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Government responses to the coronavirus in the United States: immediate remedial actions, rising debt levels and budgetary hangovers

Philip G. Joyce and Aichiro Suryo Prabowo
School of Public Policy, University of Maryland, College Park, Maryland, USA

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Abstract

Purpose – This paper reviews the response of both the national and state governments in the United States to the coronavirus pandemic and discusses budgetary challenges that are likely to be faced by the country over the next several years.

Design/methodology/approach – The paper uses government sources, analysis by internal and external think tanks and contemporaneous media accounts to describe both the problem and the governmental responses.

Findings – Since the first cases appeared in the US in early 2020, and particularly as the numbers started to expand substantially by March of that year, governments at all levels have worked to both respond to the immediate public health crisis and mitigate the economic effects of the pandemic. This included some immediate actions by the Federal Reserve to introduce more liquidity and four separate pieces of legislation passed in March and April 2020. The effect of this legislation has been to add $2.5 tr to 2020 and 2021 deficits. State and local governments, meanwhile, face years of budget shortfalls, which will require them ultimately to raise taxes and cut spending and may also require additional fiscal stimulus from the federal government. The magnitude of the fiscal effects will be driven by whether there is a second wave, how long the recession lasts, and what additional responses will be necessary in order to get the pandemic under control and deal with its aftermath.

Originality/value – The paper is likely the first to summarize the information about the federal and state responses, and the likely future impacts, in a single place.

Keywords Fiscal policy, Budgetary responses, Public budgeting

Paper type Research paper

COVID-19, also known as the coronavirus, has upended life in the United States since both the national and various state governments began imposing restrictions on individuals and businesses around March of 2020. Unlike the Great Recession, which was driven by particular industries (principally housing and financial services), COVID-19 virtually shut down the economy. Planes stopped flying, people stopped driving, customers stopped buying things and—most importantly—businesses laid off employees by the millions, leading to levels of unemployment unseen since the Great Depression of the 1930s.

The situation was rapidly evolving from the day the first case in the US was confirmed on January 21st, 2020, to the President's declaration of national emergency on March 13th, 2020, through early September of 2020 as of this writing. Governments—both at the national level and the state and local level—were under pressure to respond to COVID-19 through both direct action and various relief measures. In addition, the reduction in economic activity associated with COVID-19 will have substantial effects on major revenue sources, such as the sales and

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income tax. This article will use government sources, the analyses of think tanks, and media accounts to outline the budgetary responses of—and effects on the budgets of—governments in the United States up to early September of 2020 in response to COVID-19. To state the obvious, we can only offer preliminary thoughts on the budgetary effects of the pandemic.

1. The federal response

The Trump White House was slow to recognize the potential threat of COVID-19 to the United States and its people. The *Washington Post* reported that classified intelligence briefings in January and February of 2020 warned of the impending threat from the virus and that those warnings were ignored (Poznansky, 2020). President Trump insisted that the coronavirus would create no problems for the United States, declaring on January 22nd, 2020, that "we have it totally under control" and on February 10th, 2020, that "by April, you know, in theory, when it gets a little warmer, it miraculously goes away" (Cloud *et al.*, 2020). On March 21st, 2020, at the point where the US death toll from COVID-19 was 400, Trump declared that victory "will happen much sooner than originally expected" (McCaskill, 2020). (Between that point and September 2020, more than 180,000 additional Americans died from the virus.)

Given the lack of early leadership from the White House, and the fact that fiscal effects take longer to enact and implement, the Federal Reserve took several actions initially to combat the economic effects of the virus. The Congress then moved relatively quickly to enact legislation leading to four laws being passed and signed by the President between March 6th and April 24th, 2020.

1.1 Federal reserve actions

Actions taken by the US central bank are estimated by the Committee for a Responsible Federal Budget to have pumped almost $6 tr into the economy (Committee for a Responsible Federal Budget, 2020). These actions fell generally into four categories:

(1) Interest rate actions: The central bank cut the federal funds rate by a half a percentage point on March 3rd, 2020, and an additional full percentage point on March 15th, 2020.

(2) Asset purchases: The Federal Reserve System (Fed) purchased almost $1.9 tr in assets—including almost $1.4 tr in long-term Treasury Securities–between March 12th and March 23rd, 2020.

(3) Liquidity measures: The Fed engaged in various other liquidity measures estimated to add up to a little less than $2 tr to the economy.

(4) Loan programs: The Fed targeted various lending programs, estimated to provide more than $2 tr in relief, primarily designed to cushion the COVID-19 blow to various industries.

1.2 Initial legislative actions—March 6–18, 2020

The first bill passed by the Congress in response to COVID-19 was the Coronavirus Preparedness and Response Supplemental Appropriations Act (P.L. 116–123, signed into law on March 6th, 2020). This relatively small, and immediate, increase in domestic discretionary spending resulted from a fiscal year 2020 (FY20) supplemental appropriation and included $8 bn in funds to develop vaccines and for various other mitigation and epidemiological efforts (Congressional Budget Office, 2020d).

Two weeks later, on March 18th, 2020, the President signed the Families First Coronavirus Response Act (P.L. 116–127), a much more expensive piece of legislation with an estimated cost of $192 bn. This bill included the extension of unemployment benefits, with the federal government picking up 100% of the costs of these benefits, rather than the usual 50%.

The law also loosened the requirements for receiving the Supplemental Nutrition Assistance Program (SNAP) (food stamp) benefits and provided for alternate ways for states to provide meals to children affected by school closures (Congressional Budget Office, 2020c).

1.3 The CARES Act

The most extensive legislative action taken by the Congress in response to COVID-19 was the Coronavirus Aid, Relief and Economic Security (CARES) Act (P.L. 116–136), signed by the President on March 27th, 2020. This law, estimated to cost $1.7 tr over ten years (the vast majority of that cost occurring in the first two fiscal years), provided a number of specific responses intended mainly to mute the economic costs to individuals, businesses and governments as a result of the coronavirus (Congressional Budget Office, 2020a):

(1) A total of $377 bn for Small Business Administration loans, primarily associated with the newly established Paycheck Protection Program (PPP), which would guarantee up to $10 m in loans for the purpose of maintaining payrolls of individual small businesses, nonprofits and independent contractors;

(2) A total of $170 bn in funding for medical care responses, including $100 bn to reimburse healthcare providers for lost revenues;

(3) A total of $140 billion in funds made available to federal agencies for funding to provide assistance to businesses and governments affected by COVID-19. This includes $44 bn to the Federal Emergency Management Agency (FEMA) to support state and local response and recovery, $35 bn in assistance to airports and transit systems, $31 bn to state and local governments and higher education institutions, and $25 bn for various nutritional programs and rural programs;

(4) An expansion of unemployment benefits to extend those benefits to December 31st, 2020, and provide for an increase in benefits by $600 a week through July 31st, 2020. CBO estimated that the combination of the extension and the increase would cost more than $210 bn. In addition, individuals who have exhausted regular state and federal unemployment benefits will receive up to an additional 13 weeks of benefits, at a cost of $51 bn;

(5) A refundable tax credit of $1,200 per qualifying adult and $500 per dependent child. All the US residents or citizens with adjusted gross income under $75,000 ($112,500 for head of household and $150,000 married), who are not the dependent of another taxpayer and have a work-eligible Social Security number were eligible for the full $1,200 ($2,400 for married couples) rebate. This benefit is estimated to cost just under $300 bn between FY20 and FY21;

(6) Two provisions designed to cushion losses for businesses and corporations. First, a refundable tax credit (cost of $55 bn between FY20 and FY21) against payroll taxes, for employers forced to either shut down or experiencing a significant decline in revenue. Second, permitting businesses to offset against taxable income net operating losses between January 1st, 2018 and December 31st, 2020, at a ten-year cost of $26 bn;

(7) Individual taxpayers who are not corporations are permitted to use the full amount of business losses to offset nonbusiness income for tax years 2018–2020 (2018–2025 for farm losses), at a ten-year cost of $135 bn.

(8) A total of \$150 bn was provided to state, local and tribal governments, on the basis of population, to offset expenses stemming from the pandemic. Up to 45% of each state's allocation may be provided directly to units of local government within the state.

Evaluating the CARES Act in total, the vast majority of the deficit effects occur in FY20 and FY21. In fact, as Table 1 indicates, the total increase in the deficit is projected to be \$1.6 tr in 2020 and additional \$447 bn in 2021. The total ten-year deficit effect is estimated at just over \$1.7 tr between 2020 and 2030, as some of the short-term reductions in revenue and increases in direct spending will be offset by revenue increases/direct spending decreases in the out-years (2022–2030). The most significant of these deficit offsets is from \$400 bn in increased revenues between 2022 and 2030, relative to the baseline. These revenue increase occur largely because some of the 2020 and 2021 tax cuts are, in fact, deferrals so that revenues that would have been collected in those years will instead be collected in later years.

1.4 The Paycheck Protection and Health Care Enhancement Act

The fourth bill passed by the Congress was the Paycheck Protection and Health Care Enhancement Act (P.L. 116–139), signed by the President on April 24th, 2020. This bill was much narrower in scope than the CARES Act and carried an additional price tag of just under \$500 bn. About one-third of this cost was in discretionary spending, with the other two-thirds an increase in direct spending, as follows (Congressional Budget Office, 2020b):

(1) Discretionary: A total of \$162 bn in discretionary outlays, resulting from \$75 bn in supplemental appropriations provided to reimburse healthcare providers for lost revenues, \$25 bn to develop, purchase, administer, process and analyze tests for COVID-19, and \$62 bn for salaries and expenses and for loan programs of the Small Business Administration.

(2) Direct Spending: The \$321 bn in direct spending represents an equivalent increase in the subsidy appropriation (the losses to the federal governments from providing direct loans and loan guarantees to small businesses affected by COVID-19) for the Small Business Administration (SBA) Paycheck Protection Program (PPP) that had been created under the CARES Act.

1.5 President's executive orders

Following the four legislative actions, the House Democrats introduced the Health and Economic Recovery Omnibus Emergency Solutions (HEROES) Act in May 2020. The legislation proposes a \$3 tr comprehensive plan toward coronavirus response, including assistance to state and local governments, public health measures, essential workers, small

Table 1. Estimated cost of CARES Act (\$billions)

Category	2020	2021	2022–2030	2020–2030
Revenues	−568	−240	+400	−408
Direct spending outlays	−938	−73	+23	−988
Discretionary outlays	−99	−134	−93	−326
Total deficit effect	−1,605	−447	+330	−1,721

Source(s): Congressional Budget Office, Letter from Phillip Swagel to the Honorable Mike Enzi, Preliminary Estimate of the Effects of H.R. 748, the CARES Act, Public Law 116–136, Revised, With Corrections to the Revenue Effect of the Employee Retention Credit and to the Modification of a Limitation on Losses for Taxpayers Other Than Corporations, April 27, 2020 businesses, postal service, as well as the second stimulus checks (House Committee of Appropriations, 2020). It did not get support from the Senate Republicans, who then unveiled their own $1 tr package of bills through Health, Economic Assistance, Liability Protection and Schools (HEALS) Act in late July 2020 (Senate Republican Policy Committee, 2020). After some negotiation attempts, the Congress and the Trump administration could not find a bipartisan compromise for the next coronavirus relief bill. Because of this deadlock, on August 8th, 2020, the President unilaterally signed a series of executive orders and memoranda aimed at halting residential evictions, deferring payments of payroll taxes and student loan and extending unemployment benefits (White House, 2020a, b, c and d).

1.6 Deficit and debt effects of legislative actions

The various legislative actions taken in March and April 2020 will cause the FY20 and FY21deficits to balloon far beyond what was projected to occur prior to the pandemic. The US government already had projected deficits that exceeded $1 tr for FY20 and FY21 and were projected to grow to more than $1.5 tr annually by 2028. The debt, which stood at $16.8 tr (79% of GDP) at the end of 2019, was projected to grow to $32 tr (98% of GDP) by 2030.

Taken by themselves, however, the Congressional Budget Office (CBO) estimates of the actions identified above would add $2.2 tr to 2020 deficits, $557 bn to 2021 deficits, and approximately $2.5 tr to the debt between 2020 and 2030 (there are offsetting savings to baseline deficits between 2022 and 2030). CBO also, in September 2020, updated their projections of the deficit and debt over the next ten years based on economic and legislative changes resulting from COVID-19. Table 2 below summarizes the deficit and debt impact of these legislative changes and also presents the January 2020 and September 2020 CBO estimates of both deficits and debt held by the public. CBO's September estimate shows a tripling of 2020 deficits and an almost doubling of 2021 deficits. By 2021, debt held by the public is projected to increase to a level where it is greater than 100% of GDP and remains there for the remainder of the decade (Congressional Budget Office, 2020e), absent any policy changes.

1.7 Comparing the federal response to COVID-19 with the response to the Great Recession

The federal fiscal response to COVID-19, as of this writing, is already larger than the fiscal response to the Great Recession. The total cost of $2.5 tr over 10 years is approximately 40% larger than the total cost of the legislative actions taken to combat the Great Recession. A more notable difference between the two has to do with timing. Because COVID-19 led to a virtual shutdown of the US economy, there was a need for much more immediate action. For example, even at the height of the Great Recession, weekly initial unemployment claims never reached the 1 m level. COVID-19, on the other hand, has seen initial weekly claims reach almost 7 m. Consequently, the effects of the spending and revenue actions that occurred after

	2020	2021	2030
January 2020 CBO deficit projections	1,015	1,000	1,742
Effects of COVID legislation	2,181	557	26
CBO's September 2020 deficit	3.311	1,810	1,627
CBO's January debt estimates	17,855	18,886	31,447
Debt to GDP	80.8%	82.0%	98.3%
CBO's September 2020 debt	20,270	21,931	33,457
Debt to GDP	98.2%	104.4%	108.9%
Debt increase–CBO September over CBO January	2,415	3,045	2,010

Source(s): Compiled by author from Congressional Budget Office (2020a, b, c, d, and f)

Table 2. Deficit and debt projections, before and after COVID-19 ($billions)

the Great Recession were spread over a longer period of time; in fact, the majority of effects were seen in the second year or later after the onset of the recession. In the case of COVID-19, as noted above, the vast majority of fiscal effects are seen in the first two years—in fact, the first year and a half—after the legislation was passed.

Aside from the budgetary effects, the Great Recession could also be a helpful comparison to explain differential impacts of COVID-19 on different groups of population in the US. The Bureau of Labor Statistics (2020a, b, c) reported that the US unemployment rate rose from 3.5% in February 2020 to 14.7% in April 2020, before falling to 10.2% in July 2020. Analysis by the Pew Research Center (2020a) suggests that the initial increase in the number of unemployed workers is substantially greater than the increase due to the Great Recession. Their survey also found that economic repercussions from COVID-19 hit lower-income adults harder (Pew Research Center, 2020b). These are the people who have limited to no emergency funds to cover expenses if they lose jobs or get sick, and they are therefore less prepared to endure a financial shock than to those with higher incomes. Contrary to the struggle being experienced by the "main street" economy, the Wall Street side of the economy seems to be thriving. Revenues of Morgan Stanley and Goldman Sachs are reported to increase by 30 and 41%, respectively, and both are harvesting an upsurge of trading activities (Egan, 2020). The benchmark US stock indexes S&P 500 and NASDAQ reached all-time record highs in August 2020 (Phillips, 2020). It is too early to tell what the full effects of the pandemic will be on different income groups, but early observations show that income divides between the rich and the poor, which have long persisted in the US, are likely to get worse.

2. The state response

The majority of state Governors responded to COVID-19 by issuing the necessary stay-at-home orders in their respective jurisdictions. California was the first state to have the statewide order into effect on March 19th, 2020, and other states quickly followed suit. The *New York Times* reported that by the end of March of 2020, similar orders were carried out across 30 states (Mervosh *et al.*, 2020). By April 20th, 2020, the number of states increased to 42 plus the District of Columbia. The economy virtually came to a standstill as residents were urged to not leave the house except for work deemed essential.

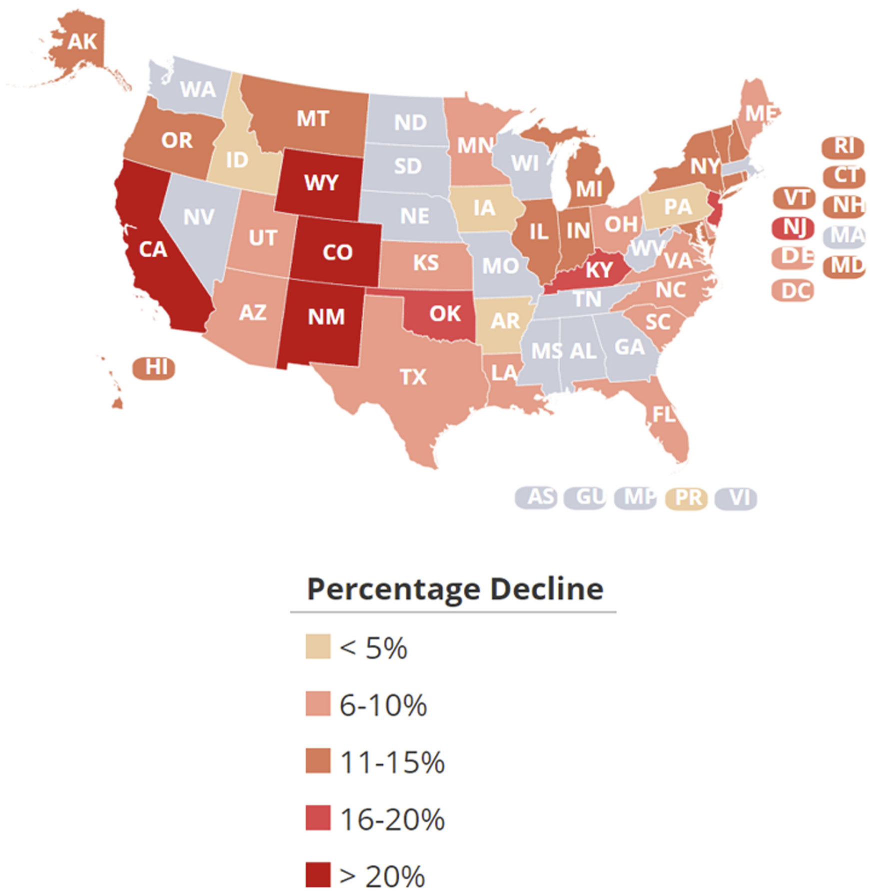
For northeastern states, data from Johns Hopkins Coronavirus Resource Center (2020) show that peaks of confirmed daily cases (using three days moving average method) as follows: New York (10,824 cases as recorded on April 9th), Massachusetts (3,507 cases, April 24th), Maryland (1,256 cases, May 20th) and Washington DC (231 cases on May 2nd). The trend is contrary to what is observed in the West Coast and the Sun Belt states. Daily cases in California, Washington, Arizona, Texas and Florida, for example, were reaching their peaks in July 2020. There is a variability of trends throughout the country, but as health expert Anthony Fauci said in a June 18th, 2020, interview with the *Washington Post*, "we still are in the first wave" (Caren, 2020).

States across the US have distinct characteristics, including what types of industries are running local economies. Some, like oil and gas, transportation and hospitality, are more vulnerable to COVID-19 than the rest. The Brookings Institution (2020) analyzed metro-level characteristics and their likelihood of being affected by the pandemic: Texas' energy towns Midland, Odessa and Laredo, as well as some hospitality cities in Hawaii and New Jersey turn out to be among the most exposed; communities dominated by agricultural activities are less vulnerable. These economic characteristics contribute to the extent and severity of COVID-19 budgetary effects, which are seen both on the spending and the revenue side of the ledger.

State revenue structures also contribute to differential fiscal effects from the pandemic. Some states (i.e. Oregon and Maryland) rely heavily on state income tax, while others (i.e. Alaska and Washington) levy 0% rate (Tax Foundation, 2020a). Rising unemployment, which is negatively associated to income tax collection, would affect the two groups differently. Similarly, sales tax varies across states; it furnishes more than 40% of state and local tax collection in Washington and Louisiana but none in Delaware and New Hampshire. As such, the ramification to the budgets would differ markedly from state to state.

2.1 State spending and revenue sides

It is too early to report the exact number of state revenue losses due to COVID-19. As of this writing, however, there are already indications; state governments have revised their revenue projections downward. The National Conference of State Legislature (2020a) compiled estimates of revenue declines as a percentage of pre-COVID-19 projections, which ranges from below 5% (i.e. Iowa and Arkansas) to above 10% (i.e. Nevada and Washington) for FY20. Some states have also extended the downward adjustments to the FY2021 forecast, which is illustrated in more detail in Figure 1 and Table 3 below. (Direct comparisons between states require caution as they may use different revenue assumptions)



Source(s): National Conference of State Legislature (2020a)

Figure 1.
Revised state revenue declines for FY2021

State	FY2020	FY2021
Alabama (AL)	–	–
Alaska (AK)	11%	15%
Arizona (AZ)	8%	7%
Arkansas (AR)	2%	3%
California (CA)	–	16–21%
Colorado (CO)	5%	20%
Connecticut (CT)	2%	13%
Delaware (DE)	–	6%
The District of Columbia (DC)	9%	9%
Florida (FL)	6%	10%
Georgia (GA)	–	–
Hawaii (HI)	7%	12%
Idaho (ID)	–	1%
Illinois (IL)	6%	12%
Indiana (IN)	8%	12%
Iowa (IA)	2%	4%
Kansas (KS)	11%	6%
Kentucky (KY)	4%	11–17%
Louisiana (LA)	3%	10%
Maine (ME)	1%	13%
Maryland (MD)	5–6%	11–14%
Massachusetts (MA)	–	–
Michigan (MI)	13%	12%
Minnesota (MN)	–	7%
Mississippi (MS)	–	–
Missouri (MO)	–	–
Montana (MT)	2%	13%
Nebraska (NE)	–	–
Nevada (NV)	12%	–
New Hampshire (NH)	5–8%	9–15%
New Jersey (NJ)	7%	18%
New Mexico (NM)	5–6%	22–30%
New York (NY)	–	13%
North Carolina (NC)	7%	10%
North Dakota (ND)	–	–
Ohio (OH)	–	9%
Oklahoma (OK)	7%	16%
Oregon (OR)	–	11%
Pennsylvania (PA)	10%	3%
Puerto Rico (PR)	8%	5%
Rhode Island (RI)	5%	11%
South Carolina (SC)	5%	6%
South Dakota (SD)	–	–
Tennessee (TN)	–	–
Texas (TX)	–	10%
Utah (UT)	1%	9%
Vermont (VT)	–	11%
Virginia (VA)	1%	6%
Washington (WA)	15%	–
West Virginia (WV)	–	–
Wisconsin (WI)	5%	–
Wyoming (WY)	9%	20%

Source(s): National Conference of State Legislature (2020a)

Table 3.
Revised state revenue declines

The Center on Budget and Policy Priorities (2020) has projected the cumulative state shortfalls due to COVID-19 to be $555 bn over three years. Assuming this as a ballpark figure, state fiscal capacity is going to be overwhelmed, and state Governors must find ways to handle not only public health but also budgetary challenges. On one hand, they need immediate resources to tackle COVID-19, such as tracing cases and procuring healthcare supplies. On the other hand, available funds are deteriorating. Moreover, all states but one (Vermont) are bound to enforce balance budget requirements, which restrict their ability to maintain deficits. Below is a nonexhaustive list of strategies that states have considered taking thus far:

2.1.1 Appropriate additional funding for COVID-19 response. Data from the National Conference of State Legislatures (2020b) show that at least 22 states have enacted supplemental appropriations for COVID-19 emergency response. Appropriations adjustments are generally made to authorize funds transfer from the states' general fund to designated entities. States enacting supplementals include Alabama, Arizona, California, Colorado, Kansas, Maryland, Michigan, Minnesota, New York and Utah. Some provisions are not exclusive to public health activities. Arizona allocates $50 m to provide economic assistance during the state of emergency, including housing assistance, homelessness programs and small business supports. Appropriations in Minnesota are adjusted to include $6.2 m for veteran assistance, $9 m for food programs and $11 m for tribal nation grants.

2.1.2 Authorize a transfer of rainy day funds. Balances in rainy day, or budget stabilization, funds rose substantially (National Association of State Budget Officers, 2020) since the Great Recession, from $29 bn in 2011 to $75 bn in 2019. In response to COVID-19, several states have enacted transfers from the rainy day funds to be used for emergency spending. These include Arkansas ($173 m), Georgia ($100 m), Maryland ($150 m), Rhode Island ($120 m), South Carolina ($245 m) and Washington ($175 m) (National Conference of State Legislatures, 2020b). However, not all are inclined to immediately resort to the funds. For example, Ohio, despite having accumulated $2.7 bn rainy day funds to date, prefers to keep the reserves until next years when needed the most (Walsh, 2020).

2.1.3 Cut expenditures across agencies. Past experience, including during the Great Recession, suggested that states are likely to cut expenditures following an economic downturn. Which programs or services will be affected depends on the states' policy preferences and priorities. Analysis from Center on Budget and Policy Priorities (2011) noted that 46 states and the District of Columbia enacted budget cuts, negatively affecting provisions of major services such as healthcare (31 states), elderly and disabled programs (29 states and the District of Columbia), K–12 education (34 states) and higher education (43 states). In response to COVID-19, Georgia budget leaders already instructed all state agencies to slash spending by 14% (Walsh, 2020), while Maryland finally decided to cut $413 m out of the state budget (Cox, 2020). There are also possible ways in which states might carry out to cut expenditures rather indirectly. Reducing subsidies to higher education is one example, which compensates for increases in tuition. Other examples are relaxation of crime and sentencing policies to reduce prison cost as well as postponement of infrastructure projects to hold major cash outflow.

2.1.4 Increase state taxes and fees. Experiences from the Great Recession suggest that states did raise taxes and fees after the crisis. As noted by the National Association of State Budget Officers (2013), states carried out efforts such as eliminating exemptions, expanding tax bases, increasing fees, limiting deductions and raising tax rates. Increases were applied either in a temporary or permanent basis on personal income tax (i.e. in Connecticut, Oregon and Wisconsin) and sales tax (i.e. in Indiana, Massachusetts and Nevada.), which generated around $23 bn for the states. In the midst of COVID-19, as of this writing, leaders and legislators in California, Colorado, Georgia, the District of Columbia, Maryland and New York are weighing whether similar actions are needed (Tax Foundation, 2020b; Romm, 2020).

2.2 Intergovernmental relationships

The final aspect to look into pertaining to state budgetary responses is its relationship with other government levels, including the federal government and local governments. The earlier part of this study already explains federal actions aimed at helping state and local governments. The amount, however, is deemed insufficient to effectively help states cushion the economic fallout. Accordingly, Governors have requested the Federal Government to provide funds to state and local governments. In May 2020, a group of Democratic Governors from California, Colorado, Oregon, Nevada and Washington State publicly expressed that states would need a total of $1 tr assistance (Cochrane, 2020). More recently, on June 29th, 2020, the Chairman of the National Governors Association and Maryland Governor Larry Hogan, joining a coalition of state and local administrators, reiterated the need for flexible federal aids to help states and localities with the budgetary shortfall caused by the COVID-19 pandemic (National Governors Association, 2020).

The politics of budgeting remains dominant at the federal level and that is affecting the debate over and manifestation of financial aids to state and local governments. While Democrats believe the imperative of sending money to states to save the US economy, Republicans demand accountability from states taking advantage of the momentum despite fiscal mismanagement long before COVID-19 had struck. California, Illinois, and New York are among these states; they have long-standing unfunded pensions. A middle ground would be to put restrictions that any aids cannot be used to cover these obligations.

With local governments, the concern is less on politics and more on the provision of basic public services. K–12 education, for example, is funded well over 90% by state and local governments (Center on Budget and Policy Priorities, 2019). Some states do have allocated budgets to help localities under their jurisdiction: California apportioned $100 m to local education agencies, and Massachusetts appropriates $95,000 for the Executive Office of Education (National Conference on State Legislatures, 2020b). However, others remain struggling to get sufficient funding, not only for K–12 education but also for other services run by local administrations. While federal aids are held and states are facing their own fiscal challenge, local governments stand hopeful to wade through the pandemic. In the end, it is the public who will have to bear the consequences as services are reduced.

3. What does this mean for the future?

As Yogi Berra (a baseball player, rather than a practitioner of public budgeting) once said "It's hard to make predictions, especially about the future." This caution never seemed more appropriate than it does today. There is a staggering list of things that we do not know, and the effect of any one of these would have a substantial impact on the trajectory of the economic and budgetary effects of COVID-19 in the United States. What can only be a partial list of questions appears below:

(1) Will there be a second wave of COVID-19, when will it come, and how will governments respond? By early July, COVID-19 cases continued to rise in two-thirds of American states in what is likely still the first wave. It is predicted that a second wave will occur sometime in the fall and might coincide with the flu season.

(2) How long will the recovery take? The CBO, in late June, projected that real gross domestic product (GDP) would return to its prepandemic level by the middle of 2022. Overall, however, this CBO report, which covers the 11 years from 2020 to 2030, projects that the average unemployment rate will be 6.1% over the period (compared to a 4.2% average that CBO projected in January of 2020), and that the annual level of real GDP growth would be 3.4% less than the agency projected 6 months earlier (Congressional Budget Office, 2020e).

(3) To what extent will the economic effects be temporary, and to what extent will there be permanent changes in the economy? What will the long-term effects be on businesses and activities that have historically involved individuals needing to be in close proximity to each other, such as restaurants, concerts and sporting events? Will business travel return to normal, or will the experience of businesses under COVID-19 usher in a "new normal" with more remote meetings and less need for face-to-face contact? Will the coronavirus lead to a surge in teleworking, thus suggesting a decline in the need for commercial real estate, a change in transportation habits, and a negative impact on businesses that rely on face-to-face work for their livelihoods?

(4) Will a vaccine be developed, when will it be available, and who will pay for it? By most accounts, the single most important factor that would lead to a more rapid economic (and therefore budgetary) recovery would be the development of a vaccine. In order for this to occur, there has to be a vaccine, it has to be effective, and it has to be affordable. In the latter case, an affordable vaccine likely would require a substantial federal subsidy.

(5) What will the ongoing impact of the pandemic be on state and local revenues and spending? Which revenue sources will be affected, for how long, and at what magnitude? What will be the effect on major items of state spending, such as education (elementary and secondary, and higher), health, transportation and prisons?

(6) Will there be additional federal stimulus funds provided, and who will receive them? There has been talk in the Congress of additional legislation, and the Federal Reserve may continue to take aggressive actions. If this occurs, will the federal government bailout state and local governments? To what extent do the answers to these questions depend on, and who will be the elected President in November of 2020?

(7) To what extent will budgetary priorities need to change in order to enable the country to prepare for the next pandemic? The country was unprepared for COVID-19. One expects, and hopes that the coronavirus will be a wakeup call, such that we will be more prepared for the next pandemic. If so, governments at all levels will have to rethink their priorities with an eye toward greater preparedness. In particular, there will be long-term health challenges resulting from the pandemic. What will this mean in terms of the future of health policy? Will the Affordable Care Act (ACA) be amended? Will it be replaced by a national health insurance program, such as "Medicare for All"?

In the end, the only certainty is uncertainty. That is, we know the direction of most of the fiscal effects of the pandemic; that is, they will make things worse, not better. The magnitude depends on many factors that cannot be predicted with any precision at this moment.

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Corresponding author
Philip G. Joyce can be contacted at: pgjoyce@umd.edu