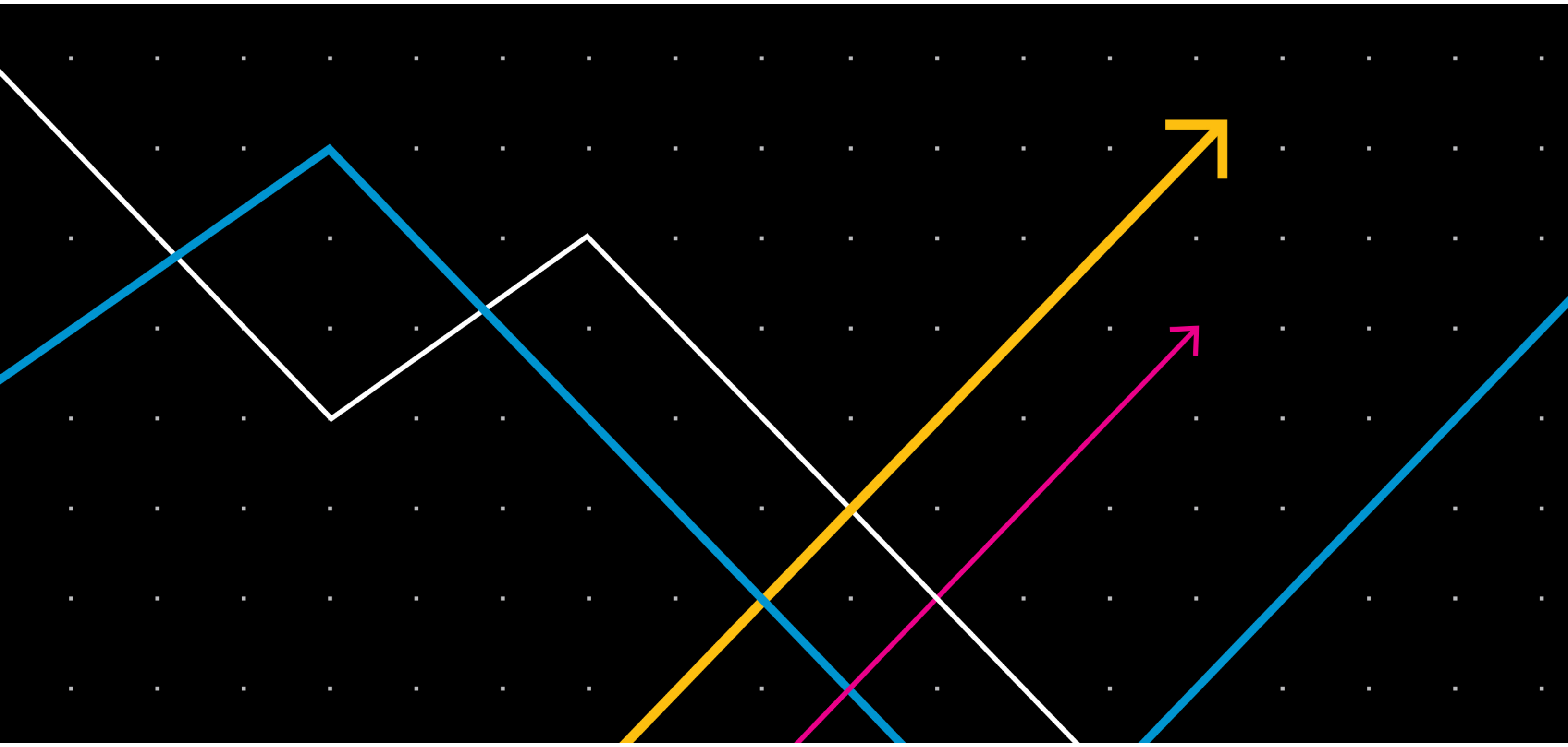

RESEARCH REPORT

State Tax Revenue Growth Cooled Off in the Third Quarter of 2022

State Tax and Economic Review, 2022 Quarter 3

Lucy Dadayan

February 2023

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Executive Summary

- **State and local government tax revenues** from major sources—personal income, corporate income, sales, and property taxes—increased 6.0 percent in nominal terms but declined 1.0 percent in real terms in the third quarter of 2022 compared with the same quarter in 2021.[1]
- **State government tax revenues** from major sources increased 7.2 percent in nominal terms and 0.1 percent in real terms in the third quarter of 2022 compared with the same quarter in 2021. This is much weaker than the strong revenue growth observed in the first half of 2022.
    - **State personal income tax revenues** increased 2.7 percent in nominal terms but declined 4.1 percent in real terms in the third quarter of 2022 compared with the third 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 volatility and weakness in the stock market.
    - **State corporate income tax revenues** increased 11.7 percent in nominal terms and 4.3 percent in real terms in the third 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 11.1 percent in nominal terms and 3.7 percent in real terms in the third quarter of 2022 compared with the same quarter in 2021. The stronger growth observed in recent quarters is largely because of high inflation; because general sales taxes are on the amount spent and not a per-unit basis, general sales taxes grow as prices on goods increase. However, consumers now appear to be spending less in response to a rising cost of living. In addition, sales tax revenues have slowed as consumer spending patterns have switched back to including more purchases of (nontaxed) services.
- **Local government tax revenues** from major sources increased 4.3 percent in nominal terms but declined 2.6 percent in real terms in the third quarter of 2022 compared with the same quarter in 2021.

- » **Local property tax revenues**, the largest source for local government revenues, increased 2.8 percent in nominal terms but declined 4.0 percent in real terms in the third quarter of 2022 compared to the third quarter of 2021. The declines in local property tax revenues likely reflect the COVID-19 pandemic's negative impact on commercial property values.

- **Preliminary data for the fourth quarter of 2022** 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 1.4 percent in nominal terms and 7.2 percent in real terms int the fourth quarter of 2022 compared to the same period in 2021.
  - » Year-over-year growth in **state personal income tax** collections was negative 10.4 percent in nominal terms and negative 15.7 percent in real terms in the fourth quarter of 2022.
  - » Year-over-year growth in **state corporate income tax** collections was 11.6 percent in nominal terms and 5.0 percent in real terms in the fourth quarter of 2022.
  - » **State sales tax** collections grew 6.2 percent in nominal terms but declined 0.1 percent in real terms in the fourth quarter of 2022 compared with the same period in 2021.

- **Economic factors** that drive revenue growth remained positive in the third quarter of 2022 compared with the same quarter in 2021.
  - » Year-over-year growth in real **gross domestic product** (GDP) was 1.9 percent for the third quarter of 2022.
  - » The seasonally adjusted **unemployment rate** was 3.5 percent in the third 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 3.8 percent in the third quarter of 2022 compared with the same quarter in 2021, but in 26 states employment was still below the levels observed in the third quarter of 2019.
  - » **House prices** increased 16.6 percent in nominal terms and 8.8 percent in real terms for the third quarter of 2022 compared with a year earlier. All 50 states reported year-over-year double-digit nominal growth in house prices in the third quarter of 2022.
  - » Real **personal consumption expenditures** increased 1.4 percent for the third 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. Direct payments to individuals and businesses also boosted incomes and consumption, which led to higher-than-expected state and local revenues.

The federal government did not send any stimulus checks to individual taxpayers in 2022. However, 18 states (California, Colorado, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Maine, Massachusetts, Minnesota, New Jersey, New Mexico, New York, Pennsylvania, South Carolina, and Virginia) 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, 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.

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 third quarter of 2021 and the third 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 1.0 percent in real terms in the third quarter of 2022 compared with a year earlier. Average quarterly year-over-year real growth was 3.8 percent in the prior four quarters.
- **State government tax revenues** from major sources increased 0.1 percent in real terms in the third quarter of 2022 relative to a year earlier. Average quarterly year-over-year real growth rate was 9.0 percent for the prior four quarters. **State personal income tax** revenues declined 4.1 percent in real terms in the third quarter of 2022 compared with the third quarter of 2021. Average quarterly year-over-year real growth was 5.8 percent for the prior four quarters.

Inflation-adjusted **state corporate income tax** revenues increased 4.3 percent for the third quarter of 2022 compared with a year earlier. Average quarterly year-over-year real growth was 44.9 percent for the prior four quarters. (This strong growth is largely attributable to California, where corporate income tax revenues skyrocketed, mostly because of the state's newly introduced pass-through entity elective tax.) **State sales tax** revenues increased 3.7 percent in real terms for the third quarter of 2022 compared with the third quarter of 2021. Average quarterly year-over-year real growth was 7.8 percent for the prior four quarters.

- **Local government tax revenue** from major sources declined 2.6 percent in real terms for the third quarter of 2022 compared with the third quarter of 2021. The average quarterly year-over-year real growth rate was negative 1.4 percent for the prior four quarters. **Local property taxes**, the single largest source of local government tax revenues, declined 4.0 percent in real terms in the third quarter of 2022 compared with the same quarter in 2021. The declines observed in property tax revenue collections are largely caused by the declines in commercial property values. **Local sales taxes** increased 5.1 percent in real terms for the third quarter of 2022 compared with a year earlier. **Local personal income taxes** decreased 5.5 percent, while **local corporate income taxes** decreased 9.3 percent in real terms in the third quarter of 2022 compared with the same quarter of 2021, but these constitute a relatively small share of local revenues (less than 10 percent in a typical quarter) and are concentrated in a few states.

TABLE 1

State and Local Government Tax Revenue Trends

Millions of dollars, adjusted for inflation

Tax source	2021 Q3	2022 Q3	Y-O-Y percent change	Average quarterly Y-O-Y growth rate, prior four quarters (%)
Total state and local major taxes	**$416,670**	**$412,504**	**(1.0)**	**3.8**
State major taxes	***$251,851***	***$251,993***	***0.1***	***9.0***
Personal income tax	118,818	113,944	(4.1)	5.8
Corporate income tax	22,562	23,533	4.3	44.9
Sales tax	105,064	108,993	3.7	7.8
Property tax	5,407	5,524	2.2	0.8
Local major taxes	***$164,819***	***$160,511***	***(2.6)***	***(1.4)***
Personal income tax	9,984	9,431	(5.5)	(3.1)
Corporate income tax	2,550	2,313	(9.3)	7.3
Sales tax	28,372	29,813	5.1	6.7
Property tax	123,913	118,954	(4.0)	(2.8)

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

Notes: Q = quarter; Y-O-Y = year-over-year.

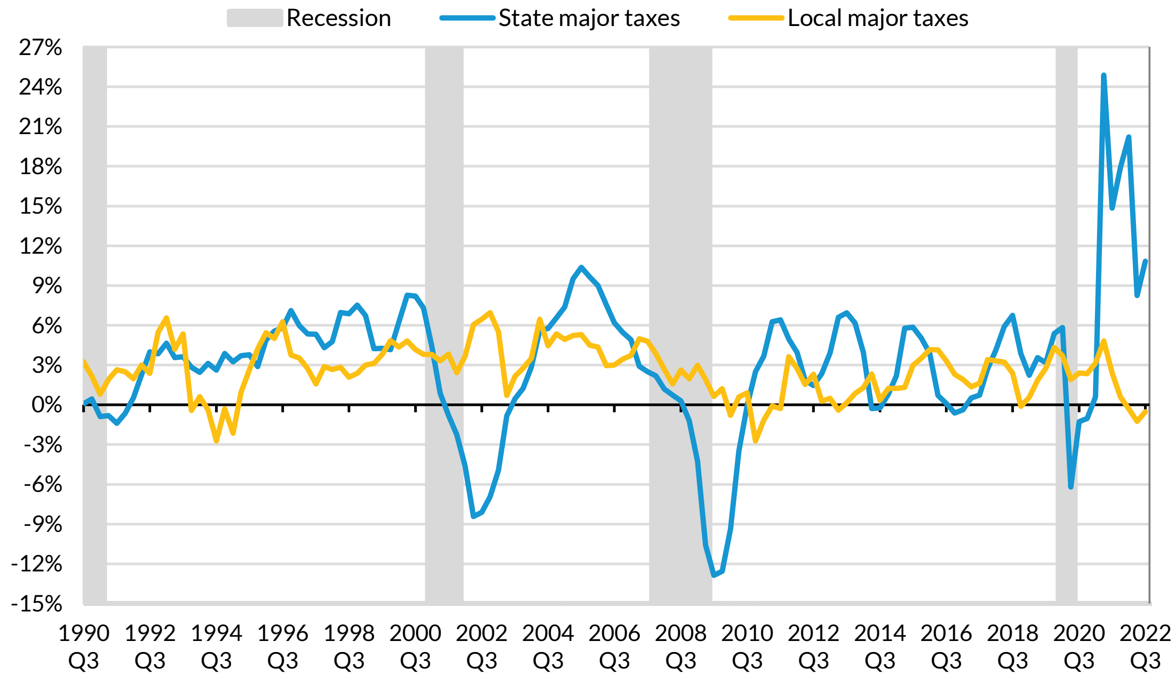
Figure 1 shows the year-over-year percentage change in the four-quarter moving average of inflation-adjusted state and local revenue collections from major sources: personal income tax, corporate income tax, sales tax, and property tax. The four-quarter moving average helps smooth responses to economic and policy changes such as changing income tax filing deadlines. State tax revenues from major sources increased 10.8 percent in the third 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 0.5 percent decline in the third quarter of 2022.

FIGURE 1

State and Local Major Tax Revenues Weakened in the Third 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.

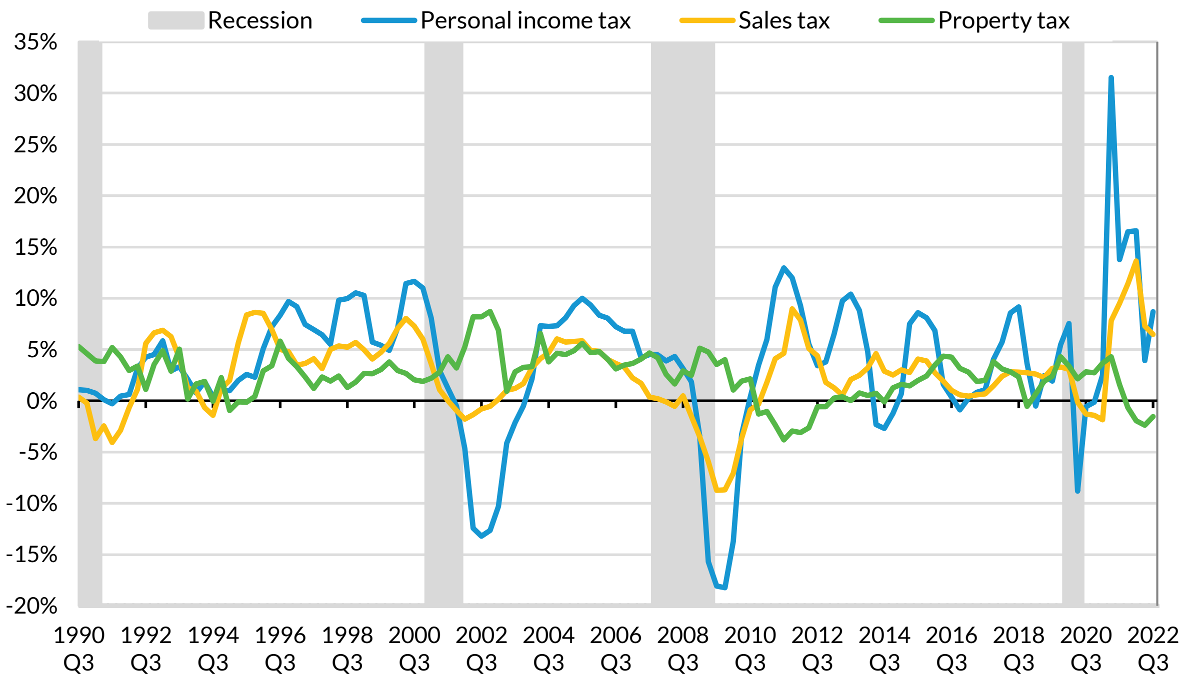
Most local governments rely heavily on property taxes, which tend to respond relatively slowly to changes in property values. However, in many places, the pandemic caused declines in the value of commercial properties (such as hotels, retailers, and offices) that have led to lower commercial property 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 8.7 percent in the third quarter of 2022 compared with the third quarter of 2021, using the four-quarter moving average. Real state and local sales tax revenues increased 6.5 percent in the third quarter of 2022 compared with a year earlier. Real state and local property taxes, nearly all of which are collected by local governments, declined 1.6 percent for the third quarter of 2022 compared with a year earlier.

FIGURE 2

State and Local Property 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 Third Quarter of 2022

Total state government tax revenue collections increased 7.1 percent in nominal terms and less than 0.1 percent in real terms in the third 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 4.1 percent in the third quarter of 2022. Both corporate income and sales tax revenues saw year-over-year real growth in the third quarter of 2022, at 4.3 and 3.7 percent, respectively. Finally, inflation-adjusted motor fuel tax collections declined 10.1 percent in the third 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 since the start of the pandemic, between the first quarter of 2020 and the third quarter of 2022. The average quarterly year-over-year growth rate in overall state tax revenue collections since 2020 is 13.0 percent in nominal terms and 8.5 percent in real terms.

There were some variations across regions and states for the third quarter of 2022 (Table A2). All regions but the Far West reported growth in nominal state tax revenue collections, with the Southwest reporting the largest year-over-year growth at 19.5 percent and the Great Lakes reporting the weakest growth at 5.9 percent.[3] Total state tax revenues declined 0.7 percent in the Far West region., largely because of revenue declines in California.

All states but California and Virginia reported year-over-year nominal growth in total state tax revenue collections for the third quarter of 2022, with five states reporting growth of over 20 percent. The largest growth was in Alaska, where total state tax revenues increased 177.2 percent, but that growth is because of a lower baseline in 2021. The weakest growth was in Hawaii, where total state tax revenues increased 0.2 percent. Finally, state tax revenues declined 5.2 percent in California and 2.2 percent in Virginia, mostly because of declines in income tax revenues.

Overall growth in state tax revenues has weakened substantially in the third quarter of 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).

In recent months, several states have enacted a pass-through entity tax, bringing the number of states with this option to 29 (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 level rather than the individual owner level.

States vary in how they categorize pass-through entity taxes. Most states count it as corporate income taxes (as a business is paying the tax), while other states count it as personal income taxes (as it replaces what had been pass-through income), and very few states count it toward both personal income and corporate income taxes. Some taxpayers have likely been reducing their estimated personal income tax payments and instead paying more on newly enacted pass-through entity taxes.

Table A6 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.

Personal Income Taxes

State personal income tax revenues increased 2.7 percent in nominal terms but declined 4.1 percent in real terms in the third quarter of 2022 compared with the same period in 2021. Growth in the median state was 8.7 percent in nominal terms. The average quarterly year-over-year growth rate in state personal income tax collections since 2020 is 15.6 percent in nominal terms and 11.0 percent in real terms (Table A1).

Personal income tax collections increased in all regions but the Far West in the third quarter of 2022 compared with the same period in 2021 (Table A2). The Plains region saw the strongest increase, at 14.0 percent, while personal income tax revenues in the Far West region declined 11.0 percent. The decline in the Far West region is largely attributable to California, where personal income tax revenues decreased by $3.5 billion or 12.4 percent. This decline is partially caused by the state's newly enacted pass-through entity tax, which shifted revenues from personal income taxes to corporate income taxes.[4]

Thirty-seven states reported year-over-year growth in personal income tax revenues in the third quarter of 2022, with 16 states reporting double-digit growth. Five states—California, Hawaii, Idaho, Virginia, and Wisconsin—reported year-over-year declines in personal income tax revenues in the third quarter of 2022, which is in part because of state tax policy changes.

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 seven 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, the increasing swings in the stock market, coupled with taxpayer decisions on when to realize capital gains and losses, has 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
Withholding	6.5	15.4	12.1	15.4	12.9	7.5	3.2
Estimated payments	35.9	272.0	(34.2)	33.7	16.4	(5.8)	(18.3)
Final payments	10.2	172.6	(80.9)	44.6	45.1	40.8	23.6
Refunds	(13.1)	58.6	(39.3)	20.7	12.2	12.7	77.7
Total	**20.2**	**80.9**	**(17.5)**	**19.0**	**17.7**	**13.9**	**(1.2)**

Source: Individual state data, analysis by the author.

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

Personal income tax collections declined steeply in the second quarter of 2020 and soared in the third quarter of 2020, largely caused by the 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 quarter of 2022, which was largely caused by the stock market volatility. In addition, as discussed above, the declines are also partially because of the newly enacted pass-through entity taxes that shifted revenues from personal income taxes to corporate income taxes.

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 A3 shows year-over-year nominal growth in withholding for the past seven 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.

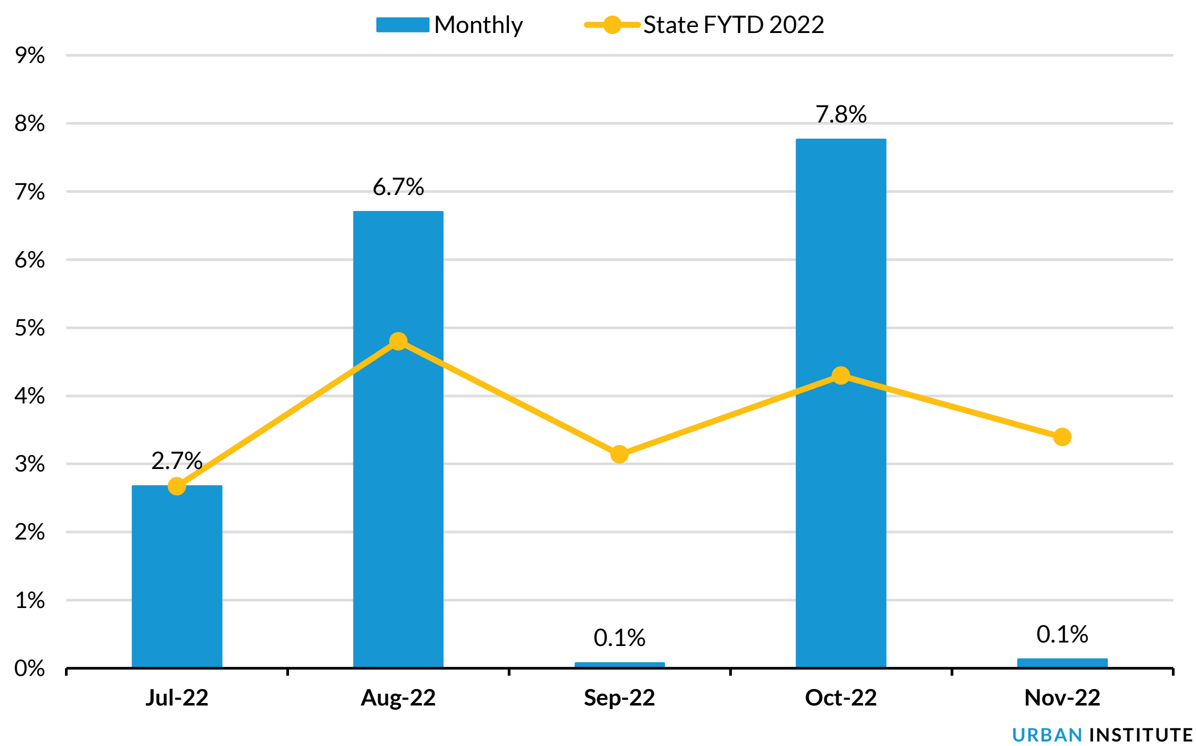
After four consecutive quarters of double-digit growth, withholding tax collections weakened substantially in the second and third quarters of 2022. Year-over-year growth in withholding was 3.2 percent in nominal terms and negative 3.6 percent in real terms in the third quarter of 2022. All regions but the Far West showed year-over-year growth in withholding in nominal terms in the third quarter of 2022. The Southwest region reported the strongest year-over-year growth in the third quarter of 2022 at 10.8 percent, while the Far West region reported a decline of 2.8 percent.

Thirty-eight of 41 states that levy tax on personal income reported growth in withholding in the third quarter of 2022 compared with a year earlier, with 7 states reporting double-digit growth. Growth rates ranged from 1.0 percent in North Carolina to 29.3 percent in New Mexico. Three states—California, Louisiana, and Wisconsin—reported year-over-year declines in withholding in the third quarter of 2022.

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



Source: Individual state government agencies, analysis by the author.
Notes: FYTD = fiscal year to date.

Figure 3 shows monthly and fiscal year-to-date nominal growth rates in withholding between July 2022 and November 2022, which corresponds to first five months of state fiscal year 2023 in 46 states.[5] Monthly data should be viewed with caution because they may include one-time payments that are not likely to recur, or a given month may have fewer tax processing days than the same month in the prior year.

Withholding showed large volatility in the first five months of state fiscal year 2023, showing solid year-over-year growth in the months of August 2022 and October 2022 and extreme weakness in the months of September 2022 and November 2022. Growth in withholding for the first five months of state fiscal year 2023 was 3.4 percent in nominal terms and negative 3.9 percent in real terms. All states but California, Louisiana, and Wisconsin reported year-over-year growth in withholding tax revenues in the first five months of state fiscal year 2023. Declines in California were mostly caused by the sharp drop-off in salary bonuses and in initial public offerings activity.[6] Both Louisiana and Wisconsin cut personal income tax rates for tax year 2022, which is the main reason for declines in their withholding.

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.

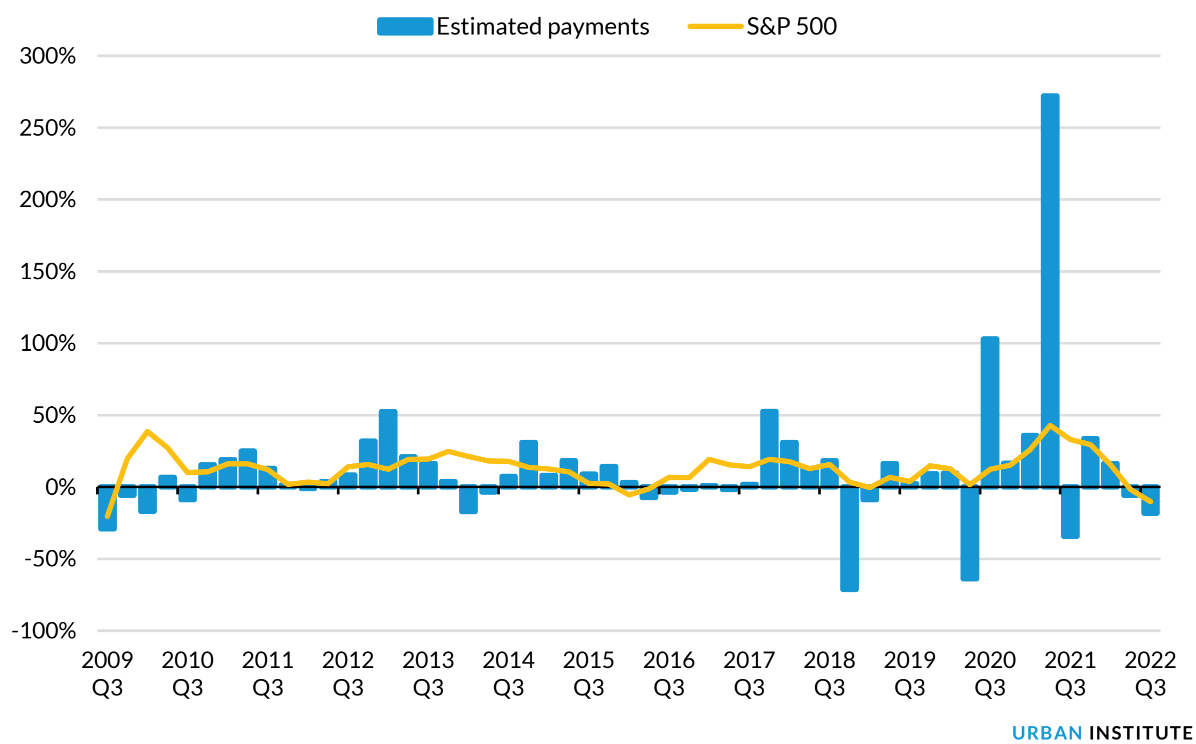
Because of unusual changes in income tax filing deadlines in 2020 (extended to July 15) and 2021 (extended to May 17), we present combined data for the April through September period, which largely corresponds to the first three estimated payments for a given tax year. Estimated payments showed year-over-year declines of 9.6 percent for the April 2022 through September 2022 period, but the median state reported growth of 14.9 percent. Thirty-one states reported growth in estimated payments during April 2022 through September 2022 period, while seven states reported declines (Table A4).

States that have a higher reliance on high income taxpayers (i.e., California, Connecticut, New Jersey, and New York) reported declines in estimated payments in the most recent months, largely because of the volatility in the stock market and introduction of pass-through entity taxes. The nationwide decline in estimated payments is largely attributable to California, where estimated payments decreased by $10.1 billion or 41.3 percent in the April 2022 through September 2022 period compared with the same period a year earlier. The decline in California is partially caused by the weak stock market. It is also likely because of a decline in personal estimated payments from owners in partnerships or S-corporations that opted to pay taxes through the newly enacted pass-through entity tax. This would have lowered personal income tax liability while raising expected liability that is classified as corporate income tax.

FIGURE 4

Large Volatility in Estimated Payments

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



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

Figure 4 shows year-over-year percentage change by quarter in estimated payments and in the 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 year-over-year growth in the stock market in the first, second, and third quarters of 2022. Both estimated payments and the stock market increased in the first quarter of 2022 but declined in the second and third quarters of 2022 on a year-over-year basis. Estimated payments showed an 18.3 percent year-over-year decline in the third quarter of 2022, while the stock market showed a 10.1 percent year-over-year decline.

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 A5 shows year-over-year nominal growth rates in final payments for April through September period for the last three years. Year-over-year growth in final payments was robust for April 2022 through September 2022 period, at 39.2 percent. All states but Idaho and New Mexico reported growth in final payments for April 2022 through September 2022 compared with a year earlier, with 33 states reporting double-digit percentage growth. Georgia had the largest increase in final payments in dollar value ($1.9 billion or 141.1 percent) from April 2022 through September 2022.

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 77.7 percent in the third quarter of 2022 compared to the same quarter in 2021. In total, states paid out $5.2 billion more in refunds in the third quarter of 2022 than in the same quarter in 2021. Overall, 26 states paid out more in refunds in the third quarter of 2022 than in the third quarter in 2021. Colorado had the largest share of refund payouts ($2.6 billion, or 22 percent of total refunds). Officials in Colorado as well as in several other states used budget surpluses to issue rebate checks to their residents to help offset the high inflation rate and these rebates are classified as income tax refunds.

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 third quarter of 2022.

Actual personal income tax collections in the third quarter of 2022 were higher than forecasted in 18 of 24 states, with an average forecast overestimate of 1.4 percent and a median underestimate of 5.6 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 forecast revenues depends on the forecast date.

TABLE 3

Actual versus Forecasted State Personal Income Tax Revenues

State	2021 Q3 actual ($ millions)	2022 Q3 actual ($ millions)	2022 Q3 forecast ($ millions)	Percent change, 2022 Q3 vs 2021 Q3	Percentage variance, 2022 Q3 actual from forecast	Forecast date
Median				*8.8%*	*5.6%*	
Average	***$71,839***	***$68,842***	***$69,808***	***-4.2%***	***-1.4%***	
Arizona	1,622	1,747	1,563	7.7	11.8	Jun-22
Arkansas	796	845	799	6.2	5.8	May-22
California	28,034	24,552	28,602	(12.4)	(14.2)	May-22
Colorado	2,494	2,689	3,116	7.8	(13.7)	Sep-22
Idaho	491	481	494	(2.0)	(2.6)	Jul-22
Indiana	1,609	1,718	1,715	6.8	0.2	Dec-21
Kansas	965	1,049	970	8.7	8.1	Jun-22
Maine	546	596	528	9.0	12.8	Mar-22
Massachusetts	4,635	4,911	4,779	6.0	2.8	Sep-22
Minnesota	3,177	3,680	3,674	15.8	0.2	Feb-22
Mississippi	567	634	549	11.8	15.5	Nov-21
Montana	435	507	688	16.7	(26.2)	Jun-22
Nebraska	726	784	743	8.0	5.5	Jul-22
New Mexico	487	619	402	27.0	53.9	Aug-22
New York	13,616	11,540	9,131	(15.2)	26.4	Jul-22
North Dakota	97	115	93	17.6	22.8	Aug-21
Ohio	2,463	2,681	2,513	8.9	6.7	Jul-22
Oklahoma	701	809	664	15.4	21.9	Feb-22
Pennsylvania	3,474	3,757	3,825	8.1	(1.8)	Jun-22
Rhode Island	400	440	419	10.2	5.2	Jul-22
South Carolina	1,710	1,870	1,795	9.4	4.2	May-22
Vermont	244	296	254	21.4	16.6	Jul-22
West Virginia	513	608	533	18.6	14.1	Jan-22
Wisconsin	2,038	1,914	1,960	(6.1)	(2.3)	Jan-22

Source: Individual state data, analysis by the author.

The considerable variance between actual and forecast revenues in the third quarter of 2022 was largely because the pandemic has upended many standard economic models, making forecasting more difficult. 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. Current global geopolitical crises, continued uncertainties related to the ongoing pandemic, high inflation, and evolving federal monetary policy continue to complicate revenue forecasting for states.

Corporate Income Taxes

Year-over-year growth in state corporate income tax revenues was strong at 11.7 percent in nominal terms and 4.3 percent in real terms in the third quarter of 2022 (Table A1). Growth in the median state was stronger, at 17.8 percent. The average quarterly year-over-year growth rate in state corporate income tax collections since 2020 is 42.5 percent in nominal terms and 36.6 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 the Far West reported year-over-year growth in state corporate income tax revenue collections in the third quarter of 2022. The Southwest region saw the strongest increase, at 77.8 percent, while corporate income tax revenues in the Far West region declined 4.3 percent. The decline in the Far West region is largely attributable to California. The decline in California's corporate income tax revenues is largely attributable to higher-than-expected refunds.[8]

Thirty-three states reported year-over-year growth in corporate income tax collections, while 11 states reported declines (Table A2). The strongest growth in dollar value was in Illinois, where corporate income tax revenues increased by $0.5 billion, or 29.3 percent, in the third quarter of 2022 compared with the same quarter in 2021. The strong growth in Illinois is largely attributable to the robust corporate profits.

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 $157 billion, or 5.5 percent, in the third quarter of 2022 compared to the same quarter of 2021.[9] However, not all industries showed growth in corporate profits; the financial sector suffered a 13.6 percent decline in corporate profits in the third quarter of 2022 compared to the same period in 2021.

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 11.1 percent in nominal terms and 3.7 percent in inflation-adjusted terms for the third quarter of 2022 compared with the same period in 2021 (Table A1). Growth in the median state was 10.8 percent. The average quarterly year-over-year growth rate in state general sales tax collections since 2020 is 10.0 percent in nominal terms and 5.6 percent in real terms.

Sales tax collections increased in all regions for the third quarter of 2022 compared with the same period in 2021. The Southwest region reported the largest average year-over-year growth at 15.5 percent, while the Mideast region reported the smallest average growth at 5.6 percent (Table A2).

Forty-two of 45 states with broad-based sales taxes reported year-over-year growth in sales tax collections for the third quarter of 2022, with 25 states reporting double-digit growth. Minnesota had the strongest year-over-year growth in sales tax revenues at 32.7 percent, while Pennsylvania had the weakest growth at 2.6 percent. Three states—Iowa, Kansas, and Maryland—reported year-over-year declines in state sales tax revenues in the third quarter of 2022.

Strong growth in general sales taxes (typically calculated as a percentage of spending as opposed to excise taxes, which are calculated on a per-unit basis) is caused in part by price increases from high inflation. However, it appears many consumers are 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 once 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 3.7 percent in nominal terms and 10.1 percent in inflation-adjusted terms for the third quarter of 2022 compared with the same period in 2021 (Table A1). Decline in the median state was 1.7 percent. The average quarterly year-over-year growth rate in state motor fuel tax collections since 2020 is 1.1 percent in nominal terms and negative 3.0 percent in real terms.

In 2022 several states (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 all regions for the third quarter of 2022 compared with the same period in 2021. The New England region reported the largest decline at 14.9 percent while the Southwest region reported the smallest average decline at 0.2 percent. Thirty states reported year-over-year declines in motor fuel sales tax collections for the third quarter of 2022; three states reported double-digit declines (Table A2). The largest year-over-year drop were in Connecticut and New York where motor fuel sales tax collection declined 72.0 and 31.3 percent, respectively. The declines in both states are largely caused by the gas tax holidays. In Connecticut Governor Lamont suspended the state's $0.25 per gallon excise tax on gasoline effective April 1, 2022 through December 31, 2022.[10] In New York Governor Hochul suspended the state's $0.16 per gallon excise tax on gasoline effective June 1, 2022 through December 31, 2022.[11]

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).[12] In addition to gas tax holidays, a number of states (i.e. 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.[13]

Gas and oil prices have increased substantially in 2022, largely because of supply disruptions caused by current geopolitical tensions. The high prices will benefit 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 A7 we show year-over-year growth rates for four-quarter moving average inflation-adjusted revenue for the nation as a whole. In the third quarter of 2022, states collected $67.1 billion from all the smaller tax sources, which constituted one-fifth of total state tax collections.

Compared with major tax sources, revenues from smaller state taxes have been growing at a slower pace. The four-quarter moving average of inflation-adjusted revenues from smaller state tax sources showed a 7.6 percent increase for the third 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 12.5 percent, tax revenues from alcoholic beverage sales declined 1.3 percent, and revenues from motor vehicle and operators' licenses declined 7.1 percent. Finally, revenues from all other smaller tax sources increased 14.2 percent.

Preliminary Review of State Tax Revenues in the Fourth Quarter of 2022

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 fourth quarter of 2022. Nominal state tax revenue collections declined 1.4 percent in the fourth quarter of 2022 compared with the same period in 2021, but the median state reported growth of 5.9 percent

(Table A8). However, the declines for the nation were largely attributable to steep revenue declines in California and New York. If we exclude California and New York, overall state tax revenues for the rest of the nation showed year-over-year growth of 5.5 percent. State tax revenues increased in 40 states in nominal terms, with 13 states reporting double-digit growth. Seven states reported year-over-year declines for the fourth quarter of 2022.

Personal income tax collections declined 10.4 percent in the fourth quarter of 2022 compared with the same period a year earlier, but the median state reported growth of 7.7 percent in nominal terms. Steep nationwide declines in personal income tax revenue were largely caused by the declines in California and New York. According to preliminary data, 29 states reported year-over-year growth in personal income tax revenues in the fourth quarter of 2022 while 13 states reported declines. Overall, it appears that growth in withholding has moderated which is in part caused by personal income tax rate cuts in several states. In addition, growth in estimated payments has weakened substantially in the fourth quarter of 2022, indicating that upper-income taxpayers are reducing their tax payments in light of the volatile stock market. Finally, personal income tax refunds increased substantially in the fourth quarter of 2022 which is in part caused by rebate checks issued in a number of states.

Year-over-year growth in state corporate income tax revenues was 11.6 percent in the fourth quarter of 2022; growth in the median state was 9.0 percent. Corporate income tax revenues increased in 28 states, with 22 states reporting double-digit growth. Sixteen states reported year-over-year declines in corporate income tax revenues in the fourth quarter of 2022.

Finally, state general sales tax collections increased 6.2 percent in the fourth quarter of 2022 compared with the same quarter in 2021; growth in the median state was 6.9 percent. Forty-one states reported growth in sales tax collections. As mentioned, growth in sales tax revenue collections is partly because of high inflation and a temporary boost in consumption of taxable goods.

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 them 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

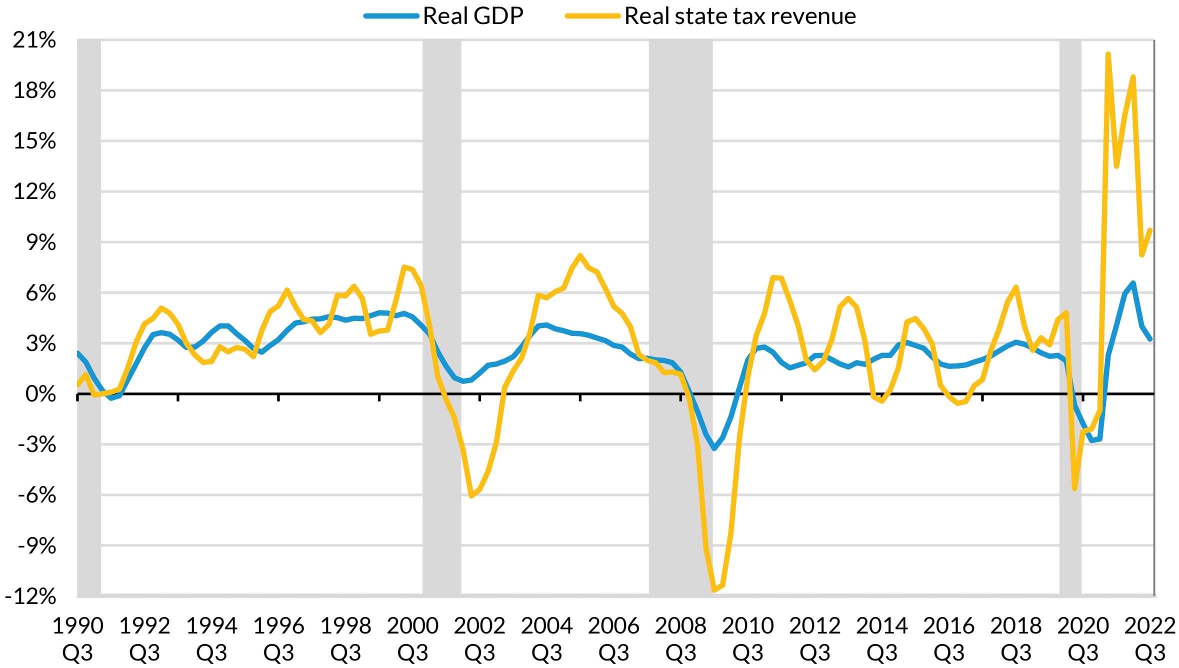
Figure 5 shows year-over-year growth for four-quarter moving averages in real GDP and real state tax revenue. We present moving averages to smooth short-term fluctuations and illustrate the interplay between the state of the economy and state revenues. As shown in Figure 5, growth in both real GDP and real state tax revenues weakened substantially in the second and third quarters of 2022. Year-over-year growth for four-quarter moving average was 9.7 percent in real state tax revenues but only 3.3 percent in real GDP in the third 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 the case 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



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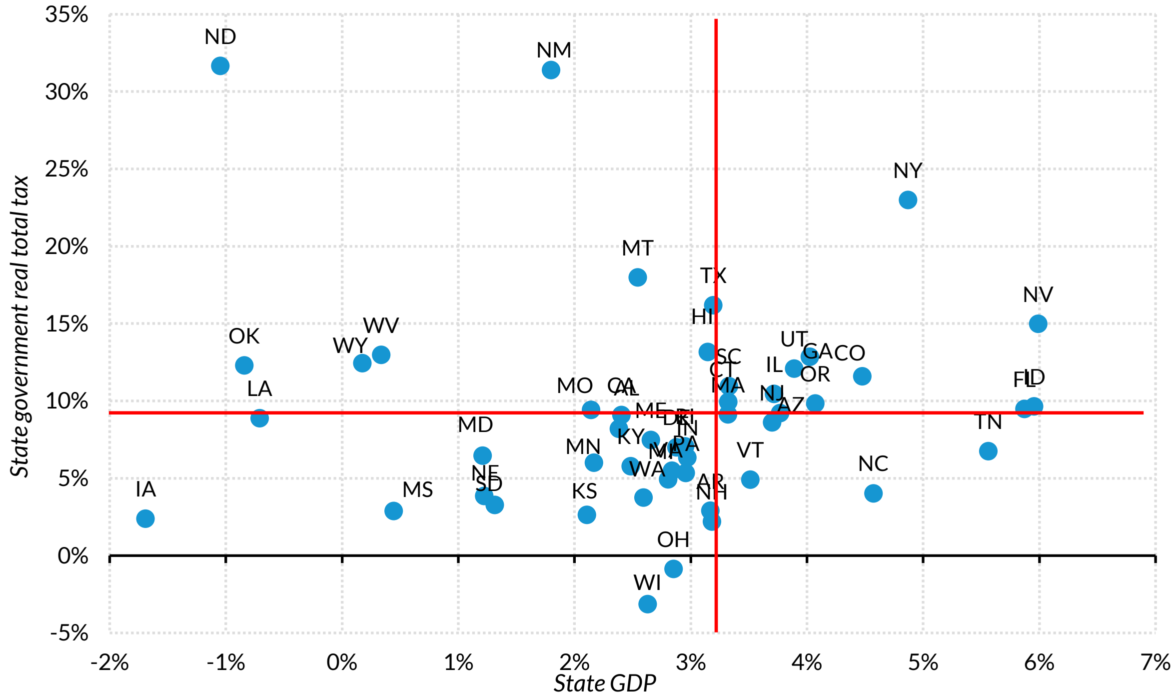
Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.
Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

States vary substantially in correlations between growth rates in real GDP and real state tax revenues. Figure 6 shows for each state the four-quarter moving averages in real GDP and real state tax revenues for the third quarter of 2022 compared with the same quarter in 2021. By this measure, real state GDP increased in 45 states, while real state tax revenues increased in 48 states. The year-over-year change in real state GDP ranged from 6.0 percent in Idaho and Nevada to negative 2.1 percent in Alaska; the change in real state tax revenues ranged from 164.4 percent in Alaska to negative 3.1 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 Q3 versus 2021 Q3



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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

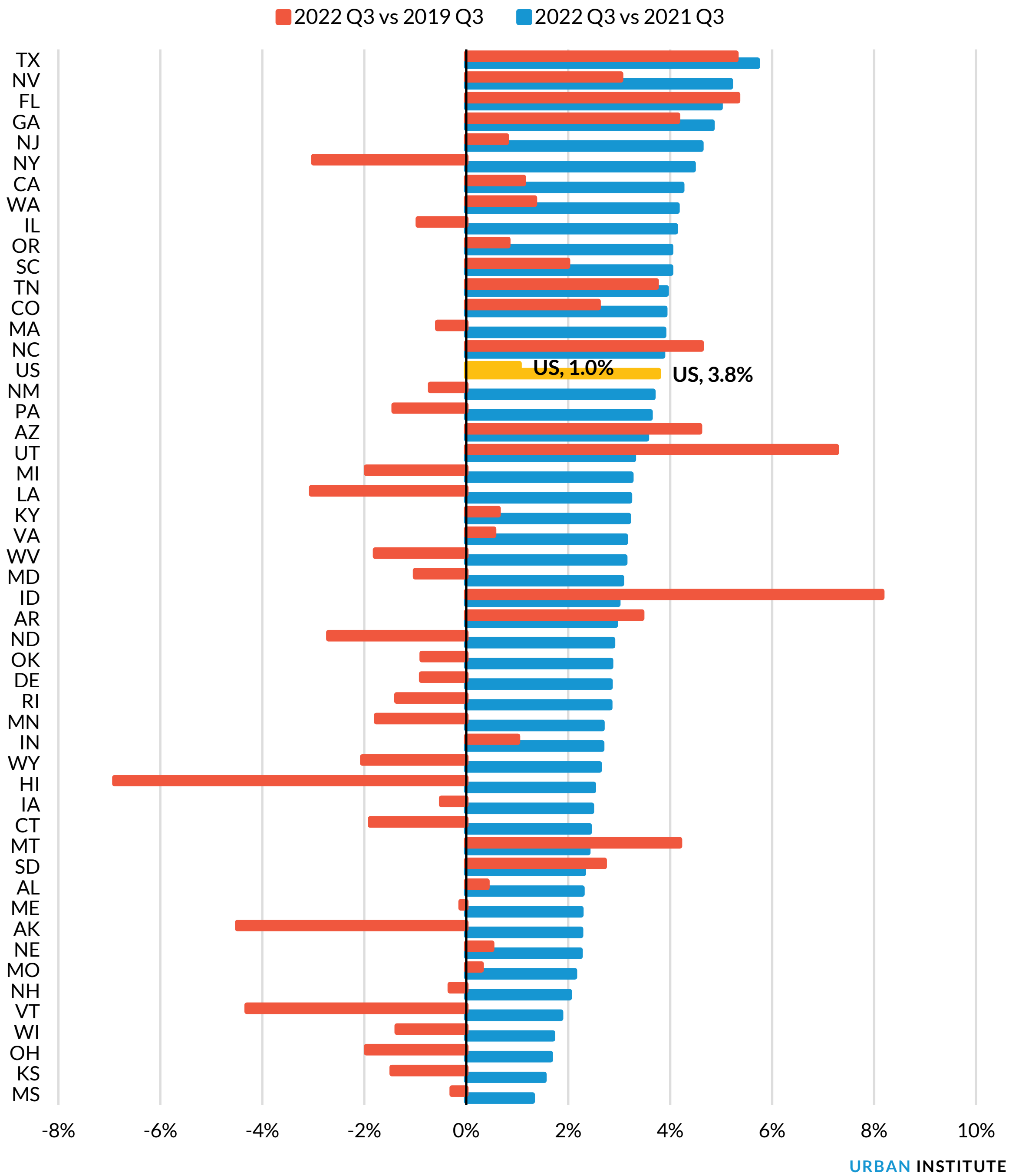
The unemployment rate for the nation averaged 3.5 percent in the third quarter of 2022. Unemployment rates ranged from 1.9 percent in Minnesota to 4.5 percent in Alaska and Illinois for the third quarter of 2022, although unemployment rates varied for different socioeconomic and demographic groups in each state. According to the latest data, the national unemployment rate increased to 3.6 percent in the fourth quarter of 2022.

Nationwide employment increased 3.8 percent in the third quarter of 2022 compared with the same quarter in 2021 and was 1.0 percent above the employment levels observed in the third quarter of 2019 (Figure 7). All 50 states reported growth in employment in the third quarter of 2022 compared with the same third quarter of 2021, but at the same time, 26 states reported lower employment compared with the third quarter of 2019. Year-over-year growth in employment ranged from 1.3 percent in Mississippi to 5.7 percent in Texas for the third quarter of 2022.

FIGURE 7

Employment Saw Solid Growth in the Third Quarter of 2022 but is Still Down in 26 States Compared to Prepandemic Levels

Year-over-year percentage change in employment, 2022 Q3 versus 2021 Q3 and 2019 Q3



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

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

As of December 2022, state and local governments employed around 452,000 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, the share of workers employed also declined dramatically for the leisure and hospitality sector, which as of December 2022 employed around 932,000 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 December 2022 employed around 914,000 more people than before the pandemic. Although the employment situation has improved substantially in 2022, current employment numbers are only slightly above prepandemic levels, and there are large variations across different sectors and industries.

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.

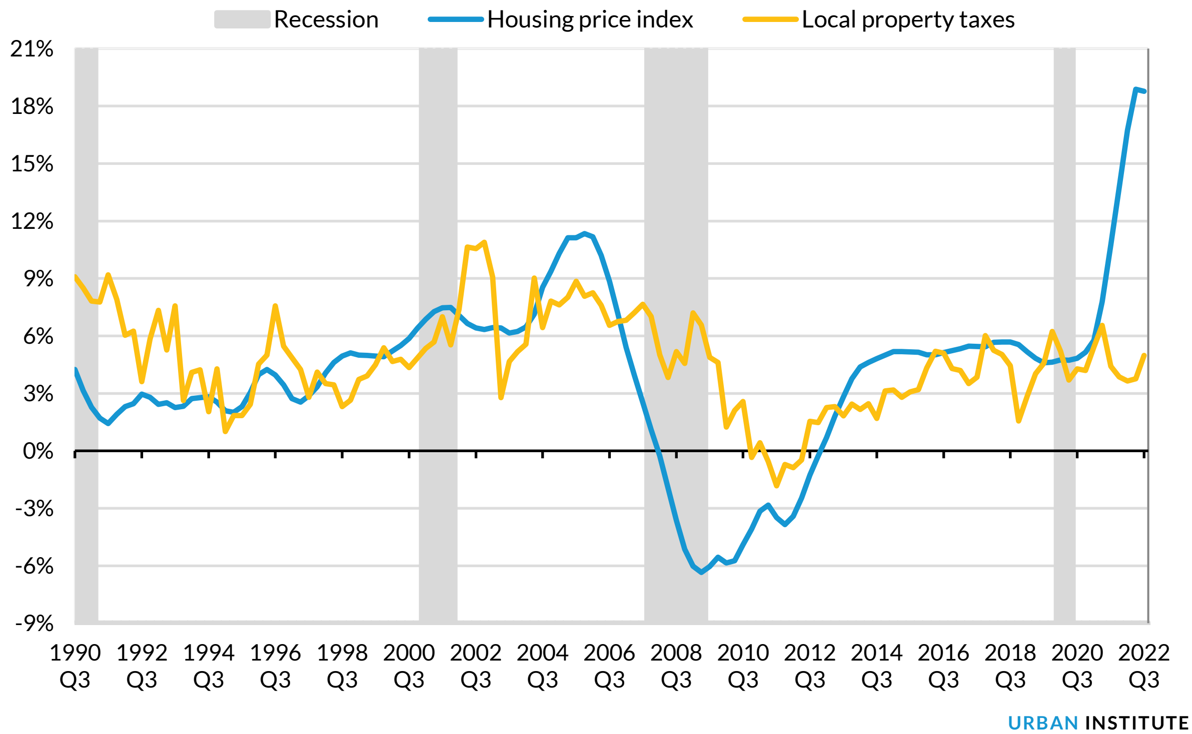
Figure 8 shows year-over-year percentage changes in the four-quarter moving average of the house price index and local property taxes in nominal terms. House prices saw steep declines during the Great Recession, which led to a significant slowdown in local property tax growth and to an actual decline 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 18.8 percent for the third quarter of 2022 compared with one year earlier; year-over-year growth in local property taxes was 5.0 percent for the same period, based on four-quarter moving averages. Despite the strength in house prices, local government property tax revenues weakened substantially since the second quarter of 2021, 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 COVID-19 Pandemic but Growth Ticked Downward in Third Quarter of 2022

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



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 third quarter of 2022 for all states. Statewide house price indexes increased in all states for the third quarter of 2022 compared with a year earlier, ranging from a 10.7 percent increase in Maryland to a 26.4 percent increase in Florida. Year-over-year growth was 16.6 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 effects on commercial real estate property values, and thus commercial property tax revenues, has been negative and remains uncertain. Declines in the value of commercial properties (such as hotels, retails, and offices) appear to have already led to lower property tax assessments and revenues.

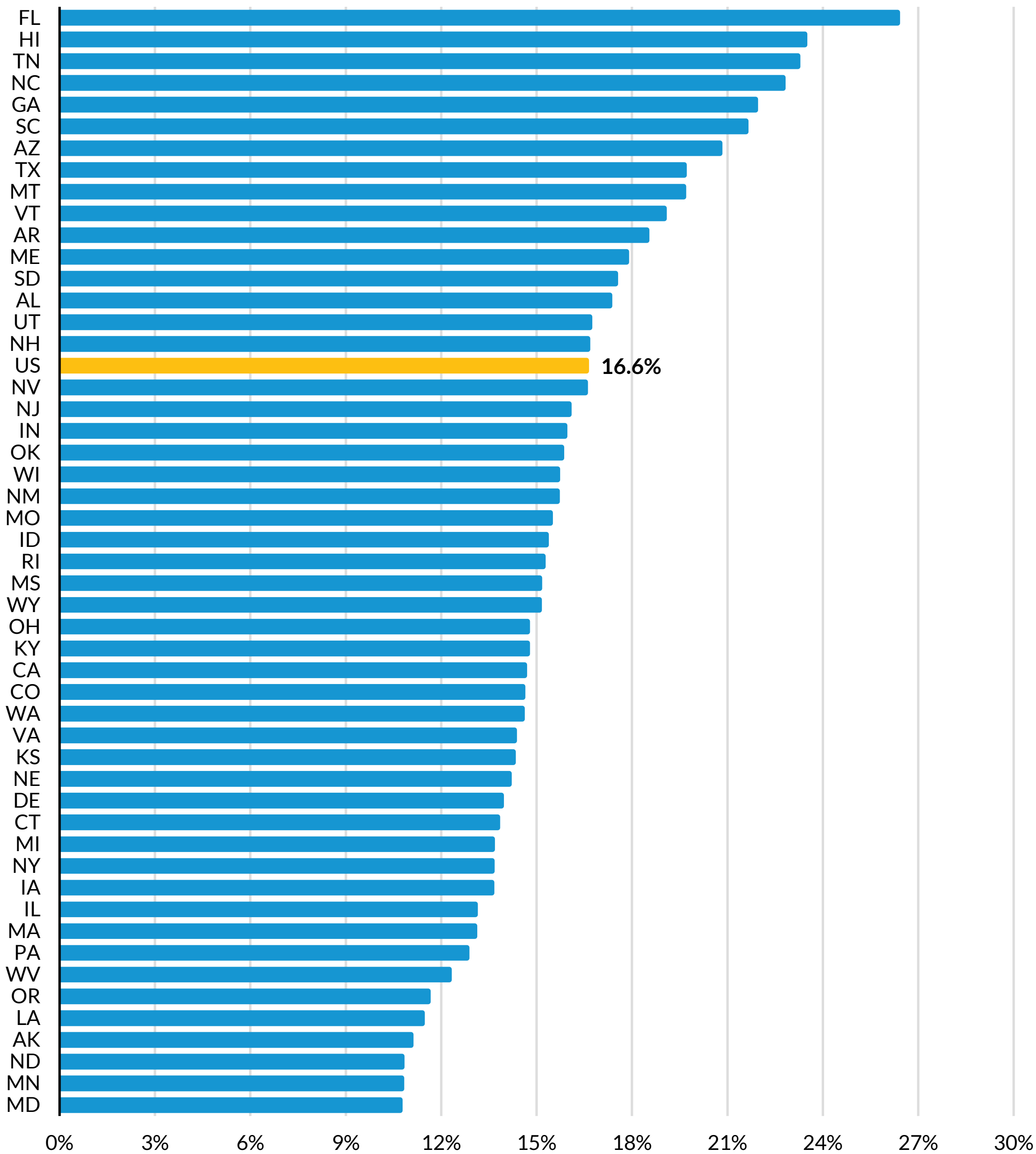
Predicting the COVID-19 pandemic's long-term effects on residential real estate and commercial properties is difficult because it is still unclear whether current patterns of remote work will remain even after other aspects of the economy revert to prepandemic trends. In addition, it is also unclear 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 might be mitigated if mortgage interest rates have begun to fall.

FIGURE 9

All States Saw Double-Digit Growth in Housing Prices in the Third Quarter of 2023

Year-over-year percentage change in house prices, 2022 Q3 versus 2021 Q3



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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

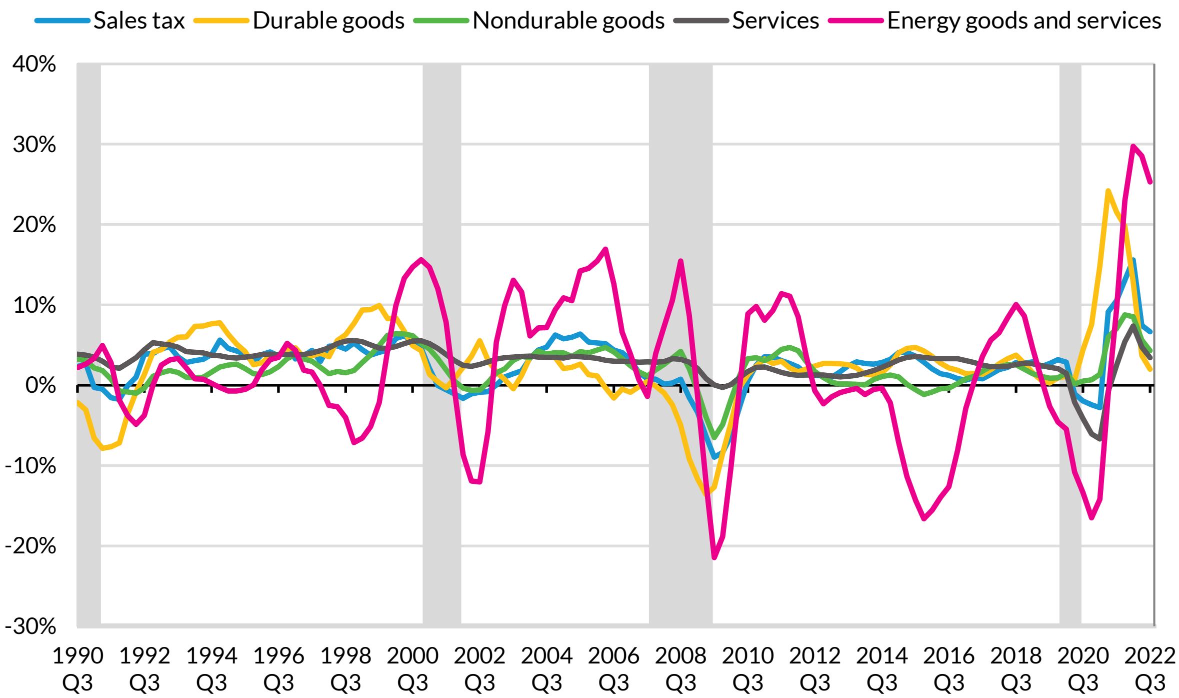
"Personal consumption expenditures" is a measure of national consumer spending. The measure shows the value of the goods and services purchased by American consumers and is correlated with the base for states' sales taxes. Figure 10 displays the year-over-year percentage change in the four-quarter moving 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 3.4 percent in the third 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 durable and nondurable goods increased 2.0 and 4.3 percent, respectively, in the third quarter of 2022.

FIGURE 10

Spending on Goods and Services Weakened in the Third 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 third quarter of 2022, at 25.3 percent. The growth in spending on energy goods and services is partly because it is in comparison to a lower base, but it is also because of the sharp increases in gas and oil prices. With travel resuming and continuing high gas and oil prices , we will likely see continued strong growth in spending on energy goods and services in the coming months.

Tax Law Changes Affecting the Third 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 here based on the 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.[14]

During the third quarter of 2022, enacted tax changes were forecasted to decrease revenues by $3.4 billion compared with the same period in 2021 (though this reflects tax decreases in some states and increases in others).[15] Overall, tax changes were expected to decrease personal income taxes by $1.7 billion and corporate income taxes by $945 million. Enacted tax changes were also expected to decrease sales taxes by $333 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 $133 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 by $8.3 billion in fiscal year 2023. The largest estimated decline is in New York where officials introduced homeowner tax rebate credit for some 2.5 eligible homeowners.[16] Under this program, qualifying taxpayers will receive higher refund payments. In addition, New York's Governor Hochul accelerated personal income tax cuts for the middle-class taxpayers and introduced some other relief measures, including creating new credits or increased existing tax credits.[17] 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.[18] 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 personal income tax rate from 7.0 percent to 6.5 percent[19] as well as exempted military retirement pay from income taxes.[20] These tax measures are estimated to decrease personal income tax collections by $0.7 billion in fiscal year 2023.

Lawmakers in Arkansas cut 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.[21] 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, How Post-Pandemic Tax Cuts Can Affect Racial Equity 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.[22] 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.[23] 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 each state's 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.[24] 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.[25]

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[26] as well as did not renew a managed care organization tax which expired in December 2022.[27] In Connecticut Governor Lamont enacted various tax measures, including a gas tax holiday, extending a child tax credit, and increasing a property tax credit.[28]

Conclusion

State tax revenues became 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 indeed 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 have grown rapidly in state fiscal year 2022 and reported revenue growth is widespread across states and among various revenue sources, we now see overall weakening in state revenue collections. 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).

At the start of the fiscal year, states had forecasted continued growth in revenues for fiscal year 2023, but recent forecasts have lowered or even reversed expectations of revenue growth (Dadayan 2022c). State revenues are being affected by the ongoing geopolitical crises, continued uncertainties related to the ongoing pandemic, persistence of inflation, and evolving federal monetary policy. Further, state revenue growth will also be 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 federal monetary policy decisions and ongoing state actions. Persistently high inflation, volatility in financial markets, rising interest rates, and weakening house prices are all likely to lead to a continuing slowdown in economic activity, which in turn will lead to further weakness in state tax revenue collections.

Appendix: Additional Tables

TABLE A1

Quarterly State Government Tax Revenue by Major Tax

	Nominal Y-O-Y Percentage Change					Inflation	Real Y-O-Y Percentage Change				
Year / quarter	PIT	CIT	Sales	MFT	Total	rate	PIT	CIT	Sales	MFT	Total
2020Q1 – 2022Q3 average growth	***15.6***	***42.5***	***10.0***	***1.1***	***13.0***	***4.1***	***11.0***	***36.6***	***5.6***	***(3.0)***	***8.5***
2022 Q3	2.7	11.7	11.1	(3.7)	7.1	7.1	(4.1)	4.3	3.7	(10.1)	0.0
2022 Q2	14.6	36.3	9.5	(5.4)	15.1	7.6	6.5	26.7	1.8	(12.1)	7.0
2022 Q1	24.2	123.4	18.2	9.7	24.2	6.9	16.2	109.0	10.6	2.6	16.2
2021 Q4	28.4	61.0	18.7	7.7	24.3	6.1	21.0	51.8	11.8	1.5	17.2
2021 Q3	(16.6)	(3.0)	12.4	7.7	(0.7)	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	31.1	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
2011 Q4	3.7	(6.5)	3.5	0.7	3.2	1.9	1.7	(8.2)	1.6	(1.2)	1.3
2011 Q3	9.7	2.5	3.7	(0.3)	6.2	2.3	7.2	0.1	1.3	(2.5)	3.7
2011 Q2	15.3	19.4	5.7	7.5	11.1	2.2	12.9	16.9	3.5	5.2	8.8
2011 Q1	12.1	4.4	6.3	13.4	10.0	1.9	10.0	2.4	4.4	11.2	7.9

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; Y-O-Y = year-over-year.

TABLE A2

Quarterly State Government Tax Revenue, by State

Nominal percentage change, 2022 Q3 versus 2021 Q3

State / region	PIT	CIT	Sales	MFT	Total
US (median)	***8.7***	***17.8***	***10.8***	***(1.7)***	***9.3***
US (average)	***2.7***	***11.7***	***11.1***	***(3.7)***	***7.1***
New England	**7.3**	**5.5**	**9.2**	**(14.9)**	**10.0**
Connecticut	8.2	33.3	10.8	(72.0)	22.2
Maine	8.7	28.9	8.2	(2.1)	9.4
Massachusetts	6.3	(8.0)	9.0	(3.8)	6.7
New Hampshire	5.0	(0.6)	N/A	(1.0)	2.1
Rhode Island	5.5	(3.3)	8.3	(2.6)	6.3
Vermont	21.4	46.2	10.7	2.2	13.5
Mideast	**10.5**	**10.3**	**5.6**	**(5.1)**	**7.7**
Delaware	9.5	5.2	N/A	(6.7)	10.3
Maryland	12.0	62.3	(1.5)	14.9	10.6
New Jersey	10.0	8.3	10.4	2.9	9.2
New York	9.7	(0.5)	7.6	(31.3)	7.6
Pennsylvania	13.3	9.7	2.6	2.7	5.1
Great Lakes	**6.5**	**13.2**	**8.1**	**(3.8)**	**5.9**
Illinois	7.6	29.3	7.9	(3.1)	9.0
Indiana	7.6	(18.6)	9.2	(8.7)	5.2
Michigan	10.4	(15.5)	10.8	(1.7)	6.4
Ohio	8.6	NM	3.6	(3.2)	2.5
Wisconsin	(6.1)	18.0	11.3	(1.6)	2.2
Plains	**14.0**	**7.7**	**10.6**	**(0.5)**	**12.0**
Iowa	14.5	29.7	(10.3)	0.4	3.9
Kansas	8.7	10.9	(2.3)	(2.8)	2.1
Minnesota	15.8	(10.5)	32.7	(6.2)	13.9
Missouri	15.1	48.2	6.7	19.1	13.4
Nebraska	8.0	1.1	9.6	(15.7)	6.2
North Dakota	20.8	19.1	20.1	3.4	42.8
South Dakota	N/A	(24.7)	19.4	(5.7)	11.4
Southeast	**4.2**	**27.9**	**12.1**	**(6.1)**	**7.8**
Alabama	9.6	45.2	9.0	4.2	8.8
Arkansas	5.0	17.6	15.7	(1.7)	9.0
Florida	N/A	28.5	12.1	1.9	8.7
Georgia	12.8	65.8	11.9	NM	7.0
Kentucky	8.4	16.0	12.8	(0.7)	9.5
Louisiana	5.6	33.5	15.5	35.8	12.5
Mississippi	13.1	45.2	8.2	1.4	8.5
North Carolina	4.1	0.3	13.6	4.6	7.7
South Carolina	9.4	35.6	7.5	8.1	9.7
Tennessee	NM	33.9	10.8	(2.4)	10.0
Virginia	(11.4)	(5.2)	15.6	70.2	(2.2)
West Virginia	18.6	36.7	6.7	(1.7)	19.0
Southwest	**12.7**	**77.8**	**15.5**	**(0.2)**	**19.5**
Arizona	7.7	49.7	11.8	(1.7)	9.9
New Mexico	27.0	NM	31.6	(1.7)	55.7
Oklahoma	14.0	47.0	9.0	(2.5)	18.5
Texas	N/A	N/A	15.7	0.6	18.4
Rocky Mountain	**8.5**	**20.6**	**13.6**	**(1.8)**	**10.7**
Colorado	7.9	29.2	14.6	1.7	10.4
Idaho	(2.0)	50.6	11.1	(9.4)	7.6
Montana	16.7	0.1	N/A	(3.4)	16.7
Utah	11.1	(2.6)	13.5	1.3	10.0
Wyoming	N/A	N/A	17.2	(3.7)	21.1

State / region	PIT	CIT	Sales	MFT	Total
Far West	**(11.0)**	**(4.3)**	**12.5**	**(1.1)**	**(0.7)**
Alaska	N/A	95.3	N/A	12.1	177.2
California	(12.4)	(7.0)	14.4	(1.7)	(5.2)
Hawaii	(20.1)	3.9	12.0	(2.8)	0.2
Nevada	N/A	N/A	8.7	(4.9)	6.2
Oregon	6.2	5.7	N/A	(1.7)	14.4
Washington	N/A	N/A	9.0	2.4	9.5

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

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.

TABLE A4

State Personal Income Tax: Estimated Payments or Declarations

Year-over-year nominal percentage change

State	April-September 2020 vs April-September 2019	April-September 2021 vs April-September 2020	April-September 2022 vs April-September 2021
Median	***(8.4)***	***27.9***	***14.9***
Average	**(13.2)**	**54.2**	**(9.6)**
Alabama	(8.9)	27.7	(0.5)
Arizona	2.8	40.1	0.1
Arkansas	5.7	13.7	2.6
California	(18.1)	100.4	(41.3)
Colorado	(17.2)	28.1	47.5
Connecticut	(19.0)	47.9	0.7
Delaware	2.3	40.2	5.7
Georgia	(19.3)	40.3	22.7
Hawaii	(10.7)	67.5	19.3
Illinois	3.2	16.8	(21.1)
Indiana	(7.6)	23.3	19.1
Iowa	(2.3)	18.2	16.4
Kansas	(7.4)	26.4	10.1
Kentucky	(6.0)	21.4	39.2
Louisiana	(3.3)	(4.4)	53.3
Maine	1.7	29.3	17.2
Maryland	(7.1)	33.2	2.2
Massachusetts	(17.1)	59.6	12.4
Michigan	(10.4)	54.7	(27.1)
Minnesota	(11.4)	35.9	2.3
Mississippi	(13.1)	37.3	39.2
Missouri	23.1	38.7	0.8
Montana	(0.7)	26.2	62.3
Nebraska	(5.5)	18.2	18.8
New Jersey	(14.7)	22.4	(3.8)
New York	(12.8)	46.5	(3.5)
North Carolina	(7.2)	42.8	(3.8)
North Dakota	(8.6)	7.9	116.7
Ohio	(8.1)	19.6	10.4
Oklahoma	(31.7)	13.9	63.1
Oregon	(18.2)	42.9	33.4
Pennsylvania	(7.1)	19.4	30.1
Rhode Island	(14.2)	27.3	9.9
South Carolina	(8.4)	27.2	13.5
Vermont	(7.7)	31.6	19.0
Virginia	(9.8)	36.2	18.6
West Virginia	(8.5)	21.0	36.7
Wisconsin	(16.8)	17.9	24.9

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 A5

State Personal Income Tax: Final Payments

Year-over-year nominal percentage change

State	April-September 2020 vs April-September 2019	April-September 2021 vs April-September 2020	April-September 2022 vs April-September 2021
Median	***(1.5)***	***22.1***	***45.5***
Average	**(1.1)**	**24.4**	**39.2**
Alabama	(5.4)	37.3	31.7
Arizona	(6.1)	36.2	58.0
Arkansas	12.1	19.4	41.0
California	8.5	24.5	18.9
Colorado	7.5	26.1	46.3
Connecticut	(2.2)	14.0	62.3
Delaware	(3.8)	30.4	54.3
Georgia	(0.6)	23.9	141.1
Hawaii	9.2	42.7	19.6
Idaho	19.7	23.8	(0.0)
Illinois	(21.5)	39.5	35.8
Indiana	(1.5)	22.1	56.1
Iowa	(22.5)	31.6	52.3
Kansas	(20.6)	38.2	40.7
Kentucky	5.0	23.9	37.4
Louisiana	(5.9)	17.2	53.9
Maine	(1.3)	31.9	56.3
Maryland	(7.9)	21.7	49.9
Massachusetts	(2.3)	23.5	41.9
Michigan	(4.7)	43.5	1.4
Minnesota	(1.3)	21.9	3.4
Missouri	(24.6)	16.2	98.7
Montana	59.9	(18.7)	74.6
Nebraska	(0.5)	15.5	46.6
New Jersey	(6.1)	21.6	44.6
New Mexico	59.1	(1.6)	(25.1)
New York	3.3	30.2	11.0
North Carolina	(6.3)	36.4	45.5
North Dakota	(4.8)	6.5	4.9
Ohio	(9.8)	28.9	39.6
Oklahoma	(4.5)	10.4	25.5
Pennsylvania	(4.7)	20.2	77.0
Rhode Island	(0.3)	1.6	67.0
South Carolina	6.9	22.2	46.7
Utah	24.5	14.3	55.1
Vermont	6.5	(0.9)	74.1
Virginia	6.7	21.1	49.1
West Virginia	(6.3)	10.3	28.7
Wisconsin	(0.5)	10.3	5.3

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

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	NA
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 A7

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 Q3 collections ($ millions)	**$5,524**	**$4,474**	**$2,015**	**$8,648**	**$46,447**	**$67,108**
2022 Q3	1.4	(12.5)	(1.3)	(7.1)	14.2	7.6
2022 Q2	0.8	(9.6)	2.5	(7.2)	17.5	9.8
2022 Q1	2.4	(5.2)	10.3	0.4	22.0	14.4
2021 Q4	2.8	(4.5)	8.6	1.3	19.6	13.0
2021 Q3	4.6	(1.2)	7.8	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
2011 Q4	(11.0)	(1.8)	(0.5)	1.8	11.8	6.5
2011 Q3	(7.6)	(0.9)	0.5	0.3	12.8	7.3
2011 Q2	(3.8)	0.7	1.6	1.6	12.2	7.6
2011 Q1	2.5	2.8	3.2	3.3	10.1	7.4

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

TABLE A8

Preliminary State Government Tax Revenues in the Fourth Quarter of 2022, by State

Nominal percentage change, 2022 Q4 versus 2021 Q4

State/region	PIT	CIT	Sales	Total
US (median)	***7.7***	***9.0***	***6.9***	***5.9***
US (average)	***(10.4)***	***11.6***	***6.2***	***(1.4)***
New England	**(2.1)**	**(3.2)**	**6.5**	**(0.5)**
Connecticut	9.7	(11.3)	5.8	1.8
Maine	10.7	(26.4)	6.9	3.0
Massachusetts	(8.2)	4.0	7.1	(3.7)
New Hampshire	(39.0)	6.1	N/A	4.8
Rhode Island	(5.5)	(1.3)	4.7	1.2
Vermont	18.6	(6.3)	6.7	13.2
Mideast	**(30.4)**	**25.3**	**4.8**	**(17.2)**
Delaware	12.3	43.7	N/A	(5.1)
Maryland	9.4	38.1	4.3	3.2
New Jersey	4.2	(4.7)	5.0	(3.8)
New York	(47.3)	48.0	6.9	(32.6)
Pennsylvania	10.3	19.0	2.3	4.3
Great Lakes	**2.2**	**11.3**	**6.9**	**4.4**
Illinois	11.2	28.3	6.8	10.9
Indiana	12.9	(34.9)	6.9	7.0
Michigan	(13.9)	43.7	6.2	1.0
Ohio	4.9	N/A	6.4	5.0
Wisconsin	(11.5)	(14.0)	9.2	(4.7)
Plains	**12.6**	**(9.3)**	**5.4**	**7.9**
Iowa	4.0	(6.1)	15.1	5.7
Kansas	8.4	70.9	6.8	13.2
Minnesota	19.6	(32.9)	7.4	6.5
Missouri	11.5	1.5	(15.7)	10.4
Nebraska	4.3	18.8	2.9	6.0
North Dakota	36.0	52.2	16.8	(0.4)
South Dakota	N/A	6.4	11.6	11.5
Southeast	**4.2**	**30.1**	**7.2**	**5.6**
Alabama	18.8	12.2	6.5	10.0
Arkansas	(3.4)	18.5	8.1	6.4
Florida	N/A	82.8	6.9	5.3
Georgia	4.9	100.6	11.2	5.6
Kentucky	8.8	(9.2)	8.2	6.9
Louisiana	(13.0)	(2.2)	8.4	2.1
Mississippi	8.0	41.9	6.3	7.9
North Carolina	(3.6)	25.9	3.0	0.5
South Carolina	5.4	88.9	8.8	7.6
Tennessee	(60.2)	7.3	8.9	6.7
Virginia	9.6	(24.5)	6.1	5.9
West Virginia	8.7	(7.5)	4.9	15.2
Southwest	**4.2**	**38.9**	**10.7**	**10.8**
Arizona	1.4	61.5	5.4	9.5
New Mexico	ND	ND	ND	ND
Oklahoma	9.7	(46.3)	7.0	3.2
Texas	N/A	N/A	11.8	12.1
Rocky Mountain	**14.2**	**25.4**	**8.7**	**14.7**
Colorado	7.3	50.6	8.1	10.6
Idaho	(13.5)	24.3	9.2	10.6
Montana	15.4	11.6	N/A	11.9

Utah	38.5	(10.4)	7.4	24.8
Wyoming	N/A	N/A	15.2	ND
Far West	**(16.4)**	**3.3**	**1.8**	**(5.6)**
Alaska	N/A	209.8	N/A	127.0
California	(18.9)	2.1	(0.9)	(8.9)
Hawaii	(14.5)	(1.5)	13.1	3.1
Nevada	N/A	N/A	ND	ND
Oregon	10.2	10.6	N/A	8.0
Washington	N/A	N/A	9.3	3.9

Source: Individual state data, analysis by the author.

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

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 third quarter of 2022.

[2] The author made several adjustments for the third 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] See "Finance Bulletin, February 2022," California Department of Finance, accessed February 1, 2023, https://dof.ca.gov/wp-content/uploads/Forecasting/Economics/Documents/Feb-22.pdf.

[5] 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.

[6] 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.

[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] See "Finance Bulletin, October 2022," California Department of Finance, accessed February 1, 2023, https://dof.ca.gov/wp-content/uploads/Forecasting/Economics/Documents/Finance_Bulletin_October_2022.pdf

[9] See "Table 6.16D. Corporate Profits by Industry," US Bureau of Economic Analysis, accessed February 1, 2023, https://apps.bea.gov/iTable/?reqid=19&step=3&isuri=1&1921=survey&1903=239.

[10] See The 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] See Governor Kathy Hochul, "Governor Hochul Announces Start of Statewide Gas and Diesel Tax Holiday," June 1, 2022, https://www.governor.ny.gov/news/governor-hochul-announces-start-statewide-gas-and-diesel-tax-holiday.

[12] See 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.

[13] See National Conference of State Legislatures, "Variable Rate Gas Taxes," July 14, 2021, https://www.ncsl.org/research/transportation/variable-rate-gas-taxes.aspx.

[14] 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 February 1, 2023, https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/projects/state-fiscal-pages-covid-edition.

[15] Author's analysis of data from National Association of State Budget Officers (2020), table A-1.

[16] See New York State Department of Taxation and Finance, "Homeowner tax rebate credit (HTRC)," accessed February 1, 2023, https://www.tax.ny.gov/pit/property/homeowner-tax-rebate-credit.htm.

[17] See 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.

[18] See Virginia Tax, "New Virginia Tax Laws for July 1, 2022," accessed February 1, 2023, https://www.tax.virginia.gov/news/new-virginia-tax-laws-july-1-2022.

[19] See South Carolina Department of Revenue, "SC Withholding Tables Adjusted for Tax Cuts," accessed on February 1, 2023, https://dor.sc.gov/resources-site/media-site/Pages/SC-Withholding-tables-adjusted-for-tax-cuts.aspx.

[20] See South Carolina Department of Revenue, "SC Military Retirement Pay Now Exempt From State Income Taxes," accessed on February 1, 2023, https://dor.sc.gov/resources-site/media-site/Pages/SC-military-retirement-pay-now-exempt-from-state-Income-Taxes.aspx.

[21] See Arkansas Senate, "Legislature Cuts Income Taxes for Millions of Arkansans," August 17, 2022, https://senate.arkansas.gov/senate-news/posts/2022/august/legislature-cuts-income-taxes-for-millions-of-arkansans.

[22] See California Legislative Analyst's Office, "The 2020-21 May Revision: Revenue Proposals in the 2020-21 May Revision," May 20, 2020, https://lao.ca.gov/Publications/Report/4238.

[23] See California Legislative Analyst's Office, "The 2022-23 Budget: Overview of the Governor's Budget," January 13, 2022, https://lao.ca.gov/Publications/Report/4492.

[24] See Florida Governor Ron DeSantis, "Governor Ron DeSantis Signs Largest Tax Relief Package in Florida's History," May 6, 2022, https://www.flgov.com/2022/05/06/governor-ron-desantis-signs-largest-tax-relief-package-in-floridas-history.

[25] See California Department of Tax and Fee Administration, "Tax Information Bulletin, Publication, 388," September 2022, https://www.cdtfa.ca.gov/formspubs/sept22tib.pdf.

[26] See California Department of Tax and Fee Administration, "Tax Guide for Cannabis Businesses," accessed February 1, 2023, https://www.cdtfa.ca.gov/industry/cannabis.htm.

[27] See California Legislative Analyst's Office, "The 2022-23 Budget: Analysis of the Medi-Cal Budget," February 9, 2022, https://lao.ca.gov/Publications/Report/4522.

[28] See The Office of Governor Ned Lamont, "Governor Lamont Signs Budget That Includes the Largest Tax Cut in Connecticut History," May 9, 2022, https://portal.ct.gov/office-of-the-governor/news/press-releases/2022/05-2022/governor-lamont-signs-budget-that-includes-the-largest-tax-cut-in-connecticut-history.

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Lucy Dadayan is a senior research associate with the Urban-Brookings Tax Policy Center at the Urban Institute. Before joining Urban, Dadayan was a senior research scientist with the Rockefeller Institute of Government, where she wrote extensively on state and local government fiscal issues, including state government tax revenue trends, personal income taxes, tax revenue forecasts, property taxes, gambling tax revenue, government employment, spending on social services, education spending, and state spending on children's programs. She has authored or coauthored four chapters for the *Book of the States* (2015, 2016, and 2017 editions). Dadayan's work is frequently cited in major news media, including the *Wall Street Journal*, the *New York Times*, the *Bond Buyer*, Bloomberg, the *Washington Post*, *Forbes*, the *Boston Globe*, the *Financial Times*, and the *Los Angeles Times*. Dadayan is often invited to present at conferences and provide testimonies for state government agencies. Dadayan holds an MA in public policy and affairs and a PhD in informatics, both from the State University of New York at Albany.

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