### Can a Recession be Avoided?

**Colorado Roofing Association** 



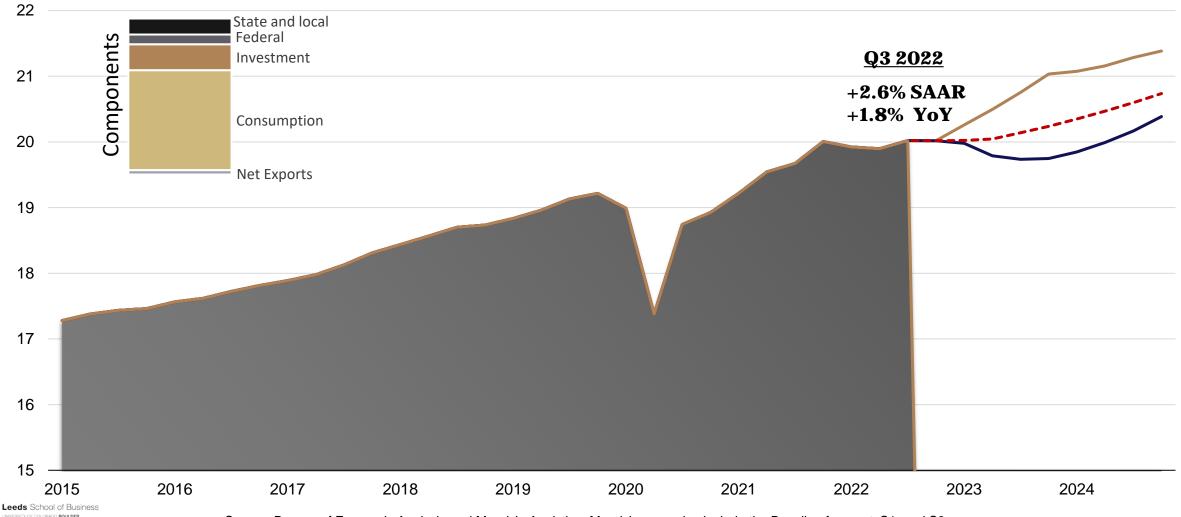
#### **Richard Wobbekind**

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

### U.S. Real GDP

G

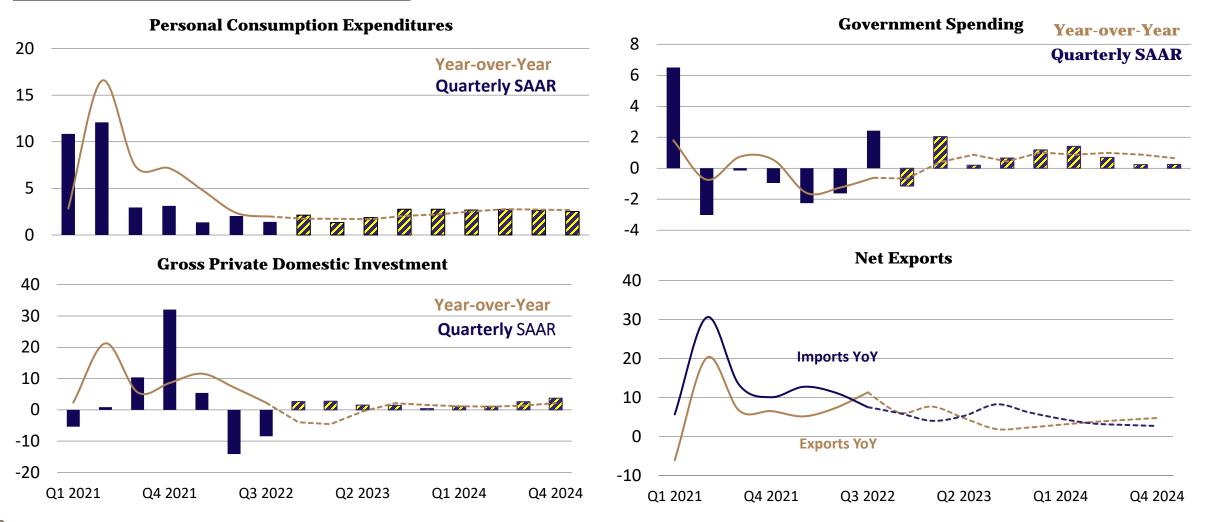
#### U.S. Quarterly GDP, \$ Trillions



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

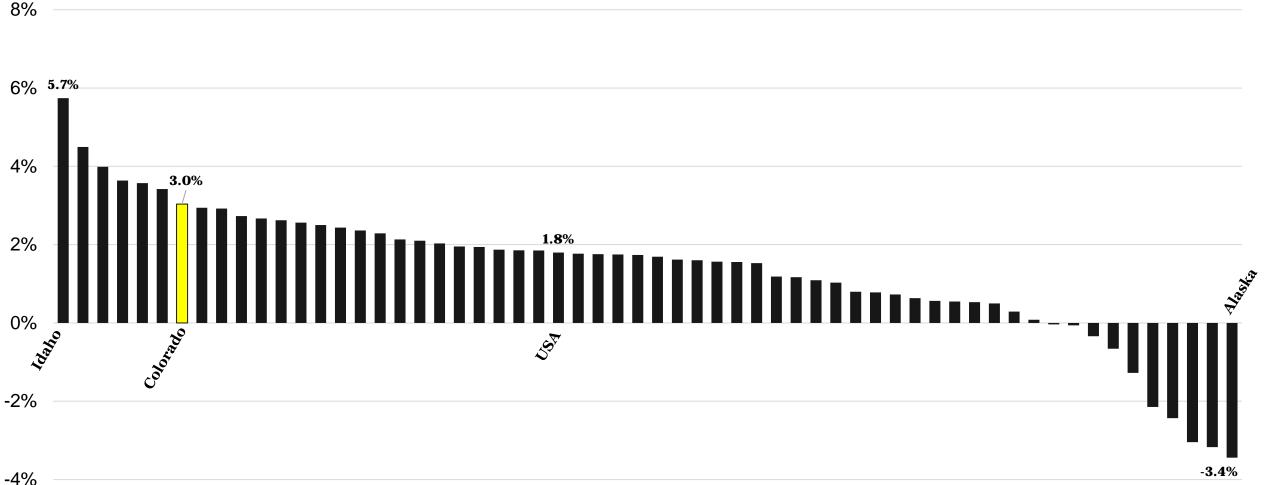


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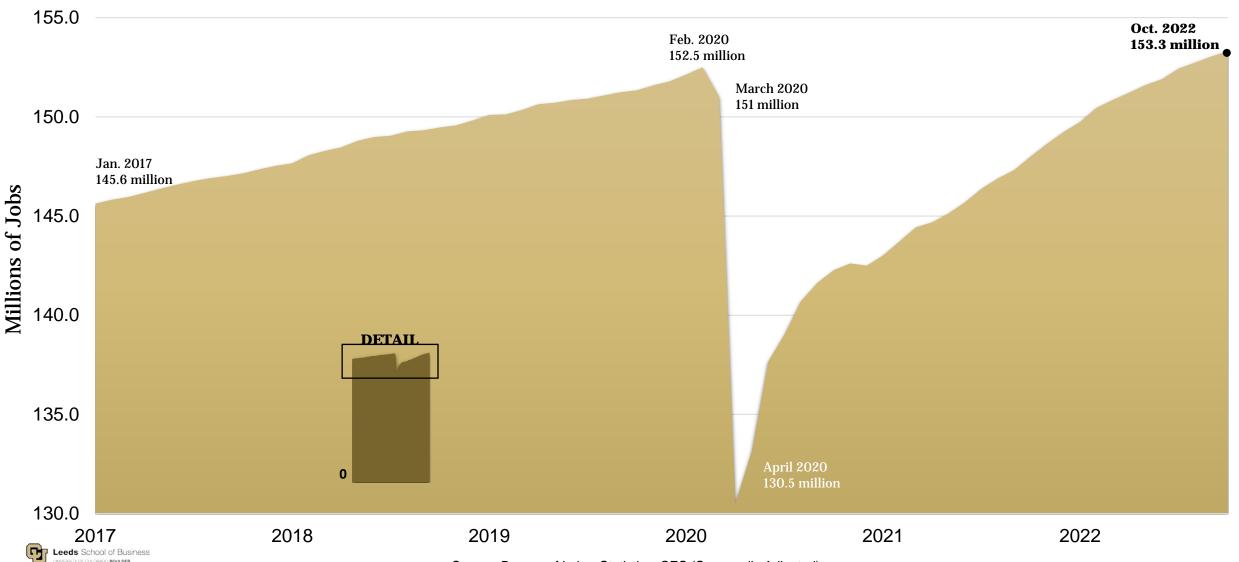
Sources: Bureau of Economic Analysis, Moody's Analytics, and Consensus Forecasts

# Real GDP growth by State

Year-over-Year, Q2 2022

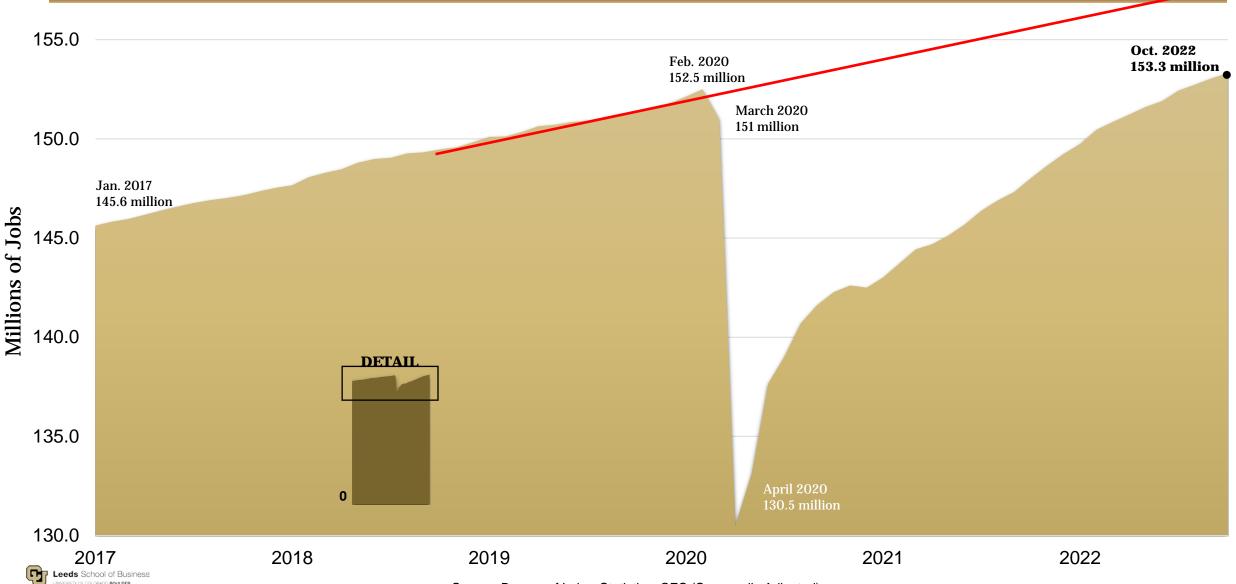


# **U.S Nonfarm Employment**



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

# **U.S Nonfarm Employment**

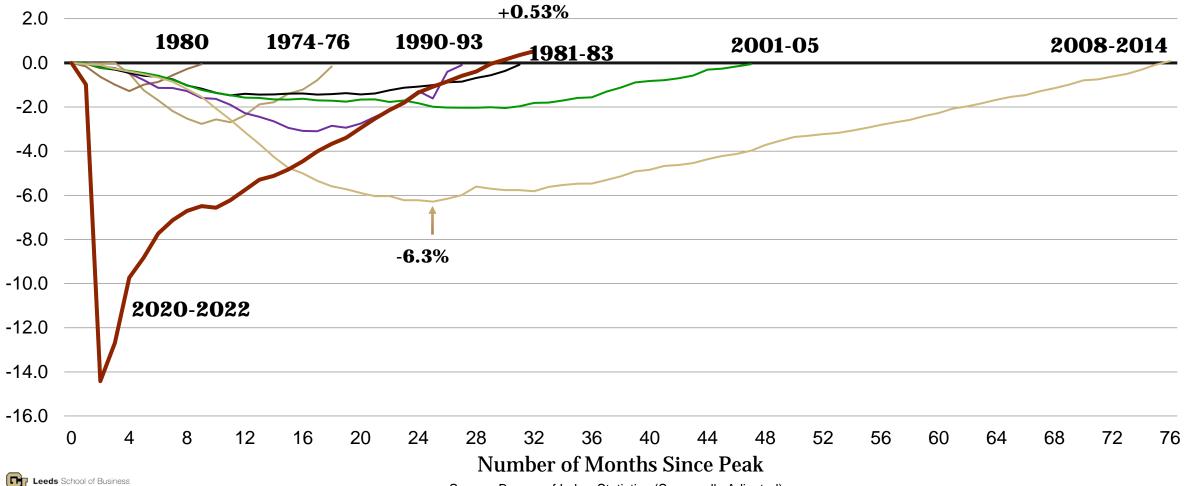


Source: Bureau of Labor Statistics, CES (Seasonally Adjusted).

# National Employment

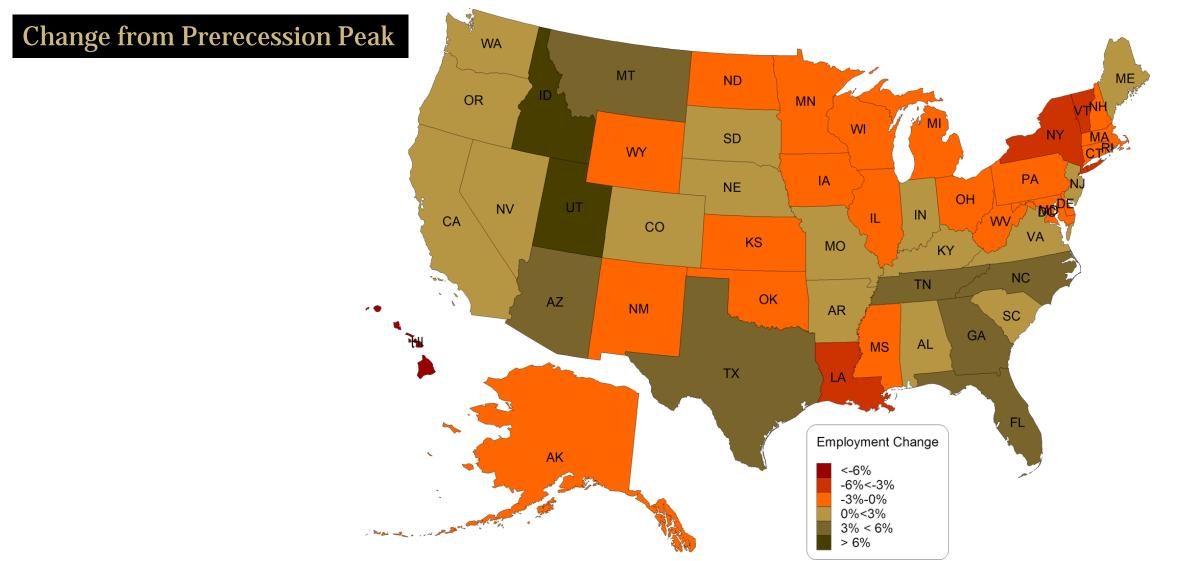
#### Months to Recovery

Percent



Source: Bureau of Labor Statistics (Seasonally Adjusted).

### **Employment Recovery**

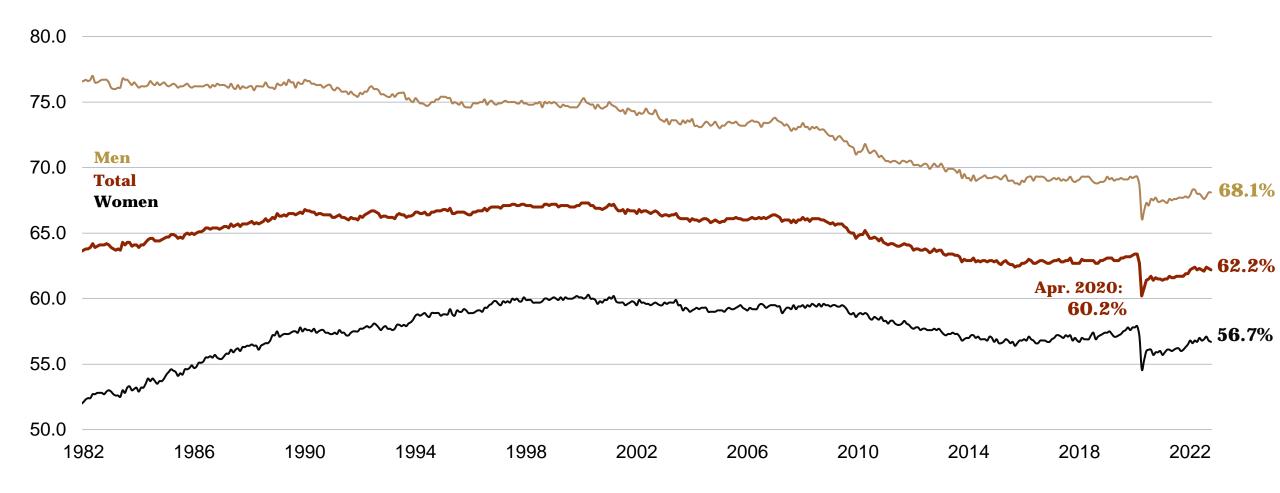




Source: Bureau of Labor Statistics, Current Employment Statistics (Seasonally Adjusted), as of October 2022.

### Labor Force Participation Rate

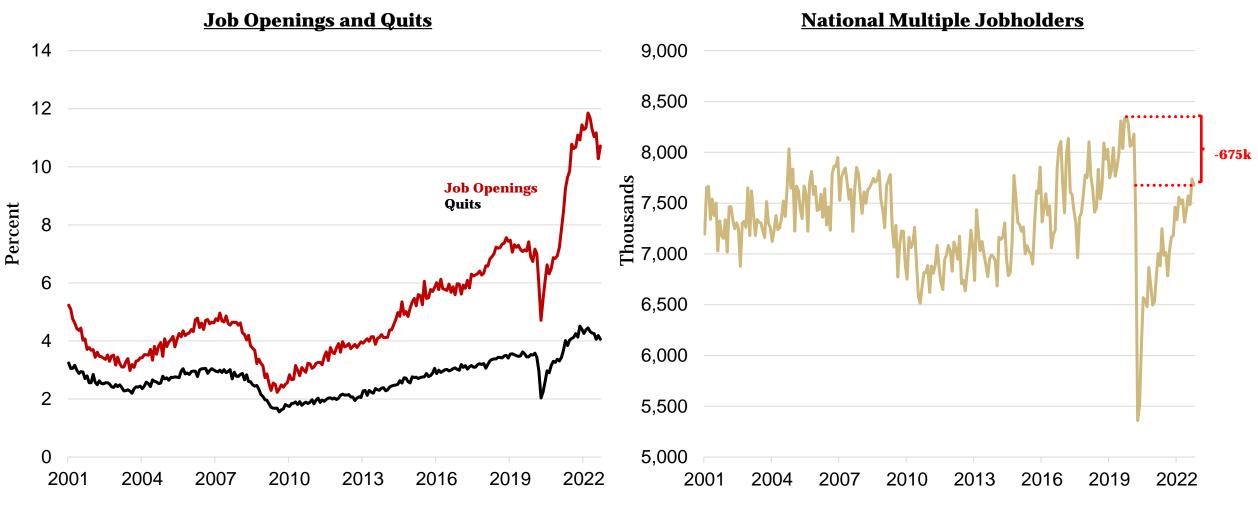
#### Percent of Population, 16 and Over



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Sources: Bureau of Labor Statistics (Seasonally Adjusted).

### Labor Shortage

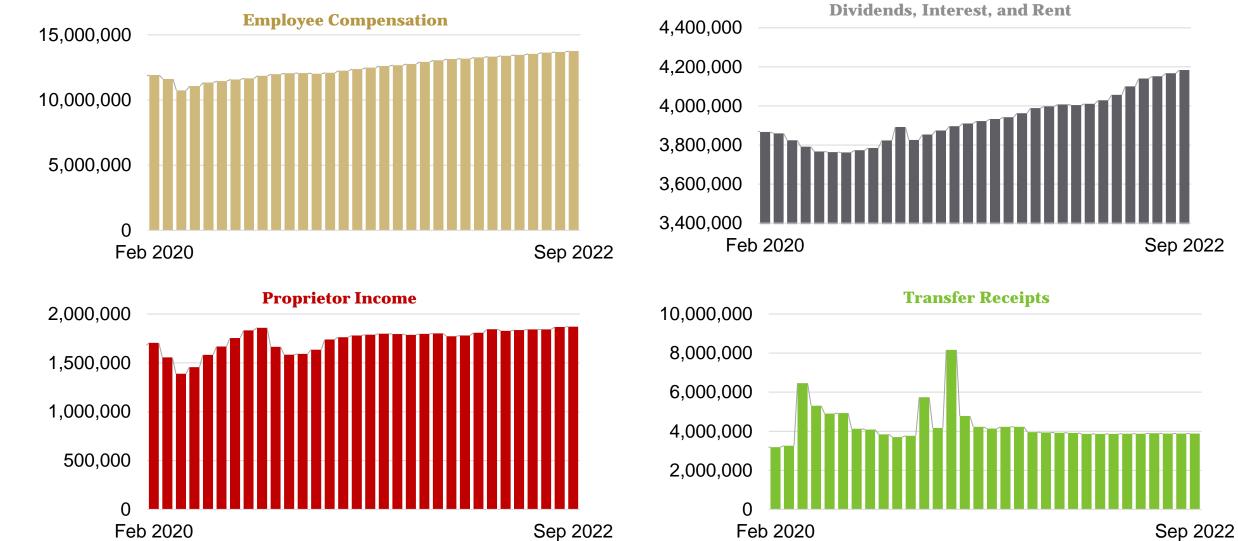


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G

Source: Bureau of Labor Statistics, JOLTS.

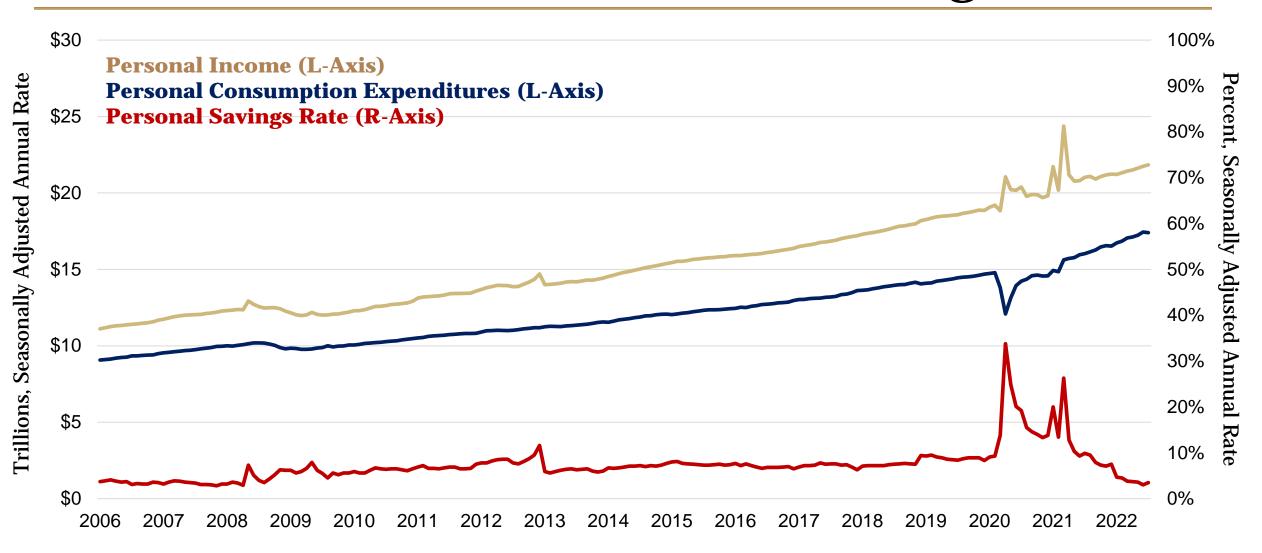
### **National Personal Income**



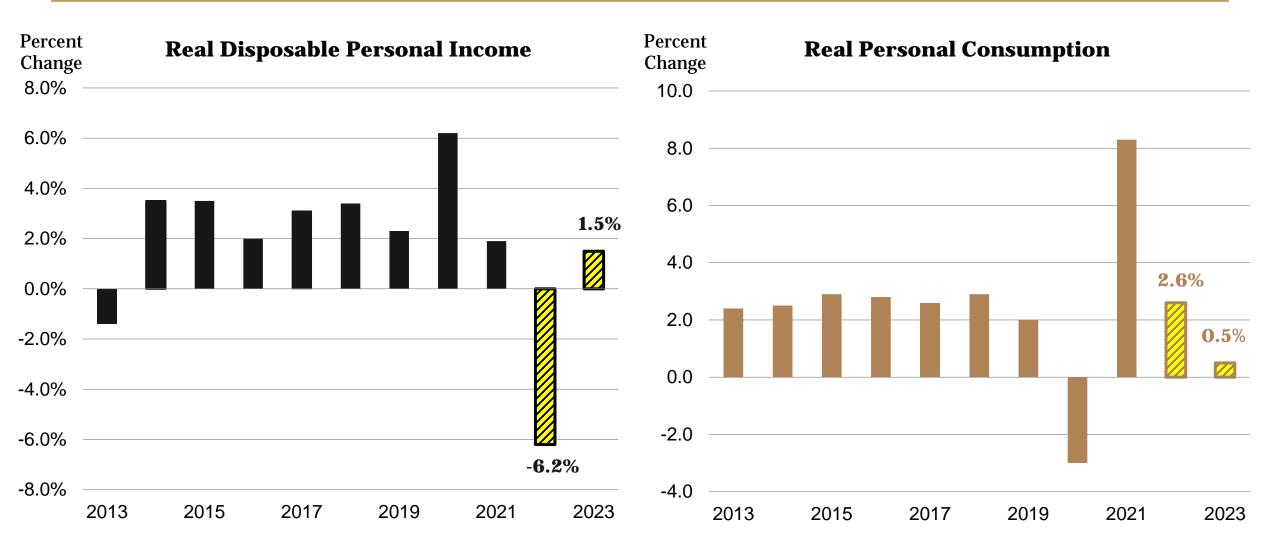
Leeds School of Business

Source: Bureau of Economic Analysis.

# **Personal Income and Savings**



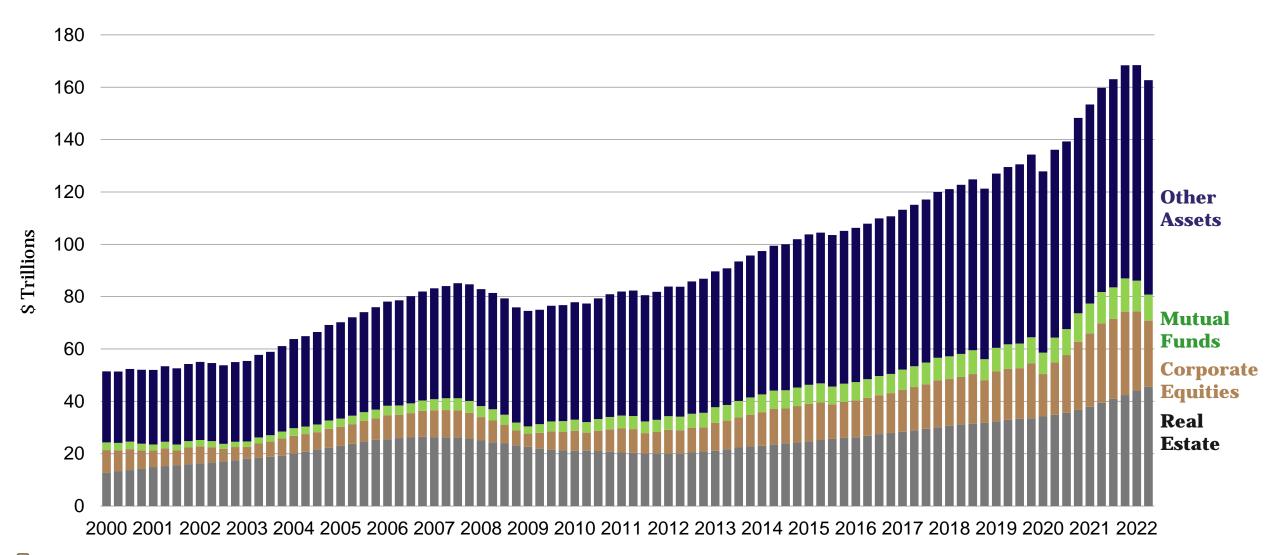
# **U.S. Income and Consumption**



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Sources: Consensus Forecasts.

# Household Wealth

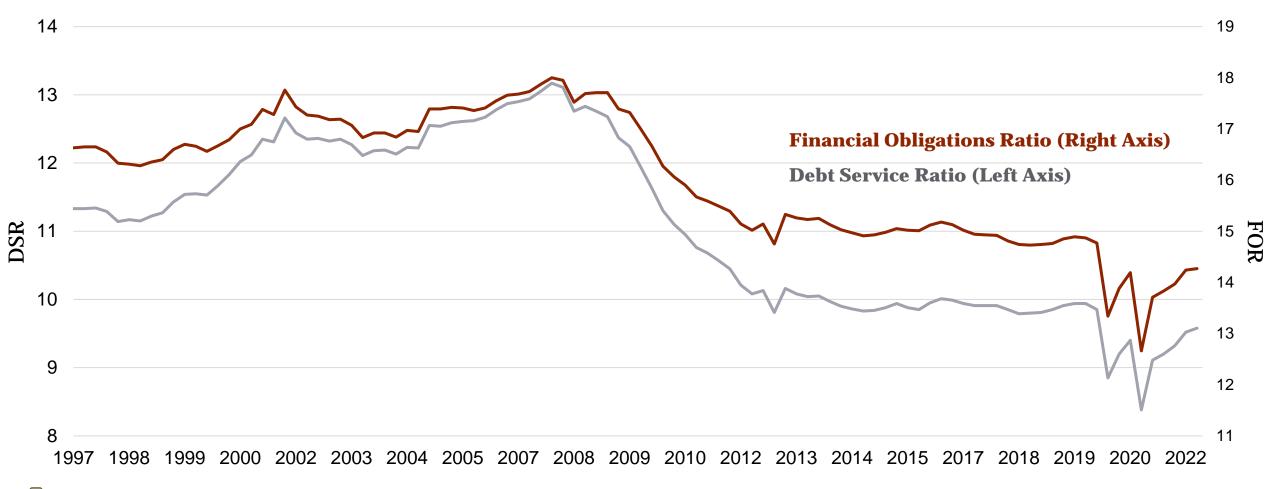


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Source: Federal Reserve Board, Balance Sheet of Households and Nonprofit Organizations (B.101) (Not Seasonally Adjusted).

### Household Debt Burden

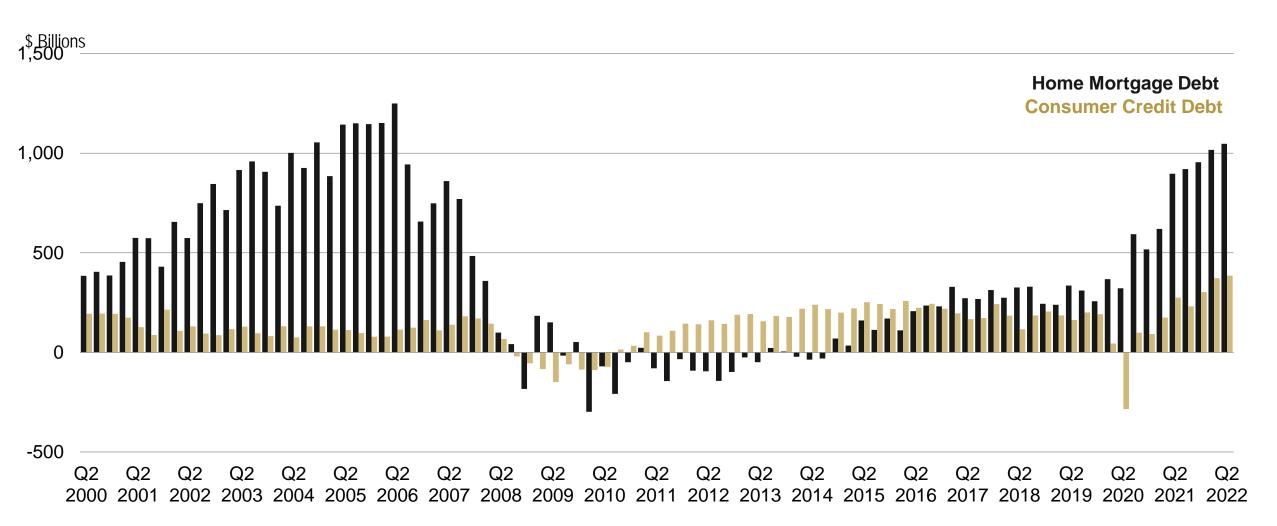
Percent of Disposable Income



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

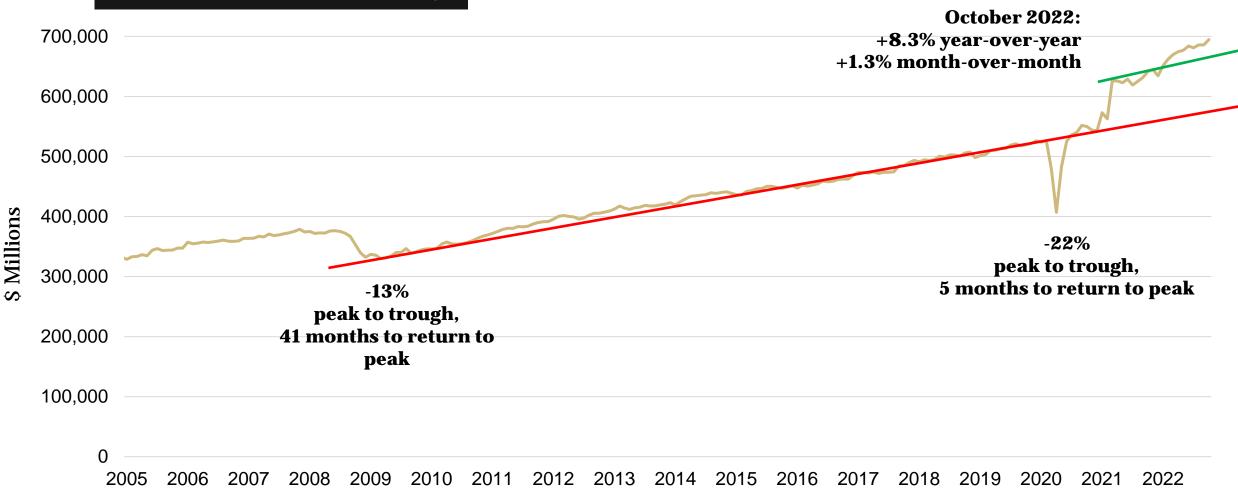
## Household Debt Growth



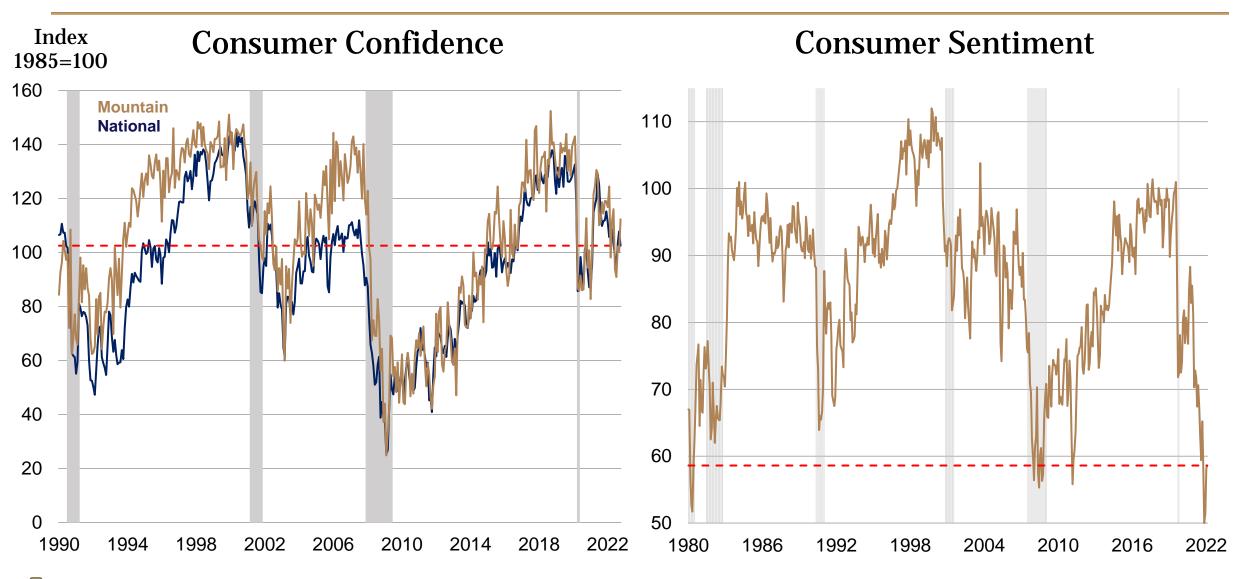


# **National Retail Sales**

#### Trend vs. Recent Volatility



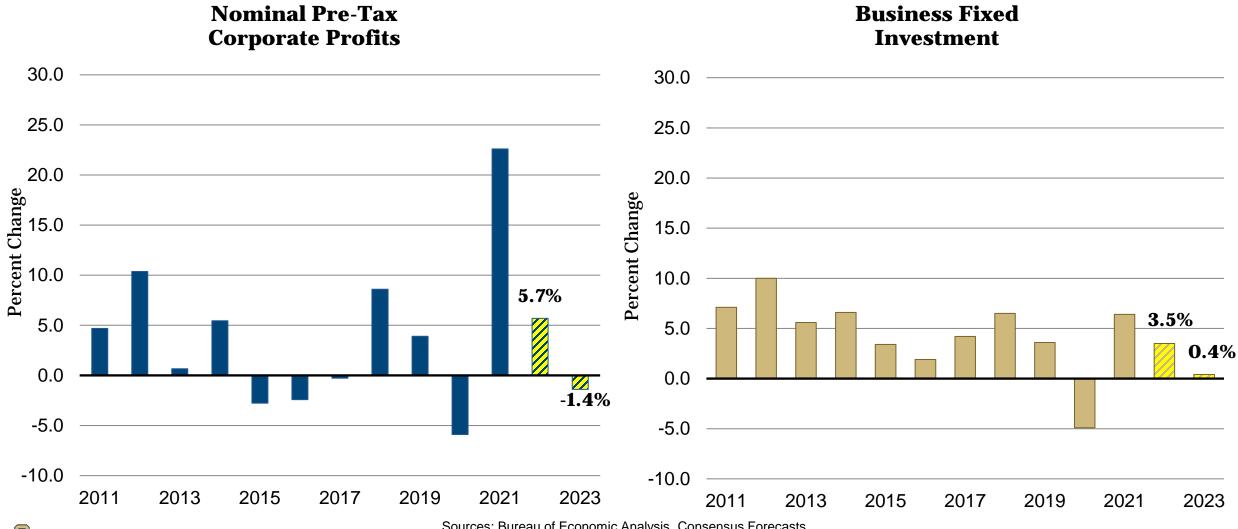
### **Index of Consumer Confidence**



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

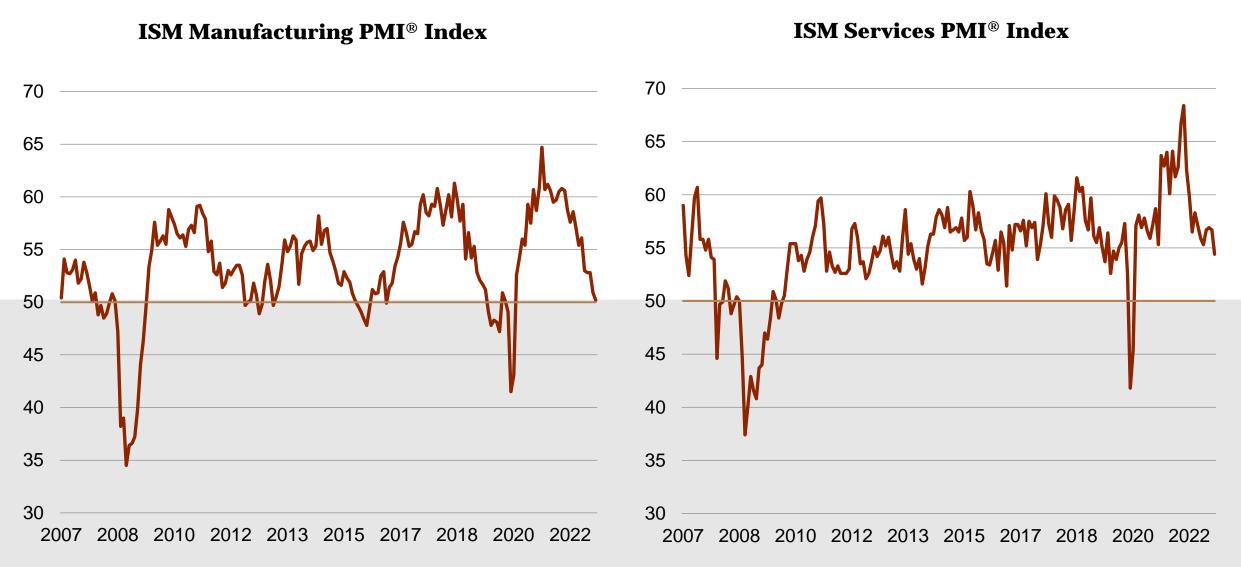
## **Nominal Corporate Profits and Business Fixed** Investment



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Sources: Bureau of Economic Analysis, Consensus Forecasts.

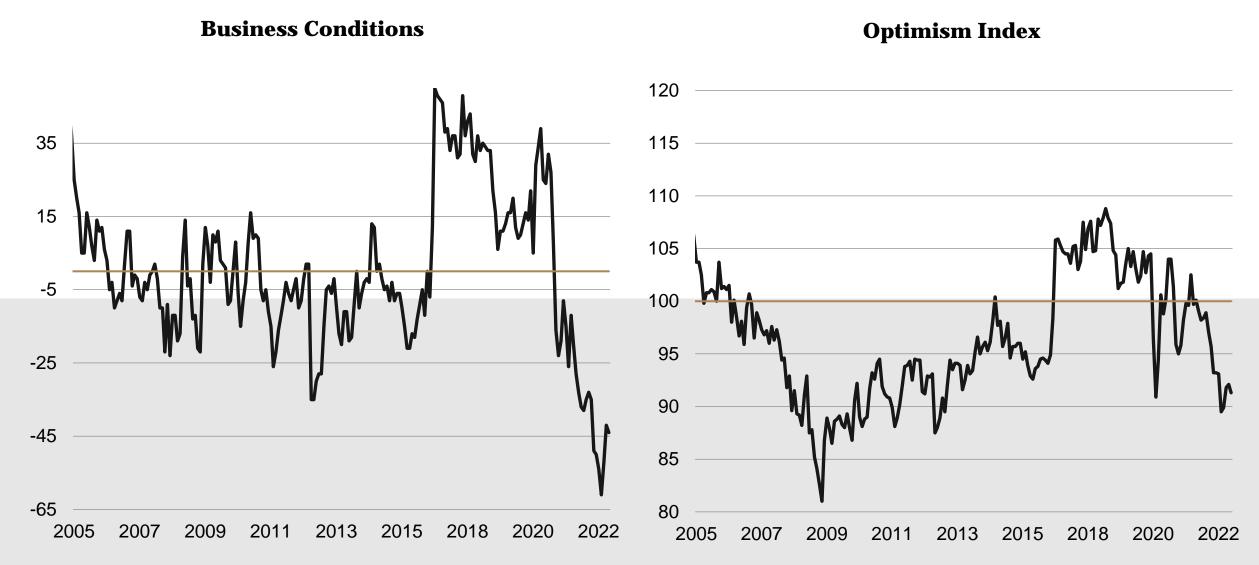
## **ISM Indices**



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Source: Institute for Supply Management® (ISM).

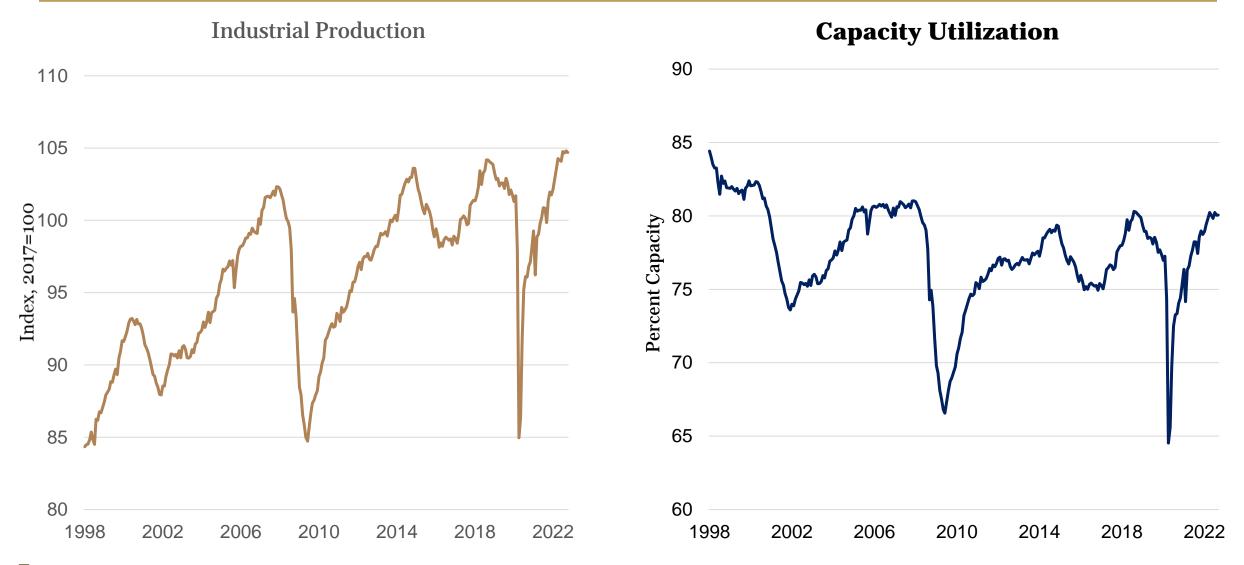
### **Small Business Outlook**



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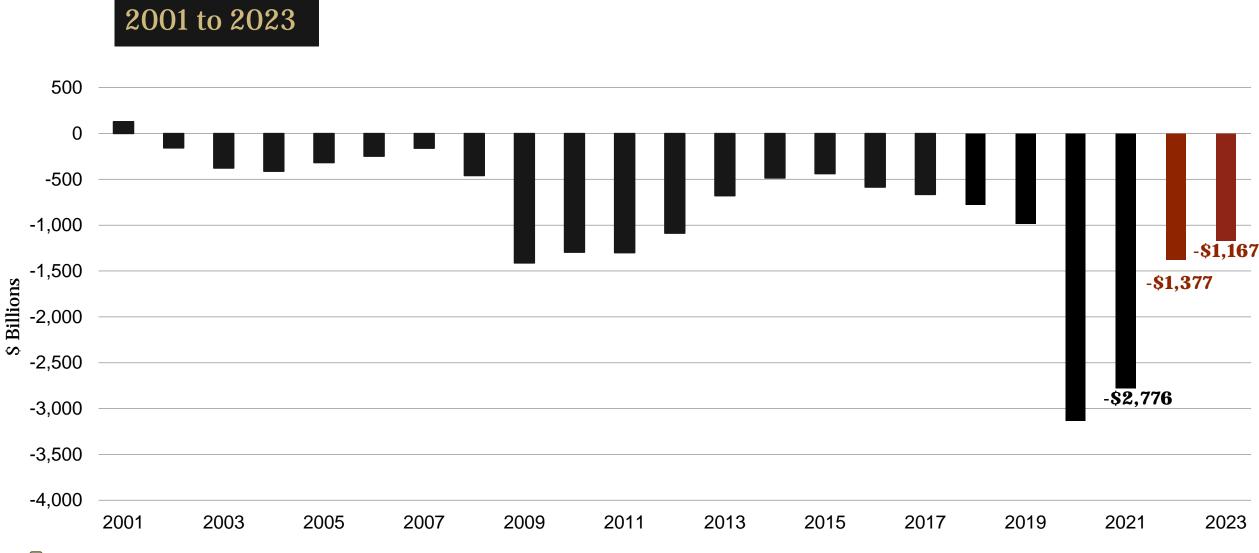
Source: National Federation of Independent Business.

# **Industrial Production and Capacity Utilization**



Source: Board of Governors of the Federal Reserve System

### Federal Budget Balance

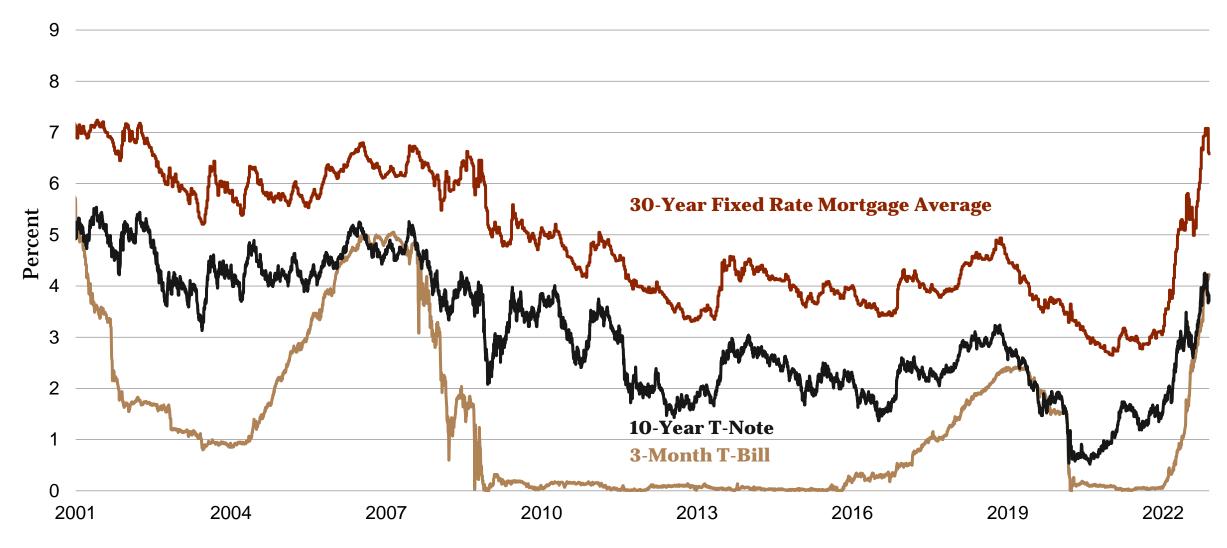


Sources: Office of Management and Budget, Consensus Forecasts, and the Business Research Division.

# **Money and Prices**



### **Interest Rates**



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

## The FED

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\$ Millions	8,000,000		Other .	Assets													
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		007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022

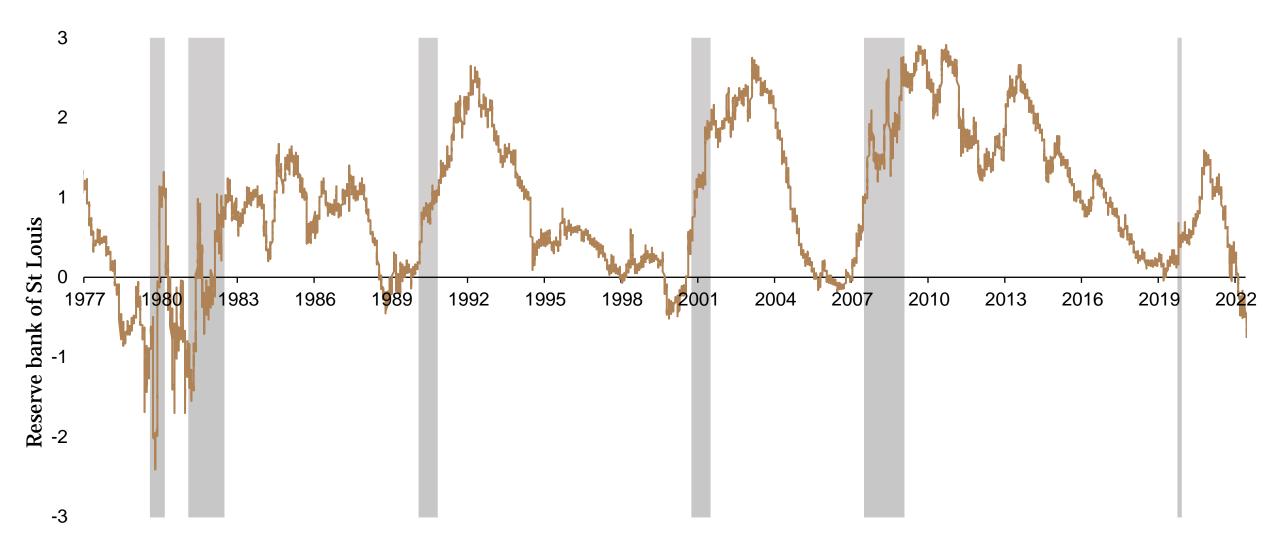
Source: Board of Governors of the Federal Reserve System.

# **Federal Funds Rate Outlook**

5						
		$\bullet \bullet \bullet \bullet \bullet \bullet$			September 2022 Meeting	
	•	$\bullet \bullet \bullet \bullet \bullet \bullet$	• •	•	June 2022 Meeting	
	• • • • • • • • •	• • • • •	• •		March 2022 Meeting	
4	$\bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet$	••••			December 2021 Meeting	
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	2022	2023	2024	2025	Longer Run	

Source: Federal Reserve, September 2022 Meeting.

# **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**

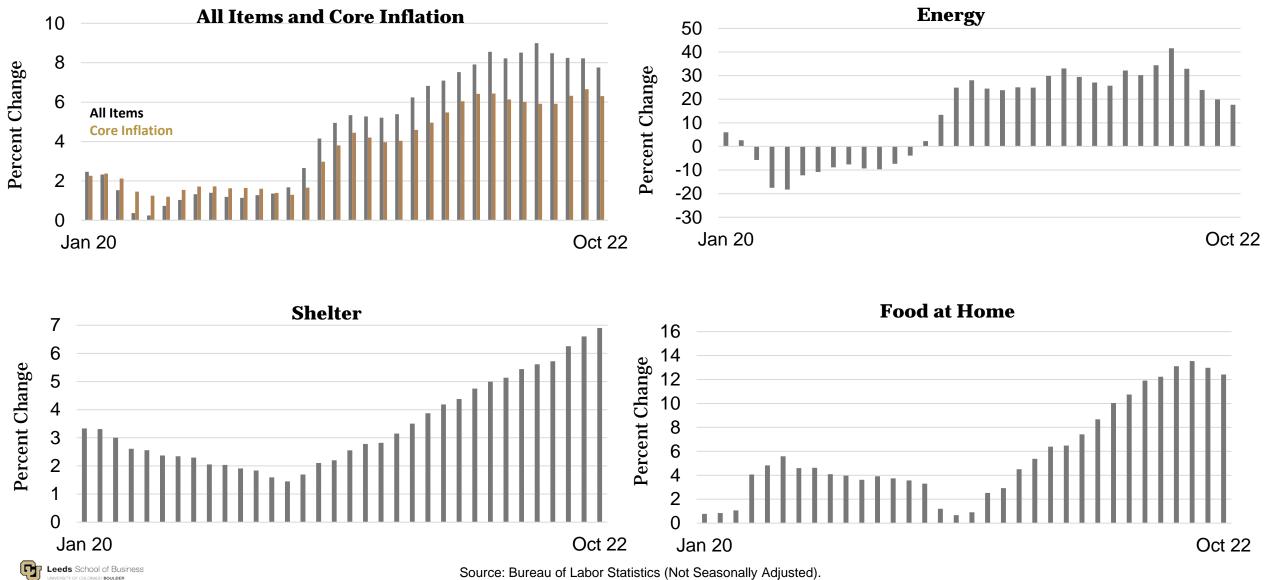
12%

10%	$\frown$	Mountain – All Items				Denver-	
		U.S. – All Items		U.S. City		Aurora-	Item
		Denver Region – All	Items	Average N	/Iountain L	akewood	Weights
8%		Mountain – Core	All items	7.7%	9.3%	7.7%	100.0%
		Denver Region – Core	Food and beverages	10.6%	11.4%	11.3%	14.3%
		-	Housing	7.9%	10.2%	8.2%	42.4%
6%		U.S. – Core	Apparel	4.1%	6.5%	-0.4%	2.5%
			Transportation	11.2%	13.1%	7.0%	18.2%
			Medical care	5.0%	5.0%	NA	8.5%
4%		_	Recreation	4.1%	3.0%	3.5%	5.1%
			Education and Comm.	0.0%	1.6%	-0.5%	6.4%
			Other goods and services	6.5%	5.7%	8.0%	2.7%
2%		_	Core Inflation	6.3%	8.0%	7.2%	
	The second s		Source: Bureau of Labor Statistic Note: Denver-Aurora-Lakewood				. as of Oct.
0% Ja	in 21 May 21 Sep 21 Jan 22 May 22 Sep 22	_					

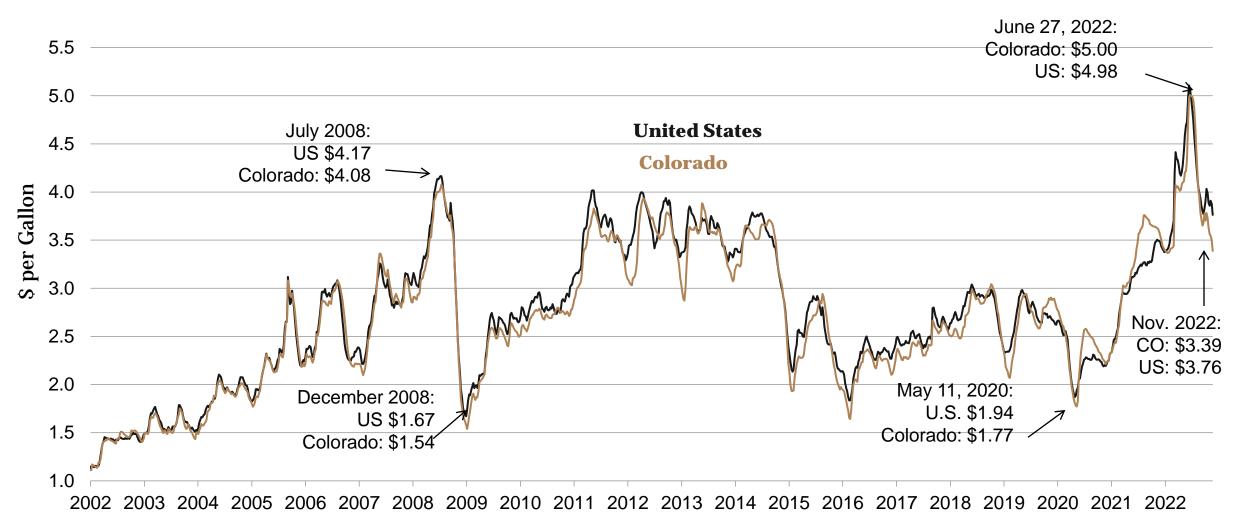
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Source: Bureau of Labor Statistics. U.S. and Mountain data through October, Denver region through September.

# Inflation



### **Retail Gasoline**



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

# **Construction Producer Price Index**

Year-over-Year Percent Change 35% 30% 25% 20% 15% New Nonresidential Construction New Residential Construction 10% 5% 0% -5% -10% Sep-16 May-17 Jan-18 Sep-18 May-19 Sep-20 May-21 Jan-22 Sep-22 Jan-16 Jan-20

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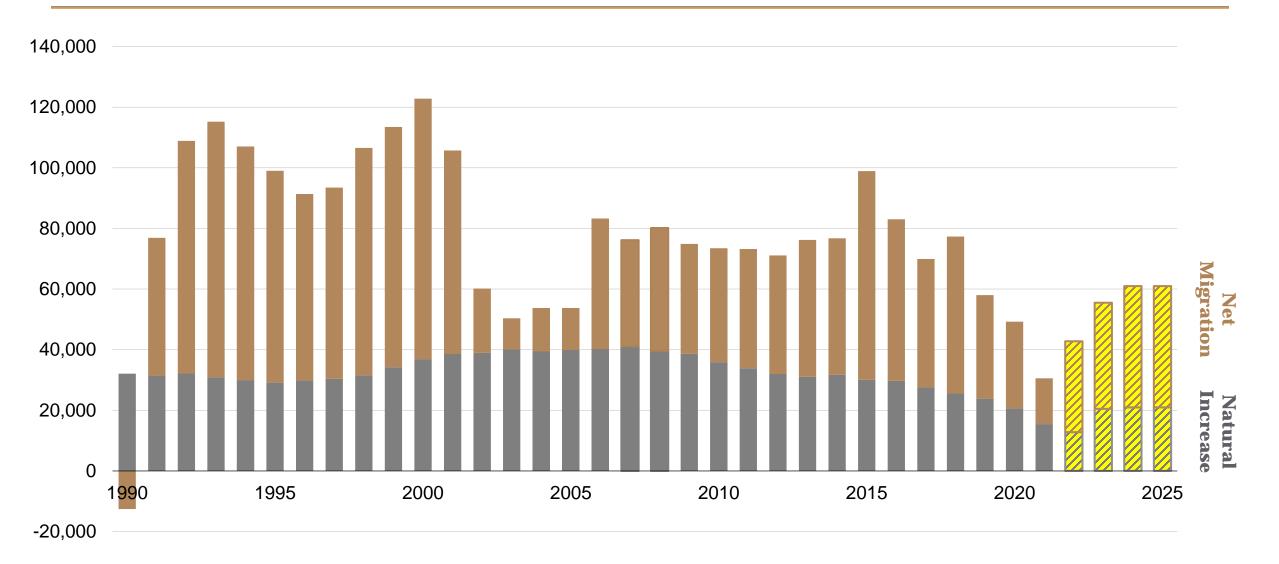
### **Colorado Rank Among Other States**

Metric	1-Year Change	1-Year Rank
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



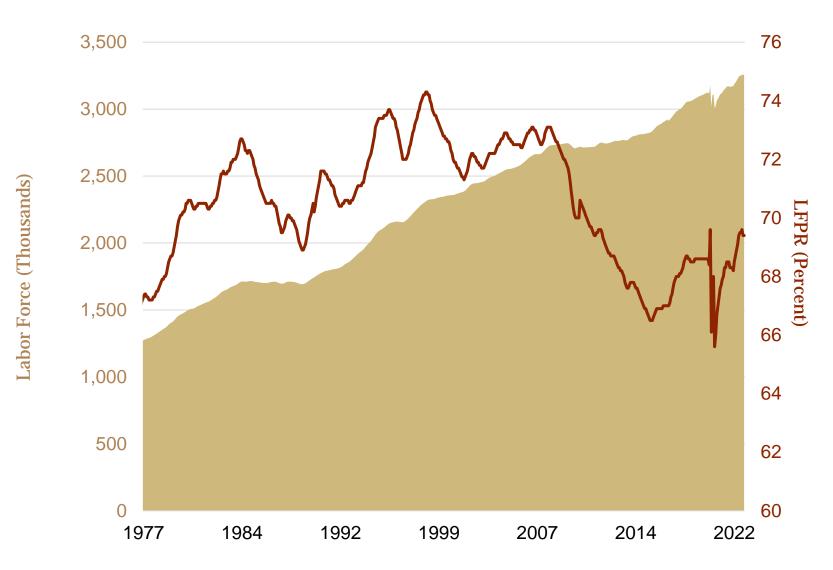
Data Sources: Bureau of Economic Analysis (2021), Bureau of Labor Statistics (10/22), U.S. Census Bureau (2021), Bureau of Labor Statistics (2022), Federal Housing Finance Agency All Transactions Index (Q2 2022), BRD calculations. \*Unemployment rate for the last month.

### **Colorado Change in Population**



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

### **Colorado Labor Force**

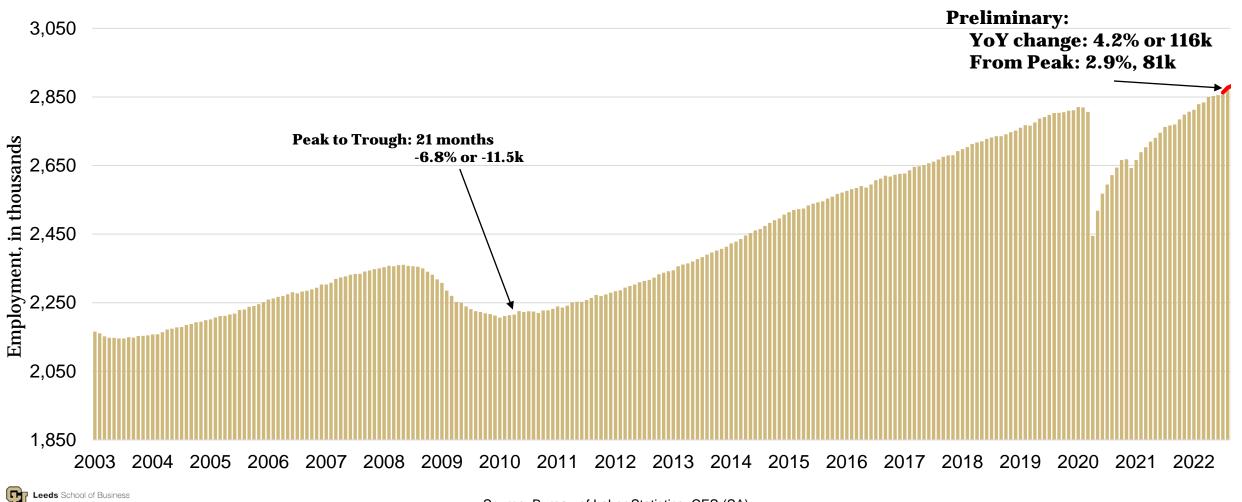


- LFPR rebounding:
  - 68.6% January 2020
  - 69.4% October 2022
- 2<sup>nd</sup>-highest nationally
- Colorado peak = 74.3% (1998)

Sources: Bureau of Labor Statistics, Current Population Survey.

## Employment

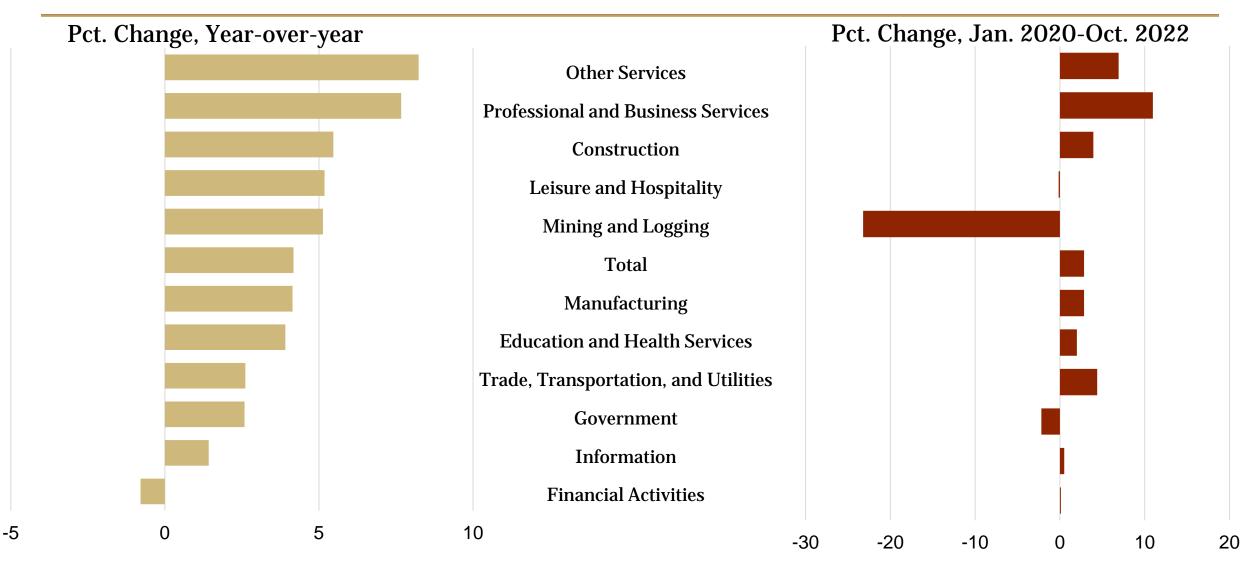
### Colorado (October)



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

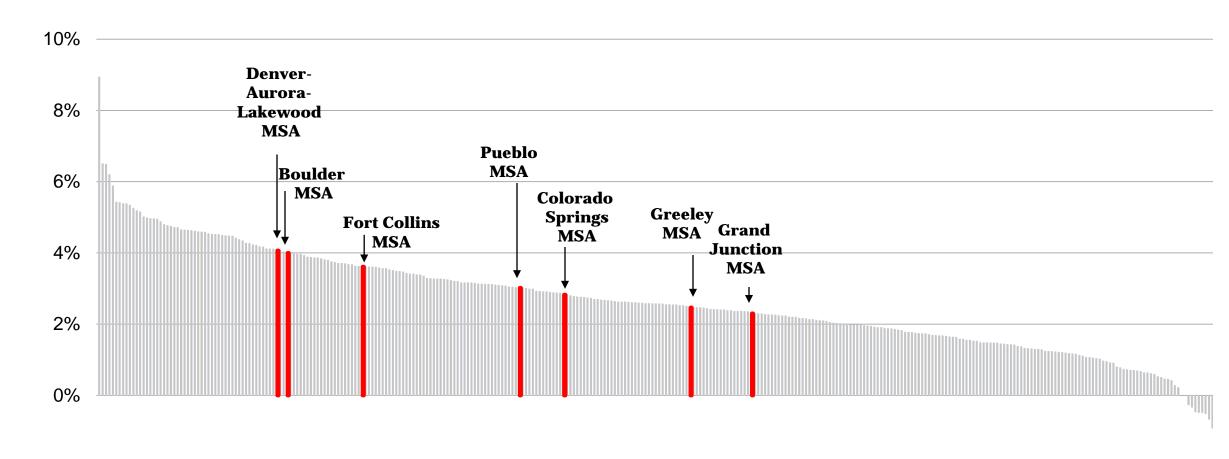
## Colorado Employment Change (as of Oct. 2022)



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## **Employment by MSA**

#### 1-Year Change, October 2022

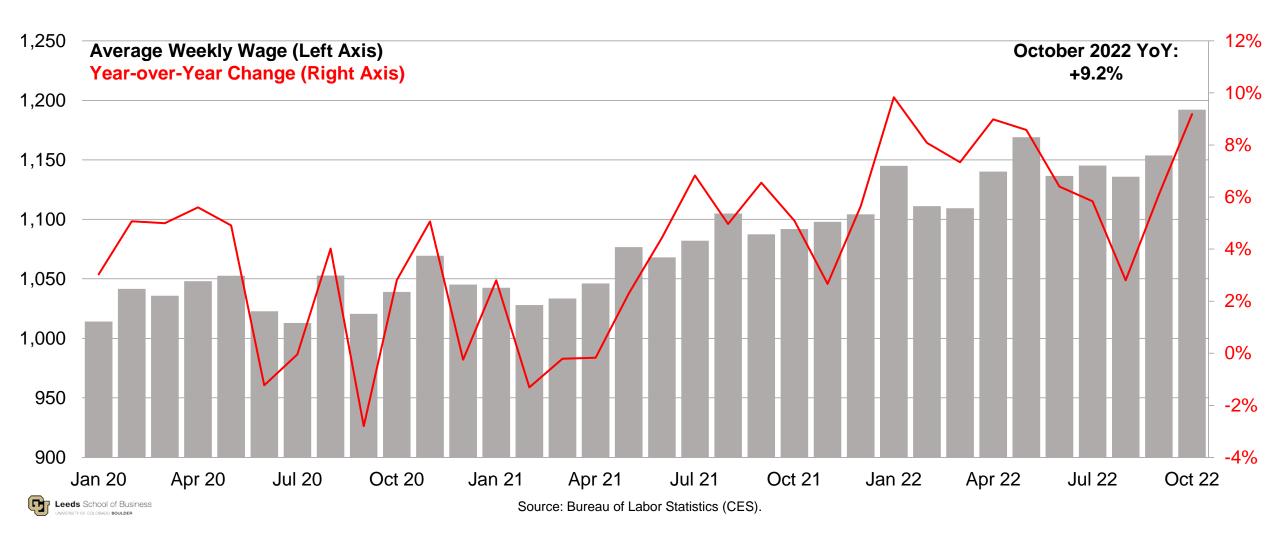


-2% -

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

## **Colorado Private Sector Wages**

### Average Weekly Wage



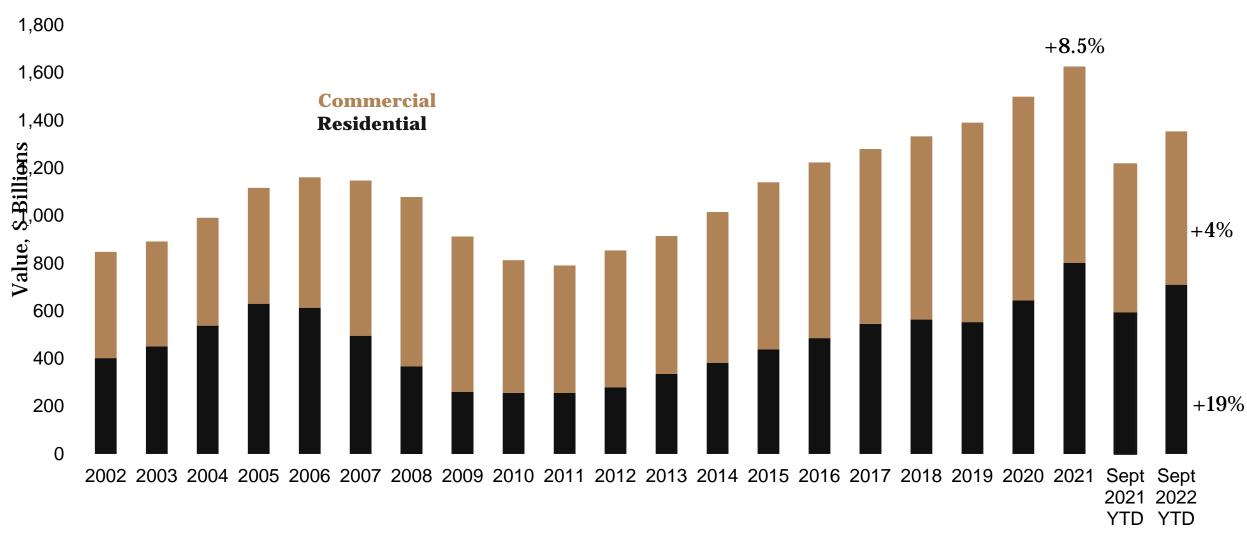


# Construction & Real Estate

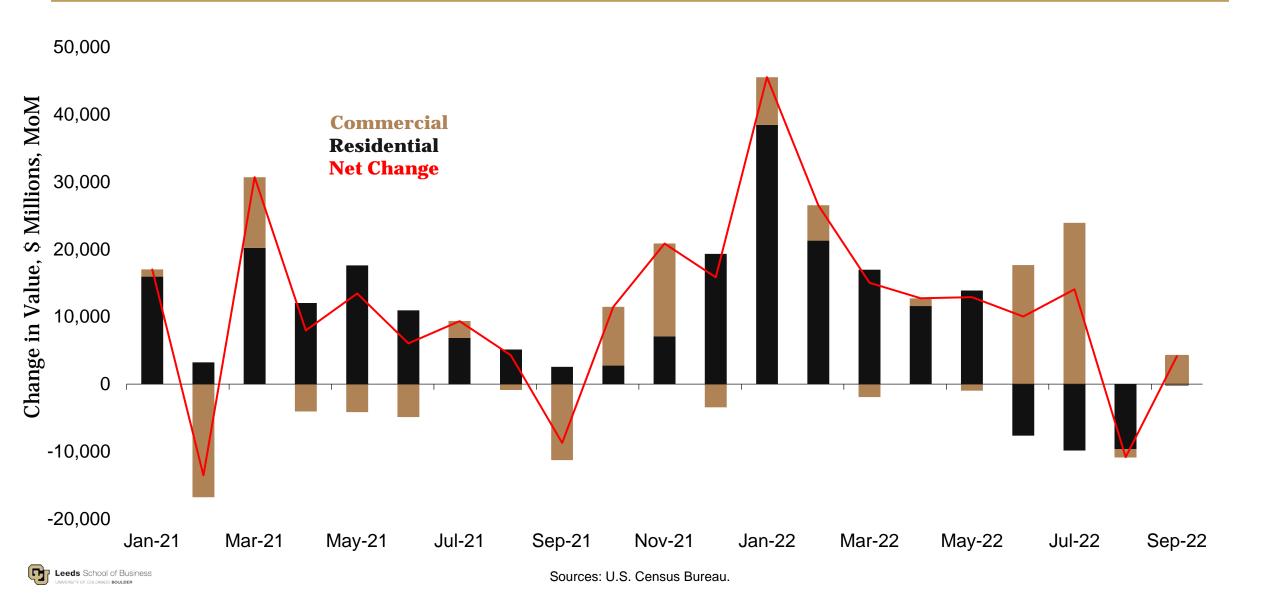
Photo courtesy of Denver International Airport.



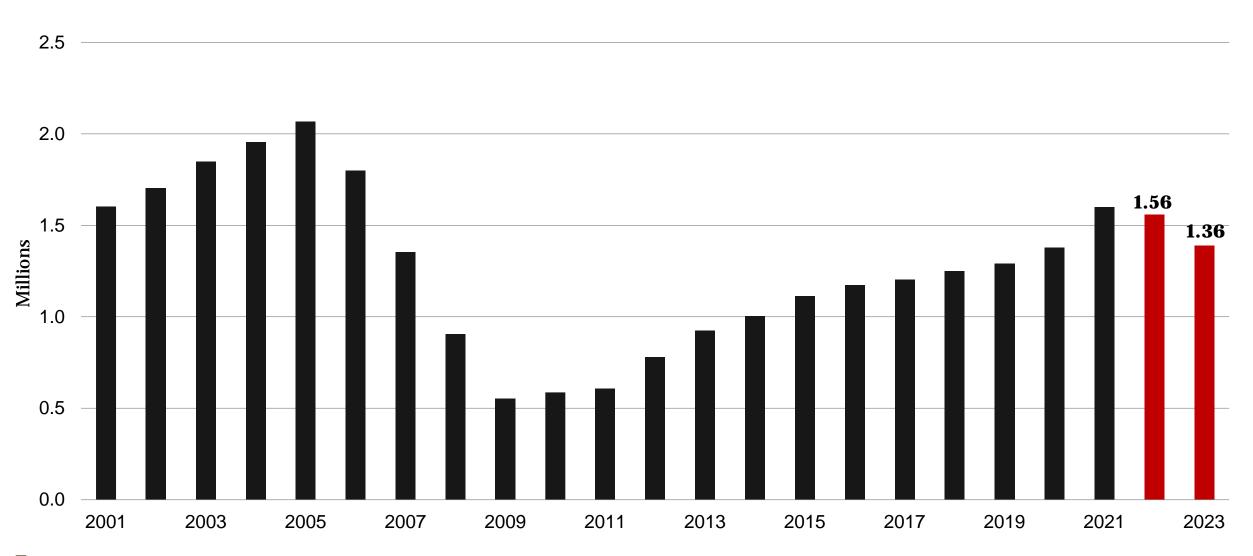
### **National Value of Construction**



### National Value of Construction



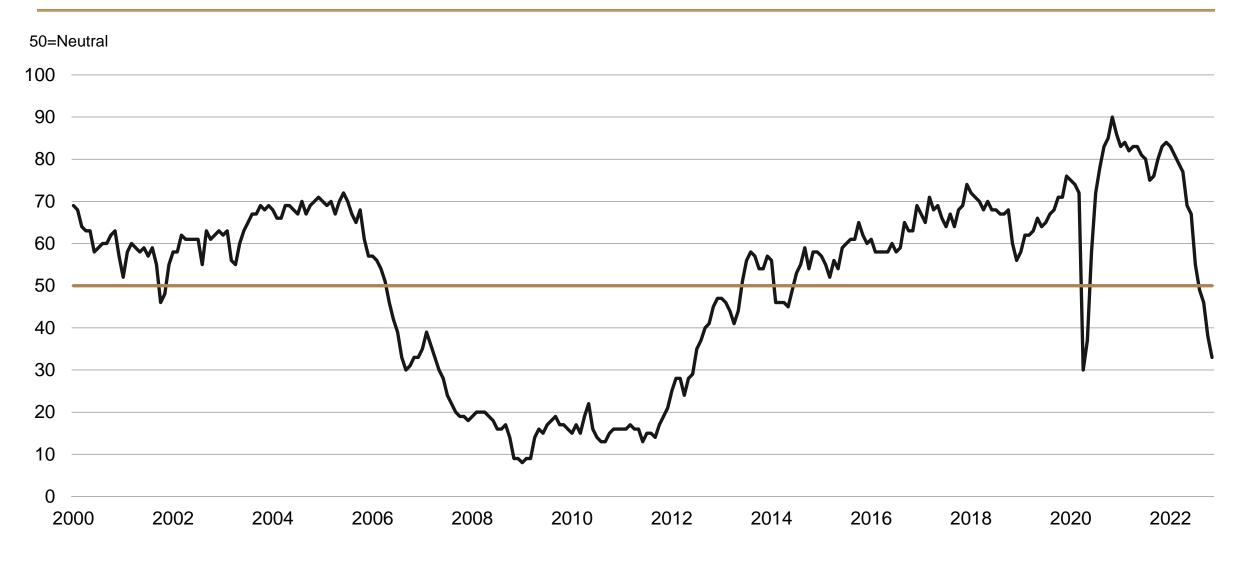
## **National Housing Starts**



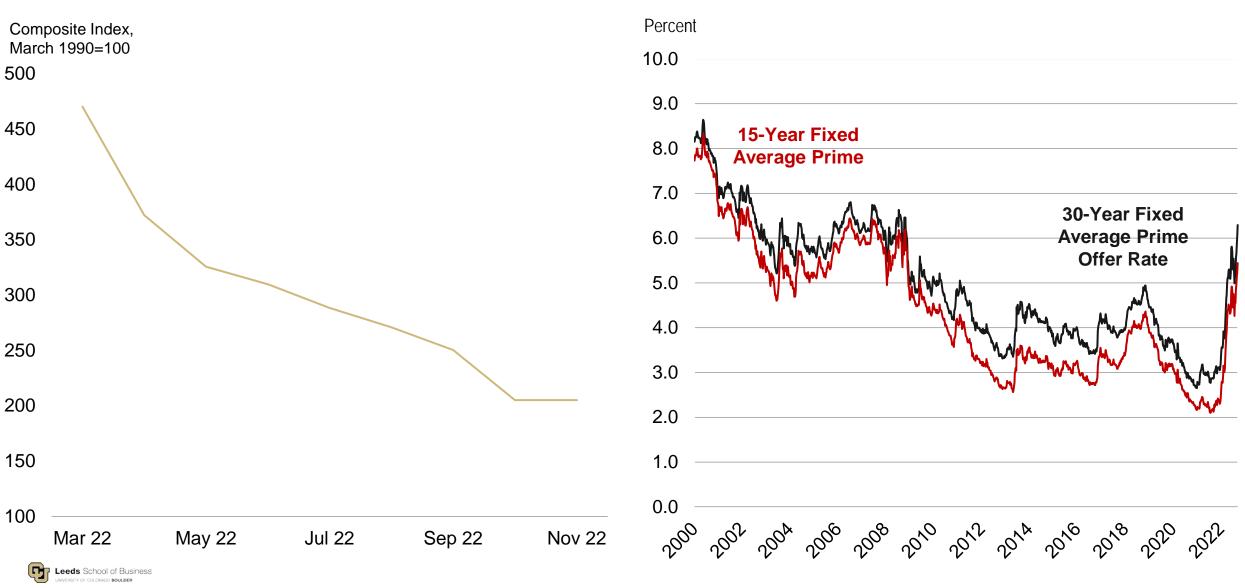
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Sources: U.S. Census Bureau and Consensus Forecasts.

## NAHB Housing Market Index



## Mortgage Applications & Rates



Sources: Mortgage Bankers Association (MBA): Mortgage Applications Survey, FRED, NASDAQ.

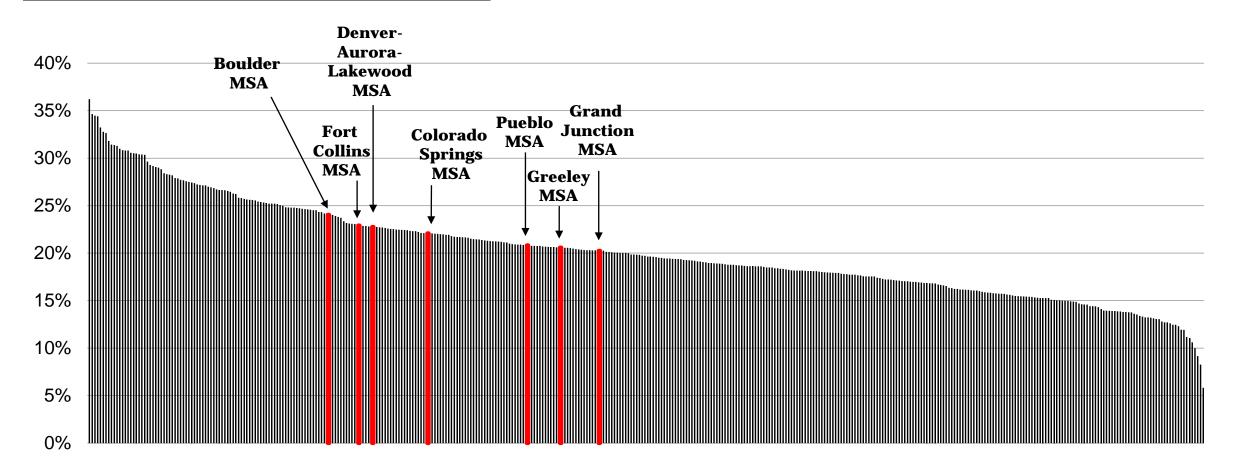
### FHFA Home Price Index by MSA

#### 1-Year Home Price Change, Q2 2022

-5%

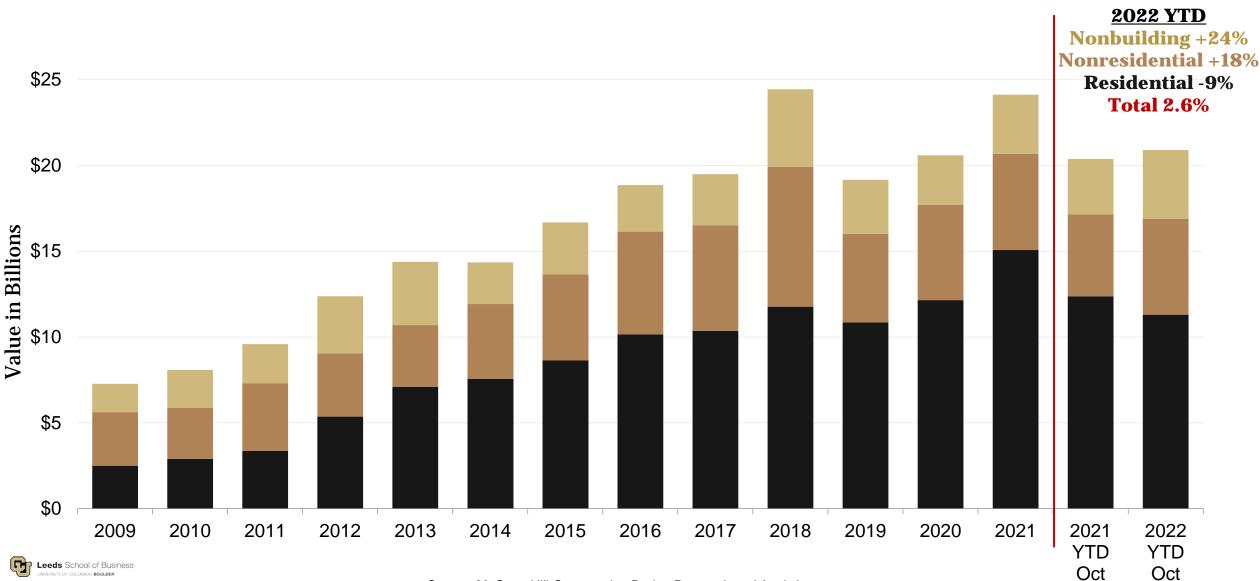
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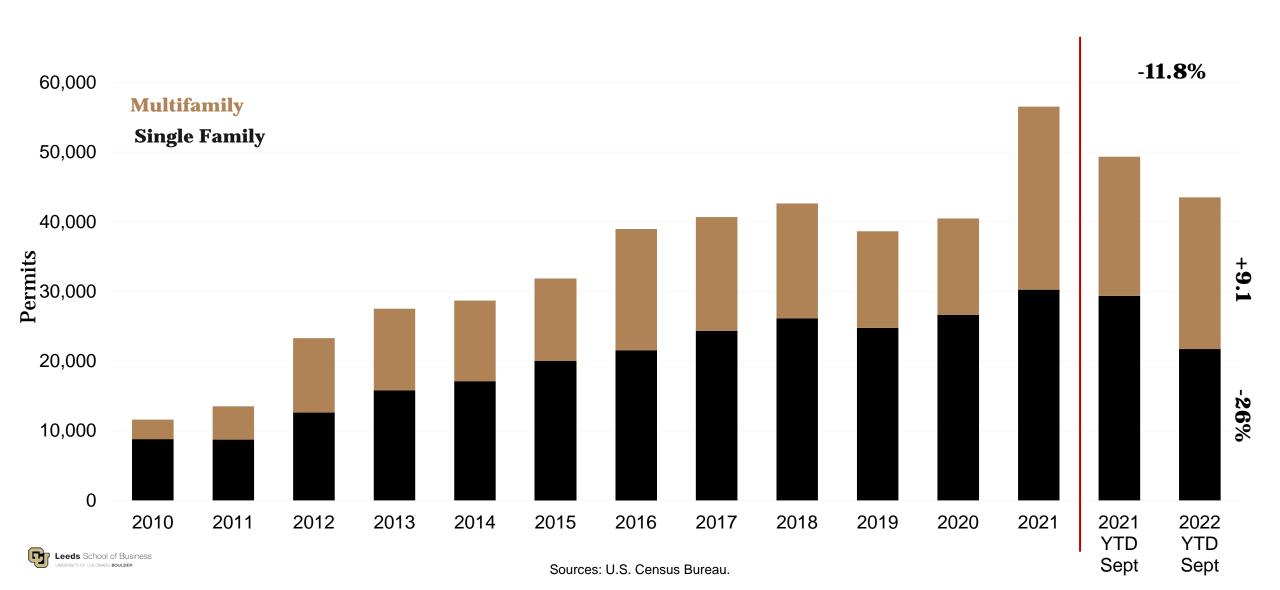
Source: Federal Housing Finance Agency, All Transactions Index (Not Seasonally Adjusted).

### **Colorado Value of Construction**

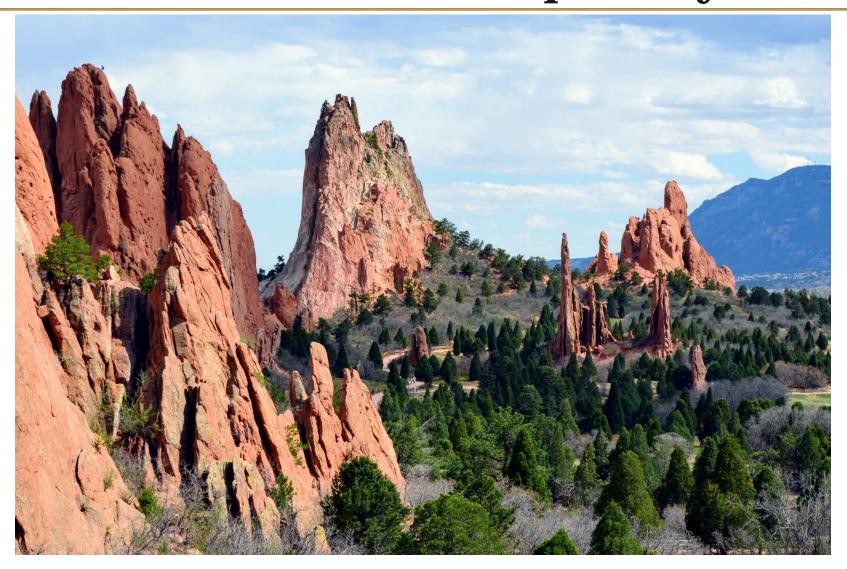


Source: McGraw-Hill Construction Dodge Research and Analytics.

### **Colorado Residential Building Permits**

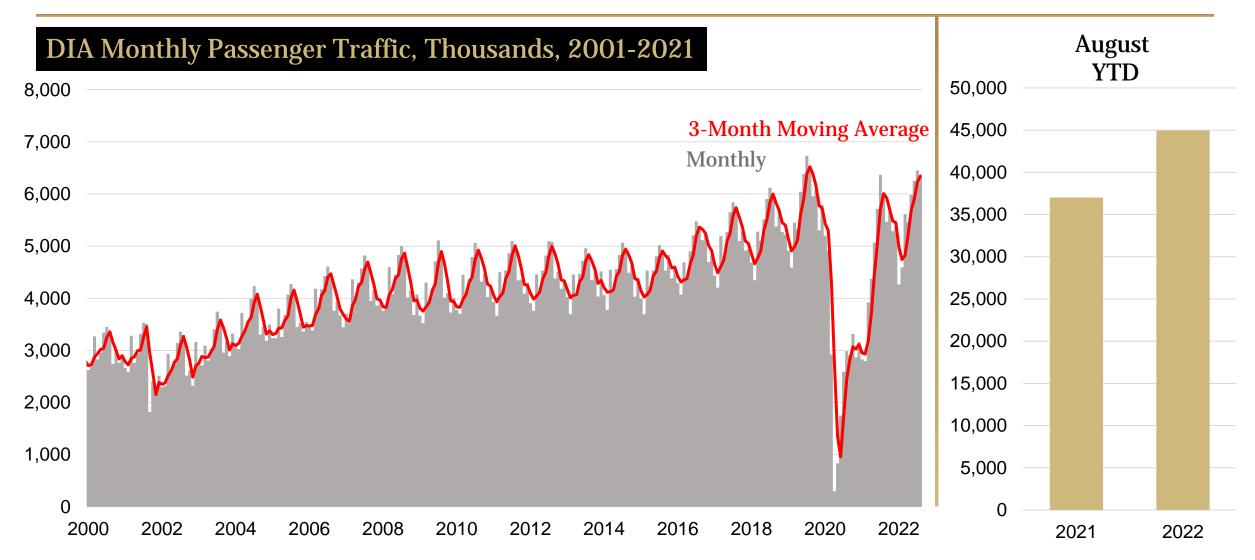


## Leisure and Hospitality



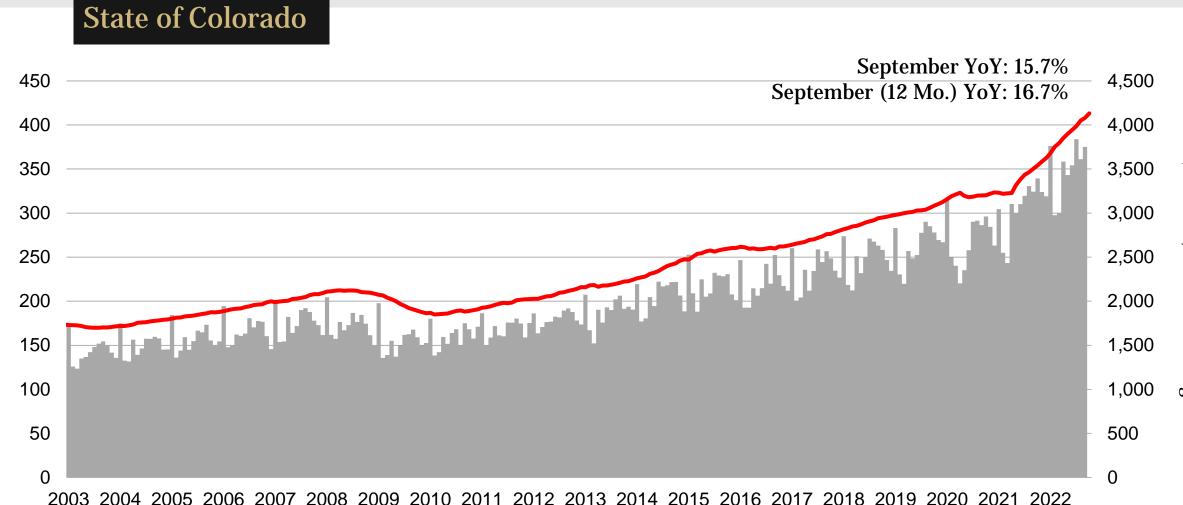


## **DIA Enplanements and Deplanements**





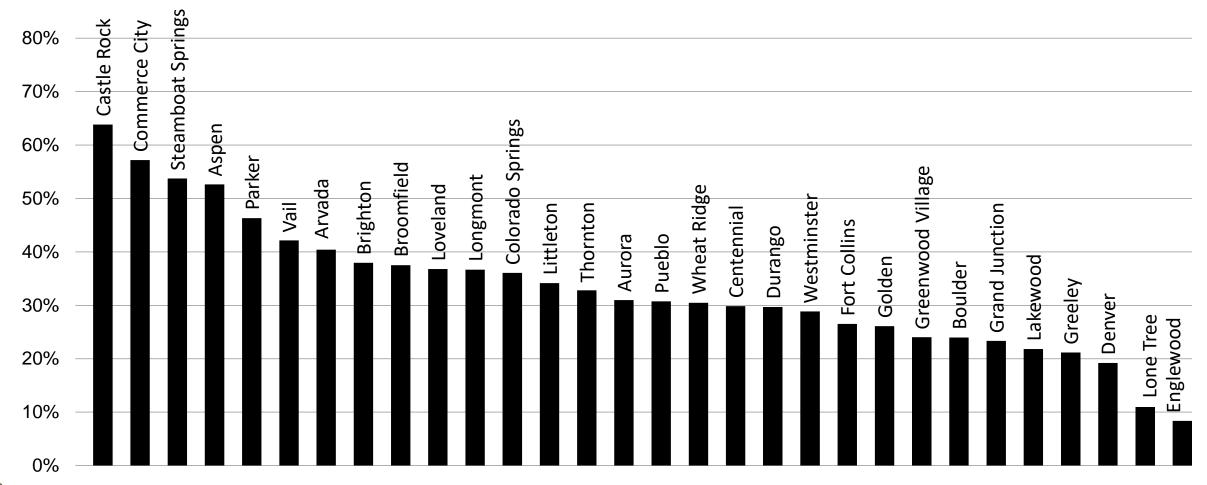
## **Sales Tax Collections**



S Millions, 12-Month Rolling Sum

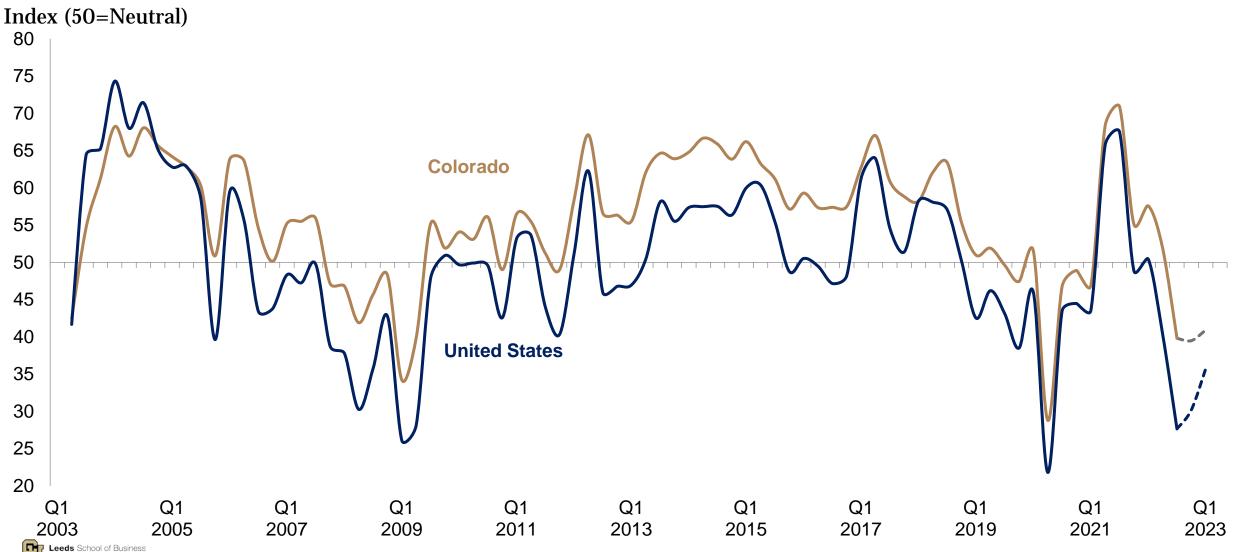
### **Colorado Taxable Sales by City**

#### 2022 YTD Compared to 2019 YTD September



Source: Colorado Department of Revenue.

## **National and State Expectations**



#### **Tailwinds**

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

#### **Headwinds**

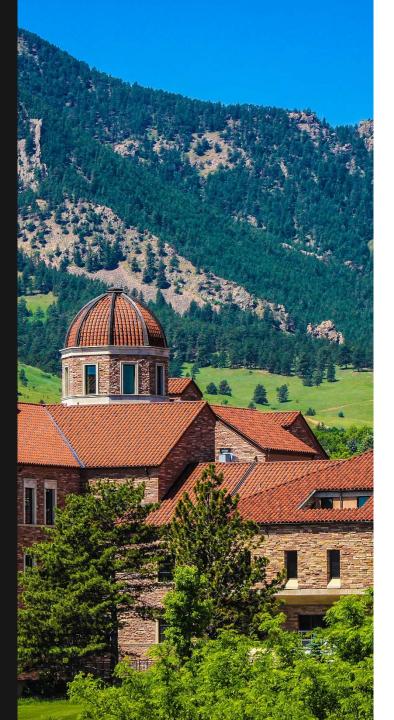
Gross Domestic Product Ukraine Conflict Inflation Interest Rates Supply Chain Disruptions Worker Shortages Fed Policy Labor Participation Energy Prices Manufacturing

#### **Unknowns**

COVID Variants Human Behavior China Migration Birth Rates Work from Home

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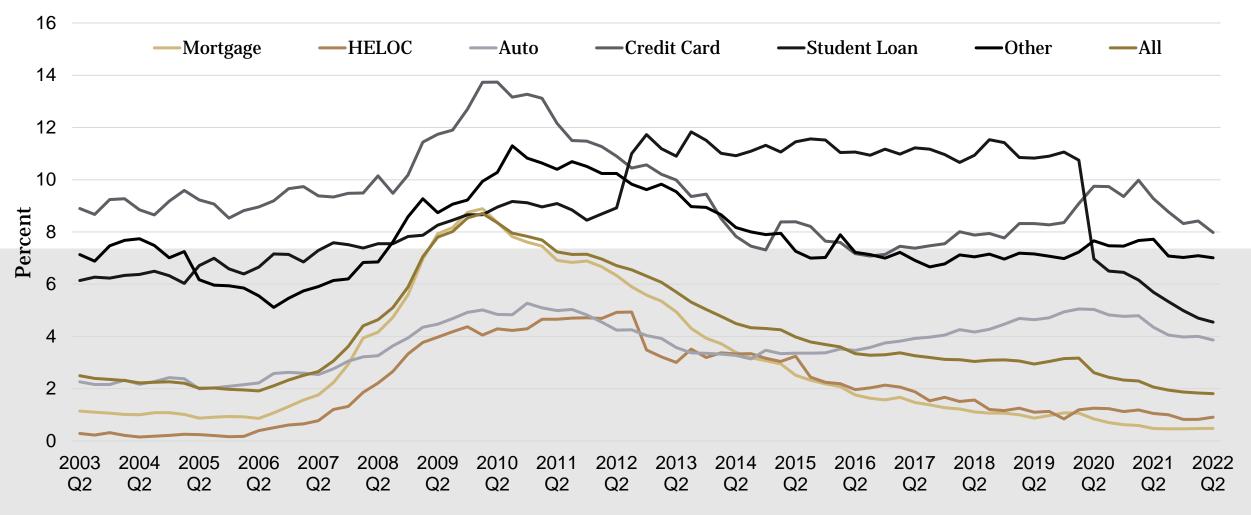
## Q&A





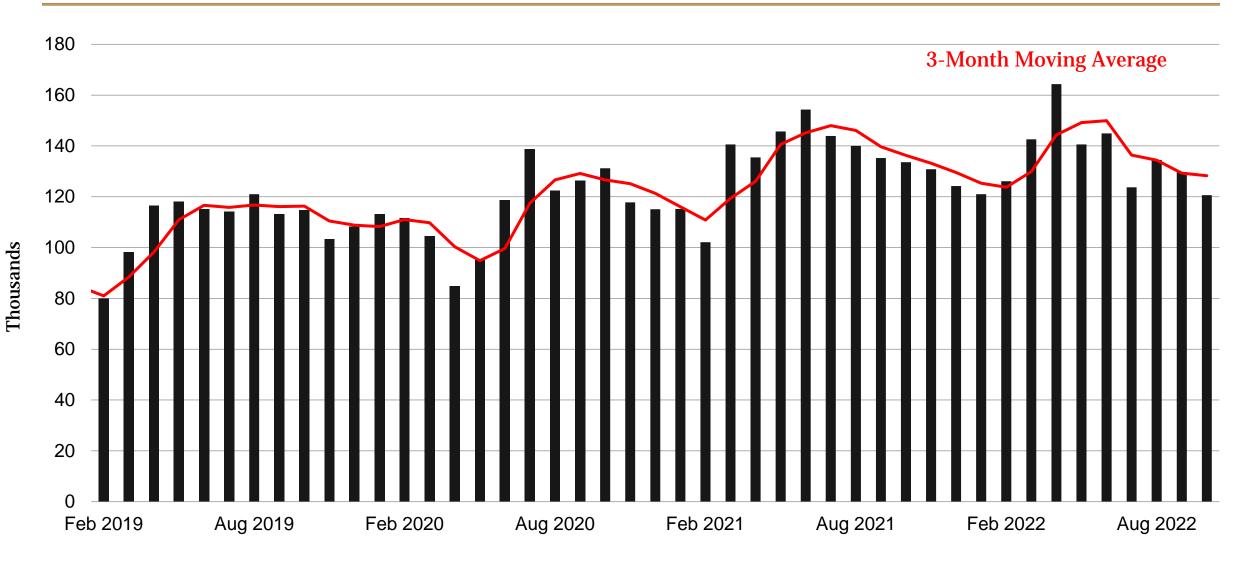
## Loan Delinquency

Percent of Balance 90+ Days Delinquent by Loan Type



Source: FRBNY Consumer Credit Panel (Q4 2021).

## **National Housing Starts**

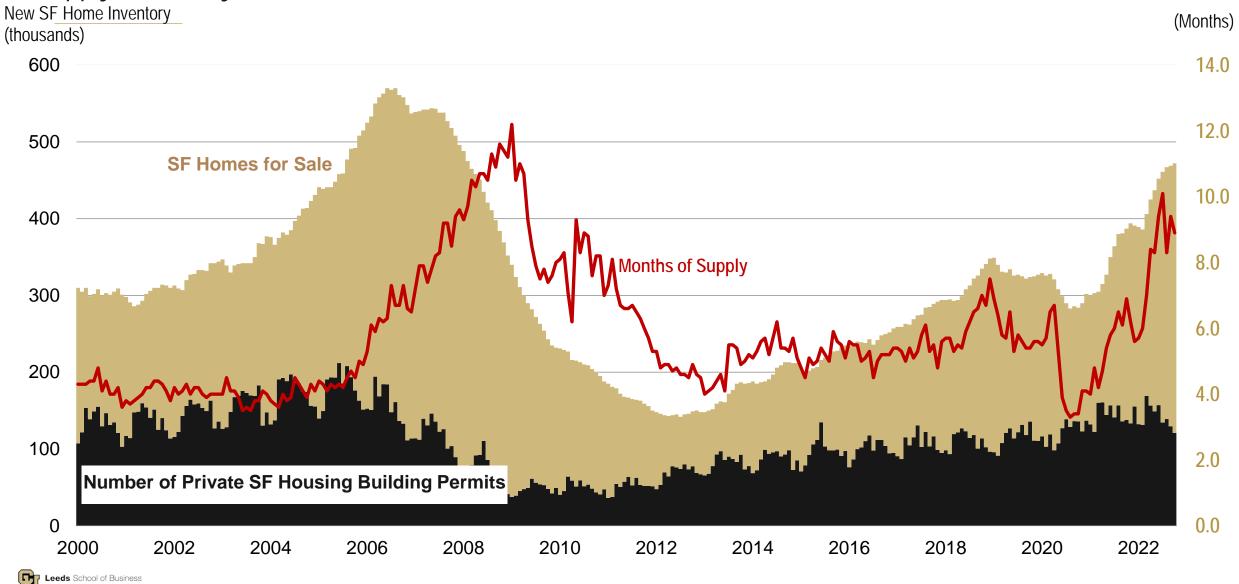




Sources: U.S. Census Bureau and Consensus Forecasts.

## U.S. Housing

### Supply, Inventory, and Permits



Source: New Houses Sold and For Sale, U.S. Census Bureau (Not Seasonally Adjusted).