



## Budget Model

# The Long-Run Fiscal and Economic Effects of the CARES Act

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**Summary:** PWBM estimates that the CARES Act increases GDP by about 5 percent in 2020 while lowering GDP by 0.2 percent in 2030.

### Introduction

The \$2.3 trillion [Coronavirus Aid, Relief and Economic Security \(CARES\)](#) Act provides immediate relief to households and businesses in the form of cash payments to low- and middle-income households, enhanced unemployment benefits, loans and grants to small businesses that maintain their payroll, and additional programs. [PWBM previously estimated](#) that the CARES Act would boost GDP by \$812 billion over the next two years, which is about a 5 percent increase through 2020.

This blog post pairs the PWBM [short-run forecasting model](#) with the PWBM [Dynamic OLG model](#) to report the long-run fiscal and economic impact of the CARES Act. We evaluate the long-term effects of the CARES Act under two recovery scenarios: a “V shape” recovery where the economy recovers by 2021, and a “U shape” recovery that is complete by 2023.<sup>1</sup>

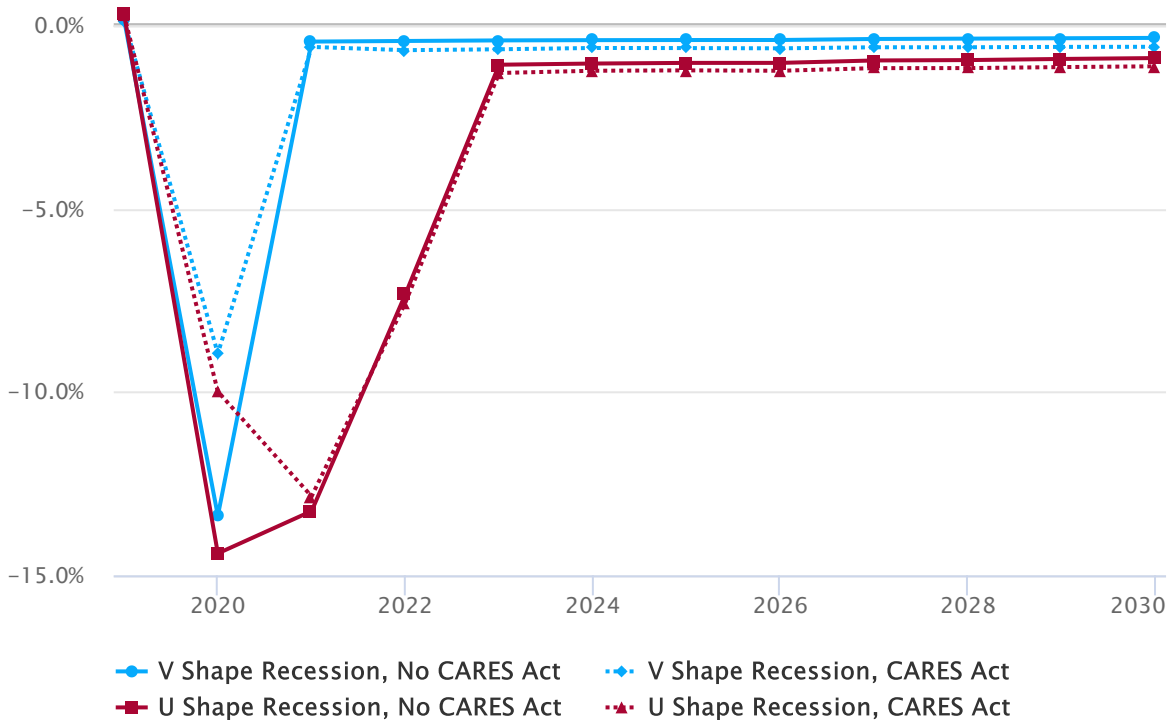
### The Recession

Figure 1 shows the simulated path of GDP for four different scenarios: the “V shape” recovery and the “U shape” recovery, each with and without the CARES Act. In all four scenarios, actual GDP is falling below “potential GDP,” defined as the maximum sustainable output of the economy. In the absence of the CARES Act, GDP falls 13 to 14 percent below potential in 2020 in the “V shape” and “U shape” recoveries. The CARES Act increases GDP by about 5 percent relative to either recovery unassisted by the CARES Act.

Figure 1. GDP Under Simulated Recession Scenarios with and without the CARES Act

Percent Deviation from Potential Output

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**The CARES Act**

The CARES Act was designed and passed to provide relief to households, governments, and businesses impacted by the 2020 coronavirus pandemic. It has a wide range of provisions including direct transfers to households, loans to business, tax deferrals, tax reductions, grants to state and local governments, and more.

In this analysis, we quantify the long-term effects of [\\$1.7 trillion of the spending and revenue changes](#) over ten years.<sup>2</sup> Although most of the spending is dedicated to direct payments to households, businesses, and governments in 2020 and 2021, some of the programs involve changes to the tax code, which lower personal and business taxes today but recoup some of the revenue in future years. For example, although the provision that suspends the required minimum distribution for retirement accounts costs about \$12 billion in 2020 and 2021, the money is taxed in the future and generates about \$7 billion in revenue in 2022 through 2030. Allowing businesses to offset 100 percent of net operating losses will cost the federal government \$89 billion in revenue through 2021, however, \$63 billion of that will be recovered in higher revenue from 2022 through 2030.<sup>3</sup> These future streams of revenue will help reduce the deficit and somewhat alleviate the crowding out effect.

**The Long-run Effects of the CARES Act**

Table 1 shows the 5- and 10-year macroeconomic effects of the CARES Act in both a “V shape” and a “U shape” recession.

## Table 1. Economic Effects of the CARES Act

*Percent Change from Economy without CARES Act*

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- "V Shape" Recession
- "U Shape" Recession

### "V Shape" Recession

Year	GDP	Capital stock	Average		Debt
			Hourly Wage	Hours Worked	
2025	-0.2%	-0.5%	-0.2%	0.0%	7.5%
2030	-0.2%	-0.6%	-0.2%	0.0%	7.5%

### "U Shape" Recession

Year	GDP	Capital stock	Average		Debt
			Hourly Wage	Hours Worked	
2025	-0.2%	-0.5%	-0.2%	0.0%	6.7%
2030	-0.2%	-0.6%	-0.2%	0.0%	6.7%

The CARES Act appropriates about \$1.7 trillion in additional, deficit-financed spending. This additional debt crowds-out private capital, which has long-lasting effects on wages and GDP. In the "V shape" recession, this additional spending leads to a 7.5 percent increase in the federal debt in both 2025 and 2030 compared to an economy without the CARES Act. This additional debt crowds out productive, private capital formation, which leads to a 0.5 and 0.6 percent drop in private capital in 2025 and 2030 respectively. Less capital makes each worker less productive, which is reflected in a 0.2 percent drop in wages. Furthermore, less capital leads to a 0.2 percent decline in GDP in both 2025 and 2030.

The economic effects of the CARES Act in a "U shape" recession are very similar. In [PWBM's earlier analysis](#), we found that a "U shape" recovery leads to significantly more federal debt than a "V shape" recovery in the absence of the CARES Act. Therefore, the CARES Act raises the federal debt by 6.7 percent in 2030, which is less in percentage terms, even if the additional debt from the CARES Act is the same in dollars. The effects of the debt are very similar: The additional debt crowds out private capital, which falls by 0.5 and 0.6 percent in 2025 and 2030. This leads to a 0.2 percent fall in wages in the same years. The lower capital also leads to a 0.2 decline in GDP in both 2025 and 2030.

The deficit-financed CARES Act provides a short-term boost to GDP as well as relief to families, workers, business owners, health care institutions, and governments affected by the pandemic. Moreover, the relief can be especially valuable to people who have lost their jobs and businesses that are no longer able to produce goods and services in this environment. Nonetheless, without fiscal policy to reduce the debt in future years, the CARES Act will result in a small but long-term decline in GDP as the additional debt crowds out private capital and lowers wages.

*This analysis was produced by [Marcos Dinerstein](#) and [Jon Huntley](#).*

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1. Some forecasters anticipate the economic recovery having a “[W shape](#),” which is defined by quarterly output fluctuations that move as the pandemic intensifies and wanes. The quarterly fluctuations that define the “W shape” smooth into a “V shape” or a “U shape” in PWBM’s Dynamic OLG model, which simulates the economy at a yearly frequency. ↩
2. As discussed in PWBM’s previous work on the short-term effects of the CARES Act, \$454 billion is used to insure the Federal Reserve against losses in its loan facilities. As we do not know how much takeup there will be in this program or what the losses might be (if any), we exclude this component from the analysis. ↩
3. These calculations are based on CBO’s revised April 27, 2020 estimates. ↩