Colorado
Economic & Fiscal Outlook

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STATE OF COLORADO

Governor's Office of State Planning & Budgeting

COLORADO

Governor Jared Polis

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Forecast in Brief

NATIONAL ECONOMIC OUTLOOK

The U.S. economy continues to rebound in 2022, but faces greater headwinds than previously expected due to inflationary pressures and the impact of the monetary policy response on aggregate demand. Broad-based price growth includes energy and food prices, the cost of shelter, and growing services inflation as companies pass higher input prices onto consumers. Aggregate household finances remain strong as wage growth continues at a rapid pace in 2022, but the magnitude of labor market tightness, i.e. when job openings outnumber unemployed workers, shrinks in 2023 and 2024 largely due to reduced labor demand in the face of headwinds to the business environment.

COLORADO ECONOMIC OUTLOOK

Colorado's job growth is expected to remain strong in 2022, exceeding 2021 growth. Job growth slows in the outyears, but continues to outpace the nation, as Colorado's unemployment rate is expected to settle at 3.3 percent, while the rate is projected to increase to 3.7 percent nationally by 2024. The inflation rate is expected to face additional upward pressure from shelter and service prices relative to the nation as a whole. Real retail sales growth remains positive in 2022 at a pace slightly higher than the U.S., but then similar to the country as a whole, turns negative in 2023 in the face of rising inflation.

GENERAL FUND REVENUE

General Fund revenue is projected to increase to $17.2 billion in FY 2021-22, a 20.3 percent change from the prior fiscal year based mostly on actuals received to date. The projection for FY 2021-22 is $1,021.4 million higher than the March forecast, in response to record high income tax revenue in April, a record month for many states. OSPB expects revenues to then fall by 3.8 percent off this higher base in FY 2022-23 before growing again by 4.3 percent in FY 2023-24. The downward revision in FY 2022-23 is due to reduced expectations in future individual and corporate revenues of estimated payments and cash with returns that more than offset higher sales tax revenue. In FY 2023-24, however, revenues are revised up as higher sales tax revenues will more than offset downward revisions in income revenue in the form of withholdings and, to a lesser extent, estimated payments.

CASH FUND REVENUE

In FY 2021-22, cash fund revenue subject to TABOR is projected to increase by 16.9 percent to $2.62 billion, followed by a 1.8 percent reduction in FY 2022-23 and 4.4 percent growth in FY 2023-24. Upward revisions in severance tax collections are a major driver of these fluctuations.

TABOR

After exceeding the Referendum C cap (as restored by S.B. 21-260) by $547.9 million in FY 2020-21, revenue subject to TABOR is expected to remain above this cap through the duration of the forecast period. Current projections show that revenue will be $3,353.4 million above the cap in FY 2021-22, $2,022.8 million above the cap in FY 2022-23, and $1,325.6 million above the cap in FY 2023-24, triggering the temporary income tax rate reduction in each year.

GENERAL FUND RESERVE

Under this forecast, the General Fund ending balance is projected to be $1,596.2 million above the statutory reserve level of 13.4 percent of appropriations in FY 2021-22. The statutory reserve grows to 15 percent of appropriations in FY 2022-23 and beyond.

Economic Outlook

While the labor market continues its strong recovery, high inflation and tightening monetary conditions dampen the economic outlook for the US and Colorado. The downward pressure stems primarily from the response to Federal Reserve's interest rate hikes and forward guidance for 2022 and 2023; however, ongoing pressures from supply and demand mismatch for consumer goods, energy products, and labor create headwinds during the forecast period.

This forecast expects economic activity to slow in the fourth quarter of 2022, dipping just below 1 percent annualized GDP growth in mid-2023 before recovering to historical averages in 2024. Consumer and corporate spending are projected to be a drag on growth, as high prices and rising interest rates curb consumption. Further, consumer spending habits are expected to shift towards services over the next year, while durable goods spending falls as a share of spending. These shifts will put additional downward pressure on consumer spending in mid-2023 as durable goods' share will have troughed while services spending begins to revert back to a more normal share of expenditures. The shift away from durable goods spending will likely continue to impact equity values for large retailers. Government expenditures are also projected to drag on growth as federal government stimulus continues to roll off.

Slower growth combined with high inflation will have mixed effects on the economy. A cooling economy should reduce the gap between supply and demand in the labor market, pulling labor force participation up slightly while decreasing the strong demand and wage pressures the U.S. and Colorado are currently facing. Further, changing financial conditions may limit household savings and motivate individuals currently not looking for work back into the labor market. That said, the U.S. unemployment rate has already returned to approximately pre-pandemic levels across all races, and Black and Hispanic households experienced greater income growth than White households between 2019 and 2021, thereby lessening racial gaps in median income. Conversely, elevated mortgage rates will reduce housing demand in most markets, which also typically curbs consumer spending on some durable and nondurable goods, and may help even out the high demand for homes.

The conflict between Russia and Ukraine and resultant shortages of oil, natural gas, and certain agricultural commodities will continue to exacerbate inflation throughout most of 2022, as will the supply chain constraints from China's zero-COVID policy. These ongoing constraints are causing the global economic growth outlook to cool as well, putting developing nations in a much more precarious position as they continue to grapple with the impacts of the pandemic. The dollar is appreciating on tighter monetary conditions in the US, which often creates dire consequences for U.S. exporters and dollar-denominated debt holders, especially in a low-growth environment.

Overall, while the outlook has softened from the March forecast, a deep or protracted recession is not currently expected. The strength of the labor market and high wages and salaries will help buoy the US and Colorado economies through the anticipated slowdown next year.

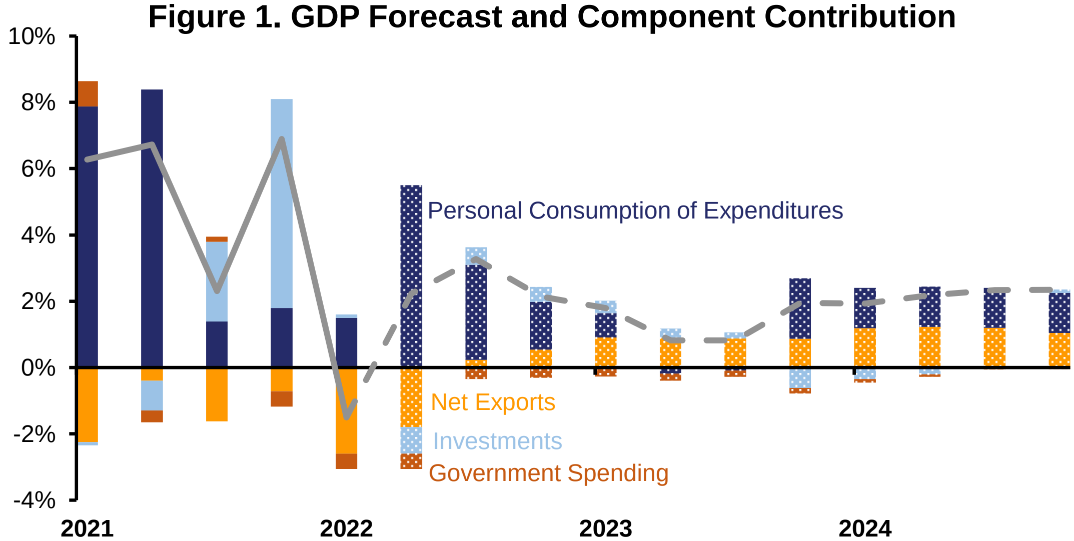
Gross Domestic Product

U.S. economic activity is rebalancing after two tumultuous years of pandemic-related impacts. After rebounding by a robust 5.7 percent in 2021, U.S. Gross Domestic Product (GDP) dipped by 1.5 percent in the first quarter of 2022 over the previous quarter at an annualized rate. While a dip in quarterly activity could portend economic woes, the slowdown in quarter-over-quarter activity can be attributed to a few transitory factors:

- Very strong, 6.7 percent, annualized growth in the fourth quarter of 2021;
- Unusually strong imports in the first quarter leading to an exacerbated negative trade balance largely due to ongoing supply chain disruptions; and
- A decline in government expenditures coming off of unprecedented 2021 levels.

The outlook for 2022 remains positive with 2.5 percent growth; however, this forecast has been revised down from the March forecast based on inflationary pressures impacting consumer and business spending decisions. GDP growth for 2023 is expected to decline to 1.8 percent, as interest rate hikes further dig into economic activity and cause the annualized growth rate to slow to under 1 percent for the middle two quarters of the year. In 2024, U.S. GDP is forecast to

Figure 1. GDP Forecast and Component Contribution



Source: U.S. Bureau of Economic Analysis; OSPB June Forecast tick up slightly to 1.9 percent growth, which sets the country back on a historical growth trajectory.

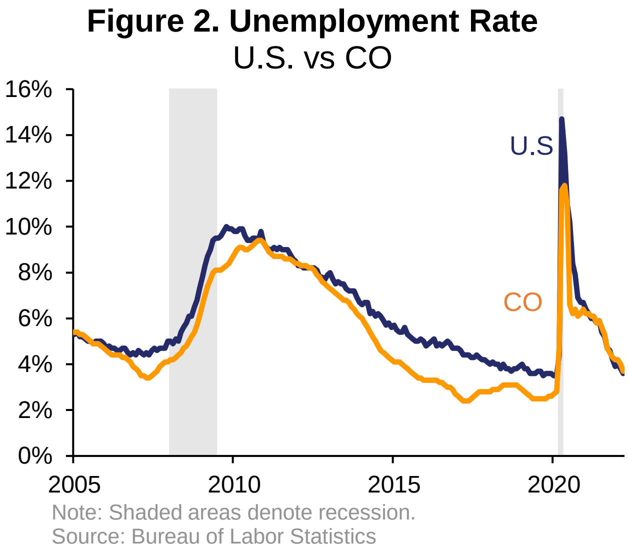
The largest component of GDP, personal consumption expenditures (PCE), has been driven by strong durable goods consumption during the last two years, a trend that is starting to slow and is expected to fall below the historical trend at the beginning of 2023 due to rising interest rates. Consumers are shifting towards services in particular with pandemic concerns mostly abated, leading to a rise of in component's share of spending to above its historical trend this year before sloughing off in 2023. The forecast for PCE can be seen in the consumer spending section below, but is generally expected to follow the same trend as overall GDP levels through the forecast period.

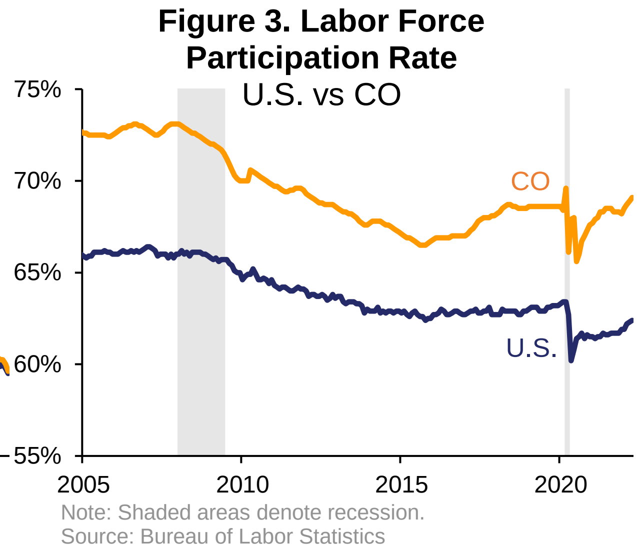
Strong consumer spending paired with supply chain disruptions led to strong business investment and import levels, the latter pushing net exports lower. With high levels of inflation pushing prices up and consumer sentiment down, business investment, particularly in the retail sector, is expected to wane. Supply chain issues resulted in some retailers and manufacturers stocking up in recent months, leaving them now with high inventories. The positive impact of international orders being pulled forward is some alleviation on the US trade balance, which has dragged on GDP growth over the last few quarters.

Government investment peaked in 2020 as the federal government spent trillions of dollars to combat the health and economic impacts of the pandemic. It has steadily declined since the first quarter of 2021 upon the passage of the American Rescue Plan Act, and is expected to continue to roll off steadily except for a potential uptick resulting from the Infrastructure Investment and Jobs Act.

Labor Market

Labor market conditions are tight in Colorado and across the U.S., as labor demand continues to exceed supply. The unemployment rate has dropped since the last forecast, reaching 3.5 percent for Colorado and 3.6 percent in the U.S. in May. Combined with an uptick in labor force participation and strong employment growth, the lower unemployment rate signifies that more non-employed workers are being matched with jobs. OSPB expects Colorado's unemployment rate to continue to drop slightly for the rest of 2022, down to a low of 3.4 percent by the end of the year (for an annual average of 3.6 percent), as the effects of expanded unemployment benefits and stimulus payments on household savings decline, and strong wage growth draws more workers into employment. Similarly, it is expected that the U.S. will drop throughout the year to 3.4 percent by the end of 2022, for an annual average of 3.5 percent.



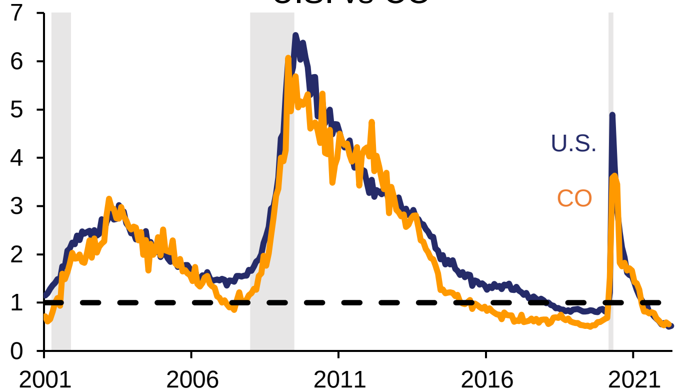


Colorado's labor force participation rate ticked up slightly since the March forecast to 69.4 percent in May, surpassing its February 2020 level of 68.9 percent for the second consecutive month. This is in contrast to the U.S., for which the labor force participation rate has stayed flat in 2022 at 62.3 percent, 1.1 percentage points below its pre-pandemic level of 63.4 percent. Colorado's labor force participation rate historically tends to be higher than the nation's. Reasons for the state's high labor force participation may include higher educational attainment, lower fertility rates, demographic factors, and a higher cost of living. OSPB expects the labor force participation rate in Colorado and the U.S. to increase slightly throughout the year as high wages draw more workers off the sidelines and into the labor force, and the accumulation of excess savings declines.

As previously mentioned, the labor market has remained tight with labor demand exceeding supply. Figure 4 shows the number of unemployed people per job opening in Colorado and the U.S. as a measure of labor market tightness. When the labor market is tight, there are more job openings than unemployed people resulting in a ratio less than one. When the labor market is looser, there are more unemployed workers than job openings, resulting in a ratio greater than one.

The labor market in Colorado has historically been tighter than the nation's, particularly in expansionary periods. Currently, the ratio for Colorado and the U.S. is 0.5, signifying that there are two job openings available per every unemployed person. The number of job openings for both Colorado and the U.S. is considerably higher than before the pandemic. However, Colorado has more unemployed people than it did pre-pandemic while the unemployment level in the U.S. has mostly recovered. Therefore, by this measure, the nation's labor market is tighter than it was before the pandemic because there are fewer job openings per unemployed person, while Colorado has a similar ratio of unemployment to job openings as it did before the pandemic.

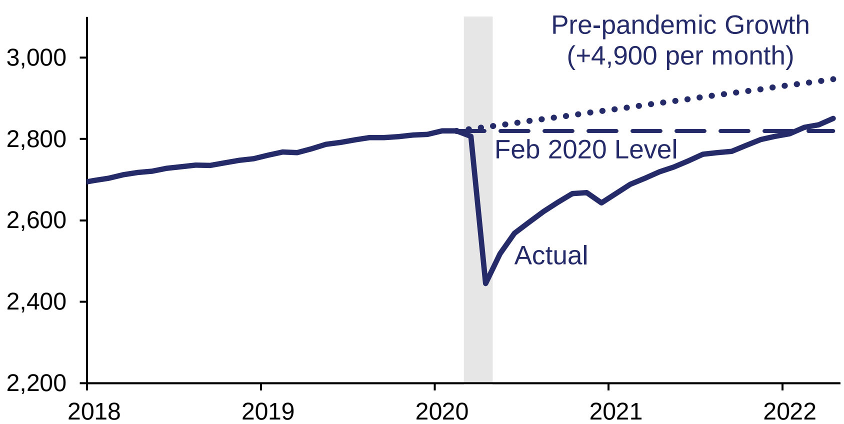
Figure 4. Number Unemployed per Job Opening
U.S. vs CO



Note: Shaded areas denote recession.
Source: Bureau of Labor Statistics

With labor demand remaining elevated, total employment has grown steadily in Colorado, surpassing its February 2020 level. During the previous expansion, Colorado's economy added an average of 4,900 jobs per month. Over the past year, total employment has increased much faster, growing at a pace of 10,800 jobs on average as the economy recovered from the sudden and deep loss of jobs in 2020. This rapid job growth has caused employment to surpass the February 2020 level. However, the dotted line in Figure 5 shows a counterfactual of employment if jobs had continued to grow at the pre-pandemic rate, absent a recession. The figure shows that because employment took such a large hit as a result of the Covid-19 pandemic, employment levels are still well below this counterfactual. OSPB expects that employment growth will start to slow to a more sustainable pace throughout the year, and therefore will remain below the counterfactual pre-pandemic trend going forward.

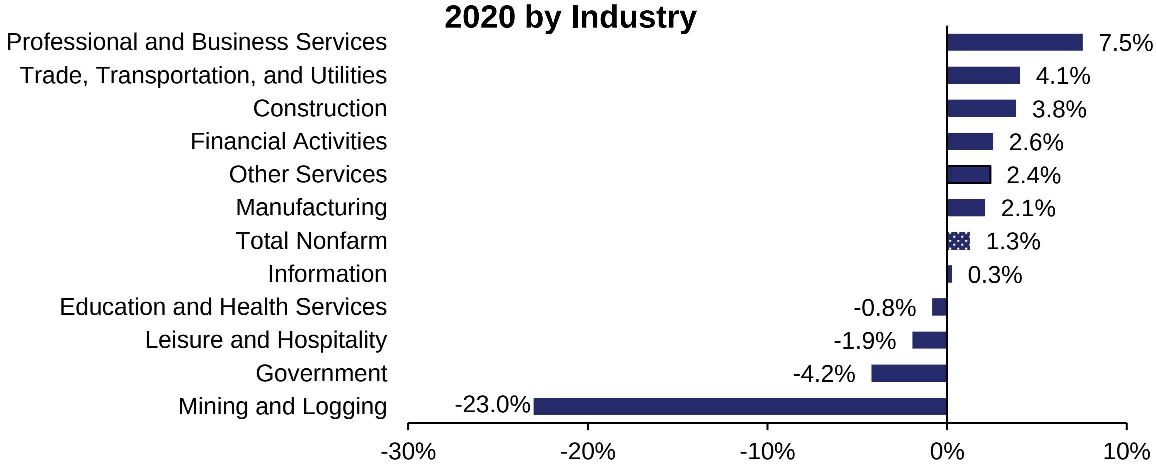
Figure 5. CO Nonfarm Payroll Employment
Thousands



Note: Shaded areas denote recession.
Source: Bureau of Labor Statistics, CDLE

While total Colorado employment has rebounded to pre-pandemic levels, the employment recovery has varied significantly by industry. Figure 6 shows the percent change in employment by industry from February 2020 to May 2022, where a positive number means there are more jobs now than there were in February 2020. In general, high wage industries have recovered more robustly than low wage industries. Professional and Business Services and Trade, Transportation, and Utilities are the two largest industries by employment, and are the two industries driving the employment recovery. Professional and Business Services experienced a smaller hit to employment in 2020 and has grown fairly close to trend since, likely due to more opportunities for flexibility including remote work, flexible work schedules, floating free days, and upskilling. Employment in Trade, Transportation, and Utilities declined by over ten percent in April 2020 but has rebounded strongly as demand for warehouse workers surged with strong demand for goods.

Figure 6. CO Percent Change in Employment since February 2020 by Industry



Source: Bureau of Labor Statistics, Current Employment Statistics

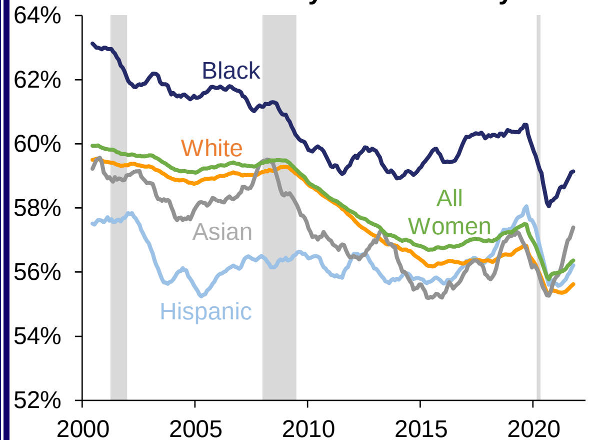
On the other end of the spectrum, Government employment is the biggest drag on overall employment, remaining 4.2 percent below its February 2020 level. Government employment declines are concentrated in state government education employment and local government employment, both education and non-education, which is at least partially driven by stagnant wage growth. Additionally, the Mining and Logging industry, which includes the oil and gas industry, is down 23 percent since the start of the pandemic, by far the largest percentage decline of any industry.

Overall, the fundamentals of the Colorado labor market are strong so far in 2022. Labor force participation is fully recovered, employment is growing steadily, and demand for labor is high. Looking forward, some downside risks include the potential for overheating and Federal Reserve rate hikes resulting in decreased demand for labor.

U.S. Labor Force Participation for Women

The U.S. labor force participation rate for women stood at 56.7 percent in April 2022, which is 1.2 percentage points below where it was before the pandemic, and 11.3 percentage points lower than the labor force participation rate for men. The labor force participation rate has been falling consistently for both men and women over the past 20 years due to an aging population. However, the extent of this labor force trend for women varies by racial and ethnic group. Black women have historically had the highest labor force participation rate, but have dropped the most substantially since 2000 out of all four groups. Researchers Leah Platt Boustan and William J. Collins found that the high labor force participation for Black women may be due to a legacy of differences in social norms around women working outside the home[1]. Meanwhile, Hispanic women historically had the lowest labor force participation rate, but remained fairly steady between 2000 and 2016, before picking up toward the end of the last expansion. The Covid-19 pandemic has affected all four groups differently as well. Black, White, Asian, and Hispanic women all experienced declines in labor force participation in 2020. However, as of April 2022, Asian women have fully recovered while White, Black, and Hispanic women's labor force participation rates are respectively 1.4, 2.2, and 3.0 percent lower than they were pre-pandemic. Some of the racial and ethnic disparities can be explained by differences in industry makeup of employment across different groups due to White and Asian women being more concentrated in Professional and Business Services, as well as childcare constraints affecting racial groups differently.

Figure 7. U.S. Labor Force Participation Rate for Women by Race/Ethnicity



Note: Shaded region denotes recession.
Source: Bureau of Labor Statistics

Wages and Income

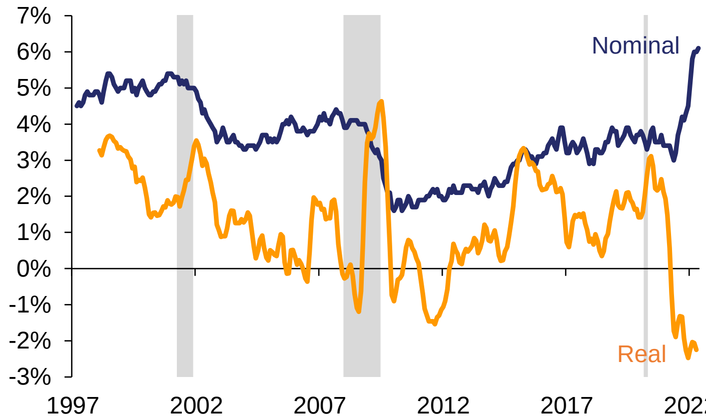
Nominal wage growth has been historically high over the last year as the labor shortage caused businesses to compete for workers by raising wages at a faster pace than historical trends. According to data from the Federal Reserve Bank of Atlanta's wage growth tracker, nominal wage growth for the U.S. reached 6.1 percent in May, the highest growth on record for this series. This series is measured as the median percent change in the hourly wage of individuals observed 12 months apart, and therefore is less sensitive to composition effects (e.g. changes in the industry makeup of the workforce) than other measures of wage growth. The blue line on Figure 8 shows

[1] Boustan, L.P. and Collins, W. (2013). The Origin and Persistence of Black-White Differences in Women's Labor Force Participation. L.P. Boustan, C. Frydman, & R. A. Margo (Eds.). *Human Capital in History: The American Record* (p. 205 – 240).

this series over time. OSPB expects wage growth to remain strong in the short term and begin to revert back to normal growth by the end of 2022.

Despite record highs in nominal wage growth, elevated inflation has diminished the real impact for individuals. After adjusting for inflation, real wage growth has been negative since April 2021. The most recent reading shows that real wage growth was -2.1 percent, meaning that the median individual's real wages are 2.1 percent lower in April 2022 than they were in April 2021. OSPB anticipates that as inflation begins to normalize and nominal wage growth softens but remains strong, real wages will rebound through the end of 2022 and 2023.

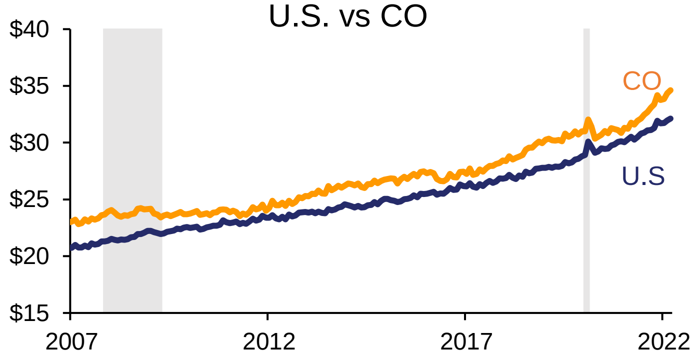
Figure 8. U.S. Median Wage Growth
Nominal vs. Real



Note: Shaded region denotes recession
Source: Alanta Fed Wage Tracker; Author's calculations

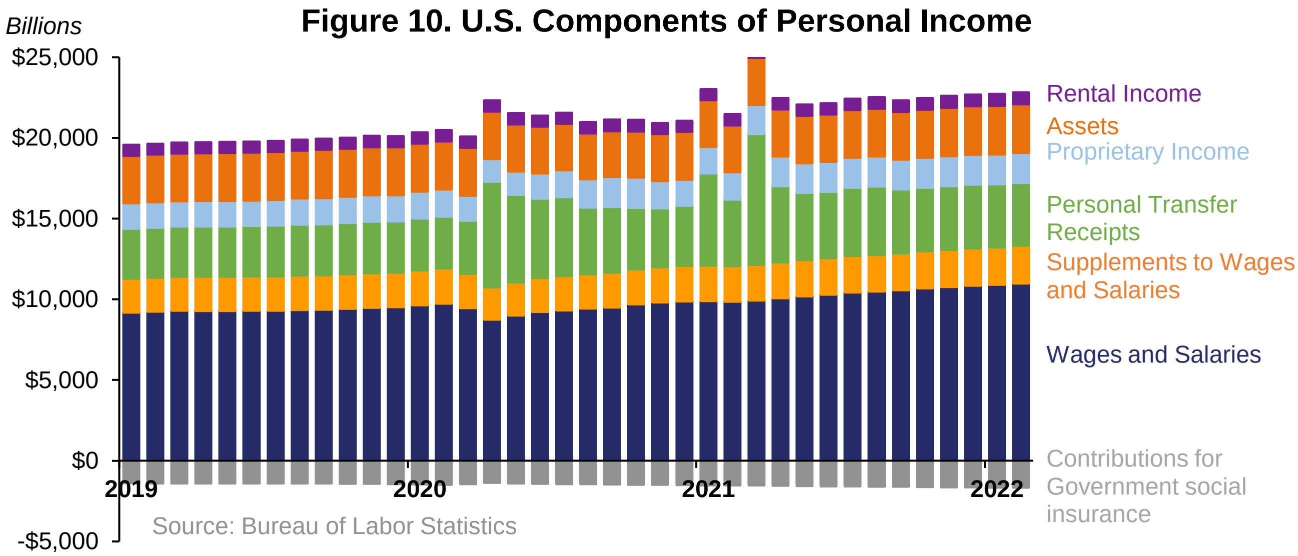
Wages tend to be higher in Colorado than the nation as a whole, and recently have been increasing at a faster rate. In May, the average wage per hour was $34.62 in Colorado and $32.10 for the U.S. Additionally, the percent change in average hourly earnings has been higher for Colorado than the rest of the nation. Nominal wages in Colorado are currently 9.0 percent higher than they were one year ago, compared to 5.2 percent for the U.S. However, average hourly earnings are partially driven by composition effects (unlike the data from the Atlanta Fed), so some of this wage growth could be due to the changing composition of employment by industry, such as growing employment in Professional and Business services and lower employment in Leisure and Hospitality.

Figure 9. Average Hourly Earnings
U.S. vs CO



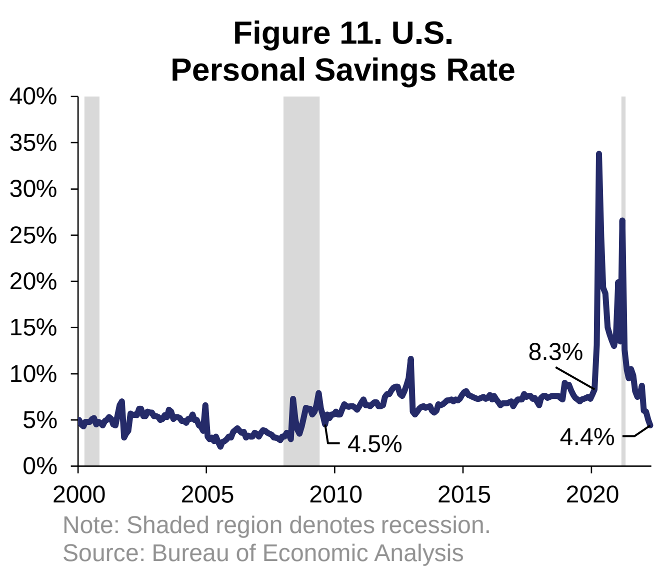
Note: Shaded areas denote recession.
Source: Bureau of Labor Statistics, retrieved from FRED

As nominal wages have reached record highs, so have total wages and salaries and personal income in Colorado, even surpassing the pre-pandemic trends. Strong growth in total wages and salaries has been driven by high wage growth and healthy employment gains, particularly in high wage sectors. Similarly, supplements to wages and salaries, which consists of employer contributions for employee pensions, insurance funds, and government social insurance, are more than fully recovered from before the pandemic.



While wages and salaries is the biggest component, proprietary income also contributed to higher overall personal income, up 10 percent from a year ago as business revenue remains elevated due to high consumer spending. All of these gains have offset the decline in income coming from government transfers that were elevated from stimulus payments and unemployment benefits, and an increase in the contributions for government social insurance.

Despite higher overall personal income, the level of personal savings has come back down to pre-pandemic levels after being elevated for most of 2020 and 2021. In fact, the personal savings rate sat at 4.4 percent in April 2022, the lowest rate since the great recession, and well below the pre-pandemic savings rate of 8.3 percent. This may indicate that households are spending off their excess savings that were built up from government transfers and stimulus in 2020 and 2021, and is indicative of the impact that inflation is having on households. Higher costs for essentials such as housing and energy in particular mean that households are paying more for the same basket of goods than they were a year ago. Easing price pressures should help bring the savings rate back to an expansionary level by mid-2023.

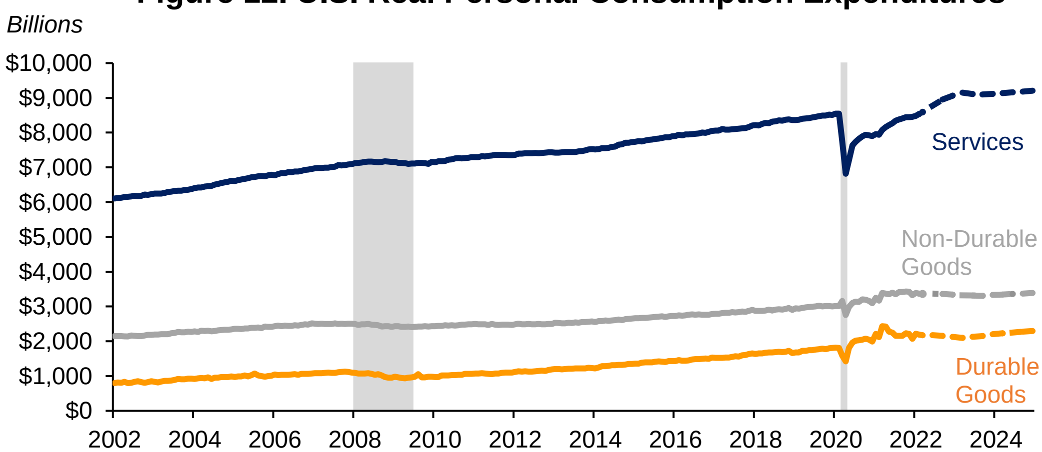


Consumer Spending

Consumer spending remains strong at both the national and state level despite stiff inflationary and monetary headwinds. Real personal consumption expenditures (PCE) in the U.S. grew at an annualized rate of 3.1 percent in the first quarter of 2022, even as overall GDP contracted. The uptick in demand for services outpaced growth in goods demand, which dragged on overall PCE growth. At the state level, nominal retail sales growth continues at a rapid pace, well outpacing inflation. However, consumer spending faces downward pressure moving forward as inflation and interest rate hikes portend an expected drag in goods spending, but growth in the near-term is expected to maintain strength due to pent-up demand for services before slowing in the out-years.

After well above-average PCE growth for most of 2021 that was led by historic durable goods spending, growth has begun to moderate with total goods spending dropping by 1.0 percent year-over-year in the first quarter of 2022. Durable goods spending dropped by 2.0 percent year-over-year in the first quarter of 2022, while nondurable goods increased by 2.9 percent. Meanwhile, spending on services recorded robust year-over-year growth of 6.9 percent in the first quarter. These trends indicate that consumer spending is slowly correcting back to pre-pandemic trends following heavy goods spending during the heights of the pandemic with the service sector partially shuttered. As shown in Figure 12, real PCE growth throughout 2022 and 2023 is forecast to heavily rely on increased services spending due to pent-up demand for services such as travel, restaurants, and recreation. Meanwhile, durable and nondurable goods are expected to see slightly negative growth rates over the course of 2022 and 2023 as a result of inflationary pressures and interest rate hikes. By 2024, spending across all three major categories is expected to fully normalize as consumer behavior shifts back to expected, pre-pandemic trends.

Figure 12. U.S. Real Personal Consumption Expenditures



Note: Shaded areas denote recession; dotted line indicates forecast.
Source: Bureau of Economic Analysis; OSPB forecast

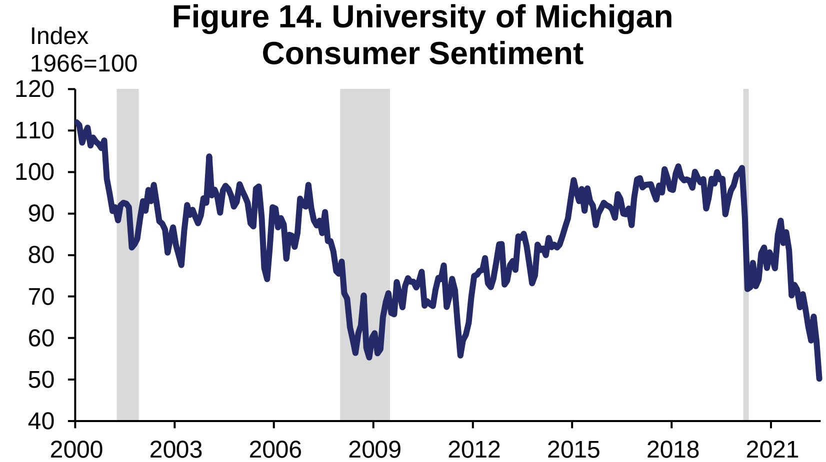
In Colorado, nominal retail sales growth remains very high as depicted in Figure 13. In the first quarter of 2022, nominal retail sales grew 19.8 percent compared to the same period in 2021, totaling approximately $67.7 billion in sales compared to $56.5 billion last year. While growth is expected to moderate compared to current growth, Colorado is still forecast for well-above average growth at 9.7 percent in 2022, and the U.S. is expected to see 9.1 percent growth. Colorado retail data includes certain services not accounted for in the U.S. data, which can slightly boost state growth over the nation.

Figure 13. CO Nominal Retail Sales Growth

Note: Shaded areas denote recession; dotted line indicates forecast.
Source: Colorado Department of Revenue

Although the official data show strong retail sales through April, some softening is beginning to show as major retailers Wal-Mart and Target recently missed their earnings expectations in the first quarter of 2022 and shed billions of dollars in market capitalization, citing that inflation and supply chain issues drove the miss. The companies also saw inventories increase by 30 percent in the first quarter reflecting some consumer pullback of discretionary purchases. In contrast, discount retailers beat first quarter expectations and upwardly revised their forecasts for the year as lower-income consumers search for less-expensive options in an inflationary environment. However, in a sign of continued consumer strength, occasion-based clothing retail and sporting goods stores saw strong sales growth in the first quarter as consumers purchase certain goods to fully engage with the service sector once again. With downside risk outweighing the upside, nominal retail growth in 2023 and 2024 is expected to return to average levels of 4.1 percent and 3.8 percent in Colorado, respectively, while real growth is forecast to remain relatively flat to slightly negative, as overall economic activity is expected to slow.

Figure 14. University of Michigan Consumer Sentiment



Note: Shaded areas denote recession
Source: University of Michigan

While consumer spending remains strong, consumer sentiment has recently soured in the face of broad-based inflation, supply chain issues, and higher interest rates. As shown in Figure 14, June consumer sentiment bottomed to levels below the trough recorded during the Great Recession. The 50.2 index reading was the lowest recorded in the series history dating back to 1952. Even though this cloudy sentiment has not yet translated to significantly lower spending, it does indicate that consumers are becoming wary of current economic conditions and will likely result in a reduction in some spending. Durable goods have the biggest downside risks as they face the strongest upward price pressures, primarily due to interest rate increases as well as inflation and supply chain problems.

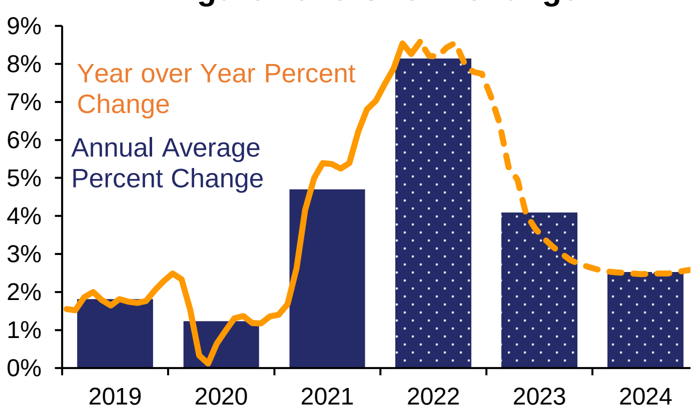
After two years of strong growth in consumer spending, downside risk outweighs the upside over the forecast period due to inflation, interest rate increases, and dwindling individual savings. With that, the service sector is expected to buoy consumer spending in the near-term as goods spending drops, but after 2022, overall spending growth is expected to moderate.

Inflation

Consumer price index (CPI) inflation for the U.S. hit 8.5 percent year-over-year in March before dropping to 8.3 percent in April, and reaching a new peak of 8.6 percent in May, all above expectations due to heightened prices across all components. Inflation for the Denver-Aurora-Lakewood area also came in high over the past three months, peaking in March at 9.1 percent, before dropping to 8.3 percent in May. Price growth continues to be broad-based and high prices for energy, food, and other goods have proven more resilient than anticipated. Inflation is expected to moderate over the course of the year, but at a slower rate than was anticipated in March, due to sustained price pressures in the shelter and other services categories combined with high food and energy prices and lingering supply chain issues.

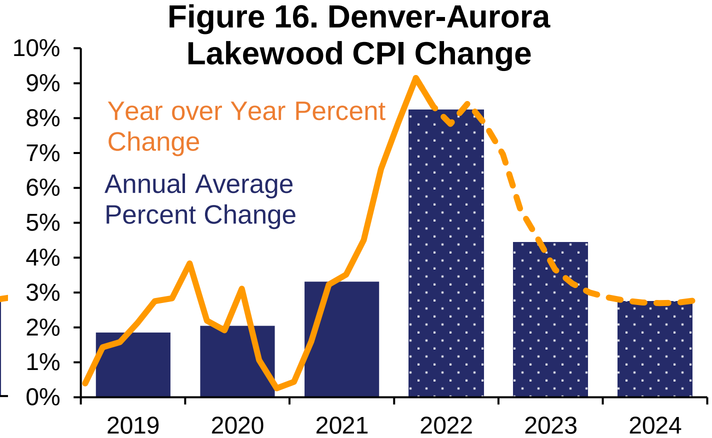
As a result of these drivers, the 2022 inflation forecast has been revised upward from 7.0 percent to 8.1 percent for the U.S. and from 7.2 percent to 8.2 percent for Colorado. The inflation forecasts for 2023 have also been revised upward from 2.8 to 4.1 percent for the U.S. and from

Figure 15. U.S. CPI Change



Note: Dotted line/shading indicate forecast.
Sources: BEA; OSPB forecast

Figure 16. Denver-Aurora Lakewood CPI Change

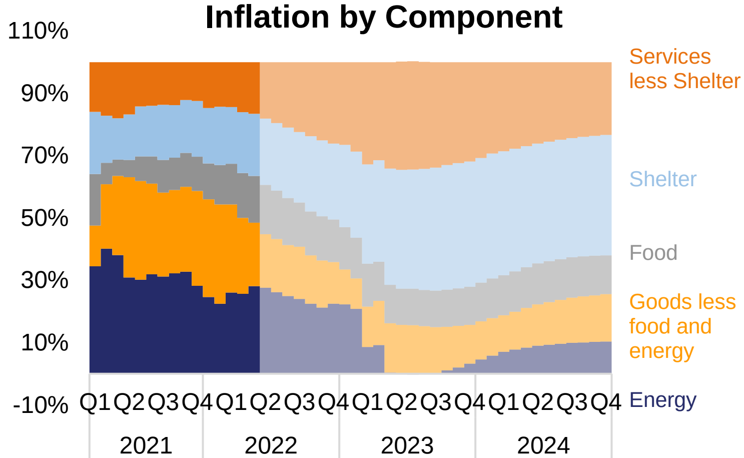


Note: Dotted line/shading indicate forecast.
Sources: BEA; OSPB forecast

3.0 to 4.4 percent for Colorado. These forecasts are shown on both a monthly and yearly basis in Figures 15 and 16.

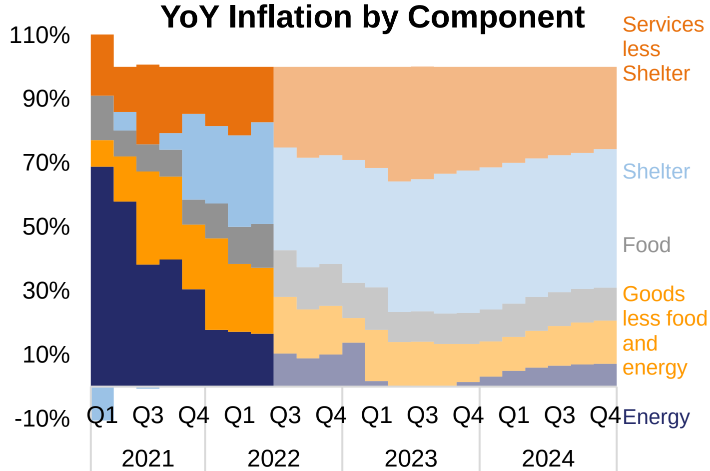
Inflationary pressures in 2022 have been broad-based. However, price increases in energy and other goods (not including food) are expected to slow through the rest of 2022 and early 2023, at which point CPI increases will be driven largely by shelter and other services. These trends are illustrated by Figures 17-18 and described in detail in the individual sections below. U.S. shelter and other services are expected to contribute nearly 51 percent of inflation by December 2022, in contrast to only 37 percent in May 2022. Each of the categories will return toward their historical norms by the end of 2024, contributing to inflation commensurate with their component weights.

Figure 17. U.S. Contribution to YoY Inflation by Component



Note: Shaded areas to the right indicate forecast.
Sources: BEA; OSPB forecast.

Figure 18. Colorado Contribution to YoY Inflation by Component



Note: Shaded areas to the right indicate forecast.
Sources: BEA; OSPB forecast.

Goods minus Food/Energy

- *Recent Data*: U.S. goods inflation was 8.5 percent in May and made up 20.4 percent of total inflation. Goods inflation has been high over the past year, peaking at 12.3 percent in February, as compared to an average of 0.2 percent year-over-year growth in 2019. Colorado goods inflation peaked at 10.7 percent in January.
- *Factors Driving Prices*: High goods prices are a result of historic demand for goods paired with persistent constraints on supply. Supply chain issues have been driven by multiple factors, including zero-COVID policies in Asian countries, port backlogs, and labor supply constraints in the trucking industry. In particular, surveys from Federal Reserve Banks indicate that supply chain disruptions remained highest in the Kansas City region, which includes Colorado. Still, the Fed's supply chain index trended downward consistently over the past three months and on average is at their lowest levels since February 2021.
- *Expectations*: As goods demand slows and supply chain pressures ease, goods inflation is projected to retract from its February peak of 12.3 percent down to 4.8 percent by December 2022. Colorado's location and distance from major ports means that it may

experience slightly more drawn out effects on goods prices related to these supply chain effects, but the impacts on inflation will be minimal in comparison to the shelter and service inflation effects discussed below.

Food

- *Recent Data:* U.S. food price inflation was 10.1 percent in May and contributed 15.0 percent of total inflation. Food prices have increased at consistently higher rates than usual over the course of the pandemic, and the 10.1 percent growth rate in May was the highest rate seen since February 1981. These price increases have been particularly high for meat, dairy, eggs, and grains. For example, the price of flour was up 13.7 percent and the price for a carton of eggs was up 32.2 percent for the U.S. in May. Colorado food prices followed the nations as well, up 9.8 percent in May.
- *Factors Driving Prices:* High food price inflation has been driven by high prices for agricultural inputs like fertilizers, public health concerns in food production facilities, and worker shortages suppressing supply. The war in Ukraine exacerbated these pressures as both Ukraine and Russia are major exporters of corn and wheat.
- *Expectations:* U.S. food price increases are expected to have hit their peak in May at 10.1 percent. Then, food price growth is expected to slow, though food price inflation is expected to remain at or above 8.0 percent through December, with continued price increases largely driven by the persistence of the war. Due to the global nature of food supply and demand, the trends in Colorado will likely continue to tie closely to those on the national side, peaking in May and slowing through the rest of the year.

Energy

- *Recent Data:* After nearly an 18 percent drop at the onset of the pandemic, energy prices remained suppressed until February 2021 due to lower demand. However, prices have spiked over the past year with strong demand and the supply effect of the war in Ukraine. Accordingly, energy inflation has significantly outpaced the other categories, hovering between 25 and 33 percent thus far in 2022 as both gas prices and home energy costs have soared above pre-pandemic levels. U.S. energy prices were up 34.6 percent in May over 2021 levels, the highest rate since September 2005. Colorado energy inflation has largely followed the nation, but was slightly lower in May at 24.7 percent. Gas prices have been particularly affected, up 62 percent over 2021 (from $3.07 to $4.97).[2]
- *Factors Driving Prices:* Energy prices have been driven by both consumer demand coming out of the pandemic, reduced supply over the course of the pandemic, and the supply effects of the war in Ukraine.
- *Expectations:* Growth is expected to slow over the rest of 2022 and early 2023, eventually turning briefly negative in June 2023, as production across the world ramps up to meet demand in response to a sustained elevated price. These production expectations are discussed in more detail in the energy section below. While energy prices are expected to fall in 2023 and 2024, the pace of falling prices is expected to be slow given the moderate

[2] AAA Gas Price data from June 9, 2022, available at https://gasprices.aaa.com/.

growth in production as a result of capital discipline. Colorado energy prices have generally seen the same trajectory as in the U.S. as a whole, with some monthly variation, and it is expected that the trajectories will remained aligned through the forecast period.

Services less Shelter

- *Recent Data:* U.S. services inflation came in at 6.0 percent in May and comprised 16.6 percent of total inflationary pressure. While 6.0 percent is less than the increases seen in other categories, it is much higher than historical rates of services inflation. For example, the average from 2000 through February 2020 was only 2.8 percent.
- *Factors Driving Prices:* Growing services inflation and a shift away from goods inflation follows the broader shift in spending habits, as goods consumption reverts down to trend levels and services consumption increases above trend levels in late 2022 and early 2023.
- *Expectations:* Service prices have gradually ramped up in 2022 and are expected to surpass goods price growth on a year-over-year basis in August 2022 in the U.S. and in July 2022 in Colorado. Consistent with this ongoing shift toward services spending and inflation, U.S. service inflation is expected to reach its peak of 8.2 percent in December 2022, at which point it will make up more than a third of total CPI growth. Colorado service inflation is expected to follow the same path as the nation and peak at 9.0 percent in September.

Shelter

- *Recent Data:* U.S. shelter inflation was 5.5 percent in May and made up 19.9 percent of total inflation. Colorado shelter inflation was up 7.2 percent in May and made up 31.8 percent of total inflation. Shelter is the largest component of CPI, and therefore has an outsized impact on headline inflation, especially in Colorado. However, it has lagged both energy and goods despite historically high housing prices amidst a mismatch of supply and demand in the housing market.
- *Factors Driving Prices:* Housing prices tend to lead increases in the shelter component, albeit with smaller relative impacts to shelter given the calculation of shelter inflation -- rent and rent equivalent for *occupied* units as opposed to real time changes in the prices of homes hitting the market. Additionally, home purchase prices only influence shelter inflation to the extent that they impact rental prices, as shelter CPI is a measure of inflation for rent and rental equivalence. Federal Reserve rate hikes will also eventually negatively impact prices through reduced demand.
- *Expectations:* U.S. shelter inflation is expected to grow to its peak of 6.0 percent in September while already high Colorado shelter inflation is expected to grow to a peak of 9.0 percent in September. Both U.S. and Colorado shelter inflation will remain high through the end of 2022. In 2023 and 2024, price growth is expected to slow as the joint effects of (1) Fed rate hikes reducing demand for housing due to higher mortgage rates and (2) increased supply slowing home price growth and passing through to shelter inflation. The shelter component is most critical for understanding the gap between U.S. and Colorado inflation due to its larger weight in Colorado and stronger underlying housing price pressure. The gap between overall U.S. and Colorado inflation over the

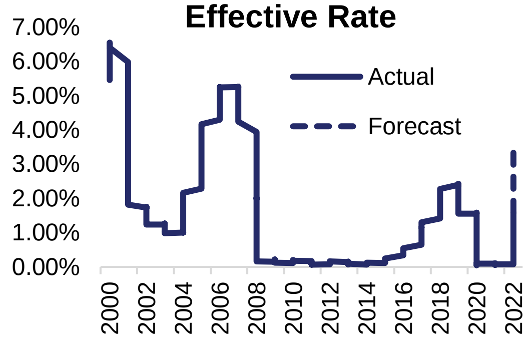
forecast period, in particular in the latter half of 2022 and over the course of 2023, reflects these differences and is consistent with historical differences in inflation.

Federal Reserve Action and the Effects of Monetary Policy on Inflation
As a result of these elevated price pressures, the Federal Reserve is tightening monetary policy to slow inflation and will continue to tighten through the end of the year. The Federal Reserve has already initiated three interest rate hikes, including a 25 basis point (0.25 percentage points) hike in March, a 50 basis point hike in May, and a 75 basis point hike in June. These rate hikes will continue, likely raising the effective federal funds rate to above 3.0 percent by December 2022 through four additional 25 to 75 basis point hikes dependent on the path of inflation. These interest rate actions have no direct effect on inflation, rather they work through other mechanisms to cool down the economy, including:

1. Making borrowing more expensive and shifting the balance between spending and saving, thus slowing consumer demand for goods;
2. Constraining the availability of cheap credit for firms. When combined with lowering expectations for corporate profits and company earnings, this results in less capital and subsequent reductions in company hiring rates; and
3. Raising the costs of large purchases such as homes by prompting increases in mortgage rates, thus slowing the demand side of the housing market.

There are a few caveats to the impact of Federal Reserve action on inflation. The indirect nature of these rate hikes means (1) that the effects are lagged, and (2) that some sectors of the economy are more responsive than others. For instance, effects on retail sales and production will likely lag rate hikes more than the effects on the housing market. Additionally, the effective federal funds rate is at a low level, and will remain relatively low even after these rate hikes ensue, as shown in Figure 19. Some economists posit that this real inflation-adjusted rate well below 0 will not be sufficient to slow price pressures. Still, this downside outlook is not the baseline expectation and it is expected that the Federal Reserve will be able to rein in inflation.

Figure 19. Federal Funds Effective Rate



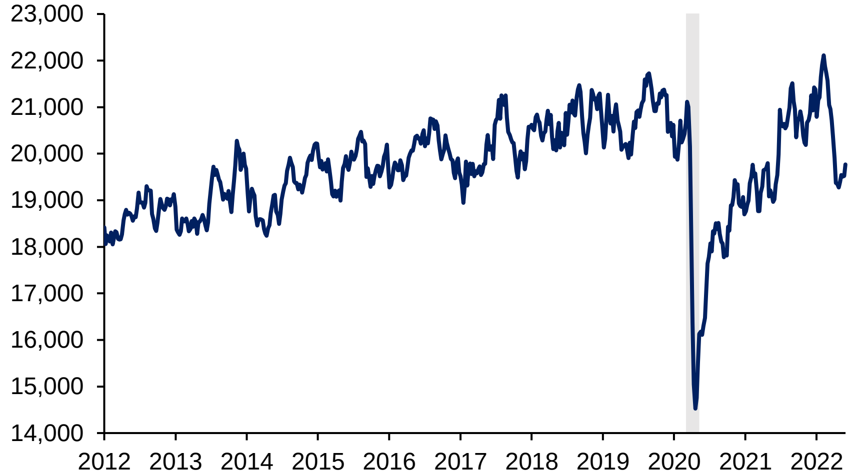
Note: Dotted line indicates forecast.
Sources: Board of Governor's of the Federal Reserve; OSPB forecast.

Energy

The energy forecast remains highly uncertain and prone to above-average volatility. Strong demand coupled with supply constraints related to the Russian invasion of Ukraine, low global inventories, the rate at which domestic and international producers increase drilling, and production decisions made by OPEC+ contribute to an ambiguous trajectory with upside price pressures.

Oil demand, as measured by U.S. petroleum products supplied which depicts consumption, surged through the beginning of 2022 (Figure 20) as latent economic activity regained momentum over the summer of 2021, and hitting the highest consumption on record in February 2022. Travel, commutes, and the purchase of consumer and intermediate goods all combined to drive oil prices to the highest levels since 2014. Since the consumption peak in mid-February, seasonal effects have driven demand to settle around the ten-year average as of early June. Moving forward, demand could temper for the remainder of 2022 due to inflationary headwinds, although it should remain buoyed by pent-up travel demand as hotel occupancy and air traffic volumes tick up year-over-year.

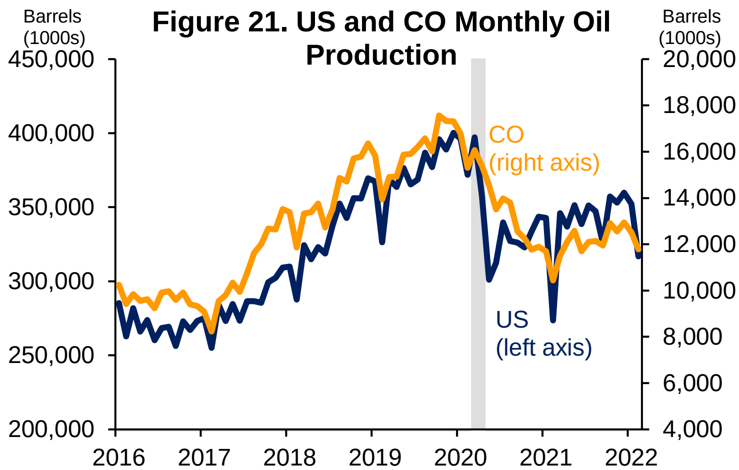
Figure 20. U.S. Petroleum Products Supplied
4-week average, thousand barrels per day



Note: Shaded area denotes recession. Source: Energy Information Administration.

With demand surpassing pre-pandemic levels, tight supply and global uncertainties have pressured prices upward. West Texas Intermediate (WTI), the U.S. oil market benchmark, rose to an average level of $109.55 per barrel in May – the highest monthly level since August 2008. This represents a 68.1 percent year-over-year increase. Spurred by the continued supply and demand imbalance, global oil inventories have decreased for seven consecutive quarters, driving upward price pressures. The U.S. Energy Information Administration (EIA) forecasts that oil inventories will increase but remain below their five-year average until the fourth quarter of 2023.

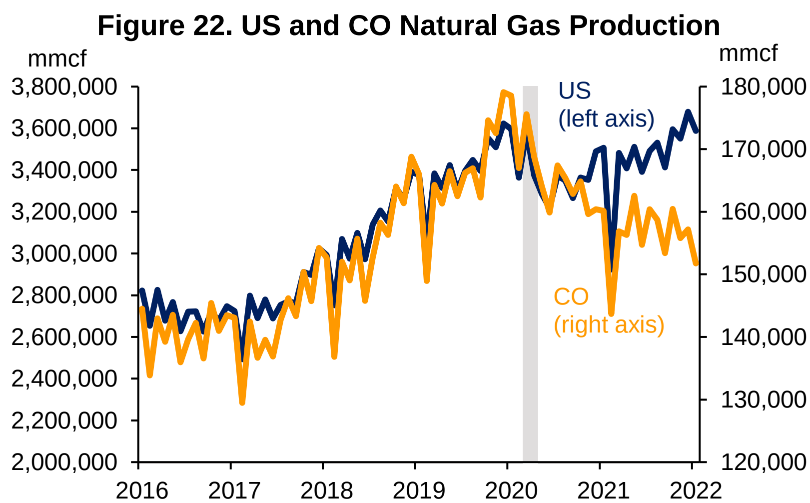
High WTI prices have translated to record-high gasoline prices in both the U.S. and Colorado with national prices for unleaded gas pushing $5 per gallon in early June, and Colorado maintaining gas prices about $0.20 below the national average. The EIA forecasts that WTI prices will drop, yet remain at elevated levels, to $102.47 in 2022 and $93.24 in 2023. Natural gas prices, benchmarked by the Henry Hub Natural Gas price, are also at sustained, elevated levels not recorded since 2008. Compared to the ten-year weekly average of $3.18 per million BTU, the Henry Hub price averaged $8.14 in May. This reflects an increase of 156 percent over the ten-year weekly average and the highest monthly level since August 2008. The EIA forecasts Henry Hub prices to be $7.69 in 2022 before dropping to $4.92 in 2023.



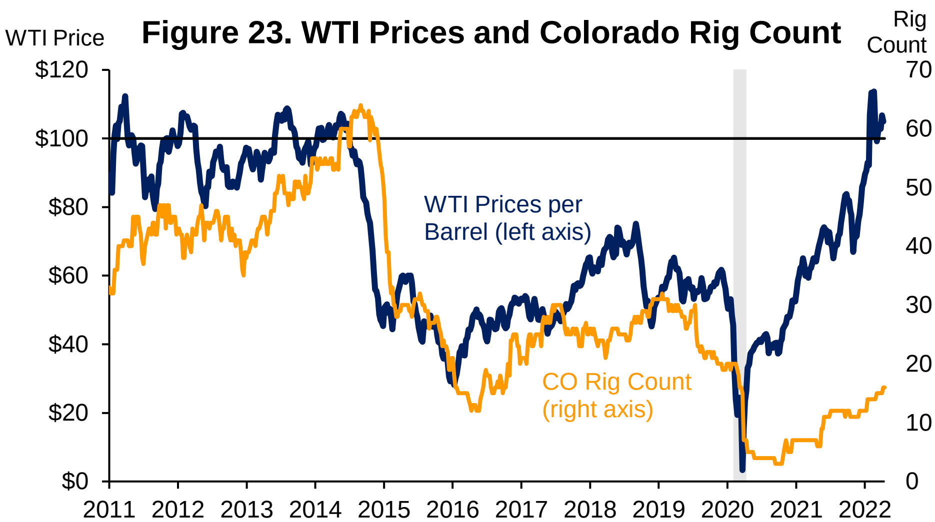
Note: Shaded area denotes recession
Source: Energy Information Administration.

One important element driving oil demand to outpace supply is producers' slow return to drilling since the onset of the pandemic. Prior to the pandemic-induced reduction in production, U.S. monthly oil production peaked in December 2019 at 400.2 million barrels while Colorado peaked at 17.6 million barrels produced in October 2019. As of January 2022, U.S. monthly oil production is at 316.7 million barrels and Colorado is at 12.5 million, reflecting a reduction of 20.9 percent and 29.0 percent, respectively, since the late-2019 peak. Colorado's slow return to production is more pronounced than the U.S., but firms across the country are hesitant to invest due to the increasing cost of labor, intensive capital costs for production, current debt levels, and the fiscal incentive of maintaining stable investment levels that result in higher profit margins due to elevated WTI prices. There is also a current investor preference with public firms to focus on dividends and debt reduction in lieu of growth.

Conversely, U.S. natural gas production has exceeded pre-pandemic levels; however, Colorado production levels remain well below pre-pandemic, with January 2022 production levels 15.3 percent below the peak reached in December 2019 as depicted in Figure 22. The natural gas production lag in Colorado is caused in part by the majority of the state's natural gas production coming as a result of oil drilling which also continues to lag.

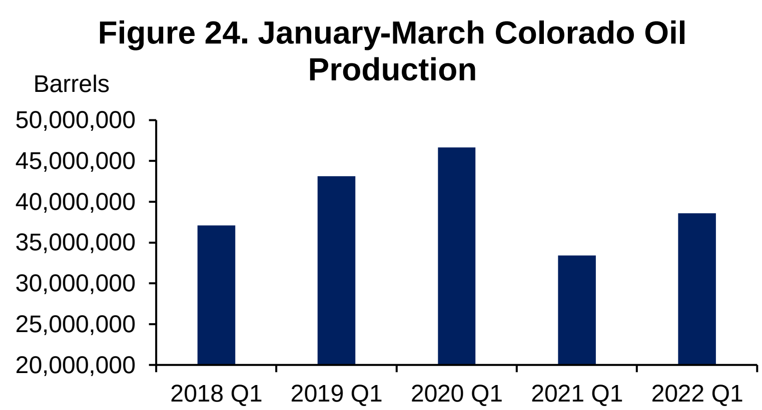


Note: Shaded area denotes recession
Source: Energy Information Administration.



Note: Shaded area denotes recession.
Source: Energy Information Administration and Baker Hughes

Although Colorado oil and gas production has lagged the nation over the past couple years, there are some signs that it is beginning to pick up some positive momentum. Over the first half of 2022, Colorado rig counts have increased from 12 at the beginning of the year to 16 in May as shown in Figure 23. The drilling rig count typically serves as a leading indicator of both oil and gas production of shale wells, indicating that a possible bump in production could take place through the end of 2022 and into 2023. Compared to peak state production in fall 2019 when the rig count was 23, the count is down about 30 percent, though the rig count has doubled since last year. This lag in rig counts has not constrained oil and gas profits, as prices have historically been the primary driver of revenue, and companies are largely choosing to maintain stable investment levels in lieu of rapid production growth.



Note: This chart depicts the top six oil-producing counties in Colorado which make up approximately 98% of production. The counties are Weld, Adams, Arapahoe, Larimer, Rio Blanco, and Broomfield.
Source: Colorado Oil and Gas Conservation Commission.

Further, Figure 24 compares first quarter oil production in Colorado's top six oil-producing counties (which make up 98 percent of production) over the past five years, and production thus far in 2022 is up 15.4 percent compared to the first quarter of 2021 and up 3.9 percent over 2018, which was the second-highest oil production year in Colorado history. Still, compared to the first quarters of 2019 and 2020 (which was prior to pandemic market effects), Colorado oil production is down 10.6 percent and 17.4 percent, respectively. Major energy firm consolidation in the region over the past couple years may put downward pressure on larger production increases as there is lower incentive for firms to grow in a less competitive environment. However, operators are continuing to draw down their drilled-butuncompleted (DUC) well inventories, indicating a short-term uptick in production. Regional industry expectations for future activity are also strong with firms in the 10th District of the Federal Reserve (which includes Colorado) indicating in the most recent quarterly energy survey that they expect drilling and business activity, capital expenditures, and access to credit to increase over the next six months. While oil production will likely not reach 2019 levels in 2022, there are signs that production will pick up as firms react, albeit slowly, to sustained, high WTI prices.

Over the forecast horizon, oil and natural gas demand is expected to continue to exceed supply in the near-term with some return to equilibrium in the out-years. Supply uncertainties include the rate at which domestic and international energy firms ramp up production, supply shocks due to the Russian invasion of Ukraine, and low inventories on the global scale. On the demand side, there is downside risk due to stringent, zero-COVID policies in China and slowing economic growth in the out-years. On balance, the energy sector forecast faces more near-term upside price risk, although it remains highly uncertain and likely volatile.

Housing and Rental Market

After strong growth in both residential construction and home prices since early 2020, lingering supply chain effects, labor shortages, and rate hikes are gradually having an impact on homebuilder and buyer sentiment. Still, the effects have been less pronounced in Colorado compared to the U.S., with housing permits in particular increasing at a much higher rate in Colorado in 2021, which should help the tight statewide housing market.

Figure 25. Colorado and US Building Permits Forecast

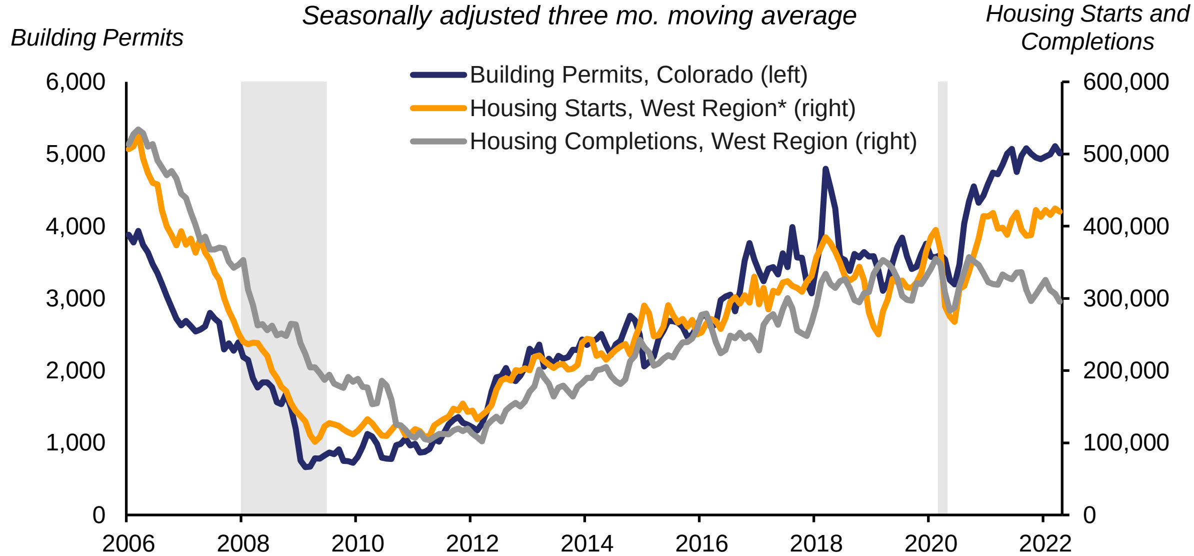
	Actual			June 2022 Forecast					
	2020	**2021**	**Change**	**2022**	**Change**	**2023**	**Change**	**2024**	**Change**
Colorado	40,500	56,500	39.7%	54,400	-3.8%	53,800	-1.0%	53,900	0.1%
US	1,471,000	1,711,000	16.3%	1,820	6.4%	1,780,00	-2.1%	1,760,000	-1.5%

Source: OSPB forecast, U.S. Census Bureau, and U.S. Department of Housing and Urban Development

While the number of housing units permitted and started have shown strong growth since 2020, housing completions have stagnated as of late. According to the National Association of Homebuilders Housing Market Index, homebuilder confidence both nationally and in the Western region has fallen to its lowest level since June 2020 as increases in labor and material costs make building more expensive, illustrated by the Producer Price Index of construction materials increasing 47 percent since February 2020. In addition, 30-year fixed rate mortgages reached 5.3 percent in mid-May, their highest level since July 2009. At the same time, the number of new home lots (an indicator of single-family homebuilders' ability to meet demand) remained flat according to Zonda's Lot Supply Index, suggesting both a significantly undersupplied market but one where builders' inventory levels will soon increase. Still, recent sharp falls in the price of lumber may provide some input price relief residential construction.

Figure 26. Private Housing Units Authorized by Building Permits, Started, and Completed

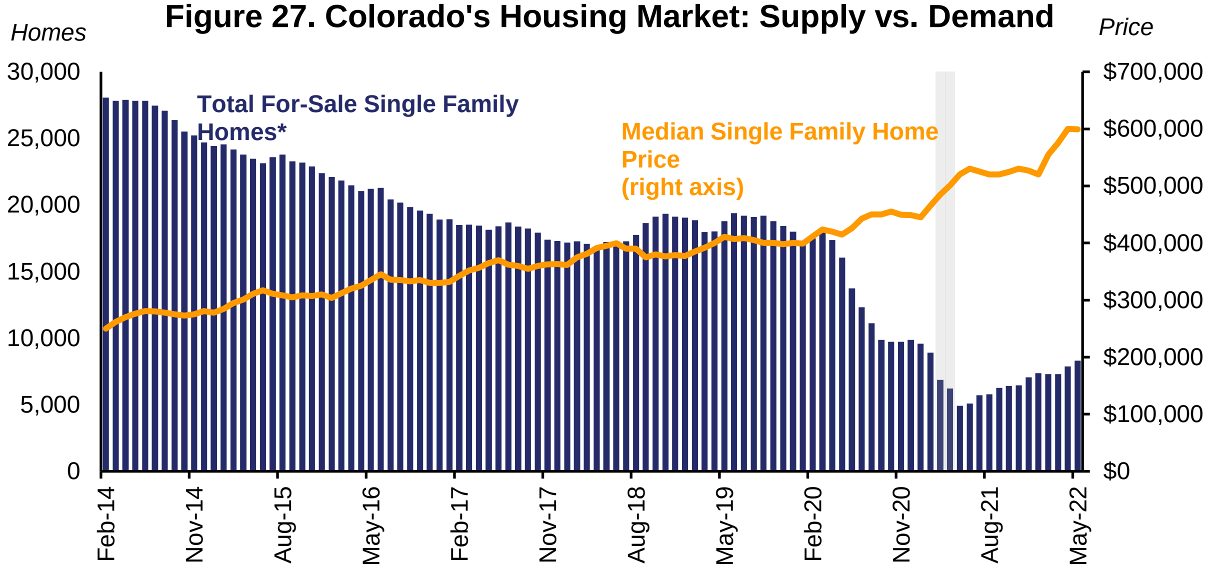
Seasonally adjusted three mo. moving average



*West Region is comprised of AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, and WY
Note: Shaded areas denote recession
Source: U.S. Census Bureau and U.S. Department of Housing and Urban Development

Across the state, the median price of a home for sale continues to increase after plateauing during the second half of 2021, reaching $599,000 for a single-family home and $435,000 for a townhouse/condo in May. The inventory of for-sale homes has started to steadily increase since February after decreasing at a record rate in 2020 and 2021, but supply is still very low by historical standards, according to the Colorado Association of Realtors. In addition, an April study by Zonda of 25 different U.S. markets showed Denver with the largest year-over-year growth in home sales at 16 percent. Still, seasonally adjusted national and regional data from the U.S. Census Bureau and U.S. Department of Housing and Urban Development indicate steep falls in sales of both existing and new homes since January, with simultaneous increases in inventory. While home sales in Colorado haven't yet dropped, they have been growing more slowly on a year-over year basis since last July.

Figure 27. Colorado's Housing Market: Supply vs. Demand



*Seasonally adjusted
Source: Colorado Association of Realtors

The mortgage market is also beginning to show signs of cooling. The Mortgage Bankers Association's weekly market composite index, which tracks mortgage loan application volume, dropped 6.5 percent in early June to its lowest level in 22 years, and its fourth consecutive week of decline. Both purchase and refinance applications dropped sharply on a year-over-year basis, by 21 percent and 75 percent, respectively. Mortgage rates alone are estimated to have increased the cost of owning a home 30 percent since the beginning of the year.

Other metrics continue to show housing demand in Colorado far outstripping supply, such as the average single-family home and townhouse/condo remaining on the market for only 22 and 19 days in May, respectively (compared to 65 and 52 in May 2014). Further, the average supply of inventory for single-family homes and townhouses/condos was only 1.1 and 0.8 months in May (dropping from 8.3 and 11.5 months in January 2010). Despite the fact that the median home price in Colorado is 66 percent higher than the national average in April according to the US and Colorado Realtors Associations, the homeownership rate in Colorado has modestly increased to 65.9 percent in 2021, the highest level since 2011 and marginally higher than the national rate at 65.5 percent, according to the U.S. Census Bureau. The recent growth in building permits is expected to continue to provide modest upward pressure on the homeownership rate.

In many counties, home price appreciation has far outpaced average wage growth over the last four years, further limiting the ability of low- and middle-income workers to own a home and build equity. This is often amplified in mountain towns where already limited housing supply is further constrained by growth in short-term rentals (STRs), which in the last two months has led to a proposed ballot measure to tax STRs in Dillon, stricter proposed STR regulations in Vail, proposed STR licensing in Breckenridge, and a new STR moratorium in Summit County.

Figure 28. Growth in Median Single Family Home Sales Price and Average Wages
Selected Counties, April 2018-October 2021

County	Median Home Price Appreciation	Average Wage Growth
Alamosa	59%	32%
Boulder	31%	46%
Chaffee	75%	48%
Clear Creek	65%	21%
Delta	11%	34%
Douglas	30%	40%
Garfield	61%	32%
Grand	95%	45%
La Plata	19%	41%
Lake	58%	30%
Mesa	36%	28%
Pueblo	53%	31%
Summit	64%	42%
Weld	38%	26%
Statewide Average	**35%**	**38%**

Source: Colorado Association of Realtors, Bureau of Labor Statistics

Rental units have also become increasingly unaffordable for a growing number of Coloradans as the drop in home affordability has pushed rental demand higher. Average annual apartment rents in metro Denver rose 14.4 percent year-over-year in the first quarter.[3] According to Zumper's Observed Rent Index, one-bedroom and two-bedroom apartments in Denver saw 27 percent and 15 percent year-over-year rent growth in May, with those in Colorado Springs seeing 15 percent each, although growth rates have slowed in recent months. U.S. Census Bureau data shows Colorado's rental vacancy rate during the first quarter was just 3.4 percent, tied for fifth lowest in the U.S. and well below the national average of 6.1 percent. According to Zillow, between January 2014 and April 2022 rents have increased by 63 percent in Denver, 76 percent in Colorado Springs, 47 percent in Fort Collins, and 51 percent in Boulder, compared to a 52 percent average across 108 U.S. cities measured. Recent legislation enacted in Colorado may eventually dent these rapid rent increases, particularly Senate Bill 22-159 and House Bill 22-1304, which provide $328 million in grants and revolving loans for affordable housing development, and House Bill 22-1051, which invests at least $420 million over 14 years in the development of affordable rental units.

Overall, we expect this drop in housing demand to lead to more stable home price appreciation and potentially even price decreases by late 2022, although the effect should be more muted in Colorado due to higher household incomes driving stronger underlying demand for homes relative to the U.S. This may have spillover effects on the rental market, although it's too early to tell if recent legislation will boost rental affordability.

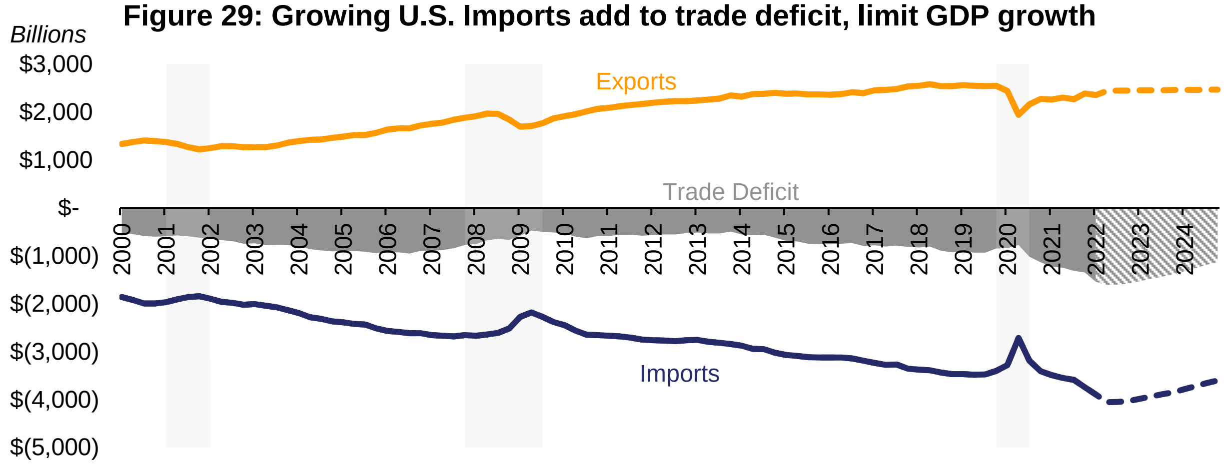
[3] University of Denver and Apartment Association of Metro Denver

International Trade

International supply constraints are expected to continue upward pressure on inflation while simultaneously dragging down economic growth. In the U.S., the drag of international trade on GDP is thought to be at its peak currently, due to elevated goods consumption, firms' investment in equipment, front-loaded business orders, and a strong dollar. While interest rate hikes by the Federal Reserve will likely slow goods consumption and firm investment, the trade balance reversion is expected to be slow due to the strength of the dollar. The strength of the dollar limits U.S. export growth overall, but exports of major Colorado products are less sensitive to dollar appreciation or global economic slowdowns given that these goods tend to be more differentiated, and therefore Colorado exports are expected to grow at a faster pace than the nation.

In the first quarter of 2022, U.S. GDP contracted by 1.5 percent on an annualized basis, largely due to a record trade deficit, which contributed approximately a 3.2 percent drag on economic growth. This record trade deficit last quarter is the result of surging imports due to elevated goods consumption, firms' investment in equipment, front-loaded orders, and U.S. dollar appreciation.

Figure 29: Growing U.S. Imports add to trade deficit, limit GDP growth



Note: Shaded region denotes recession; dotted line indicates forecast.
Source: U.S. Census Bureau

OSPB expects the trade deficit to increase at a less pronounced pace in the current quarter for the same reasons, before slowly reverting to 2021 levels by 2024 as exports continue to grow slowly while imports contract. The prolonged nature of the elevated net export deficit is due in part to a relatively strong dollar, which makes imports from other countries cheaper and increases the price of exports, and offsets slowing real U.S. consumer demand.

Dollar appreciation tends to have disparate effects on different types of goods, with international trade of raw commodities, like corn and soybeans, being particularly sensitive to currency fluctuations. On the other hand, consumer oriented or highly manufactured products tend to experience minimal drag from exchange rate dynamics. As such, the strong dollar will likely have less effect on Colorado exports than overall U.S. exports because the top exports tend to be value added or consumer-oriented products, like aircraft parts, beef, and computers and electronic products.

Figure 30: Colorado's top 10 exports in 2021

Commodity	Value (in millions)
Fresh or Chilled Beef, Boneless	$661.2
Integrated Electronic Circuits	$611.0
Frozen Beef, Boneless	$481.2
Civilian Aircraft, Engine, and Parts	$305.7
Medical, Surgical, Dental Instruments	$295.3
Frozen Beef, Bone-in	$141.5
Fresh or Chilled Pork, Bone-in	$140.7
Fresh or Chilled Pork Boneless	$138.0
Orthopedic Appliances	$137.6
Optical Instruments	$115.2

Source: U.S. Census Bureau

International GDP growth is also an important factor determining overseas demand of U.S. and Colorado products. Similar to the exchange rate response, raw commodity exports are more reactive to changes in overseas economic growth. Very few countries experienced a recession in 2021, with most countries experiencing above trend growth as the world quickly recovered from the pandemic recession. Mexico and Canada grew at a slightly slower clip than the U.S. in 2021, but Canada is likely to outpace the U.S.' economic growth in 2022 due in part to a larger share of its economy tied to the energy sector. Most European nations also saw slower growth than the U.S. in 2021, with the exception of France, the U.K., and Ireland. While the U.K. is expected to outpace U.S. growth in 2022 as well, the EU area will likely grow slightly slower than the U.S., and further downside risk exists if the war in Ukraine is prolonged. Japan's economic growth remains slow relative to other G10 nations, which is expected to continue in future years.

Figure 31: International GDP growth estimates and expectations

Country/Region	2021 actual	2022 forecast
World	6.1%	3.0%
United States	**5.7%**	**2.5%**
Canada	4.6%	4.3%
European Union	5.4%	2.3%
United Kingdom	7.4%	3.8%
Japan	1.6%	1.8%
China	8.1%	4.5%
India	8.9%	7.5%
Brazil	4.6%	0.5%
Russia	4.7%	-11.0%

Source: International Monetary Fund; Author's calculations

Turning to the growth outlooks of major developing nations, China rebounded in 2021 after experiencing below trend growth of 2.3 percent in 2020. However, China's growth is expected to slow again as it struggles to maintain rapid economic expansion alongside its strict COVID policies. India's economy grew rapidly in 2021, due to strong exports to the world and rising consumer demand domestically, which are expected to contribute to continued high growth in the coming years. In 2021, weak consumer demand and a slow-to-recover labor market limited economic recovery in Brazil. These same drivers are expected to apply further downward pressure on Brazil's growth this year. Finally, while Russia's economy grew in 2021, the recent conflict in

Ukraine has led to expectations of a sharp contraction in Russia in 2022. The conflict will also have spillover energy and food impacts to the rest of the world that will slow global growth in 2022, but most nations are likely to avoid a further contraction in the current year.

The energy and food supply disruptions stemming from the Ukraine conflict are expected to exacerbate global inflation. This has a particularly negative impact on emerging market countries where food and energy consumption make up a larger share of total consumer spending. Food inflation is higher than it was in 2008, when rapidly accelerating grains prices spurred high prices. Further upward pressure would likely force developing countries' central banks to take action. Global inflation ticked up to 3.4 percent in 2021, the highest rate in a decade. However, U.S. inflation grew at a faster rate, 4.7 percent, due to a higher share of goods consumption that were impacted by disruptions in global supply chains.

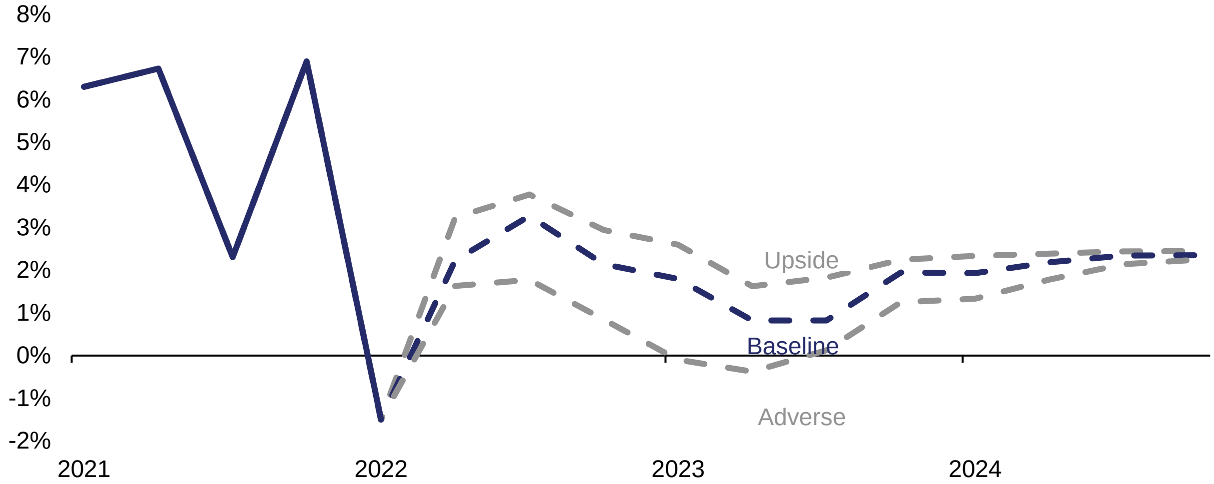
While 2022 began with lowered wait times on delivery orders in the U.S., recent developments indicate that a full resolution to supply chain disruptions may be over a year away. Reasons for a delayed return to normalcy include continued production setbacks abroad due to zero-COVID policies, a labor shortage in the U.S. trucking industry, and lags to get new supply chain structures up and running despite extensive investments made to date. A likely outcome by the end of the forecast window is that newly implemented supply chains require less reliance on any one nation while monetary policy reduces the current tightness in the labor market, resulting in a limited long-term inflation targets only nominally above 2 percent. Risks of de-globalization, reduced migration, and shrinking cross-border capital flows could increase equilibrium inflation more significantly above current 2 percent targets.

Forecast Risks

OSPB creates a point estimate forecast, the baseline scenario, for all economic and revenue variables. However, it does explore alternative economic growth scenarios to capture the risks in the economic environment. The baseline scenario includes sustained high inflation in 2022, which moderates in 2023 as monetary policy hikes begin to impact consumer demand, labor demand and housing prices, while global growth continues to slow.

The **upside scenario** includes more solid consumer spending in the face of high inflation and rising interest rates, buoyed by approximately $2 trillion in excess savings that run off more quickly to meet the pent up services demand. Additionally, labor market demand remains elevated while the labor force participation nationwide returns to pre-pandemic levels, resulting in continued low unemployment as the Fed successfully manages inflation more quickly than the baseline. The resulting annual GDP forecasts for 2022 through 2024 under such conditions are expected to be 2.9 percent, 2.5 percent, and 2.2 percent respectively.

Figure 32. GDP Growth Forecast Scenarios



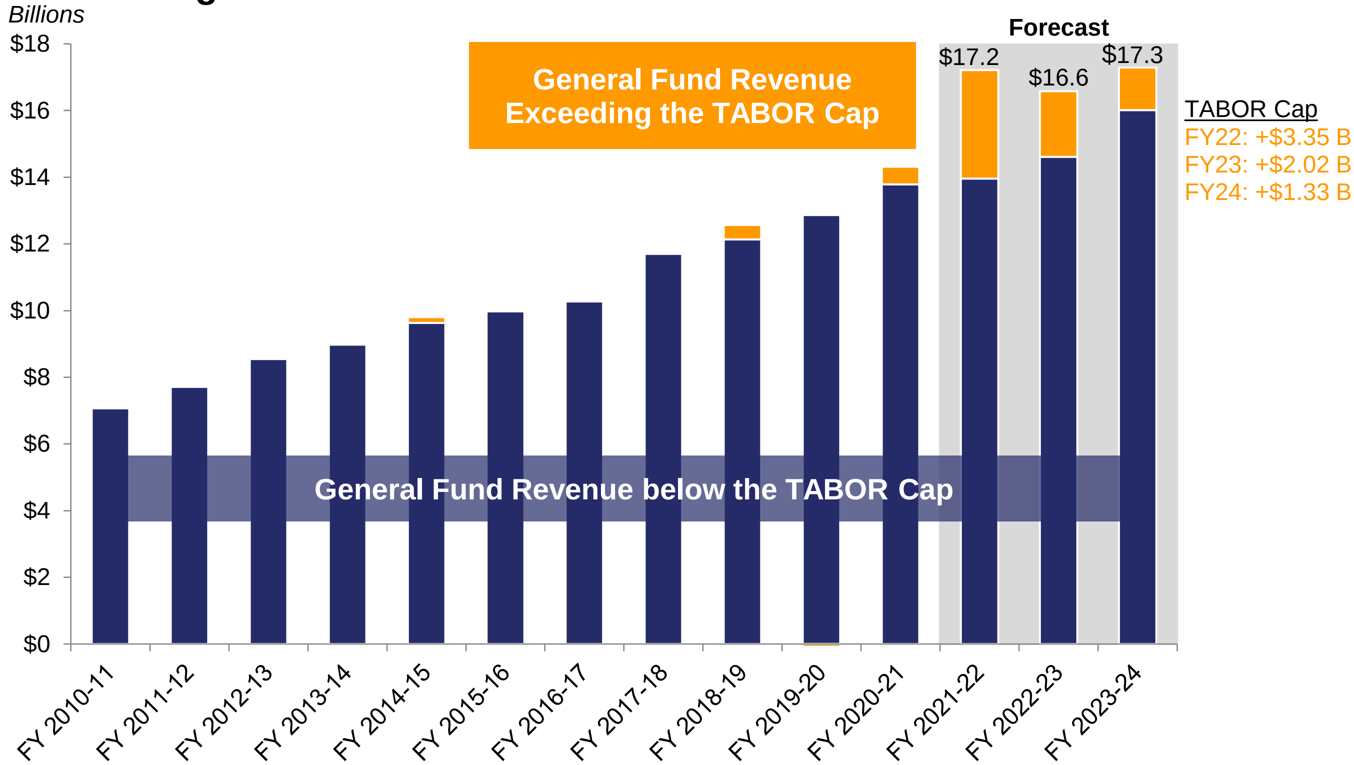
Source: OSPB forecast

The **downside scenario** includes prolonged inflation as the main downside risk, as continued high inflation may increase the nominal value of sales but would also eat into aggregate demand, thereby slowing economic growth. Additionally, further market selloffs alongside increased borrowing costs due to Federal Reserve actions could disrupt business investment as well as the completion of supply chain diversion efforts that are in progress. Finally, a prolonged war in the Ukraine would exacerbate existing food and energy supply shocks. Under this scenario, an aggressive monetary tightening response will slow demand enough to push the economy into a small recession, with two quarters of slightly negative growth to begin 2023. However, in such a scenario, the annual growth rate would still remain positive for the entire calendar year of 2023, at 0.5 percent. Economic conditions currently underlying this forecast are weighted towards downside risk.

General Fund Outlook

General fund revenue is projected to increase to $17.2 billion in FY 2021-22, a 20.3 percent change from the prior fiscal year. The projection for FY 2021-22 is $1.0 billion higher than the March forecast, in response to record high income tax revenue in April. OSPB expects revenues to then fall by 3.8 percent in FY 2022-23 before growing again by 4.3 percent in FY 2023-24. In FY 2022-23, the forecast is revised down $76.8 million, as reduced expectations in future individual and corporate revenues of estimated payments and cash with returns more than offset higher sales tax revenue. In FY 2023-24, however, revenues are revised up $91.1 million overall, as higher sales tax revenues more than offset downward revisions in income revenue in the form of withholdings and, to a lesser extent, estimated payments. The high pace of inflation is expected to drive up sales tax revenue, even as consumer demand is projected to decline. Compared to the March forecast, OSPB expects less income revenue from business profits in the out-years, particularly in FY 2022-23, and lower individual income withholdings in FY 2023-24.

Figure 33. General Fund Revenue and TABOR Refunds



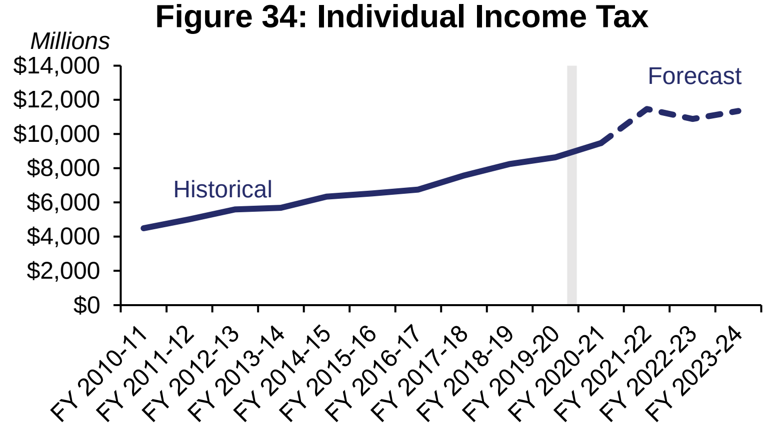
Source: Office of State Planning and Budgeting

General Fund revenue is projected to exceed the TABOR cap in the current fiscal year and throughout the forecast period. Revenue is expected to exceed the cap by $3.4 billion, which is $1.1 billion more than was forecast in March. General Fund revenue above the cap is projected to be $2.0 billion in FY 2022-23, and $1.3 billion in FY 2023-24.

Individual Income Tax

Individual income tax receipts in FY 2021-22 are projected to increase by 21.0 percent compared to the prior fiscal year, to $11.5 billion. This reflects an upward revision of $749.9 million from the March forecast. The April General Fund report totals set records and were driven by estimated payments and cash with returns collections that far exceeded the OSPB March forecast for the month, by 95 and 62 percent respectively. Estimated payments hit historically high levels due to pass-through businesses paying more than the required levels of the previous year to account for continued record high profits so far in 2022. This business decision is also motivated by firms owing a significant amount in cash with returns in April as a result of underreporting previous estimated payments. In addition to that, cash with returns increased from capital gains owed on equity sales during the stock market boom in 2021. In FY 2022-23, overall individual income revenue is expected to decrease by 5.1 percent, as strong withholdings growth is more than offset by reduced estimated payments and cash with returns in response to the economic slowdown. In FY 2023-24, revenue is forecast to again grow by 4.3 percent due to a rebounding business environment even as wage growth slows.

Figure 34: Individual Income Tax



Note: Shaded region denotes recession.
Source: Colorado Department of Revenue; OSPB

Individual income tax withholdings account for more than 80 percent of net individual income tax receipts and are closely linked to aggregate wages and salaries. Colorado aggregate wages and salaries remain strong in response to a tight labor market, but the relative pace of growth has been revised down because of more aggressive monetary policy that is anticipated to further limit labor demand. In calendar year 2022, wage growth is now expected to be slightly above the March forecast, but this fades over the course of 2023, ending the year down 0.7 percent on average. This relative decline in expected growth to total wages and salaries is weighted towards the second half of the year and continues into 2024. Therefore, withholdings are revised up by $71.4 million from the March forecast in FY 2021-22 resulting in a growth rate of 14.4 percent. One reason for the upward revision is that high wage sectors are adding jobs at a faster rate than lower wage jobs, while the lowest wage jobs are experiencing the largest growth in average weekly salary. In FY 2022-23, withholdings are revised down by only $1.3 million and grow 6.7 percent, in line with FY 2015-19 averages. In FY 2023-24, withholdings revenue growth slows to 2.3 percent as the labor market loosens, constituting a $121.5 million downward revision from March.

Estimated payments are revised up by $622.1 million in FY 2021-22 compared to the March forecast, largely due to the record revenue total in April as pass-through businesses expected earnings continue to outpace recent history. However, as the economy is projected to slow in 2023, pass-through business are expected to respond by reversing course and reducing estimates to account for the new environment. The slowing economy is a result of depressed aggregate demand in the face of higher interest rates, which impacts small businesses and C-corps alike. Even though the first half of 2024 is expected to rebound to potential growth, proprietors' profits are expected to be reduced relative to the March forecast. Therefore, estimated payments are revised down by $78.8 million in FY 2022-23 and $62.5 million in FY 2023-24. The resulting decline in FY 2022-23 is now more pronounced, falling 32.9 percent, after 42.5 percent growth in FY 2021-22.

Cash with returns are expected to drop by 27.8 percent in FY 2022-23, a downward revision of $167.3 million, due to high previous estimated payments, which reduce the amount of additional taxes owed. Additionally, a drop in cash with returns next fiscal year is anticipated as the amount of non-wage income is expected to compress as the economic slowdown sets in. In FY 2023-24, cash with returns increase by 15.9 percent to account for the large pullback in estimated payments in FY 2022-23 and the rebound in equity markets expected to begin 2024.

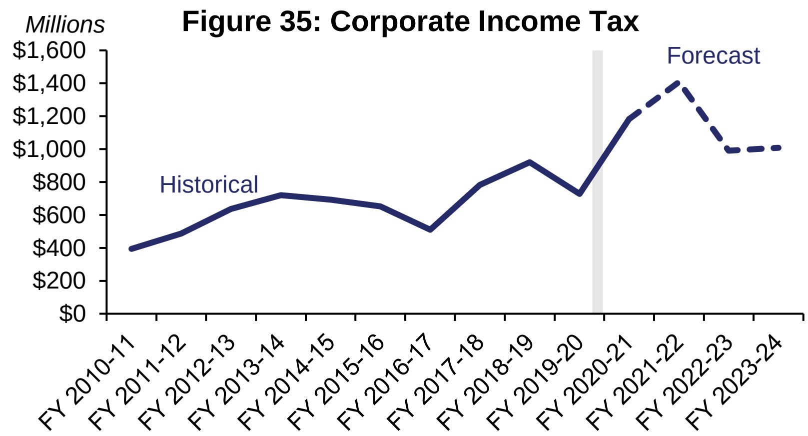
Finally, **refunds** are revised down by $142.9 million in FY 2022-23 and $168.0 million in FY 2023-24. Refunds were exceptionally high during the pandemic economy given strong growth in estimated payments and withholdings. But, as the economy slows towards normalcy, these refunds are expected to be return to pre-pandemic trends. Therefore, refunds are expected to fall 6.2 percent in FY 2022-23 before rising 0.3 percent in FY 2023-24.

In addition to the above economic drivers, there are policy impacts from the last two state legislative sessions. From the 16 bills with a revenue impact in the most recent session, H.B. 22-1205, Senior Housing Income Tax Credit, has the largest revenue impact on individual income tax revenue. This bill creates a new one-time refundable income tax credit for seniors who own a home but do not qualify for the Homestead Exemption, and is expected to increase refunds by $95.0 million, over FY 2021-22 and FY 2022-23, with additional reductions to cash with returns of $5.0 million. From the 2021 legislative session, portions of H.B. 21-1311 and H.B. 21-1312 have increasing impacts in FY 2022-23 and beyond. One such example is the cap on itemized deductions in H.B. 21-1311, which ramps up significantly in FY 2022-23 and is expected to increase cash with returns by $123.7 million on an accrued basis, over double the impact relative to the current fiscal year. Finally, the only federal bill driving policy adjustments on individual income tax is the Infrastructure Investment and Jobs Act, which is expected to have a minimal impact through the forecast period.

Corporate Income Tax

As corporate profits growth has continued to outpace expectations, corporate income tax receipts are projected to grow by 19.0 percent FY 2021-22, off of the historic highs of FY 2020-21. This is a $232.0 million upward revision from the March forecast, due to April estimated payments and cash with returns coming in above expectations in a similar fashion to individual income revenue. Corporate profits are expected to decline in 2023 as rising inflation and interest rates slows aggregate demand. Therefore, in FY 2022-23, the expected drop in corporate tax

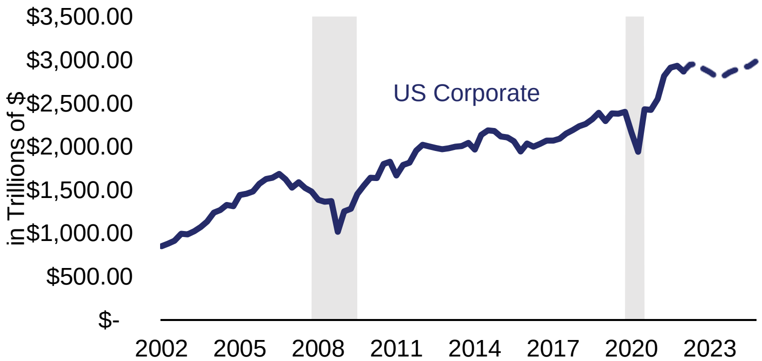
Figure 35: Corporate Income Tax



Note: Shaded region denotes recession; dotted line indicates forecast
Source: Colorado Department of Revenue; OSPB forecast

revenue is now 29.7 percent. Finally, in FY 2023-24, corporate tax revenues are expected to grow by 1.7 percent, resulting in the third highest total on record after FY 2020-21 and the projected FY 2021-22.

Figure 36: Corporate Profits expected to falter, but remain elevated



Note: Shaded region denotes recession; dotted line indicates forecast
Source: U.S. Bureau of Economic Analysis

Corporate profits before taxes, which account for inventory and capital adjustments, are an important indicator for corporate income revenue. In the fourth quarter of 2021, these profits nationwide hit a record high of $2.94 trillion before falling slightly to $2.87 trillion in the first quarter of 2022. Prior to the pandemic, the record was $2.41 trillion, but that mark has been broken in every one of the last seven quarters. As the consumer basket shifts from durable goods towards services, growth in profits from these historic highs is expected to slow in 2022 to 4.1% growth. With reduced consumer demand driving a slowdown in 2023, corporate profits before inventory and capital adjustments are expected to fall by nearly 3 percent before rebounding with the economy in 2024. However, an additional consideration in the current environment is to focus on inventories rising at the same time as consumers shift away from purchasing those goods. The additional downward pressure on corporate profits for goods-driven firms is expected to further drive down estimated payments in FY 2022-23.

The resulting impact on corporate estimated payments and cash with returns is similar to the impact on individual income revenue streams. In FY 2022-23, estimated payments are expected to fall 17.6 percent as economic growth slows. At the same time, cash with returns are expected to fall by 45.6 percent next fiscal year and return to levels that are in line with FY 2018-19, as C-corps more accurately estimate payments during the transition out of the pandemic economy. In FY 2023-24, both estimated payments and cash with returns increase moderately, as the economy begins to rebound.

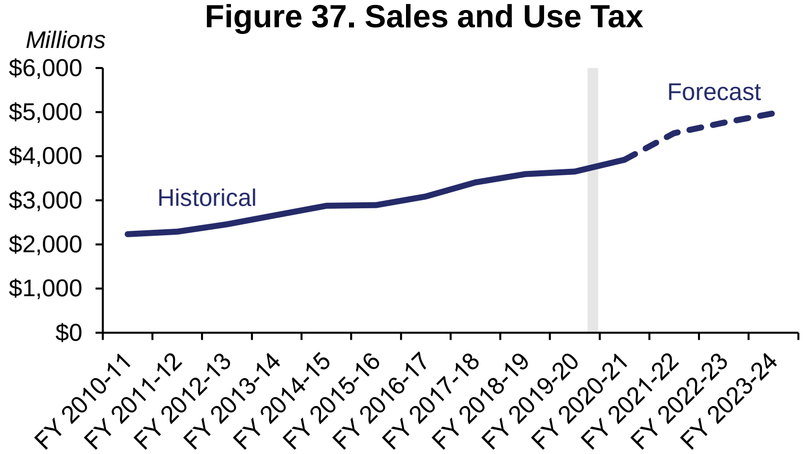
In addition to the above economic drivers, there are additional policy impacts from the last two state legislative sessions. From the bills with a revenue impact in the most recent session, H.B. 22-1026, Alternative Transportation Options Tax Credit, has the largest effect. This bill replaces an existing income tax deduction for employers who provider ridesharing, transit, or other transportation options with an expanded credit. The bill reduces cash with returns revenue by an accrued $6.6 million in FY 2022-23 and $14.1 million in FY 2023-24. While last session's bills largely reduced anticipated cash with returns revenue, the 2021 session largely increased corporate cash with returns revenue through HB21-1311 and HB21-1312. The effect of those two bills, including moving to the 'Finnigan' corporate tax apportionment, have increasing impacts in the outyears, with corporate tax apportionment more than doubling to $20.2 million on an accrued basis in FY 2022-23. Previously, corporations were to be determined taxable in Colorado only if the corporation itself possessed taxable nexus, whereas now, under Finnigan, a corporation is taxable if any member of its unitary group is taxable. Finally, the only federal bill driving policy adjustments on corporate income tax is in the Infrastructure Investment and Jobs Act, which has a minimal impact through the forecast period.

Sales and Use Taxes

Sales Tax

Following sales tax revenue collections of $3.4 billion and 6.9 percent growth in FY 2020-21, revenue is forecast to grow by 17.7 percent to $4.0 billion in FY 2021-22, spurred by strong retail sales spending. Compared to the March forecast, this is an upward revision of $111.4 million following above-expectation collections. FY 2022-23 and FY 2023-24 are also revised upward by $103.7 million and $144.2 million to $4.2 billion and $4.4 billion, respectively. The out-year upward revisions are largely due to the increased collections in FY 2021-22 elevating the base and inflation driving nominal growth over the forecast period, with real growth expected to be negative in FY 2022-23. Sales tax growth is largely predicated upon nominal state retail sales growth which grew by 16.5 percent in calendar year 2021 and is forecast to grow by 9.7 percent in 2022, 4.1 percent in 2023, and 3.8 percent in 2024.

Figure 37. Sales and Use Tax



Note: Shaded region denotes recession; dotted line indicates forecast
Source: Colorado Department of Revenue; OSPB forecast

This forecast also takes into account policy adjustments due to recent legislative action that are not fully incorporated into the broader sales tax base trend. These adjustments are forecast to result in a sales tax revenue reduction of $27.6 million in FY 2021-22, a reduction of $22.4 million in FY 2022-23, and an increase of $21.3 million in FY 2023-24. The most significant change since the last forecast came with the passage of H.B. 22-1406, Qualified Retailer Retain Sales Tax, which allows certain businesses in the food services sector to deduct up to $70,000 from net taxable sales for up to five locations each month. This deduction is allowed over the first quarter of FY 2022-23 and will result in an estimated sales tax revenue reduction of $39.3 million.

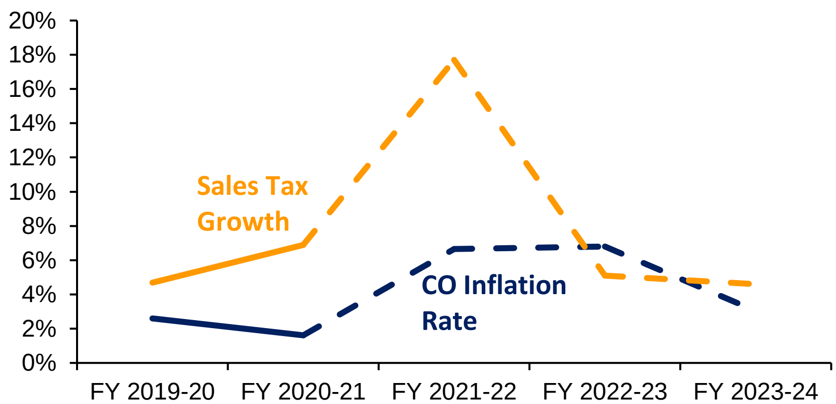
Figure 38. Sales and Use Tax Revenue Forecast

Fiscal Year	Sales Revenue (millions)	Growth	Use Revenue (millions)	Growth	Total Revenue (millions)	Growth
FY 2020-21 (actual)	$3,418.1	6.9%	$214.2	1.8%	$3,632.3	6.6%
FY 2021-22	$4,023.9	17.7%	$235.3	9.9%	$4,259.2	17.3%
FY 2022-23	$4,230.4	5.1%	$254.4	8.1%	$4,484.8	5.3%
FY 2023-24	$4,422.9	4.6%	$263.2	3.5%	$4,686.1	4.5%

Source: OSPB forecast

While sales tax growth in FY 2021-22 of 17.7 percent is expected to come in well above forecast inflation levels, the forecast growth in FY 2022-23 is 5.1 percent, which is below inflation expectations (6.8 percent on a fiscal year basis). This means that while nominal sales tax growth in FY 2022-23 is forecast to be robust, it is a product of inflation, and *real* sales tax growth is forecast to be negative for the fiscal year. This is illustrated in Figure 39, depicting forecast sales tax growth falling below forecast inflation in FY 2022-23. Real sales tax revenue has been growing throughout FY 2019-20 and FY 2020-21, and growth is expected remain higher than the inflation rate in FY 2021-22. In FY 2023-24, sales tax revenue is forecast to rebound to slightly positive real growth above inflation expectations.

Figure 39. Sales Tax Growth vs. Inflation



Note: Inflation levels are shown on a fiscal year basis.
Source: Colorado Department of Revenue, Bureau of Labor Statistics, and OSPB forecast

After historic sales tax revenue over the course of FY 2021-22, revenue growth is expected to weaken in the forecast out-years, slightly below the five-year average of 5.2 percent. With nominal consumer spending and retail sales expected to come down from current levels, nominal sales tax growth in the out-years will largely be a product of inflation with negative to flat real growth.

Use Tax

Use tax revenue increased 1.8 percent to $214.2 million in FY 2020-21 and is forecast to increase by an additional 9.9 percent in FY 2021-22 to $235.3 million. This is a slight downward revision of $3.8 million from the March forecast following below-expectation collections. It is expected that use taxes will increase to $254.4 million in FY 2022-23 and grow to $263.2 million in FY 2023-24. These projections are revised upward from the March forecast by $8.4 million and $11.1 million respectively, primarily because of an elevated oil price forecast creating an expectation for higher levels of capital investment in the oil and gas industry. An increase in capital investment within this industry has historically led to growth in use tax collections. Near-term, positive expectations for residential construction also marginally drove the upward revision. These projections continue to assume that sales and use tax revenue have largely leveled off to their new equilibrium relationship after the change created by H.B. 19-1240, which codified the state's sales tax rules in response to the *South Dakota v. Wayfair* ruling.

Marijuana Sales

After a 27.4 percent increase to $245.5 million in FY 2019-20, the 15 percent special sales tax on marijuana retail sales increased by another 17.4 percent to $288.2 million in FY 2020-21. Revenue is expected to decline by 10.9 percent in FY 2021-22 and resume slower growth in FY 2022-23 and FY 2023-24. Further analysis of marijuana tax collections can be found in the Revenue Outlook – Cash Funds section of this report.

Proposition EE and Other Excise Taxes

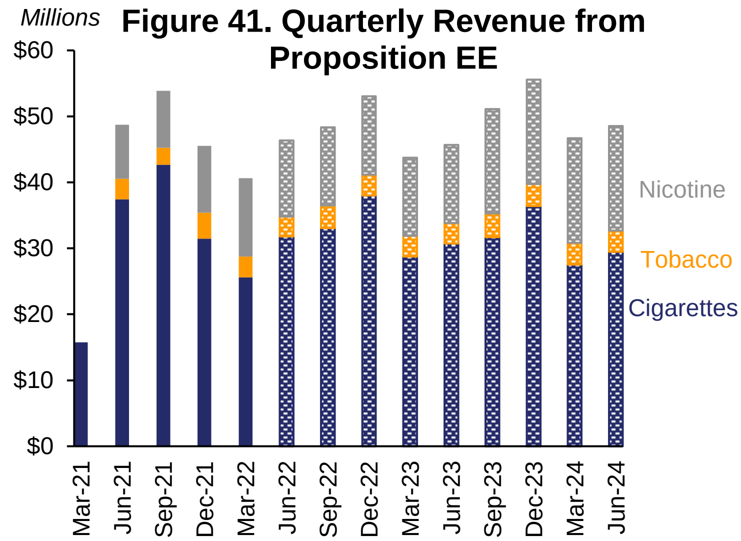
Proposition EE, a ballot measure approved in November 2020, imposes additional taxes on cigarettes and tobacco products and creates a new tax on other nicotine products such as e-cigarettes. Figure 40 summarizes the new taxes levied on cigarettes and tobacco through FY 2023-24. Taxes on cigarettes and tobacco will increase marginally in FY 2024-25 and again in FY 2027-28. Additionally, the new tax on other nicotine products began at 30 percent and will increase incrementally up to 62 percent by July 2027. Through FY 2022-23, revenue from the Proposition EE-imposed taxes is largely transferred to the State Education Fund with smaller amounts going to various other funds. Starting in FY 2023-24, revenue will be transferred almost entirely into the Preschool Programs Cash Fund aside from a small transfer to the Tobacco Education Programs Fund.

Figure 40: Proposition EE Tax Rates

Cigarettes	FY 2020-21	FY 2021-22	FY 2022-23
General Fund	$0.20	$0.20	$0.20
Amendment 35	$0.64	$0.64	$0.64
Proposition EE	$1.10	$1.10	$1.10
Total Cigarette Taxes	**$1.94**	**$1.94**	**$1.94**
Tobacco	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**
General Fund	20%	20%	20%
Amendment 35	20%	20%	20%
Proposition EE	10%	10%	10%
Total Tobacco Taxes	**50%**	**50%**	**50%**
Nicotine	**2021**	**2022**	**2024**
Proposition EE	30%	35%	50%
Total Nicotine Taxes	**30%**	**35%**	**50%**

Proposition EE went into effect in January 2021, bringing in $49.0 million total for the second half of FY 2020-21. Most of this revenue came from cigarettes at $37.7 million, with tobacco and nicotine making up the other $11.3 million. OSPB expects total Proposition EE revenue to increase to $205.3 million in FY 2021-22, as the taxes will be in effect for the full year and as the nicotine tax rate increases. Nicotine revenue came in at $8.2 million in FY 2020-21 with one quarter of data, and quarterly revenue has continued to increase since early 2021. Nicotine revenue is expected to reach $42.2 million for FY 2022, an upward revision of $2.5 million compared to the March forecast. Tobacco taxes are the smallest portion of Proposition EE revenue and have come in roughly as expected since their implementation. Tobacco tax revenue is expected to reach $15.6 million this fiscal year.

Figure 41. Quarterly Revenue from Proposition EE

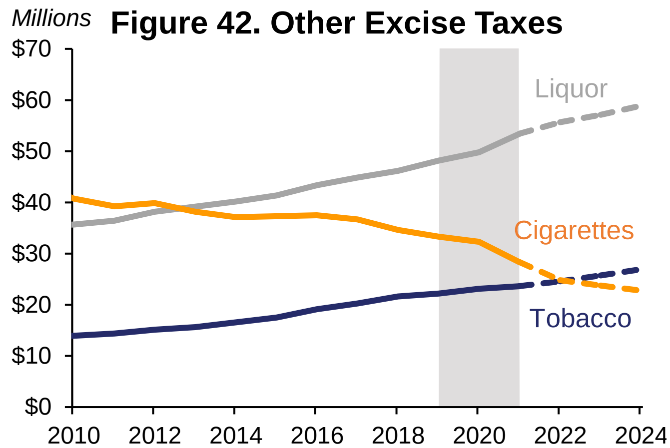


Note: Dotted region indicates forecast period.
Source: Colorado Department of Revenue; OSPB forecast

Proposition EE cigarette revenue was revised down by over 20 percent in both FY 2022-23 and FY 2023-24 compared to the March forecast. The Colorado Department of Revenue identified an issue with cigarette revenue that resulted in overfunding in the original statutory tax and Amendment 35 tax revenue and underfunding in Prop EE revenue. The March General Fund report adjusted for the identified error by decreasing the amount of revenue credited to the original statutory tax and Amendment 35 tax and increasing revenue credited to Prop EE. Despite a positive credit to the Prop EE cigarette revenue, the forecast was revised down in the two out years because it is tied proportionally to the original statutory tax revenue, which was revised down due to the negative adjustment. Cigarette revenue is trending down as smoking cigarettes becomes less popular over time, and the new taxes appear to have a bigger impact on consumption than was previously thought.

Other excise taxes include the initial statutory taxes on cigarettes and tobacco, excluding Proposition EE and Amendment 35, as well as revenue from liquor taxes. Liquor and tobacco each have a fairly consistent pattern, both trending upward over time. Liquor sales increased significantly at the beginning of the pandemic, and revenue has continued to increase at its pre-pandemic rate over the past year. The tobacco tax rate is 20 percent of the wholesale price for tobacco, meaning that the upward trend is likely tied to prices increasing over time in addition to population growth.

Figure 42. Other Excise Taxes



Note: Dotted line indicates forecast; shading indicates recession
Sources: Department of Revenue; OSPB forecast

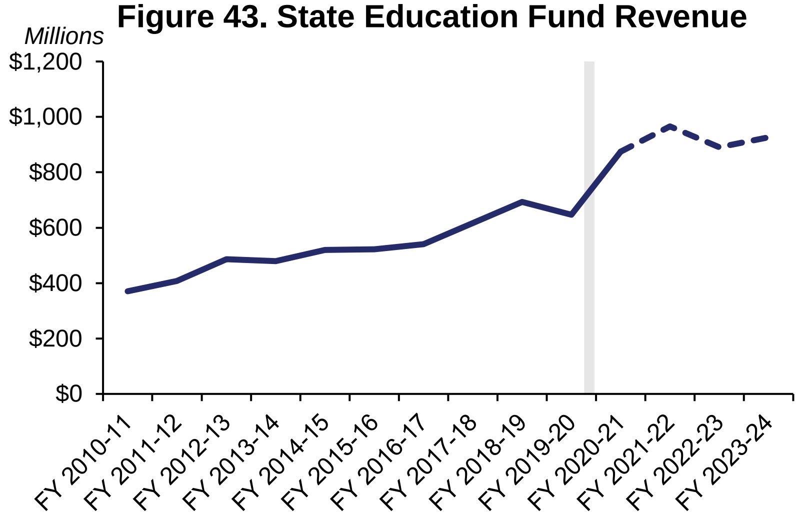
Other General Fund Revenue

Other General Fund revenue includes insurance premium tax revenue, interest/investment income, pari-mutuel, court receipts, and other income. Other General Fund revenue is expected to increase by 6.5 percent to $469.5 million in FY 2021-22 due to increases to insurance premium tax and interest income. Revenue is expected to further increase by 14.4 percent in FY 2022-23 and 7.2 percent in FY 2023-24. This estimate was revised up from the March forecast mainly due to record growth in insurance premium tax receipts. 2021 legislation reduced the size of the annuities exemption and regional home office rate reduction, which should continue to boost insurance premium tax revenues moving forward. The estimate for interest income is expected to grow 8.3 percent in FY 2021-22 due to higher-than-anticipated receipts and expectations of Federal Reserve interest rate hikes. In FY 2022-23, there is a 25.4 percent drop expected in interest income revenue as foregone interest as a result of S.B. 22-233, *Tabor Refund Mechanism for FY 2021-22 only*, more than offsets rising interest rates.

State Education Fund

Revenue to the State Education Fund (SEF) from income taxes is expected to be 10.4 percent higher in FY 2021-22 than the previous fiscal year, reaching $965.7 million. This is due to a strong recovery of the economy in FY 2021-22, which is driving up revenue from individual estimated payments, but also to the truing up of a technical error, which delayed a transfer of $75.6 million into the SEF from FY 2020-21 to FY 2021-22. In FY 2022-23, a 7.8 percent decrease in revenue is expected, with revenues at $890.2 million, which is due in part to a return to the mean after the delayed transfer, and in part to a slowing of economic activity as inflation remains high and interest rates rise. In FY 2023-24, a 4.1 percent increase is SEF revenue is expected, which would bring revenue to the fund to $926.4 million.

Figure 43. State Education Fund Revenue



Note: Dotted line indicates forecast; shading indicates recession
Sources: Department of Revenue; OSPB forecast

The Colorado Constitution requires that a third of a percent of Colorado taxable income be credited to the State Education Fund. As the State Education Fund revenue is derived from taxable income, it generally follows the trends in individual income and corporate income tax revenue collections.

Revenue Outlook – Cash Funds

Cash funds are taxes, fees, fines, and interest collected by various state programs to fund services and operations. These revenue sources are designated by statute for a particular program and as such are distinct from General Fund revenue, which is available for general purpose expenditures. The following discussion highlights those cash fund revenues that are subject to TABOR or that have significant fiscal implications.

Cash Fund Revenue Subject to TABOR

Total cash fund revenue subject to TABOR was $2.24 billion in FY 2020-21, a reduction of 0.1 percent from the prior fiscal year. In FY 2021-22, revenue is projected to increase by 16.9 percent to $2.62 billion, followed by a 1.8 percent reduction in FY 2022-23 and 4.4 percent growth in FY 2023-24. These revenue amounts for FY 2021-22, FY 2022-23, and FY 2023-24 are up by $110.5 million, $18.9 million, and $19.4 million from the March forecast, respectively. The changes upward are driven by significant upward revisions to severance tax collections as a result of increased oil and gas prices and increased production. Upward revisions are partially offset by reductions to gaming revenue as a result of Senate Bill 22-216 and transportation revenue as a result of weaker than expected Highway Users Tax Fund revenue.

Transportation

Transportation-related cash funds include the Highway Users Tax Fund (HUTF), the State Highway Fund (SHF), and a handful of smaller cash funds. Transportation-related cash fund revenue was affected by the pandemic, falling by 5.9 percent in FY 2019-20 and another 3.7 percent in FY 2020-21. This decline was driven primarily by lower revenue from gas, transportation permits, and aviation. Most of these revenue streams are beginning to return to pre-pandemic levels as transportation patterns rebound. In addition to a rebound in these revenue streams, S.B. 21-260 *Sustainability of the Transportation System* is expected to bring in substantially more transportation-related cash fund revenue in the long run as new fees go into effect.

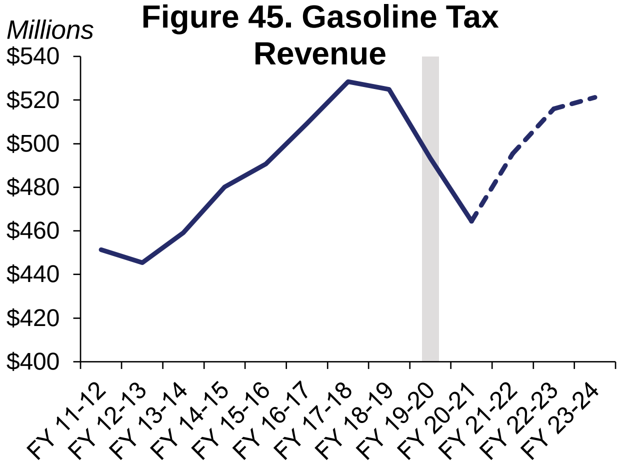
Figure 44: Transportation Revenue

	Actual FY 20-21	Forecast FY 21-22	Forecast FY 22-23	Forecast FY 23-24
Highway Users Tax Fund (HUTF)				
Motor and Special Fuel Taxes	$593.6	$629.9	$649.0	$656.2
Percent Change	*-4.9%*	*6.1%*	*3.0%*	*1.1%*
Road Usage Fees	$0.0	$0.0	$14.8	$89.7
Percent Change	*N/A*	*N/A*	*N/A*	*507.4%*
Total Registrations	**$400.2**	**$381.7**	**$337.4**	**$379.5**
Percent Change	***4.8%***	***-4.6%***	***-11.6%***	***12.5%***
Registrations	$234.1	$239.7	$238.0	$244.8
Road Safety Surcharge	$137.8	$110.9	$72.1	$106.2
Late Registration Fees	$28.3	$31.1	$27.4	$28.5
Other HUTF	$48.1	$59.8	$74.6	$76.6
Percent Change	*-23.5%*	*24.4%*	*24.7%*	*2.7%*
Total HUTF	**$1,041.9**	**$1,071.4**	**$1,075.8**	**$1,202.0**
Percent Change	***-2.6%***	***2.8%***	***0.4%***	***11.7%***
Non-HUTF				
State Highway Fund	$18.4	$25.9	$25.8	$26.6
Percent Change	*-38.6%*	*41.0%*	*-0.4%*	*3.0%*
Other Transportation Funds	$95.5	$121.7	$121.0	$126.2
Percent Change	*-5.8%*	*27.4%*	*-0.5%*	*4.3%*
Total Transportation Revenue				
Total Transportation	**$1,155.8**	**$1,219.0**	**$1,222.6**	**$1,354.8**
Percent Change	***-3.7%***	***5.5%***	***0.3%***	***10.8%***

Source: OSPB forecast

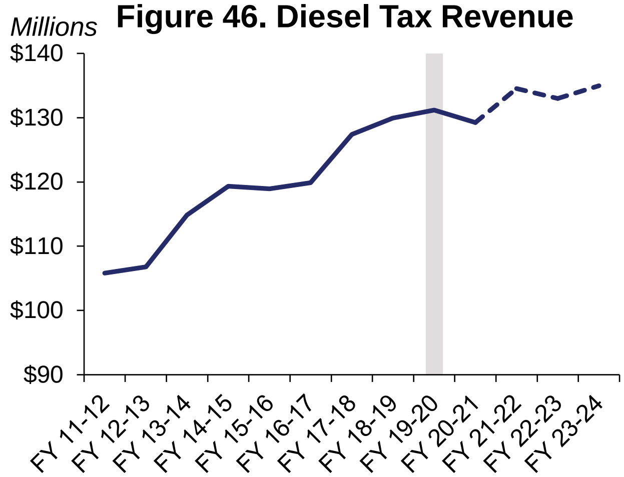
The Highway Users Tax Fund is the largest transportation-related cash fund, with revenues primarily coming from motor fuel taxes and motor vehicle registrations. Motor fuel taxes make up over half of the HUTF and include both gas and diesel tax revenue. Revenue from the gas tax declined sharply at the onset of the pandemic as commuter travel waned, but picked up speed in FY 2021-22 from increased tourism into the state and a partial return to offices. Gas tax revenue is expected to increase more slowly in future years, by just over 1 percent compared to 2.7 percent in the five years prior to the pandemic. The slower expected growth rate is due to slower population growth, reduced commuter travel from increased remote work, and more fuel efficient vehicles. Revenue from diesel taxes was relatively unaffected by the pandemic, and has so far come in 3 percent higher in the current fiscal year compared to the previous year, as high demand for goods has resulted in increased shipping. Looking forward, road usage fees from S.B. 21-260 will add another $89.7 million to HUTF revenue in FY 2024, with that amount increasing in future years. The road usage fees were set to go into effect on July 1, 2022, but H.B. 22-1351 delayed implementation such that the two cents per gallon fee will take effect on April 1, 2023, and follow the original increase schedule thereafter.

Figure 45. Gasoline Tax Revenue



Note: Dotted line indicates forecast; shading denotes recession.
Source: Colorado Department of Revenue; OSPB forecast

Figure 46. Diesel Tax Revenue



Note: Dotted line indicates forecast; shading denotes recession.
Source: Colorado Department of Revenue; OSPB forecast

Vehicle purchases started to rebound in 2021, which has bolstered registration-related collections so far in FY 2021-22. However, OSPB revised the forecast down by 0.6 percent from March as higher interest rates from monetary policy tightening will likely reduce the number of cars sold. OSPB forecasts a decline in registration revenue through FY 2023-24 due to changes in S.B. 21-260 that will temporarily reduce the road safety surcharge beginning in January 2022, which is expected to reduce revenue from the road safety surcharge by $32.8 million in FY 2021-22 and $49.5 million in FY 2022-23. Further, H.B. 22-1351 reduced the road safety surcharge by an additional $5.50 per vehicle for 2023, decreasing revenue by an expected $16.7 million in FY 2022-23 and $17.0 million in FY 2023-24.

Figure 47 illustrates HUTF distributions based on the first and second stream allocation formulas under the current forecast for HUTF revenue. Off-the-top deductions for Colorado State Patrol and Division of Revenue include the FY 2022-23 appropriation and are assumed to be held flat in future years.

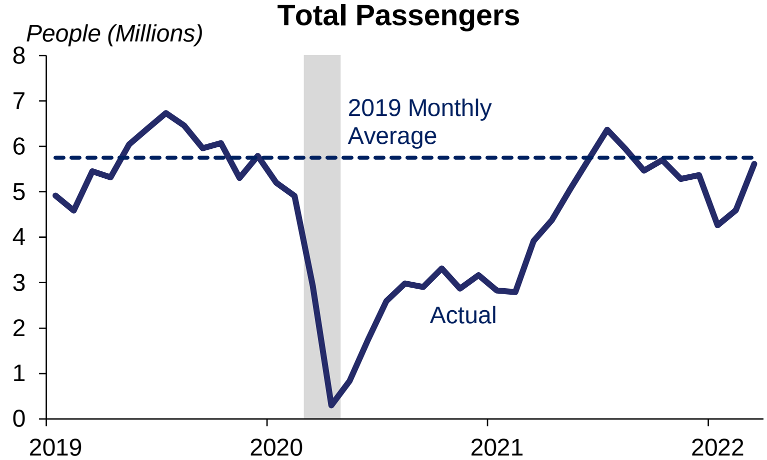
Figure 47: HUTF Distributions

	Actual FY 20-21	Forecast FY 21-22	Forecast FY 22-23	Forecast FY 23-24
Off-the-Top Deductions	$165.8	$181.2	$191.3	$191.3
State Highway Fund (CDOT)	$540.0	$556.6	$544.7	$621.0
Counties	$204.2	$210.5	$205.8	$234.0
Cities	$132.0	$136.1	$134.0	$155.8
Total HUTF	**$1,041.9**	**$1,084.4**	**$1,075.8**	**$1,202.0**

Source: OSPB forecast

Other transportation-related funds include the State Highway Fund (SHF) and other miscellaneous revenue, which make up a smaller portion of total revenue than the HUTF. Revenue to the SHF is made up of various smaller revenue streams including sales of state property and earned interest. The State Highway Fund has declined over the past two years, but OSPB expects the fund to rebound over the next few years as permits and other services return to normal. Changes in the "Other Transportation Funds" category are often driven by fluctuation in aviation revenue. Aviation revenue was very low in FY 2019-20 and FY 2020-21, but so far has come in substantially higher than last year with higher passenger volume, resulting in an upward revision to the March forecast.

Figure 48. Denver International Airport Total Passengers



Note: Shaded region denotes recession
Source: Denver International Airport

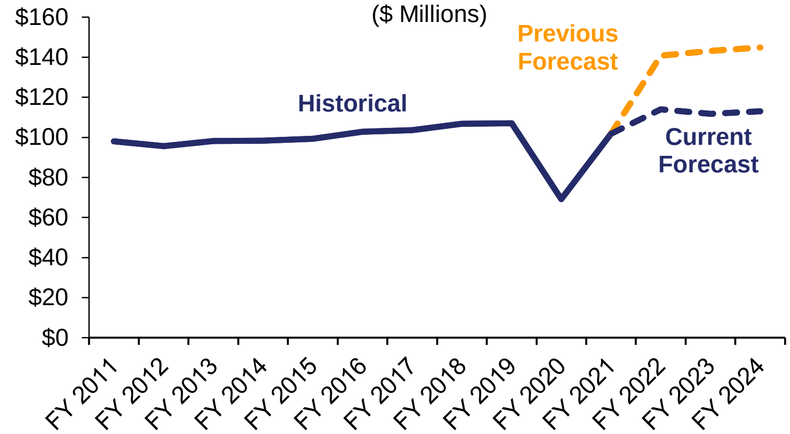
Limited Gaming

Total gaming revenue rebounded from pandemic lows and grew by 48.2 percent to $121.7 million in FY 2020-21, nearly returning to its pre-pandemic level of $127.2M in FY 2018-19. As a result of continued strength in gaming demand and the impacts of Amendment 77, total gaming revenue is expected to continue its upward trajectory to $163.9 million in FY 21-22. This forecast for FY 2021-22 is consistent with OSPB's March forecast, up just $1.0 million due to higher collections in recent months. Forecasts for the out years are also similar to March, but have been revised down to account for higher inflationary pressure on household finances and analysis showing that gaming proceeds dipped slightly in the second year of Amendment 50, which is the only historical precedent for the potential impacts of Amendment 77. The result is a 2.0 percent reduction in gaming revenue expected in FY 2022-23 followed by trend growth of 1.2 percent in FY 2023-24.

While total gaming revenue is consistent with previous forecasts, the allocation of total revenue between limited and extended limited recipients was shifted through S.B. 22-216, discussed in more detail below. The revised limited gaming collections, which are the portion of the revenue subject to the Referendum C Cap, are shown as compared to the previous forecast in Figure 49.

S.B. 22-216 shifted the allocation of gaming revenue between limited and extended recipients in attempt to align collections with the original intent of Amendment 77 but for the simultaneous impacts of H.B. 20-1400 to mitigate the impacts of the pandemic on limited gaming. In addition to setting the new limited gaming base at a lower level, S.B. 22-216 also:

Figure 49. SB22-216 Impact on Limited Gaming Revenue
($ Millions)



Source: Colorado Department of Revenue; Division of Gaming.

1. Enacted a "fair recovery" provision which mitigates the ratcheting effects of the original gaming distribution by holding the limited base constant in the case of a large decline in revenue. A large decline is defined as a reduction in revenue of 5 percent or greater in one year or 6 percent or greater over the course of two fiscal years and is not expected during the forecast period.
2. Reset the base for the distribution to the Local Government Impact Fund.
3. Provided up to $1.25 million to local gaming cities and counties to account for any reductions to their revenue as a result of the reallocation.
4. Provided $3 million to History Colorado for strategic initiatives to enact programs that generate a sustainable additional revenue source going forward.

The updated forecast distributions, including the changes as a result of S.B. 22-216, are shown in the table below. Note that the $1.25 million appropriation and the $3 million transfer are not shown in this table, but rather in the transfers and appropriations tables in the appendix.

Figure 50. Distribution of Limited Gaming Revenues	Forecast FY 21-22	Forecast FY 22-23	Forecast FY 23-24
A. Total Limited Gaming Revenues (Includes Fees and Interest)	**$163.9**	**$160.6**	**$162.5**
Annual Percent Change	34.7%	-2.0%	1.2%
B. Gaming Revenue Exempt from TABOR (Extended Limited)	**$49.9**	**$48.9**	**$49.5**
Annual Percent Change	151.5%	-2.0%	1.2%
C. Gaming Revenue Subject to TABOR (Limited)	**$114.0**	**$111.7**	**$113.0**
Annual Percent Change	11.9%	-2.0%	1.2%
D. Total Amount to Base Revenue Recipients	**$104.6**	**$102.3**	**$103.6**
Amount to State Historical Society (28%)	$29.3	$28.6	$29.0
History Colorado (80% of 28%)	$23.4	$22.9	$23.2
Grants to Cities for Historical Preservation (20% of 28%)	$5.9	$5.7	$5.8
Amount to Counties (12%)	$12.6	$12.3	$12.4
Amount to Cities (10%)	$10.5	$10.2	$10.4
Amount to Distribute to Remaining Programs (State Share) (50%)	$52.3	$51.2	$51.8
Local Government Impact Fund	$5.7	$5.7	$5.8
Colorado Tourism Promotion Fund	$15.0	$15.0	$15.0
Creative Industries Cash Fund	$2.0	$2.0	$2.0
Film, Television, and Media Operational Account	$0.5	$0.5	$0.5
Bioscience Discovery Evaluation Fund	N/A	N/A	N/A
Advanced Industries Acceleration Fund	$5.5	$5.5	$5.5
Innovative Higher Education Research Fund	$2.1	$2.1	$2.1
Transfer to the General Fund	$21.5	$20.4	$21.0
E. Total Amount to Amendment 50 Revenue Recipients	**$45.8**	**$44.8**	**$45.4**
Community Colleges, Mesa and Adams State (78%)	$35.7	$35.0	$35.4
Counties (12%)	$5.5	$5.4	$5.4
Cities (10%)	$4.6	$4.5	$4.5

Source: OSPB forecast

Severance

Following the lowest severance tax revenue collections since 1990 in FY 2020-21 of $14.7 million, collections have rebounded in FY 2021-22 and are expected to reach $310.4 million. The upward shift in revenue is primarily due to increased oil and gas prices over the past 12 months, coupled with increased production. This substantial revision to the March forecast comes after $184.3 million was collected in April – the highest monthly payment in recent history and likely the result of underestimated tax liability earlier in the fiscal year given lower oil and gas price expectations. This shift comes after demand fell sharply during the height of the pandemic in FY 2020-21, which led to lower prices and depressed production. Severance tax revenue for FY 2022-23 and FY 2023-24 is also revised upward on higher oil and gas prices to $229.4 million and $169.1 million, respectively, despite the slight drag from increased ad valorem credits discussed in more detail below.

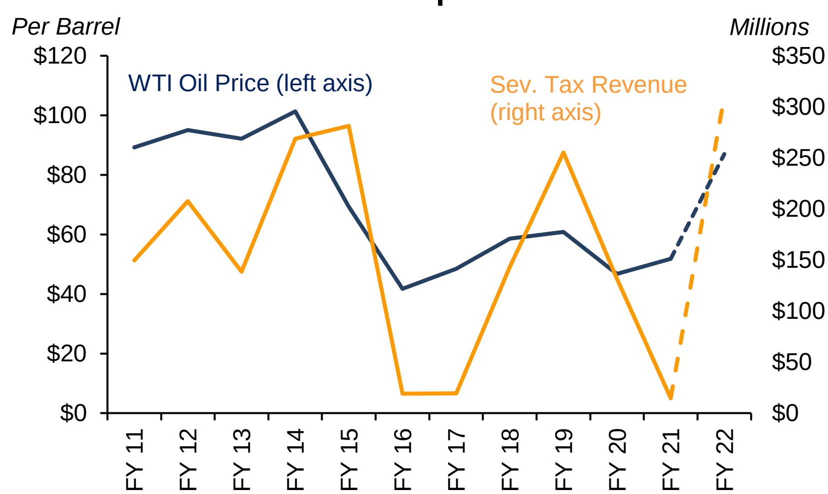
Figure 51. Severance Tax Revenue

	Actual FY 2020-21	Forecast FY 2021-22	Forecast FY 2022-23	Forecast FY 2023-24
Oil & Gas	$0.6	$295.5	$214.9	$155.0
Coal	$1.9	$2.9	$2.6	$2.3
Moly & Metals	$2.2	$2.5	$2.3	$2.1
Interest	$10.0	$9.4	$9.7	$9.7
Total	**$14.7**	**$310.4**	**$229.4**	**$169.1**
Change	***-88.8%***	***2011.2%***	***-26.1%***	***-26.3%***

Source: OSPB forecast

Oil and gas severance tax revenue, which accounts for 97 to 98 percent of overall collections throughout the forecast period, is primarily dependent on production levels multiplied by price. West Texas Intermediate (WTI) oil prices are expected to remain above or near $100 per barrel for the remainder of 2022 and stay above $90 per barrel in 2023. These sustained high oil and gas prices through much of the forecast period will also spur increases in production, though these effects have been slow to materialize thus far. These joint effects are expected to drive severance tax revenue above average levels. More details on price and production can be found in the energy section of the economic outlook.

Figure 52. Severance Tax Collections & WTI Oil Price per Barrel



Source: Colorado Department of Revenue; Energy Information Administration.

To demonstrate the close relationship between WTI oil prices and severance tax collections, Figure 52 depicts WTI price by fiscal year and corresponding severance tax revenue. In general, there is typically a six-to-nine-month lag in severance tax collections responding to the change in WTI prices. This dynamic often results in the WTI shift driving severance tax revenue outcomes in the following fiscal year, especially when there is a dramatic swing in price, although it is sometimes reflected in the same fiscal year, depending on timing. With WTI prices expected to remain elevated throughout the forecast period similar to FY 2012 through FY 2015, the current forecast for severance tax revenue resembles that time period when revenue collections averaged $224.1 million annually.

Looking forward, industry sentiment is relatively optimistic as reported in the most recent energy survey administered by the 10th District of the Federal Reserve (which includes Colorado). Operators in the region reported that $62 per barrel is the current breakeven price and $86 per barrel would lead to a substantial increase in drilling. With prices expected to remain well above those numbers throughout 2022 and 2023, an uptick in production is also expected. However, this expected uptick will likely be slower than prior periods with elevated WTI prices as the industry, especially publicly listed firms, has maintained a sharper focus on capital discipline thus far. Firms have also encountered higher input and labor costs which could create some hesitancies to rapidly increase production. Taking all these considerations into account, severance tax revenue collections should remain strong throughout the forecast period.

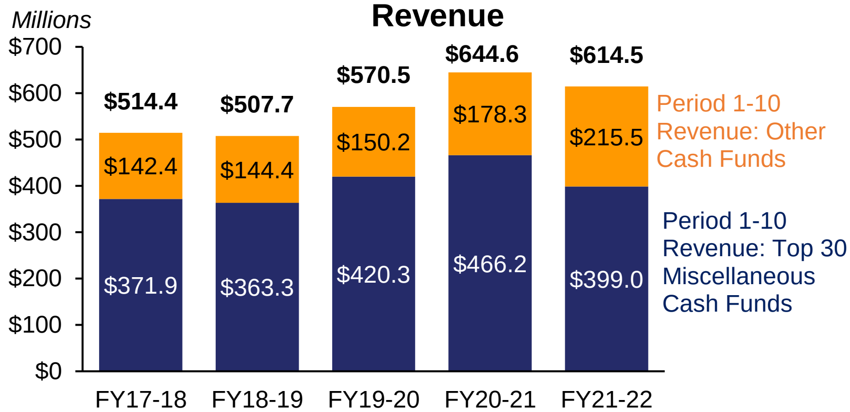
Finally, the increased price levels will lead to increased ad valorem credit claims by taxpayers, which are based on local property tax assessments on the value of oil and gas production. Oil and gas taxpayers can use the credit to reduce their severance tax liability by up to 87.5 percent of the real property taxes they most recently paid to their local governments, school districts, and special districts. That said, there is a one-to-two-year lag between when the production is valued by county assessors and when the credit is applied against state severance taxes. Thus, increased ad valorem credit claims are expected throughout the forecast out-years, but net revenue is still expected to remain above average in FY 2022-23 due to an elevated price forecast. In FY 2023-24, revenue returns closer to average levels as prices are expected to drop from current highs and ad valorem credit claims will have a greater, overall net negative effect on revenue.

Other Cash Funds Subject to TABOR

The state receives cash fund revenue subject to TABOR from a variety of other smaller cash funds. This includes non-exempt cash fund revenue to the Department of Regulatory Agencies (DORA), which is made up of revenue from professional and occupational licensing, the Public Utilities Commission, and other sources. DORA's revenue is forecast to be $91.7 million in FY 2021-22. This estimate was revised upward from the March forecast because collections in FY 2020-21 have come in higher than expected to date this fiscal year. OSPB expects a decline in revenue for FY 2022-23 as a result of fee reductions for nurses and mental health professionals for two years passed in H.B. 22-1298 *Fee Relief Nurses Nurse Aides and Technicians* and H.B. 22-1299 *License Registration Fee Relief for Mental Health Professionals*. These two bills are expected to reduce revenue by $6.8 million in FY 2022-23 and $8.6 million in FY 2023-24.

The category of "Other Miscellaneous Cash Funds" includes revenue from over 300 cash fund programs that collect revenue from fines, fees, and interest earnings. This broad category is less sensitive to general economic conditions than revenue sources like income and severance taxes. OSPB breaks out this forecast into the 30 funds that tend to have the largest revenue from the rest of the smaller cash funds. The top 30 funds make up about 75 percent of total miscellaneous cash fund revenue on average.

Figure 53. Miscellaneous Cash Funds Revenue



Source: Colorado Department of Revenue

Total miscellaneous cash fund revenue is forecast to be $859.0 million in FY 2021-22, which is fairly flat (+0.2 percent) from the revenue in FY 2020-21. So far this fiscal year, revenue from the smaller cash funds is up $37.1 million from the previous year, and down $67.2 million in the top 30 cash funds. Revenue in FY 2020-21 for the top 30 funds was particularly high, predominantly due to a one-time $43.0 million transfer from the Unclaimed Property Trust Fund (a top 30 fund) to the General Fund stemming from H.B. 20-1381 *Cash Fund Transfers General Fund*. Revenue in this fund is typically exempt from TABOR, but when it is transferred out of the fund for general use it is toward TABOR, which is why must be accounted for in this case. The drop-off from this transfer is mostly offset by the increase in other cash funds. Miscellaneous cash funds are forecast to increase by 4.9 percent in FY 2022-23 and by 2.3 percent in FY 2023-24.

TABOR Exempt Funds with Significant Fiscal Implications

Outside of the cash funds subject to TABOR discussed above, OSPB also forecasts marijuana and federal mineral lease (FML) revenues because of the significant budgetary implications of these revenues. In particular, these revenues impact the General Fund, Marijuana Tax Cash Fund, distributions to local governments, BEST funding for school capital construction, and the Public School Fund, each of which is shown in more detail below.

Marijuana

Total marijuana tax revenue grew 22.2 percent in FY 2020-21 as a result of a spike in sales during the height of the pandemic. Revenue has continued at historically high levels, but has fallen from the levels seen over the course of FY 2020-21 due to significantly lower prices and slowing growth in the quantity of marijuana sold. As a result, total marijuana revenue is expected to fall by 13.3 percent in FY 21-22, followed by an additional 2.6 percent reduction in FY 2022-23, and slow growth at 2.3 percent in FY 2023-24. These drags on marijuana revenue in FY 2021-22 and FY 2022-23 are driven both by the retail marijuana special sales tax and the wholesale (excise) marijuana tax by means of lower prices throughout the rest of the calendar year. Figures 54 and 55 below summarize these projections and their impacts on each of the distributions as compared to the March forecast.

Figure 54: Tax Revenue from the Marijuana Industry	Total Marijuana Revenue	Local Share	General Fund	BEST School Capital Construction	Public School Fund	Marijuana Tax Cash Fund
FY 2020-21 Actual	$424.6	$28.8	$40.4	$40.0	$113.4	$201.9
FY 2021-22 Projected	$368.0	$25.7	$35.9	$98.8	$29.1	$178.5
FY 2022-23 Projected	$358.4	$26.1	$36.5	$86.3	$29.6	$179.9
FY 2023-24 Projected	$366.6	$26.8	$37.6	$87.6	$30.4	$184.2

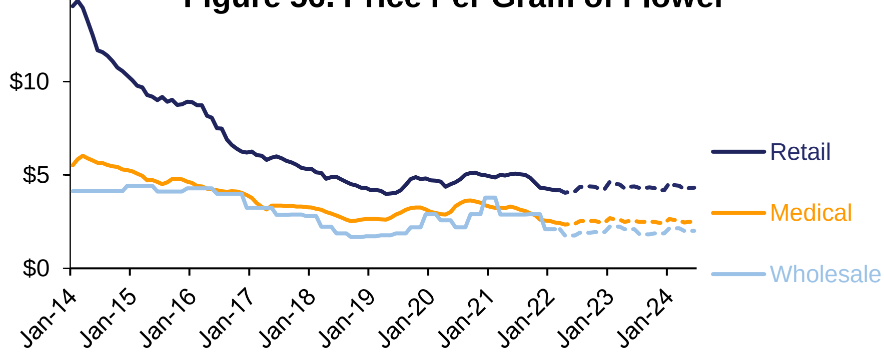
Source: OSPB forecast

Figure 55: Change from March	Total Marijuana Revenue	Local Share	General Fund	BEST School Capital Construction	Public School Fund	Marijuana Tax Cash Fund
FY 2020-21 Actual	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
FY 2021-22 Projected	-$19.0	-$0.9	-$1.3	-$8.7	-$1.1	-$7.0
FY 2022-23 Projected	-$37.5	-$1.7	-$2.4	-$18.4	-$1.9	-$13.1
FY 2023-24 Projected	-$40.1	-$2.0	-$2.8	-$18.4	-$2.2	-$14.8

Source: OSPB forecast

As noted above, these additional drags on revenue are largely the result of price assumptions that have been revised downward given trends observed through the Colorado MED dashboard, created by the Department of Revenue and Leeds Business School at CU Boulder. March prices for medical, retail, and wholesale flower were down 25 percent, 17 percent, and 45 percent, respectively, as compared to 2021. As shown in Figure 56, these prices have returned to pre-pandemic lows due to a rebalancing of supply and demand in the Colorado marijuana market and are likely to remain depressed

Figure 56. Price Per Gram of Flower

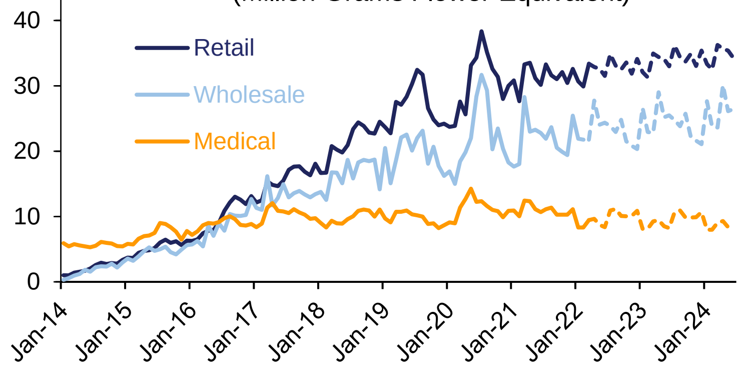


Colorado Division of Revenue; Colorado MED Dashboard; Author's Calculations.

for the next few months. Prices are then expected to head back upward slightly, up 6 percent for retail and 19 percent for wholesale as compared to current levels. Prices will stabilize above current levels (but below pandemic highs) as a result of costs for labor and agricultural inputs.

In contrast to assumptions regarding marijuana prices, assumptions on the quantity of marijuana consumed have not changed significantly since March, as marijuana consumption has held close to trend levels in recent months. These trends, shown in Figure 57, denote slowing, but still positive growth rates for both retail and wholesale marijuana volume. These growth rates are characteristic of a market that is close to maturity, but that will continue to see volume increases driven by population growth in the state as well as continued market growth from the existing consumer base.

Figure 57. Quantity of Marijuana Sold
(Million Grams Flower Equivalent)



Colorado Division of Revenue; Colorado MED Dashboard; Author's Calculations.

Federal Mineral Lease

Federal Mineral Lease (FML) revenue increased by 30.9 percent to $82.0 million in FY 2020-21 and is expected to increase by an additional 59.9 percent in FY 2021-22 to $131.2 million due to continued oil and gas price growth throughout the fiscal year. This is an upward revision of $14.8 million from the March forecast following above-expectation payments during the interim as oil and gas prices have remained at elevated levels. While FML revenue is expected to tick downward over the forecast period, FY 2022-23 and FY 2023-24 are revised upward from March primarily as a product of above-average oil and gas price expectations over the course of 2022 and 2023. Detailed FML revenue forecast expectations can be found in Figure 58.

Figure 58. FML Forecast Distribution Table	Actual FY 2020-21	Forecast FY 2021-22	Forecast FY 2022-23	Forecast FY 2023-24
Total FML Revenue	**$82.0**	**$131.2**	**$118.2**	**$90.3**
Change	30.9%	59.9%	-9.9%	-23.6%
Bonus Payments (portion of total FML revenue)	$1.6	$2.6	$2.3	$1.8
Local Government Perm Fund	$0.8	$1.3	$1.2	$0.9
Higher Ed FML Revenues Fund	$0.8	$1.3	$1.2	$0.9
Other (non-bonus) FML Revenue	$80.4	$128.6	$115.9	$88.5
State Public School Fund	$38.8	$62.1	$56.0	$42.8
Colorado Water Conservation Board	$8.0	$12.9	$11.6	$8.9
DOLA Grants	$16.1	$25.7	$23.2	$17.7
DOLA Direct Distribution	$16.1	$25.7	$23.2	$17.7
School Districts	$1.4	$2.2	$2.0	$1.5
Total Higher Ed Maintenance Reserve Fund	$0.8	$1.3	$1.2	$0.9

Source: OSPB forecast

Revenue derived from natural gas production on federal leases accounts for roughly 50 percent of total revenue, so FML revenue is not as susceptible to the fluctuation in oil prices as state severance taxes. Still, natural gas prices have risen significantly during FY 2021-22, combining with high oil prices to drive strong revenue growth. Going forward, oil prices are expected to drop slowly from 2022 levels of greater than $100 per barrel in 2023 before normalizing closer to average in 2024 while natural gas prices are expected to drop more quickly in 2023, from more than $7 per million BTU to below $5. These assumptions are discussed in more detail above in the energy section of the economic outlook. This price dynamic results in the downward revenue trend. There has also been a long-term, downward to flattening lease trend, in which leases have dropped from above 5,000 annually during federal fiscal years 2006 to 2012 to below 3,900 annually since federal FY 2016-17. During the forecast period, the number of leases is expected to remain relatively flat to slightly negative.

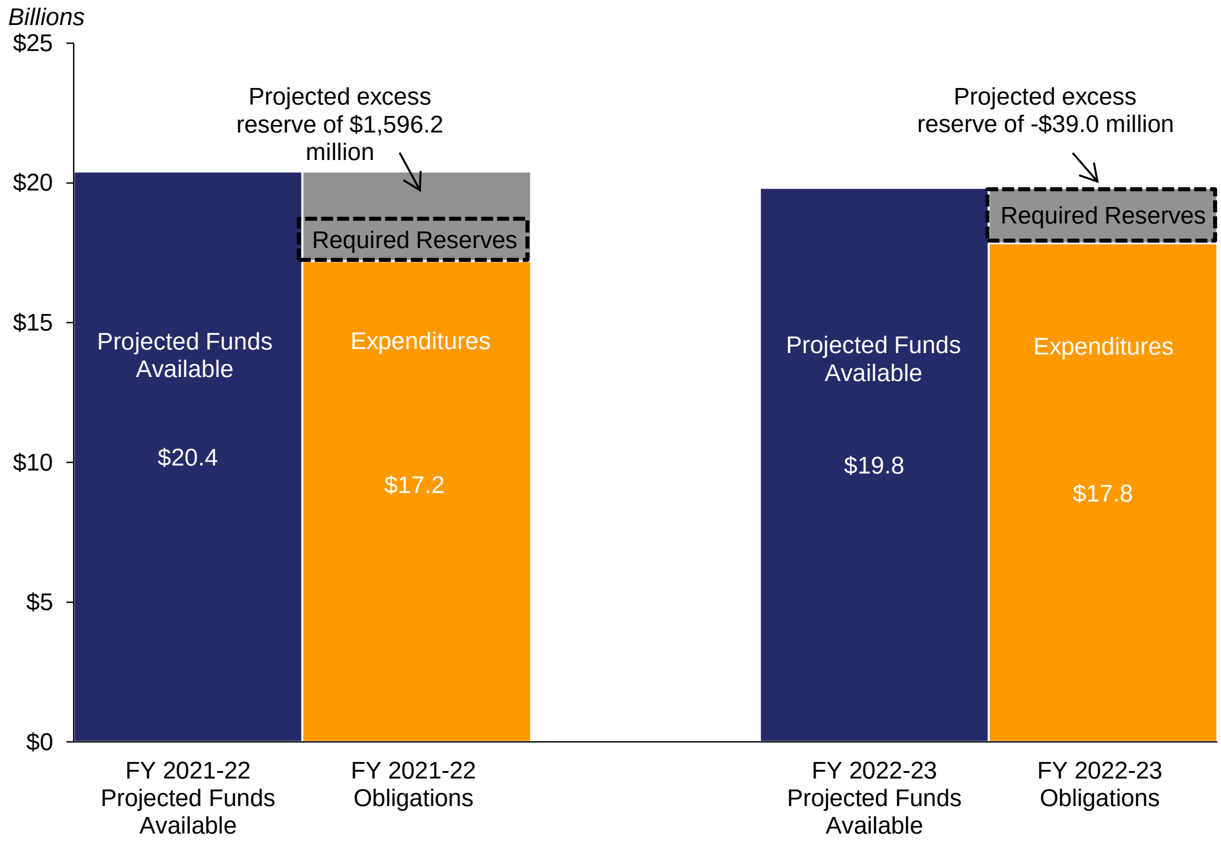
In April, following an injunction from the Western District of Louisiana that ruled against the federal moratorium on new onshore oil and gas leases, the Bureau of Land Management announced that new leases would resume with an increased royalty rate. The royalty rate is set to increase from 12.50 percent to 18.75 percent on new leases, representing the first increase in the royalty rate since it was introduced in the 1920s. Although the first lease sales in Colorado with the new rate are taking place in June, only 5,275 acres are offered out of 2.4 million in total leased acreage across the state as of October 2021. With the relative insignificance of acreage in this first sale, the increased royalty rate only applying to new leases, and the lag time from lease sale to production, there is no significant FML revenue impact expected from this policy change during the forecast period.

Budget Outlook

General Fund

General Fund revenue increased 11.2 percent in FY 2020-21 and is projected to increase 20.3 percent further in FY 2021-22. In FY 2022-23, however, revenue is expected to decline by 3.8 percent before rebounding by 4.3 percent in FY 2023-24. General Fund revenue for FY 2021-22 is $1,021.4 million, or 7.1 percent higher, than was estimated in March, driven by particularly strong individual income revenue collections. The forecast for FY 2022-23 is $76.8 million lower than estimated in March, as slowing estimated payments and cash with returns revenues from both individual and corporate filings more than offset rising sales tax revenue collections as a result of increased inflation growth.

Figure 59. General Fund Above/Below Statutory Reserve.



Source: OSPB forecast

The General Fund reserve was above the required statutory reserve amount of 2.86 percent of appropriations in FY 2020-21. Under this forecast, the General Fund ending balance is projected to be $1,596.2 million above the statutory reserve level of 13.4 percent of appropriations in FY 2021-22 and $39.0 million below the statutory reserve level of 15.0 percent of appropriations in FY 2022-23. Figure 59 summarizes total projected General Fund revenue available, total obligations, and reserve levels for FY 2021-22 and FY 2022-23 under current law.

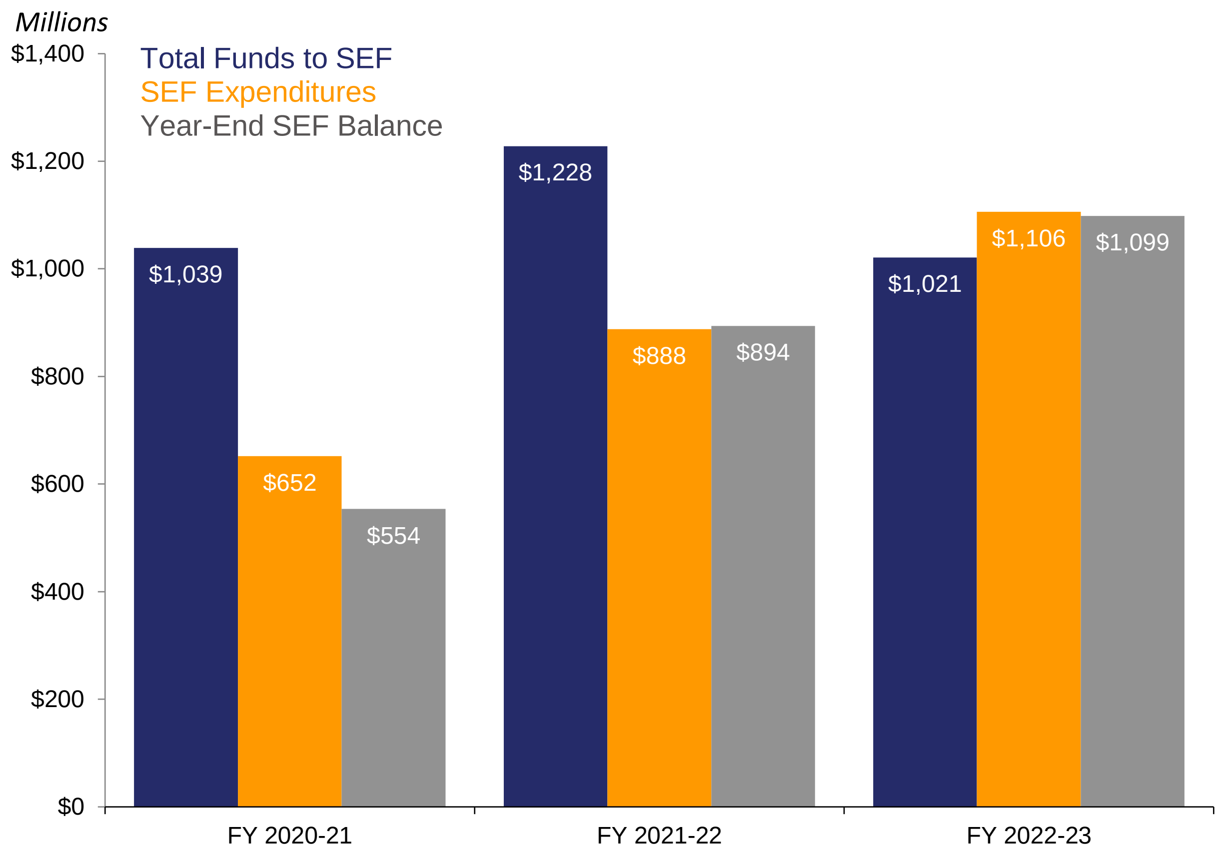
State Education Fund

The State Education Fund's year-end balance was $553.7 million in FY 2020-21 and is projected to increase to $893.8 million in FY 2021-22, including transfers. This is a $73.7 million upward revision compared to the March 2022 forecast, due to higher-than-expected income tax revenues.

In FY 2022-23, the year-end balance is projected to be $1,098.7 million, $49.6 million above the March forecast due to excess balance from FY 2020-21 carrying through and more than offsetting a $13.0 million reduction in forecast individual income revenue. Note that these ending balances include the $290 million transfer to the SEF in FY 2022-23 as legislated in HB22-1390 (and amended by S.B. 22-202).

Other major changes to SEF expenditures enacted during the 2022 legislative session include $182M investment to buy down the Budget Stabilization Factor to 3.7 percent in FY 2022-23 enacted in H.B. 22-1390, and the ongoing $80.0M increase in special education funding created by S.B. 22-127. Finally, S.B. 22-202 created the Mill Levy Override (MLO) Match Fund, which provides a new mechanism to improve equity of funding between school districts. For FY 2022-23, $10.0M was appropriated to the MLO match fund as a pilot for the matching program. While this new fund does not create a direct increase in expenditures out of the SEF, it is worth noting that if all districts enacted MLOs to the maximum allowable level, the matching formula included in the bill indicates that 72 districts would receive $165.4 million in state matching funds, which represents a potential challenge for budgeting in FY 2023-24.

Figure 60. SEF Revenues, Expenditures and Year-End Balances



Source: OSPB forecast

Forecast Risks

This budget outlook is based on OSPB's economic forecast as detailed in Tables 1 and 2 of the Reference Tables at the end of this document. This economic forecast is subject to both upside and downside risks.

On the upside, current excess savings may provide further resistance in the face of tightening monetary policy that spurs consumer spending on services above trend for longer than expected in the baseline (where it fades within a year). Additionally, labor demand may remain resolute in the face of slowing economic growth, avoiding an uptick in unemployment in the outyears. Prolonged inflation is the primary downside risk, as continued high inflation may increase the nominal value of sales but also eat into aggregate demand, thereby slowing economic growth. A more aggressive monetary tightening response than expected in the baseline will likely further slow demand, putting the economy at risk of falling into a small recession. Conversely, if monetary policy is not tight enough, growth may still slow but inflation may not, causing stagflation. Additionally, further market selloffs alongside increased borrowing costs due to the Federal Reserve's actions could disrupt business investment and completion of supply chain diversion efforts in progress. Finally, a prolonged war in the Ukraine would exacerbate existing food and energy supply shocks. Economic conditions currently underlying this forecast are weighted towards downside risk.

Supplemental Materials

An overview of General Fund and State Education Fund revenue, expenditures, and end-of-year reserves is provided in the Reference Tables at the end of this document. A more detailed discussion of the information presented in the Reference Tables can be found at the Office of State Planning and Budgeting's website: www.colorado.gov/governor/economics.

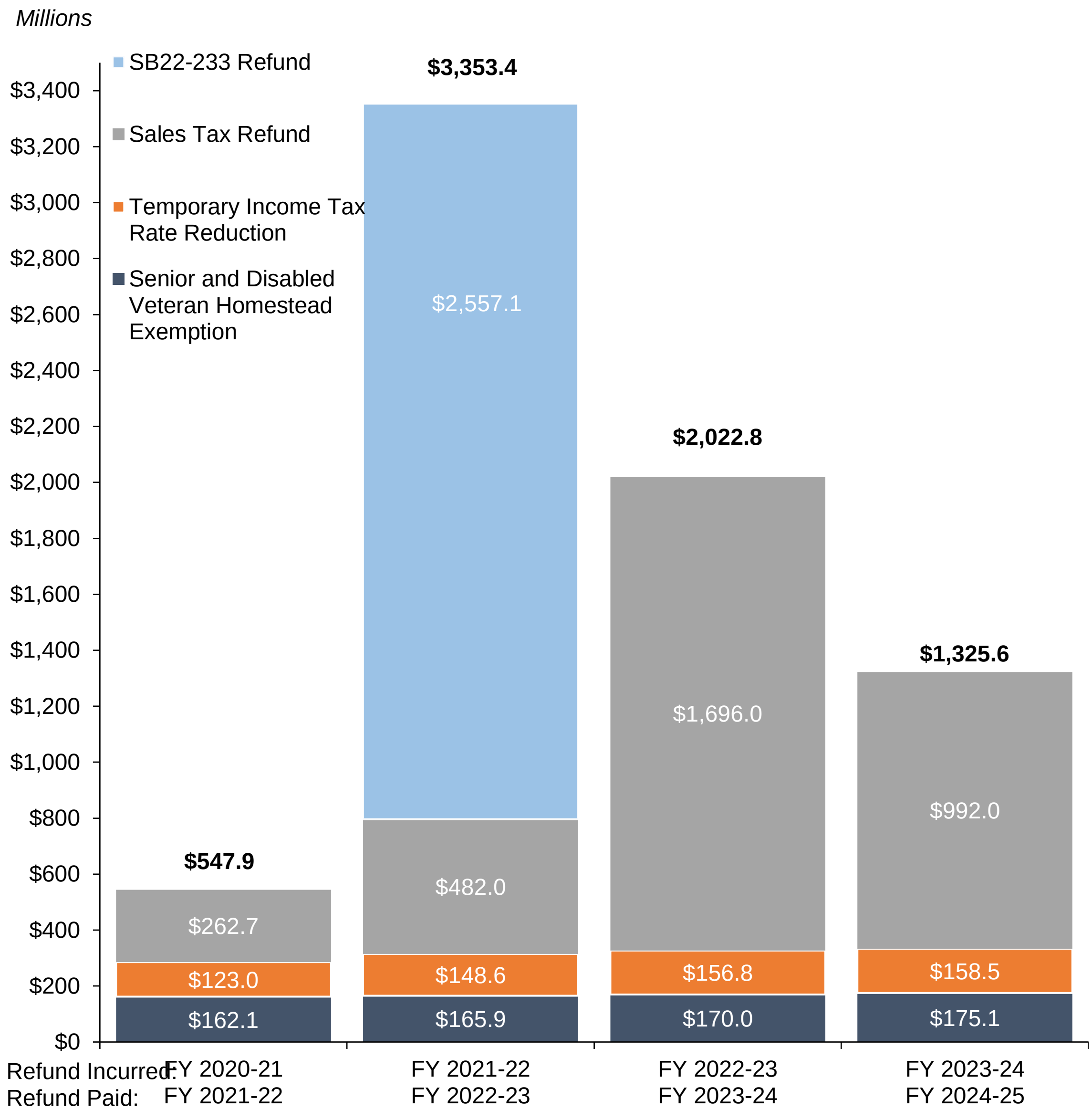
TABOR Outlook

Under Article X, Section 20 of the State Constitution, the Taxpayer's Bill of Rights (TABOR), revenue received from certain sources is subject to an annual limit determined by the prior year's limit after adjustments for inflation and population growth. Any TABOR revenue received above the cap is to be refunded to taxpayers in the subsequent fiscal year.

Revenue subject to TABOR did not exceed the revenue cap in FY 2019-20 but exceeds it in FY 2020-21 by $547.9 million. In each year of the projection period, TABOR revenue is expected to exceed the cap, with the highest refund occurring in the current fiscal year. In FY 2021-22, revenue will be $3,353.4 million due primarily to upward revisions in individual income tax revenue. In FY 2022-23, revenue is projected to be $2,022.8 million above the cap as reduced income revenue more than offsets increases in sales tax revenue when compared with previous expectations. In FY 2023-24, the amount above the cap lowers to $1,325.6 million as current high inflation allows for further growth in the Referendum C limit.

Note that two enterprise status changes result in a $22.4 million increase to the Referendum C TABOR cap in FY 2021-22, and a $2.9 million decrease in FY 2022-23. These changes are that Auraria Higher Education Center requalifies as an enterprise in FY 2021-22, while Adams State loses enterprise status in FY 2021-22, but requalifies the following fiscal year.

Figure 61. TABOR Refunds



Source: OSPB forecast

Current law specifies three mechanisms by which revenue in excess of the cap is to be refunded to taxpayers: the senior homestead and disabled veterans property tax exemptions, a temporary income tax rate reduction (from 4.55 percent to 4.50 percent), and a sales tax refund. The size of the refund determines which refund mechanisms are utilized.

An estimated $123.0 million of the $547.9 million refund obligation will be paid out as an income tax rate reduction, while $162.1 million will be refunded via the senior homestead and disabled veterans property tax exemption expenditures and $262.7 million via a sales tax refund in

FY 2021-22. Any difference between estimated refunds and actual refunds will be corrected in the next fiscal year in which a refund is owed, which is FY 2021-22 in this forecast.

For Fiscal Year 2021-22, Senate Bill 22-233 provides for an advance TABOR refund equivalent to 85 percent of TABOR revenues less the estimated values of the senior homestead property tax exemptions and temporary income tax rate reduction, which is estimated at $2,557.1 million. The refunds will be sent as flat-amount checks to taxpayers who file their Tax Year 2021 income tax returns, mostly by September 30, 2022. The remainder of TABOR revenues, estimated at $482.0 million, will be issued via the normal sales tax refund (claimed on next year's income tax returns) in FY 2022-23.

Reference Tables

Table 1: Colorado Economic Variables – History and Forecast

		Actual 2016	Actual 2017	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Forecast 2022	Forecast 2023	Forecast 2024
	Income									
1	Personal Income (Billions) /A	$289.7	$309.7	$332.0	$350.4	$370.4	$401.1	$413.2	$430.5	$446.0
2	Change	1.7%	6.9%	7.2%	5.6%	5.7%	8.3%	3.0%	4.2%	3.6%
3	Wage and Salary Income (Billions)	$151.2	$161.0	$170.9	$182.9	$187.1	$205.2	$224.3	$234.9	$243.3
4	Change	3.1%	6.5%	6.2%	7.0%	2.3%	9.7%	9.3%	4.7%	3.6%
5	Per-Capita Income ($/person) /A	$52,386.0	$55,300.0	$58,475.0	$61,098.0	$64,036.0	$68,984.0	$70,522.0	$72,757.0	$74,601.0
6	Change	0.2%	5.6%	5.7%	4.5%	4.8%	7.7%	2.2%	3.2%	2.5%
	Population & Employment									
7	Population (Thousands)	5,529.6	5,599.6	5,676.9	5,734.9	5,784.2	5,824.6	5,868.6	5,927.2	5,988.8
8	Change	1.5%	1.3%	1.4%	1.0%	0.9%	0.7%	0.8%	1.0%	1.0%
9	Net Migration (Thousands)	53.3	42.4	51.8	34.2	28.6	15.1	30.0	37.0	40.0
10	Unemployment Rate	3.1%	2.6%	3.0%	2.7%	6.9%	5.4%	3.6%	3.3%	3.3%
11	Total Nonagricultural Employment (Thousands)	2,601.7	2,660.3	2,727.3	2,790.1	2,651.1	2,745.7	2,856.6	2,908.0	2,963.3
12	Change	2.4%	2.3%	2.5%	2.3%	-5.0%	3.6%	4.0%	1.8%	1.9%
	Construction Variables									
13	Total Housing Permits Issued (Thousands)	39.0	40.7	42.6	38.6	40.5	56.5	54.4	53.8	53.9
14	Change	22.3%	4.4%	4.8%	-9.4%	4.8%	39.7%	-3.8%	-1.0%	0.1%
15	Nonresidential Construction Value (Millions) /B	$5,987.8	$6,151.9	$8,151.0	$5,167.0	$5,487.7	$5,545.4	$5,725.6	$5,782.9	$5,905.8
16	Change	20.0%	2.7%	32.5%	-36.6%	6.2%	1.1%	3.3%	1.0%	2.1%
	Price Variables									
17	Retail Trade (Billions) /C	$184.7	$194.6	$206.1	$224.6	$228.8	$268.3	$294.4	$306.5	$318.1
18	Change	1.0%	5.4%	5.9%	9.0%	1.9%	17.3%	9.7%	4.1%	3.8%
19	Denver-Aurora-Lakewood Consumer Price Index (1982-84=100)	246.6	255.0	262.0	267.0	272.2	281.8	305.0	318.4	327.3
20	Change	2.8%	3.4%	2.7%	1.9%	2.0%	3.5%	8.2%	4.4%	2.8%

/A Personal Income as reported by the U.S. Bureau of Economic Analysis includes: wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory and capital consumption adjustments, rental income of persons with capital consumption adjustments, personal dividend income, personal interest income, and personal current transfer receipts, less contributions from government social insurance.
/B Nonresidential Construction Value is reported by Dodge Analytics (McGraw-Hill Construction) and includes new construction, additions, and major remodeling projects predominately at commercial and manufacturing facilities, educational institutions, and medical and government buildings. Nonresidential does not include non-building projects (such as streets, highways, bridges, and utilities).
/C In 2018, the geography and data frequency of this series were revised. 2017 and prior years represent Denver-Boulder-Greeley regional prices.

Table 2: National Economic Variables – History and Forecast

		Actual 2016	Actual 2017	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Forecast 2022	Forecast 2023	Forecast 2024
	Inflation-Adjusted & Current Dollar Income Accounts									
1	Inflation-Adjusted Gross Domestic Product (Billions) /A	$17,680.3	$18,079.1	$18,606.8	$19,032.7	$18,384.7	$19,427.3	$19,913.0	$20,271.4	$20,656.6
2	Change	1.7%	2.3%	2.9%	2.3%	-3.4%	5.7%	2.5%	1.8%	1.9%
3	Personal Income (Billions) /B	$16,096.9	$16,850.2	$17,706.0	$18,424.4	$19,627.6	$21,077.2	$21,646.3	$22,490.5	$23,232.6
4	Change	2.6%	4.7%	5.1%	4.1%	6.5%	7.4%	2.7%	3.9%	3.3%
5	Per-Capita Income ($/person) /B	$49,880	$51,861	$54,129	$55,950	$59,208	$63,506	$64,908	$67,360	$69,319
6	Change	1.9%	4.0%	4.4%	3.4%	5.8%	7.3%	2.2%	3.8%	2.9%
7	Wage and Salary Income (Billions)	$8,091.2	$8,474.7	$8,900.5	$9,323.5	$9,444.1	$10,327.1	$11,277.2	$11,762.1	$12,162.0
8	Change	2.9%	4.7%	5.0%	4.8%	1.3%	9.3%	9.2%	4.3%	3.4%
	Population & Employment									
9	Population (Millions)	322.7	324.9	327.1	329.3	331.5	331.9	333.5	333.9	335.2
10	Change	0.7%	0.7%	0.7%	0.7%	0.7%	0.1%	0.6%	0.6%	0.5%
11	Unemployment Rate	4.9%	4.4%	3.9%	3.7%	8.1%	5.4%	3.5%	3.6%	3.7%
12	Total Nonagricultural Employment (Millions)	144.3	146.6	148.9	150.9	142.2	146.1	151.8	152.9	154.4
13	Change	1.8%	1.6%	1.6%	1.3%	-5.8%	2.8%	3.9%	0.7%	1.0%
	Other Key Indicators									
14	Consumer Price Index (1982-84=100)	240.0	245.1	251.1	255.7	258.8	271.0	292.9	304.9	312.5
15	Change	1.3%	2.1%	2.4%	1.8%	1.2%	4.7%	8.1%	4.1%	2.5%
16	Corporate Profits (Billions)	$2,037.7	$2,128.9	$2,305.0	$2,367.8	$2,243.8	$2,805.8	$2,920.8	$2,836.1	$2,929.7
17	Change	-1.1%	4.5%	8.3%	2.7%	-5.2%	25.0%	4.1%	-2.9%	3.3%
18	Housing Permits (Millions)	1.210	1.280	1.330	1.390	1.470	1.710	1.820	1.780	1.760
19	Change	2.0%	6.3%	3.6%	4.3%	6.1%	16.3%	6.4%	-2.1%	-1.5%
20	Retail Trade (Billions)	$5,506.1	$5,732.9	$5,985.1	$6,184.6	$6,215.1	$7,441.4	$8,118.6	$8,410.8	$8,663.1
21	Change	2.9%	4.1%	4.4%	3.3%	0.5%	19.7%	9.1%	3.6%	3.0%

/A U.S. Bureau of Economic Analysis, National Income and Product Accounts. Inflation-adjusted, in 2009 dollars.
/B Personal Income as reported by the U.S. Bureau of Economic Analysis includes: wage and salary disbursements, supplements to wages and salaries, proprietors' income with inventory and capital consumption adjustments, rental income of persons with capital consumption adjustments, personal dividend income, personal interest income, and personal current transfer receipts, less contributions from government social insurance.

Table 3: General Fund Revenue Estimates by Tax Category /A

	Category	Actual FY 2020-21	Percent Change	Estimate FY 2021-22	Percent Change	Estimate FY 2022-23	Percent Change	Estimate FY 2023-24	Percent Change
	Excise Taxes								
1	Sales	$3,418.1	6.9%	$4,023.9	17.7%	$4,230.4	5.1%	$4,422.9	4.6%
2	Use	$214.2	1.8%	$235.3	9.9%	$254.4	8.1%	$263.2	3.5%
3	Retail Marijuana Sales - Special Sales Tax	$288.2	17.4%	$256.7	-10.9%	$261.0	1.7%	$268.2	2.8%
4	Cigarette	$30.1	-7.3%	$25.6	-15.0%	$23.7	-7.3%	$22.7	-4.2%
5	Tobacco Products	$29.0	19.1%	$25.4	-12.4%	$26.4	3.7%	$27.6	4.7%
6	Liquor	$53.4	6.6%	$56.2	5.4%	$57.3	1.9%	$59.1	3.1%
7	Total Proposition EE	$49.0	N/A	$205.3	318.8%	$193.8	-5.6%	$205.0	5.8%
	Cigarette	$37.7	N/A	$147.5	291.0%	$130.6	-11.4%	$125.1	-4.2%
	Tobacco Products	$3.1	N/A	$15.6	405.1%	$15.9	1.4%	$16.6	4.7%
	Nicotine	$8.2	N/A	$42.2	413.6%	$47.4	12.2%	$63.3	33.7%
8	**Total Excise**	**$4,082.1**	**8.6%**	**$4,828.6**	**18.3%**	**$5,047.0**	**4.5%**	**$5,268.8**	**4.4%**
	Income Taxes								
9	Net Individual Income	$9,478.1	9.6%	$11,468.0	21.0%	$10,878.7	-5.1%	$11,345.1	4.3%
10	Net Corporate Income	$1,183.7	62.5%	$1,408.1	19.0%	$990.6	-29.7%	$1,007.0	1.7%
11	**Total Income**	**$10,661.8**	**13.7%**	**$12,876.2**	**20.8%**	**$11,869.3**	**-7.8%**	**$12,352.2**	**4.1%**
12	*Less: State Education Fund Diversion*	*$874.6*	*35.2%*	*$965.7*	*10.4%*	*$890.2*	*-7.8%*	*$926.4*	*4.1%*
13	**Total Income to General Fund**	**$9,787.2**	**12.2%**	**$11,910.5**	**21.7%**	**$10,979.1**	**-7.8%**	**$11,425.8**	**4.1%**
	Other Revenue								
14	Insurance	$336.3	-0.3%	$392.1	16.6%	$465.7	18.8%	$498.9	7.1%
15	Interest Income	$50.0	60.9%	$54.2	8.3%	$40.4	-25.4%	$43.9	8.7%
16	Pari-Mutuel	$0.3	-21.2%	$0.4	20.7%	$0.4	6.4%	$0.4	10.5%
17	Court Receipts	$3.5	-9.8%	$2.3	-34.7%	$3.4	51.1%	$3.5	2.1%
18	Other Income	$50.7	423.4%	$20.6	-59.5%	$26.9	30.9%	$28.8	7.1%
19	**Total Other**	**$440.9**	**15.3%**	**$469.5**	**6.5%**	**$536.9**	**14.4%**	**$575.6**	**7.2%**
20	**GROSS GENERAL FUND**	**$14,310.1**	**11.2%**	**$17,208.5**	**20.3%**	**$16,563.0**	**-3.8%**	**$17,270.2**	**4.3%**

/A Dollars in millions.

Table 4: General Fund Overview /A

		Actual FY 2020-21	Estimate FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24
Revenue					
1	**Beginning Reserve**	**$1,825.7**	**$3,178.0**	**$3,208.4**	**$2,014.8**
2	**Gross General Fund Revenue**	**$14,310.1**	**$17,208.5**	**$16,563.0**	**$17,270.2**
3	*Transfers to the General Fund*	$336.8	$28.7	$57.6	$27.3
4	**TOTAL GENERAL FUND AVAILABLE**	**$16,472.6**	**$20,415.3**	**$19,829.0**	**$19,312.3**
Expenditures					
5	**Appropriation Subject to Limit**	**$10,979.1**	**$12,031.2**	**$13,692.0**	**$14,940.3**
6	*Dollar Change (from prior year)*	-$826.1	$1,052.1	$1,660.7	$1,248.4
7	*Percent Change (from prior year)*	-7.0%	9.6%	13.8%	9.1%
8	**Spending Outside Limit**	**$2,347.9**	**$5,175.7**	**$4,122.2**	**$2,130.9**
9	*TABOR Refund under Art. X, Section 20, (7) (d)*	$547.9	$3,353.4	$2,022.8	$1,325.6
10	*Homestead Exemption (Net of TABOR Refund)*	$157.9	$0.0	$0.0	$0.0
11	*Other Rebates and Expenditures*	$137.9	$137.1	$137.9	$138.9
12	*Transfers for Capital Construction*	$43.0	$354.0	$482.2	$50.0
13	*Transfers for Transportation*	$30.0	$400.4	$200.5	$0.0
14	*Transfers to State Education Fund*	$113.0	$123.0	$290.0	$0.0
15	*Transfers to Other Funds*	$1,318.3	$807.7	$988.8	$616.4
16	**TOTAL GENERAL FUND OBLIGATIONS**	**$13,327.0**	**$17,206.9**	**$17,814.2**	**$17,071.2**
17	*Percent Change (from prior year)*	4.8%	29.1%	3.5%	-4.2%
18	Reversions and Accounting Adjustments	-$32.4	$0.0	$0.0	$0.0
Reserves					
19	**Year-End General Fund Balance**	**$3,178.0**	**$3,208.4**	**$2,014.8**	**$2,241.1**
20	*Year-End General Fund as a % of Appropriations*	28.9%	26.7%	14.7%	15.0%
21	*General Fund Statutory Reserve*	$314.0	$1,612.2	$2,053.8	$2,241.1
22	*Statutory Reserve %*	2.86%	13.4%	15.0%	15.0%
23	*Above/Below Statutory Reserve*	$2,864.0	$1,596.2	-$39.0	$0.0

/A. FY 2021-22 and FY 2022-23 expenditures reflect all legislation that has passed through both the Colorado House and Senate as of June 21, 2022. FY 2023-24 appropriations will be adopted in future budget legislation. Therefore, FY 2023-24 expenditures and fund balance projections shown are illustrative only. Dollars in millions.

Table 5: General Fund and State Education Fund Overview /A

		Actual FY 2020-21	Estimate FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24
	Revenue				
1	**Beginning Reserves**	**$1,992.4**	**$3,731.7**	**$4,102.1**	**$3,113.4**
2	*State Education Fund*	$166.7	$553.7	$893.8	$1,098.7
3	*General Fund*	$1,825.7	$3,178.0	$3,208.4	$2,014.8
4	**Gross State Education Fund Revenue**	**$1,038.9**	**$1,228.1**	**$1,021.1**	**$926.4**
5	Transfer to State Education Fund	$0.0	$0.0	$290.0	$0.0
6	**Gross General Fund Revenue /B**	**$14,646.9**	**$17,237.3**	**$16,620.6**	**$17,297.5**
7	**TOTAL FUNDS AVAILABLE FOR EXPENDITURE**	**$17,678.2**	**$22,197.0**	**$21,743.8**	**$21,337.3**
	Expenditures				
8	General Fund Expenditures /C	$13,327.0	$17,206.9	$17,814.2	$17,071.2
9	State Education Fund Expenditures	$651.9	$888.0	$1,106.2	$1,640.1
10	**TOTAL OBLIGATIONS**	**$13,978.9**	**$18,094.9**	**$18,920.4**	**$18,711.3**
11	*Percent Change (from prior year)*	4.2%	29.4%	4.6%	-1.1%
12	*Reversions and Accounting Adjustments*	-$32.4	$0.0	$0.0	$0.0
	Reserves				
13	**Year-End Balance**	**$3,731.7**	**$4,102.1**	**$3,113.4**	**$2,626.0**
14	State Education Fund	$553.7	$893.8	$1,098.7	$385.0
15	General Fund	$3,178.0	$3,208.4	$2,014.8	$2,241.1
16	*General Fund Above/Below Statutory Reserve*	$2,864.0	$3,192.4	-$78.0	$0.0

/A FY 2021-22 and FY 2022-23 expenditures reflect all legislation that has passed through both the Colorado House and Senate as of June 21, 2022. FY 2023-24 appropriations will be adopted in future budget legislation. Therefore, FY 2023-24 expenditures and fund balance projections shown are illustrative only. Dollars in millions.
/B These amounts include the following transfers into the General Fund: $336.8 million in FY 2020-21, $28.7 million in FY 2021-22, $57.6 million in FY 2022-23, and $27.3 million in FY 2023-24.
/C This amount includes transfers to the General Fund.
/D General Fund expenditures include appropriations subject to the limit of 5.0 percent of Colorado personal income as well as all spending outside the limit.

Table 6: Cash Fund Revenue Subject to TABOR /A

	Category	Actual FY 2020-21	Estimate FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24
1	**Transportation-Related /A**	**$1,155.8**	**$1,219.0**	**$1,222.6**	**$1,354.8**
2	Change	-3.5%	5.5%	0.3%	10.8%
3	**Limited Gaming Fund /B**	**$101.8**	**$114.0**	**$111.7**	**$113.0**
4	Change	47.2%	11.9%	-2.0%	1.2%
7	**Regulatory Agencies**	**$89.1**	**$91.7**	**$84.9**	**$86.6**
8	Change	9.9%	2.9%	-7.4%	2.0%
9	**Insurance-Related**	**$21.0**	**$24.3**	**$21.9**	**$21.7**
10	Change	-15.7%	15.5%	-9.9%	-0.9%
11	**Severance Tax**	**$14.7**	**$310.4**	**$229.4**	**$169.1**
12	Change	-88.8%	2013.6%	-26.1%	-26.3%
13	**Other Miscellaneous Cash Funds**	**$857.5**	**$859.0**	**$901.2**	**$939.7**
14	Change	17.2%	0.2%	4.9%	4.3%
15	**TOTAL CASH FUND REVENUE**	**$2,240.0**	**$2,618.4**	**$2,571.7**	**$2,684.9**
16	Change	-0.1%	16.9%	-1.8%	4.4%

/A Includes revenue from Senate Bill 09-108 (FASTER) which began in FY 2009-10. Roughly 40 percent of FASTER-related revenue is directed to State Enterprises. Revenue to State Enterprises is exempt from TABOR and is thus not included in the figures reflected by this table. Dollars in millions. Additionally, includes the impact of SB 21-260 which dedicates funding and creates new state enterprises to enable the planning, funding, development, construction, maintenance, and supervision of a sustainable transportation system.

/B Excludes tax revenue from extended gaming as allowed by Amendment 50 to the Colorado Constitution as this revenue is exempt from TABOR. The portion of limited gaming revenue that is exempt is projected based on the formula outlined in House Bill 09-1272.

Table 7: TABOR and the Referendum C Revenue Limit/A

		Actual FY 2020-21	Estimate FY 2021-22	Estimate FY 2022-23	Estimate FY 2023-24
	TABOR Revenues				
1	General Fund /A	$13,929.8	$16,747.0	$16,108.2	$16,796.9
2	Cash Funds /A	$2,240.0	$2,618.4	$2,571.7	$2,684.9
3	**Total TABOR Revenues**	**$16,169.8**	**$19,365.3**	**$18,679.9**	**$19,481.8**
	Revenue Limit Calculation				
4	Previous calendar year population growth	1.2%	0.3%	0.7%	0.8%
5	Previous calendar year inflation	1.9%	2.0%	3.5%	8.2%
6	**Allowable TABOR Growth Rate**	**3.1%**	**2.2%**	**4.2%**	**9.0%**
7	TABOR Limit /B	$12,628.1	$12,929.3	$13,445.0	$14,655.0
8	General Fund Exempt Revenue Under Ref. C /C	$3,016.3	$3,082.6	$3,212.1	$3,501.2
9	**Revenue Cap Under Ref. C /B /D**	**$15,644.3**	**$16,011.9**	**$16,657.1**	**$18,156.2**
10	***Amount Above/Below Cap***	**$525.5**	**$3,353.4**	**$2,022.8**	**$1,325.6**
11	***Revenue to be Refunded including Adjustments from Prior Years /E***	**$547.9**	**$3,353.4**	**$2,022.8**	**$1,325.6**
12	TABOR State Emergency Reserve Requirement	$469.3	$480.4	$499.7	$544.7

/A Amounts differ from the revenue totals reported in Table 3, 6 due to accounting adjustments, and some General Fund revenue is exempt from TABOR. Dollars in millions.
/B The TABOR limit and Referendum C cap are adjusted to account for changes in the enterprise status of various state entities.
/C Under Referendum C, a "General Fund Exempt Account" is created in the General Fund. The account consists of money collected in excess of the TABOR limit in accordance with Referendum C.
/D The revenue limit is calculated by applying the "Allowable TABOR Growth Rate" to either "Total TABOR Revenue" or the "Revenue Cap under Ref. C," whichever is smaller. Beginning in FY 2010-11, the revenue limit is based on the highest revenue total from FY 2005-06 to 2009-10 plus the "Allowable TABOR Growth Rate." FY 2007-08 was the highest revenue year during the Referendum C timeout period. SB 17-267 reduced the Referendum C cap by $200 million in FY 2017-18. SB 21-260 raises the Referendum C cap back to its pre-SB 17-267 levels, adjusted for inflation and population growth since the passage of SB 17-267. The new cap, in line with the original Referendum C cap, then grows by inflation and population growth in subsequent years.
/E These adjustments are the result of: (a) changes that were made to State accounting records for years in which TABOR refunds occurred that resulted in changes in required refunds to taxpayers, and (b) the refund to taxpayers in previous years was different than the actual amount required. Such adjustments are held by the State until a future year in which a TABOR refund occurs when they adjust the total refund amount distributed to taxpayers.