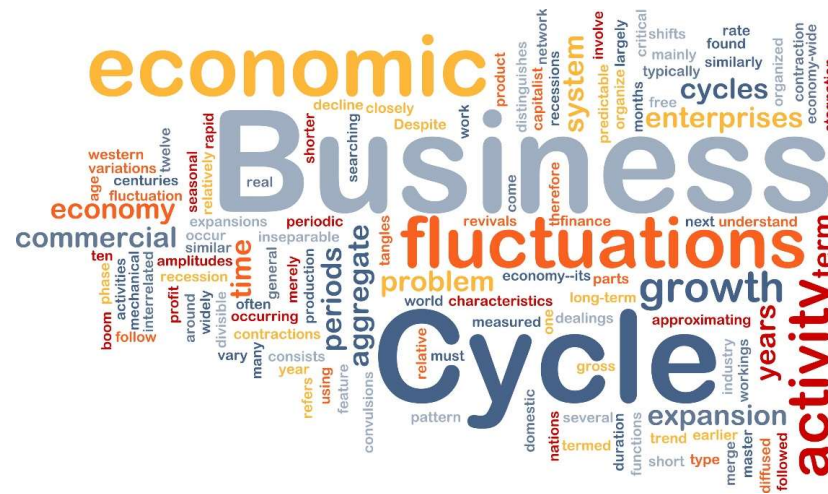


Recession... Or Correction?*

*Or Does it Matter?

2022 Economic Update for Metro Denver November 2022



Prepared by:



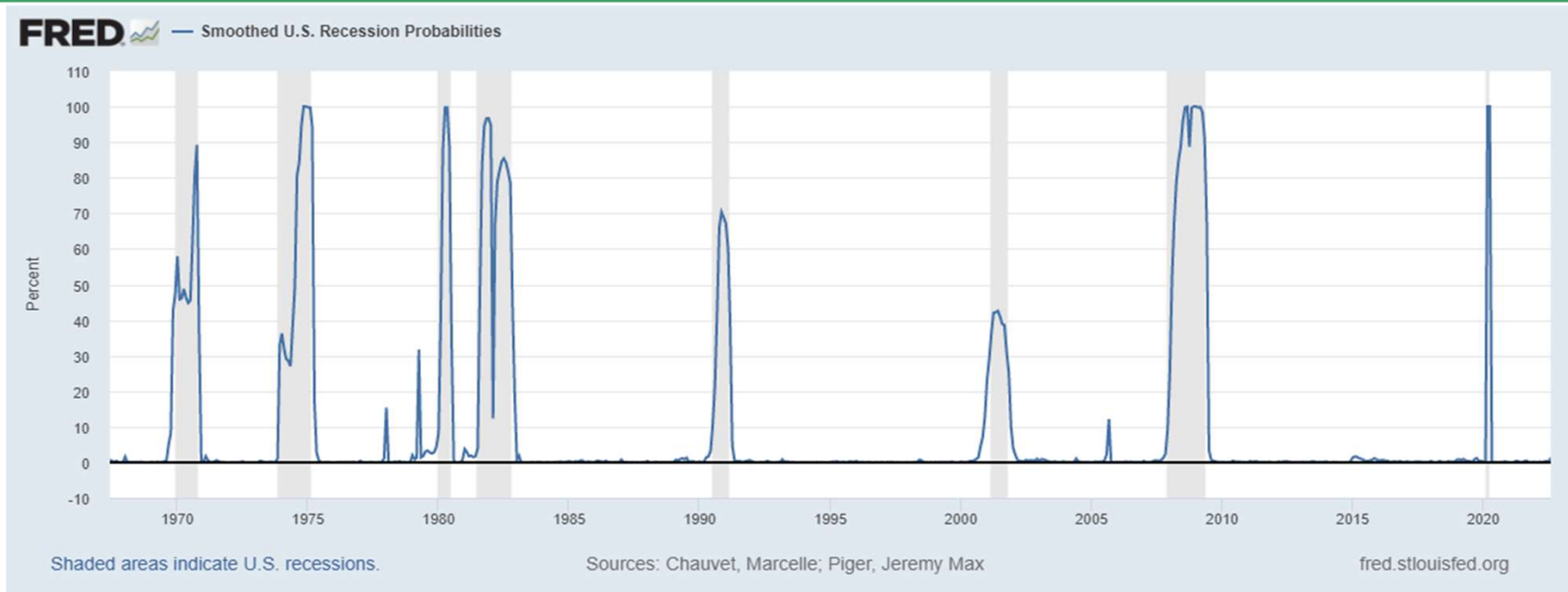
In Partnership with:



National Bureau of Economic Research: Depth, Diffusion, and Duration

- Private, non-profit, non-partisan organization dedicated to conducting economic research
- Business Cycle Dating Committee establishes month of peak and trough in economic activity:
 - Real Gross Domestic Product
 - Real Gross Domestic Income
 - Real personal income less transfers
 - Nonfarm payroll employment
 - Real personal consumption expenditures
 - Real manufacturing and trade sales
 - Household survey employment
 - Index of industrial production

Smoothed U.S. Recession Probability (0.48% in September 2022)



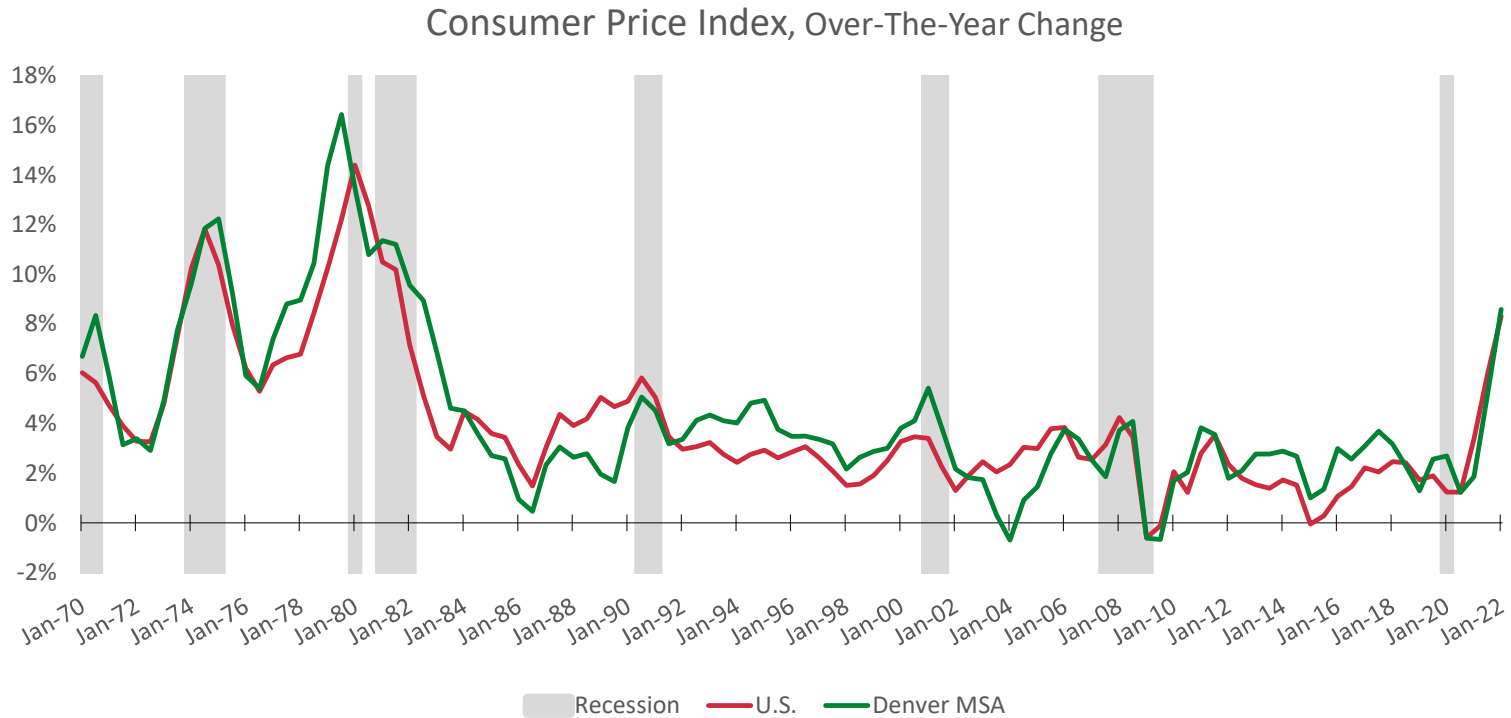
Probability based on four monthly coincident variables:

- Non-farm payroll employment
- Index of industrial production
- Real personal income excluding transfer payments
- Real manufacturing and trade sales

Patty's Top 10 Economic Measures to Watch

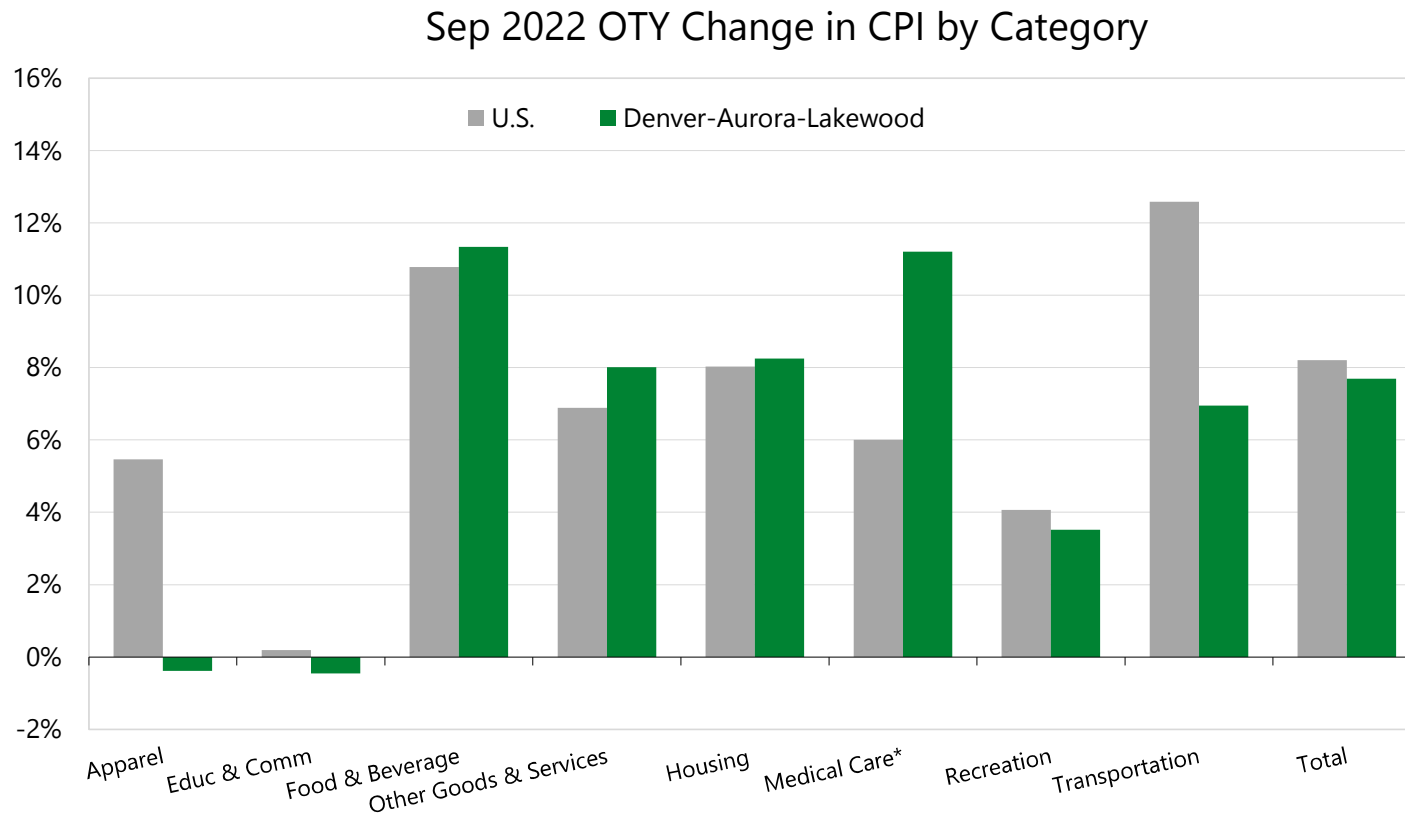
1. Inflation
2. Real GDP
3. Consumer Spending
4. Wage Growth
5. Stock Market
6. Employment
7. Unemployment
8. Interest Rates
9. Housing Prices
10. Construction Activity

Inflation has Potentially Peaked, but Still at Highest Levels Since 1980s



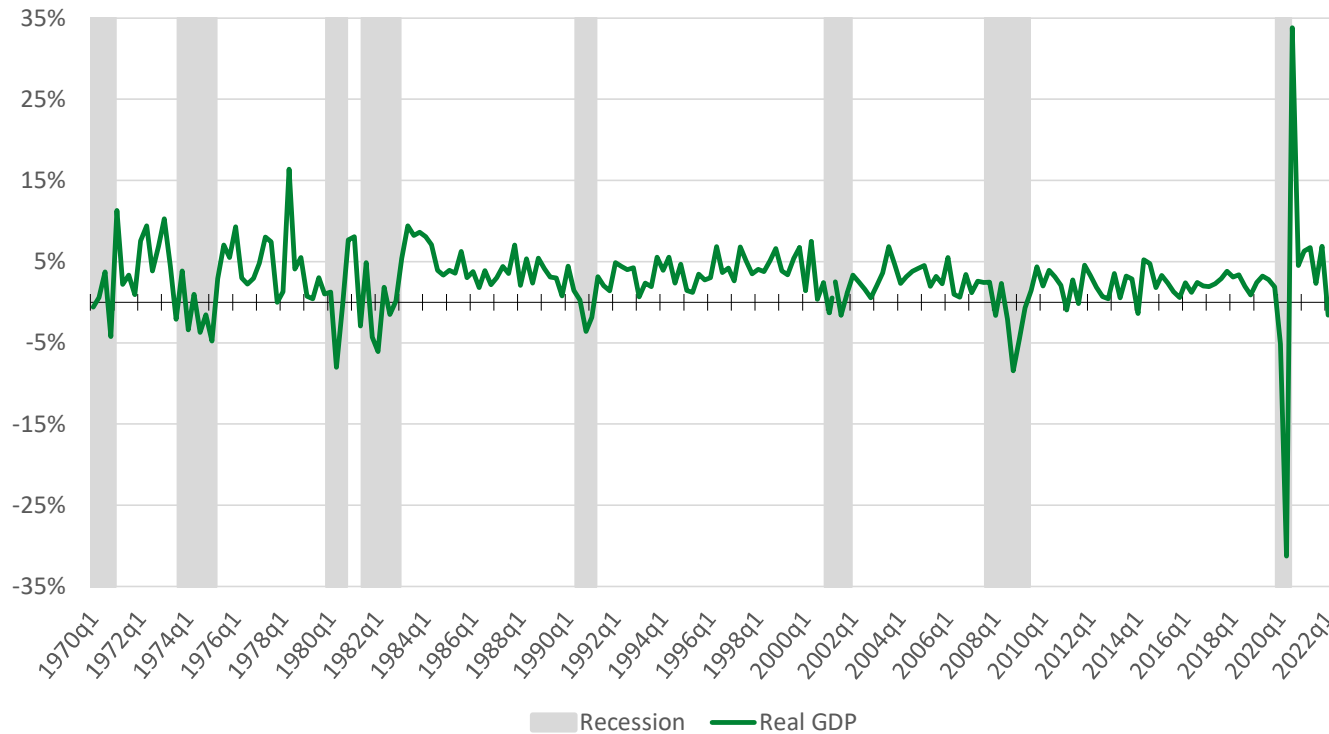
Source: U.S. Bureau of Labor Statistics, Consumer Price Index.

Inflation Widespread by Category; Transportation Still the National Leader



Real GDP Growth Rate and NBER Cycles 8 Recessions From 1970 to Current

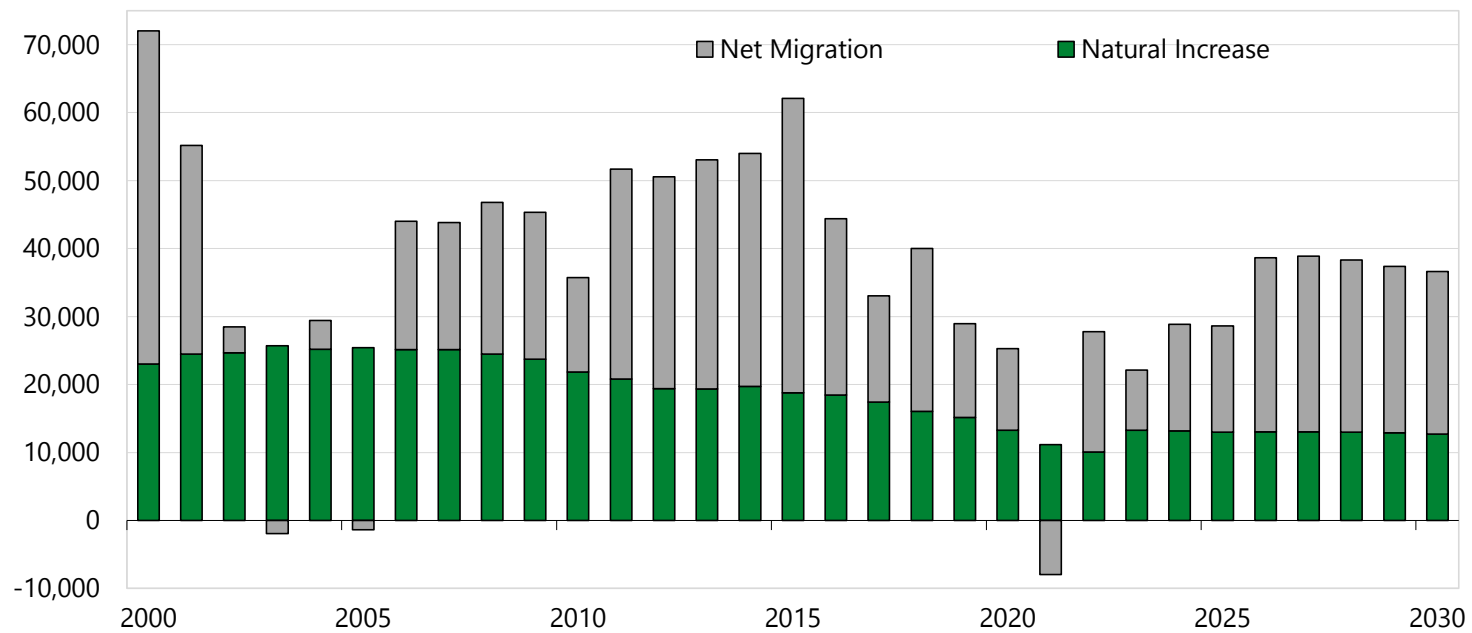
U.S. economy expanded for record 128 months (June 2009-February 2020)
U.S. economy contracted for record 2 months (February 2020-April 2020)



Sources: U.S. Bureau of Economic Analysis; National Bureau of Economic Research.
2022=DRP Forecast.

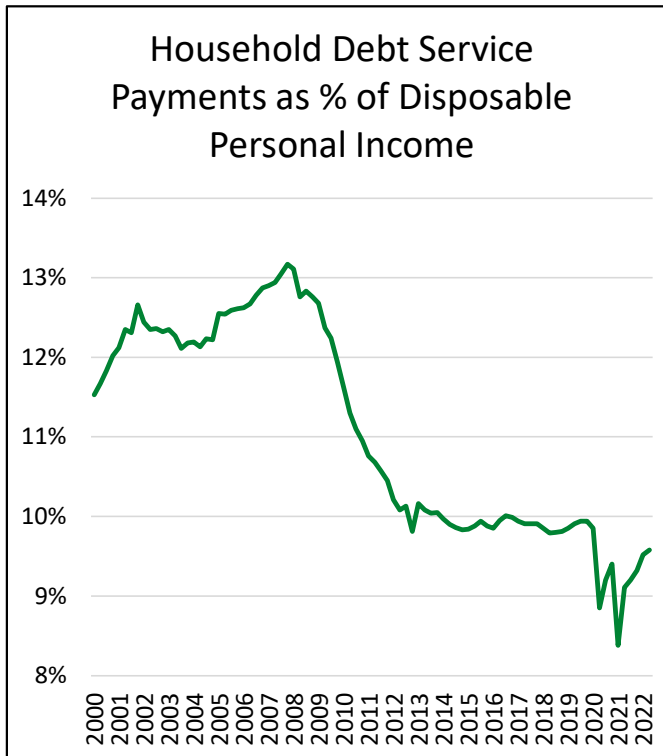
Metro Denver Annual Change in Population

2022 Population = 3.3 Million

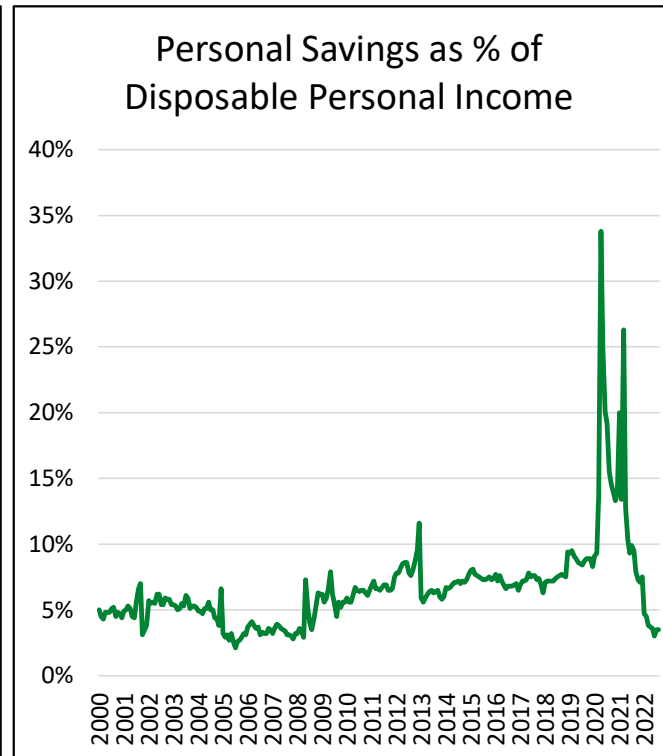


Source: Colorado Division of Local Government, State Demography Office. Vintage 2021 Data, released October 2022.

U.S. Household Debt is at Reasonable Level, Savings Rate Falls Back to Low Levels



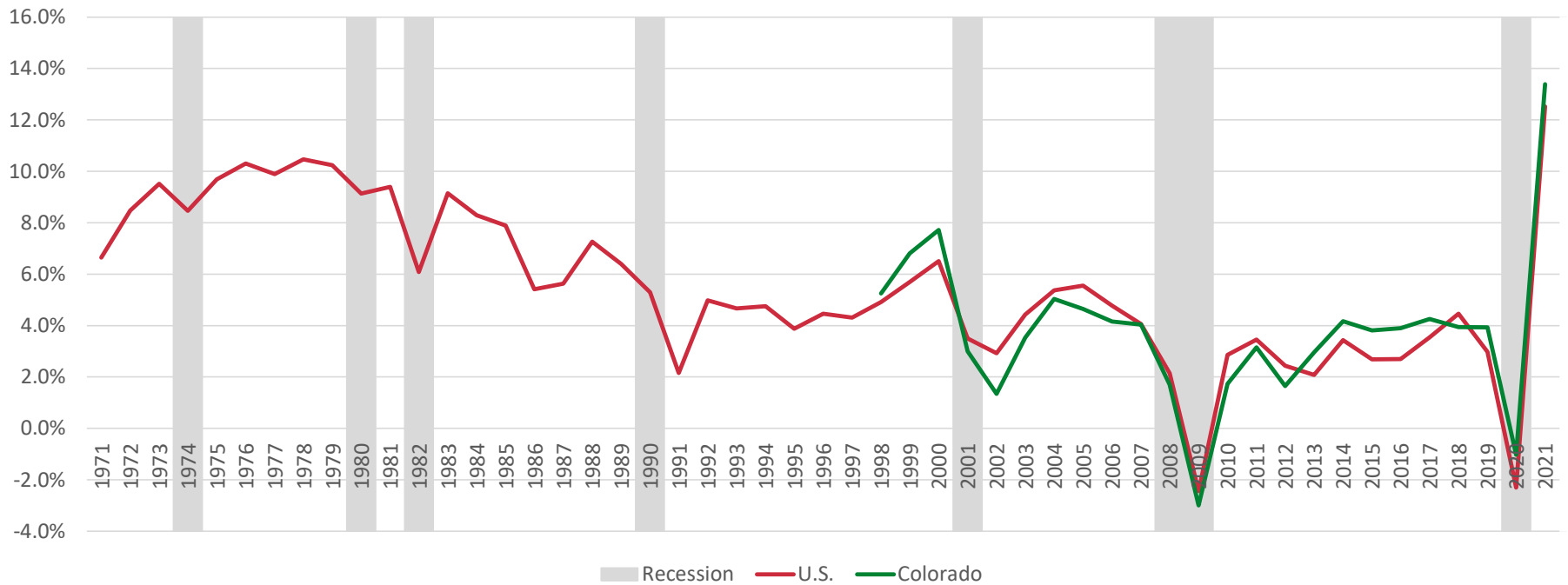
Source: Board of Governors of the Federal Reserve System (US).



Source: U.S. Bureau of Economic Analysis.

Consumer Spending Remains a Strong Point

Change in Personal Consumption Expenditures Per Capita

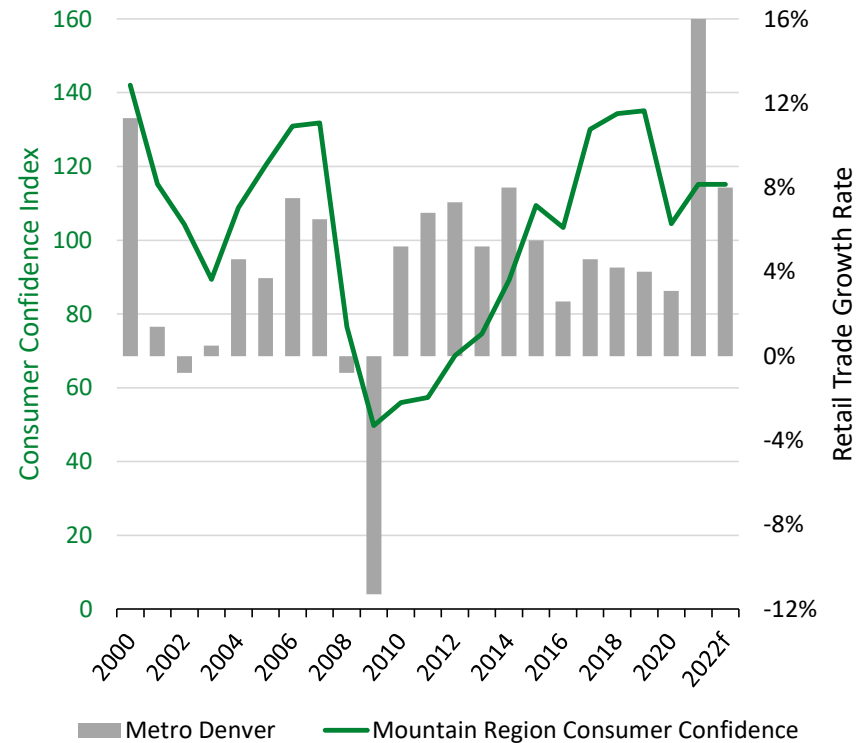


Source: U.S. Bureau of Economic Analysis.

Consumer Confidence and Retail Trade Spending Increase in 2022 at Slower Pace

Change in Retail Trade Spending

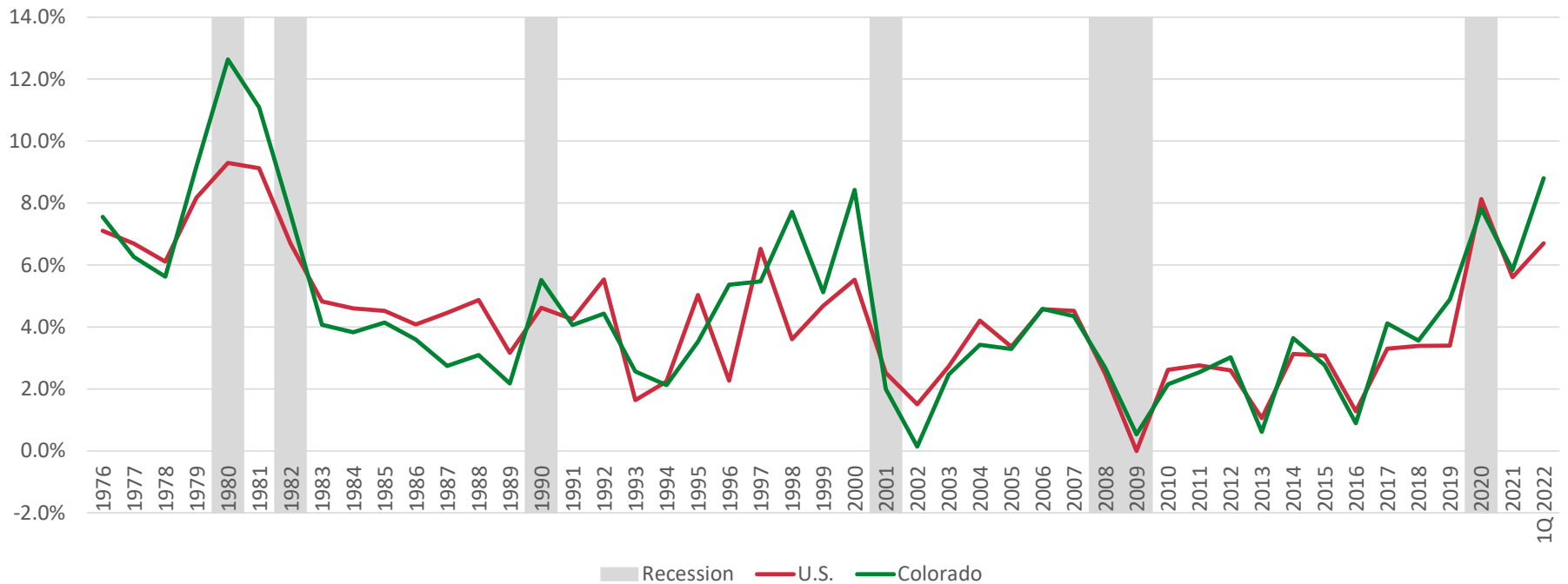
	2019	2020	2021	June YTD 2022
Metro Denver	4.3%	2.9%	16.0%	11.0%
Adams	2.9%	5.2%	16.5%	13.1%
Arapahoe	7.3%	0.9%	14.8%	8.3%
Boulder	3.8%	3.4%	13.4%	9.3%
Denver	4.6%	-2.6%	16.9%	15.2%
Douglas	3.1%	7.7%	22.5%	12.1%
Jefferson	2.4%	7.4%	13.2%	7.2%
Colorado	4.7%	4.9%	17.0%	10.6%
U.S.	3.1%	0.7%	19.6%	10.5%



Sources: Colorado Department of Revenue; The Conference Board.
2022f=DRP Forecast.

Wage Growth Tends to Slow Near End of a Downturn

Change in Average Annual Wage for All Industries



Source: U.S. Bureau of Labor Statistics, Quarterly Census of Employment & Wages.

Dow Jones Industrial Average, Monthly Close Values

2019: 15.2% of U.S. families have stocks; 50.5% have retirement accounts

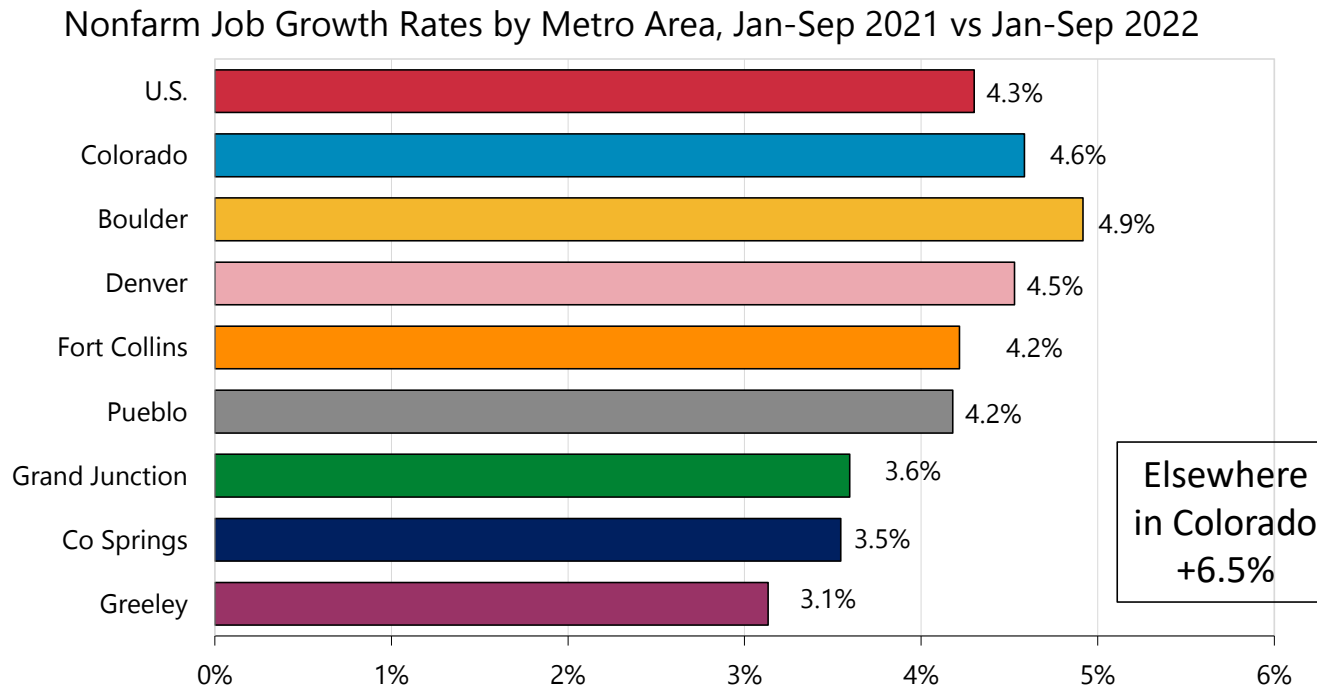
2016: 13.9% stocks; 52.1% retirement accounts

2013: 14% stocks, 49% retirement accounts



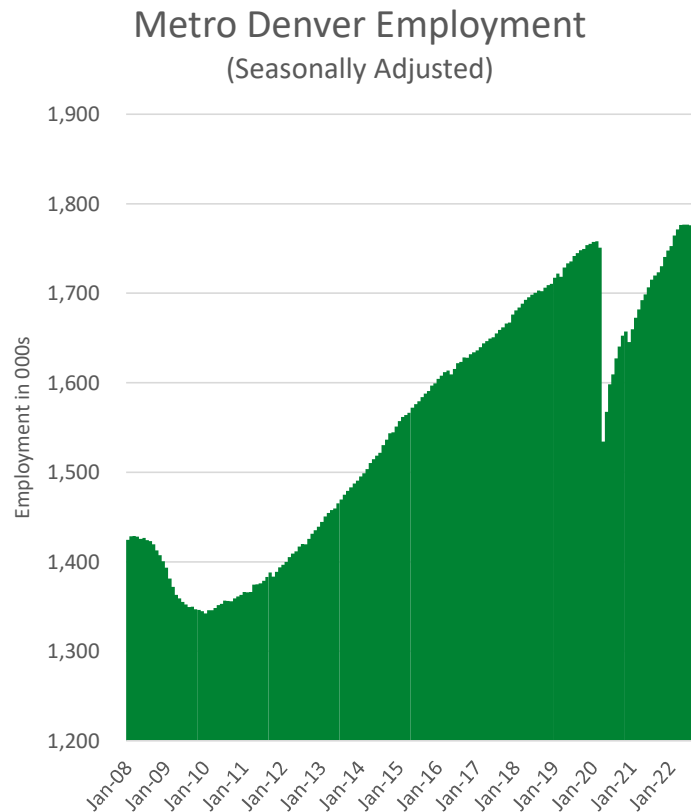
Sources: Wall Street Journal; Yahoo! Finance.

Employment Growth Rates are Solid Across the State's 7 MSAs (covering 17 counties)



Source: U.S. Bureau of Labor Statistics, Current Employment Statistics.

Metro Denver and Colorado Employment Recovering Faster than the U.S.



Source: U.S. Bureau of Labor Statistics, Current Employment Statistics.

Great Recession:

- 87,000 jobs lost over 22 months (Mar 2008 – Jan 2010)
- 33 months to recover all lost jobs (Jan 2010 – Oct 2012)

COVID Recession:

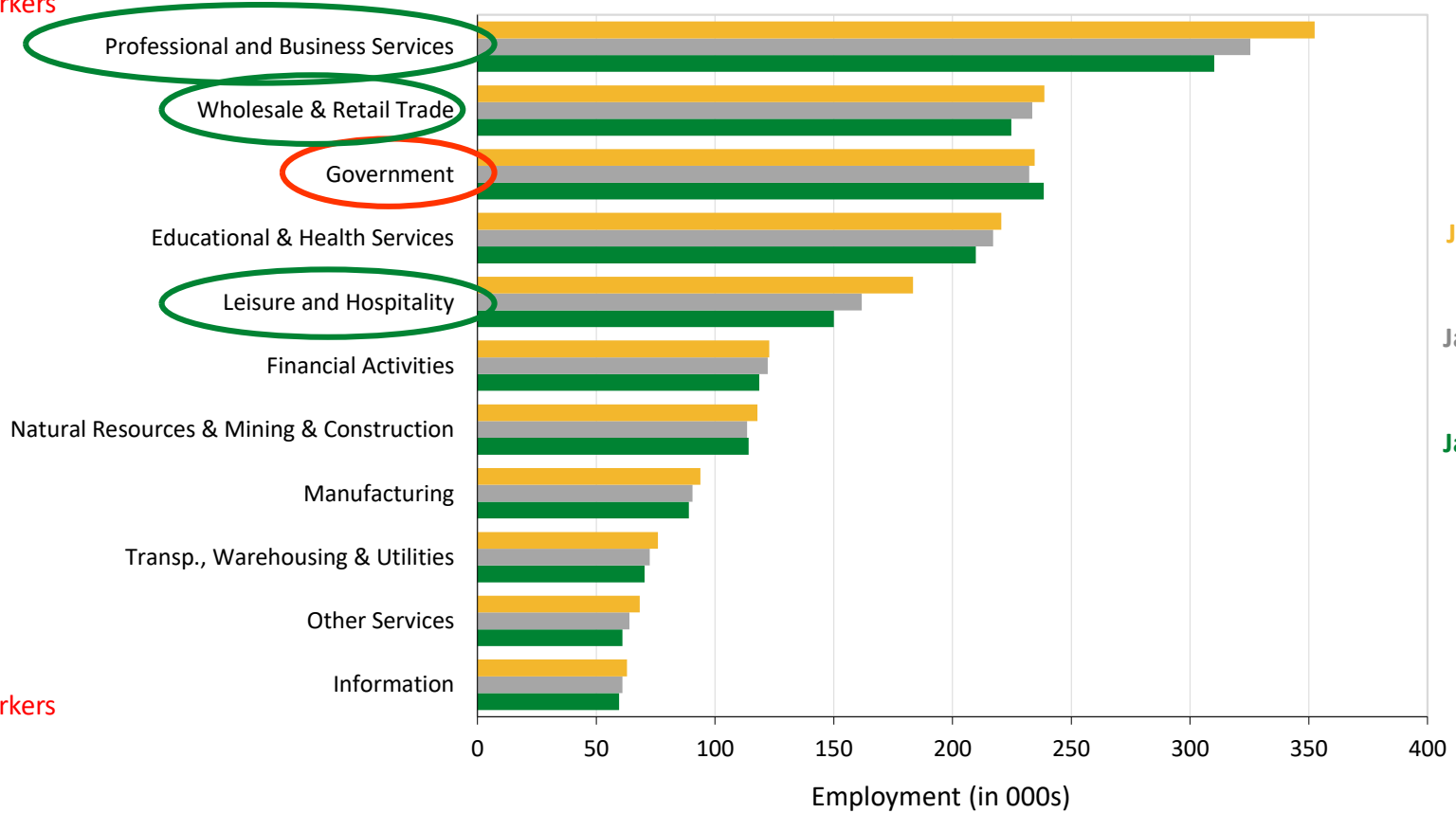
- 224,000 jobs lost over 2 months (Feb 2020 – April 2020)
- 22 months to recover all lost jobs (Apr 2020 – Feb 2022)
- Recovered 113.1% of jobs lost as of Sep 2022; CO recovered 116.7%; U.S. recovered 102.5%

Metro Denver Employment by Supersector (10 out of 11 > 2020 Employment)

Largest: 352,500 workers

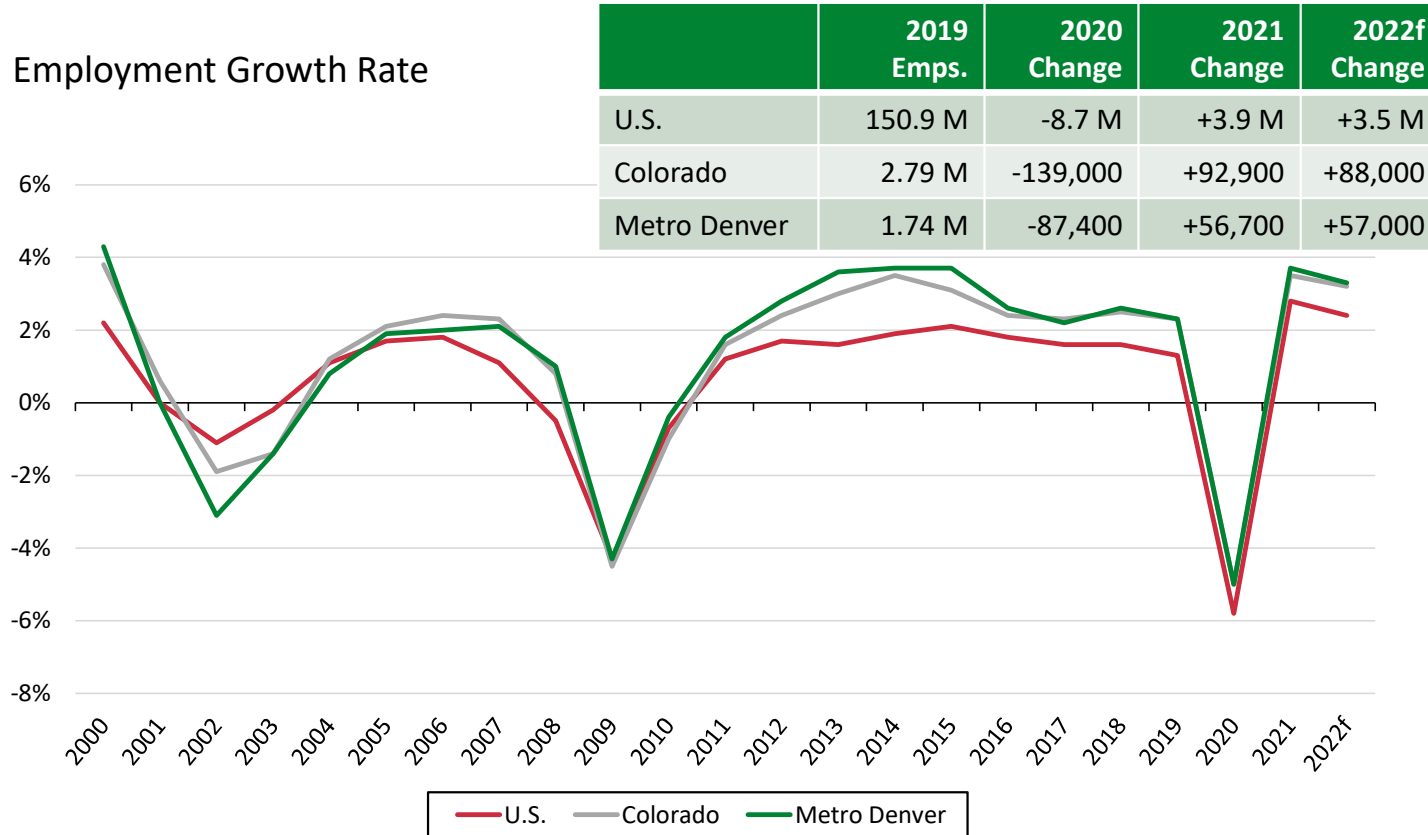


Smallest: 62,900 workers



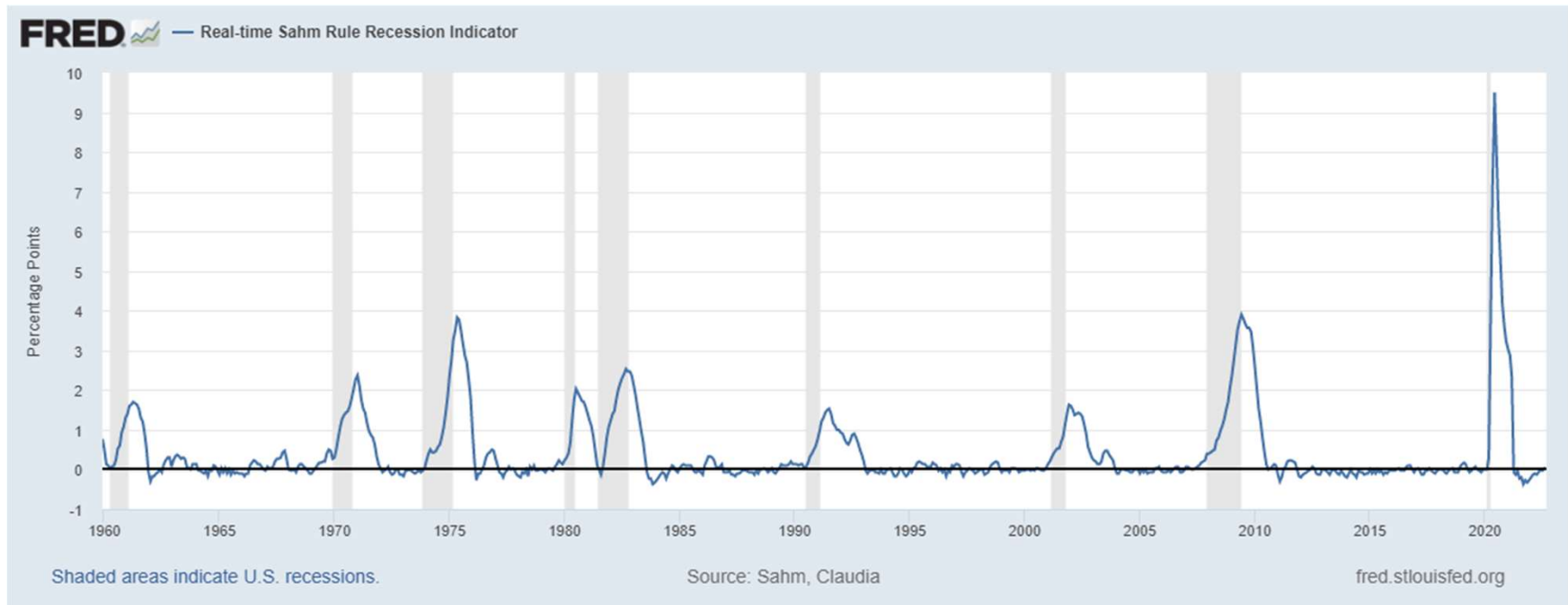
Jobs
Jan-Sep 2022 =
1,771,000
Jan-Sep 2021 =
1,694,000
Jan-Sep 2020 =
1,646,000

Employment Growth Continues in 2022 at a Slower Pace, But Metro Denver Similar to 2021



Source: U.S. Bureau of Labor Statistics, Current Employment Statistics.
2022f=DRP Forecast.

Real-Time Sahm Rule Recession Indicator (0 percentage points in September 2022)



Signals start of a recession when the three-month moving average of the national unemployment rate (U3) rises by 0.5 percentage points or more relative to its low during the previous 12 months.

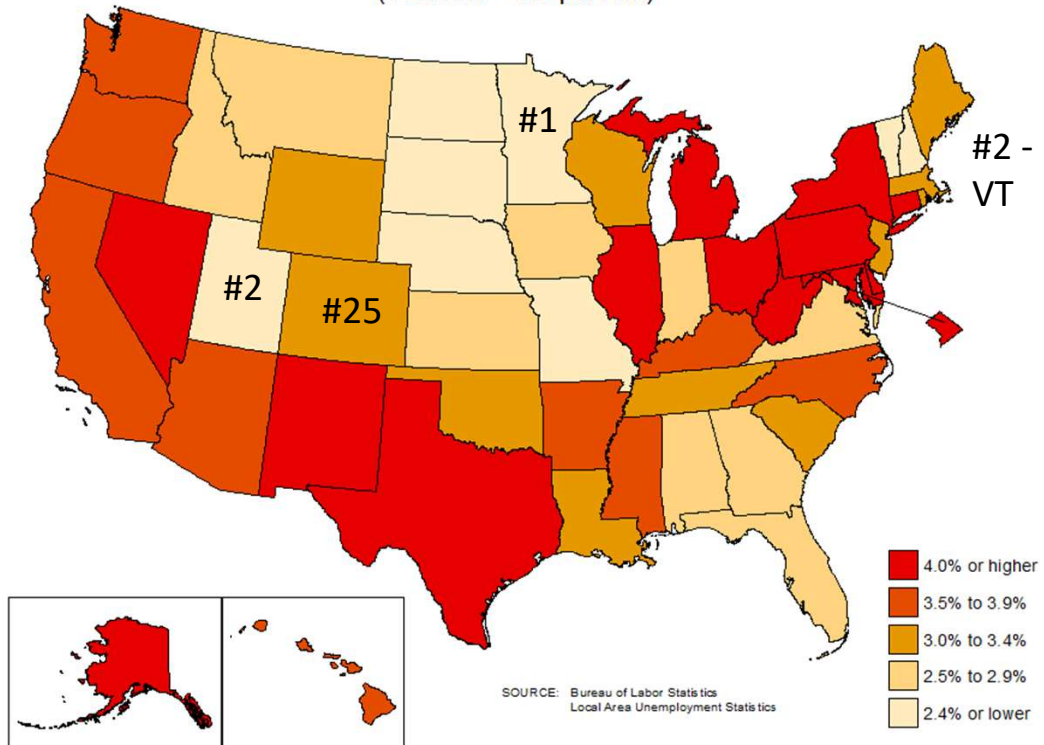
Colorado's Unemployment Rate of 3.4% is 25th Lowest in U.S.

Unemployment Rate Range

2.0% MN
to
4.5% in IL

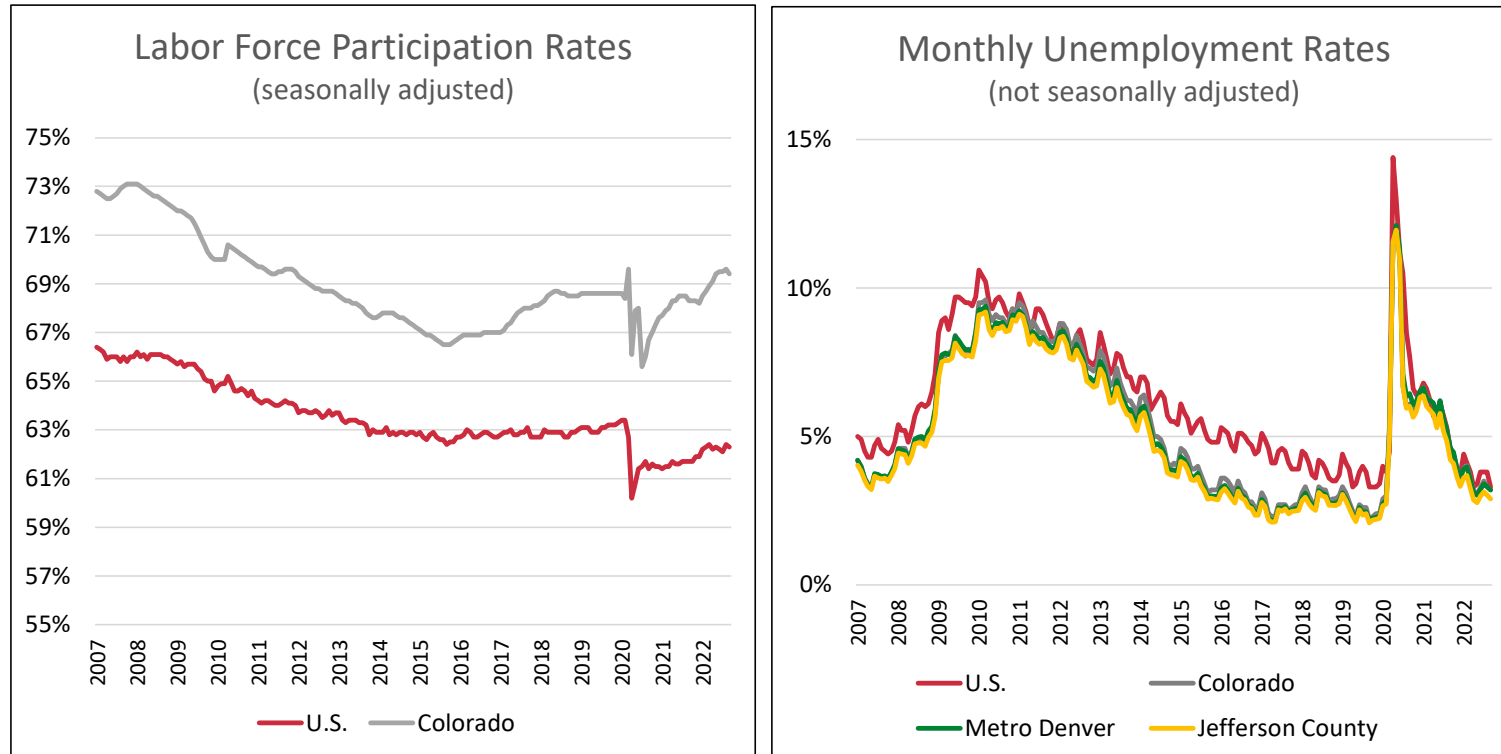
Unemployment rates by state, seasonally adjusted, September 2022

(U.S. rate = 3.5 percent)



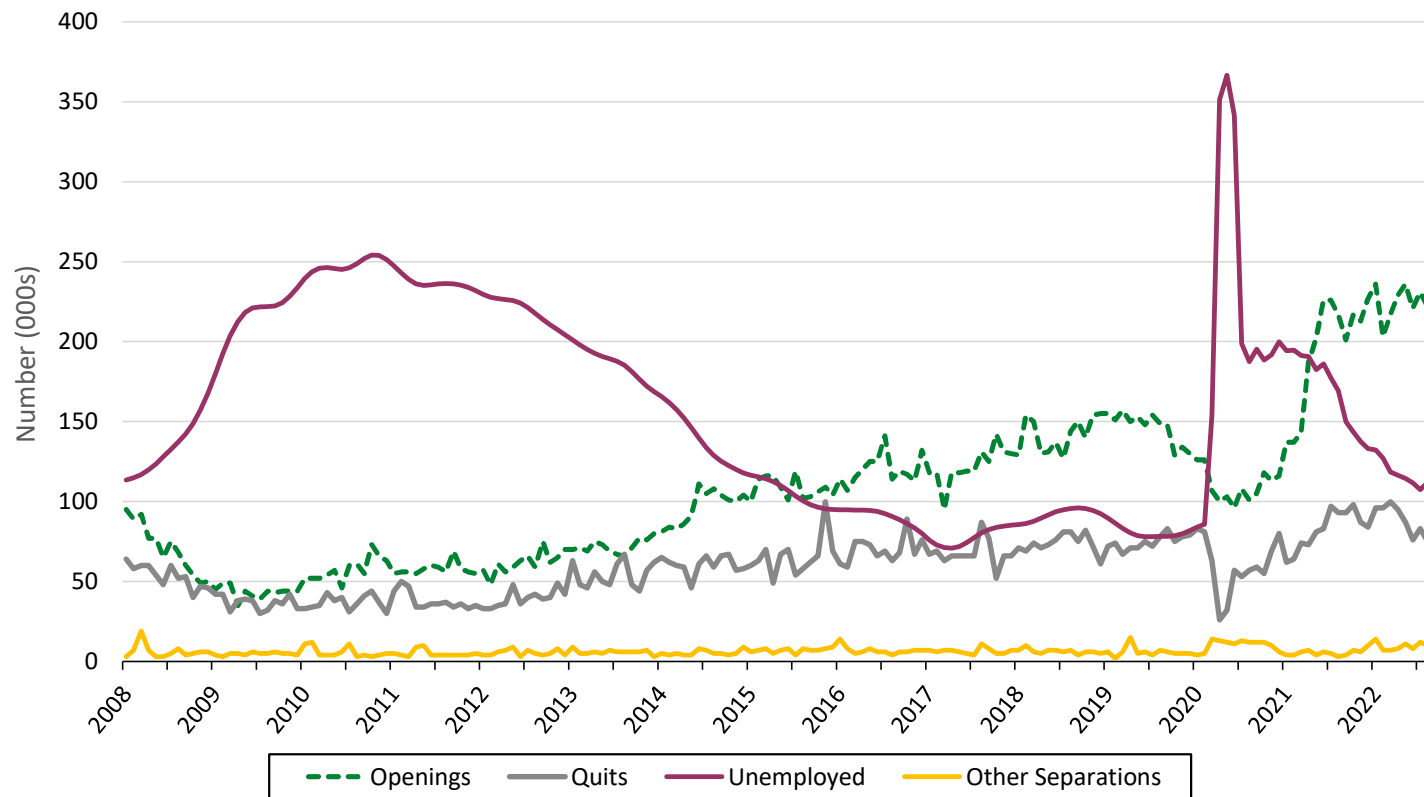
Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics.

CO Labor Force Participation Ranks 2nd Highest, Unemployment Slightly Higher than Pre-Covid



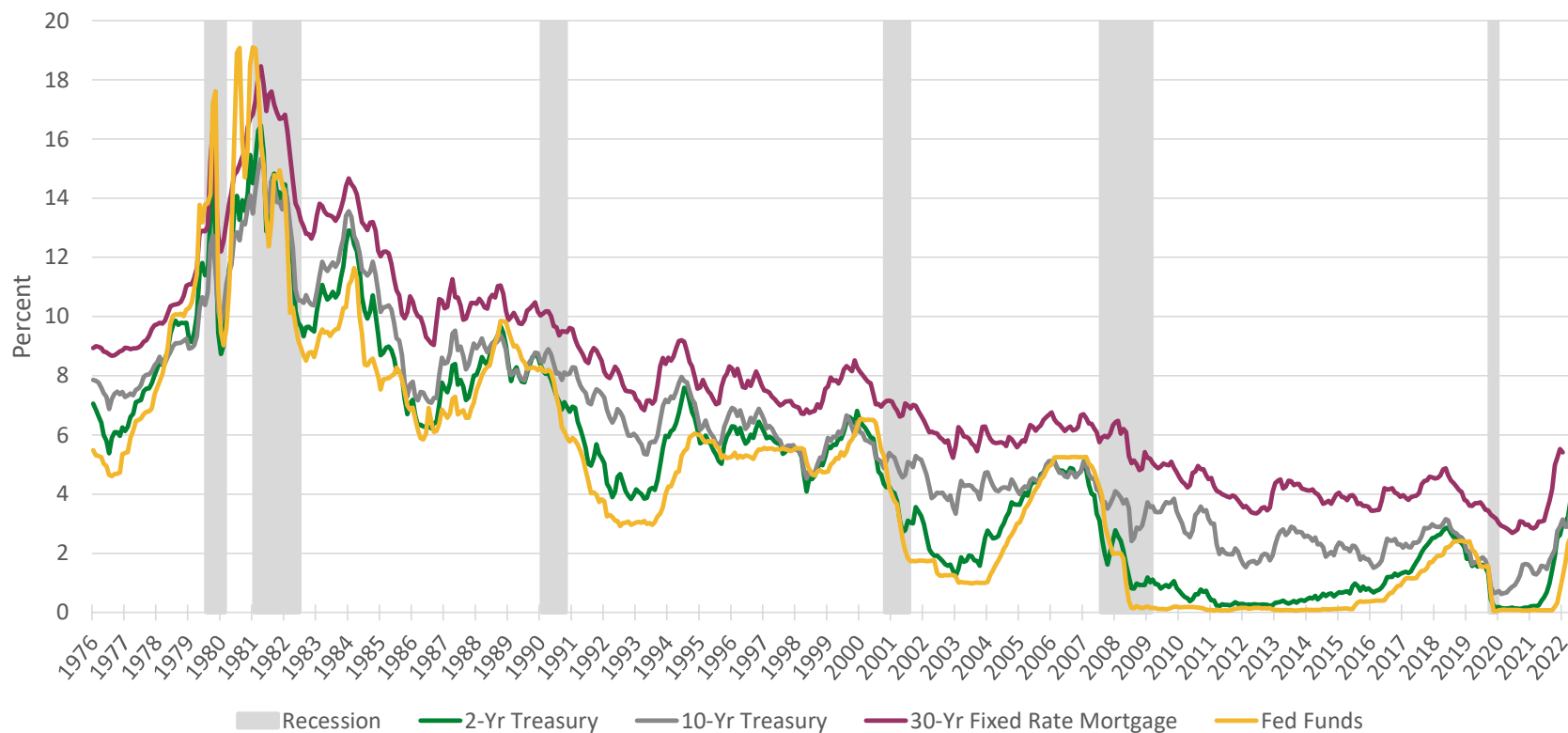
Sources: U.S. Bureau of Labor Statistics, Current Population Survey and Local Area Unemployment Statistics.

Colorado Job Openings at Historic Highs; Openings Greater than the Number Unemployed



Source: U.S. Bureau of Labor Statistics, Job Openings & Labor Turnover Survey (Colorado).
Other Separations = Retirement, death, disability, and transfers.

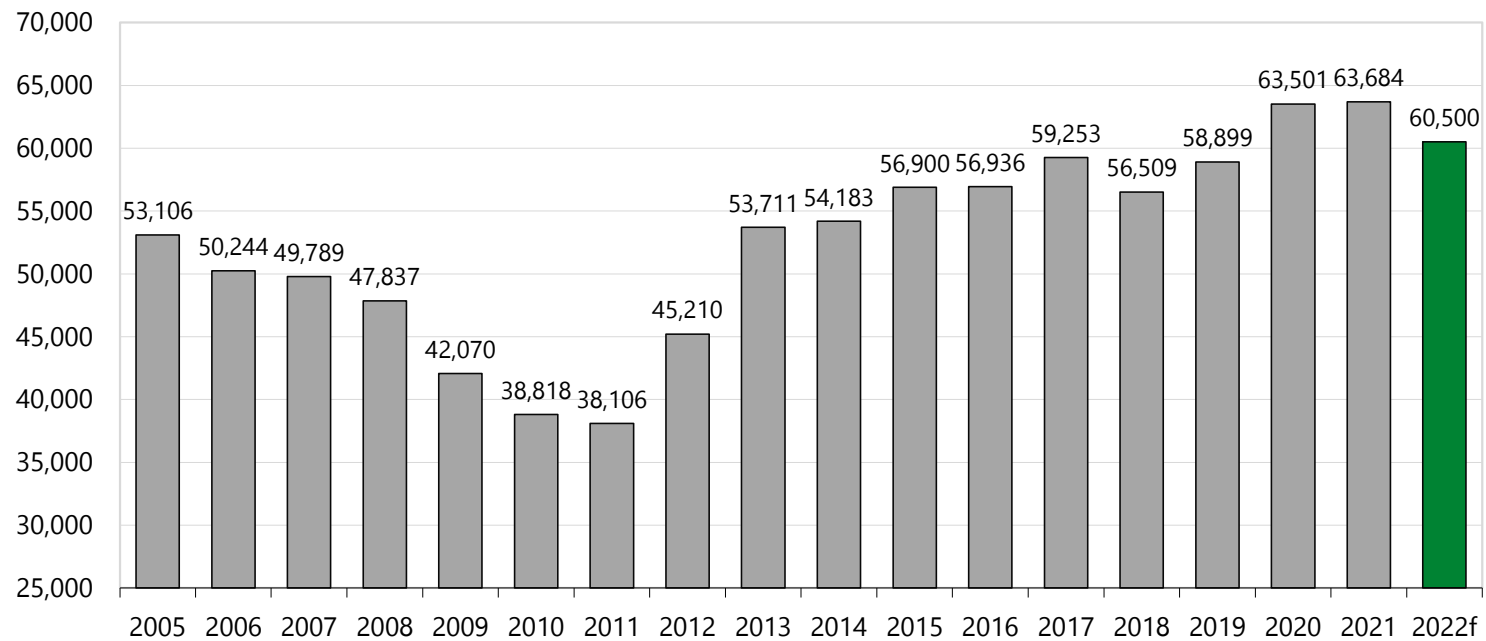
Federal Reserve has Raised Rates 6 Times in 2022 1 More Increase Expected



Source: Federal Reserve Bank of St. Louis.

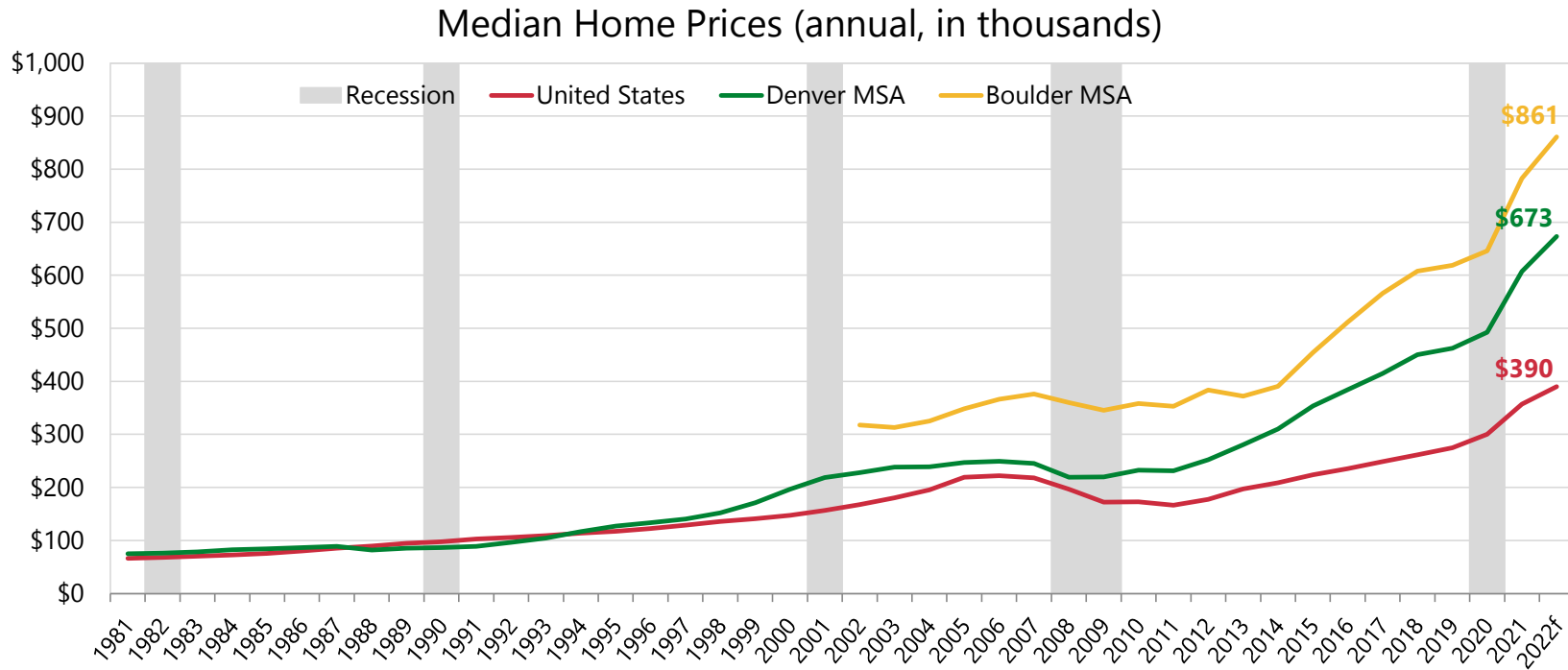
Rising Mortgage Rates Leading to a Slower Sales Environment in 2022

Metro Denver Existing Home Sales Closed



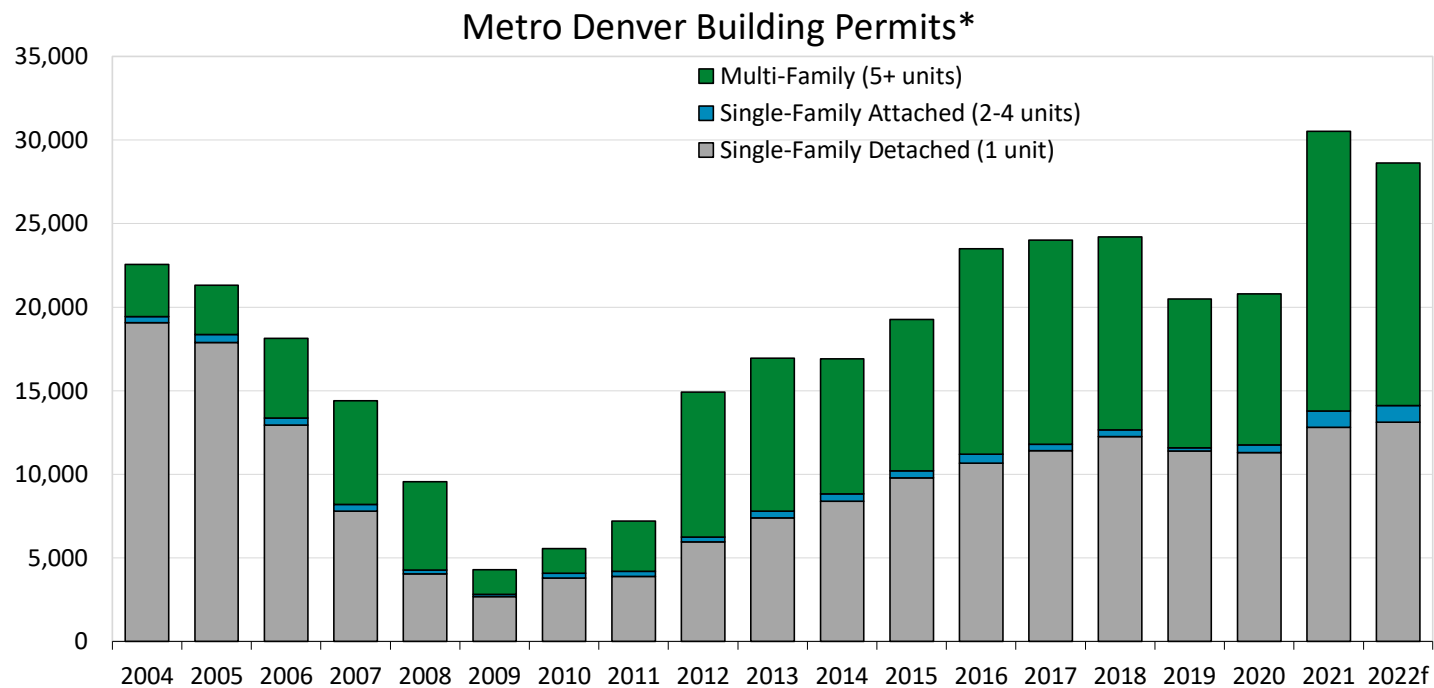
Sources: Metrolist (2005-2010); Denver Metro Association of REALTORS (2011-2021).
2022f=DRP Forecast.

Denver MSA #13 and Boulder MSA #6 for Highest Median Home Price, 2Q 2022



Source: National Association of REALTORS.
2022f=DRP Forecast.

Number of Units Permitted in 2021 is Highest Since 1983; Pullback in 2022 Expected



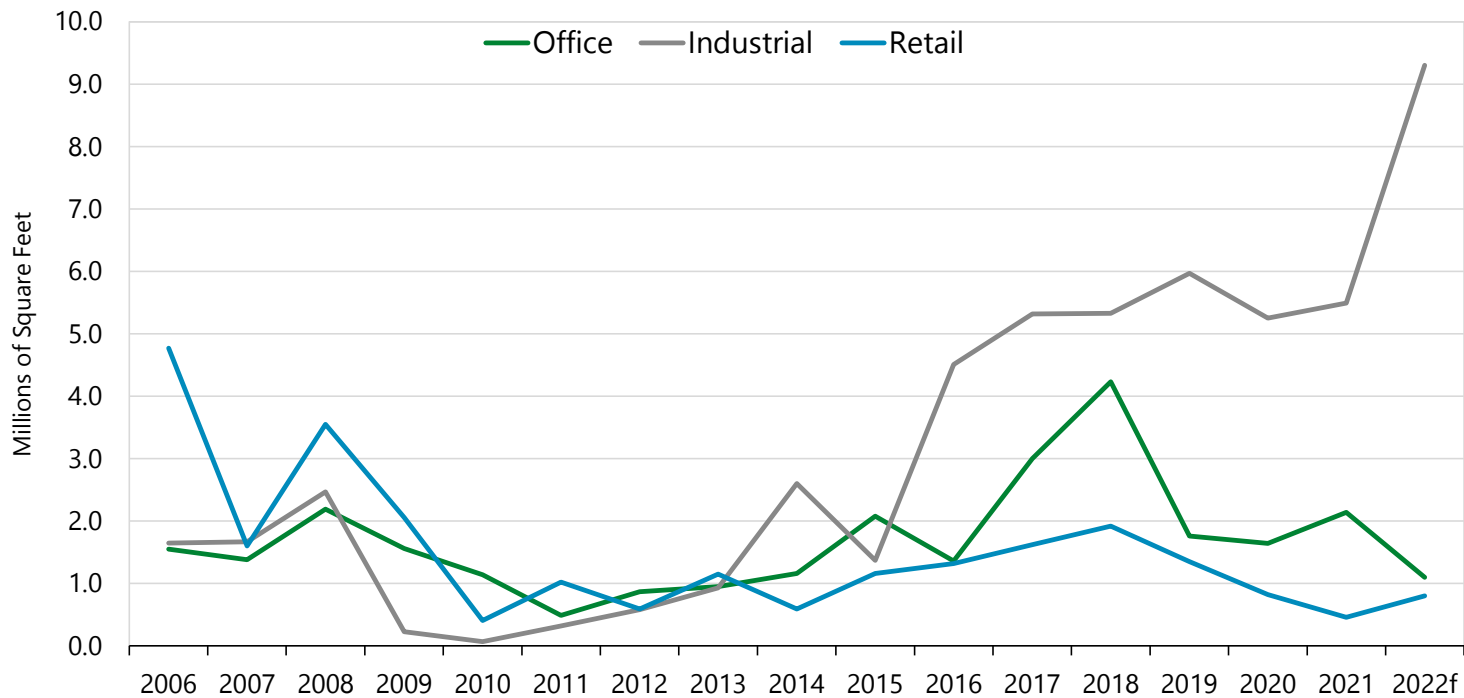
* The Census Bureau tracks building permits by the number of housing units in the structure.
 Source: U.S. Census Bureau, Building Permits.
 2022f=DRP Forecast.

Metro Denver Commercial Real Estate

	Vacancy/Completed Sq. Ft.	3Q 2022 Statistics	
<p>Office (Market shifts due to remote work)</p>		<p>Total Space = 202 MSF</p> <p>Vacancy Rate = 12.4%</p> <p>Lease Rate = \$30.97/sq. ft.</p>	<p>YOY Change Lease = +5.4%</p> <p>Under Construct = 3.44 MSF</p> <p>Completions = 0.6 MSF</p>
<p>Industrial (Space completed reaches new heights)</p>		<p>Total Space = 251 MSF</p> <p>Vacancy Rate = 5.5%</p> <p>Lease Rate = \$9.69 NNN</p>	<p>YOY Change Lease = +9.1%</p> <p>Under Construct = 8.58 MSF</p> <p>Completions = 6.2 MSF</p>
<p>Retail (Surprisingly Stable Despite Severe COVID Challenges)</p>		<p>Total Space = 175 MSF</p> <p>Vacancy Rate = 4.4%</p> <p>Lease Rate = \$19.94 NNN</p>	<p>YOY Change Lease = +5.8%</p> <p>Under Construct = 0.69 MSF</p> <p>Completions = 0.57 MSF</p>

Source: CoStar Group, Inc. 2022f=DRP Forecast.

2022 Forecasted to be Similar to 2018, which was a Record Year for Square Footage Completed in Metro Denver



Source: CoStar Group, Inc.
2022f=DRP Forecast.

Recession... Or Correction?

	Jan 2022 Forecast	Aug 2022 Update	Recession or Correction?
Inflation	4.3% U.S.; 3.6% Denver MSA	7.8% U.S.; 8% Denver MSA	Recession
Real GDP	4.1%	1.8%	Recession/Correction
Consumer Spending	4.1% U.S.; 4.3% Metro Denver	6.8% U.S.; 8% Metro Denver	Correction
Wage Growth	N/A	N/A	Correction
Stock Market	N/A	N/A	Recession
Employment	2.3% U.S.; 2.9% Metro Denver	2.4% U.S.; 3.3% Metro Denver	Correction
Unemployment	4.1% U.S.; 4% Metro Denver	4.1% U.S.; 3.8% Metro Denver	Correction
Interest Rates	0.5% Fed Funds (ann avg)	1.5% Fed Funds (ann avg)	Recession
Housing Prices	7% U.S.; 8% Metro Denver	9% U.S.; 11% Metro Denver	Correction
Residential Bldg Permits	-9.5% Metro Denver	-6.5% Metro Denver	Correction

Questions?

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