



RESEARCH REPORT

Another Stellar Quarter of State Revenue Growth, But the Pace Is Slowing Down

State Tax and Economic Review, 2018 Quarter 2

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Executive Summary

- **State and local government tax revenues** from major sources—personal income, corporate income, sales, and property taxes—were up 7.0 percent in the second quarter of 2018 compared with the prior year. Some patterns and changes in revenues likely reflect taxpayers' timing decisions in response to federal tax changes.
- Year-over-year growth in **state government tax revenues** from major sources was strong at 9.1 percent in the second quarter of 2018. However, growth was mixed across different revenue sources.
 - » **State personal income taxes** showed double-digit growth for three consecutive quarters.
 - » **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 in the second quarter of 2018 after exhibiting a decline in the first quarter of 2018.
- Year-over-year growth in **local government tax** revenues from major sources was 3.5 percent in the second quarter of 2018, slightly stronger than the 3.3 percent growth in the first quarter of 2018 but substantially lower than the 8.8 percent growth in the final quarter of 2017.
 - » **Local property taxes** increased 2.9 percent in the second quarter of 2018, stronger than the 1.3 percent growth in the first quarter of 2018 but substantially weaker than the 9.1 percent growth in the final quarter of 2017. Local property taxes were artificially boosted in the final quarter of 2017 because some taxpayers responded to the Tax Cuts and Jobs Act by making property tax prepayments before the law took effect in 2018.
- Preliminary analysis of **state government taxes in fiscal year 2018** indicates strong growth, with total state tax revenues exceeding \$1 trillion for the first time. State tax revenues grew 7.8 percent in fiscal year 2018.¹ Growth rates were weaker in the median state, at 5.8 percent. High income tax revenues in a few states were responsible for much of the increase.
- Preliminary **state government tax data for the third quarter of 2018** indicate weakness in personal income tax collections. Double-digit growth in personal income tax collections in the final quarter of 2017 and first half of 2018 was mostly driven by the stronger growth in estimated and final payments in response to the TCJA. The weakness in income tax collections in the third quarter of 2018 is partially attributable to the disappearing impact of incentives created under the TCJA to accelerate payments of state and local income taxes into calendar

year 2017. Corporate income tax collections showed the strongest growth in the post-Great Recession period. Growth in sales tax collections was stronger compared with the first and second quarters of 2018.

- Economic factors driving revenue growth were all positive in the second quarter of 2018. However, the growth in economic factors needs to be viewed with caution.
 - » **Real gross domestic product** was 2.9 percent higher for the nation in the second quarter of 2018 compared to the same quarter in 2017. Overall, state economies have grown at a slower pace in the first and second quarters of 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 3.9 percent in the second quarter of 2018. Unemployment rates have seen steady declines since 2010, largely driven by the decline in labor force participation partly caused by retiring Baby Boomers.
 - » **Employment** grew 1.6 percent in the second quarter of 2018 compared with one year ago. However, there were large disparities among the states, with 33 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, which had a negative impact on sales tax revenues.
 - » **Housing prices** increased 6.6 percent in the second quarter of 2018. Housing prices have been rising from low levels in 2007, but growth was not even across the 50 states. In 11 states, housing prices are still lower than their prerecession peak levels.

Trends in State and Local Tax Revenues

State and local government tax revenues have fluctuated wildly over the past four years despite relatively steady economic recovery since the Great Recession.

Overall, year-over-year growth in state and local government tax revenues was strong in the first and second quarters of 2018 but weaker than the growth observed in the final quarter of 2017. Most of the weakness was attributable to local property taxes; these were artificially boosted in the fourth quarter of 2017 because of the responses to the federal tax law known as the Tax Cuts and Jobs Act (TCJA) enacted in late December 2017. The TCJA created strong incentives for some high-income taxpayers to prepay their property taxes to take advantage of the uncapped state and local tax (SALT) deduction in 2017. Under the TCJA, the SALT deduction was capped at \$10,000 per year effective January 1, 2018.

Table 1 shows state and local government tax revenues from major sources for the second quarter of 2017 and the second quarter of 2018, as well as the nominal percentage change between both quarters and the average quarterly year-over-year growth in state fiscal year 2018. Growth varied substantially by source and level of government. Major findings include the following:

- **State and local government revenues** from major sources increased 7.0 percent in the second quarter of 2018 compared with a year earlier, slightly weaker than the 6.8 percent average quarterly growth in state fiscal year 2018.
- **State government revenue** from major sources increased 9.1 percent in the second quarter of 2018 from a year ago, slightly higher than the average quarterly year-over-year growth rate of 8.2 percent in state fiscal year 2018. The strong growth in overall state tax revenues was mostly driven by higher personal income tax revenues, which increased by double-digit percentages in the final quarter of 2017 and the first and second quarters of 2018. Growth in sales tax collections was 5.6 percent in the second quarter of 2018, stronger than the average quarterly year-over-year growth rate of 4.5 percent in state fiscal year 2018.
- **Local government revenue** from major sources increased 3.5 percent from a year ago in the second quarter of 2018, weaker than the 5.0 percent average quarterly year-over-year growth in state fiscal year 2018. Local property taxes, the single largest source of local government tax revenues, increased 2.9 percent from a year ago in the second quarter of 2018, substantially

weaker than the 4.4 percent average quarterly year-over-year growth in state fiscal year 2018. As noted, this likely reflects timing decisions and not underlying changes in revenues.

TABLE 1
State and Local Government Tax Revenue Growth
Millions of dollars

Tax source	2017 Q2	2018 Q2	Nominal percentage change	Average quarterly Y-O-Y growth rate, SFY 2018
Total state and local major taxes	\$351,419	\$376,008	7.0	6.8
State major taxes	\$220,505	\$240,483	9.1	8.2
Personal income tax	109,847	121,402	10.5	11.4
Corporate income tax	18,909	22,296	17.9	7.7
Sales tax	84,234	88,959	5.6	4.5
Property tax	7,515	7,827	4.2	5.8
Local major taxes	\$130,914	\$135,525	3.5	5.0
Personal income tax	9,836	10,439	6.1	6.7
Corporate income tax	2,407	2,621	8.9	7.4
Sales tax	20,591	21,533	4.6	7.4
Property tax	98,080	100,932	2.9	4.4

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

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

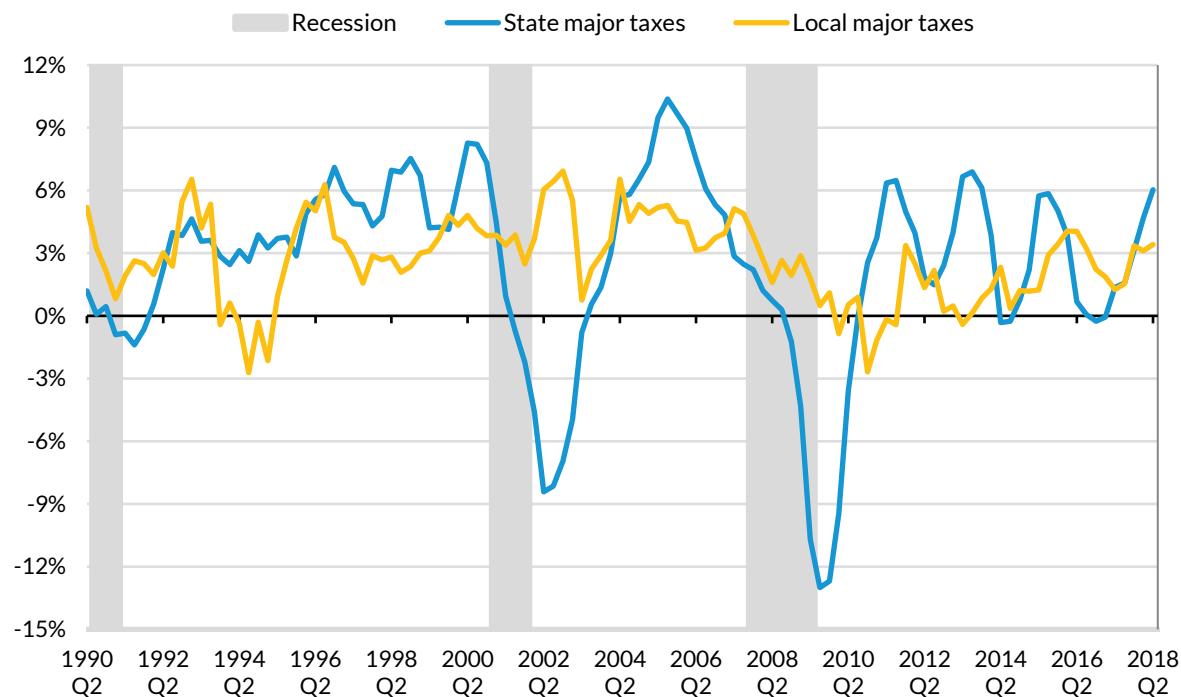
Figure 1 shows longer-term trends in state and local tax collections, specifically, the year-over-year percentage change in the four-quarter moving average of inflation-adjusted state and local tax collections from major sources: personal income tax, corporate income tax, sales tax, and property tax. As shown in figure 1, state taxes from major sources fluctuated greatly over the past few years, mostly driven by the impact of the federal fiscal cliff, volatility in the stock market, and, most recently, by the impact of taxpayer behavior in response to the passage of the TCJA. State taxes from major sources, adjusted for inflation, grew 6.0 percent in the past four quarters relative to the year earlier, which is the strongest growth since the fourth quarter of 2013. The four-quarter moving average of inflation-adjusted local taxes from major sources grew 3.4 percent in the second quarter of 2018.

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 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 TCJA.

FIGURE 1

Strong Growth in State Major Tax Revenues

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



Source: Author's calculations using data from the US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP).

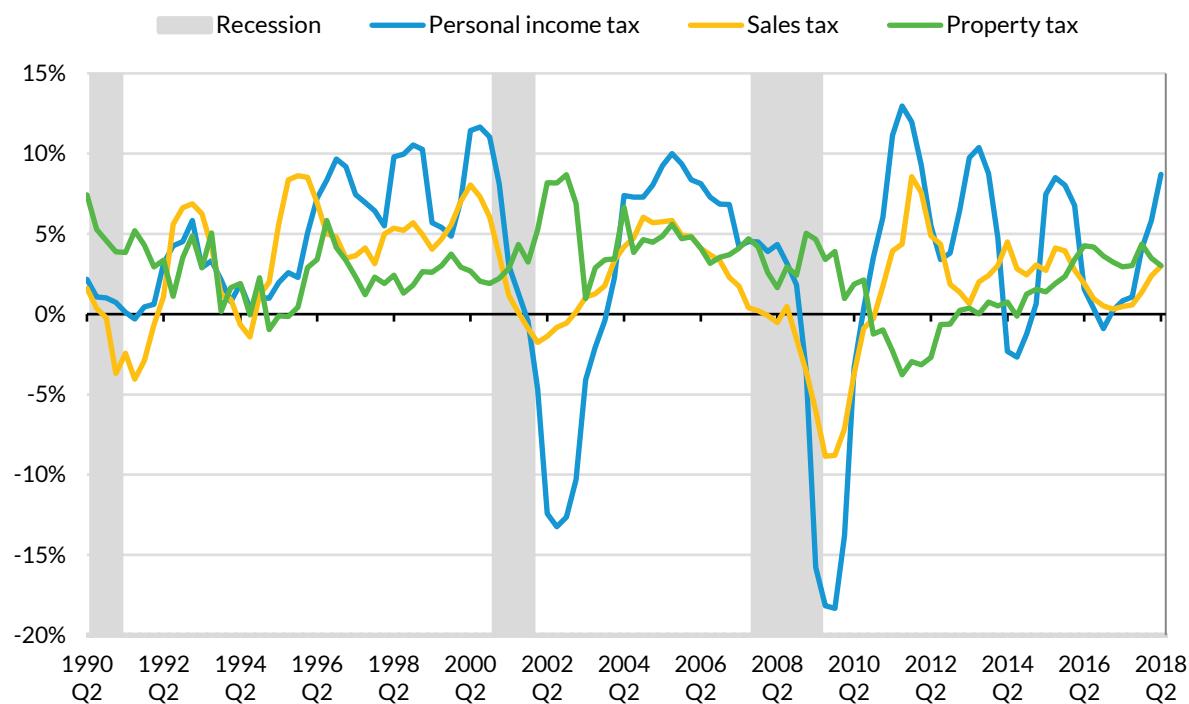
Notes: Year-over-year change is the percentage change of four-quarter moving averages. Data are adjusted for inflation. Data are for four major tax categories only: personal income, corporate income, general sales, and property.

Figure 2 breaks out inflation-adjusted state and local personal income, sales, and property tax revenue over the same period. The graph illustrates 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 5.8 percent in the first quarter of 2018 and 8.7 percent in the second quarter of 2018, substantially stronger than in previous quarters. State-local property taxes, nearly all of which are collected by local governments, grew 3.0 percent from a year earlier in the second quarter of 2018, weaker than the 3.5 percent growth in the first quarter of 2018. State-local sales tax revenues grew 2.4 and 3.0 percent, respectively, in the first and second quarters of 2018, which is relatively strong compared with the sluggish growth observed since mid-2016.

FIGURE 2

Substantial Growth in State-Local Personal Income Tax Revenues

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



Source: Author's calculations using data from the US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP).

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 2

Total state tax revenue grew 8.8 percent in the second quarter of 2018 relative to a year ago, in nominal terms, according to US Census Bureau data as adjusted by the author.² Inflation-adjusted growth was 6.3 percent. Growth was reported in all major sources of state tax revenues. Personal income and corporate income tax collections grew by double-digits in nominal terms, at 10.5 and 17.9 percent, respectively, while sales tax and motor fuel tax collections grew 5.6 and 6.8 percent. Table A1 shows nominal and inflation-adjusted growth in state government tax revenue collections from major sources, as well as average quarterly year-over-year growth rates for the past eight years, between the first quarter of 2010 and the second quarter of 2018. Despite the strong growth in overall state tax revenue collections in the final quarter of 2017 and the first half of 2018, the inflation-adjusted average annual growth rate since 2010 was only 3.0 percent.

Total state tax revenues showed solid growth across all regions in the second quarter of 2018 (table [A2](#)). Growth in the median state was 0.4 percentage points stronger than the growth rate for the national average. The Far West region had the strongest growth at 12.9 percent, while the Mideast region had the weakest growth at 5.6 percent.³

All states but Wyoming reported growth in total state tax revenue collections for the second quarter of 2018 relative to a year ago, with 16 states reporting double-digit growth. Growth in state tax revenues was particularly strong in Alaska and North Dakota, where revenues grew 48.8 and 32.5 percent, respectively. Both states are oil and mineral dependent 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 weakness in overall state tax collections (Dadayan and Boyd 2016). Therefore, the strong growth in overall state tax collections both in Alaska and North Dakota are because those are bouncing back from depressed levels the previous year. State tax revenue growth was also strong in New Hampshire at 36.7 percent.

Personal Income Taxes

State personal income tax revenues grew 10.5 percent in nominal terms and 7.9 percent in inflation-adjusted terms in the second quarter of 2018 compared with the same period in 2017. This is the third consecutive quarter of double-digit growth in nominal terms. However, the growth in the second quarter of 2018 was weaker than the growth in the previous two quarters but far stronger than the average quarterly year-over-year growth rate in state personal income tax collections of 6.5 percent in nominal terms and 4.8 percent in real terms since 2010. As cautioned in the previous *State Tax and Economic Review* quarterly report, the recent strength in personal income tax collections is likely 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). In addition, 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.

Personal income tax collections saw double-digit growth in the Great Lakes, Far West, and Plains regions. The Great Lakes region saw the largest growth at 18.1 percent, while the Rocky Mountain region reported the weakest growth at 5.0 percent. The strong growth in the Great Lakes region was partially attributable to income tax rate increases in Illinois.

Overall, personal income tax collections grew in 39 states in the second quarter of 2018, with 14 states reporting double-digit growth. Personal income tax revenues were particularly strong in Kansas and Illinois, where collections increased 65.2 and 43.6 percent, respectively. The strong growth in both states are mostly attributable to increases in their income tax rates. In Illinois, the income tax rate was increased from 3.75 percent to 4.95 percent effective July 1, 2017 (Illinois Department of Revenue 2017). In Kansas, the legislature increased income tax rates and created a higher income tax bracket retroactively for tax year 2017, which was maintained for subsequent years (Kansas Department of Revenue 2017).

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 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 third quarter of 2018. [Table 2](#) shows growth for each major component in the past seven quarters, illustrating the boost in personal income tax collections in the final quarter of 2017 and the first quarter of 2018 because of the strong growth in estimated payments and final returns.

TABLE 2

Growth in State Government Personal Income Tax Components

Year-over-year nominal percentage change

Personal income tax components	Tax Year 2017 (%)				Tax Year 2018 (%)		
	2017Q1	2017Q2	2017Q3	2017Q4	2018Q1	2018Q2	2018Q3
Withholding	6.1	6.4	5.2	7.2	8.9	7.4	6.5
Estimated payments	1.0	(1.8)	1.8	52.7	31.0	12.8	18.3
Final returns	(0.7)	(5.2)	1.4	15.1	15.2	8.4	12.0
Refunds	(2.8)	9.2	4.9	(7.1)	6.1	0.9	14.7
PIT total	7.9	0.4	4.5	16.0	14.8	10.3	8.0

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. FY = fiscal year; 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.

[Table A3](#) shows year-over-year growth in withholding for the past seven quarters for all states with a broad-based personal income tax. 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

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, should be viewed cautiously, because it was partially driven by one-time bonuses paid by employers in response to the TCJA. Growth in withholding softened in the third quarter of 2018, to 6.5 percent.

Average quarterly year-over-year growth rate in withholding was 7.6 percent in the first three quarters of tax year 2018, compared with the average growth rate of 6.2 percent in tax year 2017. However, the median growth rate in withholding was 6.0 percent in the first three quarters of tax year 2018, compared with the 4.9 percent median growth rate in tax year 2017.

All regions showed growth in withholding in the second and third quarters of 2018. The Great Lakes region had the strongest growth in the second quarter of 2018 at 13.0 percent, while the Southwest region had the strongest growth in the third quarter of 2018 at 8.5 percent. The strong growth in withholding in the Great Lakes region is mostly attributable to a single state, Illinois, where withholding grew 37.3 and 13.8 percent, respectively, in the second and third quarters of 2018. As noted, the growth in withholding in Illinois is mostly driven by the increase in its income tax rate.

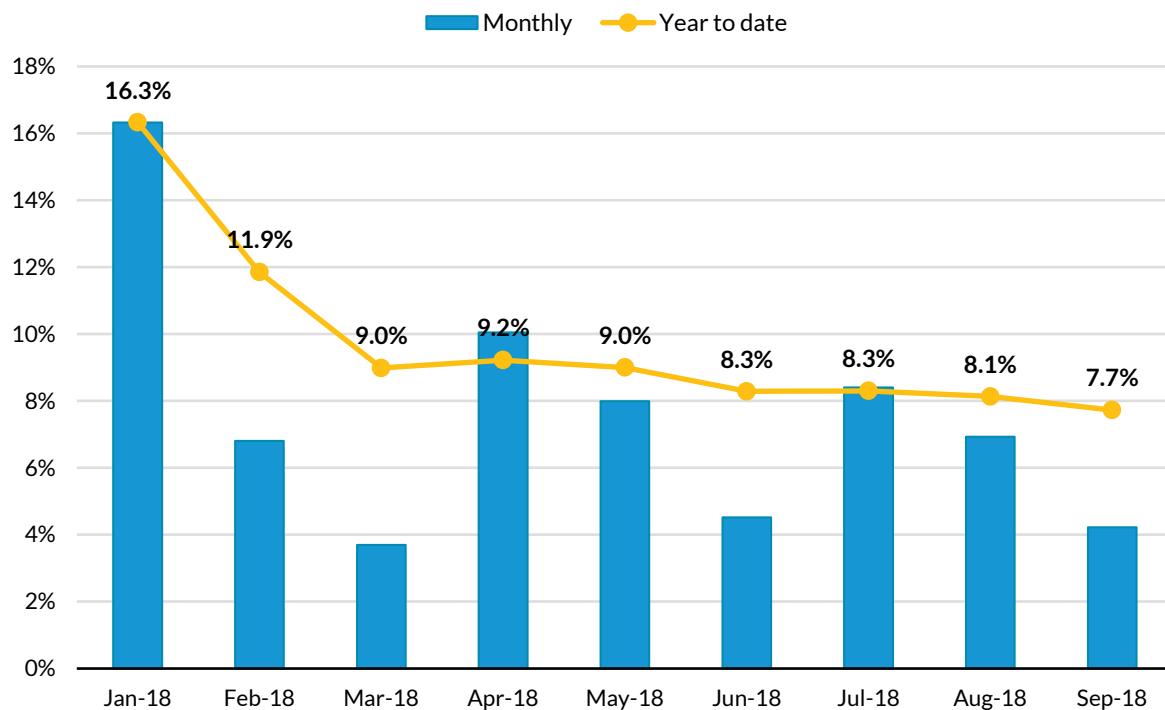
Growth in withholding was widespread across the states in both the second and third quarters of 2018. All 41 states with broad-based income taxes reported growth in withholding in the second quarter of 2018, with eight states reporting double-digit growth. In 26 states growth in withholding was below the national average of 7.4 percent in the second quarter of 2018. Three states – Idaho, Kentucky, and Rhode Island – reported declines in withholding in the third quarter of 2018, and eight states reported double-digit growth. Third-quarter growth in withholding was particularly strong in California, Illinois and New York in terms of dollar value.

[Figure 3](#) shows monthly and year-to-date growth rates in withholding for the first nine months of tax year 2018. Withholding was particularly strong in January, likely because of one-time bonus payments in response to the TCJA. Growth in withholding, however, has weakened substantially in the subsequent months. Withholding in the first nine months of tax year 2018 was \$229.2 billion and represented 83.5 percent of overall personal income tax collections. Withholding grew 7.7 percent, reaching \$246.8 billion in the first nine months of tax year 2018. However, withholding as a share of total personal income tax collections declined 2.5 percent and represented 81.0 percent of overall personal income tax collections in the first nine months of tax year 2018.

FIGURE 3

Withholding Was Substantially Stronger in January and April

Percentage change in withholding tax collections, tax year 2018 and year to date



Source: Author's calculations using data from individual state government agencies.

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. 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 roughly 26.1 and 17.5 percent of total personal income tax revenues in the second and third quarters of 2018.

The first 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 state income tax 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 in that previous tax year. Subsequent payments generally are related to income for the current tax year, although often that relationship is quite loose.

The first payment is usually difficult to interpret because it can include a mix of payments related to the current tax year and the previous tax year. It can reflect, for example, stock market activity in the previous year. The second and third payments are easier to interpret because they are almost unambiguously 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 first payment (mostly attributable to the 2018 tax year) increased 12.6 percent, in contrast to a 1.7 percent decline in the median first payment for tax year 2017. The median second and third payments for tax year 2018 grew 9.3 and 9.2 percent, respectively, substantially stronger than growth rates of 1.8 and 0.3 percent in the median second and third payments for tax year 2017 ([table A4](#)). The median final payment for tax year 2017 was unusually strong, at 39.1 percent, mostly in response to the TCJA as some high-income taxpayers accelerated taxable income and state income tax payments into 2017 to take advantage of the uncapped SALT deduction for tax year 2017.

States varied substantially in terms of growth rates in estimated payments. Estimated third payments for tax year 2018 increased in 35 states but declined in Delaware and Iowa. Seventeen states reported double-digit growth. Estimated third payments in just two states—California and New York—made up approximately 47 percent of the total estimated payments for the nation.

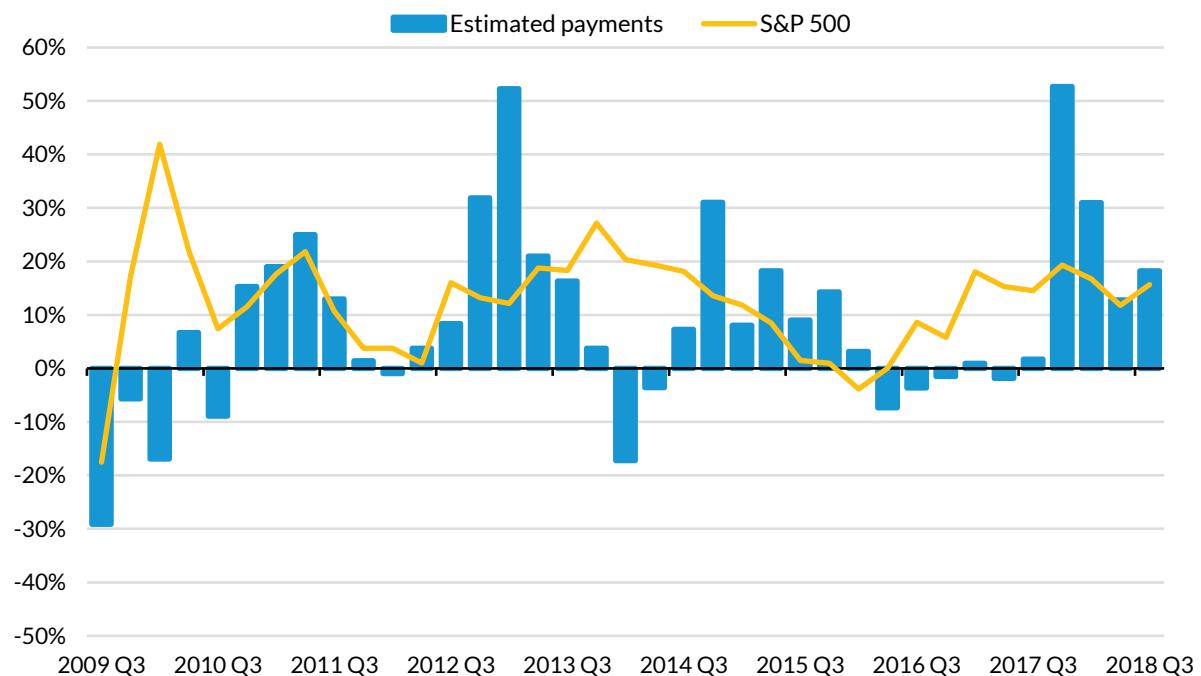
[Figure 4](#) shows year-over-year percentage change by quarter in estimated payments and in the S&P 500 index for the past 10 years. The longer-term trends indicate large volatility in estimated payments, which is partially caused by the volatility in the stock market but also by the impact of various federal policy changes. For example, growth in estimated payments in the final quarter of 2012 and the first and second quarters 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. The substantial growth in estimated payments in the final quarter of 2017, as well as in the first quarter of 2018, is also tied to federal policy changes, as discussed previously.

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 heightened uncertainty for state revenue forecasts.

FIGURE 4

Large Volatility in Estimated Payments

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



Source: Author's calculations using data from individual state government agencies and Yahoo Finance (S&P500).

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. Final payments accounted for 22.4 percent of all personal income tax revenues in the second quarter of 2018 but only 2.9 percent in the third quarter.

Total final payments grew in the third quarter of 2017 after five consecutive quarterly declines and showed strong growth in the subsequent quarters. This again was likely attributable to the passage of

the TCJA as discussed above. [Table A5](#) shows year-over-year growth in final payments for the most recent seven quarters. Final payments in the median state increased 5.5 and 11.5 percent, respectively, in the second and third quarters of 2018.

Growth rates in final payments varied widely across the states. In the 37 states for which we have complete data, final payments increased in 32 states in the third quarter of 2018, with 19 states reporting double-digit growth.

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 0.9 and 14.7 percent, respectively, in the second and third quarters of 2018 compared with the same quarters in 2017. In total, states paid out about \$0.2 billion and \$0.6 billion more in refunds in the second and third quarters of 2018, respectively, than in the same quarters in 2017. Overall, 28 states paid out more refunds in the second quarter of 2018 and 26 states paid out more refunds in the third quarter of 2018 than in the same quarters in 2017. Oregon had the largest share of refund payouts (\$0.2 billion more) in the second quarter of 2018, whereas New York had the largest share of refund payouts (\$0.6 billion more) in the third quarter of 2018.

Earlier in 2018, many states projected higher than expected refunds in April after the passage of the TCJA, which led to substantial growth in estimated payments in December 2017 and January 2018. However, the growth in refunds was lower than expected in many states.

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 24 states, and the data are presented in [table 3](#) for the second quarter of 2018.

In 23 of 24 states, actual personal income tax collections in the second quarter of 2018 were higher than in second quarter of 2017, with a median growth of 8.1 percent. The strong growth in personal income tax collections is driven by the strong growth in nonwage income, which is not expected to recur in the future.

TABLE 3

Actual versus Forecasted State Personal Income Tax Revenues

Dollar amounts in millions

	April-June 2017 actual	April-June 2018 actual	Percentage change in actual, 2017 to 2018	April-June 2018 forecast	April-June 2018 actual	Percentage variance, April- June 2018 actual from forecast
Median (24 states)			8.1			0.7
Average (24 states)	\$70,523.7	\$79,600.3	12.9	\$75,425.5	\$79,600.3	5.5
Arizona	1,241.4	1,352.3	8.9	1,328.7	1,352.3	1.8
Arkansas	824.1	833.4	1.1	856.4	833.4	(2.7)
California	27,815.6	31,564.8	13.5	29,625.6	31,564.8	6.5
Colorado	2,184.4	2,304.7	5.5	2,450.2	2,304.7	(5.9)
Idaho	560.5	556.0	(0.8)	611.7	556.0	(9.1)
Illinois	4,462.2	6,307.9	41.4	6,495.5	6,307.9	(2.9)
Indiana	1,788.1	1,870.3	4.6	1,900.0	1,870.3	(1.6)
Kansas	700.2	1,166.7	66.6	937.3	1,166.7	24.5
Maine	495.1	509.4	2.9	470.0	509.4	8.4
Massachusetts	4,640.0	5,044.0	8.7	4,905.0	5,044.0	2.8
Mississippi	614.0	660.4	7.6	665.6	660.4	(0.8)
Montana	381.8	422.1	10.6	451.1	422.1	(6.4)
Nebraska	690.0	731.5	6.0	748.8	731.5	(2.3)
New Mexico	583.5	588.3	0.8	521.6	588.3	12.8
New York	11,755.1	12,991.0	10.5	11,042.0	12,991.0	17.7
North Dakota	108.1	135.1	24.9	126.2	135.1	7.0
Ohio	2,127.5	2,453.6	15.3	2,230.7	2,453.6	10.0
Oklahoma	634.5	705.9	11.3	653.3	705.9	8.1
Pennsylvania	3,979.5	4,148.4	4.2	4,169.3	4,148.4	(0.5)
Rhode Island	362.2	412.5	13.9	417.6	412.5	(1.2)
South Carolina	1,073.2	1,144.7	6.7	1,159.9	1,144.7	(1.3)
Vermont	247.5	290.3	17.3	259.3	290.3	11.9
West Virginia	574.8	607.6	5.7	587.3	607.6	3.5
Wisconsin	2,680.3	2,799.8	4.5	2,812.3	2,799.8	(0.4)

Source: Individual state data, analysis by the author.

In 12 states, actual personal income tax collections in the second quarter of 2018 were above the forecasts; in another 12 states they were below the forecasts, with an average underestimation of 5.5 percent and a median underestimation of 0.7 percent. Some states prepared revenue forecasts for the second quarter of 2018 before the TCJA passed; others updated their forecasts shortly thereafter. Although forecasters in most states had anticipated changes in federal tax policy, they still faced large fiscal uncertainties and could not factor in taxpayers' behavioral responses to the federal tax policy changes or other dynamic effects. Therefore, some states overestimated, while others underestimated, the growth in income tax revenues, some by sizable percentages.

Income tax windfalls in the second quarter of 2018 eased the pressure for states and helped most enact timely fiscal year 2019 budgets.

Corporate Income Taxes

State corporate income tax revenue is highly volatile because corporate profits and the timing of tax payments can vary and shift from quarter to quarter. Further, most states collect a small share of state revenues from corporate taxes and thus can experience large fluctuations in percentage terms with little budgetary impact. Average quarterly year-over-year growth rates in state corporate income tax collections were 2.1 percent in nominal terms and 0.5 percent in real terms since 2010 ([table A1](#)).

Corporate income tax revenue increased 17.9 percent in nominal terms and 15.1 percent in inflation-adjusted terms in the second quarter of 2018 compared with a year earlier. However, large disparities exist among states and regions. Corporate income tax collections increased by double-digit percentages in all regions but the Mideast and Southeast. The Southwest region had the largest growth at 42.8 percent, followed by the New England and Rocky Mountain regions at 38.2 and 38.1 percent, respectively. Overall, corporate income tax collections declined in eight states.

State corporate income tax revenues are expected to fluctuate significantly 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 may lead to increased corporate income tax collections in the states where tax codes conform to federal tax law. However, the composition of state economies and other factors would also affect revenues. The TCJA has also eliminated the corporate alternative minimum tax. Therefore, 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. It will take a long time for state revenue forecasters to fully understand the behavioral responses of business entities to TCJA provisions.

General Sales Taxes

General state sales tax collections grew 5.6 percent in nominal terms and 3.1 percent in real terms in the second 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.

Sales tax collections increased in all regions. The Southwest region reported the strongest growth at 11.0 percent, while the Plains region had the weakest growth at 2.0 percent. Forty states reported increases in sales tax collections in the second quarter of 2018, with seven states reporting double-digit growth.

The recovery in sales tax collections had been slow in the post-Great Recession period. Since 2010, the average quarterly year-over-year growth rate in state sales tax collections was 3.9 percent in nominal terms and only 2.2 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 sales.

The uncertainty and changing definitions surrounding the nexus for online sales taxes have been an ongoing debate in the states. Internet sales grew substantially in the past decade and eroded the sales tax base. Absent a congressional measure, most states adopted individual measures such as enactment of nexus or “Amazon” laws to address the issue.

On June 21, 2018, the US Supreme Court made a landmark decision and ruled in favor of South Dakota in the *South Dakota v. Wayfair* case,⁴ 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 ruling, several bills have been introduced in Congress in an effort to regulate online state sales tax collections, but so far none of them have gained much traction.

While Congress is working on enacting a law on regulating online sales taxation, many states have been moving faster and introducing laws and regulations for sales tax collection by remote sellers. To date, 20 states have enacted laws or regulations since the *Wayfair* ruling and already require sales tax collections by remote sellers. In addition, nine states will enforce sales tax collections by remote sellers in the coming months: in Colorado and Connecticut the effective date is set for December 1, 2018; in Georgia, Iowa, Louisiana, Nebraska, Utah, and West Virginia the effective date is set for January 1, 2019; and in Wyoming, the effective date is set for February 1, 2019. Other states will likely follow suit and enact laws and regulations.

However, legalization of online sales taxation raises concerns for those local jurisdictions around the country that operate independently and have independent taxing authority. And most states have yet to decide how to impose sales tax collections on marketplace facilitators. To date, only about a dozen states have enacted laws or regulations requiring marketplaces to collect sales taxes on behalf of their sellers. According to a recent study by the US Government Accountability Office, state and local governments could gain \$8 billion to about \$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 actual revenue increases in the current year because many large internet sellers are already collecting sales tax revenue. Further, some sales are being excluded because they are made by small sellers, albeit through a larger marketplace program.

Motor Fuel Taxes

States collected \$13.2 billion in motor fuel sales tax in the second quarter of 2018, which represents 6.8 percent growth compared with 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. In fiscal year 2018, several states have increased motor fuel sales tax rates. The most notable increases were in California and Indiana, where tax rate increases are expected to generate \$2.1 and \$0.3 billion additional revenues, respectively, in fiscal year 2018 (NASBO 2017).

Growth rates varied widely across the states and the regions. Motor fuel sales tax collections grew in all regions but the Plains, where collections declined 0.7 percent in the second quarter of 2018 compared with the same quarter in 2017. The largest growth was in the Far West region at 21.7 percent, followed by the Rocky Mountain region at 7.1 percent. The double-digit growth in the Far West region was driven by the tax rate increase in California. Twelve states reported declines in motor fuel sales tax collections in the second quarter of 2018; nine states reported double-digit growth.

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, motor vehicle and operators' license taxes, and some other 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 second quarter of 2018, states collected \$58.5 billion from the smaller tax sources, which constituted 19.2 percent of total state tax collections.

Overall, revenues from smaller taxes have been growing at a slower pace after the Great Recession. Average quarterly year-over-year growth rate in state tax revenues from smaller sources was 1.7 percent in real terms since 2010.

Inflation-adjusted year-over-year growth in revenues from smaller tax sources was 3.4 percent in the second quarter of 2018. State property taxes, which represent a small portion of overall state tax

revenues, grew 2.6 percent. Growth was stronger in tobacco tax revenues at 5.6 percent, largely because of tax rate increases in some states, including Connecticut and Rhode Island. Tax revenues from alcoholic beverage sales increased 1.0 percent, while tax revenue from motor vehicle and operators' licenses increased 3.6 percent in the second quarter of 2018. Revenues from all other smaller tax sources increased 3.3 percent in the second quarter of 2018.

Overview of Tax Revenues in State Fiscal Year 2018 and Preliminary Third Quarter 2018 Results

According to preliminary data, states collected slightly over \$1 trillion in total tax revenues in state fiscal year 2018, a gain of 7.8 percent from \$948.5 billion in fiscal year 2017 ([table A7](#)). State personal income tax revenues showed strong growth at 11.4 percent in state fiscal year 2018 compared with state fiscal year 2017. Other major sources of state government tax revenues also had solid growth: corporate income tax revenues grew 10.3 percent, sales tax revenues grew 4.5 percent, and motor fuel tax grew 7.8 percent. The strong growth in overall tax revenues as well as in personal income tax revenues was driven by the strength of income tax revenues in a few states. Growth rates were weaker in the median state, at 5.8 percent for overall state tax revenues and 8.2 percent for personal income tax revenues.

All regions had growth in overall state tax collections in fiscal 2018. The Far West region had the strongest year-over-year growth at 10.8 percent, while the Southeast region had the softest growth at 4.1 percent. All states reported growth in fiscal 2018, with 11 states reporting double-digit growth. The strongest growth was reported in North Dakota at 20.0 percent, reflecting rebounds from weaker levels in the previous year. Overall state tax revenue growth was also strong in the states with high reliance on personal income tax revenues, such as California, Connecticut, and New York.

All states with broad-based personal income tax collections reported growth in fiscal year 2018, with 17 states reporting double-digit growth. Forty-two of 45 states with broad-based sales tax collections reported growth in sales tax collections.

Preliminary data collected for the July–September quarter of 2018 shows continued growth in all major sources of state tax revenues. Growth in overall state tax collections was 8.4 percent in the third quarter of 2018 compared with the same quarter in 2017. After three consecutive quarters of double-digit growth, personal income tax collections showed softer growth at 7.9 percent, while corporate

income tax revenues showed the strongest growth in the post-Great Recession period, at 27.4 percent. Growth was also strong in sales tax revenues, at 6.5 percent.

Table A8 shows state-by-state changes in major tax revenues for the third quarter of 2018 compared with the same quarter of 2017. According to preliminary data, all states but Missouri had growth in overall state tax revenue collections, with 16 states reporting double-digit growth. Twelve states reported double-digit growth in personal income tax collections and four states reported double-digit growth in sales tax collections in the third quarter of 2018. Finally, 33 states reported double-digit growth in corporate income tax collections, with 29 states reporting growth of over 20 percent.

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 in which 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 recent 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 income goes up, sales tax generates 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

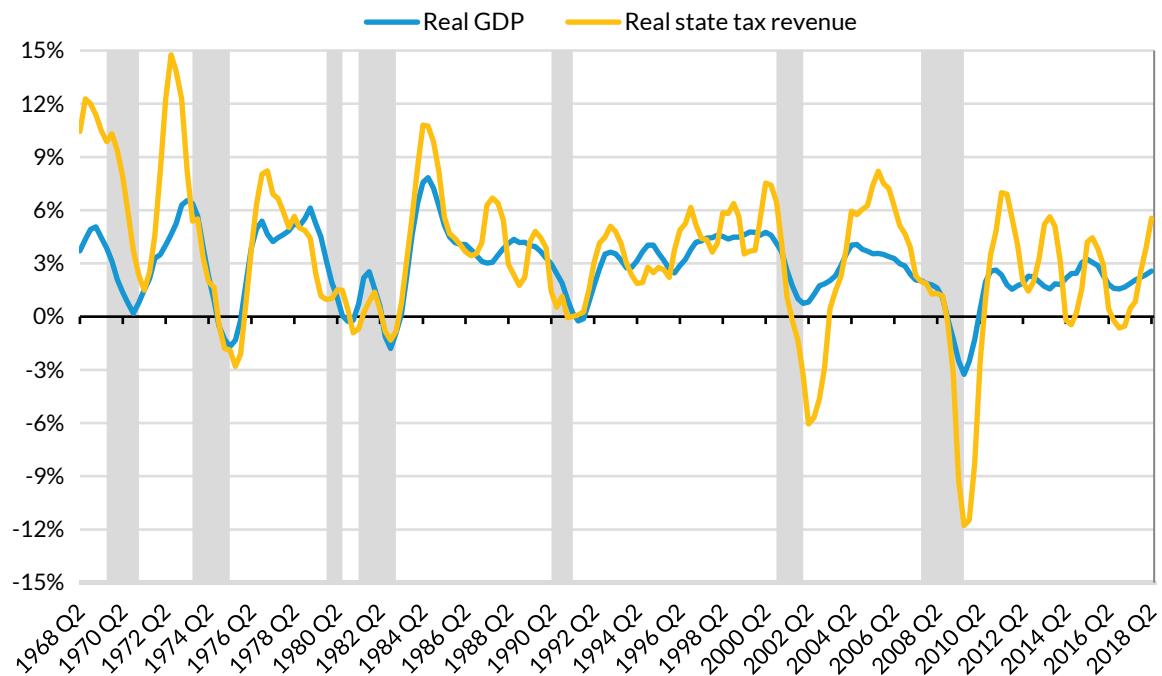
When the economy booms, tax revenues tend to rise rapidly, and when it declines, tax revenue tends to decline, though these changes have different patterns and timing. [Figure 5](#) shows year-over-year growth for four-quarter moving averages in real (inflation-adjusted) state tax revenue and gross domestic 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 growth showed uninterrupted growth since the second quarter of 2010. By contrast, real state tax revenue showed declines in 2014, 2016, and 2017, but growth in the second quarter of 2018 was more than twice as strong as the growth in real GDP. As will be discussed, these changes are largely related to changes in tax rates.

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 than the general economy in the past two decades, mostly because of changes in state tax rates and policies as well as growing reliance on income tax. Declines in real state revenues were far steeper than the declines in real GDP during the Great Recession. State tax revenues have risen significantly in the last quarter of 2017 and the first and second quarters of 2018, while the overall economy has grown at a slower pace.

FIGURE 5

State Tax Revenue is More Volatile than the Economy

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



Source: Author's calculations using data from the US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP).

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

States varied substantially in terms of the correlation between growth rates in real state tax revenues and state GDP. Figure 6 shows growth for four-quarter moving averages in inflation-adjusted state tax revenue and in real state GDP in the second quarter of 2018 compared with the same quarter in 2017. By this measure, real state tax revenues increased in 48 states, while real state GDP increased in 46 states in the second quarter of 2018. The percentage change in real state tax revenues ranged from -1.5 percent in Ohio to 17.5 percent in North Dakota; the percentage change in real state GDP ranged from -0.5 percent in South Dakota to 5.4 percent in Washington. In the second quarter of 2018, growth in real state tax revenues was lower than the national average of 5.5 percent in 32 states and growth in real state GDP was lower than the national average of 2.6 percent in 36 states.

In general, states with the strongest growth in real state tax revenues were either oil-dependent or income tax-dependent states. Strong growth in oil-dependent states represented state revenue bouncing back from depressed levels the previous year. Oil prices (and revenues from oil) were lower in 2017. Strong growth in income tax-dependent states was largely attributable to income tax shifting in response to federal policy changes.

FIGURE 6

Growth Disparity: State Tax Revenues versus State GDP

Year-over-year change in state taxes and real GDP, 2018Q2 versus 2017Q2



Source: Author's calculations using data from the US Census Bureau (tax revenue) and Bureau of Economic Analysis (GDP).

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.

State Unemployment and Employment

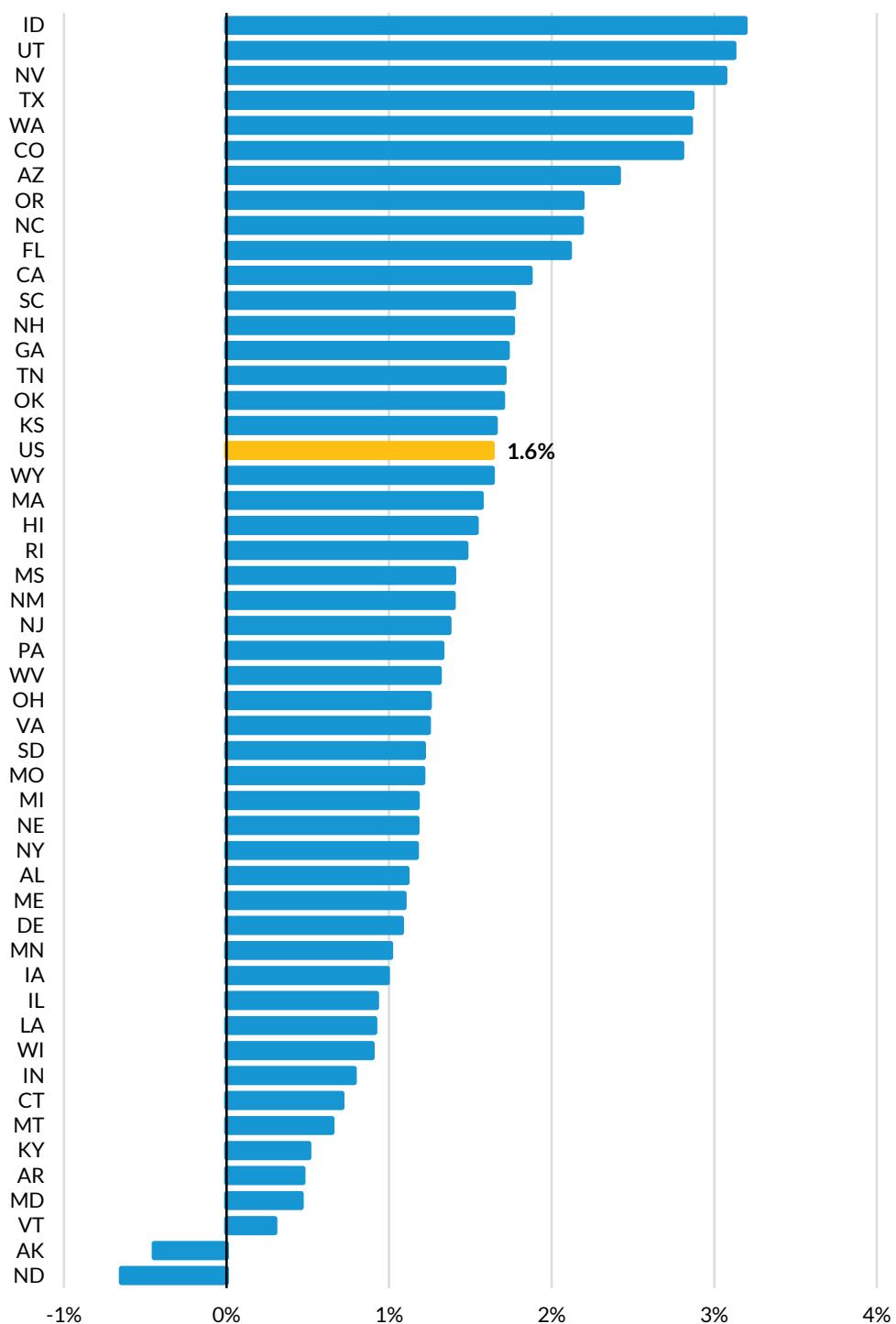
The national unemployment rate has seen steady declines since 2010 and was at 3.9 percent in the second quarter of 2018. Unemployment rates ranged from 2.0 percent in Hawaii to 7.2 percent in Alaska in the second quarter of 2018. Although low unemployment rates are generally good for the economy, the decline in the unemployment rate since 2011 was driven in part by a decline in labor force participation caused by factors such as demographic shifts and retiring Baby Boomers. In addition, 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.⁵

Nationwide employment grew 1.6 percent in the second quarter of 2018 compared with the same quarter in 2017 (figure 7). Employment growth was weaker than the national average in 33 states. On a year-over-year basis, employment grew in 48 states. Alaska and North Dakota reported declines of 0.4 and 0.6 percent, respectively.

FIGURE 7

Growth in Employment in the Second Quarter of 2018

Year-over-year change in seasonally-adjusted employment, 2018Q2 versus 2017Q2



Source: Author's calculations using data from the Bureau of Labor Statistics.

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 nominal personal consumption expenditures for durable goods, nondurable goods, and services, as well as for state sales tax collections. In addition, we show trends in the consumption of energy goods and services.

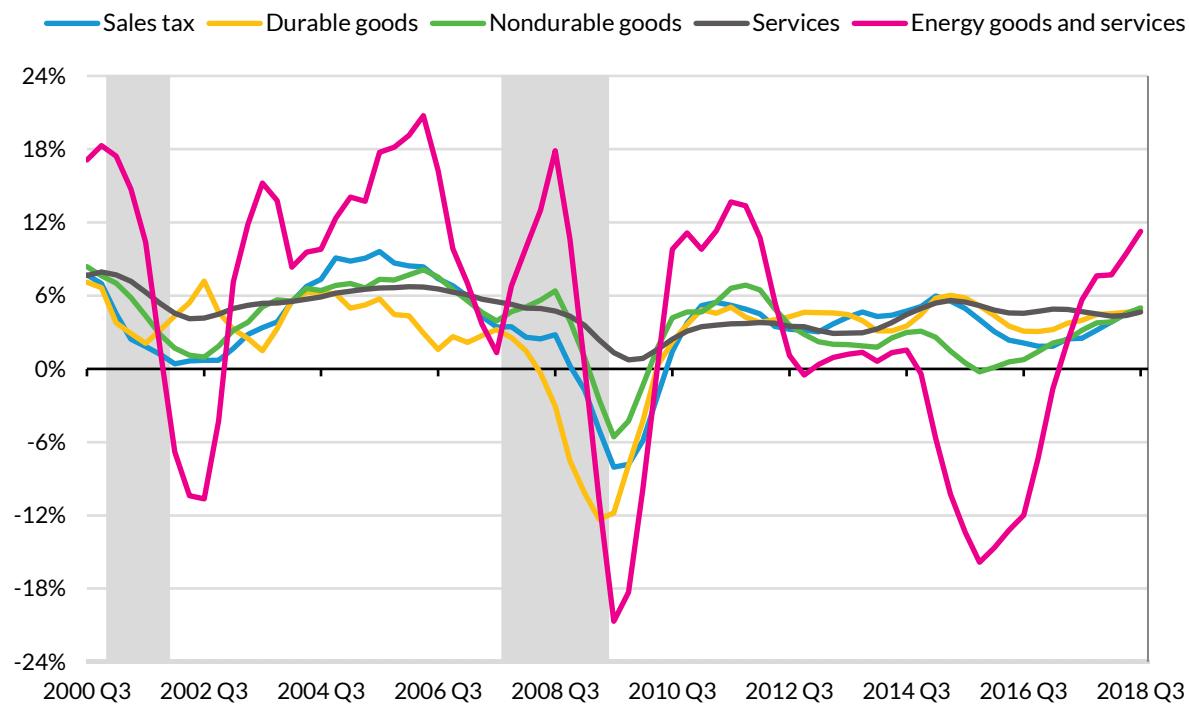
Growth in the consumption of durable goods, an important element of state sales tax bases, has been relatively volatile in the most recent quarters, trending downward throughout 2015 and 2016 and upward since the first quarter of 2017. Nondurable consumption spending declined in the fourth quarter of 2015 but has grown since then, showing strong growth in the second and third quarters of 2018. Nondurable goods are largely impacted by the trends in gasoline and other energy goods consumption. As shown in [figure 8](#), total spending on energy goods and services declined dramatically in the last quarter of 2014 and throughout the first quarter of 2017 in response to steep declines in oil and gas prices. This decline in spending 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 from previously depressed levels and showed double-digit growth in the third quarter of 2018. Spending on durable goods, nondurable goods, and services was also strong in the third quarter of 2018. Still, the current growth rates in both durable goods and services are weaker than growth rates observed since the last peak in 2015. Consequently, current growth rates in state sales tax revenues are also substantially weaker than growth rates observed throughout 2014 and 2015.

FIGURE 8

Substantial Recovery in Energy Goods; Modest Growth in Services

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



Sources: Author's calculations using data from the US Census Bureau (sales taxes) and Bureau of Economic Analysis (NIPA table 2.3.5).

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

Housing Market

Trends in housing prices are important determinants for expected trends in local property taxes. Assessment lags and assessment caps cause a lag in how house prices translate into property tax revenues. However, declines in housing prices usually lead to declines in property taxes, while growth in housing prices usually leads to growth in property taxes.

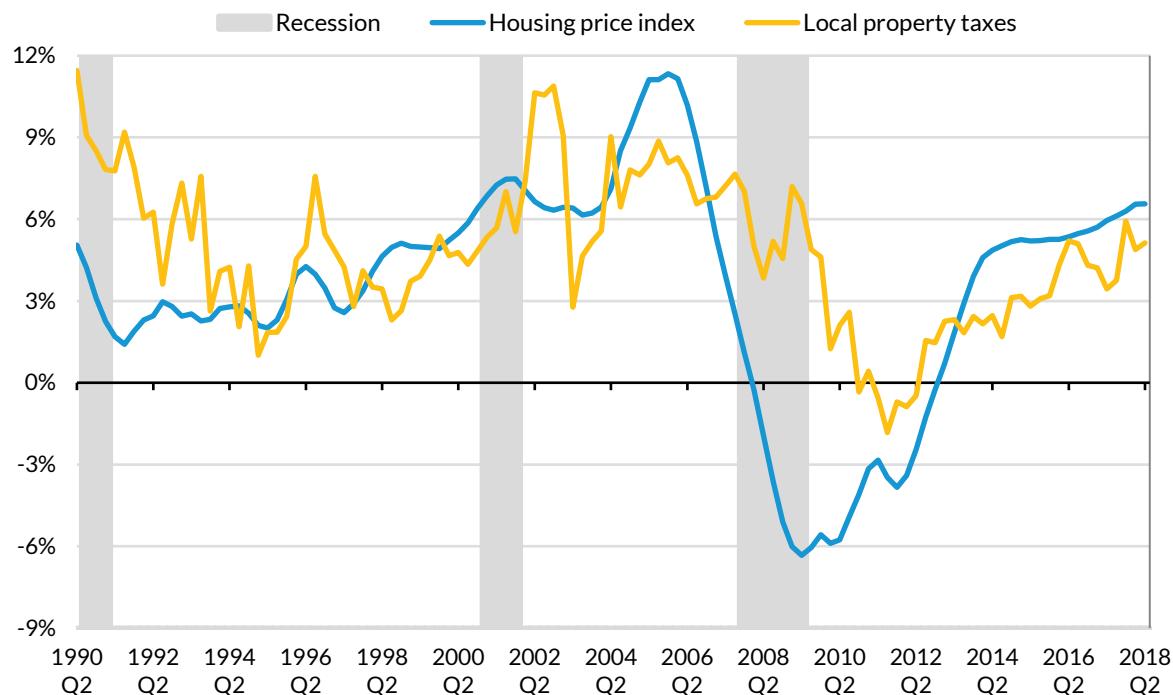
Figure 9 shows year-over-year percentage change in the four-quarter moving average of the housing price index and local property taxes. Housing prices saw deep declines during the Great Recession, which led to a significant slowdown in local property tax growth and to an actual decline in fiscal year 2011 and 2012.⁶ The housing price index began moving down in mid-2005, with steeply negative movement 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 six years. National average housing prices appreciated 6.6

percent in the second quarter of 2018 from one year ago, while local property taxes grew 5.1 percent during the same period.

FIGURE 9

Continued Growth in Housing Prices and Local Property Taxes

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



Sources: Author's calculations using data from the US Census Bureau (local property taxes) and Federal Housing Finance Agency (house price indexes).

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

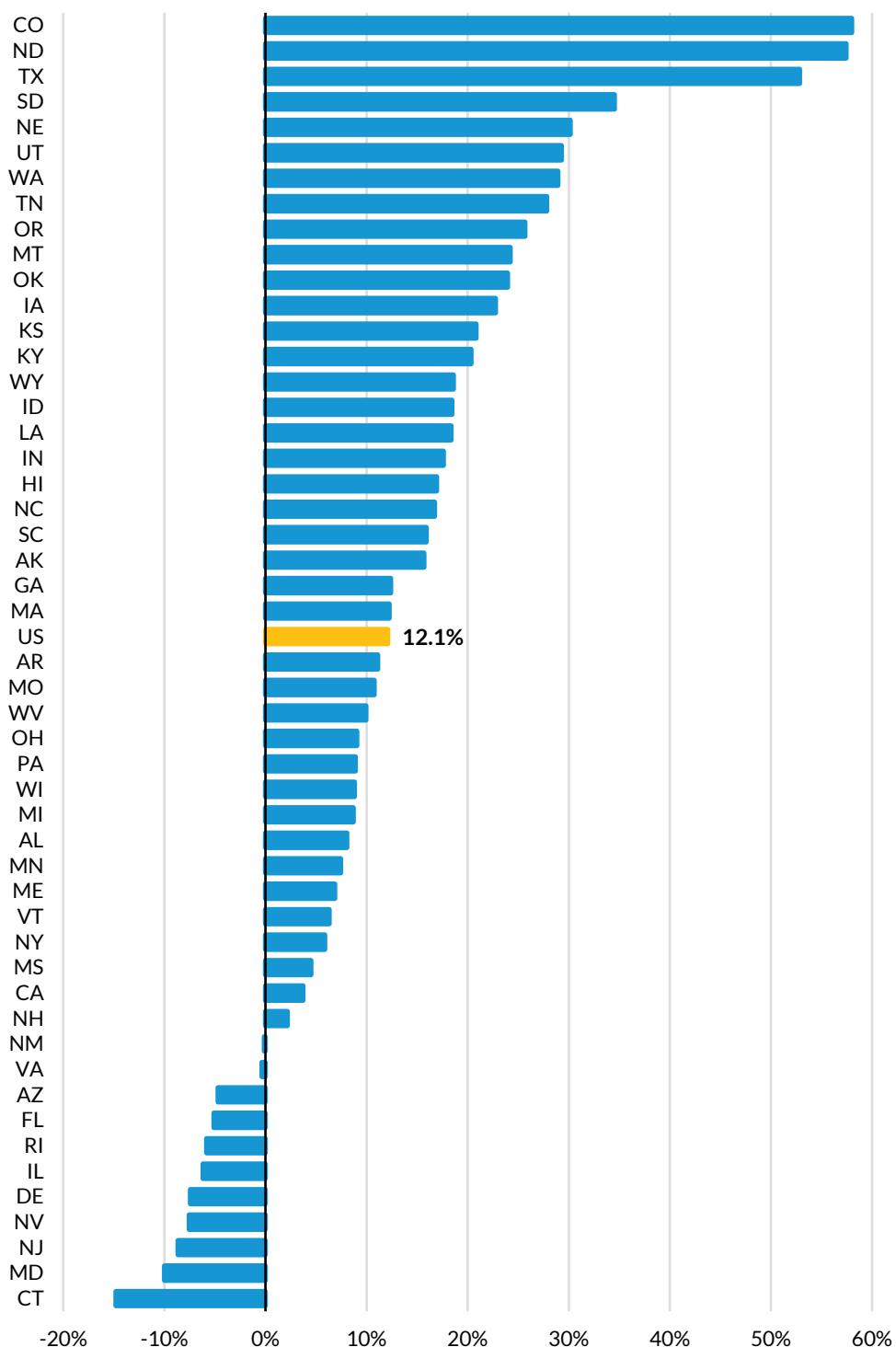
Statewide housing price indexes increased in all states in the second quarter of 2018, ranging from a 1.2 percent increase in Connecticut to 14.6 percent in Nevada. Growth in 33 states was below the national average of 6.6 percent.

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 second quarter of 2018 compared with the first quarter of 2007, when housing prices were at their peak.

FIGURE 10

Growth in Housing Price Indexes Since the Prerecession Peak

Percent change in housing prices from pre-recession peak level, 2018Q2 versus 2007Q1



Source: Author's calculations using data from the Federal Housing Finance Agency (house price indexes).

National average housing prices have grown 12.1 percent in nominal terms between the first quarter of 2007 and the second quarter of 2018. However, there are substantial variations among the states. Housing prices grew in 39 states but declined in 11 in the second quarter of 2018 compared with the prerecession peak levels observed in the first quarter of 2017. The three hardest-hit states—Connecticut, Maryland, and New Jersey—all had declines of 8 percent or more in statewide average housing prices. Connecticut had the greatest decline at 14.8 percent. On the other hand, statewide housing price indexes increased by double digits in 26 states over this period. In 14 states, growth in statewide average housing prices was over 20 percent, with Colorado and North Dakota having the highest growth rates at 58.0 and 57.4 percent, respectively.

Many states 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 currently are averaging around 4.5 percent.⁷ The low mortgage rate, widely available financing options, and stronger labor market forces have raised the demand for housing, which in turn will continue pushing housing prices higher. The growth in house prices will eventually pose a risk to affordability unless housing quantities increase.

Tax Law Changes Affecting the Second Quarter of 2018

Anticipated and actual federal policy changes had a substantial impact on state tax revenues in the most recent quarters. However, another important element affecting state tax revenue trends is changes in state tax laws. Many states had enacted tax rate changes for fiscal year 2018, partly because actual tax revenue collections were lower than anticipated in fiscal year 2017. During the April–June 2018 quarter, enacted tax increases and decreases produced an estimated gain of \$2.7 billion compared with the same period in 2017.⁸ State enacted tax changes substantially increased both personal income and motor fuel taxes by \$1.0 billion each in the second quarter of 2018, reflecting rate increases. Tax changes decreased sales taxes by \$3 million, increased corporate income taxes by \$169 million, and increased some other taxes by approximately \$473 million. Below, we discuss some of the major enacted tax changes for fiscal year 2018.

Thirteen states enacted personal income tax decreases, while eight states enacted tax increases. The largest increase was in Illinois, where raising the flat tax rate from 3.75 percent to 4.95 percent was estimated to lead to a \$3.9 billion increase in personal income tax collections in fiscal year 2018 (Illinois Department of Revenue 2017). Lawmakers in Kansas also enacted tax changes estimated to increase personal income tax collections by \$582 million in fiscal year 2018. In fact, officials in Kansas created an

additional tax bracket and increased income tax rates retroactively for fiscal year 2017, then increased rates further for fiscal year 2018 (Kansas Department of Revenue 2017). The income tax rate increases in Kansas came five years after the state had made headlines in 2012 for its approach to stimulating economic growth: enacting sweeping income tax rate cuts and setting the tax rate on pass-through income to zero.

Eight states enacted corporate income tax decreases, and five states enacted increases. The largest corporate income tax change was in Illinois, where the corporate income tax rate increased from 5.25 to 7.00 percent for corporations (Illinois Department of Revenue 2017). This increase was projected to raise \$460 million in fiscal year 2018.

Twelve states enacted sales tax decreases, and 10 states enacted increases. The estimated impact of each state's changes is not significant for fiscal year 2018, unlike the substantial changes observed in the previous year. Legislated tax changes were estimated to increase sales tax revenues by \$13 million in fiscal 2018.

Seven states enacted motor fuel tax increases. The most noticeable legislated changes were in California, where the gasoline tax was increased by \$0.12 per gallon and the diesel fuel surtax was increased by \$0.20 per gallon. Lawmakers also increased the sales and use surtax on diesel fuel from 1.75 percent to 5.75 percent.⁹ These changes are expected to increase motor fuel tax revenue collections in California by \$783 million in the first quarter of 2018 and \$2.1 billion in fiscal year 2018. Officials in Indiana introduced a complex package of tax and fee increases, which will help fund transportation infrastructure and is expected to raise \$328 million in fiscal 2018.¹⁰

Other major tax changes include property tax increases in Washington to fund education, with a projected net increase of \$541 million in fiscal year 2018.¹¹ The governor in Oregon signed into law a health care tax package designed to fund Medicaid services. The provisions of the law went into effect on January 1, 2018 and were estimated to generate additional \$180 million in fiscal year 2018. The health care tax package included new taxes and requirements for health care providers and insurers.¹²

Overall, more states enacted significant tax changes in the past three fiscal years. The estimated impact of net enacted tax changes was substantial for fiscal year 2018, with an estimated net increase of \$8.8 billion. Legislated tax actions also increased tax revenues in fiscal years 2016 and 2017, though the estimated net impact was under \$1 billion in both years. By contrast, the net enacted tax changes were estimated to reduce revenues in fiscal years 2014 and 2015 by \$2.1 billion and \$1.9 billion, respectively.

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. In state fiscal year 2017 officials in many states faced large fiscal uncertainties and falling revenues while preparing the budgets for fiscal year 2018. As a result, a handful of states had enacted significant tax changes for fiscal year 2018, which were estimated to increase state revenues by \$8.8 billion. The enacted state tax revenue changes, coupled with the boosted tax revenues attributable to federal tax policy changes, helped the states end fiscal year 2018 on a positive note. However, large fiscal uncertainties lie ahead for the states in the coming months as state revenues fluctuate in response to federal income tax changes, the *Wayfair* decision, and state responses to both.

Income tax revenue collections in 2018 were boosted in part because of income earned in 2017, stemming from both anticipation of and passage of the TCJA and the final realization date for some types of income under the Emergency Economic Stabilization Act of 2008. Growth rates were higher, partly reflecting lower-than-anticipated revenues in 2017, and we expect them to soften in the coming quarters. We expect to see states respond to the changes in federal law and for the federal government to respond to moves made by the states. For example, after New York, New Jersey, and Connecticut enacted new charitable tax credits to get around limits on the deductibility of state and local taxes, the Treasury Department released regulations about the quid pro quo treatment of these contributions.

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 have been sheltered from US taxation. 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. This provision will raise federal revenues while reducing constraints on multinational firms using these previously untaxed foreign earnings. Repatriated income may also be subject to state income taxation, which could boost corporate income tax revenues, but clarifying regulations are needed.

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.¹³

Fourth, after the US Supreme Court lifted the ban on sports betting on May 14, 2018, seven states—Arkansas, Delaware, Mississippi, New Jersey, Pennsylvania, Rhode Island, and West Virginia—

took rapid measures to legalize sports betting; other states are weighing similar measures. Sports betting could bring in additional revenue for the states in the short run.

Last but not least, uncertainty in trade policies and the implementation and threat of new tariffs by the United States and retaliatory policies by trade partners are expected to increase uncertainty for state economic conditions. This is especially true for those states with industries that could be most affected, including agriculture and certain manufacturing industries.

Currently we are in the second longest economic expansion on record, trailing by only five months the 1990s expansion as of December 2018. However, both economic and revenue growth in the current expansion has been weaker compared to previous expansions. Although the near-term economic outlook is positive and despite the strong state revenue growth in the most recent quarters, states face large fiscal challenges, particularly because of the uncertainties related to the longer-term impact of federal tax policy changes on state economies and budgets.

Appendix A. Additional Tables

TABLE A1

Quarterly State Government Tax Revenue by Major Tax

2010Q1-2018Q2 average growth	Nominal Y-O-Y percentage change					Inflation rate	Real Y-O-Y percentage change					Total tax
	PIT	CIT	Sales	MFT	Total tax		PIT	CIT	Sales	MFT		
	6.5	2.1	3.9	3.8	4.7		4.8	0.5	2.2	2.1	3.0	
2018 Q2	10.5	17.9	5.6	6.8	8.8	2.4	7.9	15.1	3.1	4.2	6.3	
2018 Q1	15.3	(4.9)	5.0	11.0	8.8	2.0	13.1	(6.7)	3.0	8.8	6.7	
2017 Q4	15.0	11.5	4.4	9.6	9.1	2.0	12.8	9.3	2.4	7.5	7.0	
2017 Q3	4.6	6.2	2.9	4.3	3.9	1.9	2.6	4.2	1.0	2.4	1.9	
2017 Q2	(0.0)	11.7	3.1	4.2	2.4	1.7	(1.7)	9.8	1.4	2.4	0.6	
2017 Q1	8.8	(28.2)	2.1	0.9	3.2	2.1	6.6	(29.6)	0.1	(1.1)	1.1	
2016 Q4	0.4	(2.6)	1.7	1.2	1.2	1.5	(1.1)	(4.1)	0.2	(0.3)	(0.3)	
2016 Q3	2.6	(8.9)	2.7	1.2	1.3	1.0	1.6	(9.8)	1.7	0.2	0.3	
2016 Q2	(2.7)	(9.7)	1.0	0.3	(1.7)	0.9	(3.6)	(10.6)	0.0	(0.7)	(2.7)	
2016 Q1	1.7	(5.9)	2.2	2.9	1.5	0.9	0.8	(6.7)	1.3	2.0	0.7	
2015 Q4	5.1	(9.9)	2.8	3.5	2.4	0.9	4.2	(10.7)	1.9	2.6	1.5	
2015 Q3	6.4	0.2	3.8	4.8	4.2	0.9	5.4	(0.8)	2.9	3.8	3.2	
2015 Q2	14.0	6.0	3.5	3.1	7.0	1.1	12.7	4.8	2.3	2.0	5.8	
2015 Q1	6.9	3.3	6.2	4.3	5.6	1.2	5.7	2.1	5.0	3.1	4.4	
2014 Q4	8.4	9.8	6.6	2.4	5.7	1.6	6.7	8.0	4.9	0.8	4.0	
2014 Q3	4.4	7.4	6.4	0.6	4.2	2.1	2.3	5.3	4.3	(1.4)	2.1	
2014 Q2	(6.6)	(0.3)	4.8	4.0	(0.9)	2.1	(8.5)	(2.4)	2.7	1.9	(2.9)	
2014 Q1	(1.2)	7.9	2.6	2.8	0.4	1.8	(3.0)	6.0	0.8	1.0	(1.4)	
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	5.1	2.9	5.1	1.7	3.1	0.2	3.3	1.2	3.4	
2013 Q2	19.2	8.5	4.5	2.1	10.0	1.7	17.1	6.6	2.7	0.3	8.1	
2013 Q1	18.1	9.6	4.0	(1.4)	9.0	1.9	16.0	7.6	2.1	(3.2)	7.0	
2012 Q4	10.4	2.5	3.3	1.3	5.6	2.1	8.2	0.4	1.2	(0.7)	3.4	
2012 Q3	4.7	8.7	2.7	2.1	3.2	1.8	2.9	6.7	0.9	0.3	1.4	
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	4.7	1.0	3.8	2.1	2.0	2.1	2.6	(1.0)	1.7	
2011 Q4	3.7	(6.3)	3.6	0.7	3.2	2.0	1.7	(8.1)	1.6	(1.2)	1.2	
2011 Q3	9.7	2.6	3.7	(0.2)	6.2	2.4	7.2	0.2	1.3	(2.5)	3.7	
2011 Q2	15.4	19.4	5.8	7.4	11.2	2.2	13.0	16.9	3.6	5.2	8.8	
2011 Q1	12.1	4.4	6.4	13.3	10.0	1.9	10.0	2.5	4.5	11.3	8.0	
2010 Q4	10.5	19.7	4.9	11.8	8.4	1.6	8.8	17.8	3.2	10.1	6.7	
2010 Q3	4.8	(1.0)	4.6	10.7	5.4	1.4	3.4	(2.3)	3.2	9.1	3.9	
2010 Q2	2.1	(19.4)	4.9	4.1	2.6	1.1	1.0	(20.3)	3.7	2.9	1.5	
2010 Q1	2.5	0.8	0.5	(0.1)	2.9	0.6	1.9	0.3	(0.0)	(0.7)	2.4	
2009 Q4	(5.0)	(2.0)	(4.4)	(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)	(10.1)	2.0	(10.7)	
2009 Q2	(27.4)	0.9	(8.8)	(1.5)	(16.3)	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 Q2 versus 2017 Q2

	PIT	CIT	Sales	MFT	Total
US (median)	10.4	18.8	5.2	6.9	9.2
US (average)	10.5	17.9	5.6	6.8	8.8
New England	9.7	38.2	6.5	0.4	11.9
Connecticut	12.3	4.7	8.7	(2.4)	15.9
Maine	2.8	14.4	8.0	(2.9)	5.0
Massachusetts	8.6	58.8	4.3	(0.5)	11.0
New Hampshire	7.6	96.4	N/A	14.1	36.7
Rhode Island	6.7	(44.3)	5.4	2.5	0.8
Vermont	17.1	17.6	6.5	4.2	4.6
Mideast	7.7	6.6	4.2	2.0	5.6
Delaware	6.0	10.6	N/A	(1.7)	10.0
Maryland	5.8	(2.0)	4.0	6.2	5.6
New Jersey	4.9	12.3	2.4	2.5	4.1
New York	10.5	6.8	6.9	7.6	7.3
Pennsylvania	4.5	4.5	3.1	(2.2)	3.6
Great Lakes	18.1	14.0	2.3	6.6	8.2
Illinois	43.6	23.5	(0.9)	1.9	17.3
Indiana	7.2	(17.7)	4.5	64.8	6.7
Michigan	6.3	15.7	9.0	6.3	5.6
Ohio	14.9	NM	(1.7)	(11.5)	1.9
Wisconsin	4.5	28.5	3.7	2.5	4.9
Plains	12.5	11.8	2.0	(0.7)	8.3
Iowa	14.4	5.6	3.9	(9.1)	7.8
Kansas	65.2	33.5	2.7	4.4	24.7
Minnesota	5.9	8.7	(1.0)	3.5	3.1
Missouri	5.1	0.1	2.9	1.3	3.8
Nebraska	6.0	14.4	0.8	(1.7)	4.0
North Dakota	18.5	40.3	10.9	1.8	32.5
South Dakota	N/A	(3.0)	2.6	(9.3)	6.4
Southeast	5.4	8.5	5.5	5.6	5.7
Alabama	15.1	22.0	4.3	7.9	11.1
Arkansas	1.1	(14.1)	5.7	3.0	3.0
Florida	N/A	18.0	11.0	2.0	10.3
Georgia	0.1	1.5	3.6	6.4	1.9
Kentucky	3.7	(0.3)	3.4	0.7	2.9
Louisiana	17.4	36.7	(12.8)	12.7	5.0
Mississippi	(2.4)	14.7	1.9	1.9	2.0
North Carolina	3.3	1.2	7.9	3.7	4.4
South Carolina	3.5	19.0	3.4	6.9	3.3
Tennessee	NM	1.9	3.3	21.5	3.9
Virginia	12.3	2.2	3.1	2.5	7.5
West Virginia	5.8	(18.8)	4.1	23.9	4.6
Southwest	8.4	42.8	11.0	2.6	11.8
Arizona	9.0	9.2	7.7	2.5	6.8
New Mexico	6.0	98.4	23.9	2.5	7.8
Oklahoma	9.0	74.7	15.8	1.5	16.1
Texas	N/A	N/A	10.6	2.8	12.9
Rocky Mountain	5.0	38.1	8.6	7.1	6.9
Colorado	5.5	50.9	8.3	6.7	9.1
Idaho	(0.9)	18.3	7.6	2.2	4.9

Montana	10.6	15.7	N/A	57.0	10.3
Utah	5.1	36.9	8.9	(0.8)	6.9
Wyoming	N/A	N/A	11.8	(3.3)	(6.9)
Far West	12.7	27.8	5.3	21.7	12.9
Alaska	N/A	68.4	N/A	11.9	48.8
California	13.5	26.2	4.0	28.3	12.6
Hawaii	40.5	(30.5)	(9.9)	0.8	10.4
Nevada	N/A	N/A	5.2	5.3	8.0
Oregon	(1.9)	63.2	N/A	54.3	7.4
Washington	N/A	N/A	12.1	(1.0)	19.8

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

	Tax year 2017				Tax year 2018		
	2017 Q1	2017 Q2	2017 Q3	2017 Q4	2018 Q1	2018 Q2	2018 Q3
	US (median)	4.7	5.0	4.5	5.4	5.5	6.8
US (average)	6.1	6.4	5.2	7.2	8.9	7.4	6.5
New England	2.1	5.0	4.5	5.7	5.8	6.6	3.9
Connecticut	1.5	1.7	2.2	3.4	6.2	4.5	8.8
Maine	3.5	3.9	3.3	5.8	5.2	8.7	4.9
Massachusetts	2.8	6.9	5.8	7.1	5.2	7.6	2.1
Rhode Island	3.6	3.0	4.2	4.4	3.9	6.0	(0.3)
Vermont	(12.0)	6.5	3.5	3.4	21.4	4.2	5.3
Mideast	5.8	7.0	3.7	6.2	8.1	4.8	4.1
Delaware	9.2	6.2	4.7	4.8	5.9	2.3	6.3
Maryland	4.7	10.0	(2.9)	4.4	4.6	5.5	3.0
New Jersey	10.0	13.0	7.3	5.2	7.0	5.0	3.0
New York	5.2	4.9	4.6	7.8	10.3	4.6	5.1
Pennsylvania	4.4	3.7	4.4	4.4	4.3	4.5	3.0
Great Lakes	5.1	6.2	8.8	12.1	14.5	13.0	8.4
Illinois	8.6	7.8	26.3	29.3	36.6	37.3	13.8
Indiana	5.4	5.2	5.6	7.0	11.1	9.6	7.0
Michigan	3.9	4.7	(3.0)	3.8	2.1	1.1	4.6
Ohio	3.5	4.6	3.2	4.7	4.9	4.6	5.9
Wisconsin	1.9	7.8	4.6	6.0	4.6	3.5	6.5
Plains	4.8	5.3	5.3	5.8	6.4	6.8	8.2
Iowa	1.1	4.4	5.4	3.4	4.8	11.0	6.6
Kansas	3.8	3.8	13.4	20.0	19.2	23.6	14.4
Minnesota	7.1	6.9	3.7	4.8	6.0	4.4	6.7
Missouri	4.7	4.7	5.5	3.6	3.2	1.3	ND
Nebraska	5.9	3.6	1.7	5.5	5.5	5.9	9.6
North Dakota	(9.9)	(1.2)	5.9	0.7	0.8	13.3	12.4
Southeast	5.0	4.2	2.1	3.0	5.1	6.1	6.3
Alabama	3.1	4.3	5.3	4.1	5.5	8.6	11.3
Arkansas	4.6	8.5	5.9	4.7	3.8	4.1	5.7
Georgia	7.3	5.5	2.9	5.6	4.7	2.8	7.4
Kentucky	2.3	3.5	3.9	3.3	2.5	3.5	(2.5)
Louisiana	8.8	2.9	(4.2)	11.7	(0.9)	15.5	21.7
Mississippi	1.6	2.6	3.1	3.4	2.2	3.8	7.0
North Carolina	2.3	0.2	(1.8)	(3.1)	7.3	5.8	7.5
South Carolina	5.1	7.6	1.7	5.3	5.8	2.5	5.7
Virginia	6.7	5.0	4.0	2.0	6.5	9.0	1.1
West Virginia	1.9	5.1	4.5	5.4	4.5	9.1	15.9
Southwest	6.0	4.0	4.6	6.9	8.0	8.2	8.5
Arizona	7.9	4.8	5.4	5.7	7.3	5.0	8.8
New Mexico	6.6	(7.0)	0.9	10.7	9.9	27.7	ND
Oklahoma	3.1	7.5	5.2	6.9	8.2	5.3	8.0
Rocky Mountain	7.7	8.2	6.7	8.8	6.2	10.0	6.7
Colorado	7.4	8.4	6.8	7.7	8.5	6.7	9.6
Idaho	9.3	8.0	8.6	15.1	8.8	7.7	(16.2)
Montana	6.8	5.5	3.9	10.0	5.0	5.9	6.8
Utah	7.7	8.6	6.6	7.7	0.8	18.4	12.4
Far West	9.4	8.6	6.9	9.0	11.4	7.4	7.7
California	9.6	8.9	7.4	9.0	12.2	6.8	7.4
Hawaii	12.0	1.2	(0.9)	11.8	(10.9)	38.7	10.3
Oregon	7.3	8.2	5.4	7.7	9.5	4.6	9.1

Source: Individual state data, analysis by the author.

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

TABLE A4

State Personal Income Tax Estimated Payments/Declarations

Year-over-year nominal percentage change

State	Payments for tax year 2017				Payments for tax year 2018		
	April 2017, 1st payment	June 2017, 2nd payment	September 2017, 3rd payment	December 2017-January 4th payment	April 2018, 1st payment	June 2018, 2nd payment	September 2018, 3rd payment
	(1.7)	1.8	0.3	39.1	12.6	9.3	9.2
Median	(1.7)	1.8	0.3	39.1	12.6	9.3	9.2
Average	(4.3)	1.6	1.4	46.7	9.3	17.2	18.2
Alabama	(23.3)	0.8	(4.3)	46.2	42.5	7.2	23.9
Arizona	11.1	4.2	4.8	62.6	8.3	11.8	14.9
Arkansas	(1.6)	(2.8)	(3.4)	25.0	3.9	3.3	1.9
California	(0.8)	2.9	8.7	31.2	13.2	20.9	33.5
Colorado	12.2	6.5	10.1	45.0	(7.1)	13.3	11.3
Connecticut	(7.2)	(6.1)	(5.6)	159.6	14.0	36.8	8.7
Delaware	(3.3)	10.1	2.6	46.1	12.2	(4.2)	(1.8)
Georgia	2.1	8.2	3.8	69.0	13.5	6.9	6.1
Hawaii	37.3	49.4	45.3	12.2	71.8	(19.5)	6.5
Illinois	19.3	8.1	16.5	82.2	46.6	41.7	29.3
Indiana	(18.5)	1.8	(3.1)	37.4	41.3	5.6	7.8
Iowa	76.9	3.2	10.0	62.0	(0.0)	(6.2)	(4.6)
Kansas	(2.3)	10.8	50.5	335.9	186.7	162.0	80.6
Kentucky	(0.6)	(4.2)	(4.0)	30.2	8.0	10.3	4.6
Louisiana	18.8	8.1	9.5	61.4	34.5	7.0	5.7
Maine	0.0	18.4	2.8	15.6	6.8	(11.7)	2.3
Maryland	11.2	1.6	(8.5)	32.9	36.5	5.5	11.2
Massachusetts	(30.5)	(7.7)	(13.7)	68.3	17.0	14.9	16.5
Michigan	1.6	11.8	8.1	54.0	23.2	9.9	12.3
Minnesota	(1.8)	(4.5)	(2.2)	45.0	(0.3)	9.4	5.8
Mississippi	56.2	(0.1)	(7.4)	18.1	(42.2)	(7.0)	2.6
Missouri	2.1	(2.5)	(13.4)	42.4	(5.5)	2.5	ND
Montana	4.7	3.5	0.4	48.3	7.8	16.2	2.1
Nebraska	(5.4)	(5.5)	(3.7)	35.9	6.1	7.9	6.2
New Jersey	(9.7)	(3.2)	(1.2)	17.2	7.5	20.2	23.3
New York	(12.9)	(1.4)	(1.7)	68.7	4.5	15.9	15.2
North Carolina	(8.7)	1.8	2.8	31.1	30.7	1.0	2.7
North Dakota	(10.2)	(17.2)	(9.6)	49.8	12.5	11.3	7.4
Ohio	(1.6)	(12.0)	0.3	58.4	39.5	36.7	18.7
Oklahoma	(14.9)	3.9	0.8	36.1	14.5	9.2	9.9
Oregon	29.8	9.7	3.6	40.8	6.6	7.9	13.2
Pennsylvania	(4.9)	1.3	0.2	33.4	16.4	9.7	14.8
Rhode Island	(11.0)	8.6	(3.8)	31.8	14.5	(1.6)	12.8
South Carolina	7.3	3.9	(5.1)	31.3	(65.3)	1.8	5.3
Vermont	(6.4)	(3.1)	(8.6)	23.6	12.7	14.8	14.9
Virginia	(26.5)	1.2	1.2	36.9	28.3	16.3	8.8
West Virginia	(16.0)	4.2	3.6	27.4	9.7	4.3	10.0
Wisconsin	(2.9)	(1.3)	(0.9)	17.8	4.8	12.5	9.2

Source: Individual state data, analysis by the author.

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

TABLE A5

State Personal Income Tax Final Payments

Year-over-year nominal percentage change

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

Source: Individual state data, analysis by the author.

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

TABLE A6

Quarterly State Government Tax Revenue for Nonmajor Tax Revenue Sources

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

2018 Q2 collections (\$ millions)	Property tax	Tobacco product sales tax	Alcoholic beverage sales tax	Motor vehicle & operators' license taxes	Other taxes	Total nonmajor taxes
	\$7,827	\$5,165	\$1,858	\$8,341	\$35,269	\$58,460
2010Q1-2018Q2 average growth	5.9	0.4	1.2	1.8	1.5	1.7
2008 Q2	2.6	5.6	1.0	3.6	3.3	3.4
2008 Q1	19.1	5.0	1.1	1.1	(0.4)	2.2
2017 Q4	17.3	6.0	2.4	(0.4)	(0.8)	1.7
2017 Q3	37.0	3.3	2.9	3.5	(4.3)	1.2
2017 Q2	39.4	1.5	2.2	1.4	(5.0)	0.4
2017 Q1	20.4	0.9	1.0	2.3	(4.0)	(0.6)
2016 Q4	19.8	1.3	0.4	2.6	(4.0)	(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)	2.6	1.4
2013 Q1	(3.2)	(1.6)	(0.1)	0.2	2.5	1.3
2012 Q4	(4.8)	(2.6)	2.2	2.0	1.3	0.6
2012 Q3	(9.2)	(3.4)	3.4	3.1	2.2	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

Fiscal Year-to-Date State Government Tax Revenue, by State

Nominal percentage change, State FY 2018 versus State FY 2017

	PIT	CIT	Sales	MFT	Total
US. (median)	8.2	7.0	3.9	2.2	5.8
US (average)	11.4	10.3	4.5	7.8	7.8
New England	13.7	7.3	4.1	2.0	9.4
Connecticut	22.3	(10.2)	3.3	0.4	14.8
Maine	4.6	6.0	6.1	(0.9)	4.1
Massachusetts	10.6	9.7	3.9	0.1	8.0
New Hampshire	12.6	37.7	N/A	20.6	11.9
Rhode Island	7.8	(28.6)	5.2	2.5	3.8
Vermont	10.2	(0.3)	5.8	2.4	4.0
Mideast	11.3	0.4	4.0	3.2	7.0
Delaware	7.1	(12.9)	N/A	1.8	5.9
Maryland	5.4	3.2	2.3	0.5	4.3
New Jersey	9.2	1.1	1.8	(3.4)	5.4
New York	14.6	(3.4)	6.0	(0.9)	9.7
Pennsylvania	6.1	6.0	3.9	7.4	4.5
Great Lakes	16.0	6.9	0.9	16.8	6.9
Illinois	37.2	20.8	(0.9)	1.4	12.8
Indiana	8.2	(31.9)	3.2	66.1	6.1
Michigan	6.0	15.5	5.6	48.1	8.0
Ohio	10.2	NM	(3.6)	(3.6)	0.6
Wisconsin	5.5	(2.9)	4.3	0.6	4.0
Plains	10.6	13.2	2.7	0.7	7.0
Iowa	7.7	7.0	3.0	(4.5)	4.5
Kansas	46.8	19.6	2.9	0.8	16.9
Minnesota	8.5	10.6	2.1	2.7	5.0
Missouri	4.2	8.5	2.3	(0.4)	3.4
Nebraska	5.9	18.6	3.5	5.5	5.7
North Dakota	15.1	76.2	3.9	3.7	20.0
South Dakota	N/A	(2.1)	3.5	(0.9)	4.5
Southeast	6.0	2.8	4.2	4.4	4.1
Alabama	7.5	15.2	3.1	6.0	5.3
Arkansas	3.6	(1.6)	3.4	1.1	2.9
Florida	N/A	2.1	6.4	3.2	5.2
Georgia	6.1	3.3	3.6	3.5	4.4
Kentucky	4.8	0.9	3.5	0.5	3.3
Louisiana	8.6	38.9	(2.6)	2.2	2.8
Mississippi	3.0	8.2	1.4	(2.0)	1.6
North Carolina	4.3	(1.9)	4.6	2.7	3.7
South Carolina	5.6	12.9	4.9	11.1	4.4
Tennessee	(2.8)	(4.8)	4.0	18.7	2.1
Virginia	8.1	4.2	2.1	2.2	5.4
West Virginia	5.5	(5.4)	2.3	9.3	4.1
Southwest	9.9	19.9	10.0	2.5	10.0
Arizona	10.0	1.3	6.6	2.2	6.7
New Mexico	10.0	51.9	18.2	2.4	12.5
Oklahoma	9.7	48.8	16.3	2.2	13.7
Texas	N/A	N/A	9.6	2.7	10.1
Rocky Mountain	10.4	37.1	9.3	4.3	10.0
Colorado	10.4	48.1	7.9	0.2	11.8
Idaho	10.7	11.2	8.6	0.8	8.2

Montana	10.4	39.3	N/A	34.1	7.2
Utah	10.3	35.9	9.7	1.9	9.9
Wyoming	N/A	N/A	17.0	(0.5)	6.5
Far West	12.4	24.2	4.4	19.6	10.8
Alaska	N/A	122.3	N/A	(3.1)	14.1
California	13.0	23.5	2.8	25.9	11.7
Hawaii	13.5	(3.7)	4.8	1.5	7.8
Nevada	N/A	N/A	7.1	4.8	6.2
Oregon	5.7	25.8	N/A	13.5	6.8
Washington	N/A	N/A	7.6	7.2	9.3

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 A8

Preliminary Quarterly State Government Tax Revenue, by State

Nominal percentage change, 2018 Q3 versus 2017 Q3

	PIT	CIT	Sales	Total
US (median)	7.2	27.6	6.0	8.0
US (average)	7.9	27.4	6.5	8.4
New England	7.5	28.2	5.0	10.8
Connecticut	11.4	21.4	3.1	16.0
Maine	8.4	27.4	6.6	8.2
Massachusetts	6.6	26.8	5.1	10.5
New Hampshire	2.8	22.4	N/A	8.1
Rhode Island	3.2	92.8	6.4	6.3
Vermont	7.4	80.0	3.1	7.2
Mideast	4.1	31.2	5.5	5.1
Delaware	4.5	189.3	N/A	15.0
Maryland	6.1	17.9	4.4	2.1
New Jersey	6.3	91.5	1.7	10.8
New York	2.4	4.4	4.8	2.2
Pennsylvania	7.2	35.2	8.9	8.0
Great Lakes	10.4	32.9	4.8	8.0
Illinois	18.4	27.7	3.9	12.8
Indiana	7.5	40.1	4.8	7.7
Michigan	5.4	38.5	6.7	6.3
Ohio	6.7	NM	2.7	4.9
Wisconsin	6.8	33.1	8.9	8.1
Plains	6.4	28.1	4.7	7.5
Iowa	6.4	47.0	3.7	7.3
Kansas	21.5	20.7	1.0	11.4
Minnesota	7.2	25.8	5.1	10.4
Missouri	(2.8)	1.9	2.3	(0.8)
Nebraska	10.7	15.2	6.0	7.4
North Dakota	13.0	NM	19.1	24.7
South Dakota	N/A	N/A	7.2	5.6
Southeast	6.3	13.3	6.3	6.8
Alabama	9.1	4.6	8.1	9.3
Arkansas	5.3	10.7	5.1	4.9
Florida	N/A	50.8	7.2	10.9
Georgia	7.9	10.7	7.1	6.2
Kentucky	(0.7)	(1.2)	8.2	4.2
Louisiana	22.3	(50.0)	(4.0)	6.1
Mississippi	5.1	(7.2)	5.5	1.7
North Carolina	6.1	29.9	4.2	5.3
South Carolina	4.8	67.1	5.0	8.6
Tennessee	NM	(4.7)	6.8	5.4
Virginia	2.7	(10.0)	7.0	3.3
West Virginia	16.0	27.9	16.6	17.9
Southwest	10.7	60.2	11.5	13.7
Arizona	9.7	81.6	7.1	10.1
New Mexico	ND	ND	ND	ND
Oklahoma	12.6	30.6	(3.6)	7.4
Texas	N/A	N/A	13.4	15.2
Rocky Mountain	8.0	79.5	7.1	11.0
Colorado	11.9	107.1	6.1	13.8
Idaho	(14.5)	44.4	6.9	0.3
Montana	7.2	22.1	N/A	5.5
Utah	11.2	89.3	7.1	14.8

Wyoming	N/A	N/A	11.8	ND
Far West	11.2	25.3	5.9	9.9
Alaska	N/A	84.1	N/A	151.8
California	11.4	20.9	6.0	9.4
Hawaii	7.4	(39.4)	(2.3)	0.4
Nevada	N/A	N/A	ND	ND
Oregon	10.4	69.5	N/A	14.6
Washington	N/A	N/A	8.2	8.3

Source: Individual state data, analysis by the author.

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

Notes

¹ In 46 states fiscal year 2018 ended on June 30, 2018.

² The author made several adjustments for the April–June 2018 quarter 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.

³ In this report the author uses Bureau of Economic Analysis regions as the basis of analysis.

⁴ 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.

⁵ 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.

⁶ For more discussion of the relationship between property tax and housing prices, see Dadayan (2012).

⁷ See Federal Reserve Bank of St. Louis, “30-Year Fixed Rate Mortgage Average in the United States,” <https://fred.stlouisfed.org/series/MORTGAGE30US>.

⁸ Urban Institute analysis of data from NASBO (2017), table A-1.

⁹ See *Legislative Enrolled Bill Analysis for Senate Bill No. 1* (California State Board of Equalization), <https://www.boe.ca.gov/legdiv/pdf/0001sbENROLLED17jcRev.pdf>.

¹⁰ See *House Bill 1002* (Indiana General Assembly, 2017 Session), <http://iga.in.gov/legislative/2017/bills/house/1002#digest-heading>.

¹¹ See *Funding Education* (Washington State Department of Revenue), <https://dor.wa.gov/get-form-or-publication/publications-subject/tax-topics/funding-education>.

¹² See *House Bill 2391*, (79th Oregon Legislative Assembly), <https://olis.leg.state.or.us/liz/2017R1/Downloads/MeasureDocument/HB2391/Enrolled>.

¹³ 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>.

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