Fiscal Policy and Recovery from the COVID-19 Recession

Updated February 1, 2021
Fiscal Policy and Recovery from the COVID-19 Recession

The economic contraction that began in February 2020 differs from previous contractions, including the Great Depression of the 1930s and the Great Recession of 2007-2009. It was caused in large part by concerns about the spread of the Coronavirus Disease 2019 (COVID-19) and government policies aimed at limiting person-to-person contact. The health concerns of the public and the stay-at-home and shutdown orders designed to limit contact reduced cash flow to businesses and increased the number of unemployed workers.

Fiscal policy during the current contraction, recovery, and beyond may take two forms: (1) fiscal policy designed to prevent business failures and sustain the unemployed during the initial pronounced contraction; and (2) fiscal policy used during a traditional recession and recovery aimed at stimulating aggregate demand in general and restoring full employment. Rises in reported case numbers suggest that parts of the economy are still in the grip of the pandemic.

Economic theory and empirical evidence suggest that stimulative measures tend to move the economy toward full employment as the economy recovers from the contraction, but that measures to reduce the debt (which would require the opposite types of policies, reducing the deficit) are better put in place when the economy returns to full employment. Some views hold that one of the “most significant policy mistakes” in recent times was a premature shift to this policy (termed fiscal consolidation, or austerity) that removed fiscal support from the economy following the Great Recession when the economy was still well below full employment and inhibited economic growth in most advanced economies.

The effectiveness of fiscal policy in stimulating demand depends on the type of policy and how much immediate spending it produces. Government spending, grants to the states, or transfers (such as expanded and augmented unemployment benefits or transfers to lower-income individuals) are considered by most economists to be more effective than tax cuts to higher-income individuals or businesses in certain circumstances because such individuals and businesses are less likely to spend the tax cuts. Spending on infrastructure is effective, but may occur with a delay. Given the outlook for a prolonged underemployed economy, this delay may not be a serious limit, and investment in infrastructure would increase the public capital stock and future output.

Some measures already undertaken to address the economic contraction were similar to those employed as general demand stimulus in the Great Recession, such as direct payments (often referred to as “stimulus checks”), whereas others were designed to sustain businesses during the shutdown and make it easier for individuals to comply with stay-at-home orders, such as the Paycheck Protection Program (PPP) that provided forgivable loans to small businesses who retained workers. Expanded and augmented unemployment benefits aim to fulfill both purposes of sustaining unemployed workers and preventing a further decline in spending due to lost wages.

Preliminary studies that examined some of the major features of recently enacted measures suggest the expanded and augmented benefits during the initial decline in output were effective at increasing spending, with stimulus checks being effective to the extent they were received by lower-income individuals. Stimulus checks received by higher-income individuals appeared to be largely saved and not effective as stimulus. The studies on the PPP are mixed. Two studies indicated that the loans went to firms that already intended to retain employees or did not go to areas most affected by the virus, while others found that states with more PPP loans had milder declines and faster recoveries or that the PPP increased employment.

The current recession’s economic effects, including discretionary spending and the automatic revenue declines and spending increases that accompany a recession, are projected to increase the debt significantly. Although there is a general consensus among economists that it is premature to address the debt given the severity of the current contraction, mainstream economic theory points to the importance of addressing an unsustainable debt as soon as economic conditions permit. Hence, eventually, after the economy recovers, a substantially increased debt may lead policymakers to consider deficit reduction policies, which may include raising taxes and/or reducing spending.
Contents

Introduction ................................................................................................................................. 1
State of the Economy and the Fiscal Response to Date................................................................. 2
  Estimated Effect of Recently Enacted Policies ................................................................. 5
  Considerations for Policies Going Forward............................................................... 7
How Fiscal Policy Works to Increase Demand....................................................................... 10
  Review of Theoretical Effects of Fiscal Policy ......................................................... 10
  Review of Empirical Effects of Fiscal Policy .......................................................... 12
  Review of Empirical Research on Austerity Measures During the Great Recession...... 15
  Fiscal Policy Stimulus Alternatives and Multipliers......................................................... 16
    Relative Sizes of Multipliers ...................................................................................... 16
    Other Concerns About the Effectiveness of Alternative Policies ............................. 17
Long-Term Issues: Addressing the Federal Debt ................................................................. 18
    The Debt Outlook and the Pandemic’s Effect............................................................ 19

Contacts

Author Information .................................................................................................................. 19
Introduction

The economic contraction that began in February 2020 differs from previous contractions, including the Great Depression of the 1930s and the Great Recession of 2007-2009. It was caused in large part by concerns about the spread of the Coronavirus Disease 2019 (COVID-19) and government policies aimed at limiting person-to-person contact. The health concerns of the public and the stay-at-home and shutdown orders designed to limit contact reduced cash flow to businesses and increased the number of unemployed workers. Consistent with this cause, studies found that spending declined across all income groups, reductions in spending were largely in sectors requiring in-person contact (such as accommodations and restaurants), and job losses and wage reductions appear to have been concentrated in low-wage workers. A review of numerous studies of the causes of job losses indicates that job losses were largely due to fear of contracting the virus by consumers rather than stay-at-home orders or mandated shutdowns. Some of that contraction could be short-lived if the virus is contained. However, the growing number of reported cases in the fall indicates that the virus is continuing to spread.

2 Note that although the decline in output ended in 2009, output remained below potential for some time after that year.
During an economic downturn, such as the current COVID-19 recession, the focus of fiscal policy responses—that is, tax and spending measures—often takes one of two forms:

1. **Relief that sustains businesses and individuals**: Fiscal policy designed to help prevent business failures and sustain the unemployed directly affected by an adverse event, like the COVID-19 pandemic. Similar fiscal responses may occur with respect to a natural disasters.

2. **“Traditional” Stimulus**: Fiscal policy used during a traditional recession aimed at stimulating aggregate demand in general and restoring full employment. Unlike fiscal policy designed to provide relief, more “traditional” stimulus is not specifically directed to certain businesses, sectors, or individuals.

Once an economy has recovered, fiscal policy’s purpose may shift to addressing the increasing national debt.

Some initial measures undertaken to address this economic contraction were consistent with traditional stimulus measures used to increase demand in the Great Recession, such as stimulus checks. Others were designed to sustain businesses during the shutdown and make it easier for individuals to comply with stay-at-home orders. Some benefits, such as expanded and augmented unemployment insurance benefits, fulfill both purposes of sustaining the unemployed and preventing a further decline in aggregate demand due to lost wages. As downturns continue, fiscal policy may shift from policy focused on relief to more traditional stimulus.

This report provides an overview of the state of the economy and summarizes the fiscal measures already taken in response to the current downturn. Many of these responses have largely been aimed at providing economic relief. In the future, policymakers may consider more traditional fiscal policies designed to boost aggregate demand. This report then discusses fiscal policy used during more traditional recessions and recovery, both the theory and empirical evidence, and reviews what types of fiscal policy are likely to be most effective during recovery from a recession. The report concludes with a brief discussion of the pandemic’s effect on the debt.

The government can also use expansionary monetary policy to stimulate the economy, and the Federal Reserve has already undertaken policies to lower interest rates and provide liquidity. Although monetary and fiscal policy are related (in that monetary policy can enhance or offset fiscal stimulus), this report focuses on fiscal policy.

**State of the Economy and the Fiscal Response to Date**

As of December 2020, the unemployment rate stood at 6.7% (for private, nonagricultural workers), down from 13.3% in May and 14.7% in April but significantly above the 4.4% rate in...

---


March; 11 million workers were unemployed in November compared to 20 million in May, 23 million in April, and 7 million in March. These numbers may be an undercount. These unemployment levels followed a sustained period of low unemployment, with unemployment rates generally less than 4%. The unemployed were particularly concentrated in the service industry. The service industry accounted for almost 5 million unemployed workers in December (44% of the total), of whom slightly over 2 million (19% of the total) were in the leisure and hospitality industry. These shares compare to 37% and 12% of the unemployed in December 2019, and were higher earlier in the recession. Although the unemployment rate has declined, the economy remains underemployed, and the significant surge in COVID-19 cases beginning in October and continuing through January 2021 may lead to a worsening economy.

In response to the COVID-19 pandemic, the federal government has enacted five laws that may have reduced the impact of the pandemic-related reductions on unemployment, at a total fiscal cost of $3.4 trillion through FY2021 (and $3.3 trillion for FY2020-FY2030). The third law, the Coronavirus Aid, Relief, and Economic Security (CARES) Act (P.L. 116-136), provided $1.7 trillion in fiscal policy initiatives and lending authorities for FY2020-FY2030, including $349 billion for the Paycheck Protection Program (PPP); $268 billion in expanded and augmented unemployment benefits; $293 billion in direct payments for individuals; and a variety of authorizations for additional small business lending (making the total of PPP and other Small Business Administration loans $377 billion), direct spending, additional tax benefits, payments to state, local, and tribal governments, and credit authority for businesses (including lending support for the Federal Reserve) harmed by the shutdown. Most of the spending and tax cuts in the CARES Act occurs in FY2020 and FY2021. The PPP provided loans to small businesses that could be forgiven (effectively converting them into grants) if employers retained workers. Initial CARES Act funding for the PPP was quickly exhausted, leading to an additional $310 billion in supplementary funding in the Paycheck Protection Program and Health Care Enhancement Act (P.L. 116-139), enacted at the end of April. To date, some PPP loan authority remains available.

---

13 For more information, see CRS Insight IN11456, COVID-19: Measuring Unemployment, by Lida R. Weinstock.
19 See CRS Report R46284, COVID-19 Relief Assistance to Small Businesses: Issues and Policy Options, by Robert Jay Dilger, Bruce R. Lindsay, and Sean Lowry for more information on the PPP and other COVID-19 assistance for small businesses.
The CARES Act expanded and augmented UI benefits by providing a federally funded $600 per week supplement to UI benefits, by effectively extending UI eligibility to those not otherwise eligible (e.g., self-employed workers, independent contractors, and gig economy workers), and by extending the duration of benefits by up to 39 weeks.\textsuperscript{21} One estimate found that the total unemployment benefits rate exceeded prior wages for two-thirds of workers.\textsuperscript{22} The $600 per week supplement to unemployment benefits expired at the end of July 2020.

As part of the Consolidated Appropriations Act, 2021 (P.L. 116-260), Division N, Additional Coronavirus Response and Relief, was estimated to increase spending and reduce revenues by $683 billion in 2021.\textsuperscript{23} (Other House and Senate legislation considered in the 116\textsuperscript{th} Congress was not enacted.)\textsuperscript{24} The major components of this Division are increases and extensions in unemployment benefits, including an 11-week extension and a $300 per week supplement ($117 billion), an additional rebate of $600 per person ($163 billion), and an additional $296 billion of PPP and other small business loans. Division N also includes spending for transportation, banking, agriculture and nutrition, and broadband internet access. In addition, Division M, the Coronavirus Response and Relief Supplemental Appropriations Act, provided an additional $78 billion in spending relating to combatting the coronavirus in FY2021 and $185 billion in FY2021-FY2030.\textsuperscript{25}

Prior to his inauguration, President Biden proposed an additional $1.9 trillion of stimulus. Reports indicate that the major aspects of this proposal (and their budgetary costs) include $1,400 rebates per person ($465 billion); state and local government assistance ($350 billion); an extension of unemployment benefits through September and an increase of the weekly supplement to $400 ($350 billion); funding for vaccination and testing ($160 billion); funding for education ($170 billion); a temporary expansion of the child credit, including the refundable

\textsuperscript{21} The CARES Act also extended the number of weeks UI could be claimed. For more information on the CARES Act changes to unemployment insurance (UI), see CRS In Focus IF11475, Unemployment Insurance Provisions in the CARES Act, by Katelin P. Isaacs and Julie M. Whittaker. See also CRS Report R45478, Unemployment Insurance: Legislative Issues in the 116\textsuperscript{th} Congress, by Julie M. Whittaker and Katelin P. Isaacs for additional UI information and legislative responses to previous recessions.


\textsuperscript{24} Proposals were made for further relief before the enactment of the Consolidated Appropriations Act, 2021, but with disagreement between the House and the Senate on the size and nature of a package, none were enacted. In the 116\textsuperscript{th} Congress, the House passed a proposal with an estimated cost of $2.4 trillion; Senate proposals tended to be relatively smaller, around $500 billion. For more information, see CRS Report R46358, Heroes Act: Revenue Provisions, coordinated by Molly F. Sherlock; and CRS Report R46470, The American Workers, Families, and Employers Assistance Act (S. 4318): Title II—Revenue Provisions and Other “HEALS Act” Tax Provisions, coordinated by Molly F. Sherlock.

portion ($120 billion); rental support ($30 billion); and support for child care providers ($25 billion), along with some other programs.27

Estimated Effect of Recently Enacted Policies

Estimating the current effects of these fiscal policies is difficult, in part due to the lags in data. However, studies using private data have examined the policies’ consequences and the causes of the contraction. A recent study by Chetty et al., which used a wide variety of real-time data, found that the economic collapse was largely due to the effect of reduced spending by high-income individuals on services requiring in-person interactions out of concerns about health risks.28 This reduction in turn caused revenue losses in businesses such as restaurants and accommodations and job losses for workers. Chetty et al. found that the direct payments (often referred to as “stimulus checks”) increased spending by lower-income individuals, but that spending was not directed at the sectors most affected by the collapse in demand. They also did not find evidence that the PPP reduced unemployment in small businesses and suggested that most of these forgivable loans went to firms that did not intend to lay off employees absent the program’s assistance. Further, they found that reopening of the economy had a limited ability to affect spending in these areas because it is largely constrained by individuals’ health concerns. The researchers suggest that Congress continue measures to mitigate the hardship experienced by lower-income workers through social insurance (such as expanded unemployment benefits). They also suggest place-based measures for low-income individuals in urban areas especially affected by the virus. The study also concludes that the path to economic recovery in the short run requires addressing the virus itself and restoring consumer confidence with respect to health concerns. It acknowledges that the recession may, over time, turn into a more traditional economic shock requiring traditional fiscal stimulus measures that affect a broad range of sectors.

Baker, et al., in a study focused on the effect of stimulus checks, found results consistent with the Chetty et al. study.29 These direct payments generated a rapid response, with 35 cents of each dollar spent within a month of receiving payments. The spending was greatest among those with low income, those who had lost income, and those with the least liquidity, consistent with prior studies of direct payments. In this case, however, in contrast to prior payments in 2001 and 2008,30 relatively little of the spending was on durable goods and more of the spending was on food. Karger and Rajan found that 48% of the direct payments were spent within two weeks, with

26 The proposal would increase the maximum credit from $2,000 to $3,000, and to $3,600 for those under age six, and including 17 year olds, and make the credit fully refundable. This is similar in some respects to the proposed changes to the credit in the American Family Act (116th Congress: S. 690 and H.R. 1560). For more information, see CRS Report R46502, The Child Tax Credit: Selected Legislative Proposals in the 116th Congress, by Margot L. Crandall-Hollick.


30 For more information on these 2001 and 2008 payments, see CRS Insight IN11256, COVID-19 and Direct Payments to Individuals: Historical Precedents, by Gene Falk.
68% spent by those who live from paycheck to paycheck (i.e., those with little savings) and 23% spent by others, suggesting stimulus checks targeted at those with lower incomes would be more effective per dollar of cost.  

31 Cobion et al. found that 40% was spent, with spending greatest by those who were liquidity constrained, out of the labor force, living in large households, less educated, and who received smaller amounts, also suggesting that more targeted programs would be more effective.  

32 The studies on PPP loans are mixed. Chetty et al. found PPP loans to be poorly targeted, as did a study that found the loans did not go to areas most affected by the virus.  

33 Another study found geographical distribution of PPP loans was not associated with impact of the virus but was associated with the existence of prior lending relationships with banks and the prevalence of community banks.  

34 In contrast, another study of employment by Bartik et al. found that states with more PPP loans had milder declines and faster recoveries.  

35 A study by Autor et al. using firm-level data from a major payroll processor provided preliminary estimates that the program increased employment in affected firms by 7.5% and added 7.3 million workers to the payroll.  

36 Hubbard and Strain found the PPP program was successful in achieving short-term goals of maintaining employee connections to firms and business survival, but cautioned that it may be too early to assess the program’s intermediate goals.  

37 The Bartik et al. study also found these milder declines and faster recoveries were associated with higher unemployment benefits, perhaps because these benefits sustained spending. The authors found no evidence that the high unemployment benefit replacement rates affected job losses or slowed rehiring. A study by Altonji et al. also found no evidence that the benefits affected job loss or a return to working.  

38 A JPMorgan Chase & Company study found that spending by the unemployed overall fell by 10%, but spending by those receiving unemployment benefits increased by 10%, indicating the expanded UI benefits helped to stabilize aggregate demand. Spending by those waiting to receive UI benefits fell by 20%.  

39 A Marinescu et al. study, using

---


data from a national job recruiting platform, found that job applications declined in early March, prior to the CARES Act, and then remained stable. The study found some evidence of an effect on applications among workers with higher replacement rates, but these effects may be associated with other factors (such as health and childcare concerns). It also found that job vacancies fell significantly more than job applications, leading to an increase in applicants per job. The study did not measure, but noted, that the income support from the expanded UI sustained spending and led to job creation. Another study suggested that an extension of expanded and augmented unemployment benefits might, however, be replaced by a proportional benefit to avoid potential work disincentives in the future, although such a proposal could be difficult for states to administer in the short term. Some studies found evidence of a significant effect on spending from supplemental unemployment insurance. A study by Casado et al. found a significant effect on local spending from unemployment insurance supplements, indicating that they were an effective fiscal stimulus. Farrell et al. found that spending by recipients of unemployment benefits increased by 10% while spending by the employed declined by 10%. This finding is consistent with the expectation that unemployment insurance is targeted at those most likely to increase spending from the additional income. The unemployed who experienced a delay in receiving benefits in 2020 had declines in spending of 20%. Farrell et al. concluded that the lapse of the unemployment benefit supplement would decrease spending significantly.

Considerations for Policies Going Forward

To date, fiscal policy actions have been focused in large part on relief—sustaining businesses and individuals through a short-term crisis imposed by health concerns and government (and business self-imposed) restrictions—although some of these policies have also stimulated demand. The Chetty et al. study suggested the need for continuing expanded unemployment benefits as long as these government constraints and health concerns remain.

Some economists suggest a move to traditional fiscal policy that augments demand without being specifically directed to certain businesses or sectors once these restrictions are safely lifted and

41 This suggestion was made in Peter Ganong, Pascal Noel, and Joseph Vavra, US Unemployment Insurance Replacement Rates During the Pandemic, Becker Friedman Institute for Economics at University of Chicago, Working Paper no. 2020-62, May 14, 2020, https://bfi.uchicago.edu/working-paper/2020-62/. Some experts caution that proportional benefits could be almost impossible for state UI administrators to program in the short term. For example, see the testimony of Michele Evermore, senior policy analyst at the National Employment Law Project, in U.S. Congress, Senate Committee on Finance, Unemployment Insurance During COVID-19: The CARES Act and the Role of Unemployment Insurance During the Pandemic, 116th Cong., 2nd sess., June 9, 2020. Treasury Secretary Mnuchin also alluded to the administrative difficulties in providing greater UI benefits proportional to a worker’s salary when the $600 supplement was originally being considered, stating, according to media reports, that “the flat $600 per week ‘was the only way we could ensure the states could get money quickly and in a fair way,’ since it would take too long to tailor benefits to a person’s most recent salary.” Steven T. Dennis, Erik Wasson, and Colin Wilhelm, “Senate Plans Virus-Bill Vote After Dispute Over Unemployment Aid,” Bloomberg, March 25, 2020, https://www.bloomberg.com/news/articles/2020-03-25/some-in-gop-revolt-over-stimulus-unemployment-benefits.
individuals feel comfortable engaging in more activities. It is not clear when this phase will arrive (especially as some states have reversed the loosening of restrictions in the face of a rising number of reported cases) or how long it will last. In July, the Congressional Budget Office (CBO) projected recovery beginning in the third quarter of 2020, with pre-recession output achieved by the middle of 2022, and unemployment rates that exceed pre-recession levels for several years. The Federal Reserve projects unemployment at higher rates through 2022. A potential need for up to $3 trillion in additional fiscal measures—in the form of support for the unemployed, support for business, and aid to state and local governments—was suggested even before the fall surge in cases. The additional measures enacted in December 2020 were, as noted above, less than $1 trillion. The former chairman of the Federal Reserve during the Great Recession has stressed the need for additional fiscal measures, especially aid to state and local governments, whose budget cuts slowed the recovery from that recession. The current chairman of the Federal Reserve has also supported fiscal measures. He stated again, in a press conference

44 For a discussion of the need to provide policies that do not prop up businesses that will fail, see testimony of Douglas Holtz-Eakin, in U.S. Congress, House Budget Committee, Addressing the Economic Impacts of COVID-19: Views from Two Former CBO Directors, 116th Cong., 2nd sess., June 3, 2020, https://budget.house.gov/legislation/hearings/addressing-economic-impacts-covid-19-views-two-former-cbo-directors. Holtz-Eakin stated, “Over the next few months, the emphasis should shift from speedy, indiscriminate lending and grants to targeted lending programs where needed. Policy should also shift its emphasis away from keeping workers attached to their firms and toward supporting shifts in the demand for workers as some industries shrink and others expand.” See also Jose Maria Barrero, Nick Bloom, and Steven J. Davis, COVID-19 Is Also a Reallocation Shock, Becker-Friedman Institute for Economics at UChicago, Working Paper no. 2020-59, June 2020, https://bfi.uchicago.edu/wp-content/uploads/BFI_WP_202059.pdf. The researchers say that “unemployment benefit levels that exceed worker earnings, policies that subsidize employee retention, land-use restrictions, occupational licensing restrictions, and regulatory barriers to business formation will impede reallocation responses to the COVID-19 shock.”


on July 29, 2020, a need for further fiscal stimulus, noting that preliminary data showed a slowing of the recovery, and has continued to indicate the need for further fiscal measures, especially following the fall surge in cases. To date it is not clear whether and to what extent subsequent fiscal support may be focused on relief versus more traditional stimulus designed to increase aggregate demand. Aid to state and local governments and extensions of enhanced unemployment benefits would serve the dual purposes of providing both relief (particularly in light of the surge in cases) and a traditional stimulus.

The current recession is a novel situation with many uncertainties that may affect whether fiscal policy is designed primarily to provide economic relief or as more traditional stimulus. One uncertainty is when social distancing measures can be relaxed without risking increased infections. This issue may dictate how quickly the economy can return to normal. Rising infections could trigger a second round of shutdowns, which would make the economic recovery more difficult. The increases in reported cases in June and July 2020 and in the fall in states that lifted restrictions earlier have raised questions about how quickly the economy will reopen. As noted above, several states have reversed their reopenings in response to growing caseloads. Another surge in COVID-19 cases occurred in the late fall and through January 2021, partially reflecting reduced social distancing during the Thanksgiving and Christmas holidays.

A second uncertainty is the extent to which consumer demand is dampened. The outbreak of the virus has been uneven across the United States, and in many places there are expectations of the outbreak worsening. Consumers who feel uncertain about the future tend to save more and delay big-ticket purchases, and consumer fears of contracting the virus may also dampen demand. The uncertainty by consumers may have resulted in a surge in the savings rate to an unprecedented 33% in April and may reflect pent-up demand that could be translated into more spending as restrictions ease, but much depends on how cautious consumers are.

A third uncertainty may be how the economic fallout from COVID-19 changes the composition of demand. A particularly long period may be required before consumption of travel and leisure returns to its former levels (if it returns to those levels at all), which would have consequences for the restaurant, hotel, airline, and oil industries, among others. Social distancing rules that may persist for many months or longer would also require cost-increasing changes in the provisions of services that involve close contact, such as restaurants, airlines, and mass transportation.


These uncertainties make it difficult to determine when the focus of fiscal policy shifts from primarily sustaining adversely affected businesses and individuals in the short term to fiscal policy measures traditionally used in a recession and aimed at increasing demand in general while allowing the composition of output to adjust in response to pandemic-related changes in the economy’s structure.

The optimal timing of a shift from focused policies to support impacted businesses and individuals to the type of demand stimulus used in traditional recessions is not clear, and both needs may occur simultaneously. The efficiency of alternative types of stimulus in increasing demand should be considered, although in some cases (such as fiscal assistance to the states and localities and expanded and augmented unemployment benefits), the same policies would likely be appropriate regardless of the principal objective. Insofar as policymakers seek to design fiscal policies to increase aggregate demand, it may be helpful to understand how fiscal policy in response to traditional economic downturns works, both theoretically and empirically.

How Fiscal Policy Works to Increase Demand

This section explains the basic theory underlining the use of fiscal policy in a traditional economic downturn, followed by a discussion of empirical research on the effects of these policies. This discussion is focused on fiscal policy to address the lack of sufficient demand and will generally be more applicable when virus transmission is reduced, the public is more confident in engaging in normal activities, and stay-at-home orders and business closures can be safely lifted or limited.

Review of Theoretical Effects of Fiscal Policy

Current fiscal policy theories began with a work published during the Great Depression by British economist John Maynard Keynes. As a result, this type of policy is often referred to as Keynesian, although there have been numerous refinements and developments in the theory. Since World War II, government policy to address business cycles has generally been guided by some form of Keynesian theory. The fundamental concept behind this view of macroeconomics and fiscal policy is that prices in an economy do not immediately adjust to shocks, which can lead to underutilization of resources. Workers may become unemployed and capital may sit idle, due to a lack of sufficient demand. To reduce unemployment, expansionary fiscal policy (an increase in spending or a reduction in taxes to expand aggregate demand) can be employed.

The magnitude of fiscal policy’s effect is measured not only by the size of fiscal policy intervention relative to the slack in the economy but also by its effectiveness, measured by a

56 These developments include, among others, the standard model (referred to as IS-LM), which includes both monetary and fiscal policy and refines the trade-off between inflation and unemployment, leading to the notion of a natural rate of unemployment (where policies tend to affect price rather than output), the incorporation of expectations, and modifications for an open economy (where goods and capital flow across borders). The IS equation traces out the equilibrium between output and interest rates in the economy based on the relationship between investment and savings; the lower the interest rate, the larger the amount of output. The LM curve traces out a relationship between output and interest rates based on the demand and supply of money and is upward sloping, with output rising as interest rates rise (because higher interest rates cause smaller holdings of money and free up money to support transactions). The IS curve is shifted with fiscal policy and the LM curve with monetary policy. Where they intersect determines the level of aggregate demand at any given price level, and where that curve intersects with the supply curve determines prices and output in the economy.
multiplier. If the government spends a dollar, aggregate demand is initially increased by a dollar. The person who sold a dollar worth of goods or services to the government also receives a dollar, part of which might be saved and part of which might be spent. To the extent that it is spent, it increases aggregate demand further. The recipients of this additional spending will in turn spend part of their receipts. This process continues with each amount of additional spending diminishing a bit over time due to saving. The sum of all these rounds effectively equals the multiplier. As demand increases, businesses hire additional workers and purchase more capital goods to satisfy demand. Thus, successful fiscal policy depends on having a stimulus that is not only large enough, but also effective enough.

The strength of the multiplier depends not only on the share that is spent in the initial and subsequent rounds but also on the effect on interest rates and prices, as increases in these measures can reduce the multiplier. The fiscal multiplier’s estimated size also depends on assumptions about monetary policy and its response to a fiscal stimulus. Currently, monetary policy is also aimed at stimulating the economy.

Some economists have come to believe that political lags make fiscal policy ill-timed, whereas monetary policy can be enacted quickly. Others have become less enamored of fiscal policy because it becomes somewhat less effective in an open economy. At the same time, there are circumstances where traditional monetary policy does not work well (at very low interest rates, for example) or where a contraction appears to be serious enough to warrant both monetary and fiscal measures. During the 2007-2009 Great Recession, fiscal stimulus was enacted under both the George W. Bush and Obama Administrations.
The textbook consensus is that spending increases are more effective than tax cuts, because the full amount of the initial spending increase is actually spent, whereas some of a tax cut is initially saved.\(^{62}\) Spending in the form of transfers could also be partially saved, although it is believed that some types of transfers benefit lower-income recipients who are likely to spend all or most of the transfer. Different types of tax or spending policies may also have different effects depending on the portion initially saved.\(^{63}\) At the same time, much federal government spending is funneled through the states, and a portion of spending in the form of grants to states could also be saved (although this outcome may be unlikely given the current fiscal pressures on the states). The spending funneled through the states could include both transfers and government purchases of goods and services.

**Review of Empirical Effects of Fiscal Policy**

Numerous econometric studies have examined the short-run effects of fiscal policy adjustments (i.e., increases or decreases in spending and/or taxes) on the economy.\(^{64}\) These models generally fall into three types—macroeconomic forecasting models, aggregate country-level time series models, and dynamic stochastic general equilibrium (DSGE) models—each with its own strengths and limitations.\(^{65}\) These models attempt to quantify the “bang for the buck” of government intervention or, in economics jargon, the size of the fiscal multipliers.

111-5).


\(^{65}\) Macroeconometric forecasting models, which generally form the underpinnings of the forecasts from economic consulting firms, are based largely on historical relationships among aggregate economic variables and informed by theories of how those variables are determined. The reliability of macroeconomic projections depends heavily on the validity of the economic assumptions used.

Time series models, in their most basic form, summarize the correlation between economic variables over time. As a result of their reliance on correlation and a general lack of theoretical grounding, it can be difficult to use time series models to assess the direction of causation between policies and the economy.

DSGE models are built on a structure of individuals maximizing well-being by choosing consumption and leisure over time (hence dynamic). As a result, estimated multipliers are constrained by the basic structure of the model. Individuals and firms in the model are rational and forward-looking. The original dynamic model on which DSGE models are built (the real business cycle model) did not allow for involuntary unemployment. Current DSGE models have been modified in a variety of ways to permit fiscal and monetary policy to have effects, but they are often criticized for assumptions that seem at odds with evidence (such as an expectation that decreased taxes today will lead to increases in the future that the individual takes into account) or reflect priors. See Paul Romer, “The Trouble with Macroeconomics,” delivered January 5, 2016, as the Commons Memorial Lecture of the Omicron Delta Epsilon Society. Forthcoming in *The American Economist*. Available at https://paulromer.net/the-trouble-with-macro/WP-Trouble.pdf.

A detailed description of these model types (and others) can be found in Menzie Chinn, “Fiscal Multipliers,” in *New Palgrave Dictionary of Economics*, ed. Steven N. Durlauf and Lawrence E. Blume (Palgrave Macmillan, 2013).
How effective a fiscal stimulus is depends on the share of the spending or tax cut that is initially spent, which can be summarized in a multiplier. As noted earlier, a multiplier estimates how much additional output is produced for an additional dollar of spending or tax cuts. For example, a multiplier of 1.5 indicates that $1 dollar of fiscal stimulus leads to $1.50 in output. Many factors affect the size of the multiplier (e.g., how close the economy is to full employment, the reaction of monetary policy, and the period of time over which it is measured), but given those factors, some policies are more effective in increasing demand and output than others.

Estimates of the fiscal multipliers of government policy choices span a broad range. Fiscal multiplier estimates, as discussed in the studies below, range from 0.3 to 3.5.\(^{66}\) (A multiplier of 0.3 can be interpreted as a dollar of spending or tax cut increasing output by 30 cents, and a multiplier of 3.5 can be interpreted as a dollar of spending or tax cut increasing output by $3.50.) The range of estimates does not appear to be driven by the model chosen,\(^{67}\) but results from the combination of several factors:

- **Modeling and data assumptions**: A portion of the variation in fiscal multiplier estimates results from how different modeling challenges are addressed and the assumptions built into the models.\(^{68}\) Additional variation occurs because analyses can differ with respect to the period over which the multiplier is measured (cumulative effects versus peak effects) or the years in which the multiplier forms its basis.\(^{69}\)

- **Economic conditions**: A portion of the variation in fiscal multiplier estimates results from the estimates’ economic starting points—with fiscal multipliers being larger during recessions than during expansions.\(^{70}\) The size of fiscal multipliers is also affected by the “room” that monetary policy has to intervene—

---

\(^{66}\) See footnote 64 for surveys of the fiscal multiplier literature.

\(^{67}\) Charles J. Whalen and Felix Reichling, *Assessing the Short-Term Effects on Output of Changes in Federal Fiscal Policies*, U.S. Congressional Budget Office, CBO Working Paper no. 2012-08, May 2012, finds estimates for the United States, as measured (on a cumulative basis) after eight quarters, ranging from 0.75 to 2.25 for macroeconometric forecasting models, from 0.3 to 3.5 for time series models, and from 0.5 to 2.25 for DSGE models. See footnote 64 for surveys of the fiscal multiplier literature.

\(^{68}\) A common challenge for these models is what economists refer to as “identification.” Identification, in this context, refers to the model’s ability to differentiate the economic results of the specific policy under study from other unrelated policy changes. See Daniel Riera-Crichton, Carlos A. Vegh, and Guillermo Vuletin, “Tax Multipliers: Pitfalls in Measurement and Identification,” *Journal of Monetary Economics*, vol. 79 (May 2016), pp. 30–48, for a discussion of methods used to help address issues with identification.

\(^{69}\) Valerie A. Ramey, “Identifying Government Spending Shocks: It’s All in the Timing,” *The Quarterly Journal of Economics*, vol. 126, no. 1 (February 2011), pp. 1–50, finds fiscal multipliers differ when WWII is included in the time period versus when it is excluded.

with fiscal multipliers growing larger as the duration of constrained interest rates increases.\textsuperscript{71}

- Fiscal policy details: Further variation is derived from the nature of the fiscal policy—the fiscal policy tools used (e.g., taxes or government spending),\textsuperscript{72} the policy area to be affected (e.g., infrastructure versus general government spending),\textsuperscript{73} and the characteristics of those affected (e.g., high-income households versus low-income households).\textsuperscript{74}

Much of the relatively recent interest in fiscal multipliers has been driven by an examination of the Great Recession, which began in late 2007.\textsuperscript{75} Initially, policymakers responded with conventional stimulus—the Economic Stimulus Act of 2008 (P.L. 110-185) and the American Recovery and Reinvestment Act of 2009 (P.L. 111-5, ARRA)—which provided a substantial expansionary boost to the U.S. economy.\textsuperscript{76} Concerns about growing budget deficits, driven in part by an alternative view on fiscal policy, resulted in a policy shift toward fiscal consolidation (increases in taxes and/or decreases in government spending or transfers).\textsuperscript{77} This view was referred to popularly as “austerity,” and, as noted earlier, has been viewed by some as a major policy misstep.\textsuperscript{78} The following section discusses the empirical research on austerity.

\textsuperscript{71} Lawrence Christiano, Martin Eichenbaum, and Sergio Rebelo, “When Is the Government Spending Multiplier Large?” \textit{Journal of Political Economy}, vol. 119, no. 1 (February 2011), pp. 78-121, finds that the size of this effect increases as the duration of a binding zero bound on interest rates grows. Specifically, the authors find a fiscal multiplier of 0.7 when interest rates are not constrained, versus 1.2 when interest rates are constrained for 8 periods and 1.6 when interest rates are constrained for 12 periods. Günter Coenen et al., “Effects of Fiscal Stimulus in Structural Models,” \textit{American Economic Journal: Macroeconomics}, vol. 4, no. 1 (January 2012), pp. 52-68, and Robert E. Hall, “By How Much Does GDP Rise if the Government Buys More Output?” Brookings Institution, \textit{Brookings Papers on Economic Activity} vol. 40, no. 2 (Fall 2009), pp. 182-331, find similar results.


\textsuperscript{74} Mark Zandi, “At Last, the U.S. Begins a Serious Fiscal Debate,” Moody’s Analytics, April 14, 2011, https://www.economy.com/economicview/analysis/198972.


\textsuperscript{77} The Budget Control Act of 2011 (P.L. 112-25, BCA) was designed to limit the growth in discretionary spending. See CRS Report R44874, \textit{The Budget Control Act: Frequently Asked Questions}, by Grant A. Driessen and Megan S. Lynch for further information on the BCA.

Review of Empirical Research on Austerity Measures During the Great Recession

Given the prescription for austerity measures (which are generally seen as contractionary in an economy below full employment) during the Great Recession, several studies examining the short-run effects of fiscal consolidation or adjustments (i.e., spending reductions and/or tax increases) on government debt and the economy were circulated and subsequently published during the early stages of recovery from the Great Recession. A critical piece of these analyses was the identification of the discretionary fiscal policy. In general, the fiscal policy variables are identified using (1) cyclically adjusted variables or (2) a narrative approach.

- A study by Alesina and Ardagna identified the discretionary fiscal change by cyclically adjusting the fiscal variables and found fiscal consolidation improved economic growth. In addition, the authors concluded that spending reductions are less likely to create recessions than tax increases which has been pointed to as evidence that cutting spending in the United States will be expansionary rather than contractionary. These findings are generally inconsistent with the mainstream view of fiscal policy, where short-term multipliers for spending decreases are negative and also tend to be larger in absolute value than those for tax cuts. A key limitation in applying these findings to an economy in recession is that the successful fiscal consolidations occurred in economies at or near full employment.

- An International Monetary Fund (IMF) study identified the fiscal change using a narrative approach and found that fiscal consolidation had a contractionary effect.

---


80 As discussed above, a challenge to estimating fiscal multipliers is separating the effects of the discretionary fiscal policy from existing policies and general economic conditions. For these studies, the specific challenge was that government spending, tax revenue, and the budget deficit can change due to automatic stabilizers that react to economic changes or to discretionary (often legislated) changes. Typically, transfer payments (e.g., unemployment compensation) increase and tax revenue decreases automatically when the economy enters a recession and, consequently, budget deficits increase. The reverse is true when the economy recovers.


82 Continued refinements to this methodology have been made. See Alberto Alesina, Carlo A. Favero, and Francesco Giavazzi, “What Do We Know about the Effects of Austerity?,” AEA Papers and Proceedings, vol. 108 (May 2018), pp. 524-530, for a more recent example.


on output.\textsuperscript{85} The IMF paper also found that spending cuts are less contractionary than tax increases, but attributed this effect in part to the greater offsetting monetary stimulus. These results are consistent with the mainstream view of fiscal policy.

Several post-Great Recession studies have assessed the effects of fiscal consolidation on economies operating below full employment and have generally found that fiscal consolidation reduced economic growth. A study by Blanchard and Leigh concluded that in advanced economies fiscal consolidation is associated with lower economic growth, with the relationship being especially strong early in a recession.\textsuperscript{86} A study by House, Proebsting, and Tesar found a similar contractionary effect of fiscal consolidation across 29 advanced economies.\textsuperscript{87} A study by Gechert, Horn, and Paetz found that fiscal consolidation in the EU shortly after the Great Recession was poorly timed and thus not only deepened the crisis but also persisted after fiscal consolidation measures were relaxed.\textsuperscript{88}

In sum, the empirical studies of fiscal consolidation consistently found that traditional fiscal stimulus (increasing spending and/or decreasing taxes) in an economy below full employment would lead to increased output, whereas austerity measures would reduce output.

**Fiscal Policy Stimulus Alternatives and Multipliers**

As previously discussed, the amount of stimulus that can be generated by a given policy proposal depends on the share of the spending or tax cut that is initially spent and can be summarized in a multiplier.\textsuperscript{89} The multipliers discussed below refer to a variety of measures that were considered in the Great Recession or are being discussed in the context of the pandemic-related contraction. They include increased spending, transfers to states, direct payments to individuals (i.e., “stimulus checks”), payments to individuals that are proportional to earnings with a cap (such as the Making Work Pay credit enacted in 2009), payroll tax holidays, income tax cuts, and a variety of business tax cuts.

**Relative Sizes of Multipliers**\textsuperscript{90}

Much of the research suggests that the largest multipliers are associated with direct federal spending. Larger multipliers are also associated with transfers to state and local governments, which are likely to spend funds in a recession because they have lost part of their revenue base, as

---


\textsuperscript{89} Lists of estimated multipliers for a variety of policies referred to in this section by the Congressional Budget Office and a private forecaster, Moody’s Analytics, can be found in CRS Report R45780, *Fiscal Policy Considerations for the Next Recession*, by Mark P. Keightley; CRS Report R42700, *The ‘Fiscal Cliff’: Macroeconomic Consequences of Tax Increases and Spending Cuts*, by Jane G. Gravelle; and CRS Report R41849, *Can Contractionary Fiscal Policy Be Expansionary?*, by Jane G. Gravelle and Thomas L. Hungerford.

\textsuperscript{90} Ibid.
well as direct transfers to low-income individuals or those in reduced circumstances (such as the unemployed) because these individuals are likely to spend most of any additional income. For example, CBO estimated that, by the first quarter of 2012, the multipliers for provisions enacted in 2009 were 1.5 for federal purchases, 1.3 for spending on state and local infrastructure, 1.25 for transfers to individuals, 1.15 for unemployment benefits, and 1.1 for other state and local transfers.

Tax cuts for individuals tend to have smaller multipliers, depending on where individuals are in the income distribution. Economists have long been concerned that temporary tax cuts (compared to permanent ones) have smaller effects on spending because they are seen as one-time benefits to spread over a longer period. However, if individuals are generally liquidity constrained (would like to spend more than they earn but do not have access to borrowing), they will largely spend what they receive (and thus have no savings). Lower- and middle-income taxpayers are likely to be in these circumstances and for a variety of other reasons are likely to spend a larger share of any tax cut.91 For example, for the same period of time, CBO found the refundable Making Work Pay tax credit (which was equal to a percentage of income up to a dollar limit rather than a flat dollar amount and was received per paycheck as reduced withholding), payroll tax reductions, and tax cuts for low- and middle-income taxpayers to have multipliers of 0.7 to 0.9, while tax cuts for high-income individuals had smaller multipliers of 0.35.

The lowest multipliers are generally associated with tax cuts for business. A business tax cut would increase demand if it leads to more investment. A corporate rate cut, which mostly benefits returns to investment already in place, has a relatively small effect on investment, and it may be difficult to stimulate investment given slack demand. CBO estimated corporate rate cuts to have a multiplier of 0.2. For a tax cut associated with investment, the multiplier should be larger, and CBO estimated the multiplier for an investment subsidy (expensing or bonus depreciation, which allows part or all of an asset’s cost to be deducted immediately rather than spread over the life of the asset) to be 0.6.

Other Concerns About the Effectiveness of Alternative Policies

Several other issues with respect to tax cuts have been examined in some detail. During earlier recessions, economists were concerned with the possibility that one-time lump-sum payments would be less effective than tax cuts that show up in withholding and are spread out over paychecks because lump-sum payments would be perceived as a one-time windfall more likely to be saved. Extensive studies of these payments have suggested that their lump-sum nature is not a serious concern.92

There is, however, a concern that the direct payments during the recent COVID-19-related contraction might have been less effective because demand was constrained by concerns about health and the restrictions (stay-at-home orders and shutdowns), especially in light of the very high savings rate in April. However, studies cited above indicated that much of these payments were spent. The direct payments may also fund pent-up demand once consumers become more confident and restrictions ease.

Theory also suggests some circumstances where a temporary tax cut is more effective than a permanent one, such as a sales tax holiday or a temporary investment subsidy. Sales tax holidays, although discussed in the past, are probably too challenging for the federal government to adopt

---

92 Ibid.
because sales taxes are imposed by the states (requiring an agreement for a reimbursement). Expensing for equipment as a stimulus is no longer possible because equipment is already expensed through 2025 under the 2017 tax cut, popularly known as the Tax Cuts and Jobs Act (P.L. 115-97). It would be possible, however, to devise additional subsidies, such as investment credits or more than 100% depreciation deductions, or to extend subsidies to investment in structures. Investment subsidies would also have the effect of increasing the capital stock at the same time as they increase demand. Studies of past bonus depreciation provisions have, however, found bonus depreciation to be relatively ineffective.93

Another issue with respect to federal spending is lags in infrastructure spending. Spending on infrastructure serves two goals: in addition to stimulating demand, it also increases the stock of public capital and increases long-run productivity. Spending on infrastructure is subject to lags compared to some other types of spending,94 although such lags may not be an issue in the current crisis, because there may be a delay in the time when traditional stimulus is needed. Thus, infrastructure spending might be appropriated now to provide planning time, with the actual spending delayed.

### Long-Term Issues: Addressing the Federal Debt

Fiscal policy measures to provide relief and stimulus often lead to an increased debt. Hence, eventually, after the economy recovers, a substantially increased debt may turn Congress’s focus to deficit reduction, which may include raising taxes and/or reducing spending. During the previous recession, expansionary policy was ended while the economy was still below full employment, in part due to the influence of a theory referred to as “austerity.” As noted earlier, some view this reversal as having been premature, characterizing it as one of the most significant fiscal policy missteps in many years.95

Although there is a general consensus among economists that it is premature to address the debt given the severity of the current contraction, it may be useful to consider the options available when the economy returns to full employment. Moreover, mainstream economic theory points to the importance of addressing an unsustainable debt as soon as economic conditions permit.96

---

93 See CRS Report R43432, Bonus Depreciation: Economic and Budgetary Issues, by Jane G. Gravelle.


96 The debt can grow without increasing the ratio of debt to GDP as long as it rises at a rate less than or equal to GDP growth. For example, if the debt is 80% of GDP and the economy is growing at 1.6%, a deficit of 1.28% of GDP (1.6% of 80%) will maintain the debt to GDP ratio. The FY2019 deficit was 4.6% of GDP. See CBO data at https://www.cbo.gov/data/budget-economic-data#1. This traditional prescription has been questioned by adherents of a non-mainstream theory called “Modern Monetary Theory.” For a discussion, see CRS Report R45976, Deficit Financing, the Debt, and “Modern Monetary Theory”, by Grant A. Driessen and Jane G. Gravelle.
The Debt Outlook and the Pandemic’s Effect

Even before the COVID-19 pandemic, the United States was experiencing an unsustainable growth in debt, which reflected, under current policies, a growth in mandatory programs, mainly Social Security and Medicare, without an accompanying growth in revenues. According to CBO, the debt held by the public at the end of FY2019 (the relevant measure for considering the debt burden) was $16.8 trillion, 79% of GDP, and projected to rise to 98% by 2030.97 This debt level was the highest since World War II (debt as a percentage of GDP peaked at 106% in 1946). It declined, reaching 23% in 1974, then began rising in the 1980s, reaching 35% in 2007. The debt relative to GDP increased substantially during the Great Recession and its recovery, reaching 70% by 2012. Rather than declining as the economy returned to full employment, it continued to rise.

The current recession’s economic effects, including discretionary spending and the automatic revenue declines and spending increases that accompany a recession, are projected to increase the debt. The Congressional Budget Office projects that by the end of 2020, federal debt will equal 98% of GDP. It projects the debt to equal 104% of GDP in 2021, 107% of GDP in 2023, and 195% of GDP by 2050.98 These estimates were made before the enactment of the December spending package that added $0.9 trillion to the debt for FY2021, amounting to 3.6% of third quarter 2020 GDP. The pandemic’s economic effects bumped up the debt, and it is projected to continue on its upward (albeit higher) trajectory. In addition to exacerbating the debt, the economic contraction will mean a longer period, perhaps of years, before the debt can be addressed through increases in revenues and/or reductions in spending, requiring extensive changes to stabilize the debt.

Eventually this debt may be addressed by either a reduction in mandatory spending, an increase in revenues, or both.99

Author Information

Jane G. Gravelle
Senior Specialist in Economic Policy

Donald J. Marples
Specialist in Public Finance

---

99 Options for addressing the deficit are addressed in CRS Report R45717, Addressing the Long-Run Deficit: A Comparison of Approaches, by Jane G. Gravelle and Donald J. Marples.
Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS’s institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.