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STATE OF COLORADO

Governor's Office of State Planning and Budgeting

COLORADO ECONOMIC AND FISCAL OUTLOOK

COLORADO

Governor Jared Polis

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Forecast in Brief

NATIONAL ECONOMIC OUTLOOK

The U.S. economy is rebounding in 2021, but faces greater headwinds than previously expected as a result of prolonged supply chain disruptions. Aggregate household finances are strong, with excess savings and growing personal income driving further consumer spending, particularly in goods. Due to high demand and delays in goods supply, inflation has accelerated in recent months. The labor market is tight, as job openings outnumber unemployed workers, which is putting upward pressure on wages.

COLORADO ECONOMIC OUTLOOK

Colorado's unemployment rate remains above the U.S., with service sector jobs in industries like leisure and hospitality recovering less than goods related industries like retail and warehousing. The state's labor force participation rate has begun to fall in recent months though, which has driven up wages to incentivize jobs growth. Regional supply chain constraints are causing longer delays than in the Northeast or South. Inflation is expected to remain elevated in 2022 as upward pressure from supply chain issues subsides but is partially replaced by rent inflation.

GENERAL FUND REVENUE

General Fund revenue is projected to increase to $16.0 billion in FY 2021-22, a 12.2 percent change from the prior fiscal year. The projection for FY 2021-22 is $704.5 million higher than the September forecast. The growth rate is expected to moderate to 2.0 percent in FY 2022-23 and 3.9 percent in FY 2023-24. This upward revision is due to high revenue collections in recent months in individual income, corporate income and sales revenue.

CASH FUND REVENUE

Total cash fund revenue subject to TABOR is expected to be $2.4 billion in FY 2020-21, a 9.3 percent increase from the prior fiscal year. In FY 2022-23, cash fund revenue is projected to increase by 4.1 percent followed by 5.5 percent growth in FY 2023-24.

TABOR

After exceeding the Referendum C cap (as restored by S.B. 21-260) by $453.6 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 $1,996.1 million above the cap in FY 2021-22, $1,660.9 million above the cap in FY 2022-23, and $1,707.8 million above the cap in FY 2023-24, triggering the temporary income tax rate reduction in each year.

GENERAL FUND RESERVE

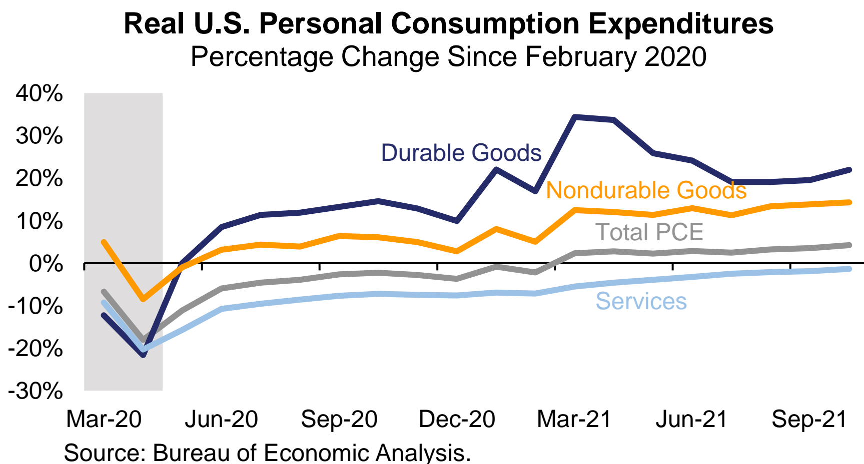
Under this forecast, the General Fund ending balance is projected to be $1,865.0 million above the statutory reserve level of 13.4 percent of appropriations in FY 2021-22.

Economic Outlook

Colorado's economic recovery from the pandemic-induced recession continues at a rapid pace, although greater headwinds exist. The GDP forecast has been revised down due to supply chain disruptions having a larger than previously anticipated drag on the economy. As consumer spending has remained firm in light of strong household finances, the demand for goods has continued to outpace supply. Such an imbalance has caused continued higher than previously expected inflation, with impacts from supply chains likely to resolve themselves in 2022 and more than offset growing shelter inflation. Finally, the labor market continues to remain tight as the labor force participation rate is likely to remain slightly below the pre-pandemic level as some workers have left the labor force indefinitely due to structural changes caused by the pandemic.

Consumer Spending and Retail Sales

Real inflation-adjusted consumer spending has remained strong in Colorado and the U.S. as a whole over the course of the pandemic recovery despite supply chain challenges and labor shortages that have likely put some downward pressure on consumption. The various rounds of federal transfer payments, additive federal unemployment benefits, and upward wage pressure all bolstered consumer demand, with record accumulated savings levels for all income groups across the country. While spending gains have been widespread, they have not been equal across different consumer categories, nor have they been equal across geographies. Consumer spending is expected to moderate in 2022.

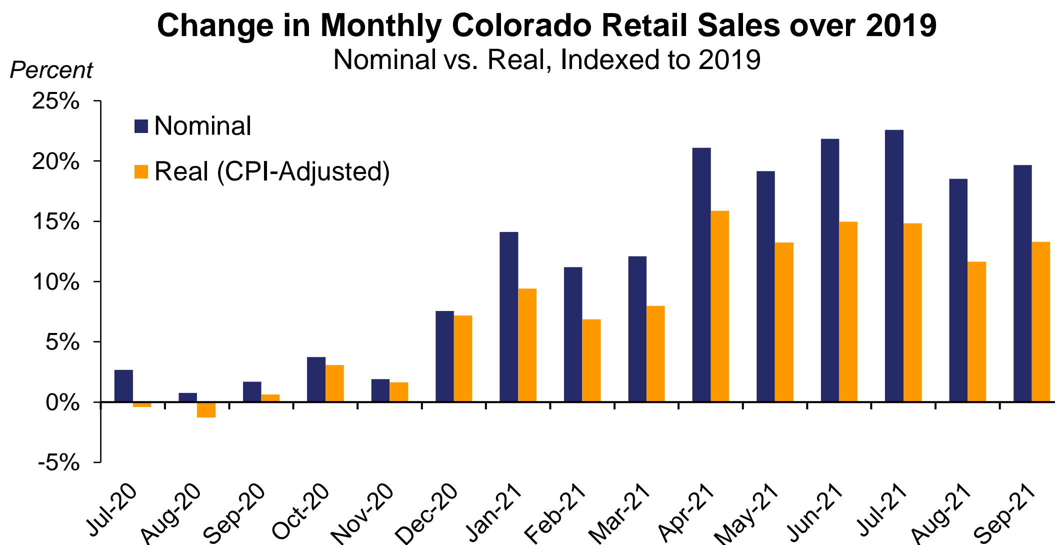


Source: Bureau of Economic Analysis.

In the third quarter of 2021, there was a Delta variant-induced deceleration in the recovery of services, particularly in recreational, restaurant and accommodation services; however, spending in each of these service sectors has continued to grow each month, albeit at a lower rate. As long as consumer behavior is restrained in response to Covid-19 risk, future personal consumption expenditure (PCE) growth is dependent on goods consumption remaining high. Goods spending as a percentage of total expenditures has risen approximately 4 percent since February 2020, while services spending has declined

approximately 3 percent. The current expectation is that at least some of this elevated level of goods spending will continue into the future and bolster total expenditures, as supply chain issues have likely stalled some purchases that would have otherwise occurred. However, signs have emerged that durable goods spending has decelerated due to possible price sensitivity on goods such as vehicles, and potentially waning demand as durable goods purchases exceeded their normal larger share of expenditures since May 2020.

Colorado retail sales highlight two important themes as well. For one, the graph below shows that goods consumption is trending significantly above pre-pandemic levels, similar to the national trend. The strength of this growth has resulted in sales tax collections well above forecast over the past year. Additionally, the graph demonstrates the relative effect of price increases (inflation) as compared to real growth of retail consumption. While inflation accounts for a non-trivial portion of the growth in retail sales, a combination of policy changes, including Wayfair impacts, and increased consumer demand drive the remaining growth.



Source: Colorado Department of Revenue; OSPB

In addition, the pandemic may have hastened retail sales growth in rural compared to urban counties as more commuters made purchases in their rural home counties, and as some rural counties gained more residents. Annual retail sales growth from January to September in rural counties actually outpaced the growth rate in urban counties between 2019-2020 and 2020-2021.

Annual Percentage Growth in Retail Sales
Colorado Urban and Rural Counties, January-September

Type of County[1]	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Rural	-2.9%	2.5%	6.2%	6.1%	2.3%	18.4%
Urban	0.5%	6.2%	6.7%	10.2%	0.3%	16.8%

Source: Department of Revenue

Supply Chains

Since the September forecast, the third quarter GDP release displayed slower than previously expected growth, at a 2.1 percent annualized rate. Despite strong personal consumption, there was a significant drag on economic growth due to supply chain disruptions, resulting in lower exports and reduced production. OSPB has identified four major supply chain contributors to the lower than anticipated growth: (1) the slowdown in production of intermediate goods, particularly technological products primarily made in East Asia like semiconductors and microchips, (2) declines in domestic IT equipment investment, (3) labor constraints, and (4) shipping difficulties including trucking shortages and port congestion.

In addition to international trade, domestic contributors to supply constraints include production capacity and labor supply. The aforementioned decline in capital investment is a sign that US production capacity constraints will not be immediately alleviated. Furthermore, labor constraints appear to be linked to Covid-19, with some people not looking for work due to concerns over virus spread. Labor market improvement is expected to temporarily slow until the spring, given expected increases in cases due to cold weather conditions, the transmissibility of the Delta variant and the new potential compounded effect of the Omicron variant.

The recently discovered Omicron variant presents a risk and could slow economic recovery, but OSPB expects only a modest drag on service spending because domestic virus-control policies and economic activity have become significantly less sensitive to virus spread. Omicron could exacerbate goods supply shortages if it necessitates tight restrictions. This was a major problem during the Delta wave, but increases in vaccination rates in foreign trade partners since then should limit the scope for severe supply disruptions.

These constraints may affect retail sales during the current holiday season. Domestic and imported production capacity for microchips remains constrained, which could possibly lead to a shortage for electronics and appliances, resulting in price increases and lower sales. Furthermore, despite retail production of items without a microchip component likely meeting demand, there have been increases in shipping times, concerns about port congestion, and trucking shortages that have created more uncertainty around whether products will arrive on

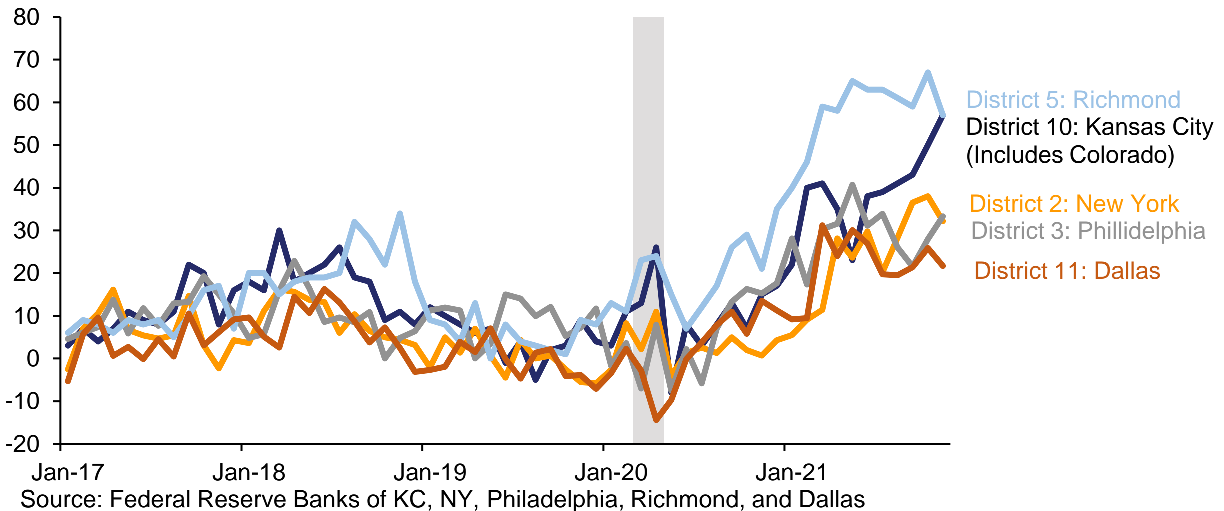
[1] Urban counties are those within US Census Bureau-designated metro areas. The remaining counties are rural.

time. In all likelihood, such widespread and well-known uncertainty will lead to consumers purchasing items earlier, thereby pulling forward retail spending in the fourth quarter of 2021.

Given additional information since the last forecast, OSPB expects all four contributors to supply chain disruptions to be resolved by the summer of 2022. International port congestion will likely begin to fade by the spring and normalize by the summer of 2022. Additionally, microchip production and domestic capacity are projected to also normalize by the summer of 2022. US labor supply is expected to continue to improve as individuals' excess savings continue to fall, but the future labor market recovery pace will likely be slower than its recent rate. By the second half of 2022, supply chains are not expected to be a major drag on the economy, and in the longer term, similar disruptions will likely be avoided due to businesses diversifying vendors and funding from the Infrastructure Investment and Jobs Act.

However, this above analysis applies to disruptions in the US as a whole. When narrowing the focus of supply chain issues, Colorado is in the Federal Reserve Bank's Kansas City region, which is one of the regions most adversely impacted. By comparing the five regional Federal Reserve manufacturing surveys, the differences between the regions since the start of the pandemic are highlighted. The delivery time index is shown, in which higher values indicate more respondents experiencing longer wait times to receive orders than the previous month.

As of November, the delivery time index in the Kansas City region was at an all-time high, reflecting the largest ever increase in the share of respondents reporting longer wait times, indicating that wait times are more broad-based than any other point since the inception of the survey. Additionally, the previous three months going back to August had each set previous records. This adverse impact is due in part to the fact that its geographical location makes it susceptible to trucking shortages in addition to port congestion. Supply chain disruptions are also more pronounced in the other four districts as well, with the index reaching an all-time high in all regions since the start of the pandemic.

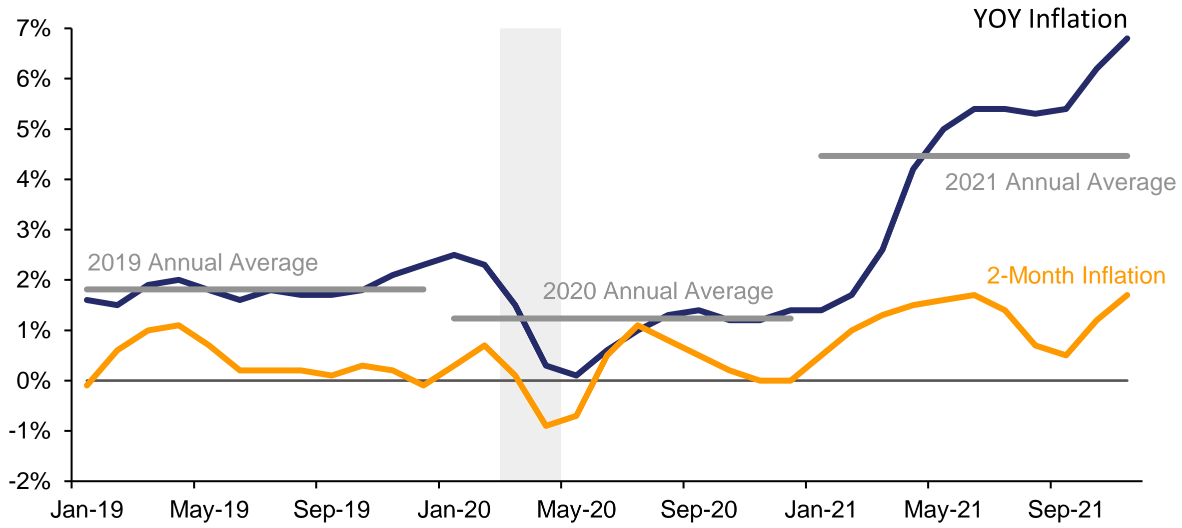


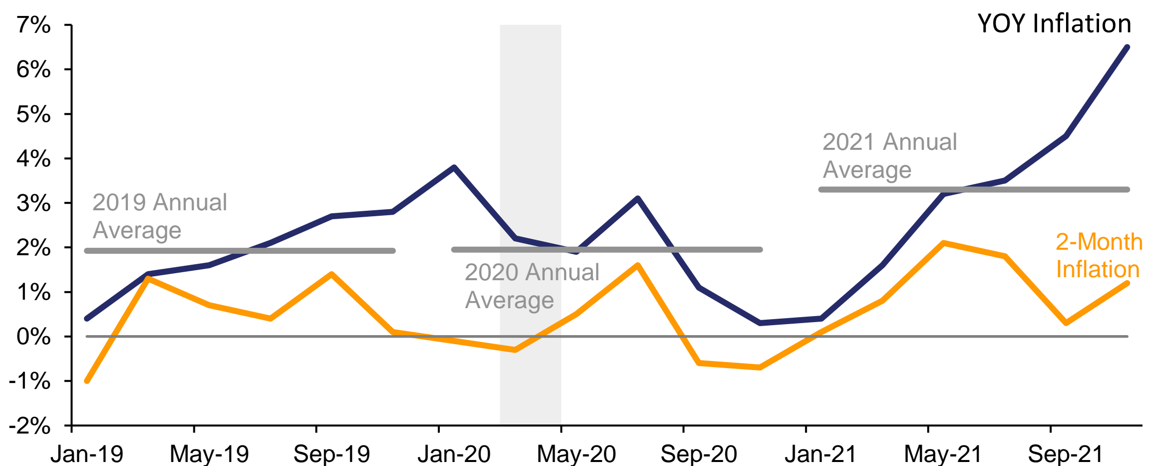
Finally, prices for a range of everyday goods are increasing as a result of consumer demand remaining strong while supply is expected to remain constrained through the middle of 2022. Therefore, supply chain disruptions are directly related to increasing inflation in the short term, as discussed in the next section.

Inflation

The U.S. consumer price index (CPI), or inflation rate, continues to rise rapidly, with 6.8 percent inflation over the course of the 12 months preceding November, the highest growth in 39 years. The corresponding 12-month growth in core inflation, which does not include energy or food prices, grew 4.9 in October, also well above trend. CPI for Denver-Aurora-Lakewood is also growing quickly, but is lower than the U.S. The 12-month inflation growth for Denver-Aurora-Lakewood, has grown to 6.5 percent in November compared to 4.5 percent in September.

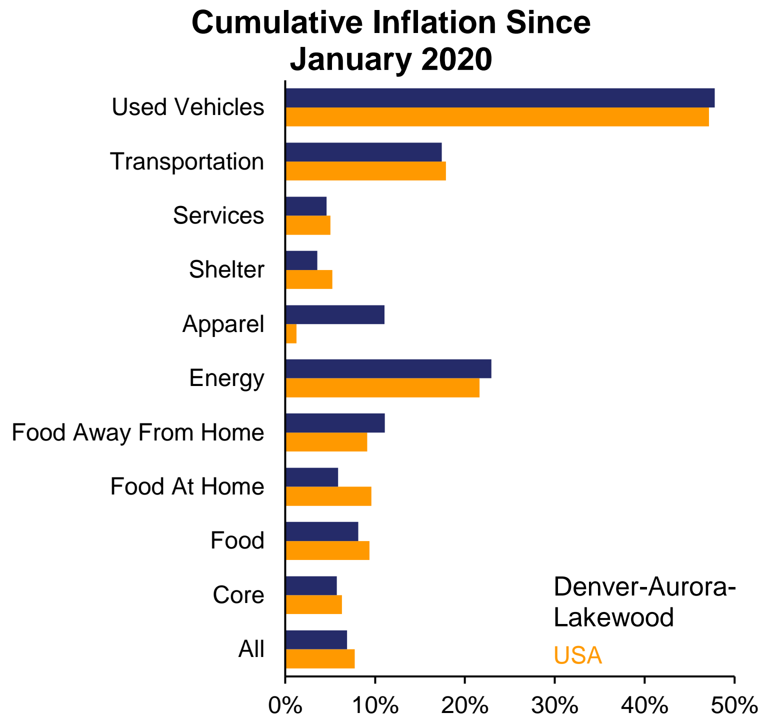
In many headlines, the 12-month growth rate, the current year's index over the same month's index in the prior year, is highlighted. However, it can sometimes be misleading due to variations that have taken place in the months before and in between these months. For instance, during the spring of 2021, this 12-month U.S. growth rate began to grow faster than month-over-month changes because of deflation in 2020. While month-over-month changes also bring additional information, the most important inflation metric in Colorado is the annual average due to the TABOR calculation. The charts below illustrate how the three ways of showing inflation growth interact, with the grey line referring to annual average inflation (includes only actuals through November), the dark blue line displaying 12-month inflation growth, and the orange line showing bimonthly growth.





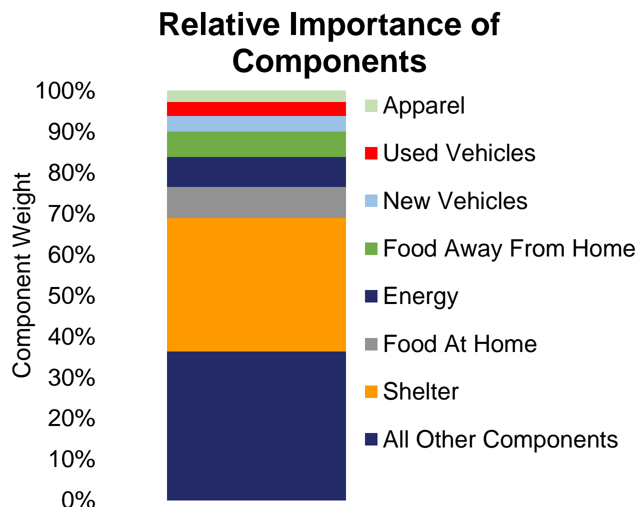
Average annual inflation growth, the average index value for this year compared with its prior, is well below the oft-reported 12-month growth rate and has been for the majority of the year. This is due to low starting points for the index in 2021, as the U.S. bimonthly inflation slowed to zero at the end of 2020, and Colorado experienced falling prices. For 2021, OSPB projects Denver CPI at 3.5 percent, a slight revision down from the September forecast's 3.7 percent. This is due to recent slower growth in shelter inflation and a drop in the energy inflation index in the latest inflation report. As mentioned above, the TABOR calculation uses this annual average rate, so if expectations are correct, a 0.2 percent reduction in 2021 inflation from the September forecast will reduce the allowable expenditures under the TABOR cap by approximately $32 million.

Looking at cumulative inflation since January 2020 at the component level, there are significant differences between the U.S. and Denver-Aurora-Lakewood CPI components, which have pushed local inflation down relative to the nation. Denver-Aurora-Lakewood has seen lower inflation than the U.S. in food, shelter, and services overall. While Denver-Aurora-Lakewood has seen comparatively higher inflation in energy, used vehicles, and apparel compared to U.S., these components do not have enough weight to compensate for the comparatively lower inflation in other components, resulting in lower core and overall inflation in Denver-Aurora-Lakewood since January 2020 compared to the U.S.



Source: Bureau of Labor Statistics

Overall, we see particularly high inflation in the cumulative inflation chart in the energy, transportation, and food categories. Within transportation, inflation in used vehicle prices is driving the growth. Production and supply chain constraints remain a significant contributor to this acceleration in inflation. Used car inventories recently dropped below 50 percent of the average 2019 level, while new car inventories dropped below that threshold last spring and have continued to decline steadily since then. Strong and sustained rebound in consumption has also been a significant contributor to inflation; however, personal savings have now dropped back down to pre-pandemic levels, which may foretell a reduction in consumption and discretionary spending. In addition, there are early signs of supply chain resolutions, and these transitory disruptions may alleviate by mid next-year resulting in reduced durable goods prices. OSPB does expect persistent inflationary pressure from faster growth of wages and rents, but as supply-constrained categories resolve, it is expected to more than offset the more persistent upward pressures. The result is an anticipated Denver-Aurora-Lakewood CPI in 2022 of 3.3 percent, below 2021 growth, but still above recent norms.



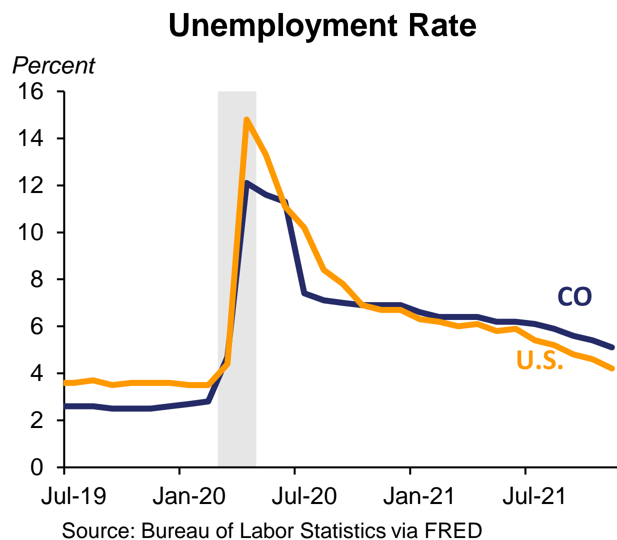
Source: Bureau of Economic Analysis

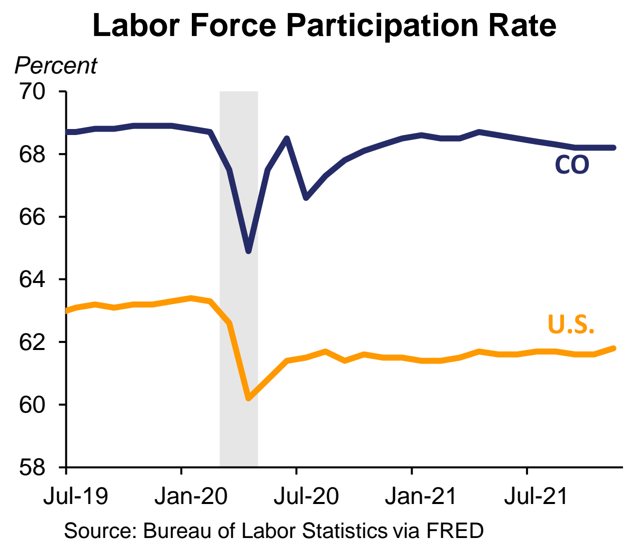
While the emergence of the Omicron variant adds significant uncertainty into inflation forecasts, there is no specific data at present to suggest that it will contribute to increased inflation in 2022 or beyond. Reduced demand for virus-sensitive services, such as travel, could have a disinflationary impact in the near term, but prior virus waves suggest that such pressures would be temporary and reverse as demand recovers. In contrast, further supply chain disruptions due to Omicron or further delays in the recovery of labor supply could temporarily increase the inflationary impact. Furthermore, the increased uncertainty may in fact result in adoption of stronger and quicker anti-inflationary monetary policy.

Labor Market

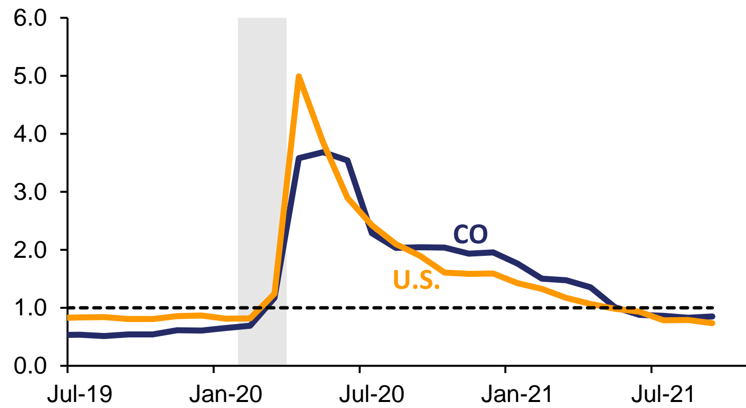
The unemployment rate for Colorado has continued to decline throughout 2021, dropping from 5.9 percent at the last forecast to 5.1 percent in November. Colorado's unemployment rate has historically been lower than that of the U.S., but currently remains 0.9 percentage points higher than the nation's 4.2 percent. OSPB expects the decline in the unemployment rate to continue in 2022 as the effects of expanded unemployment benefits and stimulus payments on household savings decline, although the Omicron variant of Covid-19 poses a downside risk for the beginning of the year.

Despite improvements in the unemployment rate, the labor force participation rate for Colorado has been slowly declining since April's 68.7 percent to 68.2 percent in November 2021, and remains below the pre-pandemic level of 68.7 percent. OSPB expects the labor force participation rate to remain slightly below the pre-pandemic level as some workers have left the labor force indefinitely due to structural changes caused by the pandemic, as well as a growing share of the population being of retirement age.





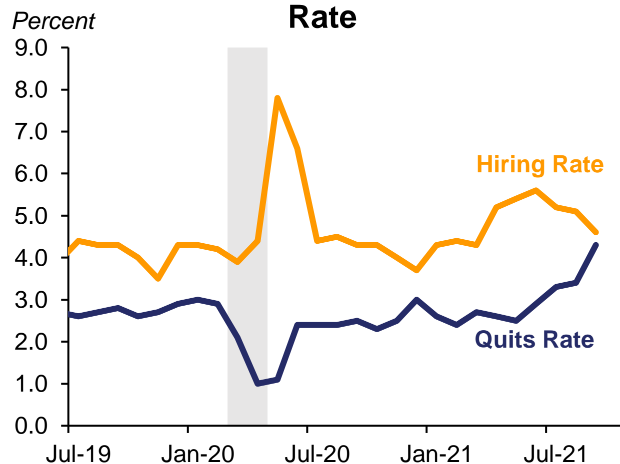
The lower labor force participation rate has contributed to the shortage in the supply of available labor, which has had a significant impact on businesses in Colorado and throughout the country. The figure below shows the number of unemployed people per job opening. A value of one means that there is exactly one job opening for each unemployed person. Before the pandemic, there were fewer unemployed people than there were job openings reflecting a very tight labor market, particularly in Colorado. At the beginning of the pandemic, the number of unemployed people increased dramatically while businesses cut back on hiring and workers either quit or were laid off in industries most impacted by Covid-19, resulting in slack in the labor market shown as a spike in this graph. As the labor market recovered, the ratio dropped below one in May 2021, reflecting that there are now more job openings than unemployed people, making it more difficult for businesses to find qualified workers.



Source: Bureau of Labor Statistics via FRED

The ratio for Colorado has ticked up slightly over the past few months, but hiring pressures on businesses do not seem to have eased, potentially as a result of the falling labor force participation rate. According to the Federal Reserve's October Beige Book, hiring new employees remains "just as difficult compared to a few months ago" for businesses in the region, causing businesses to increase wages, benefits, and training to attract and retain employees. Many retail, hospitality, and manufacturing firms reported decreasing their hours and outputs due to a shortage of workers. OSPB expects the labor shortage to continue into the beginning of 2022, particularly as the Omicron variant of Covid-19 may cause people to be more hesitant about returning to work. However, OSPB expects employment difficulties to ease by the middle of 2022 as the effects of stimulus payments and extended unemployment benefits continue to decline.

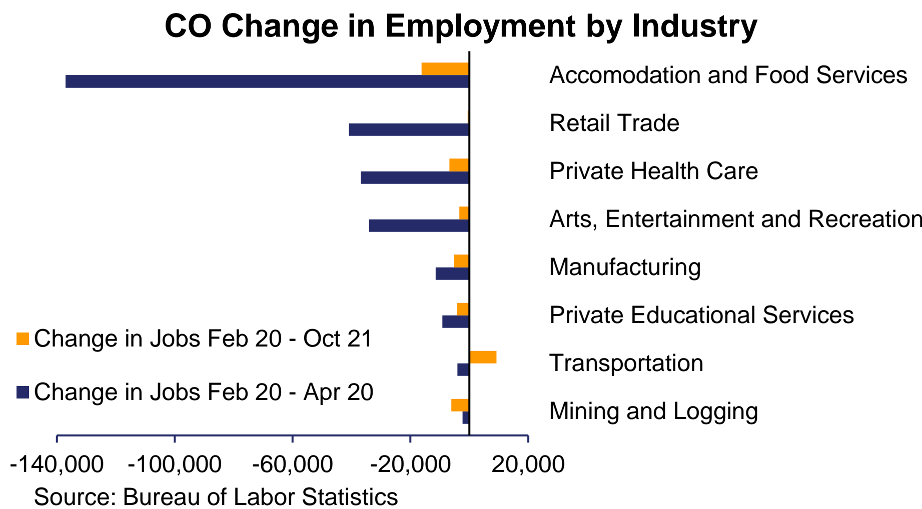
Not only has it been difficult to attract workers, businesses are also struggling to retain existing employees. In September, the rate at which employees are quitting their jobs is historically high for Colorado at 4.3 percent, compared to 2.9 percent before the pandemic. Also, in September, hiring is slowing since its most recent peak in June, now at 4.6 percent, but still slightly



Source: Bureau of Labor Statistics, State JOLTS Report

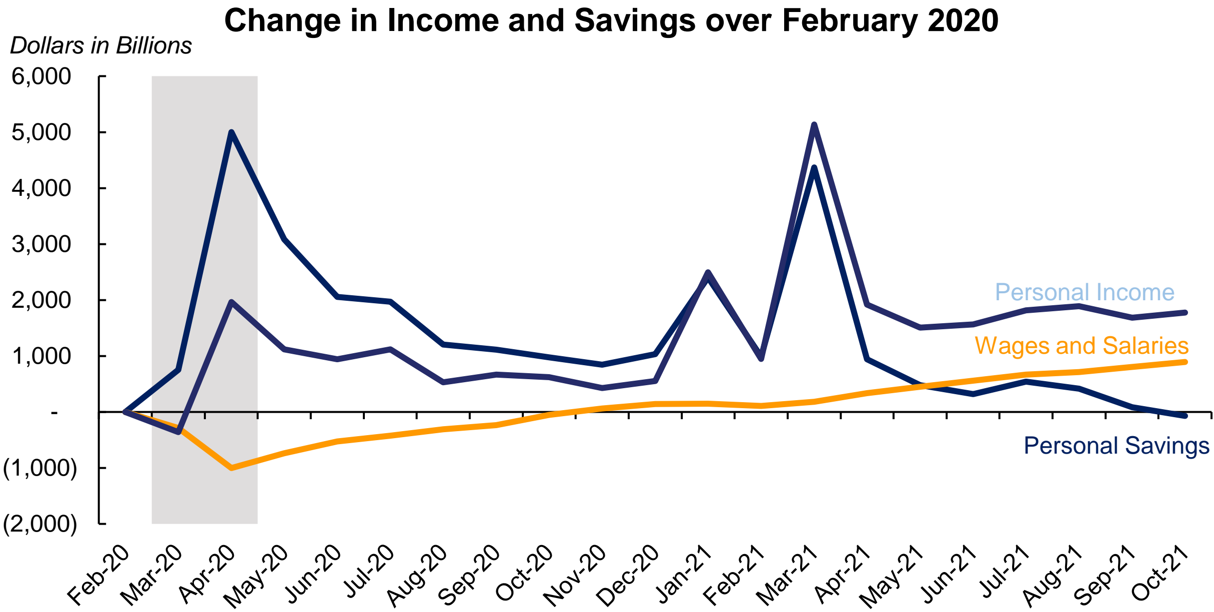
above the rate before the pandemic. The rate at which employees are quitting their jobs is approaching the rate at which businesses can hire new workers to take their places, making it difficult to for businesses to catch up on hiring the labor that they need. A high quits rate is usually a sign that employees are confident in their prospects of finding a better job than the one they currently have, or are confident in their economic situation should they lose their income for an extended period of time. The recent uptick in the quits rate could also be attributed to virus concerns, as the most recent observation was during the surge in the Delta variant of Covid-19.

Although there are many job openings available for those who are unemployed, total employment has not recovered to its level in February 2020. Additionally, the employment recovery has not been equal across all industries. Only a few industries have fully recovered, including Transportation, while others, including Mining and Logging have continued to decline throughout 2021. Leisure and Hospitality was by far the hardest hit industry at the start of the pandemic losing nearly 50 percent employment, but has seen tremendous employment growth since April 2020, and is now 5.7 percent below its pre-pandemic level.

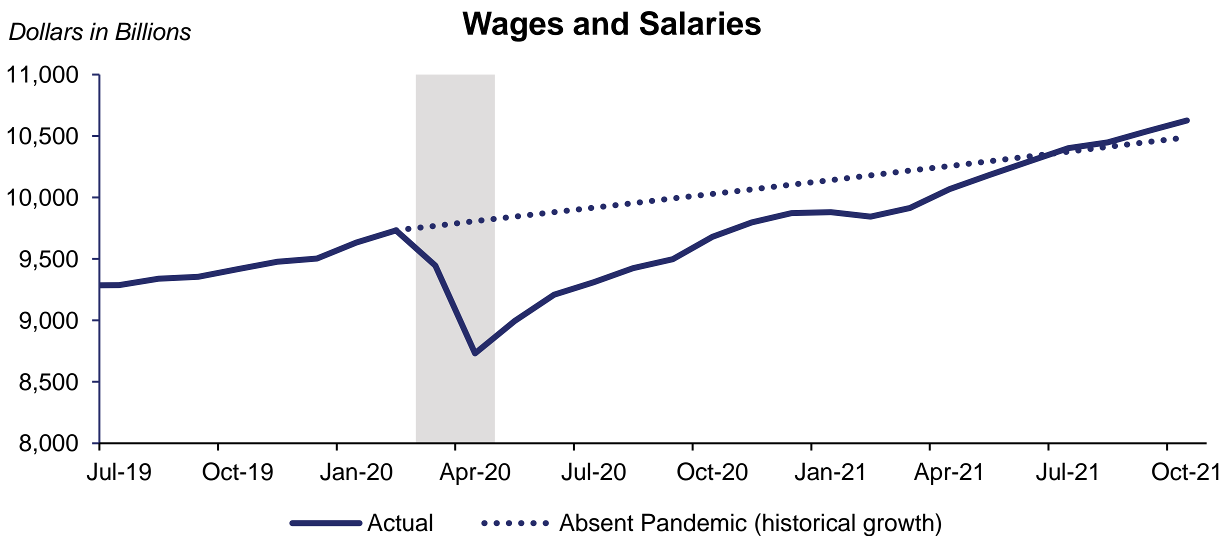


Household Finances

Personal income has held relatively steady over the past six months and remains elevated over its pre-pandemic level. Government benefits have declined with the end of enhanced unemployment benefits, but wages and salaries—the largest single component of personal income—continue to rise steadily.



National wages and salaries stood at $10.6 trillion in October 2021, which is $0.9 trillion, or almost 9 percent, higher than the pre-pandemic level. The strong labor market and continued economic recovery have boosted wages and salaries to such a degree that current aggregate wages and salaries are roughly equal to the level that would have been expected had the pandemic-related recession not occurred. This is illustrated in the following graph, which compares actual wages and salaries with hypothetical values if there were no pandemic and had instead grown at the historical rate.

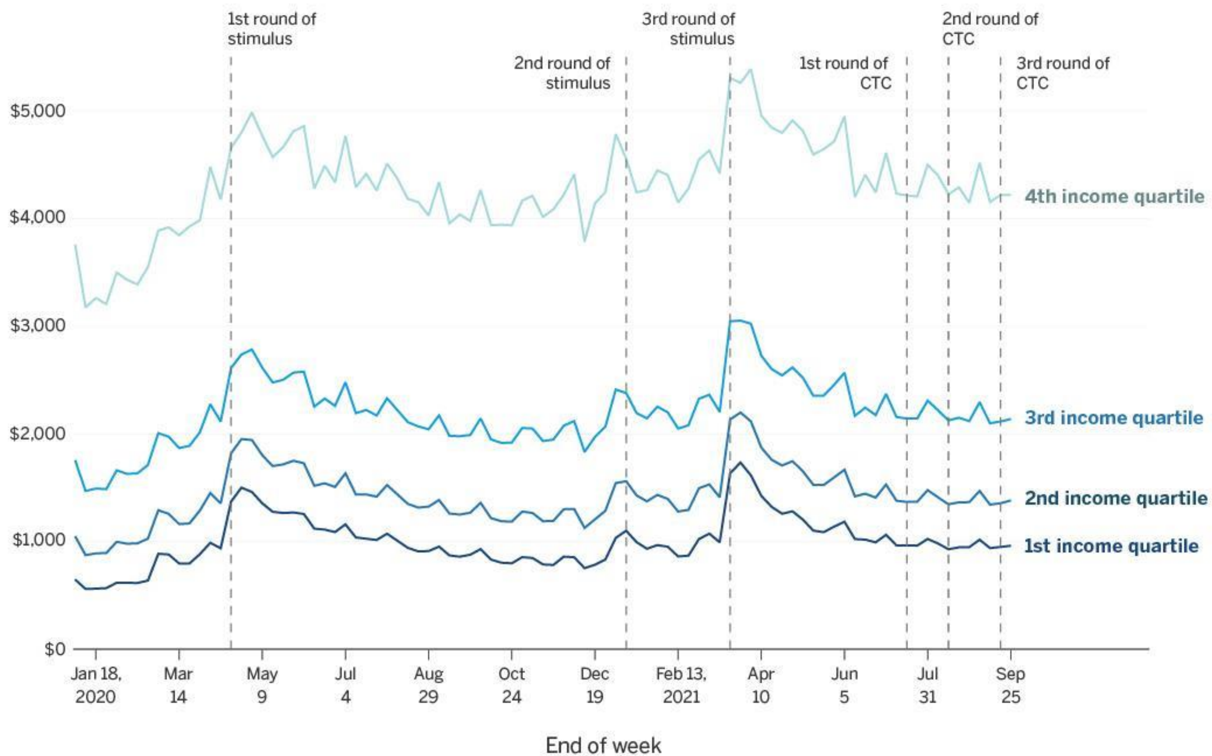


The personal savings rate, or the percent of personal disposable income that is saved, ebbed and flowed with government transfer payments through the course of the pandemic. It peaked around the time each round of stimulus checks were distributed and has now declined to pre-pandemic levels, currently at 7.3 percent in October compared to 7.4 percent in October 2019. The summer months this year saw the broadest opening of the economy since the start of the pandemic, providing more opportunities to spend on services. Additionally, federal expanded unemployment benefits rolled off in September this year, potentially resulting in a spend down of accumulated savings. While the rate is similar, the level of savings is higher overall, largely due to higher wages and salaries.

Household finances are likely to remain relatively strong in the short-term compared to pre-pandemic levels. A tight labor market will favor higher wages and lower unemployment rates. Nevertheless, risks exist. Strong wage growth and large accumulated savings could fuel rising consumer spending and exacerbate inflation, which may in turn erode gains in personal income. In addition, those inflationary pressures are likely to hit people with lower incomes hardest, who spend proportionally more on goods that are impacted by rising prices, like food and fuel. This risk, however, is somewhat muted by the likelihood that accumulated personal saving will not translate quickly into consumer spending.

As one example, balances in consumer checking accounts are only modestly higher than pre-pandemic levels (see graphic below[2]), suggesting that consumers are not sitting on large quantities of cash that can quickly be spent. Consumers appear to have directed the accumulated personal savings to paying down credit card debt and into financial investments. This is particularly true for higher income households, to which personal saving primarily accrued. Higher income households have a lower marginal propensity to spend, so their accumulated personal saving will likely persist and be deployed for consumer expenditures relatively slowly.

[2] Greig, Fiona, Erica Deadman, and Tanya Sonthalia. 2021. "Household Cash Balance Pulse: Family Edition." JPMorgan Chase Institute. https://www.jpmorganchase.com/institute/research/household-cash-balance-pulse-families



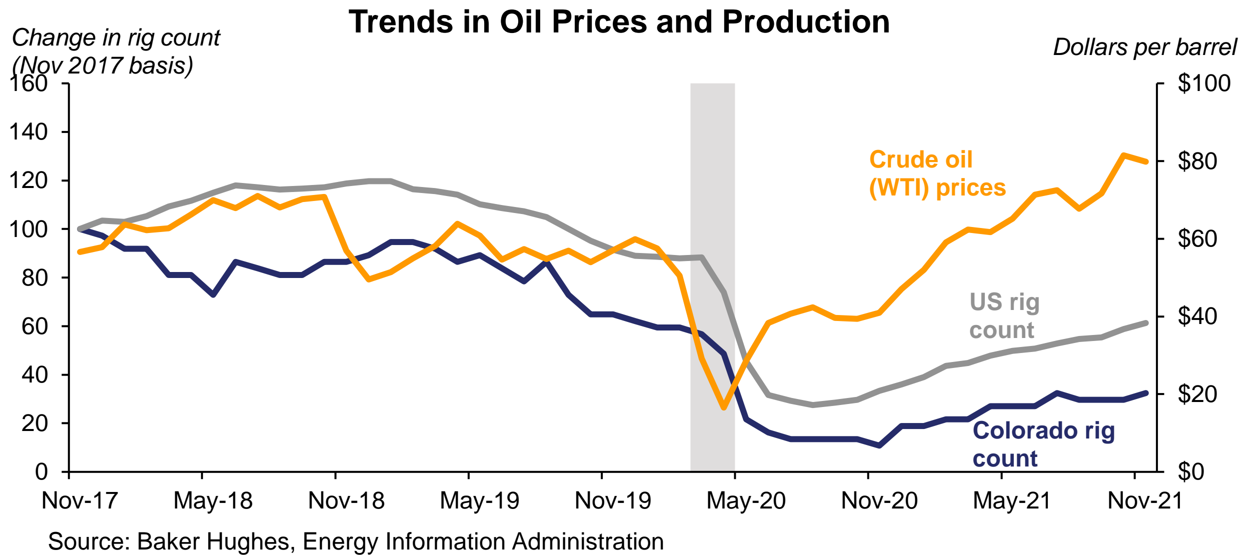
Though a large portion of remaining accumulated savings remains with wealthier citizens, household finances are expected to continue to remain strong due to wage and salary growth. Recent growth in wages and salaries is expected to continue into 2022 as labor market tightness remains a boost until the middle of the year. This is expected to provide continued support for strong household finances for lower income service sector workers and their families.

Energy Sector

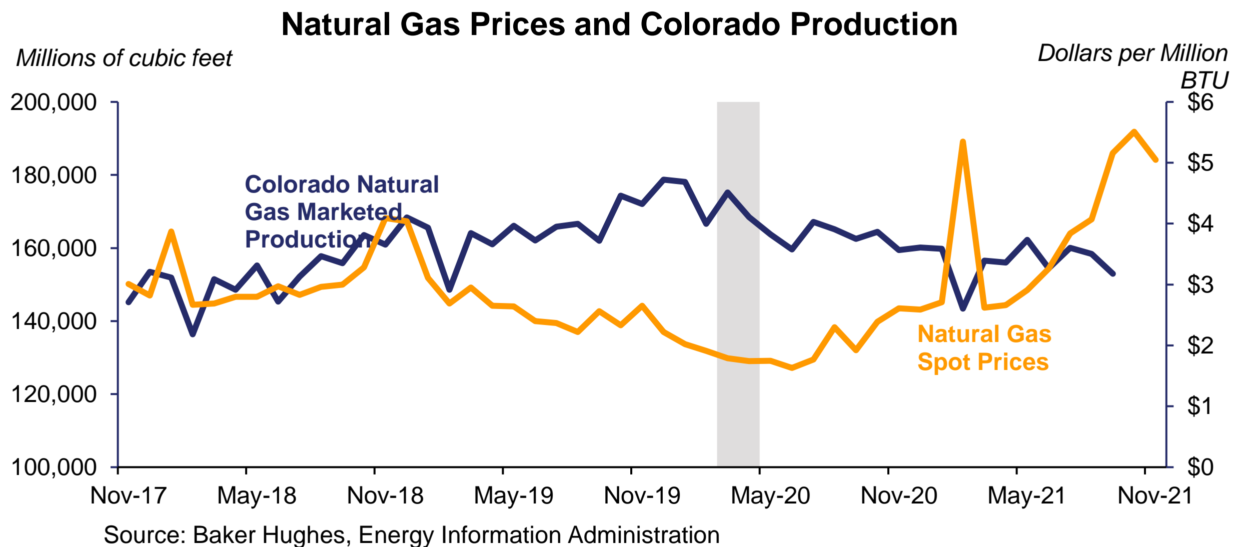
Oil and gas activity accelerated in Colorado in the third quarter of 2021, and a majority of firms reported higher revenues and profits, bolstered by energy prices at a five-year high. Drilling and business activity continued to outpace the previous year, and expectations increased further. However, the Omicron variant constitutes a downside risk that might affect energy markets in the future.

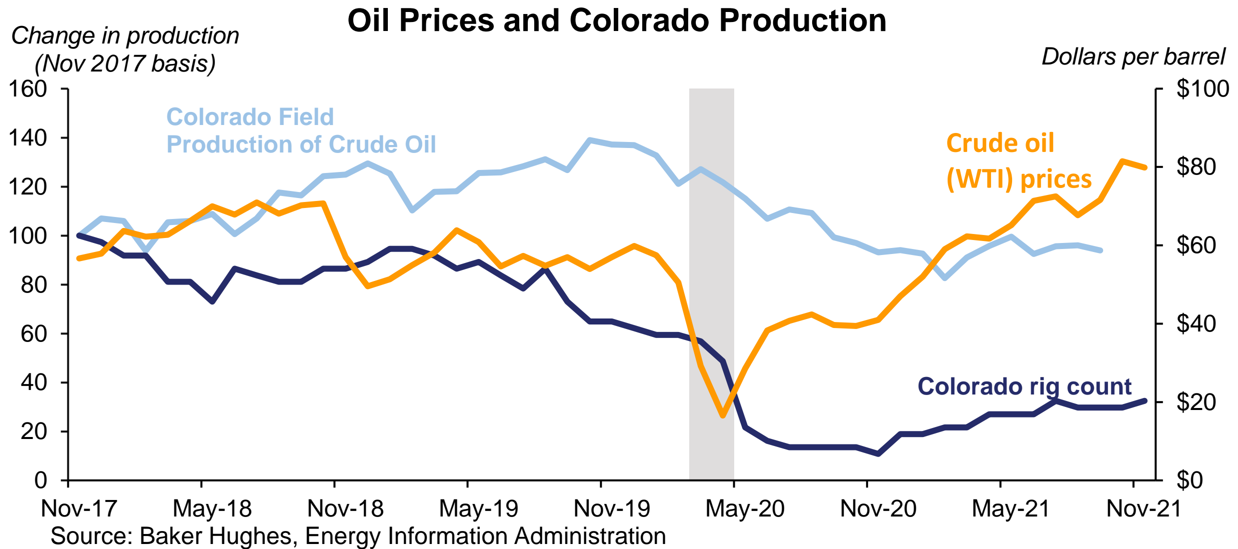
The sharp increase in oil prices over the last six months stems from a variety of factors, among which include an upturn in travel during the summer as vaccination made people more comfortable with travel, and high demand in intermediate petrochemicals products, such as plastics, driven by the shift from spending to goods in consumer spending. Oil prices are expected

to remain high at around $70 per barrel in the coming months and largely elevated above the 2017-2019 spot price average of $57.66 per barrels. Asphalt, the heaviest part of crude, could see a surge in demand as the infrastructure bill will provide record amounts of funding for highway improvements, which might temporarily compensate for the decrease in demand created by investments in electric vehicles.



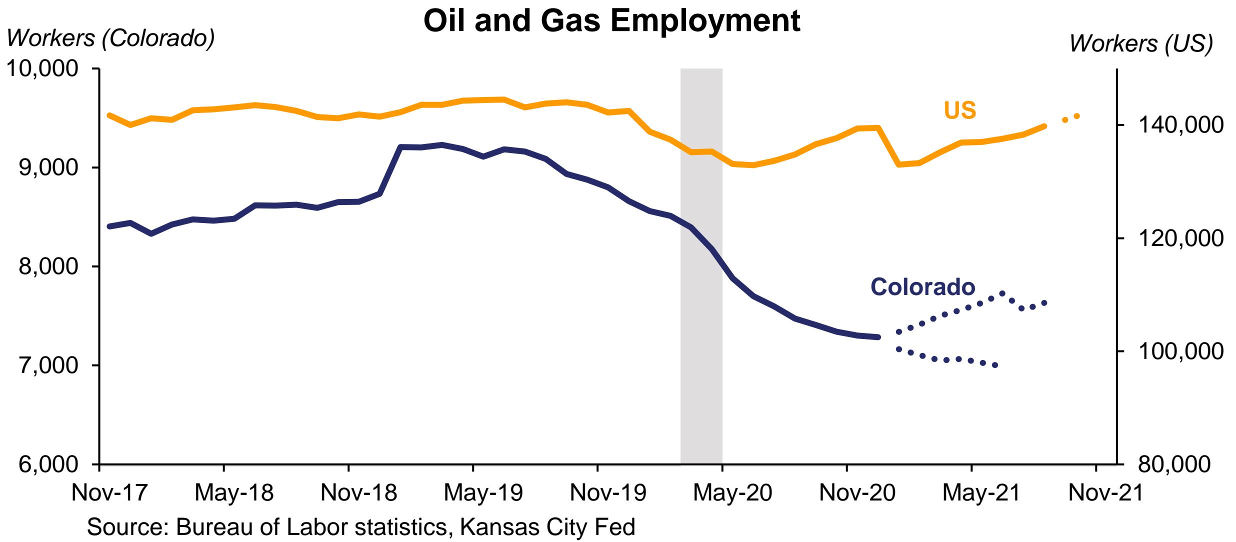
Natural gas prices have been driven up by shipment backlogs at ports; more volatile temperatures this fall, which increased consumption for residential heating; and droughts, which brought hydro-electricity production down, necessitating a switch to natural gas-powered electricity production. Prices are expected to keep increasing in 2022 as these factors remain, and as the federal infrastructure bill investments in clean fuel vehicles includes not only electric vehicles but also liquefied and compressed natural gas.





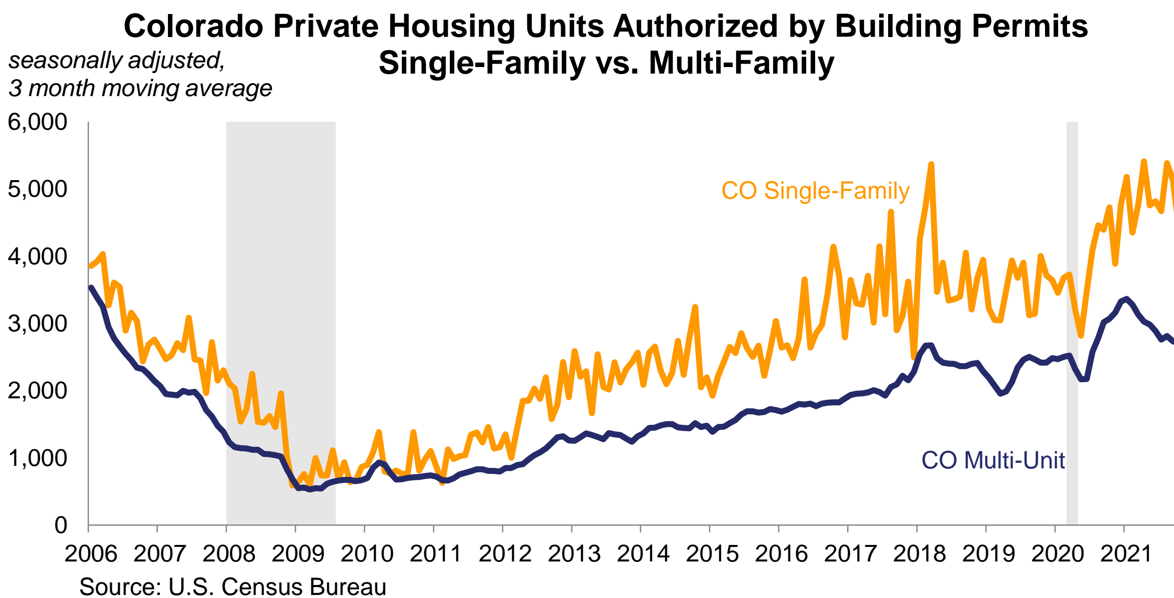
Source: Baker Hughes, Energy Information Administration

There has been an observable a decoupling of oil production from prices in the last few months, both in the US and in Colorado. The recovery in production after the spring 2020 recession has been very slow despite a relatively quick rebound in prices. Part of the reason has been the reluctance of investors to fund production increases, as the oil and gas sector has had some of the worst returns of any sector over the last decade, with returns on investment consistently lower than the cost of capital, and debt levels doubling over the past 15 years. In Colorado specifically, the application of SB19-181 (Protect Public Welfare Oil and Gas Operations) starting January 15, 2021, which added a 2,000 foot setback distance between well sites and homes, schools, priority wildlife habitats, and bodies of water, slowed new well location permitting for about a year. That coincided with a five-year national low in "drilled-but-uncompleted" (DUC) shale wells (i.e. drilled but not yet fracked) which are typically a way for oil and gas firms to ramp up production with lower up-front capital costs. Drilling has rebounded in the third quarter of 2021, with new permits being granted, and regional producers of oil and gas indicating that they expect production, revenue, profits, and employment to keep increasing over the next six months.



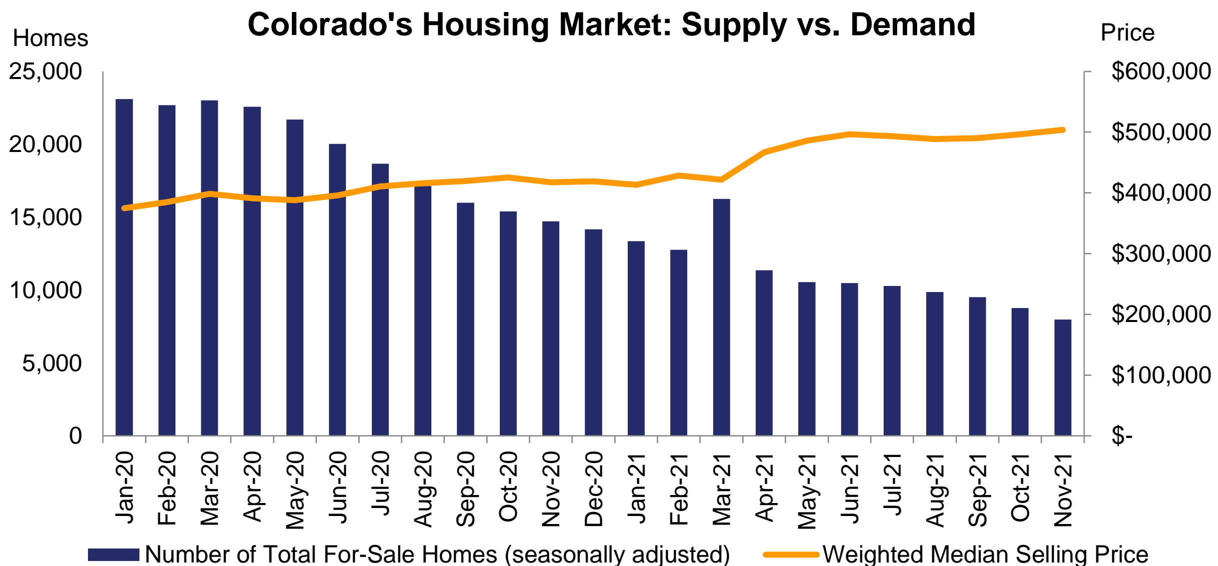
Housing Market

Colorado housing construction as measured by monthly residential building permits issued reached 5,793 in August, the highest level since June 2001, before dropping to 4,721 in October (still high by historic standards).[3] Demand for additional living space during the pandemic contributed to the increase in permits over the last 18 months, with multifamily permits outpacing single-family permits and multifamily now comprising 44 percent of building permits in Colorado.



[3] US Census Bureau

At the same time, the gap between housing supply and demand in Colorado remains large. Just 7,737 homes were listed for sale in November, the lowest monthly total since the Colorado Association of Realtors began tracking in 2010. While for-sale inventory typically falls after the summer, the magnitude of this decline in Colorado is notable. Inventory dropped 39 percent between September and November. Year over year, inventory dropped by 39 percent for single-family homes and 62 percent for townhomes and condos in November. Reduced inventory often leads to a self-reinforcing cycle, as 28 percent of homeowners choosing not to sell indicate they cannot find a new home to buy.[4] Demand remains at record levels, putting upward pressure on home prices. The median selling price for both single-family homes and townhomes/condos reached $532,800 and $397,500 in November, respectively, their highest levels ever. Year over year, these median prices have increased by 19 percent for single-family homes and 16 percent for townhomes and condos in November. A looming Federal Reserve interest rate hike might



These disparities appear the most glaring in mountain resort communities, which continue to see an influx of buyers from both the Front Range and outside Colorado. For example, in November La Plata County's single family and townhome/condo inventory fell 50 percent and 70 percent from the same time last year, respectively, while its median sales price increased 25 percent and 5 percent. Similarly, Chaffee County's inventory fell 51 percent for single family and 65 percent for townhome/condos, while its median sale price increased 40 percent and 23 percent (similar statistics are shown for three other mountain counties below). When this low inventory and high prices are coupled with a growth in units being used for short-term rentals (STRs), the effect on housing affordability can be significant and contributes to employee shortages. In November,

[4] US Realtors Association (https://www.realtor.com/research/2022-national-housing-forecast/)

voters in Avon, Ouray, Leadville, Telluride, and Crested Butte approved excise taxes and/or expanded lodging taxes on STRs, with much of the proceeds going to affordable housing or workforce housing.

Average Sales Price and Days on Market Statistics, November 2021, Selected Counties

Single Family	Average Price % Year over Year	Average Sales Price Year over Year	Days on Market Until Sale Year over Year
Summit County	1% ↑	$1,834,730	58% ↓
Eagle County	52% ↑	$3,349,433	31% ↓
Routt County	11% ↑	$1,219,066	33% ↓
Townhouse / Condo	**Average Price % Year over Year**	**Average Sales Price Year over Year**	**Days on Market Until Sale Year over Year**
Summit County	7% ↑	$649,291	64% ↓
Eagle County	89% ↑	$2,001,017	49% ↓
Routt County	33% ↑	$869,215	52% ↓

Source: Colorado Association of Realtors

By some measures, the ability of renters to purchase a home in Colorado is also narrowing. According to a recent study Colorado has the nation's eighth highest "cost of moving up,"[5] which is a ratio of an area's typical home price to typical annual rent. This is because home prices are increasing faster than rents, and indicates that it is currently more difficult to move from renting to owning. Reports indicate that rents are increasing significantly in many Colorado urban areas. For example, in Denver, both 1-bedroom and 2-bedroom apartment rents in November increased 15 percent year-over-year, while in Colorado Springs they increased 21 and 15 percent respectively.[6] This has been partly due to higher labor and construction material costs increasing (eventually resulting in rent increases), but also more demand given the low inventory of for-sale homes. Apartment vacancy rates were a low 3.8 percent in Denver,[7] which makes it harder for people looking to find a new apartment and means landlords can charge more. However, there is some evidence that the increase in multifamily building permits is resulting in more apartment units coming on to the market. In Colorado Springs, 784 apartments were added during the third quarter of 2021, which is the most for any quarter in at least 20 years. This is part of the reason why Colorado Springs' vacancy rate is a much healthier 6.1 percent.[8]

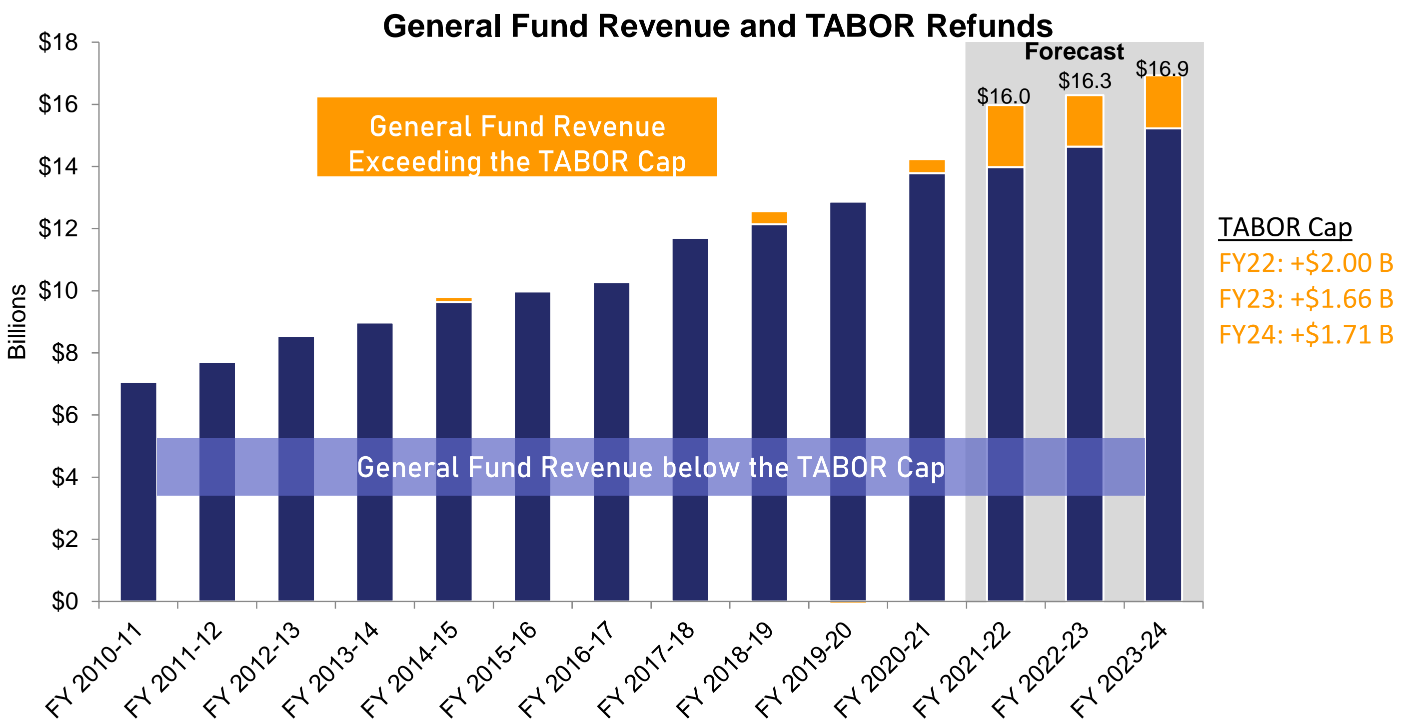
[5] "The Cost of Moving Up to Homeownership", Wendell Cox, http://www.newgeography.com/content/007243-the-cost-moving-up-home-ownership
[6] Zumper National Rent Report (https://www.zumper.com/blog/rental-price-data/)
[7] Denver Metro Apartment Vacancy and Rent Report
[8] Colorado Springs Metro apartment Vacancy and Rent Report

Forecast Risks

While there is upside risk due to household finances and supportive lending conditions, there is more than offsetting downside risk to the forecast due to uncertainty around new Covid-19 variants' impact and extended supply chain disruptions may be a drag on growth as well as a driver of possibly more permanent inflationary concerns. More detail on the spread and vaccine efficacy against this new variant will provide greater insight into the likely consumer and business sentiment that could shape the start of 2022.

Revenue Outlook – General Fund

General Fund revenue is projected to increase to $16.0 billion in FY 2021-22, a 12.2 percent change from the prior fiscal year. The projection for FY 2021-22 is $704.5 million higher than the September forecast. The growth rate is expected to moderate to 2.0 percent in FY 2022-23 and 3.9 percent in FY 2023-24.

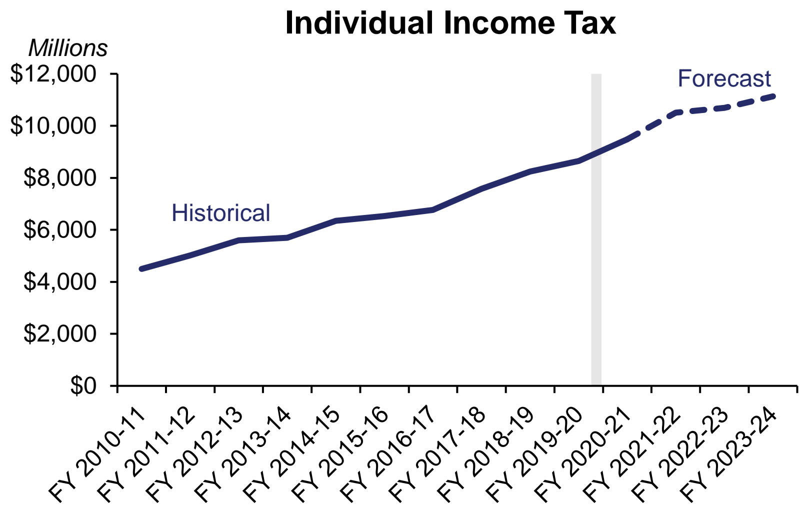


The upward revision to the forecast reflects continued strong growth in personal income, corporate profits, and consumer spending.

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 $1.996 billion, which is $705 million more than forecasted in September. General Fund revenue above the cap is projected to be $1.661 billion in FY 2022-23, and $1.708 billion in FY 2023-24.

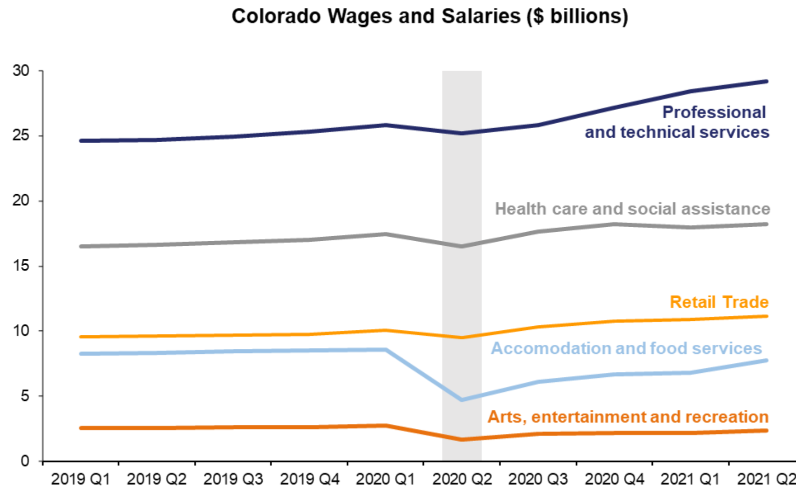
Individual Income Tax

Individual income tax receipts in FY 2021-22 are forecast to increase by 10.8 percent compared to the prior fiscal year, to $10.5 billion. This reflects an upward revision from the prior forecast of approximately $482.5 million. Aggregate wages and salaries strongly impact this revenue and have been revised upward by $7.6 billion in 2021 and $8.0 billion in 2022, compared to the prior forecast.



Individual income tax receipts have exhibited resilience throughout the pandemic and recovery. This is particularly true of individual income tax withholdings, which account for more than 80 percent of net individual income tax receipts. Individual income tax withholdings through November 2021 are 11 percent higher than the prior fiscal year, with small business income is showing continuing strength as well. This reflects a strong labor market in Colorado, with a declining unemployment rate and significant wage pressure as businesses struggle to attract the number of workers they need.

Tax withholdings are closely tied to aggregate wages and salaries, which have recovered relatively well, despite slow recovery in certain sectors of Colorado's economy. One driver are the economic sectors with the highest wages and salaries—and thus the largest contribution to individual income taxes—were not as severely impacted by the pandemic-induced recession as other sectors. The pandemic led to only a slight drop in wages and salaries in Colorado's professional and technical services sector and has grown rapidly since the second quarter of 2020. In contrast, the accommodation and food services sector has still not returned to pre-pandemic levels, but the aggregate wages and salaries of this sector are only about one-quarter of Colorado's professional and services sector. The relative stability of wages and salaries in higher income sectors have buoyed individual income tax receipts.



Source: Bureau of Economic Analysis

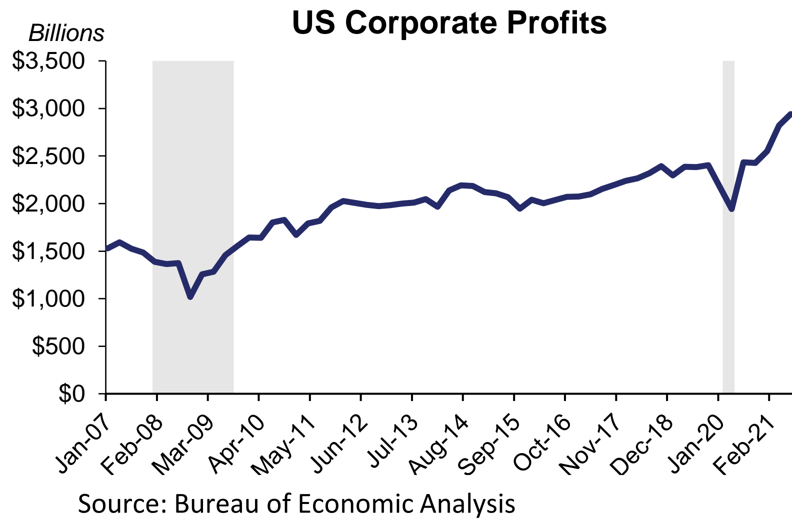
Other factors also contribute to higher individual income tax returns. Investors are likely to realize capital gains as equity markets continue to post strong gains and as they weigh the possibility of federal legislation that could increase capital gains taxes. Additionally, Colorado's oil and gas sectors are enjoying higher energy prices that are supporting higher incomes.

The growth in individual income tax receipts will moderate in subsequent years, to 1.7 percent in FY 2022-23 and 4.2 percent in FY 2023-24. The rapid run up in wages and salaries is unlikely to sustain over the long term as it puts greater pressure on small business earnings.

Corporate Income Tax

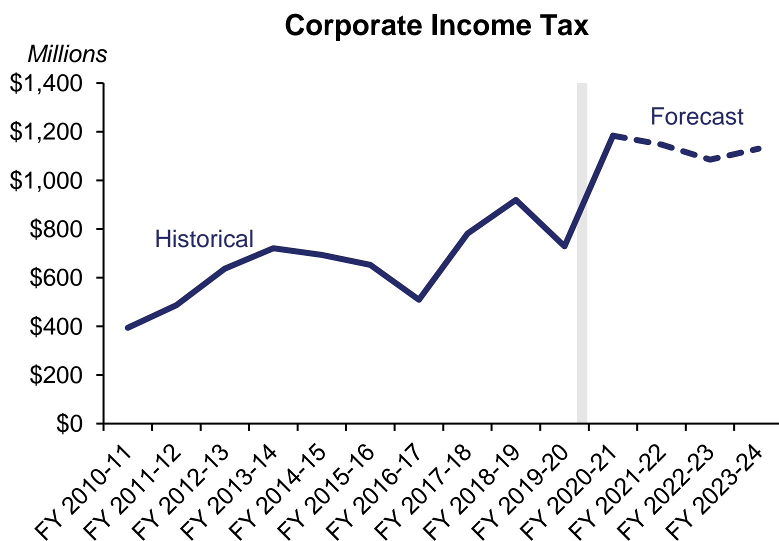
In FY 2020-21, corporate income tax revenue set a record of $1,183.7 million, largely due to government support and record corporate profits. In FY 2021-22, corporate income tax receipts are projected to fall by 3.1 percent from these historic highs, as corporate profits growth are forecast to decelerate at the start of 2022. Corporate profits are expected to further moderate from recent records, reflecting another projected drop of 5.4 percent in FY 2022-23. Finally, in FY 2023-24, corporate tax revenues are expected to grow by 4.2 percent, resulting in the third highest total on record after FY 2020-21, and the projected FY 2021-22.

Corporate profits before taxes, which accounts for inventory and capital adjustments, is the primary driver of corporate income tax collections. In the third quarter of 2021, such profits nationwide hit a new record high of $2.94 trillion. Prior to the pandemic, the record was $2.41 trillion, but that mark has been broken five times since. Furthermore, corporate profits are not just keeping pace with rapidly growing GDP, their share of GDP is increasing. In fact, the third quarter of 2021 saw the highest share of gross domestic product derived from corporate profits going back to 1950. As businesses work to retain workers, they will necessarily have to dip into a portion of these profits. Given that wages and salaries currently make up 45.2 percent of GDP, lower than the long run average of 47.0 percent, OSPB assumes corporations will be able to sustain healthy profits. However, these business decisions impact the shape of the corporate revenue forecast, as increased compensation lowers C-corp profits, creating a small drag on revenue.



Source: Bureau of Economic Analysis

Despite this projected decline, expectations for corporate income tax revenue were revised up in all years, including by $215 million in FY 2021-22. This revision reflects actual revenue collection that has come in above the September forecast's expectations, particularly in September, when revenue set an all-time record for the month of $242.4 million, $67.1 million higher than the record previously set in 2020. The economic recovery from the pandemic is expected to be slower than normal with Covid-19 variants causing a more prolonged shift in consumer spending towards goods-producing businesses. Given that a larger share of corporate income taxes in Colorado stem from goods-producing businesses, the forecasts now reflect an updated path that



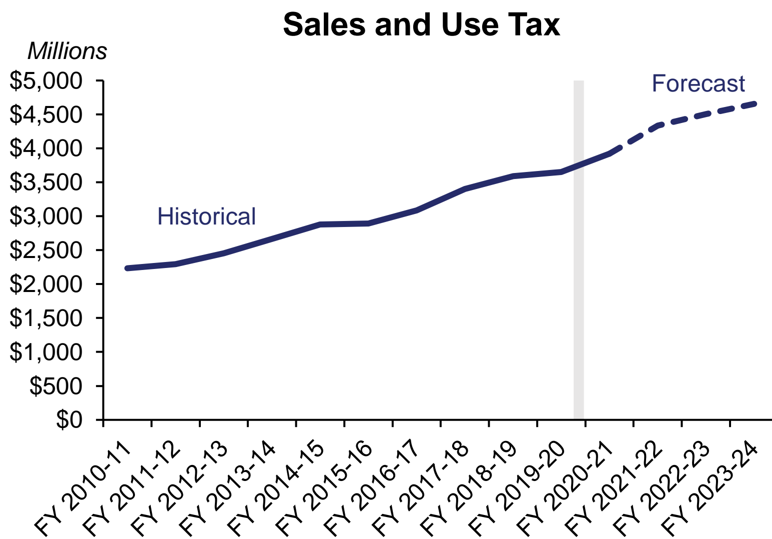
reflect a recovery driven more by goods spending.

Additionally, expectations are driving changes in tax provisions on a state and federal level. On the federal side, the recently passed Infrastructure Investment and Jobs Act is expected to have a very limited negative state revenue impact of around $1 million per fiscal year. ARPA is expected to have a minor positive impact on revenue, growing to $14 million in additional revenue by the end of the forecast period. The current forecast does not consider the Build Back Better bill. From the state perspective, the most recent legislative session is expected to raise corporate income tax revenue by $32 million by FY 2023-24, largely as a result of HB21-1311.

Sales and Use Taxes

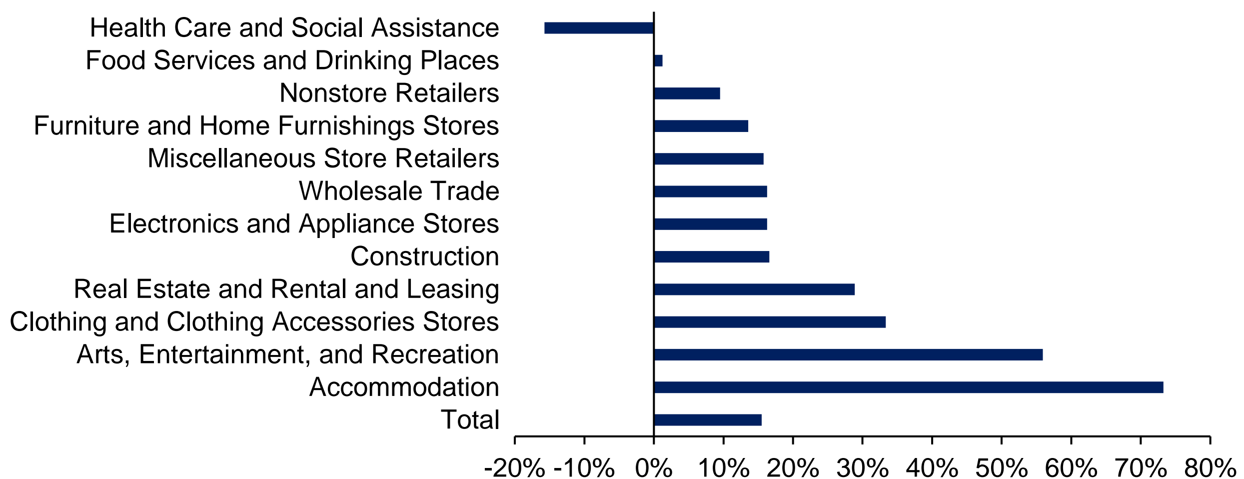
Sales tax revenue grew 7.0 percent in FY 2020-21 and is expected to grow by an additional 12.3 percent in FY 2021-22 before slowing to 4.1 percent growth in FY 2022-23. Relative to the September forecast, the projection for FY 2021-22 was revised upward by approximately $94.6 million to $3.840 billion. The projections for FY 2022-23 and FY 2023-24 were also revised upward by $56.9 million and $54.8 million to $3.996 billion and $4.132 billion, respectively. These growth rates and revisions are consistent with our expectations for the Colorado retail sales forecast in our economic forecast tables, wherein we project calendar year growth rates of 16.2 percent in 2021—up from only 1.9 percent growth in 2020—5.1 percent in 2022, and 3.2 percent in 2023.

As in previous forecasts, these sales tax revenue estimates incorporate bills passed over the course of the 2021 Colorado legislative session. These estimates now also include impacts of the Governor's November budget submission for FY 2022-23. Total policy-related adjustments for FY 2021-22 through FY 2023-24 are -$27.7 million, +$22.6 million, and +$30.9 million respectively, as a result of HB 21-1312, HB 21-1265, HB 21-1261, SB 21-229, and the Governor's FY 2022-23 budget submission.



After upward revisions to our sales tax forecast in September, continued upward revisions this forecast are due in part to stronger than expected collections in October and November, notably $12.0 million and $25.1 million above forecast, respectively.

Growth in October and November collections (and thus September and October sales) confirms that the pandemic-era pattern of increased goods consumption remains, despite the return to higher levels for many categories of services spending. These trends are depicted in the graph below, which compares taxable retail sales across various selected categories in July through September of 2021 to sales in the same period of 2020. In particular, categories including nonstore retail sales, construction, and home furnishings have continued to grow at 10 to 20 percent over high mid-pandemic levels. At the same time, industries that faced record low sales over the height of the pandemic showed significant strength over the summer despite the effects of the Delta variant, including arts and entertainment, accommodation, and apparel. The graph also shows that total taxable retail sales are up 15.5 percent over 2020, consistent with our projections for the rest of the year. Finally, the growth in October retail sales (and thus November collections, for which we don't yet have the industry-level breakdown) may also suggest that consumers' concerns about rising inflation and supply chain bottlenecks have prompted increased sales earlier in the holiday season as compared to pre-pandemic patterns.



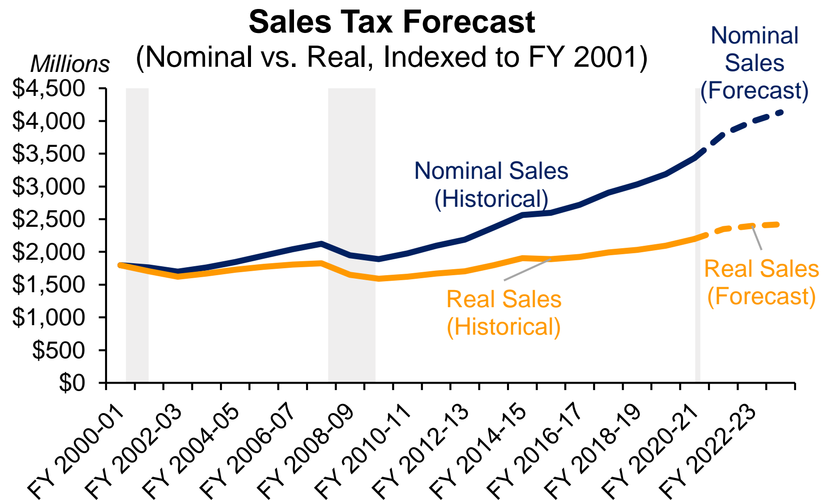
At the same time, revisions to FY 2022-23 and FY 2023-24 revenue reflect revised assumptions about the potential growth of sales tax revenue above current levels. Revised assumptions regarding sales tax revenue growth going forward are a result of both (1) an increased likelihood that some major purchases have been delayed as a result of supply chain issues, including cars and large durable goods like appliances that may be pushed into FY 2022-23; and (2) pandemic-induced patterns of consumption have proven stickier than originally anticipated as pent-up savings continue to bolster sales growth.

As shown in the consumer spending and retail sales economic forecast, one consideration when forecasting sales tax revenue growth is the extent to which inflation (price) is the driver of increased sales versus actual increased volume of goods consumption.[9] The table on the left weighs this consideration, showing that accounting for inflationary price pressures reduces the projected growth rate in sales tax revenue by nearly 50 percent. The basket of goods and services subject to Colorado sales tax collection is only a subset of the CPI basket, so it is possible that goods and services on which sales taxes are collected have experienced slightly higher inflationary pressures, for example apparel or auto sales as compared to housing prices. Regardless, while the price impact is substantial, the table shows that significant growth remains even after adjusting for price increases. Notably, the real growth in sales tax collections projected in this forecast is still slightly higher than average annual rates over the past 5 to 10 years. The longer-term relationship between nominal and real sales tax collections is depicted in the graph below.

Sales Tax Revenue Growth Over Time

	Average Annual	
Growth Period	**Nominal**	**Real**
5 Year	5.8%	3.1%
10 Year	5.7%	3.1%
Recession Years (Since FY 2000)	1.0%	-1.8%
Non-Recession Years (Since FY 2000)	4.3%	2.0%
Forecast Years (FY 21/22 - FY 23/24)	**6.4%**	**3.3%**

The acceleration in the distance between the nominal (blue) and real (orange) lines on the graph shows that prices will play a greater role in increasing sales tax revenue over the forecast period. However, consistent with the narrative above, inflation-adjusted growth will still be higher than Colorado has experienced over the course of the past 5 to 10 years.

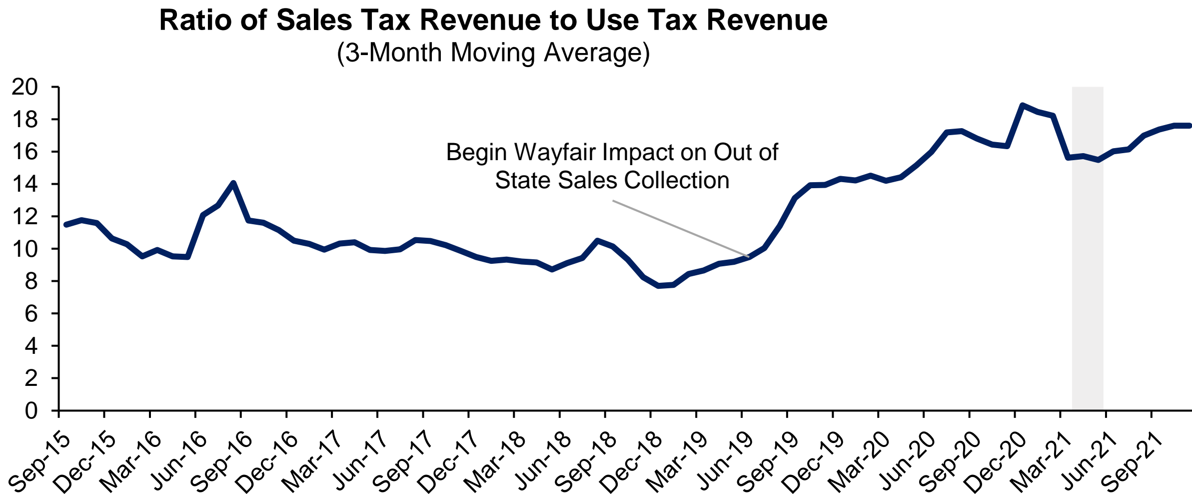


Use Taxes

Use tax revenue increased 1.8 percent to $214.2 million in FY 2020-21 after a 39.1 percent decline in FY 2019-20, largely as a result of HB 19-1240 and the collection of sales tax from out-of-state sales vendors. It is expected that use taxes will continue to rebound to $227.7 million in FY 2021-22 and grow to $230.0 million in FY 2022-23. These projections are revised downward from the September forecast as a result of slightly lower than anticipated collections in recent months. These projections also assume that the trade-off between sales and use tax revenue as a result of HB 19-1240 has largely leveled off as a more normal relationship between sales and use tax

[9] Inflation adjustments are made on a yearly basis in this table, such that each year's inflation-adjusted growth rate is effectively the difference between the nominal growth rate and the year over year increase in prices.

collections resumes. This tradeoff between sales and use tax revenue as a result of changes in out-of-state sales collection is demonstrated by the sharp increase in the ratio of sales tax revenue to use tax revenue starting in July 2019, when the impacts came into effect.



In addition to showing the Wayfair impacts on sales and use consumption, the graph above also highlights another component of use tax revenue, showing that the ratio of sales to use tax revenue was lower during the early stages of the pandemic than currently. This lower ratio is likely a result of lower than usual capital investment in the mining and energy industries in the early months of the pandemic, which is a significant driver of use taxes. The forecast assumes that the ratio between sales and use taxes will stabilize somewhere in between early pandemic levels and current levels and remain relatively consistent, just as it was prior to the impacts of Wayfair on collection of sales tax from out-of-state vendors.

Marijuana Sales

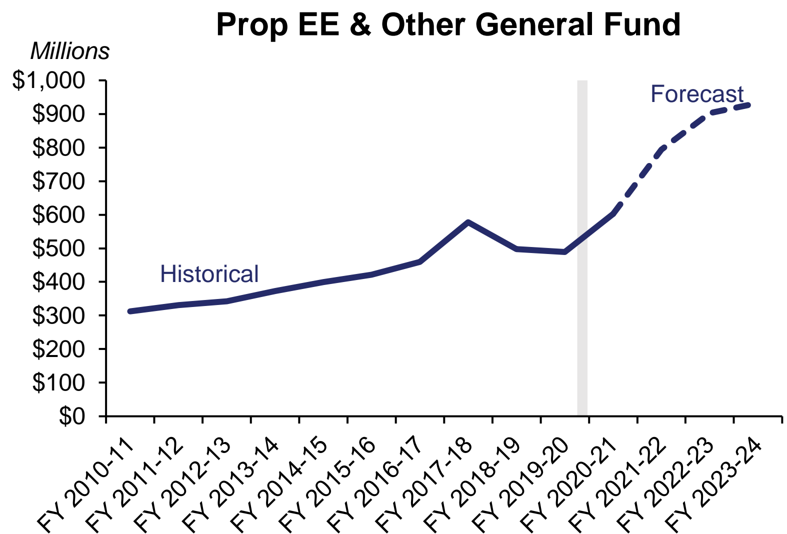
After a 27.4 percent increase to $245.5 million in FY 2019-20, the 15 percent special sales tax on marijuana retail sales increased by another 17.4 percent to $288.2 million in FY 2020-21. Revenue is expected to decline by 7.4 percent in FY 2021-22 and resume slower growth in FY 2022-23 and FY 2023-24. Further analysis of marijuana tax collections can be found in the Revenue Outlook – Cash Funds section of this report.

Prop EE Revenue

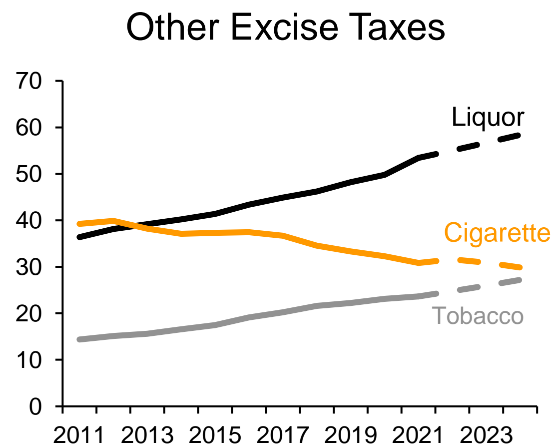
Proposition EE and other excise taxes includes taxes on cigarettes, tobacco, nicotine, and liquor. Proposition EE, a ballot measure approved in November 2020, imposes additional taxes on cigarettes and tobacco products and creates a new tax on other nicotine products such as e-cigarettes. Proposition EE taxes went into effect in January 2021; the table to the right 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, Proposition EE creates a new tax on other nicotine products which were not taxed previously, beginning at 30 percent and increasing 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 the Rural Schools Cash Fund, the Housing Development Grant Fund, the Tobacco Tax Cash Fund, the Eviction Legal Defense Fund, and the Preschool Programs Cash Fund. Starting in FY 2023-24, these funds will be transferred almost entirely into the Preschool Programs Cash Fund aside from a small transfer to the Tobacco Education Programs Fund.

Proposition EE went into effect in January 2021, bringing in $49.0 million total for the second half of FY 2020-21. The majority 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 $184.0 million in FY 2021-22, as the taxes will be in effect for the full year and nicotine revenue increases. Nicotine revenue came in at $8.2 million in FY 2020-21 with one quarter of data. This forecast has been revised up since September as revenue has come in higher for each quarter so far in FY 2021-22, and will likely increase when the tax rate increases to 35 percent next month, resulting in a forecast of $37.2 million for nicotine in FY 2021-22.



Other excise taxes include the initial taxes on cigarettes and tobacco excluding Proposition EE and Amendment 35 as well as revenue from liquor. These three revenue streams each have a fairly consistent pattern with liquor and tobacco trending upward and cigarettes trending down as smoking cigarettes becomes less popular over time. Liquor sales increased significantly at the beginning of the pandemic, and revenue has continued to increase at its pre-pandemic rate in recent months. With the significant increase in the cigarettes tax rate in January, cigarette sales spiked in December 2020 and fell sharply when the new tax was implemented. Monthly revenue has since rebounded and has come in high in the second half of 2021 relative to historical trends.

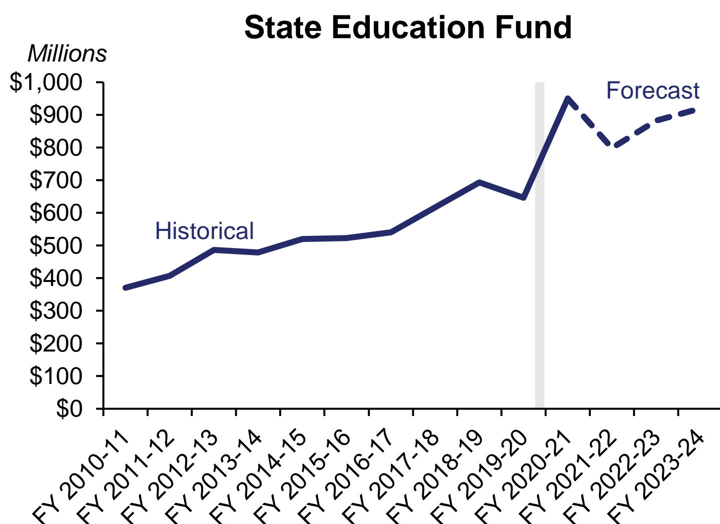


Other General Fund Revenue

Other General Fund revenue includes insurance premium tax revenue, interest/investment income, and court receipts. Other General Fund revenue is expected to increase by 12.6 percent in FY 2021-22 to $496.6 million, followed by growth of another 11.8 percent in FY 2022-23 and 5.3 percent in FY2023-24. This estimate was revised down from the September forecast mainly due to low insurance premium tax receipts so far in FY 2021-22. However, it appears that 2020 legislation changing the amount of quarterly tax payments, as well as 2021 legislation reducing the size of the annuities exemption and regional home office rate reduction, is resulting in a shift of premium tax payments to later in the fiscal year. The overall outlook for premium growth in the life, property and casualty, and several other insurance sectors is strong. Our estimate for interest income has been revised upward in all three years due to higher-than-anticipated receipts and strong growth in equity markets, though expectations of Federal Reserve tapering provide some downside risk.

State Education Fund

Revenue to the State Education Fund from income taxes increased by 46.9 percent in FY 2020-21 but is expected to decrease 16.0 percent in FY 2021-22. The large increase in FY 2020-21 is largely due to the impact of a delayed transfer from FY 2019-20 revenue collections. Additionally, the size of the drop in FY 2021-22 is due in part to an overestimate in the size of that transfer which will be accounted for in FY 2021-22. In FY 2022-23, there is a 10.6 percent increase to $882.8 million in FY 2022-23 and a 4.2 percent increase to $919.7 million in FY 2023-24. Compared with the September forecast, FY 2021-22 revenue is $52.3 million, or 5.2 percent higher as a result of recent evidence supporting upward revisions to income revenue forecasts as discussed above. Projections in FY 2022-23 and FY 2023-24 were $28.4 million and $19.8 million higher than September's forecasts, respectively. This does not include transfers from other funds.



The Colorado Constitution requires that 1/3 of 1 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. However, the State Education Fund deviates from the steadily rising trend in income tax revenue, with the delayed transfers from revenue collections mentioned above driving the break in the relationship.

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 have significant fiscal implications.

Total cash fund revenue subject to TABOR was $2.2 billion in FY 2020-21. In FY 2021-22, cash fund revenue is projected to increase by 9.3 percent followed by 4.1 percent growth in FY 2022-23 and 5.5 percent growth in FY 2023-24.

Transportation

Transportation-related cash funds include the Highway Users Tax Fund (HUTF), the State Highway Fund (SHF), and a number of smaller cash funds. Transportation-related cash fund revenue was affected substantially by the pandemic, falling by 6.1 percent in FY 2019-20 and another 3.5 percent in FY 2020-21. This decline was driven primarily by lower revenue coming from gas, diesel, 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, primarily for the HUTF.

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 are comprised of both gas and diesel tax revenue. Revenue from gas taxes declined sharply at the onset of the pandemic as commuter travel waned, while diesel taxes have been relatively unaffected. Motor fuel taxes are expected to pick up in FY 2021-22 based on increased tourism into the state and a return to offices, and are expected to increase substantially in FY 2022-23 and FY 2023-24 as new fees from S.B. 21-260 go into effect. Strong vehicle purchases helped bolster registration-related collections in FY 2020-21 and registration revenue continues to come in strong thus far in FY 2021-22. However, OSPB forecasts a decline in registration revenue going forward due to changes in S.B. 21-260 that will temporarily reduce the road safety surcharge beginning in January 2022. The fee reduction is expected to reduce registration revenue by an estimated $32.8 million in FY 2021-22.

Transportation Revenue	Preliminary 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	**$593.7**	**$625.9**	**$700.7**	**$740.6**
Change	-4.9%	5.4%	11.9%	5.7%
Total Registrations	**$400.2**	**$379.3**	**$361.8**	**$407.4**
Change	4.8%	-5.2%	-4.6%	12.6%
Registrations	*$234.1*	*$242.7*	*$240.9*	*$249.8*
Road Safety Surcharge	*$137.8*	*$108.5*	*$93.9*	*$129.0*
Late Registration Fees	*$28.3*	*$28.0*	*$27.0*	*$28.6*
Other HUTF	**$48.1**	**$62.4**	**$74.8**	**$76.5**
Change	-23.5%	29.7%	20.0%	2.2%
Total HUTF	**$1,041.9**	**$1,067.6**	**$1,137.2**	**$1,224.5**
Change	-2.6%	2.5%	6.5%	7.7%
Non-HUTF				
State Highway Fund	**$18.4**	**$21.7**	**$23.1**	**$25.2**
Change	-33.2%	17.7%	6.5%	9.1%
Other Transportation Funds	**$95.5**	**$113.5**	**$117.2**	**$124.8**
Change	-5.8%	18.8%	3.3%	6.4%
Total Transportation Revenue	**$1,155.8**	**$1,202.7**	**$1,277.5**	**$1,374.4**
Change	-3.5%	4.1%	6.2%	7.6%

The HUTF forecast for FY 2021-22 has been revised upward slightly since September as revenue from vehicle registrations have come in higher than was previously forecast. The table below illustrates HUTF distributions based on the first and second stream allocation formulas with the current forecast for HUTF revenue. Off-the-top deductions for Colorado State Patrol and Division of Revenue include the FY 2021-22 appropriation and are assumed to be held flat in future years.

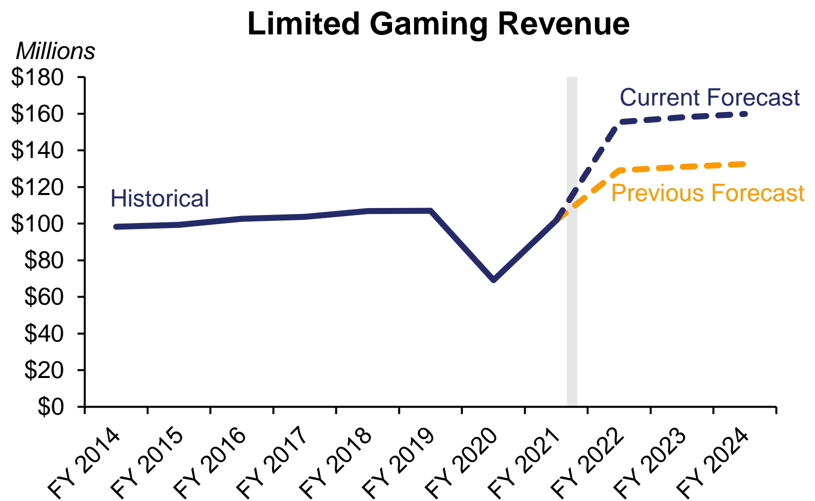
HUTF Revenue Distributions	Preliminary FY 20-21	Forecast FY 21-22	Forecast FY 22-23	Forecast FY 23-24
Off-the-Top Deductions	$134.8	$181.2	$181.2	$181.2
State Highway Fund (CDOT)	$561.2	$548.5	$592.0	$645.8
Counties	$213.1	$208.4	$225.0	$245.4
Cities	$132.8	$129.5	$139.1	$152.1
Total HUTF Distribution	**$1,041.9**	**$1,067.6**	**$1,137.2**	**$1,224.5**

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, resulting in a revision upward since the September forecast.

Limited Gaming

After a large decline in FY 2019-20, limited gaming revenue rebounded and grew by 48.2 percent to $101.5 million in FY 2020-21 due to resiliency in gaming revenues over the winter and strong collections through spring and summer. Gaming revenues have continued to come in above expectations in FY 21-22 as a result of higher than expected Amendment 77 impacts. Thus, we have revised our limited gaming revenue forecast upward more than $26M from $129M in September to $155.4M in our current forecast. These revisions are also carried forward into the FY 22-23 and FY 23-24 forecasts, as impacts of unrestricted bet limits and expanded variety of games will be permanent, as is shown in the graph on the right.

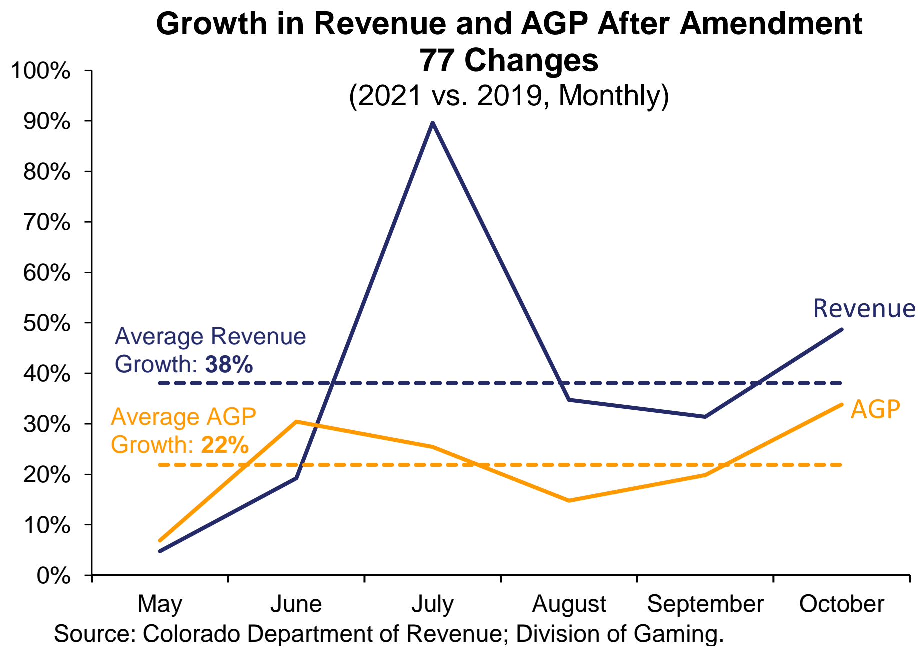


Distribution of Limited Gaming Revenues	Actual FY 19-20	Preliminary FY 20-21	Forecast FY 21-22	Forecast FY 22-23	Forecast FY 23-24
A. Total Limited Gaming Revenues (Includes Fees and Interest)	**$82.1**	**$121.7**	**$178.3**	**$181.2**	**$183.4**
Annual Percent Change	-35.4%	48.2%	46.5%	1.6%	1.2%
B. Gaming Revenue Exempt from TABOR (Extended Limited)	**$13.0**	**$20.2**	**$22.8**	**$23.2**	**$23.5**
Annual Percent Change	-35.7%	55.7%	13.1%	1.6%	1.2%
C. Gaming Revenue Subject to TABOR	**$69.1**	**$101.5**	**$155.4**	**$158.0**	**$159.9**
Annual Percent Change	-35.4%	46.8%	53.1%	1.6%	1.2%
D. Total Amount to Base Revenue Recipients	**$50.3**	**$87.6**	**$140.9**	**$143.7**	**$145.5**
Amount to State Historical Society (28%)	$14.1	$24.5	$39.5	$40.2	$40.7
Amount to Counties (12%)	$6.0	$10.5	$16.9	$17.2	$17.5
Amount to Cities (10%)	$5.0	$8.8	$14.1	$14.4	$14.6
Amount to Distribute to Remaining Programs (State Share) (50%	$25.2	$43.8	$70.5	$71.9	$72.8
Amount to Local Government Impact Fund	$0.0	$0.0	$5.4	$5.5	$5.6
Colorado Tourism Promotion Fund	$0.0	$0.0	$15.0	$15.0	$15.0
Creative Industries Cash Fund	$0.0	$0.0	$2.0	$2.0	$2.0
Film, Television, and Media Operational Account	$0.0	$0.0	$0.5	$0.5	$0.5
Advanced Industries Acceleration Fund	$0.0	$0.0	$5.5	$5.5	$5.5
Innovative Higher Education Research Fund	$0.0	$0.0	$2.1	$2.1	$2.1
Transfer to the General Fund	$25.2	$43.8	$40.0	$41.2	$42.1
E. Total Amount to Amendment 50 Revenue Recipients	**$15.1**	**$17.4**	**$20.7**	**$20.8**	**$21.2**
Community Colleges, Mesa and Adams State (78%)	$11.8	$13.6	$16.2	$16.2	$16.5
Counties (12%)	$1.8	$2.1	$2.5	$2.5	$2.5
Cities (10%)	$1.5	$1.7	$2.1	$2.1	$2.1

As alluded to in the overview above, the significant upward revisions are likely a direct result of expectations for the impacts of Amendment 77,[10] which removed bet limits and expanded game options and was implemented by all gaming counties in May of this year. Our base forecast from June assumed that these changes would have only a positive $2-$5 million yearly impact on gaming revenue. While we revised this assumption upward to anticipate a higher $15-$20 million impact in our September forecast, additional data have shown that the impact is likely to be closer to $50 million per year.

[10] While we cannot yet perfectly isolate exactly the effects of Amendment 77 as compared to any broader increase in gaming across Colorado, it is likely that we can attribute nearly all of the additional revenue to Amendment 77 given that the average annual growth rate for the 9 years leading up to the pandemic was only 1.12 percent.

There are a few factors driving the significant impact of Amendment 77. The first factor is a higher than anticipated increase in Adjusted Gross Proceeds (AGP) at casinos in Colorado. AGP, or the amount of money collected from gamblers minus the amount paid to gamblers in winnings, can be interpreted as an increase in the volume of gambling in Colorado casinos as a result of Amendment 77. As shown by the orange lines on the graph on the left, the increase in AGP has been substantial, on average 22 percent above 2019 levels for each month since the changes went into effect. However, as the blue lines on the graph indicate, this 22 percent increase in AGP does not account for the entire increase in revenue, which is up approximately 38 percent on average.

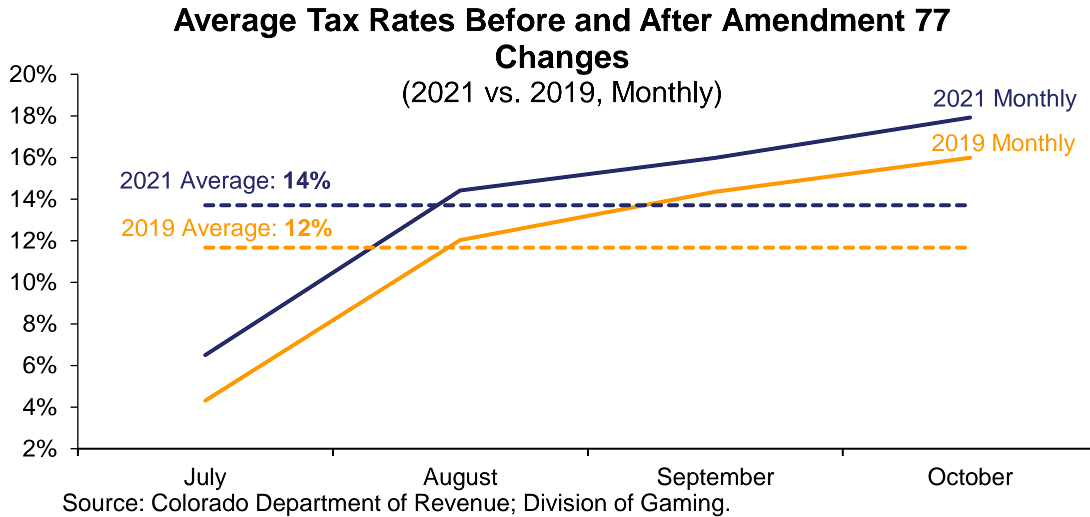


Source: Colorado Department of Revenue; Division of Gaming.

The difference between the two lines above, the 22 percent and 38 percent increases, highlights the second factor affecting the scale of the impact of Amendment 77. Namely, the tax rates for casinos are not constant as AGP increase for a given casino. Rather, the AGP are taxed at accelerating rates on a tiered schedule, such that casinos are taxed at higher rates for different levels of AGP. For example, a Colorado casino pays a 0.25 percent tax on its first $2 million in AGP, a 2 percent tax on its next $3 million, and so on as is displayed in the table below.

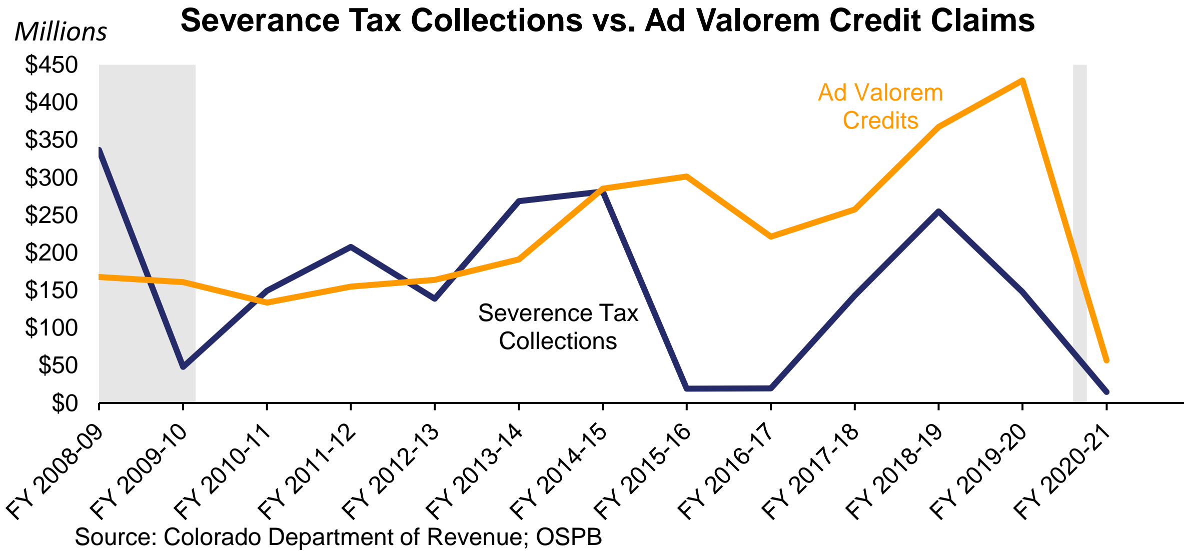
Casino Adjusted Gross Proceeds	Tax Rate
Up to $2,000,000	0.25%
$2,000,001 to $5,000,000	2.00%
$5,000,001 to $8,000,000	9.00%
$8,000,001 to $10,000,000	11.00%
$10,000,001 to $13,000,000	16.00%
$13,000,001 and Over	20.00%

As a result of this tiered tax rate structure, additional AGP has a nonlinear effect on additional revenue, in that additional AGP also raises the average tax rate as any marginal dollars are collected at the highest tax rate for a given casino. The impacts of additional AGP on the effective average tax rate on casinos across the state is shown by month using DOR Division of Gaming data below. Notably, the effective average tax rate is on average 2 percentage points higher each month than in 2019, or in other words, a 23.5 percent increase on average.



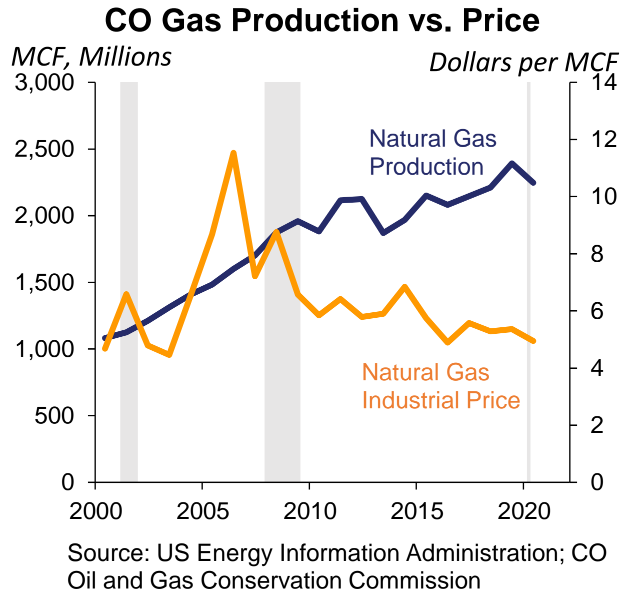
Severance

Severance tax revenue fell to $14.7M in FY 2020-21, the lowest annual value since 1990 and the fourth-lowest value since the tax was implemented in FY 1977-78. Just two years prior, revenue reached $255.2M, its third-highest value on record. This illustrates the significant volatility of this revenue source, some of which is due to the tax base itself. Oil and gas severance tax, which depending on the year accounts for 89-97 percent of overall collections, depends on production levels multiplied by price. While oil and gas production in Colorado has increased 19 of the last 21 years (12.2 percent average annual growth rate) and 17 of the last 21 years (3.9 percent average), respectively, prices have fluctuated far more. This price volatility also causes volatility in the ad valorem credit, which is based 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.

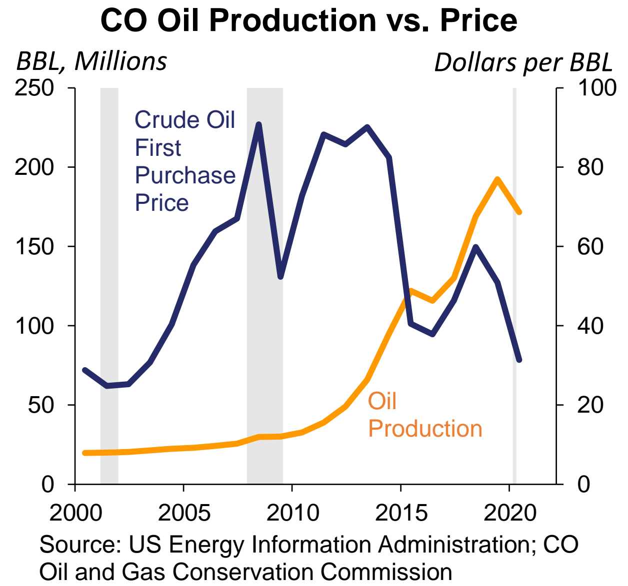


Severance tax revenues are forecast to reach $118.0M in FY22, an upward revision of 11 percent compared to the September forecast. Stronger revenue expectations are based on strong oil price growth, robust collections to date this fiscal year, stable OPEC monthly oil output levels, and expected lower ad valorem credit claims in FY22, stemming from lower local property tax payments in 2019-2020. The upward revision is based largely on higher prices, as monthly oil production only increased 2 percent between January and September, and monthly natural gas production actually dropped by 4 percent during that period. See the "Energy" section for more information on decoupling between prices and production levels.

At the same time, severance tax revenues for FY23 and FY24 were revised down to $133.2M and $141.3M, respectively, a 5 percent reduction from September. This is in part due to risks to demand posed by the Omicron Covid-19 variant, as well as higher oil prices likely resulting in higher real property tax assessments and payments on wells across the state, which typically mean higher ad valorem credit claims in the following two years.



Source: US Energy Information Administration; CO Oil and Gas Conservation Commission



Source: US Energy Information Administration; CO Oil and Gas Conservation Commission

Marijuana

Total marijuana tax revenue grew 22.3 percent in FY 2020-21 as a result of a spike in sales during the height of the pandemic. While revenue has continued at historically high levels to date in FY 2021-22, it has fallen from the levels seen over the course of FY 2020-21. A large revision to our forecast in September accounted for most of this drop seen thus far in FY 2021-22, but given that September and October have come in slightly below forecast, the current forecast makes a slight additional downward revision. Accordingly, the December forecast projects a 6.9 percent reduction in total marijuana revenue in FY 2021-22, down from the record levels seen in FY 2020-21. Amidst significant uncertainty regarding revenue after FY 2021-22, we forecast a return to lower, pre-pandemic trend-level growth in FY 2022-23 and FY 2023-24 at 3.4 percent and 2.5 percent, respectively. Impacts to the Marijuana Tax Cash Fund (MTCF) are similar, with slight downward revisions from September of $2.7 million, $3.8 million and $4.5 million in FY 2022, FY 2023, and FY 2024. The tables below summarize these projections.

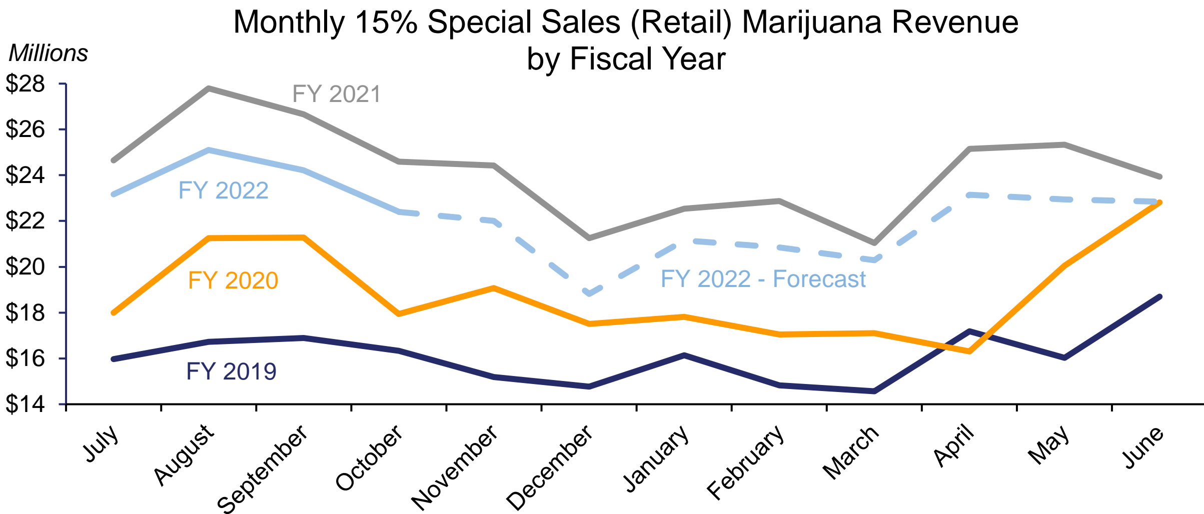
Tax Revenue from the Marijuana Industry	Preliminary FY 20-21	Forecast FY 21-22	Forecast FY 22-23	Forecast FY 23-24
Proposition AA Taxes (Not Subject to TABOR)				
Retail Marijuana 15% Special Sales Tax	$288.2	$266.9	$278.9	$288.7
Retail Marijuana 15% Excise Tax	$120.8	$115.0	$116.8	$117.3
Total Proposition AA Taxes	**$409.0**	**$381.9**	**$395.7**	**$406.0**
2.9% Sales Tax & Interest (Subject to TABOR)				
Medical Marijuana 2.9% State Sales Tax	$13.8	$11.3	$11.1	$10.9
Retail Marijuana 2.9% State Sales Tax	$1.6	$1.8	$1.8	$1.7
Interest Earnings	$0.3	$0.4	$0.4	$0.4
Total 2.9% Sales Taxes & Interest	**$15.7**	**$13.5**	**$13.2**	**$13.0**
Total Marijuana Taxes	**$424.7**	**$395.4**	**$408.9**	**$419.0**

Fiscal Year	Local Share	General Fund	BEST School Capital Construction	Public School Permanent Fund	Public School Fund	Marijuana Tax Cash Fund
FY 2020-21 Preliminary	$28.8	$40.4	$40.0	$0.0	$113.4	$202.1
FY 2021-22 Projected	$26.7	$37.4	$115.0	$0.0	$30.2	$186.1
FY 2022-23 Projected	$27.9	$39.1	$116.8	$0.0	$31.6	$193.6
FY 2023-24 Projected	$28.9	$40.4	$117.3	$0.0	$32.7	$199.7

Fiscal Year	Forecasted Marijuana Tax Cash Fund Revenue ($ Millions)			Change ($ Millions)	
	March 2021 LCS (FY 22 Budgeted)	September 2021 OSPB (Last Forecast)	December 2021 OSPB (Current Forecast)	Current Minus March LCS	Current Minus September OSPB
FY 2020-21 Preliminary	$201.1	$202.6	$202.1	$1.0	-$0.5
FY 2021-22 Projected	$225.2	$188.8	$186.1	-$39.1	-$2.7
FY 2022-23 Projected	$241.5	$197.4	$193.6	-$47.9	-$3.8
FY 2023-24 Projected	N/A	$204.2	$199.7	N/A	-$4.5

As discussed in the September forecast, there is not a wide breadth of data on which to ground these expectations outside of the revenue data provided by the Department of Revenue. Additionally, marijuana revenue, like other sin taxes, has proven quite volatile in its response to economic downturns. However, there is some context provided in fluctuations in actual sales and revenue data, as well as a few potential explanations for the trends in marijuana revenue below.

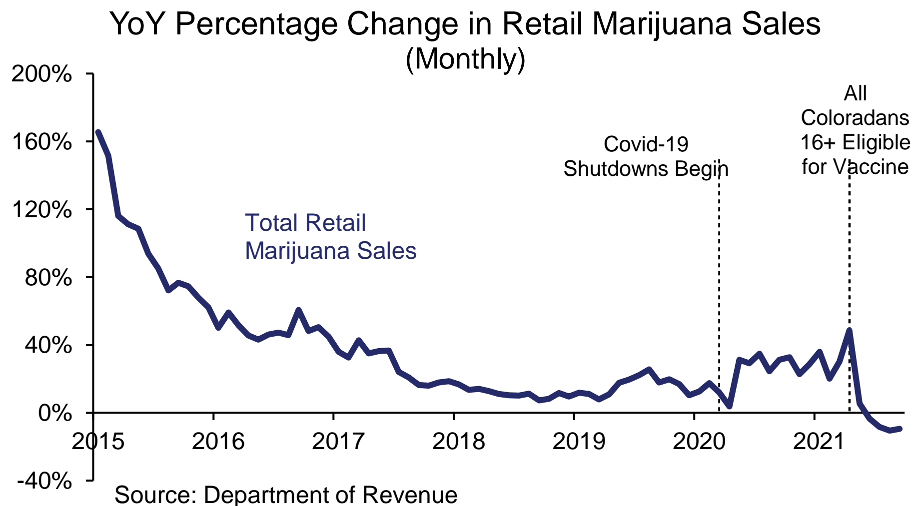
As a basis for the marijuana revenue projections, it is critical to understand the month-over-month and year-over-year trends seen in actual marijuana sales and revenue over the course of the past few years. The graph below shows monthly revenue for the 15 percent special sales tax charged on retail marijuana sales, the largest single component of marijuana revenue in Colorado and the component that contributes the majority of Marijuana Tax Cash Fund (MTCF) revenue.



Each of the lines above depicts revenue for a different fiscal year, spanning from FY 2018-19 to FY 2021-22. This graph highlights three key takeaways:

1. As compared to previous years, FY 2020-21 revenue significantly exceeded previous levels, on average by 29 percent over FY 2019-20.
2. Actual revenue data from July through October of this year is tracking below FY 2020-21 pandemic highs, by an average of 8 percent.
3. FY 2021-22 revenue (actual and forecast) is still high relative to FY 2018-19 and FY 2019-20 levels, projected at nearly 9 percent above FY 2019-20.

The graph to the right shows year-over-year growth rates in order to hone in on retail sales levels over each month during the height of the pandemic shutdowns in Colorado. The "height of the pandemic" is defined as the area between the start of Covid-19 shutdowns (March 2020) and the date that all



Coloradans age 16+ became eligible for the Covid-19 vaccines (April 2021), as depicted by the period between the dotted lines on the graph. By isolating year-over-year growth rates at a monthly level, this graph further highlights the impact of stay-at-home orders on marijuana consumption in Colorado, demonstrated by the steep increase in growth at the start of the

pandemic and a similarly steep downward trajectory after mass vaccinations began. Similar to the graph with revenue for each fiscal year by month, the negative year-over-year growth rates beginning in July indicate current year sales that have dipped below FY 2020-21. Rough analysis of Department of Revenue data on county-level retail marijuana sales supports this claim of increased consumption at home (i.e. largely in metro counties) over the height of the pandemic as compared to this past summer and the opposite trend for consumption while on vacation (i.e. largely in high recreational tourism counties). For example, sales in Denver County have declined as a percentage of total state sales while sales in Summit, Eagle, and Lake Counties have increased as a percentage of total sales.[11]

Our analysis based on data through December 2020 from the Department of Revenue shows that these increases in retail sales and revenue are driven by strong trends in both price and volume across the state.[12] These findings are summarized in the table below. Price (defined as average market rate per pound of flower) increased about 30 percent on average from May through December 2020 as compared to 2019 while average volume, calculated as average growth rate in the three largest categories of marijuana consumption in Colorado, increased by 43 percent in 2020 over the same period in 2019. The compounding impacts of price and volume explain the greater increase to the more price-sensitive wholesale excise tax revenue over the period at 50 percent as compared to the retail special sales tax revenue at 28 percent.

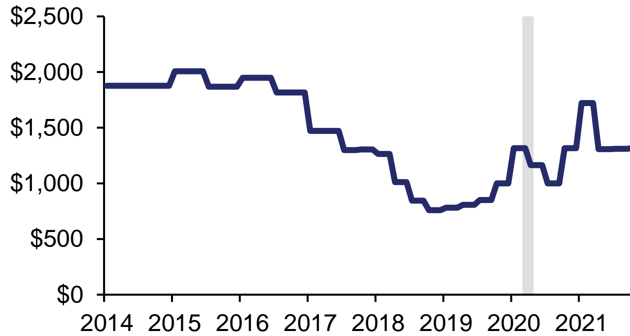
Trends in Volume vs. Price

	Item	May 2019 - December 2019	May 2020 - December 2020	% Change
Sales and Revenue	Retail Sales	$992,727,313	$1,284,695,411	29%
	15% Special Sales Revenue	$149,778,578	$192,242,347	28%
	15% Excise Revenue	$48,874,529	$73,498,550	50%
Price	AMR (Wholesale $/lb)	$895	$1,160	30%
Volume	Flower/Bud (lb)	157,842	297,649	89%
	Edibles (Units)	8,734,388	10,827,818	24%
	Concentrates (Units)	7,226,765	8,442,952	17%
	Average	**N/A**	**N/A**	**43%**

While we do not yet have data for 2021 for volume of consumption, the average market rate through October indicates that most of the reduction thus far in FY 2021-22 has likely been a result of reductions in volume consumed, as the average market rate has remained stable, at just above $1,300, as shown in the graph below. Importantly, if the price remains elevated, upside risk exists for the excise tax forecast, which is more price-sensitive as a result of its direct relationship to the average market wholesale price. However, our expectation is that this elevated price will likely stabilize at lower levels over the course of next year or so due to transitory factors driving the price upward.

[11] Colorado Department of Revenue.

[12] Colorado Department of Revenue, Marijuana Enforcement Division, “MED 2020 Annual Update.”



The increase in price of marijuana is likely the result of two largely transitory factors: (1) mismatch between supply of and demand for marijuana, (2) increased price of agricultural inputs, including labor. The mismatch between supply and demand was likely a short-term result of the spike in demand during the pandemic, particularly in the early stages of the pandemic, when the average market price soared above $1,700. OSPB expects that the continued elevated prices are more likely a result of the increased costs of inputs affecting the entirety of the agricultural sector, including heavy equipment, fertilizer, and farm labor.

In terms of increased volume of consumption, one argument is that there is a trade-off between marijuana consumption and social consumption of alcohol, especially for certain groups. While an uptick in liquor tax revenue of 6.6 percent in FY 2020-21 occurred, this largely reflects an increase in at-home liquor consumption and is independent of the diminished sales of liquor at bars and restaurants across the state. A large National Institute on Drug Abuse (NIDA) study confirms this trend in college students, who consumed marijuana at higher levels in 2020 while reducing their alcohol consumption, especially binge drinking.[13] Other arguments hinge on the dual impacts of increased free time and increased disposable income over the course of the pandemic, especially for those that were unemployed yet receiving increased federal transfer payments. These hypotheses are difficult to underscore with data, however.

Federal Mineral Lease

Federal Mineral Lease (FML) revenue increased by 31 percent to $82.0 million in FY 2020-21, due to the Bureau of Land Management (BLM) approving several royalty rate reductions for coal mines in FY20 as well as increased gas and oil production (particularly on the Western Slope) in FY21. Revenue is expected to grow by 20 percent in FY22, reaching $98.7M. This is an upward revision of 5 percent compared to September, on the back of strong collections since July. In addition, natural gas prices have largely continued their sharp increase since April 2021, with Henry Hub prices more than doubling to $5.51 in October, although they have dropped slightly since then because of a mild winter and US natural gas inventories increasing faster than expected.

[13] National Institute on Drug Abuse, *Marijuana use at historic high among college-aged adults in 2020*, available at https://www.drugabuse.gov/news-events/news-releases/2021/09/marijuana-use-at-historic-high-among-college-aged-adults-in-2020.

Expectations for revenue growth in FY23 and FY24 are more subdued. The number of oil and gas leases on federal land in Colorado has dropped significantly in recent years, from over 5,000 each year between federal fiscal years 2006 and 2012, to under 3,900 annually since federal fiscal year 2017. The amount of leased acreage has also markedly decreased, peaking at 5.2 million acres in federal fiscal year 2008 before gradually decreasing every year since then, reaching 2.4 million acres in 2020. Further, approved BLM drilling permits in Colorado averaged 45 per month between October 2020 and March 2021 before plummeting to 2.5 per month in the ensuing six months, although some of this may be due to uncertainty around the Biden administration's proposal to curb new energy leases on federal lands, which a federal court struck down in June. As a result, we expect relatively flat year-on-year growth in FY23 at $99.7M and FY24 at $100.7M.

While FML revenue is exempt from TABOR, it is included here because a portion of the money is distributed to the Public School Fund.

FML Forecast Distribution Table	Final FY21	Forecast FY22	Forecast FY23	Forecast FY24
Total FML Revenue	**$82.0**	**$98.7**	**$99.7**	**$100.7**
Change	30.9%	20.3%	1.0%	1.0%
Bonus Payments (portion of total FML revenue)	1.6	2.0	2.0	2.0
Local Government Perm Fund	0.8	1.0	1.0	1.0
Higher Ed FML Revenues Fund	0.8	1.0	1.0	1.0
Other (non-bonus) FML Revenue	80.4	96.7	97.7	98.7
State Public School Fund	38.8	46.7	47.2	47.7
Colorado Water Conservation Board	8.0	9.7	9.8	9.9
DOLA Grants	16.1	19.3	19.5	19.7
DOLA Direct Distribution	16.1	19.3	19.5	19.7
School Districts	1.4	1.6	1.7	1.7
Total Higher Ed Maintenance Reserve Fund	0.8	1.0	1.0	1.0

Other Cash Funds

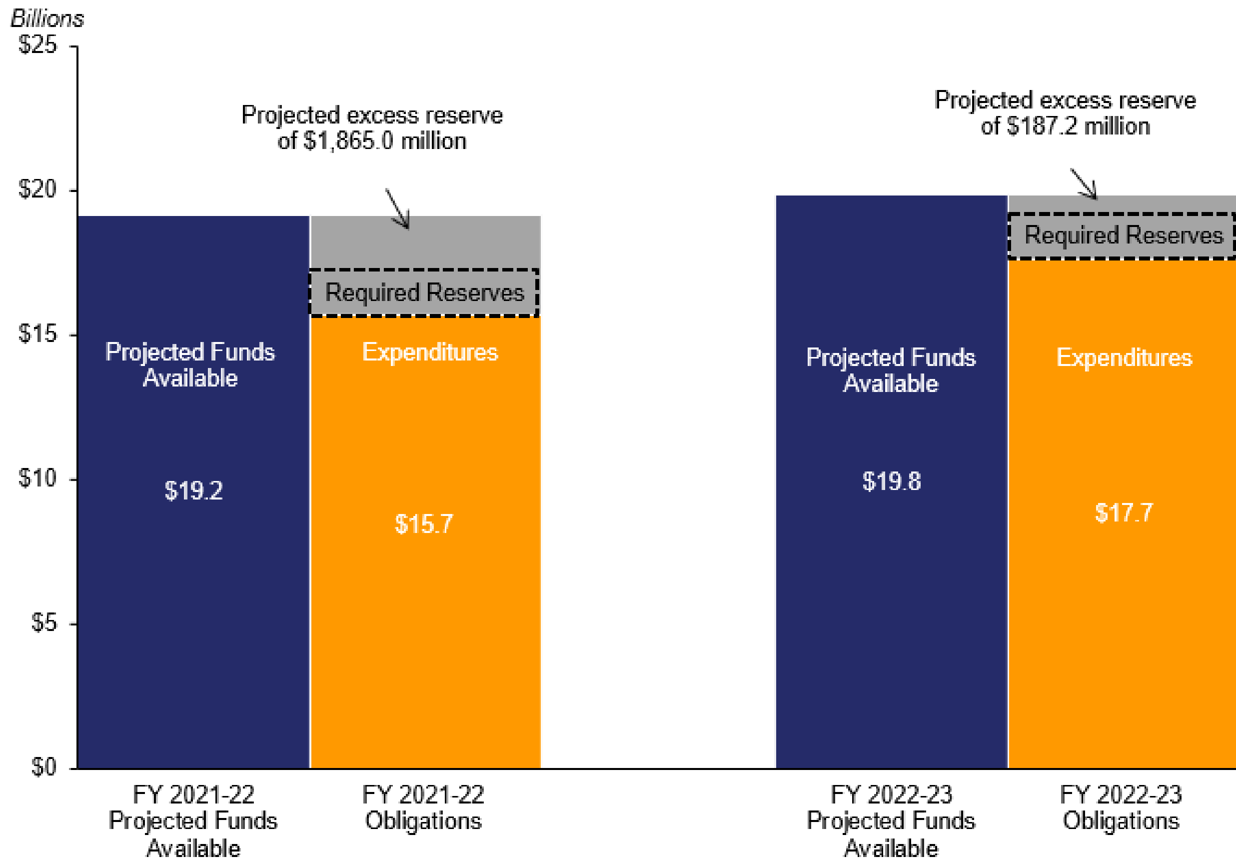
The state receives revenue from a variety of other cash funds as well. This includes cash fund revenue to the Department of Regulatory Agencies (DORA), which is forecast to be $89.5 million in FY 2021-22. This estimate was revised downward from the September forecast because collections in FY 2020-21 came in lower than expected at the beginning of this fiscal year. Typically, DORA's revenue increases year over year by about 3.5% on average. However, OSPB expects a decline in revenue for FY 2022-23 as a result of DORA's inclusion in the Governor's proposed Fee Relief for Individuals and Businesses investment package. This package would waive renewal fees for nurses and mental health workers for two years, which would reduce revenue by $7.1 million in FY 2022-23 and $6.9 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. This cash fund revenue is forecast to be $854.7 million in FY 2021-22, which is nearly unchanged from the revenue in FY 2020-21. Most miscellaneous cash funds are projected to increase from the prior fiscal year, and this roughly offsets a large, $43.0 million revenue reduction associated with the one-time Unclaimed Property Trust Fund transfer stemming from HB 20-1381 (Cash Fund Transfers General Fund). Miscellaneous cash funds are forecast to increase by 1.7 percent in FY 2022-23 and by 3.5 percent in FY 2023-24.

Budget Outlook

General Fund

General Fund revenue increased 10.7 percent in FY 2020-21 and is projected to increase 12.2 percent in FY 2021-22 before growing 2.0 percent in FY 2022-23 and 3.9 percent in FY 2023-24. General Fund revenue for FY 2021-22 is $704.5 million, or 4.6 percent higher than was estimated in September, as state income tax revenue collections are exceeding expectations. The forecast for FY 2022-23 is $422.9 million, or 2.7 percent higher than estimated in September.

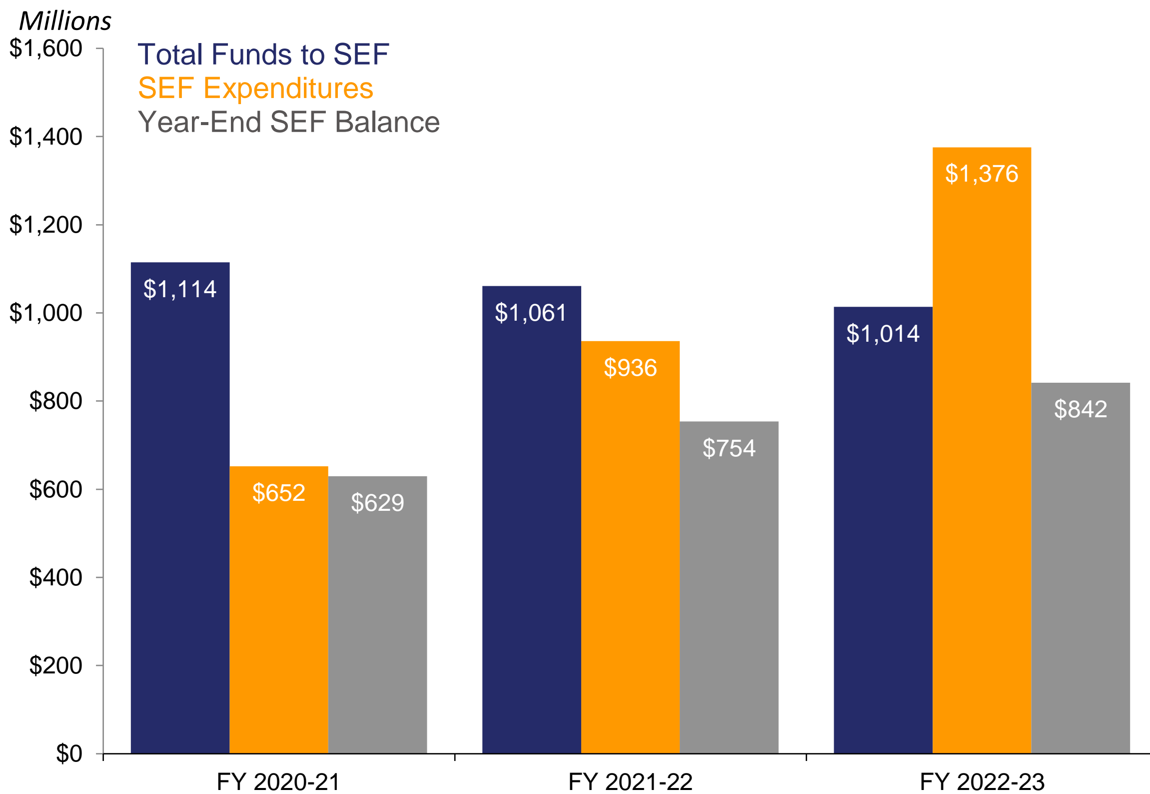


The General Fund reserve was above the required statutory reserve amount of 2.86 percent of appropriations in FY 2020-21. Under this forecast, the General Fund ending balance is projected to be $1,865.0 million above the statutory reserve level of 13.4% of appropriations in FY 2021-22 and $187.2 million above the statutory reserve level of 15.0% of appropriations in FY 2022-23.

The chart above 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 $629.2 million in FY 2020-21 and is projected to increase to $753.7 million in FY 2021-22, including transfers. This is a $13.4 million upward revision compared to the September 2021 forecast, due primarily to higher projected income tax revenue, a portion of which is diverted to the State Education Fund. The figure below summarizes total State Education Fund revenue, expenditures, and ending balances for FY 2020-21, FY 2021-22, and FY 2022-23.



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, wages, personal income, and consumer spending continue to show signs of strength. Additionally, financial conditions are currently supportive of a strong economic recovery. However, on the downside, additional variant concerns may further extend supply chain constraints that have already limited growth. Additionally, tight labor market conditions may slow service sector recovery. Further, continued rapid inflation growth could eat away at consumer optimism. Economic conditions currently underlying this forecast are slightly weighted towards downside risk.

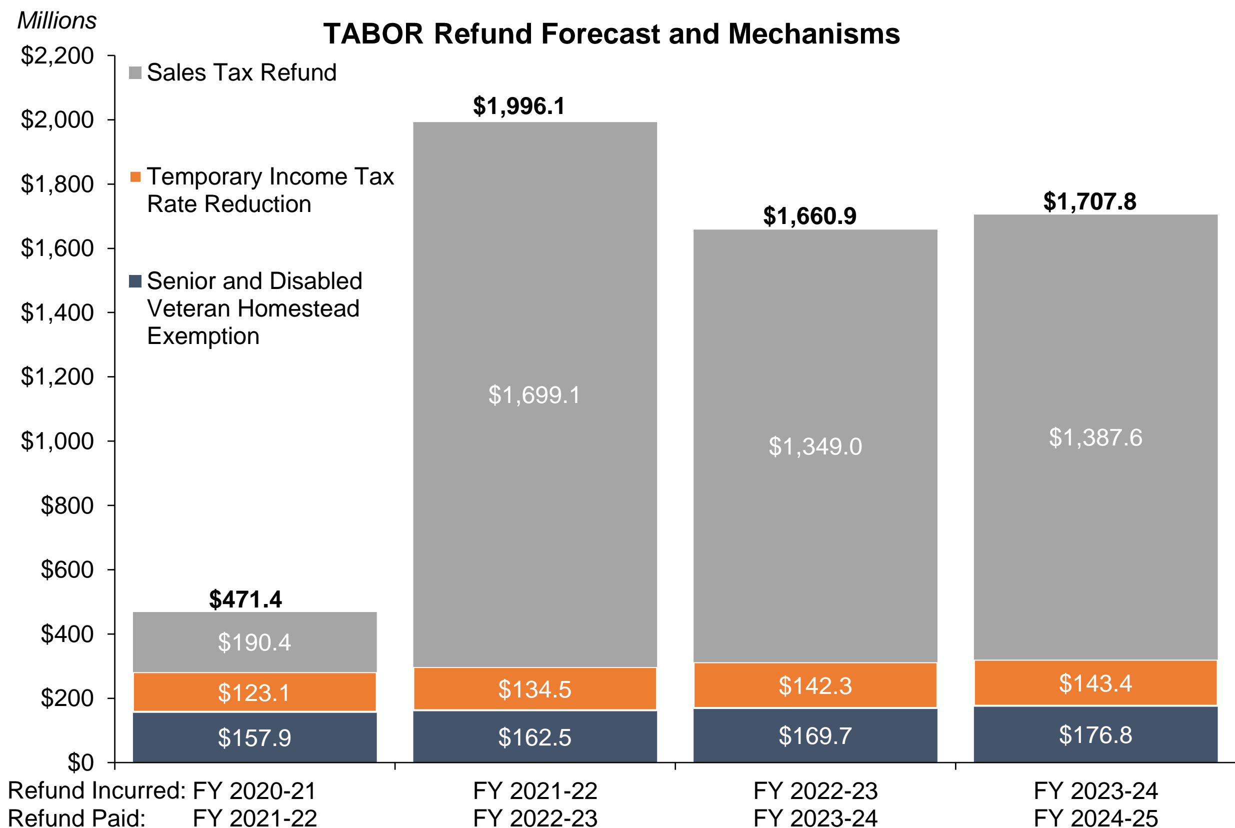
Supplemental Materials

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 $471.4 million. In each year of the projection period, TABOR revenue is expected to exceed the cap, with the most notable revision from September coming in FY 2021-22. In this current fiscal year, revenue will be $1,996.1 million above the cap in FY 2020-21 due primarily to upward revisions in income tax revenue. In FY 2022-23 revenue is expected to be $1,660.9 million above the cap, while FY 2023-24 is projected to be $1,707.8 million above the cap.

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 $123.1 million of the $471.4 million refund obligation will be paid out as an income tax rate reduction, while $157.9 million will be refunded via the senior homestead and disabled veterans property tax exemption expenditures and $190.4 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 in this forecast is FY 2021-22.

Reference Tables

Table 1: Colorado Economic Variables – History and Forecast

Line No.		Actual						December 2021 Forecast		
		2015	2016	2017	2018	2019	2020	2021	2022	2023
	Income									
1	Personal Income (Billions) /A	$284.8	$289.7	$309.7	$332.0	$350.4	$370.4	$397.4	$409.8	$430.2
2	Change	5.0%	1.7%	6.9%	7.2%	5.6%	5.7%	7.3%	3.1%	5.0%
3	Wage and Salary Income (Billions)	$146.6	$151.2	$161.0	$170.9	$182.9	$187.1	$203.8	$214.4	$224.7
4	Change	5.8%	3.1%	6.5%	6.2%	7.0%	2.3%	8.9%	5.2%	4.8%
5	Per-Capita Income ($/person) /A	$52,296.0	$52,386.0	$55,300.0	$58,475.0	$61,098.0	$64,049.0	$68,156.4	$69,541.7	$72,148.2
6	Change	3.1%	0.2%	5.6%	5.7%	4.5%	4.8%	6.4%	2.0%	3.7%
	Population & Employment									
7	Population (Thousands)	5,446.6	5,529.6	5,599.6	5,676.9	5,734.9	5,782.9	5,831.2	5,887.2	5,958.2
8	Change	1.8%	1.5%	1.3%	1.4%	1.0%	0.8%	0.8%	1.0%	1.2%
9	Net Migration (Thousands)	68.8	53.3	42.4	51.8	34.2	27.3	30.0	40.0	50.0
10	Unemployment Rate	3.8%	3.1%	2.6%	3.0%	2.7%	7.3%	6.0%	4.5%	3.7%
11	Total Nonagricultural Employment (Thousands)	2,541.0	2,601.7	2,660.3	2,727.3	2,790.1	2,644.6	2,716.0	2,794.8	2,847.9
12	Change	3.1%	2.4%	2.3%	2.5%	2.3%	-5.2%	2.7%	2.9%	1.9%
	Construction Variables									
13	Total Housing Permits Issued (Thousands)	31.9	39.0	40.7	42.6	38.6	40.5	45.1	48.3	50.7
14	Change	11.0%	22.3%	4.4%	4.8%	-9.4%	4.8%	11.5%	7.0%	5.0%
15	Nonresidential Construction Value (Millions) /B	$4,990.8	$5,987.8	$6,151.9	$8,151.0	$5,166.7	$5,444.0	$5,433.1	$5,650.4	$5,814.3
16	Change	14.7%	20.0%	2.7%	32.5%	-36.6%	5.4%	-0.2%	4.0%	2.9%
	Price Variables									
17	Retail Trade (Billions) /C	$182.8	$184.7	$194.6	$206.1	$224.6	$228.8	$265.9	$279.4	$288.4
18	Change	0.1%	1.0%	5.4%	5.9%	9.0%	1.9%	16.2%	5.1%	3.2%
19	Denver-Aurora-Lakewood Consumer Price Index (1982-	240.0	246.6	255.0	262.0	267.0	272.2	281.7	291.0	298.6
20	Change	1.2%	2.8%	3.4%	2.7%	1.9%	2.0%	3.5%	3.3%	2.6%

/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

Line No.		Actual						December 2021 Forecast		
		2015	2016	2017	2018	2019	2020	2021	2022	2023
	Inflation-Adjusted & Current Dollar Income Accounts									
1	Inflation-Adjusted Gross Domestic Product (Billions	$17,390.3	$17,680.3	$18,079.1	$18,606.8	$19,032.7	$18,384.7	$19,395.8	$20,191.1	$20,736.2
2	Change	2.8%	1.7%	2.3%	2.9%	2.3%	-3.4%	5.5%	4.1%	2.7%
3	Personal Income (Billions) /B	$15,685.2	$16,096.9	$16,850.2	$17,706.0	$18,424.4	$19,627.6	$21,040.8	$21,482.6	$22,427.9
4	Change	4.6%	2.6%	4.7%	5.1%	4.1%	6.5%	7.2%	2.1%	4.4%
5	Per-Capita Income ($/person) /B	$48,903	$49,825	$51,827	$54,174	$56,115	$59,571	$63,628	$64,602	$67,062
6	Change	3.8%	1.9%	4.0%	4.5%	3.6%	6.2%	6.8%	1.5%	3.8%
7	Wage and Salary Income (Billions)	$7,859.5	$8,091.2	$8,474.7	$8,900.5	$9,323.5	$9,444.1	$10,294.1	$10,808.8	$11,284.4
8	Change	5.1%	2.9%	4.7%	5.0%	4.8%	1.3%	9.0%	5.0%	4.4%
	Population & Employment									
9	Population (Millions)	320.7	323.1	325.1	326.8	328.3	329.5	330.7	332.5	334.4
10	Change	0.8%	0.7%	0.6%	0.5%	0.5%	0.4%	0.4%	0.6%	0.6%
11	Unemployment Rate	5.3%	4.9%	4.4%	3.9%	3.7%	8.1%	5.4%	4.0%	3.8%
12	Total Nonagricultural Employment (Millions)	141.8	144.3	146.6	148.9	150.9	142.2	146.1	150.2	152.0
13	Change	2.1%	1.8%	1.6%	1.6%	1.3%	-5.8%	2.7%	2.8%	1.2%
	Other Key Indicators									
14	Consumer Price Index (1982-84=100)	237.0	240.0	245.1	251.1	255.7	258.8	271.0	280.5	287.5
15	Change	0.1%	1.3%	2.1%	2.4%	1.8%	1.2%	4.7%	3.5%	2.5%
16	Corporate Profits (Billions)	$2,060.5	$2,037.7	$2,128.9	$2,305.0	$2,367.8	$2,243.8	$2,683.5	$2,804.3	$2,927.7
17	Change	-2.8%	-1.1%	4.5%	8.3%	2.7%	-5.2%	19.6%	4.5%	4.4%
18	Housing Permits (Millions)	1.183	1.207	1.282	1.329	1.386	1.471	1.679	1.796	1.877
19	Change	12.4%	2.0%	6.3%	3.6%	4.3%	6.1%	14.1%	7.0%	4.5%
20	Retail Trade (Billions)	$5,352.2	$5,506.1	$5,732.9	$5,985.1	$6,184.6	$6,215.1	$7,315.1	$7,615.1	$7,813.1
21	Change	2.6%	2.9%	4.1%	4.4%	3.3%	0.5%	17.7%	4.1%	2.6%

/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

Line No.	Category	Preliminary FY 2020-21	% Chg	December 2021 Estimate by Fiscal Year FY 2021-22	% Chg	FY 2022-23	% Chg	FY 2023-24	% Chg
	Excise Taxes:								
1	Sales	$3,419.5	7.0%	$3,840.1	12.3%	$3,996.5	4.1%	$4,132.1	3.4%
2	Use	$214.2	1.8%	$227.7	6.3%	$230.0	1.0%	$235.1	2.2%
3	Retail Marijuana Sales - Special Sales Tax	$288.2	17.4%	$266.9	-7.4%	$278.9	4.5%	$288.7	3.5%
4	Cigarette	$30.1	-7.3%	$31.6	4.9%	$30.9	-2.3%	$29.9	-3.3%
5	Tobacco Products	$29.0	19.1%	$25.7	-11.6%	$26.6	3.7%	$27.2	2.2%
6	Liquor	$53.4	6.6%	$55.6	4.2%	$56.9	2.3%	$58.4	2.6%
7	Proposition EE/Nicotine	$49.0	N/A	$184.0	275.3%	$232.9	26.6%	$232.5	-0.2%
8	**Total Excise**	**$4,083.5**	**8.6%**	**$4,631.6**	**13.4%**	**$4,852.7**	**4.8%**	**$5,003.9**	**3.1%**
	Income Taxes:								
9	Net Individual Income	$9,481.8	9.7%	$10,504.3	10.8%	$10,685.0	1.7%	$11,132.1	4.2%
10	Net Corporate Income	$1,183.7	62.5%	$1,147.1	-3.1%	$1,085.2	-5.4%	$1,130.6	4.2%
11	**Total Income**	**$10,665.5**	**13.8%**	**$11,651.4**	**9.2%**	**$11,770.2**	**1.0%**	**$12,262.7**	**4.2%**
12	*Less: State Education Fund Diversion*	*$950.2*	*46.9%*	*$798.3*	*-16.0%*	*$882.8*	*10.6%*	*$919.7*	*4.2%*
13	**Total Income to General Fund**	**$9,715.3**	**11.3%**	**$10,853.1**	**11.7%**	**$10,887.5**	**0.3%**	**$11,343.0**	**4.2%**
	Other Revenue:								
14	Insurance	$336.3	-0.3%	$416.6	23.9%	$485.5	16.6%	$509.8	5.0%
15	Interest Income	$50.0	60.9%	$46.6	-6.9%	$35.7	-23.4%	$38.6	8.1%
16	Pari-Mutuel	$0.3	-21.2%	$0.3	13.8%	$0.3	-2.0%	$0.3	-2.0%
17	Court Receipts	$3.5	-9.8%	$4.4	25.8%	$3.7	-15.9%	$3.7	0.0%
18	Other Income	$50.7	423.4%	$28.7	-43.5%	$29.7	3.6%	$32.1	8.1%
19	**Total Other**	**$440.9**	**15.3%**	**$496.6**	**12.6%**	**$555.0**	**11.8%**	**$584.5**	**5.3%**
20	**GROSS GENERAL FUND**	**$14,239.6**	**10.7%**	**$15,981.3**	**12.2%**	**$16,295.1**	**2.0%**	**$16,931.4**	**3.9%**

/A Dollars in millions.

Table 4: General Fund Overview /A

Line No.		Preliminary FY 2020-21	December 2021 Estimate by Fiscal Year FY 2021-22	FY 2022-23	FY 2023-24
Revenue					
1	**Beginning Reserve**	**$1,825.7**	**$3,168.0**	**$3,510.8**	**$2,184.4**
2	**Gross General Fund Revenue**	**$14,239.6**	**$15,981.3**	**$16,295.1**	**$16,931.4**
3	*Transfers to the General Fund*	$335.3	$43.1	$42.0	$44.4
4	**TOTAL GENERAL FUND AVAILABLE**	**$16,400.6**	**$19,192.4**	**$19,847.9**	**$19,160.2**
Expenditures					
5	**Appropriation Subject to Limit**	**$10,978.9**	**$12,281.9**	**$13,314.4**	**$14,490.8**
6	*Dollar Change (from prior year)*	-$826.2	$1,303.0	$1,032.5	$1,176.3
7	*Percent Change (from prior year)*	-7.0%	11.9%	8.4%	8.8%
8	**Spending Outside Limit**	**$2,271.4**	**$3,399.7**	**$4,349.1**	**$2,495.7**
9	*TABOR Refund under Art. X, Section 20, (7) (d)*	$471.4	$1,996.1	$1,660.9	$1,707.8
10	*Homestead Exemption (Net of TABOR Refund)*	$157.9	$0.0	$0.0	$0.0
11	*Other Rebates and Expenditures*	$137.9	$140.8	$143.1	$144.2
12	*Transfers for Capital Construction*	$43.0	$353.0	$411.6	$50.0
13	*Transfers for Transportation*	$30.0	$294.0	$205.0	$0.0
14	*Transfers to State Education Fund*	$113.0	$123.0	$450.0	$0.0
15	*Transfers to Other Funds*	$1,318.3	$492.7	$1,478.5	$593.8
16	**TOTAL GENERAL FUND OBLIGATIONS**	**$13,250.4**	**$15,681.6**	**$17,663.5**	**$16,986.5**
17	*Percent Change (from prior year)*	4.2%	18.3%	12.6%	-3.8%
18	Reversions and Accounting Adjustments	-$17.8	$0.0	$0.0	$0.0
Reserves					
19	**Year-End General Fund Balance**	**$3,168.0**	**$3,510.8**	**$2,184.4**	**$2,173.6**
20	*Year-End General Fund as a % of Appropriations*	28.9%	28.6%	16.4%	15.0%
21	*General Fund Statutory Reserve*	$314.0	$1,645.8	$1,997.2	$2,173.6
22	*Above/Below Statutory Reserve*	$2,854.0	$1,865.0	$187.2	$0.0

/A. FY 2020-21 and FY 2021-22 expenditures reflect all legislation that has passed through both the Colorado House and Senate as of June 18, 2021. FY 2022-23 appropriations will be adopted in future budget legislation. Therefore, FY 2022-23 expenditures and fund balance projections shown are illustrative only. Dollars in millions.

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

Line No.		Preliminary FY 2020-21	December 2021 Estimate by Fiscal Year		
			FY 2021-22	FY 2022-23	FY 2023-24
Revenue					
1	**Beginning Reserves**	**$1,992.4**	**$3,797.3**	**$4,264.5**	**$3,025.9**
2	*State Education Fund*	$166.7	$629.2	$753.7	$841.6
3	*General Fund*	$1,825.7	$3,168.0	$3,510.8	$2,184.4
4	**Gross State Education Fund Revenue**	**$1,114.4**	**$1,060.6**	**$1,013.6**	**$1,050.6**
5	Requested Transfer to State Education Fund	$0.0	$0.0	$450.0	$0.0
6	**Gross General Fund Revenue /B**	**$14,574.9**	**$16,024.4**	**$16,337.1**	**$16,975.8**
7	**TOTAL FUNDS AVAILABLE FOR EXPENDITURE**	**$17,681.7**	**$20,882.2**	**$21,615.2**	**$21,052.3**
Expenditures					
8	General Fund Expenditures /C	$13,250.4	$15,681.6	$17,663.5	$16,986.5
9	State Education Fund Expenditures	$651.9	$936.1	$1,375.8	$1,577.3
10	**TOTAL OBLIGATIONS**	**$13,902.2**	**$16,617.8**	**$19,039.3**	**$18,563.8**
11	*Percent Change (from prior year)*	3.6%	19.5%	14.6%	-2.5%
12	*Reversions and Accounting Adjustments*	-$17.8	$0.0	$0.0	$0.0
Reserves					
13	**Year-End Balance**	**$3,797.3**	**$4,264.5**	**$3,025.9**	**$2,488.5**
14	State Education Fund	$629.2	$753.7	$841.6	$314.9
15	General Fund	$3,168.0	$3,510.8	$2,184.4	$2,173.6
16	*General Fund Above/Below Statutory Reserve*	$2,854.0	$3,730.0	$374.4	$0.0

/A FY 2020-21 and FY 2021-22 expenditures reflect all legislation that has passed through both the Colorado House and Senate as of June 18, 2021. FY 2022-23 appropriations will be adopted in future budget legislation. Therefore, FY 2022-23 expenditures and fund balance projections shown are illustrative only. Dollars in millions.
/B These amounts include the following transfers: $115.8 million in FY 2020-21, $248.1 million in FY 2021-22, and $124.0 million in FY 2022-23.
/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

Line No.	Category	Preliminary FY 2020-21	December 2021 Estimate by Fiscal Year FY 2021-22	FY 2022-23	FY 2023-24
1	**Transportation-Related /A**	**$1,155.8**	**$1,202.7**	**$1,277.5**	**$1,374.4**
2	Change	-3.5%	4.1%	6.2%	7.6%
3	**Limited Gaming Fund /B**	**$101.5**	**$155.4**	**$158.0**	**$159.9**
4	Change	46.8%	53.1%	1.6%	1.2%
5	**Capital Construction - Interest**	**$2.6**	**$3.7**	**$4.2**	**$4.2**
6	Change	-58.3%	38.8%	15.0%	0.0%
7	**Regulatory Agencies**	**$89.1**	**$89.5**	**$85.2**	**$88.1**
8	Change	9.9%	0.5%	-4.8%	3.4%
9	**Insurance-Related**	**$20.3**	**$23.2**	**$21.4**	**$21.2**
10	Change	-18.7%	14.3%	-7.8%	-0.9%
11	**Severance Tax**	**$14.7**	**$118.0**	**$133.2**	**$141.3**
12	Change	-90.1%	702.7%	12.9%	6.1%
13	**Other Miscellaneous Cash Funds**	**$854.2**	**$854.7**	**$869.2**	**$899.7**
14	Change	17.8%	0.1%	1.7%	3.5%
15	**TOTAL CASH FUND REVENUE**	***$2,238.3***	***$2,447.3***	***$2,548.7***	***$2,688.7***
16	Change	-0.6%	9.3%	4.1%	5.5%

/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

Line No.		Preliminary FY 2020-21	December 2021 Estimate by Fiscal Year FY 2021-22	FY 2022-23	FY 2023-24
	TABOR Revenues:				
1	General Fund /A	$13,860.2	$15,537.4	$15,788.2	$16,412.1
	Percent Change from Prior Year	9.7%	12.1%	1.6%	4.0%
2	Cash Funds /A	$2,237.7	$2,447.3	$2,548.7	$2,688.7
	Percent Change from Prior Year	-0.3%	9.4%	4.1%	5.5%
3	**Total TABOR Revenues**	**$16,097.9**	**$17,984.6**	**$18,336.9**	**$19,100.8**
	Percent Change from Prior Year	8.2%	11.7%	2.0%	4.2%
	Revenue Limit Calculation:				
4	Previous calendar year population growth	1.2%	0.3%	0.8%	1.0%
5	Previous calendar year inflation	1.9%	2.0%	3.5%	3.3%
6	**Allowable TABOR Growth Rate**	**3.1%**	**2.2%**	**4.3%**	**4.3%**
7	TABOR Limit /B	$12,628.1	$12,905.9	$13,460.8	$14,039.7
8	General Fund Exempt Revenue Under Ref. C /C	$3,016.3	$3,082.6	$3,215.2	$3,353.4
9	**Revenue Cap Under Ref. C /B /D**	**$15,644.3**	**$15,988.5**	**$16,676.0**	**$17,393.1**
10	***Amount Above/Below Cap***	**$453.6**	**$1,996.1**	**$1,660.9**	**$1,707.8**
11	***Revenue to be Refunded including Adjustments from Prior Years /E***	**$471.4**	**$1,996.1**	**$1,660.9**	**$1,707.8**
12	TABOR State Emergency Reserve Requirement	$469.3	$479.7	$500.3	$521.8

/A Amounts differ from the revenue totals reported in Table 3 and Table 6 due to accounting adjustments, and because 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.