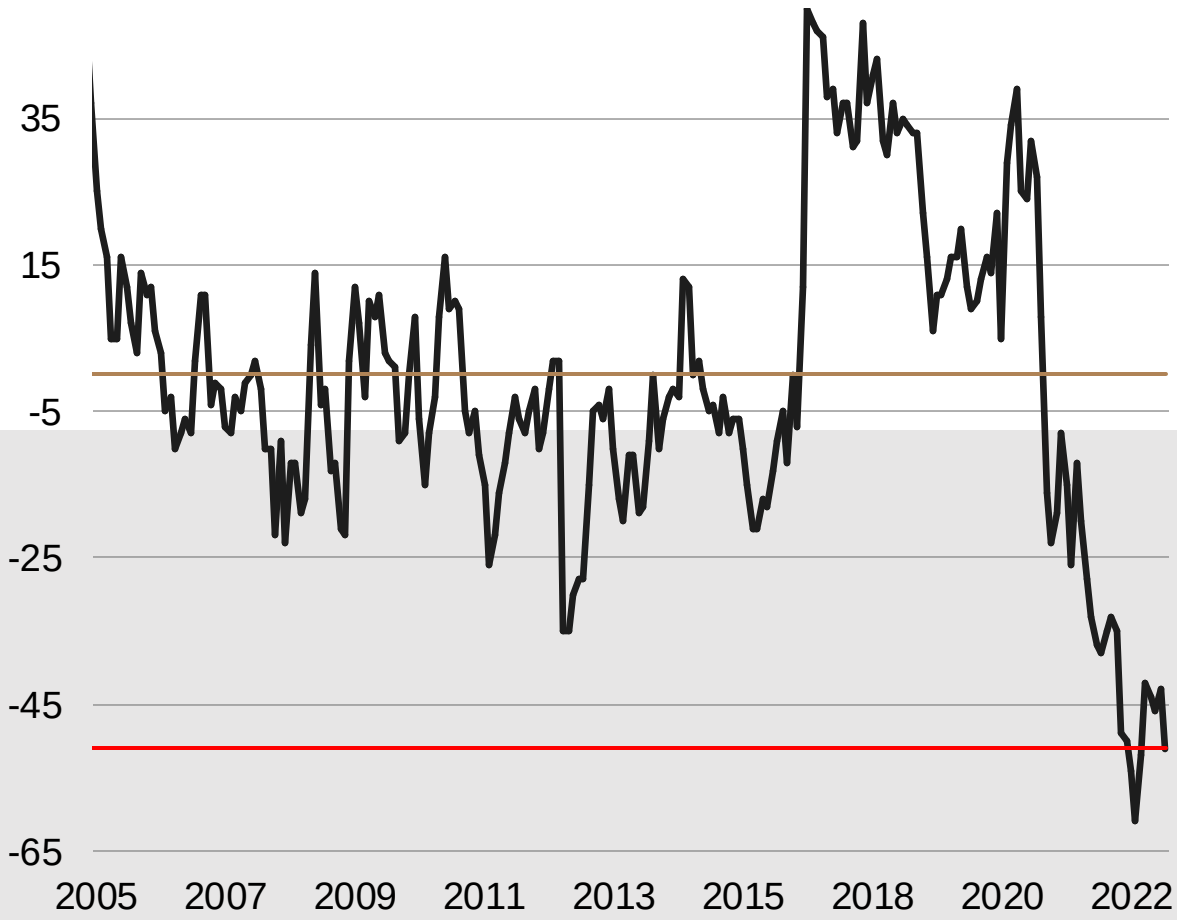




Source: Institute for Supply Management® (ISM).

Small Business Outlook

Business Conditions



Optimism Index

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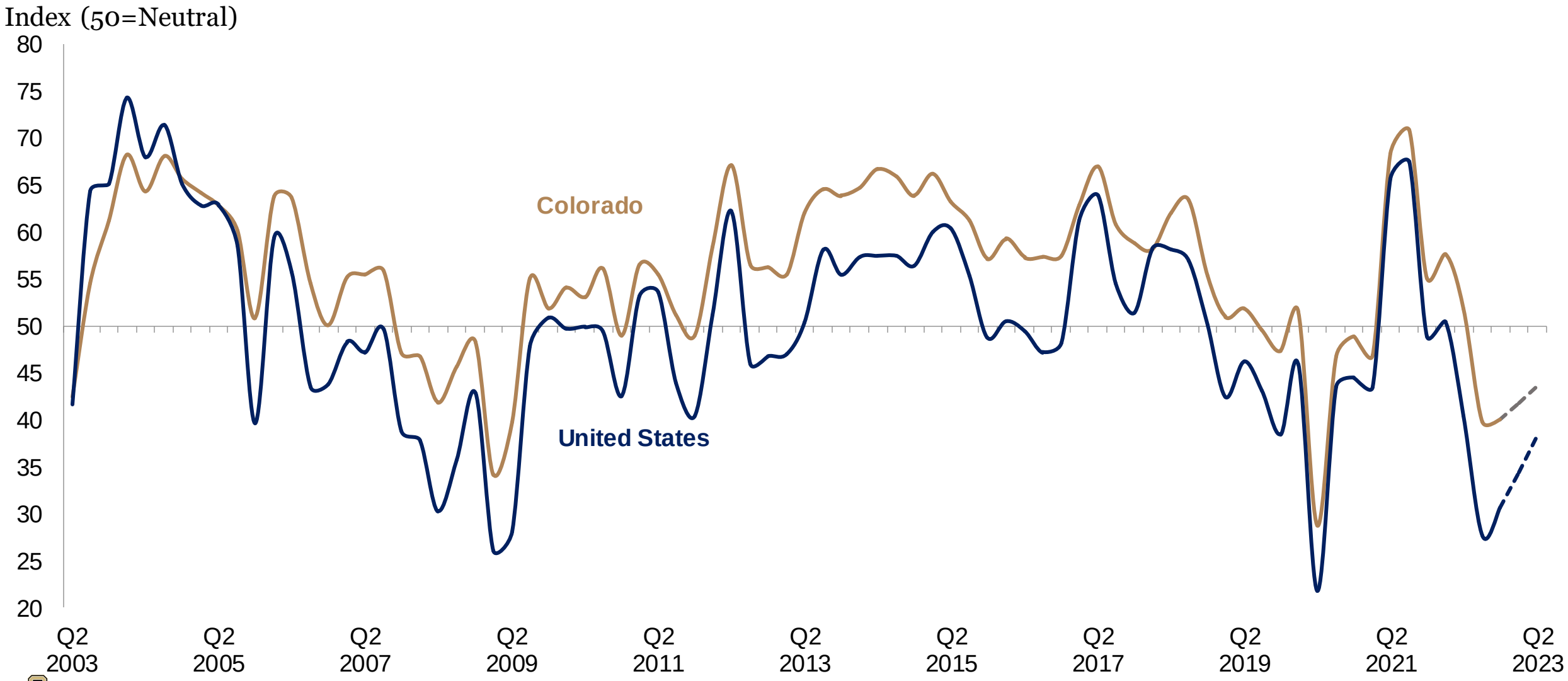
Source: National Federation of Independent Business.

National and State Expectations



BRD Publications and Confidence Index

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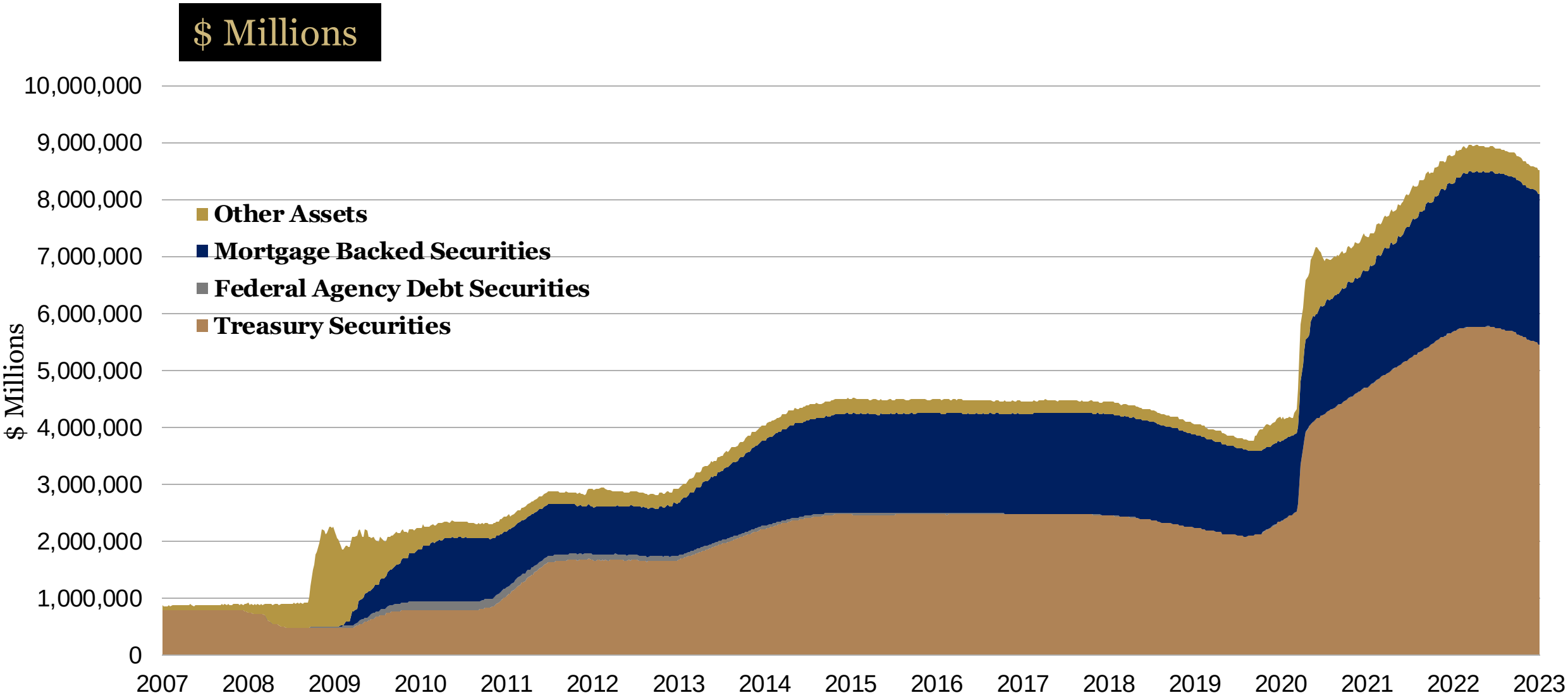
- Leeds Business Confidence Index
- Quarterly Indicators Report
- Research Publications

Monetary Policy and Interest Rates

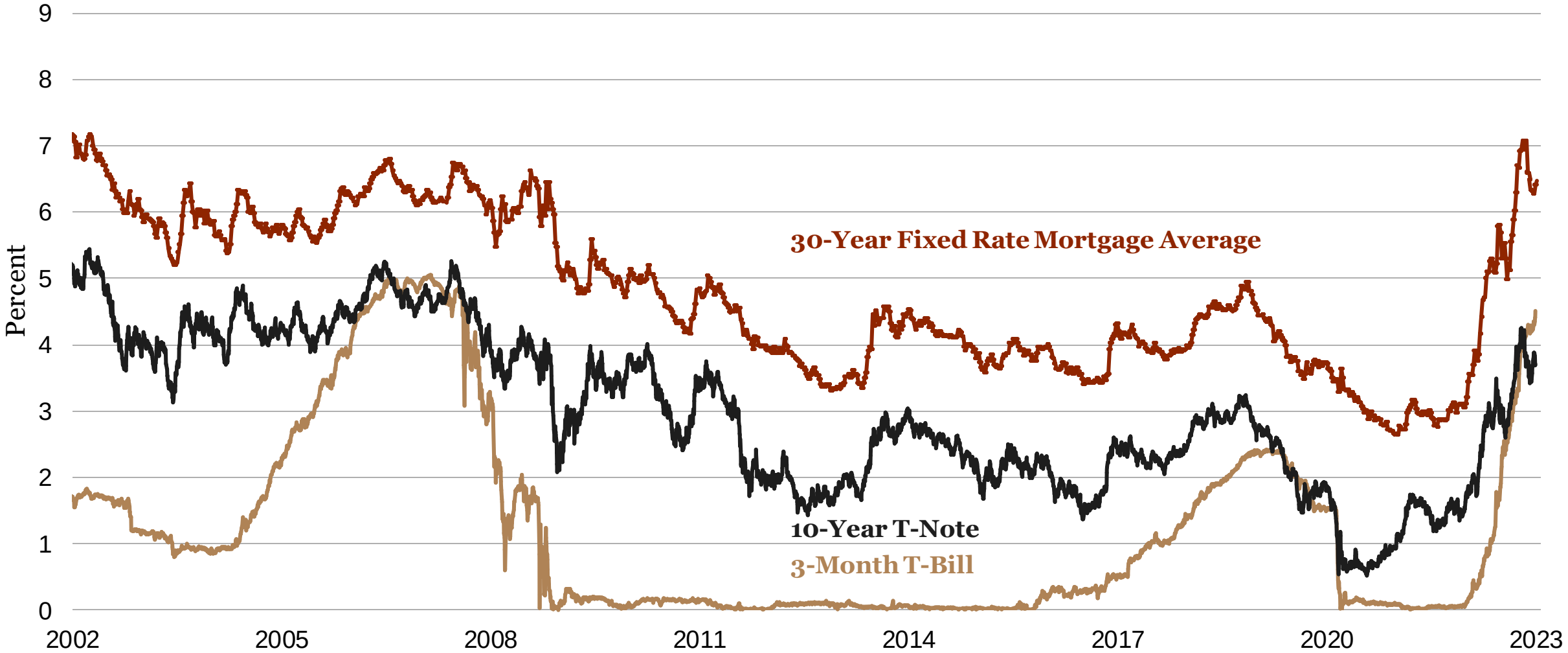
Photo by Giorgio Trovato on Unsplash.

The FED



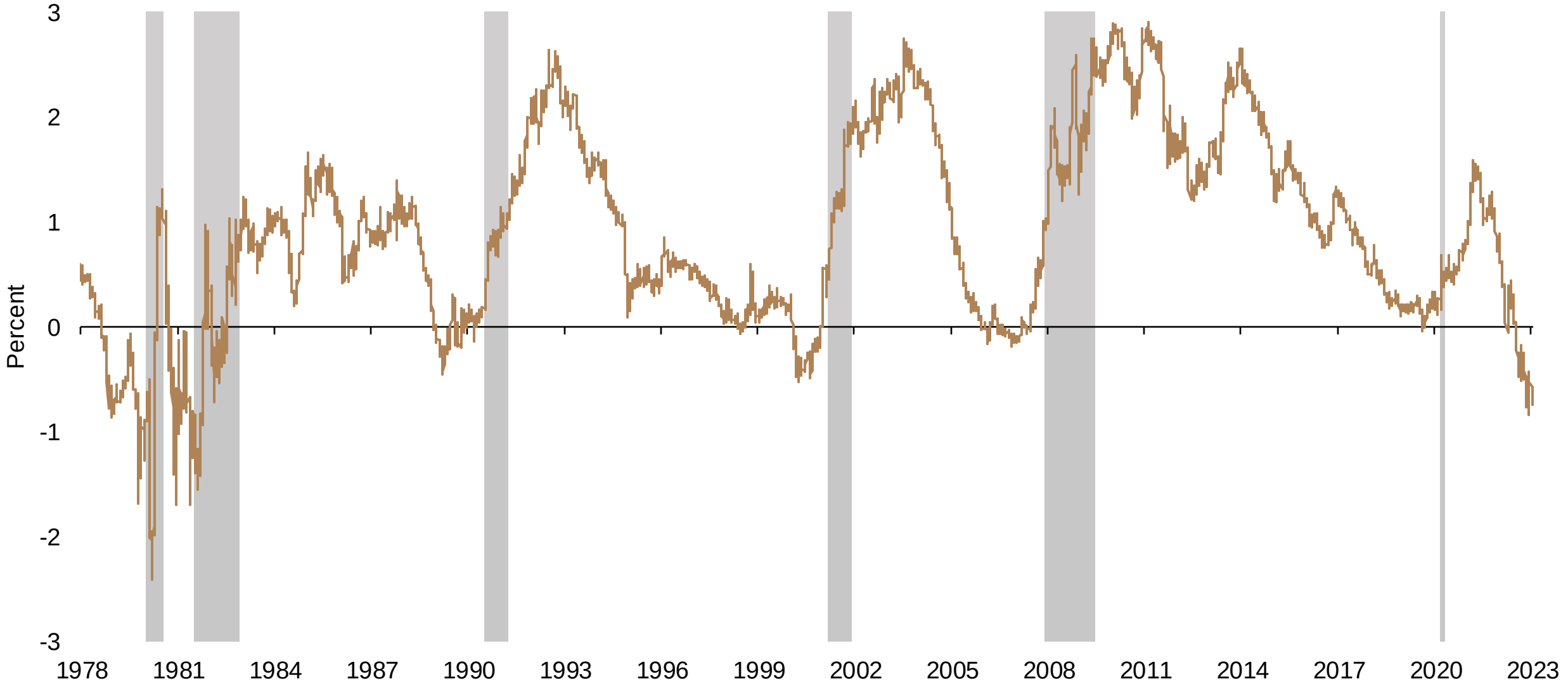
Source: Board of Governors of the Federal Reserve System.

Interest Rates



Sources: Federal Reserve, Freddie Mac, and Moody's Analytics.

10-Year Treasury Minus 2-Year Treasury



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

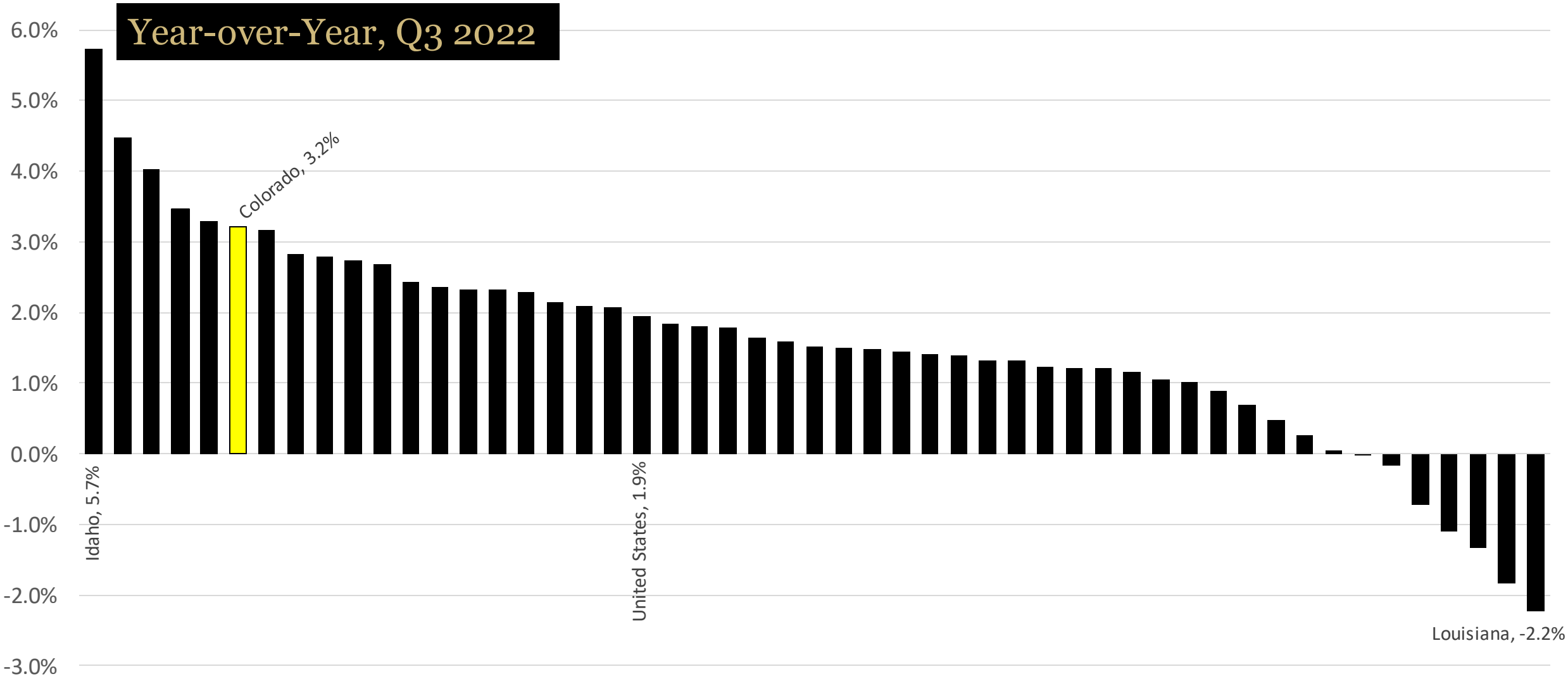
Colorado Population, Employment, and the Economy

Colorado Rank Among Other States

Metric	1-Year Change	1-Year Rank
Real GDP Growth	3.2%	6
Employment Growth	3.7%	15
Population Growth	0.5%	17
Personal Income Growth	8.5%	2
PCPI Growth	7.9%	1
PCPI	$75,557	7
Average Hourly Wage % Growth	8.5%	3
Average Annual Pay % Growth	8.1%	11
Average Annual Pay	$72,076	8
Unemployment Rate	3.5	25
Labor Force % Growth	2.6%	9
LFPR	69.2	2
FHFA Home Price Index Growth	14.6%	31

Data Sources: Bureau of Economic Analysis (2021), Bureau of Labor Statistics (11/22), U.S. Census Bureau (2021), Bureau of Labor Statistics (2022), Federal Housing Finance Agency All Transactions Index (Q3 2022), BRD calculations. *Unemployment rate for the last month.

Real GDP Growth by State



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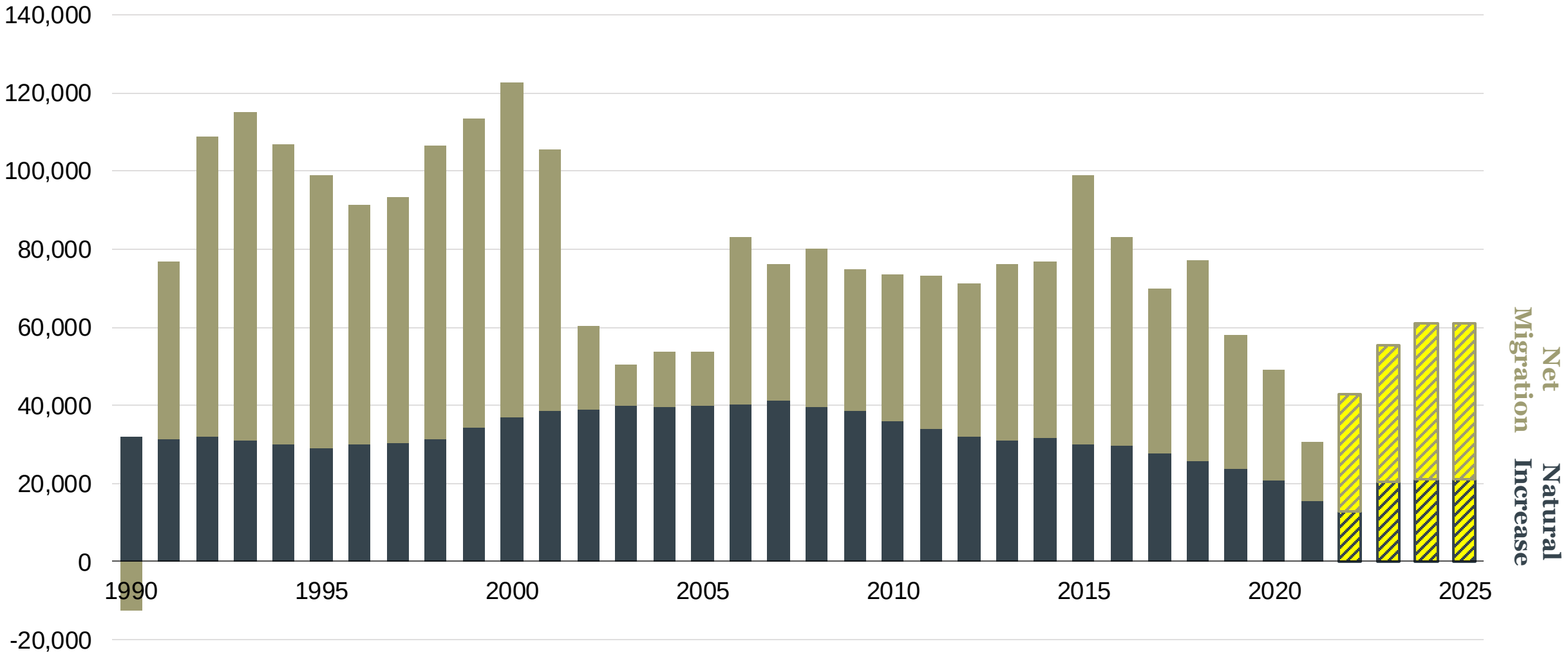
Sources: Bureau of Economic Analysis.

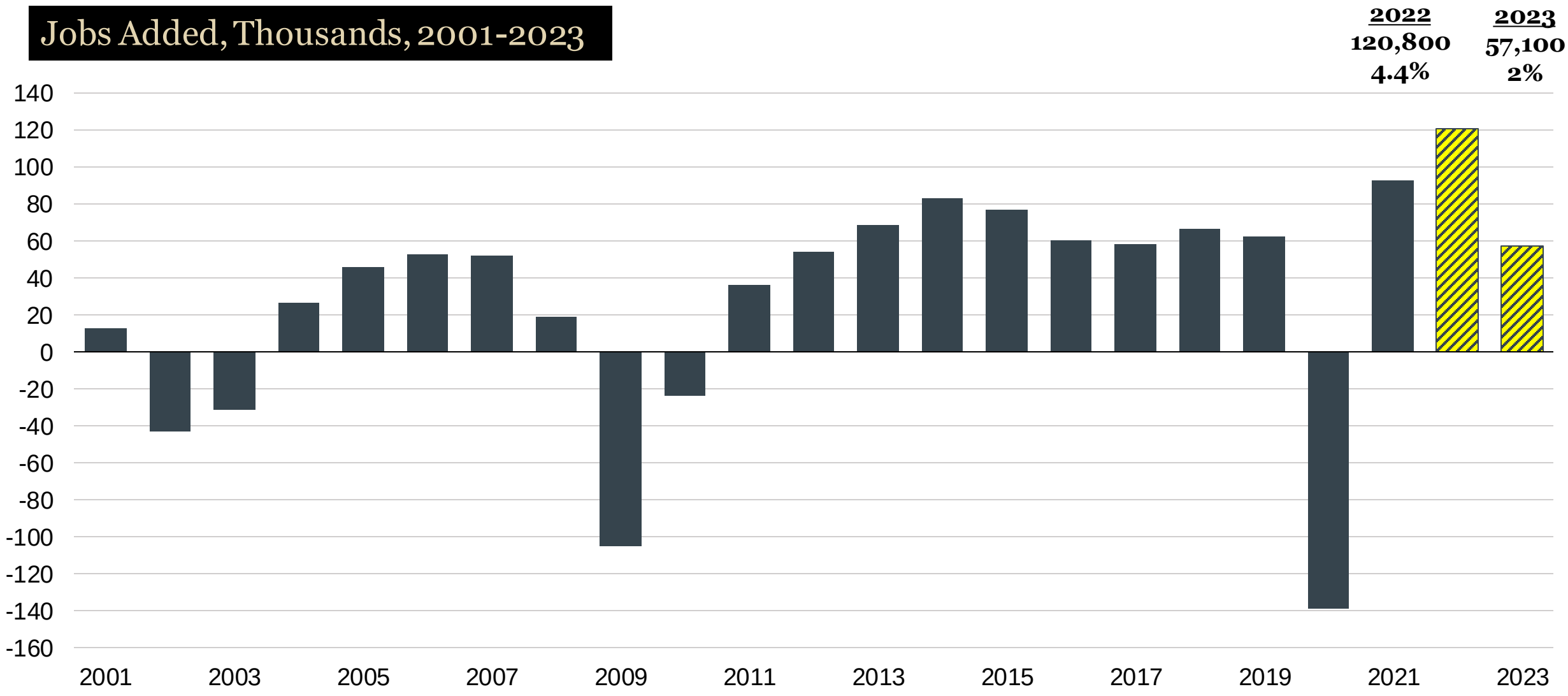
Colorado Change in Population



Sources: Colorado Demography Office, U.S. Census Bureau, and the Business Research Division.

Colorado Employment Growth

Jobs Added, Thousands, 2001-2023



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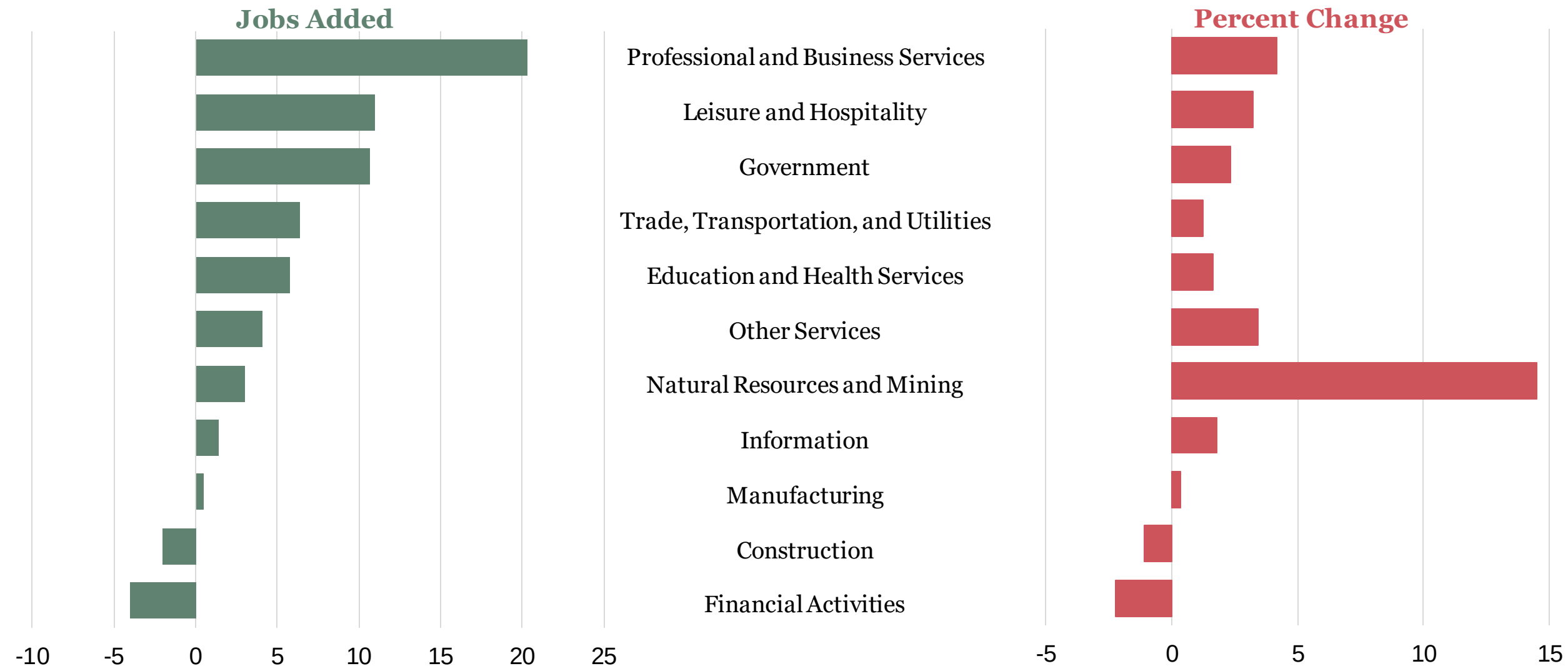
Sources: Colorado Department of Labor and Employment and the Colorado Business Economic Outlook Committee.

Colorado 2023 Employment Change



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Sources: Colorado Department of Labor and Employment and Colorado Business Economic Outlook Committees.

Boulder Population, Employment, and the Economy

Photo by Glenn Asakawa/University of Colorado.

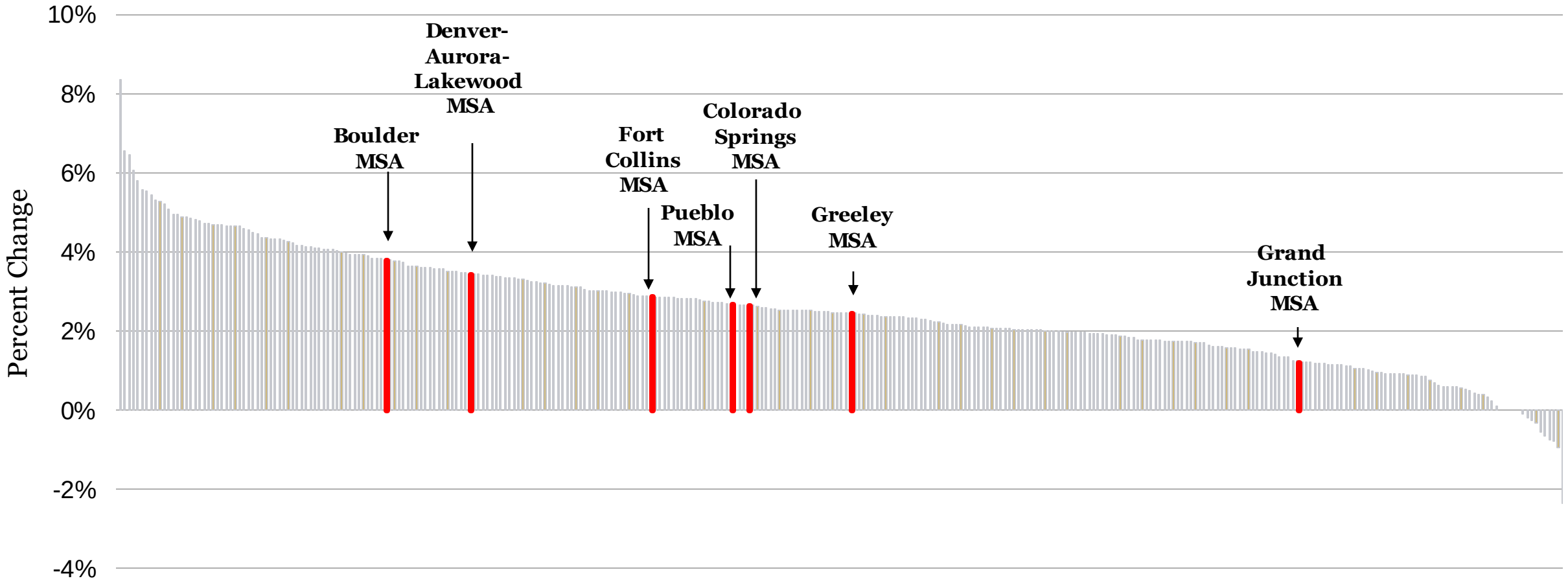
Boulder MSA's rank mixed nationally

Metric	1-Year	3-Year	5-Year	10-Year
Real GDP Growth	47	34	27	41
Employment Growth	62	92	48	63
Population Growth	322	222	200	107
Natural Increase	335	123	109	21
Net Migration	156	185	185	143
Personal Income Growth	195	87	54	29
PCPI Growth	113	38	14	14
PCPI	9	10	12	15
Unemployment Rate	76	118	136	45
Labor Force % Growth	35	41	27	39
FHFA Home Price Index Growth	228	245	206	73

Sources: Bureau of Economic Analysis (2021), Bureau of Labor Statistics (November 2022), U.S. Census Bureau (2021), Federal Housing Finance Agency (Q3 2022).

Employment growth in the top 20%

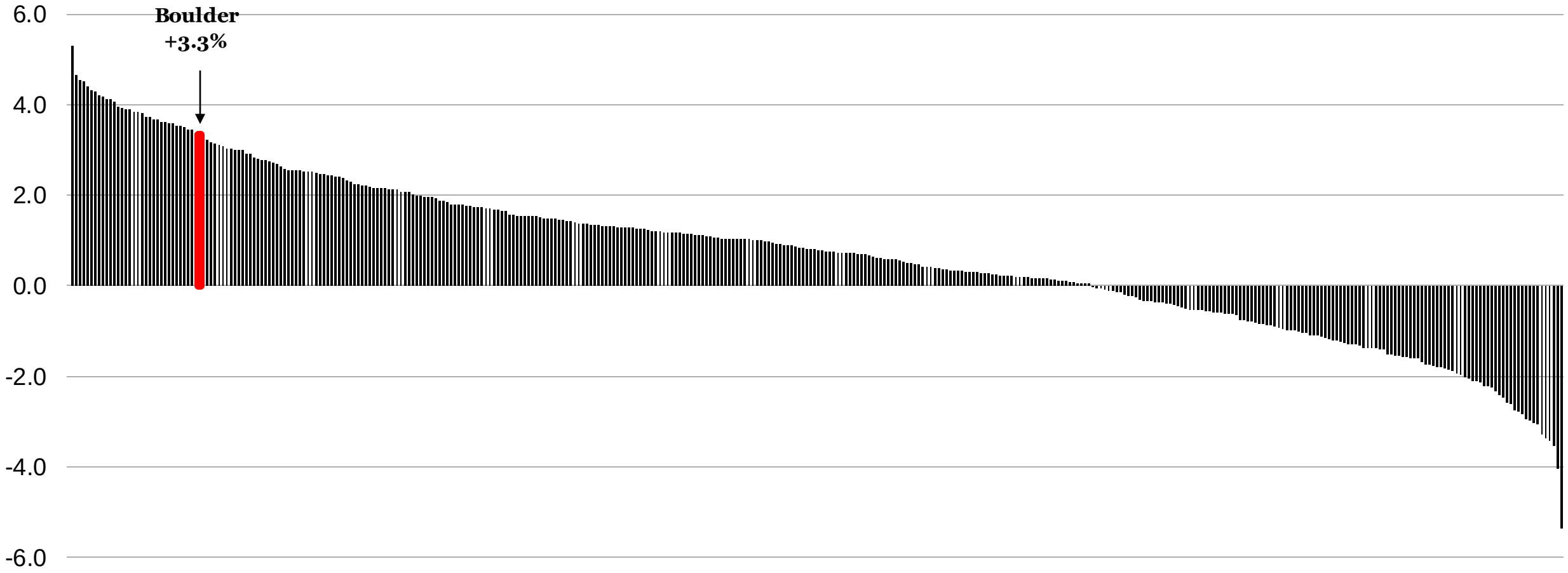
Employment by MSA, 1-Year Change, November 2022



Source: Bureau of Labor Statistics, Current Employment Statistics (Seasonally Adjusted).

Boulder MSA's labor force growth in top 10%

Year-over Year Growth, November 2022



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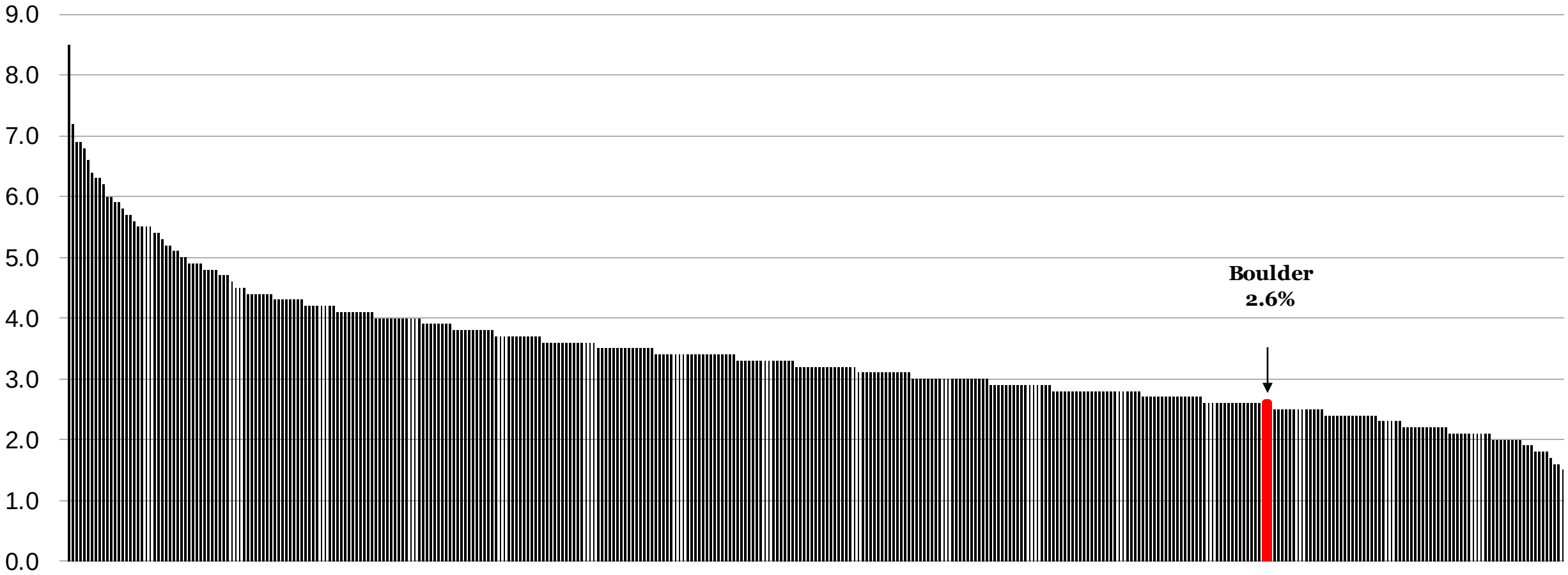
Source: Bureau of Labor Statistics. Not seasonally adjusted,

Boulder MSA's unemployment rate in lowest quintile

Unemployment Rate, September 2022



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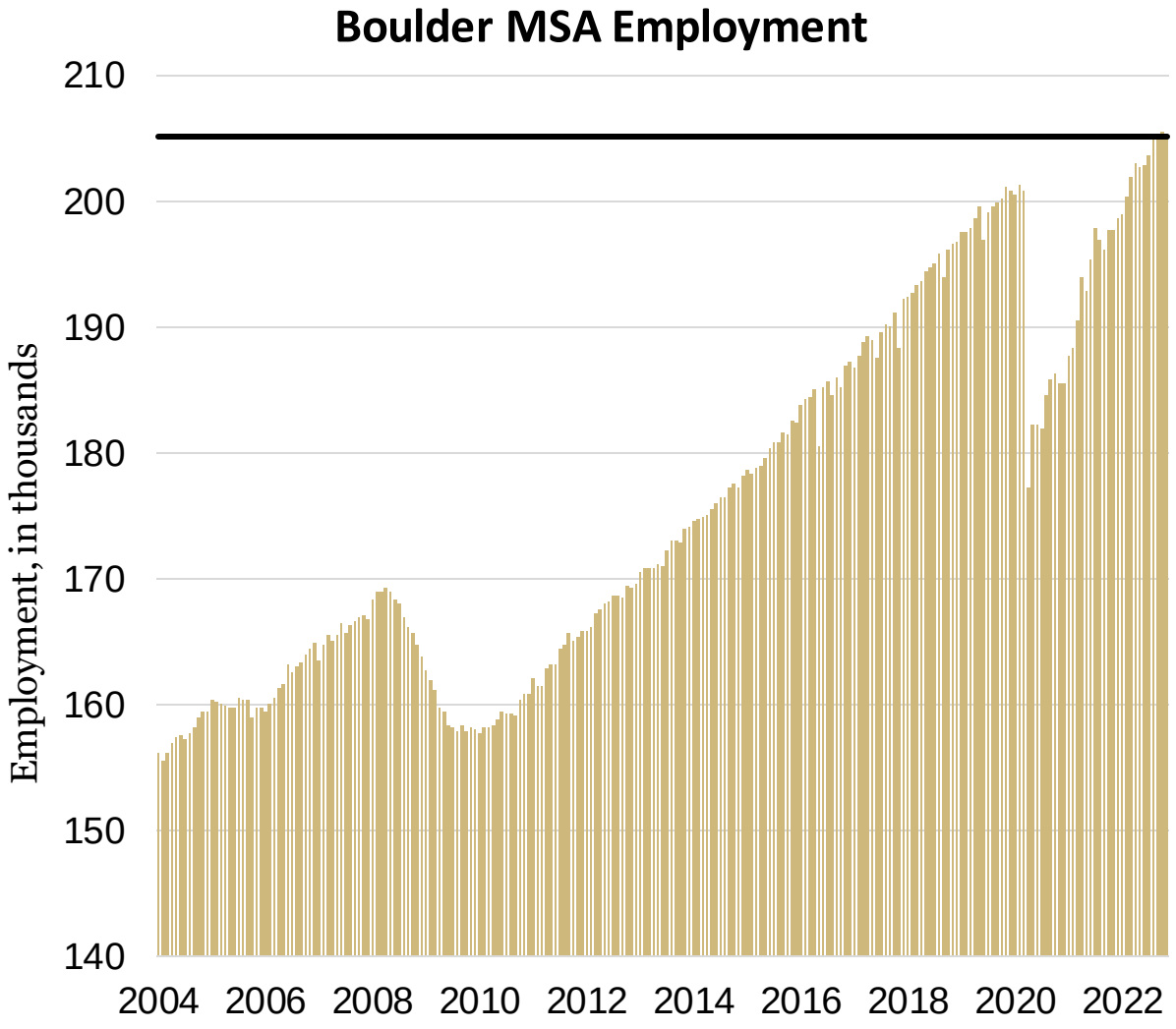
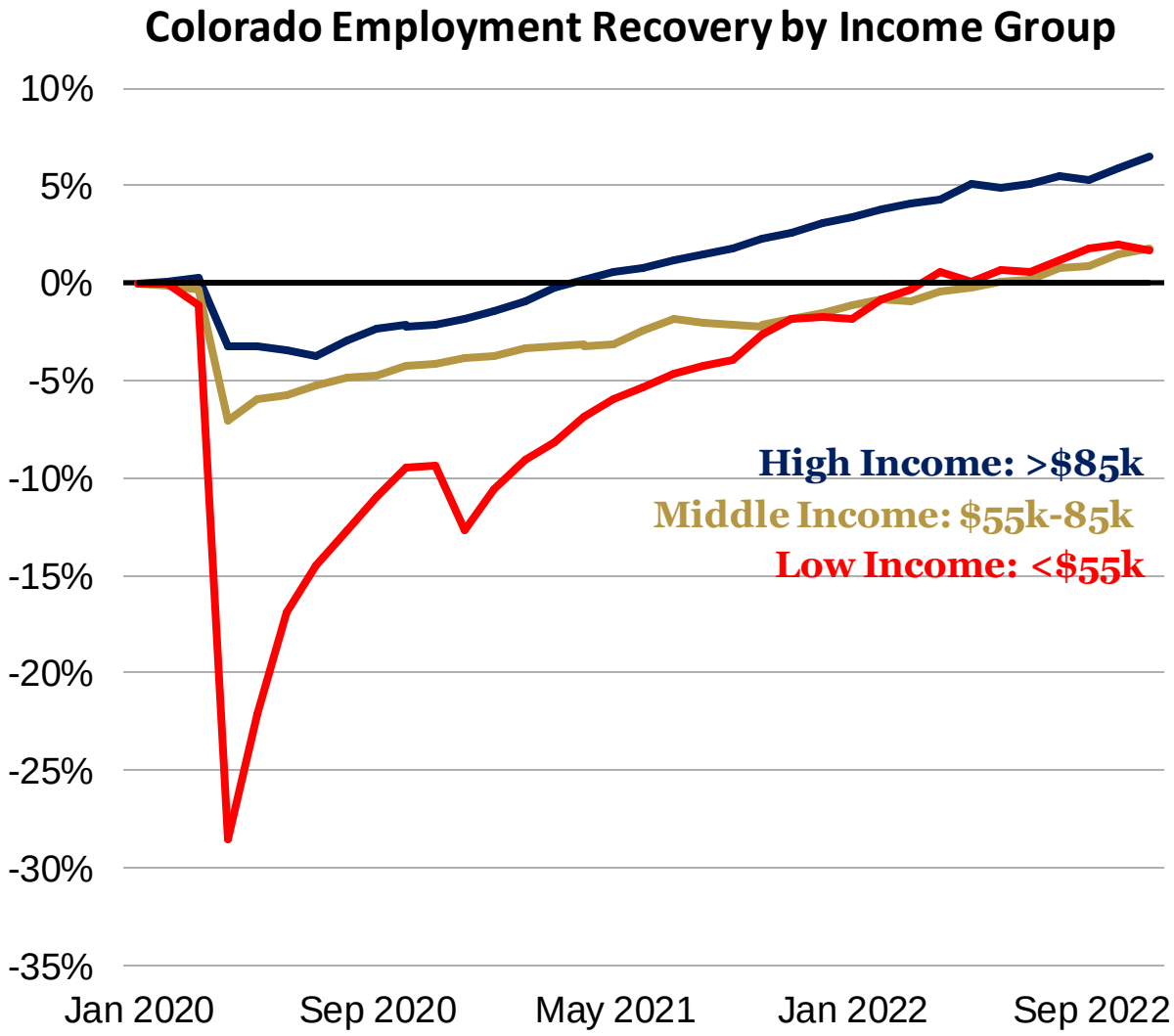
Source: Bureau of Labor Statistics. Not seasonally adjusted,

Reaching new heights

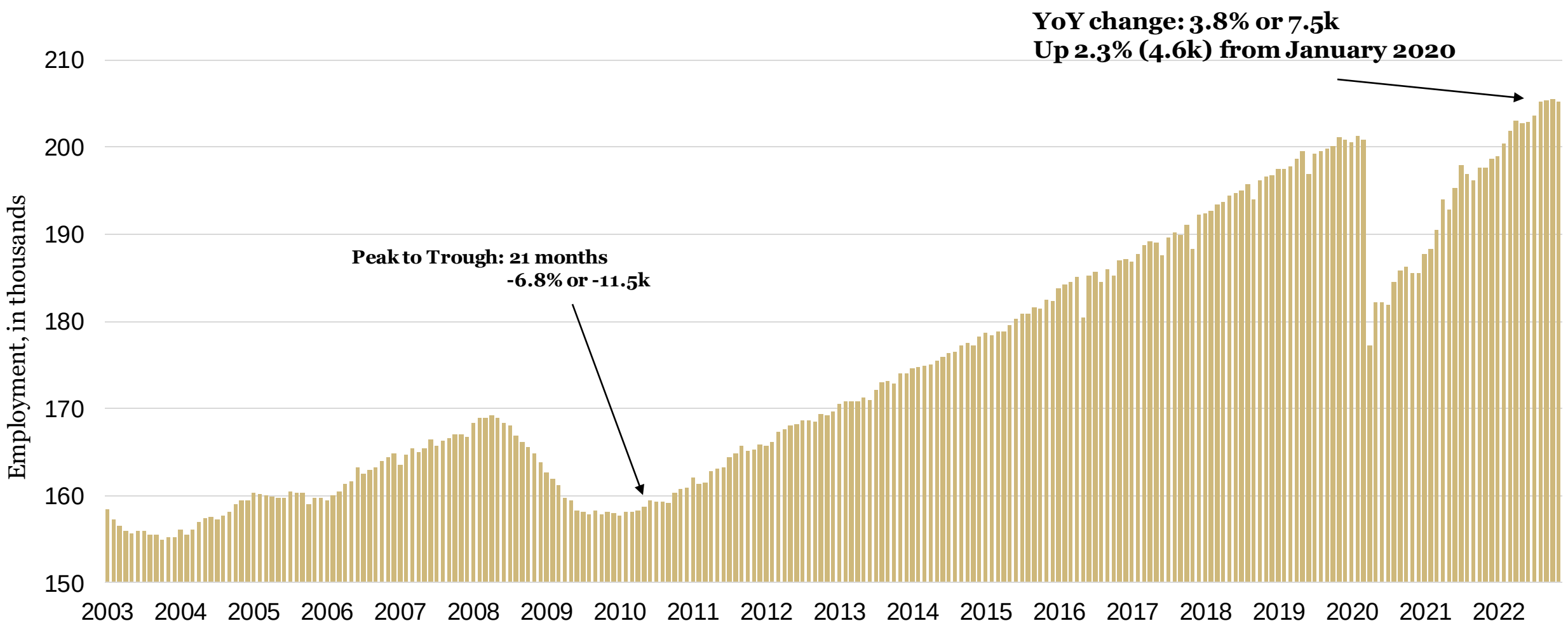




Source: Bureau of Labor Statistics, CES (SA), September 2022.

Employment

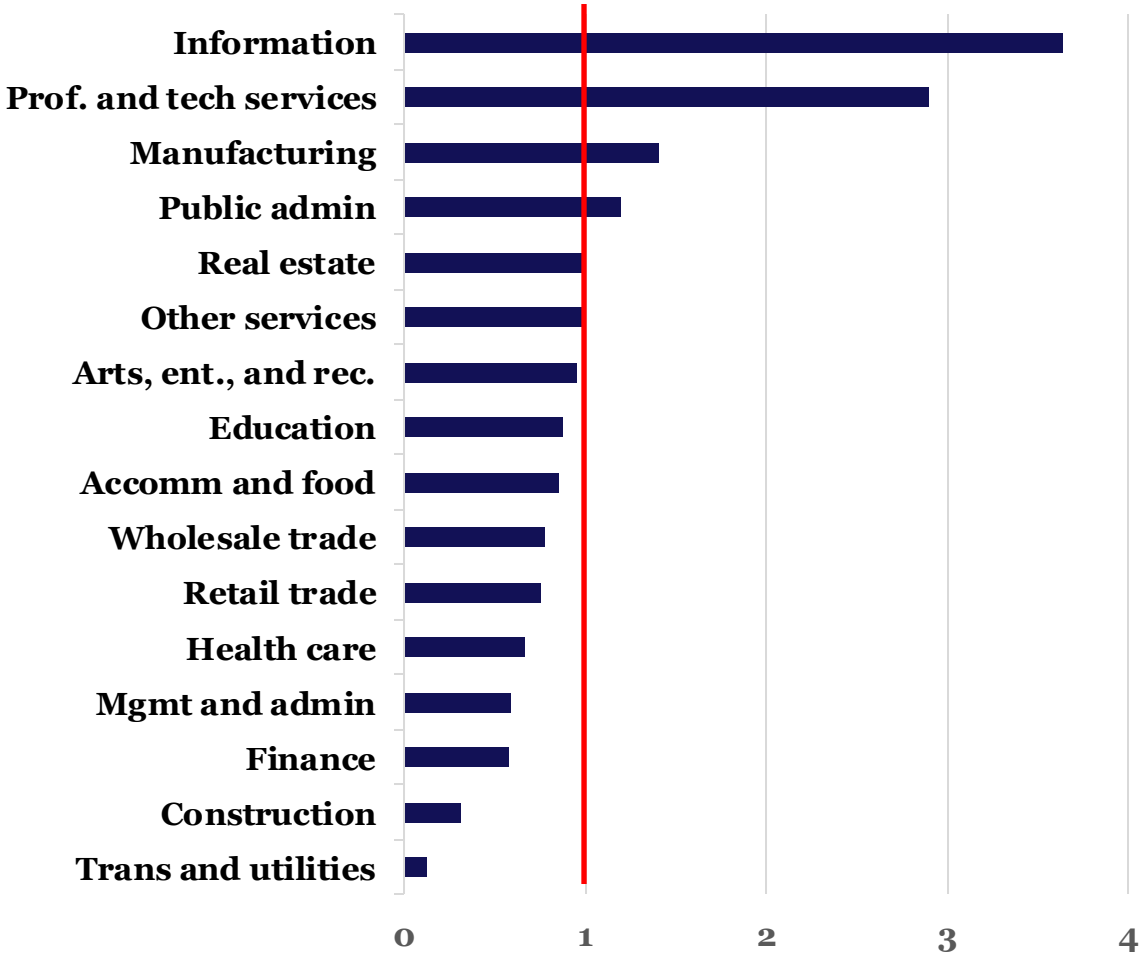
Boulder MSA



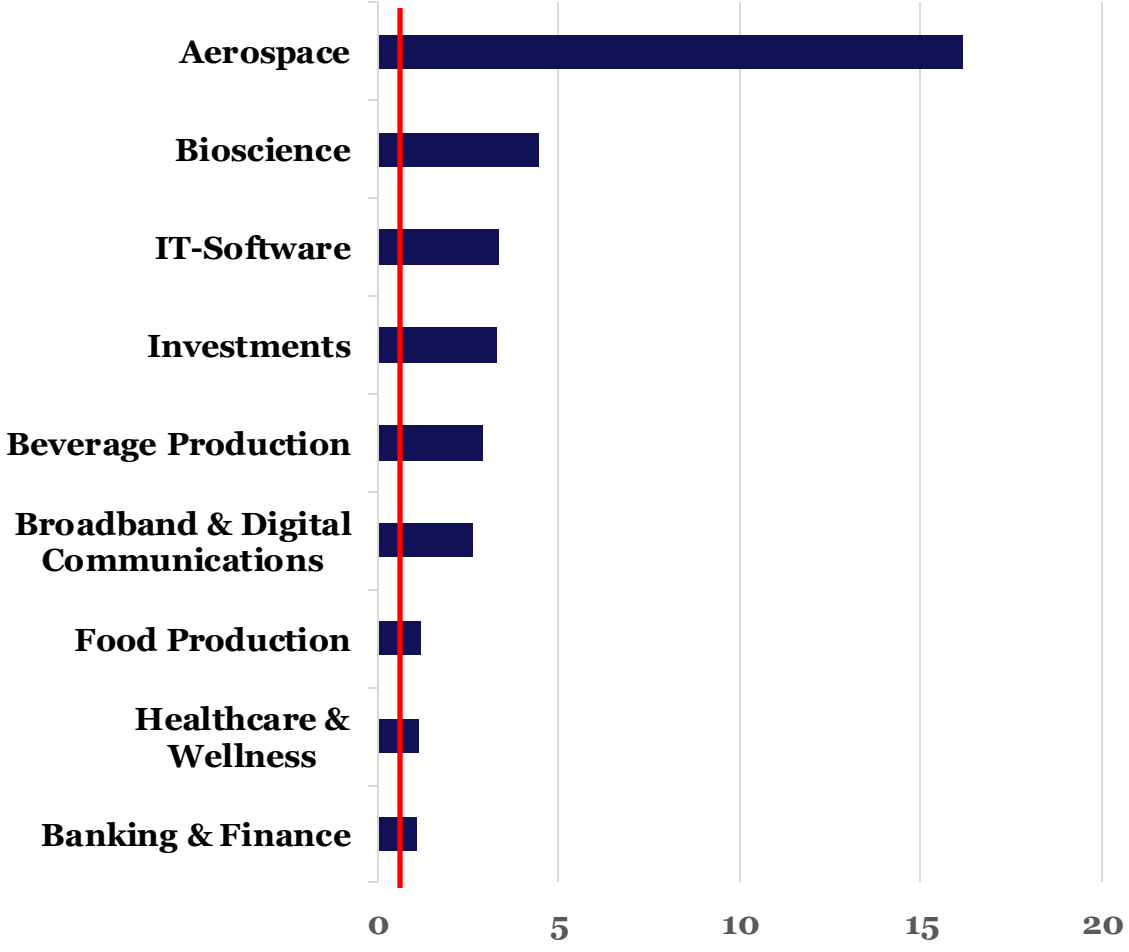
Source: Bureau of Labor Statistics, CES (SA), November 2021.

An economy with comparative advantages

City of Boulder Industry Location Quotients



City of Boulder Key Industry Cluster Location Quotients



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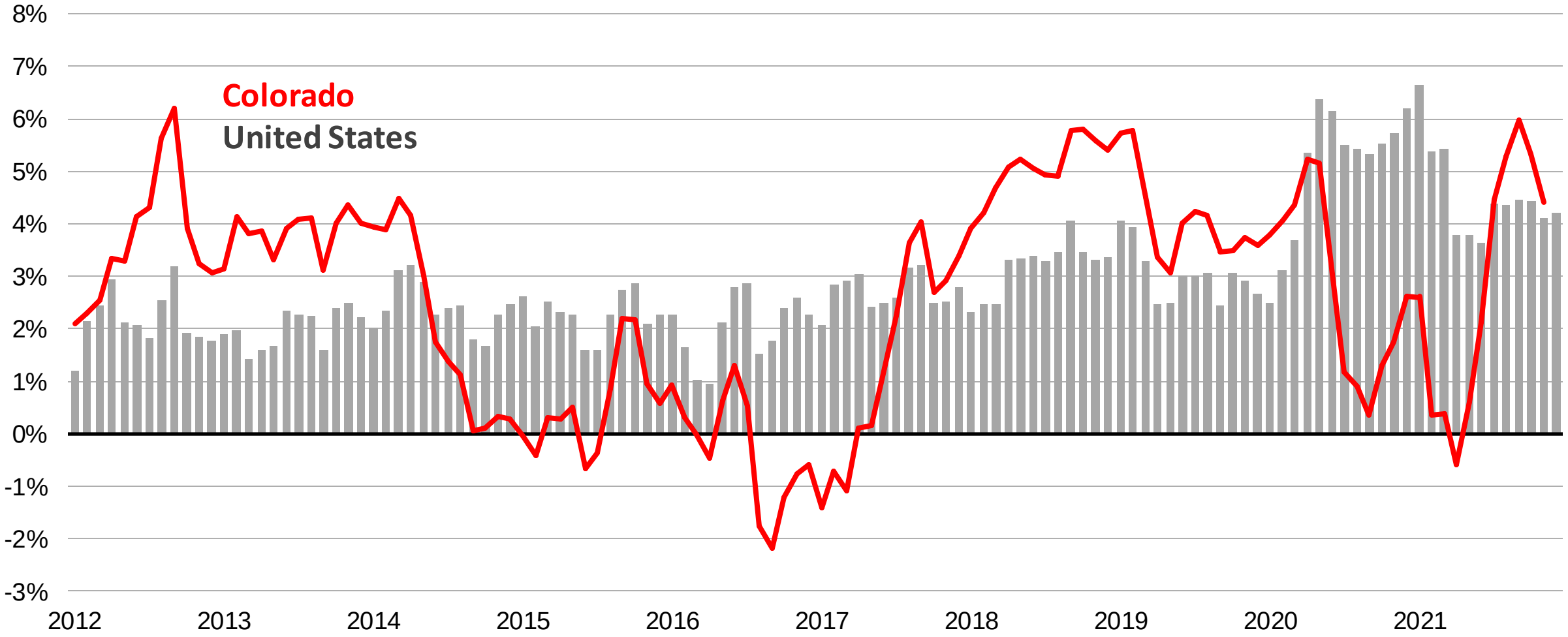
Sources: Colorado Department of Labor and Employment (QCEW) and the Metro Denver EDC.

Average Weekly Wage Growth

Year-over-Year Changes (3-Mo. Average)



Source: Bureau of Labor Statistics.

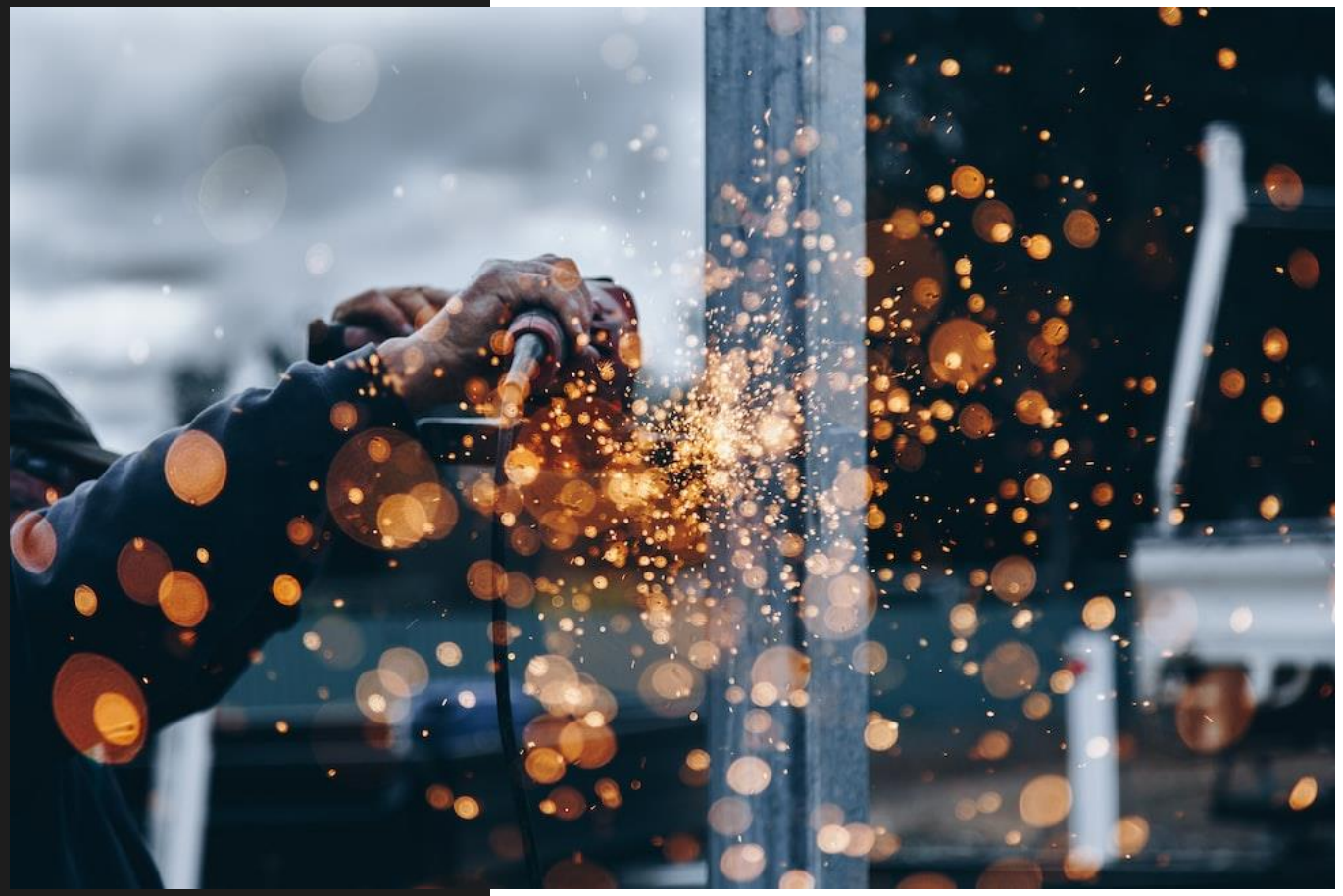
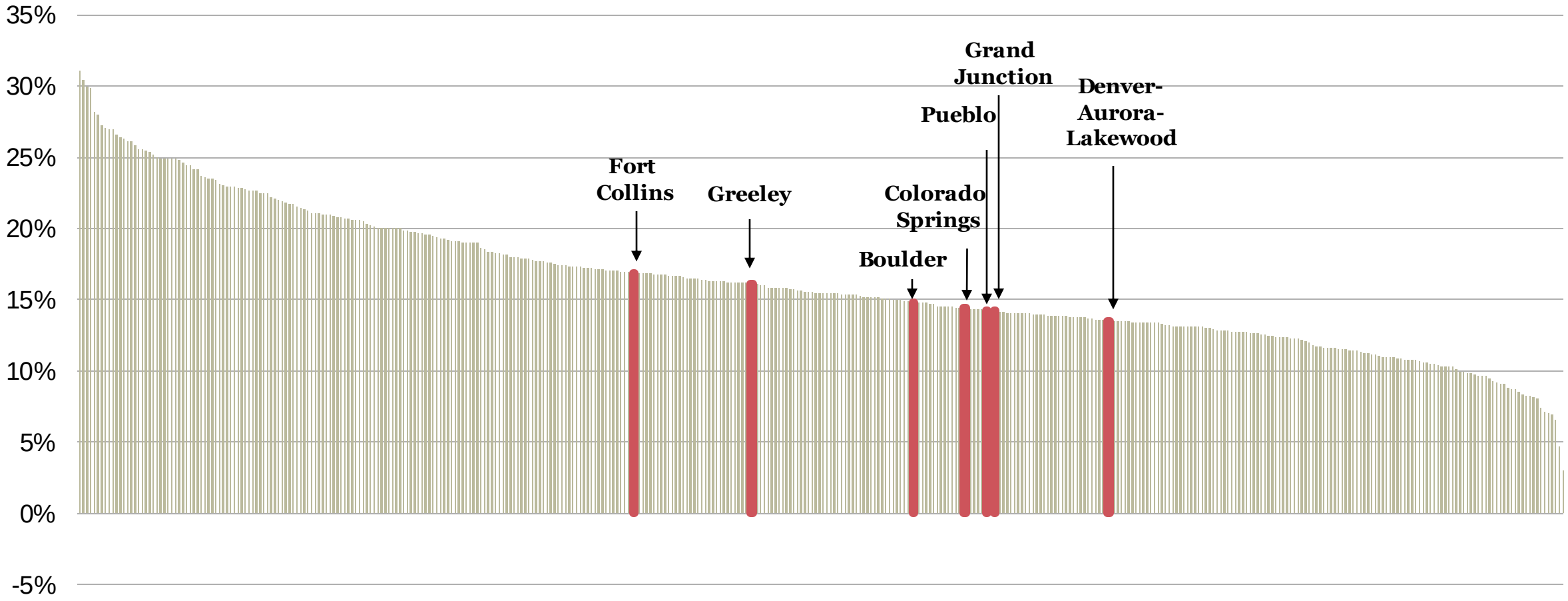


Photo by Christopher Burns on Unsplash.

Construction & Real Estate

Home price growth slowing ahead of average

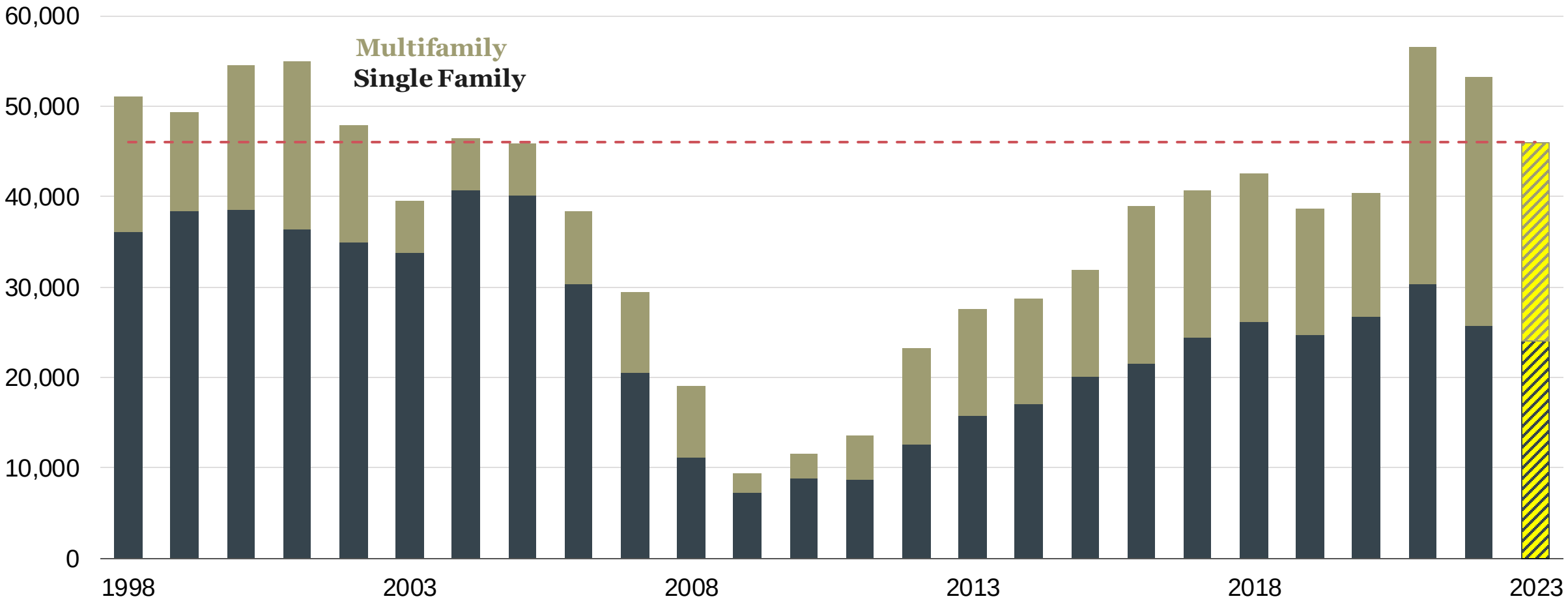
FHFA Home Price Index by MSA, 1-Year Home Price Change, Q3 2022



Source: Federal Housing Finance Agency, All Transactions Index (Not Seasonally Adjusted).

Colorado Residential Building Permits

Permits, 1998-2023



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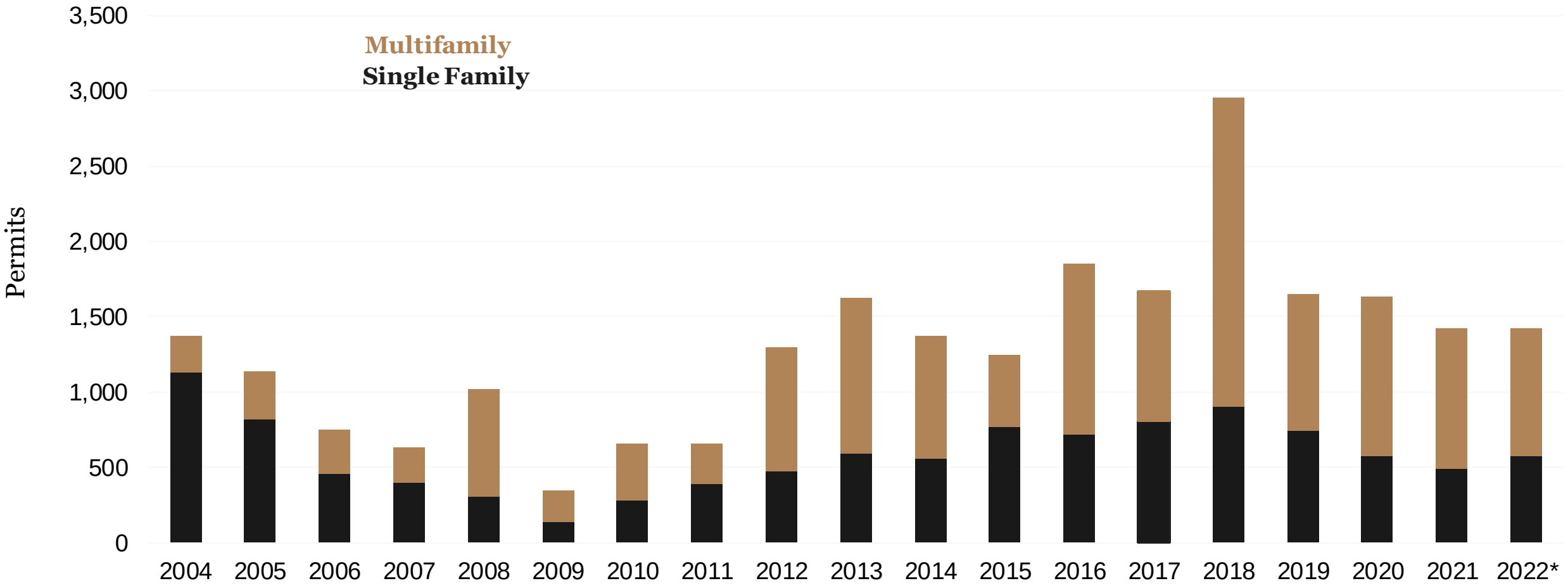
Sources: U.S. Census Bureau and the Colorado Business Economic Outlook Committee.

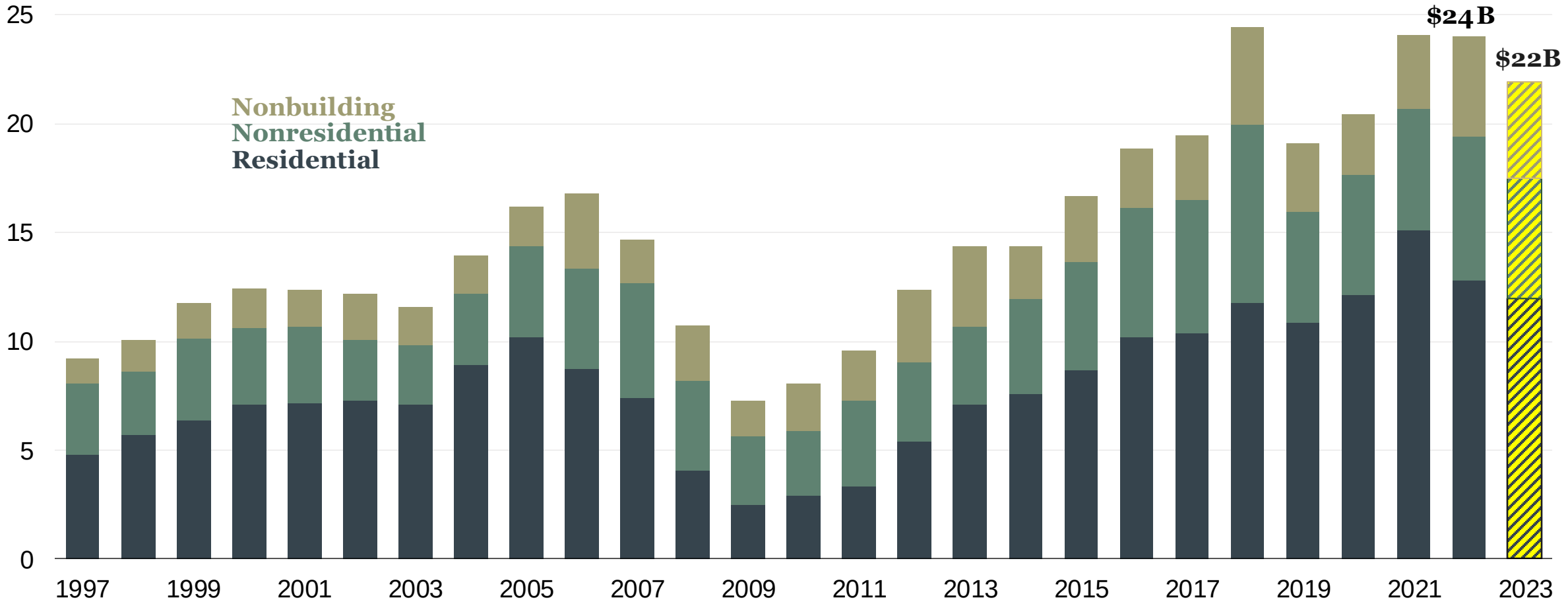
Boulder MSA Residential Building Permits



Sources: U.S. Census Bureau and the Colorado Business Economic Outlook Committee.

Colorado Total Value of Construction

Total Value of Construction, $ Billions



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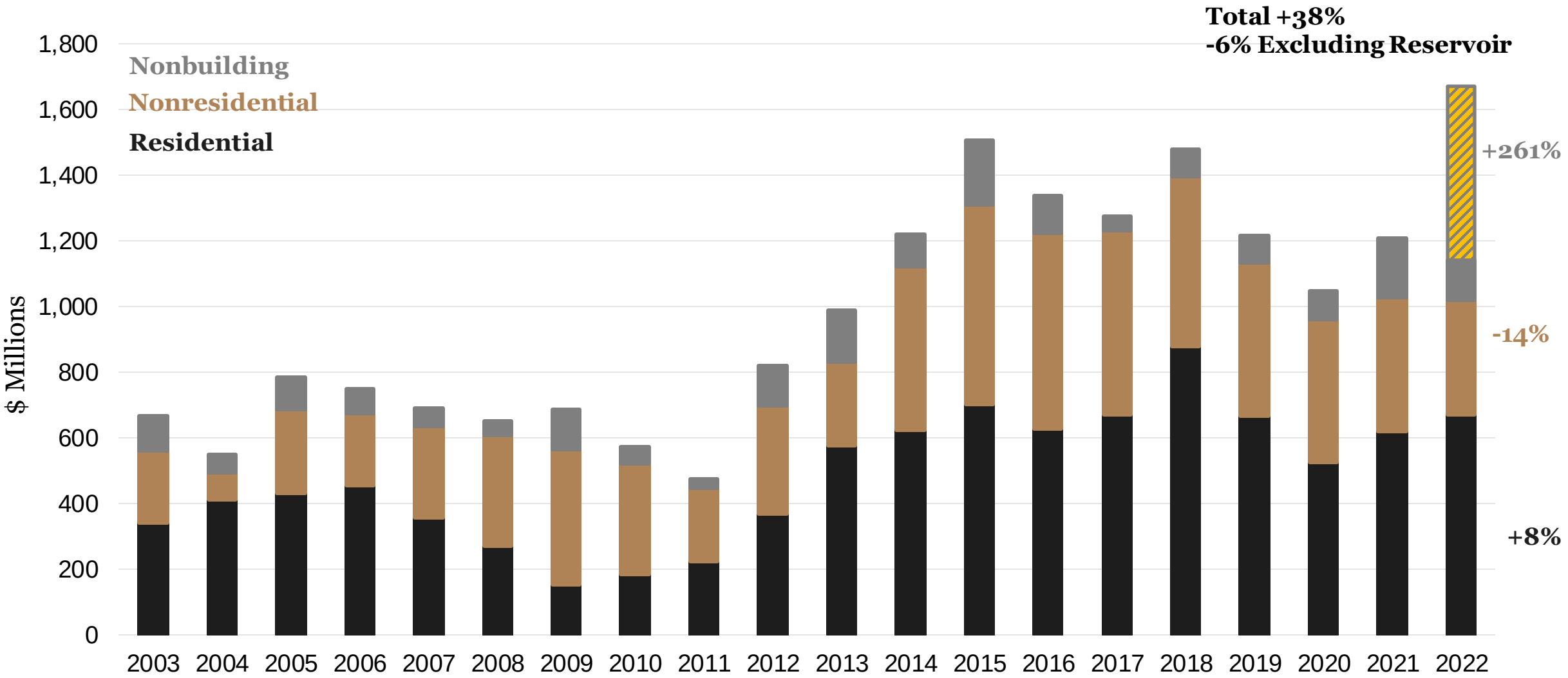
Source: McGraw-Hill Construction Dodge Research and Analytics and the Colorado Business Economic Outlook Committee.

Boulder County Value of Construction



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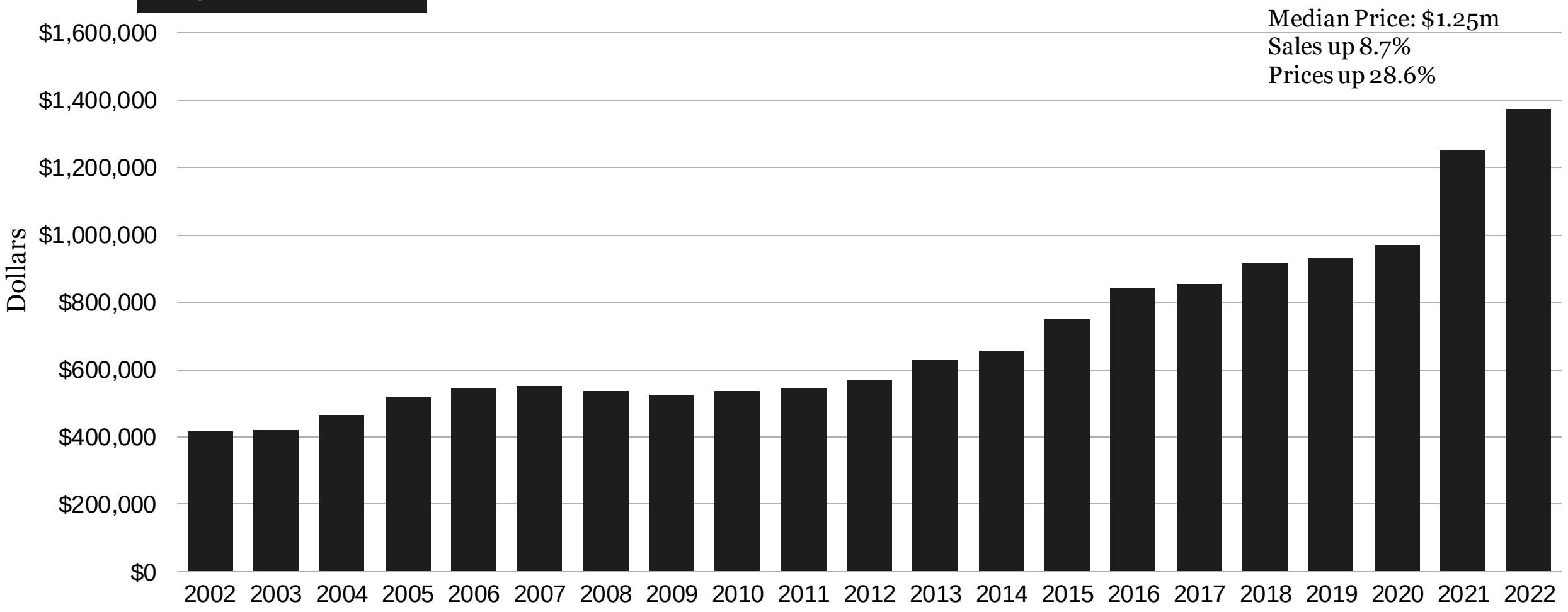
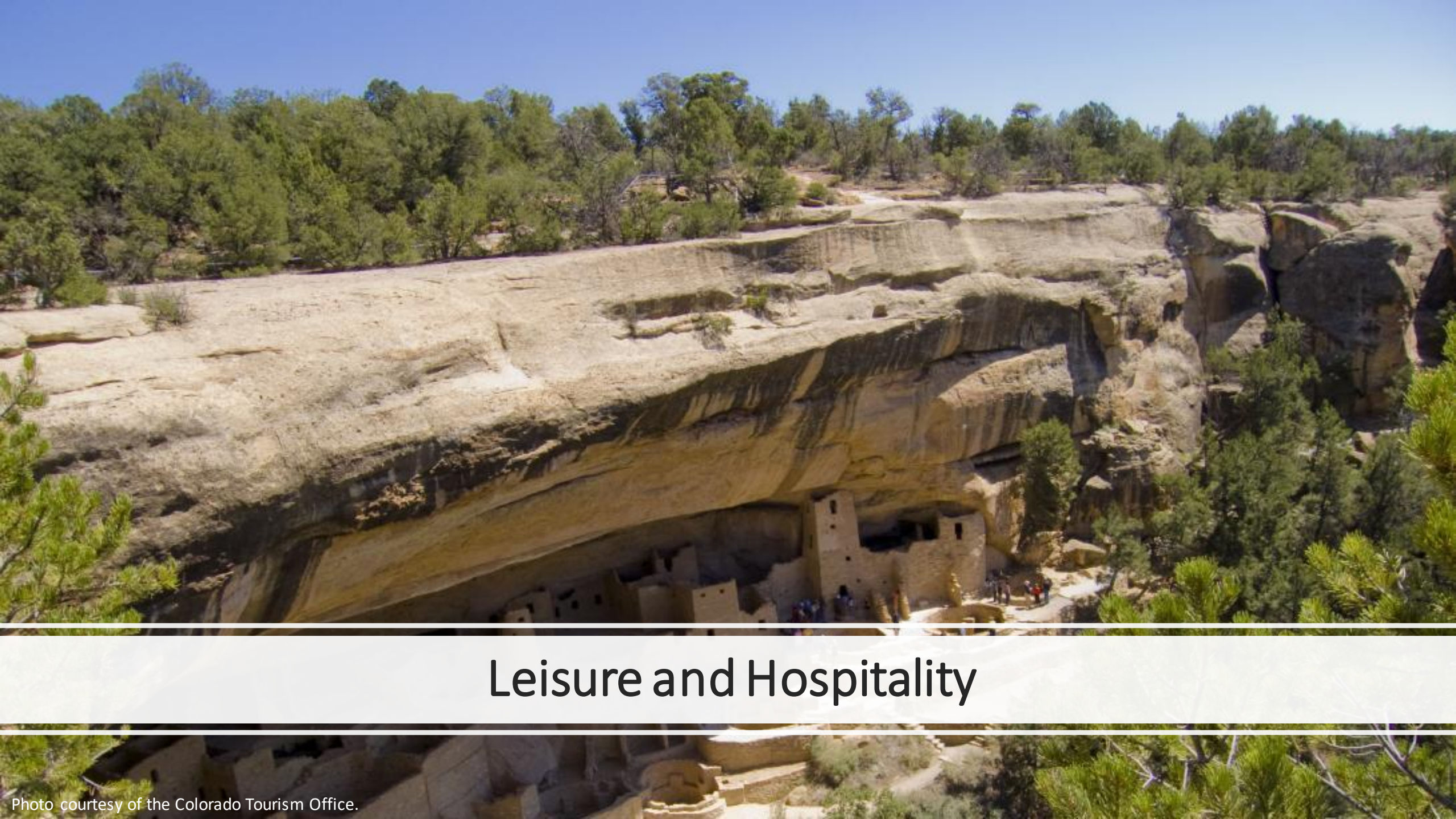
Sources: McGraw-Hill Construction Dodge Research and Analytics.

Median Price of Single Family Homes Sold

City of Boulder



Source: BOLO REALTORS. Excludes condos and townhomes.

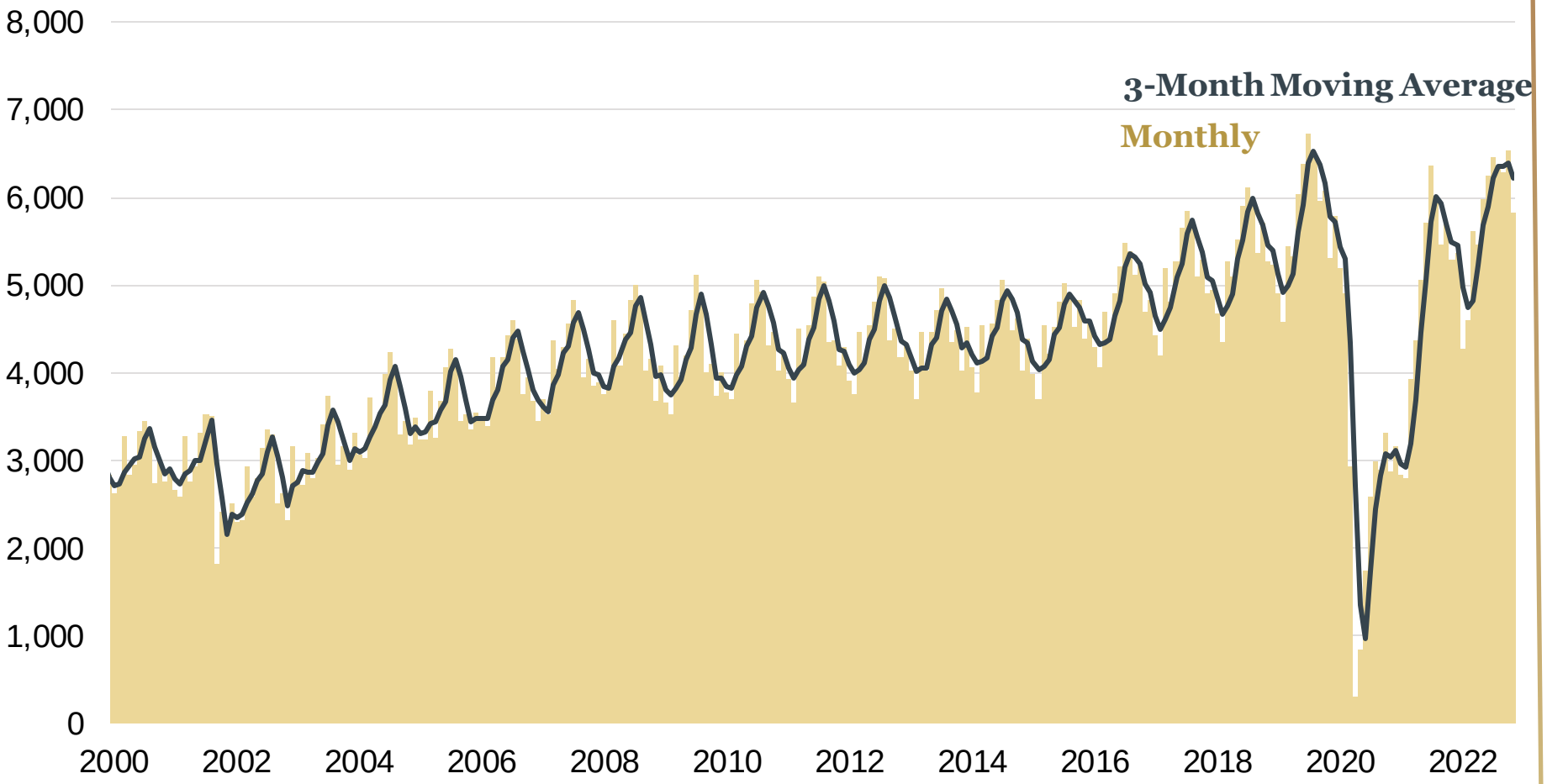


Leisure and Hospitality

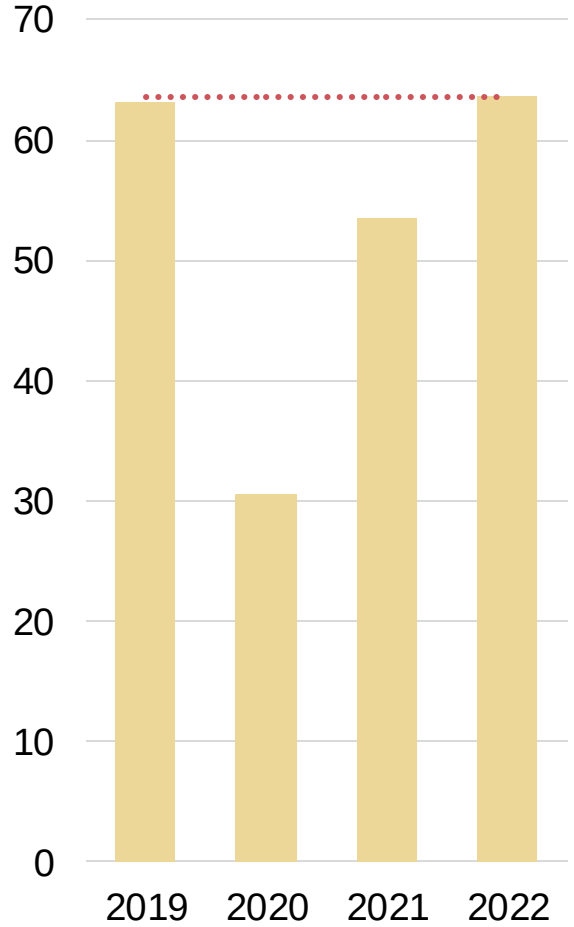
Photo courtesy of the Colorado Tourism Office.

DIA Enplanements and Deplanements

DIA Monthly Passenger Traffic, Thousands, 2000-2022



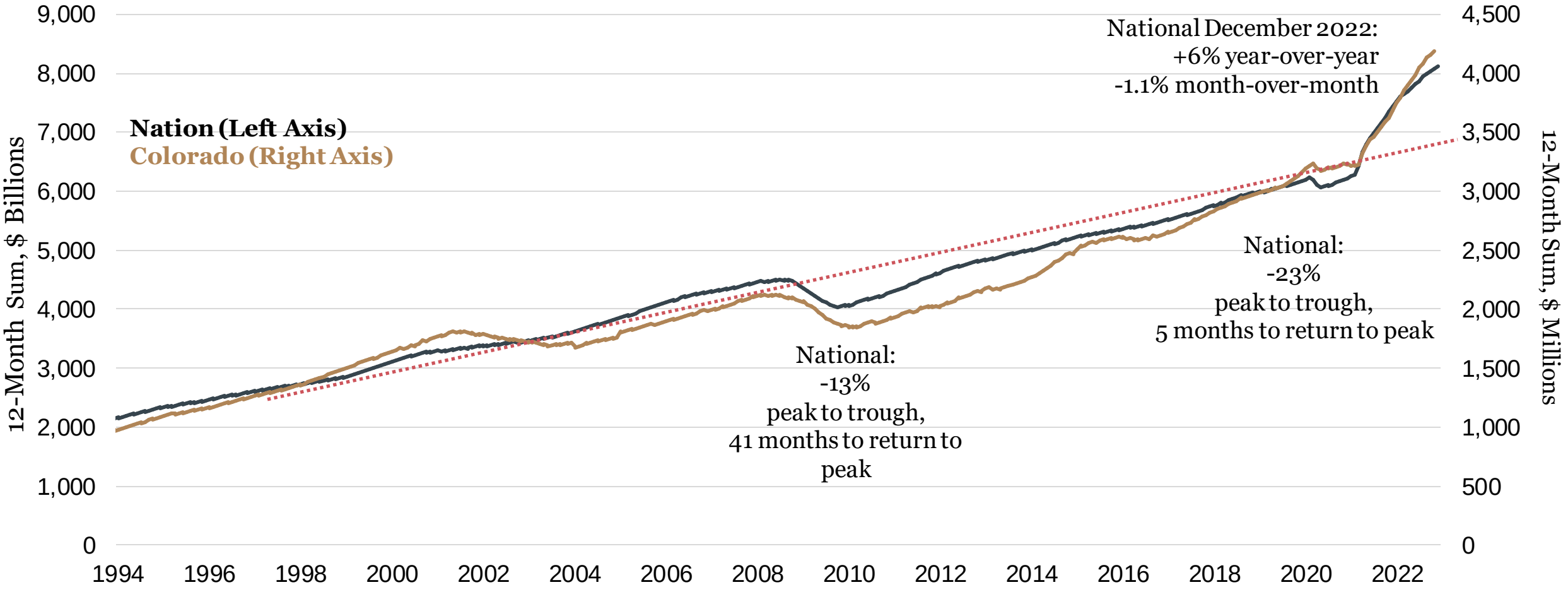
November YTD (Millions)



Source: Denver International Airport..

National Retail Sales vs. Colorado Taxable Sales

Trend vs. Recent Volatility



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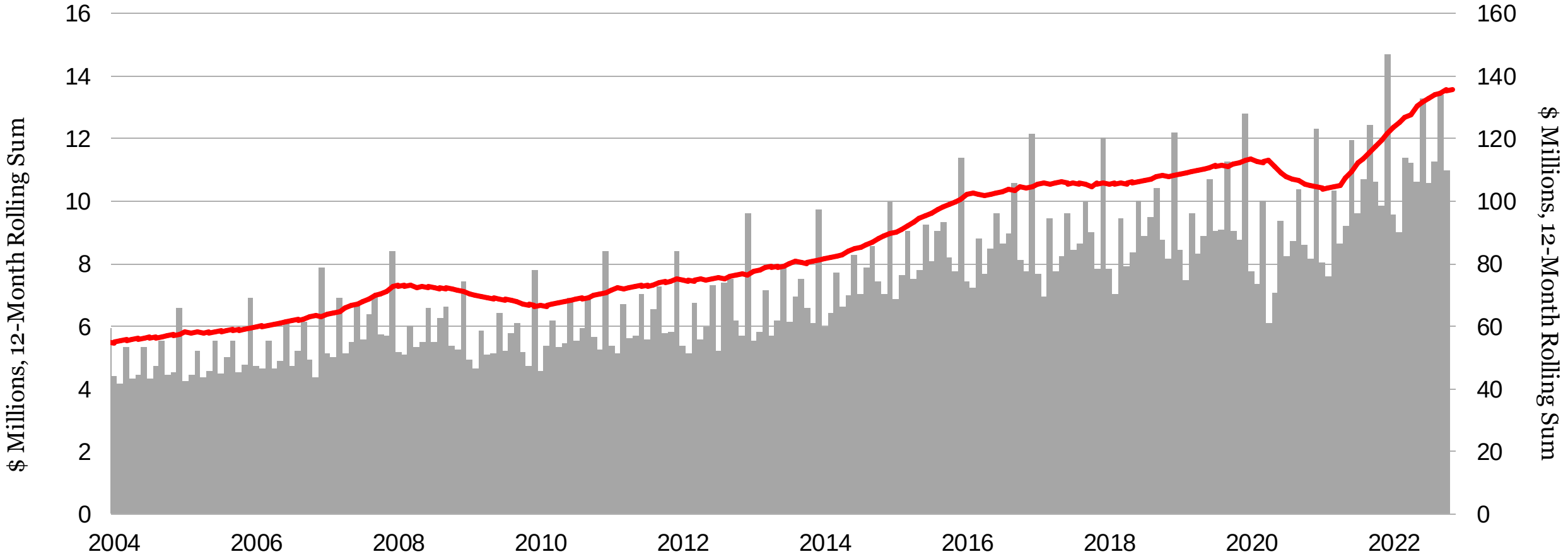
Source: U.S. Census Bureau. Series not seasonally adjusted. Summary text seasonally adjusted.

Sales Tax Collections

City of Boulder

October 2022 (12 Mo.) YoY: 13.5%
October 2022 YoY: 3.3%



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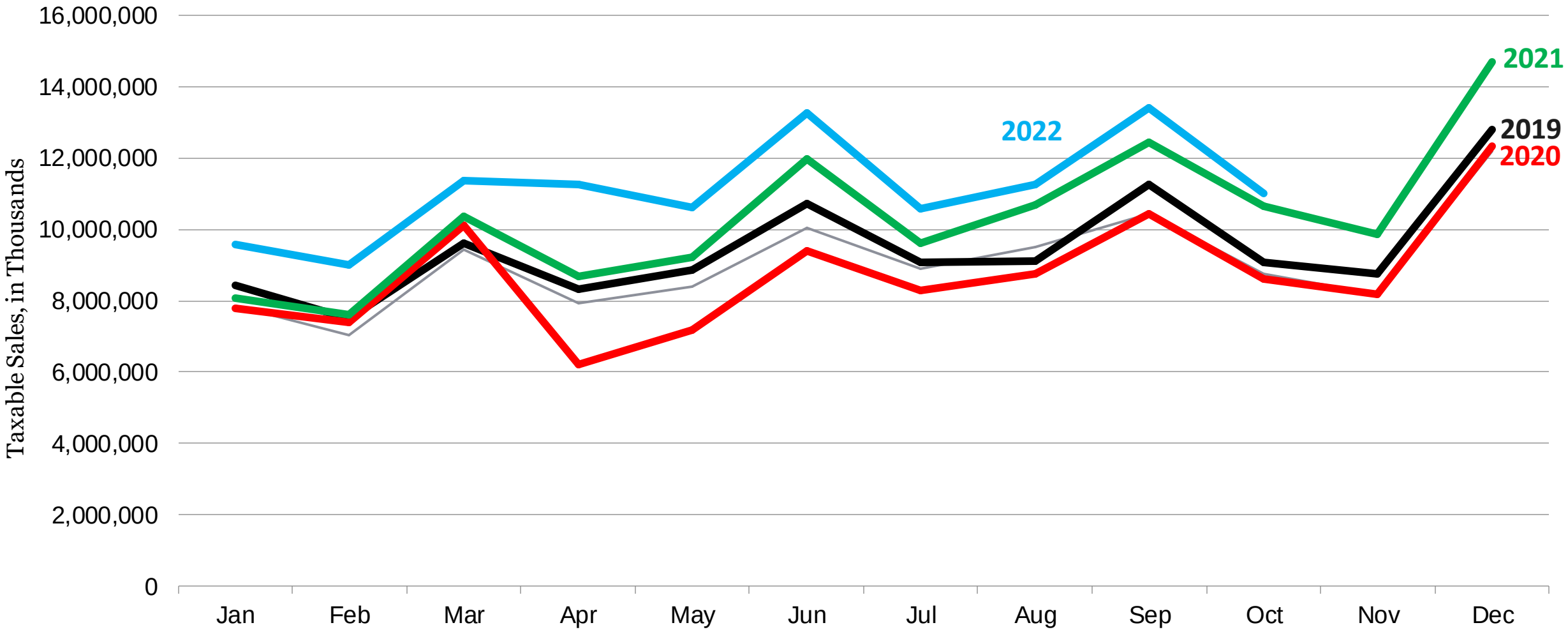
Source: City of Boulder Revenue Reports (https://bouldercolorado.gov/revenue-reports).

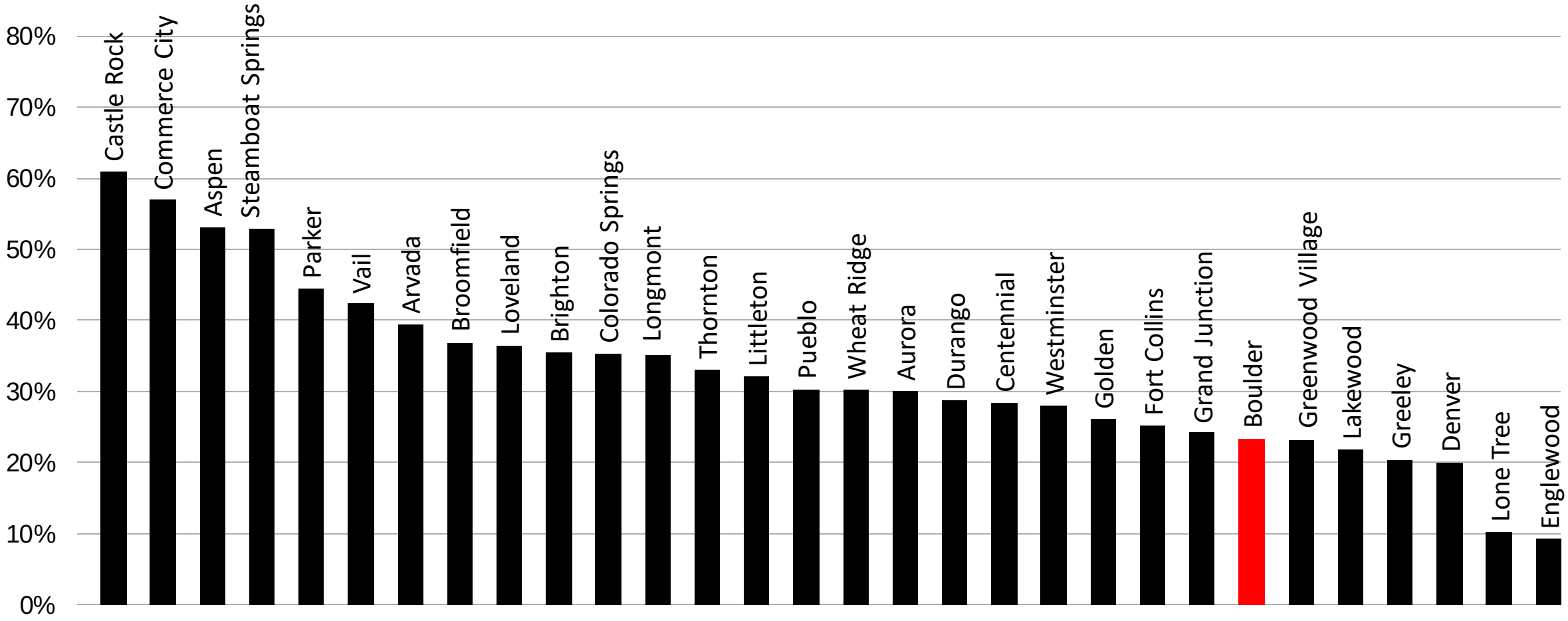
Boulder's sales taxes recovering strongly



Source: City of Boulder Revenue Reports (https://bouldercolorado.gov/revenue-reports).

Taxable sales rebound lagging largest jurisdictions

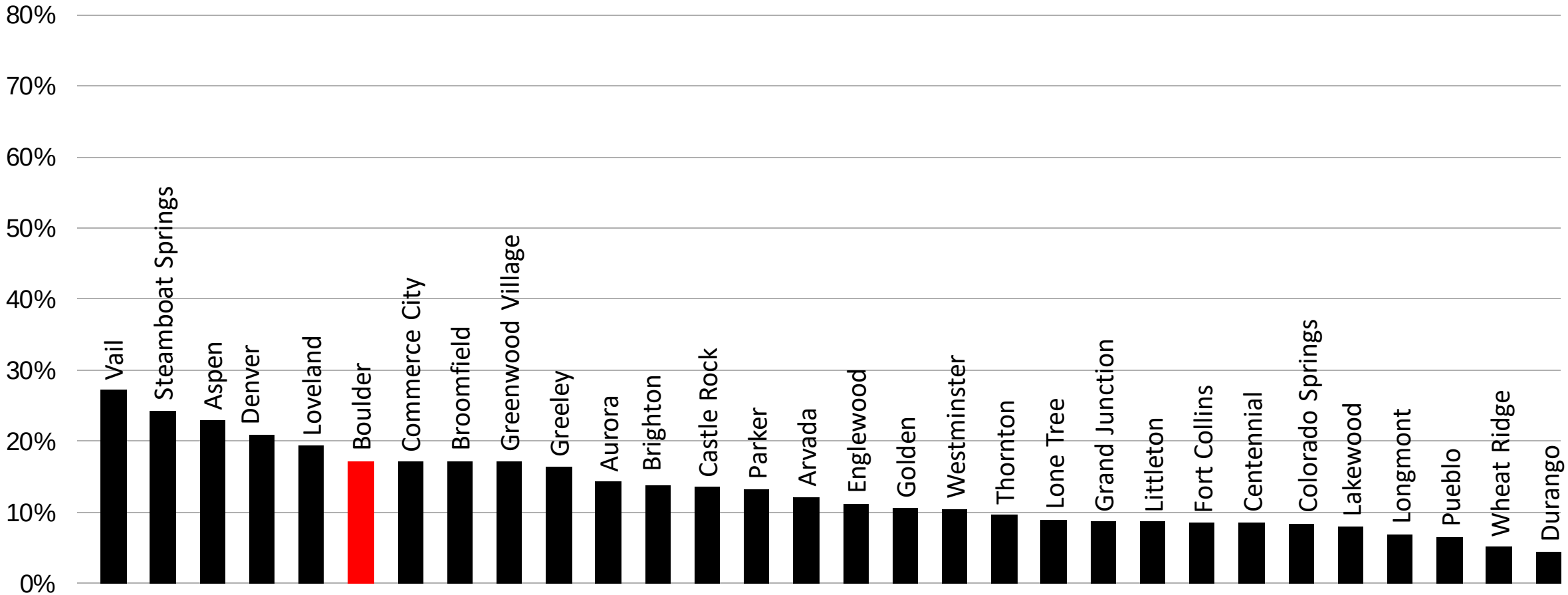
2022 YTD Compared to 2019 YTD October



Source: Colorado Department of Revenue.

But they are leading year-over-year

2022 YTD Compared to 2021 YTD October



Source: Colorado Department of Revenue.

Tailwinds

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

Headwinds

Debt Limit
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

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