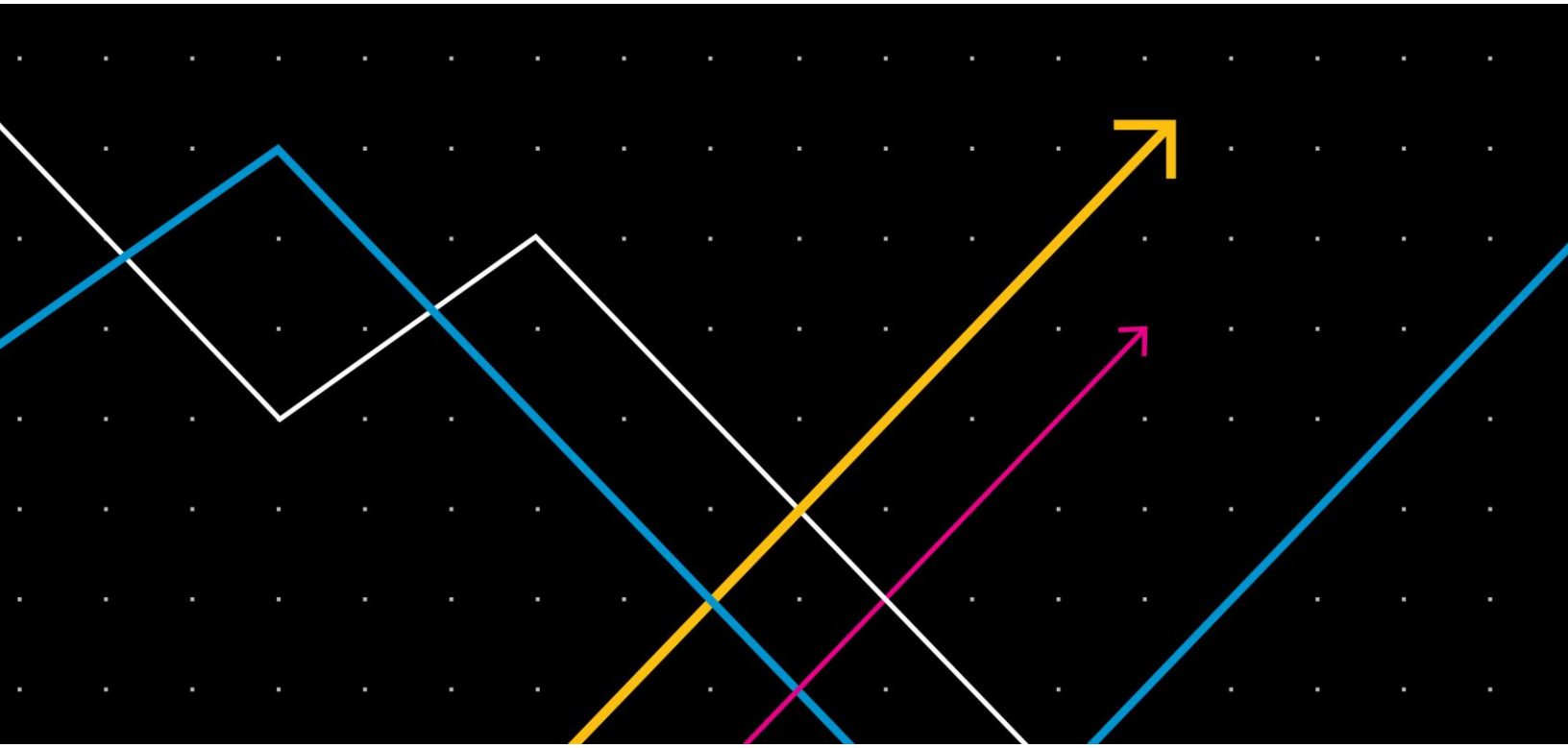

RESEARCH REPORT

Are State Tax Revenues Back to Normal Growth or Showing Early Signs of Economic Slowdown?

State Tax and Economic Review, 2019 Quarter 3

Lucy Dadayan

February 24, 2020

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Acknowledgments

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Executive Summary

- **State and local government tax revenues** from major sources—personal income, corporate income, sales, and property taxes—were 5.0 percent higher in the third quarter of 2019 than in the prior year. Growth was substantially weaker than the 11.4 percent annual growth for the second quarter of 2019 and slightly weaker than the 5.5 percent average annual growth rates for the prior four quarters.
- **State government tax revenues** from major sources showed solid year-over-year growth at 5.8 percent in the third quarter of 2019. The growth varied among major revenue sources:
  - » After two consecutive quarters of decline followed by double-digit growth in the second quarter of 2019, growth in **state personal income taxes** returned to normal levels in the third quarter of 2019. This volatility was mostly attributable to the Tax Cuts and Jobs Act (TCJA), which created incentives for some taxpayers to delay estimated income tax quarterly payments into the extension and final payments period.
  - » **State sales taxes** have experienced uninterrupted growth since the first quarter of 2010, but this growth has lagged the rates observed in previous economic expansions. State sales tax revenues have seen some boost in the most recent months, mostly in response to the US Supreme Court's decision in *South Dakota v. Wayfair, Inc.* in June 2018 and subsequent changes in state tax rules.
  - » **State corporate income taxes** once again showed strong year-over-year growth in the third quarter of 2019, marking the sixth consecutive quarter of double-digit growth. However, state officials caution that this double-digit growth is also likely caused by the changes made in the TCJA, and corporate income tax revenues are likely to level off or even decline in the near future.
- Year-over-year growth in **local government tax revenues** from major sources was 4.0 percent in the third quarter of 2019, which is nearly 1 percentage point weaker than the growth observed in the prior four quarters.
  - » **Local property taxes** increased 3.1 percent year-over-year in the third quarter of 2019 compared with a year earlier, which is substantially weaker than the 5.2 percent average growth in the prior four quarters. Local property taxes, just like state personal and corporate income taxes, fluctuated wildly in the recent quarters, partially in response to the TCJA's changes.

- **Preliminary data for the fourth quarter of 2019** indicate continued growth in overall state tax revenue collections. However, growth is more in line with historical averages, mostly because the TCJA's impact has waned.
  - » Year-over-year growth rates for **state personal income tax** revenues were in single digits in most states in the fourth quarter of 2019.
  - » **State corporate income tax** collections showed double-digit year-over-year growth for the seventh consecutive quarter. However, there was wide variation across the states, and the revenue growth experienced in the median state was weaker.
  - » Year-over-year growth in **state sales tax** collections in the fourth quarter of 2019 was strong in most states and above 5.0 percent in 21 states. The recent strength in sales tax collections is largely because of the *Wayfair* ruling and states' responses to it.
- **Economic factors** driving revenue growth were all positive in the third quarter of 2019 despite overall concerns that the economic expansion, now the longest on record, may soon be over and that the US economy may be headed for a downturn. As always, growth in economic factors must be viewed with caution. Moreover, growth in some of the economic factors weakened in the third quarter of 2019.
  - » Real **gross domestic product** was 2.1 percent higher for the nation in the third quarter of 2019 than in the same quarter in 2018. Growth in real gross domestic product was the weakest since the fourth quarter of 2016. Overall, state economies have grown at a slower pace than have state tax revenues in the post–Great Recession period. The discrepancy in growth rates has become more common in recent years, heightening revenue volatility, and likely reflects timing decisions in personal income tax revenue payments in response to federal tax policy changes.
  - » The seasonally adjusted **unemployment rate** was 3.6 percent in the third quarter of 2019. Unemployment rates have seen steady declines since 2010, largely driven by improved job prospects.
  - » **Employment** grew 1.4 percent in the third quarter of 2019 compared with one year earlier. However, there were large disparities among the states, with 31 states reporting growth below the national average. Overall employment growth has slowed in recent months.
  - » **Personal consumption expenditures** have been rebounding after being hit hard by steep declines in oil and gas prices in 2014–15. However, consumer spending on both durable and nondurable goods weakened substantially in the first three quarters of 2019 compared with the growth rates observed throughout 2018. Much of the weakness in spending on

nondurable goods was attributable to the declines in spending on energy goods and services.

» **House prices** increased 4.6 percent in nominal terms in the third quarter of 2019, which is the weakest growth since the first quarter of 2014. Overall, house prices have been rising since the declines that immediately preceded the Great Recession. However, growth was not even across all 50 states, with house prices still below their prerecession peaks in 6 states.

Trends in State and Local Tax Revenues

State and local government tax revenues have fluctuated wildly since the passage of the TCJA, which was the largest federal tax overhaul since 1986. The TCJA is very complex and includes over 100 new provisions. Over two years after its passage, states continue to incorporate some of the new provisions of the federal tax code into their own tax codes. Further, some taxpayers are still learning about the implications of various provisions under the TCJA and exploring options for minimizing their income tax liability. For example, some individual taxpayers continue to adjust their business affairs and employment status to take advantage of the provision that provides a federal income tax deduction of up to 20 percent of net business income to owners of domestic pass-through business entities. On the other hand, some businesses are evaluating whether to change from a pass-through to a C corporation to take advantage of lower corporate income tax rates. The ambiguity about various provisions of the TCJA and the uncertainty about the economy and political climate contribute to shifts in taxpayer behavior. The result is increased volatility in state tax revenues.

State and local government tax revenues showed normal growth in the third quarter of 2019 after declines in the fourth quarter of 2018, much weaker growth in the first quarter of 2019, and robust growth in the second quarter of 2019. Most of the volatility in the prior quarters was attributable to the TCJA, which led some taxpayers to shift income tax payments from one quarter to the next or income and deductions (and the resultant tax liability) from one tax year to another. Because the TCJA placed a $10,000 annual cap on the federal deduction for taxpayers' state and local taxes (SALT) beginning January 1, 2018, some high-income taxpayers prepaid their personal income and property taxes to take advantage of the uncapped SALT deduction in 2017. Firms also may have shifted nonwage income (e.g., bonus payments) from 2018 to 2017 to claim a deduction at the higher corporate income tax rate. Individual taxpayers have also increased estimated payments or changed the time at which they realized capital gains or losses. (Thus, some of the revenue weakness in the fourth quarter of 2018 and the first quarter of 2019 was related to especially strong revenues in December 2017 and January 2018. For more discussion of these phenomena, please see prior *State Tax and Economic Review* quarterly reports).

Table 1 shows state and local government tax revenues from major sources for the third quarter of 2018 and the third quarter of 2019 as well as the nominal percentage change between both quarters

and the average quarterly year-over-year growth in the prior four quarters. Growth varied substantially by source of revenue and level of government. Major findings include the following:

- **State and local government revenues** from major sources increased 5.0 percent in the third quarter of 2019 compared with a year earlier; the average quarterly year-over-year growth rate in the prior four quarters was slightly stronger at 5.5 percent.
- **State government revenue** from major sources increased 5.8 percent in the third quarter of 2019 relative to a year ago, while the average quarterly year-over-year growth rate in the prior four quarters was 5.5 percent. After showing declines in the first quarter of 2019 and nearly 20 percent growth in the second quarter of 2019, growth in **state personal income tax** revenues was back to normal levels in the third quarter of 2019. The growth in state personal income tax revenues was 4.3 percent in the third quarter of 2019 compared with the third quarter of 2018; in contrast, the average quarterly year-over-year growth rate in the prior four quarters was 3.8 percent. **State sales tax** collections showed growth of 7.1 percent in the third quarter of 2019 compared with the third quarter of 2018, stronger than the average quarterly year-over-year growth rate of 4.7 percent in the prior four quarters. **State corporate income tax** revenues rose 11.7 percent in the third quarter of 2019 compared with a year earlier, marking the sixth consecutive quarter of double-digit growth. After more than 10 years since the end of the Great Recession, state corporate income tax revenues are finally above their prerecession peaks.
- **Local government revenue** from major sources increased 4.0 percent from a year earlier in the third quarter of 2019, which is weaker than the 4.9 percent average quarterly year-over-year growth in the prior four quarters. **Local property taxes**, the single largest source of local government tax revenues, increased 3.1 percent from the prior year, which is substantially weaker than the 5.2 percent average quarterly year-over-year growth in the prior four quarters. The stronger growth in the prior four quarters likely reflects changes in the timing of property tax payments in response to the TCJA. On the other hand, the weakness in the third quarter is likely attributable to house prices, which have weakened continuously since the first quarter of 2018. **Local sales taxes** grew 8.3 percent in the third quarter of 2019. Growth in **local corporate income taxes** was at 4.5 percent, while **local personal income taxes** increased 4.9 percent, but these constitute a relatively small share of local revenues.

TABLE 1

State and Local Government Tax Revenue Trends

Millions of dollars

Tax source	2018 Q3	2019 Q3	Y-O-Y percentage change	Average quarterly Y-O-Y growth rate, prior four quarters
Total state and local major taxes	**$323,198**	**$339,479**	**5.0**	**5.5**
State major taxes	***$184,286***	***$194,976***	***5.8***	***5.5***
Personal income tax	88,376	92,190	4.3	3.8
Corporate income tax	11,840	13,221	11.7	25.1
Sales tax	79,359	85,011	7.1	4.7
Property tax	4,710	4,553	(3.3)	11.2
Local major taxes	***$138,912***	***$144,503***	***4.0***	***4.9***
Personal income tax	8,424	8,840	4.9	4.7
Corporate income tax	1,741	1,820	4.5	0.2
Sales tax	21,765	23,576	8.3	4.4
Property tax	106,982	110,267	3.1	5.2

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

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

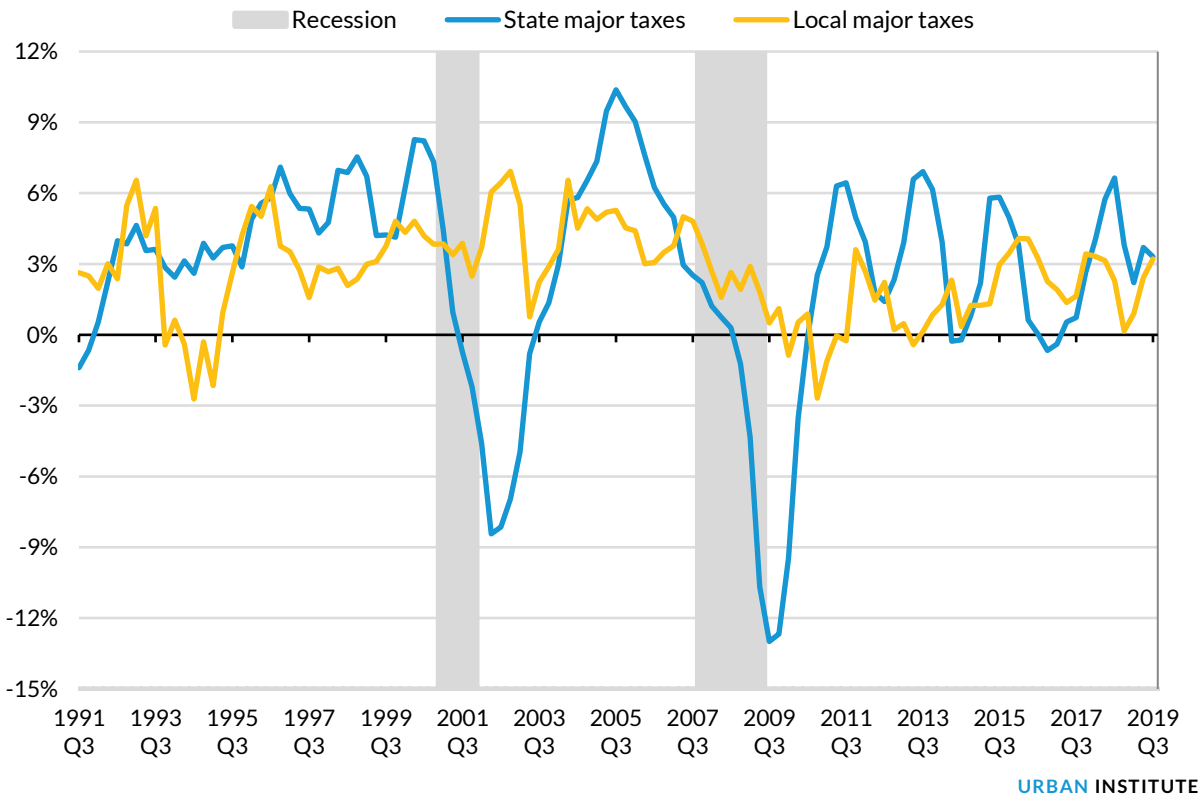
Figure 1 shows longer-term trends in state and local tax collections, specifically, the year-over-year percentage change in the four-quarter moving average of inflation-adjusted state and local tax collections from major sources: personal income tax, corporate income tax, sales tax, and property tax. As shown in Figure 1, state tax revenues from major sources fluctuated greatly over the past few years, mostly driven by the impact of the federal fiscal cliff negotiations (in 2013), volatility in the stock market, and most recently by the impact of taxpayer behavior in response to the passage of the TCJA. Growth in both state and local taxes from major sources was stable in the third quarter of 2019. State taxes from major sources, adjusted for inflation, grew 3.3 percent in the past four quarters relative to the year earlier. Overall, growth in state taxes from major sources was weaker in the first three quarters of 2019 compared with the growth observed throughout 2018. The four-quarter moving average of inflation-adjusted local taxes from major sources grew 3.2 percent in the third quarter of 2019, which is stronger than the growth observed in the prior five quarters.

Most local governments rely heavily on property taxes, which are relatively stable and respond slowly to changes in property values. By contrast, the personal income, sales, and corporate taxes that states heavily rely on respond more rapidly to economic upticks and declines. Over the past two decades, property taxes have consistently made up at least two-thirds of total local tax collections. As noted, the recent fluctuations in property tax receipts likely reflect payment shifts in response to the TCJA. However, growth in house prices has been weakening in recent months, which can lead to weakness in local property taxes if the trend continues.

FIGURE 1

State Major Tax Revenue Growth Ticked Downward

Year-over-year change in real state and local taxes from major sources



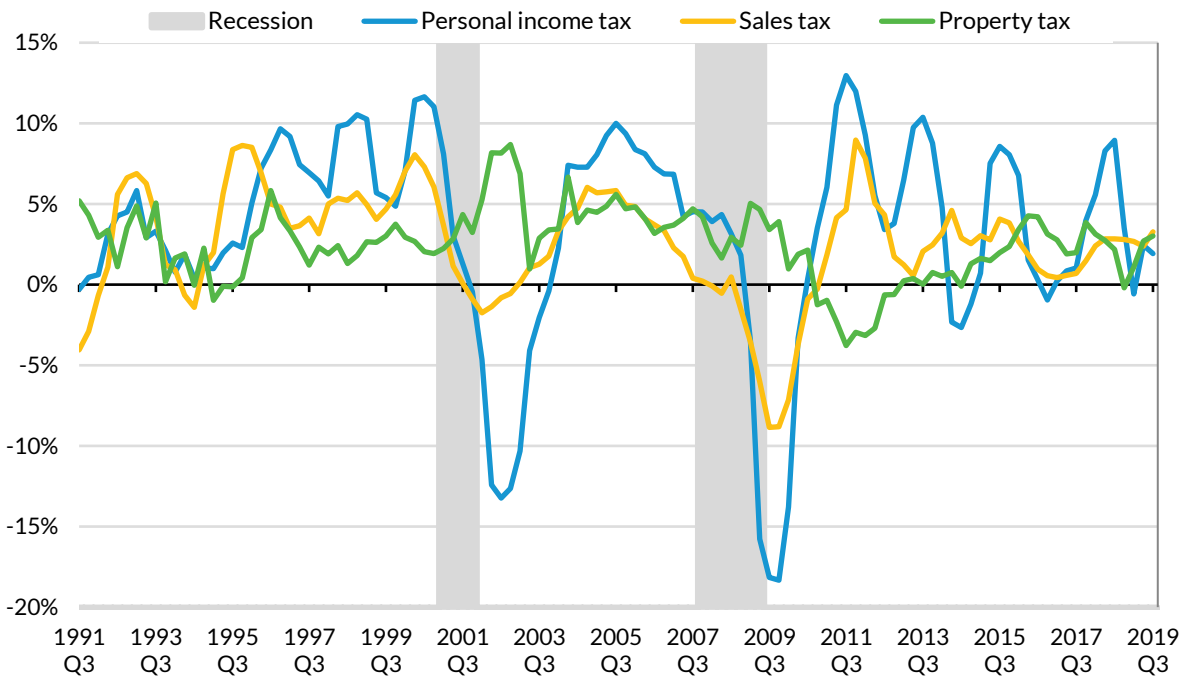
Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.
Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation. Data are for four major tax categories only: personal income, corporate income,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

Figure 2 breaks out inflation-adjusted state and local personal income, sales, and property tax revenue over the same period. The graph shows the large fluctuations in state and local personal income tax collections in recent years. The year-over-year growth in state-local personal income tax revenues was 1.9 percent in the third quarter of 2019, which is substantially weaker than the strong growth observed throughout 2018. However, strong growth rates in 2018 were largely attributable to the implications of the TCJA. State and local sales tax revenues grew 3.3 percent in the third quarter of 2019, which is stronger than the growth observed since the fourth quarter of 2015. State and local property taxes, nearly all of which are collected by local governments, grew 3.0 percent from a year earlier in the third quarter of 2019.

FIGURE 2

Weaker Growth in State-Local Personal Income Tax Revenues in the Third Quarter of 2019

Year-over-year change in real 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.

Trends in State Tax Revenue in 2019 Quarter 3

Total state tax revenue grew 5.6 percent in nominal terms and 3.8 percent in inflation-adjusted terms in the third quarter of 2019 relative to a year earlier, according to US Census Bureau data adjusted by the author (Table A1).[1] Year-over-year growth for the third quarter of 2019 was substantially weaker than the growth for the second quarter of 2019. State personal income tax revenues declined in the fourth quarter of 2018 and the first quarter of 2019 compared to prior year levels but soared in the second quarter of 2019. Year-over-year growth in state personal income tax revenues was back to normal levels at 4.3 percent in the third quarter of 2019. Declines in personal income tax revenues in the fourth quarter of 2018 and the first quarter of 2019 compared with prior-year levels were largely expected because state income tax revenues were artificially boosted in December 2017 and January 2018. Robust growth in personal income tax revenues in the second quarter of 2019 was mostly caused by shifts in timing for estimated income tax payments by some taxpayers. States anticipated normalized growth rates in personal income tax revenues, mostly because of the waning impact of the TCJA.

Corporate income tax collections grew by double digits for the sixth consecutive quarter, sales tax collections grew 7.1 percent, and motor fuel tax collections increased 5.8 percent relative to a year earlier. Table A1 shows (1) nominal and inflation-adjusted growth in state government tax revenue collections from major sources and (2) average quarterly year-over-year growth between the first quarter of 2010 and the third quarter of 2019. Despite the prolonged economic expansion, the inflation-adjusted average annual growth rate in overall state tax revenues since 2010 was only 3.0 percent.

There were large regional disparities in terms of year-over-year growth in total state tax revenues in the third quarter of 2019 (Table A2). Growth in the median state was 4.6 percent, compared with the national growth of 5.6 percent growth. State tax revenues increased in all regions. The Far West and Rocky Mountain regions had the strongest growth at 10.3 and 6.1 percent, respectively, while the New England and Southwest regions had the weakest growth at 3.4 and 3.9 percent, respectively.[2]

Forty-six states reported growth in total state tax revenue collections for the third quarter of 2019 relative to a year prior, with 24 states reporting growth of over 5 percent. Growth in state tax revenues was particularly strong in Washington and California, mostly because of strong sales tax revenues. State tax revenues declined in Alaska, Georgia, New Hampshire, and North Dakota.

Personal Income Taxes

Overall, growth in personal income tax collections has moderated in the third quarter of 2019. State personal income tax revenues increased 4.3 percent in nominal terms and 2.5 percent in inflation-adjusted terms in the third quarter of 2019 compared with the same period in 2018 (Table A1). As cautioned in previous *State Tax and Economic Review* quarterly reports, the federal policy changes under the TCJA created strong incentives for some high-income taxpayers to shift income and deductions between tax years. More specifically, personal income tax collections in the fourth quarter of 2017 and first quarter of 2018 were boosted by extension payments related to tax year 2017. In addition to behavior changes related to the TCJA, some of these extension payments were also likely attributable to one-time payments related to the federal Emergency Economic Stabilization Act of 2008, which gave hedge fund managers until December 31, 2017, to repatriate foreign earnings. Therefore, it was expected that personal income tax revenue would be weak in the final quarter of 2018 and first quarter of 2019 but would pick up in the second quarter of 2019. The average quarterly year-over-year growth rate in state personal income tax collections since 2010 was 6.1 percent in nominal terms and 4.4 percent in real terms.

Personal income tax collections increased across all regions in the third quarter of 2019 compared with the same period in 2018 (Table A2). The Southwest region saw the largest growth at 7.1 percent, while the New England region saw the weakest growth at 2.0 percent.

Overall, personal income tax collections increased in all states but Connecticut, Georgia, Iowa, and Mississippi. In Connecticut, the declines were mostly attributable to legislative changes that shifted some tax burdens from the personal income tax toward the corporate income tax. Declines in personal income tax revenues in Iowa and Georgia are mostly attributable to tax rate reductions that took effect January 1, 2019.

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. These data are more current than the Census Bureau data and thus provide a preliminary view of income tax collections for the third quarter of 2019.

Table 2 shows the growth for each major component of personal income tax collections in the past eight quarters, illustrating the volatility in the post-TCJA period. Personal income tax collections were boosted in the first quarter of 2018 but declined in the fourth quarter of 2018 and first quarter of 2019. Personal income tax revenues soared in the second quarter of 2019because of an increase in extension and final payments. The volatility in personal income tax revenues was mostly observed in estimated payments and final payments, which were shifted between tax years as a result of the TCJA. Growth in personal income tax collections has moderated in the third and fourth quarters of 2019.

TABLE 2

Growth in State Government Personal Income Tax Components

Year-over-year nominal percentage change

	Calendar Year 2018					Calendar Year 2019				
Personal income tax components	**2018 Q1**	**2018 Q2**	**2018 Q3**	**2018 Q4**	**Annual growth**	**2019 Q1**	**2019 Q2**	**2019 Q3**	**2019 Q4**	**Annual growth**
Withholding	8.9	7.4	6.2	6.7	7.3	1.2	5.2	4.4	4.7	3.8
Estimated payments	31.0	12.8	18.2	(71.3)	(2.5)	(8.8)	16.3	2.4	9.3	4.8
Final payments	15.2	8.4	12.8	(1.5)	8.2	18.5	39.0	21.1	20.4	32.9
Refunds	6.1	0.9	14.4	16.9	5.9	(0.3)	(1.1)	8.2	7.4	1.1
Total	**14.8**	**10.3**	**7.8**	**(10.5)**	**5.3**	**(0.2)**	**18.6**	**3.8**	**6.0**	**7.8**

Source: Individual state data, analysis by the author.

Notes: Q = quarter. The percentage changes for total personal income tax differ from data reported by the US Census Bureau.

Withholding

Withholding is usually a good indicator of the current strength of personal income tax revenue because it comes largely from current wages and is less volatile than estimated payments or final settlements. Table A3 shows year-over-year growth in withholding for the past eight quarters for all states with a broad-based personal income tax.

The annual growth rates in withholding for 2019 were substantially weaker for all quarters compared with the growth rates for 2018. The same observation holds for the median growth rates in withholding.

The average growth in withholding was substantially stronger in the first half of 2018. In the first quarter of 2018, year-over-year withholding increased 8.9 percent. The strength in withholding, however, was partially driven by one-time bonuses paid by employers in response to the TCJA. In contrast, growth in year-over-year withholding was weak in the first quarter of 2019, at 1.2 percent. Growth in withholding regained strength in the second quarter of 2019 but slightly weakened in the second half of 2019 (Table A3). These changes are partly caused by employers shifting the timing of bonus payments from one quarter to another.

All regions showed year-over-year growth in withholding in the third and fourth quarters of 2019. The Southwest region had the strongest year-over-year growth rate for the third quarter of 2019, and the Far West region had the strongest growth for the fourth quarter of 2019; the Southeast region had the weakest year-over-year growth for both quarters.

Year-over-year growth in withholding was widespread across states in the third quarter of 2019. Thirty-six of 41 states with a broad-based personal income tax reported growth in withholding in the third quarter of 2019 compared with a year earlier. Georgia, Iowa, Mississippi, North Carolina, and West Virginia reported declines in withholding in the third quarter of 2019. The declines in Georgia, Iowa, and North Carolina are partially attributable to reductions in their state income tax rates. Officials in Georgia lowered its top personal income tax rate from 6 percent to 5.75 percent.[3] Iowa's tax reform legislation reduced tax rates for all income brackets effective January 1, 2019.[4] Finally, officials in North Carolina reduced personal income tax rate from 5.499 percent to 5.25 percent beginning in January 2019.[5] Preliminary data indicate that growth was also widespread during the fourth quarter of 2019.

Figure 3 shows monthly and fiscal year-to-date growth rates in withholding between July 2019 and December 2019, which corresponds to the first six of months of state fiscal year 2020 in 46 states. Withholding was lower in August 2019 compared with August 2018 as well as in November 2019

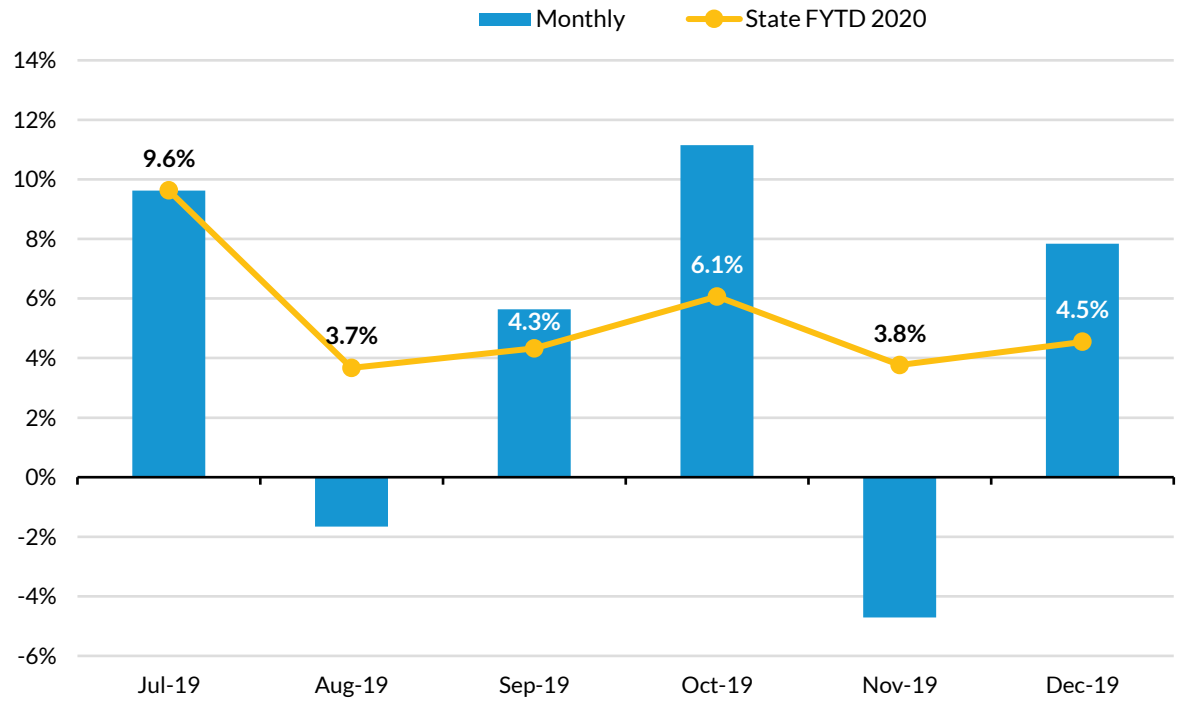
compared with November 2018. These declines are likely linked to personal income tax rate cuts in about a dozen states. Further, the lower withholding in November 2019 relative to November 2018 is mostly attributable to a single state, California, where withholding was lower than a year earlier by $1.7 billion or 24.9 percent. State officials interpret November declines as a timing issue, because the large bonus day that usually follows Thanksgiving fell in December rather than November in 2019.[6] California's withholding rebounded in December 2019 and increased by $1.3 billion, or 19.1 percent compared to the December 2018 level.

Year-to-date growth in withholding for the first half of fiscal year 2020 was weak compared with growth rates observed during the same period in the prior year. States collected around $166 billion in withholding revenues from July 2019 through December 2019. This represents approximately 91 percent of overall personal income tax collections over this period. Overall, withholding grew 4.5 percent during the first six months of fiscal year 2020 compared with the same period of fiscal year 2019; the growth in withholding has weakened partially because of tax rate cuts in several states.

FIGURE 3

Continued Growth in Withholding Despite Monthly Volatility

Percentage change in withholding tax collections compared with the previous year, state fiscal year 2020 monthly and year-to-date



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

Estimated Payments

The highest-income 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 a small share of overall income tax revenues, but because of their volatility, they can have a large impact on the direction of overall collections. Estimated payments accounted for about 17.1 percent of total personal income tax revenues in the third quarter of 2019 but only 6.6 percent in the fourth quarter of 2019.

The first estimated payment for each tax year is 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 the 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 on 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 the timing in 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 indication for the current strength of the economy. The second and third estimated payments are easier to interpret because they are almost always related to the current year, and this can give a real-time look at how the economy and income tax base are doing. Weakness in these payments can reflect weakness in nonwage income, such as that generated by the stock market. However, it can also be "noisy" in the sense that it reflects taxpayers' responses to tax-payment rules as well as to expected nonwage income.

The median second and third estimated payments (attributable to tax year 2019) increased 10.4 and 11.1 percent, respectively, from last year (Table A4). These growth rates are slightly higher than growth rates observed during the same period last year, likely because of the overall strength of the stock market.

We still don't have January 2020 data to assess the strength of withholding for the fourth payment of tax year 2019. As a reminder, states saw steep declines in estimated payments filed in December 2018 and January 2019 (the last payment for tax year 2018) because of the temporary impact of the TCJA.

The median estimated payment for December 2017 was unusually strong, mostly in response to the TCJA, which (as noted) led some high-income taxpayers to accelerate state income tax payments into December 2017 to take advantage of the uncapped SALT deduction for tax year 2017. Estimated

payments grew from $10 billion in December 2016 to $16.9 billion in December 2017, an increase of 68.8 percent. Estimated payments in December 2018 were $2.9 billion; this is a steep decline from December 2017 but is also below December 2016 estimated payments. Preliminary data indicate that estimated payments in December 2019 were $3.1 billion, which is also low by historical standards.

The largest weakness in dollar amounts were in California and New York, where estimated payments declined by $3.6 billion (or 77.4 percent) and by $1.3 billion (or 76.9 percent), respectively, in December 2019 compared with December 2016, before enactment of the TCJA. Steep declines in California and New York are not surprising because the two states have the largest share of taxpayers with income over $1 million. Taxpayers in California and New York constituted about 12 and 6 percent of all US taxpayers in tax year 2017 but were the home states for about 17 and 11 percent, respectively, of all millionaire taxpayers. These millionaire taxpayers are usually able to shift income and expenses across tax years to minimize tax liability. Estimated state income tax payments in California and New York made up approximately 64 percent of the total estimated payments for the nation in December 2017 but only 50 percent in December 2018 and 46 percent in December 2019. It is too early to draw conclusions about December 2019 weakness in estimated payments in California and New York. We expect that high-income taxpayers in California and New York will once again shift estimated personal income tax payments into the extension and final payments period.

The median first estimated payment for tax year 2019 (filed in April 2019) was 18.0 percent higher than the median first estimated payment filed in April 2018. Most of the growth in terms of dollar amount was in New York, where first estimated payments grew by $2.5 billion or 57.1 percent in April 2019 compared with April 2018. The first estimated payment increased in 33 states, with 25 states reporting double-digit growth relative to a year earlier. Most of the growth in the first estimated payment in New York and elsewhere is likely attributable to tax year 2018 because some taxpayers opted to wait and pay a greater percentage of their tax year 2018 liabilities through extensions. First estimated tax payments declined in Arizona, Arkansas, Connecticut, Maryland, and West Virginia. The largest decline was in Arizona, at 25.1 percent, mostly because processing delays pushed a significant amount of deposit payments into May 2019.[7]

The median second and third estimated payments for tax year 2019 (filed in June 2019 and September 2019) were 10.4 and 11.1 percent, respectively, compared with the second and third estimated payments filed in June 2018 and September 2018. However, the national average growth for the second and third estimated payments were only 1.3 and 0.4 percent, respectively, mostly because of large declines in dollar values in California and Connecticut.

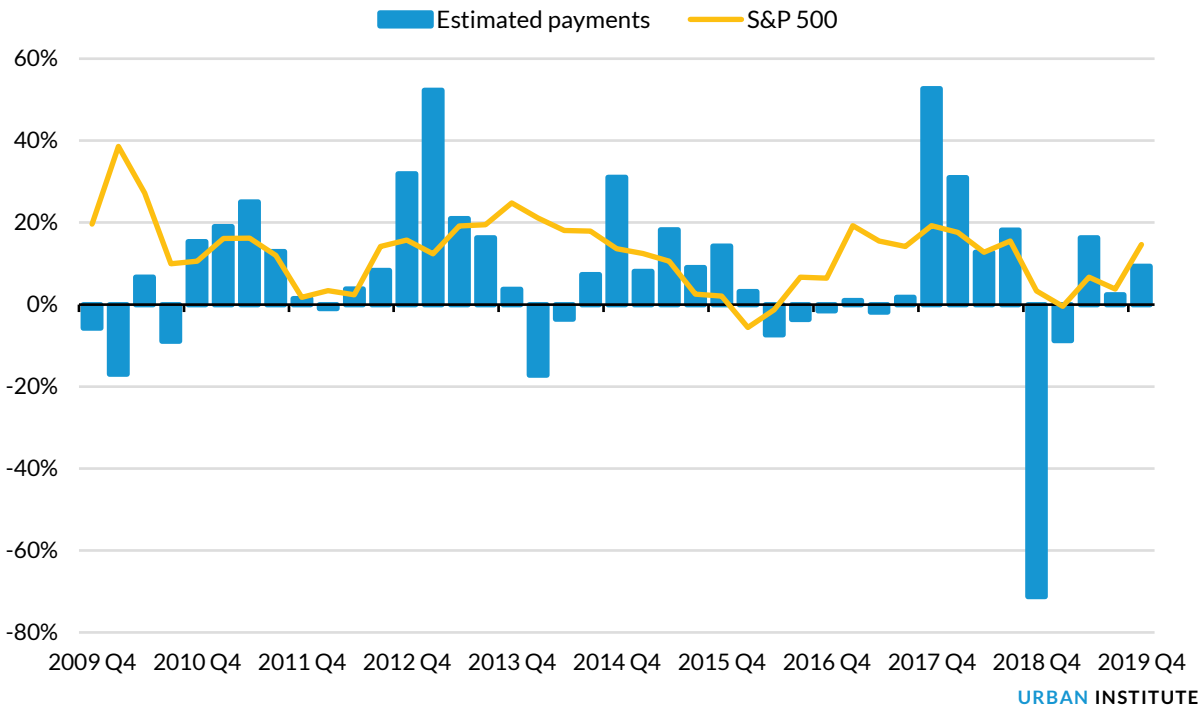
Figure 4 shows year-over-year percentage change by quarter in estimated payments and in the S&P 500 Index for the past 11 years. The longer-term trends indicate large volatility in estimated payments, which is partially caused by volatility in the stock market but is also affected by various federal policy changes and taxpayers' subsequent behavioral changes in tax timing. For example, growth in estimated payments in the final quarter of 2012 and the first quarter of 2013 was much larger than the growth rates in the S&P 500 Index because estimated payments were tied to the impact of the "fiscal cliff" budget deal as Congress raised top federal income tax rates for tax year 2013. Therefore, some high-income taxpayers accelerated income into tax year 2012 to avoid higher tax rates for later years. This led to large declines in the year-to-year comparison for estimated payments the following year. Similarly, the substantial growth in estimated payments in the final quarter of 2017, as well as in the first quarter of 2018, and the steep declines in estimated payments in the final quarter of 2018 are mostly attributable to the passage of the TCJA. However, the further decline in estimated payments in the first quarter of 2019 was likely also driven by the weak stock market performance in December 2018 and January 2019. The stock market saw large fluctuations, with the S&P 500 Index declining an average of 3.6 percent in December 2018 compared with December 2017. The S&P 500 Index further declined an average of 6.5 percent in January 2019 compared with January 2018 before rebounding later in the year. In response to declines in realized capital gains, some taxpayers may have reduced their December 2018 and January 2019 estimated payments. After two consecutive quarters of decline, estimated payments rebounded and grew 16.3 percent in the second quarter of 2019; growth in the stock market was weaker, at 6.6 percent, in the same period. Estimated payments showed continued growth in the third and fourth quarters of 2019, at 2.4 and 9.3 percent, respectively. Growth in the stock market was stronger for the same period, at 3.8 percent in the third quarter of 2019 and 14.7 percent in the fourth quarter of 2019.

In general, estimated payments as a share of overall personal income taxes have grown somewhat over time. In state fiscal year 2018, estimated payments made up 22.3 percent of total personal income tax collections, up from 17.8 percent in fiscal year 2010 and 20.0 percent in fiscal year 2014. However, estimated payments as a share of total personal income tax collections declined in state fiscal year 2019, representing around 19.3 percent of the total, mostly because of the TCJA and subsequent income tax-shifting behavior. The overall growth in estimated payments, as well as the volatility of estimated payments, adds more uncertainty to state income tax revenues and makes them harder to forecast.

FIGURE 4

Large Volatility in Estimated Payments

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



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

Final Payments

Final tax payments normally represent a small share of total personal income tax revenues in the first, third, and fourth quarters of the tax year and a much larger share in the second quarter of the tax year because of the April 15 income tax return deadline.[8] Final payments accounted for less than 7.0 percent of all personal income tax revenues in the first, third and fourth quarters of 2019 but accounted for 26.5 percent in the second quarter of 2019.

Table A5 shows year-over-year growth in final payments for the most recent eight quarters. Total final payments showed strong growth in the first quarter of 2018 compared with a year earlier. The strong growth was likely attributable to the passage of the TCJA, as discussed. Final payments declined 1.5 percent in the fourth quarter of 2018 but showed double-digit growth in all four quarters of 2019. Growth in final payments was robust at 39 percent in the second quarter of 2019 compared with the prior-year levels, reflecting changes in taxpayer behavior as some taxpayers filed for extensions and made final payments.

Growth rates in final payments varied widely across the states in the third and fourth quarters. Final payments increased by double digit rates in 30 states in the third quarter of 2019 and in 29 states in the fourth quarter of 2019. Connecticut, Missouri, and Virginia were the only states where final payments declined in the fourth quarter of 2019. Declines in Connecticut were mostly because of legislated changes. Connecticut enacted income tax law changes that significantly changed the taxation of income earned by partnerships and S corporations. The most notable change was the creation of a new pass-through entity tax at 6.99 percent and provision of a corresponding individual income tax credit for 93.01 percent of the tax (Connecticut Department of Revenue Services 2018). These changes are estimated to decrease personal income tax revenues but increase corporate income tax revenues.

Refunds

Personal income tax refunds usually represent a small (and negative) share of total personal income tax revenues in the third and fourth quarters of the tax year and a much larger share in the first and second quarters of the tax year.

Refunds declined 0.3 percent in the first quarter of 2019 and 1.1 percent in the second quarter of 2019 but increased 8.2 and 7.4 percent, respectively, in the third and fourth quarters of 2019. In total, states paid out $404 million more in refunds in the third quarter of 2019 than in the same quarter in 2018 and paid out $499 million more in the fourth quarter of 2019 than in the fourth quarter of 2018. Overall, 29 states paid out more in refunds in the third quarter of 2019 than in the third quarter of 2018, and 22 states paid out more in refunds in the fourth quarter of 2019 than in the fourth quarter of 2018. California had the largest share of refund payouts ($2.6 billion, or 28.5 percent of total refunds) followed by New York ($2.1 billion, or 23.2 percent of total refunds) in the fourth quarter of 2019.

Declines in refund payouts in the first and second quarters of 2019 were partially caused by income tax cuts under the TCJA, which effectively reduced 2018 federal income tax obligations for average taxpayers. Shortly after the passage of the TCJA, the Internal Revenue Service published guidelines for tax withholding. However, many taxpayers didn't update their W-4 forms (employee's withholding certificate), which essentially meant larger paychecks for most taxpayers throughout the year, but it also meant less prepayment of taxes. As a result, some taxpayers saw reductions in their refunds when they filed their income tax returns for tax year 2018. Further, some states delayed processing individual income tax returns. Volatility is typical during the income tax filing season, but the TCJA has fueled uncertainty during the last tax filing season: most states saw lower estimated payments but substantial extension and final payments. Subsequently, higher refunds in the third and fourth quarters of 2019 might be derived from refunds claimed on amended or extension returns.

Actual versus Forecasted Income Tax Revenues

We collected data for states that provide actual and forecasted data of monthly personal income tax revenue. Such information was available and easily retrievable for 25 states, and the data are presented in Table 3 for the third quarter of 2019. (Personal income tax revenues presented in Table 3 are mostly for general fund revenues only; they therefore may differ from figures presented in Table A2, which are for all fund revenues).

TABLE 3

Actual versus Forecasted State Personal Income Tax Revenues

Dollar amounts in millions

State	2018 Q3 actual	2019 Q3 actual	Percent change, 2019 Q3 vs 2018 Q3	2019 Q3 forecast	2019 Q3 actual	Percentage variance, 2019 Q3 actual from forecast
Median (25 states)			***4.6***			***2.2***
Average (25 states)	***$60,178.0***	***$62,938.3***	***4.6***	***$61,868.7***	***$62,938.3***	***1.7***
Arizona	1,240.5	1,360.8	9.7	1,280.6	1,360.8	6.3
Arkansas	737.1	774.4	5.1	758.5	774.4	2.1
California	19,591.1	20,429.3	4.3	20,334.5	20,429.3	0.5
Colorado	1,876.6	1,948.8	3.8	1,972.7	1,948.8	(1.2)
Idaho	338.0	357.7	5.8	357.6	357.7	0.0
Illinois	4,727.9	4,997.0	5.7	4,855.8	4,997.0	2.9
Indiana	1,427.8	1,436.3	0.6	1,383.3	1,436.3	3.8
Kansas	795.4	830.5	4.4	805.0	830.5	3.2
Maine	414.8	446.5	7.7	430.1	446.5	3.8
Massachusetts	3,765.0	3,938.0	4.6	3,910.0	3,938.0	0.7
Minnesota	2,753.0	2,917.0	6.0	2,672.0	2,917.0	9.2
Mississippi	463.0	482.8	4.3	442.7	482.8	9.1
Montana	316.4	355.2	12.3	327.6	355.2	8.4
Nebraska	615.9	655.7	6.5	641.8	655.7	2.2
New Mexico	394.1	409.7	4.0	389.0	409.7	5.3
New York	10,670.7	11,071.6	3.8	10,912.0	11,071.6	1.5
North Dakota	89.2	97.5	9.3	88.0	97.5	10.8
Ohio	2,212.6	2,282.1	3.1	2,263.3	2,282.1	0.8
Oklahoma	561.3	667.6	18.9	648.2	667.6	3.0
Pennsylvania	2,988.8	3,124.7	4.5	3,074.5	3,124.7	1.6
Rhode Island	333.1	347.2	4.2	345.9	347.2	0.4
South Carolina	1,355.4	1,448.7	6.9	1,419.1	1,448.7	2.1
Vermont	190.1	204.7	7.7	197.2	204.7	3.8
West Virginia	502.3	503.6	0.2	525.1	503.6	(4.1)
Wisconsin	1,817.8	1,850.8	1.8	1,834.1	1,850.8	0.9

Source: Individual state data, analysis by the author.

Actual personal income tax collections in the third quarter of 2019 were higher than in the same quarter in 2018 in all 25 states, with an average growth of 4.6 percent. Growth in personal income tax collections in the third quarter of 2019 was substantially weaker than growth observed in the second

quarter of 2019, which was unusually high. As noted in the previous *State Tax and Economic Review* quarterly report, we viewed the surge in personal income collections in the second quarter of 2019 as a one-time event caused by some taxpayers postponing filing taxes as they were learning about how filing works under the new federal rules. Growth in personal income tax collections were back to more normal levels in the third quarter of 2019, although we may see further fluctuations in the coming months as taxpayers who filed for extensions file their taxes and because several states adjusted their tax codes and some states cut income tax rates. Thus, although annual and quarterly income tax revenues are largely driven by the economy, the timing, especially after changes in policy, can vary.

Personal income tax collections grew more than 5 percent in the third quarter of 2019 in 12 of 25 states for which we have detailed data, with a median growth of 4.6 percent. The largest growth in terms of dollar amounts were in California and New York, where income tax collections grew by $0.8 billion and $0.4 billion, respectively, in the third quarter of 2019 compared with the same quarter of 2018.

In 23 states, actual personal income tax collections in the third quarter of 2019 were above the forecasts, with an average underestimate of 1.7 percent and a median underestimate of 2.2 percent. Some states prepared revenue forecasts for the third quarter of 2019 before the surge in income tax collections in April 2019; others updated revenue forecasts after April 2019. Ultimately, most states underestimated personal income tax revenues, but forecast errors were not as dramatic as observed in the prior three quarters. Although state revenue forecasters in most states factored in taxpayers' behavioral responses to the federal tax policy changes, they warned that forecasts were subject to higher-than-usual margins of error. State revenue forecasters continue facing large uncertainties because of continued trade tensions, stock market volatility, the slowing of the global economy, and other factors.

Corporate Income Taxes

State corporate income tax revenue is highly volatile because corporate profits and the timing of tax payments can vary and shift across quarters. Further, most states collect a small share of state revenues from corporate taxes and can therefore experience large fluctuations in percentage terms of corporate income taxes with little overall budgetary impact. Average quarterly year-over-year growth rates in state corporate income tax collections were 4.6 percent in nominal terms and 2.9 percent in real terms since 2010 (Table A1).

State corporate income tax revenue saw steep declines during the Great Recession and is finally approaching the levels observed before the Great Recession, driven by the strong growth observed in the post-TCJA period. Corporate income tax receipts grew by double digits in the third quarter of 2019, marking the sixth consecutive quarter of double-digit growth. Corporate income tax revenues increased 11.7 percent in nominal terms and 9.8 percent in inflation-adjusted terms in the third quarter of 2019 compared with a year earlier. However, the strong growth observed in the past year is likely temporary and attributable to the TCJA, which created an incentive for corporations to shift profits from tax year 2017 into tax years 2018 and beyond because of the law's lower federal corporate tax rates.

Despite overall growth, large disparities exist among states and regions. Corporate income tax collections increased in all regions except the Southwest and New England, where collections declined 12.8 and 0.2 percent, respectively. The Far West region saw the largest growth at 21.0 percent, followed by the Great Lakes region at 19.3 percent.

Overall, corporate income tax collections declined in 14 states but increased in 31 states in the third quarter of 2019, with 18 states reporting double-digit year-over-year growth.

The volatility in corporate income tax collections is related to the TCJA, which included the most significant structural changes to the federal corporate income tax since 1986. Therefore, many corporate taxpayers are still assessing the new rules, and it is unclear how taxpayer behavior will evolve.

Immediately after the passage of the TCJA, state corporate income tax collections saw strong year-over-year increases, particularly in the states where tax bases conform to federal tax law but not rates. The strong corporate income revenue performance in recent months is also driven by the one-time taxation of deemed repatriated foreign corporate earnings. The TCJA provisions included a one-time tax on profits held overseas at a special low tax rate that raised revenue and freed corporations to repatriate income back to the United States parent firm.

State corporate income tax revenues are expected to fluctuate further in the coming months because of the passage of the TCJA, which reduced the federal corporate income tax rate from 35 percent to 21 percent and substantially modified the corporate income tax base. The TCJA also eliminated the corporate alternative minimum tax. With all these changes, states are anticipating that some pass-through businesses will find it beneficial to restructure as C corporations and take advantage of lower corporate income tax rates. However, some businesses may not restructure if they

worry that future Congresses might raise tax rates. State revenue forecasters may not fully understand how businesses are responding to the TCJA for a long time.

Despite the strong growth in corporate income tax collections throughout state fiscal year 2019 and the first half of fiscal year 2020, states are forecasting lower corporate income tax collections for the rest of fiscal year 2020, mostly because of higher costs for business inputs and a weaker global economy. Moreover, data from Bureau of Economic Analysis indicate substantial weakness in business investment,[9] which will likely lead to declines in corporate income tax revenue collections.

General Sales Taxes

General state sales tax collections grew 7.1 percent in nominal terms and 5.3 percent in real terms in the third quarter of 2019 compared with the same period in 2018. Sales tax collections have grown continuously since the first quarter of 2010 in nominal terms, and growth generally has been steady if unspectacular.

Sales tax collections increased in all regions in the third quarter of 2019. The Far West and New England regions reported the strongest growth at 17.8 and 8.1 percent, respectively; the Great Lakes region reported the weakest growth at 3.2 percent. The strong growth in the Far West region was attributable to California and is mostly a timing issue related to a new information technology system under which sales tax payments made at the end of the month are not validated until the next month. In June 2019, a major delay in sales tax processing led to the recognition of nearly a billion dollars being pushed to July 2019, causing large declines in the second quarter of 2019 revenues and a corresponding increase for the third quarter of 2019. If we exclude California, sales tax collections for the rest of the nation show weaker growth, at 4.7 percent.

All states but Louisiana reported increases in sales tax collections in the third quarter of 2019. Twenty-five states reported growth of over 5 percent. The decline in Louisiana is partially attributable to ripple effects from legislative changes; Louisiana decreased its state sales tax rate from 5.0 percent to 4.45 percent effective July 1, 2018.[10]

The recovery in sales tax collections was slow following the Great Recession. Since 2010, the average quarterly year-over-year growth rate in state sales tax collections was 4.1 percent in nominal terms and 2.3 percent in real terms. The prior weak annual growth rates in sales tax collections are partially attributable to tax dollars lost by online retail sellers not collecting sales tax on some or all sales. Similarly, recent gains are largely attributable to the expansion of the sales tax base in several

states and to states' efforts to capture tax revenues from a larger share of online sales following the *Wayfair* decision.

On June 21, 2018, the US Supreme Court ruled in favor of South Dakota in *South Dakota v. Wayfair*,[11] which ultimately gives states the authority to require out-of-state sellers with at least a specified amount of sales within the state to collect sales taxes and transfer the revenues to state governments. Since the Supreme Court's *Wayfair* ruling, 43 of 45 states with general sales taxes have enacted laws or regulations to require sales tax collections by remote sellers. The remaining two states, Florida and Missouri, have proposed legislation, and it is only a matter of time before these new laws are enacted. As of February 2020, 42 states are already enforcing sales tax collections on sales by remote sellers. Louisiana still needs to determine the effective date for its legislation. States have set different sales and volume thresholds for the internet sales taxation. Moreover, a few states have updated their legislation to revise the threshold levels. In 23 states, the threshold is set at sales of more than $100,000 or over 200 transactions, and in 10 states the threshold is set at sales of more than $100,000 regardless of the number of transactions. The remaining 10 states have other threshold levels. In four states, the threshold level is much higher, at $500,000 or above (Table A6). Finally, 39 states have also enacted laws or regulations requiring marketplace facilitators (entities that are not direct sellers but that make it easier for buyers and sellers to transact, such as Amazon Marketplace) to collect sales taxes on behalf of their sellers. Other states will likely follow suit.

Implementing online sales taxation by states does not address if and how local jurisdictions that operate independently and have independent taxing authority will be able to collect sales taxes from remote sellers. However, some states (e.g., Alabama and Texas) have either passed or are debating regulations for creating a "single local use tax rate" that remote sellers can use to calculate the local tax due instead of applying local sales taxes for the specific jurisdiction in which a sale is made.

Growth in sales tax collections was boosted in the past year, mostly for two reasons. First, states' responses to the US Supreme Court's *Wayfair* decision certainly improved compliance with online sales taxation rules and likely boosted sales tax collections from remote sellers. Second, the TCJA effectively reduced the income tax for many taxpayers and thus put money into consumer pockets, which was likely injected into the economy in the form of taxable spending.

However, several reasons suggest the growth in sales tax revenue will level off. As a growing number of baby boomers retire, they will likely have less disposable income to spend. Second, many services and goods (e.g., digital goods such as streaming music and digital subscriptions) remain untaxed despite their growing popularity and growing share of consumption. Thus, states would have to expand their sales tax bases to capture this activity. Third, the Great Recession tightened consumers' wallets,

and many Americans have been saving at higher levels in the expansion period. In 2019, personal savings as a share of disposable personal income was 8.0 percent, which is substantially higher than the saving rates observed in the late 1990s and early 2000s.[12] The higher savings rate, although beneficial for individuals, means lower current demand. These factors make the longer-term sales tax revenue outlook less promising.

Motor Fuel Taxes

State motor fuel sales taxes grew 5.8 percent in the third quarter of 2019, which is substantially stronger than the growth rates observed during the first half of 2019.

Motor fuel sales tax collections have fluctuated since the Great Recession. Average quarterly year-over-year growth in state motor fuel tax collections was 3.9 percent in nominal terms and 2.2 percent in real terms since 2010. Economic growth, changing fuel prices, general increases in fuel efficiency, and changing driving habits all affect gasoline consumption and motor fuel taxes. Changes in state motor fuel rates also affect tax collections.

Growth rates from the third quarter of 2018 to the third quarter of 2019 varied widely across the states and the regions. The largest growth was in the Great Lakes region at 11.0 percent; the weakest growth was in the Rocky Mountain region at 1.6 percent. The strong growth in the Great Lakes region is mostly attributable to Illinois and Ohio; both states have raised their motor fuel tax rates. Illinois doubled its motor fuel tax rate from 19 cents a gallon to 38 cents a gallon, effective July 1, 2019.[13] Ohio increased its gasoline tax rate from 28 cents a gallon to 38.5 cents a gallon and increased the diesel and all other fuel tax rate from 28 cents a gallon to 47 cents a gallon.[14]

Seven states reported declines in motor fuel sales tax collections in the third quarter of 2019; nine states reported double-digit growth. Vermont had the strongest growth at 65.5 percent followed by Illinois at 37.4 percent in the third quarter of 2019 compared with the same quarter in 2019.

Other Taxes

Census Bureau quarterly data on state tax collections provide detailed information for some of the smaller revenue sources, including state property taxes, tobacco products 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 2019, states collected $54.4 billion from all the smaller tax sources, which constituted 21.1 percent of total state tax collections.

Compared with major tax sources, revenues from smaller taxes have been growing at a slower pace since the Great Recession. The average quarterly year-over-year growth rate in state tax revenues from smaller sources was 2.1 percent in real terms since 2010.

Year-over-year growth for four-quarter moving averages in inflation-adjusted revenues from smaller tax sources was 2.2 percent in the third quarter of 2019. State property taxes, which represent a small portion of overall state tax revenues, grew 2.6 percent. Tax revenues from motor vehicle and operators' licenses increased 4.4 percent, and tax revenue from alcoholic beverage sales increased 1.4 percent. Revenue from tobacco product sales decreased 5.9 percent, marking the fourth consecutive quarter of decline. Finally, revenues from all other smaller tax sources increased 2.9 percent in the third quarter of 2019 compared with a year earlier.

Preliminary Review of State Tax Revenue in 2019 Quarter 4

Preliminary data collected from 46 states for the October-December quarter of 2019 (Table A8) show continued but normalized growth rates in overall state tax collections as well as in personal income tax collections.

Overall state tax collections grew 6.8 percent in the fourth quarter of 2019 compared with the same quarter in 2018. Growth in the median state was somewhat weaker, at 5.9 percent. Total state tax collections increased in 40 states, with six states reporting double-digit growth. Despite solid growth in overall state tax collections in the fourth quarter of 2019, some signs indicate possible weakness ahead. California's Legislative Analyst's Office created a State Fiscal Health Index based on 10 key data points to track the strength of economic conditions relevant to the state's fiscal health. According to the most recent report, the index has been declining since April 2019. Analysts from the office write that "declines of this duration and magnitude have not been observed since the last recession."[15] Officials in California warn that the state fiscal outlook faces more risks despite the mixed picture of economic data.

After wild swings since the passage of TCJA, growth in personal income tax revenues has largely normalized in the second half of 2019. Personal income tax collections increased 6.3 percent in the

fourth quarter of 2019 compared with a year earlier. Growth in the median state was weaker, at 5.4 percent. Twenty-one states reported growth of over 5 percent; four states reported declines.

State sales tax collections showed growth of 5.5 percent in the fourth quarter of 2019 compared with the same quarter in 2018; growth in the median state was slightly weaker at 5.0 percent. Thirty-nine states reported growth in sales tax collections, with 21 states reporting growth of over 5 percent. Only three states reported declines.

Finally, corporate income tax revenues grew 19.6 percent in the fourth quarter of 2019, marking the seventh consecutive quarter of double-digit growth. Growth in the median state was weaker, at 12.9 percent. Growth varied substantially across the states. Twenty-eight states reported growth in corporate income tax collections, with 24 states reporting double-digit growth in the fourth quarter of 2019 compared with the same quarter in 2018. Corporate income tax collections declined in 11 states. Despite the overall strong growth observed in corporate income tax collections, large growth rates observed in the post-TCJA period are likely to subside in part because of the weakness in business investments and also because of the waning impact of the TCJA, which created incentives for corporations to shift profits from 2017 into 2018 because of lower corporate tax rates. Many corporations likely tried to recognize additional income during the 2018 tax year, artificially boosting corporate income tax revenues. Further, corporate tax bases have likely been broadened in some states because of the federal tax overhaul, which included a one-time tax on profits held overseas. Some corporations therefore may have recognized more of their global income streams in the US because they did not face additional federal taxes, but then had to pay the applicable state taxes on these recognized foreign profits. However, revenue forecasters in some states are concerned that some companies might file amended returns and seek back some state tax revenues if, for example, it is determined that repatriated earnings should not be subject to state taxes.

Factors Driving State Tax Revenues

State revenues vary across place and time because of three underlying forces: state-level changes in the economy (which often differ from national trends), 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 taxes 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.

State Gross Domestic Product

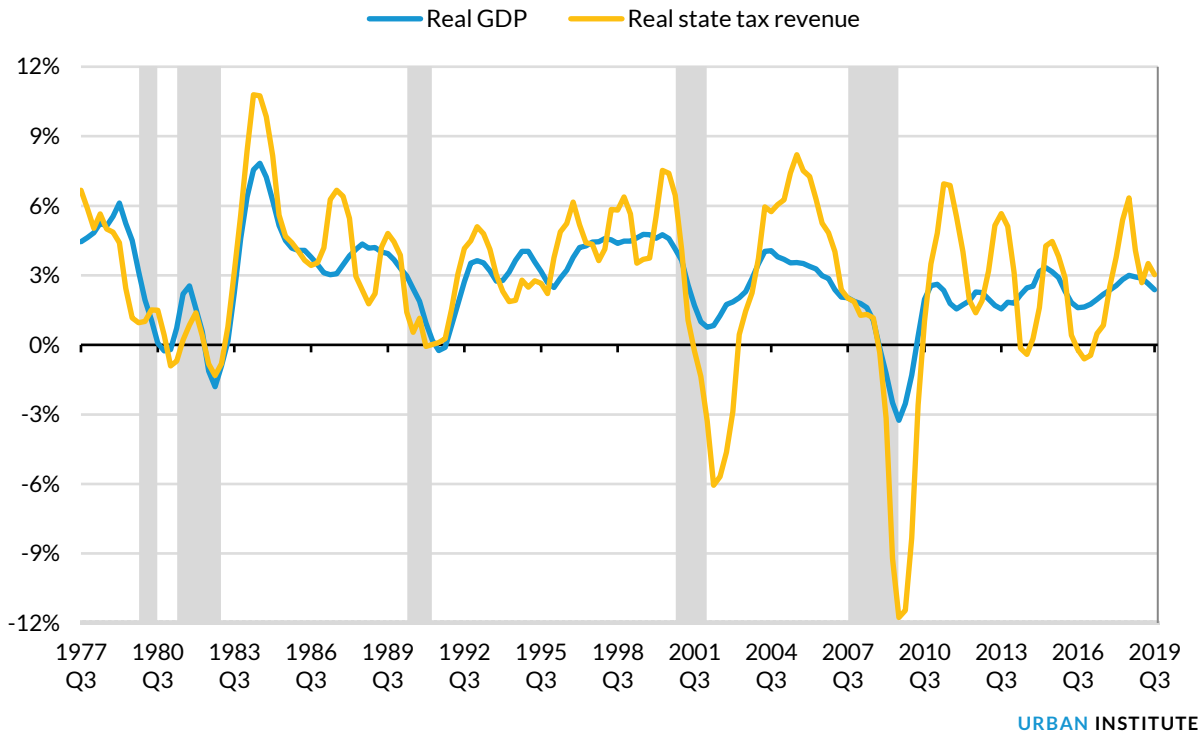
When the economy booms, tax revenues tend to rise rapidly, and when it declines, they tend to decline, though these changes have different patterns and timing. Figure 5 shows year-over-year growth for four-quarter moving averages in real state tax revenue and gross domestic product (GDP). We present moving averages to smooth short-term fluctuations and illustrate the interplay between the economy and state revenues. As shown in Figure 5, real GDP showed uninterrupted growth since the second quarter of 2010. By contrast, real state tax revenues showed declines in 2014, 2016, and early 2017 and stronger growth than GDP for most of 2018 and 2019. These differences are largely related to changes in state tax rates and, as noted, changes in federal policy. Real GDP growth weakened in the third quarter of 2019 compared with the second quarter of 2019. Growth in real state tax revenues was also weaker in the third quarter of 2019 than in the previous quarter and substantially weaker than the growth rates observed throughout 2018.

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 very progressive and very dependent on volatile income sources such as stock options and capital gains.

FIGURE 5

State Tax Revenue Is More Volatile Than the Economy

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



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

States vary substantially in terms of the correlation between growth rates in real state tax revenues and state GDP. Figure 6 shows growth for each state for four-quarter moving averages in real state tax revenue and in real state GDP in the third quarter of 2019 compared with the same quarter in 2018. By this measure, real state tax revenues increased in 45 states, and real state GDP increased in all states. (Alaska is an outlier state and is excluded from Figure 6 to better display the overall relationship). The change in real state tax revenues ranged from negative 8.7 percent in Alaska to 12.7 percent in Wyoming; the change in real state GDP ranged from 0.3 percent in Nebraska to 4.4 percent in Texas. In the third quarter of 2019, growth in real state tax revenues was lower than the national average of 3.0 percent in 25 states, and growth in real state GDP was lower than the national average of 2.4 percent in 31 states.

New Mexico, Oklahoma, and Wyoming had the strongest growth in real state tax revenues; all three states are highly dependent on severance taxes. The steep oil price declines throughout 2015 and early 2016 led to substantial declines in severance tax collections in these states and depressed states' overall economic activity, leading to prior weakness in overall state tax collections (Dadayan and Boyd

2016). The more recent strong growth in overall state tax collections in these states largely reflects revenue bouncing back from depressed levels in previous years.

FIGURE 6

Growth Disparity: State Tax Revenues versus State GDP

Year-over-year change in real state taxes and real GDP, 2019 quarter 3 versus 2018 quarter 3

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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 are for US averages. Alaska is excluded from the figure.

State Unemployment and Employment

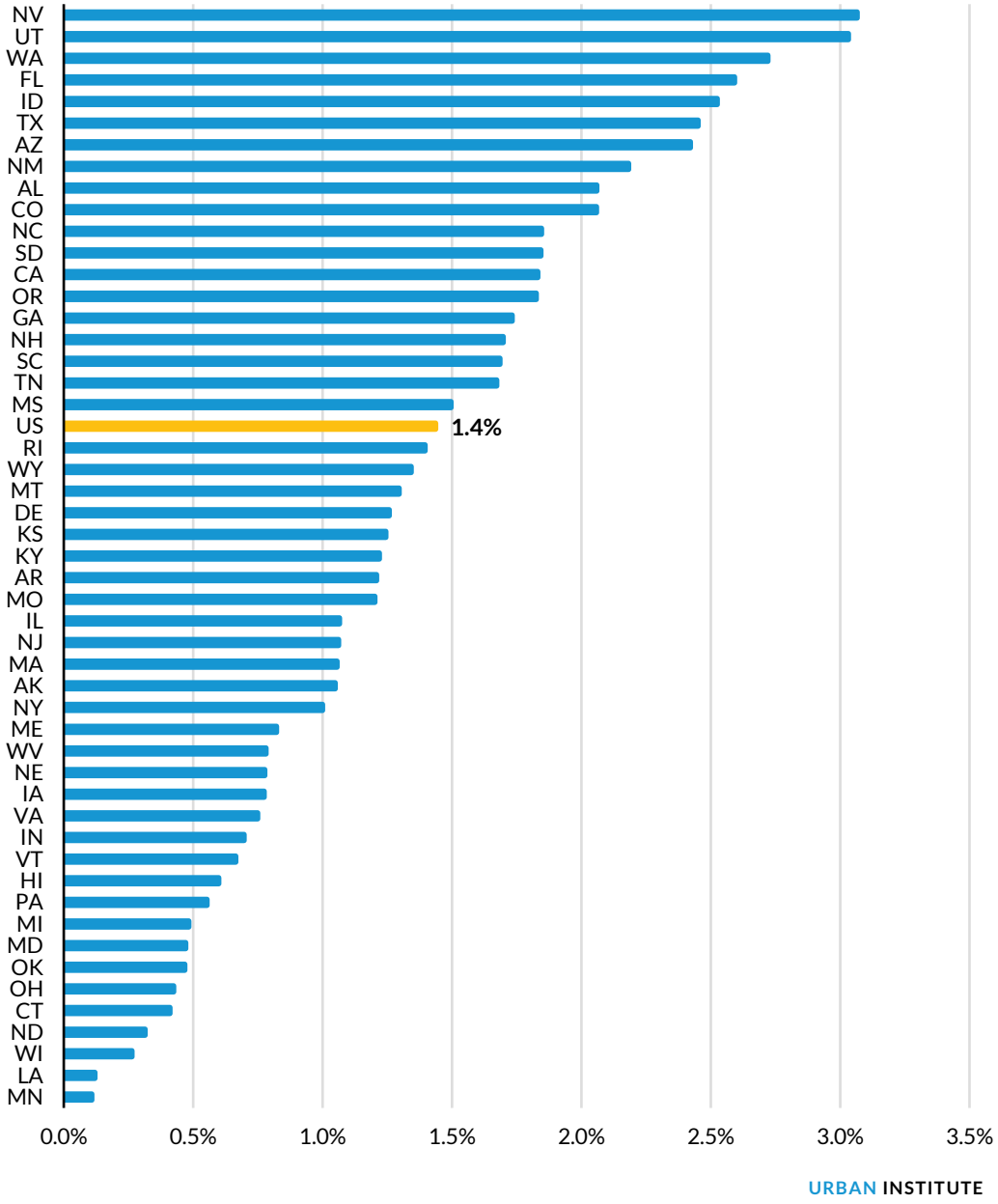
The national unemployment rate climbed to 9.9 percent in the fourth quarter of 2009, which was the highest rate observed since 1982. The unemployment rate has seen nearly uninterrupted decline since then and was 3.6 percent in the third quarter of 2019. According to preliminary figures released by the US Bureau of Labor Statistics, the unemployment rate declined further and was 3.5 percent in the fourth quarter of 2019, which is a 50-year low.[16] Unemployment rates ranged from 2.1 percent in Vermont to 6.2 percent in Alaska in the third quarter of 2019. Although low unemployment rates are generally good for the economy, the decline in the unemployment rate since 2011 has been driven by both improved job prospects for those seeking employment (which is good for state revenues) as well as by a decline in labor force participation as the population ages and baby boomers retire (which tends to

lower state revenues). Note, however, that since 2015, the labor force participation rate has gradually increased. Further, the unemployment rate excludes involuntary part-time workers (those who would prefer full-time work) as well as people who have stopped looking for a job but wanted and were available for work.[17]

FIGURE 7

Growth in Employment for the Third Quarter of 2019, by State

Year-over-year change in seasonally-adjusted employment, 2019 quarter 3 versus 2018 quarter 3



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

Nationwide employment grew 1.4 percent in the third quarter of 2019 compared with the same quarter in 2018 (Figure 7). Employment growth was weaker than the national average in 31 states, but all states reported growth on a year-over-year basis. Employment growth ranged from less than 0.2 percent in Louisiana and Minnesota to 3.1 percent in Nevada in the third quarter of 2019. Overall employment growth has slowed in recent months, which is likely a sign of a slowdown in hiring as well as tighter labor markets.

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 sales taxes. Figure 8 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 state real sales tax collections. We also show trends in the consumption of energy goods and services.

Spending on services and nondurable goods weakened in the third quarter of 2019, while spending on durable goods increased slightly in the third quarter of 2019 compared with the growth rates observed in the prior quarter. Moreover, current growth rates in both nondurable goods and services are weaker than growth rates observed before the Great Recession. Current growth rates in state sales tax revenues are also substantially weaker than prerecession peaks, although growth in sales tax revenues improved after the *Wayfair* decision as states started requiring remote sellers to collect and remit sales and use tax.

American consumers spend substantially more on services (70 percent) than on goods, and spending on services as a share of total personal consumption has grown steadily throughout the past four decades. Although some states have expanded sales tax bases to include some services, many services are still not subject to sales tax. And then there are states like Arizona and Missouri, both of which banned taxing services.

Growth in the consumption of durable goods, an important element of state sales tax bases, has been relatively volatile in recent years. Annual growth in durable goods spending was at or above 2.0 percent throughout 2017 and 2018. However, it weakened substantially throughout 2019 and was below 1.4 percent in the first three quarters of 2019 (as measured by the year-over-year percentage change in the four-quarter moving average of inflation-adjusted spending on goods).

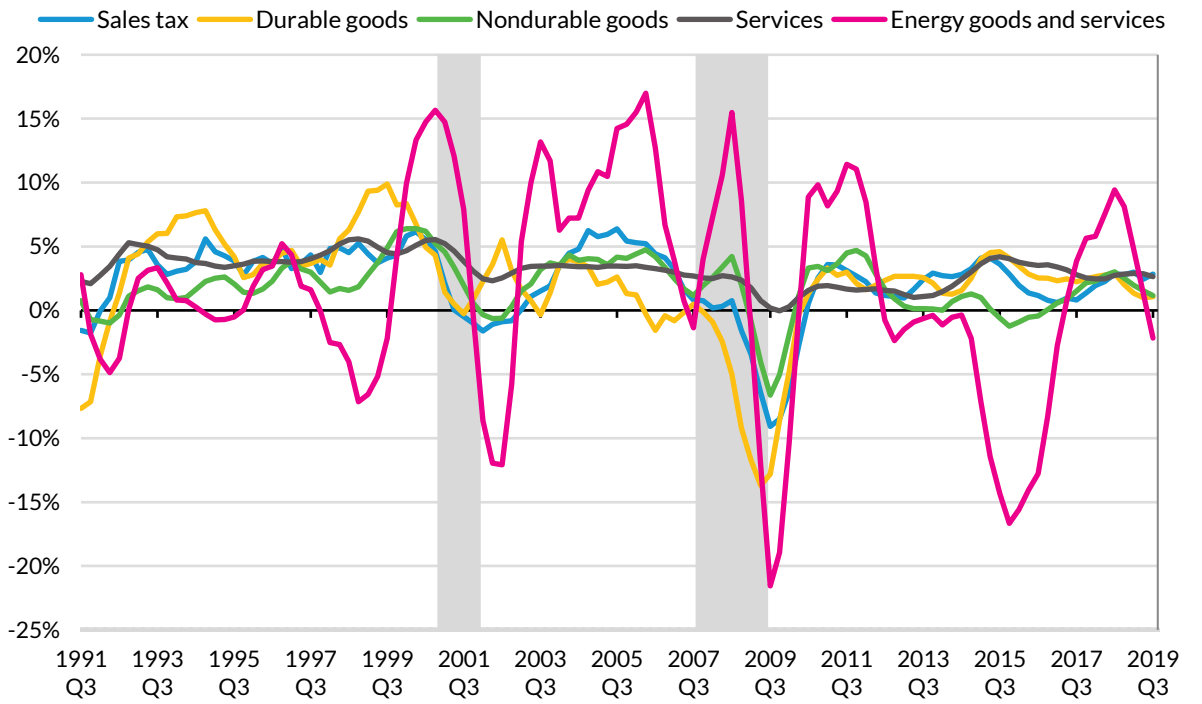
Nondurable consumption spending declined between the third quarter of 2015 and third quarter of 2016 but has increased since then. Nondurable goods were largely affected by the declines in the consumption of gasoline and other energy goods, the latter of which represents over 20 percent of nondurable goods consumption. Growth in nondurable goods also weakened substantially in 2019 and the growth rate from year-before levels was at or below 2.0 percent in the first three quarters of 2019.

As shown in Figure 8, spending on energy goods and services declined for 19 consecutive quarters, between the third quarter of 2012 and the first quarter of 2017. The decline was particularly dramatic throughout 2015 and 2016 in response to steep declines in oil and gas prices. The decline in total spending in the energy sector led to declines in general sales tax revenues, which are based on prices as well as quantity consumed. Energy goods and services have been recovering since the second quarter of 2017 and showed strong growth through the first quarter of 2019, largely bouncing back from previously depressed levels. However, growth in energy goods and services weakened substantially in the second quarter of 2019 and declined in third quarter of 2019.

FIGURE 8

Declines in Energy Goods and Services

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



Sources: US Census Bureau (sales taxes) and Bureau of Economic Analysis (NIPA table 2.3.5), analysis by the author.
Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation.

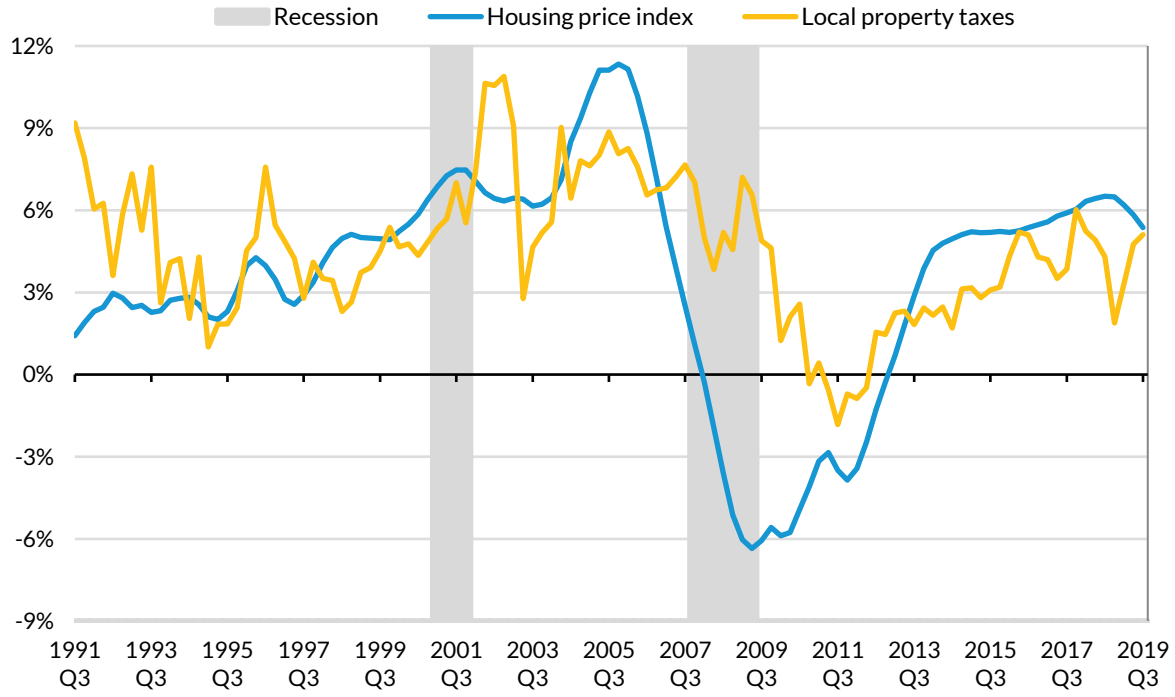
Housing Market

House prices are an important determinant of local property taxes, though property tax changes often lag property price changes. Assessment lags and assessment caps can affect how quickly house price changes translate into property tax revenues, but 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 9

Continued Growth in House Prices; Slowing Growth in Local Property Taxes

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



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Sources: US Census Bureau (property taxes) and Federal Housing Finance Agency (house price indexes), analysis by the author.
Notes: Year-over-year change is the percentage change of four-quarter moving averages.

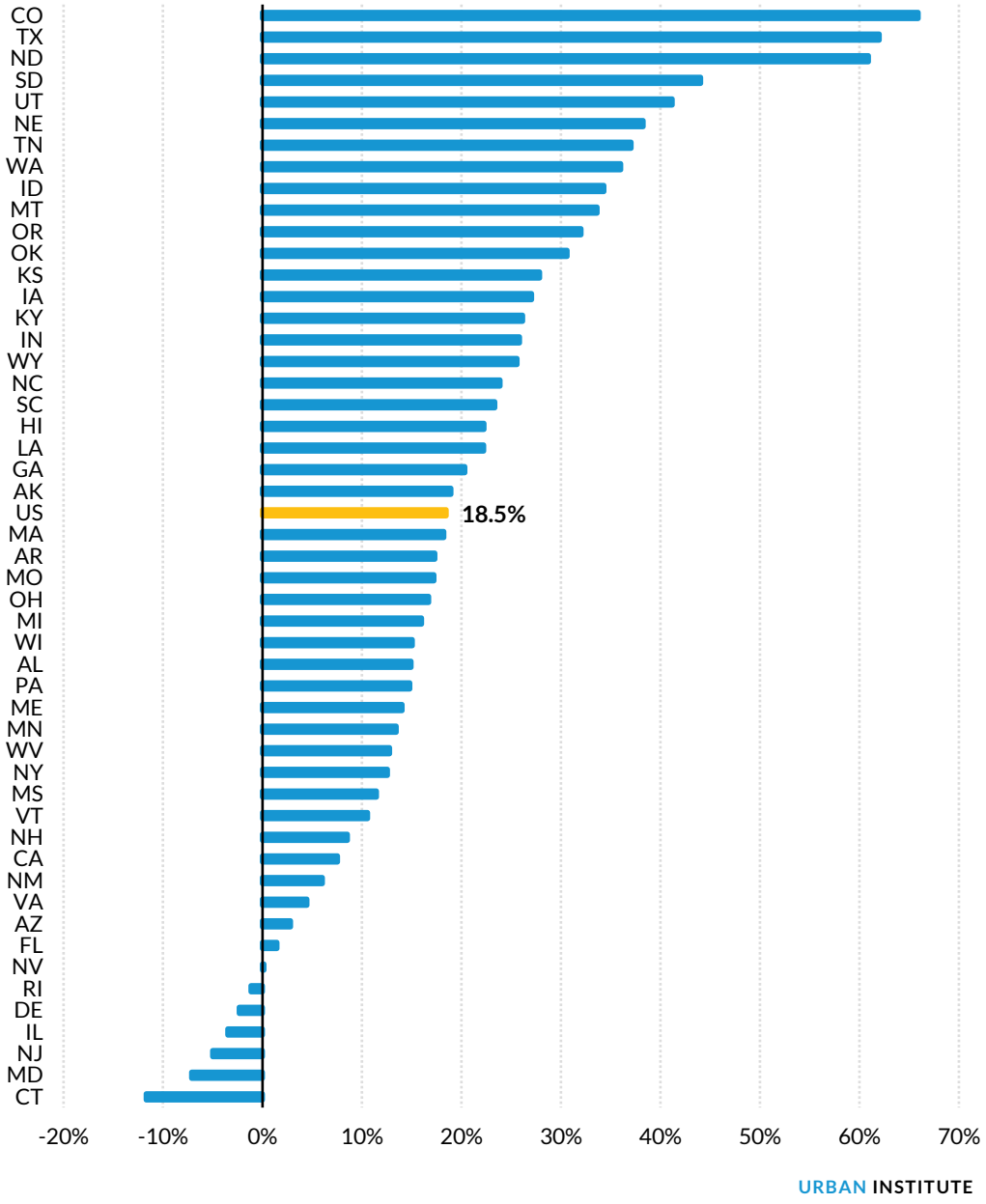
Figure 9 shows year-over-year percentage changes in the four-quarter moving average of the house price index and local property taxes in nominal terms. House prices saw steep declines during the Great Recession, which led to a significant slowdown in local property tax growth and to an actual decline in property tax revenues during state fiscal years 2011 and 2012.[18] Growth in the house price index began weakening in mid-2005, and the price index actually declined between the first quarter of 2008 and the fourth quarter of 2012, though patterns varied across states and regions. The trend in the house price index and local property taxes has been generally upward over the past seven years. National average house prices appreciated 5.4 percent in the third quarter of 2019 from one year

earlier, while local property taxes grew 5.1 percent during the same period. However, nationwide growth rates in house prices were weaker in the first three quarters of 2019 compared with the growth observed throughout 2018.

FIGURE 10

Growth in House Price Indexes Since the Prerecession Peak

Percent change in house prices from pre-recession peak level, 2019 quarter 3 versus 2007 quarter 1



Source: Federal Housing Finance Agency (house price indexes), analysis by the author.

Statewide house price indexes increased in all states in the third quarter of 2019 (compared with a year earlier), ranging from a 2.6 percent increase in Hawaii to 10.5 percent in Idaho. Growth in 25 states was below the national average of 4.6 percent.

Despite continuous and strong nationwide growth in the housing market, prices are still below their prerecession peaks in some states. Figure 10 shows the state-by-state nominal percentage change in house price indexes at the end of the third quarter of 2019 compared with the first quarter of 2007, when house prices were at their peaks.

National average house prices grew 18.5 percent in nominal terms between the first quarter of 2007 and the third quarter of 2019. However, house price movements varied substantially across the states. House prices are above their prerecession peaks in 44 states in the third quarter of 2019 but are still lower in 6 states (in nominal terms). The three hardest-hit states, Connecticut, Maryland, and New Jersey, all still have average house prices 5.0 percent or more below their prerecession peaks. Connecticut house prices are still on average 11.7 percent below their peak. On the other hand, statewide house price indexes increased by double digits in 37 states over this period. In 22 states, growth in statewide average house prices was over 20 percent, with Colorado, Texas, and North Dakota having the highest growth rates at 65.9, 62.0, and 60.9 percent, respectively.

Many states have raised concerns about tight housing supply and rising demand. In 2007, before the fall in house prices, the 30-year fixed-rate mortgage averaged around 6.3 percent. Mortgage rates have declined substantially since then, and 30-year fixed-rate mortgages currently are averaging around 3.7 percent.[19] The low mortgage interest rate, widely available financing options, and stronger labor market forces have raised the demand for housing, which in turn will continue to push house prices higher. The growth in house prices will eventually pose a risk to affordability unless housing quantities increase.

The Federal Reserve cut short-term interest rates in July 2019, which was the first cut in more than a decade. Since then, the Federal Reserve cut rates twice more. Cutting interest rates at a time when the economy is expanding is unusual. However, many economists believe that the interest rate cut is a strategic move to help prevent the US economy from entering a recession despite concerns of a possible trade war with traditional allies and China as well as increasing global economic uncertainty.

Tax Law Changes Affecting the Third Quarter of 2019

Anticipated and actual federal policy changes had a substantial impact on state tax revenues in the most recent quarters. But changes in state tax laws also affect state tax revenue trends. Many states enacted tax changes for fiscal year 2020, partly responding to federal policy changes and partly reflecting policy preferences. Also, most states enacted tax changes in response to Supreme Court's *Wayfair* decision, which is expected to increase state sales tax revenues. We present analysis here based on the data and information retrieved from the National Association of State Budget Officers' Fall 2019 Fiscal Survey of the States. During the third quarter of 2019, enacted tax increases and decreases produced an estimated gain of $1.4 billion compared with the same period in 2018.[20] Overall, tax changes were expected to decrease personal income taxes by $40 million, increase corporate income taxes by $133 million, increase sales taxes by $251 million, and increase motor fuel taxes by $219 million in the third quarter of 2019 compared with a year earlier. Further, states enacted tax changes in other taxes and fees, which were expected to increase state tax and fee revenues by approximately $853 million (National Associaton of State Budget Officers 2019). Below, we discuss some of the major enacted tax changes for fiscal year 2020.

The estimated impact of enacted tax changes is a net increase of $8.1 billion in state revenues in fiscal year 2020. By comparison, legislated tax actions in fiscal year 2019 were less substantial, with an estimated net revenue increase of $3.3 billion. California and New York enacted the most substantial changes, with an estimated net increase of $1.8 billion and $1.0 billion, respectively, in fiscal year 2020. Legislated changes were also substantial in Connecticut and Illinois, with an estimated net increase of over $900 million in each.

Four states enacted personal income tax increases, while 13 states enacted decreases for fiscal year 2020. Legislated tax changes are estimated to increase aggregate personal income tax revenues by $310 million in fiscal year 2020. The largest estimated increase is in California, where conformity to federal tax reform and expansion of earned income tax credits are estimated to lead to a $0.7 billion increase in personal income tax collections in fiscal year 2020.[21] In New York, Governor Cuomo extended the "temporary" millionaire tax through 2024 (Office of New York Governor Andrew M. Cuomo 2019). The millionaire tax was first enacted in 2009, in response to the financial crisis caused by the Great Recession. However, New York also lowered income tax rates for middle-class taxpayers. The net impact of these changes is estimated to lead to a $0.6 billion increase in personal income tax collections in fiscal year 2020. Officials in Ohio enacted a 4 percent across-the-board personal income tax cut (among other changes), which is expected to reduce personal income tax collections by $364 million in fiscal year 2020 (Ohio Legislative Service Commission 2019). Officials in Oregon slightly

reduced personal income tax rates, which is estimated to reduce personal income tax revenues by $175 million in fiscal year 2020 (Oregon Legislative Revenue Office 2019). Lawmakers in Wisconsin also reduced personal income tax rates by cutting the rates for the two lowest income tax brackets from 4.00 percent to 3.86 percent and from 5.21 percent to 5.04 percent.[22] These tax rate reductions are estimated to decrease personal income tax collections by $167 million in fiscal year 2020. Finally, lawmakers in Minnesota enacted several changes to its personal income tax system, including conforming to federal tax reform and a reduction in the personal income tax rate for the second-tier tax bracket (Minnesota Department of Fiscal Analysis 2019). These changes are estimated to reduce personal income tax collections by $171 million in fiscal year 2020.

Seven states enacted corporate income tax increases; another 7 states enacted decreases. Legislated tax changes were estimated to increase aggregate corporate income tax revenues by $1.3 billion in fiscal year 2020. The largest corporate income tax change is in Oregon, where Governor Brown signed into law a new corporate tax activity tax that applies to all entities (i.e., individuals, partnerships, corporations, and others) with taxable commercial activity. The new tax is estimated to increase corporate income tax revenue collections by $799 million in fiscal year 2020 (Oregon Legislative Revenue Office 2019). Legislated changes related to conformity to federal tax reform are expected to increase corporate income tax revenues by $229 million in California and by $170 million in Minnesota in fiscal year 2020. The Governor of New Mexico more than doubled the annual cap on rebate payments for film and televisions productions,[23] which is estimated to decrease corporate income tax revenues collections by $110 million in fiscal year 2020.

The National Association of State Budget Officers' Fall 2019 Fiscal Survey of the States reports sales tax changes in the wake of the Supreme Court's *Wayfair* decision related to state laws requiring remote sellers to collect and remit sales and use tax. To date, 43 of 45 states with a sales tax base have enacted economic nexus laws to collect sales and use taxes from remote sellers (Table A6). A few states, such as Massachusetts, Ohio, Pennsylvania, and Rhode Island, had adopted internet sales tax laws before the *Wayfair* ruling on June 21, 2018, and have since updated the laws or provided additional guidance for remote sellers. Florida and Missouri still have not enacted laws, but both states have proposed legislation on collecting sales and use tax from remote sellers. Legislated changes related to expansion of the sales tax base in response to the *Wayfair* decision are expected to increase state sales tax revenues by $1.3 billion in fiscal year 2020. The largest increases are expected in states with the largest populations, such as California, New York, and Texas. Officials in California are estimating that online and remote sales tax collections will produce an additional $616 million in fiscal year 2020.[24]

Apart from legislated changes related to the *Wayfair* decision, 7 states enacted sales tax increases, and 10 states enacted decreases. Legislated tax changes are estimated to increase sales tax revenues by $325 million in fiscal year 2020. The most significant legislative changes were in Connecticut and New Mexico. Lawmakers in Connecticut expanded the sales and use tax base and repealed several sales tax exemptions,[25] and these changes are estimated to increase sales tax revenues by $145 million in fiscal year 2020. Officials in New Mexico enacted policy changes that include the repealing of hospital credits and subjecting hospitals to a gross receipts tax.[26] These changes are estimated to increase New Mexico's sales tax revenue collections by $125 million in fiscal year 2020.

Four states enacted motor fuel tax increases, with an estimated overall increase of $939 million in fiscal year 2020. The largest increase was in Ohio, where lawmakers increased the gasoline tax rate from 28 cents a gallon to 38.5 cents a gallon and increased diesel and all other fuel tax rate from 28 cents a gallon to 47 cents a gallon effective July 1, 2019.[27] These rate increases are estimated to increase motor fuel tax revenues by $865 million in fiscal year 2020.

Fourteen states enacted changes for taxes on cigarettes, alcohol, and gaming, with an estimated overall increase of $139 million in fiscal year 2020. The estimated impact of each state's changes is not significant except in Illinois, where Governor Pritzker raised the tax on video gaming terminals from 30 percent to 33 percent for fiscal year 2020,[28] which is expected to increase gaming tax revenues by $89 million in fiscal year 2020.

Over half of the states also enacted several changes for some other taxes and fees, with an estimated overall increase of $3.8 billion in fiscal year 2020. These changes are estimated to increase state revenues in 19 states but decrease in 8 states. The largest estimated increases are in California and Illinois, mostly because of the managed care organization (MCO) tax. In California, officials urged extending the MCO tax that was set to expire on July 1, 2019.[29] Governor Newsom approved the bill to renew the MCO tax retroactively, subject to approval from the federal government.[30] The MCO tax, if approved by the federal government, would have increased state tax revenues by an estimated $915 million in fiscal year 2020. However, the federal government rejected California's MCO tax on January 30, 2020.[31] Officials in California continue the discussions with the federal government, in the hopes of reaching an agreement on the MCO tax. Similarly, officials in Illinois also proposed a tax on MCOs, which would have increased state revenues by an estimated $500 million in fiscal year 2020, subject to approval by the federal government.[32]

Conclusion

State and local government tax revenues have fluctuated substantially in the recent past, mostly driven by taxpayers anticipating and then reacting to federal tax changes. The SALT deduction cap under the TCJA affected the timing and flow of state tax receipts across fiscal years, creating substantial challenges for forecasting tax revenues and making budgetary decisions. It led to windfall income tax revenues in the final quarter of 2017 and first half of 2018, helping states end fiscal year 2018 on a positive note. Income tax revenues continued to fluctuate substantially throughout state fiscal year 2019, dropping steeply in December 2018 and January 2019 but soaring in April 2019. The volatility in personal income tax collections throughout state fiscal year 2019 again was caused by the TCJA because it led taxpayers to change the timing of income tax payments. The surge in April 2019 personal income tax collections largely made up for earlier shortfalls in most states and put revenues back on track for most states to close their budget books for fiscal year 2019 without shortfalls. State tax revenues continued to grow in the first half of fiscal year 2020. However, growth has been less robust, mostly because of the waning impact of the TCJA. Moreover, growth in sales tax revenues has not materialized as substantially as states had hoped from the *Wayfair* decision, mostly indicating that the implementation, administration, and collection of tax revenues from online sales is complex and that some online sellers had already been collecting these taxes. It will take some time until state administrators as well as online sellers and marketplace facilitators figure out the specifics of online sales taxation.

States continue to face large fiscal uncertainties, particularly because of the unclear longer-term impact of federal tax policy changes and other actions on state economies and budgets. State revenue forecasters across the nation are still unsure how subsequent rounds of individual and business taxpayer responses will play out in the coming months and years.

We are now in the longest economic expansion on record. However, both economic and revenue growth in the current expansion has been substantially weaker than in previous expansions. And although most states continue to see economic and revenue growth, the boom years appear to be in the past. State officials are currently preparing and negotiating budget proposals for fiscal year 2021, and forecasters are projecting revenue growth to temper substantially. Although the usual economic indicators are not signaling an economic downturn on the horizon, states continue to worry about the political uncertainty, trade policy uncertainties, weakening global growth, muted inflation, and the possibility of a new global epidemic. Our analysis of longer-term trends indicates that some economic factors, such as house prices or spending on durable and nondurable goods, seem to have weakened in recent months. But it is hard to say when the next recession may occur and how severe it might be.

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				
2010 Q1–2019 Q2	PIT	CIT	Sales	MFT	Total	rate	PIT	CIT	Sales	MFT	Total
average growth	*6.1*	*4.6*	*4.1*	*3.9*	*4.8*	*1.7*	*4.4*	*2.9*	*2.3*	*2.2*	*3.0*
2019 Q3	4.3	11.7	7.1	5.8	5.6	1.7	2.5	9.8	5.3	4.0	3.8
2019 Q2	18.8	21.0	2.5	2.6	10.6	1.8	16.7	18.9	0.7	0.8	8.7
2019 Q1	(2.4)	41.2	5.6	1.4	2.8	2.0	(4.3)	38.5	3.6	(0.6)	0.8
2018 Q4	(9.2)	12.0	4.5	5.8	(0.2)	2.3	(11.3)	9.4	2.2	3.5	(2.4)
2018 Q3	7.8	26.4	6.3	8.8	8.7	2.5	5.2	23.3	3.7	6.1	6.0
2018 Q2	10.3	17.2	5.3	8.7	8.9	2.6	7.5	14.2	2.6	5.9	6.1
2018 Q1	14.9	(6.8)	5.0	10.9	8.8	2.1	12.5	(8.7)	2.8	8.6	6.5
2017 Q4	14.6	10.2	4.5	9.7	9.0	2.0	12.3	8.0	2.4	7.5	6.9
2017 Q3	4.3	6.2	3.1	2.0	3.8	1.9	2.4	4.2	1.2	0.0	1.9
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	(2.6)	1.7	1.2	1.2	1.5	(1.2)	(4.1)	0.2	(0.3)	(0.3)
2016 Q3	2.4	(8.9)	2.7	1.3	1.3	0.9	1.5	(9.7)	1.7	0.4	0.3
2016 Q2	(2.8)	(9.7)	1.2	0.3	(1.7)	0.9	(3.7)	(10.5)	0.3	(0.6)	(2.5)
2016 Q1	1.7	(5.9)	1.9	2.9	1.4	0.8	0.8	(6.7)	1.1	2.1	0.6
2015 Q4	5.1	(9.9)	2.7	3.5	2.3	0.9	4.2	(10.7)	1.8	2.6	1.4
2015 Q3	6.5	0.2	3.5	5.0	4.1	1.0	5.5	(0.8)	2.5	4.0	3.1
2015 Q2	13.9	6.0	3.6	2.5	7.1	1.1	12.7	4.9	2.5	1.4	5.9
2015 Q1	7.0	3.3	5.8	4.3	5.5	1.1	5.8	2.2	4.6	3.2	4.3
2014 Q4	8.4	9.8	6.5	2.4	5.7	1.5	6.8	8.2	5.0	0.9	4.1
2014 Q3	4.4	7.4	6.6	0.6	4.3	2.0	2.4	5.3	4.5	(1.3)	2.2
2014 Q2	(6.6)	(0.3)	4.6	4.0	(0.9)	2.1	(8.5)	(2.4)	2.5	1.9	(3.0)
2014 Q1	(1.3)	7.9	3.0	2.8	0.5	1.8	(3.0)	5.9	1.2	1.0	(1.3)
2013 Q4	1.1	3.7	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	17.1	6.6	2.8	0.3	8.1
2013 Q1	18.2	9.6	3.9	(1.6)	8.9	1.9	16.0	7.6	2.0	(3.4)	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	8.7	2.3	2.2	3.1	1.8	2.9	6.7	0.5	0.4	1.3
2012 Q2	4.7	1.6	2.1	1.7	3.2	1.7	2.9	(0.2)	0.4	(0.1)	1.4
2012 Q1	4.1	4.3	4.6	1.3	3.7	2.1	2.0	2.1	2.5	(0.8)	1.7
2011 Q4	3.7	(6.3)	3.5	0.7	3.2	2.0	1.7	(8.1)	1.5	(1.2)	1.2
2011 Q3	9.7	2.6	3.7	(0.3)	6.1	2.4	7.2	0.2	1.3	(2.6)	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	13.3	10.0	1.9	10.1	2.5	4.4	11.2	8.0
2010 Q4	10.5	19.7	4.8	11.8	8.4	1.6	8.8	17.8	3.2	10.1	6.7
2010 Q3	4.8	(1.0)	4.5	10.6	5.4	1.4	3.4	(2.3)	3.1	9.1	3.9
2010 Q2	2.1	(19.4)	4.8	4.0	2.6	1.1	1.0	(20.3)	3.7	2.9	1.5
2010 Q1	2.4	0.8	0.6	(0.1)	2.9	0.6	1.9	0.3	0.0	(0.7)	2.3
2009 Q4	(5.0)	(2.0)	(4.3)	(1.5)	(3.1)	0.4	(5.3)	(2.4)	(4.7)	(1.9)	(3.5)
2009 Q3	(11.4)	(20.9)	(9.8)	2.6	(10.5)	0.3	(11.6)	(21.1)	(10.0)	2.3	(10.7)
2009 Q2	(27.4)	0.9	(8.8)	(1.5)	(16.2)	1.0	(28.1)	(0.1)	(9.7)	(2.4)	(17.1)
2009 Q1	(16.7)	(20.1)	(8.0)	(3.6)	(10.9)	1.5	(17.9)	(21.3)	(9.3)	(5.0)	(12.2)
2008 Q4	(0.6)	(20.1)	(5.5)	(5.0)	(3.4)	1.9	(2.4)	(21.5)	(7.3)	(6.8)	(5.2)
2008 Q3	1.3	(12.1)	3.2	(5.3)	2.5	2.1	(0.7)	(13.9)	1.1	(7.2)	0.4

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

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

TABLE A2

Quarterly State Government Tax Revenue, by State

Nominal percentage change, 2019 quarter 3 versus 2018 quarter 3

State / Region	PIT	CIT	Sales	MFT	Total
US (median)	***4.7***	***6.1***	***5.6***	***2.2***	***4.6***
US (average)	***4.3***	***11.7***	***7.1***	***5.8***	***5.6***
New England	**2.0**	**(0.2)**	**8.1**	**3.7**	**3.4**
Connecticut	(9.5)	33.8	20.3	2.6	3.5
Maine	7.5	(5.9)	5.6	3.1	5.5
Massachusetts	4.5	(7.9)	4.8	(0.7)	3.2
New Hampshire	10.2	(18.2)	N/A	0.3	(6.2)
Rhode Island	4.1	(5.3)	7.0	2.2	5.3
Vermont	9.0	(20.3)	8.2	65.5	8.6
Mideast	**4.8**	**7.7**	**4.7**	**4.4**	**4.2**
Delaware	7.4	45.3	N/A	5.9	8.0
Maryland	11.4	1.1	4.7	33.3	3.6
New Jersey	3.8	11.1	8.3	3.8	5.6
New York	3.8	8.5	6.4	(1.4)	4.4
Pennsylvania	5.4	3.2	0.6	2.5	2.7
Great Lakes	**3.4**	**19.3**	**3.2**	**11.0**	**4.4**
Illinois	5.9	10.7	1.9	37.4	3.8
Indiana	2.6	12.1	4.6	2.1	3.8
Michigan	1.7	33.3	0.6	2.2	2.3
Ohio	3.1	NM	5.8	9.3	7.7
Wisconsin	1.9	38.8	5.4	2.9	6.2
Plains	**3.9**	**5.2**	**6.9**	**7.4**	**4.5**
Iowa	(3.0)	5.9	8.1	25.1	4.7
Kansas	4.4	6.1	2.4	6.2	2.5
Minnesota	6.0	0.2	8.2	4.5	6.0
Missouri	2.8	26.6	6.1	1.1	4.3
Nebraska	6.4	26.2	7.0	6.5	7.8
North Dakota	9.7	(39.3)	14.6	0.5	(1.2)
South Dakota	N/A	16.7	3.1	(2.4)	2.0
Southeast	**3.8**	**14.6**	**3.9**	**4.2**	**4.1**
Alabama	2.5	37.0	0.5	0.7	4.5
Arkansas	5.1	2.8	1.4	2.2	1.8
Florida	N/A	24.2	3.3	4.4	3.9
Georgia	(0.5)	0.8	1.5	(0.7)	(0.4)
Kentucky	1.6	(10.5)	7.8	2.2	1.5
Louisiana	12.5	265.5	(4.4)	12.7	6.8
Mississippi	(0.7)	2.9	2.9	(0.4)	2.2
North Carolina	2.2	(17.9)	8.3	1.9	3.9
South Carolina	6.9	3.8	7.5	10.4	6.3
Tennessee	NM	27.4	5.3	5.7	7.0
Virginia	7.2	8.5	7.2	16.8	8.2
West Virginia	0.2	6.8	0.9	2.2	1.9
Southwest	**7.1**	**(12.8)**	**4.5**	**3.0**	**3.9**
Arizona	9.7	9.5	4.8	2.2	5.2
New Mexico	4.0	(122.4)	6.2	2.2	2.0
Oklahoma	4.8	17.2	8.0	13.5	6.9
Texas	N/A	N/A	4.0	1.7	3.2
Rocky Mountain	**5.9**	**12.6**	**5.5**	**1.6**	**6.1**
Colorado	3.8	49.5	4.0	4.4	6.9
Idaho	5.8	(9.5)	8.9	2.2	5.4

State / Region	PIT	CIT	Sales	MFT	Total
Montana	12.3	(4.2)	N/A	0.9	6.2
Utah	7.9	(30.9)	4.3	(1.8)	4.3
Wyoming	N/A	N/A	7.4	(1.3)	8.9
Far West	**5.0**	**21.0**	**17.8**	**7.5**	**10.3**
Alaska	N/A	(54.8)	N/A	22.2	(35.7)
California	4.3	28.4	24.4	9.8	11.2
Hawaii	13.8	33.4	4.9	0.9	8.0
Nevada	N/A	N/A	7.0	3.5	7.5
Oregon	9.0	(9.5)	N/A	2.2	5.9
Washington	N/A	N/A	7.3	0.3	11.4

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

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

TABLE A3

State Personal Income Tax Withholding

Year-over-year nominal percentage change

State / Region	Calendar year 2018				Calendar year 2019			
	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4
US (median)	***5.5***	***5.8***	***6.7***	***6.5***	***2.7***	***5.3***	***5.0***	***4.1***
US (average)	***8.9***	***7.4***	***6.2***	***6.7***	***1.2***	***5.2***	***4.4***	***4.7***
New England	**5.8**	**6.6**	**4.0**	**6.6**	**5.7**	**3.2**	**4.7**	**2.8**
Connecticut	6.2	4.5	8.8	9.4	6.4	7.3	5.5	2.8
Maine	5.2	8.7	4.9	8.5	3.6	5.3	10.0	2.0
Massachusetts	5.2	7.5	2.2	5.1	6.0	1.5	4.1	3.1
Rhode Island	3.9	6.0	(0.3)	5.4	3.9	1.2	3.8	2.0
Vermont	21.4	4.2	5.3	9.4	1.9	1.5	0.6	(0.3)
Mideast	**8.1**	**4.8**	**4.1**	**3.3**	**0.5**	**5.0**	**5.1**	**4.6**
Delaware	5.9	2.3	6.3	4.8	3.2	7.9	6.2	0.9
Maryland	4.6	5.5	3.0	4.9	0.9	4.0	6.7	5.5
New Jersey	7.0	5.0	3.0	3.9	4.8	4.5	6.2	3.2
New York	10.3	4.6	5.1	2.2	(1.5)	5.5	5.0	4.8
Pennsylvania	4.3	4.5	3.0	4.4	3.7	5.1	2.4	4.1
Great Lakes	**14.5**	**13.1**	**8.3**	**4.4**	**1.6**	**5.3**	**4.0**	**4.1**
Illinois	36.6	37.3	13.8	6.1	2.7	5.1	4.2	3.2
Indiana	11.1	9.6	7.0	2.9	(2.8)	8.7	1.4	4.8
Michigan	2.1	1.1	4.6	2.9	(2.5)	5.2	7.6	6.0
Ohio	4.9	5.1	5.5	5.9	2.3	3.5	2.5	1.9
Wisconsin	4.6	3.5	6.4	2.4	7.7	4.7	3.0	5.4
Plains	**6.4**	**6.8**	**4.8**	**4.8**	**0.4**	**2.8**	**3.4**	**3.3**
Iowa	4.8	11.0	6.6	10.8	(0.6)	(4.1)	(3.5)	(3.9)
Kansas	19.2	23.6	14.4	7.9	3.7	7.6	2.8	6.4
Minnesota	6.0	4.4	6.7	6.5	2.1	5.7	5.1	2.8
Missouri	3.2	1.3	(5.4)	(4.3)	(3.6)	(2.2)	6.0	6.4
Nebraska	5.5	5.9	9.6	6.8	(0.2)	8.2	2.1	6.5
North Dakota	0.8	13.3	12.4	12.2	13.3	5.5	10.2	3.7
Southeast	**5.1**	**6.1**	**6.3**	**7.4**	**(0.4)**	**3.1**	**2.1**	**1.8**
Alabama	5.5	8.6	11.3	7.6	3.9	8.3	1.7	5.4
Arkansas	3.8	4.1	5.7	5.4	1.3	8.2	1.9	5.7
Georgia	4.7	2.8	7.4	4.7	(4.0)	0.1	(2.4)	(2.3)
Kentucky	2.5	3.5	(2.5)	(0.8)	(2.4)	(4.0)	2.1	2.0
Louisiana	(0.9)	15.5	21.7	21.5	(2.8)	6.3	9.9	(4.7)
Mississippi	2.2	3.8	7.0	1.7	(0.4)	2.5	(1.0)	3.5
North Carolina	7.3	5.8	7.5	10.4	(1.6)	0.9	(1.0)	(0.2)
South Carolina	5.8	2.5	5.7	6.5	4.9	7.2	6.6	4.9
Virginia	6.5	9.0	1.1	7.7	1.2	4.5	5.8	5.8
West Virginia	4.5	9.1	15.9	9.9	6.6	6.8	(0.4)	1.1
Southwest	**8.0**	**8.2**	**8.1**	**6.5**	**3.8**	**9.8**	**7.3**	**6.8**
Arizona	7.3	4.9	9.1	6.6	2.3	8.4	7.1	8.7
New Mexico	9.9	28.9	4.8	2.4	3.5	20.1	13.2	ND
Oklahoma	8.2	5.3	8.0	8.3	6.0	7.0	5.0	4.3
Rocky Mountain	**6.2**	**10.0**	**6.7**	**5.6**	**4.6**	**2.8**	**6.1**	**5.8**
Colorado	8.5	6.7	9.6	10.0	5.6	7.2	6.1	3.5
Idaho	8.8	7.7	(16.2)	(20.4)	(19.9)	(17.5)	3.2	9.7
Montana	5.0	5.9	6.8	10.6	3.1	5.6	7.6	4.2
Utah	0.8	18.4	12.4	9.2	15.5	3.3	6.5	9.0
Far West	**11.3**	**7.2**	**7.7**	**12.0**	**0.9**	**8.4**	**5.3**	**8.3**
California	12.2	6.8	7.4	12.3	0.2	9.4	5.1	8.2
Hawaii	(11.6)	31.3	10.3	5.1	17.8	(14.1)	4.1	ND
Oregon	9.5	4.6	9.1	11.0	3.3	7.9	7.0	9.0

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. ND = no data.

TABLE A4

State Personal Income Tax Estimated Payments/Declarations

Year-over-year nominal percentage change

	Calendar year 2018				Calendar year 2019		
State	April 2018, 1st payment	June 2018, 2nd payment	Sep. 2018, 3rd payment	Dec. 2018-Jan. 2019, 4th payment	April 2019, 1st payment	June 2019, 2nd payment	Sep. 2019, 3rd payment
Median	***12.6***	***9.3***	***9.6***	***(41.1)***	***18.0***	***10.4***	***11.1***
Average	***9.3***	***17.2***	***18.2***	***(41.1)***	***35.7***	**1.3**	**0.4**
Alabama	42.5	7.2	23.9	(42.5)	30.1	11.5	12.7
Arizona	8.3	11.8	14.9	(58.3)	(25.1)	13.4	13.3
Arkansas	3.9	3.3	1.9	(36.8)	(3.2)	3.1	14.3
California	13.2	20.9	33.5	(22.6)	7.6	(3.6)	(14.2)
Colorado	(7.1)	13.3	11.3	(47.5)	62.9	(0.5)	1.7
Connecticut	14.0	36.8	8.7	(71.5)	(18.3)	(31.1)	(15.9)
Delaware	12.2	(4.2)	(1.8)	(32.3)	11.2	12.3	15.0
Georgia	13.5	6.9	6.1	(58.1)	2.8	6.1	4.3
Hawaii	71.8	(19.5)	6.5	(33.5)	138.6	22.9	48.1
Illinois	46.6	41.7	29.3	(42.8)	19.7	12.3	8.9
Indiana	41.3	5.6	7.8	(33.6)	19.2	10.0	8.8
Iowa	(0.0)	(6.2)	(4.6)	(48.1)	9.4	7.3	15.7
Kansas	186.7	162.0	80.6	(54.0)	12.4	13.3	19.0
Kentucky	8.0	10.3	4.6	(43.9)	4.6	(0.7)	(1.0)
Louisiana	34.5	7.0	5.7	(39.8)	17.7	20.9	20.3
Maine	6.8	(11.7)	2.3	(18.0)	18.3	15.6	6.2
Maryland	36.5	5.5	11.2	(32.7)	(1.0)	19.9	20.7
Massachusetts	17.0	14.9	16.5	(49.8)	7.6	0.3	3.4
Michigan	23.2	9.9	12.3	(43.3)	9.9	5.5	3.8
Minnesota	(0.3)	9.4	5.8	(52.2)	71.0	9.3	9.3
Mississippi	(42.2)	(7.0)	2.6	(28.0)	97.8	20.1	11.0
Missouri	(5.5)	2.5	13.8	NM	135.6	(68.7)	(74.7)
Montana	7.8	16.2	2.1	(36.1)	27.6	(0.8)	17.2
Nebraska	6.1	7.9	6.2	(35.6)	20.6	10.1	11.3
New Jersey	7.5	20.2	23.3	(32.5)	10.4	7.1	5.0
New York	4.5	15.9	15.2	(54.5)	57.1	7.5	2.8
North Carolina	30.7	1.0	2.7	(44.4)	15.1	13.2	11.8
North Dakota	12.5	11.3	7.4	(43.5)	40.6	12.7	16.0
Ohio	39.5	36.7	18.7	(43.3)	8.1	12.9	16.0
Oklahoma	14.5	9.2	9.9	(29.4)	31.6	3.6	(2.0)
Oregon	6.6	7.9	13.2	(46.9)	53.5	11.5	12.9
Pennsylvania	16.4	9.7	14.8	(33.2)	13.9	13.0	11.1
Rhode Island	14.5	(1.6)	12.8	(37.8)	5.3	10.6	9.9
South Carolina	(65.3)	1.8	5.3	(35.4)	157.4	18.2	11.1
Vermont	12.7	14.8	14.9	(25.5)	20.1	14.9	18.7
Virginia	28.3	16.3	8.8	(37.0)	30.3	13.7	20.5
West Virginia	9.7	4.3	10.0	(22.7)	(9.9)	10.0	5.2
Wisconsin	4.8	12.5	9.2	(42.8)	51.9	0.9	2.7

Source: Individual state data, analysis by the author.

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

TABLE A5

State Personal Income Tax Final Payments

Year-over-year nominal percentage change

	Calendar year 2018				Calendar year 2019			
State	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2	2019 Q3	2019 Q4
Median	***11.2***	***5.5***	***7.9***	***8.3***	***11.2***	***37.0***	***18.3***	***23.8***
Average	***15.2***	***8.4***	***12.8***	***(1.5)***	**18.5**	**39.0**	**21.1**	**20.4**
Alabama	13.3	2.9	20.7	3.1	(2.2)	40.7	18.3	28.4
Arizona	8.3	5.0	12.7	27.8	28.4	52.5	45.9	19.7
Arkansas	11.3	(1.8)	3.9	8.3	142.4	33.5	17.7	24.0
California	11.2	11.0	15.7	13.9	21.4	29.4	33.9	26.5
Colorado	46.2	9.9	12.0	7.1	0.7	26.5	4.0	9.1
Connecticut	15.2	9.7	2.6	(37.8)	(45.0)	(4.4)	(15.3)	(21.8)
Delaware	7.7	8.1	(11.6)	16.8	33.6	35.5	13.0	50.5
Georgia	11.8	(0.2)	32.2	15.8	22.0	51.6	46.9	40.9
Hawaii	14.6	21.1	25.0	(6.2)	33.8	22.1	4.5	ND
Idaho	52.1	(4.0)	7.7	(45.5)	(48.7)	55.2	22.0	13.3
Illinois	29.8	53.0	53.7	25.5	25.8	52.8	25.7	41.3
Indiana	0.2	3.4	(1.4)	18.0	12.2	33.9	11.1	15.2
Iowa	2.1	(8.6)	16.3	30.3	(2.9)	65.6	26.8	77.8
Kansas	(17.3)	99.1	18.7	63.7	12.9	50.2	7.8	27.0
Kentucky	4.6	4.6	1.2	14.3	27.7	18.5	27.8	2.6
Louisiana	(1.3)	3.1	1.5	6.8	7.3	48.3	32.0	32.3
Maine	(5.9)	0.9	4.1	5.9	(2.9)	31.0	19.4	0.1
Maryland	12.3	1.6	7.5	6.2	21.1	49.7	24.7	24.4
Massachusetts	33.1	8.3	11.7	14.6	11.0	53.8	(2.3)	2.4
Michigan	16.3	9.9	21.2	19.1	(5.3)	46.4	6.6	13.3
Minnesota	17.3	4.1	7.1	(1.9)	3.1	28.4	17.3	24.7
Missouri	1.8	4.3	7.2	101.3	352.3	52.1	186.7	(55.0)
Montana	(2.2)	10.9	0.8	2.8	17.4	28.5	38.4	19.7
Nebraska	(2.3)	5.5	17.9	(4.9)	5.6	37.0	77.3	23.8
New Jersey	32.0	2.7	(21.7)	(42.8)	(13.4)	49.3	18.8	40.2
New Mexico	4.1	14.4	54.0	(47.2)	209.2	(43.6)	(2.8)	ND
New York	25.2	4.2	20.5	19.6	15.4	38.3	15.9	18.9
North Carolina	8.3	0.9	1.7	(10.2)	2.8	41.5	15.5	21.6
North Dakota	4.7	15.6	(9.1)	5.3	14.6	26.1	0.0	10.0
Ohio	(0.0)	20.5	51.5	45.6	25.2	52.5	30.8	13.0
Oklahoma	5.7	11.1	13.5	16.6	12.0	20.9	25.7	28.5
Pennsylvania	14.6	(1.0)	50.2	19.3	8.0	32.4	32.5	25.0
Rhode Island	50.1	14.7	6.4	20.4	11.2	31.4	30.2	29.2
South Carolina	15.7	18.4	7.9	14.1	10.0	25.6	12.8	45.8
Utah	9.6	(7.1)	5.6	(71.6)	36.5	59.4	23.6	15.4
Vermont	15.3	31.5	(2.3)	13.2	9.9	23.6	18.2	14.1
Virginia	110.2	6.6	77.6	(120.2)	(16.6)	62.5	(55.1)	(63.7)
West Virginia	(6.4)	0.5	20.7	(1.0)	(7.2)	39.0	10.0	32.0
Wisconsin	(16.1)	6.9	2.0	(11.1)	(23.1)	29.7	13.5	25.7

Source: Individual state data, analysis by the author.

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

TABLE A6

States with Economic Nexus and Marketplace Laws

Economic Nexus threshold levels and effective dates

State	Current threshold levels for economic nexus	Economic nexus effective date	Marketplace nexus effective date
Alabama	>$250,000	10/1/2018	1/1/2019
Arizona	> $150,000 in CY 2020, >$100,000 in CY 2021	10/1/2019	10/1/2019
Arkansas	>$100,000 or over 200 transactions	7/1/2019	7/1/2019
California	>$500,000	4/1/2019	10/1/2019
Colorado	>$100,000	6/1/2019	10/1/2019
Connecticut	>$100,000 and over 200 transactions	12/1/2018	12/1/2018
Georgia	>$100,000 or over 200 transactions	1/1/2019	
Hawaii	>$100,000 or over 200 transactions	7/1/2018	1/1/2020
Idaho	>$100,000	6/1/2019	6/1/2019
Illinois	>$100,000 or over 200 transactions	10/1/2018	1/1/2020
Indiana	>$100,000 or over 200 transactions	10/1/2018	7/1/2019
Iowa	>$100,000	1/1/2019	1/1/2019
Kansas	TBD	10/1/2019	10/1/2019
Kentucky	>$100,000 or over 200 transactions	10/1/2018	7/1/2019
Louisiana	>$100,000 or over 200 transactions	TBD	
Maine	>$100,000 or over 200 transactions	7/1/2018	10/1/2019
Maryland	>$100,000 or over 200 transactions	10/1/2018	10/1/2019
Massachusetts	>$100,000	10/1/2019	10/1/2019
Michigan	>$100,000 or over 200 transactions	10/1/2018	1/1/2020
Minnesota	>$100,000 or over 200 transactions	10/1/2018	10/1/2018
Mississippi	>$250,000	9/1/2018	
Nebraska	>$100,000 or over 200 transactions	1/1/2019	4/1/2019
Nevada	>$100,000 or over 200 transactions	10/1/2018	10/1/2019
New Jersey	>$100,000 or over 200 transactions	11/1/2018	11/1/2018
New Mexico	>$100,000	7/1/2019	7/1/2019
New York	>$500,000 and over 100 transactions	6/21/2018	6/1/2019
North Carolina	>$100,000 or over 200 transactions	11/1/2018	2/1/2020
North Dakota	>$100,000	10/1/2018	10/1/2019
Ohio	>$100,000 or over 200 transactions	8/1/2019	9/1/2019
Oklahoma	>$100,000	7/1/2018	7/1/2018
Pennsylvania	>$100,000	7/1/2019	7/1/2019
Rhode Island	>$100,000 or over 200 transactions	7/1/2019	7/1/2019
South Carolina	>$100,000	11/1/2018	11/1/2018
South Dakota	>$100,000 or over 200 transactions	11/1/2018	3/1/2019
Tennessee	>$500,000	10/1/2019	
Texas	>$500,000	10/1/2019	10/1/2019
Utah	>$100,000 or over 200 transactions	1/1/2019	10/1/2019
Vermont	>$100,000 or over 200 transactions	7/1/2018	6/1/2019
Virginia	>$100,000 or over 200 transactions	7/1/2019	7/1/2019
Washington	>$100,000	10/1/2018	10/1/2018
West Virginia	>$100,000 or over 200 transactions	1/1/2019	7/1/2019
Wisconsin	>$100,000 or over 200 transactions	10/1/2018	1/1/2020
Wyoming	>$100,000 or over 200 transactions	2/1/2019	7/1/2019

Source: Individual state information, compiled by the author.

Notes: CY = calendar year; TBD = to be determined. Alaska, Delaware, Montana, New Hampshire, and Oregon do not have sales tax. Florida and Missouri have not yet enacted legislations on economic nexus. States are hyperlinked to respective economic nexus guidelines.

TABLE A7

Quarterly State Government Tax Revenue for Nonmajor Tax Revenue Sources

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

2019 Q3 collections ($ millions)	Property tax	Tobacco product sales tax	Alcoholic beverage sales tax	Motor vehicle & operators' license taxes	Other taxes	Total nonmajor taxes
	$4,553	$4,776	$1,790	$8,357	$34,908	$54,384
2010Q1–2019Q3 average growth	***2.3***	***(0.2)***	***1.1***	***2.4***	***2.4***	***2.1***
2019 Q3	2.6	(5.9)	1.4	4.4	2.9	2.2
2019 Q2	8.5	(7.5)	(0.6)	4.9	4.4	3.5
2019 Q1	6.4	(5.3)	(0.4)	7.5	5.3	4.5
2018 Q4	9.0	(5.3)	(1.5)	9.2	5.5	5.0
2018 Q3	8.1	0.8	(0.0)	5.4	5.7	5.2
2018 Q2	3.6	5.2	1.3	4.6	3.8	3.9
2018 Q1	1.0	4.6	1.1	1.1	2.7	2.4
2017 Q4	(0.6)	6.1	2.9	(0.3)	1.9	1.8
2017 Q3	(1.2)	3.6	3.0	3.7	0.5	1.2
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	2.3	1.4	0.4	2.7	(1.7)	(0.4)
2016 Q3	4.9	1.2	0.7	1.0	(2.5)	(1.0)
2016 Q2	4.1	0.6	1.6	2.5	(1.8)	(0.4)
2016 Q1	5.0	1.7	2.6	2.2	(1.4)	(0.0)
2015 Q4	8.7	0.0	1.5	2.7	(1.1)	0.3
2015 Q3	6.1	(0.8)	1.3	1.6	(0.4)	0.3
2015 Q2	5.2	(2.1)	1.6	1.2	(0.7)	(0.1)
2015 Q1	4.3	(4.0)	(0.2)	1.2	(0.4)	(0.2)
2014 Q4	0.8	(4.6)	1.5	(0.7)	(1.9)	(1.7)
2014 Q3	3.2	(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	0.8	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)	(1.6)	(0.1)	0.2	2.5	1.3
2012 Q4	(4.8)	(2.6)	2.2	2.0	1.2	0.6
2012 Q3	(9.2)	(3.4)	3.4	3.1	2.1	0.9
2012 Q2	(10.6)	(2.3)	3.0	3.1	4.1	2.1
2012 Q1	(10.8)	(2.5)	0.6	2.1	7.6	4.0
2011 Q4	(11.0)	(1.9)	(0.5)	1.8	11.8	6.5
2011 Q3	(7.5)	(0.9)	0.5	0.4	12.8	7.3
2011 Q2	(3.8)	0.8	1.6	1.6	12.2	7.6
2011 Q1	2.5	2.8	3.2	3.4	10.1	7.5
2010 Q4	8.2	3.2	3.3	4.1	7.9	6.7
2010 Q3	13.4	2.3	3.1	5.7	5.1	5.5
2010 Q2	13.4	0.6	2.1	3.8	(0.9)	1.2
2010 Q1	9.9	(1.2)	0.7	1.5	(8.6)	(4.7)
2009 Q4	6.1	(1.5)	0.6	0.2	(12.6)	(7.9)
2009 Q3	(0.5)	0.4	0.1	(1.1)	(12.6)	(8.4)
2009 Q2	(2.0)	1.4	(0.0)	(0.9)	(6.2)	(4.2)
2009 Q1	(3.6)	2.7	0.5	(0.3)	3.0	1.9
2008 Q4	(2.8)	3.2	0.5	(1.1)	6.3	4.0
2008 Q3	1.8	3.5	(0.1)	(0.5)	8.1	5.6

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

TABLE A8

Preliminary Quarterly State Government Tax Revenue, by State

Nominal percentage change, 2019 quarter 4 versus 2018 quarter 4

State / Region	PIT	CIT	Sales	Total
US (median)	***5.4***	***12.9***	***5.0***	***5.9***
US (average)	***6.3***	***19.6***	***5.5***	***6.8***
New England	**1.6**	**1.6**	**3.5**	**3.1**
Connecticut	(4.2)	14.5	(1.9)	(1.8)
Maine	3.0	(33.6)	8.4	2.7
Massachusetts	4.0	10.7	5.4	6.3
New Hampshire	NM	(21.7)	N/A	(3.5)
Rhode Island	3.9	6.3	7.6	10.0
Vermont	2.4	(10.1)	6.7	(0.1)
Mideast	**5.3**	**18.8**	**5.6**	**5.7**
Delaware	4.6	(4.4)	N/A	12.1
Maryland	2.1	12.1	5.6	3.2
New Jersey	7.3	23.6	7.2	6.7
New York	5.3	24.4	5.2	6.1
Pennsylvania	5.5	7.7	4.8	4.2
Great Lakes	**3.9**	**40.8**	**3.1**	**5.6**
Illinois	6.4	23.8	1.5	4.9
Indiana	5.5	9.9	2.9	4.2
Michigan	0.7	59.1	3.9	7.1
Ohio	(0.1)	NM	3.8	4.7
Wisconsin	4.7	99.3	3.2	7.3
Plains	**6.0**	**28.7**	**5.6**	**6.7**
Iowa	2.3	93.9	10.1	7.8
Kansas	7.8	33.4	5.4	7.7
Minnesota	5.3	12.6	3.5	4.9
Missouri	8.3	15.3	0.7	5.0
Nebraska	9.1	69.4	18.4	16.5
North Dakota	(6.6)	15.2	(3.3)	8.2
South Dakota	N/A	N/A	5.4	6.0
Southeast	**3.7**	**8.3**	**4.2**	**3.8**
Alabama	8.0	8.4	2.8	8.0
Arkansas	6.6	(0.3)	5.1	4.8
Florida	N/A	(11.6)	3.4	1.8
Georgia	(0.5)	20.3	2.0	0.3
Kentucky	N/A	(3.9)	4.9	3.3
Louisiana	1.2	(58.9)	0.2	(6.2)
Mississippi	6.5	23.0	4.6	5.7
North Carolina	2.5	NM	5.8	4.0
South Carolina	6.0	NM	7.0	8.6
Tennessee	NM	30.2	4.9	6.7
Virginia	6.7	34.0	8.0	8.4
West Virginia	1.9	(6.2)	2.2	(0.9)
Southwest	**17.5**	**111.0**	**5.9**	**5.8**
Arizona	11.1	37.7	7.4	10.0
New Mexico	ND	ND	ND	ND
Oklahoma	30.2	NM	(10.1)	3.9
Texas	N/A	N/A	7.1	5.2
Rocky Mountain	**7.5**	**12.2**	**6.8**	**7.6**
Colorado	5.4	12.9	4.3	5.4
Idaho	10.7	18.2	10.0	9.6

State / Region	PIT	CIT	Sales	Total
Montana	4.9	36.4	N/A	8.5
Utah	11.9	(3.6)	9.3	9.7
Wyoming	N/A	N/A	3.6	ND
Far West	**10.8**	**23.2**	**9.6**	**13.3**
Alaska	N/A	(29.3)	N/A	(26.7)
California	10.6	25.8	11.1	12.0
Hawaii	ND	ND	ND	ND
Nevada	N/A	N/A	ND	ND
Oregon	13.1	10.7	N/A	12.4
Washington	N/A	N/A	5.0	24.8

Source: Individual state data, analysis by the author.

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

Notes

[1] The author made several adjustments for the third quarter of 2019 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.

[2] In this report, the author uses US Bureau of Economic Analysis regions as the basis of analysis.

[3] See Georgia Department of Revenue, "Employer's Tax Guide." May 2019, https://dor.georgia.gov/document/form/2019employerstaxguidepdf/download.

[4] See Iowa Department of Revenue, "IDR Announces 2019 Interest Rates, Standard Deductions, Income Tax Brackets," October 30, 2018, https://tax.iowa.gov/news-release/release-idr-announces-2019-interest-rates-standard-deductions-income-tax-brackets.

[5] See North Carolina Department of Revenue, "What's New for Tax Year 2019," https://www.ncdor.gov/taxes-forms/individual-income-tax/whats-new-tax-year-2019.

[6] See California's Legislative Analyst's Office, "November 2019 State Tax Collections," December 18, 2019, https://lao.ca.gov/LAOEconTax/Article/Detail/421.

[7] See Arizona Joint Legislative Budget Committee, "May 2019 Monthly Fiscal Highlights," https://www.azleg.gov/jlbc/mfh-may-19.pdf.

[8] Individual income tax returns are due on April 15 in 35 out 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).

[9] See US Bureau of Economic Analysis, "Section 5 – Saving and Investment, National Income and Product Accounts," https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey.

[10] See Louisiana Department of Revenue, "Revenue Information Bulletin No. 18-016," June 24, 2018, http://revenue.louisiana.gov/LawsPolicies/RIB%2018-016%20Decrease%20in%20State%20Sales%20Tax%20Rate%20to%20be%20Effective%20July%201%202018.pdf.

[11] See *South Dakota v. Wayfair*, Brief of *Amici Curiae* Law Professors and Economists in Support of Petitioner, No. 17-494, March 5, 2018, https://www.supremecourt.gov/DocketPDF/17/17-494/37603/20180305141434827_Brief%20of%20Amici%20Curiae%20Law%20Professors%20and%20Economists%20iso%20Petitioner.PDF.

[12] For more information, see Bureau of Economic Analysis, Table 2.1. Personal Income and Its Disposition, https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=2#reqid=19&step=2&isuri=1&1921=survey.

[13] See Illinois Department of Revenue, "Motor Fuel Tax Rates and Fees," https://www2.illinois.gov/rev/research/taxrates/Pages/motorfuel.aspx.

[14] See Ohio Department of Taxation, "Ohio Motor Fuel Tax Rates," https://www.tax.ohio.gov/excise/motor_fuel/tax_rates.aspx.

[15] See California's Legislative Analyst's Office, "State Fiscal Health Index: December 2019," February 5, 2020, https://lao.ca.gov/LAOEconTax/Article/Detail/432.

[16] See US Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey," accessed November 11, 2019, https://www.bls.gov/web/empsit/cpsee_e08.htm.

[17] For more information, see US Bureau of Labor Statistics, "How the Government Measures Unemployment," last modified October 8, 2015, https://www.bls.gov/cps/cps_htgm.htm#unemployed.

[18] For more discussion of the relationship between property tax and house prices, see Dadayan (2012).

[19] See Federal Reserve Bank of St. Louis, "30-Year Fixed Rate Mortgage Average in the United States," https://fred.stlouisfed.org/series/MORTGAGE30US.

[20] Author's analysis of data from NASBO (2019), Table A-1 and Table A-2.

[21] See California's Legislative Analyst's Office, "The 2019-20 Budget: Tax Conformity," March 6, 2019, https://lao.ca.gov/reports/2019/3959/tax-conformity-030619.pdf.

[22] See Wisconsin Legislative Fiscal Bureau, "Updated Information on Tax Year 2019 Individual Income Tax Reductions Under Wisconsin Acts 9 and 10," November 4, 2019, https://docs.legis.wisconsin.gov/misc/lfb/misc/205_updated_information_on_tax_year_2019_individual_income_tax_reductions_under_wisconsin_acts_9_and_10_11_4_19.

[23] New Mexico Office of the Governor, "Gov. Lujan Grisham Recommits State to Film and Television Industry, Signs Legislation Aimed at Steadier Growth, Expansion," Press Release, March 29, 2019, https://www.governor.state.nm.us/2019/03/29/gov-lujan-grisham-recommits-state-to-film-and-television-industry-signs-legislation-aimed-at-steadier-growth-expansion/.

[24] See California Department of Finance, "Revenue Estimates, California Budget 2019-20," May Revision, http://www.ebudget.ca.gov/2019-20/pdf/Revised/BudgetSummary/RevenueEstimates.pdf.

[25] Connecticut Governor's Office, "Fact Sheet, 2019 Legislative Session," 2019, https://portal.ct.gov/-/media/Office-of-the-Governor/2019-Legislative-Proposals/SB-877--FS--An-Act-Concerning-Revenue-Items-to-Implement-the-Governors-Budget.pdf.

[26] See New Mexico Legislative Finance Committee, "Fiscal Impact Report," 2019, https://www.nmlegis.gov/Sessions/19%20Regular/firs/HB0006.PDF.

[27] See Ohio Department of Taxation, "Ohio Motor Fuel Tax Rates," https://www.tax.ohio.gov/excise/motor_fuel/tax_rates.aspx

[28] See Illinois Office of the Governor, "Gov. Pritzker Signs Historic Bipartisan $45 Billion Rebuild Illinois Capital Plan," June 28, 2019, https://www2.illinois.gov/Pages/news-item.aspx?ReleaseID=20266.

[29] See California's Legislative Analyst's Office, "The 2019-20 Budget: Analysis of the Medi-Cal Budget," February 13, 2019, https://lao.ca.gov/Publications/Report/3935.

[30] See California Department of Health Care Services, "California Request For Waiver For Manager Care Organization Tax," September 30, 2019, https://www.dhcs.ca.gov/services/Documents/MCOTax09302019.pdf.

[31] See US Department of Health and Human Services' response letter addressed to California Department of Health Care Services, January 30, 2020, https://www.dhcs.ca.gov/services/Documents/CMS-Response-to-CA-Tax-Waiver-Request1-30-20.pdf.

[32] See Illinois Office of Management and Budget, "Illinois Budget in Brief, Fiscal Year 2020," February 20, 2019, https://www2.illinois.gov/sites/budget/Documents/Budget%20Book/FY2020-Budget-Book/Fiscal-Year-2020-Budget-in-Brief.pdf.

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