METRODENVER.ORG

2023 METRO DENVER

ECONOMIC FORECAST

Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson Counties

Metro Denver EDC

ABOUT Metro Denver EDC

Development Research Partners specializes in economic research and analysis for local and state government and private sector businesses. Founded in 1994, Development Research Partners combines extensive experience in real estate economics and economic development to provide clients with reliable consulting services in four areas of expertise:

» **Economic and Demographic Research**
Research in support of business and community activities, ranging from community profiles to evaluating and forecasting economic and market conditions.

» **Industry Studies**
Specialized research projects including industry cluster research, industry trends analysis, and strategic competitive analysis.

» **Fiscal and Economic Impact Analysis**
Comprehensive custom analysis and analytical tools to evaluate and forecast site-specific activities and model business and government costs and benefits.

» **Real Estate and Public Finance Economics**
Analysis and strategy for infill redevelopment, adaptive reuses, and property development including market and feasibility studies, public investment analysis, and public-private partnering opportunities.

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EXECUTIVE SUMMARY

Whether training for a marathon or simply building strength and endurance for good health, you strive to maintain a "perfect pace," or a speed that is sustainable and allows you to continue without becoming too tired. While an economy does not become tired, it may overheat or become stagnant. When this happens, the goal is for the economy to return to the perfect pace, where economic factors are balanced, and growth is sustainable.

We suggest that a perfect pace for economic growth was set during the 10-year period from 2010 to 2019, which corresponds with the longest expansion in U.S. history. During this time, Metro Denver was regarded as one of the most vibrant economies in the country, suggesting that economic growth in the region occurred at a perfect pace. This report forecasts 2023 economic activity based on current trends, but also compares forecasted economic activity to where the region should be in 2023 had the perfect pace of growth continued.

NATIONAL ECONOMY

Real GDP growth slowed in 2022 to 2.1 percent as changes by component were mixed. Growth will slow to 1.4 percent in 2023 as the Federal Reserve continues restrictive monetary actions to curb inflation.

» Personal consumption expenditures, which comprise about 68 percent of GDP, increased by 2.8 percent in 2022. Households shifted their spending from goods, which shrank by 0.4 percent, to spending on services, which grew by 4.5 percent as businesses restored in-person services.

» A contraction in business spending on structures in 2022 was offset by increases in equipment and intellectual property spending, with nonresidential business investment increasing 3.6 percent. Residential fixed investment activity decreased 10.7 percent as higher mortgage rates scared potential buyers.

» Government spending at all levels fell 0.6 percent from 2021 to 2022 as COVID-19 response provisions expired. Continued implementation of the Inflation Reduction Act and the CHIPS and Science Act may bolster government spending in 2023. The federal deficit fell 50.4 percent from 2021 to 2022 to $1.4 trillion.

International trade volumes held steady in 2022 after a sharp increase in 2021 but will continue to be sluggish in 2023 due to the Russia-Ukraine war and slower global economic activity.

LABOR FORCE & EMPLOYMENT

Colorado and Metro Denver recovered all jobs lost during the COVID recession by February 2022, about six months faster than it took the U.S. to restore employment.

» Colorado added 119,800 jobs in 2022, a 4.4 percent increase, with all seven of Colorado's metropolitan statistical areas increasing by 3 percent or more. Job growth is expected to slow to 2 percent in 2023 due to an expected slowdown in consumer spending.

» Metro Denver employment increased 4.4 percent in 2022 with 75,100 jobs added. All supersectors added jobs, with the fastest increases in the leisure and hospitality (+10.9 percent, +18,000 jobs) and professional and business services (+8.4 percent, +27,600 jobs) supersectors.

» The pace of job growth in Metro Denver will slow to 2.2 percent in 2023, representing the addition of 39,200 jobs. Jobs will be added in all supersectors with the exception of financial activities, which faces challenges due to uncertainty in the investment markets, slower home sales, and softer commercial real estate activity.

» Employment growth has been held back by the historically tight labor market. For example, there were 231,000 job openings and 114,000 unemployed people in Colorado as of November 2022, meaning companies in Colorado had 117,000 more job openings than there were unemployed individuals to fill them.

» The unemployment rate is expected to rise modestly in 2023 to 4.1 percent across the U.S., 3.9 percent in Colorado, and 4 percent in Metro Denver as increased interest rates and a general economic slowdown cause a reduction in business hiring patterns.

COMMERCIAL REAL ESTATE

Commercial real estate fundamentals were mixed in Metro Denver in 2022. Vacancy rates increased for office, industrial, and flex space but declined in retail. Despite those trends, the average lease rate increased in all four property types and 9.51 million square feet of new space was completed.

- Metro Denver's office vacancy rate rose to 14.3 percent in 2022 with a substantial increase in sublease space and the third consecutive year of negative net adsorption. Completions will increase to 1.76 million square feet in 2023, primarily due to the timing of projects already under construction.
- The vacancy rate for both flex and industrial space increased in 2022 as 8.1 million square feet of new space was completed. Leasing and construction remains active, as 2023 is expected to be the seventh consecutive year that 5 million square feet or more of industrial space is completed.
- The retail market posted a declining vacancy rate as consumer spending continued at a brisk pace. With positive net absorption and below average completions, the retail market is attractive for investors.

CONSUMER ACTIVITY

Population growth strengthened in 2022 and 2023, but the number of new residents remains below historic averages. The region is expected to add 22,100 residents in 2023, reaching a total population of 3.3 million or 56 percent of the state's total population of 5.9 million.

- Colorado is expected to have faster personal income growth than the nation in 2023 due to faster wage and salary growth. However, inflation will continue to erode some of those gains. Metro Denver posted an 8 percent inflation rate in 2022, but price increase are expected to subside to 4.8 percent in 2023.
- Retail trade spending increased in all seven counties as the region posted a 10.4 percent increase in 2022, although activity tempered in the latter half of the year as consumers responded to rising interest rates. Activity will slow to under 5 percent in 2023, allowing retailers and restaurants to rebuild capacity.

RESIDENTIAL REAL ESTATE

- The number of residential units permitted in Metro Denver decreased 11.3 percent to 27,100 units in 2022 as all building types decreased. Activity is expected to slow to 24,500 units permitted in 2023, of which 53 percent are expected to be multi-family units.
- Home sales declined by 20.8 percent in 2022, stymied by the rapid increase in the 30-year fixed mortgage rate from an average of 3 percent in 2021 to rates that peaked at 7.08 percent late in 2022. The outlook for 2023 is a year with little change in sales volume as mortgage rates remain elevated. After increasing 23.2 percent in 2021, the median home price in Metro Denver rose 10.9 percent in 2022. While median home prices may decrease over-the-year in some months at the beginning of 2023, the region's strong concentration of millennials means prices will still increase by 2 percent in 2023.

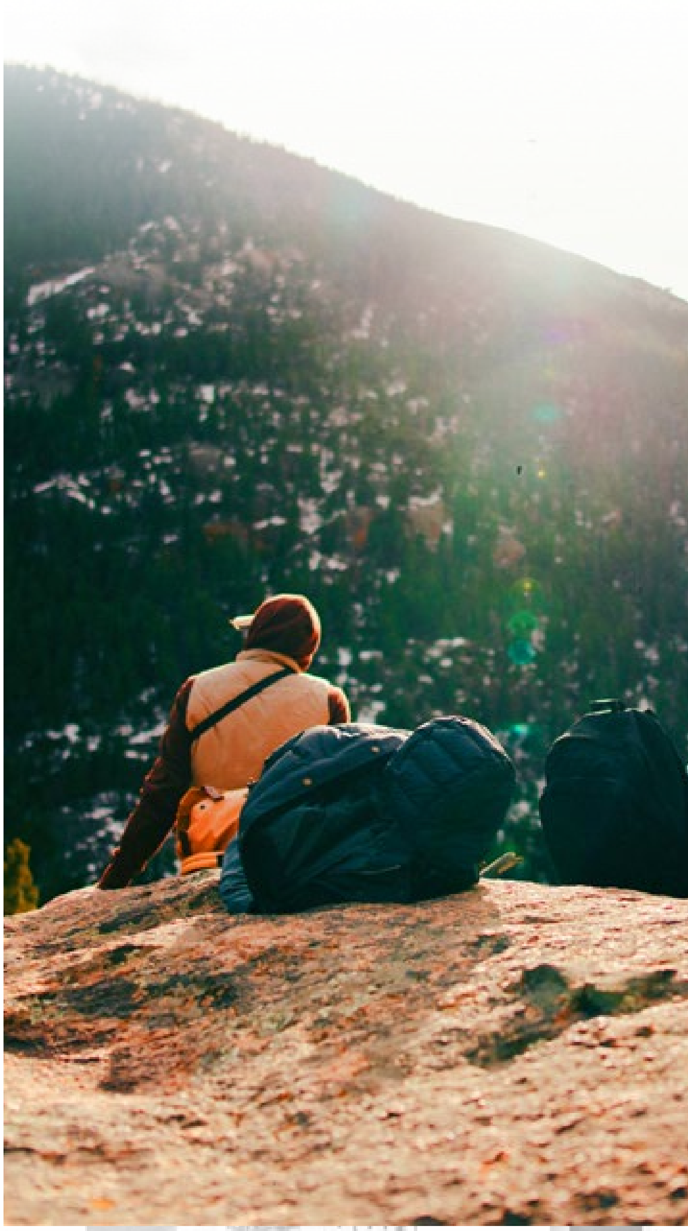
INTRODUCTION

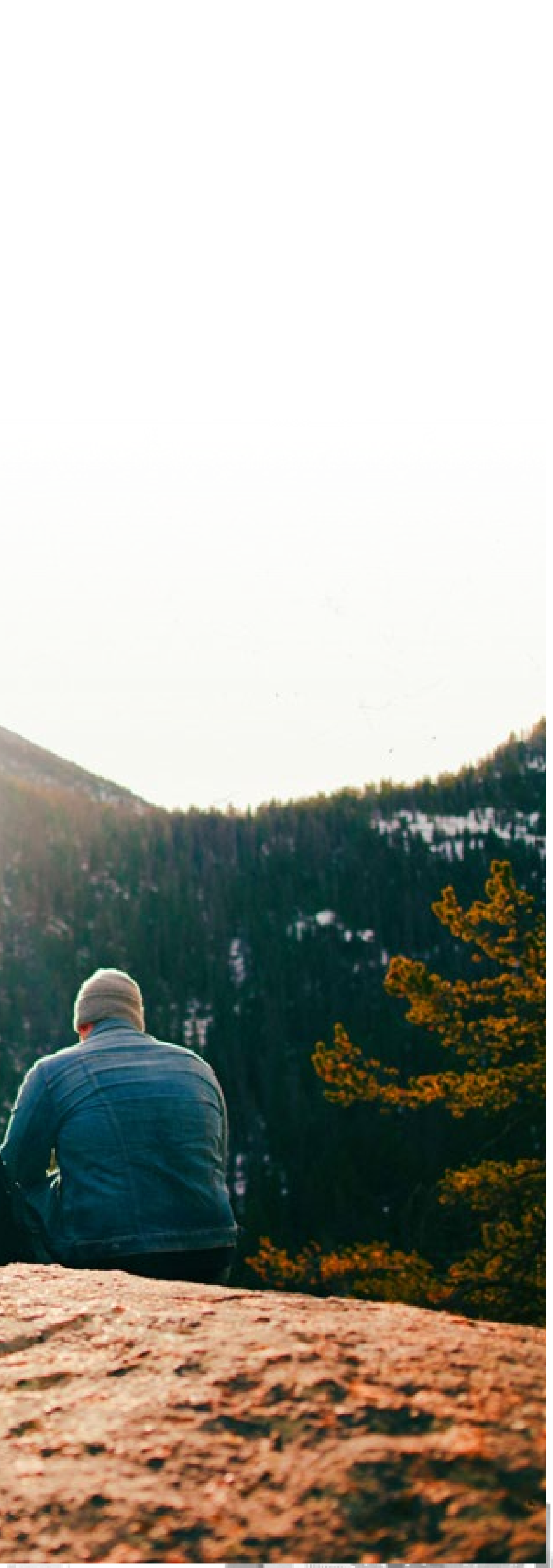
Eighty-three percent of adults in Colorado regularly participate in some type of physical activity, which ranks as the second-highest level of participation of the 50 states. Whether training for a marathon or simply building strength and endurance for good health, you strive to maintain a "perfect pace," or a speed that is sustainable and allows you to continue without becoming too tired. While an economy does not become tired, the concept of maintaining a perfect pace is relevant to the economic structure as there may be times when changes in various indicators are happening too fast or too slow to be sustainable. For example, the economy may be in a state of disequilibrium if consumer spending and prices change too rapidly, if worker availability is less than business demand, or if over-building occurs in the real estate markets. In these instances, it is desirable to reset goals and restore balance by again seeking the perfect pace for economic growth.

What is the perfect pace for economic growth? Businesses often gauge their current performance to some relevant historic period. Often, this means that they compare current performance with the prior year or two. As there was nothing typical about changes in economic conditions during 2020, 2021, or 2022 due to the effects of the COVID-19 pandemic, businesses instead are encouraged to compare current activity with a time that represented a perfect pace for their business activity. For the overall economy, we suggest that a perfect pace was set during the 10-year period from 2010 to 2019, which corresponds with the longest expansion in U.S. history from June 2009 to February 2020.

During this period of time, Metro Denver was regarded as one of the most vibrant economies in the country, suggesting that economic growth in the region occurred at a perfect pace.
For example,

- Denver ranked #2 on U.S. News and World Report's 2019 list of the "Best Places to Live."
- Forbes magazine ranked Denver #4 on its 2018 list of the top 10 rising cities for startups.
- Colorado ranked #5 in 2018 on CNBC's annual "Best States for Business" list.
- Metro Denver ranked 8th in the 2019 Emerging Trends in Real Estate report by the Urban Land Institute.





While Metro Denver continues to rank highly in similar reports, the region needs to be vigilant and proactive to make sure that imbalances in the economic structure that arose during the past three years are recognized and corrected. If the 2010 to 2019 period represented a perfect pace for the Metro Denver region, where should the region be in 2023 if that perfect pace had continued from 2019 until now? How does that perfect pace compare with levels of economic activity forecasted for 2023? What will it take to get Metro Denver back to the perfect pace of economic growth?

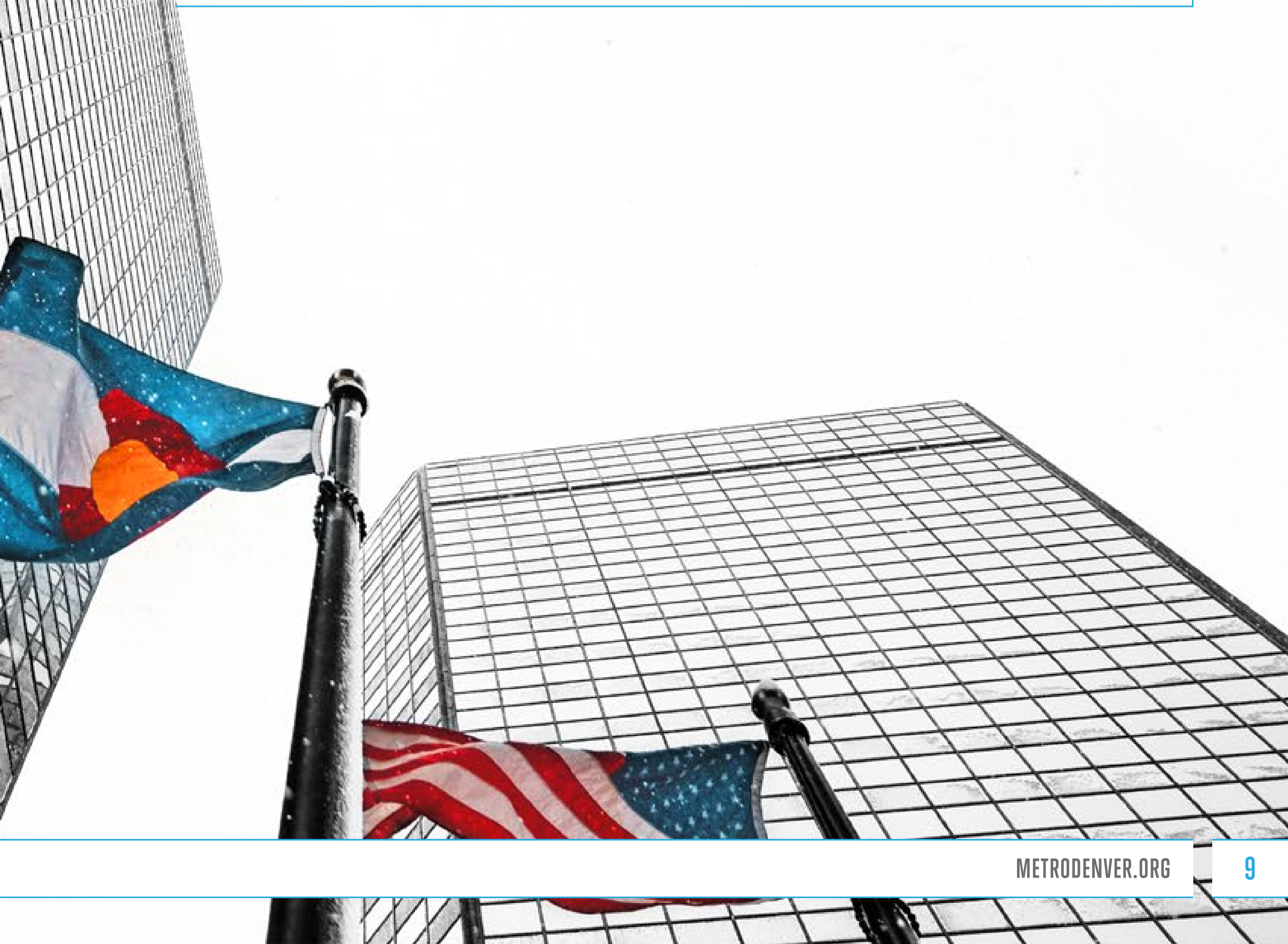
This report will reveal that the perfect pace of employment growth may need to be adjusted, that a longer-term view of commercial real estate markets may be warranted, that consumer activity may be in a resting period, and that a change of pace in the residential real estate market would be welcome.

REPORT ORGANIZATION

This report presents a comprehensive analysis of economic trends and conditions in 2022 and provides a look forward as to what to expect in 2023 for the national, Colorado, and Metro Denver economies. The seven-county Metro Denver area, or the region comprised of Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson Counties, is home to 56 percent of Colorado's population and 62 percent of the state's jobs.

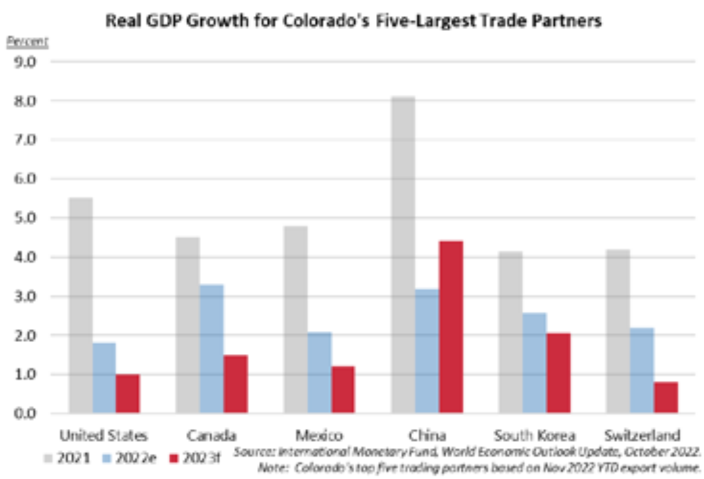
The report includes six main sections. The first and second sections describe international and national economic conditions. Specifically, the national economy is discussed in terms of the components of Gross Domestic Product and interest rate trends. The remaining sections present data and trends for the U.S., Colorado, and Metro Denver economies, as relevant, grouped into four main topics: labor force and employment, commercial real estate, consumer activity, and residential real estate.

INTERNATIONAL ECONOMY



The global economy faces headwinds from a high-inflation environment, geopolitical tension, and the increasing impacts of climate change.

Inflation reached multi-decade highs in 2022 due to high levels of demand supported by 2020 and 2021 COVID-19 economic relief measures, continued supply chain disruptions, and energy price spikes. While inflation moderated in the second half of 2022, the measure reached peak levels in 2022 of an estimated 11 percent in developing nations, 10 percent in the Euro area, 9.9 percent in the United Kingdom, and 8.3 percent in the U.S. The COVID-19 pandemic continued to impact global supply chains, especially in China as the recent reversal in the Zero COVID policy led to large increases in cases. Russia's war in Ukraine contributed to inflationary pressures by drastically reducing Russian exports of natural gas and Ukrainian exports of grain. In response, many central banks chose to increase nominal interest rates. The Federal Reserve increased the U.S.'s benchmark federal funds rate by 4 percentage points in 2022 and signaled that they plan to continue the increases into 2023. The European Central Bank raised rates in 2022 for the first time since 2011 as it moved to curb inflation.



International Monetary Fund analysts predict that global output will slow to 2.7 percent growth in 2023 as the global economy continues to confront a high inflation environment, the ongoing impacts of the war in Ukraine, and weakening consumer spending. Global growth is projected to rebound slightly in 2024 to 3.2 percent.

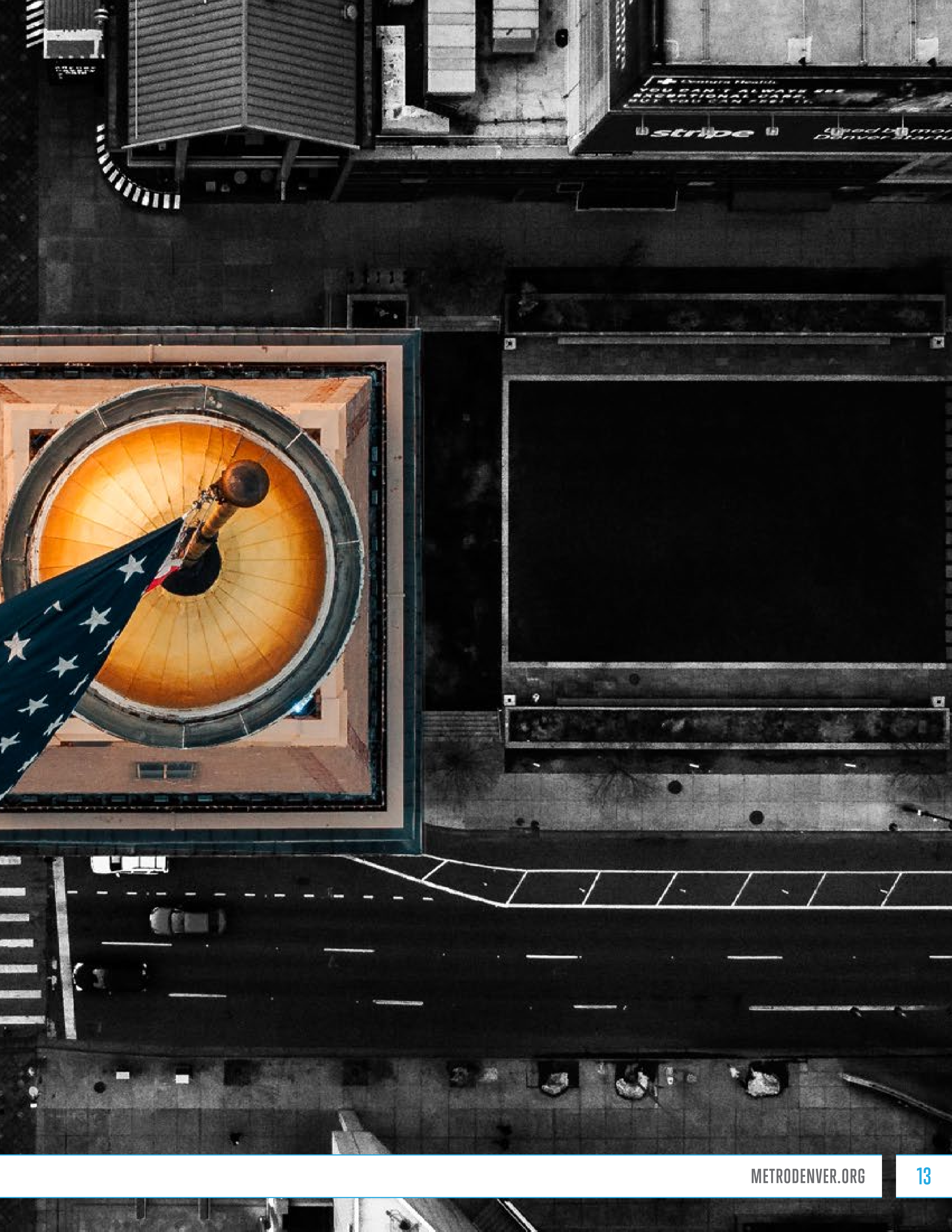
The downside risks for the forecast remain high due to increasing price pressures while advanced economies address cost-of-living concerns. There is elevated risk of monetary, fiscal, or financial policy errors at a time when the global economy is fragile and financial markets are showing signs of increased stress. Continued geopolitical tension in Europe and elsewhere, as well as the increasing impacts of climate change, also pose significant risks to the forecast.

2022 was a difficult year for Colorado's largest trading partners. Real GDP in Canada, Mexico, and China, which comprise almost 40 percent of Colorado's export activity, grew at slower rates in 2022 than in 2021. Real GDP in Canada grew at a rate of 3.3 percent per year, Mexico grew 2.1 percent, and China grew 3.2 percent. The value of output in all three countries grew faster than the U.S. in 2022, which grew 1.8 percent. All three countries are forecasted to grow faster in 2023 than the U.S.'s forecasted 1 percent growth rate. Canada is forecasted to grow 1.5 percent in 2023, Mexico 1.2 percent, and China 4.4 percent. South Korea, which made up 7.4 percent of Colorado exports, grew 2.6 percent in 2022 and is expected to grow 2 percent in 2023. Switzerland was a new entrant to Colorado's top five trading partners, representing nearly 7 percent of the state's export activity. The 130 percent increase in export activity to Switzerland was due to large increases in primary metal manufactures and chemicals exports. Switzerland's GDP growth rate is expected to slow to 0.8 percent in 2023 after posting a 2.2 percent increase in 2022.

The value of Colorado's exports increased 11 percent from 2020 to 2021 and is on pace to grow by 13.5 percent in 2022. The demand for Colorado's main exports of processed foods, computer and electronics products, machinery, and chemicals remains strong moving into 2023.

2023 METRO DENVER ECONOMIC FORECAST

NATIONAL ECONOMY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GROSS DOMESTIC PRODUCT

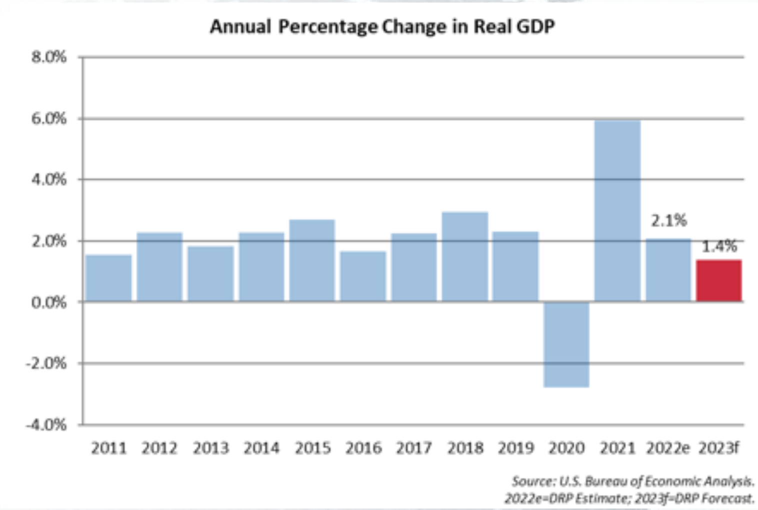
Note: *Throughout this publication, (e) is used to represent data that is estimated in the absence of data for all 12 months of 2022; (f) indicates a forecast figure. The 2010-19 Avg. is the compound annual growth rate (CAGR) or 10-year average value for the indicator.*

Gross domestic product (GDP)—the total value of goods and services produced in the U.S.—is a key gauge of the nation's economic health.

	2022e	2022f	2012-19 AVG
UNITED STATES	2.1%	1.4	2.3%

Preliminary data suggests that real GDP in the U.S. grew 2.1 percent in 2022 after growing by 5.9 percent in 2021.

In 2023, real GDP growth is expected to slow to 1.4 percent, falling below the 10-year average from 2010 to 2019 of 2.3 percent. The following sections detail the trends influencing each major component of GDP.

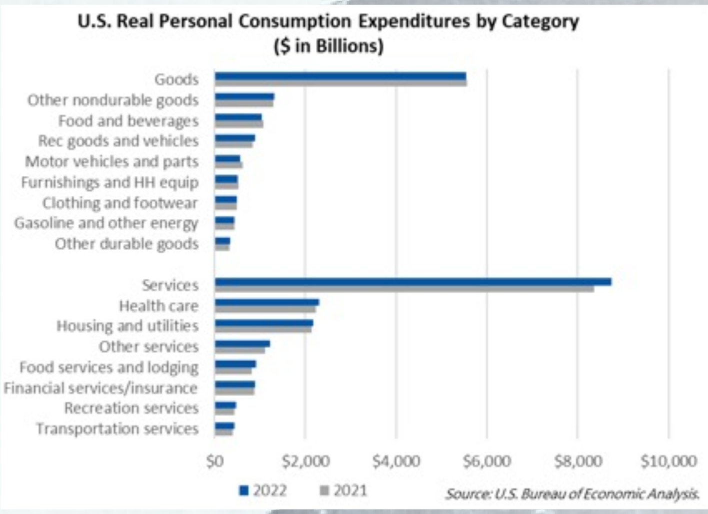


CONSUMER SPENDING

Real consumer spending on services experienced strong growth in 2022 while spending on goods contracted slightly. Based on preliminary 2022 data, personal consumption expenditures, which comprise about 68 percent of GDP, grew by 2.8 percent in 2022. That growth was not shared evenly among goods and services as spending on goods shrank by 0.4 percent over-the-year while spending on services grew by 4.5 percent compared to 2021. Spending on services rose above prepandemic levels in 2022 and spending on goods remained above 2019 levels.

While spending on recreational goods and other durable goods increased by 6.5 percent and 4.5 percent, respectively, total durable goods spending fell 0.3 percent over-the-year. Nondurable goods fell 0.4 percent over-the-year as food and beverages purchased for off-premises consumption fell by 4 percent. All of the services categories reported growth in 2022, led by recreation services (+10.9 percent), transportation services (+10.8 percent), and food services and accommodations (+9.8 percent).

Retail trade grows faster than inflation. Advanced 2022 data suggests that retail trade in the U.S. grew by 9.9 percent from the 2021 figure. As COVID-19 response policies became more lenient, consumers spent more on in-person experiences such as at food and beverage establishments and sectors that are associated with traveling. The industries that grew the most over-the-year were also industries that drove inflation early in 2022, such as energy, food, and automobiles.



Consumer spending expected to grow slower in 2023. As interest rates continue to rise due to Federal Reserve actions, consumers will curtail their spending, which is the desired response to the policy actions. The concern is that the consumer response will be too large, causing a recession because of the size and importance of consumer spending to the overall economy. Undoubtably, higher interest rates and rising consumer debt levels combined with smaller but continuing overall price increases will limit consumers' ability to maintain the spending increases that occurred in 2021 and 2022. However, consumer spending is still expected to increase in 2023, albeit at a slower pace.

Retail spending increased in 12 of 13 categories between 2021 and 2022. Gas stations experienced the largest year-over-year growth of 34.5 percent, followed by miscellaneous store retailers (+17.6 percent), food services and drinking places (+17.5 percent), and non-store retailers (+11.8 percent). Electronics and appliance stores was the only sector to shrink, falling by 6.5 percent.

Household debt rose in 2022 as inflation ate away at surplus savings from the American Rescue Plan Act and other forms of government assistance ended. As prices grew faster than wages, consumers turned to savings and debt to maintain spending levels. As a result, the total household debt service ratio increased from the 1Q 2021 low of 8.33 percent to around 9.75 percent in 3Q 2022, essentially back to prepandemic levels.

While the savings rate reached 26.3 percent in March 2021, it fell to 2.2 percent in October 2022 as consumers continued to adjust to inflation. Expect to see the savings rate increase in 2023 but remain below the 10-year average from 2010 to 2019 of 7.3 percent.

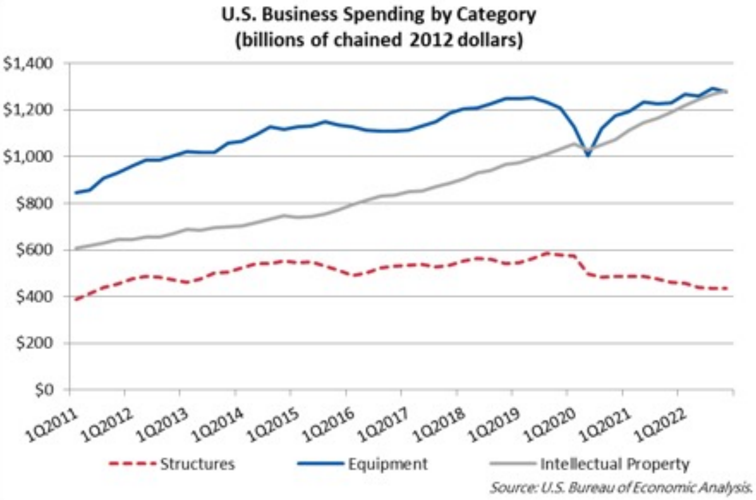
BUSINESS SPENDING & RESIDENTIAL FIXED INVESTMENT

Corporate profits rise, but business investment is mixed by category. Business investment increased again in 2022 after rebounding in 2021. The nonresidential business investment component, which consists of structures, equipment, and intellectual property investments, grew 3.6 percent compared to 2021. Investment in intellectual property and equipment rose 8.7 percent and 4.2 percent, respectively. Equipment investments have surpassed prepandemic levels, and investments in intellectual property products continue to set record highs. Business investments in nonresidential structures continued its 2021 pattern and fell by 7.4 percent in 2022 as businesses continue to adapt to workers' work from home preferences. After peaking in 3Q 2019, investment in structures has generally trended downwards.

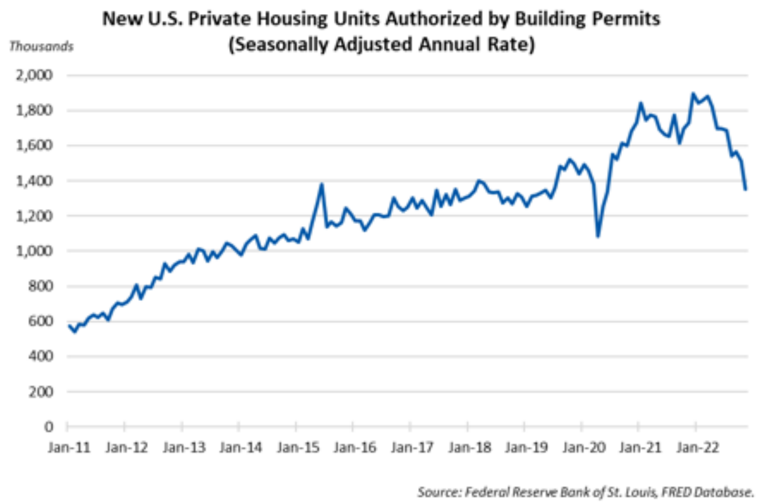
Corporate profits, which are highly correlated with investment spending, grew by 6.4 percent through 3Q 2022 from the same period in 2021. After rebounding in 2021, corporate profits trended upwards through 2Q 2022, reaching a record-high level before retreating slightly in 3Q 2022.

Residential investment fell as building costs and mortgage rates increased. Residential investment was down 10.7 percent through the third quarter of 2022 and showed signs of further slowing. Thirty-year fixed mortgage rates, which jumped to over 7 percent in October and November, priced many potential buyers out of the market. At the same time, materials costs rose drastically, limiting residential investment. New residential building permits fell 2.6 percent from 2021 levels. Materials and shipping prices fell late in 2022 to near prepandemic levels, which could lead to more building permits issued in 2023. However, as mortgage rates are expected to remain at levels similar to 2022, potential home buyers may still be shy, causing a continued decline in new residential building. Overall, minimal change in the number of units permitted is expected in 2023.

Business spending and residential investment will continue to moderate in 2023. Stabilization of materials cost will counteract increasing labor costs as investment growth will continue to moderate from 2021 levels in 2023.


U.S. Business Spending by Category
(billions of chained 2012 dollars)
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
1Q2011
1Q2012
1Q2013
1Q2014
1Q2015
1Q2016
1Q2017
1Q2018
1Q2019
1Q2020
1Q2021
1Q2022
Structures
Equipment
Intellectual Property
Source: U.S. Bureau of Economic Analysis.


U.S. Quarterly Corporate Profits
(Seasonally Adjusted Annual Rate)
$ Billions
$3,500
$3,000
$2,500
$2,000
$1,500
$1,000
$500
$0
1Q2011
1Q2012
1Q2013
1Q2014
1Q2015
1Q2016
1Q2017
1Q2018
1Q2019
1Q2020
1Q2021
1Q2022
Source: Federal Reserve Bank of St. Louis, FRED Database.
Note: corporate profits after tax without IVA and CCAdj.


New U.S. Private Housing Units Authorized by Building Permits
(Seasonally Adjusted Annual Rate)
Thousands
2,000
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Source: Federal Reserve Bank of St. Louis, FRED Database.

GOVERNMENT SPENDING

Total government spending decreased in 2022 as spending in response to the COVID-19 pandemic winds down. Government spending as a percentage of GDP peaked at 20.1 percent in 2Q 2020 but had fallen to 17.5 percent of GDP by 3Q 2022. Over-the-year government spending at all levels – federal, state, and local – fell 0.6 percent from 2021 levels. Government spending is expected to continue moderating as a percentage of GDP in 2023.

Federal government spending fell over the year. Federal defense and nondefense spending fell by 2.8 and 2.2 percent, respectively. With the expiration of the Coronavirus Aid, Relief, and Economic Security (CARES) Act and other COVID-19 response provisions, federal spending slowed from pandemic highs, but remains firmly above 2019 levels. Looking ahead to 2023, continued implementation of the Inflation Reduction Act and the CHIPS and Science Act will lead to the investment of billions of dollars in climate-change mitigation and U.S. semiconductor manufacturing.

The federal budget deficit fell between 2021 and 2022. The federal deficit, after peaking in 2020 at $3.1 trillion, fell to $1.4 trillion in 2022, down 50.4 percent from 2021. After the federal deficit reached nearly 15 percent of GDP in 2020, that comparative value dropped to 5.6 percent in 2022. While the Congressional Budget Office predicted that the deficit would fall to just under $1 trillion in 2023 in their May 2022 budget forecast, the CBO concedes that value may actually be higher due to interest costs and slower than expected economic activity.

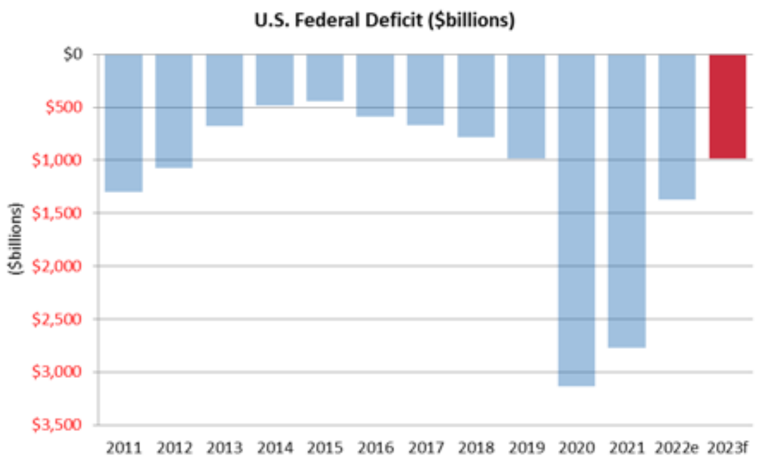
State and Local governments continue to spend at high levels. Spending by state and local governments continued at high levels, growing by 0.6 percent in 2022 compared to 2021. Looking ahead, state and local governments will continue to expend previously appropriated federal COVID relief funds, leading to continued moderate increases in spending levels.

NET EXPORTS

Trade volumes held steady in 2022 after a sharp increase in 2021. Net exports, or the value of exports minus the value of imports, generally represent a negative contribution to GDP of about 3 percent as U.S. exports tend to be smaller than imports. In 2022, net exports decreased GDP by about 4 percent as imports of goods and services, which grew at 6.9 and 14.5 percent respectively, outpaced the growth of exported goods and services that only grew at 6.3 and 9.2 percent.

Exports to nation's largest trading partners continued to grow in 2022. Trade with Canada and Mexico, which makes up 33.1 percent of all exports, grew by 16.8 and 18.5 percent through November 2022 compared with the same period in 2021, respectively, accounting for 31.4 percent of the total increase in exports. The U.S. exported more to each of its ten largest trading partners in 2022 with the largest increases going to the Netherlands (+37.6 percent) and the United Kingdom (+24.2 percent).

The U.S.'s largest export products are chemicals, transportation equipment, and computer and electronic products. All three grew in 2022, and only transportation equipment remains below prepandemic levels. Petroleum and coal products was the fastest growing export

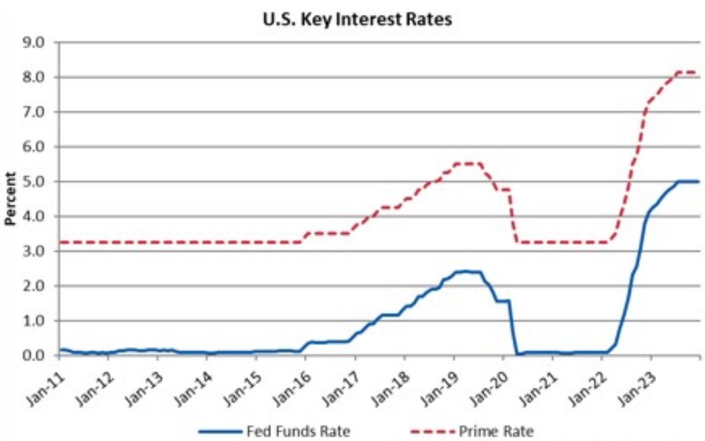


Sources: Congressional Budget Office; U.S. Department of the Treasury.

category in 2022, increasing by 63.2 percent over the year.

The IMF predicts trade headwinds in 2023 causing slower growth. Due to the Russian war in Ukraine, China's Zero COVID policy reversal, and overall slowing economic activity, the IMF predicts that global trade volume will grow by 2.5 percent in 2023, after growing by 4.3 percent in 2022 and 10.1 percent in 2021.

Source: U.S. Census Bureau, Foreign Trade Division.



Source: Board of Governors of the Federal Reserve System. 2023=DRP Forecast.

	2022	2023f	2012-19 AVG
PRIME RATE	4.8%	7.9%	3.7%

INTEREST RATES

Monetary Policy became more restrictive in 2022. The bank prime loan rate, or the interest charged on short-term business loans, increased to 7.27 percent in December 2022, rising by 4.02 percentage points from the December 2021 rate of 3.25 percent. The prime rate is highly correlated with the federal funds rate (the rate targeted by the Federal Open Market Committee (FOMC) for overnight loans between banks) and averages 3.1 percentage points above the federal funds rate. In response to high inflation, the FOMC began raising interest rates in March 2022 for the first time since the onset of the pandemic, increasing their target rate from 0.0-0.25 percent in February 2022 to 4.25-4.5 percent in December 2022.

Inflation climbed to 40-year highs that prompted tighter monetary policy in 2022 and will lead to continued tightening in 2023. Inflation in the U.S. reached 8 percent in 2022, up from 4.7 percent in 2021 and 1.2 percent in 2020. High energy and food prices, supply chain constraints, and a tight labor market pushed inflation to the year-over-year peak of 9.1 percent in June. The FOMC is expected to continue raising rates early in 2023 to continue fighting inflation. The federal funds rate will average 4.8 percent in 2023 and the prime rate will average 7.9 percent.

LABOR FORCE & EMPLOYMENT

EMPLOYMENT

Note: *Annual benchmark revisions to the employment and unemployment data series can significantly alter historic trends. As 2021 and 2022 data will be revised in March 2023, the exact revisions are not yet known. The following forecast is based on preliminary 2021 and 2022 data.*

	2022e	2022f	2022e
UNITED STATES	4.0%	1.8%	1.4%
COLORADO	4.4%	2.0%	2.2%
METRO DENVER	4.4%	2.2%	2.5%

The U.S. surpasses prepandemic employment levels. The U.S. recovered all jobs lost due to COVID as of August 2022. This means that recovery from the COVID Recession took 28 months, which was 23 months faster than the 51 months it took the country to recover from the Great Recession. U.S. employment increased 4 percent in 2022 after rising 2.8 percent in 2021. Growth is expected to slow in 2023 as continuing recessionary concerns cause a slowdown in consumer spending.

Colorado job market more robust than nation as a whole. Colorado experienced employment growth higher than the national average as the leisure and hospitality sector, which includes tourism-serving industries, rebounded significantly and companies continued to expand in and relocate to the state in order to gain access to the highly educated workforce. Colorado recovered all the jobs lost due to COVID in February 2022, a 22-month recovery. The state's recovery was completed more than a year sooner than the recovery from the Great Recession, which took 38 months in Colorado. Colorado is expected to grow at a slightly faster pace than the U.S. in 2023 with the addition of 56,000 jobs.

Strong employment growth occurs throughout the state. There are seven metropolitan statistical areas in the state, covering 17 of the 64 counties. All of the MSAs reported employment growth of roughly 3 percent or higher in 2022, surpassing the state's average 10-year growth rate of 2.2 percent.

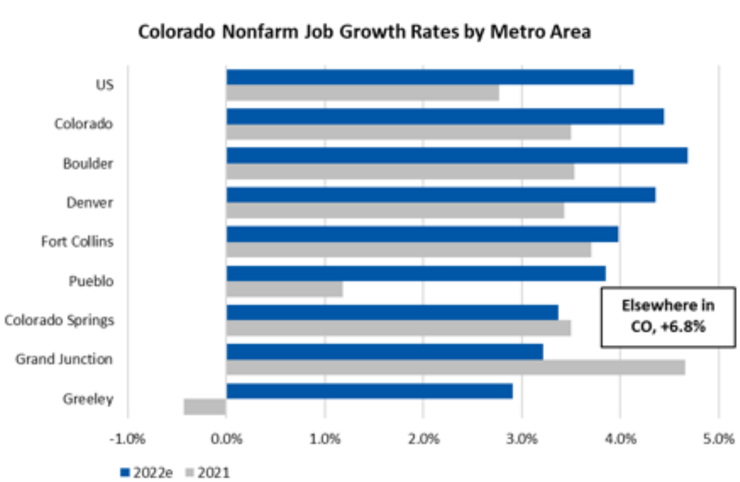
The Boulder MSA (+4.7 percent) and Denver MSA (+4.4 percent) reported the strongest employment increases in 2022. While the two metro areas have strong employment bases in the business and professional services sector, both MSAs experienced strong growth in leisure and hospitality as tourism rebounded and in-person establishments welcomed customers back to their businesses.

The Boulder and Fort Collins (+4 percent) MSAs benefited from a full return to in-person schooling at the University of Colorado Boulder and Colorado State University after posting slower growth in 2021 due to a lack of student spending in the communities.

The Pueblo MSA (+3.9 percent) experienced solid growth due to expanded steel activity as well as other manufacturing and metalwork jobs. The Colorado Springs (+3.4 percent) and Grand Junction (+3.2 percent) MSAs reported slower growth rates than in 2021. While employment growth in those two metro areas was supported by the movement from urban areas to less dense regions in 2021, that movement was not as prevalent in 2022 and growth rates returned to more normal trends.

The Greeley MSA reported the slowest growth of the MSAs in Colorado (+2.9 percent) but saw significant improvement from 2021 (-0.4 percent). The Greeley MSA has a strong concentration of both traditional and renewable energy companies, and both sectors continued to experience regulatory and market challenges in 2022.

Employment in the state's 47 nonmetro counties increased 6.8 percent in 2022, up from a 5.3 percent pace in 2021. In particular, employment in the mountain resort regions of the state increased due to strong tourism activity.



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

Metro Denver employment situation also fared better than the nation, but growth constrained by labor availability. Metro Denver recovered all of the jobs lost due to COVID in February 2022, the same as Colorado. The employment recovery was strong throughout 2022, with employment growth averaging 4.4 percent during the year, bringing total employment to 1.78 million.

Professional and Business Services industry grows as base of Metro Denver employment. Industry employment data are grouped according to the North American Industry Classification System (NAICS) codes. This coding structure includes 20 detailed industry sectors that are combined to form 11 "supersectors."

While ten of the 11 supersectors in Metro Denver lost employment from 2019 to 2020 due to the pandemic, all supersectors increased from 2021 to 2022. However, the leisure and hospitality and government supersectors are still posting total employment that is less than 2019.

Professional and business services, Metro Denver's largest employment supersector, is expected to continue growing and is forecasted to make up 20.4 percent of all employment in 2023, up from 18.3 percent in 2019. Wholesale and retail trade and all levels of government employment (federal, state, and local) are the next largest supersectors, with employment currently representing 13 to 13.5 percent of the region's total employment. Since the COVID-19 pandemic began, professional and business services, transportation, warehousing and utilities, and other services have grown to make up more of the employment base. On the other hand, the government, leisure and hospitality, and wholesale and retail trade supersectors now represent a smaller share of the region's employment base compared with 2019.

The employment situation improved significantly in 2022 with all supersectors adding workers. The fastest rate of growth occurred in the leisure and hospitality supersector (+10.9 percent, +18,000 jobs) as consumers returned to in-person experiences such as travel and eating out at restaurants. Other services (+6.6 percent, 4,200 jobs), which was also hit hard by the pandemic, also posted strong growth. Professional and business services (+8.4 percent, 27,600 jobs) was the second fastest-growing industry for the second consecutive year and added the most new jobs. Nine of 11 supersectors reported higher employment levels in 2022 than in 2019 after only five were at prepandemic levels on average in 2021. Only the leisure and hospitality and government supersectors remain below 2019 employment levels in 2022.

2023 employment growth slower than 2022 but nears historic average growth rate. As the region and the country face headwinds moving into 2023, employment in Metro Denver is expected to increase at a slower pace of 2.2 percent in 2023, representing the addition of 39,000 jobs.

The forecasted addition of jobs in Metro Denver will occur across all supersectors with the exception of financial activities. Financial activities employment will be challenged on several fronts, including continuing uncertainty in the investment markets, the slower home sales environment, and softer commercial real estate activity.

All supersectors are expected to increase at a slower pace in 2023 than occurred in 2022 with the exception of government. After two years of declining federal government employment, a modest increase is expected in 2023 at the local branches of federal offices. State government employment is expected to increase at a faster pace than last year as federal stimulus funds continue to be spent throughout the state, while local government employment will continue to expand at roughly the same pace as last year. Despite the faster pace of growth, the government supersector is still expected to have about 6,300 fewer jobs in 2023 than in 2019.

The professional and business services supersector is expected to increase at the fastest pace (+4.3 percent) and add the most new jobs (+15,100 jobs). Leisure and hospitality is expected to post the second-fastest growth rate, but the supersector will continue to struggle to find the needed workers. Even with the expected employment increase, leisure and hospitality is still expected to be about 4,500 positions lower in 2023 than the 2019 level.

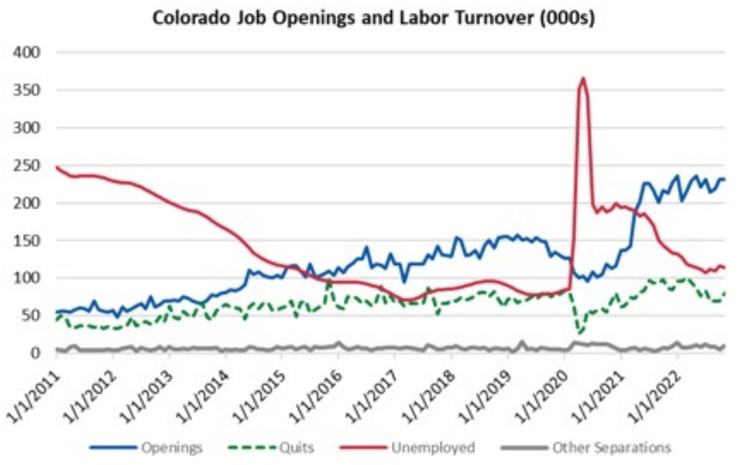
Employment in Metro Denver is expected to reach 1,821,000 workers in 2023. Had employment growth trends that prevailed from 2010 to 2019 continued from 2019 to current, employment in Metro Denver would have totaled 1,916,000 workers in 2023. In other words, despite the swift recovery pace that occurred in 2022 and solid performance in 2023, the region is still tracking about 95,000 jobs below the perfect pace. However, that would also imply that the workers needed to push employment to a higher level in 2023 were available. As will be discussed in the Unemployment section, job openings throughout Colorado far surpass the number of people unemployed.

UNEMPLOYMENT

Employment growth held back by historically tight labor market. Across the country, businesses in all industries are struggling to hire and retain quality workers. Nationally, the monthly Job Openings and Labor Turnover Survey (JOLTS) reported that as of the end of November 2022, businesses were trying to fill 10.5 million jobs, but there were only 6 million people unemployed, or 0.6 unemployed persons per job opening. This is virtually unchanged from the end of 2021. In 2019, in a period of historically low unemployment, the ratio was 0.8 unemployed people per job opening.

Labor turnover remained an issue as workers continued to quit jobs at high levels. The JOLTS data also tracks the number of worker separations. These separations can be defined as voluntary (quits), involuntary (layoffs and discharges), and other separations (retirement, death, disability, and transfers). Involuntary separations peaked in 2020 in response to COVID but have since settled at historic low levels. The voluntary separation rate reached 3 percent as 4.5 million people quit their jobs in November 2021. The quit rate has settled back to 2.7 percent, representing 4.2 million workers quitting.

The quits rate was highest in the leisure and hospitality sectors (+5.4 percent), retail trade (+3.9 percent), and transportation, warehousing, and utilities (+3.9 percent). While the quits rate is highest in low-wage sectors, the measure remained above 2.5 percent in both the professional and business services (+3.2 percent) and education and health services (+2.6 percent) sectors.



Source: U.S. Bureau of Labor Statistics, Job Openings & Labor Turnover Survey, seasonally adjusted.

As such, labor retention issues are not limited specifically to low-wage industries and are a factor across the entire labor market.

Colorado experienced above national average job openings and quits through July 2022 but returned to the national average towards the end of 2022. The state reported 0.5 unemployed people per job opening in November 2022, slightly below the national average, due to there being 231,000 job openings and 114,000 unemployed people in Colorado. In other words, companies in Colorado in November had 117,000 more job openings posted than there were unemployed individuals to fill them. Going back to the issue of Metro Denver employment being 95,000 jobs short of the perfect pace in 2023, it becomes obvious that the tight labor market means that even if companies were actively recruiting for the additional positions, it is unlikely that they would be successful in filling the position.

The state quit rate jumped in March 2021 to 2.7 percent and was at or above the national level every month from May 2021 to May 2022. During this time, the quits rate in Colorado averaged 3.3 percent, 0.4 percentage points above the national average. The quits rate in Colorado in November remained elevated at 2.8 percent, which was higher than the national rate of 2.7 percent.

The high quits rate in 2021 and 2022 occurred during a period of high employment growth and low unemployment, which tends to tilt negotiating power towards workers. Increased work from home flexibility and high levels of job openings empowered workers to leave jobs to pursue higher wages, larger benefits packages, and increased job satisfaction. Employees have continued to evaluate their career options in a time of abundant job openings. There were 88,000 more job openings in Colorado in October 2022 than there were in the same period in 2019.

Colorado unemployment rate consistently below national average. Colorado's unemployment rate was essentially the same as the national level in 2021. In 2022, Colorado reported a lower unemployment rate than the national average in 10 of the 11 months for which data is available. Colorado has historically reported one of the lowest unemployment rates in the country, but in 2021 had the 15th highest unemployment rate. Driven by the revival of the tourism industry and the continued worker shortage, Colorado ranked as having the 25th highest unemployment rate in the country in November 2022.

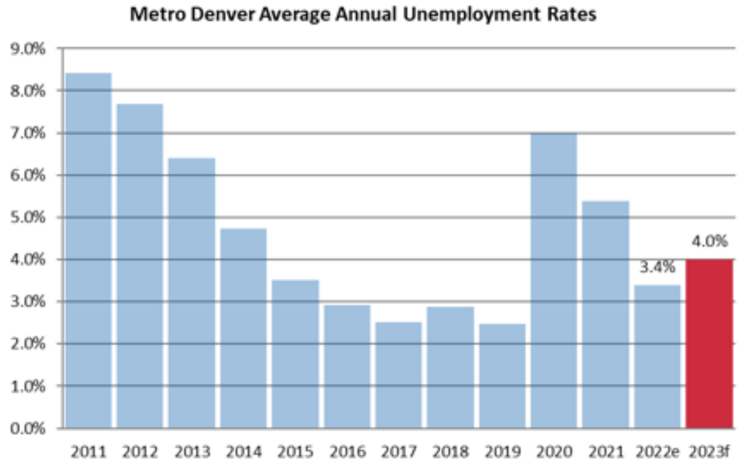
In 2022, the unemployment rate averaged 3.4 percent in Colorado compared with the 3.6 percent average rate across the country. The historic number of job openings served to lower the state unemployment rate by an estimated 2 percentage points from 2021. The unemployment rate is expected to rise to 3.9 percent in 2023 in Colorado compared with the national average of 4.1, as increased interest rates and a general economic slowdown cause a slight reduction in business hiring patterns.

Unemployment in Metro Denver on par with the state level. An average of just over 64,000 people were unemployed in Metro Denver each month in 2022, down from the 99,000 unemployed on average in 2021. Metro Denver remains above the prepandemic 2019 average of almost 45,000 unemployed and looking for work. As businesses are likely to curtail the amount of job openings Metro Denver's unemployment rate is expected to rise to 4 percent, 0.1 percentage points higher than the state level.

Labor force participation in Colorado rose above prepandemic levels. In response to COVID-19, the labor force contracted significantly as workers dropped out of the labor force. The return of workers to the labor force has been uneven across the country as some workers chose to retire early, return to school to build skills through education, or remain out of the labor force to care for their children.

The U.S. labor force participation rate peaked at 63.3 percent in late 2019 and early 2020. After sinking to a pandemic low of 60.1 percent in April 2020, the rate has improved to about 62.3 percent. This low participation rate translates to about 2.7 million fewer people in the labor force.

Colorado's labor force participation rate improvement has been much more rapid. Colorado is one of only four states



Source: Colorado Department of Labor and Employment, Local Area Unemployment Statistics. 2022e=DRP Estimate; 2023f=DRP Forecast.

to have a fully recovered labor force participation rate, which at 69.2 percent comes in at 0.6 percentage points higher than the prepandemic figure from January 2020. Colorado's labor force participation rate reflects a population with a lower median age, and a productive worker base. Colorado has the second-highest labor force participation rate in the country.

Colorado experienced modest rise in self-employment. Early in the pandemic there was a push for individuals to work as part of the self-employed "gig" economy. Labor force statistics include individuals 16 years old or over that are either working in a wage and salary position, working in a gig position, or are actively pursuing a job. As the labor force has reached record high levels in the state and in Metro Denver, it is possible that many individuals have started their own business.

The number of proprietors in the state may be used as a proxy for the number of gig positions held by Colorado residents, with these numbers reflecting the number of proprietor positions, not the number of proprietors, as some individuals may hold more than one gig position. The number of proprietors peaked in 2018 but declined slightly in 2019 as wage and salary job opportunities were plentiful. In 2020 and 2021, 27 percent of Colorado's total employed positions were proprietors, the fifth highest concentration in the country. This represented 1,064,000 proprietor positions, of which nearly 58 percent were located in Metro Denver. Proprietor employment jumped in 2020 and remained high in 2021.

Analysts have suggested that a wave of individuals pursued their own business during the pandemic in order to achieve more flexible working conditions while meeting household responsibilities. Moving forward, the challenge is to help these entrepreneurs successfully maintain and grow their businesses. If 2021 was a reasonable indication of the availability of assistance, the outlook for the future is bright. Colorado's venture capital funding in 2021 shattered records with almost $7 billion invested in 497 deals, according to PitchBook's Venture Monitor report. Between 2020 and 2021, the number of deals rose 28.1 percent and the amount invested grew 133.6 percent over-the-year. The region's record-breaking investment pace in 2021 can be partly attributed to increased interest from out-of-state investors and the availability of seed and institutional capital.

2023 METRO DENVER ECONOMIC FORECAST

COMMERCIAL REAL ESTATE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COMMERCIAL REAL ESTATE

Commercial real estate fundamentals were mixed in Metro Denver in 2022. Vacancy rates increased across three of the four property types, with the retail market reporting the only decrease in vacancy. The office market reported negative net absorption in 2022, while industrial, flex, and retail all reported positive net absorption for the year. The average lease rate increased in all four property types despite some concerning trends. For example, the office market in Metro Denver saw multiple 100,000-square-foot sublease listings posted in 2022 as companies continued to grapple with the popularity of work from home. Further, companies that have been constructing and demanding industrial space have been slowing down or pausing plans to expand warehousing space in particular.

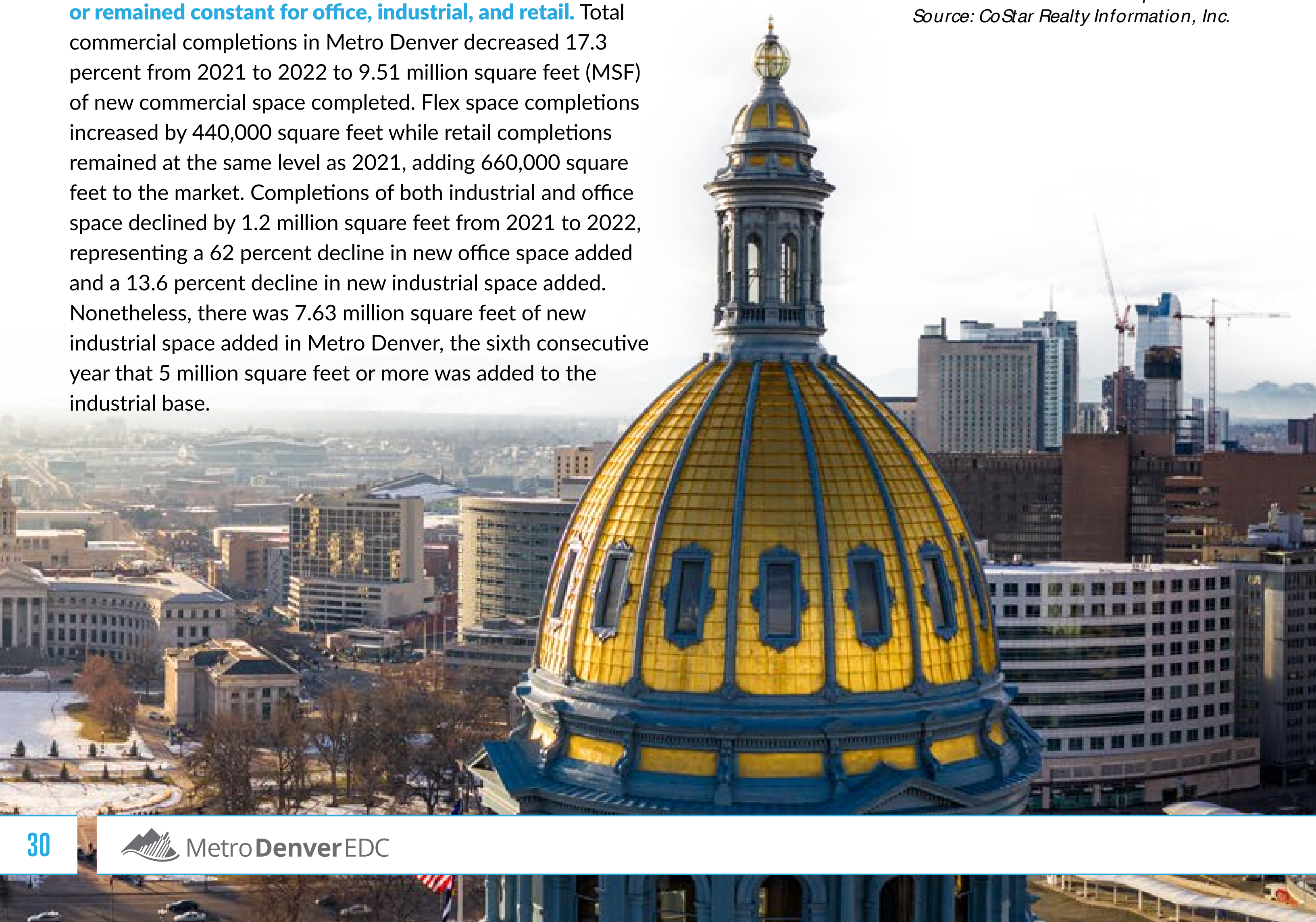
The commercial real estate market will continue to be mixed in 2023 with industrial and flex space continuing to report reasonable demand, and mixed results for the retail and office space markets depending on the resilience of consumer spending and the continued transition back to in-office work.

Construction activity increased for flex space, but declined or remained constant for office, industrial, and retail. Total commercial completions in Metro Denver decreased 17.3 percent from 2021 to 2022 to 9.51 million square feet (MSF) of new commercial space completed. Flex space completions increased by 440,000 square feet while retail completions remained at the same level as 2021, adding 660,000 square feet to the market. Completions of both industrial and office space declined by 1.2 million square feet from 2021 to 2022, representing a 62 percent decline in new office space added and a 13.6 percent decline in new industrial space added. Nonetheless, there was 7.63 million square feet of new industrial space added in Metro Denver, the sixth consecutive year that 5 million square feet or more was added to the industrial base.

Metro Denver Commercial Real Estate Fundamentals

	4Q 2022	4Q 2021
Office		
Vacancy Rate (with sublet)	14.3%	13.9%
Average Lease Rate	$30.99	$29.47
New Construction (YTD, MSF)	0.75	1.98
Industrial		
Vacancy Rate (with sublet)	5.7%	5.2%
Average Lease Rate	$9.70	$9.22
New Construction (YTD, MSF)	7.63	8.83
Flex		
Vacancy Rate (with sublet)	6.3%	6.2%
Average Lease Rate	$15.20	$14.39
New Construction (YTD, MSF)	0.47	0.03
Retail		
Vacancy Rate (with sublet)	4.2%	4.7%
Average Lease Rate	$20.22	$19.30
New Construction (YTD, MSF)	0.66	0.66

Notes: Vacancy includes direct and sublet space. All lease rates are per square foot for direct space only. Office lease rate is full service and all other lease rates are triple-net.
MSF=Million Square Feet.
Source: CoStar Realty Information, Inc.



Despite softer economic conditions, all four property types are expected to see an increase in square footage completed in 2023, mainly due to the anticipated completions of projects already underway. The number and size of new projects to be added to the pipeline throughout 2023 is expected to be more constrained than recent years. Once again, the industrial market is expected to add the most space, an estimated 8.1 million square feet. In total, 11.5 million square feet will be completed in 2023, the second-highest amount on record.

In general, a robust commercial real estate construction market is regarded as positive as it represents significant job opportunities for construction workers and enhanced sales for regional suppliers of construction goods and services.

However, an over-built commercial real estate market is challenging as rising vacancy rates diminish community vibrancy and falling lease rates discourage current and future investment. While the level of construction activity in Metro Denver is not currently out of sync with business needs, indicators should be watched closely for changes in demand and supply conditions. The commercial real estate market does not always perform at the perfect pace; sometimes it is necessary to adjust current development plans and take a longer-term view of the amount of space needed in the market.

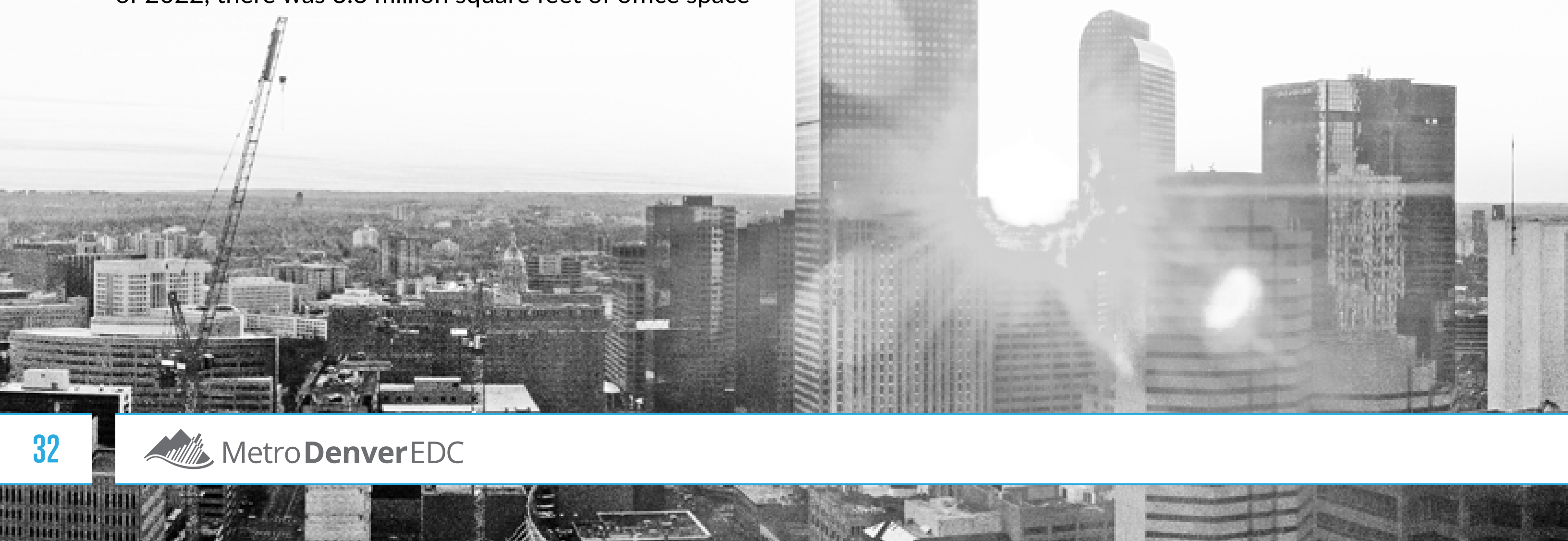
	4Q2022	4Q2022f	2010-19 Avg.
VACANCY RATE (WITH SUBLET)	14.3%	14.7%	10.7%
COMPLETIONS (MSF)	.75	1.76	1.70

Amid high direct vacancy, sublease space increased and negative net absorption continued. In the fourth quarter of 2022, Metro Denver's office vacancy rate rose by 0.4 percentage points over-the-year to 14.3 percent, reflecting a 12.2 percent vacancy rate for direct space and a 2.1 percent rate for sublet space. This represented almost 29 million square feet of vacant office space at the end of 2022. The increase in sublease space was substantial, rising from 3.2 million square feet at the end of 2021 to 4.2 million square feet at the end of 2022. The amount of sublease space was nearly a record high for the region, coming in just 14,000 square feet below the 4Q 2001 record level of 4,197,000 square feet of sublease space. Net absorption in 2022 was negative for the third consecutive year. However, negative net absorption fell by almost 95 percent in 2022, coming in around 84,000 square feet, down from nearly 1.7 million square feet of negative net absorption in 2021. Despite the increase in sublease space and continuing negative net absorption, the average direct gross lease rate increased by 5.2 percent over-the-year.

More completions are expected in 2023 than in 2022. There were 14 office buildings completed in 2022, delivering 0.75 million square feet to Metro Denver. Several large projects were delivered in 2022 including the 250,402-square-foot One Platte building in Downtown Denver and the 181,687-square-foot Kiewit Regional Headquarters phase two building in Lone Tree. At the end of 2022, there was 3.3 million square feet of office space across 24 buildings under construction in Metro Denver. Of this space, 18 buildings with 1.7 million square feet are expected to be completed in 2023. Expected completions include two notable new buildings in the River North area of Denver, The Current (238,000 square feet) and T3 (235,000 square feet).

Office market challenges continue into 2023. Trends that began in 2021 are expected to continue into 2023. Sublease space will remain a concern while direct vacancy will continue to rise as new construction is completed. The amount of available office space will continue to outpace the demand by companies as they respond to employees spending less time working in the office and hybrid remote strategies remain prevalent. Market data indicates the office market will experience a continued flight to quality, with Class A office buildings that offer desirable technology, amenities, and flexible space capturing a growing share of demand. Class B and C office buildings may be considered for conversions into residential space.

Source: CoStar Group.
2023f=DRP Forecast.



METRO DENVER INDUSTRIAL

	4Q2022	4Q2022f	2010-19 Avg.
VACANCY RATE (WITH SUBLET)	5.7%	6.8%	4.5%
COMPLETIONS (MSF)	7.63	8.08	2.75

Both supply and demand in the industrial real estate market remained strong. The vacancy rate in the industrial market increased to 5.7 percent in 2022 with the direct vacancy rate up 0.4 percentage points to 5.3 percent and vacancy for sublet space up 0.1 percentage points to 0.4 percent. In 2022, net absorption in the industrial market remained positive each quarter but peaked markedly in the middle two quarters of the year. Net absorption was almost 4.8 million square feet in the second and third quarters combined, accounting for almost 80 percent of the total net absorption for the year. The average lease rate increased throughout the year, with the average lease rate up 5.2 percent over-the-year in the fourth quarter of 2022.

Completed industrial space declined 13.6 percent in 2022. Metro Denver posted 7.6 million square feet of new industrial space completed across 42 buildings, marking the sixth consecutive year that 5 million square feet or more of industrial space was completed. The largest industrial building completed in Metro Denver was the 1.3 million-square-foot Shamrock Food Regional Headquarters building in Aurora. The next largest buildings were the 588,085-square-foot First Aurora Commerce Center Building E in Aurora and the 541,840-square-foot Highpoint Building 1 in Aurora.

As of 4Q 2022, there was 7.8 million square feet of space under construction in 41 buildings, indicating strong expectations for 2023. Of the buildings currently under construction, 40 are slated for completion in 2023. With a handful of buildings in the planning stages also getting underway, about 8.1 million square feet is expected to be completed in 2023. The largest buildings expected are the 919,000-square-foot Dollar General warehouse in Aurora and a 625,000-square-foot building in the DIA Logistics Park, also in Aurora.

More limited new logistics space needed and manufacturing slowdown on the horizon. As more logistics companies, most notably Amazon, have indicated that their occupied warehouse space has about caught up with their supply chain needs, there is some concern that the industrial market will reach an over-supplied position in 2023. Further, according to the Institute for Supply Management's Manufacturing Index, the Purchasing Managers Index was 48.4 percent in December 2022. This figure indicates contraction in the manufacturing sector for a second consecutive month. While a couple of months in contraction territory does not make a trend, it is enough to raise concern about the future health of the sector. The direct vacancy rate in the industrial market is expected to increase 1.2 percentage points to 6.5 percent while vacancy in sublet space will remain stable at 0.3 percent, bringing the total vacancy rate to 6.8 percent in 2023.

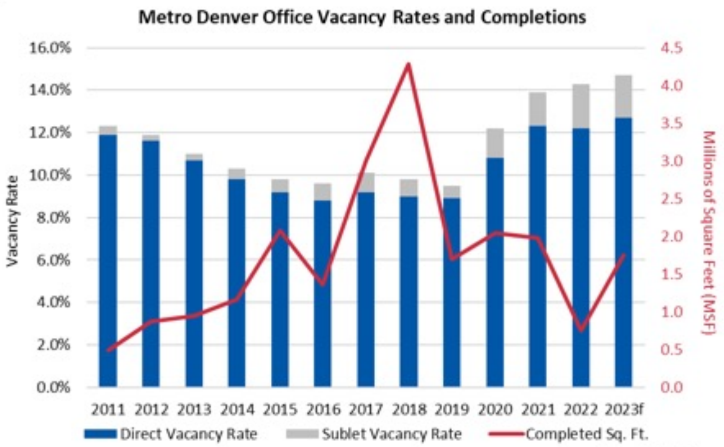
METRO DENVER FLEX

	4Q2022	4Q2022f	2010-19 Avg.
VACANCY RATE (WITH SUBLET)	6.3%	7.0%	7.8%
COMPLETIONS (MSF)	.47	.67	.31

Metro Denver's flex market encompasses buildings designed to meet a variety of uses including office, R&D, wholesale, light industrial, and warehousing. In 2022, the vacancy rate for flex reached 6.3 percent, similar to the value reported in 2021. The direct vacancy rate for flex space fell 0.2 percentage points to 5.6 percent in 2022 and the sublet vacancy rate rose 0.3 percentage points to 0.7 percent, for a total vacancy rate of 6.3 percent. As of the end of 2022, the average direct NNN lease rate of $15.20 per square foot was 5.6 percent higher than the same time in 2021.

Construction activity in the flex market increased in 2022 after completions fell sharply in 2020 and 2021. There was 470,000 square feet of flex space completed across 11 buildings in 2022, up from 30,000 square feet completed in 2021. Based on current projects slated for delivery in 2023, about 670,000 square feet of space is expected to be completed, the highest level of activity since 2008. Of the flex space currently under construction, almost 50 percent is in Boulder and Broomfield Counties.

The direct vacancy rate is expected to rise in 2023, reaching 6.6 percent, while sublease vacancy is expected to decrease to 0.4 percent vacant. The increase in the vacancy rate will primarily be caused by the large amount of industrial space that is expected to be added to the market. As companies choose between multiple space options, it is likely that older flex space will be vacated.



Source: CoStar Group. 2023f=DRP Forecast.

METRO DENVER RETAIL

	4Q2022	4Q2022f	2010-19 Avg.
VACANCY RATE (WITH SUBLET)	4.2%	4.6%	5.1%
COMPLETIONS (MSF)	.66	.99	1.12

Metro Denver's retail market continued to show strength in 2022 as consumer spending remained at a strong pace. The vacancy rate in the retail market decreased 0.5 percentage points to 4.2 percent in 2022, reflecting direct vacancy of 4.1 percent and sublet vacancy of 0.1 percent. After four consecutive quarters of negative net absorption between 2Q 2020 and 1Q 2021, net absorption remained positive and increasing for the next seven quarters, ending 2022 with positive net absorption of nearly 1.4 million square feet. The average lease rate hit a record high of $20.22 in the fourth quarter of 2022, up 4.8 percent over-the-year.

Retail construction pipeline will increase by 50 percent in 2023. In 2022, retail completions remained at 660,000 square feet, the same level as 2021. The largest retail space completed in 2022 was the 133,512-square-foot Lowe's Hardware in Boulder. Over half of the retail space built in 2022 was located in Boulder and Denver Counties. In 2023, current data indicate completions will increase to about 990,000 square feet. Two retail properties larger than 100,000 square feet are slated for delivery in 2023, the Reunion Station in Commerce City and the Amber Creek neighborhood in Thornton.

While the percentage increase in expected retail construction is large, the amount of space to be added is below the 10-year average of 1.1 million square feet added per year from 2010 to 2019. Retail construction generally consists of smaller properties that are 10,000 square feet or less.

Retail market noted as offering investment opportunities. According to CBRE, the retail real estate market fundamentals are strong, driven largely by a lack of new construction as national retail deliveries reached record lows over the past three years. With new construction still limited, developers and investors are likely to focus on redesigning and redeveloping existing space, with conversions to other uses such as office, industrial, and residential. Further, Dr. Glenn Mueller of the University of Denver noted in the 3Q 2022 Real Estate Market Cycle Monitor Report that all 54 retail markets tracked across the country, including Denver, are said to be in equilibrium based on the level of new construction, change in lease rates, and current vacancy rates.

2023 METRO DENVER ECONOMIC FORECAST

CONSUMER ACTIVITY

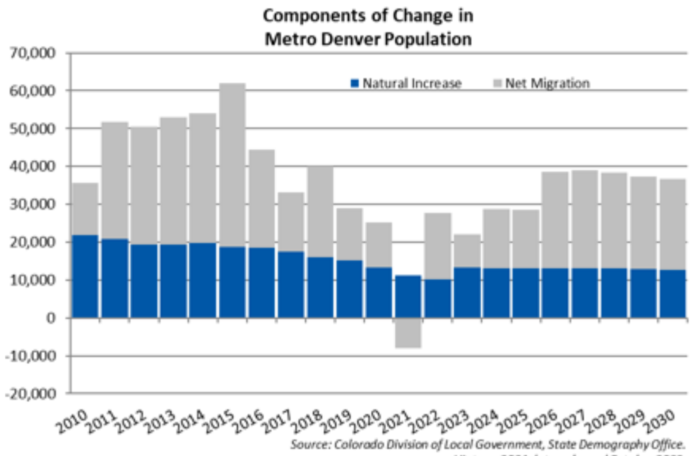
POPULATION

Metro Denver population growth rate increased from 2021 low. Population in Colorado increased by 42,800 people from 2021 to 2022 to reach almost 5.9 million. According to data from the U.S. Census Bureau, Colorado ranked 19th for its population growth rate. In contrast, the U.S. population increased just 0.4 percent during that same time, which was an increase from the 0.2 percent growth rate from 2020 to 2021. Metro Denver is home to 3.3 million people, representing 56 percent of the state's population. The 0.9 percent increase in Metro Denver's population from 2021 to 2022 was a substantial increase from the 0.1 percent growth rate posted from 2020 to 2021.

	2022e	2023f	2010-19 Avg.
COLORADO	5,857,513	5,913,110	75,806
POP. GROWTH RATE	0.7%	0.9%	1.4%
METRO DENVER	3,271,928	3,294,053	45,354
POP. GROWTH RATE	0.9%	0.7%	1.5%

Metro Denver's population is expected to increase by 0.7 percent in 2023, a slower pace than the state as new housing growth is expected to be higher in counties surrounding Metro Denver, attracting residents to areas just outside of the seven counties. Colorado's population increase of 0.9 percent in 2023 is expected to be higher than the 0.5 percent national pace of population increase.

Net migration patterns shifted significantly due to the pandemic. Population growth is comprised of both natural increase and net migration. Natural increase is the difference between births and deaths, and typically changes only gradually as the population ages, although 2021 and 2022 had atypical dips due to pandemic influences. Net migration is the number of people moving into an area minus the number leaving, and it tends to be more volatile as economic cycles, housing costs, and other less-predictable factors tend to influence population mobility. For the ten-year prepandemic period from 2010 to 2019, net migration represented about 59 percent of total Denver metropolitan area population growth and natural increase represented 41 percent, reflecting an average of 26,700 new residents each year from net migration and 18,700 new residents each year from natural increase.

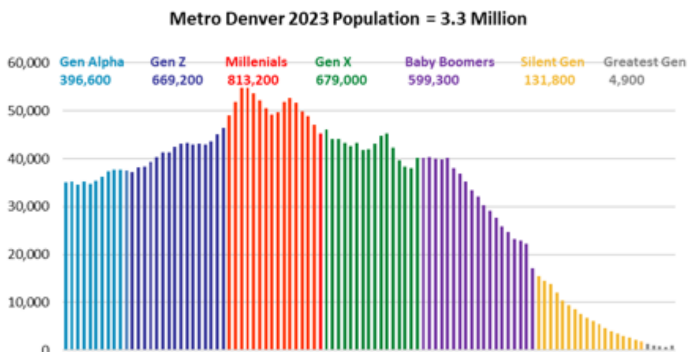


Source: Colorado Division of Local Government, State Demography Office. Vintage 2021 data, released October 2022.

Metro Denver experienced net out-migration in 2021 for the first time since 2003 (-1,900 people) and 2005 (-1,400 people). In 2021, 8,000 more people moved out of Metro Denver than moved in, the largest net out-migration from the region since 1990. In 2021, only Broomfield and Douglas Counties posted net in-migration while the other five Metro Denver counties experienced net out-migration as individuals presumably moved from more densely populated areas to more open areas. The situation changed again in 2022 as net migration accounted for 64 percent of Metro Denver's population increase, but this figure is expected to fall to 40 percent in 2023. Natural increase is expected to rebound in 2023 as the region is expected to have 13,300 more births than deaths.

In total, the population in Metro Denver increased by a mere 3,200 people in 2021, 27,800 people in 2022, and 22,100 people in 2023. It is not until 2024 that the region is expected to reach more historic population growth patterns. Even so, the population is expected to increase by an average of 35,300 people per year for the 10-years from 2024 through 2033 compared with the 45,400 average addition from 2010 through 2019.

Population by generation influences earning patterns, labor market. Millennials are the largest generational group in Metro Denver, totaling 813,200 in 2023 and accounting for nearly 25 percent of the area's population. Millennials are the key working segment of the population in Metro Denver, so the strong concentration of individuals in the 27 to 42 years category bodes well for continued strength in terms of personal income growth when combined with Colorado's high labor force participation rate. The majority of household wealth tends to be held by the baby boomers, who now total about 599,300 and are the fourth largest generational group in Metro Denver. A strong concentration of baby boomer residents tends to bode well for spending on entertainment and other services in the region in coming years.



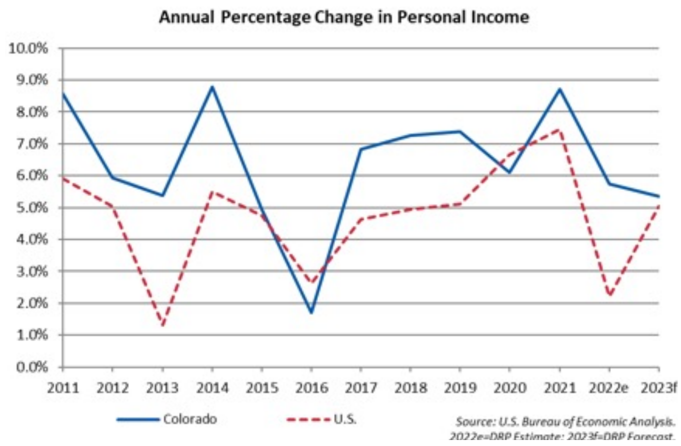
PERSONAL INCOME

	2022e	2023f	2010-19 Avg.
UNITED STATES	2.2%	5.0%	4.4%
COLORADO	5.7%	5.4%	6.0

U.S. personal income growth slowed in 2022 as COVID stimulus funds ended. In 2022, personal income expanded 2.2 percent at the national level as federal policy responses to the pandemic phased out, and high inflation and growing fears of recession challenged investment income. The boost from direct economic assistance payments and enhanced unemployment insurance benefits ended in 2022 but rising wages and tight labor market conditions kept personal income growth positive. After government benefits subsided, wages and salaries – the largest component of personal income – continued to rise steadily.

Colorado's personal income growth in 2022 higher than nation. In Colorado, proprietors' income comprises a higher percentage of personal income than the nation, and data indicate that proprietors' income in Colorado continued to fare better than nationally. Wages and salaries also comprised a higher percentage of personal income in Colorado compared with the nation and the tight labor market kept wage increases robust. The average annual wage in Colorado increased to $70,600 in 2021, a 6 percent increase over 2020. The average annual wage is expected to increase by 7.5 percent in 2022 as continued tightness in the labor force is causing employers to offer above-average salary increases in order to attract and retain workers.

Positive personal income growth in 2023 due to higher wages even as unemployment rates rise. In 2023, personal income in the U.S. will increase by an estimated 5 percent compared with 5.4 percent growth in Colorado. While wage increases did not keep pace with high inflation in 2022, slowing inflation in 2023 means real personal income will increase at modest levels in 2023. Colorado is expected to have faster personal income growth than the nation in 2023 due to faster wage and salary growth and faster growth in proprietors' income.



INFLATION (CONSUMER PRICE INDEX)

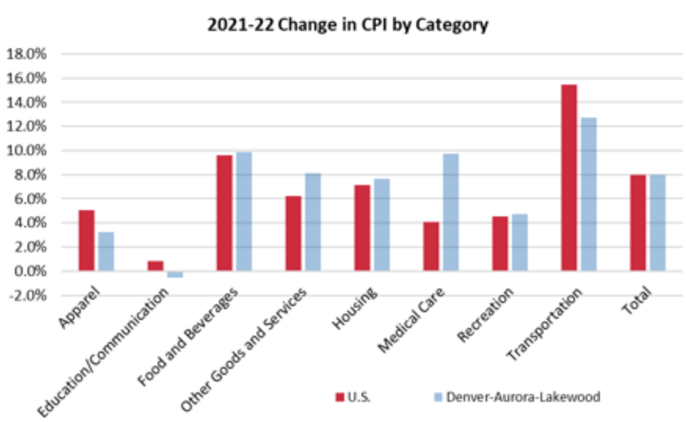
	2022e	2023f	2010-19 Avg.
UNITED STATES	8.0%	4.5%	1.8%
METRO DENVER*	8.0%	4.8%	2.5%

*DENVER-AURORA-LAKEWOOD MSA

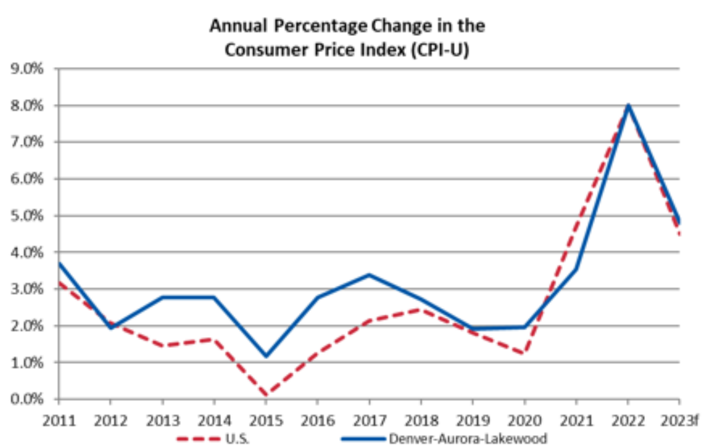
National inflation matches Metro Denver. The Consumer Price Index in the Denver-Aurora-Lakewood MSA rose at a level not experienced since the early 1980s, coming in at the same level as the national price increase. Consumer prices grew by 8 percent in Metro Denver in 2022, 4.5 percentage points higher than the 2021 rate. Inflation was fueled early in the year by high oil and gas prices as global tensions and sanctions in Europe due to the Russia-Ukraine war were introduced and continued supply chain issues. The rising energy prices then permeated all categories as transportation costs are a part of just about every good and service sold. In 2022, transportation costs rose the fastest in Metro Denver (+12.7 percent), followed by food and beverage (+9.9 percent), and medical care (+9.7 percent). Nationally, the transportation index also rose the fastest, outpacing the increase in Metro Denver.

Nationally, year-over-year inflation peaked at 9.1 percent in June. This was followed by six consecutive months of over-the-year declines, with inflation falling to 6.5 percent in December 2022 as consumer spending began to cool in response to rising interest rates and the untangling of global supply chains. Inflation in Metro Denver was 6.9 percent in November, the most recent month for which data was available, falling from a peak of 9.1 percent in March.

Historically low unemployment and high nominal wage growth may push the Federal Open Market Committee (FOMC) to keep interest rates high to ensure that price increases continue to slow in 2023. Expect price increases to remain above the Federal Reserve's target rate of 2 percent in 2023, but prices will increase at a more moderate pace of 4.5 percent nationally and 4.8 percent in Metro Denver.



Source: U.S. Bureau of Labor Statistics.



Source: U.S. Bureau of Labor Statistics.
2023f=DRP Forecast.

RETAIL TRADE

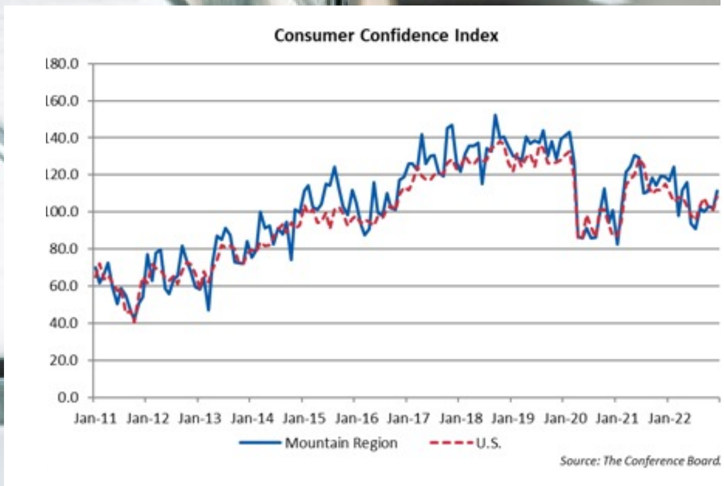
	2022e	2023f	2010-19 Avg.
UNITED STATES	9.9%	4.5%	4.3%
COLORADO	9.9%	5.0%	5.6%
METRO DEVNER	10.4%	4.8%	5.3%

Inconsistent consumer confidence index in 2022 reflected recession and inflation concerns. Consumer confidence in the Mountain Region, a multi-state area that includes Colorado, decreased 8 percent in 2022, after climbing 10.2 percent in 2021. The national consumer confidence index recorded a slightly smaller decrease in 2022 of 7.3 percent after jumping 11.5 percent in 2021.

In 2022, consumer confidence reflected uncertainty in the first half of the year, falling or rising by more than 10 points in three of the first six months. At the end of 2022, consumer confidence still reflected uncertainty and remained below prepandemic levels. Consumer confidence in the Mountain Region reached its lowest point of 90.9 in July when concerns about recession and high inflation were at their peak. The index has climbed inconsistently since then to reach 111.5 in December.

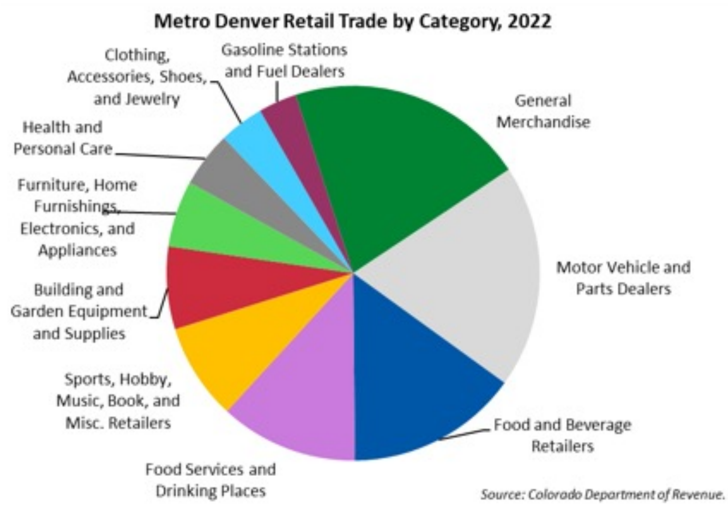
Metro Denver retail trade increased faster than state and nation in 2022. Retail trade sales (including food and drinking services) in Metro Denver are expected to grow 10.4 percent in 2022, outpacing inflation and posting the second consecutive year of double-digit retail sales growth. All of Metro Denver's counties recorded growth in retail trade in 2022. As of October, Douglas County reported the largest year-to-date increase of 15.3 percent, followed by Adams County (+12.7 percent) and the City and County of Denver (+12.6 percent). Jefferson and Boulder Counties reported the most modest increases of 7.2 and 7.3 percent, respectively.

Retail trade in Colorado grew an estimated 9.9 percent in 2022 as receipts at food and drinking places continued to strengthen across the state, but the increase was still 0.5 percentage points lower than in Metro Denver. Retail sales growth was welcome news for many local governments across the state that are dependent on retail sales tax revenues. Retail trade sales also increased by 9.9 percent at the national level.



General merchandise retailers constitute the largest portion of retail trade in Metro Denver. General retailers were the largest segment of Metro Denver retail trade, notching almost $14.5 billion in sales and representing 20.7 percent of overall sales in 2022. Motor Vehicle and Parts Dealers ($13.5 billion, 19.3 percent), Food and Beverage Retailers ($10.4 billion, 14.9 percent), and Food Services and Drinking Places ($8.4 billion, 12 percent) were other leading segments of the retail trade industry.

Retail trade growth in Colorado and Metro Denver will be ahead of the U.S. but consumer activity slowing. In 2023, national retail trade and food and drinking services sales are expected to increase 4.5 percent. In comparison, activity in Colorado is expected to increase 5 percent and Metro Denver at a slower 4.8 percent pace. The slowdown in retail trade activity confirms that the increase in interest rates by the Federal Reserve is influencing business and consumer expenditure patterns. While real retail trade sales, or retail trade sales adjusted for inflation, was slightly positive in 2022, the level of activity in 2023 is expected to increase at the same rate of inflation. This means that the real increase in retail trade activity in 2023 will be roughly zero. While the expected increase in consumer activity in 2023 represents a level below the historic average, after the breakneck speed of spending increases in 2021 and 2022, a slower pace or resting period in 2023 should allow retailers, restaurants, and other services providers to rebuild capacity.

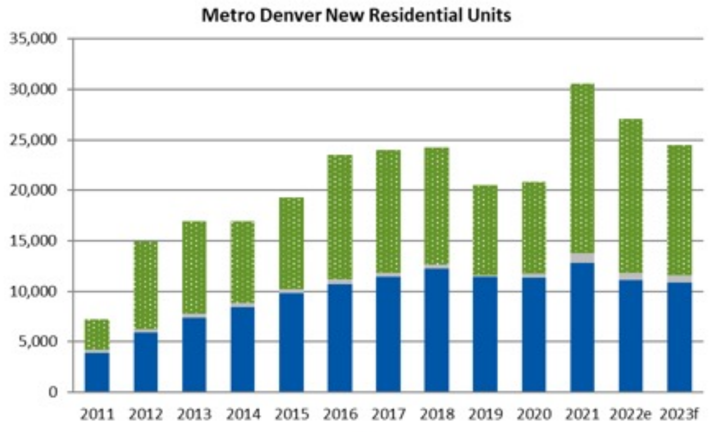


2023 METRO DENVER ECONOMIC FORECAST

RESIDENTIAL REAL ESTATE

BUILDING PERMITS

	2022e	2023f	2010-19 Avg.
COLORADO	-10.0%	-4.8%	29,739
METRO DENVER	-11.3%	-9.5%	17,301



Source: U.S. Census Bureau. 2022e=Census Bureau preliminary; 2023f=DRP Forecast.

Drop in single family detached permits caused decline in residential building activity in Colorado in 2022. In 2022, residential building permit activity in Colorado decreased 10 percent to an estimated 50,900 new residential units permitted. Preliminary 2022 data indicate that permits for multi-family units increased 10 percent over-the-year to 26,700 units permitted – the highest level since 1972. Single-family attached permits decreased 25 percent over-the-year, after reaching a recent high in 2021. Permits for single-family detached units were down 25 percent for the year and reached 22,685 units permitted, falling below prepandemic levels. Material shortages and ongoing production bottlenecks as well as inflation, worker shortages, and high interest rates were major concerns for builders in 2022. These concerns likely will continue to affect building activity into 2023.

Residential permit activity declined in 2022 in Metro Denver, with all building permit types decreasing. Building permit activity for residential units in Metro Denver was down 11.3 percent in 2022 compared with 2021. Multi-family development reported the smallest decrease, falling 8.9 percent, followed by single family detached units (-13.6 percent), and single family attached units (-21.7 percent). Further, 53 percent of residential permitting activity in the state was in Metro Denver. While residential building permits were down in 2022, permitting activity remained above prepandemic levels, and represented the third most permits issued since 2001. Preliminary 2022 data indicates that Boulder County was the only county in the Metro Denver to report an increase in permitted units for the year, growing by 58.8 percent, as rebuilding began of the over 1,100 homes destroyed or damaged in the Marshall fire at the end of December 2021. Adams County reported the largest drop in permitting activity, with permits issued falling by 36.7 percent in the year.

The number of residential building permits expected to decline in Colorado and Metro Denver in 2023. Residential construction in Metro Denver and Colorado will continue to be influenced by inflation and depressed demand in 2023. Multi-family construction will remain elevated but will continue to decline from the record high levels in 2021. Single family detached construction activity will decrease slightly. In Colorado, residential building permits will decrease by 4.8 percent across all three permit types.

Despite an expected 9.5 percent decline in the number of new residential units permitted in Metro Denver in 2023, the number will remain high by historic standards as housing supply catches up with demand. Single-family detached units will see a modest decrease of 1.8 percent while single-family attached permits will decrease 12.5 percent. Most single-family building activity is expected to be concentrated in Douglas, Adams, and Arapahoe Counties.

Multi-family permit activity is expected to decrease 15 percent in 2023 to 12,900 units. As the average number of multi-family units added from 2010 to 2019 totaled just 8,400 per year, the current level of construction should provide significant relief to the apartment market that experienced low vacancy and rapidly rising rental rates throughout much of 2021 and 2022. Most multi-family building activity in 2023 will continue to be in Denver County.

The apartment vacancy rate throughout Metro Denver increased 0.9 percentage points over-the-year to 5.6 percent vacancy in the fourth quarter of 2022. According to the Metro Denver Vacancy and Rent Survey, there were 10,992 new apartments completed in 2022. As not all of these new units were absorbed, the vacancy rate increased and the rental rate softened. Vacancy rates ranged from 5 percent in the Boulder/Broomfield submarket to 6.1 percent in Douglas County as of the end of 2022. All counties posted an increase in vacancy in the last half of the year compared with low points reached in 2Q 2022, when the Metro Denver vacancy rate had fallen to 4.6 percent.

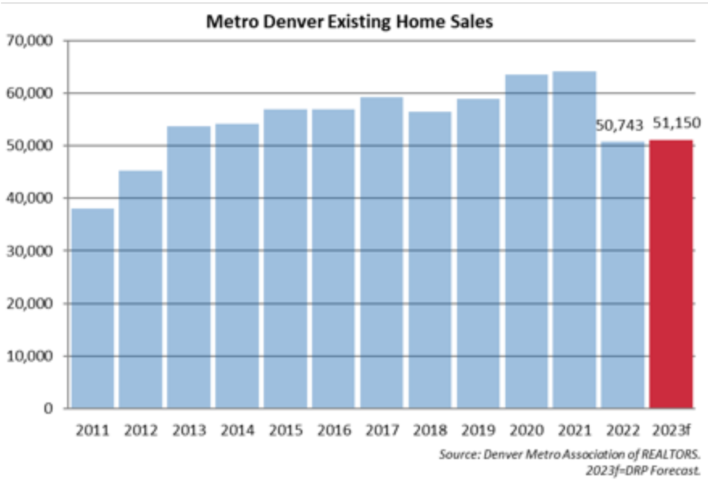
The average rental rate peaked at $1,870 per month during the third quarter of 2022, a 9.6 percent increase compared with the same period in 2021. The average rental rate retreated in the last quarter of the year to $1,838 per month, which was still 6.5 percent higher than the prior year. Monthly rental rates throughout the region ranged from $1,679 in Adams County to $1,966 in Douglas County.

New households will continue to be attracted to the rental market as the high median home value in the area will still price some people out of the home ownership market. However, as the number of new muti-family units added will still be higher than historic norms, expect the vacancy rate to increase modestly and rental rate increases to slow.

HOME SALES & PRICES

METRO DENVER	2022e	2023f	2010-19 Avg.
HOME SALES	-20.8%	0.8%	51,853
MEDIAN HOME PRICE	10.9%	2.0%	7.7%
FORECLOSURES	392.8%	11.1%	8,286

Home sales fall in Metro Denver in 2022. Home sales in the first quarter of 2022 were well below 2021 levels, and after a brief rally in May and June, home sales ended the year down 20.8 percent. Increasing material costs and increasing mortgage rates pushed buyers and sellers out of the market in 2022. Total home sales in 2022 fell below prepandemic levels after above average sales activity in 2020 and 2021.



Source: Denver Metro Association of REALTORS. 2023f=DRP Forecast.

Home sales were stymied by rapidly rising mortgage rates with the 30-year fixed rate mortgage averaging 5.34 percent throughout 2022, up from 2.96 percent in 2021. The pandemic frenzy in the housing market was effectively quelled over the summer as mortgage rates climbed over 5 percent in May and June, eventually peaking at 7.08

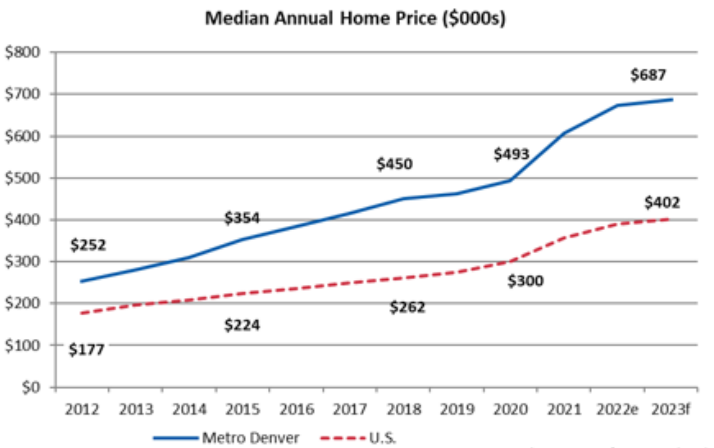
Source: Federal Reserve Bank of St. Louis, FRED Database.

percent in October and November. As active listings rose and homes remained on the market for 43 days by December, homeowners opted to wait to list their homes. New listings fell 9.3 percent from 2021 levels. Looking forward, the millennial generation, the largest generational group residing in Metro Denver, is solidly in the key home buying age range. Denver was ranked as the second most popular city where millennials are moving, according to a 2022 report by SmartAsset that analyzed net migration of people between the ages of 25 and 39. The millennial population in Metro Denver may bolster home demand as they purchase their first homes in the coming years.

Home sales activity little changed in 2023. Despite homes remaining on the market for longer, lack of inventory remained a key concern in Metro Denver. At the end of December 2022, there were only 4,757 homes listed for sale in the multiple listing service for the Metro Denver region. While this was a 222 percent increase compared with December 2021, inventory remained well below the long-term average of 12,350 active listings in December. The outlook for 2023 is a year with little change in sales volume as mortgage rates remain elevated but basically equal to 2022. As inventory remains constrained, home sales are expected to increase just 0.8 percent, to about 51,100.

Metro Denver home price growth slows in 2022. After increasing 23.2 percent in 2021, the median home price in Metro Denver grew at a rate of 10.9 percent in 2022 to reach $673,000. Price growth also decelerated across the nation, with the median price rising an estimated 9.3 percent in 2022 to $390,000, down from a 19 percent increase in 2021. The main cause of slower price growth was the decrease in demand caused by rising mortgage rates.

The rapid increase in 30-year fixed mortgage rates was a challenge in 2022, as rates more than doubled from about 3 percent in October 2021 to about 7 percent one year later. This rapid increase caused some potential buyers to retreat from their plans as expected monthly payments under new mortgage rates were no longer affordable. While it is little consolation, the reality is that the 30-year mortgage rate averaged 5.19 percent over the 20-year period from 2000-2019 and 4.09 percent during the 10 years from 2010 to 2019. Rather, the 3 percent rate that buyers became accustomed to in 2020 and 2021 was the anomaly.



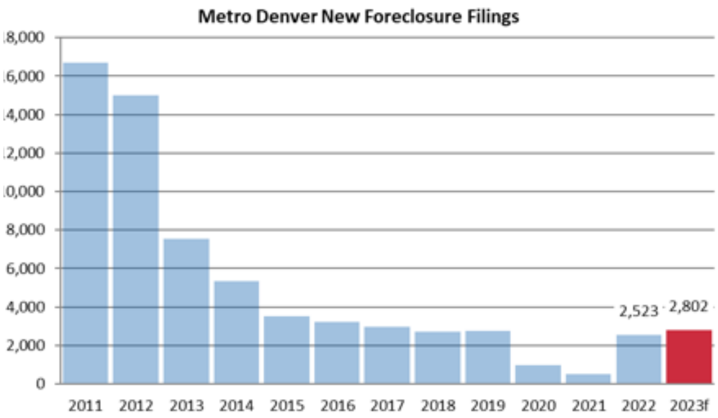
Source: National Association of REALTORS (NAR). 2022e=DRP Estimate; 2023f=DRP Forecast.

Median home prices relatively stable in 2023. Gauging the size and direction of home price changes in 2023 remains anyone's guess. In December 2022, real estate analysts at Redfin, Zillow, the National Association of REALTORS, and Realtor.com released divergent forecasts for national home prices in 2023. Redfin predicted home prices to fall by 4 percent nationally, both Zillow and the National Association of REALTORS estimated that home prices will remain flat, while Realtor.com expects home prices to rise by 5.4 percent in 2023. The forecasts all predict a decline in national home sales activity. Key factors in residential real estate remain inflation and mortgage rates.

While median home prices may decrease over-the-year in some months at the beginning of 2023, our forecast is that national home prices are expected to post a 3 percent annual increase, rising to nearly $402,000. Throughout 2023, potential homebuyers will start to incorporate higher mortgage rates into their home budget expectations. As buyers incorporate higher mortgage rates into their expectations at a time of slower new home construction, overall prices will rise.

Price growth will be more subdued in Metro Denver as demographic shifts are more pronounced in the region. According to the National Association of REALTORS, there are several demographic trends that will continue to affect the housing market into 2023 and beyond. Baby boomers will want to age in place and will continue to hold onto their homes, contributing to the ongoing inventory shortage. Millennials, who are the largest generation of potential buyers, will face significant headwinds including low inventory, high prices, and student loan debt. Additionally, lower birth rates could contribute to slower sales activity as the birth of a child is often a motivation to buy and a child moving out is often a reason to downsize and sell. Combined, the influence of both millennials and baby boomers in Metro Denver will contribute to home sales activity being roughly on par with 2022, causing more limited price stress. In 2023, median home price growth is expected to slow to 2 percent in Metro Denver, reaching a median value of nearly $687,000.

This expected slowdown in home price appreciation is a welcome change of pace in Metro Denver. Had home prices continued to increase at the 10-year historic average pace of 7.7 percent from 2019 to current, the median home price would have been about $622,000 in 2023. Instead, due to the skyrocketing appreciation rates posted in 2021 and 2022, the forecasted median home price value of $687,000 in 2023 is $65,000 higher than historic trends suggest would have been a perfect pace of increase. The issue of how to produce more homes at a lower cost remains of critical concern in Metro Denver as the region grapples with providing more affordable housing options.



Sources: Colorado Division of Housing and county public trustees.
Note: Not all new filings result in a foreclosure sale; foreclosure cases can be cured or withdrawn.
2023f=DRP Forecast.

Foreclosures jump in Metro Denver in 2022, nearing prepandemic norms. The government's foreclosure moratorium and mortgage forbearance programs kept foreclosures low for most of 2021. When the foreclosure moratorium ended August 31, 2021, the Consumer Financial Protection Bureau enacted guidelines that allowed foreclosures to resume under limited circumstances. In 2022, foreclosures increased by 393 percent to 2,523 filings by year end, which was still 8.2 percent below the number of filings in 2019. Climbing interest rates kept many homeowners from reducing monthly payments and consolidating debt through refinancing. In the beginning of 2023, poor economic conditions will push foreclosures up, but will remain low compared to the early 2010s. Foreclosures are expected to surpass 2019 levels in 2023, rising 11.1 percent to about 2,800 filings.

While many had hoped that 2022 would be a year that was "back to normal," instead it was filled with imbalances and uncertainty. There were numerous global low points with the start of the Russia-Ukraine war, rapidly rising gasoline prices, improved but still persistent supply chain disruptions, and inflation that took a long time to respond to the interest rate hikes undertaken by numerous countries.

On the plus side, Colorado and Metro Denver recovered all jobs lost during the COVID recession by February 2022, about six months faster than it took the U.S. to restore employment. Employment in Metro Denver increased 4.4 percent with 75,100 jobs added in 2022, bringing total employment to 1.78 million. While all supersectors added jobs over-the-year, the fastest rates of job growth occurred in the leisure and hospitality (+10.9 percent, +18,000 jobs) and professional and business services supersectors (+8.4 percent, +27,600 jobs).

The job growth rate in Metro Denver is expected to slow to 2.2 percent in 2023, representing the addition of 39,000 jobs. Jobs will be added in all supersectors except financial activities, which faces challenges due to uncertain investment markets, slower home sales, and softer commercial real estate activity. The professional and business services and leisure and hospitality supersectors are expected to maintain the fastest growth rates.

Employment growth has been held back by the tight labor market. An average of 64,000 people were unemployed in Metro Denver each month in 2022, down from the 99,000 unemployed on average in 2021. While total employment in Metro Denver is 95,000 jobs below the perfect pace target, that target may be unreasonable due to the lack of workers as Colorado currently has two open jobs for each unemployed person.

Commercial real estate fundamentals were mixed in Metro Denver in 2022. Vacancy rates increased for office, industrial, and flex space but declined in retail. Despite those trends, the average lease rate increased in all four property types and 9.51 million square feet of new space was completed. The office market continued to be plagued by large amounts of sublease space as companies struggled to right-size leases as hybrid work situations became the norm. Industrial remains very active, but a slowdown in new projects is warranted. With positive net absorption and a below average amount of completions, the retail market is considered to be attractive for investors. Due to the timing of various projects already underway, about 10.8 million square feet of new commercial real estate is expected to be completed in 2023.

Metro Denver experienced net out-migration of 8,000 residents in 2021, which had last occurred at a more minor level in 2005. Population growth strengthened in 2022 and 2023, but the number of new residents remains below historic averages. The region is expected to add 22,100 residents in 2023, reaching a total population of 3.3 million or 56 percent of the state's total population of 5.9 million.

These residents spent their dollars at a brisk pace in 2021 and 2022, increasing 16 percent and 10.4 percent, respectively. However, activity tempered in the latter half of the year as consumers responded to rising interest rates and navigated high inflation. While activity is expected to slow to under 5 percent in 2023, the slower pace should allow retailers, restaurants, and other services providers to rebuild capacity.

The residential real estate market suffered the greatest challenges of the region's economic base. Home sales declined by 20.8 percent in 2022 due to rapidly rising mortgage rates. The outlook for 2023 reveals little change in sales volume. In response to more constrained demand and an increase in supply, the median home price in Metro Denver rose 10.9 percent in 2022 after increasing 23.2 percent in 2021. While median home prices may decrease over-the-year in some months at the beginning of 2023, the strong concentration of first-time millennial homebuyers in Metro Denver means that prices are still likely to finish the year 2 percent higher.

The goal is to maintain the perfect pace. But, the perfect pace of employment growth needs to be adjusted, a longer-term view of commercial real estate markets is warranted, consumer activity is in a resting period, and the change of pace in the residential real estate market is welcome.

DATA APPENDIX | CURRENT & HISTORIC ECONOMIC INDICATORS

	2012	2013	2014	2015	2016
NATIONAL INDICATORS					
Population (Thousands)	313,831	315,994	318,301	320,635	322,941
Real GDP (Billions)	$16,254.0	$16,553.3	$16,932.1	$17,390.3	$17,680.3
Real GDP Growth Rate	2.3%	1.8%	2.3%	2.7%	1.7%
Employment Growth Rate	1.7%	1.6%	1.9%	2.1%	1.8%
Unemployment Rate	8.1%	7.4%	6.2%	5.3%	4.9%
Inflation Rate	2.1%	1.5%	1.6%	0.1%	1.3%
Personal Income Growth Rate	5.0%	1.3%	5.5%	4.8%	2.6%
Prime Rate	3.3%	3.3%	3.3%	3.3%	3.5%
COLORADO INDICATORS					
Population (Thousands)	5,194.7	5,270.9	5,347.7	5,446.6	5,529.6
Net Migration	39,143	45,109	45,062	68,844	53,295
Employment Growth Rate	2.4%	3.0%	3.5%	3.1%	2.4%
Unemployment Rate	8.0%	6.7%	5.0%	3.7%	3.1%
Denver-Aurora-Lakewood Inflation Rate	1.9%	2.8%	2.8%	1.2%	2.8%
Personal Income Growth Rate	5.9%	5.4%	8.8%	4.9%	1.7%
Retail Trade Sales Growth Rate	5.9%	5.0%	7.4%	4.9%	3.8%
Housing Permits Growth Rate	72.6%	18.1%	4.3%	11.1%	22.3%
METRO DENVER INDICATORS					
Population (Thousands)	2,900.1	2,953.2	3,007.2	3,069.3	3,113.7
Net Migration	31,158	33,675	34,280	43,316	25,942
Employment Growth Rate	2.9%	3.6%	3.7%	3.6%	2.6%
Non-Agricultural Employment (Thousands)					
TOTAL	1,417.6	1,468.2	1,522.8	1,578.2	1,619.3
Natural Resources & Construction	77.5	85.0	95.3	100.1	102.7
Manufacturing	79.8	81.1	82.9	85.6	86.6
Wholesale & Retail Trade	209.3	214.7	220.9	227.4	231.6
Transp., Warehousing & Utilities	48.8	51.3	53.1	54.5	55.8
Information	52.1	53.0	53.7	54.3	55.0
Financial Activities	99.8	103.4	105.3	109.6	113.2
Professional & Business Services	254.1	265.0	275.5	285.2	291.6
Educational & Health Services	174.7	182.0	190.7	200.8	207.1
Leisure & Hospitality	154.3	160.4	167.4	175.2	182.1
Other Services	55.1	56.3	58.4	59.9	62.0
Government	212.2	216.1	219.6	225.7	231.6
Unemployment Rate	7.7%	6.4%	4.7%	3.5%	2.9%
Retail Trade Sales Growth Rate	7.3%	5.2%	8.0%	5.5%	2.6%
New Residential Units	14,925	16,940	16,910	19,269	23,496

Sources: Board of Governors of the Federal Reserve System; Colorado Department of Labor & Employment, Labor Market Information; Colorado Department of Revenue; Colorado Division of Local Government; U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; U.S. Census Bureau.

	2017	2018	2019	2020	2021	2022e
	324,986	326,688	328,240	331,512	332,032	333,288
	$18,076.7	$18,609.1	$19,036.1	$18,509.1	$19,609.8	$20,007.1
	2.2%	2.9%	2.3%	-2.8%	5.9%	2.0%
	1.6%	1.6%	1.3%	-5.8%	2.8%	4.0%
	4.4%	3.9%	3.7%	8.1%	5.3%	3.6%
	2.1%	2.4%	1.8%	1.2%	4.7%	8.0%
	4.6%	5.0%	5.1%	6.7%	7.5%	2.2%
	4.1%	4.9%	5.3%	3.5%	3.3%	4.9%
	5,599.6	5,676.9	5,734.9	5,784.2	5,814.7	5,857.5
	42,395	51,761	34,161	28,583	15,074	30,006
	2.3%	2.5%	2.3%	-5.0%	3.5%	4.4%
	2.6%	3.0%	2.6%	6.9%	5.4%	3.4%
	3.4%	2.7%	1.9%	2.0%	3.5%	8.0%
	6.8%	7.3%	7.4%	6.1%	8.7%	5.7%
	5.6%	4.8%	4.7%	4.9%	17.0%	9.9%
	4.4%	4.8%	-9.4%	4.8%	39.7%	-3.4%
	3,146.7	3,186.7	3,215.7	3,241.0	3,244.2	3,271.9
	15,646	23,921	13,797	11,997	-7,938	17,683
	2.1%	2.6%	2.3%	-5.0%	3.4%	4.4%
	1,654.0	1,697.6	1,737.4	1,650.0	1,706.7	1,781.8
	107.7	114.2	117.8	113.9	113.8	118.6
	87.5	88.9	90.6	89.2	90.9	93.9
	234.2	236.9	237.4	227.3	234.9	240.1
	58.5	62.5	67.9	71.8	73.6	76.9
	55.8	58.9	60.1	59.6	61.4	63.0
	116.0	118.5	120.4	119.2	122.6	122.9
	297.7	306.8	318.4	311.1	328.6	356.2
	210.7	214.8	218.6	211.0	217.4	222.0
	187.2	190.8	194.3	147.9	165.4	183.4
	62.8	64.0	65.6	61.5	64.4	68.6
	235.9	241.3	246.3	237.5	233.7	236.2
	2.5%	2.9%	2.5%	7.0%	5.4%	3.4%
	4.6%	4.2%	4.0%	3.1%	16.0%	10.4%
	24,021	24,209	20,489	20,794	30,518	27,054

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