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State and Local Government Revenue During the COVID-19 Pandemic

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Abstract

While the early months of the COVID-19 pandemic put stress on the budgets of state and local governments around the country, their tax revenues have since rebounded. In addition, the federal government has already allocated substantial aid to these governments, which has more than offset the losses they have suffered. In particular, after nationwide state and local tax revenue fell by over 17% from the first to the second quarter of 2020, it bounced back strongly in the second half of the year and ended 2020 up 1.3% over 2019 – roughly constant in real terms. In addition, during 2020 the federal government sent \$280 billion in transfers to these governments, and has already allocated an additional \$120 billion in aid. These federal transfers led to growth of 8.9% in real revenue for state and local governments. In this brief, I document the recovery in state and local government total revenues and tax revenue, as well the distribution of revenue growth across states and discuss other sources of state fiscal support.

Note: The material in this brief formed the basis for the article, “Their Cups Runneth Over,” at *City Journal*: <https://www.city-journal.org/state-and-local-revenue-has-rebounded-to-pre-pandemic-levels>

State and Local Government Revenue

When the COVID19 pandemic took hold in the United States, states and local governments naturally feared that they would suffer large revenue losses due to the economic upheavals caused by shutdowns, public health orders, and voluntary cutbacks in economic activity. Indeed, nationwide state and local tax revenue did decline by over 17% from the first to the second quarter of 2020. In response to these difficulties, Congress has provided substantial aid to state local governments, allocating \$280 billion under the CARES act and an additional \$120 billion in the stimulus package from December. However the budget situation of most states and localities has turned out to be far better than expected, with state and local tax revenue increasing in 2020 relative to 2019. The already-committed federal aid, along with the recovery of state and local own-source revenue, has more than filled the revenue shortfalls in state and local budgets.

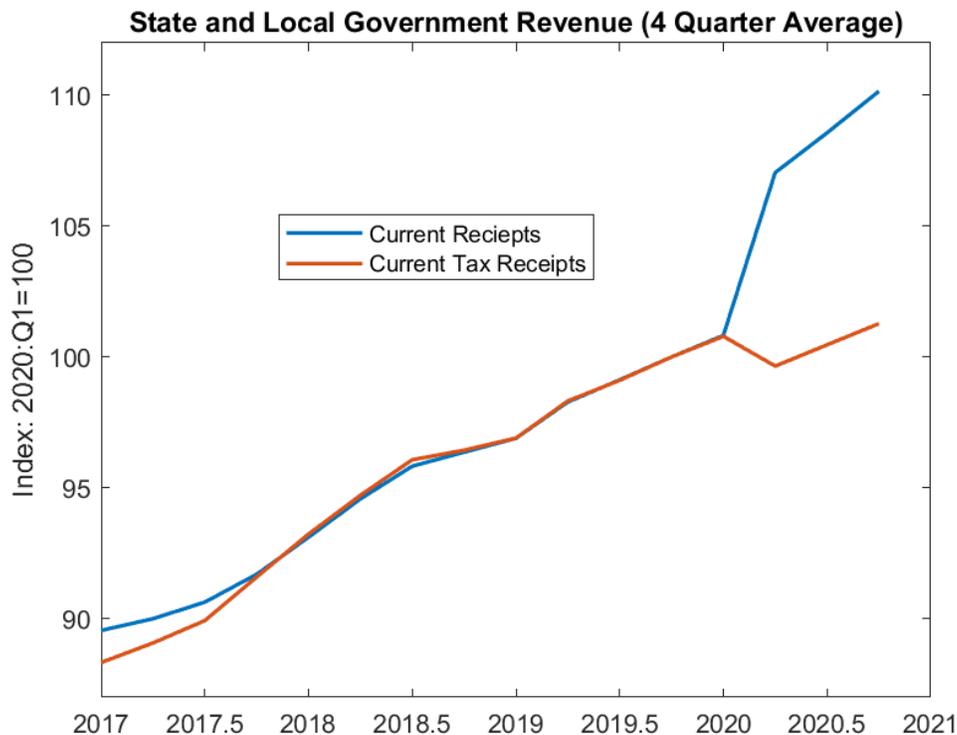


Figure 1: State and local government revenue: total current receipts (blue line) and current tax receipts (red line). The data are 4 quarter averages, indexed so 2020:Q1=100. (Source: BEA and author's projection.)

Figure 1 shows the nationwide total of state and local government revenue, using data from the Bureau of Economic Analysis. The official data are complete through 2020:Q2 and the only missing data point in the official release from the fourth quarter of 2020 was corporate tax revenue. I assume that corporate tax revenue grew at the same rate as other tax receipts (personal current taxes and taxes on production and imports), which was roughly 1.28%. Thus I estimate that 4th quarter corporate tax revenue was \$74.4 billion, a decrease from the \$90.2 billion in 2020:Q3 but an increase of 4.8% from 2021:Q3.

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<u>State and Local Governments</u>	<u>Share (%)</u>		<u>Real Growth (%)</u>		<u>Change (\$B)</u>
	2019	2019	2019	2020	2020
Current receipts	--	1.98	8.94		278.5
Current tax receipts	68.4	1.90	0.07		23.9
Personal current taxes	17.9	2.92	1.64		14.0
Income taxes	16.4	3.12	1.75		13.3
Other	1.4	0.65	0.40		0.6
Taxes on production and imports	48.0	0.99	-0.52		9.1
Sales taxes	15.9	1.45	-3.42		-9.6
Excise taxes	7.6	-0.17	-1.94		-1.5
Property taxes	20.6	0.92	2.64		21.7
Taxes on corporate income	2.5	13.18	0.07		0.9
Contributions for social insurance	0.8	1.78	-7.53		-1.4
Income receipts on assets	3.5	0.48	0.06		1.2
Current transfer receipts	27.5	2.43	34.25		267.0
Federal grants-in-aid	22.2	2.59	42.31		264.7
From business (net)	2.0	0.88	0.99		1.2
From persons	3.2	2.49	1.52		2.4
Current surplus of govt enterprises	-0.2	8.35	215.02		-12.3

Table 1: State and local government receipts from different sources.

With this estimated data point, I then calculate all of the other totals, finding that total state and local tax revenue increased 1.3% in 2020. Moreover, total state and local tax receipts, which includes tax revenue, contributions for social assistance, surplus of government enterprises, and – most importantly – transfer receipts, increased by 10.2%.

These data are shown in the Figure 1, which plots four-quarter rolling averages, which are indexed so 2020:Q1 is equal to 100. The graph shows that from 2018 until the start of 2020 the two lines moved in tandem with a growth rate of around 4%. In particular, in 2019 total receipts grew by 3.8% and tax revenue by 3.7%. But in 2020 there was a big divergence, with tax revenue falling in the second quarter before recovering. At the same time, there was a huge increase in total receipts in the second quarter, driven by the federal transfers as described above. Transfers declined in the third and fourth quarters, but still remained roughly 16% above 2019 levels.

The data in Figure 1 are in nominal terms, as they are reported by the BEA. Table 1 reports more detail on the revenue categories, listing the share of total receipts in 2019, the real growth rates in 2019 and 2020, and the dollar amount (in billions) of the change in levels from 2019 to 2020. Converting to real terms using the GDP deflator, I find that during 2020, a year in which real GDP fell by 3.5%, state and local government revenue grew by 8.9% in real terms, a rapid increase from its 2.0% growth rate in 2019. After plummeting in the second quarter, state and local current tax receipts recovered sharply in the second half of the year, ending 2020 as essentially unchanged from 2019 in real terms, after growing by 1.9% in 2019. The second half recovery was strongest in income tax revenue, as part of the revenue decline in the first part of the year was due to delayed tax filings. Real income tax revenue ended the year up nearly 1.8%, showing a strong rebound, but still a slowdown from the 3.1% real growth in 2019.

But by far the biggest contributor to growth in state and local budgets was federal aid, which totaled \$265 billion in the BEA data, an increase of 42% in real terms. The federal aid amounted to 8.8% of all state and local revenue, and accounted for all of the observed revenue growth in 2020. With the economy continuing to recover, the additional \$120 billion in federal aid that has already been allocated should continue to drive state and local revenue growth into 2021.

How has state and local tax revenue rebounded even though employment and output remain below pre-pandemic levels? The states largely rely on income and sales taxes, while local governments largely rely on property taxes. Real personal consumption expenditures fell by 3.9% in 2020, and accordingly sales tax revenue was down 3.4% in real terms. However real incomes grew by 5.1% in 2020, which drove the growth in income tax revenue noted above. Absent transfers, including the federal relief checks and enhanced unemployment benefits, incomes would have fallen by 1.0%. In addition, the real estate market was strong in the work-from-home environment, for example the Case-Shiller home price index was up 9.5% year-over-year in November 2020. Accordingly property tax revenue grew 2.6% in real terms in 2020, after only increasing by 1.0% the previous year.

Tax Revenue Distribution Across States

These data suggest that overall state and local government revenue has recovered, but there is variation across the country. To gain a sense of the distribution across states, I now analyze the state-level tax revenue data from the Census Bureau. This data is only available through the third quarter of 2020, and thus misses the continued recovery in the fourth quarter. It also only includes revenue at the state level, not capturing the revenue earned by local governments.

As shown in Figure 2, this data shows widespread recovery in most states around the country. The figure cumulates the (nominal) tax revenue from the first three quarters of 2020 and shows the growth rate relative to the corresponding three quarters in 2019. We see that 11 states had revenue increases, and 25 were within 3% of the previous year's level. Looking at the national totals across states, this data shows increases of 4.6% by state governments, with sales tax revenue increasing by 4.2% and income taxes by 3.2%.

Three states were notable outliers, with revenue drops of 23% or more. In Connecticut, the issue seems to be a matter of timing. Income and sales tax collections both lagged substantially in the Census data, but the state of Connecticut has since released updated figures showing a surge late in the year. In January, state officials projected income and sales tax growth of 5%, enough to turn a forecast budget deficit into a surplus. The other two outliers of Alaska and North Dakota are heavily reliant on severance taxes on oil and natural gas, and both saw this revenue drop by roughly 40%. Other states reliant on the energy industry, such as Texas, West Virginia, and Oklahoma, also saw revenue drops. Apart from these energy-heavy states, Figure 3 shows that there was no clear pattern between a state's tax structure – whether it relies more on income or sales taxes – and its revenue performance in 2020.

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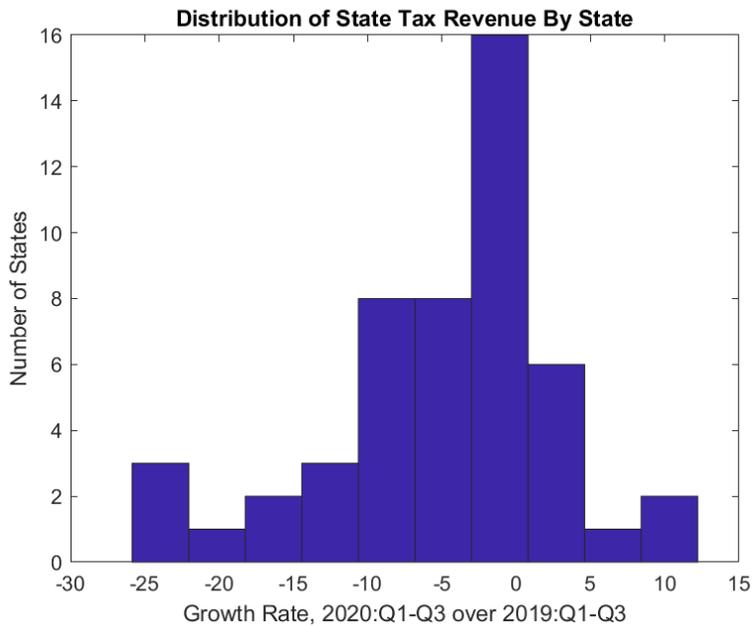


Figure 2: Distribution of state tax revenue growth rates, 2020:Q1-Q3 over 2019:Q1-Q3. (Source: Census Bureau.)

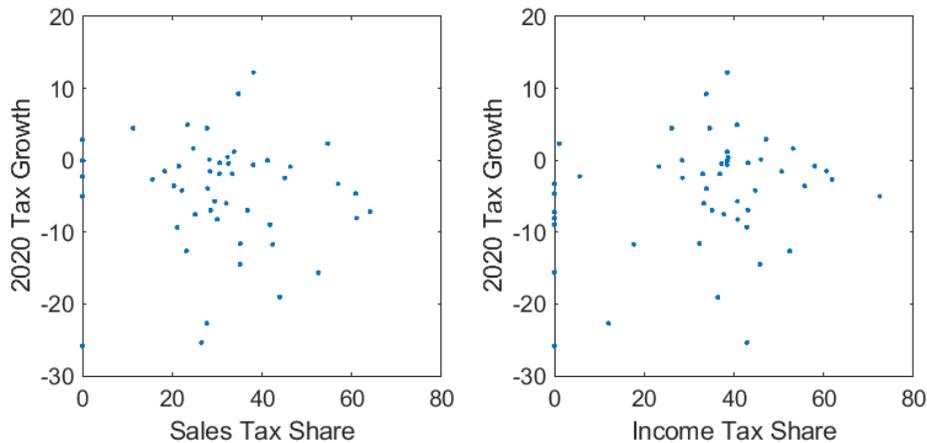


Figure 3: State tax revenue growth during 2020 compared to 2019 share of tax revenue from sales taxes (left panel) and income taxes (right panel).

Other Revenue Sources for State and Local Governments

Although much of the recent policy discussion has focused on the issue of federal aid to state, it is important to note that states also have their own resources to rely on. States entered the 2020 budget year, which started in June in most states, with a record \$119 billion in total balances, including \$75 billion in rainy day funds. At least ten states drew on their rainy day funds to close deficits in fiscal 2020, and at least eight have enacted legislation to do so in 2021. In most cases these withdrawals did not deplete the entire

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rainy day fund balances. In addition, at least five states have added to their rainy day fund balances during the pandemic. This suggests additional fiscal cushion in many states.

The lack of an emergency in state and local finance was also evident in lack of interest in the Federal Reserve's Municipal Lending Facility. In April, the Fed established the program to "better manage cash flow pressures in order to continue to serve households and businesses in their communities." The facility was authorized to up to \$500 billion of lending directly to states, as well as larger counties and cities, with states able to use the proceeds to support additional counties and cities. However before this facility closed for new loans at the end of 2020, only \$6.6 billion in loans had been issued, to only two borrowers: the State of Illinois and the New York Metropolitan Transit Authority. In both cases, the borrowers initially planned to borrow on the private market, but used the Fed Facility to lower their borrowing costs.