

Economics 442
Macroeconomic Policy
10/14/2020

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UW Madison
Fall 2020

Outline

- More on “Post-Lockdown, Pre-Vaccine” policy
- “Post-vaccine” policy
- International dimensions

More on “Post-Lockdown, Pre-Vaccine” Policy

A New Fiscal Package?

- Currently (10/11) no agreement between Admin, Senate, House on new fiscal package
- Admin at \$1.8 trn or higher? House at \$2.2 trn. Senate \$500 billion (for PPP, funding for schools, hospitals), incl. liability protection
- Can ask what happens if smaller packages implemented.

Impact of Additional Fiscal Measures

From Edelberg-Sheiner, Brookings Institution

<https://www.brookings.edu/research/what-could-additional-fiscal-policy-do-for-the-economy-in-the-next-three-years/>

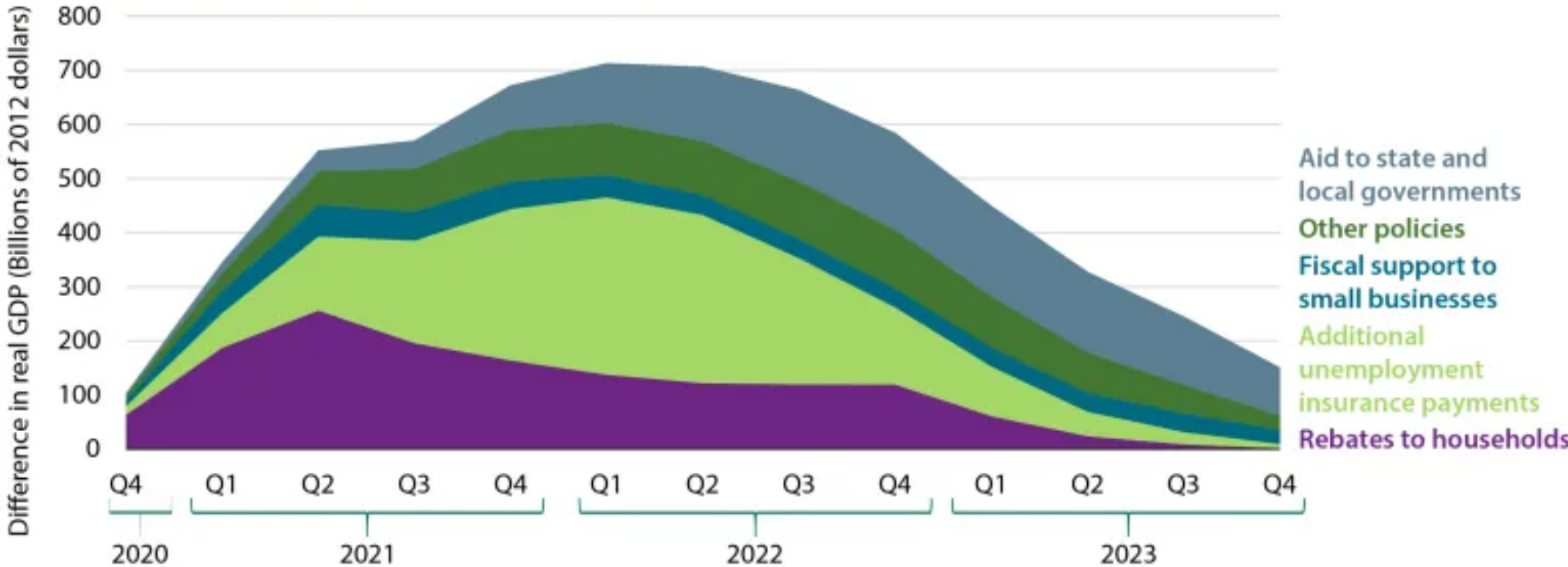
- **Rebates to households:** Rebate checks of up to \$1700 per adult and a child tax credit of \$700 for the same households.
- **Additional Unemployment Insurance payments:** An increase in unemployment insurance (UI) benefits of an additional \$300 per week for 12 months; and a 12-month extension of the CARES Act UI eligibility expansions to the self-employed, gig workers and those with insufficient work history for regular UI, which are set to expire at the end of 2020.

Impact of Additional Fiscal Measures

- **Aid to state and local governments:** An increase in general aid to state and local governments totaling \$400 billion, disbursed over eight quarters.
- **Fiscal support to small businesses:** Another round of policy similar to the Paycheck Protection Program, totaling \$400 billion in grants to small businesses, disbursed over four quarters (with three-quarters going out within two quarters).
- **Other policies:** Additional \$400 billion for COVID-19 testing and contact tracing, higher education, and airlines.

Impact of Additional Fiscal Measures

FIGURE 1.
Effect of Illustrative Policies on the Level of Real GDP



Source: Authors' calculations.
Note: For details on the underlying methodology, please refer to the technical appendix.

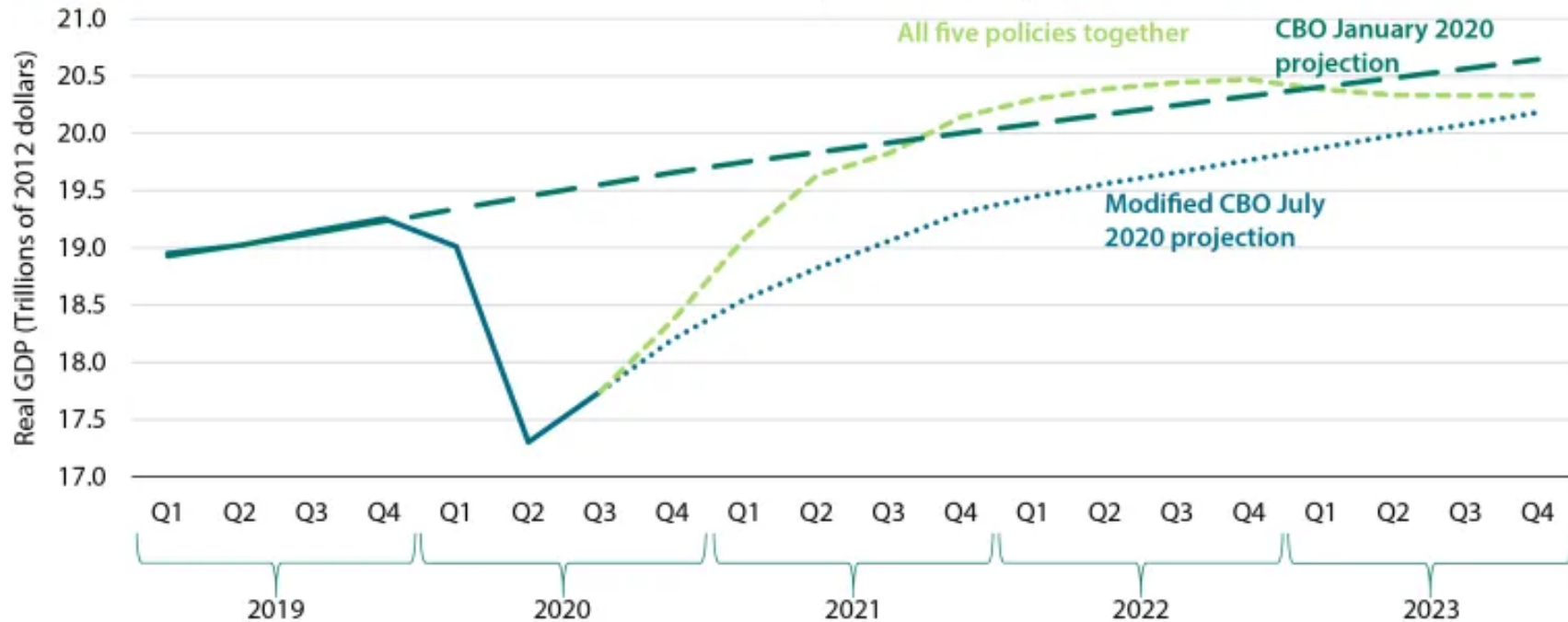


https://www.brookings.edu/wp-content/uploads/2020/10/fiscalstimulus_technicalappendix_FINAL_updated.pdf

Impact of Additional Fiscal Measures

FIGURE 2.

Projections of Real GDP, All Five Policies versus CBO January and July 2020 Projections



Source: Congressional Budget Office 2020a and 2020b; authors' calculations.
 Note: For details on the underlying methodology, please refer to the technical appendix.



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Impact of Additional Fiscal Measures

TABLE 1.

Effect of Illustrative Policies on Real GDP Growth and the Effect on GDP per Dollar

	Effect on real GDP growth by year (percentage points)				Cumulative increase in nominal GDP per dollar of federal outlays (ratio)
	2020	2021	2022	2023	2020 - 2023
All five policies together	0.9	3.6	-0.8	-2.8	0.9
Rebates to households	0.3	0.5	-0.2	-0.6	1.0
Additional unemployment insurance payments	0.1	1.4	-0.7	-0.7	1.3
Aid to state and local governments	0.0	0.4	0.5	-0.5	1.0
Fiscal support to small businesses	0.1	0.2	-0.1	0.0	0.4
Other policies	0.0	0.5	0.1	-0.4	0.7

Source: Authors' calculations.

Note: For details on the underlying methodology, please refer to the technical appendix.

 Hutchins Center
on Fiscal & Monetary Policy
at BROOKINGS

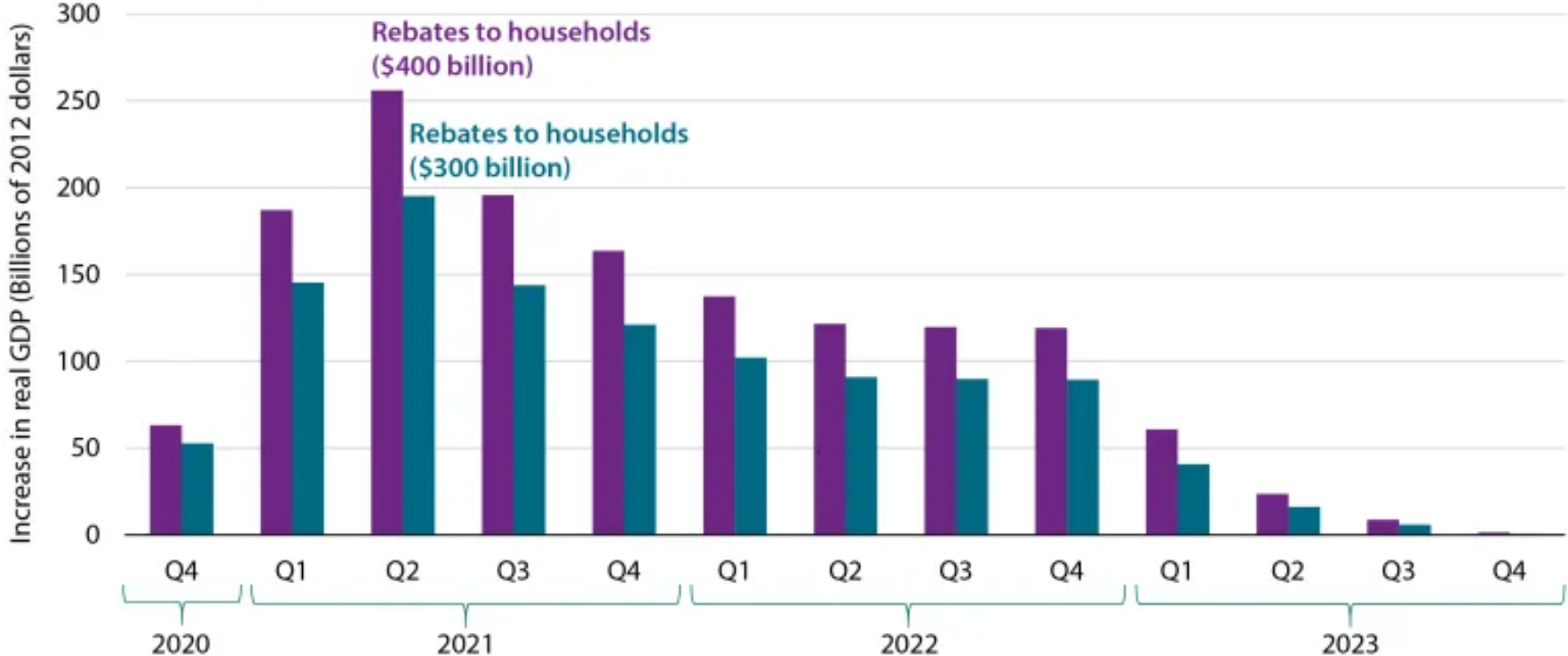
 THE HAMILTON
PROJECT

https://www.brookings.edu/wp-content/uploads/2020/10/fiscalstimulus_technicalappendix_FINAL_updated.pdf

Impact of Additional Fiscal Measures

FIGURE 3.

Effect on Real GDP of Rebates to Households, \$400 Billion versus \$300 Billion



Source: Authors' calculations.
 Note: For details on the underlying methodology, please refer to the technical appendix.



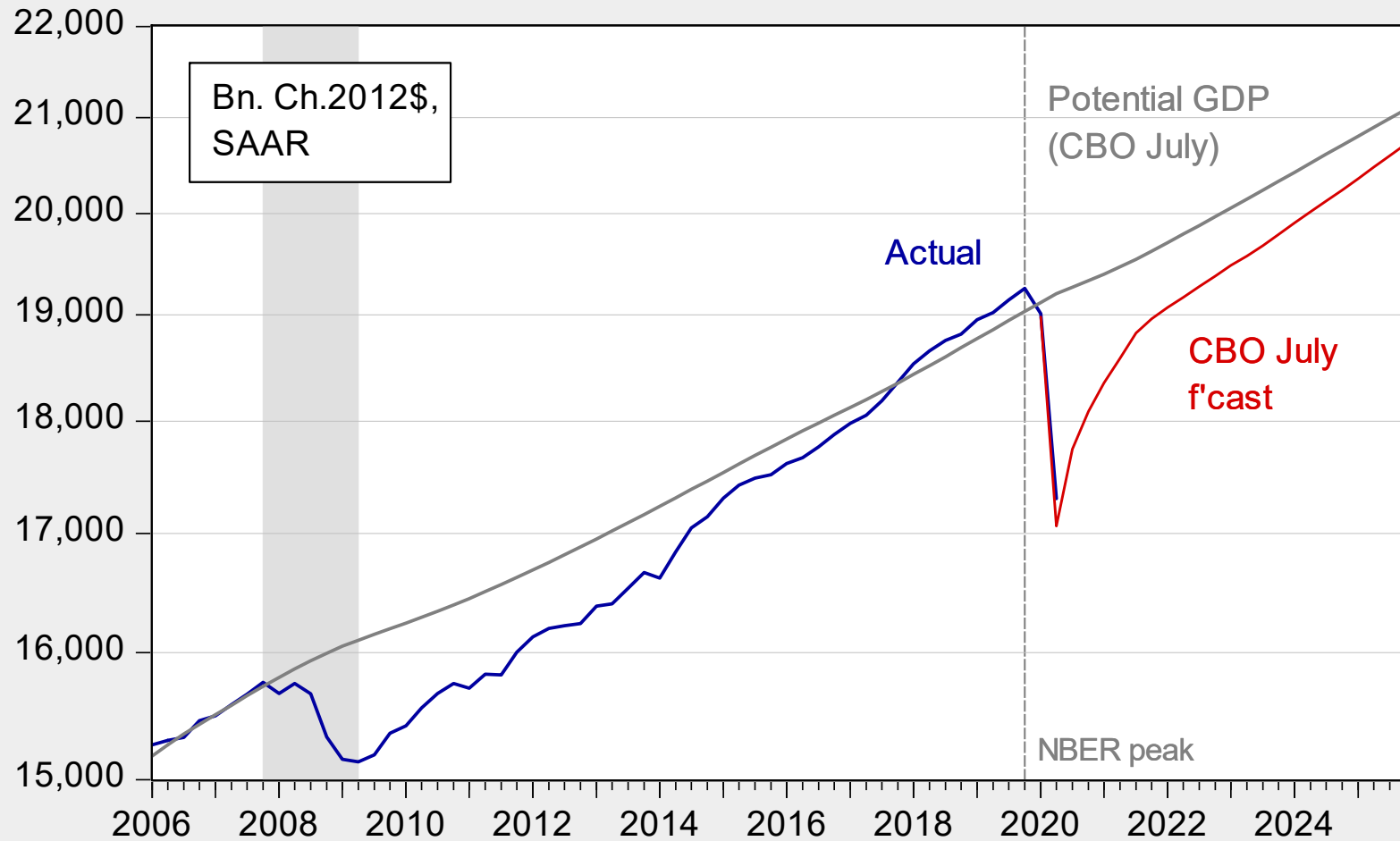
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“Post-Vaccine” Policy

Short Term Shock, Long Term Hit?

- How to prevent a semi-permanent hit to trend output and unemployment
- This relates to “scarring” of the economy
- The negative shock (pandemic impact on public health) is temporary
- But the effects may be propagated

Potential GDP



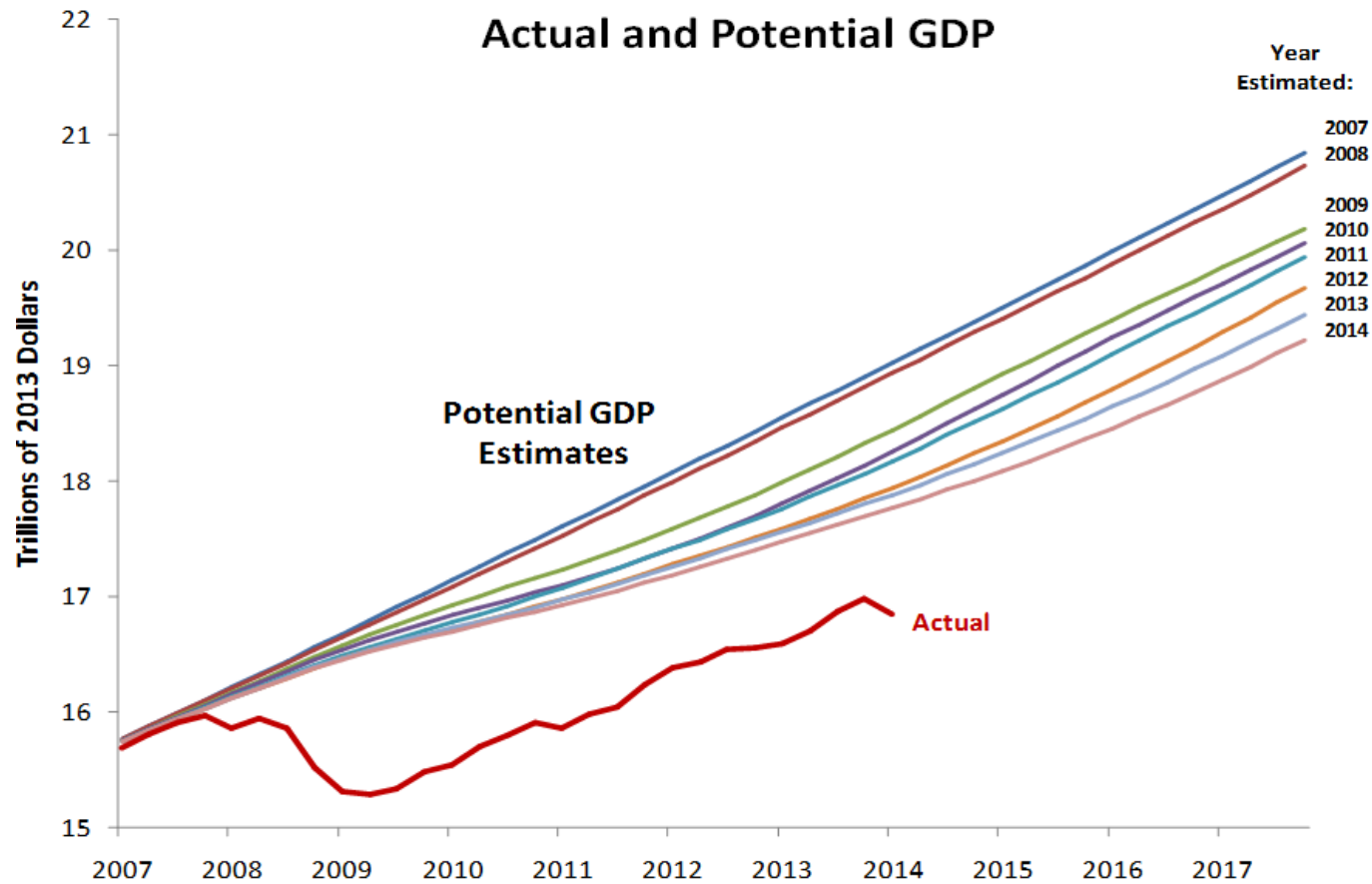
Potential GDP

- Usually we assume Y does not affect Y_n
- (Of course by our AD-AS model, Y_n must affect Y)
- But this is an approximation
- Y affects Investment, which determines how much capital each worker has
- Y likely affects human capital
- Long term unemployment affects whether one can stay in the labor force
- If recession is short, small, then these effects are small

Potential GDP

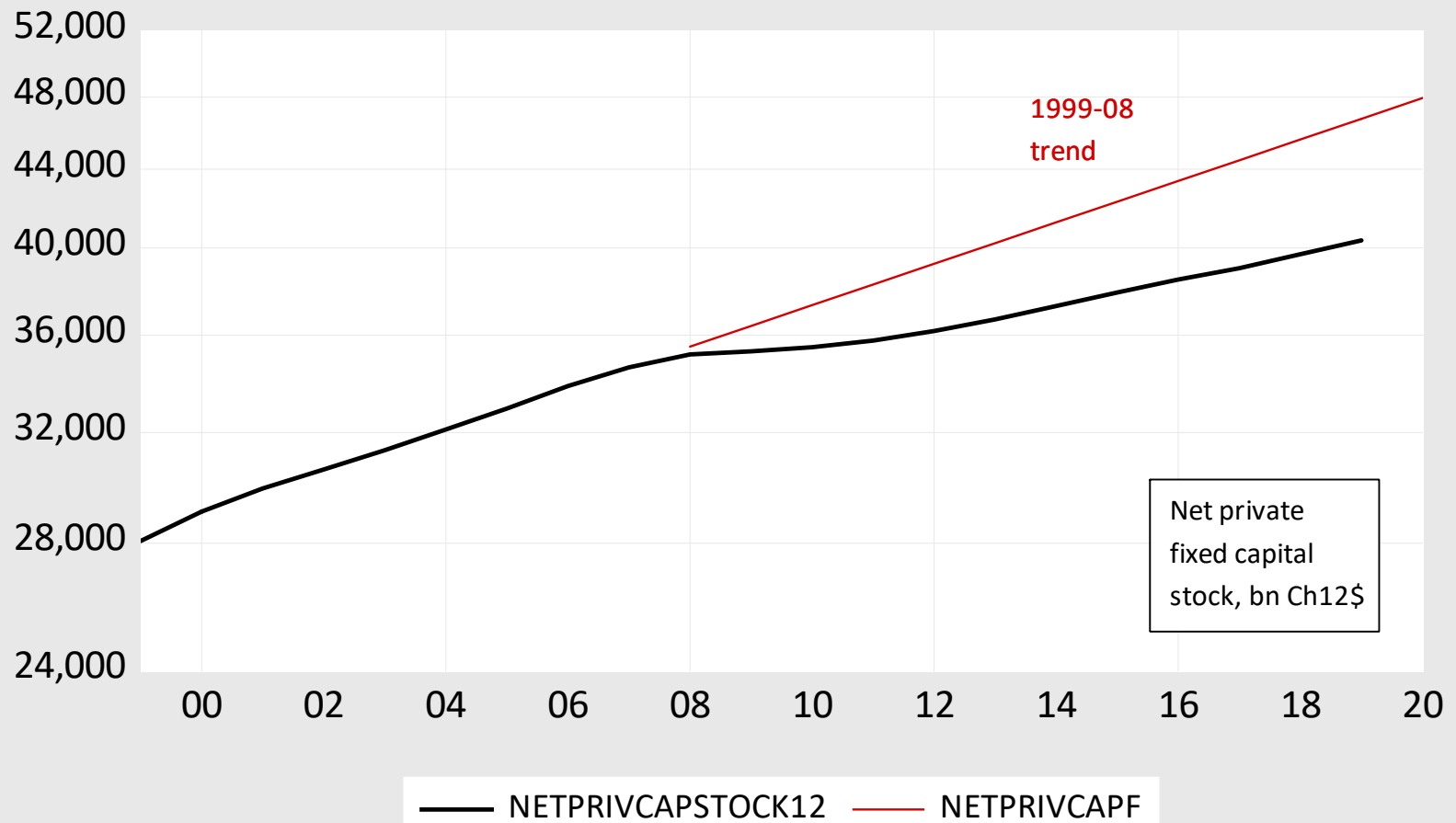
- A cautionary note from the last recession
- Output fell substantial (the biggest recession since the Great Depression)
- Recovery was very slow, relatively speaking
- Investment was depressed
- Many people dropped out of the labor force

Potential GDP



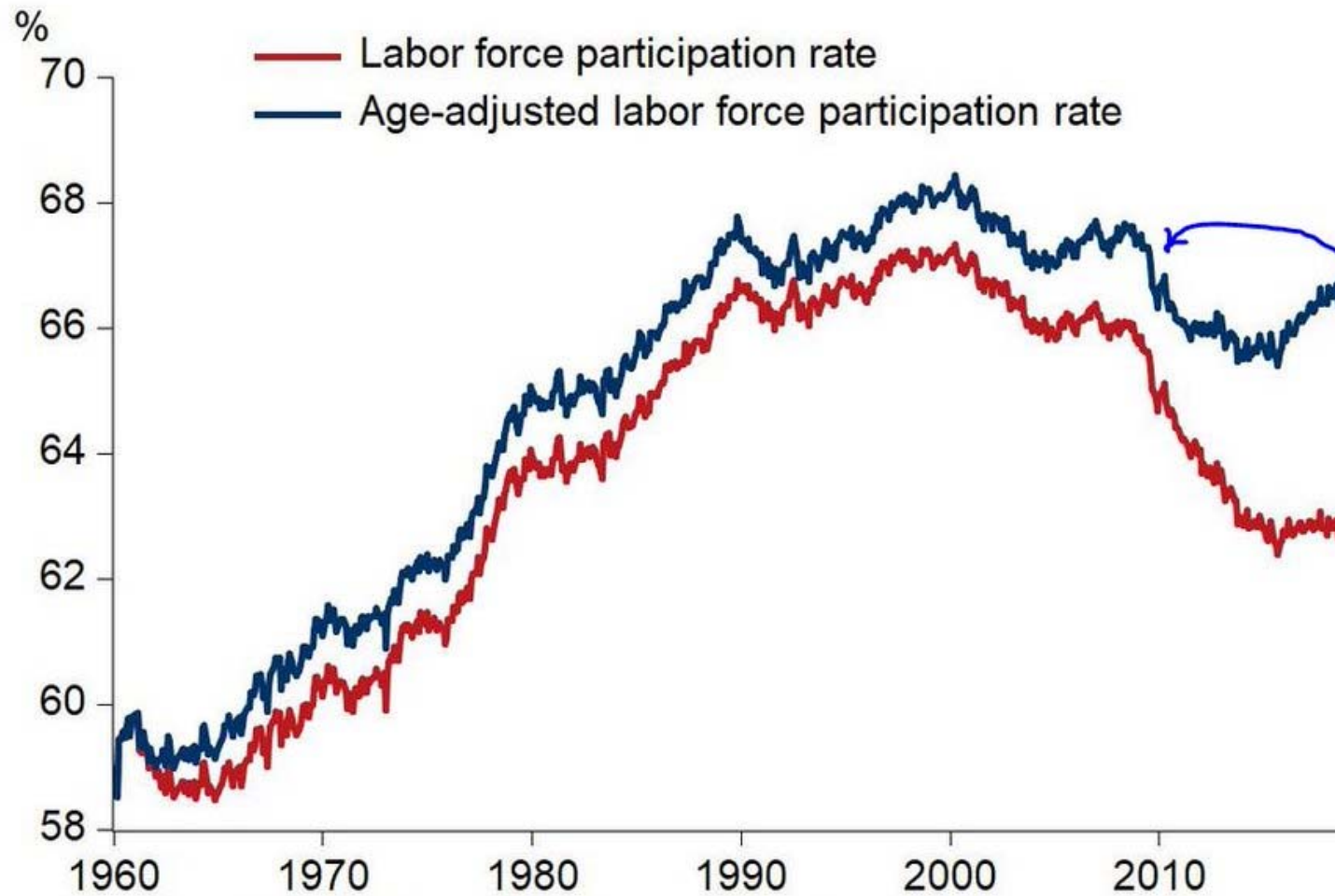
Summers, Reflections on the new 'Secular Stagnation hypothesis', VoxEU, 2014

The Capital Stock



Labor Force

US: Age-adjusted labor force participation rate



Source: Oxford Economics/Haver Analytics

How to Stop the Scarring Effect?

Keep aggregate demand high

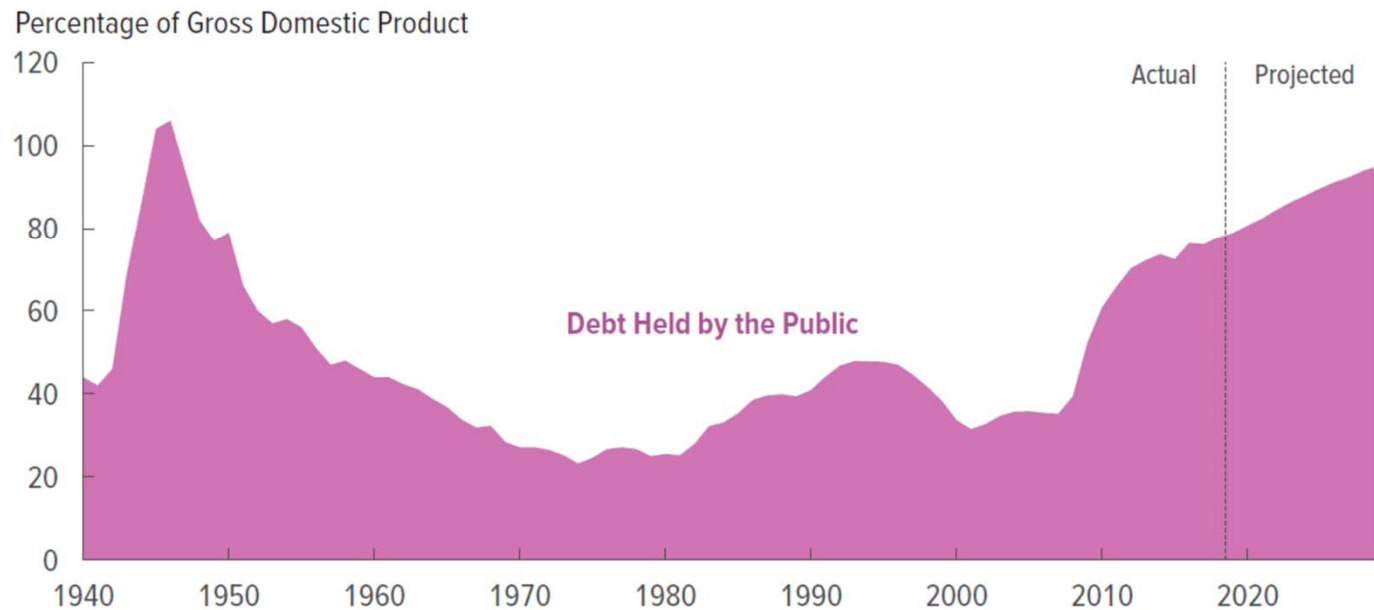
- By maintaining household income (enhanced UE payments)
- By keeping firms in business (Paycheck Protection Program, etc).
- By keeping government spending up (transfers to the states, local governments)

But implies accumulation of government debt

Debt Accumulation

Debt

Federal debt held by the public is projected to rise steadily over the coming decade, from 79 percent of GDP in 2019 to 95 percent of GDP in 2029. It would continue to grow after 2029.

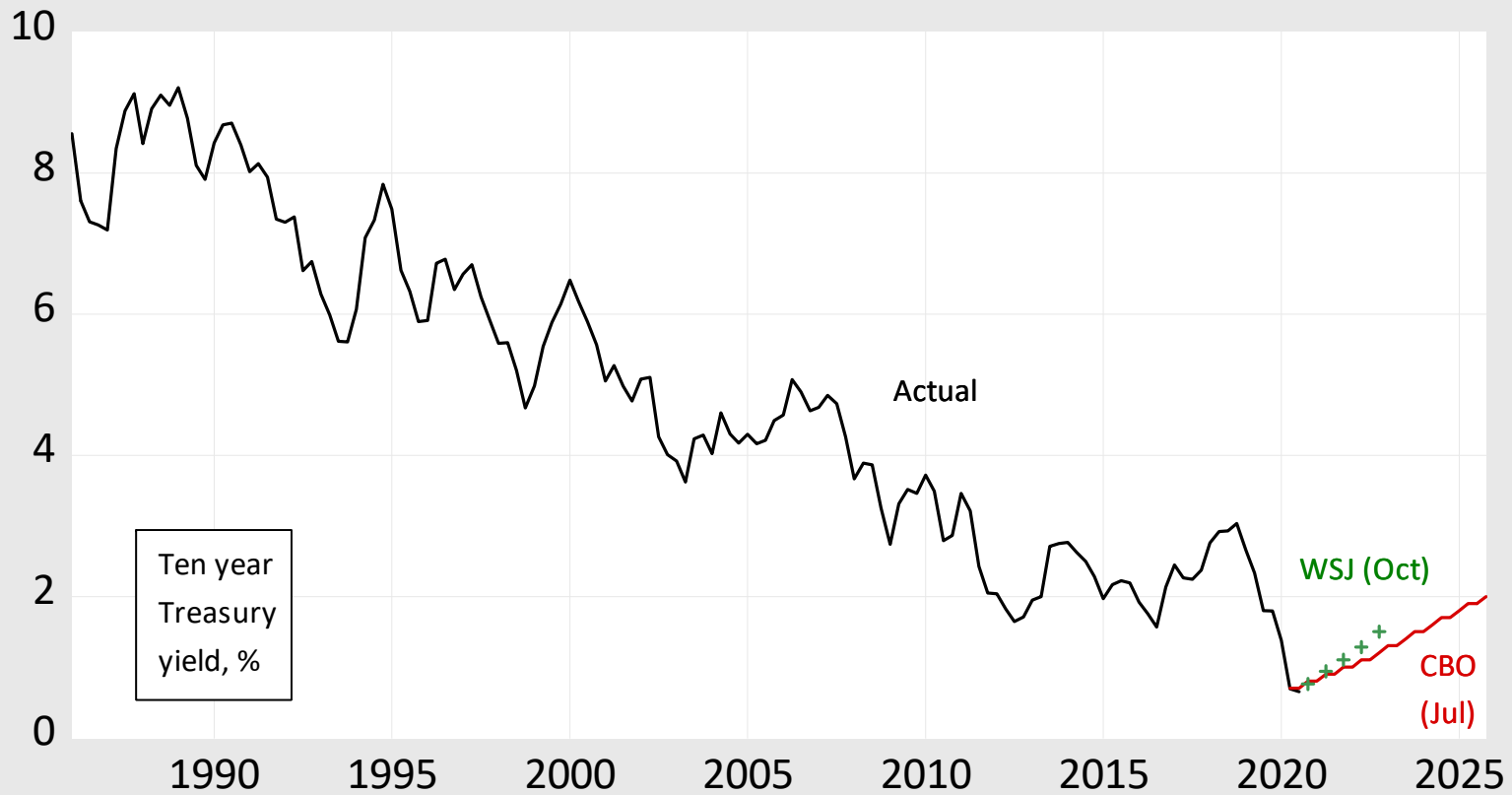


Relative to the size of the economy, federal debt in 2019 is projected to be nearly twice its average over the past 50 years. At the end of 2029, debt is projected to reach a higher level than it has at any point since just after World War II.

See Figure 1-4

CBO, Update to Econ and Budget Outlook, August 2020

Government Borrowing Costs Are Low



International Dimensions

Macroeconomic Interactions

- Countries are tied together by exports and imports
- Holding all else constant, more exports = more GDP, employment
- Countries are tied together by financial capital flows
- These flows drive interest rates together, and move exchange rates
- Which affect trade flows

Macroeconomic Interactions

- If all countries expand simultaneously, each country's GDP will tend to expand
- And multipliers for fiscal policy will tend to be bigger
- If all countries contract simultaneously, each country's GDP will tend to contract
- If some countries push interest rates lower than others, then those countries will tend to export more, import less, and have higher GDP
- Given these effects, we might want to coordinate

Figure 1.1. Industrial Production and Retail Sales

(Index, December 2019 = 100; seasonally adjusted)

Retail sales have generally recovered stronger than industrial production.

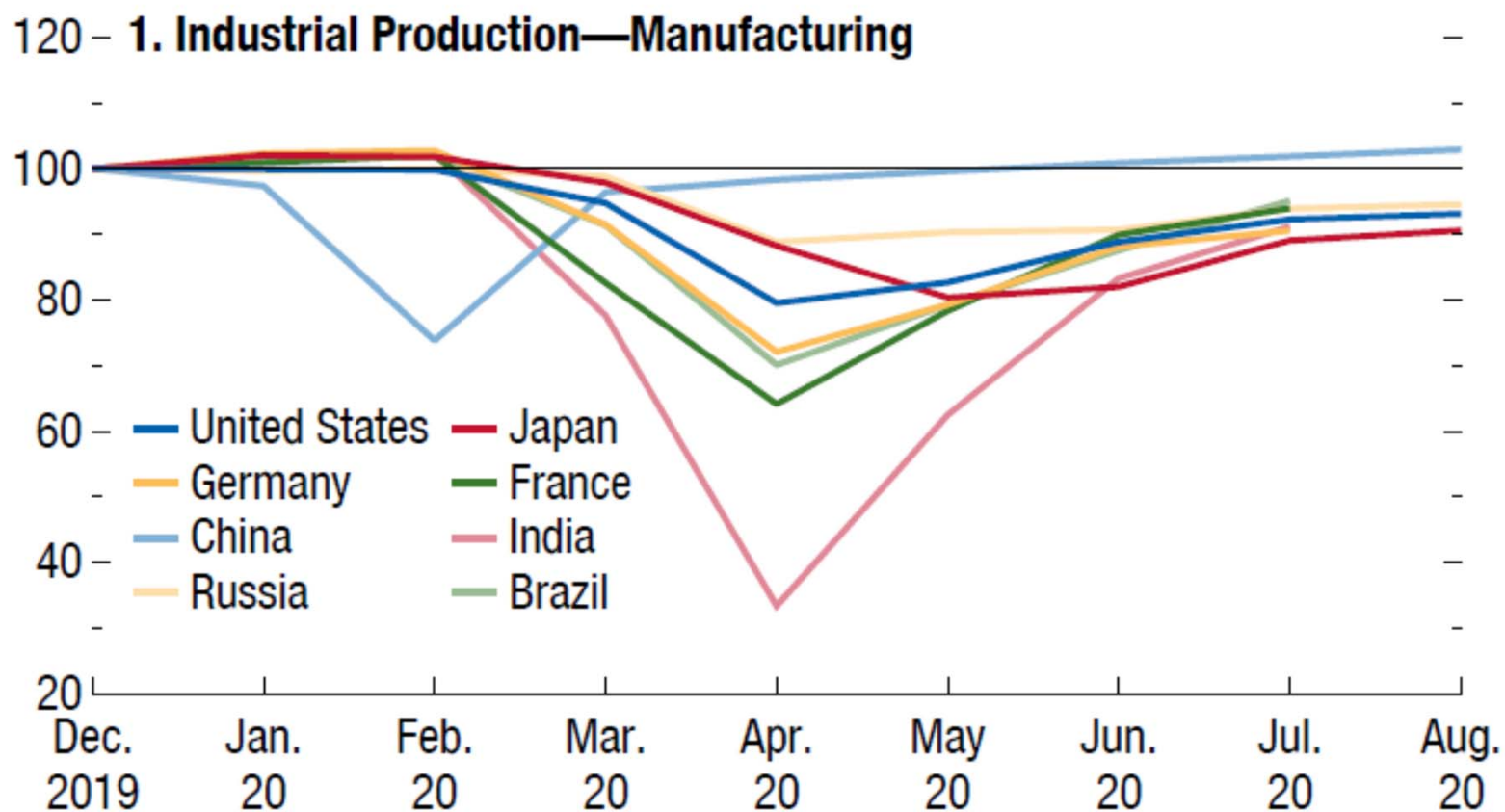


Figure 1.2. Global Activity Indicators

(Three-month moving average, annualized percent change; deviations from 50 for manufacturing PMI, unless noted otherwise)

Global trade and industrial production picked up as lockdowns were eased.

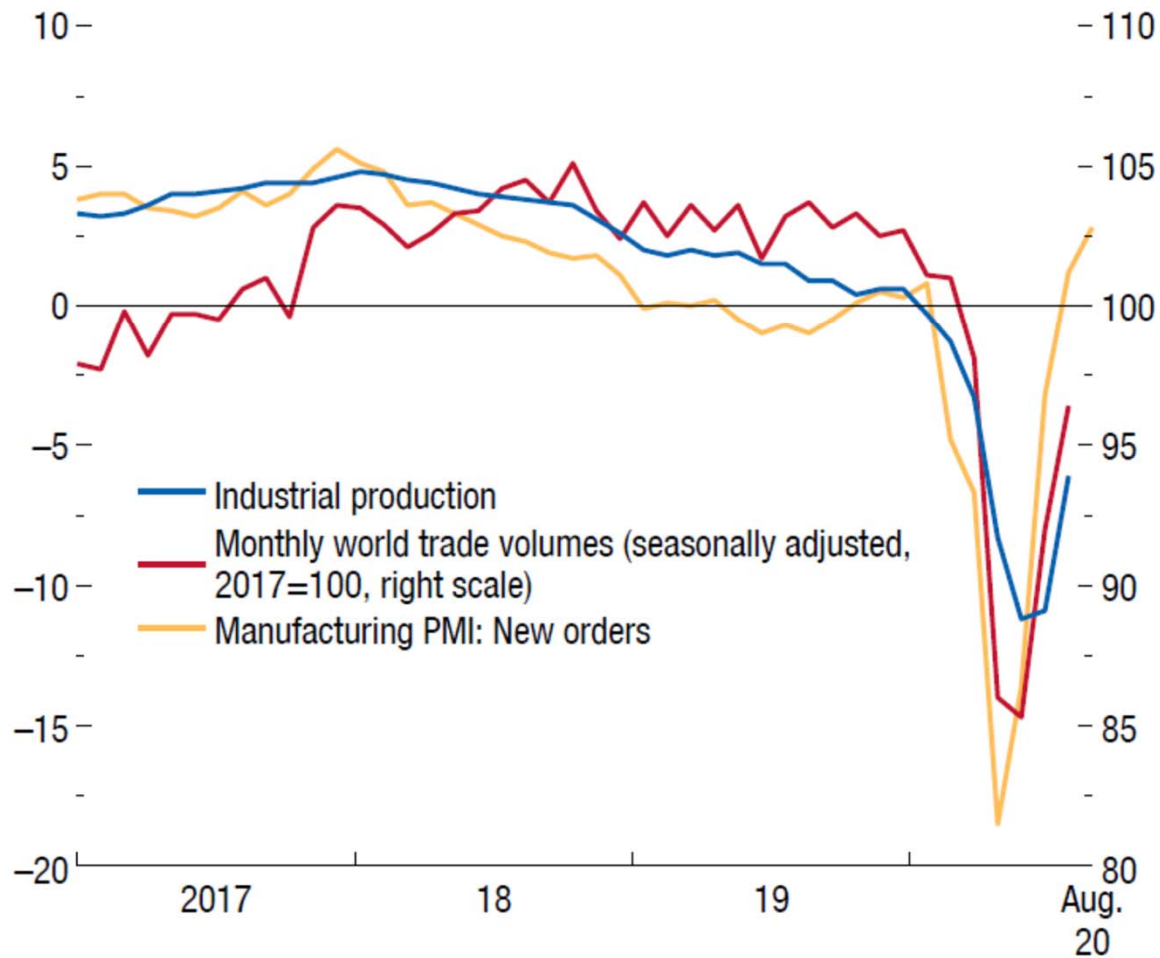


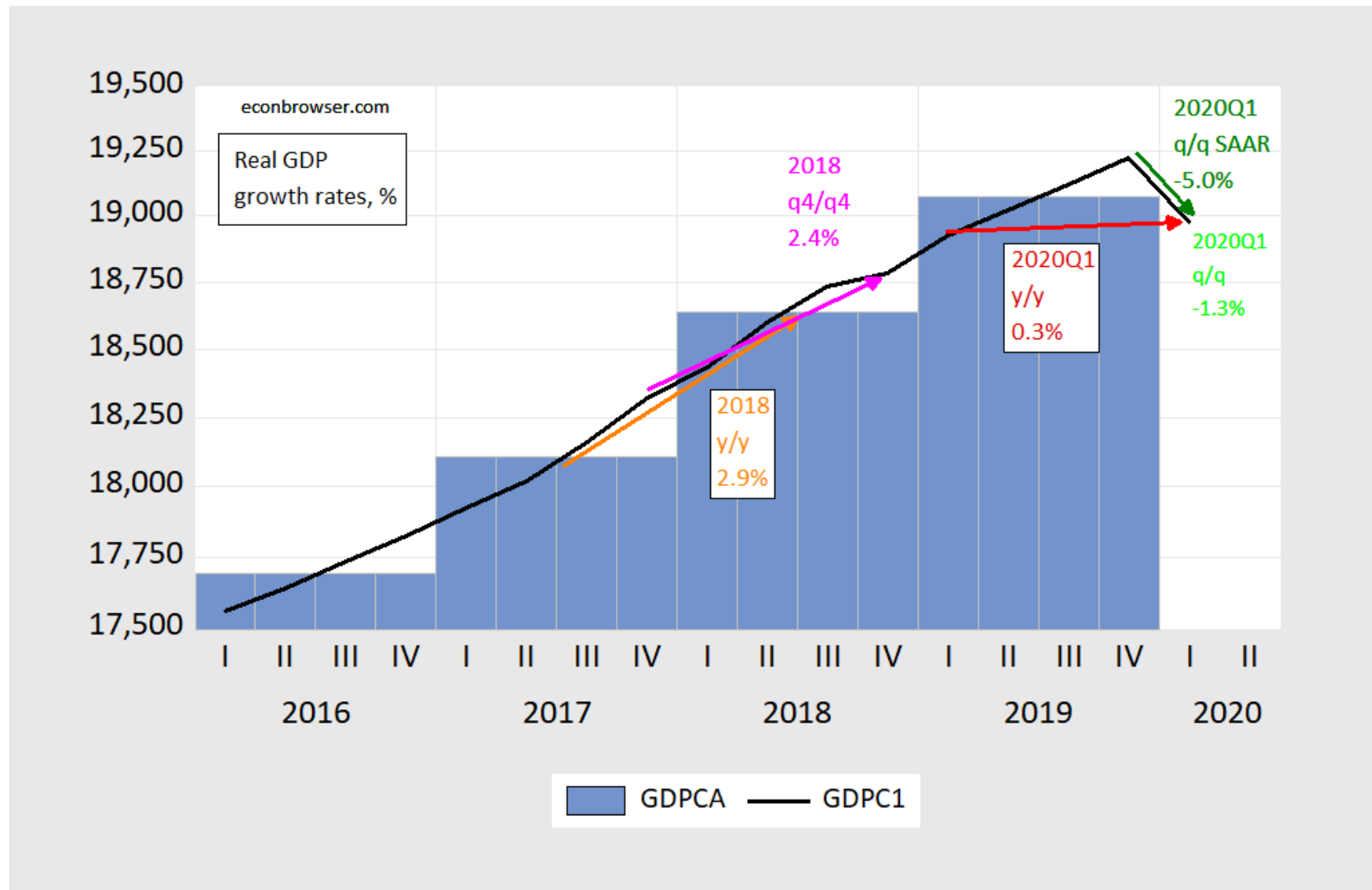
Table 1.1. Overview of the *World Economic Outlook* Projections
(Percent change, unless noted otherwise)

	2019	Projections		Difference from June 2020 WEO <i>Update</i> ¹		Difference from April 2020 WEO ¹	
		2020	2021	2020	2021	2020	2021
World Output	2.8	-4.4	5.2	0.8	-0.2	-1.1	-0.5
Advanced Economies	1.7	-5.8	3.9	2.3	-0.9	0.3	-0.6
United States	2.2	-4.3	3.1	3.7	-1.4	1.6	-1.6
Euro Area	1.3	-8.3	5.2	1.9	-0.8	-0.8	0.5
Germany	0.6	-6.0	4.2	1.8	-1.2	1.0	-1.0
France	1.5	-9.8	6.0	2.7	-1.3	-2.6	1.5
Italy	0.3	-10.6	5.2	2.2	-1.1	-1.5	0.4
Spain	2.0	-12.8	7.2	0.0	0.9	-4.8	2.9
Japan	0.7	-5.3	2.3	0.5	-0.1	-0.1	-0.7
United Kingdom	1.5	-9.8	5.9	0.4	-0.4	-3.3	1.9
Canada	1.7	-7.1	5.2	1.3	0.3	-0.9	1.0
Other Advanced Economies ²	1.7	-3.8	3.6	1.1	-0.6	0.8	-1.0
Emerging Market and Developing Economies	3.7	-3.3	6.0	-0.2	0.2	-2.1	-0.5
Emerging and Developing Asia	5.5	-1.7	8.0	-0.9	0.6	-2.7	-0.5
China	6.1	1.9	8.2	0.9	0.0	0.7	-1.0
India ³	4.2	-10.3	8.8	-5.8	2.8	-12.2	1.4
ASEAN-5 ⁴	4.9	-3.4	6.2	-1.4	0.0	-2.8	-1.5
Emerging and Developing Europe	2.1	-4.6	3.9	1.2	-0.3	0.6	-0.3
Russia	1.3	-4.1	2.8	2.5	-1.3	1.4	-0.7
Latin America and the Caribbean	0.0	-8.1	3.6	1.3	-0.1	-2.9	0.2
Brazil	1.1	-5.8	2.8	3.3	-0.8	-0.5	-0.1
Mexico	-0.3	-9.0	3.5	1.5	0.2	-2.4	0.5
Middle East and Central Asia	1.4	-4.1	3.0	0.4	-0.5	-1.3	-1.0
Saudi Arabia	0.3	-5.4	3.1	1.4	0.0	-3.1	0.2
Sub-Saharan Africa	3.2	-3.0	3.1	0.2	-0.3	-1.4	-1.0
Nigeria	2.2	-4.3	1.7	1.1	-0.9	-0.9	-0.7
South Africa	0.2	-8.0	3.0	0.0	-0.5	-2.2	-1.0

Table 1.1 (continued)
(Percent change, unless noted otherwise)

	Year over Year				Q4 over Q4 ⁷			
	2018	2019	Projections		2018	2019	Projections	
			2020	2021			2020	2021
World Output	3.5	2.8	-4.4	5.2	3.1	2.7	-2.6	3.7
Advanced Economies	2.2	1.7	-5.8	3.9	1.7	1.5	-4.9	3.8
United States	3.0	2.2	-4.3	3.1	2.5	2.3	-4.1	3.2
Euro Area	1.8	1.3	-8.3	5.2	1.1	1.0	-6.6	4.8
Germany	1.3	0.6	-6.0	4.2	0.3	0.4	-5.2	4.6
France	1.8	1.5	-9.8	6.0	1.4	0.8	-6.7	4.0
Italy	0.8	0.3	-10.6	5.2	0.1	0.1	-8.0	3.4
Spain	2.4	2.0	-12.8	7.2	2.1	1.8	-10.8	6.6
Japan	0.3	0.7	-5.3	2.3	-0.3	-0.7	-2.3	0.7
United Kingdom	1.3	1.5	-9.8	5.9	1.4	1.1	-6.4	3.7
Canada	2.0	1.7	-7.1	5.2	1.8	1.5	-5.9	4.9
Other Advanced Economies ²	2.7	1.7	-3.8	3.6	2.3	2.1	-4.2	5.0
Emerging Market and Developing Economies	4.5	3.7	-3.3	6.0	4.3	3.8	-0.5	3.6
Emerging and Developing Asia	6.3	5.5	-1.7	8.0	6.1	5.1	2.2	3.6
China	6.7	6.1	1.9	8.2	6.6	6.0	5.8	3.9
India ³	6.1	4.2	-10.3	8.8	5.5	3.1	-4.0	1.4
ASEAN-5 ⁴	5.3	4.9	-3.4	6.2	5.3	4.6	-2.1	5.2
Emerging and Developing Europe	3.3	2.1	-4.6	3.9	...	...	...	...
Russia	2.5	1.3	-4.1	2.8	2.9	2.2	-4.5	2.8
Latin America and the Caribbean	1.1	0.0	-8.1	3.6	-0.2	-0.3	-6.5	2.1
Brazil	1.3	1.1	-5.8	2.8	0.8	1.6	-4.7	1.7
Mexico	2.2	-0.3	-9.0	3.5	1.2	-0.8	-7.0	2.7
Middle East and Central Asia	2.1	1.4	-4.1	3.0	...	...	...	...
Saudi Arabia	2.4	0.3	-5.4	3.1	4.3	-0.3	-5.2	6.6
Sub-Saharan Africa	3.3	3.2	-3.0	3.1	...	...	...	...
Nigeria	1.9	2.2	-4.3	1.7	...	...	...	...
South Africa	0.8	0.2	-8.0	3.0	0.2	-0.6	-5.5	1.0

Difference between Y/Y, Q4/Q4



WEO Forecast

Table 1.1. Overview of the *World Economic Outlook* Projections

(Percent change, unless noted otherwise)

	2019	Projections		Difference from June 2020 WEO <i>Update</i> ¹		Difference from April 2020 WEO ¹	
		2020	2021	2020	2021	2020	2021
World Trade Volume (goods and services)	1.0	-10.4	8.3	1.5	0.3	0.6	-0.1
Imports							
Advanced Economies	1.7	-11.5	7.3	1.7	0.1	0.0	-0.2
Emerging Market and Developing Economies	-0.6	-9.4	11.0	0.0	1.6	-1.2	1.9
Exports							
Advanced Economies	1.3	-11.6	7.0	2.0	-0.2	1.2	-0.4
Emerging Market and Developing Economies	0.9	-7.7	9.5	1.6	0.2	1.9	-1.5
Commodity Prices (US dollars)							
Oil ⁵	-10.2	-32.1	12.0	9.0	8.2	9.9	5.7
Nonfuel (average based on world commodity import weights)	0.8	5.6	5.1	5.4	4.3	6.7	5.7
Consumer Prices							
Advanced Economies	1.4	0.8	1.6	0.5	0.5	0.3	0.1
Emerging Market and Developing Economies ⁶	5.1	5.0	4.7	0.5	0.1	0.3	0.2
London Interbank Offered Rate (percent)							
On US Dollar Deposits (six month)	2.3	0.7	0.4	-0.2	-0.2	0.0	-0.2
On Euro Deposits (three month)	-0.4	-0.4	-0.5	0.0	-0.1	0.0	-0.1
On Japanese Yen Deposits (six month)	0.0	0.0	0.0	0.0	0.1	0.1	0.1