



Upstate Entrepreneur Ecosystem

The Current and Future Impact of COVID-19 for Upstate Entrepreneurs
• May 5, 2020

PRESENTING SPONSOR



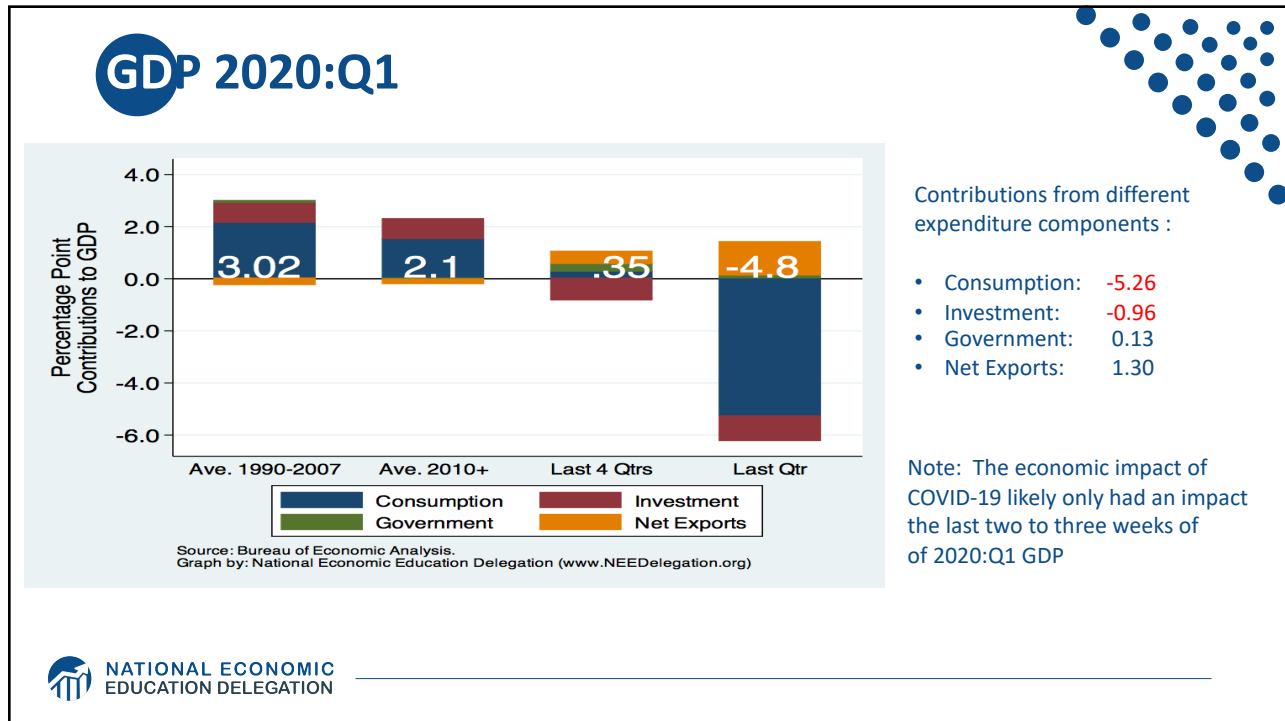
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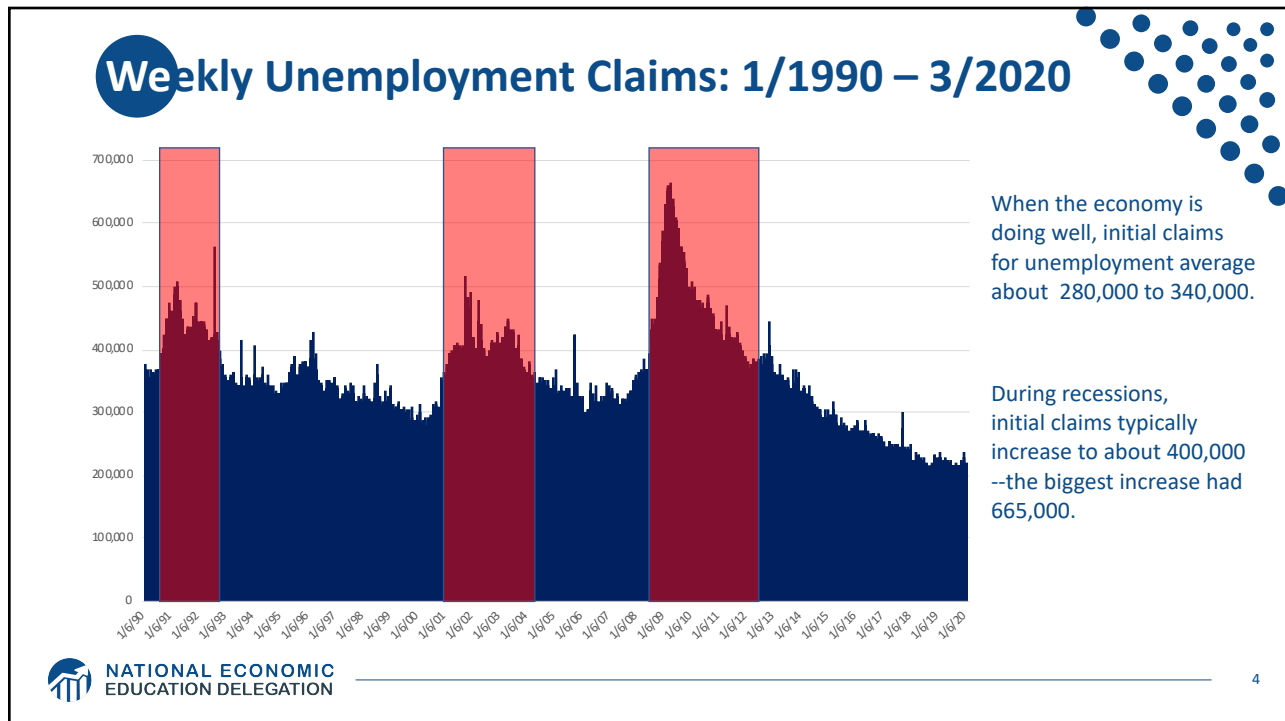
COVID-19: Economic Implications and Policy Response

Scott L. Baier
Clemson University
and
National Economic Education Delegation

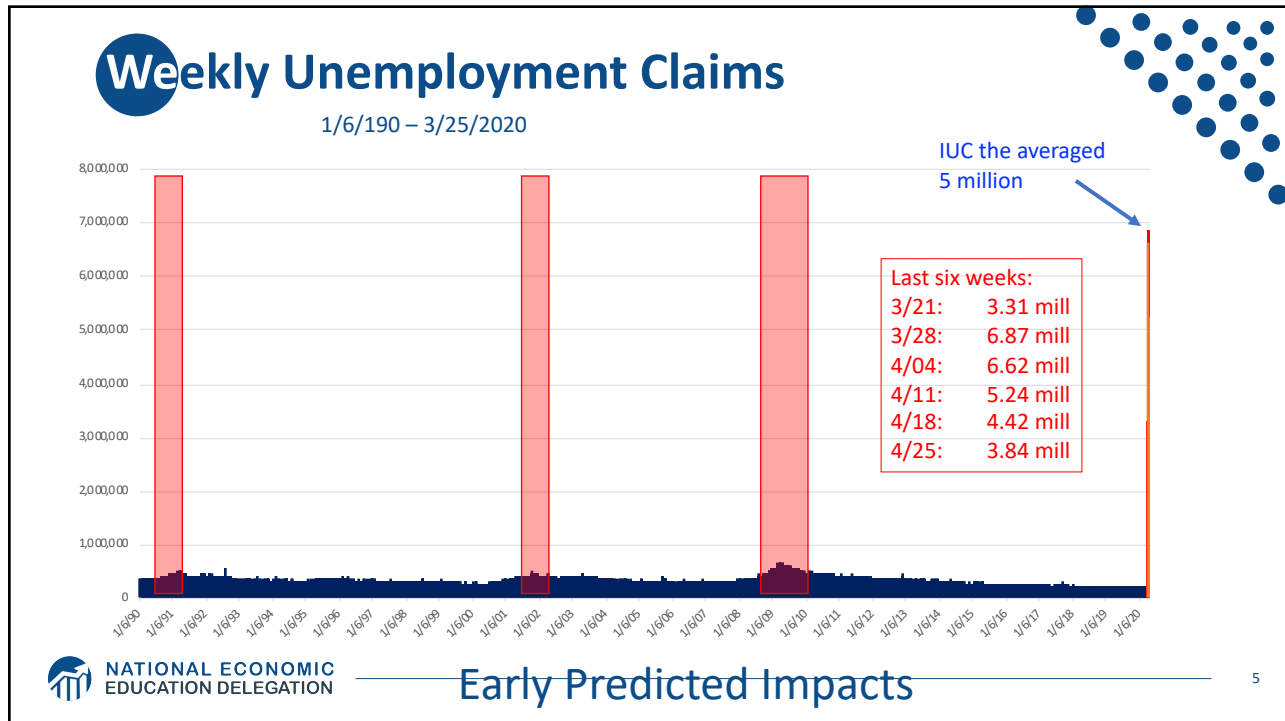




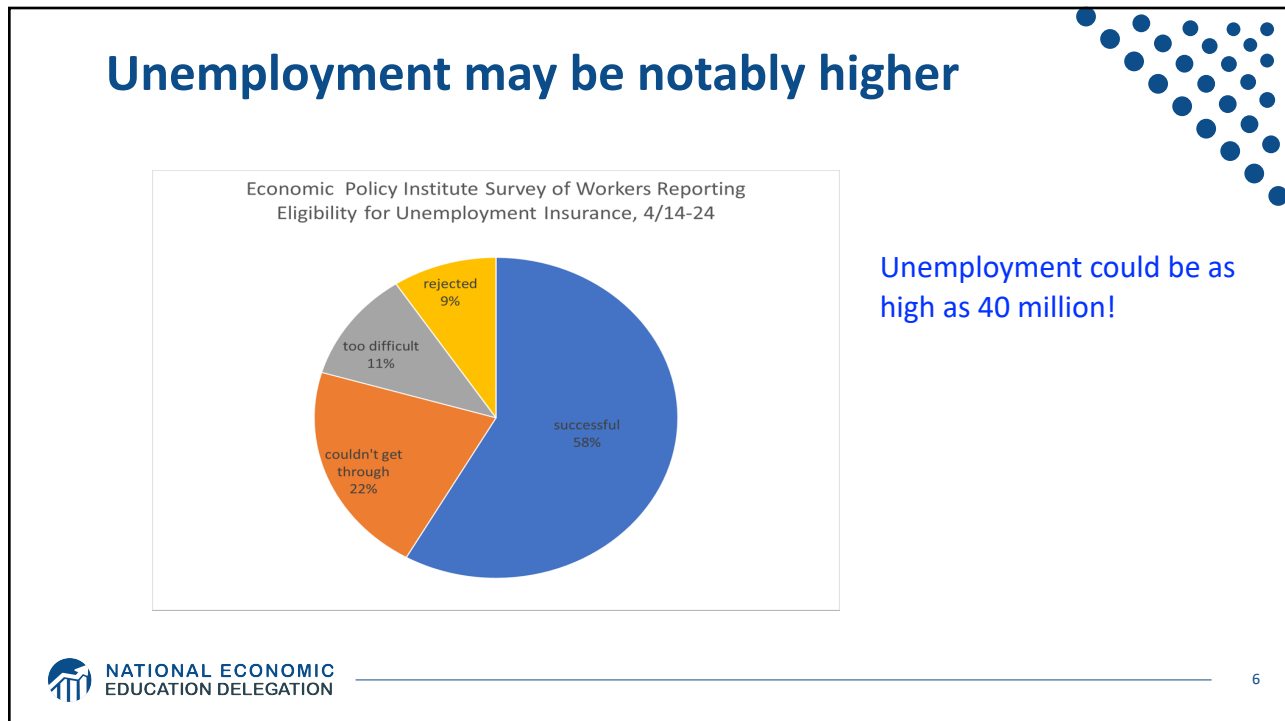
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COVID-19 and the Economy

- Initially, it was believed that COVID-19 would only have modest impacts on the US and World Economies.
- What changed?
- Flattening the COVID-19 and Deepening the Recession
- Policy response
- Growth Projections

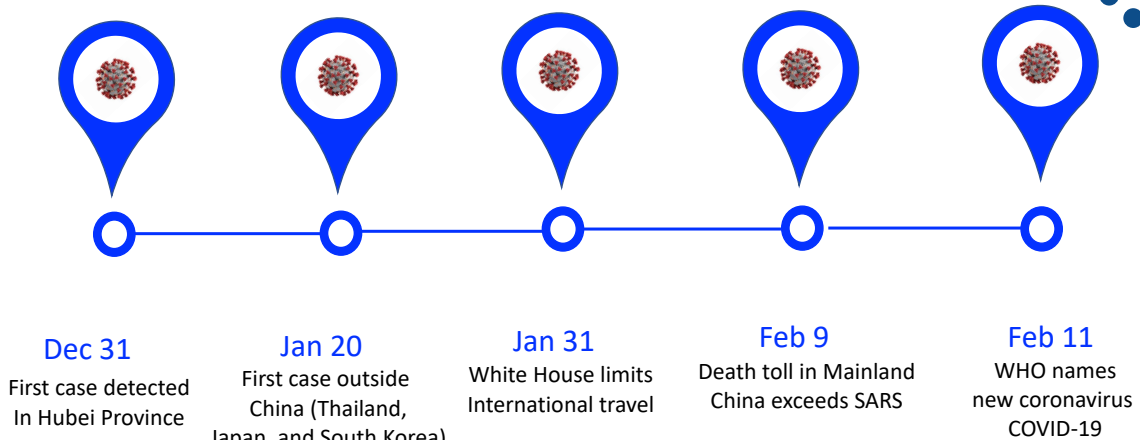


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Early COVID-19 Timeline



At this point, most believed that the coronavirus would largely be contained within a few countries.



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Coronavirus: Supply Chains

Countries	Share of World GDP	Manufacturing as a Share of GDP	Services as a Share of GDP
United States	24%	11%	77.4%
Canada	2%	10%	66.7%
UK	3%	9%	71.0%
Germany	5%	20%	61.8%
France	3%	10%	70.3%
Italy	2%	15%	66.3%
Spain	2%	11%	67.7%
Japan	6%	21%	69.1%
China	16%	29%	52.2%

If contained, COVID-19 would mainly disrupt manufacturing supply chains.

The more a country's manufacturing relied on these supply chains the bigger the impact on GDP.

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Coronavirus: Supply Chains

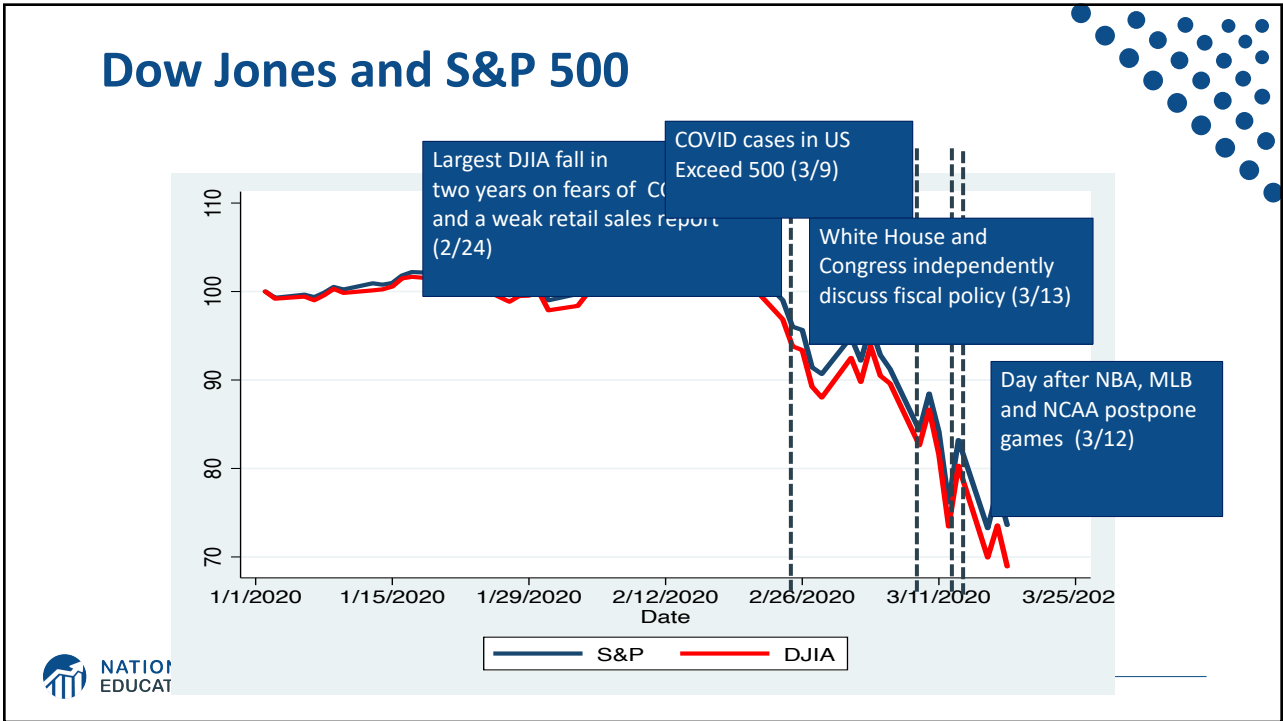
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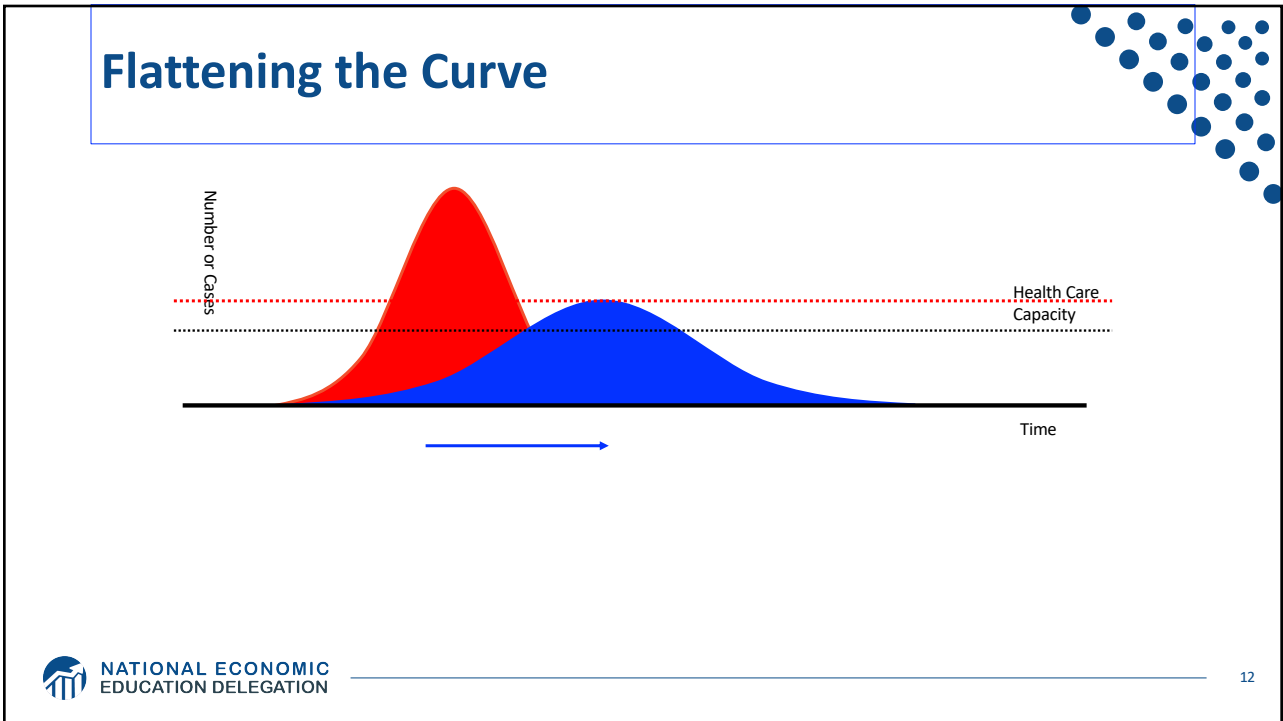
The more a country's manufacturing relied on these supply chains the bigger the impact on GDP.

If limited to supply chain effects, COVID-19 was likely to be to slow GDP by 0.25 to 0.50 from its baseline prediction – say from 2.5 to 2%

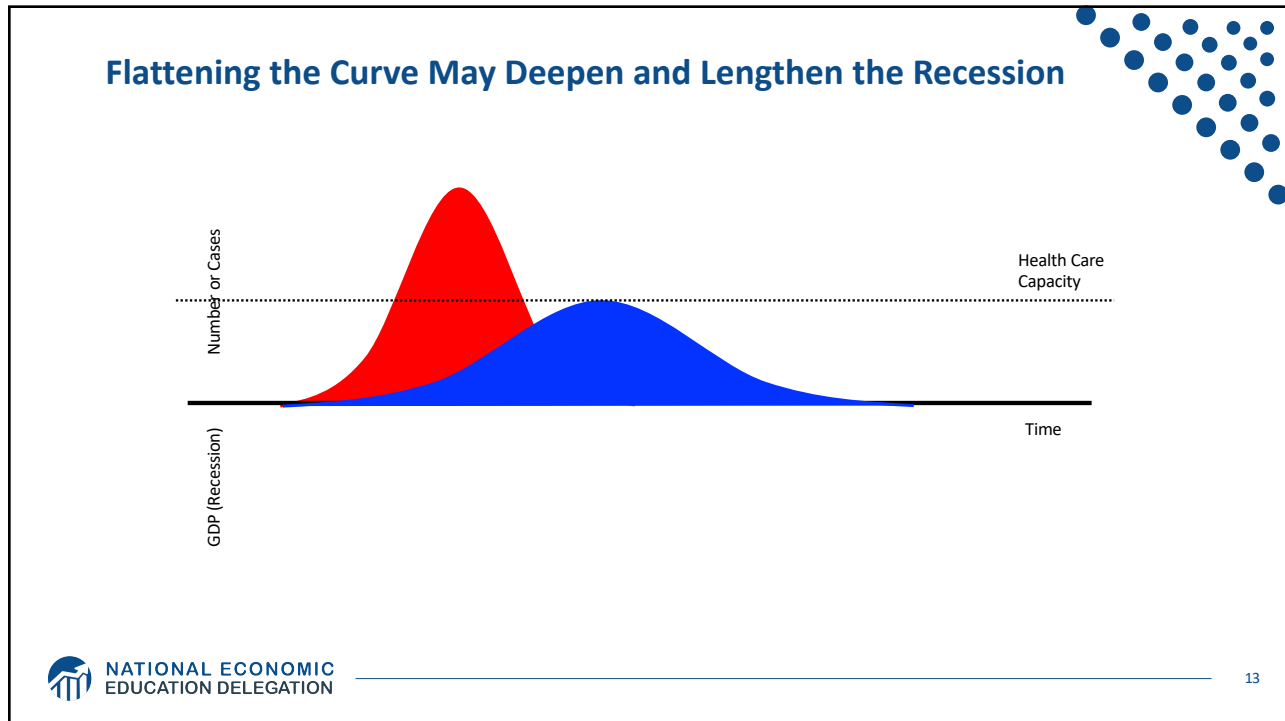
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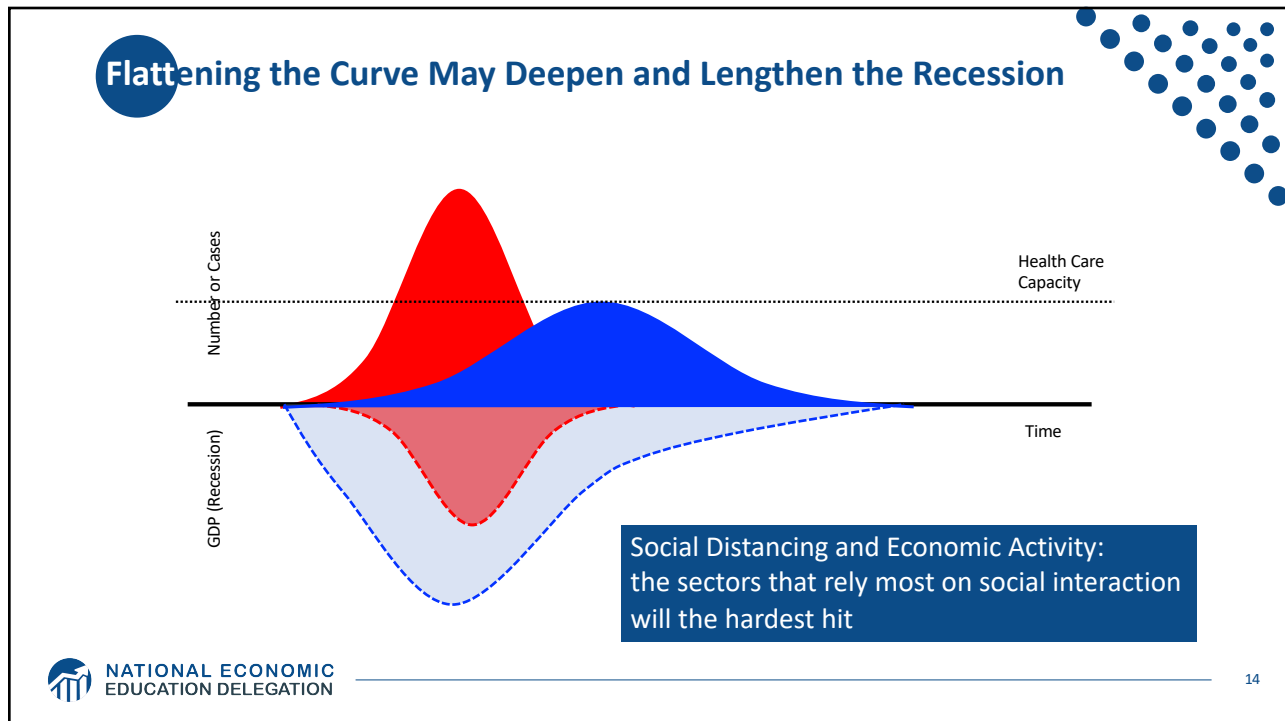
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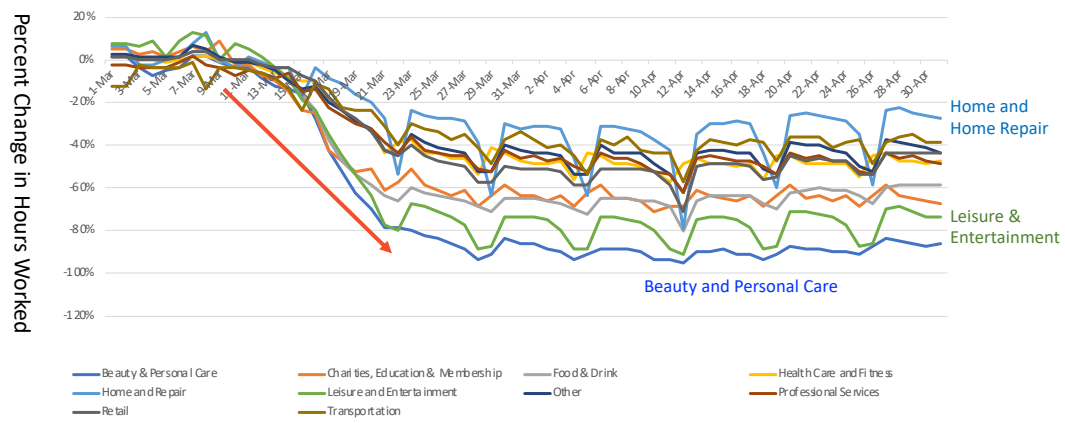
GDP and Sudden Demand Stops

Countries	Share of World GDP	Manufacturing as a Share of GDP	Services as a Share of GDP
United States	24%	11%	77.4%
Canada	2%	10%	66.7%
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The most vulnerable industries include entertainment, food, recreation, health and beauty, education, social assistance and manufacturing. These industries account for more than 50% of GDP.

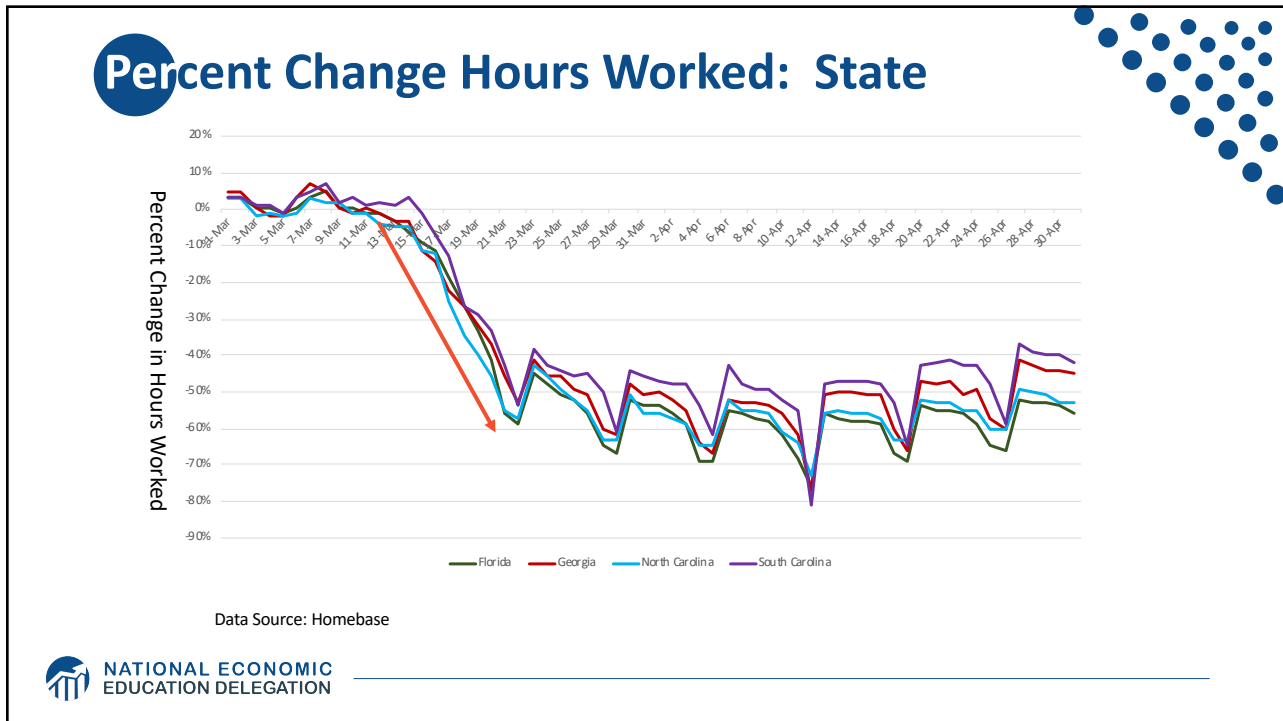


Percent Change Hours Worked

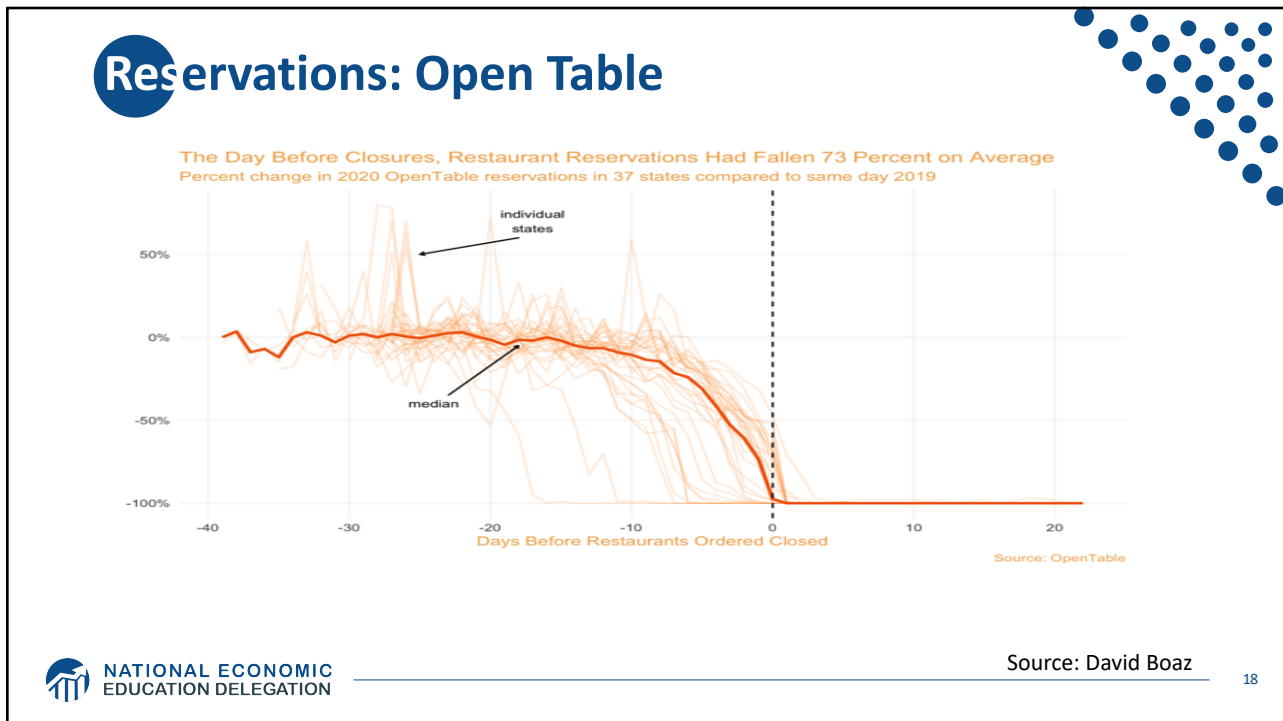


Data Source: Homebase



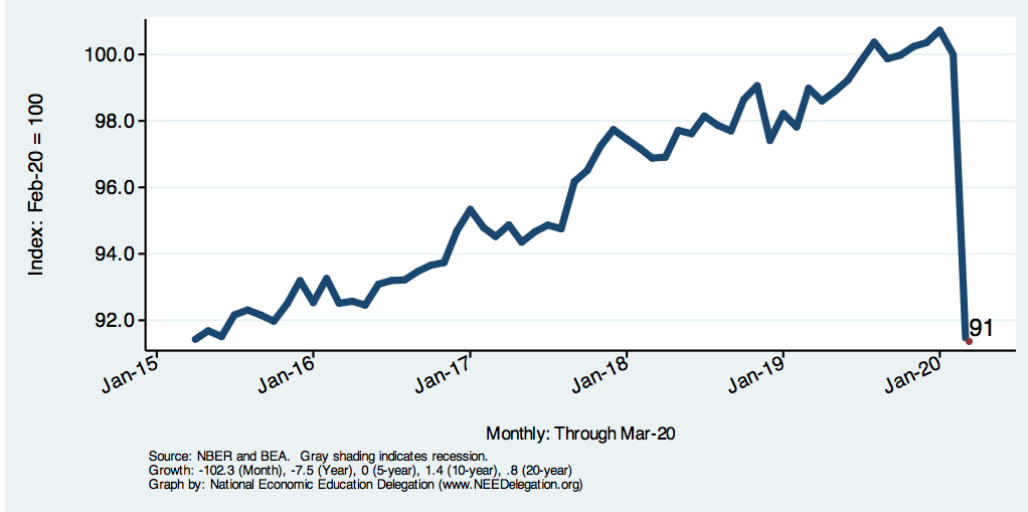


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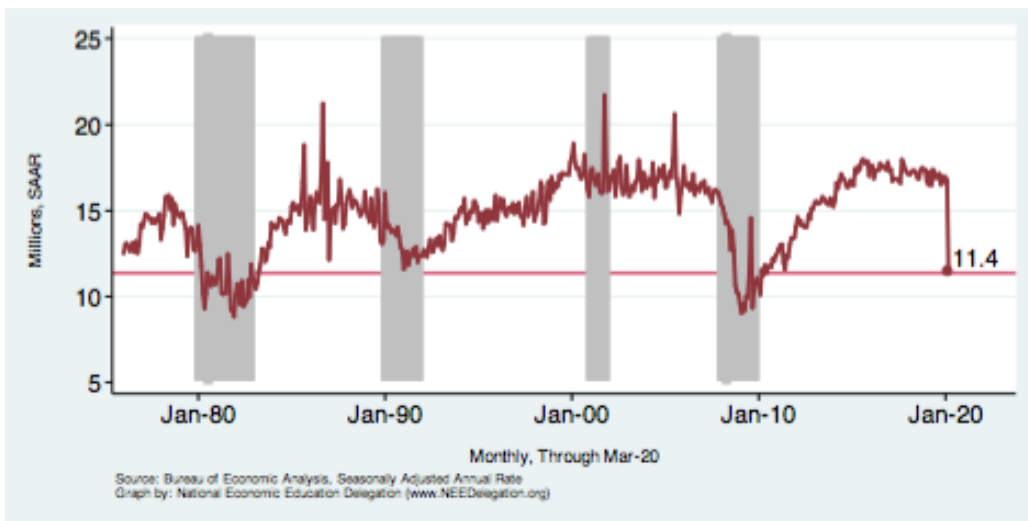


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Retail Sales



Automobile and Light Truck Sales



GDP Shares and Impact of COVID-19

Countries	Share of World GDP	Manufacturing as a Share of GDP	Services as a Share of GDP	Confirmed Cases	Deaths	GDP Growth
United States	24%	11%	77.4%	1,215,457	70,129	-5.9
Canada	2%	10%	66.7%	60,772	3,854	-6.2
UK	3%	9%	71.0%	190,584	28,734	-6.5
Germany	5%	20%	61.8%	166,304	6,993	-7.0
France	3%	10%	70.3%	169,462	25,201	-7.2
Italy	2%	15%	66.3%	211,938	29,079	-9.1
Spain	2%	11%	67.7%	250,561	25,613	-8.0
Japan	6%	21%	69.1%	15,078	536	-5.2
China	16%	29%	52.2%	82,881	4,633	1.2

US GDP growth in 2009 -2.54%

Source: World Bank, Johns Hopkins Coronavirus Resource Center, Worldometer

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Cost Benefit Analysis: Tradeoffs

- **No containment policies**
 - **Reduced** economic activity
 - **More** coronavirus deaths
 - **Non-coronavirus deaths**
- **Stringent containment policies**
 - **Dramatically reduced** economic activity
 - **Fewer** coronavirus deaths
 - **Non-coronavirus deaths(?)**



Analysis of Containment Policies

Reduced economic activity < value of additional deaths

Complicated equation – both numerically and philosophically

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BOTE Cost Benefit Analysis

BOTE: Back Of The Envelope

- **BENEFITS of social distancing:**

- \$7 million/life and 600,000 lives saved (\$4.2 trillion)
- Long term health issues avoided: 2 million at \$500,000 (\$1 trillion)
- **Total Benefit of Social Distancing: \$5.2 Trillion**

- **COSTS of “Shelter in Place” or “Lockdown”**

- There are about 70+ workdays in a quarter (plus March).
- **The cost of a “lockdown” is roughly \$1.3 Trillion**

Benefit: \$5.2 trillion > Cost: \$1.3 trillion



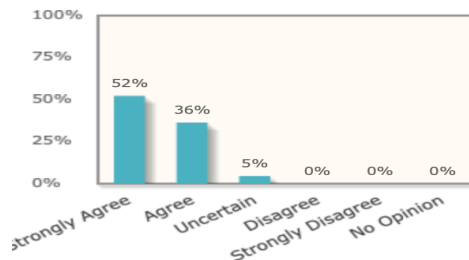
<https://twitter.com/BetseyStevenson/status/1242180499566669828>

University of Chicago – Experts Poll

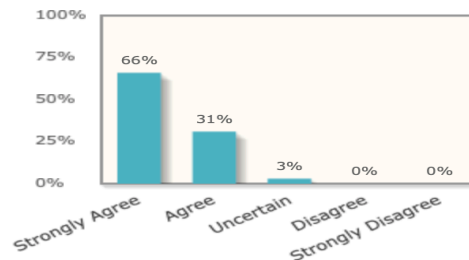
Policy for the COVID-19 Crisis

Question A: A comprehensive policy response to the coronavirus will involve tolerating a very large contraction in economic activity until the spread of infections has dropped significantly.

Responses



Responses weighted by each expert's confidence

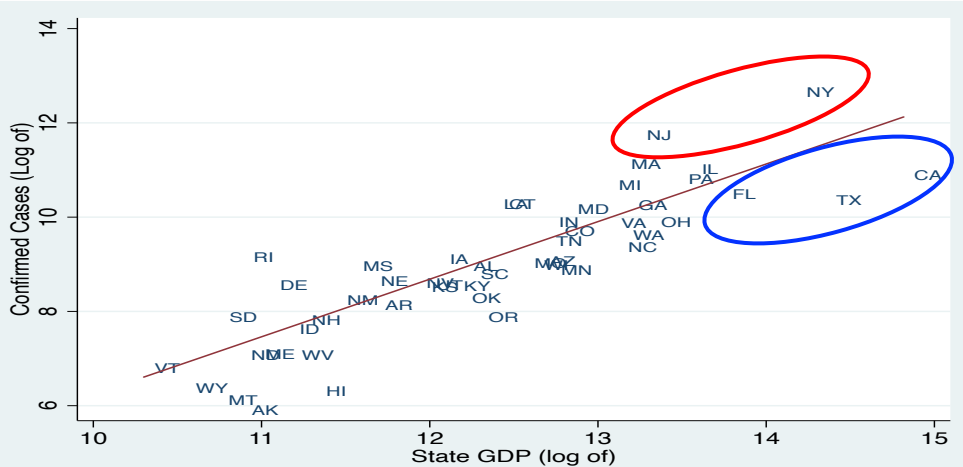


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Confirmed Cases by State



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Government Response: This Shock is Different

- **This economic shock is a “health shock” with externalities that have (large) macroeconomic consequences.**
- **The fiscal and monetary response is not one where we can or should think about Keynesian versus Classical Solutions.**
- **Response should be to target the cause of the problem and provide income support for individuals and some financial support for firms.**
 - Cause of the problem is COVID-19 and its contagion.
 - Social distancing reducing income and production
 - (We hope) The economic shock is not structural and on the “other side”. We hope that structurally things will be the same; therefore, we would like to preserve employment-employer matches.

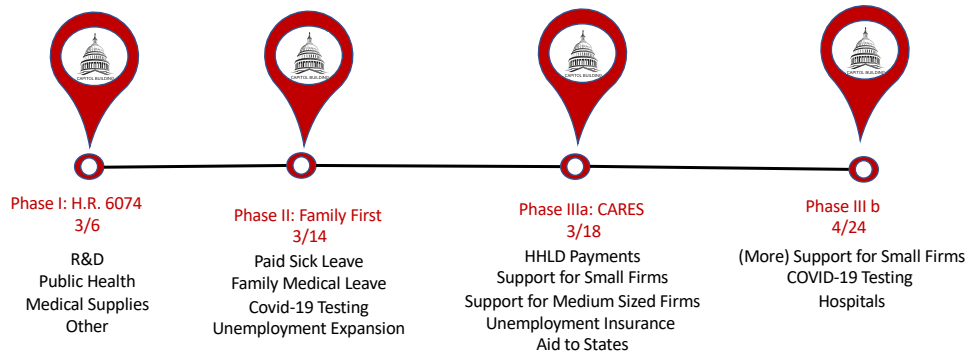
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Government Response: Fiscal Response

- Respond to the impacted sector(s) – health crisis,
- Provide income support for the lower income and most vulnerable,
- Provide support to maintain employer - employee matches, and
- Provide support for the sectors that are most exposed to the shock.

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Fiscal Policy Timeline



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Government Response (Phase 2): Family First (H.R. 6201)

- Free testing for anyone whose doctor recommends it
- Expand family and medical leave
- Paid emergency sick leave
- Additional employment benefits

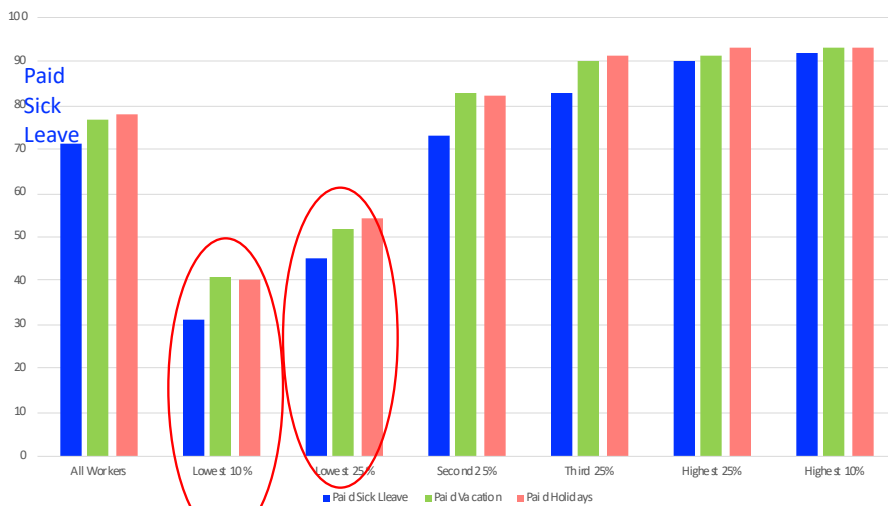
Clearly this is designed to increase testing and support social distancing and (self) quarantines

Food assistance: Supplemental Nutrition Assistance Program (SNAP) and Home-Delivered Nutritional Services



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Paid Leave by Income Category



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Fiscal Response: CARES Act (H.R. 748)

- **Direct payment to households \$1,200 for every adult and \$500 for every child – similar to the 2008 rebate but purpose is different.**
- **Small business loans (Paycheck Protection Program)-- \$350 billion**
 - <500 employees and designed to cover six (6) weeks of payroll.
- **Economic Stabilization Fund (Main Street Lending Program) – \$500bn**
 - for medium sized firms,
 - state and local municipalities, and
 - passenger and cargo air carriers, and firms maintaining national security.
- **Expand unemployment benefits**

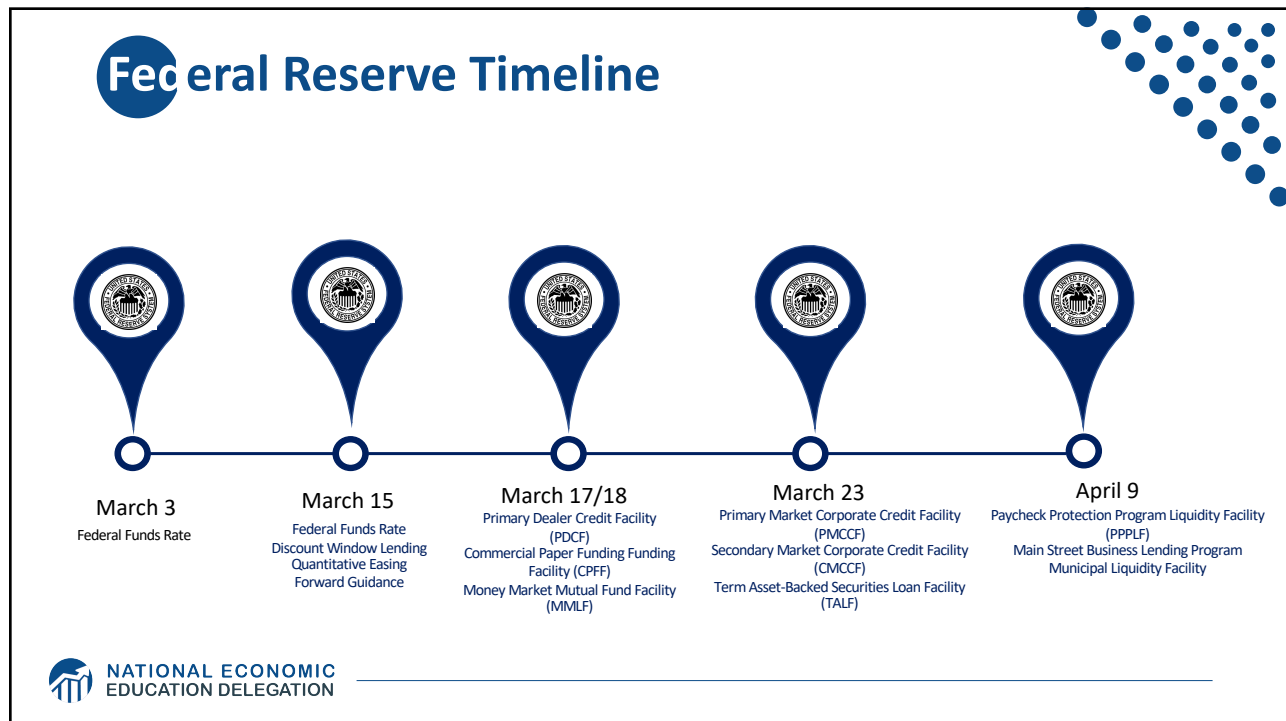
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PPP Major Recipients By Industry

Industry	Amount (Billions)	Percent of Loans
Construction	\$44.9	13.1
Professional, Technical and Scientific, Services	\$43.3	12.7
Manufacturing	\$40.9	12.0
Health Care and Social Assistance	\$39.9	11.7
Accommodation and Food Service	\$30.5	8.9
Retail Trade	\$29.4	8.6
Wholesale Trade	\$19.5	5.7

These seven (7) industries account for nearly 75% of the PPP loans

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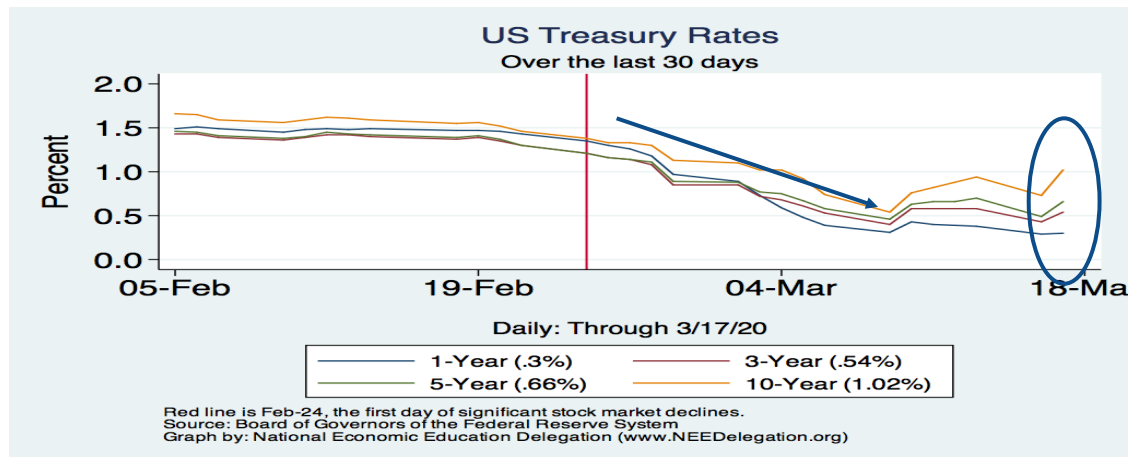
Federal Reserve: Standard Operations

- **Federal Funds Rate:** The Federal Reserve lowered the targeted Federal funds rate on March 3 and again on March 15 moving the targeted Federal Funds rate to zero.
- **Discount Window Lending:** Lowered the interest rate it charges banks to borrow from 1.75% to 0.25%.
- **Reserve Requirement:** Lowered the reserve requirement to zero.
- **Forward Guidance:** Honed during the Great Recession the Fed tries to set market expectations on the time path of interest rates over time.

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US Treasury Rates: A Safe Haven?



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Federal Reserve: Ensure Financial Market Stability

- In mid-March, Treasury and Mortgage Backed Securities markets began behaving irregularly as the demand for liquidity increased.
 - **Securities Purchases (Quantitative Easing):** Fed Response: purchase treasuries and mortgage backed securities (3/15).
 - Re-launched the **Primary Dealer Credit Facility (PDCF)** in order “smooth market functioning and facilitate the availability of credit to businesses and households (3/17).
 - Re-instituted the **Money Market Mutual Fund Liquidity Facility (MMLF)** to “assist money market mutual funds in meeting demands for redemptions by households and investors enhancing overall market function and credit provision to the *broader economy*.”
 - Increased liquidity in the **repo market**. The repo market is where firms borrow and lend cash and short-term securities. The Fed was offering \$100 billion in overnight loans and \$20 billion in two-week loans.
 - o The Fed increased the offerings to \$1 trillion (from \$100 bn) in overnight repos, and
 - o \$500 billion in one month **and** three-month repos (from \$20bn 2/wks).

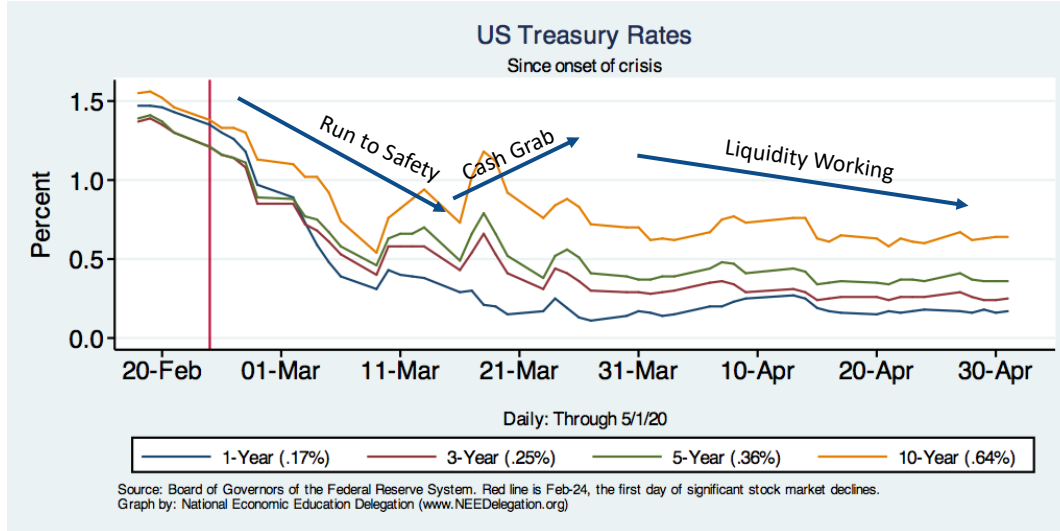


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US Treasury Rates: A Safe Haven?



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Federal Reserve: Support Corporations and Business

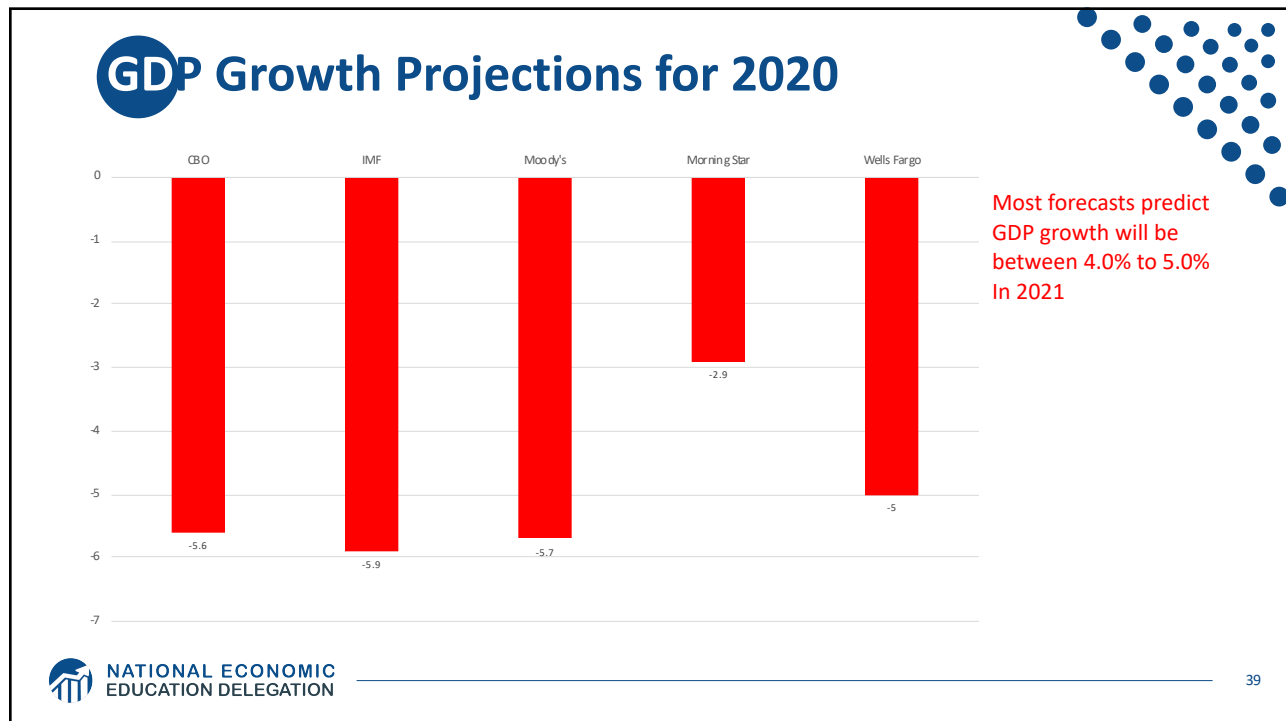
- Created the **Primary Market Corporate Credit Facility (PMCF)** allows the Fed to lend directly to corporations by buying new bond issuances and providing loans (3/17).
- Instituted the **Commercial Paper Funding Facility (CPFF)** the Fed can purchase commercial paper from firms at a given interest rate – effectively, the Fed is lending directly to firms. (3/17)
- **Main Street (Expanded) Loan Facility:** Through the CARES Act these two programs offer four-year loans to US businesses with up to 10,000 employees or revenues less than \$2.5 billion. (4/9)
- **Paycheck Protection Program Facility:** Facilitates loans under the Small Business Administration Paycheck Protection Program



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Unemployment Projections

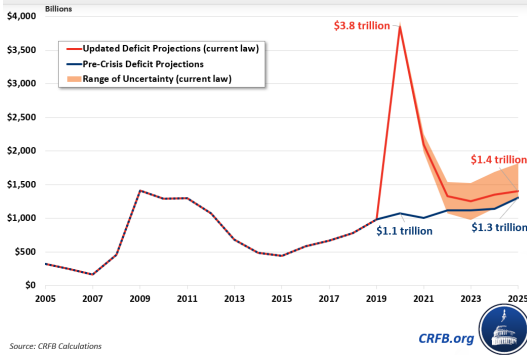
- Mining, retail, transportation, arts and entertainment, hotels and restaurants, and misc. services account for only 15% of GDP, but roughly 30% of employment.
- We anticipate COVID-19 reduces GDP growth by 7% from its baseline forecast.
- It is likely that 60 percent of the decline in GDP is due to these sensitive sectors.
- Therefore, we might expect unemployment to increase from 3.5% to 8.5% from these sectors alone and the overall unemployment rate may reach 11.0-13% by year's end.

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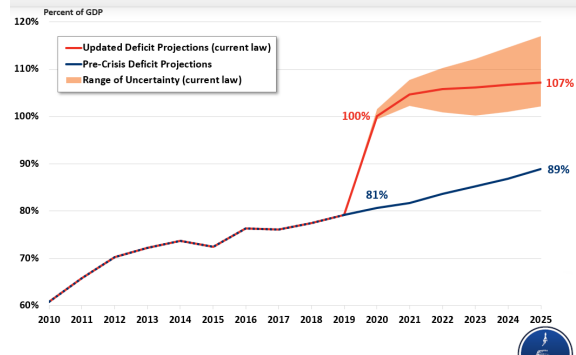
Federal Budget Implications

Federal Deficit Will Reach Record Levels



Deficit may be nearly 20% of GDP

Debt Will Equal Size of Economy This Year



Debt will likely equal GDP this year

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Opening the Economy

- **Concerns about opening the economy too soon and we have another outbreak.**
 - Question: What was the purpose of social distancing?
 - Is it so the health care system is not overwhelmed?
 - Is it to "eradicate" COVID-19?
 - Is it someplace in between
- **How much pent-up demand is out there?**
 - States can be "open for business"
 - It does not mean businesses will be open
 - It does not mean consumers will come back

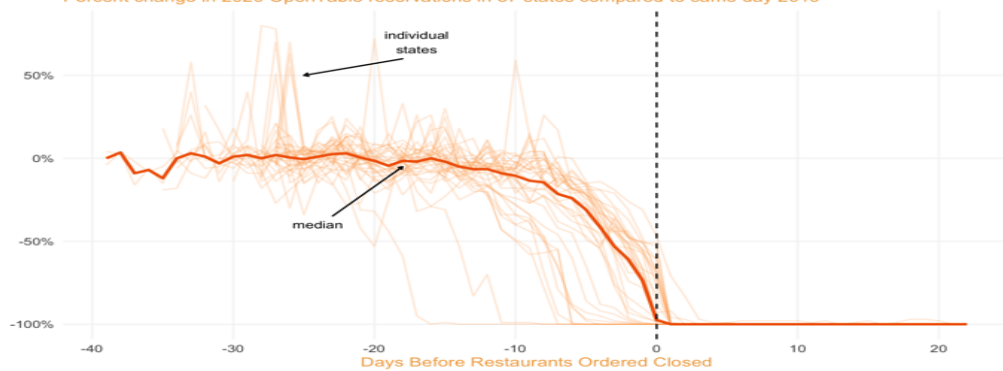
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Other Events Canceled

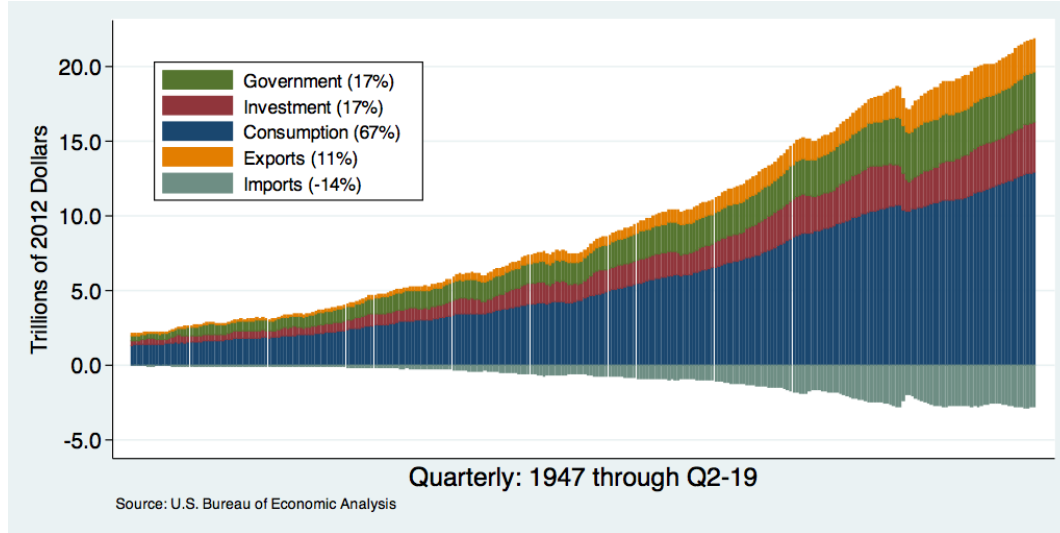
- March 6 — SXSW canceled
- March 10 — Ivy League cancels its basketball tournament
- March 11 — March Madness will be played without fans
- March 12 — March Madness canceled
- March 12 — Cato Institute and Brookings Institution shift to mandatory telework
- March 13 — Masters and Boston Marathon postponed
- March 15 — CDC recommends cancellation of events involving 50+ people
- March 16 — Kentucky Derby postponed
- March 19 — California becomes the first state to issue a stay-home and business-closing order
- Early March: Clemson University began discussions of our contingency plans and canceling “non-essential” events that could potentially put individuals at risk.

Reservations: Open Table

The Day Before Closures, Restaurant Reservations Had Fallen 73 Percent on Average
Percent change in 2020 OpenTable reservations in 37 states compared to same day 2019

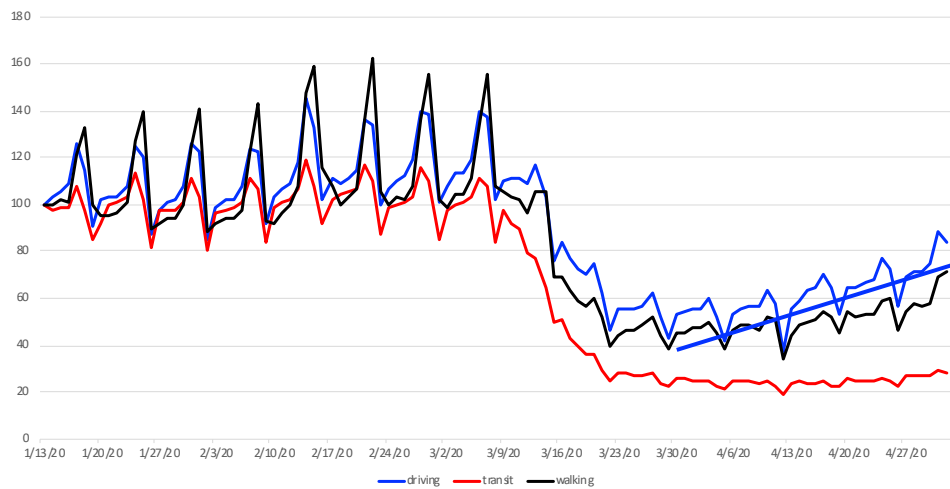


Composition of Real GDP



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Apple Mobility Trends



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Conclusion

- COVID-19 is health crisis that has macroeconomic implications.
- The macroeconomic effects that have impacted both the supply and demand.
- GDP will likely contract between 5.0 and 6.0 percent this year.
- Positive growth will likely return in 2021 as long as there are preventative medicines and treatments.
- No easy answers – trade-offs are between bad outcomes.
- How do we plan for the next pandemic?
- Find the silver lining.

