

RESEARCH REPORT

Continued Weakness and Variability in State Tax Revenues

State Tax and Economic Review, 2022 Quarter 4

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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 3.9 percent in nominal terms but declined 2.3 percent in real terms in the fourth quarter of 2022 compared with the same quarter in 2021.¹
- **State government tax revenues** from major sources declined 1.3 percent in nominal terms and 7.2 percent in real terms in the fourth quarter of 2022 compared with the same quarter in 2021. The decline is in sharp contrast to gains experienced in the first half of 2022.
 - » **State personal income tax revenues** declined 10.3 percent in nominal terms and 15.7 percent in real terms in the fourth quarter of 2022 compared with the fourth quarter of 2021. Personal income tax revenues have shown extreme volatility in recent quarters, in part because of COVID-19-pandemic-related federal and state policies (including changes in income tax filing deadlines) as well as changes in investor behavior based on expected if not realized changes in federal tax policy and continued volatility and weakness in the stock market.
 - » **State corporate income tax revenues** increased 10.9 percent in nominal terms and 4.2 percent in real terms in the fourth quarter of 2022 compared with the same quarter in 2021. Strong corporate income tax revenue growth observed in recent quarters stands in sharp contrast to the stagnant growth patterns observed after the Great Recession and before the global COVID-19 pandemic. However, this is partially because of some states introducing an elective pass-through entity tax and including payments with state corporate income taxes.
 - » **State sales tax revenues** increased 6.3 percent in nominal terms and were flat in real terms in the fourth quarter of 2022 compared with the same quarter in 2021. This is in sharp contrast to the strong growth observed in earlier quarters, which was largely caused by high inflation. Because general sales taxes are on the amount spent and not on a per-unit basis, general sales taxes grew as prices on goods increased. However, consumers now appear to have shifted consumption patterns because of both these higher prices and increased spending on (nontaxed) services as concerns over the pandemic have waned.
- **Local government tax revenues** from major sources increased 8.4 percent in nominal terms and 1.9 percent in real terms in the fourth quarter of 2022 compared with the same quarter in 2021.

- » **Local property tax revenues**, the largest source for local government revenues, increased 8.4 percent in nominal terms and 1.9 percent in real terms in the fourth quarter of 2022 compared with the fourth quarter of 2021. Overall local property tax revenues weakened substantially in the past two years, likely reflecting the COVID-19 pandemic’s negative impact on commercial property values.
- **Preliminary data for the first quarter of 2023** indicate substantial weakness in overall state tax revenue collections, as well as in major sources of state tax revenues. This weakness was expected and is partly in response to state policy actions, including tax rate cuts and rebate payments. Total state tax revenues declined 8.8 percent in nominal terms and 13.4 percent in real terms in the first quarter of 2023 compared with the same period in 2022.
 - » **State personal income tax** collections declined 18.6 percent in nominal terms and 22.7 percent in real terms in the first quarter of 2023 compared with the same period in 2022.
 - » **State corporate income tax** collections declined 25.5 percent in nominal terms and 29.2 percent in real terms in the first quarter of 2023 compared with the same period in 2022.
 - » **State sales tax** collections grew 6.1 percent in nominal terms and 0.7 percent in real terms in the first quarter of 2023 compared with the same period in 2022.
- **Economic factors** that drive revenue growth largely remained positive in the fourth quarter of 2022 compared with the same quarter in 2021.
 - » Year-over-year growth in real **gross domestic product** (GDP) was 0.9 percent for the fourth quarter of 2022, which was substantially weaker compared with prior quarters.
 - » The seasonally adjusted **unemployment rate** was 3.6 percent in the fourth quarter of 2022, which was similar to unemployment rates before the COVID-19 pandemic. However, this masks large variations across different groups of workers and in different states.
 - » Seasonally adjusted nationwide **employment** increased 3.4 percent in the fourth quarter of 2022 compared with the same quarter in 2021, but in 20 states employment was still below the levels observed in the fourth quarter of 2019.
 - » **House prices** increased 11.8 percent in nominal terms and 5.1 percent in real terms for the fourth quarter of 2022 compared with a year earlier. Thirty-four states reported year-over-year double-digit nominal growth in house prices in the fourth quarter of 2022.
 - » Real **personal consumption expenditures** increased 1.0 percent for the fourth quarter of 2022 compared with the same quarter in 2021. Growth in real personal consumption spending weakened in the second half of 2022, largely because of lower spending on durable goods.

Trends in State and Local Revenues

State and local tax revenues continue to reflect effects of the COVID-19 pandemic and policy responses. The 2021 American Rescue Plan Act included \$350 billion in direct aid to state, local, territorial, and tribal governments, which helped to stabilize state and local budgets.

Many states used budget surpluses to issue rebate checks ranging from as little as \$75 per taxpayer in Illinois to as high as \$1,500 per taxpayer in New Jersey. Rebate types, amounts, timing, and qualification criteria varied significantly across the states. Some states (e.g., Delaware) issued income tax rebates, others (e.g., New York) issued property tax rebates, and a few (e.g., Illinois) issued both income and property tax rebates. Some states issued rebates in one payment (e.g., Hawaii), while others issued in two payments (e.g., New Mexico). Some states (e.g., Virginia) issued rebates regardless of income level, while others (e.g., California) issued rebates based on income, tax-filing status, and household size.

Although most states saw strong revenue growth in the first half of 2022, growth weakened substantially in the second half of 2022. States' longer-term fiscal outlooks remain uncertain because of higher inflation rates, changes in consumption patterns, declining labor participation rates, and volatility in the stock market. Furthermore, postpandemic shifts in consumer behavior (e.g., permanent remote work) as well as states' policy choices (e.g., cutting tax rates) will have a significant impact on state and local budgets.

Table 1 shows real state and local government tax revenues from major sources for the fourth quarter of 2021 and the fourth quarter of 2022 as well as the real percentage change between both quarters and the average quarterly year-over-year real growth in the prior four quarters. We present real growth rates to illustrate the impact of inflation on state and local government revenues.

Major findings include the following:

- **State and local government tax revenues** from major sources declined 2.3 percent in real terms in the fourth quarter of 2022 compared with a year earlier. Average quarterly year-over-year real growth was 5.5 percent in the prior four quarters.
- **State government tax revenues** from major sources declined 7.2 percent in real terms in the fourth quarter of 2022 relative to a year earlier. The average quarterly year-over-year real growth rate was 11.3 percent for the prior four quarters. **State personal income tax** revenues declined 15.7 percent in real terms in the fourth quarter of 2022 compared with the fourth quarter of 2021. Average quarterly year-over-year real growth was 9.9 percent for the prior four quarters. Inflation-adjusted **state corporate income tax** revenues increased 4.2 percent

for the fourth quarter of 2022 compared with a year earlier. Average quarterly year-over-year real growth was 47.7 percent for the prior four quarters. (This strong growth is largely attributable to the newly introduced elective pass-through entity taxes in several states.) **State sales tax** revenues were flat for the fourth quarter of 2022 compared with the fourth quarter of 2021. Average quarterly year-over-year real growth was 7.0 percent for the prior four quarters.

- Local government tax revenue** from major sources increased 1.9 percent in real terms for the fourth quarter of 2022 compared with the fourth quarter of 2021. The average quarterly year-over-year real growth rate was negative 0.5 percent for the prior four quarters. **Local property taxes**, the single largest source of local government tax revenues, increased 1.9 percent in real terms in the fourth quarter of 2022 compared with the same quarter in 2021. The average quarterly year-over-year real growth rate was negative 1.7 percent for the prior four quarters. **Local sales taxes** increased 1.3 percent in real terms for the fourth quarter of 2022 compared with a year earlier. **Local personal income taxes** increased 6.4 percent, while **local corporate income taxes** decreased 8.0 percent in real terms in the fourth quarter of 2022 compared with the same quarter of 2021, but these constitute relatively small shares 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

Millions of dollars, adjusted for inflation

Tax source	2021 Q4	2022 Q4	YOY percent change	Average quarterly YOY growth rate, prior four quarters (%)
Total state and local major taxes	\$596,841	\$583,022	(2.3)	5.5
State major taxes	\$278,212	\$258,283	(7.2)	11.3
Personal income tax	133,773	112,779	(15.7)	9.9
Corporate income tax	27,581	28,752	4.2	47.7
Sales tax	110,617	110,571	(0.0)	7.0
Property tax	6,240	6,181	(0.9)	1.5
Local major taxes	\$318,628	\$324,739	1.9	(0.5)
Personal income tax	10,472	11,138	6.4	(0.9)
Corporate income tax	2,599	2,391	(8.0)	7.6
Sales tax	30,604	31,003	1.3	5.9
Property tax	274,953	280,207	1.9	(1.7)

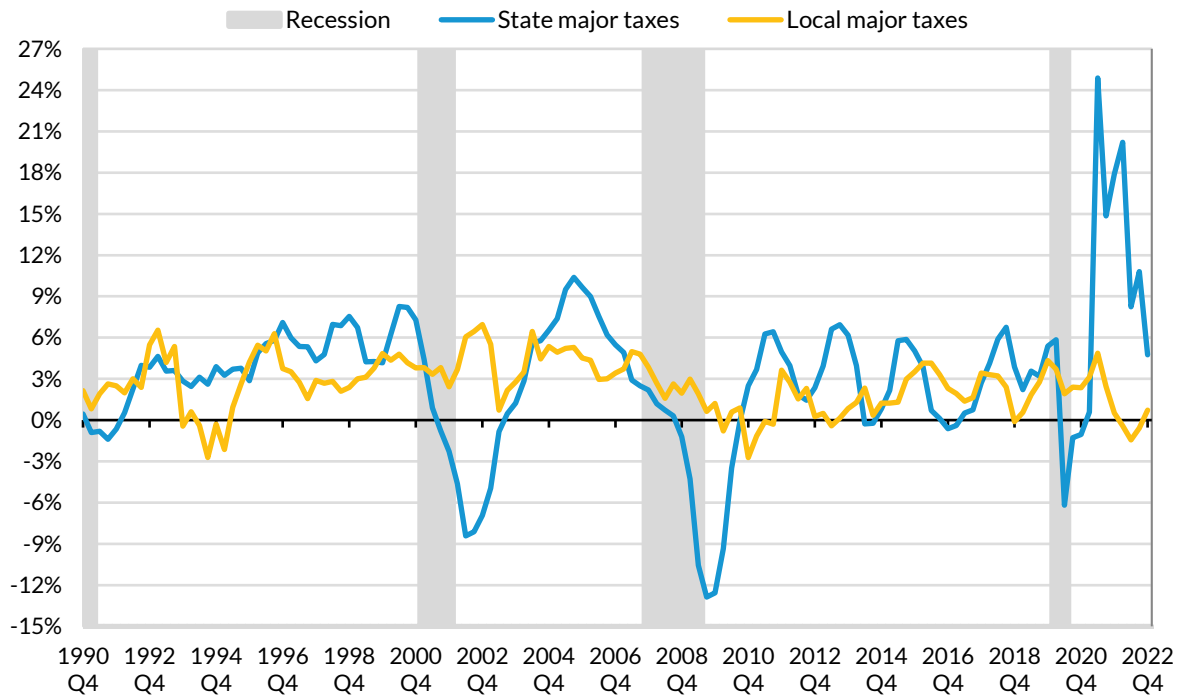
Source: US Census Bureau (tax revenue), with adjustments by the author.

Notes: Q = quarter; YOY = year-over-year.

Figure 1 shows 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. The four-quarter moving average helps smooth responses to economic and policy changes, such as changing income tax filing deadlines. State tax revenues from major sources increased 4.8 percent in the fourth quarter of 2022 by this measure.

Local tax revenues were resilient throughout the COVID-19 pandemic mostly because of a strong housing market and solid growth in residential property tax revenues. However, local tax revenues have weakened substantially in the past few months and face uncertainty as housing markets weaken in response to higher mortgage interest rates. The four-quarter moving average of inflation-adjusted local tax revenues from major sources showed a 0.7 percent increase in the fourth quarter of 2022.

FIGURE 1
State Major Tax Revenues Weakened Further in the Fourth Quarter of 2022
Year-over-year inflation-adjusted percentage change in state and local taxes from major sources



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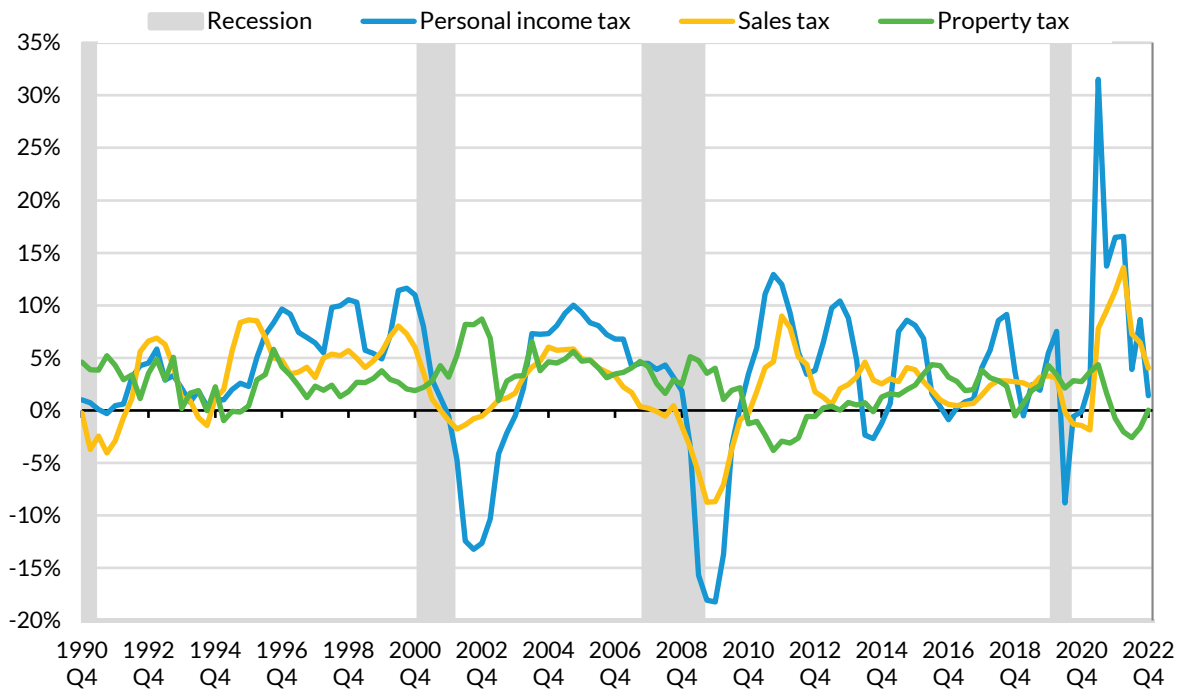
Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.

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.

Most local governments rely heavily on property taxes, which tend to respond relatively slowly to changes in property values. However, in many places, the pandemic caused declines in the value of commercial properties (such as hotels, retailers, and offices) that have led to lower commercial property tax assessments. These declines in commercial property values have had a negative impact on overall local property tax revenues despite soaring residential property values observed throughout the pandemic. These trends could lead to ongoing vulnerability for some local governments. In addition, as the Federal Reserve Board increases interest rates to counter inflation, mortgage costs are increasing. These changes in borrowing costs have led to a cooling in housing prices, which in turn can be expected to weaken future residential property tax revenues.

Figure 2 breaks out inflation-adjusted state and local personal income, sales, and property tax revenues. Real state and local personal income tax revenues increased 1.4 percent in the fourth quarter of 2022 compared with the same quarter of 2021, using the four-quarter moving average. Real state and local sales tax revenues increased 4.0 percent in the fourth quarter of 2022 compared with a year earlier. Real state and local property taxes, nearly all of which are collected by local governments, increased by less than 0.1 percent for the fourth quarter of 2022 compared with a year earlier.

FIGURE 2
State and Local Personal Income and Sales Tax Revenues Weakened Substantially
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 2022

Total state government tax revenue collections declined 0.4 percent in nominal terms and 6.4 percent in real terms in the fourth quarter of 2022 relative to a year earlier, according to US Census Bureau data adjusted by the author (table A1).² Inflation-adjusted personal income tax revenues saw a year-over-year decline of 15.7 percent in the fourth quarter of 2022. Corporate income tax revenues saw year-over-year real growth in the fourth quarter of 2022, at 4.2 percent. Finally, inflation-adjusted sales tax collections were flat while motor fuel tax collections declined 9.4 percent in the fourth quarter of 2022

relative to a year earlier. Declines in motor fuel tax revenues are largely attributable to gas tax holidays implemented by several states, including Connecticut, Florida, Georgia, Maryland, and New York.

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 in calendar year 2022. The average quarterly year-over-year growth rate in overall state tax revenue collections in calendar year 2022 was 11.5 percent in nominal terms and 4.2 percent in real terms.

Variations existed across regions and states for the fourth quarter of 2022 (table A2). The Far West, Mideast, and New England regions reported year-over-year declines while the rest of the regions reported year-over-year growth in nominal state tax revenue collections. The Rocky Mountain region reported the largest growth at 14.2 percent while Great Lakes region reported the weakest growth at 3.2 percent.³ Total state tax revenues declined 13.4 percent in the Mideast region, 5.1 percent in the Far West region, and 0.9 percent in the New England region, largely driven by declines in income tax revenues in some large states (California, Massachusetts, New Jersey, and New York) in each region.

Forty-four states reported year-over-year nominal growth in total state tax revenue collections for the fourth quarter of 2022, with four states reporting growth of over 20 percent. The largest growth was in Alaska, where total state tax revenues increased 111.7 percent, but that growth is because of a lower baseline in 2021. State tax revenues declined in six states (i.e., California, Massachusetts, Michigan, New Jersey, New York, and Wisconsin), mostly because of declines in income tax revenues.

Overall growth in state tax revenues weakened substantially in the second half of calendar year 2022, which contrasts with the strong growth observed in fiscal year 2022. The boost in state tax revenues in fiscal year 2022 was driven by the following factors: the robust stock market observed throughout 2021, the record number of initial public offerings in 2021, the high inflation rate, the boost in spending on taxable goods caused by the COVID-19 pandemic, and the expectation of potential (if unrealized) federal tax hikes (Dadayan 2022a).

State total tax revenues increased 3.1 percent in the third and fourth quarters of 2022 combined, compared with the same period in 2021, with a median increase of 7.4 percent (table A3). State tax revenues increased in 47 states over that six-month period, ranging from a 0.7 percent increase in Massachusetts to a 151.2 percent increase in Alaska. Three states—California, New York, and Wisconsin—reported year-over-year declines in state tax revenues in the third and fourth quarters of 2022 combined.

In recent months, several states have enacted a pass-through entity tax, bringing the number of states with this option to 30 (Dadayan and Buhl 2023). This is in part a workaround to the 2017 Tax Cuts and Jobs Act's \$10,000 cap on the federal individual income tax deduction for state and local taxes because state and local taxes are fully deductible as a business expense in calculating business earnings

for determining federal tax liability. In general, pass-through entity taxes enable some taxpayers to reduce their federal taxable liability by paying taxes at the entity rather than the individual owner level.

[Table A7](#) lists all states that enacted a pass-through entity tax and their respective effective dates. State pass-through entity tax structures and rules vary widely, which can lead to complications, especially for businesses operating across state lines. States also vary in how they categorize pass-through entity taxes. Some states count these taxes as corporate income taxes (as a business is paying the tax), while other states count them as personal income taxes (as it replaces what had been pass-through income), and very few states count them toward both personal income and corporate income taxes.

Personal Income Taxes

State personal income tax revenues declined 10.3 percent in nominal terms and 15.7 percent in real terms in the fourth quarter of 2022 compared with the same period in 2021. Most of the declines were attributable to California and New York; the median state reported growth of 8.1 percent in nominal terms. The average quarterly year-over-year growth rate in state personal income tax collections in calendar year 2022 was 7.8 percent in nominal terms and 0.7 percent in real terms ([table A1](#)).

Personal income tax collections remained strong in some regions but declined in other regions in the fourth quarter of 2022 compared with the same period in 2021 ([table A2](#)). The Rocky Mountain and Plains regions saw the strongest year-over-year growth, at 14.9 and 14.2 percent, respectively. The Mideast, Far West, and New England regions saw year-over-year declines in nominal personal income tax revenue collections at 30.4, 16.4, and 2.1 percent, respectively.

Thirty states reported year-over-year growth in personal income tax revenues in the fourth quarter of 2022, with 14 states reporting double-digit growth. Twelve states reported year-over-year declines in personal income tax revenues, which is in part because of state tax policy changes and declines in the stock market.

State personal income tax revenues declined 4.3 percent in the third and fourth quarters of 2022 combined, compared with the same period in 2021 ([table A3](#)). However, the median state reported year-over-year growth of 8.2 percent over that six-month period. State personal income tax revenues increased in 31 states and declined in 11 states over that six-month period, ranging from a 26.3 percent decline in New York to a 25.3 percent increase in Utah.

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 COVID-19 pandemic. The large swings observed in recent quarters highlight variance related to the deferral of tax filing deadlines. Income taxes have also become more volatile because a large share of income is generated from nonwage activities. Thus, increasing swings in the stock market, coupled with taxpayer decisions on when to realize capital gains and losses, have also increased personal income tax volatility.

TABLE 2

Growth in State Government Personal Income Tax Components

Year-over-year nominal percentage change

Personal income tax components	Tax Year 2021				Tax Year 2022			
	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4
Withholding	6.5	15.4	12.1	15.4	12.9	7.5	3.1	(0.6)
Estimated payments	35.9	272.0	(34.2)	33.7	16.4	(5.8)	(18.3)	(16.6)
Final payments	10.2	172.6	(80.9)	44.6	45.1	40.8	22.8	55.5
Refunds	(13.1)	58.6	(39.3)	20.7	12.2	12.7	77.7	96.9
Total	20.2	80.9	(17.5)	19.0	17.7	13.9	(1.4)	(6.0)

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.

Personal income tax collections declined steeply in the second quarter of 2020 and soared in the third quarter of 2020, largely caused by delayed income tax due dates. That pattern reversed in 2021, resulting in dramatic year-over-year growth in the second quarter of 2021 followed by declines in the third quarter of 2021. Year-over-year growth was strong in the first and second quarters of 2022, largely related to elevated inflation, which led to bracket creep in some states. However, personal income tax revenues declined in the third and fourth quarters of 2022, largely due to stock market volatility. In addition, the declines are also partially because of newly enacted pass-through entity taxes that shifted revenues from personal income taxes to corporate income taxes. Finally, weakness in personal income tax revenues was also caused by personal income tax rate cuts in several states.

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 and can have a significant impact on withholding growth rates.

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 was not subject to large swings. However, withholding declined early in the pandemic because of the initial reaction to economic disruptions, including mass layoffs and furloughs. The employment situation greatly improved in 2021, which also led to improvement in withholding tax collections. Further, the strong growth in average wages as well as people moving to higher-paying jobs led to stronger withholding tax revenue collections in state fiscal year 2022. Finally, heightened inflation observed throughout 2021 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.

After four consecutive quarters of double-digit growth, withholding tax collections weakened substantially in the second and third quarters of 2022 and declined in the fourth quarter of 2022. Year-over-year growth in withholding was negative 0.6 percent in nominal terms and negative 6.5 percent in real terms in the fourth quarter of 2022, though this was primarily because of declines in a few large states. All regions but the Far West and the Mideast showed year-over-year growth in withholding in nominal terms in the fourth quarter of 2022. The Plains region reported the strongest year-over-year growth in the fourth quarter of 2022 at 7.6 percent, while the Far West and the Mideast regions reported declines of 9.1 and 1.3 percent, respectively.

Thirty-five of 41 states that levy tax on personal income reported growth in withholding in the fourth quarter of 2022 compared with a year earlier, with 3 states reporting double-digit growth. Growth rates ranged from 0.8 percent in New Mexico to 24.8 percent in North Dakota. Six states—Arkansas, California, Louisiana, New York, North Carolina, and Wisconsin—reported year-over-year declines in withholding in the fourth quarter of 2022.

Figure 3 shows monthly and fiscal year-to-date nominal growth rates in withholding between July 2022 and February 2023, which corresponds to the first eight months of state fiscal year 2023 in 46 states.⁴ Monthly data should be viewed with caution because they may include one-time payments or a given month may have fewer tax processing days than the same month in the prior year.

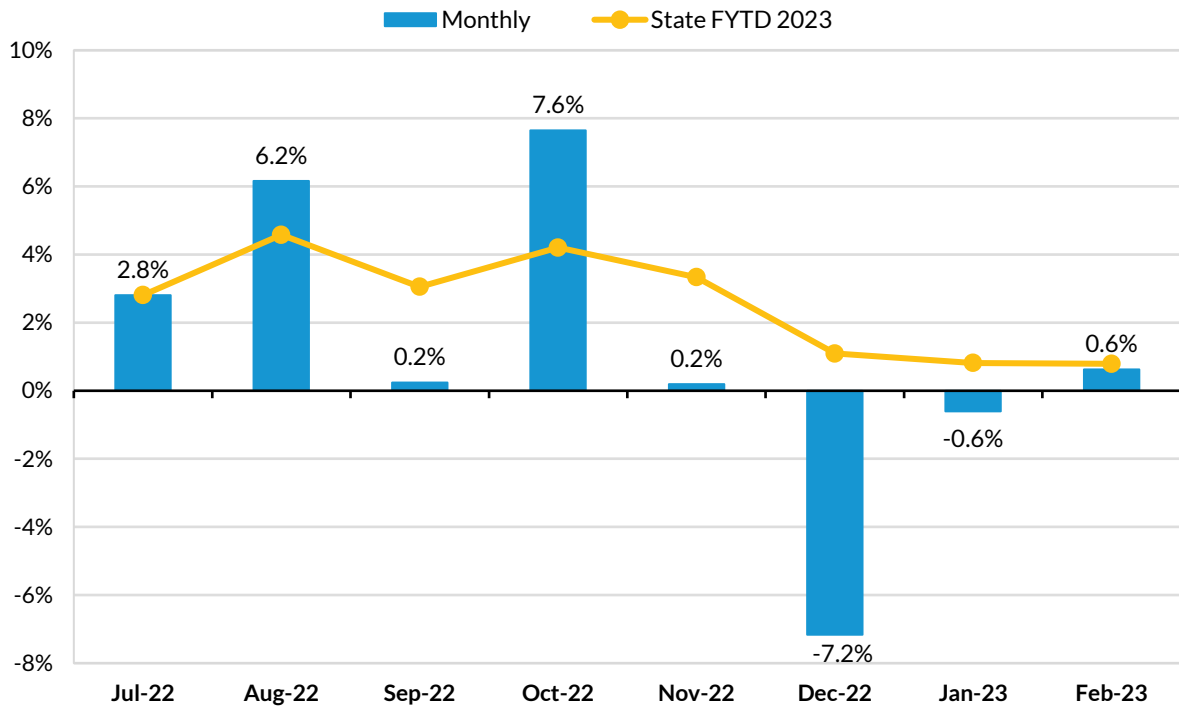
Withholding showed large volatility in the first eight months of state fiscal year 2023, showing solid year-over-year growth in the months of August 2022 and October 2022 and extreme weakness or declines in the rest of the months. Growth in withholding for the first eight months of state fiscal year 2023 was 0.8 percent in nominal terms and negative 6.0 percent in real terms. All states but Arkansas, California, Louisiana, New York, and Wisconsin reported year-over-year growth in withholding tax revenues in the first eight months of state fiscal year 2023. Arkansas, Louisiana, New York, and Wisconsin all had cut personal income tax rates for tax year 2022, which was the main reason for

declines in their withholding. Declines in California were mostly caused by the sharp drop-off in salary bonuses and in initial public offerings activity.⁵

FIGURE 3

Withholding Weakened Substantially in Recent Months

Nominal percentage change in withholding tax collections compared with the previous year, monthly and year to date for state fiscal year 2023



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

Notes: FYTD = fiscal year to date.

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.

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, third, and fourth 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.

Because of unusual changes in income tax filing deadlines in 2020 (extended to July 15) and 2021 (extended to May 17), we present combined data for the April through January period, which largely corresponds to all four estimated payments for a given tax year. Estimated payments showed year-over-year declines of 21.8 percent for the April 2022 through January 2023 period, but the median state reported growth of 7.6 percent. Twenty-three states reported growth in estimated payments during April 2022 through January 2023 period, while 15 states reported declines ([table A5](#)).

The largest decline in estimated payments was in California, where estimated payments decreased by \$24.4 billion or 52.6 percent in the April 2022 through January 2023 period compared with the same period a year earlier. The steep decline in California is partially caused by the weak stock market but also because of the delayed income tax filing deadline for Californians impacted by winter storms.⁶ It is likely that many Californian taxpayers chose to delay their estimated income tax payments. If we exclude California, estimated payments for the rest of the nation showed year-over-year declines of 1.2 percent in nominal terms.

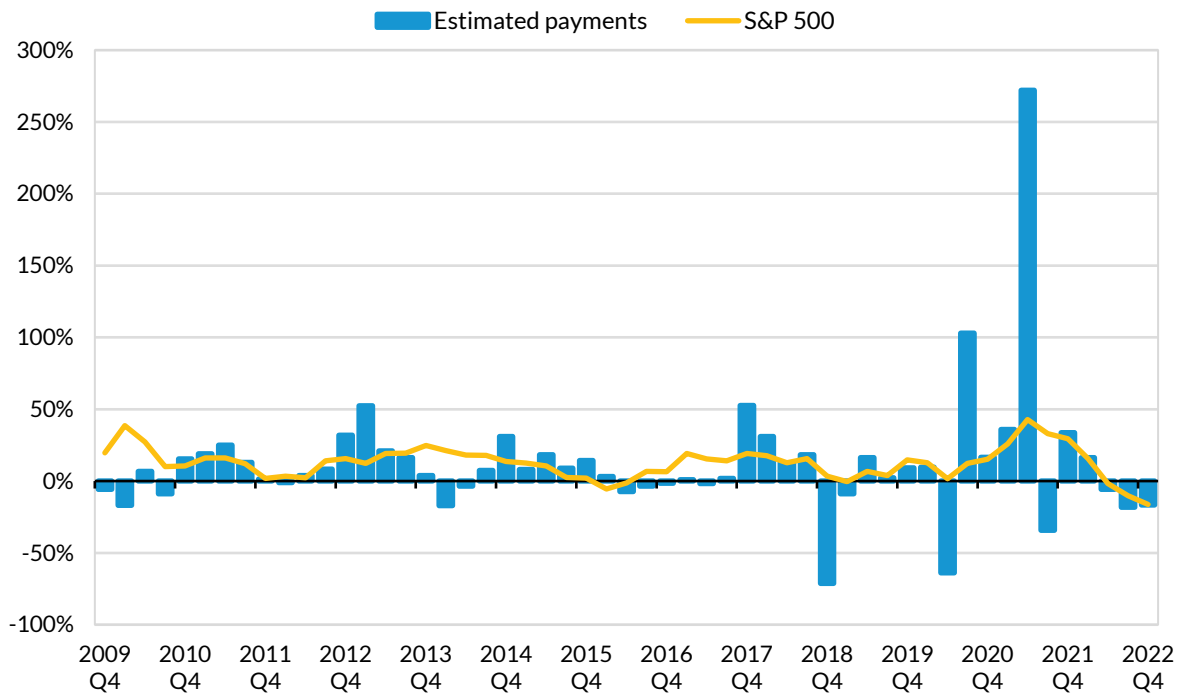
[Figure 4](#) shows year-over-year percentage change by quarter in estimated payments and in S&P 500 Index for the past 14 years. The longer-term trends indicate substantial volatility in estimated payments, which is partially caused by volatility in the stock market but also by actual and expected federal (and state) tax policy changes and taxpayer responses, which affect capital gains realizations and tax timing.

Because temporary changes in timing can alter revenue patterns significantly, we strongly encourage relying on combined quarterly numbers and longer-term trends. Year-over-year growth in estimated payments was more in line with the growth in the stock market in 2022. Both estimated payments and the stock market increased in the first quarter of 2022 but declined in the second, third, and fourth quarters of 2022. Estimated payments showed a 16.2 percent year-over-year decline in the fourth quarter of 2022, while the stock market showed a 16.3 percent year-over-year decline.

FIGURE 4

Large Volatility in Estimated Payments

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



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

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.⁷

Table A6 shows year-over-year nominal growth rates in final payments for the April through January period for the last three years. Year-over-year growth in final payments was robust for April 2022 through January 2023 period, at 41.9 percent. All states but Minnesota and New Mexico reported growth in final payments for April 2022 through January 2023 compared with a year earlier, with 34 states reporting double-digit percentage growth.

Refunds

By definition, personal income tax refunds represent a negative share of personal income 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.

Refund payments increased 96.9 percent in the fourth quarter of 2022 compared with the same quarter in 2021. In total, states paid out \$9.5 billion more in refunds in the fourth quarter of 2022 than in the same quarter in 2021. Overall, 35 states paid out more in refunds in the fourth quarter of 2022 than in the fourth quarter in 2021. Officials in several states used budget surpluses to issue rebate checks to their residents to help offset the high inflation rate and these rebates were classified as income tax refunds in most states.

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 available for 24 states. In table 3, we present data for the fourth quarter of 2022.

TABLE 3

Actual versus Forecasted State Personal Income Tax Revenues

State	2021 Q4 actual (\$ millions)	2022 Q4 actual (\$ millions)	2022 Q4 forecast (\$ millions)	Percent change, 2022 Q4 vs 2021 Q4	Percentage variance, 2022 Q4 actual from forecast	Forecast date
<i>Median</i>				5.7%	5.5%	
<i>Average</i>	\$73,221	\$64,450	\$53,581	-12.0%	20.3%	
Arizona	1,636	1,659	1,509	1.4	9.9	Jun-22
Arkansas	798	804	761	0.7	5.6	Nov-22
California	28,943	23,476	22,290	(18.9)	5.3	May-22
Colorado	2,430	2,608	2,744	7.3	(5.0)	Dec-22
Idaho	519	449	444	(13.6)	1.1	Jul-22
Indiana	1,431	1,679	1,522	17.3	10.3	Dec-21
Kansas	946	1,025	998	8.4	2.6	Jun-22
Maine	531	587	505	10.7	16.2	Mar-22
Massachusetts	5,270	4,743	4,007	(10.0)	18.4	Sep-22
Minnesota	2,808	3,359	3,330	19.6	0.9	Nov-22
Mississippi	572	606	567	5.9	6.9	Nov-21
Montana	577	519	424	(9.9)	22.6	Jun-22
Nebraska	673	703	727	4.3	(3.4)	Oct-22
New Mexico	522	571	591	9.5	(3.3)	Aug-22
New York	13,244	8,940	862	(32.5)	937.1	Oct-22
North Dakota	64	87	34	36.0	154.6	Aug-21
Ohio	2,453	2,570	2,437	4.8	5.5	Jul-22
Oklahoma	750	831	697	10.8	19.2	Feb-22
Pennsylvania	3,396	3,714	3,618	9.3	2.6	Jun-22
Rhode Island	450	430	458	(4.3)	(6.0)	Nov-22
South Carolina	1,817	1,916	1,875	5.4	2.2	Nov-22
Vermont	232	275	246	18.6	11.9	Jul-22
West Virginia	524	569	514	8.7	10.7	Jan-22
Wisconsin	2,636	2,332	2,421	(11.5)	(3.7)	Jan-23

Source: Individual state data, analysis by the author.

Actual personal income tax collections in the fourth quarter of 2022 were higher than forecasted in 19 of 24 states, with an average forecast underestimate of 20.3 percent and a median underestimate of

5.5 percent (table 3). Note that some states regularly update their monthly revenue forecasts, while others prepare monthly revenue forecasts only once a year. Therefore, the variance between actual and forecasted revenues depends on the forecast date.

The considerable variance between actual and forecast revenues in recent quarters is largely because the pandemic has upended many standard economic models, making forecasting more difficult. Current global geopolitical crises, high inflation, and federal monetary policy actions continue to complicate revenue forecasting for states.

Corporate Income Taxes

Year-over-year growth in state corporate income tax revenues was strong, at 10.9 percent in nominal terms and 4.2 percent in real terms in the fourth quarter of 2022 (table A1). Growth in the median state was weaker, at 7.3 percent in nominal terms. The average quarterly year-over-year growth rate in state corporate income tax collections in calendar year 2022 was 45.2 percent in nominal terms and 35.7 percent in real terms.

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.

All regions but New England and Plains reported year-over-year growth in state corporate income tax revenue collections in the fourth quarter of 2022. The Southwest region saw the strongest increase, at 34.5 percent, while corporate income tax revenues in the New England and Plains regions declined 3.5 and 10.3 percent, respectively.

Twenty-eight states reported year-over-year growth in corporate income tax collections, while 17 states reported declines (table A2). The strongest growth in dollar value was in New York, where corporate income tax revenues increased by \$0.7 billion, or 51.1 percent, in the fourth quarter of 2022 compared with the same quarter in 2021.

To examine the strength in corporate income tax revenues this year, we also examined combined payments for the third and fourth quarters of 2022. State corporate income tax revenues increased 10.7 percent in the third and fourth quarters of 2022 combined compared with the same period in 2021; growth in the median state was 11.8 percent. Thirty-six states reported year-over-year growth over that six-month period, while 9 states reported declines (table A3).

Before the COVID-19 pandemic, states were forecasting lower corporate income tax collections, mostly because of higher costs for business inputs and a weakened global economy (Dadayan 2020b). State corporate income tax revenues, however, showed strong overall growth after the initial shock of the pandemic. The federal aid package helped to boost corporate profits. According to data from the Bureau of Economic Analysis, US corporate profits increased by \$73.6 billion, or 2.6 percent, in the fourth quarter of 2022 compared with the same quarter of 2021.⁸ However, not all industries showed growth in corporate profits; the financial sector suffered a 24.9 percent decline in corporate profits in the fourth quarter of 2022 compared with the same period in 2021. Overall, growth in corporate profits weakened substantially in the second half of 2022.

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

General Sales Taxes

State general sales tax collections increased 6.3 percent in nominal terms and were flat in inflation-adjusted terms for the fourth quarter of 2022 compared with the same period in 2021 (table A1). Growth in the median state was 7.1 percent in nominal terms. The average quarterly year-over-year growth rate in state general sales tax collections in calendar year 2022 was 11.3 percent in nominal terms and 4.0 percent in real terms.

Sales tax collections increased in all regions for the fourth quarter of 2022 compared with the same period in 2021. The Southwest region reported the largest average year-over-year growth at 10.7 percent, while the Far West region reported the smallest average growth at 2.7 percent (table A2).

Forty-three of 45 states with broad-based sales taxes reported year-over-year growth in sales tax collections for the fourth quarter of 2022, with 8 states reporting double-digit growth. North Dakota and Wyoming had the strongest year-over-year growth in sales tax revenues at 15.2 percent each, while Pennsylvania had the weakest growth at 2.3 percent. Two states—Missouri and California—reported year-over-year declines in state sales tax revenues in the fourth quarter of 2022.

State sales tax revenues were 8.6 percent higher in the third and fourth quarters of 2022 combined, compared with the same period in 2021 (table A3). All states but Missouri reported year-over-year growth over that six-month period, with 17 states reporting double-digit growth.

Overall growth in sales tax revenues weakened substantially in the fourth quarter of 2022. The 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) earlier in 2022 was caused in part by price increases from high inflation. However, it appears many consumers have been adjusting their spending habits and reducing their purchases because of persistent high inflation and declines in real wages.

Before the COVID-19 pandemic, sales tax growth generally had been steady if unspectacular. This was 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*. (See prior [State Tax and Economic Review](#) reports for detailed discussion of the internet sales taxation by states.)

Many state officials have expressed concerns about the sales tax performance over the longer run, especially as consumers shift back to spending more on services, which are largely not subject to sales tax (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 collections declined 3.6 percent in nominal terms and 9.4 percent in inflation-adjusted terms for the fourth quarter of 2022 compared with the same period in 2021 ([table A1](#)). The median state saw 1.1 percent year-over-year growth in nominal terms. The average quarterly year-over-year growth rate in state motor fuel tax collections in calendar year 2022 was 0.5 percent in nominal terms and negative 6.0 percent in real terms.

In 2022, several states (i.e., Connecticut, Florida, Georgia, Maryland, and New York) had implemented gas tax holidays to ease consumer prices. Thus, declines in motor fuel tax revenues are largely attributable to the gas tax holidays. In addition, higher fuel prices led to declines in demand which lowered motor fuel taxes, especially in states that charge a per gallon tax.

Motor fuel tax revenue collections declined in the New England, Southeast, and Southwest regions and increased in the other regions for the fourth quarter of 2022 compared with the same period in 2021. The New England region reported the largest decline at 18.4 percent while the Rocky Mountain region reported the strongest average growth at 7.5 percent.

Sixteen states reported year-over-year declines in motor fuel sales tax collections for the fourth quarter of 2022; seven states reported double-digit declines ([table A2](#)). The largest year-over-year drop

was in Georgia and Connecticut where motor fuel sales tax collections declined 100.8 and 70.9 percent, respectively. The declines in both states are largely caused by the gas tax holidays. In Georgia, Governor Kemp suspended the collection of motor fuel excise tax from March 18, 2022, through January 10, 2023.⁹ In Connecticut, Governor Lamont suspended the state's \$0.25 per gallon excise tax on gasoline from April 1, 2022, through December 31, 2022.¹⁰

State motor fuel sales tax revenues declined 3.4 percent in the third and fourth quarters of 2022 combined compared with the same period in 2021, with a median decline of 0.1 percent ([table A3](#)). Twenty-six states reported year-over-year declines over that six-month period.

Enacted gas tax holidays were expected to reduce motor fuel revenues by \$2.1 billion, which includes \$90 million in Connecticut (effective from April 1 through December 31), \$200 million in Florida (effective in the month of October), \$1.1 billion in Georgia (effective from March 18 through December 11), \$94 million in Maryland (effective from March 18 through April 16), and \$609 million in New York (effective from June 1 through December 31).¹¹ In addition to gas tax holidays, a number of states (e.g., Colorado, Illinois, and Kentucky) had suspended gas tax increases, which also had a negative impact on motor fuel sales tax revenue collections.

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. 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 the motor fuel tax rate is tied to a variable, such as the price of gasoline, inflation, or another metric.¹²

Gas and oil prices have increased substantially in 2022, largely because of supply disruptions caused by current geopolitical tensions. The high prices are largely benefiting oil-dependent states, at least in the short-term (Dadayan 2022b). The increases in prices were expected to boost motor fuel tax revenues in states with a variable tax rate and that did not enact gas tax holidays or suspend motor fuel tax rate adjustments.

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 2022, states collected \$69.2 billion from these 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. The four-quarter moving average of inflation-adjusted revenues from smaller state tax sources showed a 3.8 percent increase for the fourth quarter of 2022 compared with the same quarter in 2021. State property taxes, which represent a small portion of overall state tax revenues, increased 1.4 percent. Tax revenues from tobacco product sales declined 12.2 percent, tax revenues from alcoholic beverage sales declined 1.2 percent, and revenues from motor vehicle and operators' licenses declined 5.6 percent. Finally, revenues from all other smaller tax sources increased 7.9 percent.

Preliminary Review of State Tax Revenues in the First Quarter of 2023

The Urban Institute regularly collects monthly state tax revenue data for all states. Preliminary data from 47 states show year-over-year declines in nationwide state tax revenue collections in the first quarter of 2023, marking the second quarterly decline in nominal terms. Nominal state tax revenue collections declined 8.8 percent in the first quarter of 2023 compared with the same period in 2022, largely driven by declines in California and New York. In contrast, the median state reported growth of 2.9 percent ([table A9](#)). If we exclude California and New York, overall state tax revenues for the rest of the nation showed year-over-year growth of 1.9 percent in nominal terms. State tax revenues increased in 34 states in nominal terms, with 3 states reporting double-digit growth. Thirteen states reported year-over-year declines for the first quarter of 2023.

Personal income tax collections declined 18.6 percent in the first quarter of 2023 compared with the same period a year earlier; the median state reported a decline of 2.9 percent in nominal terms. According to preliminary data, 28 states reported year-over-year declines in personal income tax revenues in the first quarter of 2023, with 9 states reporting double-digit declines. Overall, it appears that growth in withholding has moderated, in part because of personal income tax rate cuts in several states. In addition, growth in estimated payments has weakened substantially in recent quarters, indicating that upper-income taxpayers are reducing their tax payments in light of the volatile stock market.

Year-over-year growth in state corporate income tax revenues was negative 25.5 percent in the first quarter of 2023; growth in the median state was 9.7 percent. Corporate income tax revenues increased in 25 states, with 22 states reporting double-digit growth. Nineteen states reported year-over-year declines in corporate income tax revenues in the first quarter of 2023. The largest decline in

dollar value was in California, where corporate income tax revenues decreased by \$9.2 billion, or 62.2 percent, in the first quarter of 2023 compared with the same quarter in 2022. If we exclude California, corporate income tax revenues for the rest of the nation showed year-over-year growth of 14.8 percent in nominal terms. The steep decline in California is largely because of delayed payment and filing deadlines for personal and corporate income taxes for Californians in 41 counties that were impacted by winter storms and flooding.

Finally, state general sales tax collections increased 6.1 percent in the first quarter of 2023 compared with the same quarter in 2022; growth in the median state was 7.1 percent. Forty-two states reported growth in sales tax collections.

Looking ahead, state tax revenues will likely show continued volatility in the short term because of uncertainties in the economy and because of the implications of both state policy decisions and federal monetary policies.

Previously, we warned that robust revenue growth observed throughout 2021 was in part because of temporary boost in select economic drivers, such as the soaring stock market and the sharp increase in initial public offerings, both of which have now substantially weakened. Furthermore, several states enacted tax cuts during the current or prior fiscal year (Auxier and Weiner 2023). Depending on their size and structure, these tax cuts could leave some states with budget holes in the coming fiscal years as temporary federal fiscal funds diminish and if the strength of the economy wanes. These tax cuts can also exacerbate the risk of structural deficits, leading states to either reverse earlier tax cuts or raise other taxes or cut funding for services to balance budgets (Lazere 2022).

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 COVID-19 pandemic and both federal and state policy responses have altered many standard revenue and economic trends.

State Gross Domestic Product

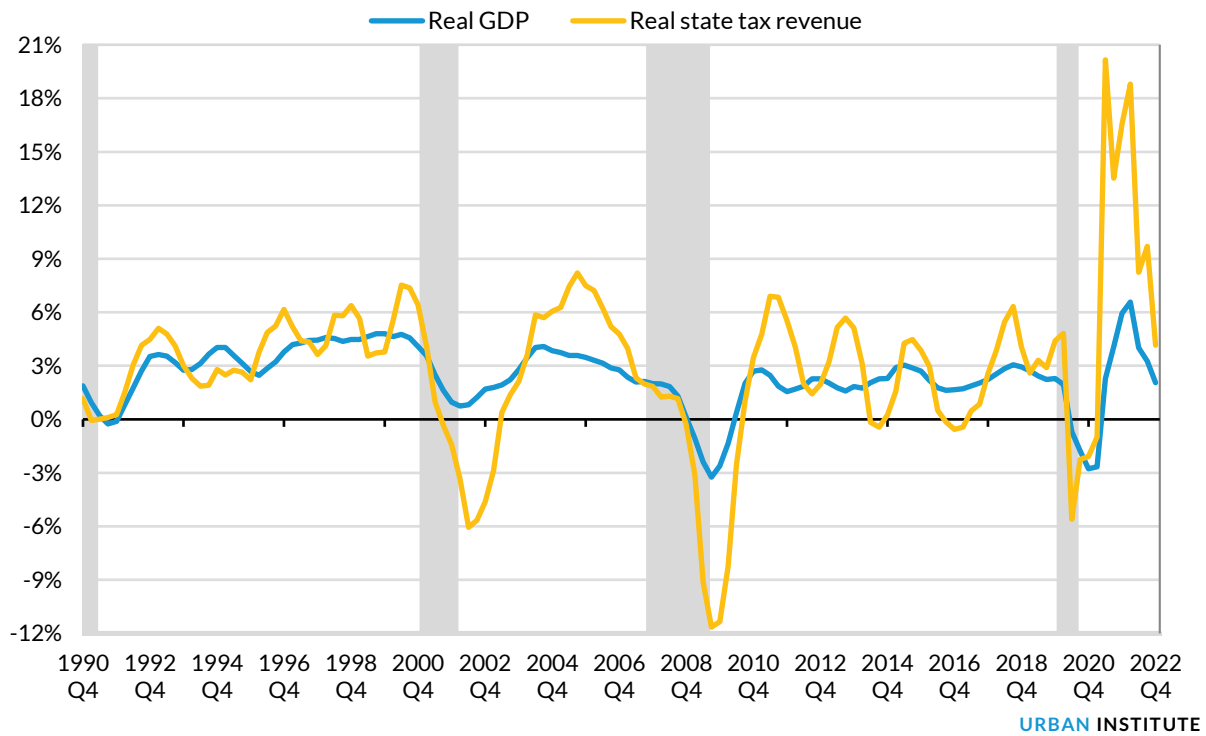
Figure 5 shows year-over-year growth for four-quarter moving averages in real GDP and real state tax revenue. We present moving averages to smooth short-term fluctuations and illustrate the interplay between the state of the economy and state revenues. As shown in figure 5, growth in both real GDP and real state tax revenues weakened substantially in the fourth quarter of 2022. Year-over-year growth for the four-quarter moving average was 4.2 percent in real state tax revenues but only 2.1 percent in real GDP in the fourth quarter of 2022.

Even excluding the most recent volatility related to the COVID-19 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 dependent on volatile income sources, such as stock options and capital gains. This was particularly true during the COVID-19 pandemic: the stock market soared despite the real-world turmoil and led to larger capital gains realizations and increases in nonwithholding income tax payments. However, after soaring for two years, the stock market began declining in 2022. The average annual change for the S&P 500 index was negative 4.1 percent in calendar year 2022, which is in sharp contrast to average annual growth of 32.8 percent in calendar year 2021.

FIGURE 5

State Tax Revenue Is More Volatile Than the Economy

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



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

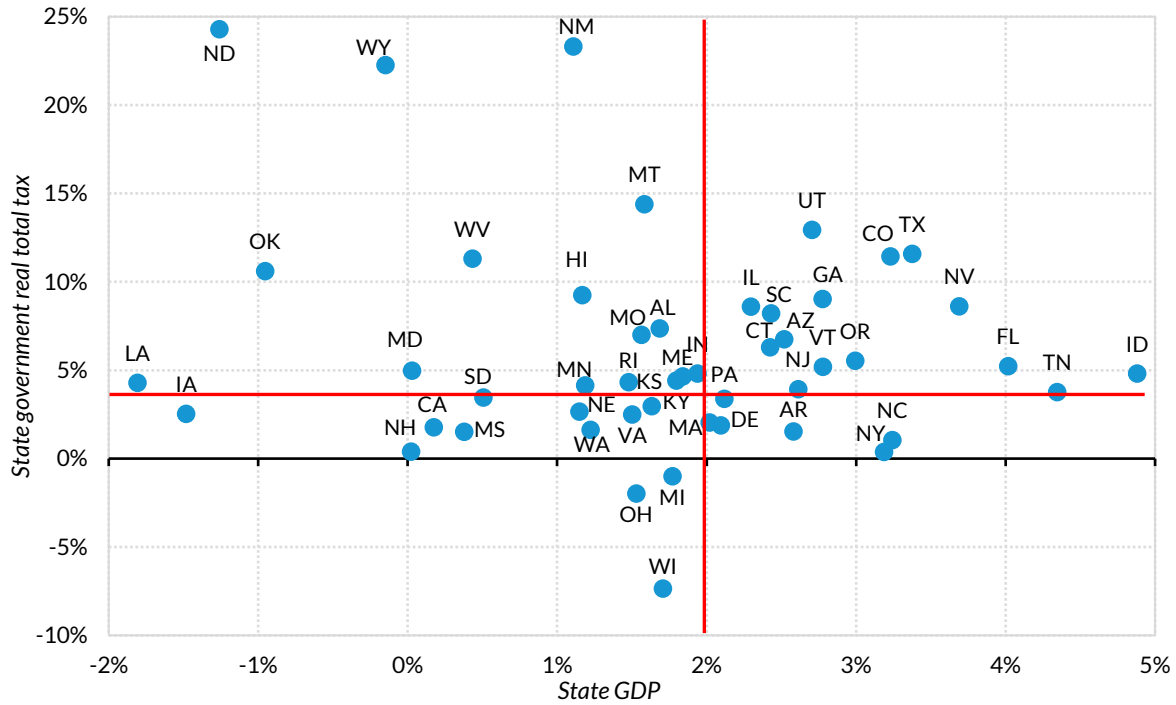
Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

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 2022 compared with the same quarter in 2021. By this measure, real state GDP increased in 44 states, while real state tax revenues increased in 47 states. The year-over-year change in real state GDP ranged from 4.9 percent in Idaho to negative 2.4 percent in Alaska; the change in real state tax revenues ranged from 150.2 percent in Alaska to negative 7.3 percent in Wisconsin. Large swings in Alaska’s and other energy-dependent states’ revenue collections reflect volatile oil prices (Dadayan and Boyd 2016).

FIGURE 6

Growth Disparity: State Tax Revenues versus State GDP

Year-over-year percentage change in real state taxes and real GDP, 2022 Q4 versus 2021 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 is an outlier and is excluded from the figure.

State Unemployment and Employment

The unemployment rate for the nation averaged 3.6 percent in the fourth quarter of 2022.

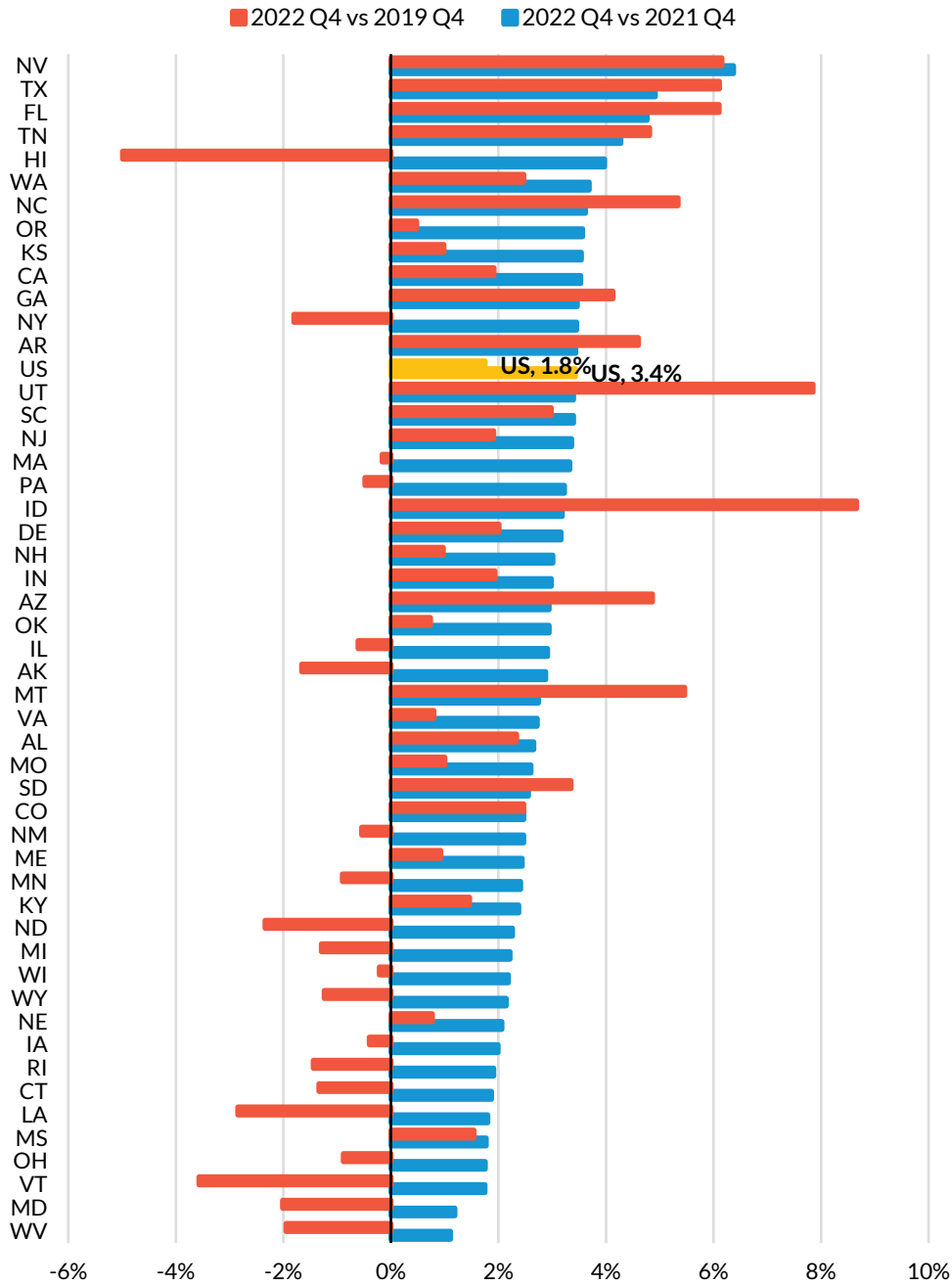
Unemployment rates ranged from 2.1 percent in North Dakota to 5.5 percent in Nevada for the fourth quarter of 2022, although unemployment rates varied for different socioeconomic and demographic groups in each state. According to the latest data, the national unemployment rate dropped to 3.5 percent in the first quarter of 2023.

Nationwide employment increased 3.4 percent in the fourth quarter of 2022 compared with the same quarter in 2021 and was 1.8 percent above the employment levels observed in the fourth quarter of 2019 (figure 7). All 50 states reported growth in employment in the fourth quarter of 2022 compared with the fourth quarter of 2021, but at the same time, 20 states reported lower employment compared with the fourth quarter of 2019. Year-over-year growth in employment ranged from 1.1 percent in West Virginia to 6.4 percent in Nevada for the fourth quarter of 2022.

FIGURE 7

Employment Saw Solid Growth in the Fourth Quarter of 2022 but is Still Down in 20 States Compared with Prepandemic Levels

Year-over-year percentage change in employment, 2022 Q4 versus 2021 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.

As of March 2023, state and local governments employed around 362,000 fewer people than they did before the COVID-19 pandemic, despite many vacancies advertised. 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.

Among private-sector jobs, current employment numbers are only slightly above prepandemic levels, and there are still large variations across different sectors and industries. The share of workers employed declined dramatically for the leisure and hospitality sector, which as of March 2023 employed around 368,000 fewer people than before the COVID-19 pandemic. On the other hand, the job market thrived for the trade, transportation, and utilities sector, which as of March 2023 employed around 1.1 million 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.

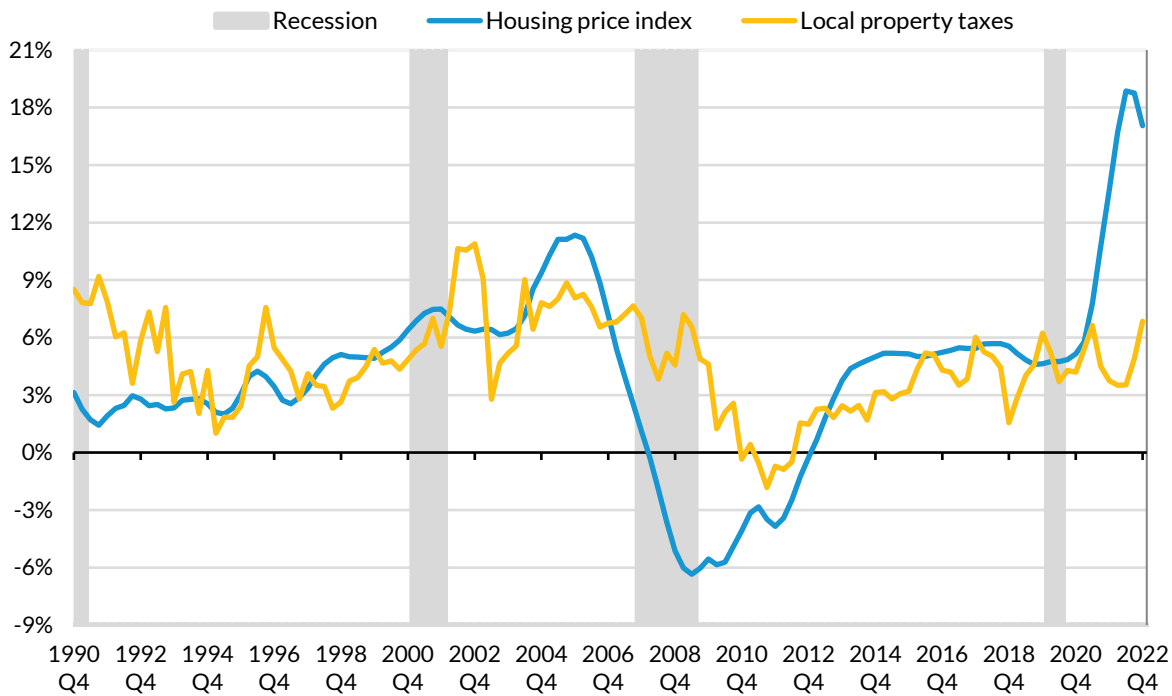
Figure 8 shows year-over-year percentage changes in the four-quarter moving average of the house price index and local property taxes in nominal terms. House prices saw steep declines during the Great Recession, which led to a significant slowdown in local property tax growth and to an actual decline 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).

National average house prices showed strong growth during the COVID-19 pandemic and appreciated 17.0 percent for the fourth quarter of 2022 compared with one year earlier; year-over-year growth in local property taxes was 6.8 percent for the same period, based on four-quarter moving averages. Despite the strength in house prices, local government property tax revenues fluctuated substantially since the pandemic, likely because of declines in commercial property tax revenues caused by the pandemic and the increase in remote work.

FIGURE 8

Housing Prices Rose During the Pandemic but Growth Ticked Downward in Fourth Quarter of 2022

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.

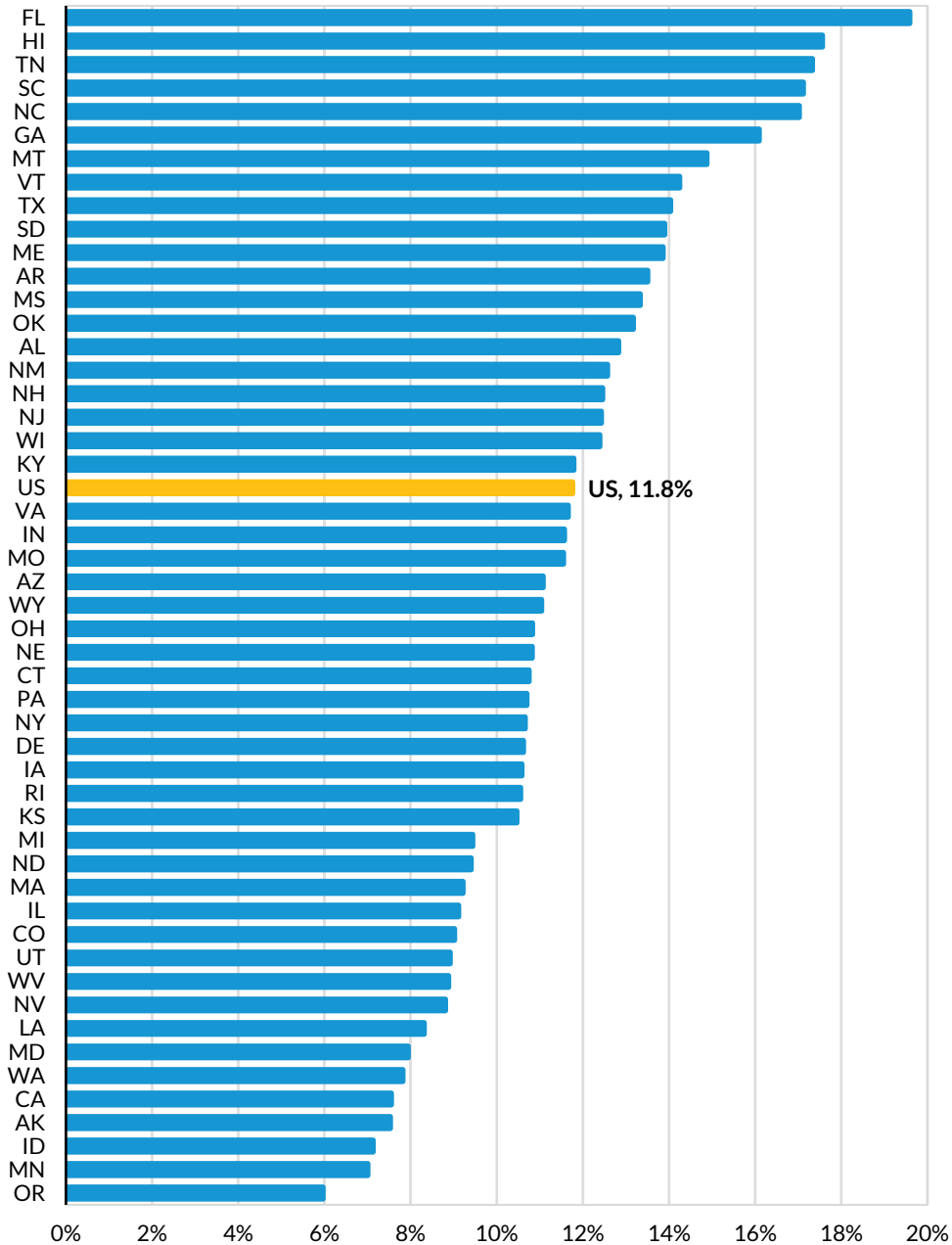
Figure 9 shows the nominal year-over-year percentage change in house price indexes in the fourth quarter of 2022 for all states. Statewide house price indexes increased in all states for the fourth quarter of 2022 compared with a year earlier, ranging from a 6.0 percent increase in Oregon to a 19.6 percent increase in Florida. Year-over-year growth was 11.8 percent for the nation.

The COVID-19 pandemic generally did not negatively affect residential real estate property values. In fact, housing markets strengthened as demand for new housing outstripped supply in the early months of the pandemic (Duca and Murphy 2021). In contrast, the pandemic's effect on commercial real estate property values, and thus commercial property tax revenues, has been negative and remains uncertain.

Predicting the COVID-19 pandemic's long-term effects on residential real estate and commercial properties is difficult because it is still unclear whether current patterns of remote work will remain even after other aspects of the economy revert to prepandemic trends. In addition, it is also unclear how much the Federal Reserve Board's raising interest rates will continue to affect housing markets. Higher borrowing costs for mortgages have weakened home sales as interest rates increased. We could

see a continued weakening in residential property values and associated property taxes, though this could be mitigated if mortgage interest rates continue to stabilize or fall.

FIGURE 9
States Saw Solid Growth in Housing Prices in the Fourth Quarter of 2022
Year-over-year percentage change in house prices, 2022 Q4 versus 2021 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

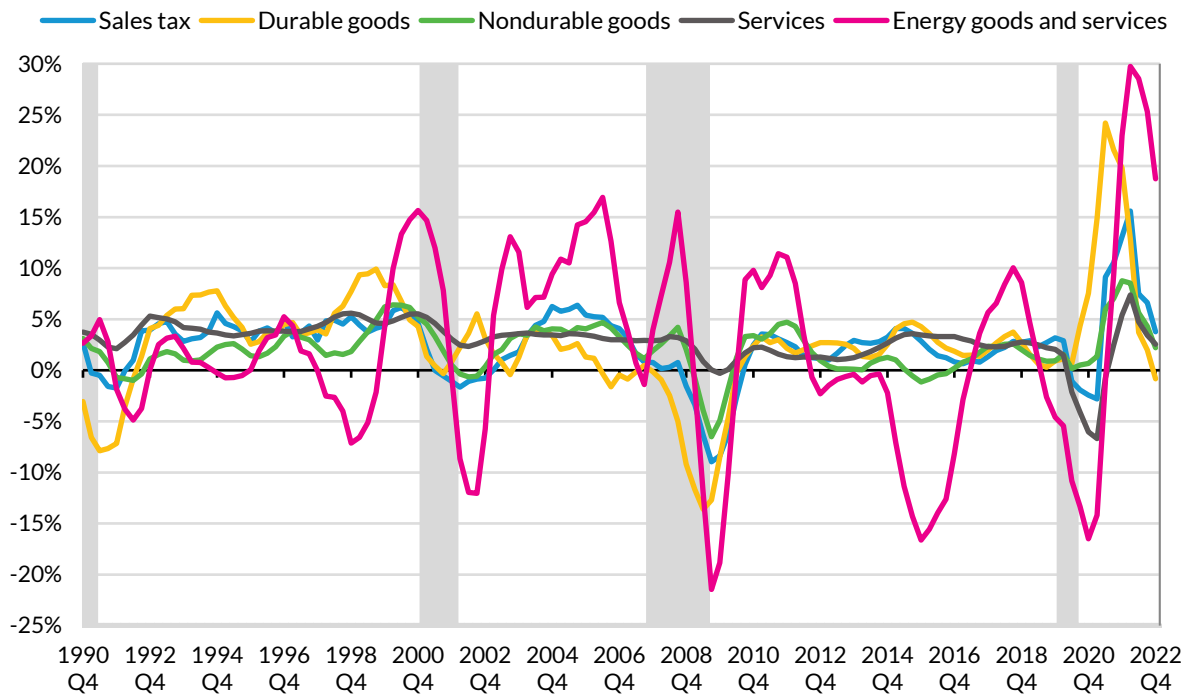
“Personal consumption expenditures” is a measure of national consumer spending. The measure shows the value of the goods and services purchased by American consumers and is correlated with the base for states’ sales taxes. [Figure 10](#) displays the year-over-year percentage change in the four-quarter 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](#), year-over-year spending on services increased an average 2.6 percent in the fourth quarter of 2022. Spending on both durable and nondurable goods increased consistently throughout the COVID-19 pandemic, although growth weakened substantially in 2022. Year-over-year spending on nondurable goods increased 2.2 percent while spending on durable goods declined 0.8 percent in the fourth quarter of 2022.

FIGURE 10

Spending on Goods and Services Weakened Substantially in the Fourth Quarter of 2022

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



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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.

Before the COVID-19 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.

Spending on gasoline and energy goods represents about one-fifth of total spending on nondurable goods. As shown in [figure 10](#), after eight consecutive quarters of declines, real spending on energy goods and services resumed growth in the third quarter of 2021; year-over-year growth was robust in the fourth quarter of 2022, at 18.7 percent. The growth in spending on energy goods and services is partly because of the sharp increases in gas and oil prices. With travel resuming and relatively high gas and oil prices, we will likely see continued growth in spending on energy goods and services in the coming months.

Tax Law Changes Affecting the Fourth Quarter of 2022

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 2023, partly in response to surging state revenues and in response to residents' need for financial relief.

We present analysis based on data and information retrieved from the National Association of State Budget Officers' Fall 2022 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 estimated tax revenues depending on the performance of underlying economic indicators, and estimates may not fully control for growing inflation.¹³

During the fourth quarter of 2022, enacted tax changes were forecasted to decrease revenues by \$3.6 billion compared with the same period in 2021 (though this reflects tax decreases in some states and increases in others).¹⁴ Overall, tax changes were expected to decrease personal income taxes by \$1.7 billion and corporate income taxes by \$955 million. Enacted tax changes were also expected to decrease sales taxes by \$439 million and motor fuel taxes by \$287 billion. Further, some states enacted changes in other taxes and fees, which were expected to decrease state tax and fee revenues by approximately \$224 million (NASBO 2022). Below, we discuss some of the major enacted tax changes for fiscal year 2023.

The estimated impact of all the enacted tax changes is a projected net decrease of \$16.2 billion in state revenues in fiscal year 2023. In comparison, legislated tax actions in fiscal year 2022 were estimated to decrease state revenues by only \$2.7 billion. California, New York, and Virginia enacted the most

substantial tax cuts, with estimated net losses of \$4.6 billion, \$3.6 billion, and \$1.4 billion, respectively. Not only do these tax cuts reflect differences in anticipated revenue, but they can also have disparate impacts on different individuals within a state, based on the details of the changes.

For fiscal year 2023, 26 states enacted personal income tax decreases and 2 states enacted increases. The net impact of legislated tax changes is an estimated decrease of personal income tax revenues of \$8.3 billion in fiscal year 2023. The largest estimated decline is in New York where officials introduced homeowner tax rebate credits for some 2.5 million eligible homeowners.¹⁵ Under this program, qualifying taxpayers will receive higher refund payments. In addition, New York's Governor Hochul accelerated personal income tax cuts for middle-class taxpayers and introduced some other relief measures, including creating new credits or increasing existing tax credits.¹⁶ These tax measures are estimated to decrease New York's personal income tax collections by \$2.9 billion in fiscal year 2023.

Virginia and South Carolina also enacted various laws which are expected to decrease personal tax revenue collections significantly in fiscal year 2023. Officials in Virginia increased the standard deduction from \$4,500 to \$8,000 for single individuals and from \$9,000 to \$16,000 for married individuals filing jointly, provided revenue targets are met (and if not, the standard deduction will increase to \$7,500 and \$15,000, respectively). In addition, Virginia's Governor Youngkin issued income tax rebates and introduced some other measures.¹⁷ These tax measures are estimated to decrease Virginia's personal income tax collections by \$1.3 billion in fiscal year 2023.

Officials in South Carolina reduced the personal income tax rate from 7.0 percent to 6.5 percent¹⁸ as well as exempted military retirement pay from income taxes.¹⁹ These tax measures are estimated to decrease personal income tax collections by \$0.7 billion in fiscal year 2023.

Lawmakers in Arkansas cut the top income tax rate from 5.9 percent to 4.9 percent as well as created an "inflationary relief" tax credit for 2022 income taxes.²⁰ These tax measures are estimated to decrease personal income tax collections by 0.5 billion in fiscal year 2023.

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 (Auxier and Weiner 2023).

Sixteen states enacted corporate income tax decreases and 3 states enacted increases. Legislated tax changes are estimated to decrease aggregate corporate income tax revenues by \$4.0 billion in fiscal year 2023. The largest corporate income tax changes were in California. In 2020, California's Governor Newsom signed a tax bill that suspended the net operating loss deductions for corporations with net

income of over \$1 million for tax years 2020 through 2022 as well as limited utilization of business credits (maximum of \$5 million) for tax years 2020 through 2022.²¹ However, on February 9, 2022, Governor Newsom signed a law that among other measures reinstated net operating loss deduction as well as removed the temporary limitation on allowable tax credits.²² The net impact of these tax changes pertaining to businesses is an estimated decrease of \$3.5 billion in California's corporate income tax revenues for fiscal year 2023. Several other states also enacted laws modifying their corporate income tax structures, but the estimated impact of these other changes is not significant.

Nineteen states enacted sales tax decreases and 3 states enacted increases. The net impact of these legislated tax changes is an estimated decrease in sales tax revenues of \$1.6 billion in fiscal year 2023. The most significant legislative changes pertaining to sales tax revenues were in Florida, where sales tax revenues were estimated to decrease by \$0.5 billion. In Florida, Governor DeSantis authorized a substantial tax relief package, which included 10 sales tax holidays for a variety of items including children's books, energy star appliances, fuel, disaster supplies, clothing, and diapers among others.²³ Officials in California partially exempted sales and use tax on the sale, storage, use, or other consumption of diesel fuel effective October 1, 2022, through September 30, 2023. The net impact of this tax measure is an estimated decrease of \$0.3 billion in California's sales tax revenue for fiscal year 2023.²⁴

Three states—Florida, Georgia, and New York—enacted gas tax holidays, with an estimated net loss of \$1.1 billion in motor fuel sales tax collections for fiscal year 2023. Three states enacted changes for cigarette taxes, two states enacted changes pertaining to gaming taxes, and nine states enacted changes pertaining to some fees. However, the estimated impact of each state's changes related to cigarettes, gaming, and fees is not significant.

Twenty-one states enacted changes for some other taxes, with an estimated overall decrease of \$1.2 billion in fiscal year 2023. These changes are estimated to decrease state tax revenues in 15 states and increase revenues in 6 states. The most significant legislated changes were in California and Connecticut, where tax measures are estimated to decrease other tax collections by \$0.5 billion and \$0.4 billion, respectively. Officials in California eliminated a cannabis cultivation tax effective July 1, 2022,²⁵ as well as did not renew a managed care organization tax which expired in December 2022.²⁶ In Connecticut Governor Lamont enacted various tax measures, including a gas tax holiday, extending a child tax credit, and increasing a property tax credit.²⁷

Conclusion

State tax revenues have become increasingly volatile in recent years. Early in the COVID-19 pandemic, states were forecasting steep revenue shortfalls for fiscal years 2021 and 2022 (Dadayan 2020a). And state revenues saw steep declines very early in the pandemic. But the federal government swiftly provided generous stimulus packages that injected trillions of dollars into the economy. As a result, most states saw surging revenues in fiscal year 2022, surpassing projections in most states.

Although state revenue collections saw robust growth in state fiscal year 2022 and reported revenue growth was widespread across states and among various revenue sources, overall state revenue collections weakened substantially in the first half of state fiscal year 2023. The double-digit state revenue growth observed in fiscal year 2022 was from very volatile sources and was largely attributable to atypical revenue-enhancing factors such as an exceptionally robust stock market, a record number of initial public offerings, elevated inflation, the boost in spending on taxable goods, and anticipation of possible federal tax hikes (Dadayan 2022a).

States had forecasted continued growth in revenues for fiscal year 2023, but recent forecasts have lowered or even reversed expectations of revenue growth for current fiscal year 2023 as well as for fiscal year 2024 (Dadayan 2022c). State revenues are being affected by the ongoing geopolitical crises, persistence of inflation, evolving federal monetary policy, and current banking crisis among other things. Further, state revenue growth is also affected by recent state government actions, most notably tax cuts enacted over the last two years. In fiscal year 2023 alone, states enacted net tax cuts totaling \$16.2 billion, marking the largest reduction in revenues on record.

Recent economic data are mixed, with low unemployment rates and continued job growth but persistent high inflation and high interest rates, which has undermined consumer confidence. In addition, the slowing of GDP growth and stagnant real wages warrant caution for the coming months.

The short-term outlook for state budgets remains cautiously positive, but the economic uncertainty paired with recent state actions, including temporary or permanent tax cuts, could limit growth for the rest of fiscal year 2023 and may require budget reversals for fiscal year 2024.

The longer-term outlook for state budgets remains uncertain depending on the current banking crisis as well as ongoing federal monetary policy decisions and state actions. Persistently high inflation, volatility in financial markets, rising interest rates, and weakening house prices could lead to a continuing slowdown in economic activity, which in turn could further weaken state tax revenue collections.

Appendix: Additional Tables

TABLE A1

Quarterly State Government Tax Revenue by Major Tax

Year / quarter	Nominal YOY Percentage Change					Inflation rate	Real YOY Percentage Change				
	PIT	CIT	Sales	MFT	Total		PIT	CIT	Sales	MFT	Total
<i>Average growth in CY 2022</i>	7.8	45.2	11.3	0.5	11.5	7.0	0.7	35.7	4.0	(6.0)	4.2
2022 Q4	(10.3)	10.9	6.3	(3.6)	(0.4)	6.4	(15.7)	4.2	(0.0)	(9.4)	(6.4)
2022 Q3	2.6	10.5	11.1	(3.3)	7.1	7.1	(4.2)	3.2	3.7	(9.7)	(0.0)
2022 Q2	14.6	36.3	9.5	(1.0)	15.1	7.6	6.5	26.7	1.8	(8.0)	7.0
2022 Q1	24.2	123.3	18.2	10.0	24.2	6.9	16.2	108.9	10.6	2.9	16.2
2021 Q4	28.4	61.2	18.6	8.1	24.3	6.1	21.0	51.9	11.8	1.8	17.2
2021 Q3	(16.6)	(3.0)	12.4	7.7	(0.6)	5.0	(20.6)	(7.6)	7.0	2.6	(5.4)
2021 Q2	75.5	163.6	40.3	27.6	59.3	4.4	68.2	152.6	34.5	22.2	52.7
2021 Q1	18.0	31.2	3.0	(7.3)	9.4	2.4	15.2	28.0	0.5	(9.5)	6.8
2020 Q4	8.9	24.9	3.4	(7.6)	6.1	1.6	7.2	22.9	1.7	(9.1)	4.4
2020 Q3	43.9	63.6	2.8	(4.2)	19.3	1.3	42.1	61.5	1.5	(5.4)	17.8
2020 Q2	(32.9)	(44.3)	(13.4)	(17.9)	(24.9)	0.8	(33.4)	(44.8)	(14.0)	(18.5)	(25.5)
2020 Q1	5.0	(0.5)	3.9	5.2	4.0	1.7	3.2	(2.2)	2.2	3.4	2.3
2019 Q4	6.2	19.4	5.6	8.3	5.6	1.6	4.5	17.6	3.9	6.6	3.9
2019 Q3	4.3	11.8	7.1	6.0	5.5	1.7	2.6	9.9	5.3	4.3	3.8
2019 Q2	18.8	21.0	2.3	3.2	10.4	1.8	16.7	18.8	0.4	1.3	8.4
2019 Q1	(2.4)	40.5	5.5	1.8	2.6	2.0	(4.3)	37.8	3.4	(0.2)	0.6
2018 Q4	(9.2)	12.0	4.4	6.0	(0.2)	2.3	(11.3)	9.4	2.0	3.6	(2.4)
2018 Q3	7.9	26.4	6.2	8.8	8.3	2.5	5.2	23.3	3.6	6.1	5.6
2018 Q2	10.6	17.5	5.3	8.9	8.9	2.6	7.7	14.5	2.6	6.1	6.2
2018 Q1	15.3	(6.5)	5.0	10.9	8.9	2.2	12.8	(8.5)	2.8	8.6	6.5
2017 Q4	14.9	10.5	4.5	9.7	9.1	2.0	12.6	8.3	2.4	7.5	7.0
2017 Q3	4.6	6.5	3.1	2.0	3.9	1.9	2.6	4.5	1.1	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

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

Notes: PIT = personal income tax; CIT = corporate income tax; MFT = motor fuel tax; YOY = year-over-year, CY = calendar year.

TABLE A2

Quarterly State Government Tax Revenue, by State

Nominal percentage change, 2022 Q4 versus 2021 Q4

State / region	PIT	CIT	Sales	MFT	Total
US (median)	8.1	7.3	7.1	1.1	6.3
US (average)	(10.3)	10.9	6.3	(3.6)	(0.4)
New England	(2.1)	(3.5)	6.6	(18.4)	(0.9)
Connecticut	9.7	(11.3)	5.8	(70.9)	1.6
Maine	10.6	(26.4)	7.1	0.9	2.8
Massachusetts	(8.2)	4.1	7.2	(4.3)	(4.2)
New Hampshire	(39.4)	6.1	NA	(0.8)	2.9
Rhode Island	(5.5)	(1.3)	4.7	3.3	1.9
Vermont	18.6	(3.3)	6.4	18.6	10.6
Mideast	(30.4)	25.5	4.9	2.2	(13.4)
Delaware	12.3	43.7	NA	96.4	15.8
Maryland	9.4	38.1	4.3	38.2	11.1
New Jersey	4.2	(4.7)	5.0	(1.2)	(2.4)
New York	(47.3)	51.1	7.1	(30.6)	(29.0)
Pennsylvania	10.3	16.9	2.3	2.2	5.1
Great Lakes	0.5	7.4	7.4	1.1	3.2
Illinois	11.2	35.2	6.2	0.0	9.2
Indiana	12.9	(34.9)	6.9	3.6	7.0
Michigan	(16.8)	(16.6)	9.7	4.6	(3.5)
Ohio	4.9	NA	6.4	(1.4)	5.0
Wisconsin	(11.5)	(14.0)	9.2	2.0	(4.7)
Plains	14.2	(10.3)	4.3	3.0	8.2
Iowa	4.0	(6.1)	15.1	23.8	5.7
Kansas	8.4	70.9	6.9	0.4	13.8
Minnesota	19.6	(32.9)	6.4	0.0	5.1
Missouri	18.5	1.5	(15.7)	1.1	10.4
Nebraska	4.4	19.0	5.1	(10.7)	4.7
North Dakota	19.6	32.4	15.2	1.8	18.8
South Dakota	NA	6.4	12.7	(1.6)	9.5
Southeast	4.2	31.6	7.1	(14.2)	5.2
Alabama	18.8	12.2	6.5	1.1	10.2
Arkansas	(3.4)	18.5	7.8	1.1	3.9
Florida	NA	82.5	6.9	(16.6)	4.0
Georgia	4.9	100.6	11.2	(100.8)	5.6
Kentucky	8.8	(9.2)	8.2	4.3	6.7
Louisiana	(13.0)	(2.2)	7.8	1.1	2.1
Mississippi	8.0	41.9	6.3	0.1	8.5
North Carolina	(3.6)	25.9	3.0	7.1	1.9
South Carolina	5.4	88.9	8.2	2.4	6.8
Tennessee	NA	7.3	8.9	1.6	6.7
Virginia	9.6	(24.5)	6.1	11.5	5.9
West Virginia	8.7	(7.5)	4.9	1.1	11.4
Southwest	5.4	34.5	10.7	(3.6)	11.6
Arizona	1.4	61.5	5.4	1.1	6.3
New Mexico	8.2	23.4	14.0	(55.9)	30.3
Oklahoma	10.3	(52.6)	8.4	(0.6)	9.2
Texas	NA	NA	11.8	(0.7)	10.9
Rocky Mountain	14.9	23.9	8.6	7.5	14.2
Colorado	7.3	47.7	8.1	14.6	9.9
Idaho	(13.4)	24.3	8.8	6.0	4.3
Montana	23.2	15.5	NA	3.9	11.1
Utah	38.5	(10.4)	7.4	5.1	21.1
Wyoming	NA	NA	15.2	(3.6)	52.6

State / region	PIT	CIT	Sales	MFT	Total
Far West	(16.4)	3.3	2.7	2.4	(5.1)
Alaska	NA	209.8	NA	(12.9)	111.7
California	(18.9)	2.1	(0.9)	4.0	(8.9)
Hawaii	(14.5)	(1.5)	13.1	2.8	7.3
Nevada	NA	NA	8.4	1.2	6.1
Oregon	10.1	10.6	NA	1.1	6.2
Washington	NA	NA	8.7	(5.3)	3.9

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

Notes: PIT = personal income tax; CIT = corporate income tax; MFT = motor fuel tax; NA = not applicable; NM = not meaningful.

TABLE A3

State Government Tax Revenue Trends in State Fiscal Year-To-Date 2023

Nominal percentage change July-December 2022 versus July-December 2021

State / region	PIT	CIT	Sales	MFT	Total
US (median)	8.2	11.8	8.6	(0.1)	7.4
US (average)	(4.3)	10.7	8.6	(3.4)	3.1
New England	1.8	1.2	7.8	(16.7)	2.8
Connecticut	6.9	6.2	7.7	(71.4)	4.4
Maine	9.7	0.6	7.7	(0.7)	6.1
Massachusetts	(1.4)	(3.2)	8.1	(4.0)	0.7
New Hampshire	(15.7)	2.7	NA	(0.9)	2.5
Rhode Island	(0.1)	(2.3)	6.6	0.3	4.3
Vermont	20.0	24.9	8.5	10.3	12.0
Mideast	(14.0)	14.4	5.2	(1.3)	(4.3)
Delaware	11.0	21.7	NA	48.0	13.0
Maryland	10.5	20.5	1.9	28.8	8.8
New Jersey	6.8	2.3	7.0	0.4	2.4
New York	(26.3)	22.0	7.4	(31.0)	(13.6)
Pennsylvania	11.8	13.3	2.5	2.4	5.1
Great Lakes	3.4	10.2	7.8	(1.3)	4.5
Illinois	9.4	32.3	7.0	(1.5)	9.1
Indiana	10.2	(25.6)	8.1	(2.6)	6.1
Michigan	(4.1)	(16.1)	10.3	1.2	1.5
Ohio	6.8	NA	5.0	(2.3)	3.8
Wisconsin	(9.1)	(0.4)	10.0	0.4	(1.9)
Plains	14.1	(2.5)	7.4	1.2	10.1
Iowa	9.0	12.2	1.4	11.0	4.8
Kansas	8.5	40.1	2.4	(1.2)	7.8
Minnesota	17.5	(25.0)	18.6	(3.2)	9.4
Missouri	16.8	24.9	(4.8)	9.2	11.8
Nebraska	6.3	9.3	7.4	(13.3)	5.5
North Dakota	20.3	23.1	17.7	2.6	30.1
South Dakota	NA	1.0	16.1	(3.6)	10.4
Southeast	4.2	29.6	9.6	(10.2)	6.5
Alabama	14.2	27.9	7.7	2.7	9.5
Arkansas	0.8	18.0	11.7	(0.3)	6.2
Florida	NA	51.3	9.5	(7.3)	6.3
Georgia	8.6	83.8	11.5	(100.6)	6.3
Kentucky	8.6	3.5	10.5	1.8	8.0
Louisiana	(4.2)	11.5	11.5	18.3	7.0
Mississippi	10.4	43.6	7.2	0.8	8.5
North Carolina	0.0	7.1	8.6	5.9	4.8
South Carolina	7.3	51.4	7.9	5.2	8.3
Tennessee	NA	21.4	9.9	(0.4)	8.3
Virginia	(0.8)	(15.7)	10.6	33.0	1.9
West Virginia	13.6	11.8	5.8	(0.3)	15.1
Southwest	9.0	54.5	13.0	0.0	15.6
Arizona	4.6	56.0	8.6	(0.3)	8.2
New Mexico	17.3	193.6	22.1	7.2	41.6
Oklahoma	12.1	9.5	8.7	(1.6)	13.7
Texas	NA	NA	13.7	(0.1)	14.7
Rocky Mountain	11.7	22.2	11.1	2.8	12.5
Colorado	7.6	38.1	11.3	7.9	10.1
Idaho	(7.8)	32.4	10.0	(2.2)	5.9
Montana	19.9	7.2	NA	0.2	13.6
Utah	25.3	(6.5)	10.5	3.3	15.6
Wyoming	NA	NA	16.2	(3.6)	40.2

State / region	PIT	CIT	Sales	MFT	Total
Far West	(13.7)	0.8	7.2	0.6	(2.6)
Alaska	NA	142.0	NA	1.4	151.2
California	(15.7)	(0.7)	6.0	1.1	(6.6)
Hawaii	(17.5)	1.4	12.5	(0.1)	3.5
Nevada	NA	NA	8.5	(0.2)	6.2
Oregon	7.8	8.1	NA	(0.5)	10.0
Washington	NA	NA	8.8	(1.3)	6.7

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

Notes: PIT = personal income tax; CIT = corporate income tax; MFT = motor fuel tax; NA = not applicable.

TABLE A4

State Personal Income Tax Withholding

Year-over-year nominal percentage change

State / region	Tax Year 2021				Tax Year 2022			
	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4
US (median)	4.9	12.1	9.3	10.9	12.0	9.8	7.2	6.2
US (average)	6.5	15.4	12.1	15.4	12.9	7.5	3.1	(0.6)
New England	6.6	10.7	9.4	10.3	11.1	6.3	2.5	5.6
Connecticut	2.2	10.4	8.4	8.8	16.3	5.3	(5.8)	7.0
Maine	10.7	14.3	14.8	9.8	18.1	13.3	5.4	8.3
Massachusetts	9.4	10.2	9.3	10.5	7.2	5.6	5.0	4.7
Rhode Island	0.2	12.1	7.7	13.4	11.4	5.8	8.0	2.1
Vermont	1.1	10.8	11.9	15.8	22.5	12.3	13.0	11.3
Mideast	4.7	15.0	11.1	20.0	17.8	7.7	3.5	(1.3)
Delaware	34.5	16.2	9.3	113.0	(14.9)	8.2	9.0	9.1
Maryland	0.7	13.7	8.1	7.7	11.8	3.3	4.3	5.1
New Jersey	7.3	21.2	7.6	10.9	10.9	11.3	8.3	5.3
New York	4.9	14.2	14.8	26.3	24.1	8.1	1.3	(7.0)
Pennsylvania	1.8	12.8	5.1	18.7	10.6	9.8	5.4	5.6
Great Lakes	5.2	12.2	5.8	10.1	15.8	9.0	4.0	4.5
Illinois	4.3	11.2	5.8	10.1	30.0	18.7	3.6	8.8
Indiana	6.0	19.7	2.7	10.5	13.0	15.9	7.0	8.9
Michigan	6.8	5.5	3.5	10.7	9.3	5.6	8.1	3.3
Ohio	1.6	18.3	6.7	8.0	11.1	5.8	6.4	9.1
Wisconsin	8.5	10.2	12.4	11.5	0.2	(7.9)	(8.0)	(11.3)
Plains	3.2	11.5	11.0	8.5	13.2	5.9	6.6	7.6
Iowa	3.2	3.9	1.2	2.9	9.9	13.3	5.8	9.5
Kansas	2.8	12.9	11.1	9.7	14.6	8.3	7.3	9.1
Minnesota	1.9	13.6	16.5	7.5	13.4	(1.9)	5.9	6.2
Missouri	5.5	13.0	11.3	12.3	13.0	10.8	6.5	5.8
Nebraska	5.4	11.5	7.0	9.8	13.9	9.8	8.4	10.6
North Dakota	(11.6)	2.8	1.2	11.8	34.4	35.6	17.4	24.8
Southeast	6.0	9.8	8.2	13.2	10.1	8.3	6.9	1.9
Alabama	4.8	10.7	10.7	9.3	11.1	13.0	8.4	8.0
Arkansas	(3.5)	7.8	7.2	9.8	10.7	2.2	2.2	(3.8)
Georgia	9.5	9.4	4.1	15.5	10.6	10.0	10.1	3.6
Kentucky	1.4	11.8	5.2	10.1	13.3	14.9	8.0	7.5
Louisiana	1.0	8.6	12.0	12.4	8.0	(2.0)	(5.0)	(15.0)
Mississippi	3.1	2.1	18.7	7.5	11.2	11.8	9.8	7.3
North Carolina	8.5	13.2	7.4	15.7	8.4	3.8	1.0	(0.7)
South Carolina	10.0	9.9	10.6	18.7	12.0	13.1	10.4	4.7
Virginia	5.1	8.1	9.7	10.9	9.4	8.0	9.6	1.8
West Virginia	1.9	11.9	9.3	9.3	10.8	9.7	10.9	8.9
Southwest	4.8	12.2	8.3	13.3	12.5	11.5	10.8	5.0
Arizona	7.5	13.6	12.2	12.0	11.6	15.0	7.9	4.9
New Mexico	2.2	21.2	3.8	20.2	16.8	10.6	29.3	0.8
Oklahoma	1.8	6.1	4.5	12.0	12.1	6.6	7.2	7.3
Rocky Mountain	9.9	13.7	14.4	12.2	15.8	11.7	8.0	6.5
Colorado	7.5	11.2	11.0	12.2	16.4	10.7	7.3	6.9
Idaho	18.9	20.9	20.0	15.4	13.3	14.0	6.0	3.8
Montana	9.7	18.2	16.5	10.5	15.8	13.1	12.1	9.1
Utah	11.3	14.7	18.7	11.4	15.7	12.3	9.0	6.3
Far West	10.4	26.0	21.4	19.9	7.7	5.4	(2.8)	(9.1)
California	11.1	27.9	22.7	21.1	7.0	4.9	(3.9)	(10.8)
Hawaii	(1.6)	15.4	10.5	12.1	12.5	7.4	6.6	9.1
Oregon	6.4	13.4	12.6	10.2	12.5	8.9	4.9	4.5

Source: Individual state data, analysis by the author.

TABLE A5

State Personal Income Tax Estimated Payments or Declarations

Year-over-year nominal percentage change

State	April 2020-January 2021 vs April 2019- January 2020	April 2021-January 2022 vs April 2020- January 2021	April 2022-January 2023 vs April 2021- January 2022
US (median)	(2.2)	23.5	7.6
US (average)	2.0	38.9	(21.8)
Alabama	(0.9)	24.1	(5.3)
Arizona	12.7	34.2	(14.6)
Arkansas	10.8	11.9	(4.6)
California	11.2	55.3	(52.6)
Colorado	(8.3)	25.1	26.8
Connecticut	(1.7)	33.5	(3.3)
Delaware	7.6	40.3	(28.5)
Georgia	(8.9)	36.7	12.5
Hawaii	(6.5)	60.7	9.1
Illinois	1.6	17.4	(23.1)
Indiana	(2.0)	14.5	32.7
Iowa	(4.0)	22.6	6.3
Kansas	(0.0)	19.7	3.0
Kentucky	(2.8)	17.9	27.6
Louisiana	(1.2)	4.7	37.0
Maine	15.2	15.4	13.3
Maryland	20.0	31.7	(10.7)
Massachusetts	(2.5)	76.4	(8.8)
Michigan	0.0	30.6	(24.4)
Minnesota	(4.6)	19.9	(0.9)
Mississippi	(7.4)	30.3	33.0
Missouri	147.7	(21.6)	(3.0)
Montana	5.8	29.7	36.9
Nebraska	1.9	17.4	12.4
New Jersey	(10.6)	20.1	(5.1)
New York	(3.8)	31.4	(14.3)
North Carolina	(0.9)	38.4	(11.3)
North Dakota	(5.9)	8.2	91.0
Ohio	(2.5)	22.9	0.4
Oklahoma	(25.4)	16.4	46.4
Oregon	(13.9)	37.9	36.7
Pennsylvania	(19.2)	46.6	20.8
Rhode Island	(8.9)	16.4	10.4
South Carolina	2.5	22.4	0.0
Vermont	(0.9)	26.2	14.2
Virginia	(6.5)	30.5	9.0
West Virginia	(6.1)	22.6	28.4
Wisconsin	(9.7)	14.7	14.5

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.

TABLE A6

State Personal Income Tax Final Payments

Year-over-year nominal percentage change

State	April 2020-January 2021 vs April 2019- January 2020	April 2021-January 2022 vs April 2020- January 2021	April 2022-January 2023 vs April 2021- January 2022
US (median)	(1.4)	25.4	42.8
US (average)	(2.6)	27.8	41.9
Alabama	(3.0)	35.4	31.8
Arizona	(4.1)	33.5	57.4
Arkansas	8.8	20.6	39.9
California	7.4	28.1	21.4
Colorado	6.2	29.2	42.8
Connecticut	(2.4)	12.9	54.8
Delaware	(6.0)	31.6	88.1
Georgia	(0.1)	36.7	113.2
Hawaii	6.5	45.1	19.1
Idaho	17.5	25.4	1.7
Illinois	(19.1)	34.7	37.2
Indiana	(1.2)	22.3	54.6
Iowa	(24.5)	29.8	48.3
Kansas	(18.2)	34.5	40.7
Kentucky	2.2	24.2	41.9
Louisiana	(6.5)	13.6	55.6
Maine	2.3	26.5	57.7
Maryland	(8.0)	25.3	45.6
Massachusetts	(1.3)	29.4	38.0
Michigan	(1.9)	36.2	4.3
Minnesota	(1.6)	33.3	(6.4)
Missouri	(68.1)	149.7	111.6
Montana	2.6	25.7	80.5
Nebraska	(0.9)	19.8	41.1
New Jersey	(7.6)	22.3	46.4
New Mexico	43.8	6.3	(25.4)
New York	1.7	27.8	22.5
North Carolina	(5.2)	34.8	62.8
North Dakota	(3.3)	4.3	10.4
Ohio	(8.7)	32.3	36.1
Oklahoma	(3.4)	9.5	28.4
Pennsylvania	(5.8)	21.1	73.8
Rhode Island	(1.4)	2.7	62.5
South Carolina	0.6	18.9	135.1
Utah	23.0	16.9	49.9
Vermont	6.9	0.7	72.6
Virginia	11.0	25.0	79.1
West Virginia	(4.0)	12.8	23.5
Wisconsin	(0.8)	9.8	6.8

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.

TABLE A7

States with Pass-Through Entity Elective Tax and Effective Dates

State	Effective date
Alabama	Tax year 2021
Arizona	Tax year 2022
Arkansas	Tax year 2022
California	Tax year 2021
Colorado	Tax year 2022
Connecticut	Tax year 2018
Delaware	NA
Georgia	Tax year 2022
Hawaii	NA
Idaho	Tax year 2021
Illinois	Tax year 2022
Indiana	Tax year 2022
Iowa	NA
Kansas	Tax year 2022
Kentucky	NA
Louisiana	Tax year 2019
Maine	NA
Maryland	Tax year 2020
Massachusetts	Tax year 2021
Michigan	Tax year 2021
Minnesota	Tax year 2021
Mississippi	Tax year 2022
Missouri	Tax year 2023
Montana	NA
Nebraska	NA
New Jersey	Tax year 2020
New Mexico	Tax year 2022
New York	Tax year 2021
North Carolina	Tax year 2022
North Dakota	NA
Ohio	Tax year 2022
Oklahoma	Tax year 2019
Oregon	Tax year 2022
Pennsylvania	NA
Rhode Island	Tax year 2019
South Carolina	Tax year 2021
Utah	Tax year 2022
Vermont	NA
Virginia	Tax year 2021
West Virginia	NA
Wisconsin	Tax year 2019

Source: Individual state information, compiled 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. NA = not applicable. State names are hyperlinked to their respective pass-through entity elective tax 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
2022 Q4 collections (\$ millions)	\$6,181	\$4,420	\$2,082	\$8,149	\$48,394	\$69,226
2022 Q4	1.4	(12.2)	(1.2)	(5.6)	7.9	3.8
2022 Q3	1.4	(12.2)	(0.6)	(7.1)	13.9	7.4
2022 Q2	0.8	(9.6)	2.6	(7.3)	17.1	9.5
2022 Q1	2.5	(5.2)	10.4	0.3	22.0	14.4
2021 Q4	2.8	(4.5)	8.8	1.3	19.7	13.0
2021 Q3	4.6	(1.2)	7.9	5.3	14.4	10.6
2021 Q2	5.9	0.9	5.4	7.8	7.8	6.9
2021 Q1	2.2	(0.6)	(5.4)	(3.0)	(5.9)	(4.4)
2020 Q4	2.8	0.7	(5.1)	(2.5)	(6.1)	(4.3)
2020 Q3	2.6	(1.2)	(3.4)	(3.4)	(7.0)	(5.1)
2020 Q2	0.2	(2.5)	(2.3)	(3.1)	(4.8)	(3.9)
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)	(0.7)	4.3	5.2	3.9
2018 Q4	8.9	(5.3)	(1.5)	7.1	5.3	4.6
2018 Q3	8.0	0.8	(0.0)	4.4	5.2	4.7
2018 Q2	3.6	5.2	1.2	4.7	3.6	3.8
2018 Q1	1.0	4.6	1.0	1.1	2.6	2.4
2017 Q4	(0.7)	6.1	2.9	(0.3)	1.9	1.8
2017 Q3	(1.2)	3.5	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

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

TABLE A9

Preliminary State Government Tax Revenues in the First Quarter of 2023, by State

Nominal percentage change, 2023 Q1 versus 2022 Q1

State/region	PIT	CIT	Sales	Total
US (median)	(2.9)	9.7	7.1	2.9
US (average)	(18.6)	(25.5)	6.1	(8.8)
New England	(6.6)	1.1	5.3	(2.5)
Connecticut	(6.1)	(13.7)	1.5	(6.3)
Maine	1.9	58.0	7.7	4.5
Massachusetts	(8.1)	13.8	7.6	(1.0)
New Hampshire	(6.8)	3.8	NA	(7.9)
Rhode Island	(1.3)	(5.7)	4.6	1.6
Vermont	(2.3)	45.3	5.6	3.9
Mideast	(14.9)	24.8	3.7	(6.1)
Delaware	3.5	4.9	NA	8.7
Maryland	(1.8)	(36.6)	(0.5)	(3.0)
New Jersey	(3.4)	(5.4)	3.6	1.5
New York	(21.8)	49.2	8.1	(14.3)
Pennsylvania	4.3	25.8	0.2	7.9
Great Lakes	(5.2)	(10.3)	6.0	(1.1)
Illinois	(8.4)	(4.3)	5.8	(4.5)
Indiana	3.5	(17.5)	7.5	4.3
Michigan	(33.0)	81.3	4.7	(11.6)
Ohio	4.0	NA	5.7	4.4
Wisconsin	19.9	(20.7)	7.2	7.3
Plains	0.5	(22.9)	10.8	1.5
Iowa	(6.8)	49.1	10.0	0.9
Kansas	(0.3)	219.1	3.1	10.7
Minnesota	(0.4)	(57.0)	0.7	(7.7)
Missouri	8.1	32.1	58.6	13.8
Nebraska	(9.3)	(7.1)	14.8	0.3
North Dakota	24.1	83.4	18.0	2.8
South Dakota	NA	28.1	7.1	7.9
Southeast	(6.2)	49.9	6.9	2.4
Alabama	(2.0)	17.6	7.2	3.2
Arkansas	(28.3)	185.6	6.0	1.7
Florida	NA	70.2	7.5	3.6
Georgia	(8.8)	175.1	8.2	1.5
Kentucky	(3.3)	(0.1)	11.2	3.5
Louisiana	7.4	(35.3)	4.2	6.4
Mississippi	(2.9)	21.2	6.6	4.6
North Carolina	(0.5)	97.7	5.0	2.9
South Carolina	(40.1)	(4.5)	7.3	(12.6)
Tennessee	NA	10.3	7.9	5.8
Virginia	(3.8)	55.4	1.1	0.8
West Virginia	3.9	114.3	8.6	6.9
Southwest	(33.3)	41.9	9.2	6.1
Arizona	(55.4)	95.7	9.6	(9.6)
New Mexico	ND	ND	ND	ND
Oklahoma	5.6	(11.6)	5.8	4.5
Texas	NA	NA	9.4	9.2
Rocky Mountain	(8.8)	29.9	5.9	1.2
Colorado	(14.7)	181.4	7.3	(0.4)
Idaho	(12.0)	(18.9)	4.4	0.8
Montana	(8.9)	(23.9)	NA	3.6
Utah	4.2	(23.6)	3.2	3.2
Wyoming	NA	NA	14.1	ND

State/region	PIT	CIT	Sales	Total
Far West	(38.9)	(61.4)	3.0	(30.2)
Alaska	NA	(37.8)	NA	6.3
California	(42.6)	(62.2)	2.3	(35.5)
Hawaii	(16.6)	9.0	11.1	(0.5)
Nevada	NA	NA	ND	ND
Oregon	21.4	(17.6)	NA	18.4
Washington	NA	NA	2.9	1.0

Source: Individual state data, analysis by the author.

Notes: PIT = personal income tax; CIT = corporate income tax; NA = not applicable; ND = no data.

Notes

- ¹ 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 2022.
- ² The author made several adjustments for the fourth quarter of 2022 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.
- ³ In this report, the author uses US Bureau of Economic Analysis regions as the basis of analysis.
- ⁴ The fiscal year in 46 states runs from July 1 to June 30. The fiscal year runs from October 1 to September 31 in Alabama and Michigan, from April 1 to March 31 in New York, and from September 1 to August 31 in Texas.
- ⁵ Chas Alamo, “Why Has Income Tax Withholding Lagged, Despite Job Growth?” California Legislative Analyst’s Office, November 16, 2022, <https://lao.ca.gov/LAOEconTax/Article/Detail/759>.
- ⁶ Office of Governor Gavin Newsom, “More Time to File State Taxes for Californians Impacted by December and January Winter Storms,” March 2, 2023, <https://www.gov.ca.gov/2023/03/02/more-time-to-file-state-taxes-for-californians-impacted-by-december-and-january-winter-storms/>.
- ⁷ Income tax returns are usually 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).
- ⁸ “Table 6.16D. Corporate Profits by Industry,” US Bureau of Economic Analysis, accessed May 1, 2023, <https://apps.bea.gov/iTable/?reqid=19&step=3&isuri=1&1921=survey&1903=239>.
- ⁹ “2022-23 Suspension of Georgia Motor Fuel Taxes – FAQs,” Georgia Department of Revenue, accessed May 1, 2023, <https://dor.georgia.gov/2022-23-suspension-georgia-motor-fuel-taxes-faqs>.
- ¹⁰ Office of Governor Ned Lamont, “Governor Lamont Signs Legislation Extending Gas Tax Cuts and Fare-Free Bus Service, Increasing Energy Assistance and Pandemic Premium Pay, and Updating the Bottle Bill,” November 29, 2022, <https://portal.ct.gov/Office-of-the-Governor/News/Press-Releases/2022/11-2022/Governor-Lamont-Signs-Legislation-Extending-Gas-Tax-Cuts-and-Fare-Free-Bus-Service>.
- ¹¹ Jackson Brainerd, “Relief Is the Year’s Most Prominent Tax Policy Trend,” National Conference of State Legislatures, July 25, 2022, <https://www.ncsl.org/research/fiscal-policy/relief-is-the-year-s-most-prominent-tax-policy-trend-magazine2022.aspx>.
- ¹² National Conference of State Legislatures, “Variable Rate Gas Taxes,” July 14, 2021, <https://www.ncsl.org/research/transportation/variable-rate-gas-taxes.aspx>.
- ¹³ 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 May 1, 2023, <https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/projects/state-fiscal-pages-covid-edition>.
- ¹⁴ Author’s analysis of data from National Association of State Budget Officers (2020), table A-1.
- ¹⁵ New York State Department of Taxation and Finance, “Homeowner tax rebate credit (HTRC),” accessed May 1, 2023, <https://www.tax.ny.gov/pit/property/homeowner-tax-rebate-credit.htm>.

- ¹⁶ New York State Governor Kathy Hochul, “Governor Hochul Announces New Tax Relief for Thousands of Small Businesses and Millions of Middle Class New Yorkers,” January 5, 2022, <https://www.governor.ny.gov/news/governor-hochul-announces-new-tax-relief-thousands-small-businesses-and-millions-middle-class>.
- ¹⁷ Virginia Tax, “New Virginia Tax Laws for July 1, 2022,” accessed May 1, 2023, <https://www.tax.virginia.gov/news/new-virginia-tax-laws-july-1-2022>.
- ¹⁸ South Carolina Department of Revenue, “SC Withholding Tables Adjusted for Tax Cuts,” accessed on May 1, 2023, <https://dor.sc.gov/resources-site/media-site/Pages/SC-Withholding-tables-adjusted-for-tax-cuts.aspx>.
- ¹⁹ South Carolina Department of Revenue, “SC Military Retirement Pay Now Exempt From State Income Taxes,” accessed on May 1, 2023, <https://dor.sc.gov/resources-site/media-site/Pages/SC-military-retirement-pay-now-exempt-from-state-Income-Taxes.aspx>.
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