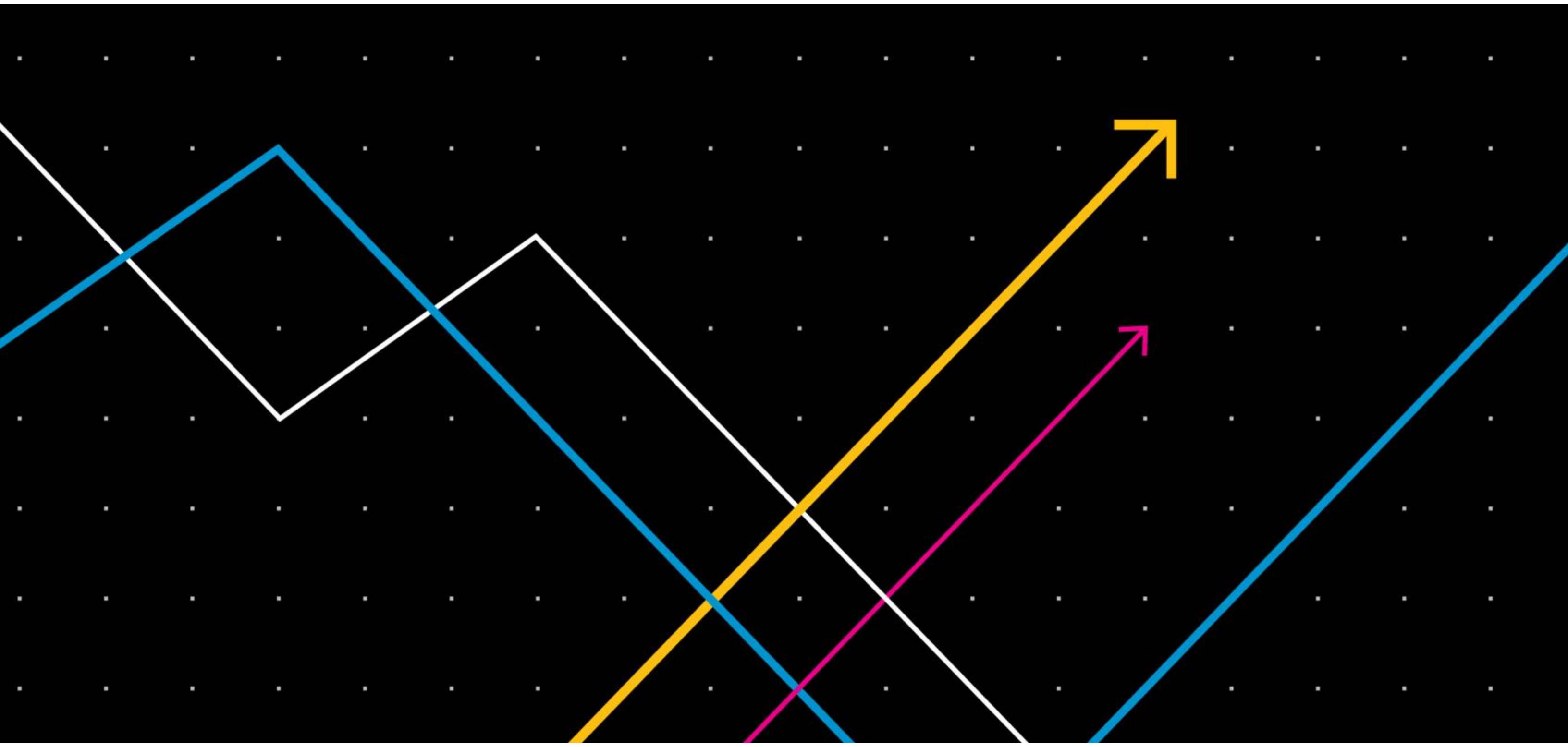
STATE AND LOCAL FINANCE INITIATIVE



RESEARCH REPORT

State Revenues Were Weak in the Fourth Quarter of 2018, but Revenue Outlook for FY 2019 Remains Positive

State Tax and Economic Review, 2018 Quarter 4

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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—increased slightly in the fourth quarter of 2018 compared with the prior year. Growth in state and local government tax revenues in the fourth quarter of 2018 was substantially weaker than in the earlier quarters of calendar year 2018.
- **State government tax revenues** from major sources declined in the fourth quarter of 2018 compared with the same quarter in 2017, mostly because of declines in state income tax revenues. Other major sources of state tax revenues showed growth in the fourth quarter of 2018.
  - » **State personal income taxes** declined substantially in the fourth quarter of 2018, reflecting a spike in income tax payments at the end of 2017 in anticipation of the federal limit on state and local tax deductions as part of the Tax Cuts and Jobs Act (TCJA).
  - » **State sales taxes** had uninterrupted growth since the first quarter of 2010, but the growth lagged the rates in previous economic expansions.
  - » **State corporate income taxes** showed double-digit growth for the third consecutive quarter.
- Year-over-year growth in **local government tax** revenues from major sources was 1.7 percent in the fourth quarter of 2018, considerably lower than the 4.5 percent average quarterly growth rate in the prior four quarters.
  - » **Local property taxes** were 1.3 percent higher in the fourth quarter of 2018 than in the same quarter in 2017 but were weaker than the 4.1 percent average growth in the prior four quarters. Local property taxes were artificially boosted in the final quarter of 2017 because some taxpayers responded to the TCJA by making property tax prepayments before the law took effect in 2018.
- **Preliminary data for the first quarter of 2019** indicate further declines in personal income tax collections but growth in overall state government tax revenues.
  - » **State personal income tax** collections were artificially boosted in the fourth quarter of 2017 mostly because of income-shifting behavior. The declines in income tax collections in the first quarter of 2019 compared with the prior year are partially attributable to the disappearing impact of incentives created under the TCJA to accelerate payments of state and local income taxes into tax year 2017 because of limits in the itemized deduction for

state and local taxes and the decrease in the number of taxpayers who would benefit from itemizing deductions. Wild swings in the stock market in December 2018 and January 2019 likely also contributed to personal income tax declines. However, most states saw positive April surprises when income tax returns were filed. Although growth in income tax collections this April was the largest in the past 10 years, the surge should be viewed as a one-time occurrence.

  - **State corporate income tax** collections showed double-digit year-over-year growth for the fourth consecutive quarter.
  - Year-over-year growth in **state sales tax** collections in the first quarter of 2019 is weaker than the average growth rate in the prior four quarters. Sales tax revenues were anticipated to be strong because of changing state rules and the expansion of the e-commerce sales tax base associated with greater taxpayer compliance following the US Supreme Court's decision in *South Dakota v. Wayfair, Inc.* in June 2018.

- **Economic factors** driving revenue growth were all positive in the fourth quarter of 2018. However, the growth in economic factors must be viewed with caution.

  - Real **gross domestic product** was 2.9 percent higher for the nation in the fourth quarter of 2018 than in the same quarter in 2017. Overall, state economies have grown at a slower pace in calendar year 2018 than have state tax revenues. The discrepancy in growth rates has become more common in most recent years, heightening revenue volatility, and likely reflects timing decisions in personal income tax revenue payments.
  - The **unemployment rate** was 3.8 percent in the fourth quarter of 2018. Unemployment rates have seen steady declines since 2010, largely driven by improved job prospects across the board.
  - **Employment** grew 1.5 percent in the fourth quarter of 2018 compared with one year earlier. However, there were large disparities among the states, with 34 states reporting growth below the national average.
  - **Personal consumption expenditures** have been rebounding after being hit hard by steep declines in oil and gas prices in 2014–15. However, current growth rates in both durable goods and services are weaker than growth rates observed before the fall of oil prices.
  - **Housing prices** increased 6.6 percent in the fourth quarter of 2018. Housing prices have been rising since the declines that immediately preceded the Great Recession. However, growth was not even across all 50 states, with housing prices still below their prerecession peaks in nine states.

Trends in State and Local Tax Revenues

State and local government tax revenues have fluctuated wildly over the past year, largely because of the Tax Cuts and Jobs Act (TCJA) passed in late December 2017. The act is very complex, includes over 100 new provisions, and was the largest revision in the tax code in 30 years. More than a year after the passage of the TCJA, the Internal Revenue Service was still issuing guidance to clarify various provisions.

Overall, year-over-year growth in state and local government tax revenues was weak in the fourth quarter of 2018 and substantially weaker than the growth observed in the final quarter of 2017 and the first three quarters of 2018. Most of the weakness was attributable to personal income tax declines, which were artificially boosted in the fourth quarter of 2017 because of taxpayer responses to the TCJA. Following the enactment of the TCJA, some high-income taxpayers rushed to prepay their personal income and property taxes to take advantage of the uncapped state and local tax (SALT) deduction in 2017. They also may have increased estimated payments or changed the time at which they realized capital gains or losses. Under the TCJA, the SALT deduction was capped at $10,000 per year effective January 1, 2018. Thus, some of the revenue weakness in the fourth quarter of 2018 is evidence of especially strong revenues at the end of 2017.

Table 1 shows state and local government tax revenues from major sources for the fourth quarter of 2017 and the fourth quarter of 2018, 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 were largely constant in the fourth quarter of 2018 compared with a year earlier, while the average quarterly growth rate in the prior four quarters was 7.2 percent.
- **State government revenue** from major sources decreased 2.1 percent in the fourth quarter of 2018 relative to a year ago, while the average quarterly year-over-year growth rate in the prior four quarters was 9.2 percent. After strong performance for four consecutive quarters, personal income tax revenues declined steeply, at 9.2 percent in the fourth quarter of 2018 compared with the same quarter in 2017. Growth in state sales tax collections was 4.5 percent in the fourth quarter of 2018 compared with the fourth quarter of 2017, weaker than the

average quarterly year-over-year growth rate of 5.3 percent in the prior four quarters. Growth in state corporate income tax revenues was strong at 10.9 percent in the fourth quarter of 2018 (again compared with the fourth quarter of 2017), marking the third consecutive quarter of double-digit growth.

- **Local government revenue** from major sources increased 1.7 percent from a year ago in the fourth quarter of 2018, considerably weaker than the 4.5 percent average quarterly year-over-year growth in prior four quarters. Local property taxes, the single largest source of local government tax revenues, increased 1.3 percent from a year ago in the fourth quarter of 2018, which is weaker than the 4.1 percent average quarterly year-over-year growth in the prior four quarters. This likely reflects timing decisions and not underlying changes in local property tax revenues; the TCJA created incentives for high-income taxpayers to accelerate property tax payments into the fourth quarter of 2017. Local sales taxes grew 8.1 percent in the fourth quarter of 2018, while both personal income and corporate income taxes declined, but these constitute a very small share of local revenues.

TABLE 1

State and Local Government Tax Revenue Growth

Millions of dollars

Tax source	2017 Q4	2018 Q4	Y-O-Y percentage change	Average quarterly Y-O-Y growth rate, prior four quarters
Total state and local major taxes	**$439,428**	**$439,956**	**0.1**	**7.2**
State major taxes	***$184,289***	***$180,408***	***(2.1)***	***9.2***
Personal income tax	93,075	84,473	(9.2)	11.9
Corporate income tax	9,598	10,640	10.9	12.9
Sales tax	76,988	80,449	4.5	5.3
Property tax	4,628	4,846	4.7	10.9
Local major taxes	***$255,139***	***$259,548***	***1.7***	***4.5***
Personal income tax	9,076	9,013	(0.7)	8.0
Corporate income tax	1,946	1,787	(8.2)	4.3
Sales tax	21,597	23,339	8.1	5.3
Property tax	222,520	225,409	1.3	4.1

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

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

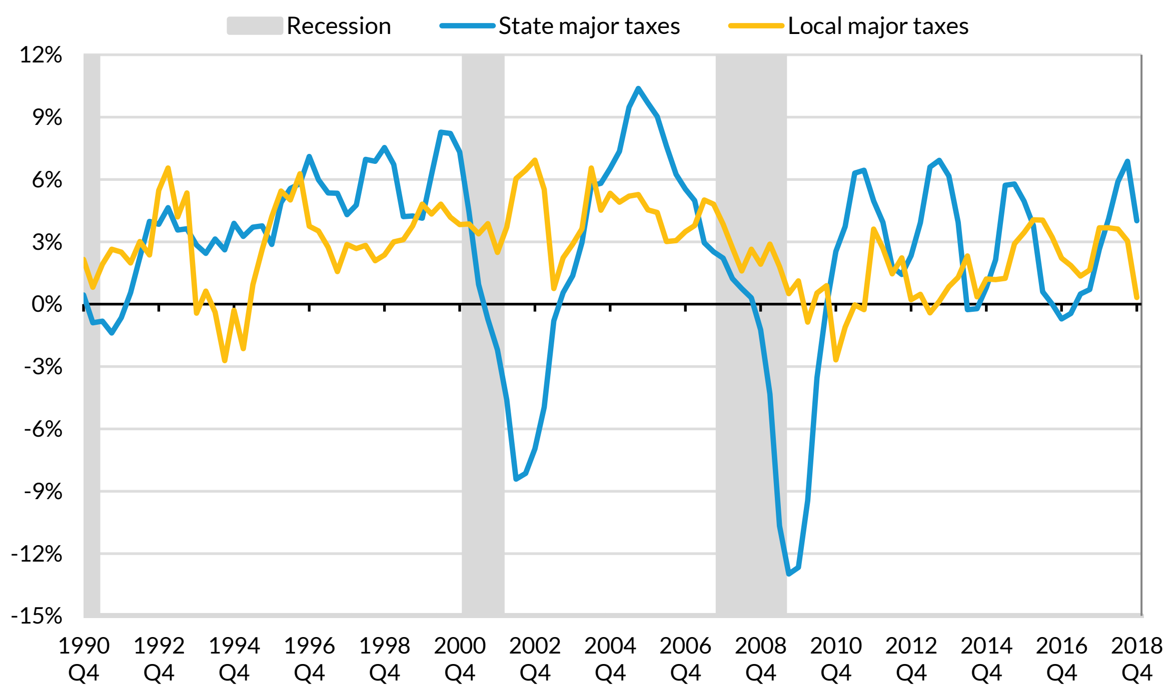
Figure 1 shows longer-term trends in state and local tax collections, specifically, the year-over-year percentage change in the four-quarter moving average of inflation-adjusted state and local tax collections from major sources: personal income tax, corporate income tax, sales tax, and property tax. 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 (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 ticked downward in the fourth quarter of 2018. State taxes from major sources, adjusted for inflation, grew 4.0 percent in the past four quarters relative to the year earlier, which is weaker than the growth in the prior three quarters. The four-quarter moving average of inflation-adjusted local taxes from major sources grew 0.3 percent in the fourth quarter of 2018, which is the weakest growth rate since the third quarter of 2014.

Most local governments rely heavily on property taxes, which are relatively stable and respond slowly to declines in property value. By contrast, the personal income, sales, and corporate taxes that states heavily rely on respond more rapidly to economic 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 reflect the timing of payment shifts in response to the TCJA.

FIGURE 1

State and Local Major Tax Revenues Tick Downwards

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



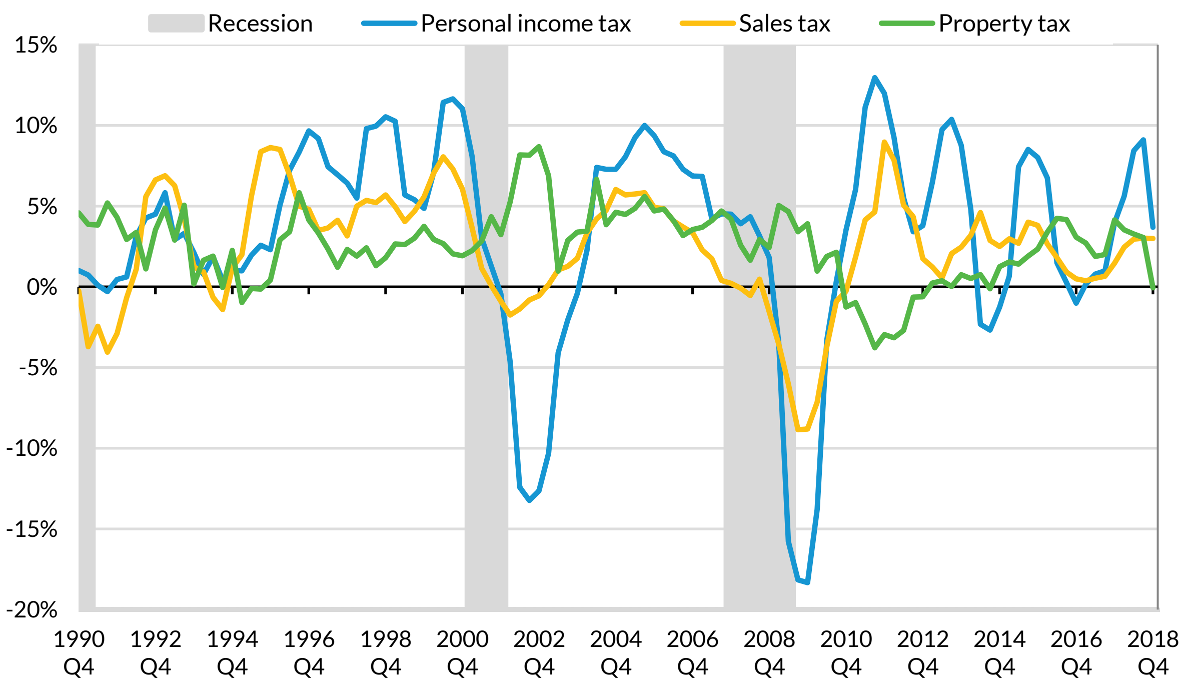
Source: US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP), analysis by the author.
Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation. Data are for four major tax categories only: personal income, corporate income, 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 3.7 percent in the fourth quarter of 2018, which is substantially weaker than in the prior two quarters. State and local sales tax revenues grew 3.0 percent in the fourth quarter of 2018, which is relatively strong compared with the sluggish growth observed in 2017. State and local property taxes, nearly all of which are collected by local governments, declined 0.1 percent from a year earlier in the fourth quarter of 2018.

FIGURE 2

Substantial Weakness in State-Local Personal Income and Property Tax Revenues

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



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

State Tax Revenue in 2018, Quarter 4

Total state tax revenue declined 0.8 percent in nominal terms and 2.9 percent in inflation-adjusted terms in the fourth quarter of 2018 relative to a year ago, according to US Census Bureau data adjusted by the author.[1] The decline in overall state tax revenues was mostly driven by the steep declines in personal income tax revenues; all other major sources of state tax revenues grew. Personal income tax revenues declined 9.2 percent in the fourth quarter of 2018 relative to a year earlier. Declines in personal income tax revenues in the fourth quarter of 2018 were largely expected because state income tax revenues were artificially boosted in the fourth quarter of 2017. Corporate income tax collections grew by double digits for the third consecutive quarter, while sales tax and motor fuel tax collections grew 4.5 and 3.7 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 rates for the past eight years, between the first quarter of 2010 and the fourth quarter of 2018. Despite the prolonged economic expansion, the inflation-adjusted average annual growth rate since 2010 was only 2.9 percent for overall state tax revenues.

There were large regional disparities in terms of year-over-year growth in total state tax revenues in the fourth quarter of 2018 (Table A2). Growth in the median state was 3.6 percent, compared with the national average of a 0.8 percent decline. The decline in the national average was largely attributable to declines in income tax revenues in California and New York, both of which have high reliance on personal income tax revenues. State tax revenues declined in the Far West, Mideast, New England, and Rocky Mountain regions; all four regions rely heavily on personal income tax revenues. The Southwest region had the strongest growth at 9.7 percent, while the Far West region had the largest decline at 8.8 percent.[2]

Thirty-eight states reported growth in total state tax revenue collections for the fourth quarter of 2018 relative to a year ago; 12 states reported declines. Growth in state tax revenues was particularly strong in Alaska, Louisiana, New Mexico, North Dakota, Oklahoma, and Wyoming, all of which are oil- and mineral-dependent states and rely heavily 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). Therefore, the strong growth in overall state tax collections in these states mainly reflects revenue bouncing back from depressed levels for previous years.

Personal Income Taxes

State personal income tax revenues declined 9.2 percent in nominal terms and 11.1 percent in inflation-adjusted terms for the fourth quarter of 2018 compared with the same period in 2017. Declines in personal income tax collections were anticipated because of taxpayer income-shifting behavior. As cautioned in the previous State Tax and Economic Review quarterly report (Dadayan 2019), the strong growth in personal income tax collections in the final quarter of 2017 and first half of 2018 was mostly attributable to the temporary impact of the federal policy changes that created strong incentives for some high-income taxpayers to shift income and deductions between tax years (Dadayan 2018). Moreover, personal income tax collections in the first and second quarters of 2018 were boosted by extension payments related to tax year 2017. Some of these extension payments were 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. Despite steep declines in the final quarter of 2018, average quarterly year-over-year growth rate in state personal income tax collections was 6.1 percent in nominal terms and 4.3 percent in real terms since 2010.

Personal income tax collections declined in all regions but the Great Lakes and Southeast, where income tax revenues grew 1.0 and 1.3 percent, respectively. The Mideast region saw the largest decline at 17.1 percent, followed by the Far West region at 15.2 percent.

Overall, personal income tax collections declined in 25 states in the fourth quarter of 2018, with eight states reporting double-digit year-over-year declines. In dollar values, California, Connecticut, New Jersey, and New York had the largest declines in personal income tax revenue collections. All four states have high reliance on higher-income taxpayers and on non-wage income. Personal income tax revenues also declined substantially in Idaho, mostly because of the reduction in its income tax rates. Despite the overall declines, personal income tax collections were strong in Louisiana, North Dakota, and Oklahoma, likely because of the rebounding oil and gas industry in those states.

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 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 fourth quarter of 2018. Table 2 shows growth for each major component in the past nine quarters, illustrating the boost in personal income tax collections in the final quarter of 2017 and the first quarter of 2018 and the large declines in the final quarter of 2018. These changes were mostly observed in estimated payments and final returns, which were artificially shifted between tax years as a result of the cap on SALT deductions under the TCJA.

TABLE 2

Growth in State Government Personal Income Tax Components

Year-over-year nominal percentage change

Personal income tax components	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1
Withholding	6.1	6.3	5.2	7.2	8.9	7.5	6.2	6.5	1.2
Estimated payments	1.0	(1.8)	1.8	52.7	31.0	12.8	18.2	(70.8)	(6.1)
Final returns	(0.7)	(5.2)	1.4	15.1	15.2	8.4	12.8	0.6	11.5
Refunds	(2.8)	9.2	4.9	(7.1)	6.1	0.9	14.3	16.8	(0.8)
PIT total	**7.9**	**0.4**	**4.5**	**15.9**	**14.8**	**10.4**	**7.8**	**(10.4)**	**0.2**

Source: Individual state data, analysis by the author.

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

PIT = personal income tax; Q = quarter.

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. Figure 3 shows year-over-year growth in withholding for the past nine quarters for all states with a broad-based personal income tax.

The average quarterly year-over-year growth rate in withholding was 7.3 percent in 2018, compared with the average growth rate of 6.2 percent in 2017. However, the median growth rate in withholding was 6.1 percent in 2018, compared with the 4.9 percent median growth rate in 2017.

The growth in withholding was substantially stronger in the final quarter of 2017 as well as in the first and second quarters of 2018. In the first quarter of 2018, year-over-year withholding increased 8.9 percent, which was the strongest growth since the first quarter of 2011, when withholding grew 8.1 percent. The strength in withholding, however, was partially driven by one-time bonuses paid by employers in response to the TCJA. Growth in year-over-year withholding was consequently weak in the first quarter of 2019, at 1.2 percent (Table A3).

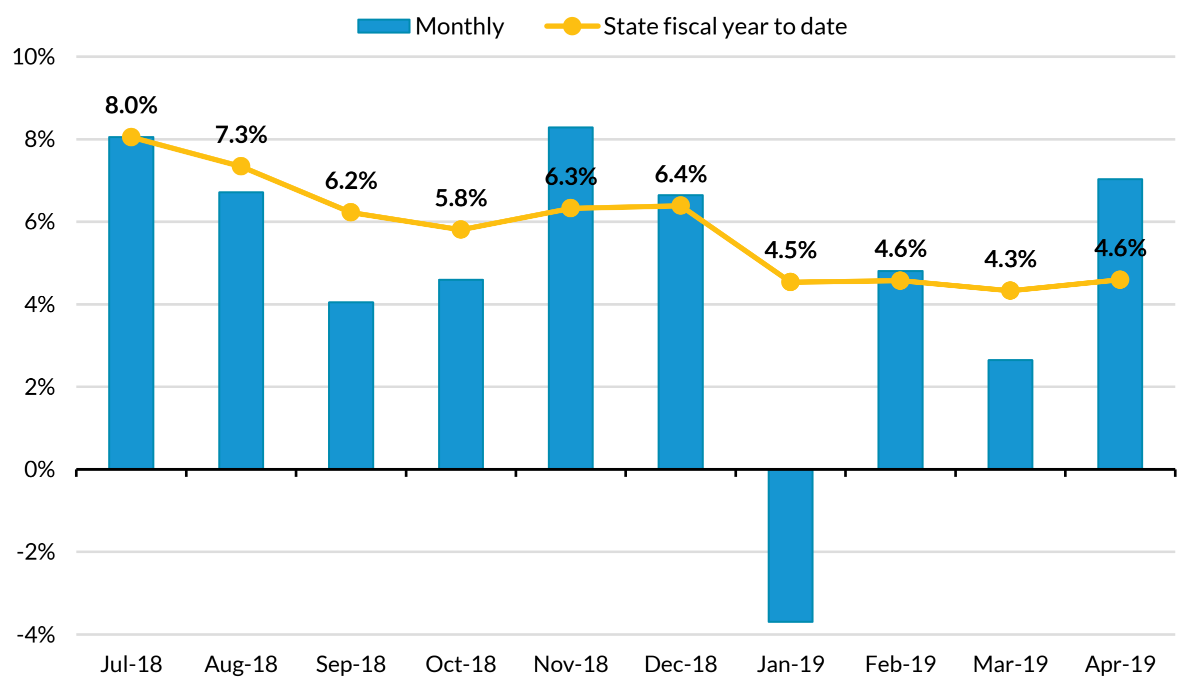
All regions but the Southeast showed year-over-year growth in withholding in the first quarter of 2019. The New England region had the strongest growth in the first quarter of 2019 at 5.7 percent, while withholding declined 0.4 percent in the Southeast region. Declines in the Southeast region are partially attributable to income tax rate reductions in some states, discussed later in this section.

Year-over-year growth in withholding was widespread across the states in the fourth quarter of 2018. However, growth weakened substantially in the first quarter of 2019. Twelve of 41 states with broad-based income taxes reported declines in withholding in the first quarter of 2019. The declines in these states are likely attributable to reductions in their state income tax rates. Georgia reduced the top marginal individual income tax rate (for individuals with income above $7,000 who file separately or for married couples with income above $10,000 who file jointly) from 6.0 to 5.75 percent effective January 1, 2019.[3] Iowa's tax reform legislation reduced tax rates for all income brackets effective January 1, 2019.[4] Missouri eliminated one of the top income tax brackets and reduced the top income tax rate from 5.9 percent to 5.4 percent effective January 1, 2019.[5] Officials in North Carolina increased the standard deduction and decreased the flat income tax rate from 5.499 to 5.25 percent effective January 1, 2019.[6] Declines in withholding in Kentucky and Idaho are likely caused by ripple effects from the legislated changes. Officials in Kentucky replaced its six-bracket graduated income tax system with a flat 5 percent rate effective January 1, 2018. Previously the top income tax rate was 6 percent.[7] In 2018, lawmakers in Idaho passed tax reform legislation that included various changes, including a 0.475 percentage-point reduction for all tax brackets.[8] As is often the case, tax rate reductions lead to tax revenue reductions.

FIGURE 3

Withholding Declined in January of 2019 but Resumed Growth in the Following Months

Percentage change in withholding tax collections compared with the previous year, state fiscal year 2019 monthly and year to date



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

Figure 3 shows monthly and year-to-date growth rates in withholding through April 2019.[9] Withholding declined in January 2019, likely because of higher levels of withholding in January 2018 caused by one-time shifting of bonus payments from December 2017 after Congress passed the TCJA. In the following months, growth in withholding resumed. According to preliminary data, states collected $283 billion in withholding revenues from July 2018 through April 2019 (which corresponds to the first 10 months of fiscal year 2019 for 46 states). This represents 82.1 percent of overall personal income tax collections. Overall, withholding grew 4.6 percent over this period, highlighting that despite declines in income tax revenues at the end of 2018, withholding has been strong for most states.

Estimated Payments

The highest-income taxpayers generally make estimated tax payments (also known as declarations) on their income not subject to withholding tax. 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 can have a large impact on the direction of overall collections. Estimated payments accounted for only 6.5 percent of total personal income tax revenues in the fourth quarter of 2018 but accounted for 24 percent in the first 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 (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, using that payment as a harbinger for the current strength of the economy and income taxes is usually difficult. The second and third estimated payments are easier to interpret because they are almost always related to the current year. 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.

In the 38 states for which we have complete data, the median fourth estimated payment (attributable to tax year 2018) decreased by a steep 38.8 percent from last year, which contrasts with a 39.1 percent growth in the median fourth estimated payment for tax year 2017 (Table A4).

The declines were widespread across the states; fourth estimated payments filed in the months of December 2018 and January 2019 declined by double digits in all 38 states compared with levels a year earlier. Most of the decline reflected the large surge in estimated payments in December 2017 caused by 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 $3.0 billion; this is a steep decline from December 2017 but is also below December 2016 estimated payments. Although state revenue forecasters projected declines in estimated income tax payments for December 2018, the actual declines were far greater than those forecasts, particularly in states with a larger share of high-income taxpayers. The largest declines in dollar amounts were in California and New York, where estimated payments declined by $6.6 billion (or 85.8 percent) and by $2.7 billion (or 88.3 percent), respectively, in December 2018 compared with December 2017. 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 constitute about 12 and 6 percent of all US taxpayers but are the home states for about 17 and 12 percent, respectively, of all millionaire taxpayers. Estimated state income tax payments in California and New York made up approximately 48 percent of the total estimated payments for the nation in December 2018 and 64 percent of estimated payments in December 2017.

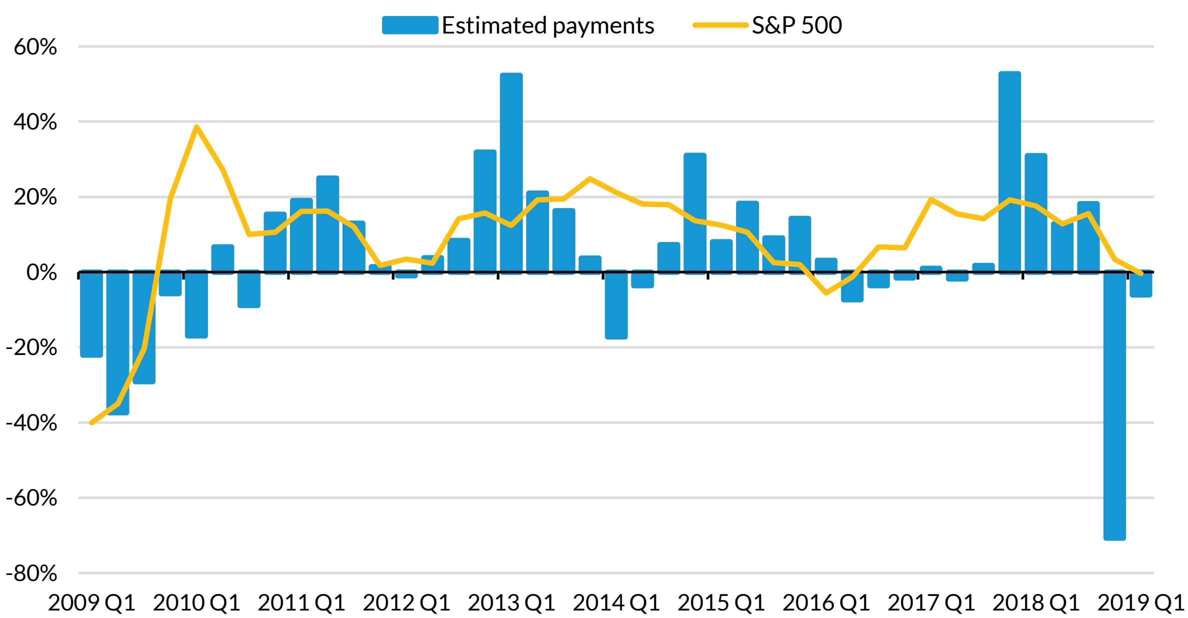
The median first estimated payment for tax year 2019 (filed in April 2019) was $4.8 billion, or 18.0 percent higher than the median first estimated payment filed in April 2018. Most of the growth in terms of dollar amount was in New York, where first estimated payment grew by $2.5 billion or 57.1 percent 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 of processing delays that pushed a significant amount of deposit payments into May 2019.[10]

Figure 4 shows year-over-year percentage change by quarter in estimated payments and in the S&P 500 Index for the past 10 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 the months of 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 after being above 2017 levels for most of 2018. 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 and January estimated payments.

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.

Estimated payments as a share of overall personal income taxes have grown over time. In state fiscal year 2018, estimated payments made up 22.3 percent of total personal income tax collections, up from 17.9 percent in fiscal year 2010 and 20.0 percent in fiscal year 2014. The 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.

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.[11] Final payments accounted for 6.2 percent of all personal income tax revenues in the fourth quarter of 2018 and 6.4 percent in the first quarter of 2019.

Table A5

shows year-over-year growth in final payments for the most recent nine quarters. Total final payments showed strong growth in the final quarter of 2017 and the first three quarters of 2018 compared with levels a year earlier. The strong growth was likely attributable to the passage of the TCJA as discussed above. Growth in final payments was weak at 0.6 percent in the fourth quarter of 2018 but strong at 11.5 percent in the first quarter of 2019 compared with the prior-year levels. Final payments in the median state increased 13.6 and 11 percent, respectively, for the fourth quarter of 2018 and first quarter of 2019, compared with levels a year earlier.

Growth rates in final payments varied widely across the states. In the 37 states for which we have complete data, final payments increased in 27 states in the first quarter of 2019, with 19 states reporting double-digit growth relative to a year earlier.

Refunds

Personal income tax refunds usually represent a small 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 grew 16.8 percent in the fourth quarter of 2018 but declined 0.8 percent in the first quarter of 2019. In total, states paid out $217 million less in refunds in the first quarter of 2019 than in the same quarter in 2018. Overall, 20 states paid out less in refunds in the first quarter of 2019 than in the first quarter in 2018. California had the largest share of refund payouts ($6.9 billion, or 25.5 percent of total refunds) followed by New York ($2.5 billion, or 9.3 percent of total refunds) in the first quarter of 2019.

Declines in refund payouts in the first quarter of 2019 are partially caused by timing. It appears many taxpayers delayed filing returns this year. Further, some states delayed processing individual tax returns. Volatility is typical during the income tax filing season, and it is too early to draw any firm conclusions.

Actual versus Forecasted Income Tax Revenues

We collected data for those states that provide actual and forecasted data of monthly personal income tax revenue. Such information was available and easily retrievable for 23 states, and the data are presented in Table 3 for April 2019.

In all 23 states, actual personal income tax collections in April 2019 were substantially higher than in April 2018. The strong growth in personal income tax collections in April 2019 should be viewed in conjunction with the lower collections in December 2018 and January 2019. As noted in prior *State Tax and Economic Review* publications,[12] personal income tax revenues saw steep declines in December 2018 and January 2019, largely observed in nonwage income and as a result of the TCJA, which affected taxpayer filing behavior. The substantial growth in April 2019 indicates that many taxpayers likely shifted estimated payments from December 2018 and January 2019 to extension and final payments in April 2019.

April is always a wild card when it comes to understanding how personal income tax collections relate to underlying economic conditions. Although April surprises are not uncommon, growth in income tax collections this April was the largest in the past 10 years. The surge in April personal income collections should be viewed as one-time in nature and reflects individuals postponing filing taxes and learning about how filing would work under the new federal rules. Income tax collections will likely continue to fluctuate in the coming months as individuals who filed for extensions file their taxes and states continue to evaluate and adjust their tax codes to the provisions of the TCJA. This will include incorporating provisions of the TCJA into their own tax codes and examining potential changes to their income tax systems.

TABLE 3

Actual versus Forecasted State Personal Income Tax Revenues for April

Dollar amounts in millions

	April 2018 actual	April 2019 actual	Percent change, April 2019 vs April 2018	April 2019 forecast	April 2019 actual	Percentage variance, April 2019 actual from forecast	Forecast date
Median (23 states)			*27.8*			*15.1*	
Average (23 states)	*$35,610.3*	*$48,884.8*	*37.3*	*$43,522.4*	*$48,884.8*	*12.3*	
Arizona	583.3	658.2	12.9	712.2	658.2	(7.6)	Jan-19
Arkansas	403.5	464.1	15.0	390.7	464.1	18.8	Nov-18
California	14,172.5	19,168.5	35.3	17,606.6	19,168.5	8.9	Jan-19
Colorado	1,081.0	1,531.2	41.6	1,248.2	1,531.2	22.7	Mar-19
Idaho	360.2	507.2	40.8	491.3	507.2	3.2	Jan-19
Illinois	3,011.6	4,079.8	35.5	2,853.4	4,079.8	43.0	Feb-19
Indiana	1,017.9	1,233.0	21.1	1,165.3	1,233.0	5.8	Apr-19
Kansas	558.7	808.1	44.6	738.3	808.1	9.4	Apr-19
Maine	241.1	302.4	25.4	249.4	302.4	21.3	Dec-18
Massachusetts	2,336.0	3,200.0	37.0	2,381.0	3,200.0	34.4	Dec-18
Mississippi	233.9	305.0	30.4	279.4	305.0	9.1	Mar-19
Montana	208.2	264.5	27.0	241.0	264.5	9.7	Apr-18
Nebraska	275.9	358.6	30.0	338.3	358.6	6.0	Feb-19
New York	5,856.0	9,215.4	57.4	9,212.0	9,215.4	0.0	Nov-18
North Dakota	107.8	122.1	13.2	101.1	122.1	20.7	May-17
Ohio	941.8	1,329.7	41.2	952.3	1,329.7	39.6	Feb-19
Oklahoma	367.1	437.4	19.1	448.9	437.4	(2.6)	Feb-19
Pennsylvania	2,056.9	2,520.1	22.5	2,189.6	2,520.1	15.1	May-17
Rhode Island	178.9	228.6	27.8	194.4	228.6	17.6	Nov-18
South Carolina	170.2	396.7	133.1	228.2	396.7	73.8	Feb-19
Vermont	171.2	199.3	16.4	162.6	199.3	22.6	Jan-19
West Virginia	293.8	333.2	13.4	307.9	333.2	8.2	Mar-19
Wisconsin	982.8	1,221.7	24.3	1,030.2	1,221.7	18.6	Jan-19

Source: Individual state data, analysis by the author.

Personal income tax collections grew by double digits in April 2019 in all 23 states for which we have detailed data, with an average growth of 37.7 percent and a median growth of 27.8 percent. The largest growth in terms of dollar amounts were in California and New York, where income tax collections grew by $5.0 billion and $3.4 billion, respectively, in April 2019 compared with April 2018.

In 21 states, actual personal income tax collections in April 2019 were above the forecasts, with an average underestimate of 12.3 percent and a median underestimate of 15.1 percent. Some states prepared revenue forecasts for April 2019 before the steep declines in income tax collections in December 2018 and January 2019; others updated revenue forecasts in February through April. Ultimately, most states underestimated personal income tax revenues. The opposite was true for December 2018 and January 2019: most states overestimated personal income tax collections. 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. When income tax revenue collections declined steeply in December 2018 and January 2019, some state officials held out hope for rebounding income tax revenues in April 2019 and, hence, finishing the state fiscal year 2019 on target without needing to revise forecasts downward. Some states did revise forecasts and subsequently ended up ahead of their revised forecast after April revenues were received. The shifting of income tax revenues from December and January to April was especially problematic for New York because the state's fiscal year runs from April 1 to March 31, and also given the state's restrictions on spring borrowing.[13] New York had to pass its new budget and face the potential of much lower revenues because its December and January declines occurred in a different fiscal year than the later April rebound in tax receipts. New York saw a surge in income tax collections in April 2019, which eased the fear that some high-income taxpayers might have changed their residency to avoid higher state income tax payments.

Corporate Income Taxes

State corporate income tax revenue is highly volatile because corporate profits and the timing of tax payments can vary and shift across quarters. Further, most states collect a small share of state revenues from corporate taxes and can therefore experience large fluctuations in percentage terms with little overall budgetary impact. Average quarterly year-over-year growth rates in state corporate income tax collections were 3.1 percent in nominal terms and 1.3 percent in real terms since 2010 (Table A1).

Corporate income tax revenue saw steep declines during the Great Recession and are still below the peak levels observed before the Great Recession. However, corporate income tax receipts grew by double digits in the second, third, and fourth quarters of 2018 compared with the prior year. Corporate income tax revenues increased 10.9 percent in nominal terms and 8.5 percent in inflation-adjusted terms in the fourth quarter of 2018 compared with a year earlier.

Despite overall growth, large disparities exist among states and regions. Corporate income tax collections increased in all regions except the Far West, where collections declined 9.3 percent. The declines in the Far West region are attributable to California, where corporate income tax collections declined 13 percent in the fourth quarter of 2018 compared with the same quarter in 2017. The declines in corporate income tax collections in the fourth quarter of 2018 were likely caused by a delay in estimated payments. Moreover, according to preliminary data, California saw a surge in corporate income tax collections in March and April 2019. According to the Legislative Analyst's Office, most corporations are allowed an automatic six-month extension, and higher corporate income tax revenues in March and April are mostly caused by notably higher extension payments for tax year 2018.[14] Officials in California cautioned that the strong growth in corporate income tax revenues is likely a one-time event in response to TCJA, which created an incentive for corporations to shift profits from tax year 2017 into tax year 2018 because of the lower federal corporate tax rates.

The TCJA included the most significant structural changes to the federal corporate income tax since 1986, and the Internal Revenue Service is still issuing guidance for various key provisions. Therefore, many corporate taxpayers are still waiting to react, and it is unclear how taxpayer behavior will evolve.

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

Immediately after the passage of the TCJA, state corporate income tax collections saw strong year-over-year increases, particularly in the states where tax codes conform to federal tax law but not rates. The strong corporate income revenue performance in the recent months is also driven by the one-time taxation of repatriated foreign corporate earnings. The TCJA provisions included a one-time tax on profits held overseas and likely incentivized the repatriation of foreign income back to the United States.

Despite the strong growth in corporate income tax collections throughout state fiscal year 2019, states are forecasting lower corporate income tax collections for state fiscal year 2020, mostly because of higher costs for business inputs and a weaker global economy.

General Sales Taxes

General state sales tax collections grew 4.5 percent in nominal terms and 2.3 percent in real terms in the fourth quarter of 2018 compared with the same period in 2017. Sales tax collections have grown continuously since the first quarter of 2010 in nominal terms, but growth generally has been sluggish.

Sales tax collections increased in all regions but the Far West in the fourth quarter of 2018 compared with the fourth quarter of 2017. The New England region reported the strongest growth at 8.5 percent, while the Plains region grew at a modest 3.0 percent. Declines in the Far West region were mostly attributable to California, which delayed recognition of some sales tax revenue.

Thirty-nine states reported increases in sales tax collections in the fourth quarter of 2018, with seven states reporting double-digit growth.

The recovery in sales tax collections was slow in the post–Great Recession period. Since 2010, the average quarterly year-over-year growth rate in state sales tax collections was 4.0 percent in nominal terms and only 2.3 percent in real terms. The weak annual growth rates in sales tax collections are at least partially attributable to tax dollars lost by online retail sellers not collecting sales tax on some or all sales. And the recent gains are mostly attributable to the expansion of the sales tax base in several states and their efforts to capture tax revenues from a larger share of online sales following the *Wayfair* decision.

The uncertainty and changing definitions surrounding the nexus for online sales taxes have caused an ongoing debate in the states. Internet sales grew substantially in the past decade and eroded states' sales tax base. Absent federal legislation, most states adopted specific measures, such as enactment of deemed nexus or "Amazon" laws, to address the issue.

On June 21, 2018, the US Supreme Court ruled in favor of South Dakota in *South Dakota v. Wayfair*,[15] 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, 42 of 45 states with general sales taxes have enacted laws or regulations to require sales tax collections by remote sellers. The remaining three states—Florida, Kansas, and Missouri—have proposed legislation, and it is only a matter of time before they are enacted. Moreover, 30 states have also enacted laws or regulations requiring marketplace facilitators (such as Amazon Marketplace entities that are not direct sellers but that make it easier for buyers and sellers to enter into transactions) to collect sales taxes on behalf of their sellers.

Coordinating 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.

According to a recent study by the US Government Accountability Office, state and local governments could gain $8 to $13 billion a year if the states are given the authority to impose sales tax collection from all remote sellers (US GAO 2017). These estimates are likely higher than the actual revenue increases in the current year because many large internet sellers had already started collecting sales tax revenue even before the *Wayfair* decision. And current and forecasted revenues are lower because some sales are being excluded because they are made by small sellers (albeit sometimes through a larger marketplace program).

Motor Fuel Taxes

States collected $12.8 billion in motor fuel sales tax in the fourth quarter of 2018, which was 3.7 percent higher than the same period in 2017.

Motor fuel sales tax collections have fluctuated after the Great Recession. Average quarterly year-over-year growth in state motor fuel tax collections was 3.8 percent in nominal terms and only 2.1 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 fourth quarter of 2017 to the fourth quarter of 2018 varied widely across the states and the regions. Motor fuel sales tax collections grew in all regions. The largest growth was in the Rocky Mountain region, at 8.2 percent; the weakest growth was in the Great Lakes region, at 0.1 percent. Seven states reported declines in motor fuel sales tax collections in the fourth quarter of 2018; eight states reported double-digit growth. Oklahoma had the strongest growth at 30.5 percent in the fourth quarter of 2018 compared with the same quarter in 2018. The strong growth in Oklahoma is mostly attributable to legislated changes because the state increased gasoline and diesel tax rates.

Other Taxes

Census Bureau quarterly data on state tax collections provide detailed information for some of the smaller taxes, including state property taxes, tobacco products excise taxes, alcoholic beverage excise taxes, and motor vehicle and operators' license taxes. In Table A6, we show year-over-year growth rates for four-quarter average inflation-adjusted revenue for the nation as a whole. In the fourth quarter of 2018, states collected $51.3 billion from all the smaller tax sources, which constituted 21.4 percent of total state tax collections.

Compared with major tax sources, revenues from smaller taxes have been growing at a slower pace after the Great Recession. The average quarterly year-over-year growth rate in state tax revenues from smaller sources was 1.9 percent in real terms since 2010.

Inflation-adjusted year-over-year growth in revenues from smaller tax sources was 3.9 percent in the fourth quarter of 2018. State property taxes, which represent a small portion of overall state tax revenues, grew 8.8 percent. Tax revenues from motor vehicle and operators' licenses increased 9.5 percent, while tax revenue from tobacco product sales and alcoholic beverage sales both showed declines, at 4.6 and 0.9 percent respectively. Finally, revenues from all other smaller tax sources increased 3.5 percent in the fourth quarter of 2018 compared with a year earlier.

Preliminary Revenue Results for First Quarter 2019

Preliminary data collected for the January-March quarter of 2019 (Table A7) shows modest growth in overall state tax collections but another quarter of declines in personal income tax collections, though as evidenced from our collected data this is almost certainly going to reverse in April. In the 48 states for which we have preliminary data, overall state tax collections grew 1.6 percent in the first quarter of 2019 compared with the same quarter in 2018. However, state tax revenues in the median state showed growth of 2.6 percent. Table A7 shows state-by-state changes in major tax revenues for the first quarter of 2019 compared with the same quarter of 2018. Total state tax revenues declined in 18 states. These declines, except in Hawaii and South Dakota, were primarily driven by the steep declines in personal income tax collections. Tax revenue declines in Hawaii and South Dakota were mostly attributable to declines in sales tax collections. (South Dakota does not have a personal income tax.) The largest decline in terms of dollar amount was in New York, where overall state revenue collections declined by $1.4 billion, or 5.9 percent, in the first quarter of 2019 compared with the same quarter in 2018, largely because of declines in estimated income tax payments.

Personal income tax collections declined 3.1 percent in the first quarter of 2019 compared with a year earlier. This was the second consecutive quarterly decline. However, early data indicate that personal income tax collections showed robust growth in April 2019, indicating that the declines in the final quarter of 2018 and first quarter of 2019 were mostly the result of taxpayer behavior as they delayed estimated and final income tax payments.

Twenty-two of 41 states with broad-based income taxes reported declines in personal income tax collections in the first quarter of 2019, with two states reporting double-digit declines. The largest declines in terms of dollar value were in New York ($1.9 billion) and Connecticut ($0.9 billion); both states rely substantially on higher-income taxpayers. Therefore, personal income tax declines in these states are partially attributable to the TCJA, which, as discussed, led to windfall income tax revenues in the fourth quarter of 2017. But it is still unclear how much of these declines were caused by timing shifts that were reflected in shifts in tax payments into 2017 or delayed 2018 payments that were mostly reversed in April 2019.

Sales tax collections showed solid growth of 5.7 percent in the first quarter of 2019 (compared with a year earlier), while corporate income tax revenues grew 33.1 percent, marking the fourth consecutive quarter of double-digit growth. Thirty-four states reported growth in sales tax collections, with four states reporting double-digit growth compared with a year earlier. Finally, 26 states reported growth in corporate income tax collections, with 21 states reporting double-digit growth, again compared with a year earlier.

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 income goes up, sales taxes generate more revenue when consumers increase their purchases of taxable items, property taxes increase when housing prices go up, and so on. Next, we examine the interplay between various economic indicators and associated state tax revenues.

State Gross Domestic Product

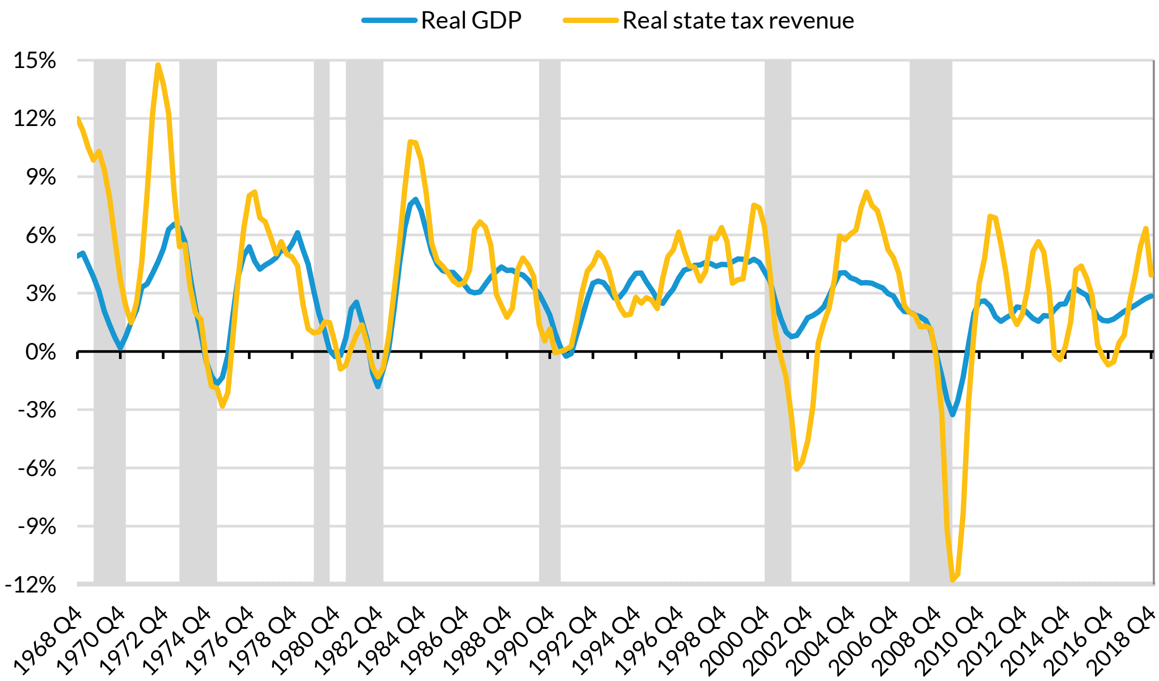
When the economy booms, tax revenues tend to rise rapidly, and when it declines, they tend to decline, though these changes have different patterns and timing. Figure 5 shows year-over-year growth for four-quarter moving averages in real state tax revenue and gross domestic product (GDP). We present 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 2017, and stronger recent growth than GDP. These differences are largely related to changes in state tax rates and (as noted) changing federal policy.

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.

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.

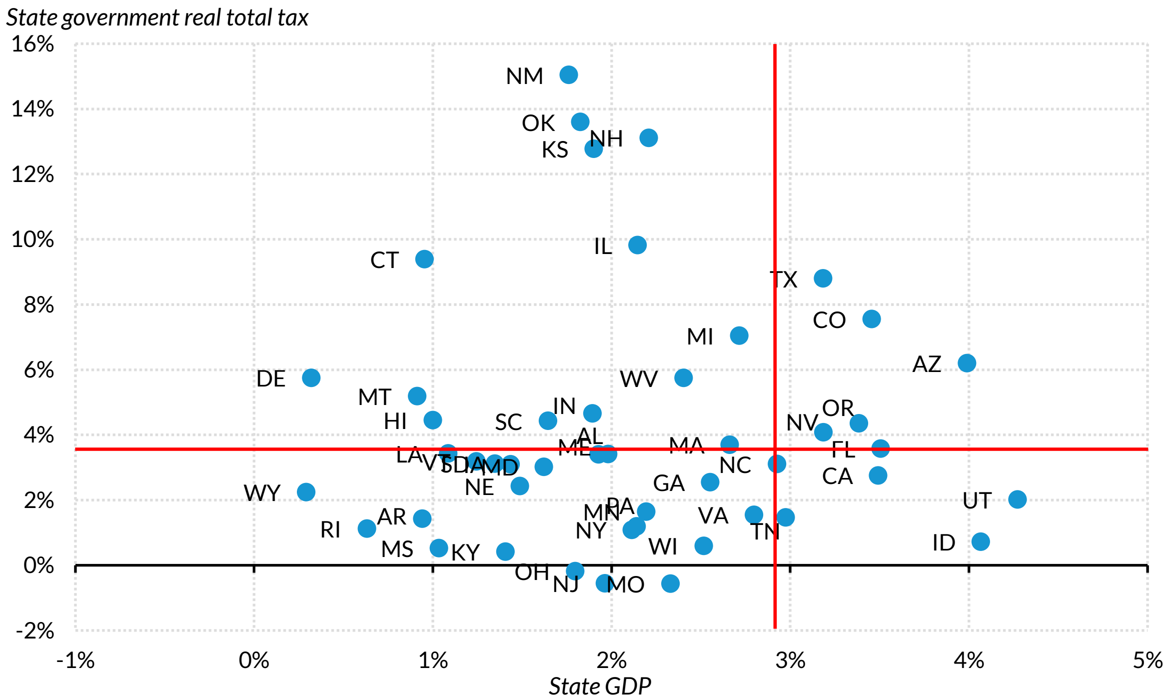
States vary substantially in terms of the correlation between growth rates in real state tax revenues and state GDP. Figure 6 shows growth for each state for four-quarter moving averages in real state tax revenue and in real state GDP in the fourth quarter of 2018 compared with the same quarter in 2017. By this measure, real state tax revenues increased in 47 states, and real state GDP increased in 49 states in the fourth quarter of 2018. (Alaska and North Dakota are both outlier states and are excluded from Figure 6 to better display the overall relationship). The percentage change in real state tax revenues ranged from negative 0.6 percent in Missouri to 40.4 percent in Alaska and 30.2 percent in North Dakota; the percentage change in real state GDP ranged from negative 0.3 percent in Alaska to 5.7 percent in Washington. In the fourth quarter of 2018, growth in real state tax revenues was lower than the national average of 3.9 percent in 29 states, and growth in real state GDP was lower than the national average of 2.9 percent in 38 states.

In general, states with the strongest growth in real state tax revenues were oil-dependent states. Strong growth in oil-dependent states was caused by state revenue bouncing back from depressed levels the previous year. Oil prices (and revenues from oil) were lower in 2017.

FIGURE 6

Growth Disparity: State Tax Revenues versus State GDP

Year-over-year change in state taxes and real GDP, 2018Q4 versus 2017Q4



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 and North Dakota are excluded from the figure.

State Unemployment and Employment

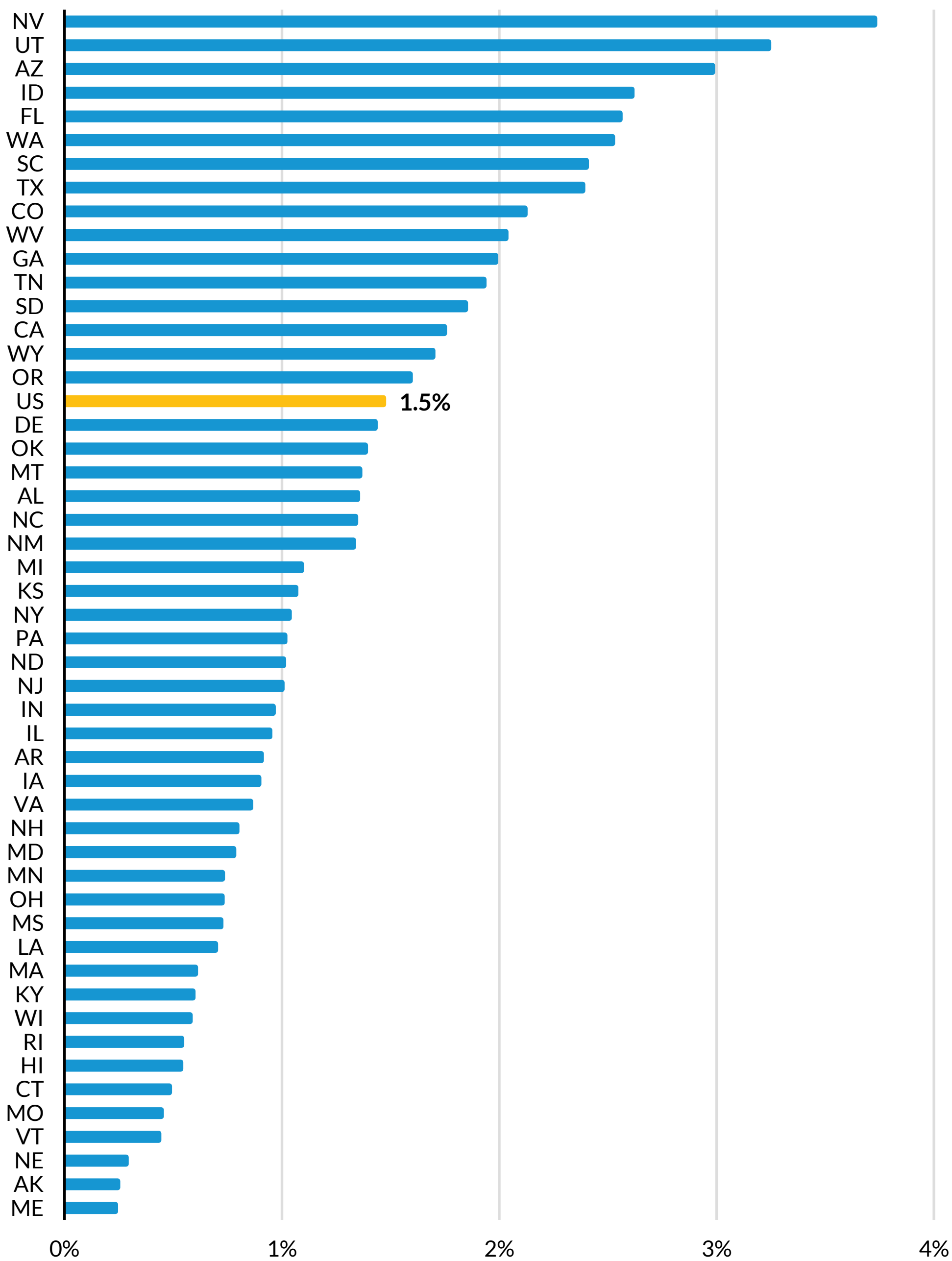
The national unemployment rate has declined steadily since 2010 and was 3.8 percent in the fourth quarter of 2018. Unemployment rates ranged from 2.4 percent in Hawaii and Iowa to 6.3 percent in Alaska in the fourth quarter of 2018. Although low unemployment rates are generally good for the economy, the decline in the unemployment rate since 2011 has been driven by both improved job prospects for those seeking employment as well as by a decline in labor force participation as the population ages and baby boomers retire. 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.[16]

Nationwide employment grew 1.5 percent in the fourth quarter of 2018 compared with the same quarter in 2017 (Figure 7). Employment growth was weaker than the national average in 34 states, but all states reported growth on a year-over-year basis. Employment growth ranged from 0.2 percent in Alaska and Maine to 3.7 percent in Nevada in the fourth quarter of 2018.

FIGURE 7

Growth in Employment for the Fourth Quarter of 2018

Year-over-year change in seasonally-adjusted employment, 2018Q4 versus 2017Q4



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

Personal Consumption Expenditures

"Personal consumption expenditures" is a measure of national consumer spending. The measure shows the value of the goods and services purchased by American consumers and is correlated with the base for 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 durable goods, nondurable goods, and services were all solid in the fourth quarter of 2018. However, 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 than on goods, and spending on services as share of total personal consumption has grown steadily throughout the last four decades. Currently, spending on services represents nearly 70 percent of total personal consumption. Spending on services saw steady growth throughout 2018.

Growth in the consumption of durable goods, an important element of state sales tax bases, has been relatively volatile in recent quarters, trending downward throughout most of 2015 and 2016 and upward since the first quarter of 2017. However, growth in durable goods once again ticked downward in the fourth quarter of 2018.

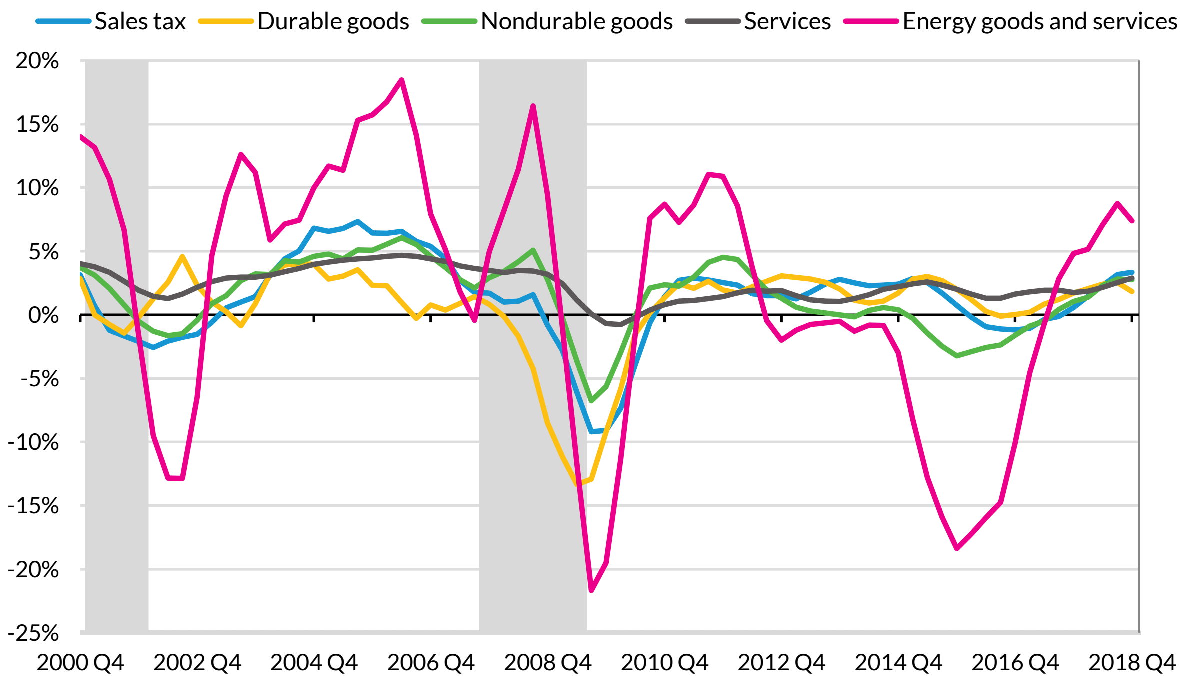
Nondurable consumption spending declined for 10 consecutive quarters, between the first quarter of 2015 and second quarter of 2017, but resumed growth since then. Nondurable goods were largely affected by the declines in gasoline and other energy goods consumption, which represent over 20 percent of nondurable goods consumption.

As shown in Figure 8, total spending on energy goods and services has seen a steady decline between the third quarter of 2012 and the third quarter of 2017. However, this decline was dramatic throughout 2015 and 2016 in response to steep declines in oil and gas prices. The steep decline in total spending in 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 third quarter of 2017 and showed strong growth throughout 2018.

FIGURE 8

Substantial Recovery in Energy Goods; Stagnant Growth in Services

Year-over-year percentage change in real sales tax 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

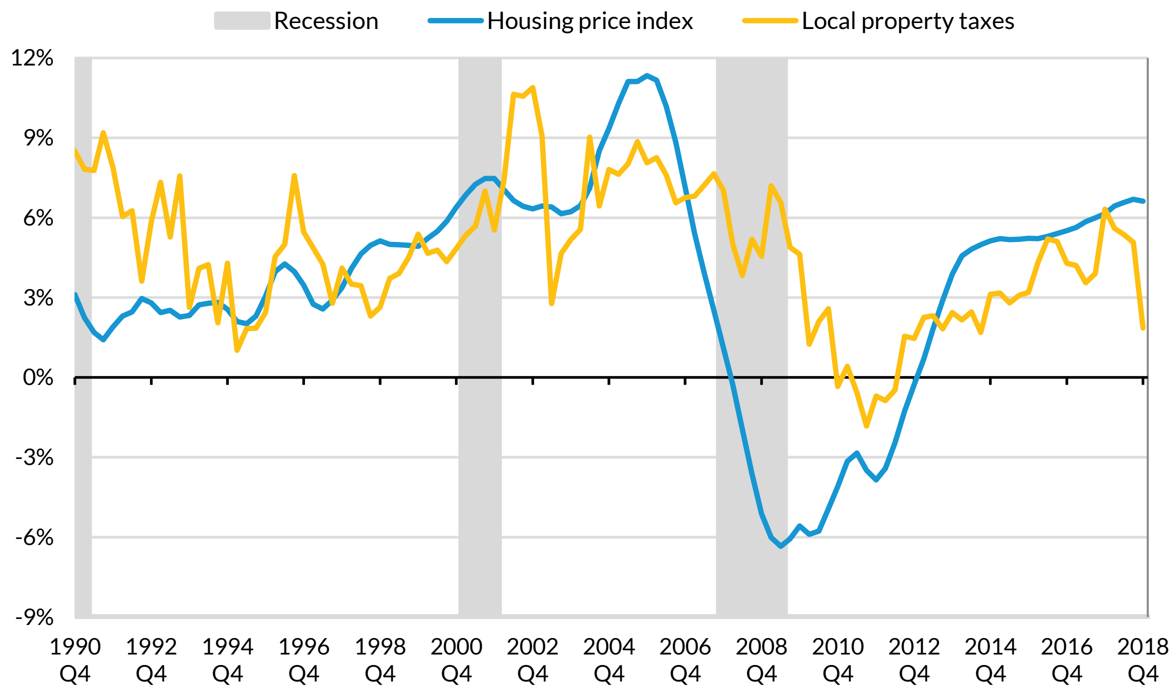
Housing prices are important determinant of local property taxes, though property taxes often lag price changes. Assessment lags and assessment caps can affect how quickly house price changes translate into property tax revenues, but declines in housing prices usually lead to declines in property taxes, while growth in housing prices usually lead to growth in property taxes.

Figure 9 shows year-over-year percentage changes in the four-quarter moving average of the housing price index and local property taxes in nominal terms. Housing 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.[17] The housing price index began declining in mid-2005, with steep negative movements from the last quarter of 2005 through the second quarter of 2009, though actual patterns varied across states and regions. The trend in the housing price index and local property taxes has been generally upward over the past seven years. Despite the overall upward trends, both the housing price index and local property taxes are still below peak levels observed before the Great Recession. National average housing prices appreciated 6.6 percent in the fourth quarter of 2018 from one year earlier, while local property taxes grew 1.9 percent during the same period.

FIGURE 9

Continued Growth in Housing Prices; Substantial Weakness in Local Property Taxes

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



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

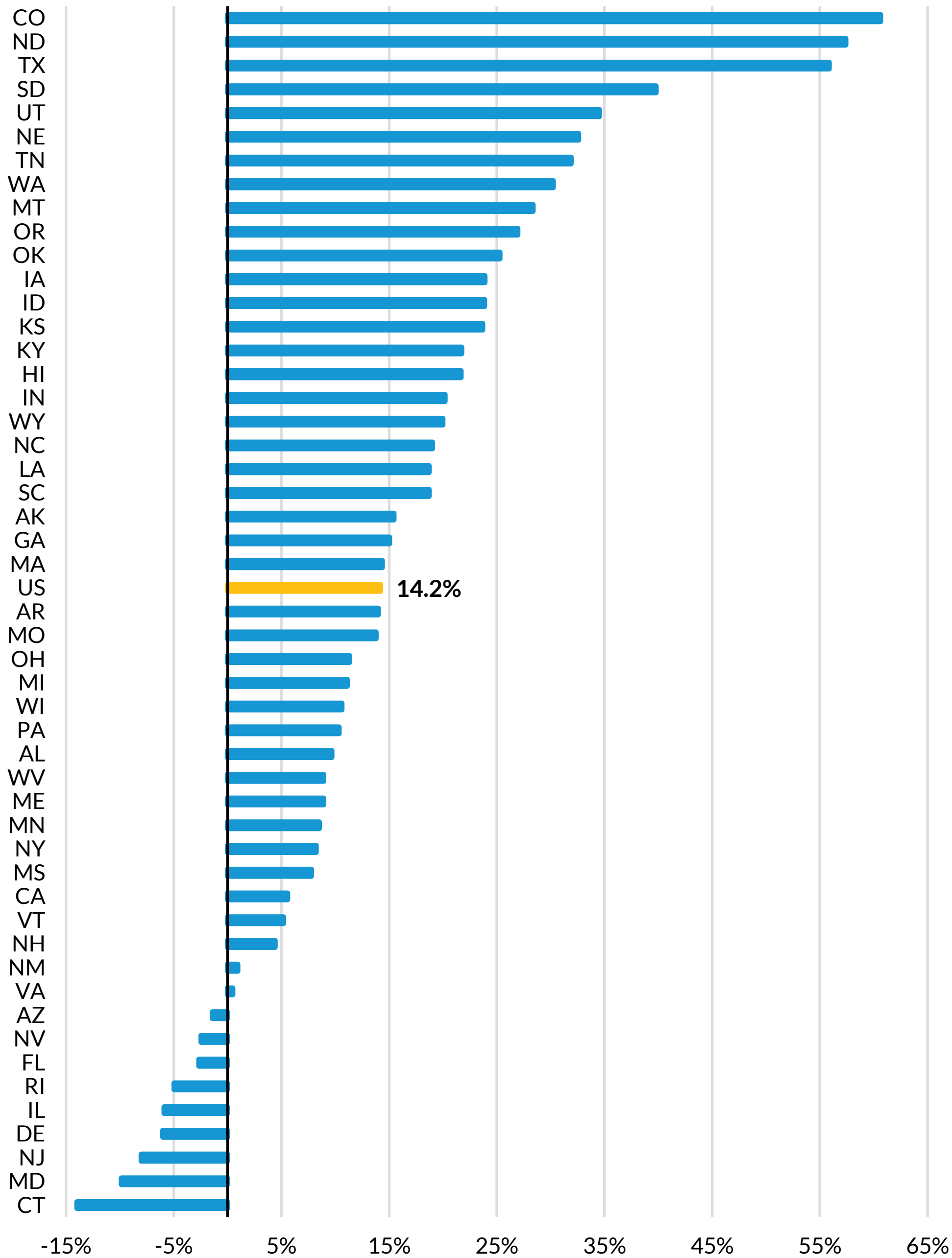
Statewide housing price indexes increased in all states in the fourth quarter of 2018 (compared with a year earlier), ranging from a 0.2 percent increase in Alaska to 13.5 percent in Nevada. Growth in 28 states was below the national average of 6.1 percent.

Despite continuous and strong nationwide growth in the housing market, prices are still below their prerecession peaks in several states. Figure 10 shows the state-by-state nominal percentage change in housing price indexes at the end of the fourth quarter of 2018 compared with the first quarter of 2007, when housing prices were at their peak.

FIGURE 10

Changes in Housing Price Indexes Since the Prerecession Peak

Percent change in housing prices from pre-recession peak level, 2018Q4 versus 2007Q1



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

National average housing prices grew 14.2 percent in nominal terms between the first quarter of 2007 and the fourth quarter of 2018. However, housing prices within states varied substantially.

Housing prices are above their prerecession peaks in 41 states in the fourth quarter of 2018 but are still lower in nine states. The three hardest-hit states—Connecticut, Maryland, and New Jersey—all still have average house prices that are 8 percent or more below their prerecession peaks. Connecticut prices are still on average 14 percent below their peak. On the other hand, statewide housing price indexes increased by double digits in 30 states over this period. In 17 states, growth in statewide average housing prices was over 20 percent, with Colorado and North Dakota having the highest growth rates at 60.6 and 57.4 percent, respectively.

Many states have raised concerns about tight housing supply and rising demand. In 2007, before the fall in housing prices, the 30-year fixed-rate mortgage averaged around 6.4 percent. Mortgage rates have declined substantially since then, and 30-year fixed-rate mortgages currently are averaging around 4 percent.[18] The low mortgage rate, widely available financing options, and stronger labor market forces have raised the demand for housing, which in turn will continue to push housing prices higher. The growth in house prices will eventually pose a risk to affordability unless housing quantities increase.

Tax Law Changes Affecting the Fourth Quarter of 2018

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 2019, partly responding to federal tax policy changes and partly reflecting policy preferences. We present analysis here based on the data and information retrieved from the National Association of State Budget Officer's Fall 2018 Fiscal Survey of the States. During the fourth quarter of 2018, enacted tax increases and decreases produced an estimated gain of $855 million compared with the same period in 2017.[19] State-enacted tax changes substantially increased corporate income taxes (by $690 million in the fourth quarter of 2018) compared with a year earlier. Tax changes decreased personal income taxes by $138 million, increased sales taxes by $164 million, and increased some other taxes by approximately $140 million. Below, we discuss some of the major enacted tax changes for fiscal year 2019.

Nine states enacted personal income tax increases, while 16 states enacted decreases. Legislated tax changes are estimated to decrease aggregate personal income tax revenues by $1 billion in fiscal year 2019. The largest estimated increase is in Georgia, where conformity to federal tax reform is estimated to lead to a $251 million increase in personal income tax collections in fiscal year 2019. Lawmakers in New Jersey enacted several income tax changes, which are estimated to increase personal income tax collections by $157 million in fiscal year 2019. First, officials in New Jersey increased the maximum marginal income tax rate from 8.97 percent to 10.75 percent for taxpayers with income over $5 million, which is estimated to increase income tax revenues by $280 million in fiscal year 2019. [20] Other changes included increasing the state earned income tax credit and increasing the maximum gross income deduction allowed for homestead property taxes paid from $10,000 to $15,000. These changes are estimated to decrease personal income tax revenues by $123 million. 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 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 by $600 million but increase corporate income tax revenues by the same amount in fiscal year 2019. Officials in Missouri reduced the top personal income tax rate with an estimated impact of $238 million reduction in personal income tax revenues in fiscal year 2019.[21] Lawmakers in Iowa enacted income tax rate reductions for all income tax brackets that are estimated to decrease state personal income tax revenues by $186 million in fiscal year 2019 (Iowa Legislative Services Agency 2018).

Ten states enacted corporate income tax increases; nine states enacted decreases. The largest corporate income tax change is in New York, where state officials amended the definition of exempt controlled foreign corporation income to reflect federal tax changes and to prevent a $2 billion loss of revenue as a result of the federal provisions under the TCJA (New York Department of Taxation and Finance 2018). Other key corporate income tax legislative changes were in Connecticut and in New Jersey. As discussed, the introduction of a new pass-through entity tax in Connecticut is estimated to increase corporate income tax revenues by $600 million in fiscal year 2019. Lawmakers in New Jersey imposed a temporary 2.5 percent tax on business taxpayers with allocated net income over $1 million (New Jersey Department of the Treasury 2018). This measure is estimated to increase corporate income tax revenues by $425 million in fiscal year 2019.

Thirteen states enacted tax changes for some other nonmajor taxes, with an estimated overall increase of $324 million in fiscal year 2019. The estimated impact of each state's changes is not significant except in Oklahoma and Washington. Lawmakers in Oklahoma increased the gasoline excise tax by 3 cents, the diesel tax by 6 cents, and the incentive rate on oil and gas production from 2 percent to 5 percent.[22] These legislative changes are estimated to bring in an additional $272 million in revenues in fiscal year 2019. Officials in Washington reduced the second state property tax levy rate, which is estimated to reduce state property tax revenues by $206 million in fiscal year 2019.[23]

Eight states enacted sales tax increases, and nine states enacted decreases. Legislated tax changes are estimated to increase sales tax revenues by $676 million in fiscal year 2019. The most significant legislative changes were in Kentucky and Louisiana. Lawmakers in Kentucky expanded the sales and use tax base, which is estimated to increase sales tax revenues by $208 million in fiscal year 2019 (Kentucky Department of Revenue 2018). Louisiana's Governor extended the expiring 1 percent sales tax enacted in 2016 but did so at a lower rate (0.45 percent); this is estimated to increase sales tax revenues by $463 million in fiscal 2019.[24]

The National Association of State Budget Officer's Fall 2018 Fiscal Survey of the States does not fully capture 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. Most states enacted these types of laws after the completion of the survey by the National Association of State Budget Officers. To date, 42 of 45 states with sales tax base have enacted economic nexus laws to collect sales and use taxes from remote sellers (Table A8). Massachusetts, Ohio, Pennsylvania, and Rhode Island had adopted internet sales tax laws before the *Wayfair* ruling on June 21, 2018, and have updated the laws or provided additional guidance for remote sellers since. Kansas, Florida, and Missouri still have not enacted laws, but all three states had already proposed legislation on collecting sales and use tax from remote sellers.

As of June 2019, 33 states are already enforcing sales tax collections by remote sellers. In five states, the effective date is set for July 1, 2019; in another three states the effective date is set for October 1, 2019; and Louisiana still needs to determine the effective date. States have set different sales and volume thresholds for the internet sales taxation. Moreover, a few states already updated their legislation to revise the threshold levels. In 22 states the threshold is set to sales of more than $100,000 or over 200 transactions, and in eight states the threshold is set to sales of more than $100,000 regardless of the number of transactions. The remaining 12 states have some other threshold levels. In five states the threshold level is much higher, at $500,000 or above (Table A8). Finally, 30 states have also enacted laws or regulations requiring marketplace facilitators to collect sales taxes on behalf of their sellers. Other states will likely follow suit. In some states marketplace sales are excluded from the threshold for individual sales.

States are expecting some boost in sales tax revenues in post-Wayfair period due to ensuing state actions. For example, officials in California are estimating that online and remote sales tax collections will result in additional $174 million in fiscal year 2019.[25]

Overall, states enacted various legislative changes, some of which are in response to federal tax policy changes. The estimated impact of net enacted tax changes is a net increase of $2.8 billion in revenues in fiscal year 2019. Legislated tax actions in fiscal year 2018 were more substantial, with an estimated net impact of $8.8 billion. One potential explanation is that states enacted substantial legislative changes for fiscal year 2018 because of budget shortfalls that they faced in fiscal year 2017.

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 TCJA had complex and hard-to-predict effects on state and local government budgets. The SALT deduction cap affected the timing and flow of state tax receipts across fiscal years, creating substantial challenges for predictable tax revenue receipt. 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 in the first 10 months of state fiscal year 2019, dropping steeply in December 2018 and January 2019 but showing strong growth in April 2019. The surge in April 2019 personal income tax collections largely made up for earlier shortfalls. And the overall revenue picture for fiscal year 2019 is positive; most states will likely close their 2019 budget books with no deficits.

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 not certain how the subsequent rounds of taxpayer responses will play out in the coming months and years, and the Internal Revenue Service is still finalizing many regulations about how these changes should be interpreted.

Second, the TCJA's repatriation provisions have complicated implications for state corporate tax revenues. US corporate offshore earnings were estimated to be around $3.0 trillion in 2017, and for a long time, US income taxes on these earnings was deferred. The new provisions under the TCJA deemed these earnings to be repatriated and subject to US tax at preferential tax rates, and these overseas profits will be taxed at 8.0 percent for illiquid holdings or at 15.5 percent for cash and cash equivalents. This provision will raise federal revenues while reducing constraints on multinational firms using these previously untaxed foreign earnings. Repatriated income is also subject to state income taxation in some states, which could temporarily boost state corporate income tax revenues.

Third, the US Supreme Court's decision in *South Dakota v. Wayfair* has encouraged state governments to explore expanding their authority over online sales taxation and to require that remote sellers collect sales tax, which will subsequently increase state sales tax revenues.[26]

Fourth, after the US Supreme Court lifted the ban on sports betting on May 14, 2018, several states took rapid measures to legalize sports betting; other states are weighing similar measures. Sports betting could bring additional (though limited) revenue to states in the short run. As of May 2019, sports betting was legalized in 12 states and already operational in seven states.[27]

Last but not least, international trade uncertainty has a negative impact on both state trade and overall state economic stability. This is especially true for those states with industries that could be most affected by tariffs imposed by the US and its trading partners, including agriculture and certain manufacturing industries.

Currently we are in the longest economic expansion on record. However, both economic and revenue growth in the current expansion has been weaker than previous expansions. Despite the strong growth in the overall economy, revenue forecasts for state fiscal year 2020 are less optimistic except for state sales tax revenues, which are likely to increase, primarily because of the *Wayfair* decision. State revenues showed heightened volatility in the past year as a result of the TCJA as well as recent fluctuations in the stock market. The stock market fragility and volatility throughout the most recent seven months stems from several factors, including the weakening global economy, the federal government shutdown, volatility in oil prices, and world trade tensions. Although the near-term economic outlook remains positive, state revenue forecasters would be prudent to maintain a cautious revenue outlook for state fiscal year 2020.

Appendix: Additional Tables

TABLE A1

Quarterly State Government Tax Revenue by Major Tax

	Nominal Y-O-Y Percentage Change						Real Y-O-Y Percentage Change				
2010Q1–2018Q4	**PIT**	**CIT**	**Sales**	**MFT**	**Total tax**	**Inflation rate**	**PIT**	**CIT**	**Sales**	**MFT**	**Total tax**
average growth	**6.1**	**3.1**	**4.0**	**3.8**	**4.6**	**1.7**	**4.3**	**1.3**	**2.3**	**2.1**	**2.9**
2018 Q4	(9.2)	10.9	4.5	3.7	(0.8)	2.1	(11.1)	8.5	2.3	1.5	(2.9)
2018 Q3	7.8	29.2	6.4	7.0	8.3	2.3	5.4	26.3	4.0	4.6	5.8
2018 Q2	10.3	17.2	5.3	6.7	8.5	2.4	7.7	14.4	2.8	4.2	6.0
2018 Q1	14.9	(5.2)	5.0	11.0	8.8	2.0	12.7	(7.1)	3.0	8.8	6.7
2017 Q4	14.6	10.2	4.5	9.6	9.0	2.0	12.4	8.1	2.5	7.5	6.9
2017 Q3	4.3	6.2	3.1	1.1	3.8	1.9	2.4	4.2	1.2	(0.8)	1.9
2017 Q2	0.0	11.7	3.2	4.2	2.4	1.7	(1.7)	9.8	1.5	2.4	0.7
2017 Q1	8.9	(28.1)	2.3	0.9	3.3	2.1	6.6	(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	1.2	1.3	1.0	1.4	(9.8)	1.7	0.2	0.3
2016 Q2	(2.8)	(9.7)	1.1	0.3	(1.8)	0.9	(3.7)	(10.6)	0.2	(0.7)	(2.7)
2016 Q1	1.7	(5.9)	1.9	2.9	1.4	0.9	0.8	(6.7)	1.0	2.0	0.5
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	4.8	4.1	0.9	5.5	(0.8)	2.5	3.8	3.1
2015 Q2	13.9	6.0	3.6	3.1	7.0	1.1	12.7	4.8	2.5	2.0	5.8
2015 Q1	7.0	3.3	5.8	4.3	5.5	1.2	5.7	2.1	4.6	3.1	4.2
2014 Q4	8.4	9.8	6.5	2.4	5.7	1.6	6.7	8.0	4.9	0.8	4.0
2014 Q3	4.4	7.4	6.6	0.6	4.3	2.1	2.3	5.3	4.5	(1.4)	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)	6.0	1.2	1.0	(1.2)
2013 Q4	1.1	3.7	5.1	3.5	3.0	1.8	(0.7)	1.8	3.2	1.7	1.2
2013 Q3	4.9	1.8	5.5	2.9	5.3	1.7	3.1	0.2	3.7	1.2	3.5
2013 Q2	19.2	8.5	4.6	2.1	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	(0.7)	3.4
2012 Q3	4.7	8.7	2.3	2.1	3.1	1.8	2.9	6.7	0.5	0.3	1.3
2012 Q2	4.7	1.6	2.2	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	3.8	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	(0.2)	6.1	2.4	7.2	0.2	1.3	(2.5)	3.7
2011 Q2	15.3	19.4	5.7	7.4	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	11.3	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	10.7	5.4	1.4	3.4	(2.3)	3.1	9.1	3.9
2010 Q2	2.1	(19.4)	4.8	4.1	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)	2.3	(10.5)	0.3	(11.6)	(21.1)	(10.0)	2.0	(10.7)
2009 Q2	(27.4)	0.9	(8.8)	(1.5)	(16.2)	1.0	(28.1)	(0.1)	(9.7)	(2.5)	(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	(5.0)	2.5	2.1	(0.7)	(13.9)	1.1	(6.9)	0.4
2008 Q2	6.2	(7.1)	3.0	(3.1)	4.5	1.7	4.4	(8.7)	1.3	(4.7)	2.7
2008 Q1	3.0	(4.2)	0.3	1.1	1.8	2.0	1.0	(6.0)	(1.6)	(0.8)	(0.2)

Source: Bureau of Economic Analysis (GDP) and US Census Bureau (tax revenue), with adjustments 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, 2018 Q4 versus 2017 Q4

	PIT	CIT	Sales	MFT	Total
US (median)	**(0.6)**	**25.0**	**6.1**	**3.4**	**3.6**
US (average)	**(9.2)**	**10.9**	**4.5**	**3.7**	**(0.8)**
New England	**(11.9)**	**29.2**	**8.5**	**1.8**	**(0.7)**
Connecticut	(20.1)	9.5	13.9	2.7	(4.4)
Maine	(1.0)	166.0	5.6	0.1	5.0
Massachusetts	(9.7)	10.3	6.1	0.7	(2.2)
New Hampshire	0.0	58.5	N/A	0.8	17.5
Rhode Island	(6.0)	104.4	5.8	3.4	7.9
Vermont	(0.1)	216.7	6.3	13.5	7.1
Mideast	**(17.1)**	**15.5**	**3.6**	**5.1**	**(5.5)**
Delaware	(0.5)	19.5	N/A	5.1	4.1
Maryland	3.1	11.7	4.2	11.2	4.0
New Jersey	(15.1)	34.8	0.9	0.8	(3.5)
New York	(25.2)	1.2	2.5	5.9	(12.5)
Pennsylvania	(2.3)	24.0	7.3	3.4	2.6
Great Lakes	**1.0**	**23.2**	**8.1**	**0.1**	**4.7**
Illinois	4.4	5.4	9.0	3.1	6.3
Indiana	0.1	96.0	5.8	2.2	5.3
Michigan	(0.6)	83.9	14.5	(0.2)	8.7
Ohio	4.0	NM	7.2	(3.6)	3.0
Wisconsin	(5.2)	2.7	2.4	1.5	(2.0)
Plains	**(3.4)**	**16.4**	**3.0**	**6.6**	**1.9**
Iowa	6.4	26.0	(0.2)	17.0	4.9
Kansas	(0.9)	57.4	1.1	6.5	1.9
Minnesota	(7.9)	8.3	1.6	3.1	(2.2)
Missouri	(4.3)	(3.4)	5.1	3.6	(0.5)
Nebraska	(0.9)	37.6	(3.2)	5.5	0.1
North Dakota	4.5	47.9	27.1	3.5	31.1
South Dakota	N/A	(7.4)	4.2	4.2	3.8
Southeast	**1.3**	**18.3**	**4.3**	**2.1**	**3.2**
Alabama	4.0	18.3	(0.2)	(23.9)	1.0
Arkansas	2.3	29.4	3.4	2.6	3.1
Florida	N/A	33.6	6.2	4.2	4.2
Georgia	0.5	29.7	6.8	1.9	3.1
Kentucky	(4.0)	(6.4)	9.0	2.6	1.3
Louisiana	18.4	454.2	(11.6)	(1.7)	10.3
Mississippi	(0.5)	50.8	4.1	(1.3)	3.8
North Carolina	2.6	(79.5)	6.2	5.1	4.0
South Carolina	2.2	(109.3)	(1.8)	6.9	(0.3)
Tennessee	(83.0)	(27.3)	6.0	5.2	1.3
Virginia	(1.6)	22.1	3.0	3.4	0.5
West Virginia	3.5	58.9	10.0	12.9	8.4
Southwest	**(7.1)**	**234.6**	**7.5**	**3.5**	**9.7**
Arizona	(7.7)	90.7	7.1	3.4	3.5
New Mexico	(28.8)	624.2	19.5	3.4	38.2
Oklahoma	5.4	NM	9.7	30.5	17.7
Texas	N/A	N/A	6.4	0.1	6.8
Rocky Mountain	**(11.0)**	**4.2**	**6.7**	**8.2**	**(1.6)**
Colorado	0.5	(7.1)	6.3	1.1	1.8
Idaho	(28.7)	14.6	7.7	7.8	(7.1)

	PIT	CIT	Sales	MFT	Total
Montana	2.2	(14.2)	N/A	0.5	4.0
Utah	(24.4)	32.2	4.6	24.8	(9.4)
Wyoming	N/A	N/A	12.8	2.2	11.4
Far West	**(15.2)**	**(9.3)**	**(0.1)**	**6.4**	**(8.8)**
Alaska	N/A	9.8	N/A	15.6	20.8
California	(17.0)	(13.0)	(6.1)	18.0	(12.1)
Hawaii	4.3	411.0	6.5	(1.8)	6.8
Nevada	N/A	N/A	8.1	3.2	6.1
Oregon	(2.2)	27.9	N/A	3.4	0.2
Washington	N/A	N/A	11.0	(29.4)	(1.3)

Source: US Census Bureau (tax revenue), with adjustments 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

	TY 2017				TY 2018				TY 2019
	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1
US (median)	**4.7**	**5.0**	**4.5**	**5.4**	**5.5**	**5.8**	**6.7**	**6.4**	**2.2**
US (average)	**6.1**	**6.3**	**5.2**	**7.2**	**8.9**	**7.5**	**6.2**	**6.5**	**1.2**
New England	**2.1**	**5.0**	**4.5**	**5.7**	**5.8**	**6.6**	**4.0**	**6.6**	**5.7**
Connecticut	1.5	1.7	2.2	3.4	6.2	4.5	8.8	9.4	6.4
Maine	3.5	3.9	3.3	5.8	5.2	8.7	4.9	8.5	3.6
Massachusetts	2.8	6.9	5.8	7.1	5.2	7.5	2.2	5.1	6.0
Rhode Island	3.6	3.0	4.2	4.4	3.9	6.0	(0.3)	5.4	3.9
Vermont	(12.0)	6.5	3.5	3.4	21.4	4.2	5.3	9.4	1.9
Mideast	**5.8**	**7.0**	**3.7**	**6.2**	**8.1**	**4.8**	**4.1**	**3.3**	**0.4**
Delaware	9.2	6.2	4.7	4.8	5.9	2.3	6.3	4.8	1.6
Maryland	4.7	10.0	(2.9)	4.4	4.6	5.5	3.0	4.9	0.9
New Jersey	10.0	13.0	7.3	5.2	7.0	5.0	3.0	3.9	4.8
New York	5.2	4.9	4.6	7.8	10.3	4.6	5.1	2.2	(1.5)
Pennsylvania	4.4	3.7	4.4	4.4	4.3	4.5	3.0	4.4	3.7
Great Lakes	**5.1**	**6.0**	**8.8**	**12.1**	**14.5**	**13.1**	**8.4**	**4.4**	**1.7**
Illinois	8.6	7.8	26.3	29.3	36.6	37.3	13.8	6.1	2.7
Indiana	5.4	5.2	5.6	7.0	11.1	9.6	7.0	2.9	(2.8)
Michigan	3.9	4.7	(3.0)	3.8	2.1	1.1	4.6	2.9	(2.5)
Ohio	3.6	3.3	3.1	5.0	4.9	5.1	5.5	5.9	2.3
Wisconsin	1.9	7.8	4.6	6.0	4.6	3.5	6.5	2.4	7.9
Plains	**4.8**	**5.3**	**5.3**	**5.8**	**6.4**	**6.8**	**4.8**	**4.8**	**0.4**
Iowa	1.1	4.4	5.4	3.4	4.8	11.0	6.6	10.8	(0.6)
Kansas	3.8	3.8	13.4	20.0	19.2	23.6	14.4	7.9	3.7
Minnesota	7.1	6.9	3.7	4.8	6.0	4.4	6.7	6.5	2.1
Missouri	4.7	4.7	5.5	3.6	3.2	1.3	(5.4)	(4.3)	(3.6)
Nebraska	5.9	3.6	1.7	5.5	5.5	5.9	9.6	6.8	(0.2)
North Dakota	(9.9)	(1.2)	5.9	0.7	0.8	13.3	12.4	12.2	13.3
Southeast	**5.0**	**4.2**	**2.1**	**3.0**	**5.1**	**6.1**	**6.3**	**7.4**	**(0.4)**
Alabama	3.1	4.3	5.3	4.1	5.5	8.6	11.3	7.6	3.9
Arkansas	4.6	8.5	5.9	4.7	3.8	4.1	5.7	5.4	1.3
Georgia	7.3	5.5	2.9	5.6	4.7	2.8	7.4	4.7	(4.0)
Kentucky	2.3	3.5	3.9	3.3	2.5	3.5	(2.5)	(0.8)	(2.4)
Louisiana	8.8	2.9	(4.2)	11.7	(0.9)	15.5	21.7	21.5	(2.8)
Mississippi	1.6	2.6	3.1	3.4	2.2	3.8	7.0	1.7	(0.4)
North Carolina	2.3	0.2	(1.8)	(3.1)	7.3	5.8	7.5	10.4	(1.6)
South Carolina	5.1	7.6	1.7	5.3	5.8	2.5	5.7	6.5	4.9
Virginia	6.7	5.0	4.0	2.0	6.5	9.0	1.1	7.7	1.2
West Virginia	1.9	5.1	4.5	5.4	4.5	9.1	15.9	9.9	6.6
Southwest	**6.0**	**4.0**	**4.6**	**6.9**	**8.0**	**8.3**	**7.9**	**1.5**	**3.6**
Arizona	7.9	4.8	5.4	5.7	7.3	5.0	8.8	6.4	2.0
New Mexico	6.6	(7.0)	0.9	10.7	9.9	28.9	4.8	(29.2)	ND
Oklahoma	3.1	7.5	5.2	6.9	8.2	5.3	8.0	8.3	6.0
Rocky Mountain	**7.7**	**8.2**	**6.7**	**8.8**	**6.2**	**10.0**	**6.7**	**5.6**	**4.6**
Colorado	7.4	8.4	6.8	7.7	8.5	6.7	9.6	10.0	5.6
Idaho	9.3	8.0	8.6	15.1	8.8	7.7	(16.2)	(20.4)	(19.9)
Montana	6.8	5.5	3.9	10.0	5.0	5.9	6.8	10.6	3.1
Utah	7.7	8.6	6.6	7.7	0.8	18.4	12.4	9.2	15.5
Far West	**9.4**	**8.6**	**6.9**	**8.8**	**11.3**	**7.4**	**7.7**	**12.0**	**0.9**
California	9.6	8.9	7.4	9.0	12.2	6.8	7.4	12.3	0.2
Hawaii	12.0	1.2	(0.9)	7.9	(11.6)	37.2	10.3	5.1	17.8
Oregon	7.3	8.2	5.4	7.7	9.5	4.6	9.1	11.0	3.3

Source: Individual state data, analysis by the author.

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

TABLE A4

State Personal Income Tax Estimated Payments/Declarations

Year-over-year nominal percentage change

State	TY 2017				TY 2018				TY 2019
	April 2017, 1st payment	June 2017, 2nd payment	Sep. 2017, 3rd payment	Dec. 2017-Jan. 2018, 4th payment	April 2018, 1st payment	June 2018, 2nd payment	Sep. 2018, 3rd payment	Dec. 2018-Jan. 2019, 4th payment	April 2019, 1st payment
Median	**(1.7)**	**1.8**	**0.3**	**39.1**	**12.6**	**9.3**	**9.6**	**(38.8)**	**18.0**
Average	**(4.3)**	**1.6**	**1.4**	**46.7**	**9.3**	**17.2**	**18.2**	**(39.4)**	**35.7**
Alabama	(23.3)	0.8	(4.3)	46.2	42.5	7.2	23.9	(42.5)	30.1
Arizona	11.1	4.2	4.8	62.6	8.3	11.8	14.9	(58.3)	(25.1)
Arkansas	(1.6)	(2.8)	(3.4)	25.0	3.9	3.3	1.9	(36.8)	(3.2)
California	(0.8)	2.9	8.7	31.2	13.2	20.9	33.5	(22.6)	7.6
Colorado	12.2	6.5	10.1	45.0	(7.1)	13.3	11.3	(47.5)	62.9
Connecticut	(7.2)	(6.1)	(5.6)	159.6	14.0	36.8	8.7	(71.5)	(18.3)
Delaware	(3.3)	10.1	2.6	46.1	12.2	(4.2)	(1.8)	(32.3)	11.2
Georgia	2.1	8.2	3.8	69.0	13.5	6.9	6.1	(58.1)	2.8
Hawaii	37.3	49.4	45.3	12.2	71.8	(19.5)	6.5	(33.5)	138.6
Illinois	19.3	8.1	16.5	82.2	46.6	41.7	29.3	(42.8)	19.7
Indiana	(18.5)	1.8	(3.1)	37.4	41.3	5.6	7.8	(33.6)	19.2
Iowa	76.9	3.2	10.0	62.0	(0.0)	(6.2)	(4.6)	(48.1)	9.4
Kansas	(2.3)	10.8	50.5	335.9	186.7	162.0	80.6	(54.0)	12.4
Kentucky	(0.6)	(4.2)	(4.0)	30.2	8.0	10.3	4.6	(43.9)	4.6
Louisiana	18.8	8.1	9.5	61.4	34.5	7.0	5.7	(39.8)	17.7
Maine	0.0	18.4	2.8	15.6	6.8	(11.7)	2.3	(18.0)	18.3
Maryland	11.2	1.6	(8.5)	32.9	36.5	5.5	11.2	(32.7)	(1.0)
Massachusetts	(30.5)	(7.7)	(13.7)	68.3	17.0	14.9	16.5	(49.8)	7.5
Michigan	1.6	11.8	8.1	54.0	23.2	9.9	12.3	(43.3)	9.9
Minnesota	(1.8)	(4.5)	(2.2)	45.0	(0.3)	9.4	5.8	(52.2)	71.0
Mississippi	56.2	(0.1)	(7.4)	18.1	(42.2)	(7.0)	2.6	(28.0)	97.8
Missouri	2.1	(2.5)	(13.4)	42.4	(5.5)	2.5	13.8	(21.9)	135.6
Montana	4.7	3.5	0.4	48.3	7.8	16.2	2.1	(36.1)	27.6
Nebraska	(5.4)	(5.5)	(3.7)	35.9	6.1	7.9	6.2	(35.6)	20.6
New Jersey	(9.7)	(3.2)	(1.2)	17.2	7.5	20.2	23.3	(32.5)	10.4
New York	(12.9)	(1.4)	(1.7)	68.7	4.5	15.9	15.2	(54.5)	57.1
North Carolina	(8.7)	1.8	2.8	31.1	30.7	1.0	2.7	(44.4)	15.1
North Dakota	(10.2)	(17.2)	(9.6)	49.8	12.5	11.3	7.4	(43.5)	40.6
Ohio	(1.6)	(12.0)	0.3	58.4	39.5	36.7	18.7	(43.3)	8.1
Oklahoma	(14.9)	3.9	0.8	36.1	14.5	9.2	9.9	(29.4)	31.6
Oregon	29.8	9.7	3.6	40.8	6.6	7.9	13.2	(46.9)	53.5
Pennsylvania	(4.9)	1.3	0.2	33.4	16.4	9.7	14.8	(33.2)	13.9
Rhode Island	(11.0)	8.6	(3.8)	31.8	14.5	(1.6)	12.8	(37.8)	5.3
South Carolina	7.3	3.9	(5.1)	31.3	(65.3)	1.8	5.3	(35.4)	157.4
Vermont	(6.4)	(3.1)	(8.6)	23.6	12.7	14.8	14.9	(25.5)	20.1
Virginia	(26.5)	1.2	1.2	36.9	28.3	16.3	8.8	(37.0)	30.3
West Virginia	(16.0)	4.2	3.6	27.4	9.7	4.3	10.0	(22.7)	(9.9)
Wisconsin	(2.9)	(1.3)	(0.9)	17.8	4.8	12.5	9.2	(42.8)	51.9

Source: Individual state data, analysis by the author.

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

TABLE A5

State Personal Income Tax Final Payments

Year-over-year nominal percentage change

	TY 2017				TY 2018				TY 2019
State	**2017 Q1**	**2017 Q2**	**2017 Q3**	**2017 Q4**	**2018 Q1**	**2018 Q2**	**2018 Q3**	**2018 Q4**	**2019 Q1**
Median	**(1.8)**	**(3.7)**	**(3.9)**	**6.8**	**11.2**	**5.5**	**7.9**	**13.6**	**11.0**
Average	**(0.7)**	**(5.2)**	**1.4**	**15.1**	**15.2**	**8.4**	**12.8**	**0.6**	**11.5**
Alabama	0.6	0.0	(4.9)	6.4	13.3	2.9	20.7	3.1	(2.2)
Arizona	1.3	(3.2)	2.8	(4.2)	8.3	5.0	12.7	27.8	28.4
Arkansas	(14.8)	(14.8)	(13.2)	(7.1)	11.3	(1.8)	3.9	8.3	142.4
California	(1.8)	(10.1)	(1.9)	(0.6)	11.2	11.0	15.7	13.9	21.4
Colorado	(13.3)	4.7	9.3	12.7	46.2	9.9	12.0	7.1	0.7
Connecticut	11.7	(12.1)	(1.3)	54.5	15.2	9.7	2.6	(37.8)	(45.0)
Delaware	(3.2)	(3.5)	7.5	5.1	7.7	8.1	(11.6)	16.8	33.6
Georgia	(6.7)	0.1	25.1	(3.3)	11.8	(0.2)	32.2	15.8	22.0
Hawaii	13.8	(11.0)	(7.4)	6.5	14.6	21.1	25.0	(6.2)	33.8
Idaho	14.2	0.8	8.4	10.1	52.1	(4.2)	7.7	(45.5)	(48.7)
Illinois	(5.8)	(1.8)	(13.3)	13.1	29.8	53.0	53.7	25.5	25.8
Indiana	(4.9)	(1.4)	40.1	(13.6)	0.2	3.4	(1.4)	18.0	12.2
Iowa	25.3	(4.3)	(15.9)	(7.5)	2.1	(8.6)	16.3	30.3	(2.9)
Kansas	91.3	(8.2)	30.0	(13.2)	(17.3)	99.1	18.7	63.7	12.9
Kentucky	2.8	(0.7)	(9.7)	(3.6)	4.6	4.6	1.2	14.3	NM
Louisiana	30.7	3.5	(12.7)	26.5	(1.3)	3.1	1.5	6.8	7.3
Maine	4.3	0.4	(5.1)	2.7	(5.9)	0.9	4.1	5.9	(2.9)
Maryland	(11.5)	2.7	1.2	8.3	12.3	1.6	7.5	6.2	21.1
Massachusetts	(13.0)	(4.8)	0.6	31.4	33.1	8.3	11.7	14.6	11.0
Michigan	(7.3)	(3.3)	(7.8)	(4.1)	16.3	9.9	21.2	19.1	(5.3)
Minnesota	(2.7)	(9.5)	1.8	7.7	17.3	4.1	7.1	(1.9)	3.1
Missouri	3.4	(9.7)	(3.9)	4.9	1.8	4.3	7.2	104.6	352.2
Montana	(19.0)	(9.1)	(9.0)	11.8	(2.2)	10.9	0.8	2.8	17.4
Nebraska	(3.5)	(16.6)	(13.8)	16.9	(2.3)	5.5	17.9	(4.9)	5.6
New Jersey	2.8	2.0	48.8	97.7	32.0	2.7	(21.7)	(42.8)	(13.4)
New Mexico	(4.1)	4.9	9.5	41.6	4.1	14.4	54.0	65.2	ND
New York	(9.1)	(7.6)	(10.8)	(2.0)	25.2	4.2	20.5	19.6	15.4
North Carolina	12.7	(11.1)	(4.7)	29.6	8.3	0.9	1.7	(10.2)	2.8
North Dakota	(17.1)	(7.1)	0.0	(14.9)	4.7	15.6	(9.1)	5.3	14.6
Ohio	8.5	0.6	(27.4)	(6.7)	(0.0)	20.5	51.5	45.6	25.2
Oklahoma	4.8	(2.5)	(9.0)	(3.5)	5.7	11.1	13.5	16.6	12.0
Pennsylvania	0.2	(0.2)	(0.0)	17.8	14.6	(1.0)	50.2	19.3	8.0
Rhode Island	37.5	(7.3)	(7.8)	(5.5)	50.1	14.7	6.4	20.4	11.2
South Carolina	(19.6)	(4.4)	31.1	30.4	15.7	18.4	7.9	14.1	10.0
Utah	(4.9)	6.1	16.1	72.3	9.6	(7.1)	5.6	(71.6)	36.5
Vermont	(13.5)	(3.7)	13.0	10.6	15.3	31.5	(2.3)	13.2	9.9
Virginia	(36.1)	(6.9)	(19.8)	NM	110.2	6.6	77.6	NM	(16.6)
West Virginia	14.9	(12.0)	(9.2)	16.5	(6.4)	0.5	20.7	(1.0)	(18.9)
Wisconsin	3.2	(8.7)	(4.5)	7.1	(16.1)	6.9	2.0	(11.1)	(23.1)

Source: Individual state data, analysis by the author.

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

TABLE A6

Quarterly State Government Tax Revenue for Nonmajor Tax Revenue Sources

Year-over-year inflation-adjusted percentage change; four-quarter moving averages

2018 Q4 collections ($ millions)	Property tax	Tobacco product sales tax	Alcoholic beverage sales tax	Motor vehicle & operators' license taxes	Other taxes	Total nonmajor taxes
	$4,846	**$4,860**	**$1,673**	**$7,463**	**$32,450**	**$51,292**
2010Q1–2018Q4 average growth	**2.0**	**0.3**	**1.1**	**2.1**	**2.2**	**1.9**
2018 Q4	8.8	(4.6)	(0.9)	9.5	3.5	3.9
2018 Q3	8.0	1.4	(0.4)	5.6	4.6	4.6
2018 Q2	3.6	5.3	0.9	4.9	3.5	3.8
2018 Q1	1.0	4.7	1.1	1.2	3.1	2.7
2017 Q4	(0.6)	6.2	2.4	(0.3)	2.2	2.0
2017 Q3	(1.3)	3.5	2.9	3.7	0.8	1.3
2017 Q2	0.4	1.7	2.2	1.4	(0.2)	0.4
2017 Q1	2.9	1.1	1.0	2.3	(1.9)	(0.6)
2016 Q4	2.3	1.3	0.4	2.6	(1.9)	(0.6)
2016 Q3	4.8	1.1	0.7	1.0	(2.7)	(1.2)
2016 Q2	4.1	0.6	1.6	2.5	(2.0)	(0.6)
2016 Q1	4.9	1.7	2.6	2.2	(1.5)	(0.1)
2015 Q4	8.6	0.0	1.5	2.7	(1.2)	0.3
2015 Q3	6.1	(0.9)	1.2	1.5	(0.5)	0.2
2015 Q2	5.1	(2.2)	1.5	1.1	(0.8)	(0.2)
2015 Q1	4.2	(4.0)	(0.3)	1.1	(0.4)	(0.2)
2014 Q4	0.7	(4.7)	1.4	(0.7)	(1.9)	(1.7)
2014 Q3	3.1	(3.7)	1.3	0.6	(1.7)	(1.1)
2014 Q2	5.2	0.5	(0.1)	1.1	(0.4)	0.3
2014 Q1	5.1	1.8	1.3	0.9	0.4	1.0
2013 Q4	4.8	3.7	(0.7)	0.3	3.2	2.8
2013 Q3	3.2	3.6	(2.4)	(0.5)	3.6	2.8
2013 Q2	(0.3)	(1.0)	(1.9)	(0.9)	2.7	1.5
2013 Q1	(3.2)	(1.6)	(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	7.4
2010 Q4	8.2	3.2	3.3	4.1	7.9	6.7
2010 Q3	13.4	2.3	3.1	5.7	5.0	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	(8.5)	(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)	(6.3)	(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
2008 Q2	3.4	5.9	0.5	(0.4)	5.6	4.4
2008 Q1	4.0	6.2	0.6	(1.0)	2.4	2.3

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

TABLE A7

Preliminary Quarterly State Government Tax Revenue, by State

Nominal percentage change, 2019 Q1 versus 2018 Q1

	PIT	CIT	Sales	Total
US (median)	**(0.8)**	**9.7**	**4.7**	**2.6**
US (average)	**(3.1)**	**33.1**	**5.7**	**1.6**
New England	**(11.9)**	**34.4**	**0.7**	**1.3**
Connecticut	(30.3)	31.8	(6.9)	(5.1)
Maine	1.1	5.5	5.4	3.9
Massachusetts	0.4	53.2	4.1	5.9
New Hampshire	NM	(12.3)	N/A	2.6
Rhode Island	(1.9)	(12.5)	6.1	(1.5)
Vermont	(2.8)	13.2	3.6	0.2
Mideast	**(6.8)**	**87.1**	**4.9**	**(0.9)**
Delaware	4.4	181.7	N/A	0.8
Maryland	(0.7)	44.6	2.4	(0.9)
New Jersey	0.3	400.5	6.4	8.9
New York	(10.9)	83.9	4.0	(5.9)
Pennsylvania	1.1	11.9	5.8	3.1
Great Lakes	**(4.5)**	**43.5**	**2.5**	**0.4**
Illinois	(3.0)	(1.2)	6.3	(0.2)
Indiana	(5.5)	81.0	1.8	(0.6)
Michigan	(22.2)	6.2	(1.7)	(6.3)
Ohio	(5.8)	(128.7)	4.7	0.6
Wisconsin	8.3	178.6	0.9	10.9
Plains	**(9.4)**	**29.8**	**1.5**	**(5.0)**
Iowa	(8.5)	(21.1)	5.4	(4.8)
Kansas	(8.1)	4.1	(0.9)	(9.7)
Minnesota	(8.0)	41.4	(0.7)	(2.7)
Missouri	(14.8)	57.9	(0.3)	(8.7)
Nebraska	(2.9)	34.0	3.5	0.7
North Dakota	17.2	(16.0)	13.7	1.0
South Dakota	N/A	N/A	(0.4)	(1.2)
Southeast	**(2.7)**	**15.3**	**3.0**	**1.7**
Alabama	3.0	(44.0)	3.6	3.5
Arkansas	7.6	132.8	(0.2)	8.6
Florida	N/A	(0.2)	3.3	3.2
Georgia	(9.1)	65.0	3.2	(2.6)
Kentucky	(2.2)	2.4	7.9	3.8
Louisiana	(8.5)	31.2	(12.4)	(9.1)
Mississippi	(0.9)	9.7	3.4	3.7
North Carolina	(9.5)	(37.5)	4.9	(5.0)
South Carolina	0.9	107.3	5.2	6.4
Tennessee	NM	16.7	5.0	4.8
Virginia	6.6	(2.9)	1.8	5.7
West Virginia	3.4	(201.0)	6.1	6.6
Southwest	**2.5**	**(47.6)**	**8.2**	**7.5**
Arizona	(0.2)	(100.6)	5.5	6.1
New Mexico	ND	ND	ND	ND
Oklahoma	6.6	NM	6.9	20.1
Texas	N/A	N/A	8.8	6.3
Rocky Mountain	**0.2**	**(29.3)**	**5.4**	**(0.7)**
Colorado	(1.4)	(31.6)	4.8	(1.3)
Idaho	(32.0)	(10.8)	4.8	(13.5)
Montana	3.4	32.9	N/A	7.0
Utah	21.6	(42.4)	4.9	7.7

Wyoming	N/A	N/A	10.7	ND
Far West	**5.1**	**14.0**	**13.1**	**5.0**
Alaska	N/A	(125.4)	N/A	88.6
California	5.1	11.0	15.8	4.8
Hawaii	3.0	20.2	(4.5)	(1.3)
Nevada	N/A	N/A	ND	ND
Oregon	5.9	(7.0)	N/A	5.3
Washington	N/A	N/A	9.2	6.6

Source: Individual state data, analysis by the author.

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

TABLE A8

States with Economic Nexus and Marketplace Laws

Economic Nexus threshold volume and effective dates

State	Current threshold levels for economic nexus	Economic nexus effective date	Marketplace effective date
Alabama	>$250,000	10/1/2018	1/1/2019
Arizona	>$200,000 in CY 2019, > $150,000 in CY 2020	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	>$250,000 and over 200 transactions	12/1/2018	12/1/2018
Georgia	>$250,000 in CY 2019 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 or over 200 transactions	1/1/2019	1/1/2019
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	
Maryland	>$100,000 or over 200 transactions	10/1/2018	10/1/2019
Massachusetts	>$500,000 or over 100 transactions	10/1/2017	
Michigan	>$100,000 or over 200 transactions	10/1/2018	
Minnesota	>$100,000 or over 100 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	
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	>$300,000 or over 100 transactions	6/1/2019	
North Carolina	>$100,000 or over 200 transactions	11/1/2018	
North Dakota	>$100,000	10/1/2018	10/1/2019
Ohio	>$500,000	1/1/2018	
Oklahoma	>$10,000 (>$100,000 effective 1/1/2019)	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	1/1/2019
Wisconsin	>$100,000 or over 200 transactions	10/1/2018	
Wyoming	>$100,000 or over 200 transactions	2/1/2019	7/1/2019

Source: Individual state information, compiled by the author.

Notes: Alaska, Delaware, Montana, New Hampshire, and Oregon do not have sales tax. Kansas, Florida, and Missouri have proposed but not yet enacted legislations on economic nexus. States are hyperlinked to respective economic nexus guidelines.

Notes

[1] I made several adjustments for the fourth quarter of 2018 and to several previous quarters of tax revenue data reported by the US Census Bureau based on the information and data received directly from the states and from the Census Bureau.

[2] In this report, I use Bureau of Economic Analysis regions as the basis of analysis.

[3] See Georgia Department of Revenue, "2018 IT-511 Individual Income Tax Booklet," May 5, 2019, https://dor.georgia.gov/sites/dor.georgia.gov/files/related_files/document/TSD/Booklet/IT-511/2018_IT-511_Individual_Income_Tax_Booklet.pdf.

[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 Missouri Department of Revenue, "2019 Withholding Tax and MO W-4 Changes," https://dor.mo.gov/business/withhold.

[6] See North Carolina Department of Revenue, "Important Tax Law Changes for Employers, Pension Payers, and Others That Withhold North Carolina Income Tax," October 17, 2018, https://files.nc.gov/ncdor/documents/files/2018-10-17_withholding_changes_for_2018.pdf.

[7] See Commonwealth of Kentucky, Department of Revenue, "2018 Kentucky Individual Income Tax Forms, https://revenue.ky.gov/Forms/740%20Packet.pdf.

[8] See Idaho State Tax Commission, "Changes for 2018 Idaho Income tax Returns," June 21, 2018, https://tax.idaho.gov/i-2019.cfm.

[9] The state fiscal year runs from July 1 to June 30 in all states except Alabama, Michigan, New York, and Texas.

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

[11] Individual income tax returns are due on April 15 in 35 out of 41 states that have broad-based personal income tax. The remaining six states have individual income tax return due dates later than the usual April 15. Those states are: Arkansas (May 15), Delaware (April 30), Hawaii (April 20), Iowa (April 30), Louisiana (May 15), and Virginia (May 1).

[12] "State and Local Finance Initiative: Data Subscriptions," Urban Institute, accessed July 12, 2019, https://www.urban.org/policy-centers/cross-center-initiatives/state-and-local-finance-initiative/projects/state-tax-and-economic-review/data-subscriptions.

[13] See New York State Assembly, "Fiscal Reform and the New York State Assembly," June 1995, https://www.assembly.state.ny.us/Reports/Admin/199506/.

[14] See Legislative Analyst's Office, "April 2019 State Tax Collections," May 21, 2019, https://lao.ca.gov/LAOEconTax/Article/Detail/375.

[15] 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.

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

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

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

[19] Urban Institute analysis of data from NASBO (2018), table A-1.

[20] See *Gross Income Tax* (New Jersey Department of the Treasury), last updated February 28, 2019, https://www.state.nj.us/treasury/taxation/git2018TaxRates.shtml.

[21] See Missouri Office of the Governor, "Governor Mike Parson Signs Income Tax Cut for Missourians," press release, July 12, 2018, https://governor.mo.gov/press-releases/archive/governor-mike-parson-signs-income-tax-cut-missourians.

[22] See Oklahoma Tax Commission, "Gross Production and Petroleum Excise Tax," accessed March 5, 2019, https://www.ok.gov/tax/documents/Summary%20of%202017%20Second%20Special%20Session%20GP%20Tax%20Legislation.pdf.

[23] See Washington State Department of Revenue, "State School Levy Property Tax Tip Sheet," FS0026, May 2018, https://dor.wa.gov/sites/default/files/legacy/Docs/Pubs/Prop_Tax/SchoolLevy.pdf.

[24] See Louisiana Department of Revenues, "New State Sales Tax Rate Goes into Effect July 1," press release, June 24, 2018, https://revenue.louisiana.gov/NewsAndPublications/NewsReleaseDetails/11467.

[25] 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.

[26] For more information, see Auxier and Rueben (2018) and Howard Gleckman, "Don't Look Now, but States Already Are Requiring Online Sellers to Collect Sales Taxes," *Tax Vox* (blog), Urban-Brookings Tax Policy Center, September 4, 2018, https://www.taxpolicycenter.org/taxvox/dont-look-now-states-already-are-requiring-online-sellers-collect-sales-taxes.

[27] For more information on sports betting revenues, see Auxier (2019).

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