

Economic Impacts of COVID-19 and Restarting the Economy

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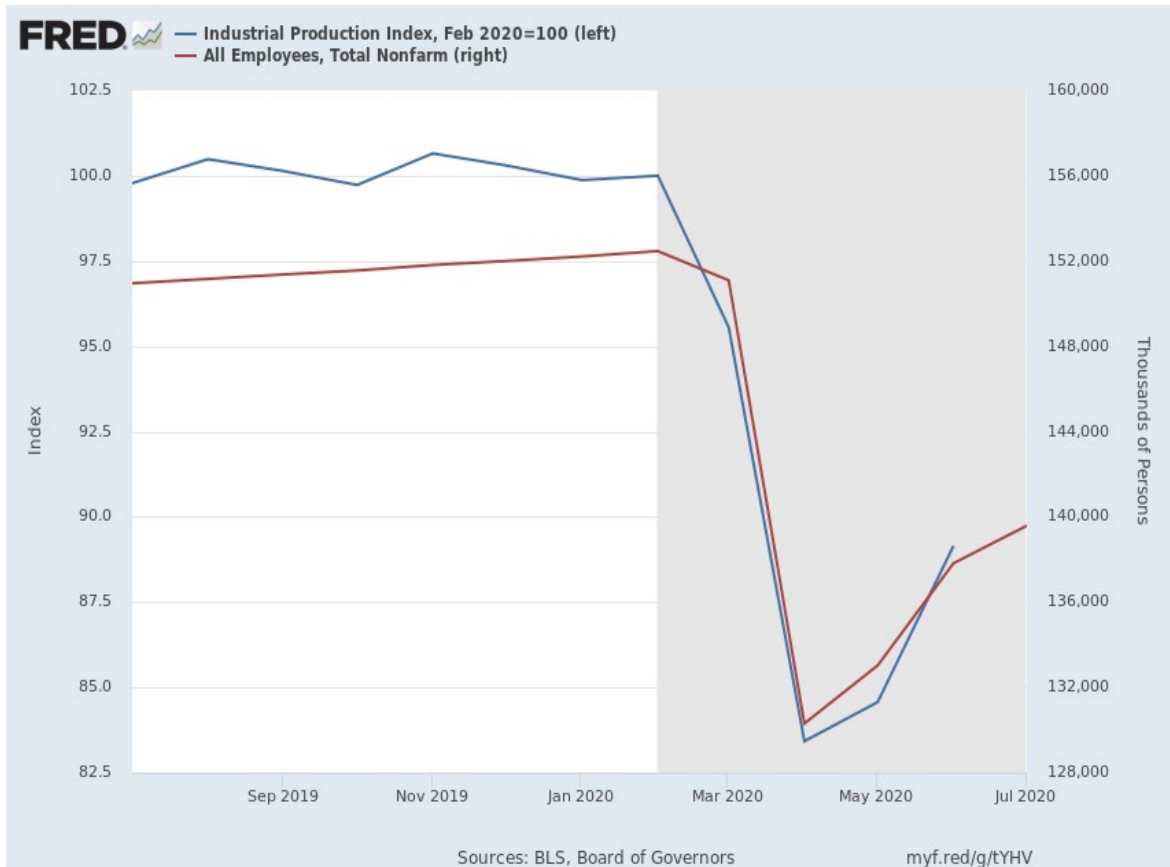
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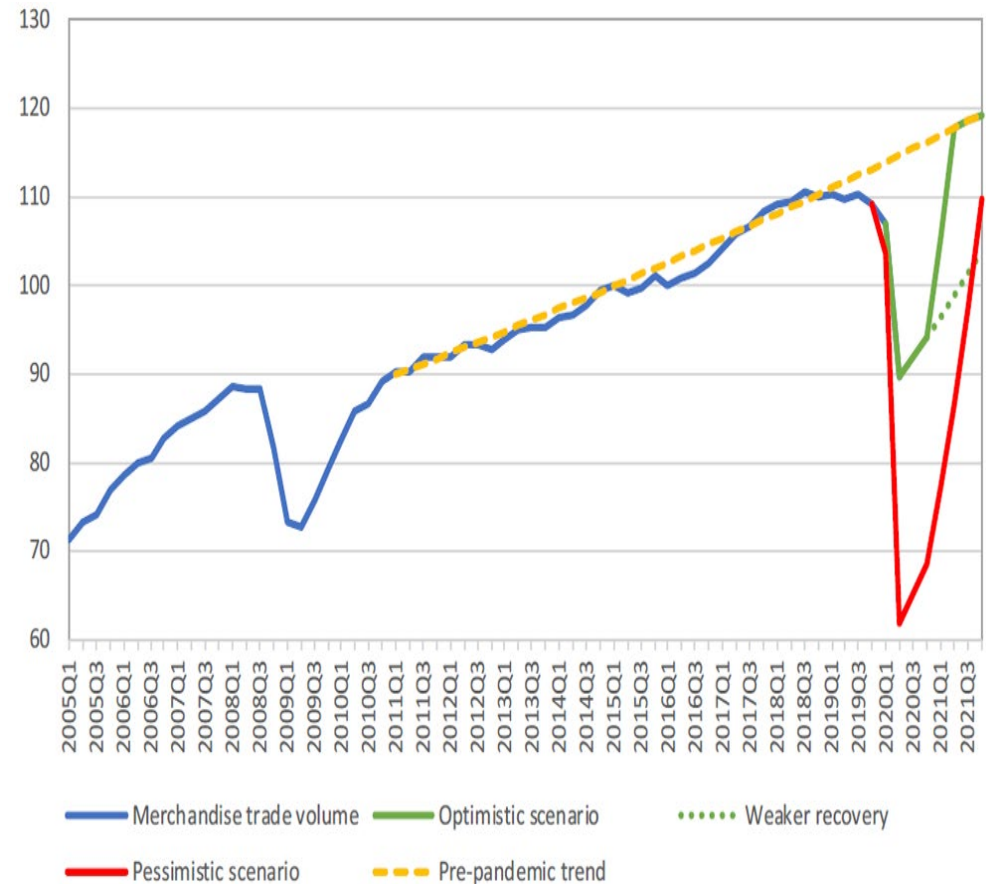
Economic Impacts of COVID-19

- Immediate Impacts
 - Unprecedented collapse of production, trade, and employment
 - Dramatic increase in personal saving rate
- Macroeconomic Policies to Resuscitate the Economy
 - Monetary Policy: what is left in the toolkit?
 - Fiscal Policy: negotiations continue
- Long-term Consequences
 - Impacts on Government Budget Deficits and Debt
 - Implications for Funding of Research and Development
- Global Spillovers

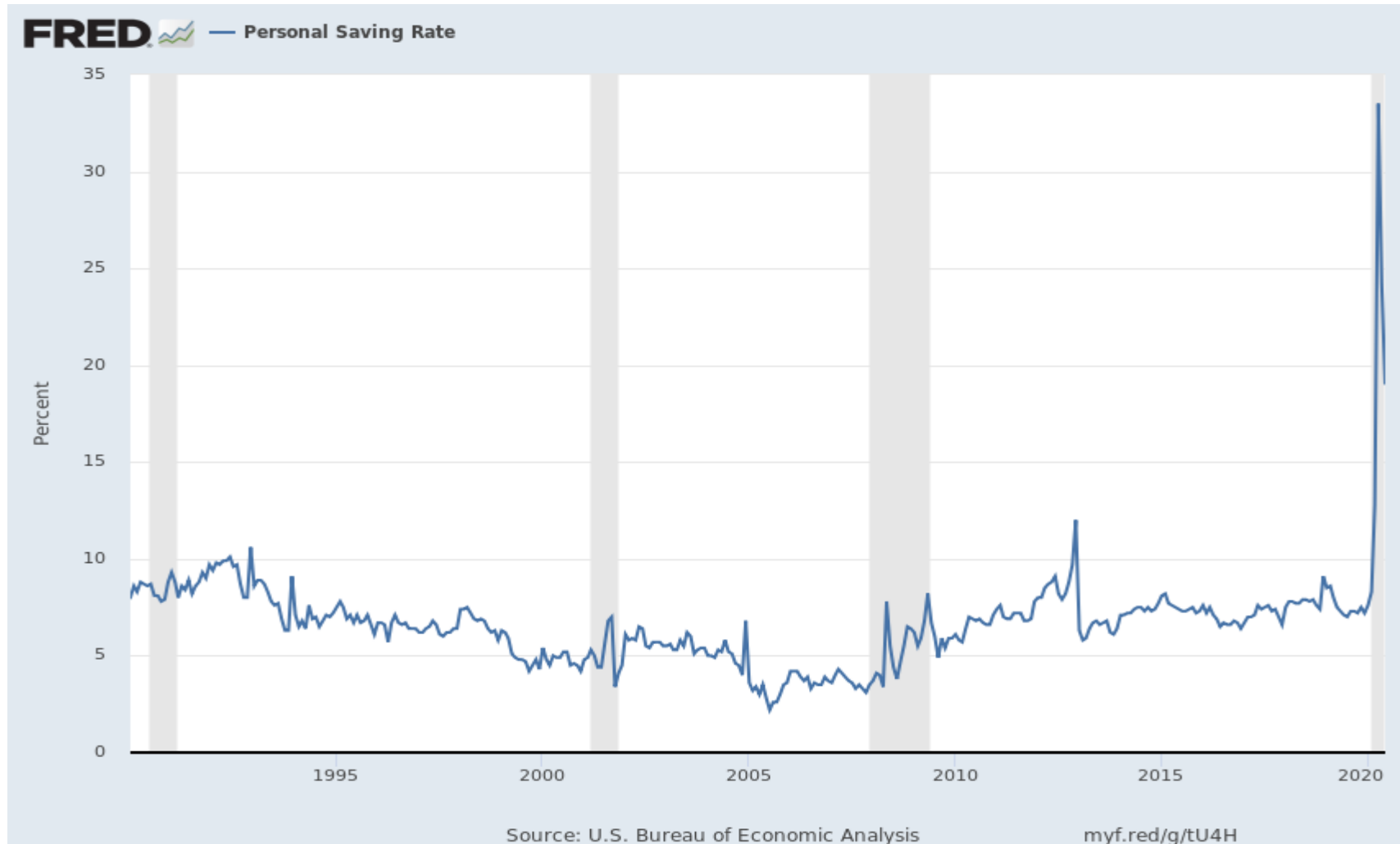
Impacts to US Industrial Production, US Employment and World Trade



World Merchandise Trade Volume, 2005-2021Q4



Dramatic Rise in US Personal Savings



Households that can save, are saving more, largely because they are not going out to restaurants, spending on entertainment, or travel.

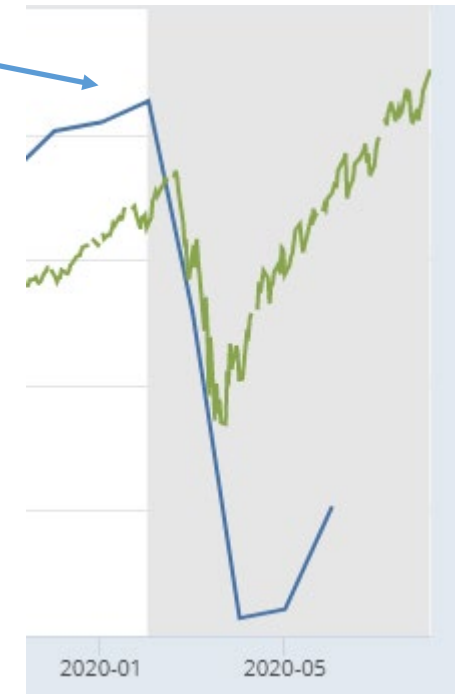
These savings could fund investment in the economy.

Disconnect Between Consumer Sentiment and the Stock Market



In April 2020 US unemployment hit 14.7% and consumer sentiment suffered a record drop

2020

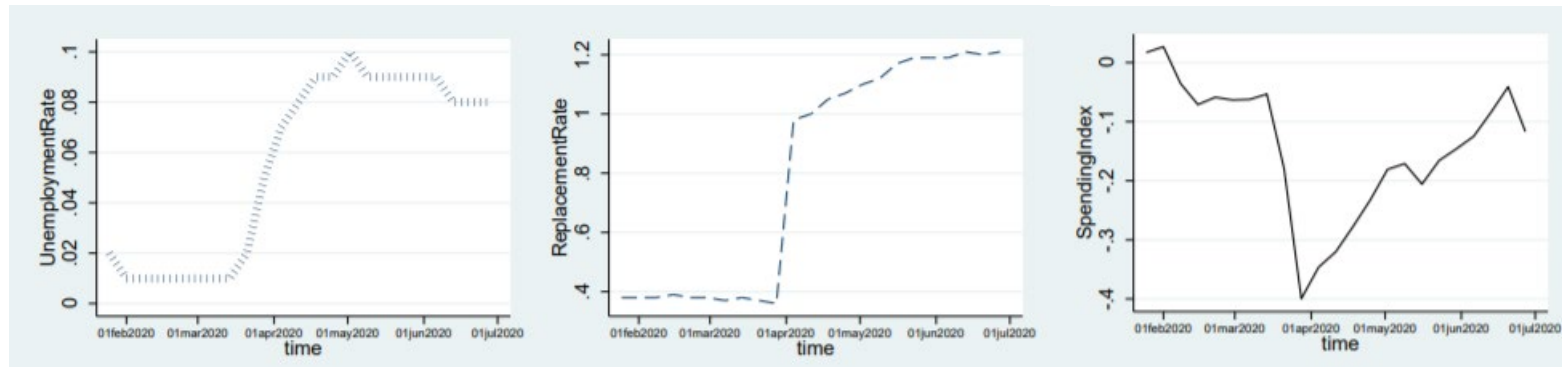


Macro Policies to Resuscitate the Economy

Uncertainty about the evolution of COVID-19 and its legacy acts like a (negative) demand shock, lowering consumption and private-sector investment. Current US macro stabilization policies include:

- Monetary Policy: near-zero interest rates, securities purchases (QE), direct lending to banks, corps and state & municipal govts, international swap lines. Fed balance sheet increased from \$4.7T (March) to \$7T (August).
 - What is left in tool-kit? negative interest rates, further expansion of lending facilities, further forward guidance messaging
- Fiscal Policy: Paycheck Protection Program (\$483B), CARES Act (\$2.3T), Supplemental (health care related) Program (\$192B)
 - negotiations ongoing for additional relief appropriations
 - current focus is still on “stabilization” not “stimulus”

Initial Estimates from CARES Act



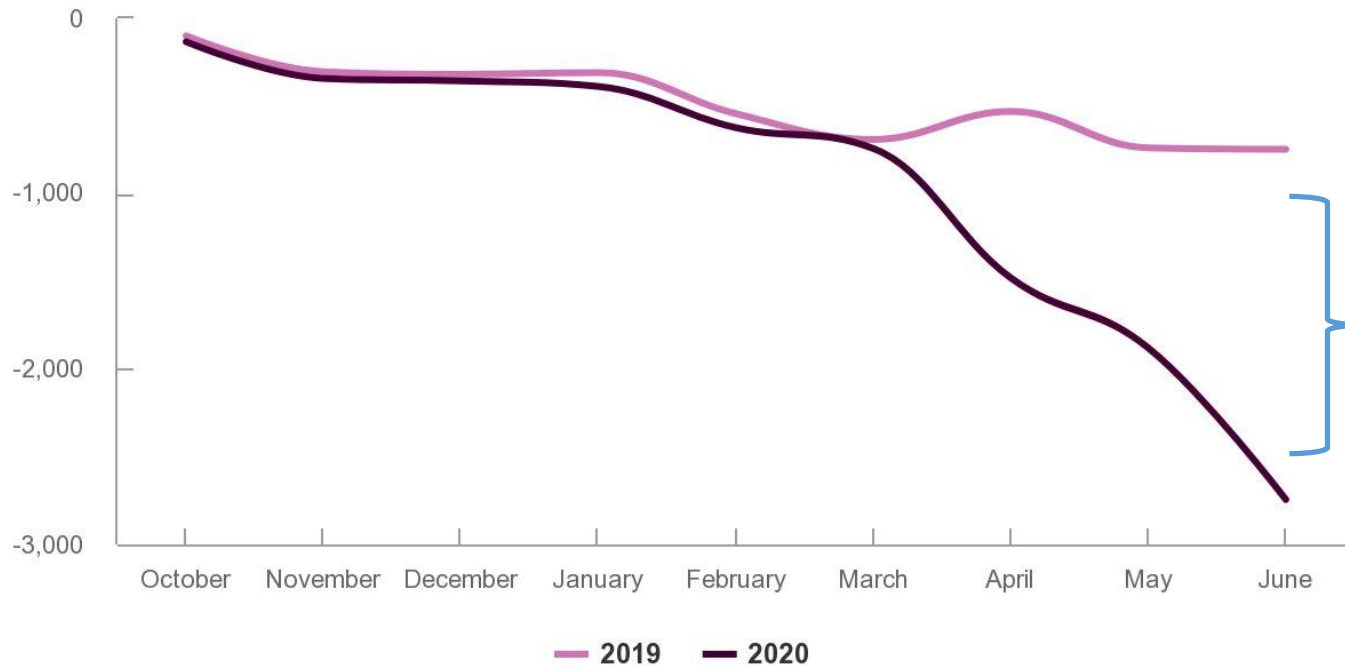
Figures shows the trends in unemployment rates, earnings replacement rates and spending over time for Illinois. The shock of the pandemic is apparent: we see a massive drop in consumer spending and a large spike in unemployment. The immediate effect of the CARES Act is also apparent in both the sharp increase in earnings replacement (in excess of 100%), as well as in the sharp – and immediate - increase in consumer spending, despite continued high levels of unemployment. Estimates suggest that eliminating the Federal Pandemic Unemployment Compensation (\$800) supplement will lead to a 44% decline in local spending in Illinois.

Source: “The Effect of Fiscal Stimulus: Evidence from COVID-19,” Miguel Garza Casado, Britta Glennon, Julia Lane, David McQuown, Daniel Rich, and Bruce A. Weinberg, NBER Working Paper No. 27576, August 2020.

CBO estimate of federal budget deficit (as of June 2020)

**Monthly Cumulative Deficits
Fiscal Years 2019 and 2020**

Billions of Dollars

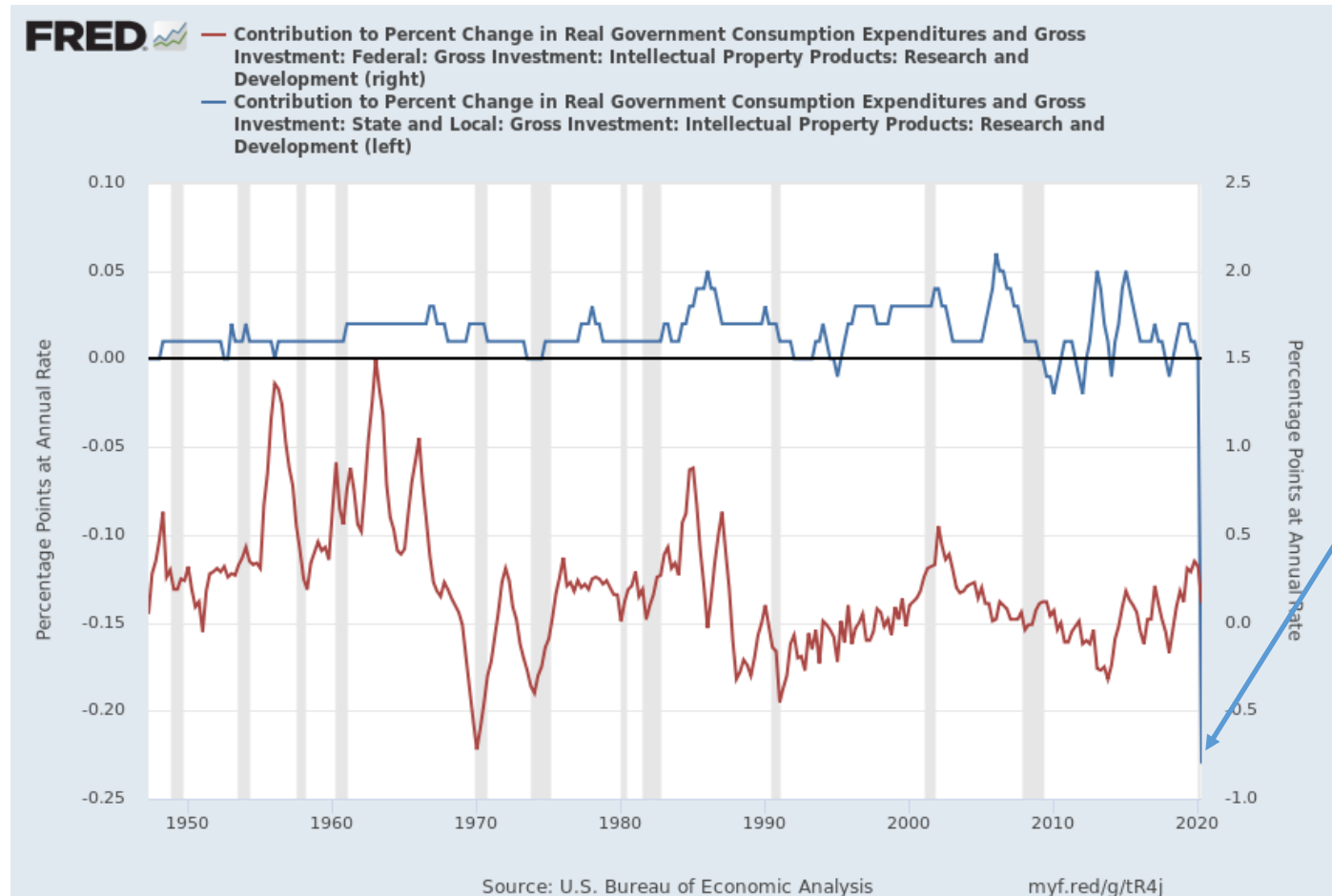


Total receipts down by 13% in first 9 months of fiscal year
Total outlays up by 49% in first 9 months of fiscal year

Estimated increase in deficit stems from the economic disruption caused by pandemic and from the federal govt's response to it (including the Paycheck Protection Program – which accounted for almost half the govt's spending in June 2020).

Sources: Congressional Budget Office; Department of the Treasury.
The value shown for June 2020 is CBO's estimate.

Federal and State & Local Expenditures on Research and Development



Dramatic recent decline (-23%) in State & Local contributions

Federal R&D Funding FY2020 pre-COVID WH funding request

(budget authority, dollar amounts in millions)

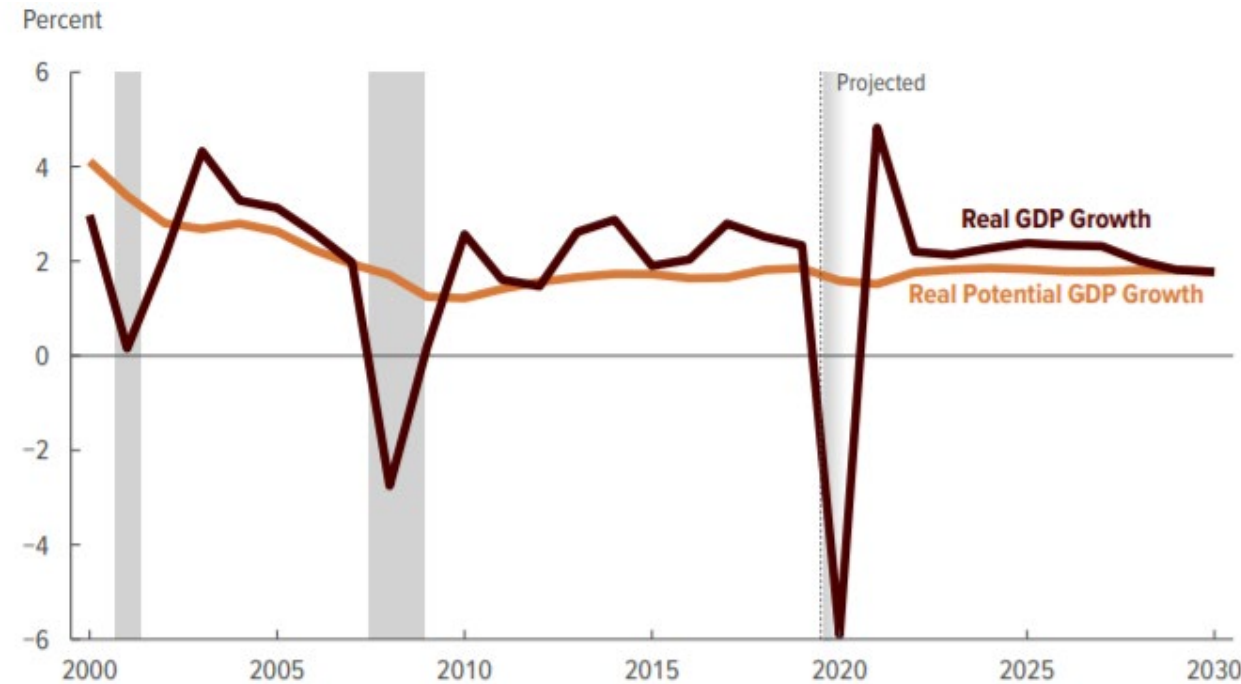
Character of Work, Facilities, and Equipment	FY2018 Actual	FY2020 Request	Change, FY2018-FY2020	
			Dollars	Percent
Basic research	36,616	35,164	-1,452	-4.0%
Applied research	40,707	36,443	-4,264	-10.5%
Development	54,565	59,108	4,543	8.3%
Facilities and Equipment	3,877	3,382	-495	-12.8%
Total	135,765	134,097	-1,668	-1.2%

Source: CRS analysis of data from EOP, OMB, *Analytical Perspectives, Budget of the United States Government, Fiscal Year 2020, Research and Development*, March 18, 2019, pp. 271-272, https://www.whitehouse.gov/wp-content/uploads/2019/03/ap_21_research-fy2020.pdf.

Note: Components may not sum to totals due to rounding.

According to *Analytical Perspectives*, the President's FY2020 budget prioritizes R&D aimed at advances in manufacturing and the integration of those advances into the domestic supply chain to reduce U.S. reliance on foreign sources of critical products. Budget priorities include intelligent manufacturing systems, materials and processing technologies, advances in semiconductor design and fabrication, and innovations in food and agricultural manufacturing. Other initiatives include the Cancer Moonshot, the Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative, the Precision Medicine Initiative (PMI), the Materials Genome Initiative (MGI), and an effort to double federal funding for clean energy R&D.

Growth of Real US GDP and CBO's Estimate of Real Potential GDP Growth



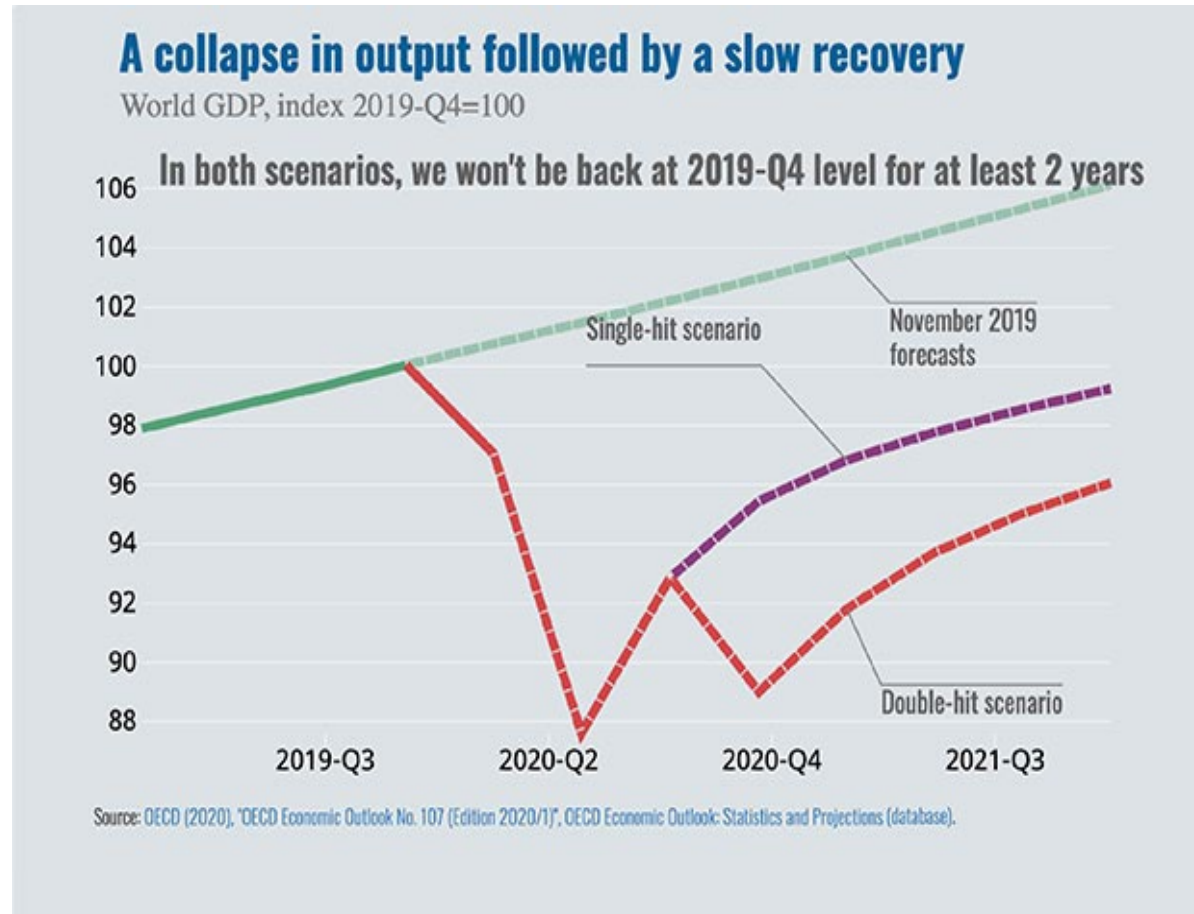
In the second quarter of 2020, the coronavirus pandemic and associated social distancing triggered a sharp contraction in output, ending the longest economic expansion since World War II. In CBO's projections, real GDP grows rapidly in the second half of 2020 and the first half of 2021. Strong GDP growth continues thereafter but at a slower pace.

The shaded vertical bars indicate periods of recession, which extend from the peak of a business cycle to its trough. The National Bureau of Economic Research (NBER) has determined that an expansion ended and a recession began in February 2020. Although the NBER has not yet identified the end of that recession, CBO estimates that it ended in the second quarter of 2020.

OECD's World GDP (2-scenario) Forecasts

Double-hit scenario: A second wave of infections hits before year-end

- A renewed outbreak of infections triggers a return to lock-downs.
- World economic output plummets 7.6% this year, before climbing back 2.8% in 2021.
- The OECD unemployment rate nearly doubles to 10% with little recovery in jobs by 2021.



Single-hit scenario: A second wave is avoided

- Global economic activity falls 6% in 2020 and OECD unemployment climbs to 9.2% from 5.4% in 2019.
- Living standards fall less sharply than with a second wave but five years of income growth is lost across the economy by 2021.