

Review of Colorado Economy Through August 2021



Highlights

Key Points – United States

- Through the first eight months of 2021, the U.S. added about 4.7 million jobs, or about 600,000 workers each month. Growth continues to be uneven across geographies, industries, and occupations.
- The fast-paced recovery is masking problems that are preventing faster growth.
- Some industries are currently adding jobs at a rate below pre-pandemic levels.
- Consumer spending will increase at a slower rate in Q4.
- The price of oil is much higher than anticipated. It has been above \$60 per barrel since April 2021.
- The Federal Reserve says inflation is a short-term annoyance, and rates will decline in 2022.
- The change in the national indicators over the past month is mixed. Slower growth is expected in the months ahead.

Key Points - Colorado

- Through the first eight months of 2021, Colorado added 109,900 jobs. Sectors with higher average wages have recovered at a faster rate. The current data understates the rate of employment growth.
- During the first half of the year, the Colorado inflation rate was 1.9% compared to 3.5% for the U.S. It will be higher in the second half of 2021.
- Colorado retail sales are strong.
- Oil production has slipped to 2017 levels.
- The number of passengers at DIA continues to increase.
- Through Q2, the number of housing permits is above the level for the same period in 2020 – despite rising input costs and supply chain disruptions.

Overview

The purpose of this chartbook is to review U.S. and Colorado data that show how both economies are recovering from COVID-19 policies.

In August, U.S. employment growth was underwhelming. There are different rates of recovery by industry sectors, occupations, states, and MSA areas.

The underlying story for the month is that the U.S. labor market and economic growth will increase at a slower rate during the second half of the year.

Colorado seasonally adjusted data increased by 5,600 in August, slightly above the average monthly growth rate for 2019.

Chartbook Highlights

United States

- Real GDP
- Employment and Unemployment
- Major Indices
- S&P 500 and WTI Oil Prices

Colorado

- Colorado Employment
- Select Industry Data
- Summary Colorado

The United States Economy



Real Gross Domestic Product

United States

Key Points

As expected, the economy is expanding at a slower rate in the second half of 2021.

Real GDP will grow by 5.8% in 2021, with increased consumer spending of 8.1%.

Total U.S. employment will return to pre-COVID levels in 2022.

U.S. Real GDP Growth

The Conference Board Forecast (September 15, 2021)

Real GDP and Economic Growth in 2021

The latest Conference Board forecast calls for real GDP growth of 5.5% in Q3 2021, followed by 3.9% in Q4. Real GDP growth for 2021 will be 5.9%, with an increase in personal consumption of 8.1%. Consumer spending will grow at a slower rate because much pent-up demand has been satisfied. The unemployment rate will fall to 3.8% in 2022.

Other Economic Factors

The Delta variant of COVID 19 is partially responsible for a slower rate of economic growth. The rapid increase in spending during the first half of 2021 has led to increased inflation. The disruptions in the supply chain will subside, and inflation will fall back to 2.5% next year. Continued government spending will support economic growth in 2022 and beyond.

Conference Board US Real GDP Growth Forecast

	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	2020	2021	2022
Real GDP	- 5.1%	- 31.2%	33.8%	4.5%	6.3%	6.5%	5.5%	3.9%	- 3.4%	5.9%	3.8 %
Personal Consumption	- 6.9%	- 33.4%	41.4%	3.4%	11.4%	11.9%	3.0%	4.1%	- 3.8%	8.1%	4.1%
Residential Investment	20.3%	- 30.8%	60.0%	34.4%	13.3%	-11.5%	-1.0%	3.0%	6.8%	10.3%	1.0%
Nonresidential Investment	-8.3%	-30.3%	18.7%	12.5%	12.9%	9.3%	5.4%	0.9%	-5.3%	7.4%	4.8%
Total Gov't. Spending	3.7%	3.9%	-2.1%	-0.5%	4.2%	-1.9%	1.4%	2.0%	2.5%	0.9%	2.4%
Exports	-16.3%	- 59.9%	54.5%	22.5%	-2.9%	6.6%	4.1%	5.1%	- 13.6%	4.6%	5.8%
Unemployment Rate	3.8%	13.1%	8.8%	6.8%	6.2%	5.9%	5.2%	4.8%	8.1%	5.6%	3.8%
PCE Inflation (%Y/Y)	1.7%	0.6%	1.2%	1.2%	1.8%	3.9%	4.1%	4.3%	1.2%	3.5%	2.9%
Core PCE Inflation (%Y/Y)	1.8%	1.0%	1.5%	1.4%	1.7%	3.4%	3.6%	3.9%	1.4%	3.1%	2.5%

Source: The Conference Board and cber.co.

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

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Employment and Unemployment

United States and Colorado

Key Points

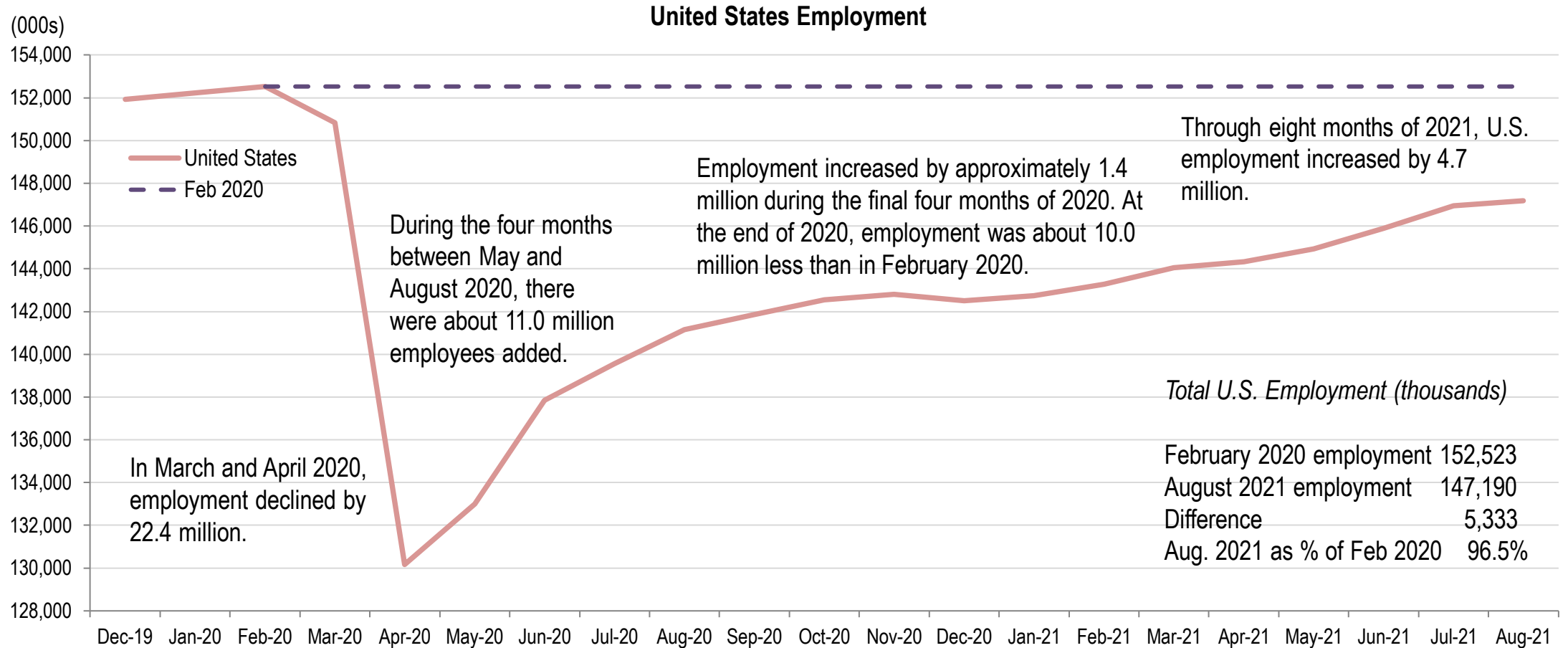
U.S. employment has increased by 4.7 million through the first eight months of 2021.

The Colorado unemployment rate is greater than the U.S. rate.

The number of job openings is at record levels.

Employment

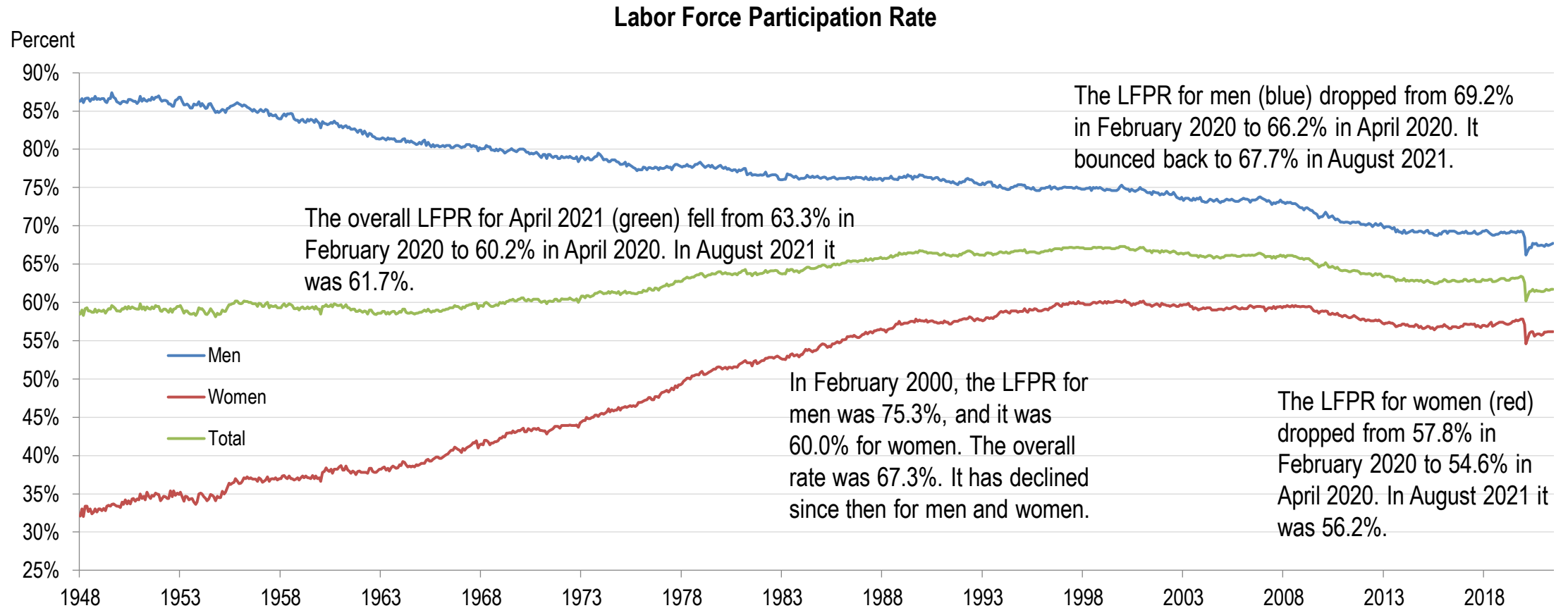
United States



Source: Bureau of Labor Statistics, cber.co.

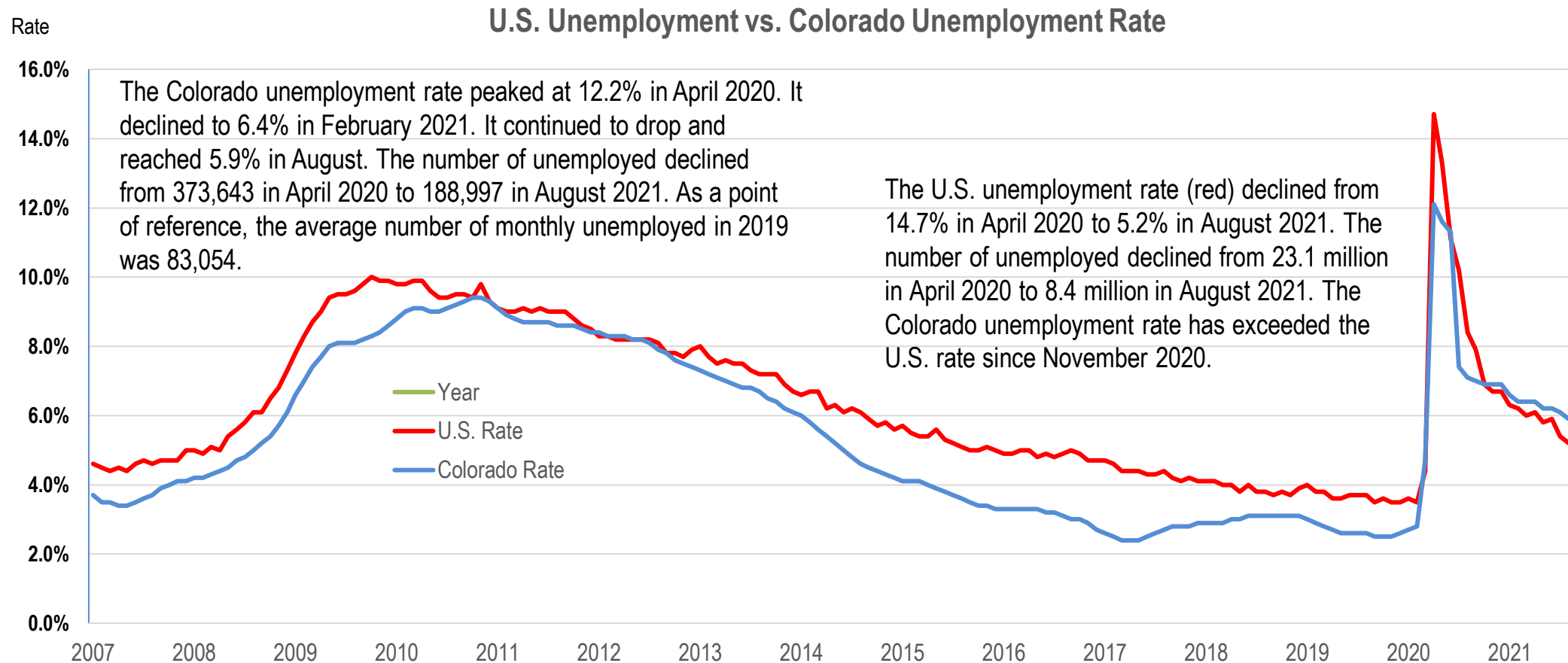
Labor Force Participation Rate (LFPR)

United States Total, Men, and Women



Source: FRED, BLS, cber.co.

U.S. and Colorado Unemployment Rate

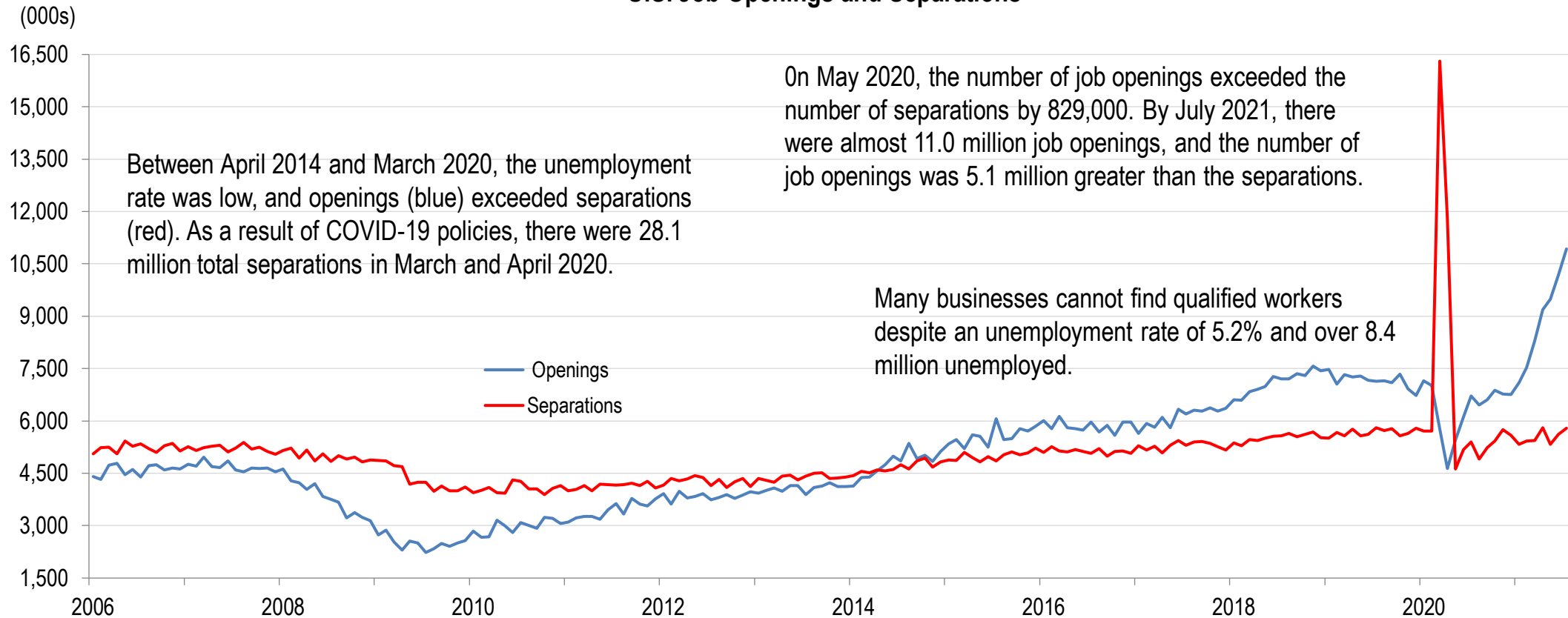


Source: Bureau of Labor Statistics and cber.co.

Job Openings and Separations

United States

U.S. Job Openings and Separations



Source: JOLTS, BLS, cber.co.

Major Indices

NAHB, Consumer Sentiment Index, NFIB Small Business Optimism Index, and Manufacturing and Services PMI Indices

Key Points

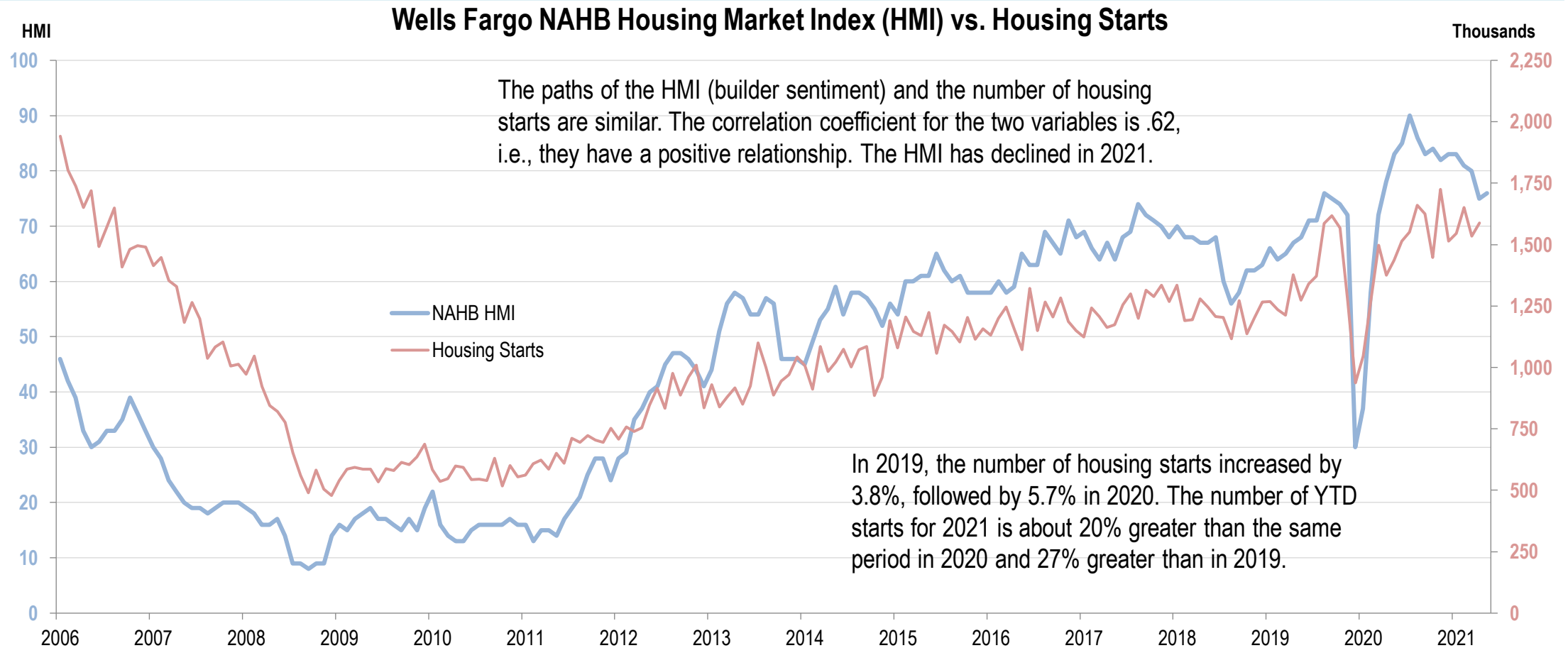
Optimism for the housing market has slipped as the year has progressed, but housing starts are strong.

The Michigan Consumer Sentiment Index plummeted in August, dropping to its lowest level in over a decade.

The NFIB Small Business Optimism Index increased slightly in August. **There are concerns about labor, the cost of labor, and the impact of inflation.**

The indices for manufacturing and services have been in expansionary territory for 15 consecutive months.

Wells Fargo NAHB HMI vs. Housing Starts

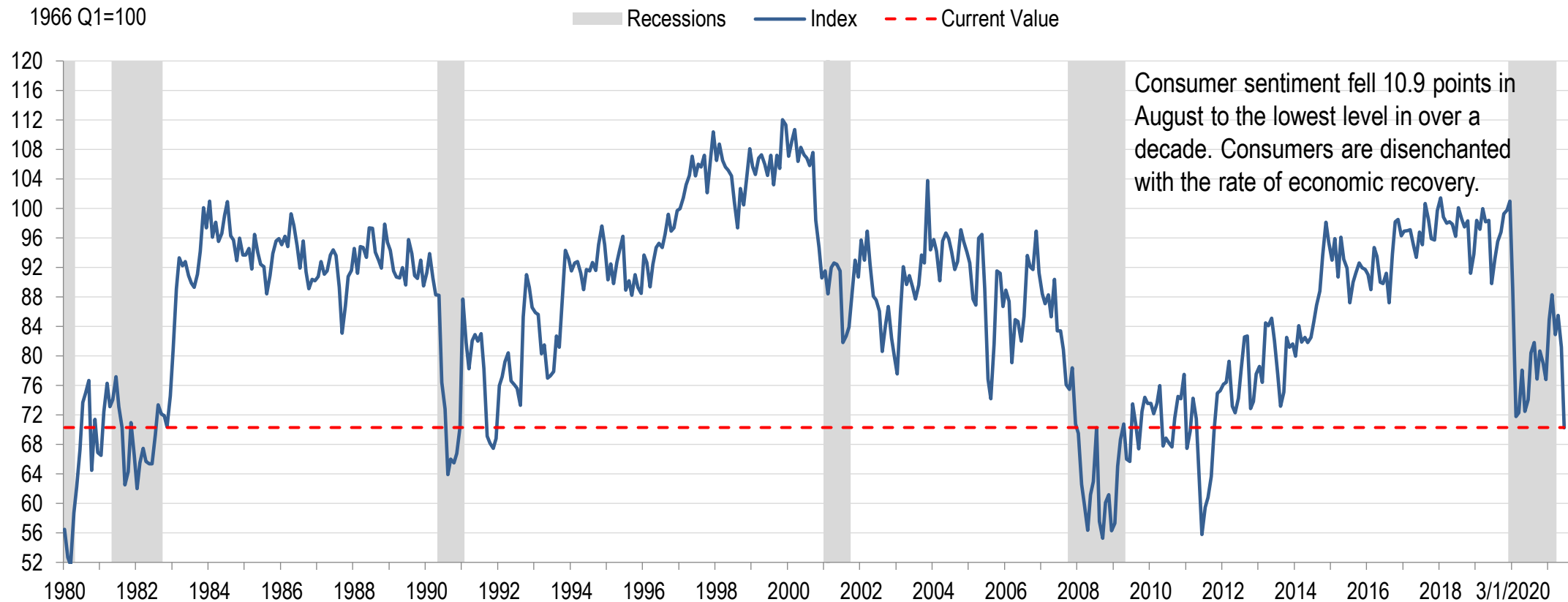


Source: NAHB, cber.co.

Consumer Sentiment Index

University of Michigan

Michigan Consumer Sentiment Index

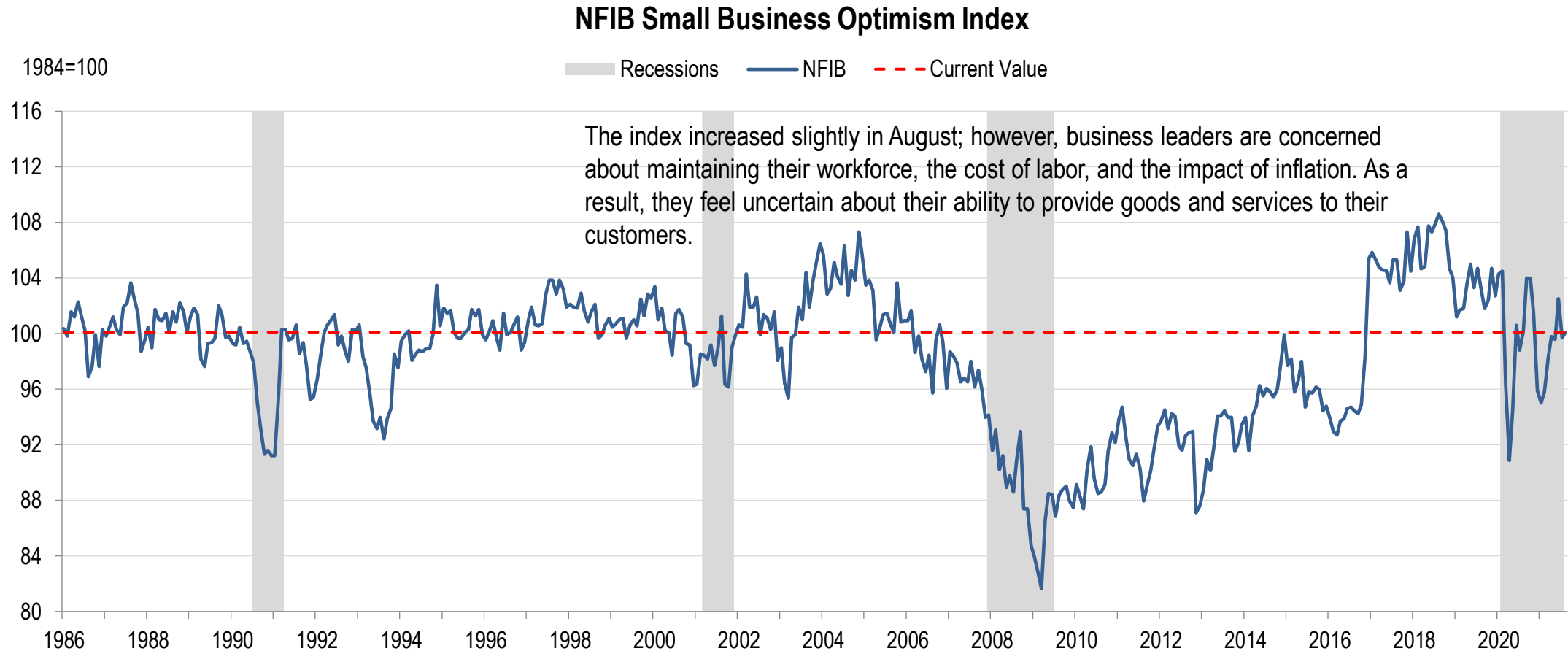


Source: University of Michigan, cber.co.

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NFIB Small Business Optimism Index

United States

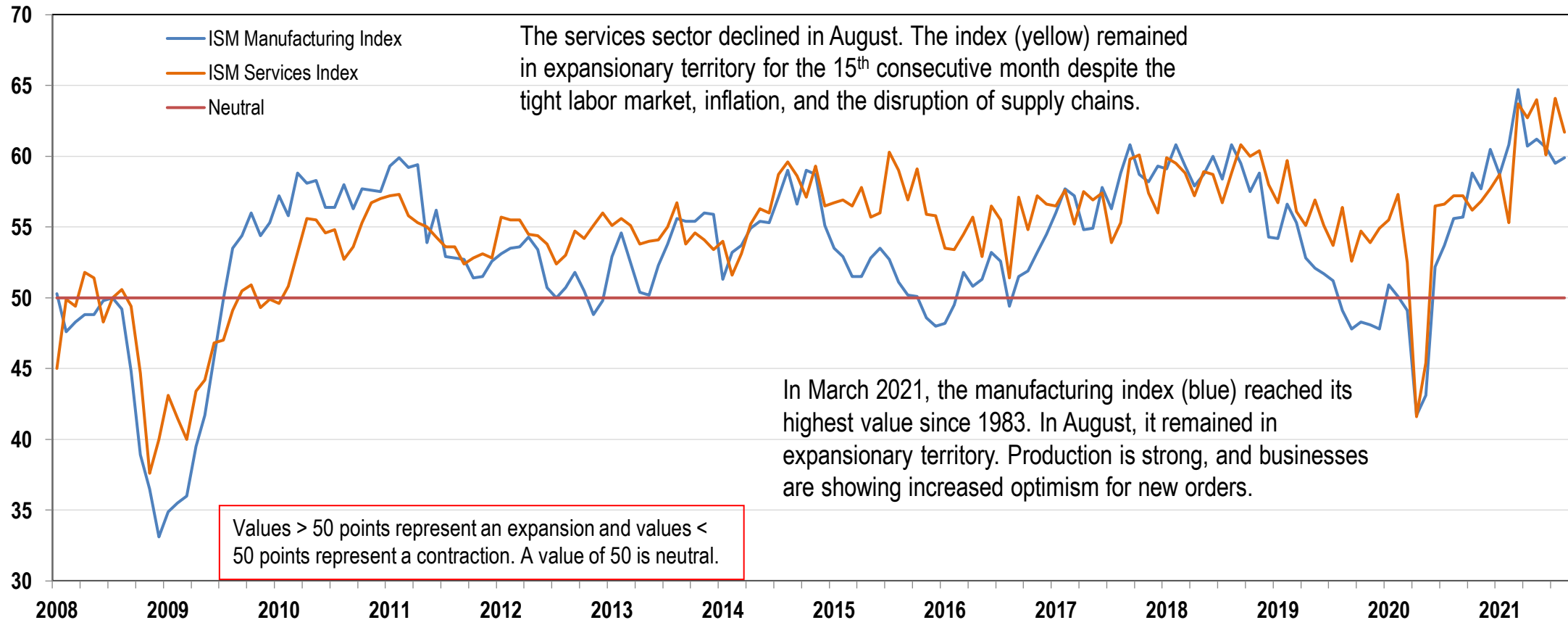


Source: NFIB, cber.co.

ISM PMI Composite Indices

Manufacturing vs. Services

ISM Manufacturing PMI vs. Services PMI Composite Indices



Source: Institute of Supply Management, cber.co

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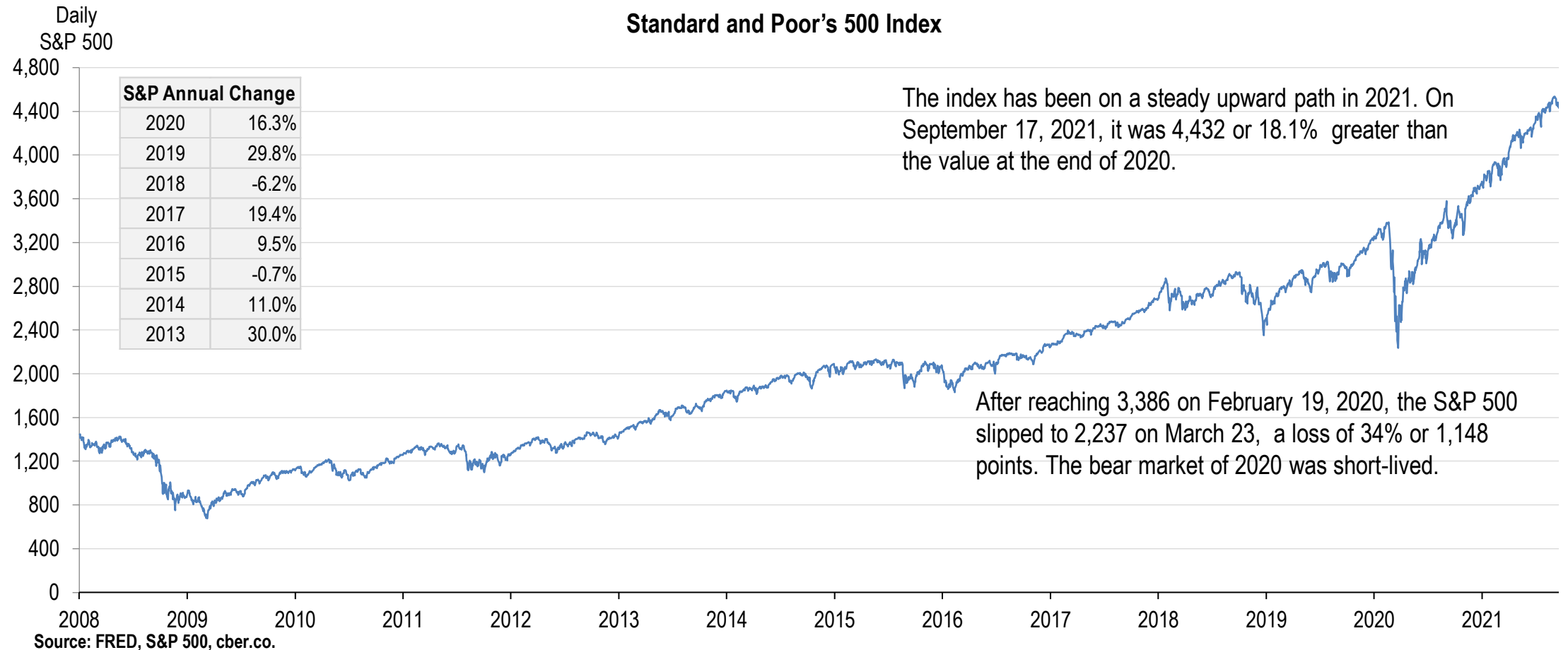
S&P 500 Index and WTI Crude Oil Prices

Key Points

The S&P Index posted double-digit gains in 2020. Strong growth has continued in 2021, although the market stalled in mid-September.

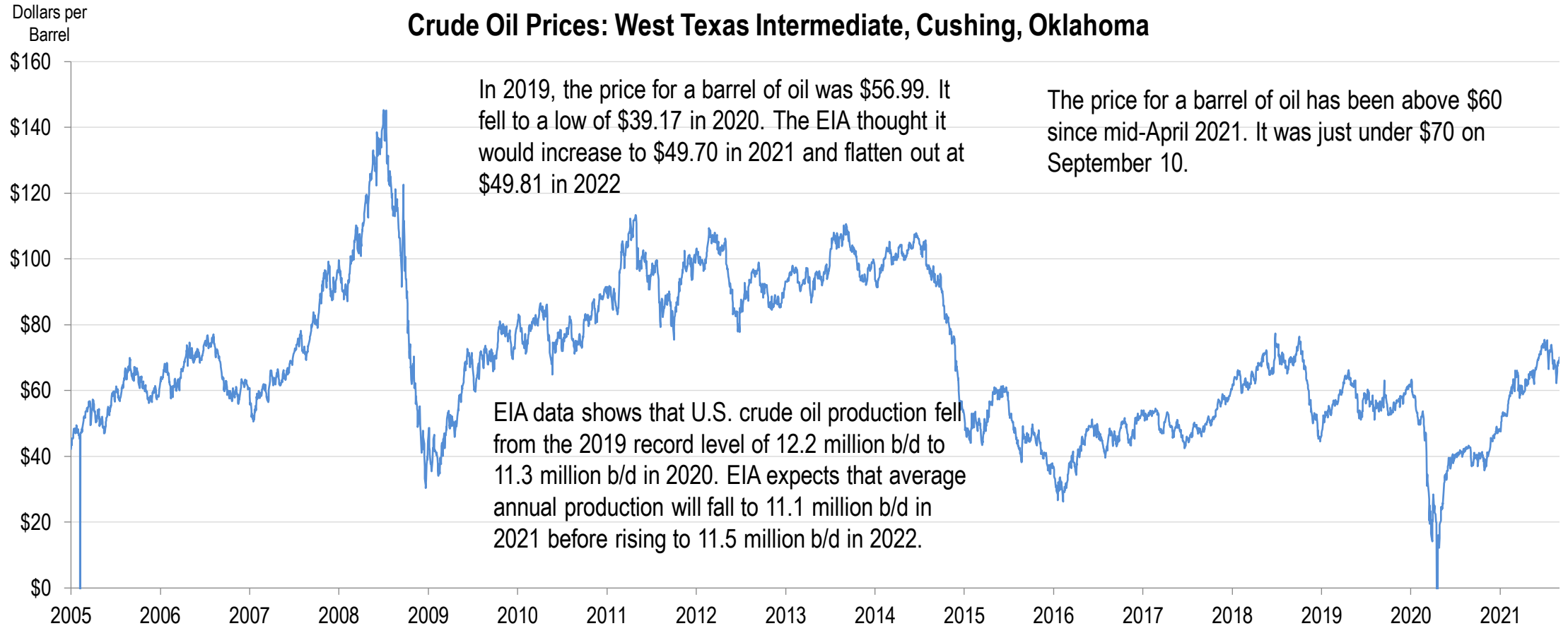
In 2020 the price for a barrel of oil declined because of lower demand. As the economy opened, demand increased. The price has been above \$60 per barrel since mid-April.

Standard and Poor's 500 Index



Crude Oil Prices

West Texas Intermediate



Source: FRED, EIA, cber.co.

Colorado



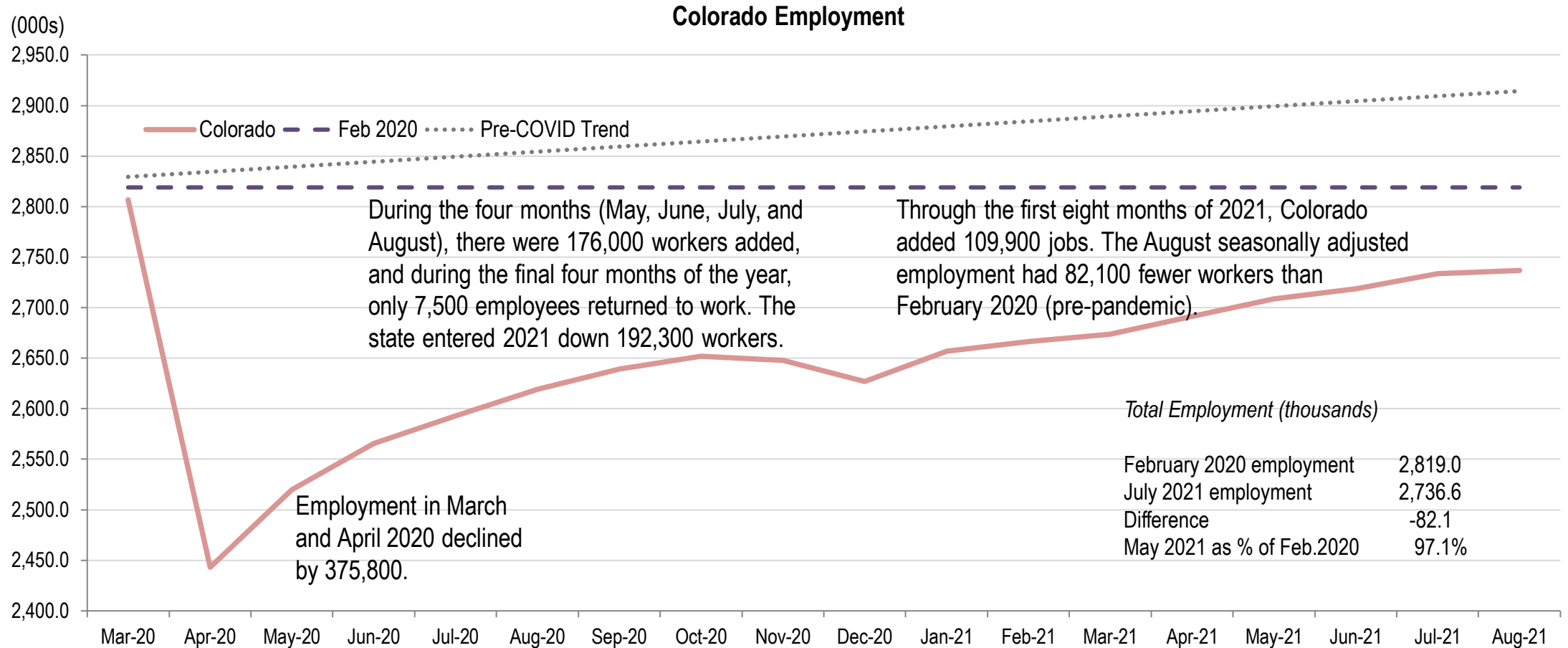
Colorado Employment

Colorado Employment, Labor Force Participation Rate (LFPR), and Summary of Employment

Key Points

- The August 2021 seasonally adjusted CES employment for Colorado was 85,400 less than February 2020.
- The projected August 2021 CES benchmark employment for Colorado was 55,700 less than February 2020.
- The level of employment has increased at a faster rate than expected during the first half of the year.
- The LFPR has declined for four consecutive months.

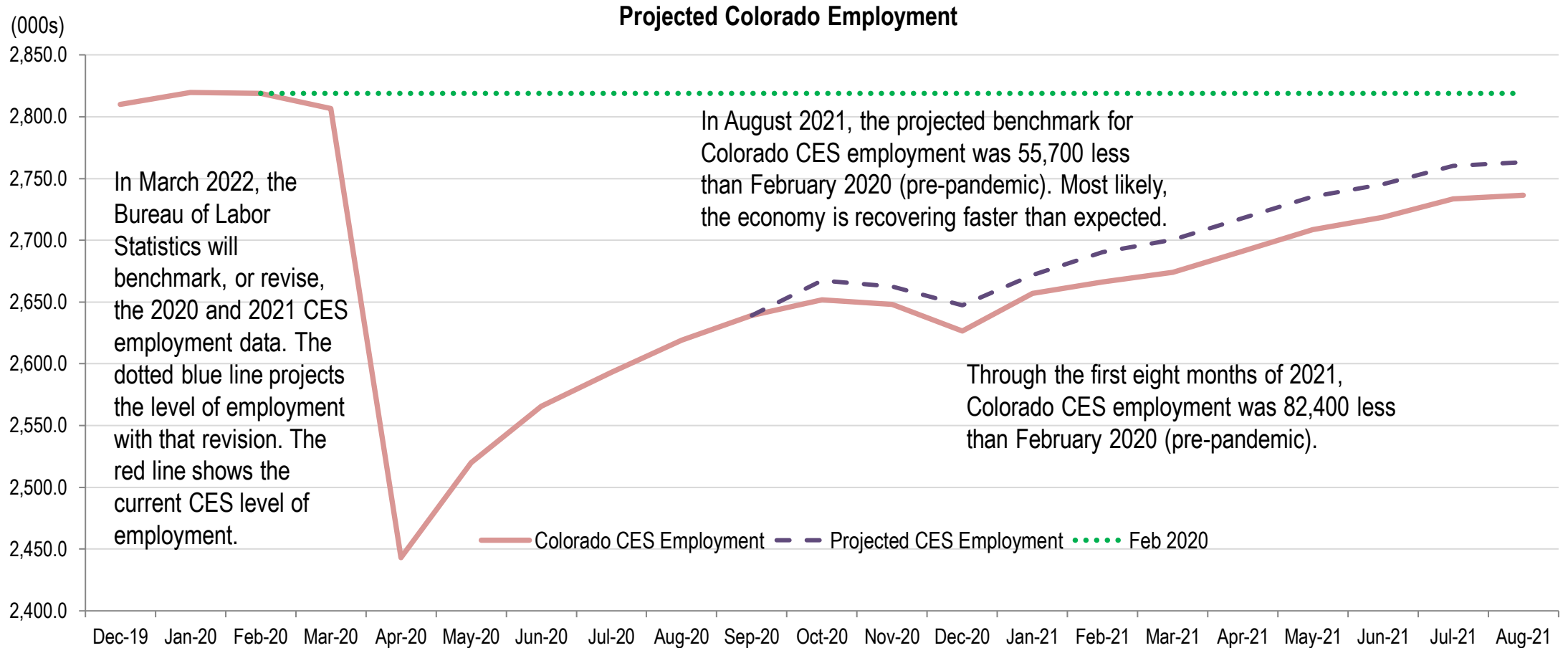
Employment Colorado



Source: Bureau of Labor Statistics, cber.co.

Projected Colorado CES Employment

Based on Q1 Benchmark



Source: Bureau of Labor Statistics, cber.co.

Change in Employment Current vs. February 2020

CES vs. Projected CES After Benchmark

The following table shows the changes in employment for August vs. February 2020. It includes both the changes in the current CES and the projected CES employment, based on Q1 2021 QCEW data.

	Change in Colorado Employment			Projected	
	Feb 2020	Aug 2021	Aug vs. Feb.	August 2021	Aug. vs. Feb.
Total	2,819.0	2,736.6	(82.4)	2,763.3	(55.7)
Extractive Industries	26.2	20.0	(6.2)	19.9	(6.3)
Construction	179.3	170.5	(8.8)	175.2	(4.1)
Manufacturing	151.6	145.4	(6.2)	147.0	(4.6)
Transp, Wareh, Util	482.6	487.3	4.7	485.9	3.3
Information	78.0	73.9	(4.1)	76.5	(1.5)
Financial Activities	176.1	173.0	(3.1)	176.9	0.8
PBS	447.5	449.1	1.6	455.1	7.6
EHS	353.9	343.7	(10.2)	348.1	(5.8)
LHS	346.9	314.0	(32.9)	317.3	(29.6)
Other	115.7	111.7	(4.0)	114.3	(1.4)
Govt	461.2	448.0	(13.2)	447.0	(14.2)

Super sectors that are understated :

- Construction
- Manufacturing
- Information
- Financial activities
- Professional and business services
- Education (private) and health services
- Leisure and hospitality services
- Other services

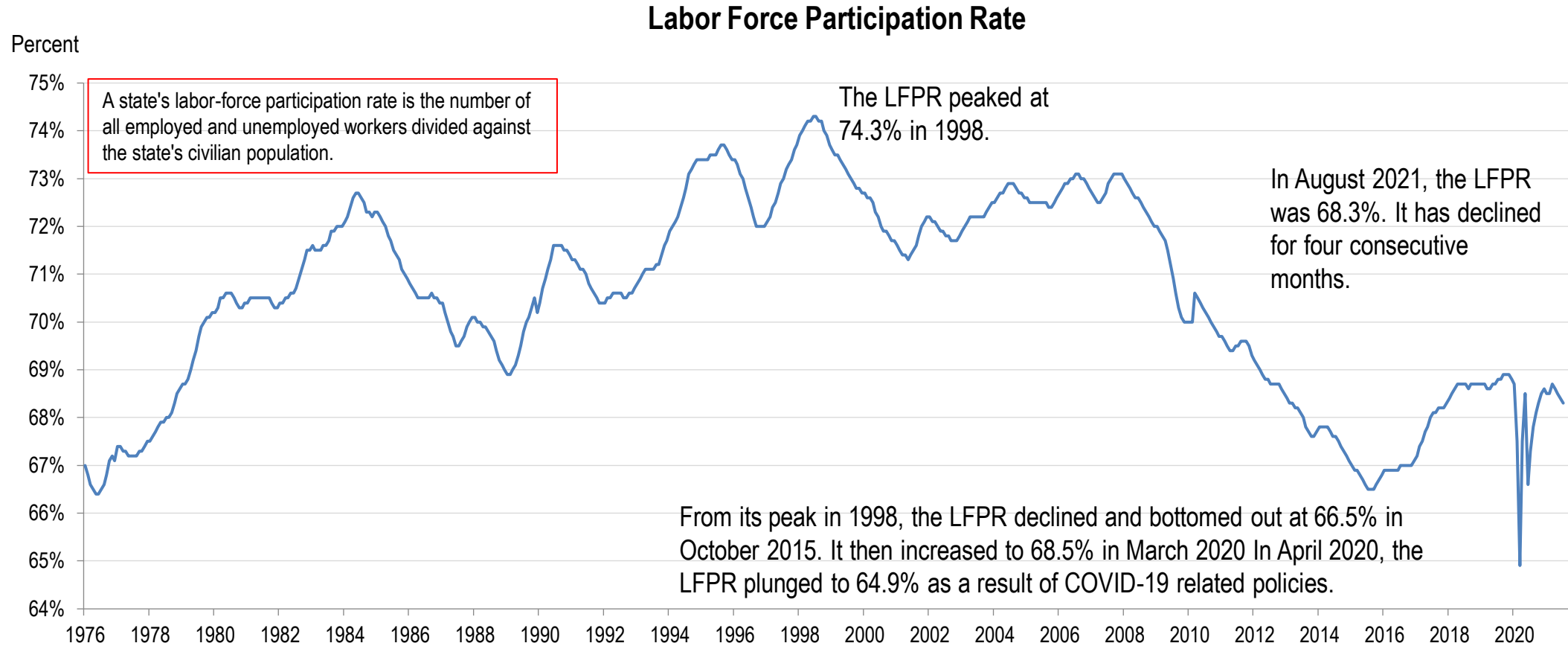
Super sectors that are overstated:

- Extractive industries
- Transportation, warehousing, and utilities
- Government

Overall, the Colorado labor market will recover by Q2 or Q3 of 2022. Some sectors will take much longer, or they may not ever return to their pre-pandemic levels.

Labor Force Participation Rate

Colorado



Source: BLS, cber.co.

Select Industry Data

Retail Sales, Inflation, DIA Passengers, Building Permits,
and Oil Production

Key Points

Retail sales have rebounded after a sluggish start in 2021.

Inflation has risen rapidly in recent months.

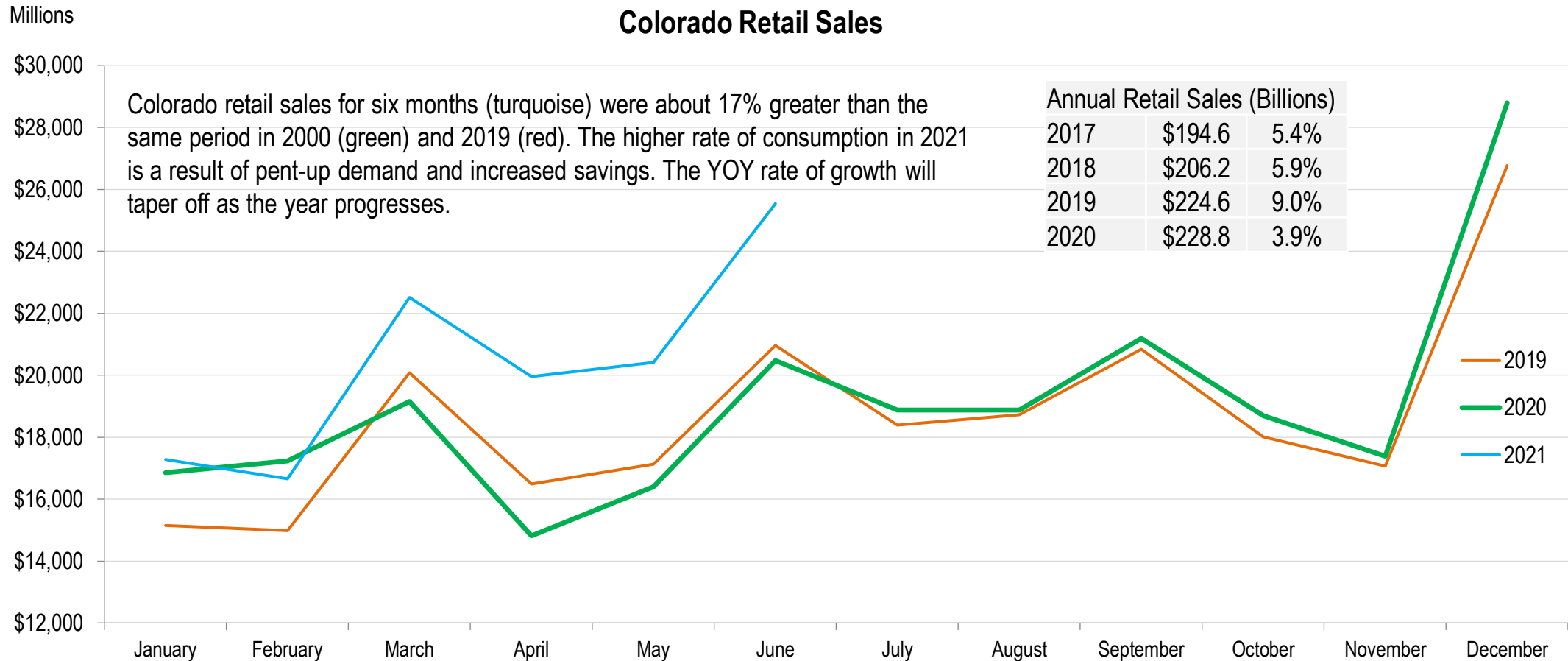
The number of passengers at DIA continues to increase.

The total number of permits issued for single-family and multifamily housing through Q2 2021 is significantly greater than the same period in 2020.

The production of oil in Colorado is trending downwards because of state regulations and reduced global demand.

Colorado Retail Sales

Monthly



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>

Inflation

Last fall, some of the country's top economists said that pigs would fly before inflation rose significantly. They have recently indicated the flight time of the pigs will be short-lived and inflation will begin to decrease in 2022.

The following are examples of the YOY increase in inflation in Colorado for July 2021. The next update for Colorado will be in September.

Recreation	4.0%	Household Energy	6.5%
Medical	3.8%	Food and Beverage	2.6%
Housing	1.5%	Household Furnishing	3.4%
Food at home	4.0%	Transportation	15.6%
School fees/childcare	0.6%	Apparel	15.0%
Electricity	2.2%	Used Vehicles	41.7%
Alcoholic Beverages	3.3%	Motor Fuel	37.7%

The U.S. CPI for the first half of 2021 was 3.5% and 1.9% for Colorado. The U.S. rate was 5.3% for July and August, and the Colorado rate was 3.5% for July.

Source: BLS, cber.co.

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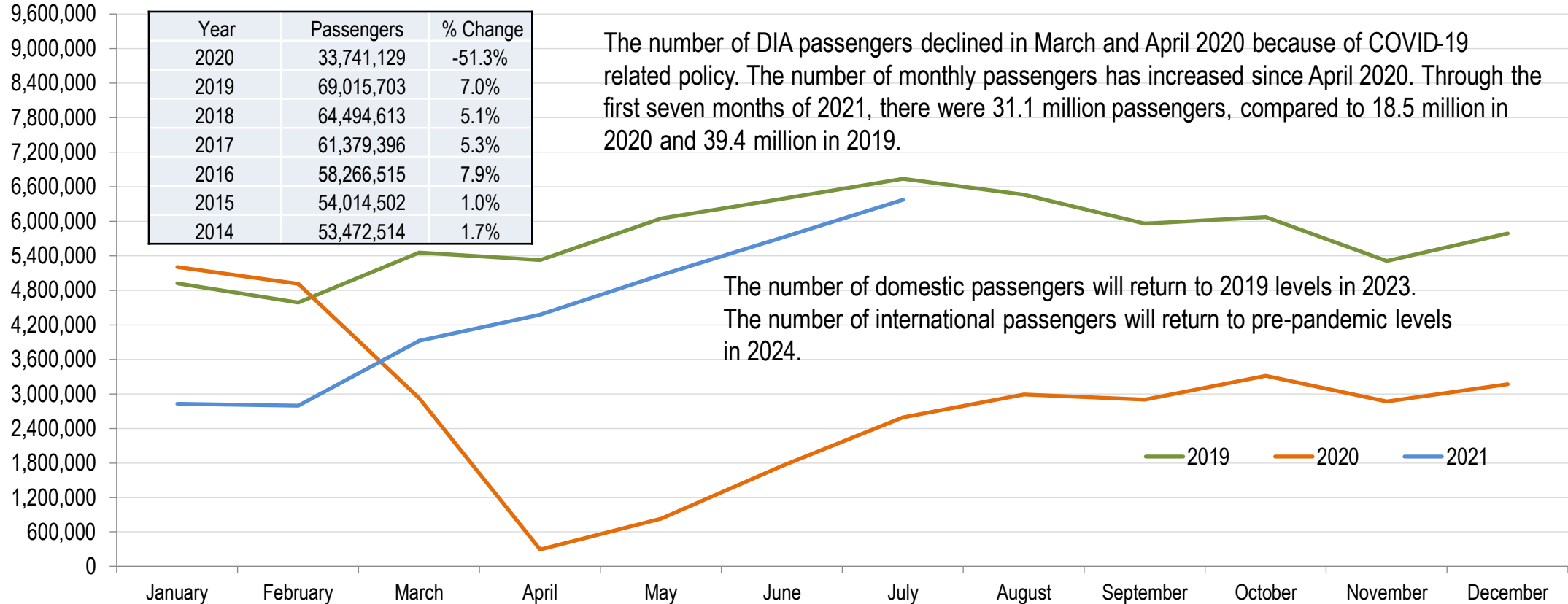


Denver International Airport Passengers

Monthly

DIA Passengers

Passengers

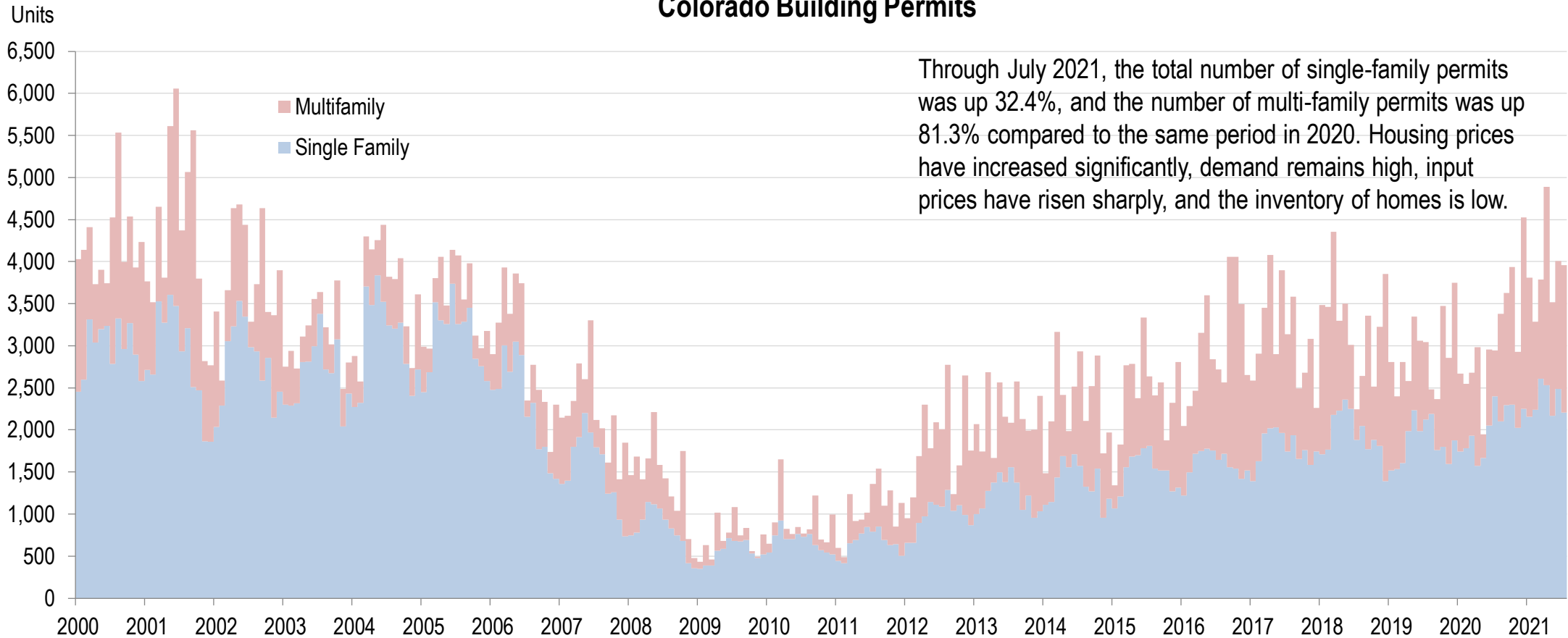


Source: flydenver.com, cber.co.

Colorado Residential Building Permits

Units

Colorado Building Permits

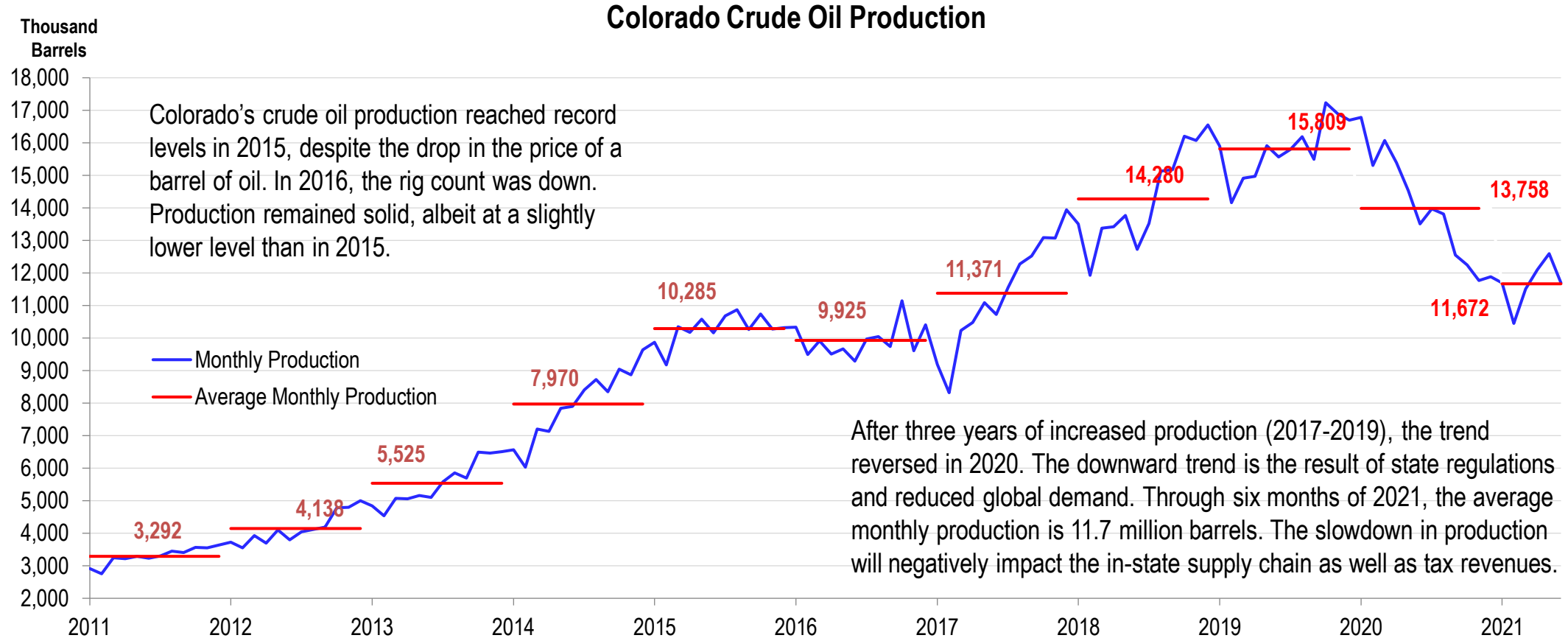


Source: TAMU Real Estate Center, U.S. Census Bureau, cber.co.

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Colorado Field Production of Crude Oil

2011 to 2021 (Thousand Barrels)



Source: EIA, cber.co.

Summary

Summary of Colorado Forecast

Colorado's real GDP growth rate will be slightly higher than the U.S. rate in 2021 and 2022.

Employment will return to its 2019 level in 2022. It has been stronger than expected in the first half of the year. It will not maintain the current pace in the final quarter of the year.

Retail sales have rebounded in 2021 as a result of pent-up demand.

In 2021 and 2022, Colorado inflation will be greater than in recent years. This will be a headwind to economic growth.

Colorado Economic Forecast				
	2019	2020	2021	2022
Real GDP Value (billions)	\$356.28	\$351.07	\$379.00	\$398.00
% Change Real GDP	3.9%	-1.5%	8.0%	5.0%
CES Employment (thousands)	2,790.1	2,644.6	2,728.6	2,794.6
Annual Change (thousands)	62.8	(145.5)	134.0	56.0
% Change	2.3%	-5.2%	5.1%	2.0%
Unemployment Rate	2.7%	7.3%	6.1%	5.1%
Retail Sales (billions)	\$224.6	\$227.0	\$252.0	\$262.0
% Change	9.0%	1.1%	11.0%	4.0%
Consumer Price Index	1.9%	2.0%	3.2%	2.6%
DIA Passengers (millions)	69.0	33.0	52.0	61.0
Single Family Permits	24,756	26,489	28,900	27,350
Multi-family Permits	13,877	13,738	14,950	14,200
Oil Production (thousands) barrels	189,707	172,000	155,000	165,000

In 2020, the number of passengers through DIA was about half of the 2019 total. Domestic flights will return to their 2019 level in 2023. International flights will return to their pre-pandemic level in 2024.

There was an increase in the number of building permits issued in 2020. There will be more permits issued in 2021 as demand for new homes remains high. Also, there is a need for affordable housing in many metro and mountain communities.

State regulations and reduced demand caused a decline in oil production in 2020 and 2021. Oil production will increase slightly in 2022.

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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.