

Summary of 2022 Benchmark Data and 2023 Outlook United States and Colorado



Colorado-based Business and Economic Research, cber.co
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Economic Outlook and Trends

Purpose and Summary

The purpose of this chartbook is to review the performance of the Colorado and U.S. economies for 2022 and their outlook for 2023. The analysis will highlight the benchmark employment and unemployment data.

In 2022, the list of headwinds was longer than usual: inflation, energy issues, increased input costs, supply chain disruptions, labor shortages, wage increases, housing issues, controversial legislation, and the conflict in Eastern Europe.

As the year progressed, inflation became a bigger problem. The Federal Reserve raised interest rates to curtail economic growth and reduce inflation.

The discussion focuses on the following topics.

- Gross Domestic Product
- Colorado Population
- U.S. and Colorado Employment
- Confidence, Consumption, and Wealth Effect
- U.S. Industry Indicators
- Colorado Industry Indicators
- Inflation
- 2003 Colorado Economic Outlook.

Gross Domestic Product

U.S. Real GDP

The Economic Forecast Still Calls for a Recession

The Conference Board U.S. GDP Forecast is the base for the 2023 cber.co forecast. Two months ago, TCB called for a shallow recession by the end of 2022 or early 2023. TCB now thinks that recession will occur between Q2 through Q4 2023, based on their leading economic indicator and consumer confidence research.

Inflation will remain high in 2023, but rate hikes will peak at 5.5% in Q2 2023. At this point, the collapse of Silicon Valley Bank, Signature Bank, and other smaller banks is not likely to expand into other areas of the banking system.

U.S. Real GDP Growth

The Conference Board Forecast (March 15, 2022)

Real GDP and Economic Growth

The latest Conference Board forecast projects real GDP growth of 2.1% for 2022. There will be a change of 0.7% in real GDP in 2023. Real personal consumption deteriorated in Q4 but increased by 2.8% in 2022. Residential investment changed by -10.7% in 2022, while nonresidential posted an increase of 3.8%. Both will decline in 2023.

Other Economic Factors

Despite the downward trend in the economy, some industries and occupations will see labor shortages. The U.S. unemployment rate was 3.6% in 2022. It will be the same in 2023. In Q2 2022, the PCE inflation rate peaked. The annual rate was 6.3% in 2022. It will be 3.8% in 2023, missing the Fed's target rate of 2.0%.

Conference Board US Real GDP Growth Forecast

	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	2022	2023	2024
Real GDP	-1.6%	-0.6%	3.2%	2.7%	1.0%	-0.9%	-1.8%	-0.6%	2.1%	0.7%	0.9%
Real Disposable Income	--10.6%	-2.3%	3.2%	4.8%	2.0%	0.5%	0.3%	0.6%	-6.1%	1.8%	1.0%
Real Personal Consumption	1.3%	2.0%	2.3%	1.4%	1.9%	-0.4%	-1.6%	-0.8%	2.8%	0.8%	0.6%
Residential Investment	-3.1%	-17.8%	-27.1%	-25.9%	-15.0%	-15.0%	-10.0%	-5.0%	-10.7%	-18.0%	-2.1%
Nonresidential Investment	7.9%	0.1%	6.2%	3.3%	2.5%	--0.8%	-1.9%	-1.5%	3.8%	1.5%	1.6%
Total Gov't. Spending	-2.3%	-1.6%	3.7%	3.6%	3.0%	3.2%	2.3%	2.5%	-0.6%	2.8%	2.5%
Exports	-4.6%	13.8%	14.6%	-1.6%	6.0%	2.0%	0.0%	1.0%	7.2%	4.2%	1.4%
Unemployment Rate	3.8%	3.6%	3.6%	3.6%	3.4%	3.4%	3.6%	4.1%	3.6%	3.6%	4.3%
PCE Inflation (%Y/Y)	6.4%	6.6%	6.3%	5.7%	4.9%	3.9%	3.4%	3.1%	6.3%	3.8%	2.2%
Core PCE Inflation (%Y/Y)	5.3%	5.0%	4.9%	4.8%	4.5%	4.2%	3.7%	3.1%	5.0%	3.9%	2.2%

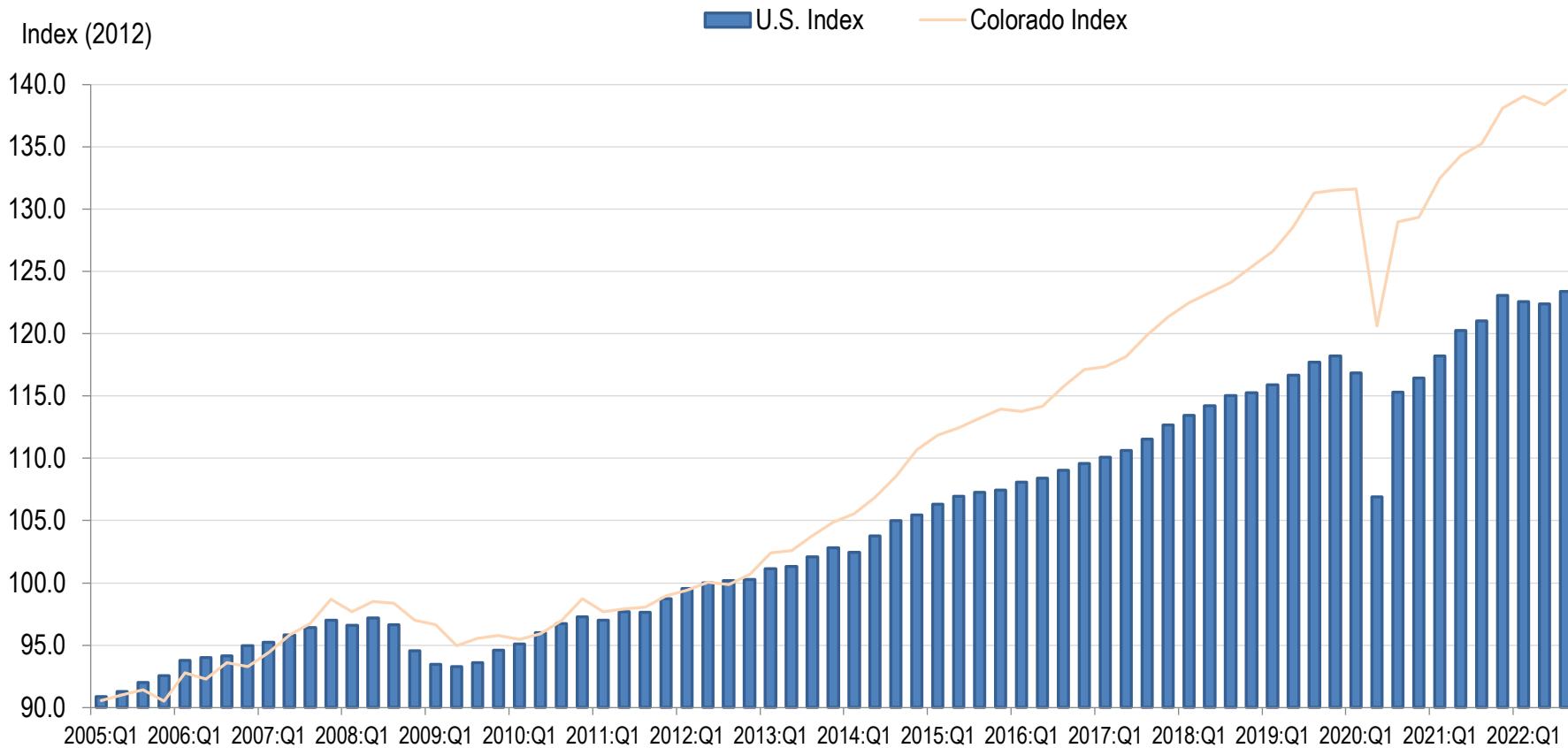
Source: The Conference Board and cber.co.

Source: The Conference Board, <https://www.conference-board.org/publications/Economic-Forecast-US>, cber.co.

Colorado-based Business and Economic Research <https://cber.co>

Colorado GDP Index vs U.S. GDP Index

Colorado vs. U.S. Real GDP Chained Indices (2012 Dollars)



Colorado/U.S. GDP Indices

Since 2013, the Colorado Real GDP Index (orange) has outperformed the U.S. Index (blue).

The index for both was 100 in 2012.

In Q3 2022, the index for Colorado was 139.6 and 123.4 for the U.S.

Source: BEA, cber.co.

Colorado-based Business and Economic Research <https://cber.co>

Change in Annual Nominal Colorado GDP

2007 to 2021

Change in Annual Colorado GDP (Not Adjusted for Inflation)

	2021 GDP	% Total 2021 GDP	2021 – 2007 Difference	2007-2021 % Change
Finance, insurance, real estate, rental, and leasing	89,886.3	20.6%	40,143.10	80.7%
Government and government enterprises	52,156.1	12.0%	22,364.80	75.1%
Professional, scientific, and technical services	44,949.2	10.3%	23,932.00	113.9%
Manufacturing	28,883.2	6.6%	9,543.90	49.3%
Information	27,315.0	6.3%	8,118.20	42.3%
Health care and social assistance	26,789.5	6.1%	13,607.50	103.2%
Wholesale trade	25,703.2	5.9%	11,979.40	87.3%
Retail trade	24,884.8	5.7%	10,746.20	76.0%
Construction	24,527.9	5.6%	10,250.70	71.8%
Accommodation and food services	15,272.5	3.5%	7,506.90	96.7%
Mining, quarrying, and oil and gas extraction	13,475.9	3.1%	2,192.80	19.4%
Administrative and support and waste management and remediation services	13,324.5	3.1%	5,337.90	66.8%
Transportation and warehousing	12,650.3	2.9%	5,883.90	87.0%
Other services (except government and government enterprises)	9,651.7	2.2%	3,794.20	64.8%
Management of companies and enterprises (MCE)	9,385.8	2.2%	4,956.80	111.9%
Utilities	5,565.5	1.3%	2,482.30	80.5%
Arts, entertainment, and recreation (AER)	5,540.4	1.3%	2,941.90	113.2%
Educational services	3,602.0	0.8%	1,808.30	100.8%
Agriculture, forestry, fishing and hunting	2,795.9	0.6%	322.50	13.0%
Total	436,359.7	100.0%	187,913.30	75.6%

Economic Drivers, 2007 to 2021

The table on the left shows how different sectors drove the economy between 2007 and 2021.

In 2021, the FIRE, Government, and PST sectors made up about 43% of the Colorado GDP. These sectors increased at faster rates than the state average (75.6%) between 2007 and 2021.

The fastest-growing sectors of *significant size* are PST, Health Care, and FIRE. The MCE, corporate headquarters, and AER sectors are the fastest-growing sectors of small size.

Manufacturing and Information are segments of advanced technology; that have had minimal growth since 2007.

Source: BEA, cber.co.

Contribution to GDP By Sector

Colorado

Economic Drivers (Contribution) Q1 2021 to Q2 2022

The table on the right shows the quarterly change in the Colorado real GDP in the top row. The quarterly change in real GDP was between -2.0% and 10%.

The real GDP changed by 10.0% in Q1 2021. The values in that column show the contribution to GDP for each of the 20 sectors.

The twenty sectors are categorized based on their 2022 performance. The sectors in the top group had positive contributions for all three quarters of 2022. The sectors in the second group had positive contributions in two of the three quarters of 2022. The group at the bottom had positive contributions in zero or one quarter.

Obviously, the sectors in the top group performed most consistently. The top sectors for contribution have been PST and real estate, rental, and leasing.

The contributions of information, AFS, and AER have generally been positive, but erratic.

Source: BEA, cber.co.

Sector	2021:Q1	2021:Q2	2021:Q3	2021:Q4	2022:Q1	2022:Q2	2022:Q3
Quarterly % Change	10.0	5.7	2.8	8.8	2.9	-2.0	3.5
Professional, scientific, and technical	2.4	1.8	1.4	1.1	1.5	0.6	1.0
Real estate and rental and leasing	1.7	0.6	1.2	1.9	0.3	0.8	0.7
Transportation and warehousing	0.5	0.3	1.2	0.5	0.2	0.0	0.3
Administrative services	0.7	0.1	0.6	0.5	0.3	0.1	0.0
Management of companies (MCE)	0.3	0.4	-0.3	0.7	0.3	0.2	0.2
Health care and social assistance	-0.2	-0.1	0.0	0.7	0.2	0.1	0.4
Other services (Personal)	-0.1	0.2	0.3	0.2	0.1	0.0	0.1
Total Positive Contribution 2022	5.3	3.2	4.3	5.6	2.8	1.8	2.7
Information	0.8	0.5	0.8	1.0	2.7	-1.2	1.2
Accommodation and food services	1.4	2.2	0.7	0.3	0.2	0.0	-0.3
Arts, entertainment, and recreation	0.4	0.1	0.4	0.4	-0.2	0.5	0.4
Educational services (private)	0.0	0.1	0.2	0.1	0.1	-0.1	0.0
Retail trade	0.6	-0.9	-0.6	0.4	-0.7	0.1	0.3
Total Positive Cont. Two Qtrs.	3.2	2.0	1.5	2.1	2.1	-0.7	1.5
Government and government	0.6	0.3	0.5	0.4	-0.3	-0.2	0.3
Wholesale trade	0.3	1.0	-0.9	0.1	0.5	-0.4	-0.1
Finance and insurance	0.2	-0.1	-0.3	0.7	-0.1	0.1	-0.4
Manufacturing	0.2	0.8	-0.3	1.1	-1.4	-0.5	0.2
Utilities	-0.2	0.6	-0.6	0.0	0.1	0.0	-0.2
Agriculture	0.5	-0.8	-0.7	-0.1	0.0	-0.2	0.1
Extractive Industries	-0.3	-1.2	-0.3	-1.2	-0.1	-1.0	0.6
Construction	0.1	0.0	-0.5	0.0	-0.8	-1.1	-1.1
Total Positive Cont One or Zero Qtrs.	1.5	0.5	-3.1	1.0	-2.0	-3.2	-0.6

Colorado Population – The Economy Begins with a Job

Population – It Begins with a Job

The Demographics of Colorado and the U.S. are Changing

The most significant change in population over the past five years is that the Millennials are now the dominant force in the U.S. labor market.

Too few workers have moved to the state and there is not the proper mix of workers to fill job vacancies.

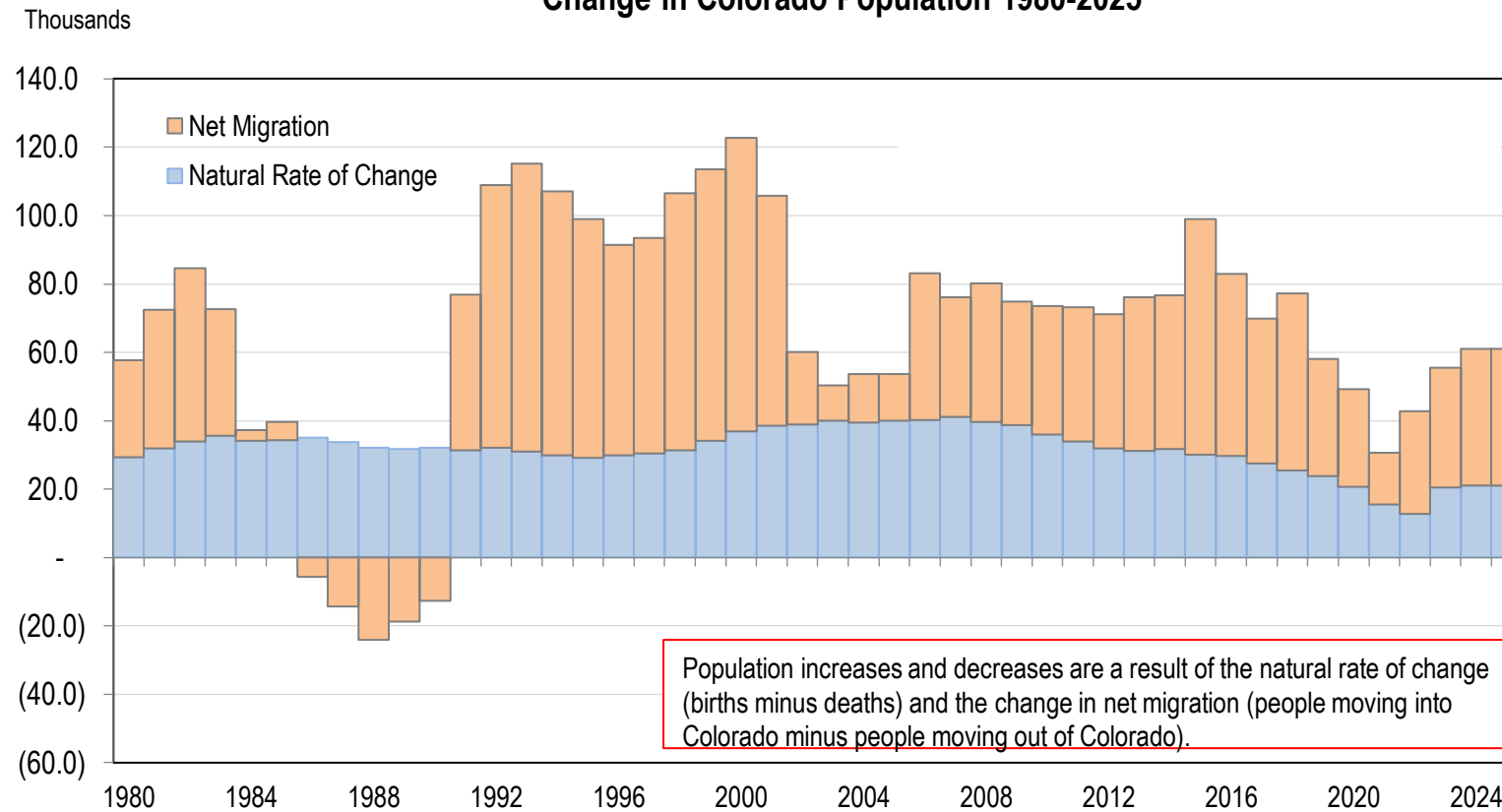
The fertility rate is declining for all races and ethnicities.

The racial and ethnic mix of the Colorado population is changing.

Colorado Population

Components of Change

Change in Colorado Population 1980-2025



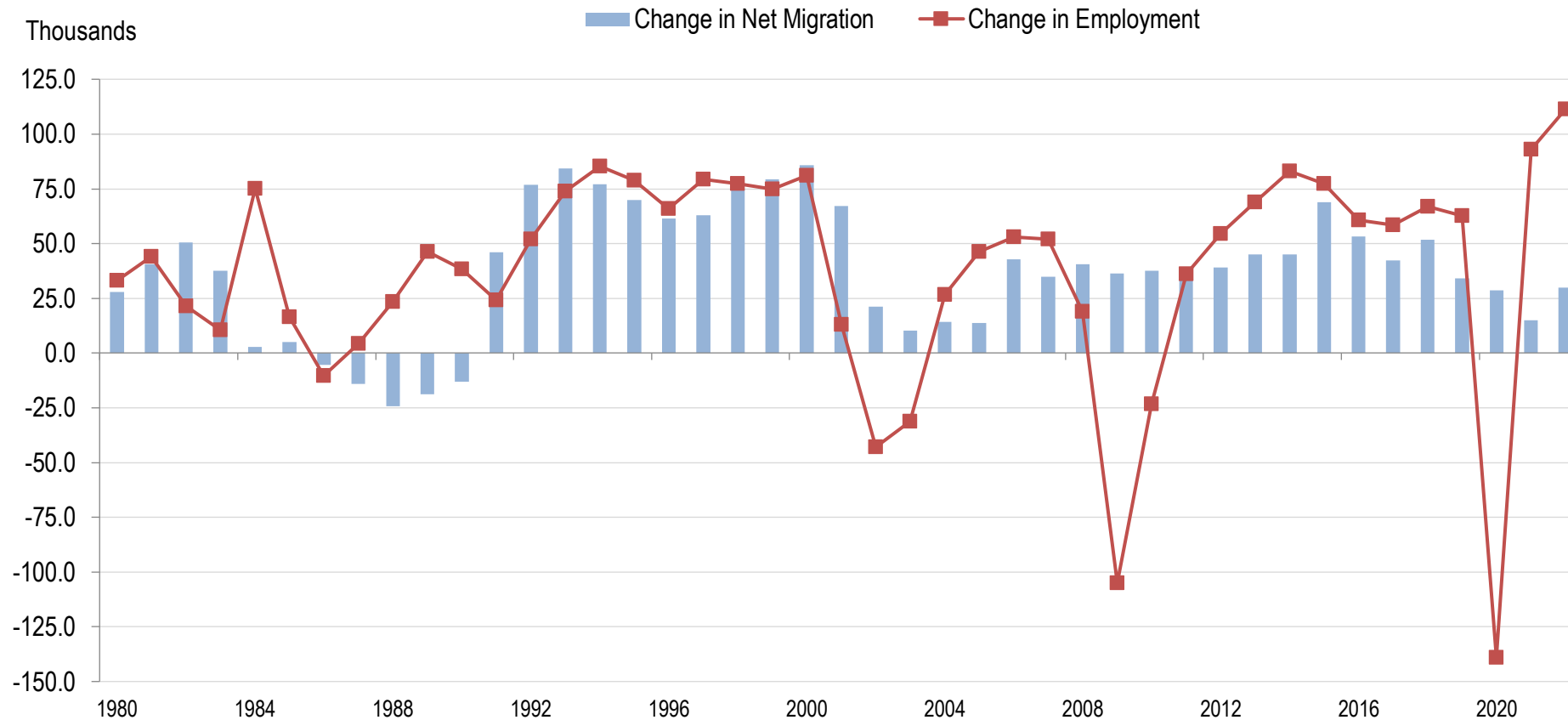
Since 2000, the Colorado population has increased at a decreasing rate. Growth has been less than in the past because of increased deaths, a lower fertility rate, and lower net migration.

In 2020 and 2021, more significant population changes occurred because of pandemic-related policies. There were altered migration patterns and fewer births.

In 2023, the level of net migration (orange) will increase by 20,500, the natural rate (blue) will increase by 35,000, and the population will increase by 55,500. The total Colorado population will be 5,913,007.

Change in Colorado Net Migration and Employment

Change in Colorado Net Migration and Employment



Source: BLS, SDO, cber.co.

Colorado-based Business and Economic Research <https://cber.co>

There is a loose relationship between the change in net migration (blue bars) and change in employment (red line).

Since 2013, the increase in employment has been more than the change in net migration in all but one year.

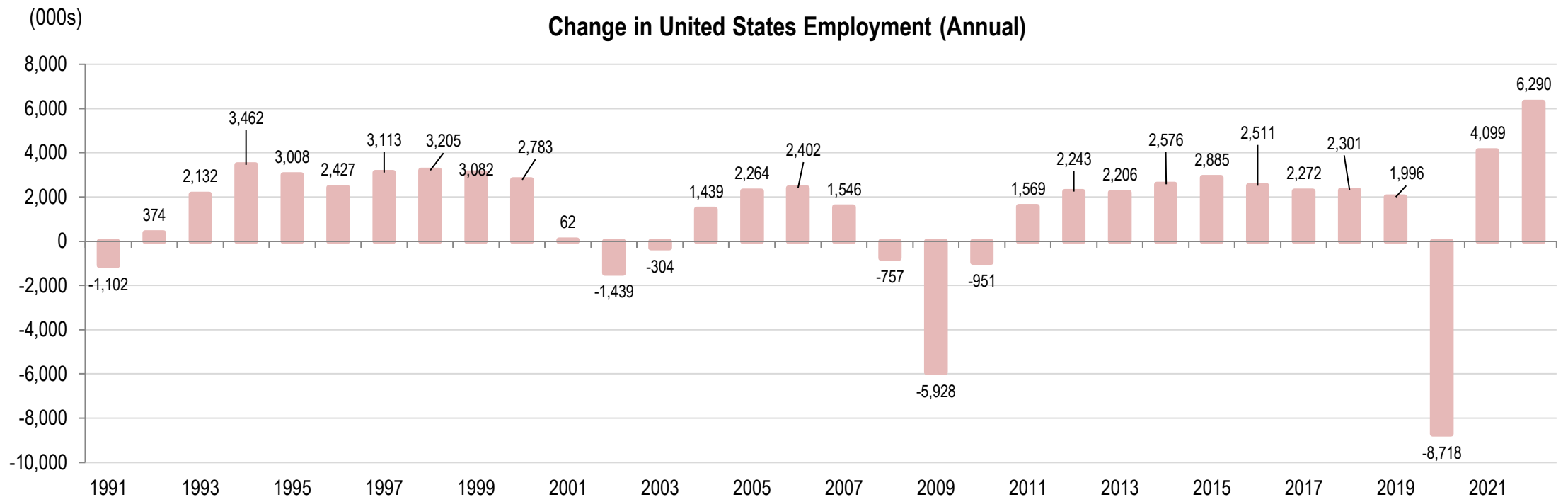
This has contributed to the low unemployment rate and a shortage of workers in Colorado.

U.S. and Colorado Employment and Unemployment

Change in Employment

United States

The 2022 average annual U.S. employment (NSA) was about 6.3 million more than in 2021. The YOY monthly level of change in employment (not shown) has trended downward since March 2022. Employment will increase at a slower pace during 2023.

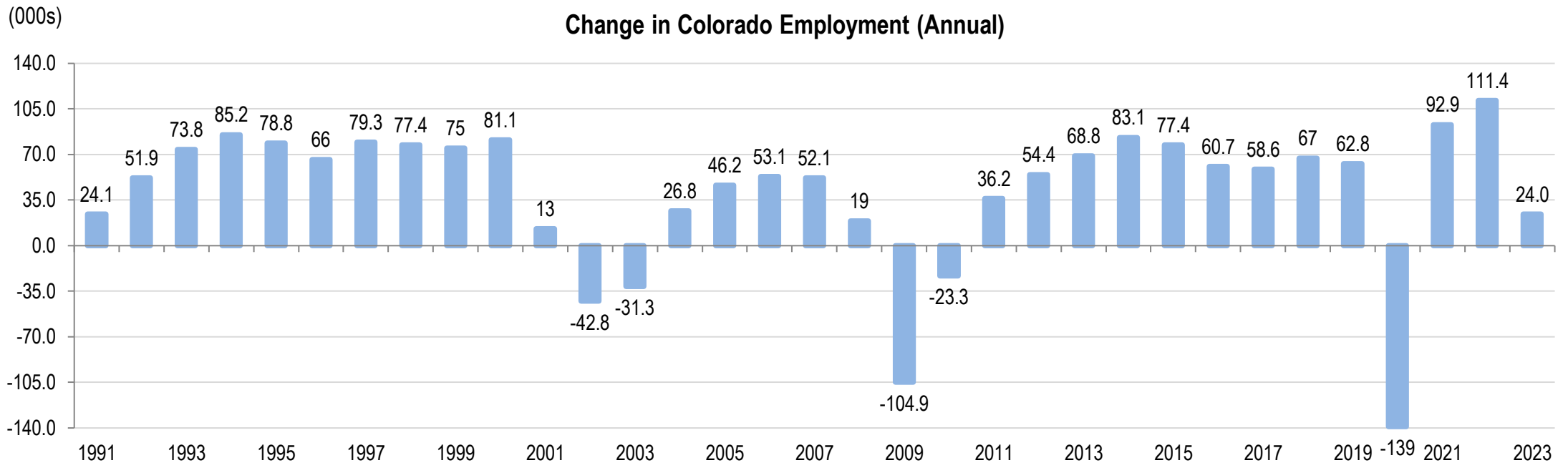


Source: Bureau of Labor Statistics, NSA cber.co.

Colorado-based Business and Economic Research <https://cber.co>

Change in Employment Colorado

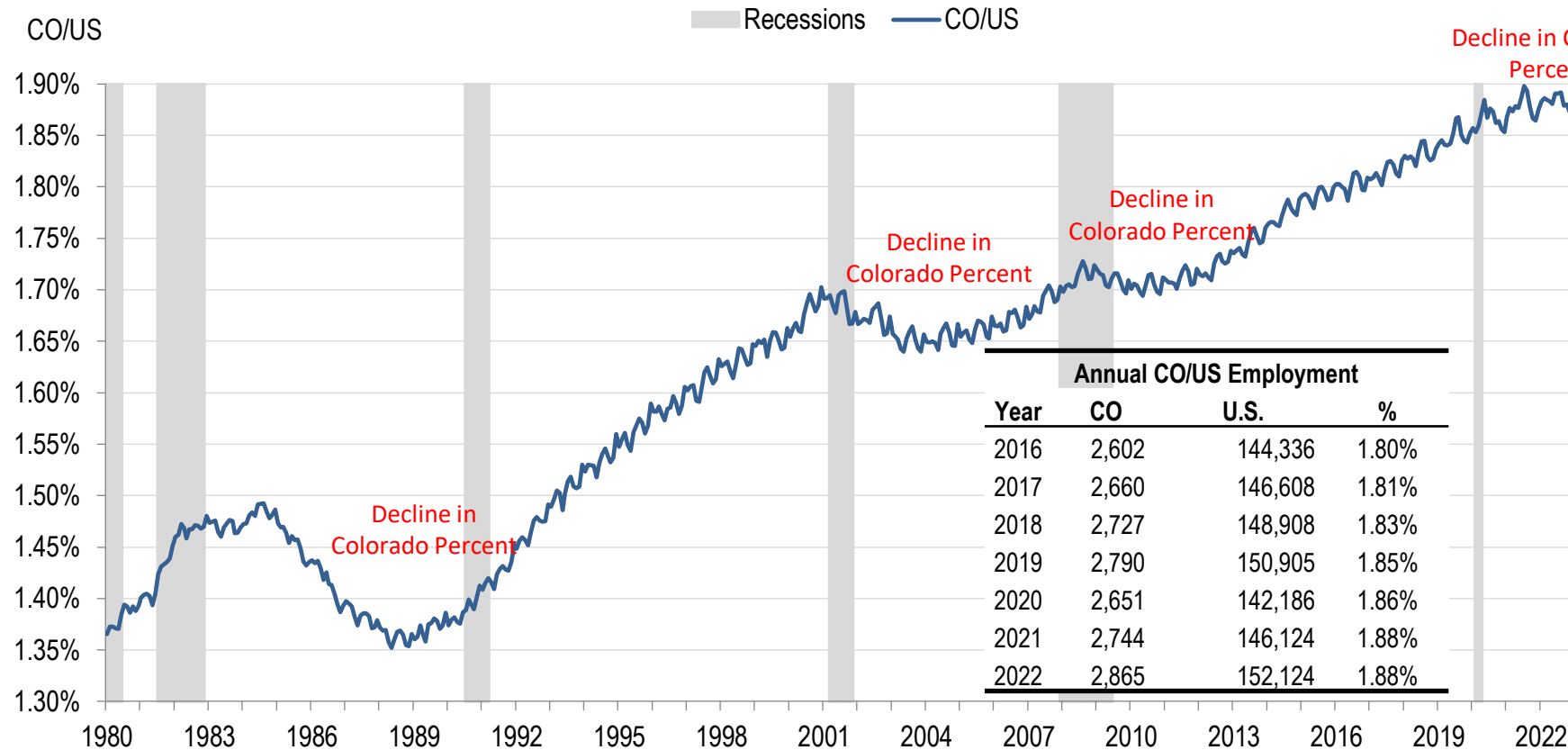
Despite strong headwinds, job growth exceeded expectations in 2022, and employment increased by 111,400. Most sectors have recovered from the effects of the COVID-19 policies and will expand at their pre-pandemic rates. Inflation and higher interest rates will cause weaker growth. As shown in the chart, weak job growth has happened before. Between 2001 and 2010 (The Lost Decade), the net gain in employment was 7,900.



Source: Bureau of Labor Statistics, NSA, cber.co.

Colorado Employment as a Percent of U.S. Employment

Colorado Employment as a Percent of U.S. Employment



Colorado/U.S. Employment
 Colorado's share of U.S. employment declined during the regional recession of the 1980s.

It took almost a decade to return to the previous peak. Similarly, Colorado's share of U.S. employment decreased after the 2001 recession and the Global Financial Crisis of 2008.

In both cases, the return to the previous peak took several years.

Source: BLS, cber.co.

Major Front Range County Employment

Recovery from COVID-19 Policies

Major Front Range County Employment

County	% Change	Change In Jobs	Return to 2019 Employment	June 2022 Employment
El Paso County	5.2%	14,824	Oct-20	298,194
Douglas County	9.0%	11,730	Nov-20	142,555
Adams County	6.0%	13,507	May-21	239,355
Boulder County	3.6%	6,812	Jun-21	195,264
Larimer County	4.7%	7,825	Jun-21	173,641
Broomfield County	5.5%	2,246	Jul-21	42,732
Denver County	4.9%	25,991	Aug-21	555,074
Arapahoe County	1.3%	4,305	Oct-21	339,138
Jefferson County	1.5%	3,626	May-22	246,706
Weld County	-1.7%	(1,946)	Not recovered	112,450
Colorado	3.7%	102,346	Jun-21	2,838,451

The above table uses QCEW County employment data to analyze employment change in the recovery from the COVID-19-related policies. The change is the difference between June 2022 employment (most current QCEW data) and the 2019 annual employment for ten metro counties. About 83% of the state's employment and 87% of the change in employment is in these ten counties.

Key Points

- El Paso and Douglas County returned to their 2019 employment level in the fall of 2020. Through July 2022, they have added about 26,000 jobs.
- Adams County passed its 2019 average in May 2021. In June 2021, Colorado, Boulder, and Larimer Counties returned to their 2019 employment levels.
- In July and August 2021, Broomfield and Denver returned to the 2019 level. Although Denver County was slower to recover, it has had above-average job growth.
- Arapahoe and Jefferson Counties were slow to recover. Both are home to significant metro centers.
- Finally, Weld County has not recovered. It has suffered from a drop in demand related to COVID-19 and state and federal regulatory policies.
- In 2023, the sources of job growth will be El Paso, Douglas, and Adams Counties.

Summary of Colorado Annual Sector Employment

2022 vs. 2021

NAICS Sector	2021	2022	2022 less 2021	Percent Change
Total Employment	2,750.9	2,862.3	111.4	4.05%
Healthcare	304.9	306.6	1.7	0.56%
Food and Accommodation (AFS)	255.4	282.2	26.8	10.49%
Professional, Scientific, and Technical Services	255.5	279.1	23.6	9.24%
Retail Trade	271.4	273.5	2.1	0.77%
Local Government	260.2	265.8	5.6	2.15%
Construction	177.5	182.8	5.3	2.99%
Financial Activities	178.2	180.3	2.1	1.18%
Administrative Services	154.9	159.2	4.3	2.78%
Manufacturing	149.2	153.3	4.1	2.75%
State Government	124.2	128.9	4.7	3.78%
Other Services (Personal)	117.8	123.2	5.4	4.58%
Wholesale Trade	110.2	115.2	5.0	4.54%
Transportation, Warehousing, and Utilities	104.9	112.1	7.2	6.86%
Information	76.2	78.6	2.4	3.15%
Arts, Entertainment, Recreation (AER)	50.3	56.4	6.1	12.13%
Federal Government	54.2	53.3	-0.9	-1.66%
Management of Corporations and Enterprises	43.4	45.8	2.4	5.53%
Education (Private)	42.8	45.4	2.6	6.07%
Extractive Industries	19.8	20.8	1.0	5.05%

Source: BLS, cber.co.

Changes in Sector Employment for 2022

In 2022, job growth was broad-based.

All sectors added jobs except the federal government. AFS and PST were leaders in absolute and relative job growth.

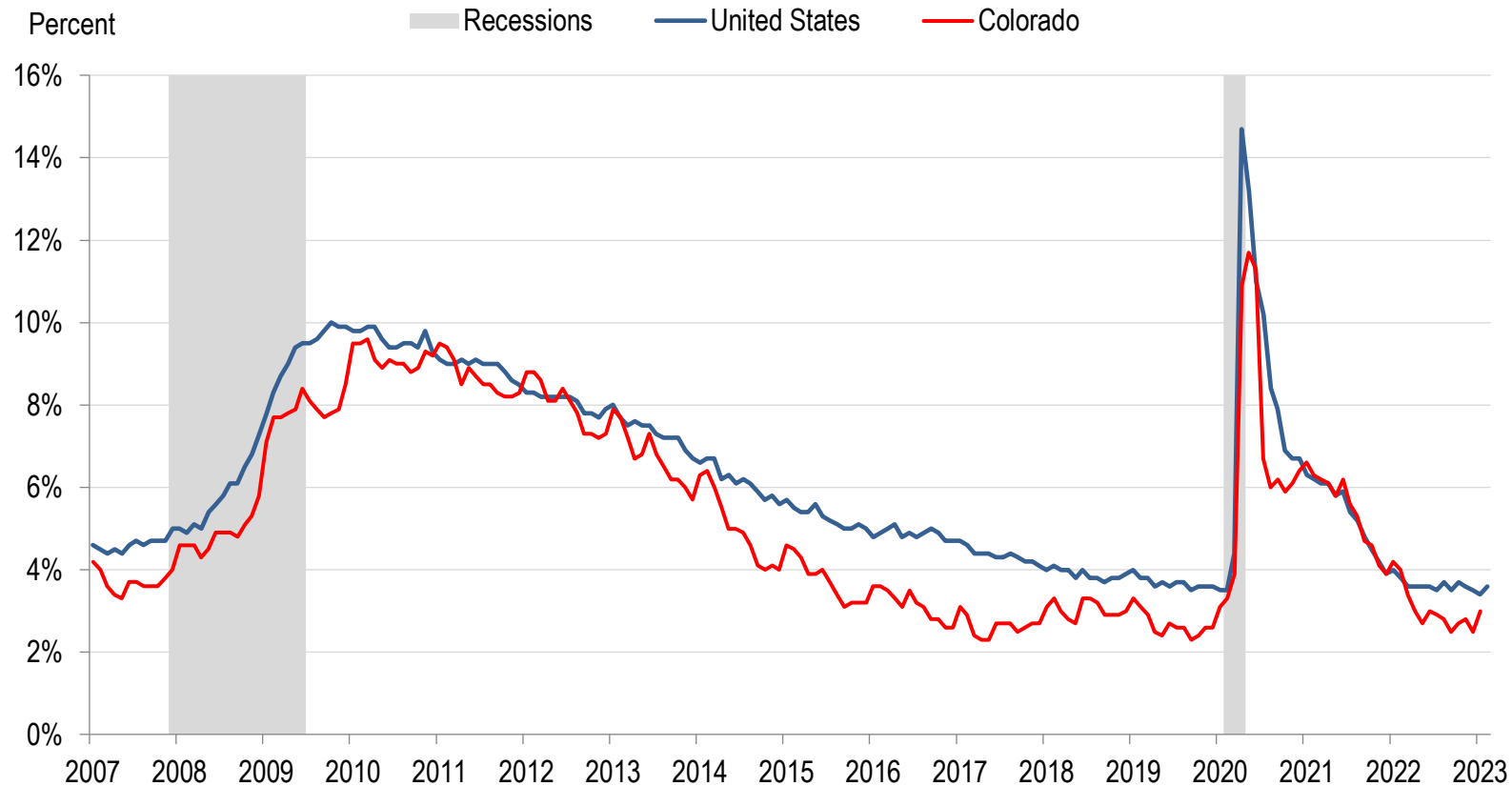
Healthcare and retail trade are two large sectors that posted weak job gains.

A portion of the 2022 growth in some sectors was a result of delayed recoveries from COVID-19 related policies. This was the case in the AFS and AER sectors.

Unemployment Rate

United States and Colorado

U.S. and Colorado Unemployment



Source: BLS, SA, cber.co.

Unemployment Rate

The Colorado 2022 annual unemployment rate was 3.0%, and the U.S. rate was 3.6%. There will continue to be a shortage of workers in some occupations despite the low unemployment rate and the slowdown in employment. Note: Colorado employment was revised downward in the benchmark revisions.

Annual Unemployment Rate

Year	United States	Colorado
2016	4.9%	3.1%
2017	4.4%	2.6%
2018	3.9%	3.0%
2019	3.7%	2.7%
2020	8.1%	6.8%
2021	5.3%	5.4%
2022	3.6%	3.0%

Confidence, Consumption, and Wealth Effect

Confidence, Consumption, Savings, Credit, and The Wealth Effect

The Michigan Consumer Sentiment Index shows that consumers lost their appetite for spending about 8 months ago. Consumption patterns have told a different story.

Consumers have supported their spending by increasing their credit and dipping into their savings accounts.

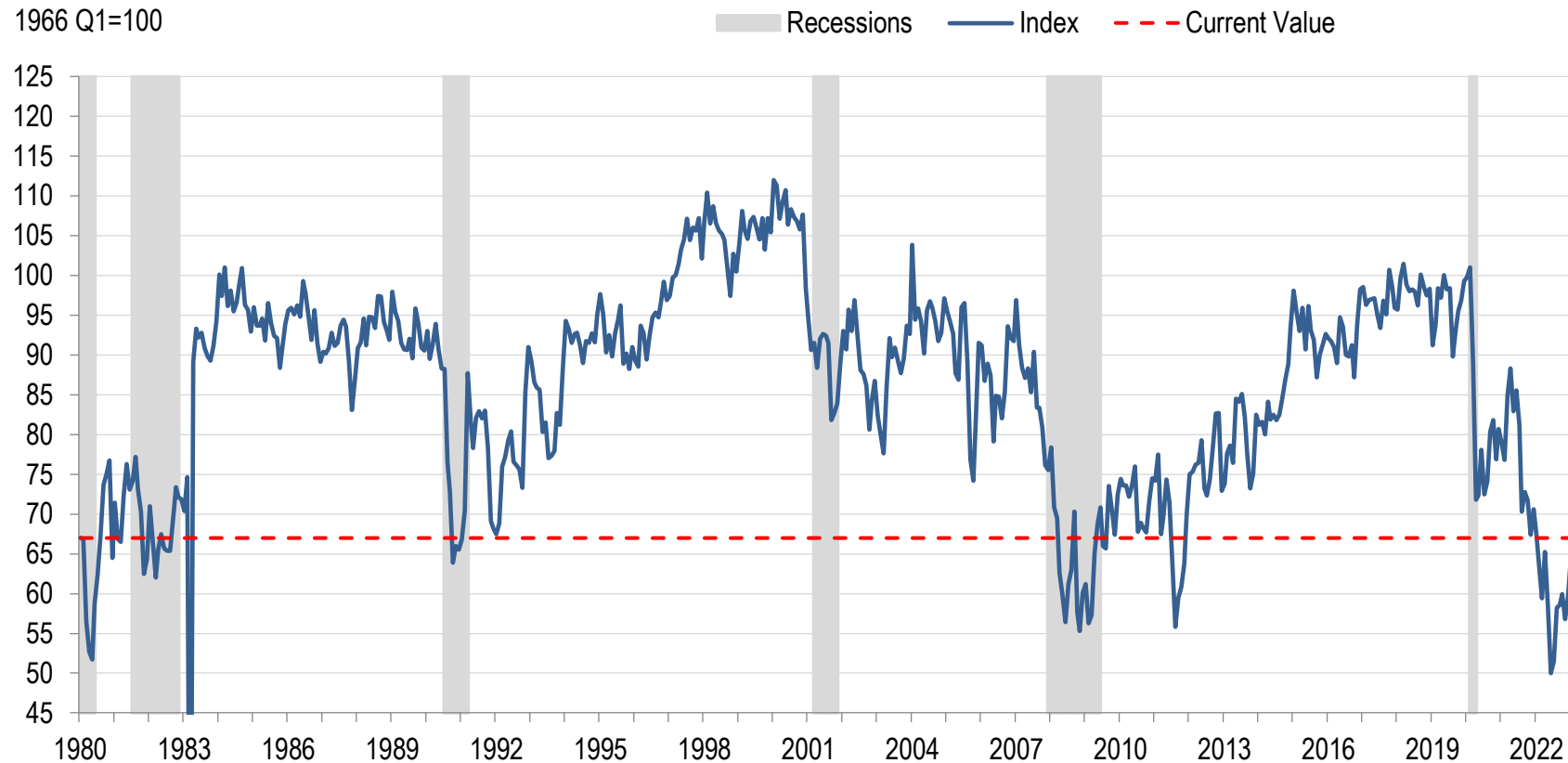
The wealth effect for many consumers took a hit in 2022. Their lack of confidence in the economy affected some consumption decisions.

The equities market was volatile and down most of the year. The value of U.S. and Denver housing prices declined sharply in 2022.

Consumer Sentiment Index

University of Michigan

Michigan Consumer Sentiment Index



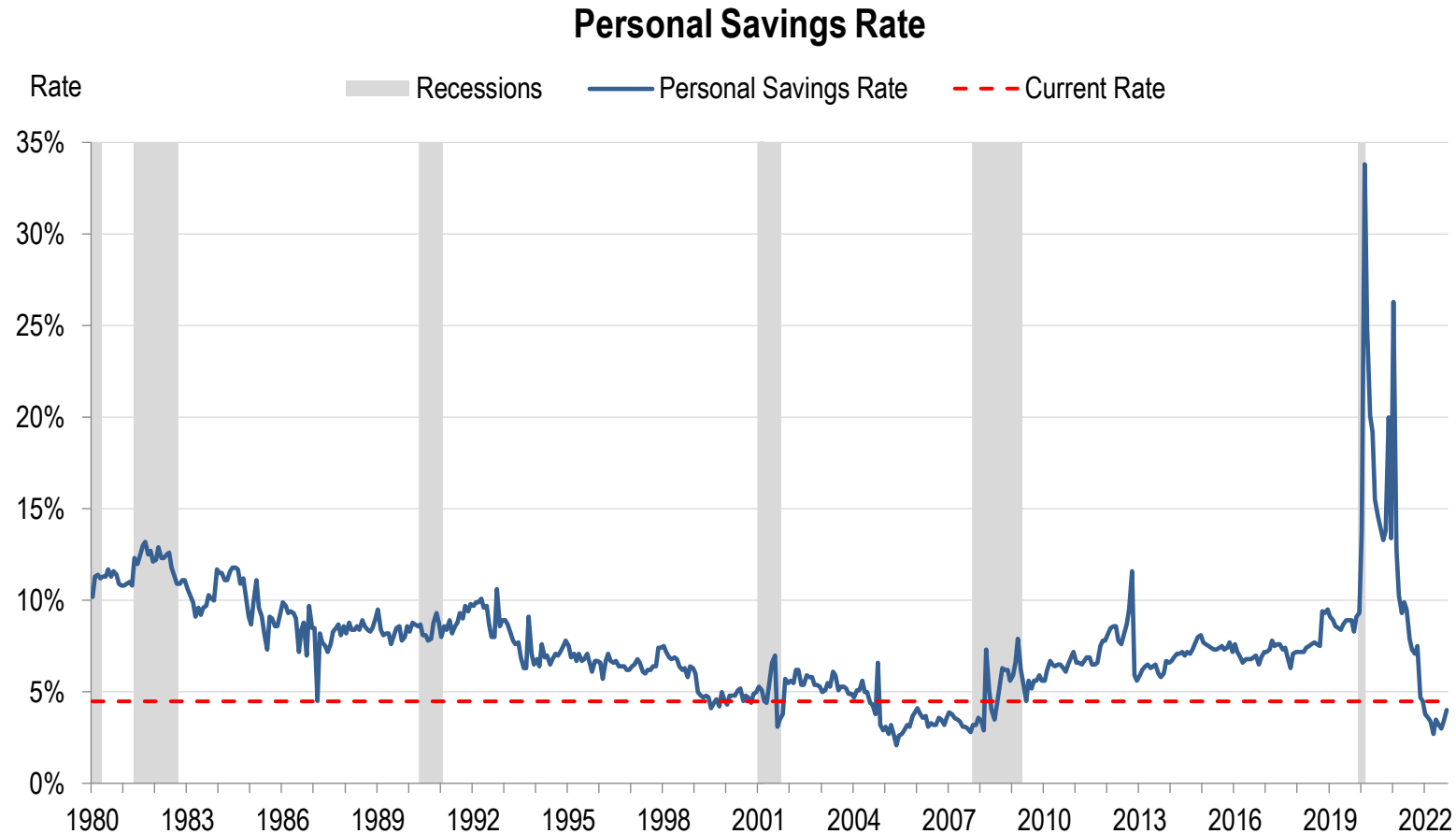
Consumer sentiment does not always align with consumer spending patterns. For example, recent consumer sentiment has been at record low levels, but overall personal consumption has been strong. Retailers have noted that consumers are still spending, but their shopping patterns are changing.

The severe decline in the Consumer Sentiment Index started in July 2021, driven lower by elevated inflation. In June 2022, the index bottomed out, but it has recently risen slightly.

Source: University of Michigan, cber.co.

U.S. Personal Savings Rate

Percentage of Disposable Personal Income



Source: BEA, FRED, cber.co.

Colorado-based Business and Economic Research <https://cber.co>

Personal Savings

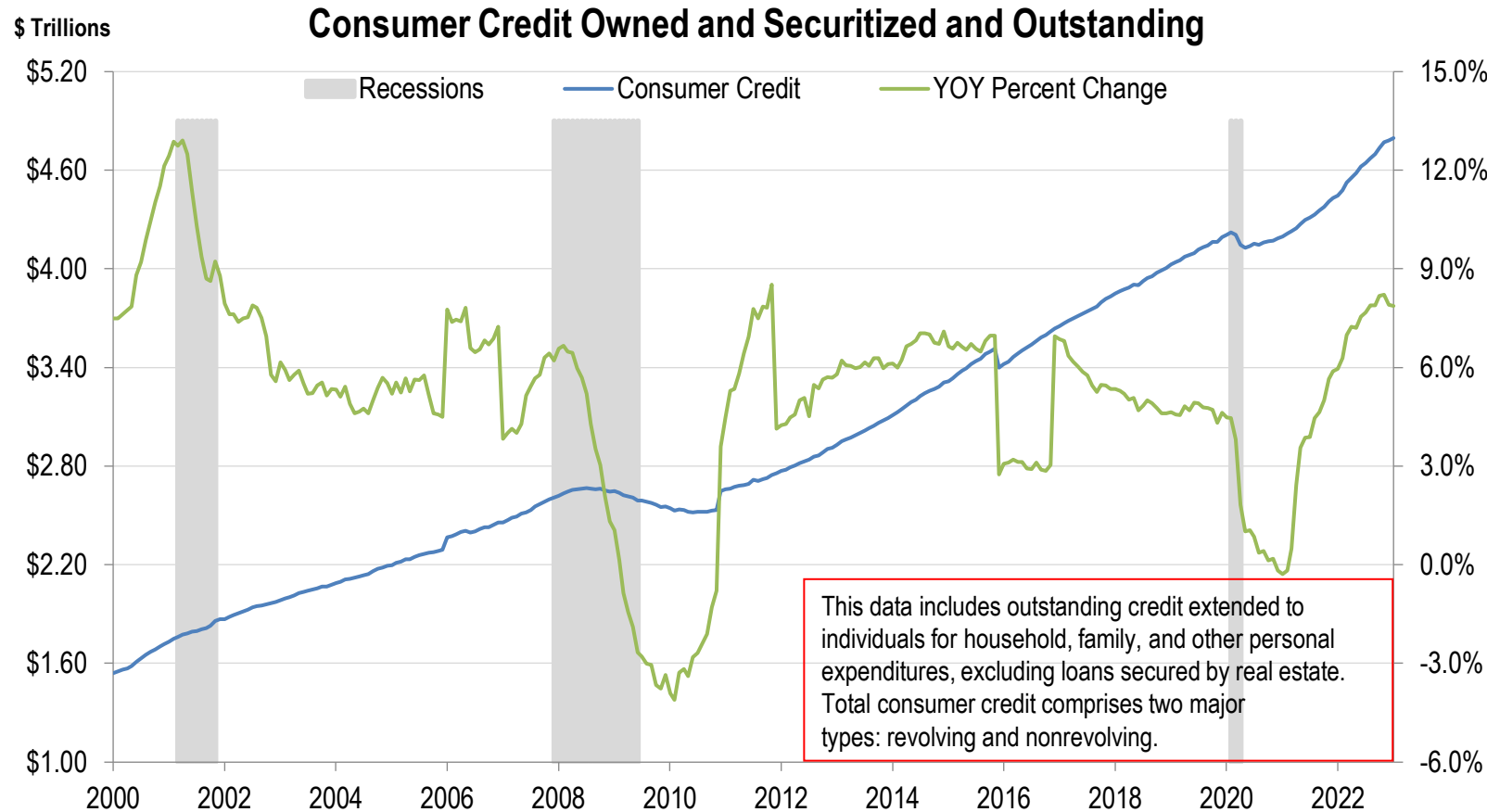
The personal savings rate jettisoned to 33.8% in the early stages of the pandemic. It fell to 13.0% in November 2020, then rose to 26.6% in 2021. In September 2022, the personal savings rate was 3.0%. By year-end, rates had increased to 4.5%, and savings were \$918.8 billion, down from \$6.4 trillion in April 2020.

Year End Personal Savings (Billions) and Rate

2017	\$948.5	6.3%
2018	\$1,511.9	9.4%
2019	\$1,381.3	8.3%
2020	\$2,402.8	13.8%
2021	\$1,372.3	7.5%

Source: BEA, cber.co

U.S. Consumer Credit Outstanding



Consumer Credit

From Q3 2008 to Q4 2010, consumers deleveraged and decreased the amount of outstanding consumer credit (including consumer defaults on loans). The amount of credit authorized increased in 2018 and 2019 and declined in 2020 as consumers reduced expenditures and paid off debt during the pandemic (blue). In January 2022, the YOY rate of consumer debt increased by 6.0% (green). In December 2022, debt increased by 7.9%.

Outstanding Credit (Billions) and Percent Change

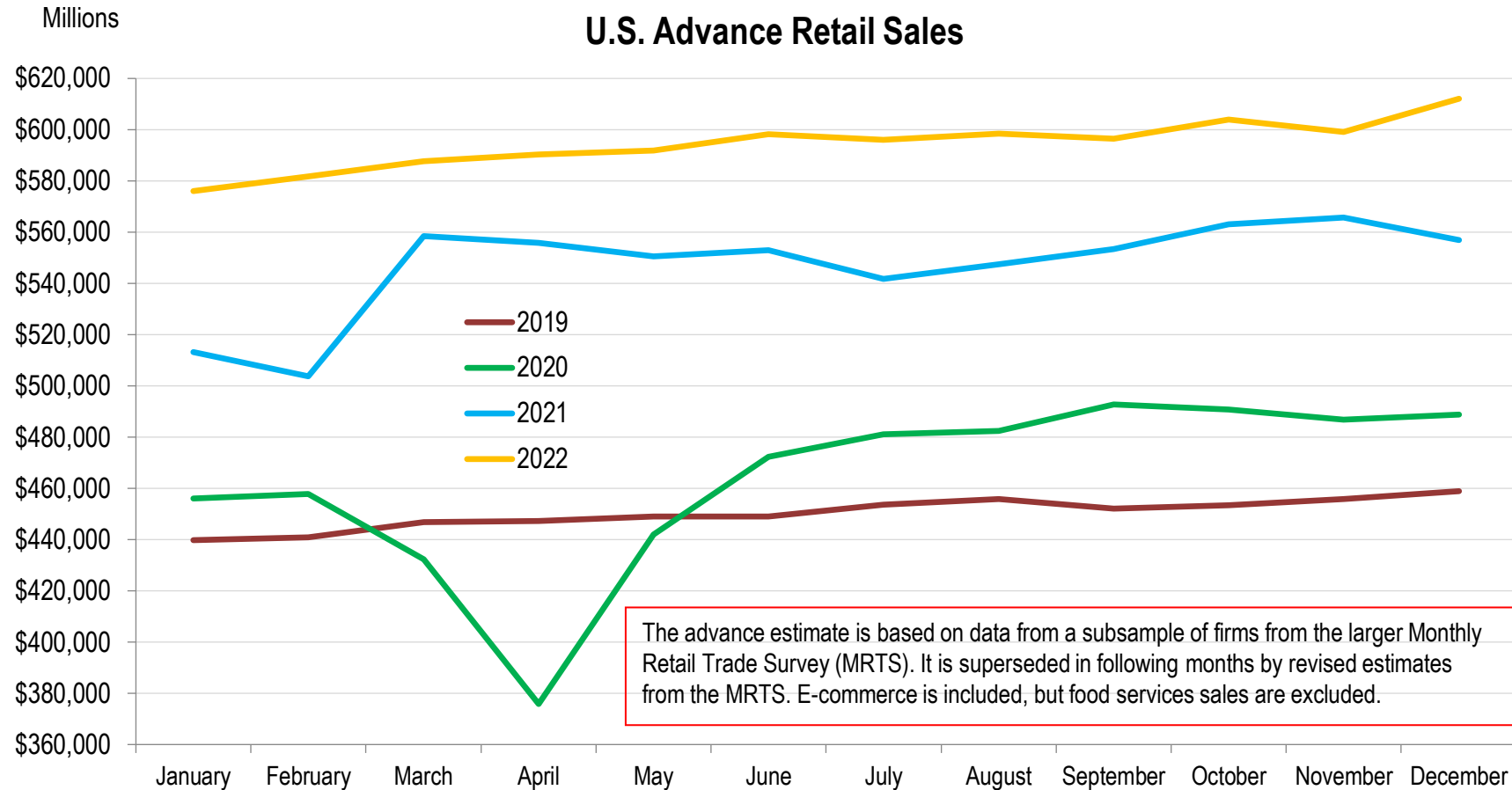
2017	\$3,830.8	5.3%
2018	\$4,007.0	4.5%
2019	\$4,192.2	4.6%
2020	\$4,184.9	-0.3%
2021	\$4,431.9	5.9%
2022	\$4,780.8	7.9%

Source: FRED, G-19, cber.co

Source: FRED, Federal Reserve, G.19, SA.

U.S. Advance Retail Sales

Monthly

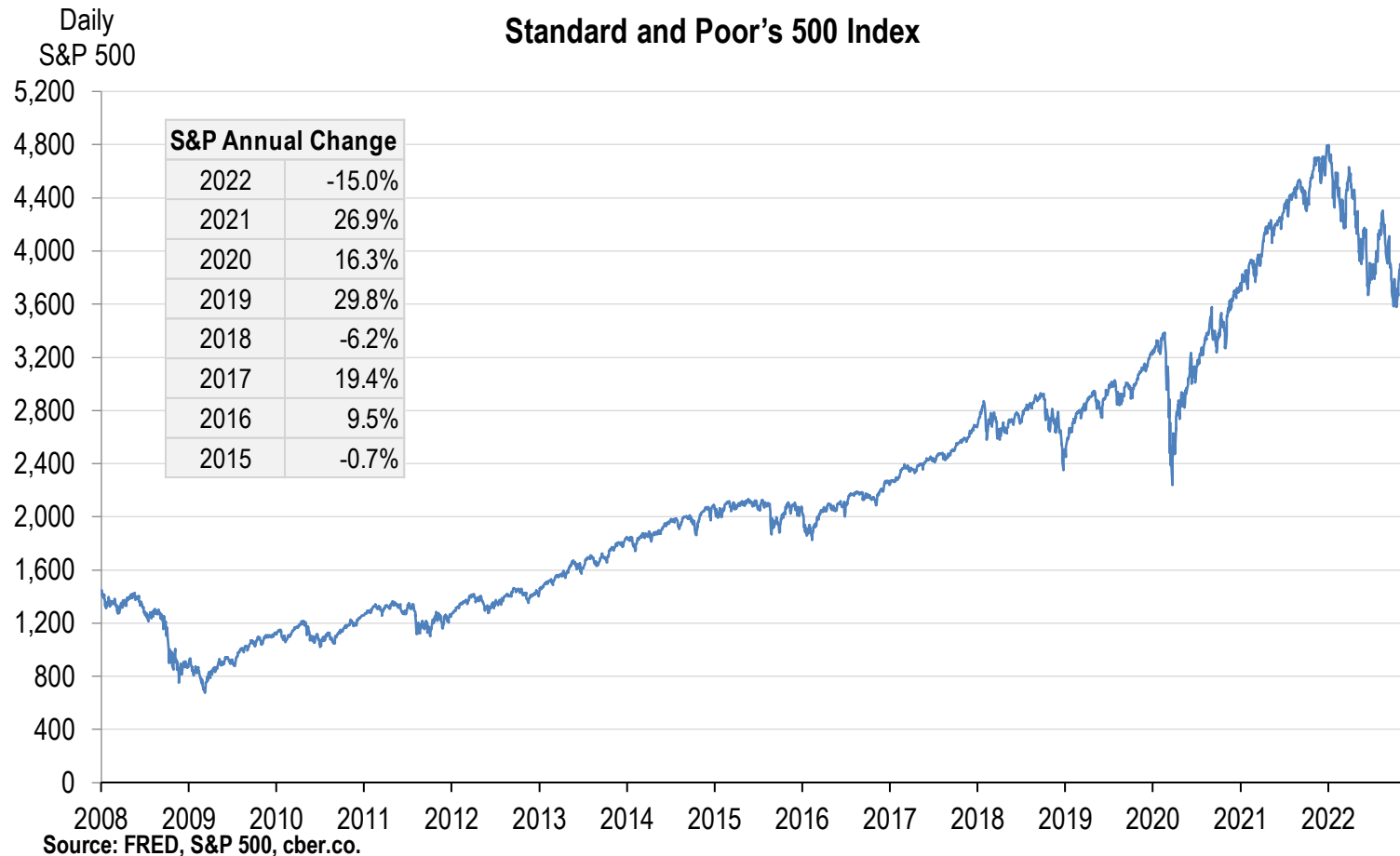


Advance Retail Sales
 Advance retail sales for 2022 (yellow) were 8.7% greater than in 2021 (blue), and holiday sales growth (November and December) was 7.9% greater than the prior year.

Annual Retail Sales (Trillions)		
2017	\$5.05	4.4%
2018	\$5.26	4.2%
2019	\$5.40	2.7%
2020	\$5.56	2.9%
2021	\$6.56	18.0%
2022	\$7.10	8.7%

Source: Census, cber.co

Standard and Poor's 500 Index



COVID-19 Policies Bear Market - 2020

After reaching 3,386 on February 19, 2020, the S&P 500 slipped to 2,237 on March 23, 2020, a loss of 34% or 1,148 points. On August 18, 2020, the S&P returned to 3,386. The bear market of 2020 was short-lived (149 days).

Year-End 2021

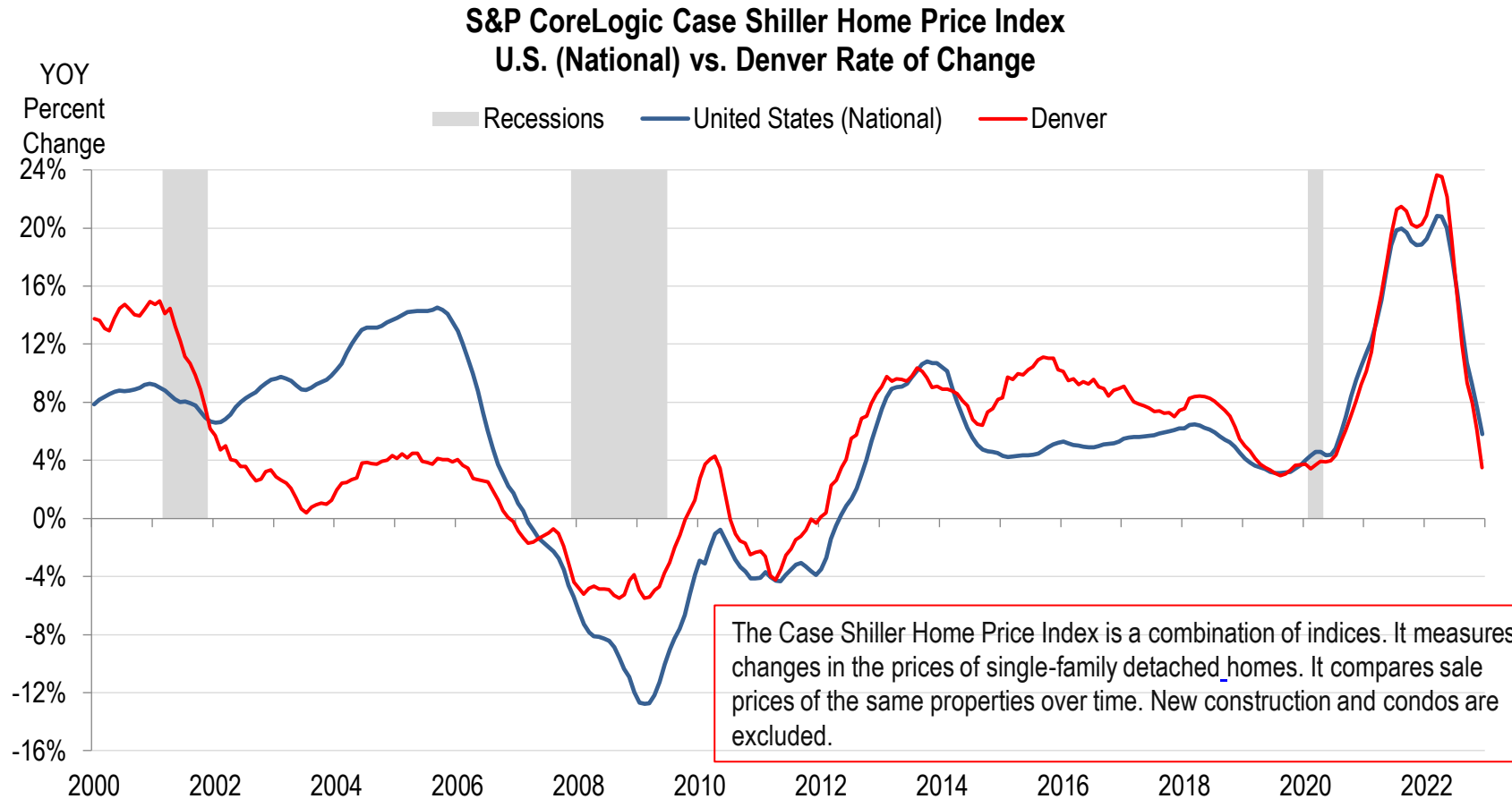
For most of 2021, the S&P index increased at a steady rate. On December 31, it was 4,766 or 26.9% greater than the December 2020 closing value.

YTD Change - 2022 Bear Market

On July 16, 2022, the S&P 500 closed at 3,667, a change of -23.1%, or 1,099 points off the 2021 year-end value. The S&P value on December 31, 2022, posted a change of -15.0% from the closing value for 2021. The 2022 closing value was 3,839.5.

Case Shiller Home Price Index

YOY National vs. Denver Rate of Change



S&P CoreLogic Case Shiller

In 2019, the housing market favored buyers, and the U.S. YOY appreciation rate was about 4.0%.

In the summer of 2020, the market began to favor sellers. In August 2021, YOY appreciation peaked above twenty percent.

In December 2022, the YOY appreciation for the U.S. was 5.8% (blue) and 3.5% (red) for Denver. The level of appreciation for the U.S. and Denver will continue to decelerate as the interest rate hikes continue.

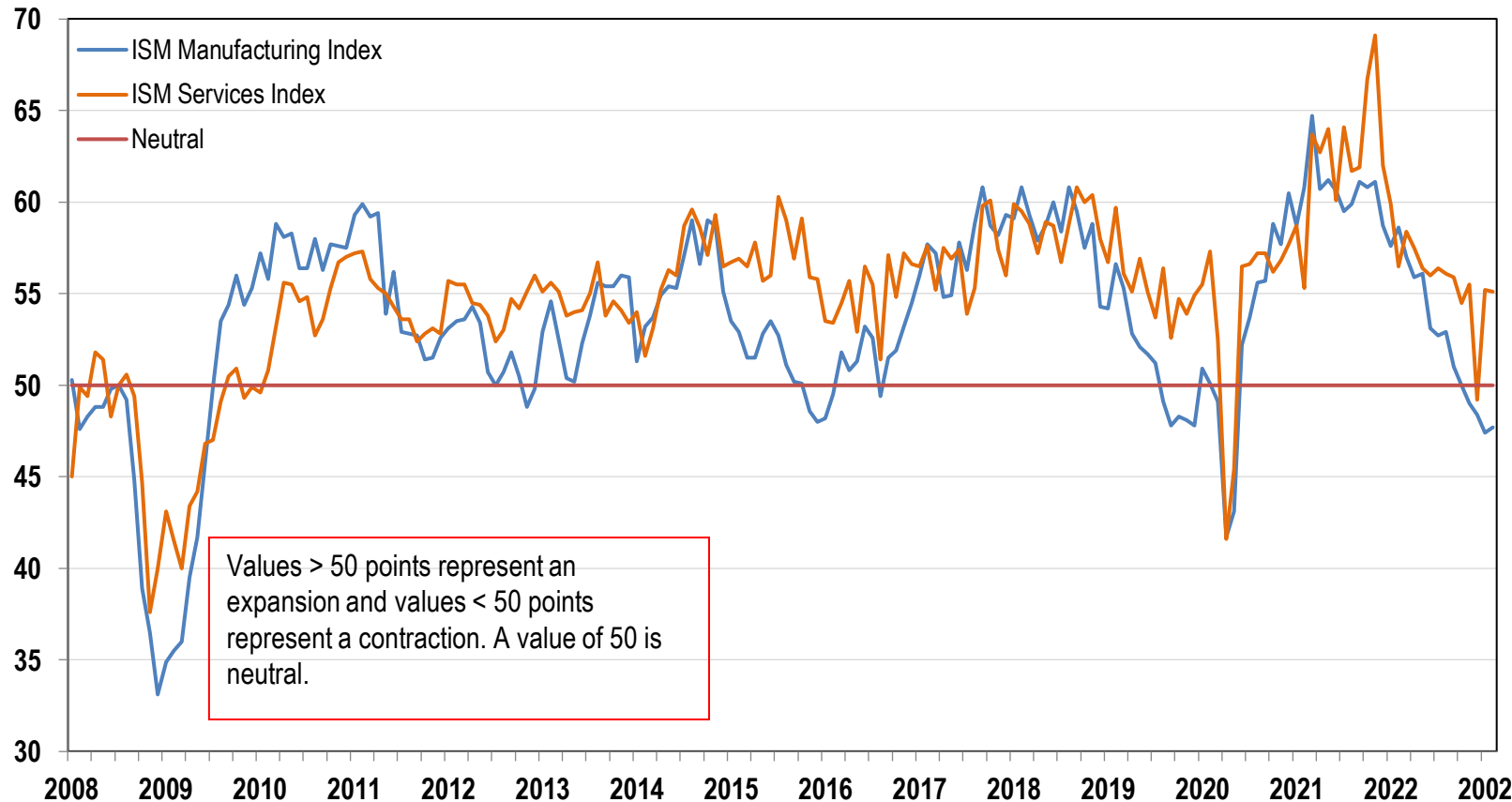
Source: S&P Case Shiller, cber.co.

U.S. Industry Indicators

ISM Purchasing Managers Composite Indices

Manufacturing vs. Services

ISM Manufacturing PMI vs. Services PMI Composite Indices



Values > 50 points represent an expansion and values < 50 points represent a contraction. A value of 50 is neutral.

Manufacturing and Services PMI

The ISM manufacturing index (blue) trended downward after peaking at 64.7 in March 2021. It dropped below 50 and has been there for four months.

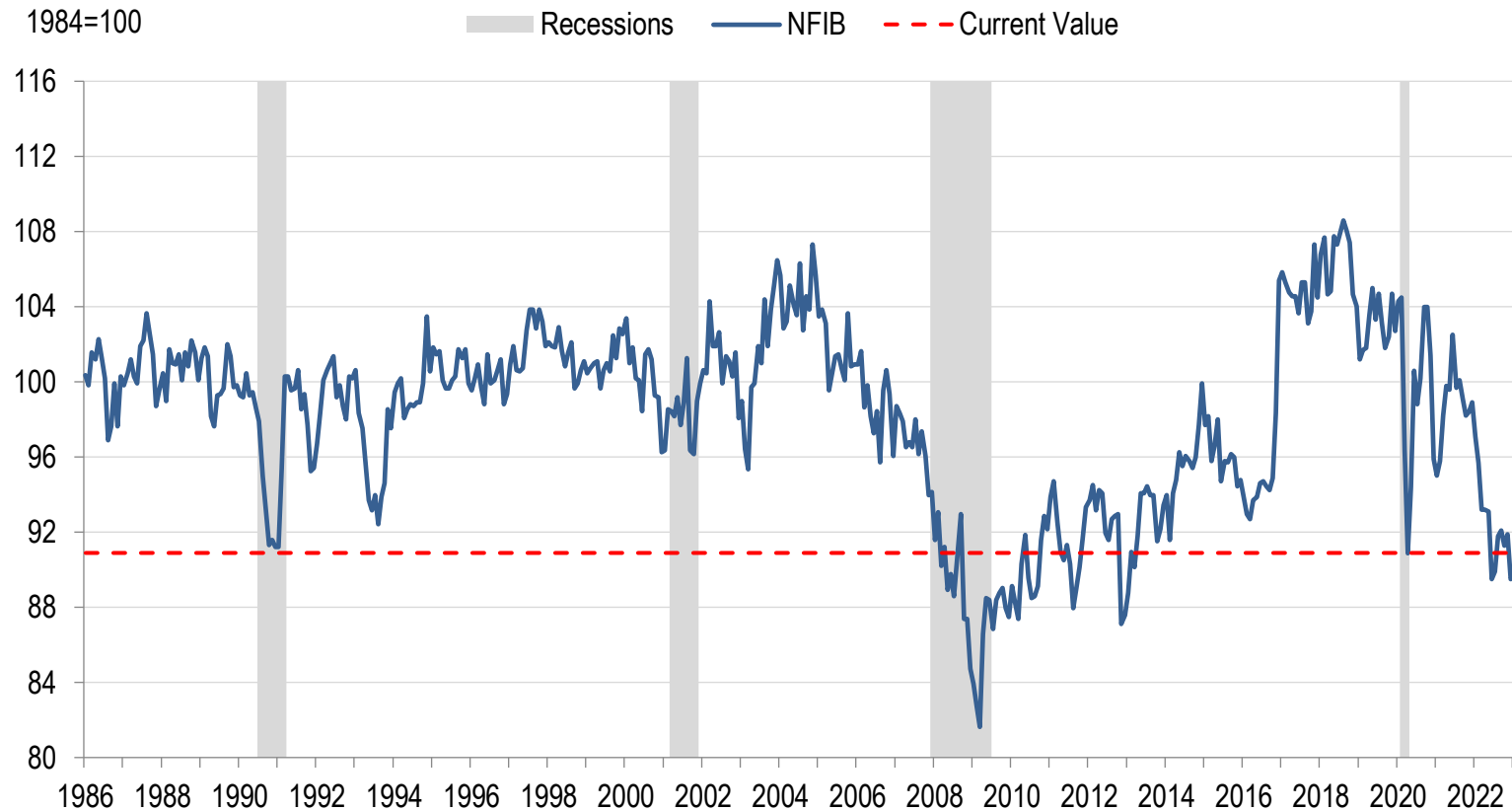
The service index has trended downward since November 2021. It fell below 50 in December 2022 but returned to expansionary territory in January 2023.

Source: Institute of Supply Management, cber.co

NFIB Small Business Optimism Index

United States

NFIB Small Business Optimism Index



NFIB Small Business Index

In December, the NFIB index was 89.8, well below the 49-year average, of 98.0, for the 14th consecutive month.

The major concerns for small businesses are the ongoing labor shortage and inflation.

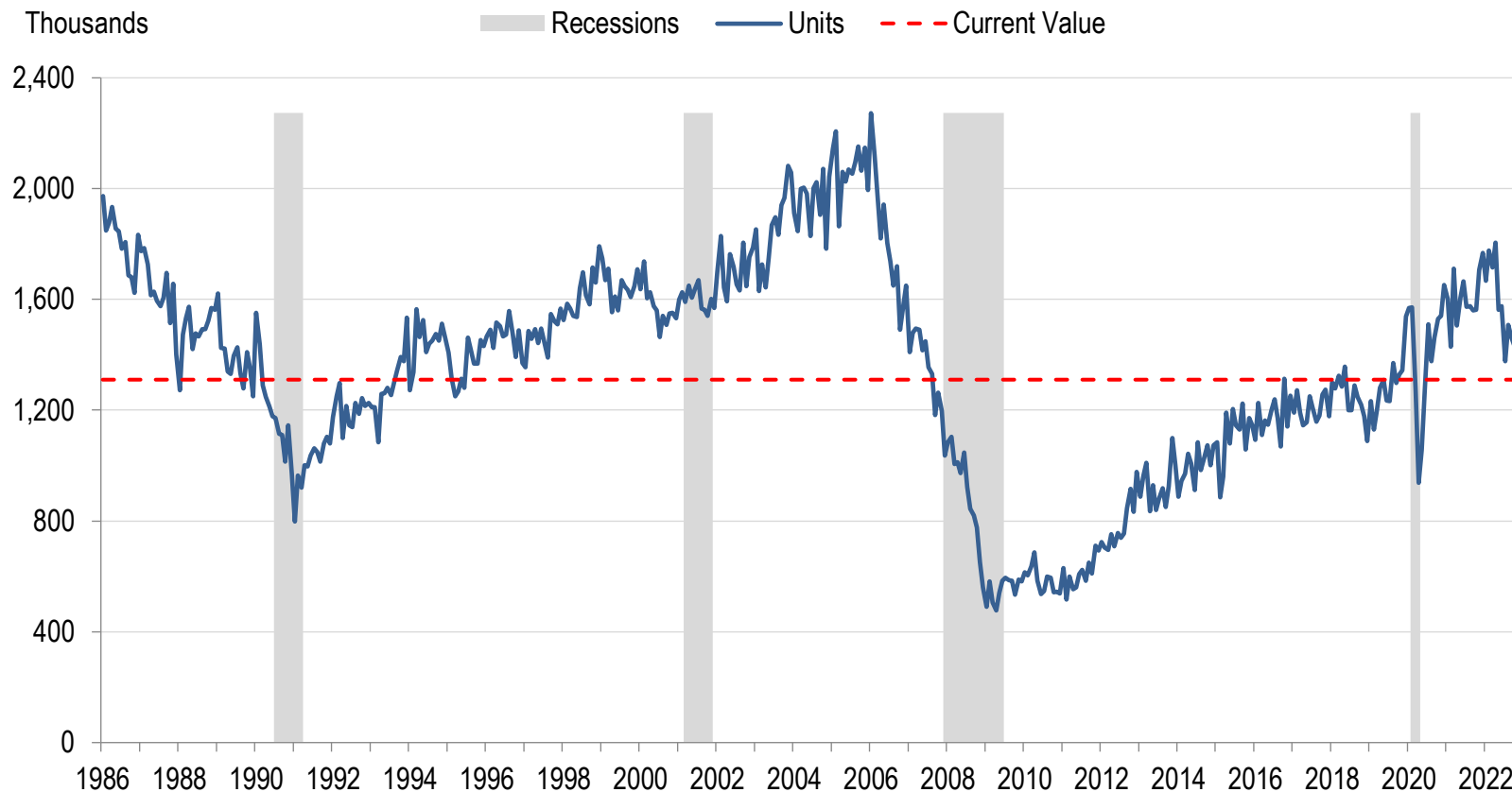
The NFIB monthly SBET report is recommended reading for small business owners and is available online at <https://www.nfib.com/>.

Source: NFIB, cber.co.

New Privately-Owned Housing Units Started

United States

New Privately Owned Housing Units Started



Source: NFIB, cber.co.

New Privately Owned Housing Units Started

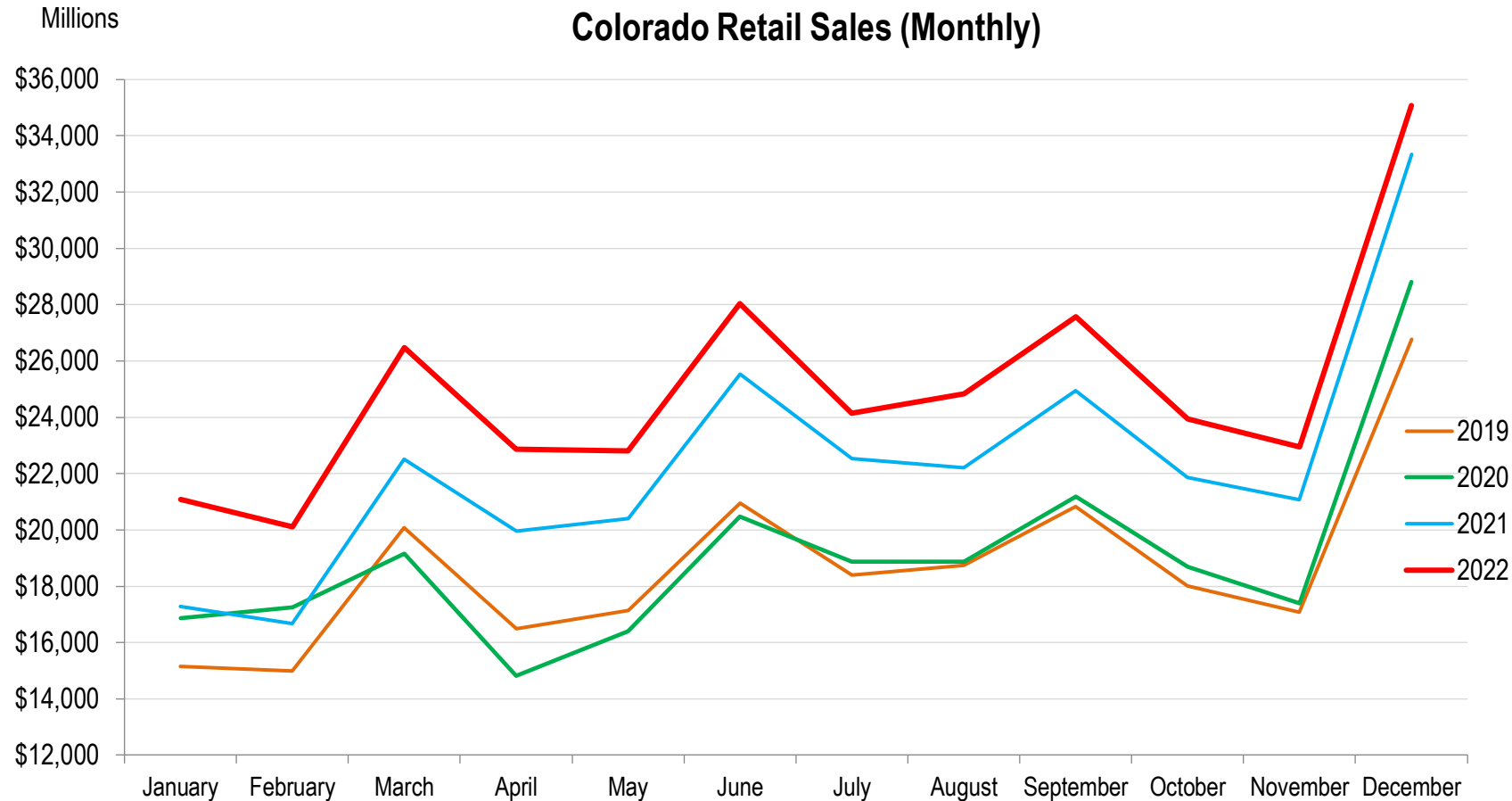
The number of housing starts has trended downward since April 2022. The current number of starts is similar to January 2018.

The decline has been caused by the rapid increase in interest rates and other headwinds.

Colorado Industry Indicators

Colorado Retail Sales

Monthly



Colorado Retail Sales
Retail sales for 2022 (red) were 11.8% greater than in 2021 (turquoise). Sales increased at a decelerating rate starting in April. Consumers have begun changing their shopping patterns.

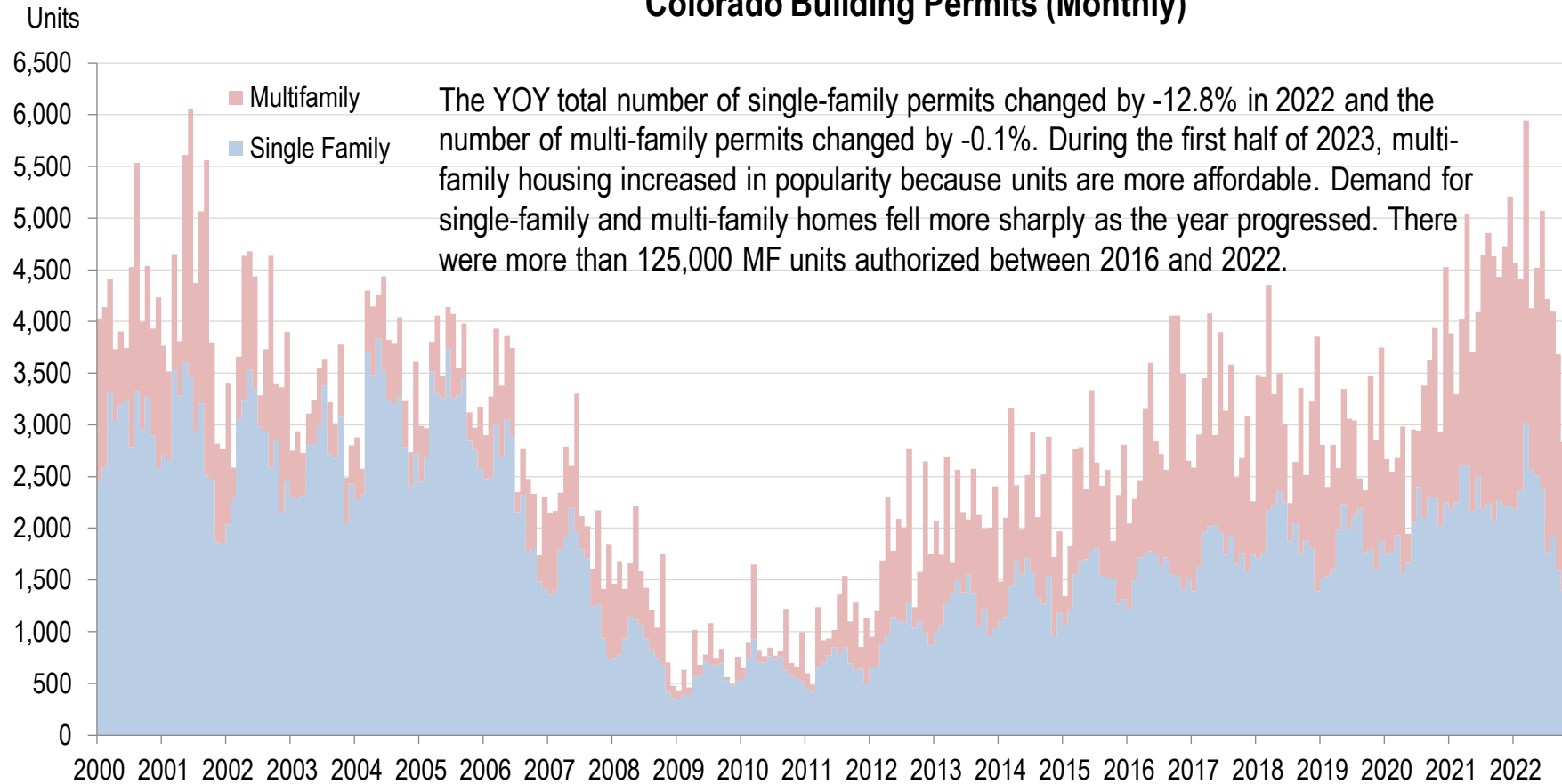
Annual Retail Sales (Billions)		
2017	\$194.6	5.4%
2018	\$206.2	5.9%
2019	\$224.6	9.0%
2020	\$228.8	1.9%
2021	\$268.3	17.3%
2022	\$299.9	11.8%

Source: Colorado Department of Revenue, <https://cdor.colorado.gov/retail-sales-reports>, cber.co. Note: Not adjusted for inflation.
Colorado-based Business and Economic Research <https://cber.co>

Colorado Residential Building Permits

Units

Colorado Building Permits (Monthly)

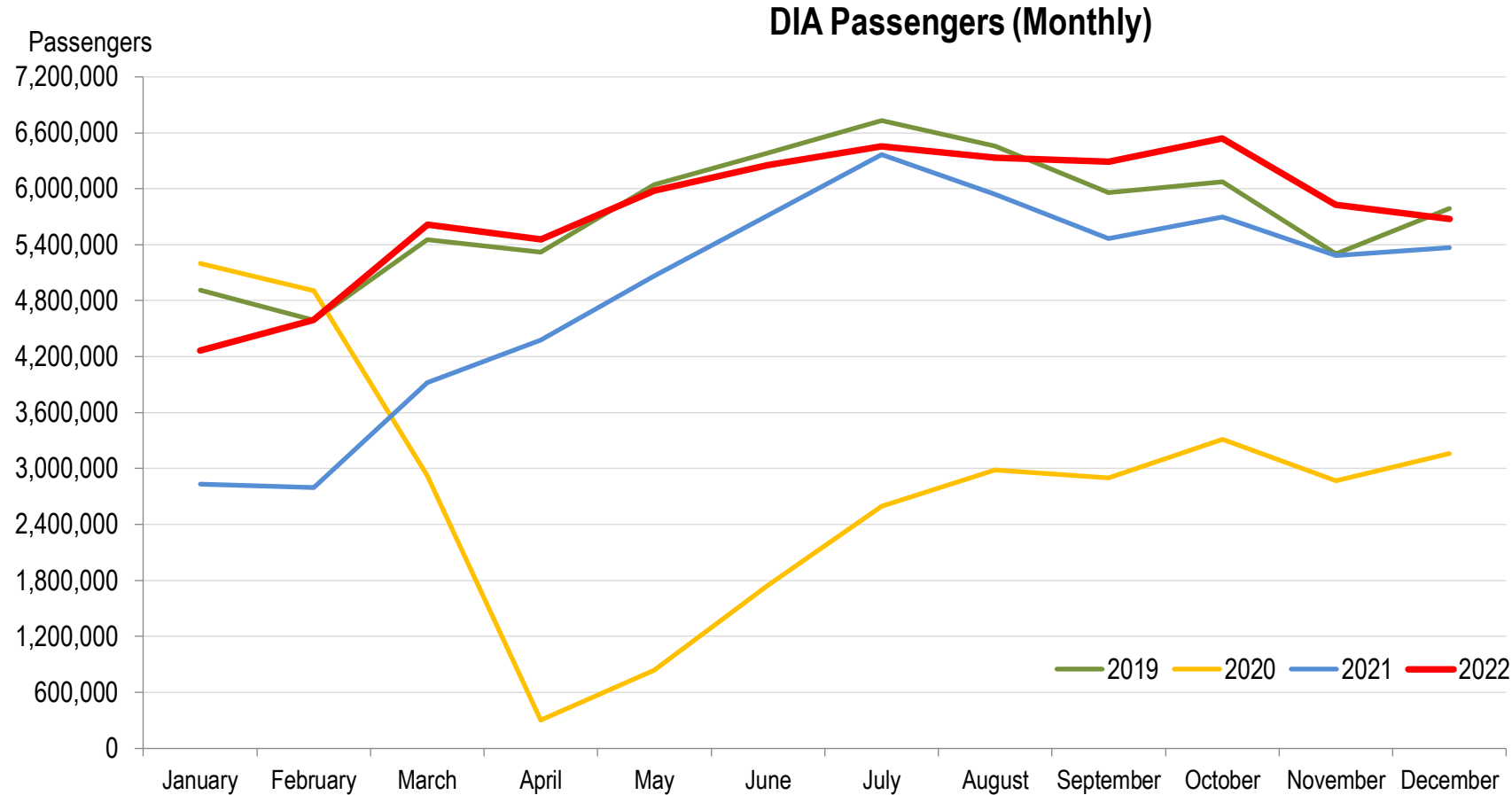


Year	Single Family	Multi-Family
2000	38,588	16,008
2001	36,437	18,570
2002	35,042	12,878
2003	33,894	5,732
2004	40,753	5,746
2005	40,018	5,732
2006	30,365	7,978
2007	20,516	8,938
2008	11,147	7,851
2009	7,261	2,094
2010	8,790	2,801
2011	8,729	4,779
2012	12,618	10,684
2013	15,773	11,745
2014	17,100	11,591
2015	20,025	11,846
2016	21,577	17,397
2017	24,338	16,335
2018	26,134	16,493
2019	24,756	13,877
2020	26,636	13,833
2021	30,246	26,278

Source: TAMU Real Estate Center, U.S. Census Bureau, cber.co.

Denver International Airport Passengers

Monthly



DIA Passengers

The number of DIA passengers during 2022 (red) was slightly above the YTD total for 2019 (green) but significantly above the YTD total for 2021 (blue). The 2022 peak was 6.5 million passengers in October.

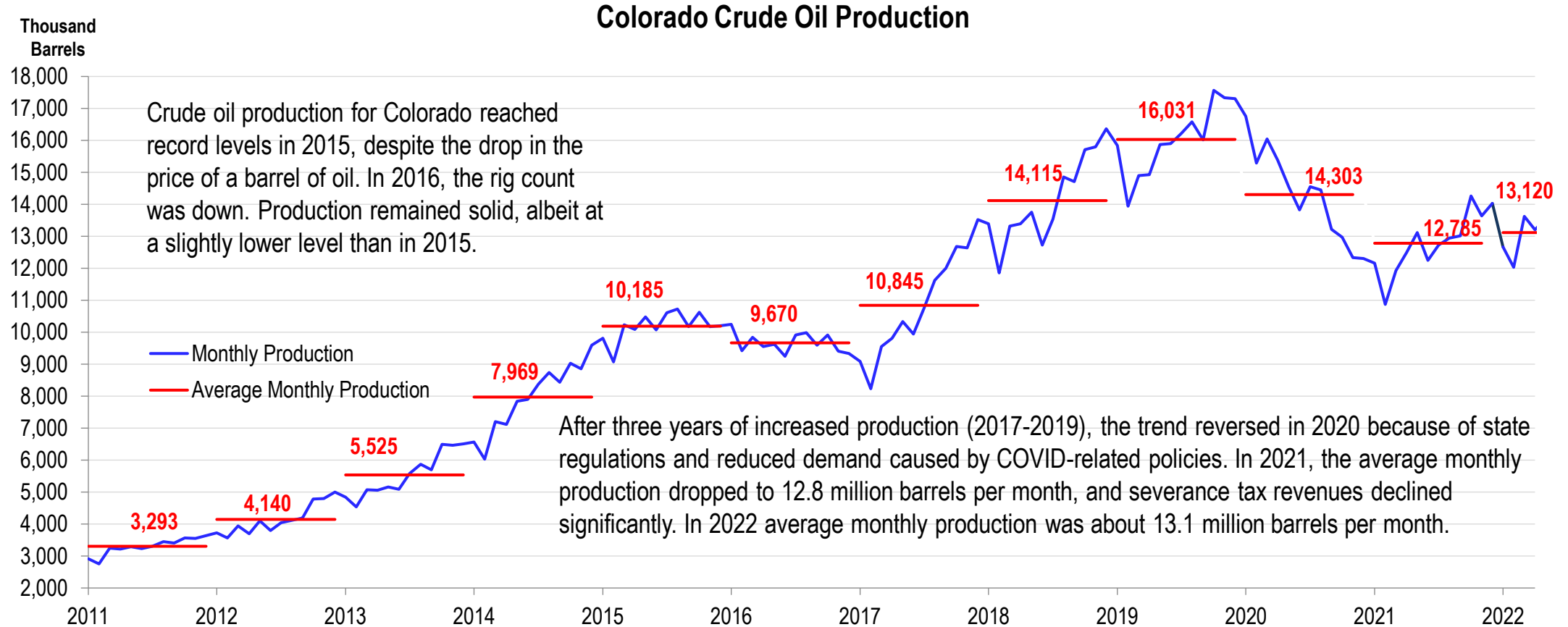
In addition, the Colorado Springs airport saw 2.1 million passengers in 2022.

Year	Passengers	% Change
2022	69,286,461	17.8%
2021	58,828,552	74.4%
2020	33,741,129	-51.3%
2019	69,015,703	7.0%
2018	64,494,613	5.1%
2017	61,379,396	5.3%
2016	58,266,515	7.9%

Source: flydenver.com, cber.co.

Colorado Field Production of Crude Oil

2011 to 2022 (Thousand Barrels)



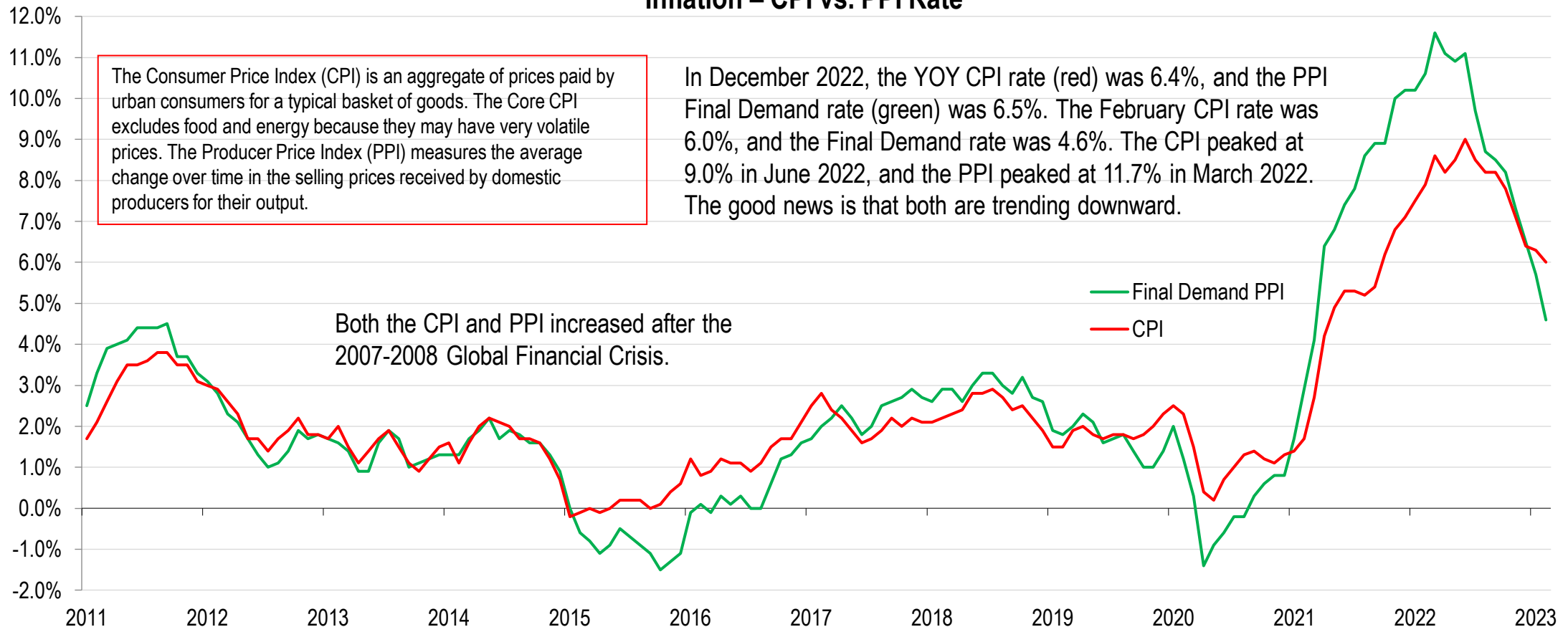
Source: EIA, cber.co.

Inflation

U.S. Inflation

CPI vs. Producer Price Index (Final Demand)

Inflation – CPI vs. PPI Rate

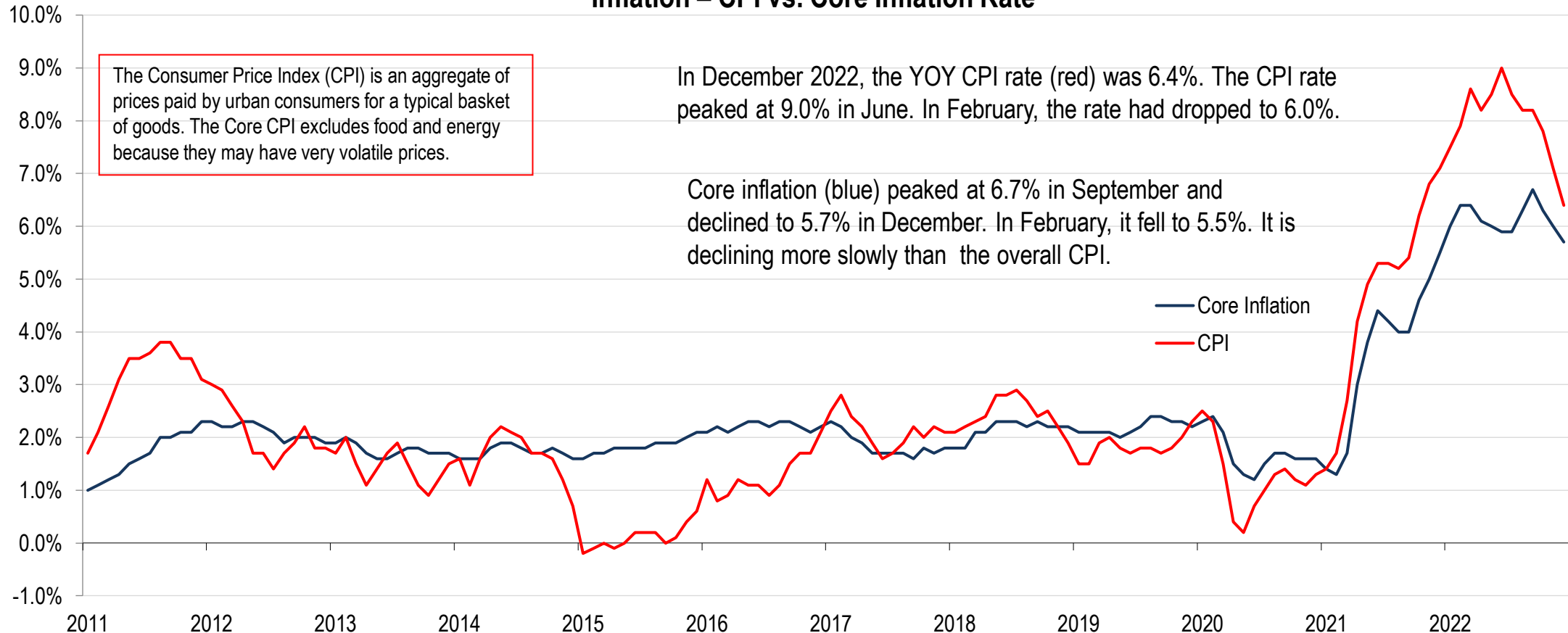


Source: Bureau of Labor Statistics, PPI Commodity Data, Final Demand SA; CPI All Items City Average SA, cber.co.
 Colorado-based Business and Economic Research <https://cber.co>

U.S. Inflation

CPI vs. Core Inflation

Inflation – CPI vs. Core Inflation Rate



The Consumer Price Index (CPI) is an aggregate of prices paid by urban consumers for a typical basket of goods. The Core CPI excludes food and energy because they may have very volatile prices.

In December 2022, the YOY CPI rate (red) was 6.4%. The CPI rate peaked at 9.0% in June. In February, the rate had dropped to 6.0%.

Core inflation (blue) peaked at 6.7% in September and declined to 5.7% in December. In February, it fell to 5.5%. It is declining more slowly than the overall CPI.

— Core Inflation
— CPI

Inflation

Denver-Aurora-Lakewood 2022

Consumer Purchasing Index for Denver-Aurora-Lakewood and the U.S.									
	Half 1	Half 2	Annual '22	Jan 2023		Half 1	Half 2	Annual '22	Jan 2023
Colorado CPI	8.6%	7.5%	8.0%	6.4%	Colorado Core CPI	7.4%	6.8%	7.1%	5.9%
Alcoholic Beverages	4.2%	6.8%	5.5%	7.5%	Housing	6.9%	8.4%	7.6%	9.4%
Apparel	4.2%	2.2%	3.2%	8.5%	Meats, Poultry, Fish, Eggs	14.5%	10.8%	12.6%	7.7%
Dairy	6.4%	15.0%	10.6%	8.7%	Medical	10.1%	9.4%	9.7%	NA
Food and Beverage	8.8%	10.9%	9.9%	9.1%	Motor Fuel	38.4%	7.2%	21.1%	5.9%
Food at Home	9.0%	13.2%	11.1%	11.5%	Non-Alcoholic Beverage	7.5%	14.1%	10.8%	16.7%
Food Away From Home	9.5%	8.7%	9.1%	6.4%	Recreation	6.1%	3.5%	4.7%	7.7%
Fruits and Vegetables	5.1%	11.5%	8.3%	12.9%	School Fees/Childcare	-0.3%	1.0%	0.3%	2.8%
Household Energy	12.4%	12.3%	12.3%	13.4%	Transportation	19.3%	6.8%	12.7%	1.8%
Household Furnishings	9.6%	8.6%	8.1%	5.1%	Used Vehicles	28.6%	3.9%	15.1%	-10.6%

The overall inflation rate was 8.0% for 2022, and core inflation (total less food and energy) was 7.1%. The inflation has been painful because it has been elevated inflation for nearly two years. In addition, housing, energy, and food costs have been persistently high.

The CPI increased 6.4% in January, and core inflation was up 5.9%. These values are less than one year ago but more than in 2021.

Colorado Forecast

Colorado Economic Forecast 2023

In 2023, the Colorado real GDP growth rate will be 1.5% compared to 0.7% for the U.S.

Colorado job growth in 2023 will be more volatile and much weaker than in 2022.

Retail sales for 2023 will increase at a slower growth rate than during the past two years.

Colorado businesses will continue to face headwinds from increased inflation, interest rate hikes, labor shortages, and public policy. It will be 2024 before inflation returns to the Federal Reserve target rate.

		Colorado Economic Forecast			
		2020	2021	2022	2023
Real GDP Value (billions)		\$353.35	\$373.76	\$388.7	\$395.0
% Change Real GDP		-1.4%	5.8%	4.0%	1.5%
CES Employment (thousands)		2,652.7	2,750.9	2,862.3	2,886.3
Annual Change (thousands)		-137.4	98.2	111.4	24.0
% Change		-4.9%	3.7%	4.0%	0.8%
Unemployment Rate		6.8%	5.4%	3.0%	3.3%
Retail Sales (billions)		\$228.8	\$268.3	\$308.7	\$319.5
% Change		1.9%	17.3%	12.8%	3.5%
Consumer Price Index (CPI)		272.2	281.8	304.3	317.4
		2.0%	3.5%	8.0%	4.3%
DIA Passengers (millions)		33.0	59.0	69.0	71.0
Single Family Permits		26,636	30,246	24,000	22,000
Multi-family Permits		13,833	26,278	25,000	22,000
Oil Production (thousands) barrels		172,000	142,000	146,000	145,000

The number of DIA passengers in 2022 will remain strong in 2023. The airport should top 71 million passengers in 2023. In addition, Colorado Springs had 2.1 million passengers.

The total number of 2023 building permits will be less than in 2022. Multi-family permits will be popular. Higher input costs, rising prices, and interest rate hikes have negatively impacted construction, home sales, and financial services.

Crude oil production declined in 2021 because of state regulations and reduced demand. Production increased in 2022 and will post a slight decline in 2023.

cber.co
Summary of 2022 Benchmark Data and Outlook for 2023
Colorado and the United States

This analysis is for informational purposes only. Any opinions or interpretations of data are those of the presenter. As such, they do not represent the viewpoints of any group or particular organization.

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Gary Horvath has produced annual employment forecasts of the state economy for over 30 years. They have been supplemented by monthly economic updates and indices that track economic performance over the short term. In addition, he has directed three statewide analyses that included reviews of all 64 county economies.

Horvath was the principal investigator for a state and federally funded project to prepare a nanotechnology roadmap for Colorado. As well, he was a co-founder of the Colorado Photonics Industry Association, a trade group for Colorado's Photonics cluster. Horvath has been an active board member of the group since its inception.

Horvath has also served on the Board of Directors for the Economic Development Council of Colorado, Northwest Denver Business Partnership, Adams County Economic Development, and Broomfield Economic Development Corporation. Horvath has also been the chair of the photonics/electronics committee in the Governor's Office of Economic Development and International Trade early stage and proof of concept grant program, and he served on the 2021 Colorado Legislative Redistricting Commission.