

RESEARCH REPORT

# State Revenues Surged in the Fourth Quarter of 2021, but Continued Robust Growth Is Unlikely

State Tax and Economic Review, 2021 Quarter 4

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# Contents

<b>Acknowledgments</b>	<b>iv</b>
<b>Get Real-Time Data</b>	<b>v</b>
<b>Executive Summary</b>	<b>vi</b>
<b>Trends in State and Local Revenues</b>	<b>9</b>
State Tax Revenues in the Fourth Quarter of 2021	13
Personal Income Taxes	14
Withholding	16
Estimated Payments	18
Final Payments	21
Refunds	21
Actual versus Forecasted Personal Income Tax Revenues	22
Corporate Income Taxes	23
General Sales Taxes	24
Motor Fuel Taxes	26
Other Taxes	27
Preliminary Review of State Tax Revenues in the First Quarter of 2022	28
<b>Factors Driving State Tax Revenues</b>	<b>30</b>
Economic Indicators	30
State Gross Domestic Product	30
State Unemployment and Employment	32
Housing Market	35
Personal Consumption Expenditures	38
Tax Law Changes Affecting the Fourth Quarter of 2021	39
<b>Conclusion</b>	<b>43</b>
<b>Appendix: Additional Tables</b>	<b>44</b>
<b>Notes</b>	<b>56</b>
<b>References</b>	<b>58</b>
<b>About the Author</b>	<b>59</b>
<b>Statement of Independence</b>	<b>60</b>

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# Get Real-Time Data

The *State Tax and Economic Review* is the preeminent source of data and analysis on state tax collections. The Urban Institute's State and Local Finance Initiative regularly collects data and information from all 50 states, uses this information to adjust national and state data from the US Census Bureau, then provides the most timely, accurate, and in-depth look at how states are faring.

Visit our [project page](#) to read previous *State Tax and Economic Review* reports and subscribe to gain direct access to the following datasets:

## Monthly State Government Tax Revenue Data

Data from all states from 2010 to present on revenue from the individual income tax, corporate income tax, general sales tax, and total taxes.

## Monthly State Government Personal Income Tax Data

Data from 41 states with broad-based income taxes from 2010 to present for the following components of personal income taxes: withholding, estimated payments, final payments, refunds, and total net personal income taxes.

## Quarterly State Government Tax Revenue Data

Data from all states from 2010 to present on tax revenue from the individual income tax, corporate income tax, general sales tax, and motor fuel tax.

## Annual State Government Tax Revenue Collections versus Official Forecasts

Data from nearly all states from fiscal year 2015 onward for actual revenue collections and revenue forecasts for the individual income tax, corporate income tax, and general sales tax.

## Annual State and Local Government Gambling Revenue Data

Data from all states for fiscal year 2000 onward for revenues collected on various types of gambling, including lottery, pari-mutuels, casinos and racinos, and video games.

## Monthly State Government Marijuana Tax Revenue Data

Data from all states that tax sales of recreational marijuana from inception of the tax to present.

# Executive Summary

- **State and local government tax revenues** from major sources—personal income, corporate income, sales, and property taxes—increased 13 percent in nominal terms and 6.7 percent in inflation-adjusted terms in the fourth quarter of 2021 compared with the same quarter in 2020.<sup>1</sup> State and local government tax revenues increased 11.7 percent in real terms when compared with the fourth quarter in 2019.
- Inflation-adjusted **state government tax revenues** from major sources increased 18.9 percent in the fourth quarter of 2021 compared with the same quarter in 2020 and 25.7 percent compared with the same period in 2019. Because the global pandemic and individual, business, and government responses had an unprecedented impact on state budgets, including shifting revenues between quarters and fiscal years, we also present the revenue picture for the second through fourth quarters of 2021 combined compared with the previous year. State government tax revenues from major sources increased 20.5 percent in real terms for the second through fourth quarters of 2021 combined, compared with the same period in 2020.
  - » Inflation-adjusted **state personal income tax revenues** increased 21.5 percent in the fourth quarter of 2021 compared with the fourth quarter of 2020 and 30.5 percent compared with the same period in 2019. State personal income tax revenues showed extreme volatility in the recent quarters in part because of federal and state policy decisions related to the pandemic as well as changes in investor behavior based on expected actions from the Biden administration. State government personal income tax revenues increased 18.4 percent in real terms for the second through fourth quarters of 2021 combined, compared with the same period in 2020.
  - » Inflation-adjusted **state corporate income tax revenues** increased 48.4 percent in the fourth quarter of 2021 compared with the same quarter in 2020 and 81.4 percent percent compared with the same period in 2019. The growth rate in corporate income tax revenues in recent quarters has been very strong and in sharp contrast to the stagnant growth patterns observed after the Great Recession and before the global pandemic. It is likely that corporations continue expecting higher federal corporate tax rates under the Biden administration and continue increasing their state estimated payments to take advantage of the current lower tax rates. State government corporate income tax revenues increased 54.9 percent in real terms for the second through fourth quarters of 2021 combined, compared with the same period in 2020.

- » Inflation-adjusted **state sales tax revenues** grew 12.3 percent in the fourth quarter of 2021 compared with the fourth quarter of 2020 and 13.9 percent compared with the same period in 2019. State sales tax revenues had seen increases before the onset of the pandemic as states expanded sales tax rules to include collection of taxes from online sales. The ability of states to collect sales taxes on e-commerce transactions propped up sales taxes in many states during the pandemic as many consumers switched from in-person to online shopping. In addition, strong growth in general sales taxes (typically calculated as a percentage of spending as opposed to excise taxes, which are calculated on a per unit basis) increased because of inflation-driven price increases. State government sales tax revenues increased 17.4 percent in real terms for the second through fourth quarters of 2021 combined, compared with the same period in 2020.
- Inflation-adjusted **local government tax revenues** from major sources showed a year-over-year decline of 2.1 percent for the fourth quarter of 2021, which contrasts with the 3.8-percent average real growth rate for the prior four quarters. Local government tax revenues from major sources increased 1.7 percent in real terms in the fourth quarter of 2021 compared with the same period two years earlier, in 2019.
  - » Inflation-adjusted **local property tax revenues**, the largest source for local government revenues, declined 3 percent year over year for the fourth quarter of 2021, marking the second consecutive quarter of decline in inflation-adjusted terms. Local government property tax revenues increased 0.9 percent in real terms in the fourth quarter of 2021 compared with the same period two years earlier, in 2019. The declines in local property tax revenues likely reflect the pandemic's negative impact on commercial properties, which led to lower assessed values and lower commercial property tax payments.
- **Preliminary data for the first quarter of 2022** indicate year-over-year double-digit growth in overall state tax revenue collections as well as in major sources of tax revenues. However, growth in quarterly state tax revenues will likely be less robust in the coming quarters.
  - » **State personal income tax** collections increased 25.1 percent in nominal terms in the first quarter of 2022 compared with the same period in 2021; growth in the median state was 16.4 percent.

- » **State corporate income tax** collections increased 126.2 percent in nominal terms in the first quarter of 2022 compared with the same period in 2021; growth in the median state was only 26.0 percent.
- » **State sales tax** collections grew 17.9 percent in nominal terms in the first quarter of 2022 compared with the same period in 2021; growth in the median state was 14.2 percent.
- **Economic factors** that drive revenue growth were strong in the fourth quarter of 2021 compared with the same quarter in 2020. State economic performance plummeted early in the pandemic as governments, businesses, and individuals took actions to curtail the spread of the virus across the nation. The pandemic had a very uneven impact on various sectors of the economy, which has translated into very different effects across different jobs and places. These patterns continued to fluctuate in the fourth quarter of 2021 as different regions experienced different ebbs and flows in cases and hospitalizations because of variants of SARS-CoV-2.
  - » Year-over-year growth in real **gross domestic product** (GDP) was 5.5 percent for the fourth quarter of 2021, but that growth is compared with a lower base in the fourth quarter of 2020. Growth in real GDP was 3.1 percent compared with the fourth quarter of 2019.
  - » The seasonally adjusted **unemployment rate** was 4.2 percent in the fourth quarter of 2021, which was still slightly higher than prepandemic unemployment rates. The unemployment rate improved further and dropped to 3.8 percent in the first quarter of 2022. However, the average unemployment rate masks highly variable rates of unemployment across different groups of workers and different states.
  - » Seasonally adjusted nationwide **employment** showed solid growth of 4.3 percent in the fourth quarter of 2021 compared with the same quarter in 2020, but this was also a decline of 2 percent compared with the fourth quarter of 2019.
  - » **House prices** increased 17.9 percent in nominal terms and in 11.3 percent in real terms for the fourth quarter of 2021 compared with a year earlier. All 50 states reported year-over-year growth in house prices in the fourth quarter of 2021, with 48 states reporting double-digit growth.
  - » Real **personal consumption expenditures** increased 6.5 percent for the fourth quarter of 2021 compared with the same quarter in 2020. Personal consumption spending was depressed in the second, third, and fourth quarters of 2020 as the pandemic temporarily stalled large portions of the economy. Growth in real personal consumption spending was only 3.6 percent in the fourth quarter of 2021 compared with the same quarter in 2019.



# Trends in State and Local Revenues

The global COVID-19 pandemic caused an unprecedented economic disruption across the nation. At first, state and local government tax revenues as well as economies declined steeply in the spring of 2020. But two years in, state and local tax revenues are growing by double digits, much faster than state and local economies. The large gap between growth in revenues versus economic activity is an indication that some of this strength is related to temporary factors or adjustments and not necessarily indicative of likely continued growth.

The federal government provided unprecedented monetary aid to individuals, businesses, and state and local governments in response to the pandemic. The American Rescue Plan Act (ARPA) alone included \$350 billion in direct aid to state, local, territorial, and tribal governments. This federal aid significantly helped the economic recovery and stabilized state and local government budgets. However, states' longer-term fiscal outlooks are still uncertain because of changes in economic conditions and patterns including higher inflation rates, changes in consumption patterns, and declining labor participation rates despite growing wages. It is likely that growth in the overall economy will be weaker in the coming months as federal aid programs end and because the country is closer to maximum employment. Furthermore, high inflation has reduced purchasing power, which will slow the consumer spending growth and overall economic activity.

State and local government tax revenues have become increasingly volatile and sensitive to policy and behavioral changes since the Great Recession. State and local revenues fluctuated wildly after the passage of the Tax Cuts and Jobs Act (TCJA) in 2017, as discussed in prior [State Tax and Economic Review](#) quarterly reports. Growth in state and local revenues normalized in the second half of 2019, but that quickly changed as the pandemic and responses to it distorted normal revenue patterns.

[Table 1](#) shows state and local government tax revenues from major sources for the fourth quarter of 2021 as well as inflation-adjusted revenues for the second through fourth quarters of 2021 combined. In addition, [Table 1](#) shows the percentage changes compared with the prior periods and the average quarterly year-over-year growth in the prior four quarters. We present growth rates for the fourth quarter of 2021 compared with the same quarter in 2019 as well as year-over-year growth rates for the second through fourth quarters of 2021 combined in recognition of the shifts in filing deadlines that distorted revenue patterns in 2020 and subsequent growth rates in 2021. In addition, because of unusually high inflation, we present real growth rates in this section of the report to illustrate the impact of inflation on state and local revenues.

Major findings include the following:

- **State and local government tax revenues** from major sources increased 6.7 percent in real terms in the fourth quarter of 2021 compared with a year earlier. Average quarterly year-over-

year real growth was 10.9 percent in the prior four quarters. State and local government revenues increased 11.7 percent in real terms in the fourth quarter of 2021 compared with the fourth quarter of 2019. Year-over-year real growth for the second through fourth quarters of 2021 combined was 10.8 percent.

- **State government tax revenues** from major sources increased 18.9 percent in real terms in the fourth quarter of 2021 relative to a year earlier and increased 25.7 percent relative to two years earlier, in 2019. Average quarterly year-over-year real growth rate was 16.4 percent for the prior four quarters. Year-over-year real growth for the second through fourth quarters combined was 20.5 percent. **State personal income tax** revenues increased 21.5 percent in real terms in the fourth quarter of 2021 compared with the fourth quarter of 2020 and increased 30.5 percent compared with the fourth quarter of 2019. Average quarterly year-over-year real growth was 17.4 percent for the prior four quarters. Year-over-year real growth for the second through fourth quarters combined was 18.4 percent. Inflation-adjusted **state corporate income tax** revenues increased 48.4 percent for the fourth quarter of 2021 compared with a year earlier and increased 81.4 percent compared with two years earlier, in 2019. Average quarterly year-over-year real growth rate was 48.5 percent for the prior four quarters. Year-over-year real growth for the second through fourth quarters combined was 54.9 percent. **State sales tax** revenues increased 12.3 percent in real terms for the fourth quarter of 2021 compared with the fourth quarter of 2020 and increased 13.9 percent compared with the fourth quarter of 2019. Average quarterly year-over-year real growth was 10.9 percent for the prior four quarters. Year-over-year real growth for the second through fourth quarters combined was 17.4 percent.
- **Local government tax revenue** from major sources declined 2.1 percent in real terms for the fourth quarter of 2021 compared with the fourth quarter of 2020 but increased 1.7 percent compared with the fourth quarter of 2019. The average quarterly year-over-year real growth rate was 3.8 percent for the prior four quarters. By contrast, local government tax revenues decreased 0.1 percent in real terms for the second through fourth quarters of 2021 combined, compared with the same period in 2020. **Local property taxes**, the single largest source of local government tax revenues, declined 3 percent in real terms in the fourth quarter of 2021 compared with the prior year but increased 0.9 percent compared with the fourth quarter of 2019, likely related to declines in commercial property values. **Local sales taxes** increased 4.8 percent in real terms for the fourth quarter of 2021 compared with a year earlier; the average quarterly year-over-year real growth rate for the prior four quarters was stronger, at 6.2 percent. **Local personal income taxes** declined 2.9 percent while **local corporate income taxes** increased 28.8 percent in real terms in the fourth quarter of 2021 compared with the same quarter of 2020, but these constitute a relatively small share of local revenues (less than 10 percent in a typical quarter) and are concentrated in a few states.

TABLE 1

## State and Local Government Tax Revenue Trends

Tax source	Millions of Dollars (Inflation Adjusted)		Y-O-Y Real Percent Change			Average quarterly Y-O-Y real growth rate, prior four quarters
	2021 Q4	2021 Q2-Q4 combined	2021 Q4 vs 2019 Q4	2021 Q4 vs 2020 Q4	2021 Q2-Q4 vs 2020 Q2-Q4	
<b>Total state and local major taxes</b>	<b>\$558,555</b>	<b>\$1,455,248</b>	<b>11.7%</b>	<b>6.7%</b>	<b>10.8%</b>	<b>10.9%</b>
<b>State major taxes</b>	<b>260,650</b>	<b>833,790</b>	<b>25.7</b>	<b>18.9</b>	<b>20.5</b>	<b>16.4</b>
Personal income tax	126,021	413,427	30.5	21.5	18.4	17.4
Corporate income tax	25,091	86,940	81.4	48.4	54.9	48.5
Sales tax	104,077	318,052	13.9	12.3	17.4	10.9
Property tax	5,461	15,371	(2.2)	(7.9)	(1.1)	4.1
<b>Local major taxes</b>	<b>297,905</b>	<b>621,458</b>	<b>1.7</b>	<b>(2.1)</b>	<b>(0.1)</b>	<b>3.8</b>
Personal income tax	9,846	33,732	(3.7)	(2.9)	6.5	7.2
Corporate income tax	2,443	8,868	12.6	28.8	22.8	8.8
Sales tax	28,775	82,992	11.6	4.8	7.2	6.2
Property tax	256,841	495,865	0.9	(3.0)	(2.0)	2.7

Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP).

Notes: Q = quarter; Y-O-Y = year-over-year. Data are adjusted for inflation.

Figure 1 shows longer-term trends in state and local tax collections, specifically the year-over-year percentage change in the four-quarter moving average of inflation-adjusted state and local revenue collections from major sources: personal income tax, corporate income tax, sales tax, and property tax. As shown in Figure 1, state tax revenues from major sources have fluctuated dramatically over the past few years because of federal policy changes, stock-market volatility, and pandemic-caused economic and behavioral changes. Longer-term revenue trends illustrate the impact federal policy changes can have on the timing in state revenues, such as changes related to the fiscal cliff negotiations in 2013, changes related to the passage of the TCJA, and most recently, changes in federal policies in response to the pandemic, including changing income tax deadlines. Most states rely heavily on three major sources of taxes (personal income, corporate income, and sales tax), all of which respond relatively rapidly to economic upticks and declines as well as to government policy decisions. The four-quarter moving average of inflation-adjusted state tax revenues from major sources can help smooth these patterns and showed an 18 percent increase for the fourth quarter of 2021.

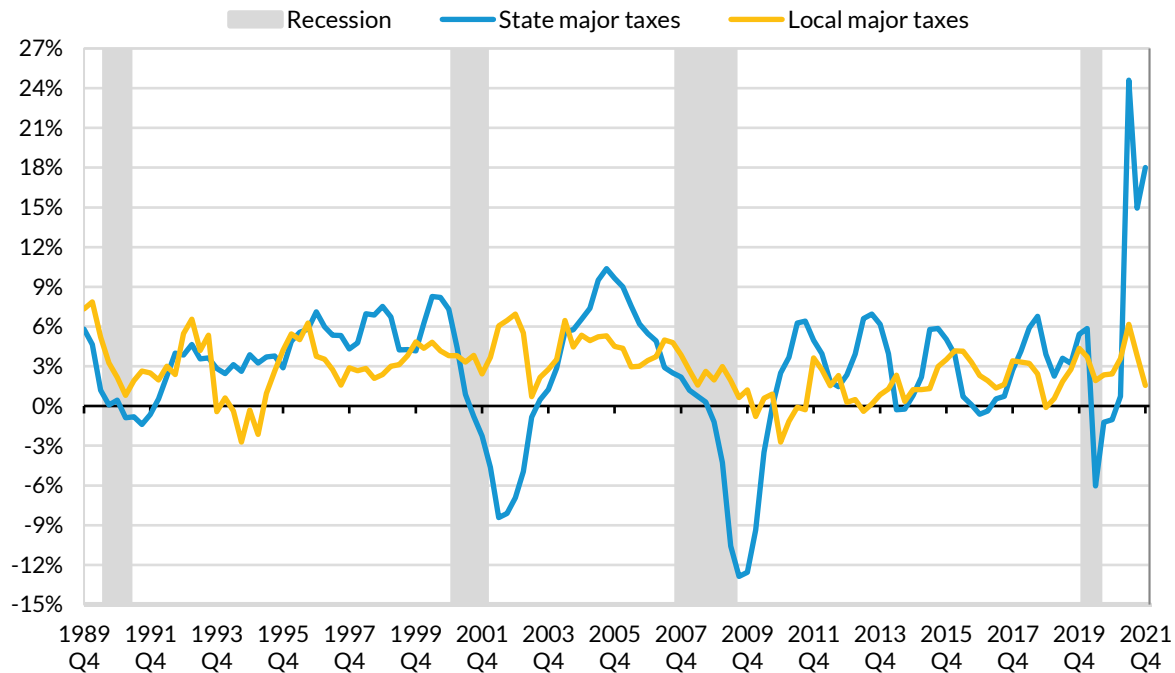
Local tax revenues were fairly resilient throughout the pandemic mostly because of a strong housing market and solid growth in residential property tax revenues. The four-quarter moving average of inflation-adjusted local tax revenues from major sources showed a 1.6 percent increase for the fourth quarter of 2021. Most local governments rely heavily on property taxes, which have been relatively stable during the pandemic and respond relatively slowly to changes in property values. However, it appears that the pandemic caused declines in the value of commercial properties (such as hotels, retailers, and offices) that have already led to lower commercial property tax assessments. These declines in commercial property values already appear to have had a negative impact on overall local property tax revenue despite soaring residential property values observed throughout the pandemic. These trends

as well as declines in specific sales taxes for some local governments—especially those highly reliant on tourism or central business activity—could lead to ongoing vulnerability for some local governments.

**FIGURE 1**

### State Major Tax Revenues Fluctuated Wildly during the Pandemic

*Year-over-year inflation-adjusted percentage change in state and local taxes from major sources*



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**Source:** US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.

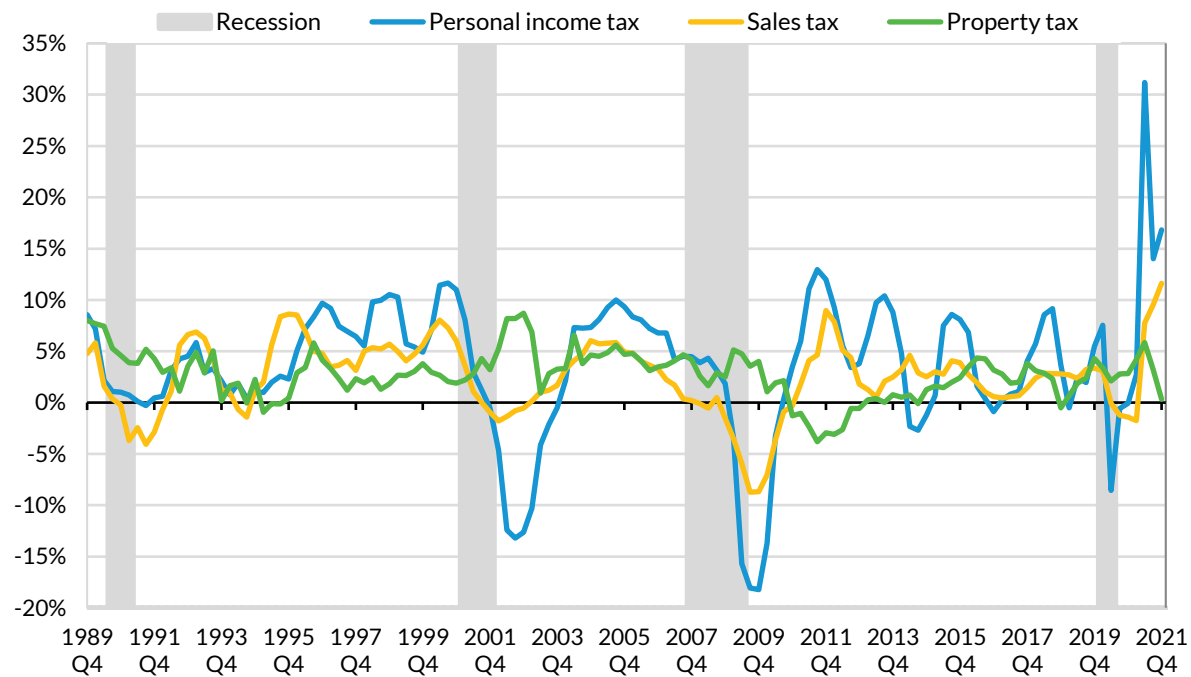
**Notes:** Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation. Data are for four major tax categories only: personal income, corporate income, general sales, and property.

Figure 2 breaks out inflation-adjusted state and local personal income, sales, and property tax revenues over the past 30 years, using a four-quarter moving average. Using inflation-adjusted four-quarter moving averages helps temper fluctuations related to changing income tax deadlines. Still, the longer-term trends indicate large fluctuations in state and local personal income tax revenue collections during the pandemic. Real state and local personal income tax revenues increased 16.8 percent in the fourth quarter of 2021 compared with the fourth quarter of 2020, using the four-quarter moving average. Real state and local sales tax revenues increased 11.6 percent in the fourth quarter of 2021 compared with a year earlier. Real state and local property taxes, nearly all of which are collected by local governments, increased 0.3 percent for the fourth quarter of 2021 compared with a year earlier.

FIGURE 2

## Growth in State and Local Property Tax Revenues Ticked Downward

Year-over-year inflation-adjusted percentage change in major state-local taxes



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Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.

Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

## State Tax Revenues in the Fourth Quarter of 2021

Total state tax revenue collections increased 24.1 percent in nominal terms and 17.2 percent in real terms in the fourth quarter of 2021 relative to a year earlier, according to US Census Bureau data adjusted by the author ([Table A1](#)).<sup>2</sup> Both personal and corporate income tax revenues saw year-over-year growth in the fourth quarter of 2021, at 28.6 and 57.1 percent, respectively. Some of the strength in both personal income and corporate income tax revenues is likely driven by individual and corporate taxpayers shifting income from tax year 2022 into tax year 2021 by making larger estimated payments in anticipation of possible tax rate hikes in 2022. State sales tax collections grew 18.9 percent while motor fuel tax collections increased 7.6 percent in the fourth quarter of 2021 relative to a year earlier.

[Table A1](#) shows (1) nominal and inflation-adjusted growth in state government tax revenue collections from major sources and (2) average quarterly year-over-year growth between the first quarter of 2010 and the fourth quarter of 2021. The average quarterly year-over-year growth rate in overall state tax revenue collections since 2010 is 6 percent in nominal terms and 4 percent in real terms.

There were some variations across regions and states for the fourth quarter of 2021 ([Table A2](#)). All regions reported double-digit growth in state tax revenue collections, with the Mideast reporting the largest year-over-year growth at 42.1 percent and the Great Lakes reporting the weakest growth at 13.2 percent.<sup>3</sup>

All 50 states reported year-over-year growth in total state tax revenue collections for the fourth quarter of 2021, with 45 states reporting double-digit growth and 16 states reporting growth of over 20 percent. The largest growth was in Alaska, where total state tax revenues increased 145.8 percent, but that growth is largely because of the lower baseline in 2020.

Because of the deferral of tax filing deadlines for tax year 2020, income tax revenues were shifted from one quarter to another. Therefore, we also analyze revenue growth trends for the second through fourth quarters of 2021 combined to shed light on the revenue recovery after the brief (but sharp) pandemic-induced recession. State total tax revenues increased 25.5 percent in the second through fourth quarters of 2021 combined, compared with the same period in 2020, with a median increase of 20.4 percent ([Table A3](#)). All regions saw double-digit growth during that period, with the Mideast region reporting the strongest growth at 33 percent and the Great Lakes region reporting the weakest growth at 17.7 percent. State tax revenues increased in all 50 states over that nine-month period, ranging from a 7.6 percent increase in Wyoming to a 64.7 percent increase in Alaska. Twenty-six states reported year-over-year growth of over 20 percent in the second through fourth quarters of 2021 combined.

The strong growth in overall state tax revenues is largely attributable to five major factors: the robust stock market, the record number of initial public offerings, the high inflation rate, the boost in spending on taxable goods, and the expectation of potential (if unrealized) federal tax hikes (Dadayan 2022a).

## Personal Income Taxes

State personal income tax revenues increased 28.6 percent in nominal terms and 21.5 percent in real terms in the fourth quarter of 2021 compared with the same period in 2020. Growth in the median state was much weaker, 13.8 percent in nominal terms. The average quarterly year-over-year growth rate in state personal income tax collections since 2010 is 7.8 percent in nominal terms and 5.8 percent in real terms ([Table A1](#)).

Personal income tax collections increased in all regions in the fourth quarter of 2021 compared with the same period in 2020 ([Table A2](#)). The Mideast region saw the strongest increase, at 79.3 percent, while the Plains region saw the weakest growth at 6.6 percent. The strong growth in the Mideast region is largely attributable to New York, which is driven by the state's new pass-through entity tax that went into effect on January 1, 2021.<sup>4</sup>

All states except North Dakota and Tennessee reported year-over-year growth in personal income tax revenues in the fourth quarter of 2021, with 32 states reporting double-digit growth. The largest growth was in New York, where income tax revenues increased 135.5 percent. If we exclude New York, state personal income tax revenues for the rest of the nation showed year-over-year growth of 16.6 percent.

State personal income tax revenues increased 23.9 percent in the second through fourth quarters of 2021 combined, compared with the same period in 2020 (Table A3). Growth in the median state was 14.4 percent over that nine-month period.

To get a clearer picture of the underlying trends in personal income tax collections, we examine trends in the four major components: withholding, quarterly estimated payments, final payments, and refunds. The US Census Bureau does not collect data on the individual components of personal income tax collections. The data presented here were collected by the author directly from the states.

Table 2 shows the growth for each major component of personal income tax collections in the past eight quarters. Delayed income tax filing due dates led to wild fluctuations in nonwithholding income tax revenues during the pandemic. The large swings observed in the second and third quarters of 2020 as well as 2021 illustrate income tax volatility associated with the deferral of tax filing deadlines.

**TABLE 2**

**Growth in State Government Personal Income Tax Components**

*Year-over-year nominal percentage change*

Personal income tax components	Tax Year 2020				Tax Year 2021			
	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4
Withholding	5.8	(1.2)	5.0	6.2	6.5	15.4	12.2	15.7
Estimated payments	9.7	(64.0)	102.9	16.6	35.9	272.1	(34.5)	33.8
Final payments	(10.3)	(55.7)	621.8	(8.4)	10.2	175.0	(80.4)	45.5
Refunds	9.9	(16.5)	106.1	(10.6)	(13.1)	59.0	(39.1)	20.7
<b>Total</b>	<b>4.4</b>	<b>(34.8)</b>	<b>47.5</b>	<b>7.7</b>	<b>20.2</b>	<b>81.2</b>	<b>(17.3)</b>	<b>19.3</b>

Source: Individual state data, analysis by the author.

Notes: Q = quarter. The percentage changes for total personal income tax differ from data reported by the US Census Bureau. Red numbers in parentheses represent declines.

Personal income tax collections declined steeply in the second quarter of 2020 and soared in the third quarter of 2020. This pattern reversed in 2021, resulting in dramatic growth in the second quarter of 2021 compared with 2020 followed by declines in the third quarter of 2021. Year-over-year growth was robust in the fourth quarter of 2021, which is partially attributable to two factors: (1) elevated inflation, which led to bracket creep in some states, and (2) possible acceleration of capital gains realizations into tax year 2021 in anticipation of possible tax rate hikes in 2022.

The average annual inflation in 2021 was 4.2 percent, which is a nearly 40-year high. Higher wages to attract workers back to vacant positions, federal assistance, supply-side disruptions, and global geopolitical crises all have contributed to higher prices and elevated inflation. Although high inflation

can limit the purchasing power of workers, it can benefit governments, particularly those with progressive income tax structures that do not index income tax brackets to inflation, because higher nominal wages can push taxpayers into higher marginal tax brackets. Wages increased substantially in 2021, which led to stronger-than-usual growth in withholding.

## Withholding

Withholding is usually a good indicator of the current strength of personal income tax revenue and the economy because it comes largely from current wages and salaries and is less volatile than estimated payments or final settlements. However, bonuses and stock options received by employees are also subject to withholding.

Table A4 shows year-over-year nominal growth in withholding for the past eight quarters for all states with a broad-based personal income tax. Before the pandemic, growth in withholding was solid and did not see any large swings. Withholding declined 1.2 percent year over year for the second quarter of 2020 because of the initial reaction to the economic disruptions caused by the pandemic, including mass layoffs and furloughs beginning in the second half of March 2020. The employment situation greatly improved after the third quarter of 2020, which also led to improvement in withholding tax collections. In addition, the strong growth in average wages as well as people moving to higher-paying jobs led to stronger withholding tax revenue collections in 2021. Finally, as discussed, heightened inflation also contributed to the stronger growth in withholding, particularly in states that have progressive income tax structures but do not adjust their tax brackets for inflation.

Year-over-year nominal growth in withholding was 15.7 percent in the fourth quarter of 2021, marking the third consecutive quarter of double-digit growth. Growth in the median state was weaker, at 11.1 percent. All regions showed solid growth in withholding in the fourth quarter of 2021 compared with the same quarter in 2020. The Mideast region reported the strongest growth at 20 percent, while the Plains region reported the weakest year-over-year growth at 8.5 percent in the fourth quarter of 2021.

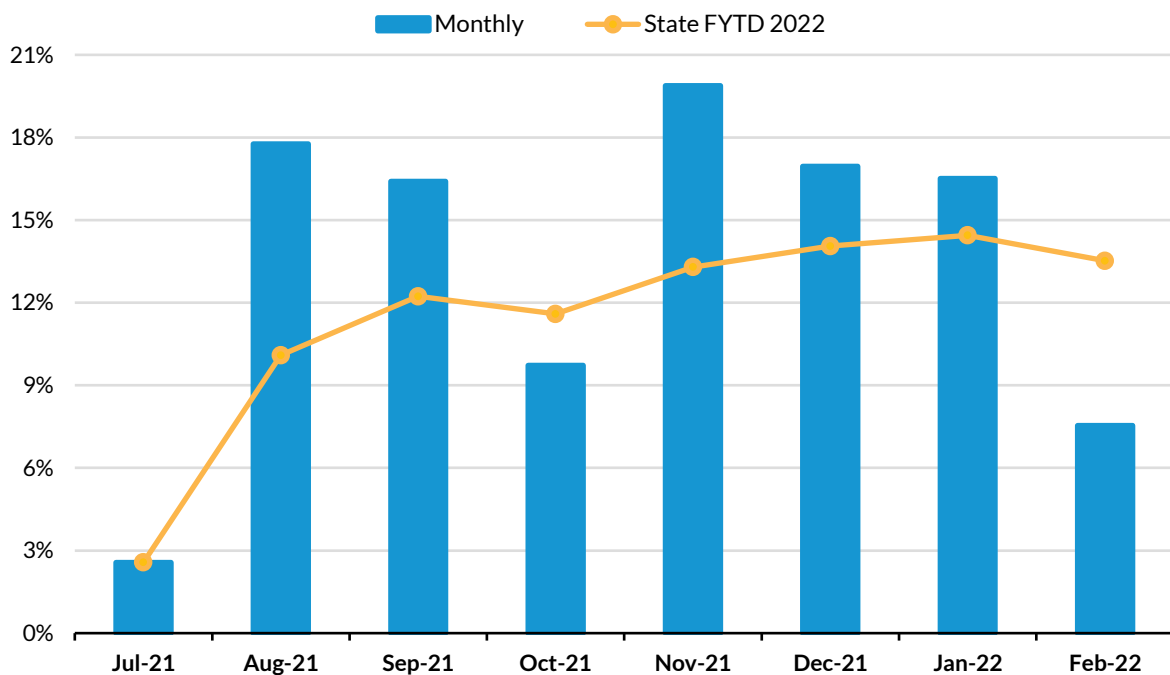
All states that levy tax on personal income reported growth in withholding in the fourth quarter of 2021 compared with a year earlier, with 29 states reporting double-digit growth. Growth rates ranged from 2.9 percent in Iowa to 113 percent in Delaware.

Figure 3 shows monthly and fiscal year-to-date growth rates in withholding between July 2021 and February 2022, which corresponds to the first eight months of state fiscal year 2022 in 46 states. Monthly data should be viewed with caution because they may include one-time payments that are not likely to recur, or a given month may have fewer tax processing days than the same month in the prior year.



**FIGURE 3****Withholding Is Very Strong in the First Eight Months of Fiscal Year 2022, Fueled by Inflation**

*Nominal percentage change in withholding tax collections compared with the previous year, monthly and year-to-date for state fiscal year 2022*



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**Source:** Individual state government agencies, analysis by the author.

**Notes:** FYTD = fiscal year to date.

Withholding showed double-digit growth in August and September 2021 as well as in November and December 2021 and January 2022. In late 2021, withholding was particularly strong in California, likely because of large year-end bonuses and withholding related to public offerings of California companies. For example, in November 2021, 14 California companies held initial public offerings, including Aurora with an initial valuation of \$14 billion.<sup>5</sup>

Year-to-date nominal growth in withholding for the eight months of state fiscal year 2022 was 13.5 percent. States collected around \$272 billion in withholding revenues from July 2021 through February 2022. All states reported growth in withholding tax revenues for the July 2021 through February 2022 period.

Despite solid growth in withholding, unemployment rates in the fourth quarter of 2021 were still higher than their prepandemic levels in 35 states. The disconnect between withholding tax collections and higher unemployment rates is largely because of the disproportionate impact of the pandemic-induced recession on lower-income taxpayers.

## Estimated Payments

Higher-income taxpayers (and self-employed taxpayers) generally make estimated tax payments (also known as declarations) on their income not subject to withholding. This income often comes from investments, such as capital gains realized in the stock market, or from self-employment or business income. Estimated payments normally represent less than a quarter of overall income tax revenues, but because of their volatility, they can have a large impact on the direction of overall collections. Estimated payments accounted for 18.6 percent of total personal income tax revenues in the third quarter of 2021 but only 7.9 percent in the fourth quarter of 2021.

The first estimated payment for each tax year is typically due in April in most states; the second, third, and fourth payments are generally due in June, September, and January, respectively (although many high-income taxpayers make the last estimated payment in December so that it is deductible on their federal tax return for that tax year rather than the next). In some states, the first estimated payment includes payments with extension requests for income tax returns for the previous tax year and is thus related partly to income received in that previous tax year. Subsequent estimated payments are generally related to income for the current tax year, although that relationship is often quite loose.

As noted, because the first estimated payment contains a combination of payments related to the current and prior tax year, it is not a good indicator of the current strength of the economy. The second and third estimated payments are easier to interpret because they are almost always related to the current year, and they can give a real-time look at how the economy and income tax base are doing. Weakness in these payments can reflect weakness in nonwage income, such as that generated by the stock market. However, it can also be “noisy” in the sense that it reflects taxpayers’ responses to tax payment rules as well as to expected nonwage income.

The filing deadline for federal individual income tax returns in 2020 was extended to July 15, and the deadline for 2021 was extended to May 17; most states delayed their filing deadlines as well.<sup>6</sup> The federal government also extended the filing deadline for the first estimated tax payments for tax year 2020 that were due on April 15. Twenty-nine states followed the federal government and extended the filing deadline for the first estimated payments attributable to tax year 2020 from April 15 to July 15 (Loughead 2020).

To make things even more confusing, eight states (Delaware, Indiana, Montana, Nebraska, New Jersey, New York, Oklahoma, and Rhode Island) delayed the first estimated payments for tax year 2020 (originally due on April 15) to July 15 but did not extend the deadline for the second estimated payments for tax year 2020 (which were due on June 15). Most taxpayers likely filed first estimated payments for tax year 2020 with their 2019 income tax returns, even in the states where the first

estimated payments for tax year 2020 were due in April. This could be because of confusion caused by differences between federal and state due dates for filing first estimated payments for tax year 2020.

Because of the unusual changes in income tax filing deadlines in 2020 and 2021, we present combined data for the April 2021 through January 2022 period, which largely corresponds to all four estimated payments for tax year 2021. Estimated payments declined earlier in the pandemic, largely because of the fluctuations in the performance of financial markets, loss of earnings for some self-employed individuals, and other changes in the economy related to the pandemic. Further, some taxpayers likely held off making estimated payments last year because of the uncertainty around the pandemic and what their earnings would end up being. Our data show that 26 states reported year-over-year declines in estimated payments for April 2020 through January 2021, which largely included all four estimated payments for tax year 2020. Estimated payments for the nation increased 2 percent between April 2020 and January 2021 compared with the same period a year earlier; the growth in the median state was negative 2.2 percent ([Table A5](#)).

Estimated payments showed robust year-over-year growth of 38.9 percent for April 2021 through January 2022, which largely included all four estimated payments for tax year 2021. Growth in the median state was substantially lower, at 22.9 percent ([Table A5](#)). The strong growth in estimated payments is in part caused by weakness in the previous year but also by the stock market's strong performance. In 2021, the S&P 500 stock index rose 33 percent, the fastest average annual growth rate in more than six decades. A strong stock market means larger capital gains realizations conditional on individuals trading and higher estimated income tax payments. Realizations could also have been higher because of individuals realizing capital gains during the year because of expected changes in federal tax rates or policy.

All states but Missouri reported growth in estimated payments during April 2021 through January 2022 period. The largest growth in dollar value was in California, where estimated payments increased by \$16.5 billion or 55.3 percent in the April 2021 through January 2022 period compared with the same period a year earlier. The second largest growth in dollar value was in New York, reporting growth of \$5.1 billion or 31.4 percent. Estimated payments in California and New York combined represented 59.2 percent of the total estimated payments filed from April 2021 through January 2022. Given their size and population composition, it isn't surprising that the largest shares of payments are from these two states, but the level of concentration is disproportionate, and much of the strong growth is largely attributable to the growth in California.

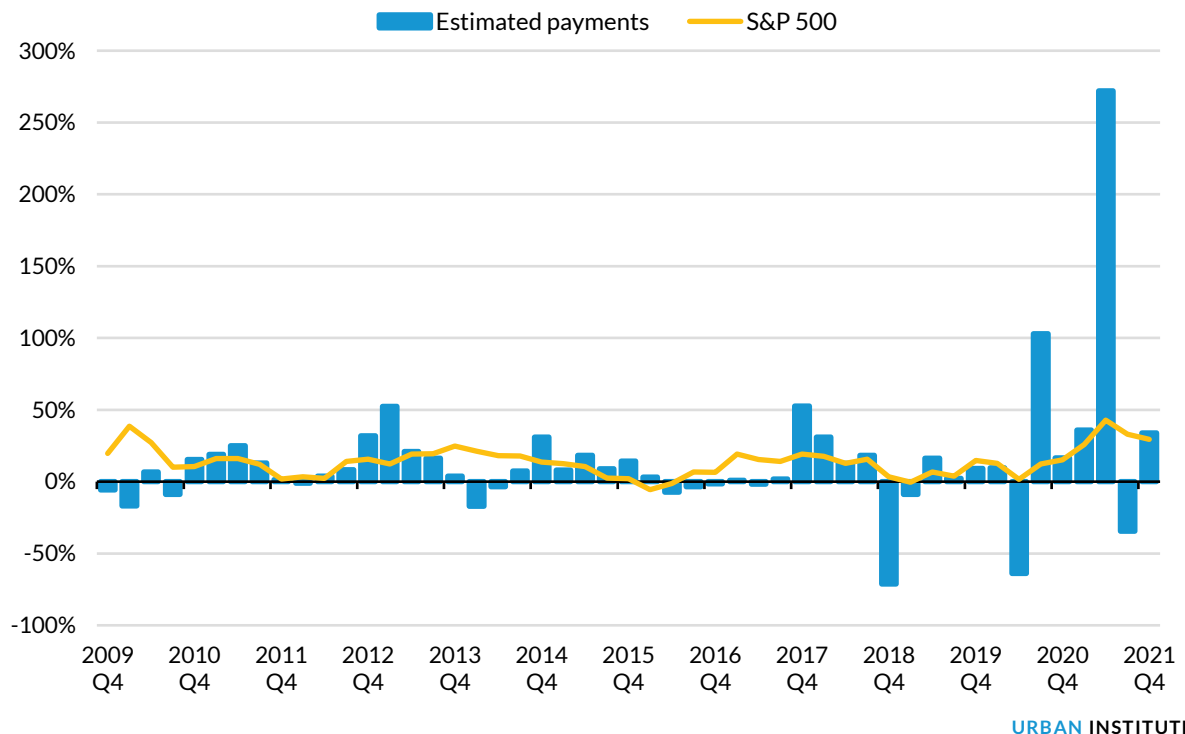
[Figure 4](#) shows year-over-year percentage change by quarter in estimated payments and in the S&P 500 Index for the past 13 years. The longer-term trends indicate substantial volatility in estimated payments, which is partially caused by volatility in the stock market but also by actual and expected federal tax policy changes and taxpayer responses, which affect capital gains realizations and tax timing.

For example, the substantial growth in estimated payments in the final quarter of 2017 and the first quarter of 2018, as well as the steep declines in estimated payments in the final quarter of 2018, were mostly attributable to the passage of the TCJA.

**FIGURE 4**

### Large Volatility in Estimated Payments

*Year-over-year nominal percentage change in estimated payments and S&P 500 Index*



**Source:** Individual state government agencies and Yahoo Finance (S&P500), analysis by the author.

The volatility in estimated tax payments was particularly exacerbated during the pandemic. Estimated payments saw steep year-over-year declines in the second quarter of 2020 and abrupt growth in the third quarter of 2020, largely caused by the deferral of the tax filing deadlines. Growth in estimated payments in the fourth quarter of 2020 and the first quarter of 2021 was more in line with the growth in the stock market. Estimated payments showed dramatic year-over-year growth of 272.1 percent in the second quarter of 2021, largely because of the lower baseline in 2020. Not surprisingly, estimated payments showed 34.5 percent year-over-year decline in the third quarter of 2021, reflecting the stronger base in the third quarter of 2020 and the shift back to a more normal timing of estimated payments. Because the temporary changes in timing altered revenue patterns significantly, we strongly encourage relying on combined quarterly numbers and longer-term trends. Year-over-year growth in estimated payments was 33.8 percent in the fourth quarter of 2021, which was more in line with the year-over-year growth of 29.4 percent in the stock market.

## Final Payments

Final tax payments normally represent a small share of total personal income tax revenues in the first, third, and fourth quarters of the tax year and a much larger share in the second quarter of the tax year because of the April 15 personal income tax filing deadline.<sup>7</sup>

Because of the changed filing deadline in 2020, a significant share of final payments was shifted from the second quarter of 2020 into the third quarter of 2020. Therefore, final payments represented only 17.9 percent of personal income tax revenues in the second quarter of 2020 (compared with 26.3 percent in 2019 and 27.2 percent in 2021) and 16.8 percent in the third quarter of 2020 (compared with 3.5 percent in 2019 and 4 percent in 2021). The shifting of final payments from the second quarter of 2020 to the third quarter of 2020 caused large variations in percentage changes. Final payments accounted for 7.1 percent of personal income tax revenues in the fourth quarter of 2021.

Table A6 shows year-over-year nominal growth rates in final payments for April 2021 through January 2022. Final payments on average declined by \$1.4 billion or 2.9 percent for April 2020 through January 2021 from a year earlier. In contrast, final payments increased by \$13 billion or 28.9 percent for April 2021 through January 2022 period compared with the same period a year earlier.

All states reported growth in final payments for April 2021 through January 2022 compared with a year earlier, with 32 states reporting double-digit percentage growth. California had the largest increase in final payments in dollar value (\$2.4 billion) from April 2021 through January 2022. Final payments in California represented around 18.7 percent of the national total.

## Refunds

By definition, personal income tax refunds represent a negative share of personal tax revenues and usually are a small amount in the third and fourth quarters of the tax year and a much larger negative amount in the first and second quarters of the tax year.

The ARPA, passed in March 2021, waived federal tax on up to \$10,200 of unemployment benefits received by each person in tax year 2020. Although states did not have to follow suit, about 25 states did so and provided income tax exemptions for unemployment benefits for tax year 2020. Some states extended the exemption to tax year 2021 as well. (Among the 41 states with a broad-based income tax, only 6 generally exclude unemployment benefits from taxable income: Alabama, California, Montana, New Jersey, Pennsylvania, and Virginia.) These exemptions led to higher income tax refunds in the second quarter of 2021, because some individuals had taxes withheld from unemployment payments that were refunded later.

Delays in processing of income tax returns in 2020 and the delayed income tax filing deadlines led to strong year-over-year growth in refunds in the third quarter of 2020, with states paying out \$5.6 billion more in tax refunds than in the same quarter in 2019. Subsequently, states paid out \$4.2 billion less in tax refunds in the third quarter of 2021 than in the third quarter of 2020. Refund payments were \$1.6 billion more in the fourth quarter of 2021 than in the fourth quarter of 2020. Overall, 31 states paid out more in refunds in the fourth quarter of 2021 than in the fourth quarter of 2020. California had the largest share of refund payouts (\$3 billion, or 31.7 percent of total refunds) followed by New York (\$1.8 billion, or 18.2 percent of total refunds) in the fourth quarter of 2021.

## Actual versus Forecasted Personal Income Tax Revenues

We collect data on actual and forecasted amounts for monthly personal income tax revenue from the states. Monthly personal income tax forecast information is currently available for 24 states. We present data for the fourth quarter of 2021 to illustrate the variance between actual and forecasted personal income tax revenues. Because the pandemic has upended standard economic trends (such as rising wages but lower labor participation rates), we expected to continue to see higher levels of variance in income tax revenue estimates. In addition, some states regularly update their monthly revenue forecasts, while other states prepare monthly revenue forecasts only once a year. Therefore, the variance between actual and forecast revenues also depends on the date of the forecast.

Actual personal income tax collections in the fourth quarter of 2021 were higher than in the fourth quarter of 2020 in 23 of 24 states for which we have detailed data. Personal income tax collections showed 35.7 percent year-over-year growth in the fourth quarter of 2021 ([Table 3](#)); growth in the median states was only 12.5 percent.

Actual personal income tax collections in the fourth quarter of 2021 were higher than forecasted in 22 states, with an average underestimate of 31.4 percent and a median underestimate of 10.8 percent ([Table 3](#)).

Forecasted values always depend on the date the forecast is made, but this is especially true this year because of uncertainty related to the changing labor market, changing wage patterns triggered by the pandemic, and most notably, various federal and state policy changes. Even states that regularly update their monthly revenue forecasts faced difficulties forecasting revenues precisely.

State revenue forecasters continue to face considerable challenges and have a difficult job of projecting revenues on the heels of a historically volatile time and more uncertainty ahead. The current global geopolitical crises, continued uncertainties related to the ongoing pandemic, high inflation, and evolving federal monetary policy could all muddle the revenue outlook for the states.

TABLE 3

**Actual versus Forecasted State Personal Income Tax Revenues***Dollar amounts in millions*

State	2020 Q4 actual	2021 Q4 actual	2021 Q4 forecast	Percent change, 2021 Q4 vs 2020 Q4	Percentage variance, 2021 Q4 actual from forecast	Forecast date
<b>Median</b>				<b>12.5%</b>	<b>10.8%</b>	
<b>Average</b>	<b>\$61,372</b>	<b>\$83,292</b>	<b>\$63,406</b>	<b>35.7%</b>	<b>31.4%</b>	
Arizona	1,432	1,636	1,533	14.2	6.7	Oct-21
Arkansas	720	798	749	10.8	6.5	Oct-21
California	24,459	28,943	23,938	18.3	20.9	May-21
Colorado	2,256	2,430	2,546	7.7	(4.6)	Dec-21
Idaho	433	519	483	19.9	7.6	Jul-21
Indiana	1,308	1,431	1,375	9.4	4.1	Apr-21
Kansas	866	946	869	9.2	8.9	Jun-21
Maine	490	531	452	8.2	17.3	May-21
Massachusetts	3,919	5,267	4,275	34.4	23.2	Aug-21
Minnesota	2,798	2,808	2,571	0.4	9.2	Nov-21
Mississippi	539	572	494	6.3	16.0	Nov-19
Montana	370	421	320	13.8	31.8	Jun-19
Nebraska	617	673	640	9.2	5.2	Nov-21
New Mexico	503	522	383	3.7	36.1	Jul-21
New York	9,939	23,407	11,364	135.5	106.0	Sep-21
North Dakota	76	64	52	(15.9)	23.7	Mar-21
Ohio	2,165	2,453	2,242	13.3	9.4	Mar-19
Oklahoma	672	816	705	21.3	15.8	Feb-21
Pennsylvania	2,868	3,396	3,253	18.4	4.4	Jun-21
Rhode Island	371	450	401	21.3	12.3	May-21
South Carolina	1,555	1,817	1,590	16.9	14.2	Nov-21
Vermont	221	232	234	4.9	(0.9)	Jul-21
West Virginia	469	524	456	11.7	14.8	Jan-21
Wisconsin	2,326	2,636	2,482	13.3	6.2	Jun-21

Source: Individual state data, analysis by the author.

## Corporate Income Taxes

State corporate income tax revenue is highly volatile because corporate profits and the timing of tax payments can vary and shift across quarters. Further, most states collect a small share of state revenues from corporate taxes and can therefore experience large fluctuations in percentage terms with little overall budgetary impact. Average quarterly year-over-year growth rates in state corporate income tax collections were 10.2 percent in nominal terms and 8 percent in real terms since 2010 (Table A1).

Year-over-year growth in state corporate income tax revenues was robust at 57.1 percent in the fourth quarter of 2021. Growth in the median state was weaker, at 39.7 percent. The strong growth in corporate income tax revenues in the fourth quarter of 2021 might be partially caused by corporations shifting income from tax year 2022 into tax year 2021, which they do to avoid paying potentially higher tax rates in 2022 given President Biden has stated plans to increase the corporate income tax rate.

All regions reported year-over-year double-digit growth in state corporate income tax revenue collections in the fourth quarter of 2021. The Far West region reported the strongest year-over-year growth in corporate income tax revenues at 124.7 percent, while the Mideast region reported the weakest growth at 12.8 percent. Forty-three states reported year-over-year growth in corporate income tax collections, while two states reported declines ([Table A2](#)). The strongest growth in dollar value was in California, where corporate income tax revenues increased by \$5.3 billion or 129.3 percent in the fourth quarter of 2021 compared with the same quarter in 2020. According to the Legislative Analyst's Office, the strength in California's corporate income tax revenues is largely attributable to two factors: (1) a temporary decrease in the use of certain tax credits and deductions and (2) a temporary increase in profits for businesses that benefited from high consumption demand arising from the pandemic.<sup>8</sup>

To examine the strength in corporate income tax revenues this year, we also examined combined payments for the second through fourth quarters of 2021. State corporate income tax revenues increased 61.9 percent in the second through fourth quarters of 2021 combined compared with the same period in 2020. All states reported year-over-year growth over that nine-month period ([Table A3](#)).

Before the pandemic, states were forecasting lower corporate income tax collections, mostly because of higher costs for business inputs and a weakened global economy (Dadayan 2020b). Moreover, data from the Bureau of Economic Analysis indicated substantial prepandemic weakness in business investment,<sup>9</sup> which implied lower corporate income tax revenue collections. The current and immediate outlook for state corporate income tax revenues, however, improved substantially because of strong rebounding in corporate profits in 2021. According to data from the Bureau of Economic Analysis, US corporate profits increased by nearly \$509 billion or 21 percent from fourth quarter of 2020 to the fourth quarter of 2021.<sup>10</sup> That growth in corporate profits is substantially higher than the 5.5 percent growth in real GDP for the same period.

The future of corporate income tax collections remains unpredictable in part because of expiration of or changes in various provisions in the TCJA. (See prior [State Tax and Economic Review](#) reports for detailed discussions of the TCJA provisions and the law's impact on state corporate income taxes.)

## General Sales Taxes

State general sales tax collections increased 18.9 percent in nominal terms and 12.3 percent in inflation-adjusted terms for the fourth quarter of 2021 compared with the same period in 2020. Sales tax collections saw sharp declines in the second quarter of 2020 primarily caused by the pandemic. Before the pandemic, sales tax collections had grown continuously since the first quarter of 2010 in nominal terms, and growth generally had been steady if unspectacular. Average quarterly year-over-



year growth rates in state general sales tax collections were 4.9 percent in nominal terms and 2.9 percent in real terms since 2010 ([Table A1](#)).

Sales tax collections increased in all regions for the fourth quarter of 2021 compared with the same period in 2020. The Southwest region reported the largest average year-over-year growth at 22 percent while the Great Lakes region reported the smallest average growth at 12.4 percent ([Table A2](#)).

All 45 states with broad-based sales taxes reported growth in sales tax collections for the fourth quarter of 2021 compared with the prior year. In 12 states, year-over-year growth in sales tax revenues was 20 percent or above. Maryland had the strongest year-over-year growth in sales tax revenues at 34.1 percent, while Iowa had the weakest growth at 3.8 percent.

State sales tax revenues were 23 percent higher in the second through fourth quarters of 2021 combined, compared with the same period in 2020 ([Table A3](#)). All states reported year-over-year growth over that nine-month period, with 24 states reporting growth of over 20 percent.

The recovery in sales tax collections was relatively slow following the Great Recession. This is partially attributable to tax dollars being lost because online retail sellers were not collecting and remitting sales tax on some or all sales. However, growth in sales tax revenue collections strengthened in the recent past, largely because of sales tax base expansions in several states and because of states' efforts to capture tax revenues from a larger share of online sales following the US Supreme Court's decision in *South Dakota v. Wayfair*.

On June 21, 2018, the US Supreme Court ruled in favor of South Dakota in that case,<sup>11</sup> giving states the authority to require out-of-state sellers with at least a specified amount of sales within the state to collect sales taxes and transfer the revenues to state governments. Currently, all states with general sales taxes have enacted laws or regulations to require sales tax collections by remote sellers. Florida and Missouri passed such legislation only recently.

States have set different sales and volume thresholds for internet sales taxation ([Table A7](#)). Most states have also enacted laws or regulations requiring marketplace facilitators to collect sales taxes on behalf of their sellers. State implementation of online sales taxation does not address if and how local jurisdictions that operate independently and have independent taxing authority will collect sales taxes from remote sellers. But some states, such as Alabama and Texas, have either passed legislation or continue to debate regulations for creating a "single local use tax rate" that remote sellers can use to calculate the local tax due instead of applying local sales tax rates for the specific jurisdiction in which a sale is made.

The pandemic has had a detrimental impact on some state sales tax revenue collections, particularly in states with high reliance on tourism, entertainment, and hospitality industries. Federally mandated

travel restrictions and state- or regionally mandated restrictions on a wide range of businesses and services, as well as individual and business actions taken to mitigate exposure to COVID-19, have led to less business activity and less consumer spending and therefore less sales tax revenue collections for states, particularly during the second quarter of 2020. Sales tax revenue increases in the most recent quarters reflect pent-up demand from consumers as well as growth in remote sales. Strong growth in general sales taxes (typically calculated as a percentage of spending as opposed to excise taxes, which are calculated on a per unit basis) is also caused in part by price increases from high inflation. However, if high inflation persists, consumers will likely adjust their spending habits and will either reduce their purchases or turn to cheaper products.

The Urban Institute conducted a survey of state government officials in spring 2021 to understand the impact of the pandemic on state general sales taxes and to evaluate likely changes in state policies and actions in response to the new economic and fiscal reality. During the pandemic, most states saw growth in the consumption of goods and declines in the consumption of services (which are largely not subject to sales tax). Many state leaders are concerned about sales tax performance once the pandemic is contained as consumers might shift back to spending more on services than on goods (Dadayan and Rueben 2021). Although some states have expanded their sales tax bases to include some services, many services are still not subject to state sales tax. And some states, such as Arizona and Missouri, have banned taxing services altogether.

## Motor Fuel Taxes

Motor fuel tax revenues saw steep quarterly declines between the second quarter of 2020 and the first quarter of 2021, likely because of steep drops in oil and gas prices in the first half of 2020 as well as because of decreased demand related to the pandemic and stay-at-home orders. This was followed by double-digit year-over-year growth in the second quarter of 2021, at 26.7 percent and largely reflecting the lower base in 2020 ([Table A1](#)).

Growth rates from the fourth quarter of 2020 to the fourth quarter of 2021 varied widely across the states and the regions. Motor fuel tax revenue collections increased in all regions but the Plains for the fourth quarter of 2021 compared with the same period in 2020. The Southeast region reported the largest average growth at 11.1 percent; the Far West region reported the smallest average growth at 5.8 percent. Motor fuel tax revenues declined slightly, by less than 0.1 percent in the Plains region ([Table A2](#)).

Forty-four states reported year-over-year growth in motor fuel sales tax collections for the fourth quarter of 2021; 11 states reported double-digit growth. Six states (Idaho, Iowa, Nebraska, Nevada,

New York, and Wyoming) reported declines in motor fuel sales tax collections in the fourth quarter of 2021 compared with the same quarter in 2020.

State motor fuel sales tax revenues increased 13.9 percent in the second through fourth quarters of 2021 combined compared with the same period in 2020, with a median growth of 11.8 percent ([Table A3](#)). Forty-six states reported year-over-year growth over that nine-month period; four states (Georgia, Louisiana, New Jersey, and New Hampshire) reported declines.

Motor fuel sales tax collections have fluctuated since the Great Recession. Average quarterly year-over-year growth rates in state motor fuel tax collections were 3.6 percent in nominal terms and 1.7 percent in real terms since 2010 ([Table A1](#)). Economic growth, changing fuel prices, general increases in fuel efficiency, and changing driving habits all affect gasoline consumption and motor fuel taxes.

Changes in state motor fuel tax rates also affect motor fuel sales tax collections. However, states differ in their motor fuel sales tax structures. In 28 states, motor fuel sales taxes are structured as a fixed cent-per-gallon rate, while in 22 states at least a portion of motor fuel tax rate is tied to a variable such as the price of gasoline, inflation, or another metric.<sup>12</sup>

Gas and oil prices have increased substantially in the first quarter of 2022, largely because of supply disruptions caused by current geopolitical tensions. The increases in prices will likely boost motor fuel tax revenues in states where the tax rate is variable. In addition, the high oil and gas prices will benefit oil-dependent states (Dadayan 2022b).

## Other Taxes

The US Census Bureau's quarterly data on state tax collections provide detailed information for some smaller revenue sources, including state property taxes, tobacco product excise taxes, alcoholic beverage excise taxes, and motor vehicle and operators' license taxes. In [Table A8](#), we show year-over-year growth rates for four-quarter moving average inflation-adjusted revenue for the nation as a whole. In the fourth quarter of 2021, states collected \$66 billion from all the smaller tax sources, which constituted one fifth of total state tax collections.

Compared with major tax sources, revenues from smaller state taxes have been growing at a slower pace since the Great Recession. The average quarterly year-over-year growth rate in state tax revenues from smaller sources was 2.0 percent in real terms since 2010.

The four-quarter moving average of inflation-adjusted revenues from smaller state tax sources showed a 13.4 percent increase for the fourth quarter of 2021 compared with the same quarter in 2020. State property taxes, which represent a small portion of overall state tax revenues, declined 0.1

percent. Tax revenues from tobacco product sales declined 4.4 percent, tax revenues from alcoholic beverage sales increased 8.6 percent, and revenues from motor vehicle and operators' licenses increased 0.8 percent. Finally, revenues from all other smaller tax sources increased 20.9 percent in the fourth quarter of 2021 compared with a year earlier.

## Preliminary Review of State Tax Revenues in the First Quarter of 2022

The Urban Institute regularly collects monthly state tax revenue data for all 50 states. Preliminary data from 45 states show strong year-over-year growth in overall state tax collections in the first quarter of 2022.

Growth was widespread across states and among the major sources of tax revenues. Overall state tax collections increased 26.2 percent in the first quarter of 2022 compared with the same period in 2021; growth in the median state was 17.3 percent (Table A9). Overall state tax revenues increased in 43 of 45 states for which we have preliminary data, with 36 states reporting double-digit growth.

Personal income tax collections increased 25.1 percent in the first quarter of 2022 compared with the same period a year earlier; growth in the median state was only 16.4 percent. Thirty-six states reported year-over-year growth in personal income tax revenues in the first quarter of 2022, with 29 states reporting double-digit growth. As mentioned, the strength in personal income tax revenues is partially attributable to elevated inflation.

State corporate income tax revenues increased 126.2 percent in the first quarter of 2022 compared with the same quarter in 2021; growth in the median state was much weaker, at 26.0 percent. According to our preliminary data analysis, corporate income tax revenues increased in 33 states and declined in 5 states. The strongest growth in dollar value was in California, where corporate income tax revenues increased by \$11.3 billion or 329 percent in the first quarter of 2022 compared with the same quarter in 2021. The strong growth in California's corporate income tax revenues is mostly attributable to California's newly introduced pass-through entity elective tax payments.<sup>13</sup>

Finally, state general sales tax collections increased 17.9 percent in the first quarter of 2022 compared with the same quarter in 2021; growth in the median state was 14.2 percent. Thirty-nine states reported growth in sales tax collections. As mentioned, strong growth in sales tax revenue collections is partly because of high inflation and a temporary boost in consumption of taxable goods.

Looking ahead at the coming months, state tax revenues will likely show continued growth in the short term, but the rapid pace of growth will likely moderate. We expect continued recovery in sectors of the economy that were most negatively affected by the pandemic, including tourism, hospitality, and

entertainment. Recovery in these sectors will boost consumption on services and therefore boost state tax revenues, although this boost will be less than the revenue increases related to consumption of goods because states tax services less intensively than goods. However, some of the economic drivers for robust revenue growth in 2021, such as the soaring stock market and the sharp increase in initial public offerings, have already begun to moderate; this will slow down state tax revenue growth.

# Factors Driving State Tax Revenues

Tax revenues vary across states and over time because of three underlying factors: state-level changes in the economy (which often differ from national trends), the different ways that national economic changes and trends affect each state's tax system, and legislated changes in tax rates or rules. The next two sections discuss changes in both economic conditions and recently legislated tax changes.

## Economic Indicators

Most state tax revenue sources are heavily influenced by the economy. In general, state tax revenues rise when the state economy grows, income taxes grow when resident incomes go up, sales taxes generate more revenue when consumers increase their purchases of taxable items, property taxes increase when house prices go up, and so on. However, the pandemic has upended the standard revenue and economic trends.

### State Gross Domestic Product

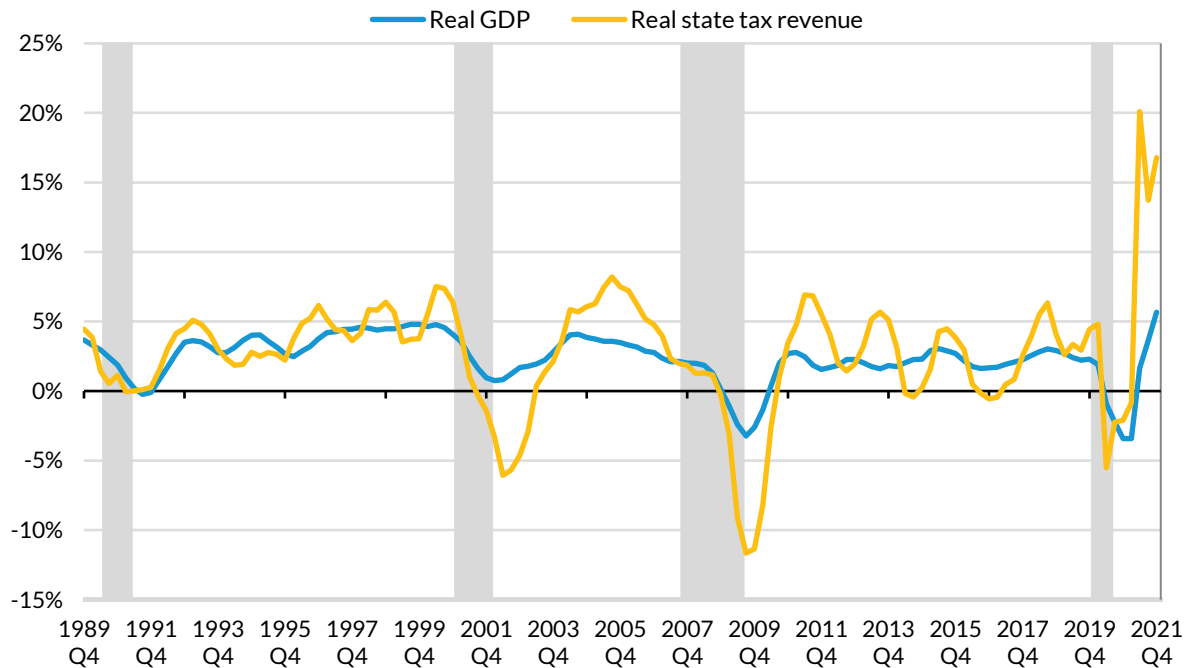
When the economy booms, tax revenues tend to rise rapidly, and when the economy declines, revenues tend to decline, though these changes have different patterns and timings. [Figure 5](#) shows year-over-year growth for four-quarter moving averages in real GDP and real state tax revenue. We present moving averages to smooth short-term fluctuations and illustrate the interplay between the state of the economy and state revenues. As shown in [Figure 5](#), real GDP showed uninterrupted growth between the second quarter of 2010 and the second quarter of 2020. Real GDP growth weakened throughout 2019 and the first quarter of 2020 and declined in the second, third, and fourth quarters of 2020 as well as the first quarter of 2021, based on four-quarter moving averages. By this measure, real state tax revenues also declined in the second, third, and fourth quarters of 2020 and the first quarter of 2021. Real GDP as well as real state tax revenues resumed growth since the second quarter of 2021. However, there was a large gap between the growth rates: year-over-year growth for four-quarter moving averages was 1.6, 3.6, and 5.7 percent in real GDP in the second, third, and fourth quarters of 2021. By contrast, real state tax revenues showed double-digit growth in the second, third, and fourth quarters of 2021, at 20.1, 13.7, and 16.8 percent respectively.

Even excluding the most recent volatility related to the pandemic and government actions, volatility in state tax revenue is not fully explained by changes in real GDP, a broad measure of the economy. State tax revenues became far more volatile in the past two decades, mostly because of changes in state tax rates and states' growing reliance on income taxes, some of which are progressive

and very dependent on volatile income sources such as stock options and capital gains. This was particularly the case during the pandemic: the stock market soared despite the real-world turmoil and led to larger capital gains realizations and increases in nonwithholding income tax payments. The economic trends observed in the past two years indicate that the pandemic exacerbated the magnitude and scope of inequalities.

**FIGURE 5**  
**State Tax Revenue Is More Volatile Than the Economy**

*Year-over-year percentage change in real state taxes and real GDP*



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**Source:** US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.

**Notes:** Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

States vary substantially in correlations between growth rates in real GDP and real state tax revenues. [Figure 6](#) shows for each state the four-quarter moving averages in real GDP and real state tax revenues for the fourth quarter of 2021 compared with the same quarter in 2020. By this measure, real state GDP increased in all 50 states, while real state tax revenues increased in all states but Wyoming. The year-over-year change in real state GDP ranged from 0.3 percent in Alaska to 8.6 percent for Tennessee; the change in real state tax revenues ranged from -0.5 percent in Wyoming to 29.5 percent in Alaska. The national average year-over-year growth in real state GDP was 5.7 percent, and the national average year-over-year growth in real state tax revenues was 16.8 percent, based on four-quarter moving averages.

The steep drop in oil prices early in the pandemic led to steep declines in the economies and revenues of both Alaska and Wyoming. Both Alaska and Wyoming are energy-dependent states with narrow tax structures and high dependence on severance tax revenues (Dadayan and Boyd 2016). Therefore, we observed large swings in Alaska's and Wyoming's revenue collections. Energy-dependent states will likely see strong growth in revenues in the coming months because of soaring oil prices caused by the current geopolitical crises.

**FIGURE 6**

### Growth Disparity: State Tax Revenues versus State GDP

Year-over-year percentage change in real state taxes and real GDP, 2021 Q4 versus 2020 Q4



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**Source:** US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.

**Notes:** Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

Red lines show US averages. Alaska and Wyoming are outliers and excluded from the figure.

## State Unemployment and Employment

Before March 2020, the national unemployment rate had seen a nearly uninterrupted decline from its Great Recession peak. The unemployment rate was 3.6 percent in the fourth quarter of 2019, which was a 50-year low.<sup>14</sup> The unemployment rate increased to 3.8 percent in the first quarter of 2020 and increased to 13 percent in the second quarter of 2020, caused by the immediate impact of the pandemic and marking the highest level on record since 1948. However, although this increase in unemployment was sharp, it was temporary: the unemployment rate dropped to 8.8 percent in the third quarter of

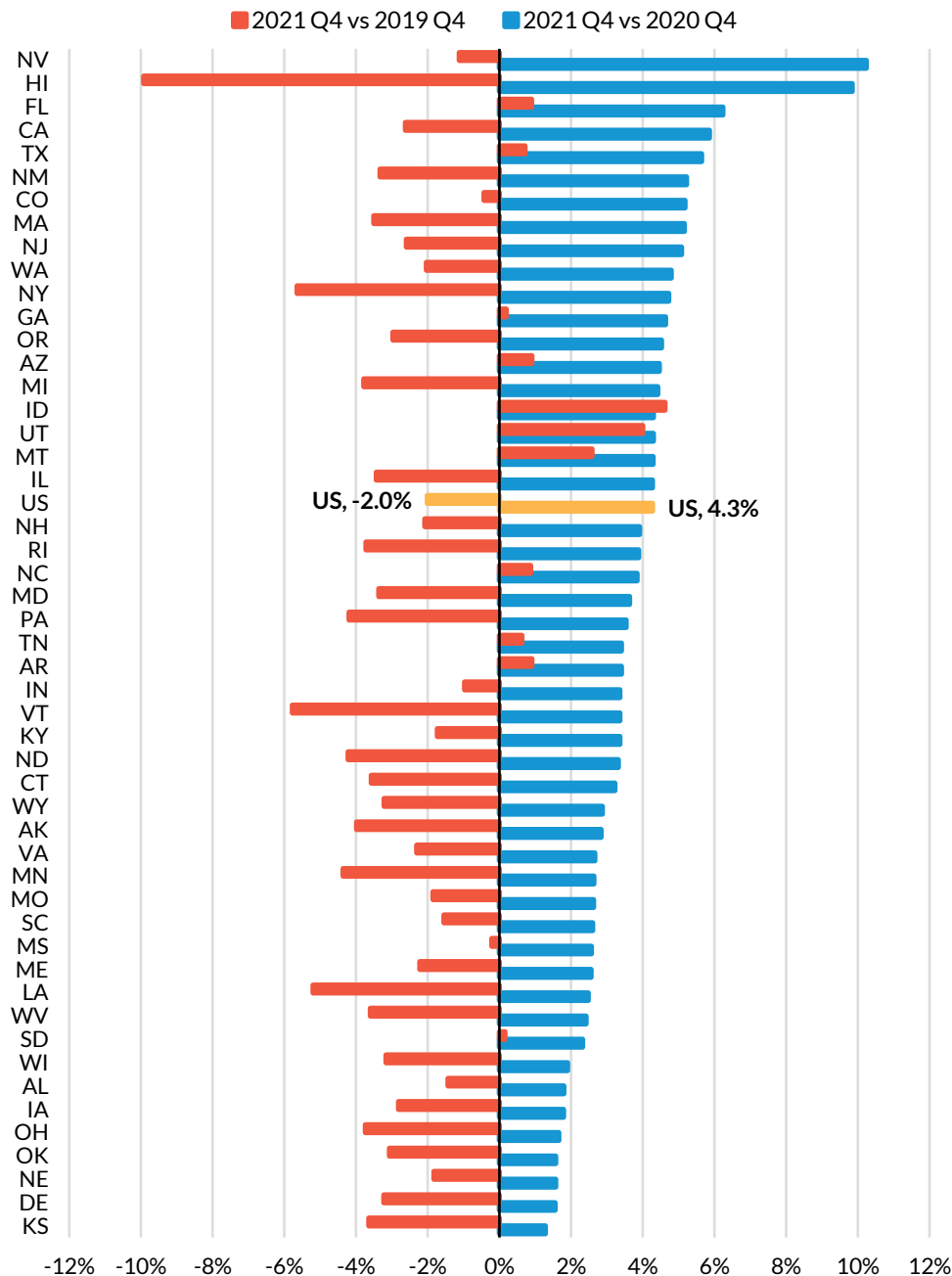


2020 and has been continuously improving since then as state economies slowly reopened and vaccines rolled out.

**FIGURE 7**

### Employment Rebounded Further in the Fourth Quarter of 2021 but Is Still Down Compared with Prepandemic Levels

*Year-over-year percentage change in employment, 2021 Q4 versus 2020 Q4 and 2019 Q4*



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Source: Bureau of Labor Statistics, analysis by the author.

Notes: Year-over-year change is the percentage change of seasonally-adjusted employment.

The unemployment rate for the nation averaged 4.2 percent in the fourth quarter of 2021. Unemployment rates ranged from 2.3 percent in Utah to 6 percent in New Mexico for the fourth quarter of 2021, although unemployment rates varied for different socioeconomic and demographic groups in each state. According to the latest data, the national unemployment rate dropped to 3.8 percent in the first quarter of 2022.

Nationwide employment increased 4.3 percent in the fourth quarter of 2021 compared with the same quarter in 2020 but was still 2.0 percent below the employment levels observed in the fourth quarter of 2019 (Figure 7). Overall employment declined substantially during the first year of the pandemic; this decline was largely caused by the adverse impact of the pandemic on various sectors of the economy. Declines were particularly steep in states with a high reliance on the hospitality and tourism industries (such as Hawaii and Nevada) as well as in states that experienced high numbers of COVID-19 cases during the first phase of the pandemic (such as New York). Therefore, widespread employment growth observed in the fourth quarter of 2021 is largely attributable to the much lower baseline employment rate observed in 2020. All 50 states reported growth in employment in the fourth quarter of 2021 compared with the fourth quarter of 2020, but at the same time, 39 states reported declines in employment compared with the fourth quarter of 2019. Year-over-year growth in employment ranged from 1.3 percent in Kansas to 10.2 percent in Nevada for the fourth quarter of 2021.

Although the employment situation improved substantially in recent months, current employment numbers are still below prepandemic levels. As of March 2022, around 1.6 million fewer people were employed than in February 2020. Moreover, about 15 percent of the change in employment numbers is attributable to lower levels of state and local government employees. Early in the pandemic, states and localities cut public-sector jobs to address actual and anticipated budgetary challenges caused by the pandemic or in response to reduced demand. In the aftermath, some government sector workers (especially teachers) retired or did not return to the public sector. Even with federal aid and stronger budgets, many state and local governments have been unable to refill positions, and these early declines have not been fully reversed. As of March 2022, state and local governments employed around 729,000 fewer people than they did before the pandemic, despite many vacancies advertised. Among private-sector jobs, the share of workers employed also declined dramatically for the leisure and hospitality sector, which as of March 2022 employed around 1.5 million fewer people than before the pandemic. On the other hand, the job market thrived for the trade, transportation, and utilities sector, which as of March 2022 employed around 772,000 more people than before the pandemic.

## Housing Market

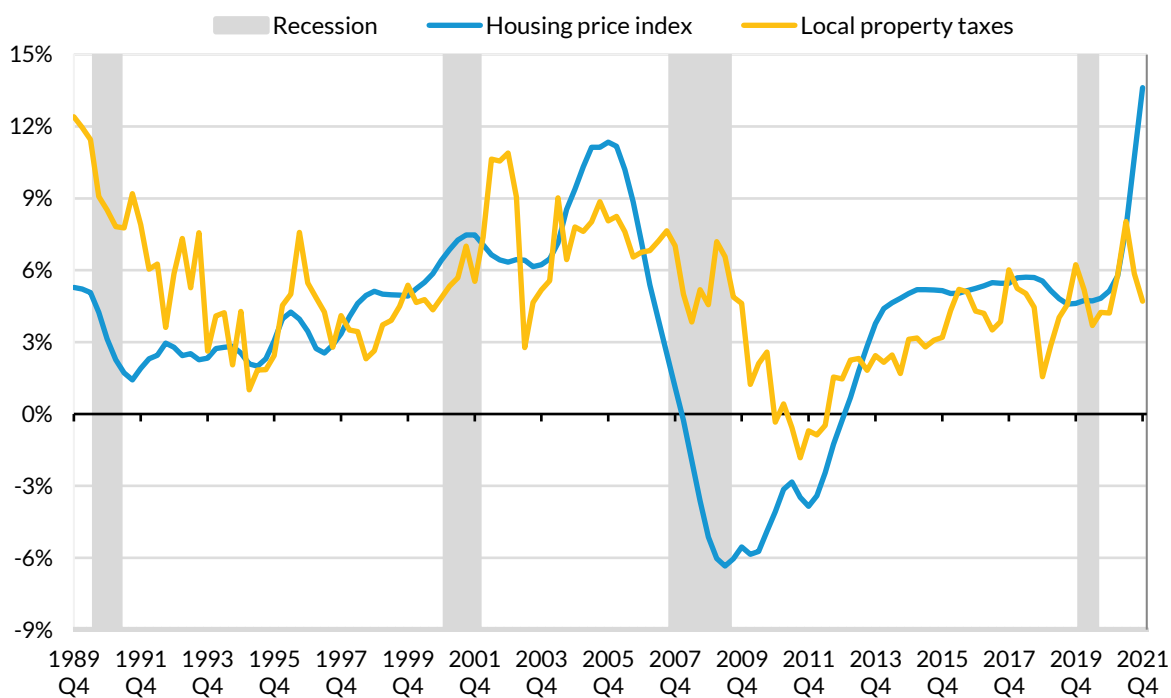
House prices are an important determinant of local property taxes, though changes in property tax revenues often lag property price changes. Assessment lags and assessment caps can affect how quickly house price changes translate into property tax revenue changes. Declines in house prices usually lead to declines in property taxes, while growth in house prices usually leads to growth in property tax revenues. There has been recent strength in housing markets as demand for new housing outstripped supply in the early months of the pandemic.

Figure 8 shows year-over-year percentage changes in the four-quarter moving average of the house price index and local property taxes in nominal terms. House prices saw steep declines during the Great Recession, which led to a significant slowdown in local property tax growth and to an actual decline in property tax revenues during state fiscal years 2011 and 2012 (Dadayan 2012). Growth in the house price index began weakening in mid-2005, and the price index declined for five straight years, between the first quarter of 2008 and the fourth quarter of 2012 (though patterns varied across states and regions).

FIGURE 8

### Strong Growth in Housing Prices; Growth in Local Property Taxes Ticked Downward

*Year-over-year nominal percentage change in house prices versus local property taxes*



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**Sources:** US Census Bureau (property taxes) and Federal Housing Finance Agency (house price indexes), analysis by the author.

**Notes:** Year-over-year change is the percentage change of four-quarter moving averages.

House prices rebounded in 2013 and the trend has been generally upward since then. National average house prices showed strong growth during the pandemic and appreciated 13.6 percent for the fourth quarter of 2021 compared with one year earlier; year-over-year growth in local property taxes was 4.7 percent for the same period, based on four-quarter moving averages. Local government property tax revenues weakened substantially in the second half of 2021, mostly because of declines in commercial property tax revenues caused by the pandemic and the increase in remote work.

Figure 9 shows nominal year-over-year percentage change in house price indexes in the fourth quarter of 2021 for all states. Statewide house price indexes increased in all states for the fourth quarter of 2021 compared with a year earlier, ranging from an 8.7 percent increase in North Dakota to a 30.4 percent increase in Idaho. Year-over-year growth was 17.9 percent for the nation.

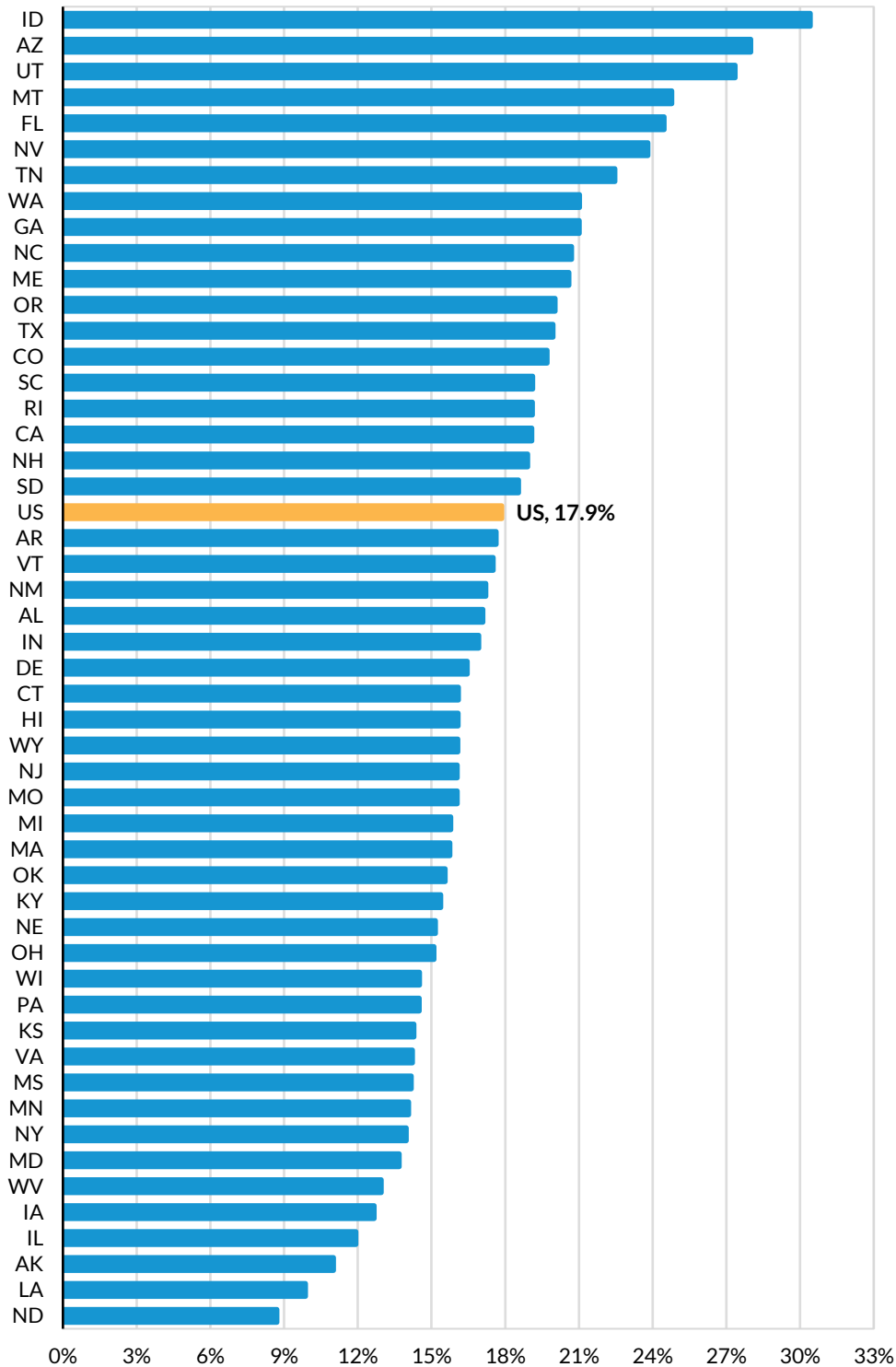
The pandemic generally has not negatively affected residential real estate property values. However, the pandemic's longer-term effects on commercial real estate property values, and thus commercial property tax revenues, remains uncertain. Declines in the value of commercial properties (such as hotels, retails, and offices) appear to have already led to lower property tax assessments and revenues. Further, residential properties in high-cost or densely populated cities such as San Francisco or New York have also been negatively affected by the pandemic. For example, the final assessment roll for full market value as well as for taxable assessed value of all New York City properties decreased more than 5 percent for fiscal year 2022. Reductions in property values for fiscal year 2022 reflect the negative impact of the COVID-19 pandemic on property values across the city.<sup>15</sup> Consequently, the city's local property tax revenues are projected to decline by more than \$860 million in fiscal year 2022.<sup>16</sup>

Predicting the pandemic's long-term effects on real estate and commercial properties is difficult because it is still unclear whether current patterns of remote work and online shopping will remain even after other aspects of the economy revert to prepandemic trends.

FIGURE 9

**Despite the Pandemic, All States Saw Solid Growth in Housing Prices**

*Year-over-year percentage change in house prices, 2021 Q4 versus 2020 Q4*



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Source: Federal Housing Finance Agency (house price indexes for all transactions, seasonally not adjusted), analysis by the author.

## Personal Consumption Expenditures

“Personal consumption expenditures” is a measure of national consumer spending. The measure shows the value of the goods and services purchased by American consumers and is correlated with the base for states’ sales taxes. [Figure 10](#) displays the year-over-year percentage change in the four-quarter moving average of real personal consumption expenditures for services, durable goods, and nondurable goods as well as for aggregate state real sales tax collections. We also show trends in the consumption of energy goods and services.

As shown in [Figure 10](#), before the pandemic, overall growth rates for both goods and services were already weaker than growth rates observed before the Great Recession. Growth rates in state sales tax revenues were also substantially weaker than the peaks observed before the Great Recession, although growth in sales tax revenues improved after the *Wayfair* decision as states started requiring remote sellers to collect and remit sales taxes. After five consecutive quarters of declines related to the pandemic, year-over-year spending on services increased an average of 1.8 percent in the third quarter of 2021 and 4.8 percent in the fourth quarter of 2021. By contrast, spending on both durable and nondurable goods increased consistently throughout the pandemic; year-over-year spending on durable and nondurable goods increased 20.4 and 9.2 percent, respectively, in the fourth quarter of 2021.

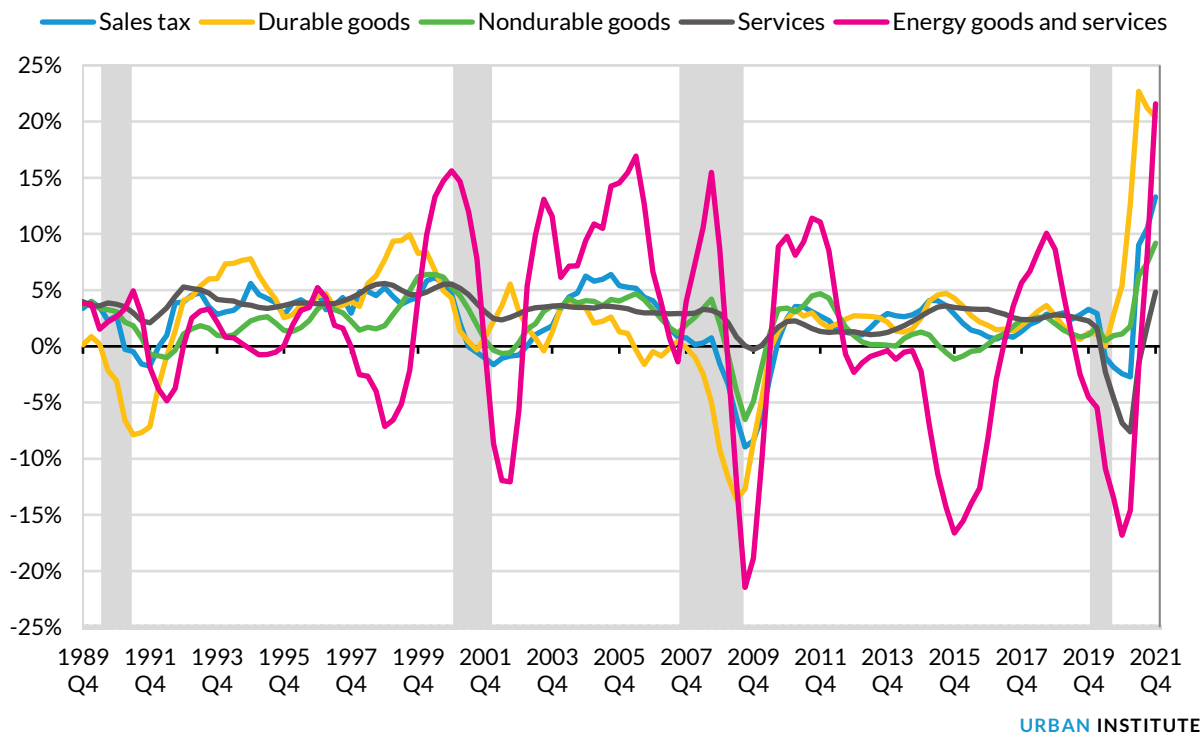
Before the pandemic, spending on services was resilient to economic downturns. However, spending on services declined in the second quarter of 2020, marking the first decline on record since 1948. Spending on services continued to decline for another year, primarily because of the decline in travel and attendance of in-person events caused by the pandemic. However, spending on services resumed growth in the second half of 2021 and is likely to continue increasing, absent new waves of the pandemic.

Spending on gasoline and energy goods represents about one-fifth of total spending on nondurable goods. As shown in [Figure 10](#), year-over-year real spending on energy goods and services declined for 19 consecutive quarters, from the third quarter of 2012 to the first quarter of 2017. The decline was particularly dramatic throughout 2015 and 2016, reflecting steep declines in oil and gas prices. Spending on energy goods and services increased between the second quarter of 2017 and the second quarter of 2019, largely bouncing back from previously depressed levels. However, consumption of energy goods and services showed year-over-year declines since then and through the second quarter of 2021, caused by the fall in oil and gas prices as well as reduced consumption during the pandemic. The decline in total spending in the energy sector led to declines in overall general sales tax revenues, which are based on prices as well as quantity consumed.

FIGURE 10

### The Pandemic Hammered Spending on Services

Year-over-year percentage change in real sales taxes and real personal consumption spending



Sources: US Census Bureau (sales taxes) and Bureau of Economic Analysis (NIPA table 2.3.5), analysis by the author.

Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

After eight consecutive quarters of declines, real spending on energy goods and services resumed growth and showed year-over-year growth of 8.3 percent in the third quarter of 2021 and 21.6 percent in the fourth quarter of 2021. Growth in spending on energy goods and services is largely in comparison to a lower base. Because many people are still commuting less and working remotely, spending on energy goods and services is still weak. However, as offices are gradually reopening and because gas and oil prices have seen steep increases, we will likely see continued rebounding in spending on energy goods and services in the coming months.

## Tax Law Changes Affecting the Fourth Quarter of 2021

Anticipated and actual federal policy changes had a substantial effect on state tax revenues in the past few years. But changes in state tax laws also affect state tax revenue trends. Several states enacted tax changes for fiscal year 2022, partly in response to growing state revenues and in response to residents' need for financial relief. In addition, governors continue to propose tax cuts, possibly to help them win reelection in the upcoming midterms.

We present analysis here based on the data and information retrieved from the National Association of State Budget Officers' Fall 2021 Fiscal Survey of the States. However, the analysis and forecasted effects are based on anticipated revenue gains or losses in response to states' legislated tax changes and do not include the effects of changing economic conditions. Actual revenue collections typically vary from expected tax revenues depending on the performance of underlying economic indicators, and estimates may not fully control for growing inflation.<sup>17</sup>

During the fourth quarter of 2021, enacted tax changes were forecasted to decrease revenues by \$0.5 billion compared with the same period in 2020 (though this reflects tax decreases in some states and increases in others).<sup>18</sup> Overall, tax changes were expected to decrease personal income taxes by \$1 billion and increase corporate income taxes by \$203 million. Enacted tax changes were also expected to increase sales taxes by \$372 million. Further, some states enacted changes in other taxes and fees, which were expected to decrease state tax and fee revenues by approximately \$41 million (NASBO 2021). Below, we discuss some of the major enacted tax changes for fiscal year 2022.

The estimated impact of all the enacted tax changes is a projected net decrease of \$2.7 billion in state revenues in fiscal year 2022. In contrast, legislated tax actions in fiscal year 2021 were estimated to increase state revenues by \$5.2 billion. New York and Illinois enacted the most substantial tax increases, with estimated net gains forecasted at \$3.6 billion and \$1.3 billion, respectively, for fiscal year 2022. In contrast, California, North Carolina, and Wisconsin enacted the most substantial tax cuts, with estimated net losses of \$1.6 billion, \$1.3 billion, and \$1.0 billion, respectively. Not only do these increases and decreases reflect differences in anticipated revenue, they can also have disparate impacts on different individuals within a state.

For fiscal year 2022, 24 states enacted personal income tax decreases, and 5 states enacted increases. The net impact of legislated tax changes is an estimated decrease of personal income tax revenues by \$4.7 billion in fiscal year 2022. The largest estimated increase was in New York, where officials temporarily expanded the top state personal income tax rate from 8.82 percent to 9.65 percent for income over \$1,077,550 but below \$5 million. Officials in New York also established two new brackets at rates of 10.30 percent for taxpayers with income over \$5 million but below \$25 million and 10.9 percent for taxpayers with income over 25 million. These tax rate changes went into effect on January 1, 2021, and will last through 2027.<sup>19</sup> These tax rate increases are estimated to increase New York's personal income tax collections by \$2.8 billion in fiscal year 2022.

Officials in California, North Carolina, and Wisconsin enacted various laws estimated to decrease personal tax revenue collections in fiscal year 2022 by more than \$1 billion in each of these states. To mitigate the impact of the pandemic, officials in California enacted a bill to conform to the exclusion from gross income of Paycheck Protection Program covered loan amounts provided pursuant to the Coronavirus Aid, Relief, and Economic Security (CARES) Act.<sup>20</sup> California's bill is estimated to decrease



California's personal income tax revenue collections by \$1.5 billion in fiscal year 2022. Officials in North Carolina enacted several tax law changes including loan forgiveness under the Paycheck Protection Program, reducing personal income tax rates from 5.25 percent to 3.99 percent for six years, increasing the individual standard deduction and child deduction.<sup>21</sup> These tax law changes are estimated to reduce North Carolina's personal income tax revenue collections by \$1.1 billion in fiscal year 2022. Lawmakers in Wisconsin reduced personal income tax rates by cutting the third income tax bracket rate from 6.27 percent to 5.3 percent for individuals with taxable income between \$24,250 and \$266,930.<sup>22</sup> This tax rate reduction is estimated to decrease personal income tax collections by \$1 billion in fiscal year 2022.

Lawmakers in Arizona introduced a 4.5 percent cap on the top marginal income tax rate, which effectively wiped out the 3.5 percent income tax surcharges on high-income taxpayers under Proposition 208 that was adopted by Arizona voters in November 2020.<sup>23</sup> This income tax rate cap is estimated to reduce Arizona's personal income tax revenues collections by \$0.9 billion in fiscal 2022.

Officials in Ohio eliminated the top income tax bracket for taxpayers with income over \$221,300 and reduced the tax rate from 4.413 percent to 3.99 percent for individuals with taxable income over \$110,650. State legislators also slightly reduced income tax rates for the lower brackets.<sup>24</sup> These income tax rate cuts are estimated to reduce Ohio's personal income tax revenue collections by \$0.8 billion in fiscal year 2022. Several other states also enacted laws modifying their personal income tax structures, and those measures often have disparate impacts on different income and racial and ethnic groups (Auxier 2022). Cutting income tax rates often largely benefits the highest-income taxpayers, while tax cuts that include expanded refundable credits (like the earned income tax credit or child tax credit) benefit lower-income households and taxpayers with children.

Six states enacted corporate income tax increases, and 15 states enacted decreases. Legislated tax changes were estimated to increase aggregate corporate income tax revenues by \$0.8 billion in fiscal year 2022. The largest corporate income tax changes were in Illinois and New York. Lawmakers in Illinois introduced several changes pertaining to corporate income tax structure, including placing a \$100,000 annual cap on the net operating loss deduction for corporations for tax years 2021 through 2024 as well as aligning the treatment of foreign-source dividends to domestic-source dividends.<sup>25</sup> These changes are estimated to increase the state's corporate income tax collections by \$1 billion in fiscal year 2022. Officials in New York enacted several tax changes pertaining to corporations, including increasing the business income tax rate from 6.5 percent to 7.25 percent for certain corporations for three years as well as extending the business capital base tax for certain corporations for another three years (it was initially set to phase out in 2021).<sup>26</sup> These changes are estimated to increase New York's corporate income tax revenues by \$0.9 billion in fiscal year 2022.

In California, Governor Gavin Newsom signed into law two major corporate income tax policies that have offsetting revenue impacts. First, California established a new elective pass-through entity tax that is estimated to increase corporate income tax revenues collections by \$1.3 billion in fiscal year 2022. Second, California's conformity law regarding the tax treatment of forgiven Paycheck Protection Program loans is expected to decrease corporate tax revenues by \$1.5 billion in fiscal year 2022.<sup>27</sup> The net impact of these two tax changes pertaining to businesses is an estimated decrease of \$0.2 billion in California's corporate income tax revenues for fiscal year 2022.

Four states enacted sales tax increases, and 15 states enacted decreases. The net impact of these legislated tax changes is an estimated increase in sales tax revenues of \$1.3 billion in fiscal year 2022. The most significant legislative changes pertaining to sales tax revenues were in Florida and Colorado, where sales tax revenues were estimated to increase by \$0.9 billion and \$0.4 billion, respectively, in fiscal year 2022. In Florida, Governor DeSantis signed a law that imposes a sales and use tax collection obligation on certain remote sellers and marketplace providers.<sup>28</sup> Officials in Colorado expanded the sales and use tax base to impose taxes on digital goods as well as on amounts charged for accessing mainframe computers, photocopying, and packing and crating.<sup>29</sup>

Four states enacted changes for motor fuel taxes, with an estimated net increase of \$88 million in fiscal year 2022. Three states enacted changes for cigarette taxes, with an estimated net increase of \$207 million in fiscal year 2022. Another three states enacted changes pertaining to gaming taxes, with an estimated overall increase of \$352 million in fiscal year 2022. Finally, two states enacted changes for alcohol taxes, with an estimated overall decrease of less than a \$1 million in fiscal year 2022. The estimated impact of each state's changes was not significant.

Twenty states enacted changes for some other taxes and fees, with an estimated overall decrease of \$0.8 billion in fiscal year 2022. These changes were estimated to increase state tax and fee revenues in 11 states but decrease revenues in 9 states. The most significant legislated changes were in Florida, where lawmakers revised the tax rates for the reemployment assistance, which is a federal-state partnership program and is funded through a reemployment tax paid by employers.<sup>30</sup> The net impact of the legislated changes is an estimated decrease of \$1.3 billion in Florida's state tax revenues for fiscal year 2022.

# Conclusion

State tax revenues have seen large swings since the onset of the pandemic. But although the pandemic-induced recession was sharp, it lasted only two months, making it the shortest contraction on record.<sup>31</sup>

Early in the pandemic, states were forecasting steep revenue shortfalls for fiscal years 2021 and 2022 (Dadayan 2020a). But fiscal and monetary policies adopted by the federal government in response to the pandemic helped states and localities keep their economies afloat. Overall state tax revenues were stronger during the pandemic than initially feared, in part because of generous federal stimulus packages that have injected trillions of dollars into the economy. Most states closed out fiscal year 2021 with revenues higher than forecasted. And many states are reporting robust growth in tax revenues for the first nine months of state fiscal year 2022.

Although state revenue collections have grown rapidly in the most recent months and reported revenue growth is widespread across states and among various revenue sources, these trends must be viewed with caution. The recent surge in state tax revenues is largely attributable to factors that may be temporary and likely to slow down in the coming months. The strong growth observed through the fourth quarter of 2021 was largely related to the robust stock market, the record number of initial public offerings, higher inflation, the boost in spending on taxable goods, and anticipation of possible federal tax hikes (Dadayan 2022a).

States continue forecasting growth in state tax revenues for fiscal year 2023, although recent forecasts have tempered or reversed expectations of revenue growth (Dadayan 2022c). State revenue forecasters are concerned that the current revenue patterns are not sustainable, and many are projecting a slowdown in the rapid pace of revenue growth. State revenues will be affected by the current geopolitical crises, continued uncertainties related to the ongoing pandemic, high inflation, and evolving federal monetary policy. Further, a few states enacted tax cuts in fiscal year 2022, and several others are proposing more tax cuts for fiscal year 2023. Those tax cuts will certainly reduce state tax revenue collections in the coming months.

In brief, although the state fiscal outlook remains positive in the near term, we expect to see less volatility and continued but weakened growth in state tax revenues in the coming months, absent any further external shocks and depending on the size of enacted tax cuts. However, the longer-term outlook for state and local budgets remains uncertain depending on federal monetary policy decisions and ongoing state actions, especially as federal assistance programs end and as temporary changes caused by the pandemic wane.

# Appendix: Additional Tables

TABLE A1

## Quarterly State Government Tax Revenue by Major Tax

Year / quarter	Nominal Y-O-Y Percentage Change					Inflation rate	Real Y-O-Y Percentage Change				
	PIT	CIT	Sales	MFT	Total		PIT	CIT	Sales	MFT	Total
<b>2010 Q1 - 2021 Q4 average growth</b>	<b>7.8</b>	<b>10.2</b>	<b>4.9</b>	<b>3.6</b>	<b>6.0</b>	<b>1.9</b>	<b>5.8</b>	<b>8.0</b>	<b>2.9</b>	<b>1.7</b>	<b>4.0</b>
2021 Q4	28.6	57.1	18.9	7.6	24.1	5.9	21.5	48.4	12.3	1.7	17.2
2021 Q3	(16.2)	(2.8)	12.5	9.1	(0.4)	4.6	(19.9)	(7.1)	7.5	4.3	(4.8)
2021 Q2	73.3	160.9	39.2	26.7	58.3	4.1	66.5	150.7	33.8	21.7	52.1
2021 Q1	18.3	30.8	3.1	(7.3)	9.6	2.1	15.8	28.0	0.9	(9.3)	7.3
2020 Q4	8.9	24.0	2.9	(7.4)	5.9	1.5	7.4	22.2	1.4	(8.7)	4.4
2020 Q3	42.7	63.6	2.9	(4.4)	18.9	1.3	40.8	61.5	1.6	(5.6)	17.4
2020 Q2	(32.1)	(44.3)	(13.2)	(17.9)	(24.6)	0.7	(32.6)	(44.7)	(13.8)	(18.5)	(25.1)
2020 Q1	5.0	(1.3)	3.8	5.2	4.0	1.7	3.2	(2.9)	2.1	3.4	2.2
2019 Q4	6.2	19.4	5.7	8.3	5.6	1.6	4.5	17.6	4.1	6.6	4.0
2019 Q3	4.3	11.8	7.1	6.0	5.5	1.7	2.6	9.9	5.4	4.3	3.8
2019 Q2	18.8	21.0	2.3	3.2	10.4	1.8	16.7	18.9	0.5	1.4	8.5
2019 Q1	(2.4)	40.5	5.6	1.8	2.7	2.0	(4.3)	37.8	3.5	(0.2)	0.6
2018 Q4	(9.2)	12.0	4.5	6.0	(0.1)	2.3	(11.3)	9.4	2.1	3.6	(2.4)
2018 Q3	7.9	26.4	6.3	8.8	8.4	2.5	5.2	23.3	3.7	6.2	5.7
2018 Q2	10.6	17.5	5.3	8.9	8.9	2.6	7.8	14.5	2.6	6.1	6.2
2018 Q1	15.3	(6.5)	5.0	10.9	8.9	2.2	12.9	(8.5)	2.8	8.6	6.6
2017 Q4	14.9	10.5	4.5	9.7	9.1	2.1	12.6	8.3	2.4	7.5	6.9
2017 Q3	4.6	6.5	3.1	2.0	3.9	1.9	2.6	4.5	1.2	0.0	2.0
2017 Q2	(0.0)	11.7	3.2	5.2	2.3	1.7	(1.7)	9.8	1.5	3.5	0.6
2017 Q1	8.9	(28.1)	2.3	0.9	3.3	2.0	6.7	(29.5)	0.3	(1.1)	1.2
2016 Q4	0.3	(3.4)	1.7	1.2	1.2	1.5	(1.1)	(4.8)	0.2	(0.3)	(0.3)
2016 Q3	2.4	(9.0)	2.7	1.4	1.3	0.9	1.5	(9.8)	1.8	0.5	0.3
2016 Q2	(2.8)	(9.7)	1.2	0.3	(1.7)	0.9	(3.6)	(10.5)	0.3	(0.6)	(2.5)
2016 Q1	1.7	(5.9)	1.9	2.9	1.4	0.8	0.9	(6.6)	1.1	2.1	0.7
2015 Q4	5.1	(9.5)	2.7	3.5	2.4	0.8	4.3	(10.2)	1.9	2.7	1.5
2015 Q3	6.5	0.3	3.5	5.0	4.1	0.9	5.5	(0.6)	2.6	4.1	3.2
2015 Q2	14.0	6.0	3.6	2.5	7.1	1.1	12.8	4.8	2.5	1.4	5.9
2015 Q1	6.9	3.3	5.8	4.3	5.5	1.1	5.8	2.2	4.6	3.1	4.3
2014 Q4	8.4	10.1	6.5	2.4	5.7	1.5	6.8	8.5	4.9	0.9	4.1
2014 Q3	4.4	7.4	6.6	0.6	4.3	2.0	2.4	5.3	4.5	(1.4)	2.2
2014 Q2	(6.7)	(0.3)	4.6	4.0	(1.0)	2.1	(8.6)	(2.4)	2.5	1.9	(3.0)
2014 Q1	(1.3)	7.9	3.0	2.8	0.5	1.8	(3.0)	6.0	1.2	1.0	(1.3)
2013 Q4	1.1	3.6	5.1	3.6	3.0	1.8	(0.7)	1.8	3.2	1.7	1.2
2013 Q3	4.9	1.8	5.5	2.8	5.3	1.7	3.1	0.2	3.7	1.1	3.5
2013 Q2	19.2	8.5	4.6	2.0	10.0	1.7	17.2	6.6	2.8	0.3	8.1
2013 Q1	18.2	9.6	3.9	(1.7)	8.9	1.9	16.0	7.6	2.0	(3.5)	6.9
2012 Q4	10.4	2.5	3.3	1.3	5.6	2.1	8.1	0.4	1.2	(0.8)	3.4
2012 Q3	4.7	8.6	2.3	2.2	3.1	1.8	2.9	6.7	0.5	0.4	1.3
2012 Q2	4.7	1.5	2.1	1.7	3.2	1.7	2.9	(0.2)	0.4	0.0	1.5
2012 Q1	4.0	4.2	4.6	1.3	3.7	2.0	2.0	2.2	2.6	(0.7)	1.7
2011 Q4	3.7	(6.5)	3.5	0.7	3.2	1.9	1.7	(8.2)	1.6	(1.2)	1.3
2011 Q3	9.7	2.5	3.7	(0.3)	6.2	2.3	7.2	0.1	1.3	(2.5)	3.7
2011 Q2	15.3	19.4	5.7	7.5	11.1	2.2	12.9	16.9	3.5	5.2	8.8
2011 Q1	12.1	4.4	6.3	13.4	10.0	1.9	10.0	2.4	4.4	11.2	7.9
2010 Q4	10.5	19.8	4.8	11.8	8.4	1.7	8.7	17.8	3.1	10.0	6.6
2010 Q3	4.8	(0.9)	4.5	10.6	5.4	1.5	3.3	(2.3)	3.0	9.0	3.9
2010 Q2	2.2	(19.4)	4.8	4.0	2.6	1.2	1.0	(20.3)	3.6	2.8	1.4
2010 Q1	2.4	0.8	0.6	(0.2)	2.9	0.5	1.9	0.2	0.0	(0.7)	2.4

Source: Bureau of Economic Analysis (GDP) and US Census Bureau (tax revenue), analysis by the author.

Notes: CIT = corporate income tax; PIT = personal income tax; MFT = motor fuel tax; Y-O-Y = year-over-year.

TABLE A2

## Quarterly State Government Tax Revenue, by State

Nominal percentage change, 2021 Q4 versus 2020 Q4

State / region	PIT	CIT	Sales	MFT	Total
<b>US (median)</b>	<b>13.8</b>	<b>39.7</b>	<b>16.4</b>	<b>7.5</b>	<b>16.2</b>
<b>US (average)</b>	<b>28.6</b>	<b>57.1</b>	<b>18.9</b>	<b>7.6</b>	<b>24.1</b>
<b>New England</b>	<b>28.5</b>	<b>20.1</b>	<b>19.9</b>	<b>8.7</b>	<b>22.4</b>
Connecticut	25.9	26.4	15.6	8.2	19.3
Maine	8.6	70.8	17.1	2.7	14.7
Massachusetts	34.6	7.8	25.2	11.2	28.5
New Hampshire	13.0	23.5	N/A	7.7	15.1
Rhode Island	16.6	27.7	17.0	7.5	14.0
Vermont	4.9	71.3	9.3	11.0	7.3
<b>Mideast</b>	<b>79.3</b>	<b>12.8</b>	<b>16.4</b>	<b>7.3</b>	<b>42.1</b>
Delaware	124.0	189.8	N/A	14.4	58.6
Maryland	11.1	9.5	34.1	13.6	14.9
New Jersey	13.8	6.9	13.5	7.9	18.3
New York	135.5	7.2	16.4	(0.7)	75.8
Pennsylvania	16.3	25.2	12.4	8.8	14.4
<b>Great Lakes</b>	<b>14.1</b>	<b>44.1</b>	<b>12.4</b>	<b>7.5</b>	<b>13.2</b>
Illinois	9.6	83.2	11.3	8.0	16.2
Indiana	10.5	26.5	14.5	9.7	13.7
Michigan	26.2	3.4	13.6	7.5	12.7
Ohio	13.1	NM	10.4	4.5	9.6
Wisconsin	13.3	13.5	14.3	10.9	12.5
<b>Plains</b>	<b>6.6</b>	<b>66.2</b>	<b>15.7</b>	<b>(0.0)</b>	<b>14.1</b>
Iowa	4.5	(4.8)	3.8	(17.6)	4.9
Kansas	7.8	39.0	14.6	2.9	12.0
Minnesota	0.4	109.2	16.6	8.0	13.3
Missouri	18.5	42.4	29.2	9.4	19.8
Nebraska	9.1	39.7	10.1	(9.3)	10.0
North Dakota	(9.0)	37.2	18.1	3.8	39.2
South Dakota	N/A	220.8	15.7	4.5	8.5
<b>Southeast</b>	<b>16.6</b>	<b>31.0</b>	<b>21.8</b>	<b>11.1</b>	<b>17.7</b>
Alabama	16.8	100.8	12.2	4.2	15.1
Arkansas	10.9	49.6	10.2	6.5	9.1
Florida	N/A	(11.3)	30.6	10.7	22.5
Georgia	23.3	40.5	21.3	9.5	21.2
Kentucky	11.0	22.9	16.8	4.7	11.1
Louisiana	15.4	42.3	17.9	1.2	20.7
Mississippi	12.0	65.6	15.2	3.8	12.3
North Carolina	17.6	37.1	20.3	7.5	16.1
South Carolina	16.9	115.0	18.4	17.9	17.9
Tennessee	(69.5)	4.7	20.7	5.5	17.4
Virginia	14.3	80.0	13.3	41.0	16.9
West Virginia	11.7	83.2	12.4	7.3	17.6
<b>Southwest</b>	<b>11.7</b>	<b>75.0</b>	<b>22.0</b>	<b>8.2</b>	<b>28.6</b>
Arizona	14.2	112.5	16.3	7.5	16.8
New Mexico	3.7	90.9	22.7	7.5	49.2
Oklahoma	12.1	2.7	16.1	6.6	15.5
Texas	N/A	N/A	23.8	8.7	32.5
<b>Rocky Mountain</b>	<b>13.4</b>	<b>53.4</b>	<b>17.3</b>	<b>6.1</b>	<b>15.9</b>
Colorado	7.7	17.4	16.5	15.0	10.2
Idaho	19.5	259.3	18.7	(5.6)	27.0
Montana	45.5	21.0	N/A	5.7	26.5
Utah	14.3	30.1	19.3	6.5	16.2
Wyoming	N/A	N/A	8.7	(0.1)	13.8

State / region	PIT	CIT	Sales	MFT	Total
<b>Far West</b>	<b>18.4</b>	<b>124.7</b>	<b>20.8</b>	<b>5.8</b>	<b>26.4</b>
Alaska	N/A	127.2	N/A	12.6	145.8
California	18.5	129.3	22.2	6.9	27.6
Hawaii	18.0	48.8	31.1	20.0	25.1
Nevada	N/A	N/A	27.4	(16.5)	34.8
Oregon	17.2	50.8	N/A	7.5	30.0
Washington	N/A	N/A	13.9	5.3	12.8

**Source:** US Census Bureau (tax revenue), analysis by the author.

**Notes:** CIT = corporate income tax; PIT = personal income tax; MFT = motor fuel tax; N/A = not applicable; NM = not meaningful.

TABLE A3

## State Government Tax Revenue Trends during the Pandemic

Nominal percentage change, April-December 2021 versus April-December 2020

State / region	PIT	CIT	Sales	MFT	Total
<b>US (median)</b>	<b>14.4</b>	<b>53.8</b>	<b>20.6</b>	<b>11.8</b>	<b>20.4</b>
<b>US (average)</b>	<b>23.9</b>	<b>61.9</b>	<b>23.0</b>	<b>13.9</b>	<b>25.5</b>
<b>New England</b>	<b>18.1</b>	<b>43.6</b>	<b>27.5</b>	<b>12.8</b>	<b>22.3</b>
Connecticut	10.4	27.5	21.4	15.6	17.1
Maine	15.5	64.4	29.8	9.2	21.9
Massachusetts	23.2	52.5	32.8	17.0	28.1
New Hampshire	(27.6)	49.8	N/A	(9.3)	20.9
Rhode Island	18.4	5.6	23.4	14.7	13.4
Vermont	3.0	143.9	15.5	11.4	11.0
<b>Mideast</b>	<b>39.4</b>	<b>46.3</b>	<b>23.4</b>	<b>12.1</b>	<b>33.0</b>
Delaware	40.8	98.5	N/A	15.2	29.1
Maryland	11.5	40.2	35.9	20.9	20.8
New Jersey	16.3	42.6	22.9	(10.9)	27.0
New York	60.9	47.6	21.8	10.2	45.5
Pennsylvania	12.0	49.7	20.9	13.6	20.4
<b>Great Lakes</b>	<b>13.4</b>	<b>59.6</b>	<b>19.7</b>	<b>13.1</b>	<b>17.7</b>
Illinois	13.3	76.6	22.3	13.1	21.4
Indiana	13.4	48.6	20.2	19.2	19.9
Michigan	13.3	53.8	21.0	16.5	16.2
Ohio	16.3	NM	17.2	8.5	14.1
Wisconsin	10.9	33.4	16.8	11.7	14.4
<b>Plains</b>	<b>14.4</b>	<b>59.9</b>	<b>18.0</b>	<b>7.7</b>	<b>19.0</b>
Iowa	4.6	13.8	18.4	0.4	12.8
Kansas	16.8	67.0	17.5	11.5	18.5
Minnesota	16.7	89.1	18.3	11.8	19.9
Missouri	18.5	24.3	22.3	11.2	18.8
Nebraska	6.7	69.0	12.8	1.6	13.1
North Dakota	(0.1)	66.1	15.5	5.4	47.0
South Dakota	N/A	12.3	15.2	9.5	11.9
<b>Southeast</b>	<b>15.7</b>	<b>50.1</b>	<b>26.8</b>	<b>14.3</b>	<b>21.9</b>
Alabama	21.5	86.2	16.7	10.4	19.1
Arkansas	10.7	56.7	16.5	11.1	14.0
Florida	N/A	42.5	37.6	18.5	32.7
Georgia	15.8	52.6	30.6	(0.3)	20.4
Kentucky	11.1	47.6	18.8	10.7	15.4
Louisiana	10.4	29.9	18.7	(8.9)	17.1
Mississippi	16.7	44.1	19.2	8.1	16.8
North Carolina	20.8	69.0	24.1	12.8	21.5
South Carolina	13.8	91.4	12.3	30.2	21.0
Tennessee	(46.8)	24.8	25.8	10.9	21.4
Virginia	15.7	63.1	20.7	45.7	19.5
West Virginia	6.7	62.0	14.2	8.0	19.3
<b>Southwest</b>	<b>12.9</b>	<b>59.4</b>	<b>19.2</b>	<b>14.1</b>	<b>27.3</b>
Arizona	19.3	99.0	21.5	14.5	20.6
New Mexico	8.8	1.7	12.2	15.4	40.8
Oklahoma	4.9	23.9	17.8	12.1	17.1
Texas	N/A	N/A	19.3	14.2	29.7
<b>Rocky Mountain</b>	<b>13.9</b>	<b>80.0</b>	<b>20.6</b>	<b>14.7</b>	<b>18.6</b>
Colorado	9.8	66.7	18.7	17.5	14.9
Idaho	20.6	116.6	24.3	6.6	25.1
Montana	28.7	55.8	N/A	15.7	23.9
Utah	14.4	93.7	23.3	19.6	21.3
Wyoming	N/A	N/A	8.0	3.1	7.6

State / region	PIT	CIT	Sales	MFT	Total
<b>Far West</b>	<b>29.0</b>	<b>88.3</b>	<b>24.9</b>	<b>17.3</b>	<b>30.9</b>
Alaska	N/A	100.2	N/A	0.3	64.7
California	28.9	90.4	24.6	19.0	32.6
Hawaii	32.4	160.0	35.1	26.1	38.0
Nevada	N/A	N/A	36.2	17.0	36.6
Oregon	28.9	44.6	N/A	12.9	30.6
Washington	N/A	N/A	20.6	11.0	15.1

**Source:** US Census Bureau (tax revenue), analysis by the author.

**Notes:** CIT = corporate income tax; PIT = personal income tax; MFT = motor fuel tax; N/A = not applicable; NM = not meaningful.



TABLE A4

## State Personal Income Tax Withholding

Year-over-year nominal percentage change

State / region	Tax Year 2020				Tax Year 2021			
	2020 Q1	2020 Q2	2020 Q3	2020 Q4	2021 Q1	2021 Q2	2021 Q3	2021 Q4
<b>US (median)</b>	6.9	(0.1)	3.6	4.0	4.9	12.1	9.5	11.1
<b>US (average)</b>	5.8	(1.2)	5.0	6.2	6.5	15.4	12.2	15.7
<b>New England</b>	4.7	2.5	4.7	5.1	6.6	10.7	9.8	10.9
Connecticut	2.0	1.9	4.0	6.6	2.3	10.5	ND	ND
Maine	7.6	2.8	9.2	7.8	10.7	14.3	14.8	9.8
Massachusetts	5.8	2.9	4.5	4.3	9.4	10.2	9.3	10.5
Rhode Island	6.9	1.1	3.4	4.0	0.2	12.1	7.7	13.4
Vermont	3.1	2.3	7.3	1.5	1.1	10.8	11.9	15.8
<b>Mideast</b>	5.6	(2.1)	4.3	2.8	4.7	15.0	11.1	20.0
Delaware	10.1	(2.3)	4.8	(39.8)	34.5	16.2	9.3	113.0
Maryland	8.9	2.7	5.4	7.8	0.7	13.7	8.1	7.7
New Jersey	7.0	(5.8)	7.5	9.5	7.3	21.2	7.6	10.9
New York	4.6	(1.8)	3.0	2.8	4.9	14.2	14.8	26.3
Pennsylvania	3.8	(6.7)	4.5	(6.7)	1.8	12.8	5.1	18.7
<b>Great Lakes</b>	4.2	(2.5)	4.3	3.7	5.2	12.2	5.9	10.7
Illinois	3.1	(0.0)	6.0	6.1	4.3	11.2	5.8	10.1
Indiana	7.3	(10.1)	9.6	2.3	6.0	19.7	2.7	10.5
Michigan	6.9	4.3	5.0	2.9	6.8	5.5	3.5	10.7
Ohio	1.9	(9.0)	(0.8)	0.7	1.6	18.3	6.7	8.0
Wisconsin	3.4	(1.3)	(0.0)	4.0	8.5	10.2	13.6	15.1
<b>Plains</b>	4.4	(1.9)	(0.6)	3.4	3.2	11.5	11.0	8.5
Iowa	3.0	0.8	3.6	1.2	3.2	3.9	1.2	2.9
Kansas	9.7	(4.0)	3.2	4.4	2.8	12.9	11.1	9.7
Minnesota	1.6	(2.2)	(6.0)	4.5	1.9	13.6	16.5	7.5
Missouri	4.7	(3.3)	0.1	1.9	5.5	13.0	11.3	12.3
Nebraska	10.9	2.3	8.2	6.2	5.4	11.5	7.0	9.8
North Dakota	13.3	(6.0)	2.5	(4.9)	(11.6)	2.8	1.2	11.8
<b>Southeast</b>	5.4	(0.6)	4.2	3.9	6.0	9.8	8.2	13.2
Alabama	9.0	(5.2)	1.9	3.9	4.8	10.7	10.7	9.3
Arkansas	9.3	(8.9)	(4.4)	(4.1)	(3.5)	7.8	7.2	9.8
Georgia	6.0	6.0	11.2	6.5	9.5	9.4	4.1	15.5
Kentucky	7.5	1.0	5.6	5.3	1.4	11.8	5.2	10.1
Louisiana	14.9	(7.9)	(11.0)	0.2	1.0	8.6	12.0	12.4
Mississippi	7.3	(4.7)	0.2	4.7	3.1	2.1	18.7	7.5
North Carolina	3.4	1.4	8.9	5.0	8.5	13.2	7.4	15.7
South Carolina	2.4	2.2	4.6	3.3	10.0	9.9	10.6	18.7
Virginia	2.9	(2.1)	2.4	3.4	5.1	8.1	9.7	10.9
West Virginia	4.1	(10.3)	(5.4)	(0.0)	1.9	11.9	9.3	9.3
<b>Southwest</b>	7.3	(0.5)	3.4	5.5	4.8	12.2	8.1	13.2
Arizona	10.4	2.3	2.5	8.5	7.5	13.6	11.9	11.9
New Mexico	12.8	(12.3)	3.2	5.3	2.2	21.2	3.8	20.2
Oklahoma	0.9	1.6	4.8	1.0	1.8	6.1	4.5	12.0
<b>Rocky Mountain</b>	10.8	7.7	9.3	13.7	9.9	13.3	14.4	12.2
Colorado	10.9	11.3	14.1	15.4	7.5	11.2	11.0	12.2
Idaho	12.1	8.0	11.5	14.9	18.9	20.9	20.0	15.4
Montana	9.7	0.7	2.8	11.2	9.7	17.2	16.5	10.5
Utah	10.3	3.3	1.6	10.9	11.3	13.6	18.7	11.4
<b>Far West</b>	7.2	(2.3)	8.3	12.6	10.4	26.0	21.4	19.9
California	7.5	(2.4)	9.2	14.2	11.1	27.9	22.7	21.1
Hawaii	4.4	(8.7)	(1.2)	(5.1)	(1.6)	15.4	10.5	12.1
Oregon	4.9	(0.1)	3.3	3.1	6.4	13.4	12.6	10.2

Source: Individual state data, analysis by the author.

Notes: ND = no data. Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming have no broad-based personal income tax and are not shown in this table.

TABLE A5

## State Personal Income Tax: Estimated Payments or Declarations

Year-over-year nominal percentage change

State	Tax year 2019	Tax year 2020	Tax year 2021
	Apr 2019-Jan 2020 vs Apr 2018-Jan 2019	Apr 2020-Jan 2021 vs Apr 2019-Jan 2020	Apr 2021-Jan 2022 vs Apr 2020-Jan 2021
<b>Median</b>	13.9	(2.2)	22.9
<b>Average</b>	11.3	2.0	38.9
Alabama	14.4	(0.9)	24.1
Arizona	13.8	12.7	34.2
Arkansas	7.4	10.8	11.9
California	2.5	11.2	55.3
Colorado	19.4	(8.3)	25.1
Connecticut	(20.2)	(1.7)	ND
Delaware	11.4	7.6	40.3
Georgia	5.3	(8.9)	36.7
Hawaii	40.1	(6.5)	60.7
Illinois	12.2	1.6	17.4
Indiana	11.7	(2.0)	14.5
Iowa	16.7	(4.0)	22.6
Kansas	18.4	(0.0)	19.7
Kentucky	5.5	(2.8)	17.9
Louisiana	24.1	(1.2)	4.7
Maine	12.4	15.2	15.4
Maryland	14.0	20.0	31.7
Massachusetts	3.4	(2.5)	76.4
Michigan	5.0	0.0	30.6
Minnesota	26.3	(4.6)	19.9
Mississippi	22.6	(7.4)	30.3
Missouri	152.3	147.7	(21.6)
Montana	15.2	5.8	29.7
Nebraska	14.2	1.9	17.4
New Jersey	5.9	(10.6)	20.1
New York	21.9	(3.8)	31.4
North Carolina	13.7	(0.9)	38.4
North Dakota	20.8	(5.9)	8.2
Ohio	8.6	(2.5)	22.9
Oklahoma	9.0	(25.4)	16.4
Oregon	26.4	(13.9)	35.9
Pennsylvania	11.2	(19.2)	46.6
Rhode Island	11.7	(8.9)	16.4
South Carolina	20.8	2.5	22.4
Vermont	15.5	(0.9)	26.2
Virginia	24.1	(6.5)	30.5
West Virginia	2.2	(6.1)	22.6
Wisconsin	14.4	(9.7)	14.7

Source: Individual state data, analysis by the author.

Notes: Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming have no broad-based personal income tax and are not shown in this table. Data are not available for Idaho, New Mexico, and Utah. ND = no data.

TABLE A6

**State Personal Income Tax: Final Payments***Year-over-year nominal percentage change*

State	Tax year 2019	Tax year 2020	Tax year 2021
	Apr 2019-Jan 2020 vs Apr 2018-Jan 2019	Apr 2020-Jan 2021 vs Apr 2019-Jan 2020	Apr 2021-Jan 2022 vs Apr 2020-Jan 2021
<b>Median</b>	33.0	(1.6)	25.9
<b>Average</b>	33.0	(2.9)	28.9
Alabama	36.3	(3.0)	35.4
Arizona	44.9	(4.1)	33.5
Arkansas	29.9	8.8	20.6
California	29.1	7.4	28.1
Colorado	20.4	6.2	29.2
Connecticut	(8.8)	(2.4)	ND
Delaware	35.7	(6.0)	31.6
Georgia	50.4	(0.1)	36.7
Hawaii	23.5	6.5	45.1
Idaho	44.6	17.5	25.4
Illinois	48.6	(19.1)	34.7
Indiana	30.5	(1.2)	22.3
Iowa	62.8	(24.5)	29.8
Kansas	44.8	(18.2)	34.5
Kentucky	15.0	2.2	24.2
Louisiana	42.1	(6.5)	13.6
Maine	26.4	2.3	26.5
Maryland	41.2	(8.0)	25.3
Massachusetts	44.3	(1.3)	29.4
Michigan	39.9	(1.9)	36.2
Minnesota	26.2	(1.6)	33.3
Missouri	6.3	(68.1)	149.7
Montana	28.4	(59.4)	203.0
Nebraska	38.3	(0.9)	19.8
New Jersey	44.4	(7.6)	22.3
New Mexico	(21.5)	43.8	8.5
New York	33.0	1.7	27.8
North Carolina	34.7	(5.2)	34.8
North Dakota	21.4	(3.3)	4.3
Ohio	46.6	(8.7)	32.3
Oklahoma	23.0	(3.4)	9.5
Pennsylvania	31.2	(5.8)	21.1
Rhode Island	31.0	(1.4)	2.7
South Carolina	26.4	0.6	18.9
Utah	43.2	23.0	17.4
Vermont	23.0	6.9	0.7
Virginia	47.9	11.0	25.0
West Virginia	36.3	(4.0)	12.8
Wisconsin	27.6	(0.8)	9.8

**Source:** Individual state data, analysis by the author.**Notes:** Alaska, Florida, Nevada, New Hampshire, South Dakota, Tennessee, Texas, Washington, and Wyoming have no broad-based personal income tax and are not shown in this table. Data are not available for Mississippi, New Mexico, and Oregon. ND = no data.

TABLE A7

**States with Economic Nexus and Marketplace Laws***Economic Nexus threshold levels and effective dates*

State	Current threshold levels for economic nexus	Economic nexus effective date	Marketplace nexus effective date
Alabama	>\$250,000	10/1/2018	1/1/2019
Arizona	>\$100,000	10/1/2019	10/1/2019
Arkansas	>\$100,000 or over 200 transactions	7/1/2019	7/1/2019
California	>\$500,000	4/1/2019	10/1/2019
Colorado	>\$100,000	6/1/2019	10/1/2019
Connecticut	>\$100,000 and over 200 transactions	12/1/2018	12/1/2018
Florida	>\$100,000	7/1/2021	7/1/2021
Georgia	>\$100,000 or over 200 transactions	1/1/2019	4/1/2020
Hawaii	>\$100,000 or over 200 transactions	7/1/2018	1/1/2020
Idaho	>\$100,000	6/1/2019	6/1/2019
Illinois	>\$100,000 or over 200 transactions	10/1/2018	1/1/2020
Indiana	>\$100,000 or over 200 transactions	10/1/2018	7/1/2019
Iowa	>\$100,000	1/1/2019	1/1/2019
Kansas	>\$100,000	10/1/2019	10/1/2019
Kentucky	>\$100,000 or over 200 transactions	10/1/2018	7/1/2019
Louisiana	>\$100,000 or over 200 transactions	7/1/2020	7/1/2020
Maine	>\$100,000 or over 200 transactions	7/1/2018	10/1/2019
Maryland	>\$100,000 or over 200 transactions	10/1/2018	10/1/2019
Massachusetts	>\$100,000	10/1/2019	10/1/2019
Michigan	>\$100,000 or over 200 transactions	10/1/2018	1/1/2020
Minnesota	>\$100,000 or over 200 transactions	10/1/2018	10/1/2018
Mississippi	>\$250,000	9/1/2018	7/1/2020
Missouri	>\$100,000	1/1/2023	1/1/2023
Nebraska	>\$100,000 or over 200 transactions	1/1/2019	4/1/2019
Nevada	>\$100,000 or over 200 transactions	10/1/2018	10/1/2019
New Jersey	>\$100,000 or over 200 transactions	11/1/2018	11/1/2018
New Mexico	>\$100,000	7/1/2019	7/1/2019
New York	>\$500,000 and over 100 transactions	6/21/2018	6/1/2019
North Carolina	>\$100,000 or over 200 transactions	11/1/2018	2/1/2020
North Dakota	>\$100,000	10/1/2018	10/1/2019
Ohio	>\$100,000 or over 200 transactions	8/1/2019	8/1/2019
Oklahoma	>\$100,000	7/1/2018	7/1/2018
Pennsylvania	>\$100,000	7/1/2019	7/1/2019
Rhode Island	>\$100,000 or over 200 transactions	7/1/2019	7/1/2019
South Carolina	>\$100,000	11/1/2018	11/1/2018
South Dakota	>\$100,000 or over 200 transactions	11/1/2018	3/1/2019
Tennessee	>\$500,000	10/1/2019	10/1/2020
Texas	>\$500,000	10/1/2019	10/1/2019
Utah	>\$100,000 or over 200 transactions	1/1/2019	10/1/2019
Vermont	>\$100,000 or over 200 transactions	7/1/2018	6/1/2019
Virginia	>\$100,000 or over 200 transactions	7/1/2019	7/1/2019
Washington	>\$100,000	10/1/2018	10/1/2018
West Virginia	>\$100,000 or over 200 transactions	1/1/2019	7/1/2019
Wisconsin	>\$100,000	10/1/2018	10/1/2019
Wyoming	>\$100,000 or over 200 transactions	2/1/2019	7/1/2019

**Source:** Individual state information, compiled by the author.**Notes:** Alaska, Delaware, Montana, New Hampshire, and Oregon do not have sales tax.

State names are hyperlinked to their respective economic nexus guidelines.

TABLE A8

## Quarterly State Government Tax Revenue for Nonmajor Tax Revenue Sources

Year-over-year real percentage change; four-quarter moving averages

Year / quarter	Property tax	Tobacco product sales tax	Alcoholic beverage sales tax	Motor vehicle & operators' license taxes	Other taxes	Total nonmajor taxes
2021 Q4 collections (\$ millions)	\$5,461	\$4,640	\$1,973	\$7,838	\$46,108	\$66,020
2021 Q4	(0.1)	(4.4)	8.6	0.8	20.9	13.4
2021 Q3	3.9	(1.0)	8.2	5.4	15.3	11.2
2021 Q2	6.1	1.0	5.7	8.4	8.6	7.6
2021 Q1	2.4	(0.4)	(5.1)	(2.1)	(6.1)	(4.3)
2020 Q4	2.9	0.8	(4.8)	(1.7)	(6.5)	(4.4)
2020 Q3	2.6	(1.2)	(3.4)	(2.9)	(7.3)	(5.2)
2020 Q2	0.2	(2.5)	(2.3)	(2.9)	(5.1)	(4.0)
2020 Q1	1.2	(3.2)	2.7	1.9	1.3	1.0
2019 Q4	0.3	(4.1)	2.8	1.2	1.4	0.9
2019 Q3	(0.3)	(6.2)	0.2	1.3	3.4	1.8
2019 Q2	5.3	(7.7)	(1.3)	0.8	4.6	2.7
2019 Q1	6.4	(5.5)	(0.6)	4.3	5.2	3.9
2018 Q4	9.0	(5.3)	(1.5)	7.1	5.3	4.6
2018 Q3	8.1	0.8	(0.0)	4.4	5.2	4.7
2018 Q2	3.6	5.2	1.3	4.7	3.6	3.8
2018 Q1	1.0	4.6	1.1	1.1	2.6	2.4
2017 Q4	(0.7)	6.1	2.9	(0.3)	1.9	1.8
2017 Q3	(1.2)	3.6	3.0	3.7	0.5	1.1
2017 Q2	0.4	1.8	2.3	1.5	(0.4)	0.2
2017 Q1	3.0	1.2	1.1	2.3	(1.7)	(0.4)
2016 Q4	2.4	1.4	0.5	2.7	(1.6)	(0.4)
2016 Q3	4.9	1.2	0.8	1.1	(2.5)	(1.0)
2016 Q2	4.2	0.7	1.6	2.6	(1.7)	(0.4)
2016 Q1	5.0	1.8	2.6	2.3	(1.3)	0.1
2015 Q4	8.7	0.1	1.5	2.8	(1.0)	0.4
2015 Q3	6.1	(0.8)	1.3	1.6	(0.4)	0.4
2015 Q2	5.2	(2.2)	1.6	1.1	(0.7)	(0.1)
2015 Q1	4.3	(4.0)	(0.3)	1.2	(0.4)	(0.2)
2014 Q4	0.7	(4.7)	1.4	(0.7)	(1.9)	(1.7)
2014 Q3	3.1	(3.7)	1.3	0.6	(1.7)	(1.1)
2014 Q2	5.2	0.5	(0.1)	1.1	(0.4)	0.3
2014 Q1	5.1	1.8	1.3	0.9	0.4	1.0
2013 Q4	4.8	3.7	(0.7)	0.3	3.2	2.8
2013 Q3	3.2	3.6	(2.4)	(0.5)	3.6	2.8
2013 Q2	(0.3)	(1.0)	(1.9)	(0.9)	2.7	1.5
2013 Q1	(3.2)	(1.5)	(0.1)	0.3	2.5	1.3
2012 Q4	(4.8)	(2.5)	2.3	2.0	1.3	0.6
2012 Q3	(9.2)	(3.3)	3.5	3.1	2.2	1.0
2012 Q2	(10.5)	(2.2)	3.1	3.2	4.2	2.2
2012 Q1	(10.7)	(2.5)	0.7	2.1	7.6	4.0
2011 Q4	(11.0)	(1.8)	(0.5)	1.8	11.8	6.5
2011 Q3	(7.6)	(0.9)	0.5	0.3	12.8	7.3
2011 Q2	(3.8)	0.7	1.6	1.6	12.2	7.6
2011 Q1	2.5	2.8	3.2	3.3	10.1	7.4
2010 Q4	8.1	3.2	3.3	4.1	7.9	6.7
2010 Q3	13.4	2.3	3.1	5.7	5.1	5.5
2010 Q2	13.4	0.6	2.2	3.9	(0.8)	1.3
2010 Q1	10.0	(1.1)	0.8	1.6	(8.5)	(4.6)

Source: US Census Bureau (tax revenue), analysis by the author.

TABLE A9

**Preliminary State Government Tax Revenues in the First Quarter of 2022, by State***Nominal percentage change, 2022 Q1 versus 2021 Q1*

State/region	PIT	CIT	Sales	Total
<b>US (median)</b>	<b>16.4</b>	<b>26.0</b>	<b>14.2</b>	<b>17.3</b>
<b>US (average)</b>	<b>25.1</b>	<b>126.2</b>	<b>17.9</b>	<b>26.2</b>
<b>New England</b>	<b>22.4</b>	<b>17.8</b>	<b>13.0</b>	<b>16.2</b>
Connecticut	ND	ND	ND	ND
Maine	17.2	0.4	11.5	13.9
Massachusetts	24.8	14.1	14.0	18.4
New Hampshire	11.8	29.7	N/A	6.0
Rhode Island	8.5	27.1	11.3	11.5
Vermont	4.3	42.0	8.8	12.7
<b>Mideast</b>	<b>37.8</b>	<b>28.8</b>	<b>21.2</b>	<b>29.5</b>
Delaware	(12.4)	1.4	N/A	(9.3)
Maryland	22.4	80.1	74.0	34.6
New Jersey	11.6	10.1	14.9	16.1
New York	53.9	25.9	18.3	43.6
Pennsylvania	10.3	40.4	14.6	12.9
<b>Great Lakes</b>	<b>16.5</b>	<b>59.7</b>	<b>11.4</b>	<b>14.7</b>
Illinois	23.5	76.3	11.5	20.7
Indiana	16.6	135.4	13.8	16.5
Michigan	48.0	NM	10.0	24.2
Ohio	8.4	N/A	11.3	8.8
Wisconsin	(19.1)	26.2	10.6	(3.7)
<b>Plains</b>	<b>19.0</b>	<b>74.4</b>	<b>7.9</b>	<b>17.5</b>
Iowa	15.2	15.2	8.8	10.9
Kansas	12.9	28.8	17.9	15.5
Minnesota	31.5	116.1	15.3	30.4
Missouri	12.0	15.4	(24.3)	6.7
Nebraska	4.9	18.3	4.7	7.3
North Dakota	(18.2)	(18.1)	14.7	19.5
South Dakota	N/A	N/A	10.0	9.4
<b>Southeast</b>	<b>22.4</b>	<b>29.2</b>	<b>18.0</b>	<b>19.3</b>
Alabama	35.0	21.0	11.4	19.8
Arkansas	11.4	11.5	16.0	12.0
Florida	N/A	21.3	30.9	31.3
Georgia	25.8	33.8	15.5	20.4
Kentucky	17.3	30.1	14.3	9.7
Louisiana	4.2	435.8	20.2	17.3
Mississippi	4.7	(2.2)	11.8	8.0
North Carolina	32.1	(1.2)	(6.0)	17.5
South Carolina	30.4	105.4	15.6	25.8
Tennessee	(79.1)	25.3	13.3	13.5
Virginia	16.2	12.8	14.0	15.7
West Virginia	19.8	(25.3)	10.5	26.8
<b>Southwest</b>	<b>17.0</b>	<b>97.4</b>	<b>24.8</b>	<b>28.5</b>
Arizona	19.9	33.6	17.5	17.0
New Mexico	ND	ND	ND	ND
Oklahoma	12.2	276.1	14.7	31.3
Texas	N/A	N/A	27.0	30.6
<b>Rocky Mountain</b>	<b>20.9</b>	<b>109.6</b>	<b>18.4</b>	<b>23.8</b>
Colorado	20.2	14.2	20.6	19.8
Idaho	6.7	712.2	14.2	30.5
Montana	39.9	(10.1)	N/A	31.5

Utah	21.6	53.3	19.4	23.6
Wyoming	N/A	N/A	ND	ND
<b>Far West</b>	<b>21.9</b>	<b>340.3</b>	<b>20.0</b>	<b>38.9</b>
Alaska	N/A	NM	N/A	349.0
California	21.8	328.9	21.6	41.0
Hawaii	23.8	NM	27.2	38.9
Nevada	N/A	N/A	ND	ND
Oregon	ND	ND	N/A	ND
Washington	N/A	N/A	12.9	12.6

**Source:** Individual state data, analysis by the author.

**Notes:** CIT = corporate income tax; PIT = personal income tax; N/A = not applicable; ND = no data, NM = not meaningful.

# Notes

- <sup>1</sup> In this report, all the references to inflation-adjusted (or real) revenues and growth rates are based on the adjustments using the GDP price index and relative to the fourth quarter of 2021.
- <sup>2</sup> The author made several adjustments for the fourth quarter of 2021 and to several previous quarters of tax revenue data reported by the US Census Bureau based on information and data received directly from the states and from the Census Bureau.
- <sup>3</sup> In this report, the author uses US Bureau of Economic Analysis regions as the basis of analysis.
- <sup>4</sup> See “Pass-through entity tax (PTET),” New York State Department of Taxation and Finance, accessed April 15, 2022, <https://www.tax.ny.gov/bus/ptet/>.
- <sup>5</sup> Justin Garosi and Brian Uhler, “Income Tax Withholding Tracker: November 1 – November 30,” California Legislative Analyst’s Office, November 30, 2021, <https://lao.ca.gov/LAOEconTax/Article/Detail/719>.
- <sup>6</sup> Thirty-seven of 41 states with a broad-based personal income tax extended their 2019 tax-year filing deadlines to July 15, 2020. Among the remaining four states, Idaho extended it to June 15, Hawaii to July 20, Iowa to July 31, and Virginia to June 1.
- <sup>7</sup> Income tax returns usually are due on April 15 in 35 of 41 states that have a broad-based personal income tax. The remaining six states have individual income tax return due dates later than April 15. Those states are Arkansas (May 15), Delaware (April 30), Hawaii (April 20), Iowa (April 30), Louisiana (May 15), and Virginia (May 1).
- <sup>8</sup> Brian Uhler, Justin Garosi, Brian Weatherford, and Seth Kerstein, “2022-23 Fiscal Outlook Revenue Estimates,” California Legislative Analyst’s Office blog, November 17, 2021, <https://lao.ca.gov/LAOEconTax/Article/Detail/712>.
- <sup>9</sup> See “Section 5 – Saving and Investment, National Income and Product Accounts,” US Bureau of Economic Analysis, accessed April 15, 2022, <https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey>.
- <sup>10</sup> See “Table 6.16D. Corporate Profits by Industry,” US Bureau of Economic Analysis, accessed April 15, 2022, <https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=3&isuri=1&1921=survey&1903=239#>.
- <sup>11</sup> See *South Dakota v. Wayfair*, Brief of *Amici Curiae* Law Professors and Economists in Support of Petitioner, No. 17-494, March 5, 2018, [https://www.supremecourt.gov/DocketPDF/17/17-494/37603/20180305141434827\\_Brief%20of%20Amici%20Curiae%20Law%20Professors%20and%20Economists%20iso%20Petitioner.PDF](https://www.supremecourt.gov/DocketPDF/17/17-494/37603/20180305141434827_Brief%20of%20Amici%20Curiae%20Law%20Professors%20and%20Economists%20iso%20Petitioner.PDF).
- <sup>12</sup> See National Conference of State Legislatures, “Variable Rate Gas Taxes,” July 14, 2021, <https://www.ncsl.org/research/transportation/variable-rate-gas-taxes.aspx>.
- <sup>13</sup> See State of California Franchise Tax Board, “Pass-through entity (PTE) elective tax,” accessed April 15, 2022, <https://www.ftb.ca.gov/file/business/credits/pass-through-entity-elective-tax/index.html>.
- <sup>14</sup> See US Bureau of Labor Statistics, “Labor Force Statistics from the Current Population Survey,” accessed April 15, 2022, [https://www.bls.gov/web/empsit/cpsee\\_e08.htm](https://www.bls.gov/web/empsit/cpsee_e08.htm).
- <sup>15</sup> See New York City Department of Finance, “2021/22 Final Assessment Roll,” May 25, 2021, <https://www1.nyc.gov/assets/finance/downloads/pdf/21pdf/fy22-final-roll-summary.pdf>.



- <sup>16</sup> See Office of the New York State Comptroller, “DiNapoli: NYC Office Market Will Take Years to Recover From Pandemic,” October 7, 2021, <https://www.osc.state.ny.us/press/releases/2021/10/dinapoli-nyc-office-market-will-take-years-recover-pandemic>.
- <sup>17</sup> For state-by-state analysis on the impact of the pandemic-related changes on state budgets, visit “How the COVID-19 Pandemic is Transforming State Budgets,” Urban Institute, accessed April 15, 2022, <https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/projects/state-fiscal-pages-covid-edition>.
- <sup>18</sup> Author’s analysis of data from National Association of State Budget Officers (2020), table A-1.
- <sup>19</sup> See the New York State Senate, “Senate Majority Announces Highlights Of 2021-22 Budget,” April 6, 2021, <https://www.nysenate.gov/newsroom/press-releases/senate-majority-announces-highlights-2021-22-budget>.
- <sup>20</sup> See Burke et al., “Bill Analysis,” State of California, Franchise Tax Board, April 15, 2021, <https://www.ftb.ca.gov/tax-pros/law/legislation/2021-2022/AB80-021721-041521.pdf>.
- <sup>21</sup> North Carolina General Assembly, Fiscal Research Division, “NCGA 2021 Legislative Session Budget and Fiscal Policy Highlights,” January 10, 2022, [https://sites.ncleg.gov/frd/wp-content/uploads/sites/7/2022/01/NCGA\\_2021\\_Legislative\\_Session\\_Budget\\_and\\_Fiscal\\_Policy\\_Highlights\\_2022\\_01\\_20\\_Final.pdf](https://sites.ncleg.gov/frd/wp-content/uploads/sites/7/2022/01/NCGA_2021_Legislative_Session_Budget_and_Fiscal_Policy_Highlights_2022_01_20_Final.pdf).
- <sup>22</sup> See Wisconsin Department of Revenue, “Wisconsin Tax Bulletin. Number 214,” July 2021, <https://www.revenue.wi.gov/WisconsinTaxBulletin/214-07-21-WTB.pdf>.
- <sup>23</sup> See Arizona Joint Legislative Budget Committee, “Finance Advisory Committee Briefing Materials,” October 28, 2021, <https://www.azjlb.com/meetings/facag102821.pdf>.
- <sup>24</sup> See Ohio Department of Taxation, “Annual Tax Rates,” accessed April 15, 2022, <https://tax.ohio.gov/individual/resources/annual-tax-rates>.
- <sup>25</sup> See Illinois General Assembly, Commission on Government Forecasting and Accountability, “State of Illinois Budget Summary for Fiscal Year 2022,” June 2021, <https://cgfa.ilga.gov/Upload/FY2022BudgetSummary.pdf>.
- <sup>26</sup> New York State Senate, “Senate Majority Announces Highlights Of 2021-22 Budget.”
- <sup>27</sup> See California’s Department of Finance, “2021-22 May Revision to the Governor’s Budget, May 2021, <https://www.ebudget.ca.gov/2021-22/pdf/Revised/BudgetSummary/FullBudgetSummary.pdf>.
- <sup>28</sup> See Florida Department of Revenue, “Tax Information Publication, New Registration Requirement for Persons Making Remote Sales and for Marketplace Providers and Sellers,” May 14, 2021, [https://floridarevenue.com/taxes/tips/Documents/TIP\\_21A01-03.pdf](https://floridarevenue.com/taxes/tips/Documents/TIP_21A01-03.pdf).
- <sup>29</sup> See Colorado General Assembly, “An Act, House Bill 21-1312,” June 2021, [https://leg.colorado.gov/sites/default/files/2021a\\_1312\\_signed.pdf](https://leg.colorado.gov/sites/default/files/2021a_1312_signed.pdf).
- <sup>30</sup> See Florida Department of Revenue, “Tax Information Publication, 2021 Reemployment Tax Legislative Changes,” April 27, 2021, [https://floridarevenue.com/taxes/tips/Documents/TIP\\_2173B-01\\_Final.pdf](https://floridarevenue.com/taxes/tips/Documents/TIP_2173B-01_Final.pdf).
- <sup>31</sup> See National Bureau of Economic Research, “Determination of the April 2020 Trough in US Economic Activity,” July 19, 2021, <https://www.nber.org/news/business-cycle-dating-committee-announcement-july-19-2021>.

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