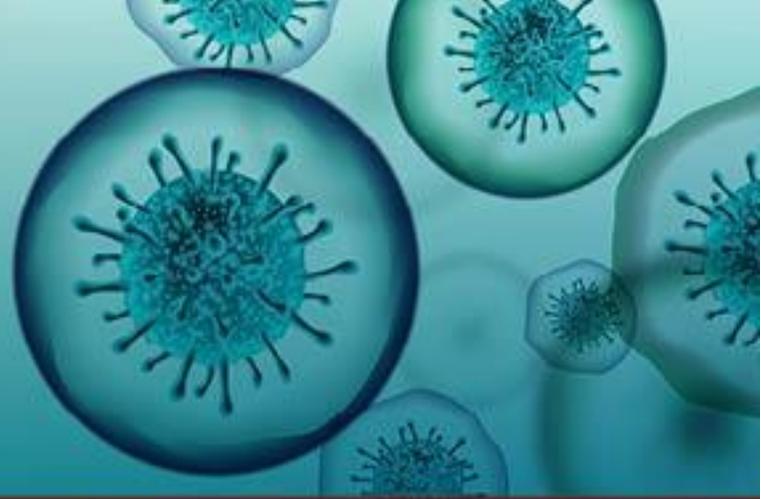


**CRISIS RESPONSE REPORT:**  
**CORONAVIRUS**  
**COVID-19**



# **SUPPORTING CONNECTICUT'S ECONOMY: A PROGRAM TO MANAGE THE CORONAVIRUS RECESSION AND RECOVERY**

**PATRICK O'BRIEN, PH.D. RESEARCH AND POLICY FELLOW**

**CONNECTICUT  
VOICES  
FOR CHILDREN**

**APRIL 2020**



# Introduction

Following the longest economic expansion in U.S. history, a coronavirus recession now appears inevitable. For example, the Goldman Sachs economic outlook is forecasting an annualized economic growth rate of -24 percent during the second quarter of 2020, which would be far and away the largest quarterly contraction on record. Additionally, the U.S. Department of Labor reported that 3.28 million people filed for unemployment in a single week in March—more than four times the record—and the Economic Policy Institute projects that altogether 14 million people could lose their jobs by this summer, including more than 150,000 people in Connecticut.<sup>1</sup>

Building upon an analysis of both the federal government’s primary instruments and Connecticut’s primary instruments, the purpose of this report is to outline a program for managing the coronavirus recession and recovery. To be sure, a recession triggered by a global pandemic is unique in American history, yet all recessions are unique to some degree. The focus of this report is therefore limited to the general economics of managing a recession and recovery.

As developed in detail in this report, CT Voices recommends the following program to support the U.S. economy in general and Connecticut’s economy in particular:

## Using Monetary and Fiscal Policy to Support the U.S. Economy

To support the U.S. economy, which in turn will help to support the well-being of Connecticut’s children and families, especially those that have been historically disadvantaged and/or most directly impacted by the recession, CT Voices recommends the following at the federal level:

- In managing the recession, the Federal Reserve should keep its primary short-term interest rate target at zero and continue to aggressively employ its unconventional monetary policy instruments.
- In managing the recovery, the Federal Reserve should not raise its primary short-term interest rate target before the economy returns to full employment, which, as recent history shows, means an unemployment rate below 4 percent and possibly lower.
- In managing the recession, Congress and the president should provide significantly more fiscal support.
- In managing the recovery, Congress and the president should not move to reduce the deficit and debt before the economy returns to full employment. Moreover, when that move occurs, it should be accomplished through an increase in progressive taxes, not a reduction in spending.

## Using Fiscal Policy to Support Connecticut's Economy

To support Connecticut's economy, which in turn will help to further support the well-being of the Connecticut's children and families, especially those that have been historically disadvantaged and/or most directly impacted by the recession, CT Voices recommends the following at the state level:

- In managing the recession, the Connecticut government should immediately use the Budget Reserve Fund to establish a state emergency relief program, to increase government capacity and accountability, and to maintain government spending more generally.
- In managing the recession and recovery, the Connecticut government should increase taxes on the wealthy in order, first, to maintain spending and, second, to lower the disproportionate tax burden borne by working- and middle-class families.

# The Role of the Federal Government

This section provides an overview of the federal government’s two primary instruments for managing a recession and recovery: monetary policy and fiscal policy. It also provides an overview of the initial federal response to the coronavirus recession and addresses concerns moving forward.

## Using Monetary Policy to Support the U.S. Economy

The Federal Reserve (hereafter the Fed) is the central bank of the United States and it conducts *monetary policy*—the adjustment of the money supply and interest rates—in support of a dual mandate to promote “maximum employment” and “stable prices.”<sup>2</sup>

Created in 1913 and restructured during the 1930s in response to the Great Depression, the Fed is considered an independent agency due to a combination of structural features—most notably, budgetary independence, 14-year terms for its governors, and limited “for cause” removal.<sup>3</sup>

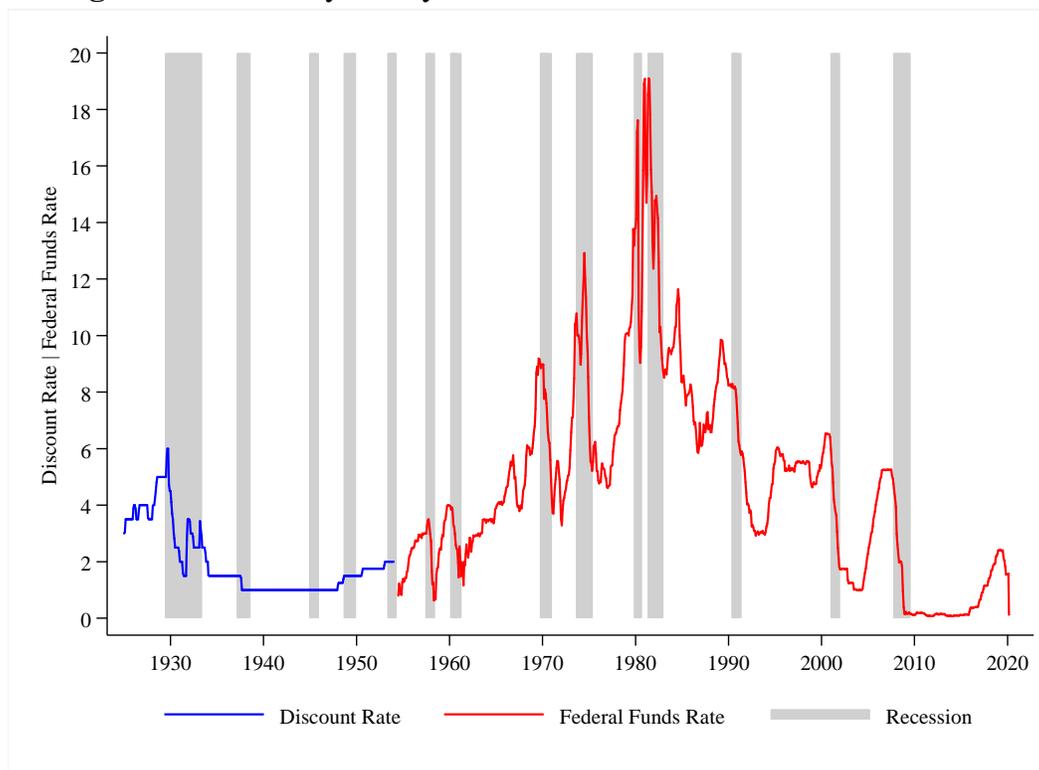
As an independent agency with unilateral control over monetary policy, the Fed tends to operate with a long-term view—relative to Congress and the president—and it also tends to act more rapidly in response to short-term developments. Both factors have considerably strengthened the role of monetary policy as an economic stabilization instrument since the 1980s.<sup>4</sup>

In practice, the Fed conducts monetary policy by setting a target for the *federal funds rate*—the rate at which banks lend to one another on an overnight basis in order to meet reserve requirements. The Fed has then traditionally attained that target through the use of open market operations—usually the purchase and sale of U.S. government securities. However, since 2008, the Fed has mainly relied upon changing the interest rate that it pays on bank reserves.<sup>5</sup>

In using monetary policy to manage the economy, there are two primary approaches. If the Fed wants to stimulate the economy in response to a recession—or the threat of a recession—it moves to lower the federal funds rate target. By lowering this key interest rate, the Fed helps to increase interest-rate-sensitive spending, such as business spending on plants and equipment and household spending on durable goods. In contrast, if the Fed wants to slow down the economy in response to rising inflation—or the threat of rising inflation—it moves to raise the federal funds rate target.<sup>6</sup>

For a historical overview of the use of monetary policy to manage the economy, **Figure 1** shows the following: (1) the discount rate, which is the rate that the Fed charges banks for borrowing; (2) the federal funds rate, which, as noted, is the rate that banks charge one another on an overnight basis in order to meet reserve requirements; and (3) every recession since the Great Depression. To be clear, although the Fed currently targets the federal funds rate, data for that rate only date back to 1954, and prior to that the discount rate operated as an important policy instrument.<sup>7</sup>

**Figure 1.** Monetary Policy as an Economic Stabilization Instrument



\*See note 7 for data sources.

With a few notable exceptions, the historical data show that the Fed has generally moved to reduce interest rates in order to stimulate the economy during recessions and it has generally moved to increase interest rates in order to slow down the economy during recoveries. Economists refer to this as a *countercyclical monetary policy* because it works to offset cyclical movements in the economy.<sup>8</sup>

In addition to the short-term dynamics, there are two primary long-term dynamics. First, the federal funds rate trended upward from the late 1940s through the 1970s. Second, the federal funds rate has trended downward since the early 1980s, which has increasingly limited the Fed's ability to stimulate the economy through its primary instrument. This is an especially important development because it counteracts the decades-long rise of monetary policy as the leading economic stabilization instrument. In particular, the federal funds rate has fallen from 19 percent before the recession of 1981–82, to 8 percent before the recession of 1990–91, to less than 6 percent before the recession of 2001, to less than 5 percent before the recession of 2007–09 (i.e., the Great Recession), and to less than 2 percent before the coronavirus recession of 2020. Once the federal funds rate reaches the range of 0 to 0.25 percent—its current range and what economists call the *zero lower bound*—the Fed necessarily resorts to unconventional monetary policy instruments that are generally considered less effective in stimulating the economy.<sup>9</sup>

## Using Fiscal Policy to Support the U.S. Economy

Unlike monetary policy, Congress and the president directly oversee *fiscal policy*—the adjustment of expenditures and revenue or, in more common terms, spending and taxes.

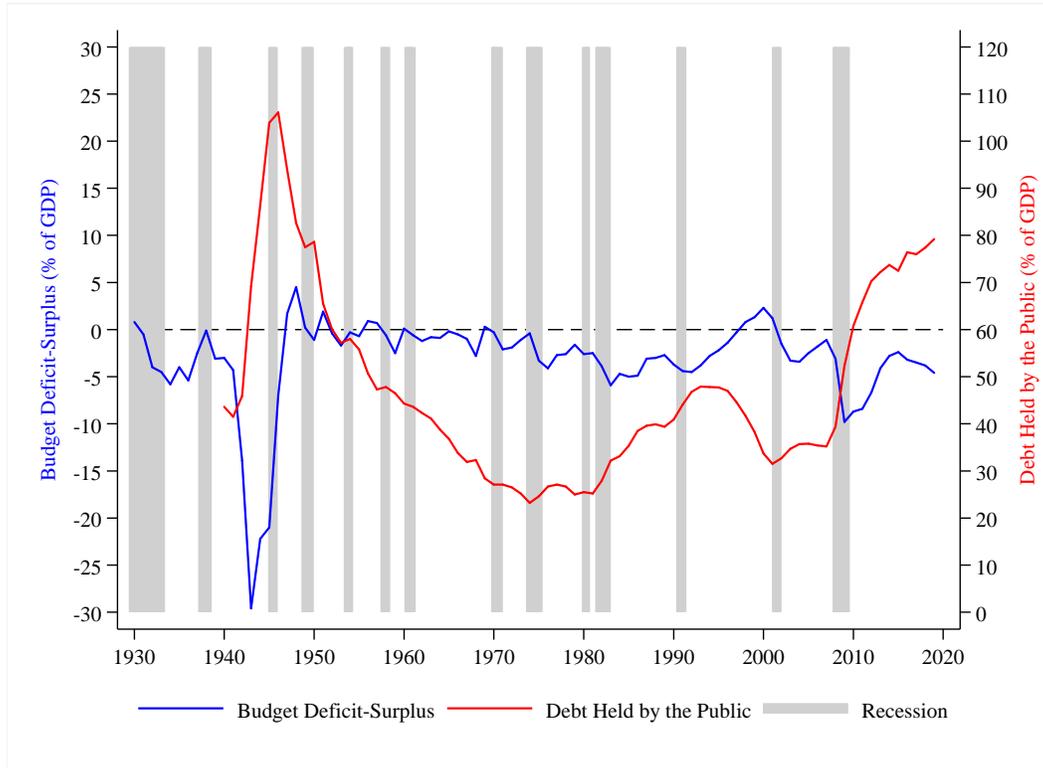
With elected officials—435 representatives, 100 senators, and the president—sharing control and operating through a complex and often highly contentious legislative process, fiscal policy tends to focus more on short-term problems, and it also tends to take longer to implement, if at all, in response to those problems. Both factors have diminished the role of fiscal policy as an economic stabilization instrument over the last several decades.<sup>10</sup>

In using fiscal policy to manage the economy, the federal government has two primary approaches. It can stimulate the economy by increasing spending, decreasing taxes, or some combination of the two in order to produce a *budget deficit*—which is when the government spends more than it taxes in a given year. For example, when holding taxes constant, an increase in spending works to stimulate the economy either by directly increasing the purchase of goods and services or by increasing the transfer of money to individuals or organizations who then purchase more goods and services. Likewise, when holding spending constant, a decrease in taxes works to stimulate the economy by increasing the income of individuals or organizations who then purchase more goods and services.

In contrast, the federal government can slow down the economy by decreasing spending, increasing taxes, or some combination of the two in order to produce a *budget surplus*—which is when the government taxes more than it spends in a given year. For example, when holding taxes constant, a decrease in spending works to slow down the economy either by directly decreasing the purchase of goods and services or by decreasing the transfer of money to individuals or organizations who then purchase fewer goods and services. Likewise, when holding spending constant, an increase in taxes works to slow down the economy by decreasing the income of individuals or organizations who then purchase fewer goods and services.<sup>11</sup>

For a historical overview of the use of federal fiscal policy to manage the economy, **Figure 2** shows the following: (1) the annual budget deficit or surplus, measured as a percentage of gross domestic product (GDP); (2) the public debt, which—unlike the annual deficit—is the cumulative amount of money that the government owes and is measured as a percentage of GDP; and (3) every recession since the Great Depression.<sup>12</sup> To be clear, the annual budget deficit or surplus varies in part due to automatic stabilizers, which fluctuate in response to changes in the economy. For example, during an economic expansion, tax revenue tends to increase and spending tends to decrease because rising employment generates both higher taxable incomes and decreased spending on financial assistance programs, all of which works to shrink the budget deficit or increase the surplus.<sup>13</sup>

**Figure 2.** Fiscal Policy as an Economic Stabilization Instrument



\*See note 12 for data sources.

With a few notable exceptions—especially the substantial shifts in the budget during the 1940s due to the Second World War—the historical data show that the federal government has generally taken steps that increased the budget deficit in order to stimulate the economy during recessions and it has generally taken steps that increased the budget surplus or, at minimum, decreased the deficit during economic expansions. Economists refer to this as a *countercyclical fiscal policy* because—similar to a countercyclical monetary policy—it works to offset cyclical movements in the economy.<sup>14</sup>

In addition to the short-term dynamics, there are two primary long-term dynamics. First, between the late 1940s and mid 1970s, the debt steadily declined as a percentage of GDP due to a mix of small surpluses and deficits—notably, even when the budget was not balanced the economic growth rate generally exceeded the size of the deficit. Second, with the exception of the late 1990s and early 2000s, the debt has increased since the 1980s due to large, sustained deficits that operate in the long-term as a *procyclical fiscal policy*, meaning the budget continues to stimulate the economy during its expansion but, as noted above, the level of that stimulation varies in the short term. Moreover, due in large part to the Tax Cut and Jobs Act of 2017—which significantly benefits the wealthy—fiscal policy has become increasingly procyclical, as demonstrated by the shift from a large but shrinking deficit during the first part of the post-Great Recession expansion (2010–15) to a large and growing deficit during the continuation of that expansion (2016–19). This has further contributed to the growing debt, and a high level of debt tends to weaken support for employing sufficient, sustained deficits in response to a recession, which—as shown later—is the most effective use of fiscal policy.<sup>15</sup>

## The Initial Response to the Coronavirus Recession and Concerns Moving Forward

Similar to past recessions since the Great Depression, the Fed and the elected branches of the federal government have begun to employ their two primary instruments—monetary policy and fiscal policy—in response to the coronavirus recession that appears to have started in March 2020.

To date, the initial monetary policy response occurred in two phases:

First, on March 3, the Fed lowered the federal funds rate by half a percentage point, explaining that “the coronavirus poses evolving risks to economic activity.” This was the largest one-time rate cut since the Great Recession and it put the federal funds rate target range at 1 to 1.25 percent.<sup>16</sup>

Second, after an emergency meeting on March 15, the Fed lowered the federal funds rate by a full percentage point, which put it at a range of 0 to 0.25 percent—the zero lower bound—for the first time since the Great Recession. Underscoring the lack of conventional options for monetary policy moving forward, the *New York Times* reported, “While the central bank has exhausted perhaps its most powerful recession-fighting tool, [Fed Chair Jerome] Powell pointed out that very low rates will make it cheaper for consumers to borrow and spend” and “the Fed stands ready to use asset purchases and liquidity tools — its backup options when rates are at rock-bottom.”<sup>17</sup>

In addition to monetary policy, the initial federal fiscal policy response has occurred in three phases:

First, on March 6, the president signed into law the Coronavirus Preparedness and Response Supplemental Appropriations Act. This provides \$8.3 billion in emergency funding to respond to the coronavirus pandemic, primarily to support efforts to track the outbreak and develop medical countermeasures to prevent and combat it.<sup>18</sup>

Second, on March 18, the president signed into law the Families First Coronavirus Response Act. It assures free testing for the coronavirus, establishes an emergency paid leave program—but notably fails to cover many types of workers—it increases unemployment benefits and the amount of aid to states with high unemployment, and it increases funding for nutrition assistance.<sup>19</sup>

Third, on March 27, the president signed into law the Coronavirus Aid, Relief and Security (CARES) Act, a \$2 trillion program. This includes \$450 billion for industry bailouts, \$350 billion in aid to small businesses, \$300 billion in cash payments to households, \$250 billion for unemployment insurance, \$150 billion in aid to states, and \$100 billion in emergency funding for health care. In particular, the act includes funding for unemployment insurance (UI) that will provide eligible workers an extra \$600 per week on top of their state benefit, extends UI eligibility to self-employed workers and others, and provides eligible workers with an additional 13 weeks of coverage. Moreover, the cash payments to households provide \$1,200 for single adults making less \$75,000 or married couples making less than \$150,000 and \$500 per qualifying child.<sup>20</sup>

CT Voices will provide a detailed summary of the three federal laws elsewhere. The key point here is that they mitigate only some of the challenges that the coronavirus pandemic and recession are posing to families and state and local governments, and they also fail to address the need for economic stimulus once the pandemic is under control. The latter shortcoming raises several major concerns based on the federal government’s inadequate management of the Great Recession and its recovery.

On the monetary policy front, the first major concern is that the reduction in the federal funds rate will prove insufficient to counteract a severe recession, which is what occurred after hitting the zero lower bound during the Great Recession. For example, in late 2008, President-elect Barack Obama acknowledged, “We are running out of the traditional ammunition that’s used in a recession, which is to lower interest rates. It is critical that the other branches of government step up, and that’s why the economic recovery plan is so essential.”<sup>21</sup>

Another major concern is that once the recession officially ends, the Fed will move too quickly to raise the federal funds rate even while unemployment remains high and economic growth remains slow, which is what occurred with the first post-Great Recession rate increase in late 2015. For example, in response to that move, the *Washington Post* reported,

In many ways, the recovery still seems to be falling short. The pace of economic expansion remains significantly slower than it was before the financial crisis. Wage growth has been stagnant, and many unemployed workers have given up hope of ever finding a job. But Fed officials believe rectifying those problems is the responsibility of lawmakers in Washington, not monetary policymakers.<sup>22</sup>

On the fiscal policy front, the first major concern is that future fiscal stimulus will prove inadequate, which is what occurred with the American Recovery and Reinvestment Act of 2009 during the Great Recession. For example, Ben Bernanke, the Fed chair at the time, later explained,

I am sure that the Recovery Act helped create jobs and slow the economic contraction .... Nevertheless, the recovery would be slow and protracted. In retrospect, some economists ... have said that the stimulus package was too small. Within the Fed, some of our fiscal specialists expressed that concern at the time. Over the next few years, I came to agree.<sup>23</sup>

Another major concern is that once the recession officially ends, the federal government will move too quickly to reduce the deficit due to a preoccupation with the high level of the public debt, which is what occurred with the Budget Control Act of 2011 after the Great Recession. For example, in response to that move, Fed Chair Bernanke later complained, “Fiscal policy—at state, local, and federal levels—was ... blowing the wrong way. ... Tight fiscal policies were arguably offsetting much of the effect of our monetary efforts.”<sup>24</sup>

**Table 1.** Fiscal and Monetary Policy Space in Managing a Recession and Recovery

Recession			Initial Policy Space		Recovery
Start Date	End Date	Lowest Quarterly Growth Rate	Federal Funds Rate	Public Debt	5-Year Average Growth Rate
July 1981	November 1982	-6.1%	19.1%	25.5%	4.6%
July 1990	March 1991	-3.6%	8.3%	39.4%	3.4%
March 2001	November 2001	-1.7%	5.7%	33.7%	3.0%
December 2007	June 2009	-8.4%	4.5%	35.4%	2.1%
March 2020	-	-	1.6%	79.2%	-

\*See note 25 for data sources.

For a more comprehensive overview of the combined fiscal and monetary policy space available at the start of the coronavirus recession and the reason for concern moving forward, **Table 1** shows the following for every recession since 1981: (1) the start date; (2) the end date; (3) the lowest quarterly growth rate, measured as an annualized percentage of GDP; (4) the federal funds rate during the month preceding the recession; (5) the public debt as a percentage of GDP during the fiscal year preceding the recession; and (6) the average real GDP growth during the five years after the recession.<sup>25</sup> Importantly, unless the Fed begins to target a negative federal funds rates for the first time in its history, the zero lower bound provides an *actual* limit on the available monetary policy space in managing a recession. In contrast, the public debt provides largely a *perceived* limit on the available fiscal policy space, yet research shows that governments tend to employ a smaller fiscal policy stimulus to manage a recession when they have a high level of debt. This is generally due to the concern of rising inflation and higher interest rates.<sup>26</sup>

Overall, the data show that, over the last four decades, the perceived fiscal policy space has declined greatly due to the rising level of the debt, the actual monetary space has declined greatly, and the combined decline in fiscal and monetary policy space in managing a recession is associated with a substantial decline in the strength of the recovery. Additionally, the data show in particular that the combined fiscal and monetary space in managing the Great Recession was highly restricted relative to prior downturns, especially when considering its severity; the recovery from the Great Recession was far and away the slowest of the last four decades; and the federal government’s policy space is even more restricted at the start of the coronavirus recession compared to the Great Recession.

Although all recessions are unique to some extent and the federal government employs other instruments beyond monetary policy and fiscal policy, this analysis shows that state governments should be prepared for the high possibility of inadequate, short-lived assistance from the federal government and a weak economic recovery. Moreover, this analysis—especially the overview of the inadequate management of the Great Recession and its recovery—provides support for the recommendations that the Fed not raise its primary short-term interest rate target before the economy reaches full employment and that Congress and the president provide significantly more fiscal support and not move too early to reduce the deficit and debt.

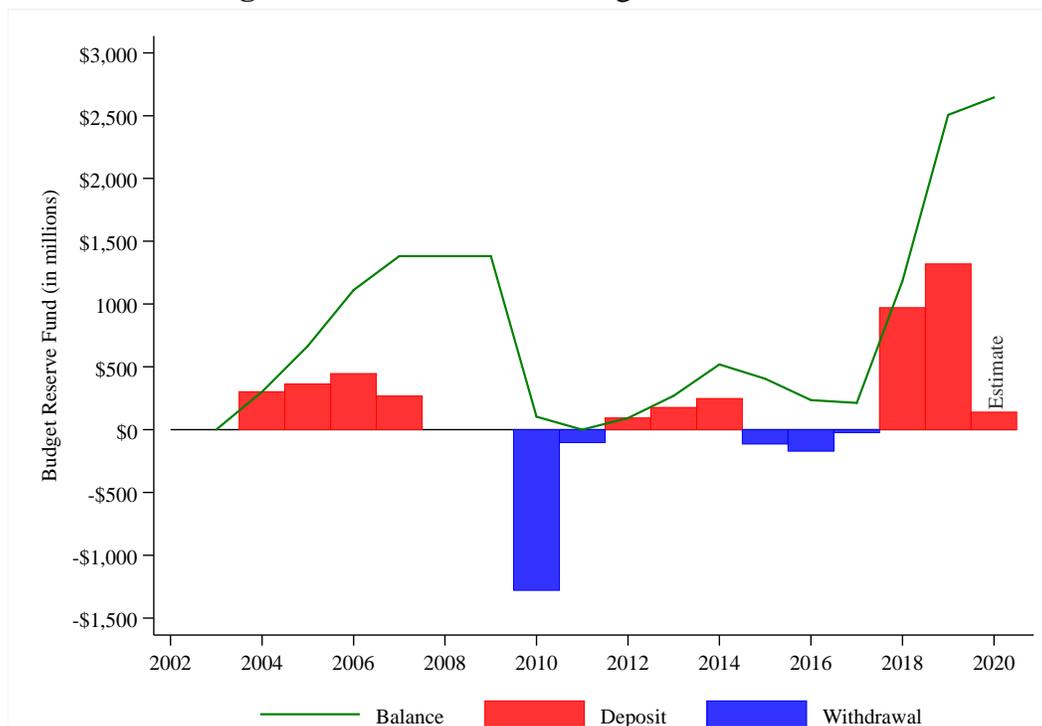
## The Role of the Connecticut Government

Relative to the federal government, the role of the Connecticut government in managing a recession and recovery is restricted. Most notably, the Connecticut government has no control over monetary policy and it has to balance its budget each year. This means that the state cannot employ its own countercyclical monetary policy nor can it employ its own unlimited countercyclical fiscal policy. However, there are two primary instruments available. The first instrument is to tap the Budget Reserve Fund to create a limited countercyclical fiscal policy. The second instrument is to restructure the tax system to further boost the expansionary impact of the state's fiscal policy.

### Using the Budget Reserve Fund to Support Connecticut's Economy

By law, Connecticut is required to deposit into its Budget Reserve Fund (BRF)—also known as the Rainy Day Fund—all revenue exceeding \$3.15 billion from the combination of two sources, the business entity tax and the estimates and final payments of the personal income tax.<sup>27</sup> Following substantial deposits over the last two years, **Figure 3** shows that the balance of the BRF stood at \$2.5 billion (or 13 percent of total appropriations) at the end of fiscal year 2019 and it is projected to increase to \$2.6 billion at the end of the current fiscal year—though that is all but certain to change.<sup>28</sup>

**Figure 3.** Connecticut's Budget Reserve Fund



\*See note 28 for data sources.

Although the Connecticut Constitution requires the state to balance its budget, it is possible to use the BRF to create a limited countercyclical fiscal policy that stimulates the state's economy during a recession. Specifically, whereas the federal government can simply run a budget deficit with no pre-defined limit in order to stimulate the U.S. economy during a recession, the Connecticut government can use the BRF—which contains a pre-defined amount of money—to maintain its spending rather than cut spending as tax revenues decline due to the recession. This limited countercyclical approach produces a balanced budget but also operates as an expansionary fiscal policy because the state is using tax revenues withdrawn from the economy in prior years to maintain a level of spending during the current year that is higher than would otherwise be possible without increasing taxes.

To understand the full impact of using—or not using—the BRF, it is essential to consider what economists call the *fiscal multiplier*, which is the ratio of the change in economic output to the change in government spending or taxes that causes that change in economic output. A fiscal multiplier greater than one indicates that economic output increases by *more than* a dollar for each additional dollar in government spending or tax cuts. This is due to a combination of the direct effect on economic output and the positive indirect effects that arise when the direct effect spreads throughout the economy. To take one of many possible examples, government spending on infrastructure projects directly increases economic output and it also increases wages for construction workers, who in turn increase their consumption of goods and services and thereby further boost economic output.

In contrast, a fiscal multiplier less than one indicates that economic output increases by *less than* a dollar for each additional dollar in government spending or tax cuts. This is due to a combination of the direct effect on economic output and the negative indirect effects that arise, such as higher interest rates. Addressing that key indirect effect, a recent report by the Congressional Research Services, a non-partisan federal agency, explains,

To engage in fiscal stimulus by either increasing spending or decreasing tax revenue, the government must increase the size of its deficit and borrow money to finance that stimulus. ... At any given time, there is a limited supply of loanable funds available for the government and private parties to borrow from—a global pool of savings. If the government begins to borrow a larger portion of this pool of savings, it increases the demand for these funds. As demand for loanable funds increases, without any corresponding increase in the supply of these funds, the price to borrow these funds, also known as interest rates, increases. Rising interest rates generally depress economic activity, as they make it more expensive for businesses to borrow money and invest in their firms. Similarly, individuals tend to decrease so-called interest-sensitive spending—spending on goods and services that require a loan, such as cars, homes, and large appliances—when interest rates are relatively higher. The process through which rising interest rates diminish private-sector spending is often referred to as *crowding out*. However, the degree to which crowding out occurs is partially dependent on where the economy is within the business cycle, either in a recession or in a healthy expansion.<sup>29</sup>

To return to the previous example, government spending on infrastructure projects directly increases economic output but it also sometimes contributes to higher interest rates that decrease business and consumer spending due to the higher cost of borrowing, which in turn reduces economic output.

For a prominent estimate of these dynamics, **Table 2** shows the fiscal multipliers that the Congressional Budget Office, a non-partisan federal agency, uses in evaluating fiscal policy. In particular, the CBO provides low and high estimates of the fiscal multiplier when the economy is weak and the average estimate shows that a \$1 increase in government spending has a cumulative effect on economic output over two years equal to an increase in spending of \$1.50, meaning the positive impact of an expansionary fiscal policy during a recession is *amplified* throughout the economy. Conversely, a \$1 decrease in government spending has a cumulative effect on output over two years equal to a decrease in spending of \$1.50, meaning the negative impact of a contractionary fiscal policy during a recession is also *amplified* throughout the economy.<sup>30</sup>

Altogether, this analysis shows in general that the impact of fiscal policy varies depending on the state of the economy, and it shows in particular that using the BRF during a recession will provide the greatest boost—or “bang for the buck”—in support of Connecticut’s economy. In contrast, not using the BRF during a recession and instead allowing spending to decline as tax revenues decline will weaken the economy by an amplified amount.

**Table 2.** CBO’s Fiscal Multiplier Estimates for a \$1 Increase in Aggregate Demand

Timing	Weak Economy			Strong Economy		
	Low Estimate	High Estimate	Average	Low Estimate	High Estimate	Average
Quarter 1	0.5	1.45	0.98	0.5	1.43	0.97
2	0	0.6	0.30	-0.03	0.48	0.23
3	0	0.3	0.15	-0.04	0.1	0.03
4	0	0.15	0.08	-0.05	-0.1	-0.08
5	0	0	0	-0.06	-0.3	-0.18
6	0	0	0	-0.06	-0.28	-0.17
7	0	0	0	-0.05	-0.25	-0.15
8	0	0	0	-0.05	-0.25	-0.15
<b>Cumulative Effect</b>	<b>0.5</b>	<b>2.5</b>	<b>1.5</b>	<b>0.16</b>	<b>0.83</b>	<b>0.50</b>

\*See note 30 for data sources. Additionally, “CBO expects that the economic effects of changes in fiscal policies are roughly symmetric, meaning that under similar economic conditions the size of the fiscal multiplier is the same for stimulative policies ... as for contractionary policies.”

## Restructuring the Tax System to Support Connecticut’s Economy

In general, there are three types of tax systems. A *regressive* tax system takes a larger percentage of income from the lower-income group than from the middle- and upper-income groups. A *proportional* tax system takes the same percentage of income from all income groups. And a *progressive* tax system takes a larger percentage of income from the upper-income group than from the lower- and middle-income groups.

Based on a 2014 report from the Connecticut Department of Revenue Services—the most recent analysis available—Connecticut has a regressive tax system. As **Table 3** shows, the *effective tax rate*, which is the rate actually imposed on a household in total state and local taxes, ranges from 23.6 percent for households making less than \$48,000 to 6.3 percent for households making more than \$13.2 million a year.<sup>31</sup>

Although the Connecticut Constitution requires a balanced budget, it is possible to further increase the expansionary impact of the state’s fiscal policy by increasing taxes on the wealthy in order, first, to maintain government spending and, second, to lower the disproportionate tax burden borne by the lower- and middle-income groups.

**Table 3.** Effective Tax Rate in Connecticut by Income Group

Group	Adjusted Gross Income	Number of Households	Effective Tax Rate
1	\$0 to \$47,948	725,202	23.62%
2	\$47,949 to \$74,427	251,321	13.93%
3	\$74,428 to \$101,827	173,126	13.35%
4	\$101,828 to \$134,527	129,303	12.87%
5	\$134,528 to \$182,087	97,426	11.93%
6	\$182,088 to \$287,629	67,958	10.53%
7	\$287,630 to \$612,040	37,893	9.03%
8	\$612,041 to \$2,019,383	15,050	7.69%
9	\$2,019,384 to \$13,194,828	3,646	6.50%
10	\$13,194,829 and up	357	6.28%

\*See note 31 for data sources.

The first step of this approach would operate as an expansionary fiscal policy because the economic boost of each dollar in government spending is greater than the economic drag of each dollar in taxes. Specifically, whereas each dollar in government spending directly increases economic output by a dollar, each dollar in tax increases directly decreases economic output by less than a dollar because the reduction in income results in a reduction in both savings and consumption.

Similarly, the second step of this approach would operate as an expansionary fiscal policy because the economic boost of each dollar in tax cuts for the lower- and middle-income groups is greater than the economic drag of each dollar in taxes on the wealthy. In particular, the wealthy have what economists refer to as a lower *marginal propensity to consume* relative to the lower- and middle-income groups, meaning they spend a smaller percentage of their income and save more. This in turn means that a tax increase on the wealthy provides a smaller contractionary effect because a substantial portion of the reduction in income results in reduced savings.

Applied to both steps, the overall difference between the expansionary and contractionary effects for a balanced budget is what economists refer to as the *balanced budget multiplier*.<sup>32</sup>

For a prominent estimate of these dynamics, **Table 4** shows the multipliers that the CBO uses in evaluating several types of fiscal policy. In particular, the CBO provides low and high estimates of the fiscal multiplier when the economy is weak and the average estimate shows that a \$1 tax cut for the lower- and middle-income groups has a cumulative expansionary effect on economic output equal to \$0.90, whereas a \$1 tax increase on the higher-income group has a cumulative contractionary effect on output equal to \$0.35. This means that each \$1 shift in the tax burden from the lower- and middle-income groups to the higher-income group—a process that keeps the overall tax burden constant and the budget balanced—increases output by \$0.55.<sup>33</sup>

For another prominent estimate—and one that includes a wider selection of fiscal policies—**Table 5** shows the multipliers used by Moody’s Analytics, the firm that provides economic models for Connecticut’s Office of Fiscal Analysis. In particular, Moody’s estimates show that a \$1 tax cut in the form of the Earned Income Tax Credit—which primarily benefits lower-income families—has an overall direct and indirect expansionary effect on economic output equal to \$1.24. Additionally, a \$1 tax cut in the form of the Child Tax Credit—which primarily benefits lower- and middle-income families—has an overall direct and indirect expansionary effect on output equal to \$1.38. In contrast, a \$1 tax increase on the higher-income group in the form of reversing the “Dividend and Capital Gains Tax Cuts” has an overall direct and indirect contractionary effect on output equal to only \$0.39, an amount similar to other tax increases on the higher-income group. This means that each \$1 increase in taxes on the higher-income group to pay for a \$1 tax cut in the form of the EITC or CTC—a process that keeps the overall tax burden constant and the budget balanced—increases economic output by between \$0.85 and \$0.99.<sup>34</sup>

**Table 4.** CBO’s Fiscal Multiplier Estimates by Type of Policy

Type of Policy	Weak Economy		
	Low Estimate	High Estimate	Average
<b>Purchases of Goods and Services</b>	0.5	2.5	1.50
<b>Transfers to State and Local Governments</b>			
Infrastructure	0.4	2.2	1.30
Other Purposes	0.4	1.8	1.10
<b>Transfer Payments</b>			
Individuals	0.4	2.1	1.25
Retirees	0.2	1.0	0.60
<b>Tax Cuts</b>			
Lower- and Middle-Income People (Two Years)	0.3	1.5	0.90
Higher-Income People (One Year)	0.1	0.6	0.35
First-Time Homebuyer Credit (Extension)	0.2	0.8	0.50
Corporate Tax Provisions Primarily Affecting Cash Flow	0	0.4	0.20

\*See note 33 for data sources.

**Table 5.** Moody’s Fiscal Multiplier Estimates by Type of Policy

Type of Policy	Estimate
<b>Tax Cuts (Temporary)</b>	
Child Tax Credit (ARRA Parameters)	1.38
Job Tax Credit	1.30
Payroll Tax Holiday	1.24
Earned Income Tax Credit (ARRA Parameters)	1.24
<b>Tax Cuts (Permanent)</b>	
Extend Alternative Minimum Tax Patch	0.50
Make Dividend and Capital Gains Tax Cuts Permanent	0.39
Make Bush Income Tax Cuts Permanent	0.35
Cut in Corporate Tax Rate	0.32
<b>Spending Increases</b>	
Temporary Increase in Food Stamps	1.71
Extending Unemployment Insurance Benefits	1.55
Increased Infrastructure Spending	1.44
General Aid to State Governments	1.37

\*See note 34 for data sources. ARRA is the American Recovery and Reinvestment Act.

To be clear, these specific fiscal multiplier estimates were developed for policies at the federal level in response to the Great Recession, yet research shows that the same basic dynamic occurs at the state level. For example, Peter Orszag, a former director of the Congressional Budget Office, and Joseph Stiglitz, a Nobel laureate in economics, provide a persuasive explanation that is worth quoting at length:

Basic economy theory suggests that direct spending reductions will generate *more* adverse consequences for the economy in the short run than either a tax increase or a transfer program reduction. The reason is that some of any tax increase or transfer payment reduction would reduce saving rather than consumption, lessening its impact on the economy in the short run, whereas the full amount of government spending on goods and services would directly reduce consumption. ...

The more that the tax increases or transfer reductions are focused on those with lower propensities to consume (that is, on those who spend less and save more of each additional dollar of income), the less damage is done to the weakened economy. Since higher-income families tend to have lower propensities to consume than lower-income families, the least damaging approach in the short run involves tax increases concentrated on higher-income families. Reductions in transfer payments to lower-income families would generally be *more* harmful to the economy than increases in taxes on higher-income families, since lower-income families are more likely to spend any additional income than higher-income families.

For states interested in the impact only on their own economy rather than the national economy, the arguments made above are even stronger. In particular, the government spending that would be reduced if direct spending programs are cut is often concentrated among local businesses. ... By contrast, the spending by individuals and businesses that would be affected by tax increases often is less concentrated among local producers — since part of the decline in purchases that would occur if taxes were raised would be a decline in the purchase of goods produced *out of state*. Thus, more of the reduction in purchases that results from tax increases than from government budget cuts falls on out-of-state goods (relative to in-state goods), lessening the adverse impact of a tax increase on the state economy. Reductions in direct government spending consequently could have a larger adverse impact on a state's economy than tax increases, which have a stronger adverse impact on out-of-state goods and services. ...

The conclusion is that, if anything, tax increases on higher-income families are the least damaging mechanism for closing state fiscal deficits in the short run.<sup>35</sup>

Additionally, a recent study by the Economic Policy Institute rebuts claims of tax flight that might follow due to the implementation of the above approach:

Occasionally claims are made that states are constrained in their ability to raise revenue progressively because high-income households will simply move in response to higher taxes, or that cuts to corporate taxes will pay off so handsomely in terms of faster economic growth that spending should be slashed to accommodate these cuts. These claims are utterly without foundation.

In regard to flight of high-income households, most migration decisions seem to be made for reasons other than taxation (housing prices are a large factor), and while some small increase in out-migration following tax increases is possible, the evidence is clear that ... raising taxes is a better strategy for closing state budget shortfalls than cutting spending. Of course, in theory there could be some states that have already maximized their options for raising taxes. ... *Connecticut is emphatically not one of those states.*<sup>36</sup>

Altogether, this analysis shows that, notwithstanding the balanced budget requirement, it is possible to employ an expansionary fiscal policy at the state level by maximizing the balanced budget multiplier—or, more specifically, by increasing taxes on the wealthy in order, first, to maintain government spending and, second, to lower the disproportionate tax burden borne by the lower- and middle-income groups.

# A Program to Manage the Coronavirus Recession and Recovery

## Using Monetary and Fiscal Policy to Support the U.S. Economy

To support the U.S. economy, which in turn will help to support the well-being of Connecticut's children and families, especially those that have been historically disadvantaged and/or most directly impacted by the recession, CT Voices recommends the following at the federal level:

- **In managing the recession, the Federal Reserve should keep its primary short-term interest rate target at zero and continue to aggressively employ its unconventional monetary policy instruments.**
- **In managing the recovery, the Federal Reserve should not raise its primary short-term interest rate target before the economy returns to full employment, which, as recent history shows, means an unemployment rate below 4 percent and possibly lower.** Importantly, research shows that a low unemployment rate benefits low- and moderate-income workers the most and it also helps to narrow racial employment gaps.<sup>37</sup>
- **In managing the recession, Congress and the president should provide significantly more fiscal support.** In particular, the Coronavirus Aid, Relief and Economic Security (CARES) Act provides \$300 billion in cash payments to households and \$150 billion in aid to state and local governments—with an estimated \$1.38 billion for Connecticut. However, more aid will be necessary to support working- and middle-class households and state and local governments, which in turn helps to support the economy. As detailed in this report—see Tables 4 and 5—each \$1 increase in transfers to individuals or state and local governments increases economic output by *more than* \$1.<sup>38</sup>
- **In managing the recovery, Congress and the president should not move to reduce the deficit and debt before the economy returns to full employment. Moreover, when that move occurs, it should be accomplished through an increase in progressive taxes, not a reduction in spending.** As the Great Recession and its recovery demonstrated, the Federal Reserve's ability to boost the economy has diminished considerably, making it essential that fiscal policy remain expansionary until the economy reaches full employment. Also important, to cover the cost of spending once the economy reaches full employment, the federal government should raise progressive taxes, such as repealing parts of the Tax Cut and Jobs Act that disproportionately benefit the wealthy, imposing a wealth tax, and reforming capital gains taxation. This approach to fiscal policy will help to gradually decrease the deficit and debt through greater economic growth. As detailed in this report—see Tables 4 and 5—government spending increases economic output *more than* a tax increase on the wealthy decreases economic output.<sup>39</sup>

## Using Fiscal Policy to Support Connecticut's Economy

To support Connecticut's economy, which in turn will help to further support the well-being of the Connecticut's children and families, especially those that have been historically disadvantaged and/or most directly impacted by the recession, CT Voices recommends the following at the state level:

- **In managing the recession, the Connecticut government should immediately use the Budget Reserve Fund to establish a state emergency relief program, to increase government capacity and accountability, and to maintain government spending more generally.** There are three parts to this recommendation. First, the Connecticut government should establish an emergency relief program that provides cash assistance to any state resident that requires immediate support in meeting basic needs during the coronavirus pandemic and recession. This would supplement existing federal and state assistance programs and could be overseen by the Department of Social Services. Future reports from CT Voices will provide more details.

Second, after years of restricting the size of the state workforce, the Connecticut government should increase its capacity as well as its accountability and oversight to ensure that all new emergency relief programs are administered in a timely and appropriate manner. For example, due to a state workforce that is too small for the economic situation at hand, the Connecticut Department of Labor recently announced that its average time to process an unemployment claim has increased from no more than three days to at least three weeks.<sup>40</sup>

Third, the Connecticut government should maintain its spending more generally. According to the most recent projection from the Office of Fiscal Analysis (OFA), “The scale of the public health crisis triggered by the global pandemic and the resulting economic impact is extraordinary and will negatively impact multiple fiscal years.” In particular, the OFA now projects deficits in fiscal year 2020 of \$178.2 million and \$23.8 million for the General Fund and Special Transportation Fund, respectively. The OFA also warns that “[f]urther significant revenue adjustments ... are likely.” Although tax revenues are declining, the state should not reduce its spending. This helps to prevent a vicious economic cycle—a reduction in government spending as tax revenues decline would further weaken the economy, which would further decrease tax revenues, and that would require a further reduction in government spending and so on.<sup>41</sup>

All three parts of this recommendation would support Connecticut's economy. As detailed in this report—see Tables 4 and 5—each \$1 increase in government spending during a recession increases economic output by *more than* \$1, especially spending that supports essential needs.

- In managing the recession and recovery, the Connecticut government should increase taxes on the wealthy in order, first, to maintain spending and, second, to lower the disproportionate tax burden borne by working- and middle-class families. There are two parts to this recommendation. First, if and when the Budget Reserve Fund is fully expended, the Connecticut government should increase taxes on individuals and families in the top 1 percent of the income distribution and on estates in the top 5 percent of the wealth distribution. These tax increases could be permanent or temporary and would help to maintain government spending during the recession. Importantly, the income tax increase would only apply to those who continue to do extremely well. Moreover, the estate tax increase would primarily reverse recent reductions. For details, see the CT Voices report “Reforming Connecticut’s Tax System: A Program to Strengthen Working- and Middle-Class Families.”<sup>42</sup>

Second, once the recovery begins and tax revenues rise, the Connecticut government should use the tax increase on the wealthy to cover the cost of reducing taxes on working- and middle-class families. This includes expanding the Connecticut Earned Income Tax Credit (CT EITC) and creating the Connecticut Child Tax Credit (CT CTC). These tax credits could be permanent or temporary and would help to boost Connecticut’s economy as the recovery begins. Importantly, these tax credits would simply lower the disproportionate tax burden currently borne by working- and middle-class families. For details, see the CT Voices report “Reforming Connecticut’s Tax System: A Program to Strengthen Working- and Middle-Class Families.”

Both parts of this recommendation would support Connecticut’s economy. As detailed in this report—see Tables 4 and 5—government spending and tax cuts for working- and middle-class families, especially in the form the EITC and CTC, both increase economic output *more than* a tax increase on the wealthy decreases economic output.<sup>43</sup>

Altogether, this program shows that there is no tradeoff between supporting Connecticut’s economy and supporting the state’s lower- and middle-income residents—or, put differently, its working- and middle-class families. Rather, to support Connecticut’s economy, it is essential first and foremost to support the economic well-being of the state’s working- and middle-class families, especially those that have been historically disadvantaged and/or most directly impacted by the recession.

## **Acknowledgments**

Connecticut Voices for Children’s fiscal and economic policy research is funded by the Stoneman Family Foundation, the Grossman Family Foundation, the Melville Charitable Trust, the Community Foundation of Eastern Connecticut, and the Community Foundation for Greater New Haven.

For assistance on this report, Connecticut Voices for Children thanks William J. Cibes, Jr., Chancellor Emeritus, Connecticut State University System; and Shelley Geballe, Assistant Professor of Clinical Public Health at Yale University and Distinguished Senior Fellow at Connecticut Voices for Children.

## References

<sup>1</sup> Patti Domm, “Goldman Sees Unprecedented Stop in Economic Activity, With 2<sup>nd</sup> Quarter GDP Contracting 24%,” *CNBC* (March 20, 2020); Quoc Trung Bui and Justin Wolfers, “More Than 3 Million Americans Lost Jobs Last Week,” *New York Times* (March 26, 2020); Julia Wolfe and David Cooper, “States Are Projected to Lose More Jobs Due to the Coronavirus: 14 Million Jobs Could Be Lost By Summer,” *Economic Policy Institute: Working Economics Blog* (March 25, 2020).

<sup>2</sup> Marc Labonte, “Changing the Federal Reserve’s Mandate: An Economic Analysis” *Congressional Research Services* R41656 (August 2013): 1–24, see 1.

<sup>3</sup> Marc Labonte, “Monetary Policy and the Federal Reserve: Current Policy and Conditions” *Congressional Research Services* RL30354 (February 2020): 1–23, see 9.

<sup>4</sup> *Ibid.*, 10–12.

<sup>5</sup> *Ibid.*, 4–6.

<sup>6</sup> *Ibid.*, 1–12.

<sup>7</sup> The discount rate remains a tool of monetary policy. However, it is only included in this figure for the years prior to 1954 in order to provide an overview of the Fed’s approach to monetary policy during that period. There are three data sources:

Monthly discount rate data from the Federal Reserve Bank of St. Louis, “Discount Rates, Federal Reserve Bank of New York for United States (M13009USM156NNBR).” Accessed at <https://fred.stlouisfed.org/series/M13009USM156NNBR#0>.

Monthly federal funds rate data from the Federal Reserve Bank of St. Louis, “Effective Federal Funds Rate (FEDFUNDS).” Accessed at <https://fred.stlouisfed.org/series/FEDFUNDS>. March 2020 rate is estimated at 0.125, the midpoint between the target range of 0-0.25, which the Fed moved towards in mid March.

Recession dates from the National Bureau of Economic Research, “US Business Cycle Expansions and Contractions.” Accessed at <https://www.nber.org/cycles.html>.

<sup>8</sup> Mark P. Keightley, “Fiscal Policy Considerations for the Next Recession” *Congressional Research Services* R45780 (June 2019): 1–16, see 1.

<sup>9</sup> Labonte, “Monetary Policy and the Federal Reserve,” 12–21.

<sup>10</sup> Labonte, “Monetary Policy and the Federal Reserve,” 10–12.

<sup>11</sup> Jeffrey M. Stupak, “Fiscal Policy: Economic Effects” *Congressional Research Services* R45723 (May 2019): 1–11.

<sup>12</sup> For an overview of deficits and debt as well as the difference between debt held by the public and gross debt, see “Policy Basics: Deficits, Debt, and Interest,” *Center on Budget and Policy Priorities* (July 2019). There are three data sources.

<sup>13</sup> There are three data sources.

Budget deficit-surplus data from the Office of Management and Budget, “Table 1.2—Summary of Receipts, Outlays, and Surpluses or Deficits as Percentages of GDP.” Accessed at <https://www.whitehouse.gov/omb/historical-tables/>.

Public debt data from the Office of Management and Budget, “Table 7.1—Federal Debt at the End of the Year.” Accessed at <https://www.whitehouse.gov/omb/historical-tables/>.

Recession dates from the National Bureau of Economic Research, “US Business Cycle Expansions and Contractions.” Accessed at <https://www.nber.org/cycles.html>.

<sup>14</sup> Keightley, “Fiscal Policy Considerations for the Next Recession,” 1.

<sup>15</sup> Chye-Ching Huang, “Fundamentally Flawed 2017 Tax Law Largely Leaves Low- and Moderate-Income Americans Behind,” *Center on Budget and Policy Priorities* (February 27, 2019); Jared Bernstein, “Deficits and Debt in Contemporary U.S. Fiscal Policy: Updating Our Priors” *Center on Budget and Policy Priorities* (November 2019).

<sup>16</sup> “Federal Reserve Issues FOMC Statement,” *Board of Governors of the Federal Reserve System* (March 03, 2020).

<sup>17</sup> “Federal Reserve Issues FOMC Statement,” *Board of Governors of the Federal Reserve System* (March 15, 2020); Jeanna Smialek and Neil Irwin, “Fed Slashes Rates to Near-Zero and Unveils Sweeping Program to Aid Economy,” *New York Times* (March 15, 2020). For an overview of the Fed’s past and initial steps using its unconventional monetary policy instruments, see Labonte, “Monetary Policy and the Federal Reserve”; Donald Cohn, “The Fed’s actions Sunday: All in on monetary policy; partly in on liquidity support,” *Brookings* (March 16, 2020).

<sup>18</sup> Stephanie Oum, Adam Wexler, and Jennifer Kates, “The U.S. Response to Coronavirus: Summary of the Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020,” *Kaiser Family Foundation* (March 11, 2020); Emily Cochrane, “House Passes \$8.3 Billion Emergency Coronavirus Response Bill,” *New York Times* (March 9, 2020).

<sup>19</sup> Barbara Sprunt, “Here’s What Is In The ‘Families First’ Coronavirus Aid Package Trump Approved,” *NPR* (March 19, 2020).

<sup>20</sup> Josh Bivens and Heidi Shierholz, “Despite Some Good Provisions, the CARES Act has Glaring Flaws and Falls Short of Fully Protecting Workers During the Coronavirus Crisis,” *Economic Policy Institute: Working Economics Blog* (March 25, 2020); Tara Siegel Bernard and Ron Lieber, “F.A.Q. on Stimulus Checks, Unemployment and the Coronavirus Plan,” *New York Times* (March 27, 2020).

<sup>21</sup> Edmund L. Andrews and Jackie Calmes, “Fed Cuts Key Rate to a Record Low,” *New York Times* (December 16, 2008).

<sup>22</sup> Ylan Q. Mui, “Federal Reserve Raises Key Interest Rate for First Time in Nearly a Decade,” *Washington Post* (December 16, 2015).

<sup>23</sup> Ben S. Bernanke, *The Courage To Act: A Memoir Of A Crisis And Its Aftermath* (New York: W.W. Norton, 2015), 388.

<sup>24</sup> *Ibid.*, 504.

<sup>25</sup> Data are from four sources:

Recession dates from the National Bureau of Economic Research, “US Business Cycle Expansions and Contractions.” Accessed at <https://www.nber.org/cycles.html>.

GDP data from Bureau of Economic Analysis, “Gross Domestic Product: Supplemental Information & Additional Data: Percent Change from Preceding Period.” Accessed at <https://www.bea.gov/data/gdp/gross-domestic-product>.

Monthly federal funds rate data from the Federal Reserve Bank of St. Louis, “Effective Federal Funds Rate (FEDFUNDS).” Accessed at <https://fred.stlouisfed.org/series/FEDFUNDS>.

Public debt data from the Office of Management and Budget, “Table 7.1—Federal Debt at the End of the Year.” Accessed at <https://www.whitehouse.gov/omb/historical-tables/>.

<sup>26</sup> On the actual limit in monetary policy space, see Greg Ip, “The Era of Fed Power Is Over. Prepare for a More Perilous Road Ahead: Central Banks Have Long Exercised Influence Over Booms and Busts, But Their Ability is Shrinking,” *Wall Street Journal* (January 15, 2020). On the perceived limit in fiscal policy space and argument that “the costs of fiscal imbalances in terms of macroeconomic distortions have been largely elusive,” see Bernstein, “Deficits and Debt in Contemporary U.S. Fiscal Policy.” See also Christina D. Romer and David H. Romer, “Why Some Times Are Different:

Macroeconomic Policy and the Aftermath of Financial Crises” (October 2017). Accessed at <https://eml.berkeley.edu/~dromer/papers/Romer&RomerCrisesandPolicyRevised.pdf>

<sup>27</sup> General Statutes of Connecticut, Chapter 47, Sec. 4-30a.

<sup>28</sup> Data for 2003–19 from FY 2021 Governor’s Budget Adjustments, Section A: Financial Summary, Budget Reserve Fund Projections, A-5. Data for 2020 estimate from Office of Fiscal Analysis, FY 20 Budget Projections (March 25, 2020). Also, for a 50-state analysis, see Michael Leachman and Jennifer Sullivan, “Some States Much Better Prepared Than Others for Recession,” *Center on Budget and Policy Priorities* (March 20, 2020): 1–28.

<sup>29</sup> Stupak, “Fiscal Policy,” 2.

<sup>30</sup> Charles J. Whalen and Felix Reichling, “The Fiscal Multiplier and Economic Policy Analysis in the United States,” *Congressional Budget Office: Working Paper Series* (February 2015): 1–17, see page 12.

<sup>31</sup> “Connecticut Tax Incidence,” *Department of Revenue Services* (December 2014): 1–67, see page 8.

<sup>32</sup> Whalen and Reichling, “The Fiscal Multiplier,” 5–7; Owen Zidar, “Tax Cuts for Whom? Heterogenous Effects of Income Tax Changes on Growth and Employment,” *Journal of Political Economy* 127 (2019): 1437–72; Josh Bivens, “Thinking Seriously About What ‘Fiscal Responsibility’ Should Mean: Full Employment and Reduced Inequality are the Most Important Targets of Fiscal Policy,” *Economic Policy Institute* (September 26, 2019).

<sup>33</sup> Whalen and Reichling, “The Fiscal Multiplier,” 11.

<sup>34</sup> Mark Zandi, “At Last, the U.S. Begins a Serious Fiscal Debate,” *Moody’s Analytics* (April 14, 2011). On Moody’s role in supporting the OFA, see Office of Fiscal Analysis, FY 20 Budget Projections (March 25, 2020).

<sup>35</sup> Peter Orszag and Joseph Stiglitz, “Budget Cuts Vs. Tax Increases At The State Level: Is One More Counter-Productive Than The Other During A Recession,” *Center on Budget and Policy Priorities* (November 6, 2001): 1–3. See also Timothy J. Bartik, “New Evidence on State Fiscal Multipliers: Implications for State Policies,” *W.E. Upjohn Institute Working Paper 17-275* (July 2017): 1–34; Zidar, “Tax Cuts for Whom?”

<sup>36</sup> Josh Bivens, “Recommendations For States Facing Budget Shortfalls: Focus on Connecticut,” *Economic Policy Institute* (May 8, 2017), *emphasis added*.

<sup>37</sup> Josh Bivens and Ben Zipperer, “The importance of locking in full employment for the long haul,” *Economic Policy Institute* (August 21, 2018).

<sup>38</sup> “How Much Each State Will Receive From the Coronavirus Relief Fund in the CARES Act,” *Center on Budget and Policy Priorities* (March 26, 2020); Josh Bivens and Heidi Shierholz, “Despite some good provisions, the CARES Act has glaring flaws and falls short of fully protecting workers during the coronavirus crisis,” *Economic Policy Institute: Working Economics Blog* (March 25, 2020).

<sup>39</sup> Bivens, “Thinking Seriously About What ‘Fiscal Responsibility’ Should Mean”; Amy Hanauer, “Taxes in a Time of Coronavirus,” *Institute on Taxation and Economic Policy* (March 10, 2020).

<sup>40</sup> Keith M. Phaneuf, “State employee OT is up, but salary costs are lower than a decade ago,” *CT Mirror* (September 5, 2019); Mark Pazniokas, “Laid off due to COVID-19? The wait for benefits is 3 weeks,” *CT Mirror* (March 25, 2020).

<sup>41</sup> “FY 20 Budget Projections,” *Office of Fiscal Analysis* (March 25, 2020).

<sup>42</sup> Patrick R. O’Brien, “Reforming Connecticut’s Tax System: A Program to Strengthen Working- and Middle-Class Families,” *CT Voices for Children* (January 2020). Available at <https://ctvoices.org/publication/reforming-connecticuts-tax-system-a-program-to-strengthen-working-and-middle-class-families/>.

<sup>43</sup> *Ibid.*