



COVID-19: Economic Implications and Policy Response

San Rafael Evening Rotary Club
March 31, 2020

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National Economic Education Delegation

• Vision

- One day, the public discussion of policy issues will be grounded in an accurate perception of the underlying economic principles and data.

• Mission

- NEED unites the skills and knowledge of a vast network of professional economists to promote understanding of the economics of policy issues in the United States

• NEED Presentations

- Are **nonpartisan** and intended to reflect the consensus of the economics profession



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Who Are We?

- **Honorary Board: 47 members**

- 2 Fed Chairs: Janet Yellen, Ben Bernanke
- 6 Chairs Council of Economic Advisers
 - o Furman (D), Rosen (R), Bernanke (R), Yellen (D), Tyson (D), Goolsbee (D)
- 3 Nobel Prize Winners
 - o Akerlof, Smith, Maskin

- **Delegates: 500+ members**

- At all levels of academia and some in government service
- All have a Ph.D. in economics
- Crowdsource slide decks
- Give presentations

- **Global Partners: 45 Ph.D. Economists**

- Aid in slide deck development



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Available NEED Topics Include:

- US Economy
- Climate Change
- Economic Inequality
- Economic Mobility
- US Social Policy
- Trade and Globalization
- Trade Wars
- Immigration Economics
- Housing Policy
- Federal Budgets
- Federal Debt
- 2017 Tax Law
- Autonomous Vehicles



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Credits and Disclaimer

- **This slide deck was authored by:**

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- Jon D. Haveman, NEED

- **Disclaimer**

- NEED presentations are designed to be nonpartisan.
- It is, however, inevitable that the presenter will be asked for and will provide their own views.
- Such views are those of the presenter and not necessarily those of the National Economic Education Delegation (NEED).



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Outline

- **What does economics offer?**
- **Economic implications**
- **Vulnerabilities**
- **Evidence**
- **Policy**



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What Does Economics Offer?

- **Insight into the transition of the virus from health to the economy.**
- **Data on the magnitude of economic vulnerability.**
- **Cost benefit analysis of social distancing.**
- **Insight into government response:**
 - Appropriate targets of government policy
 - Evaluation of current measures
 - Fiscal and monetary policies
 - What else might be done and why?



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Perfect Storm for the Economy

- **Supply side**
- **Demand side**
- **Financial**

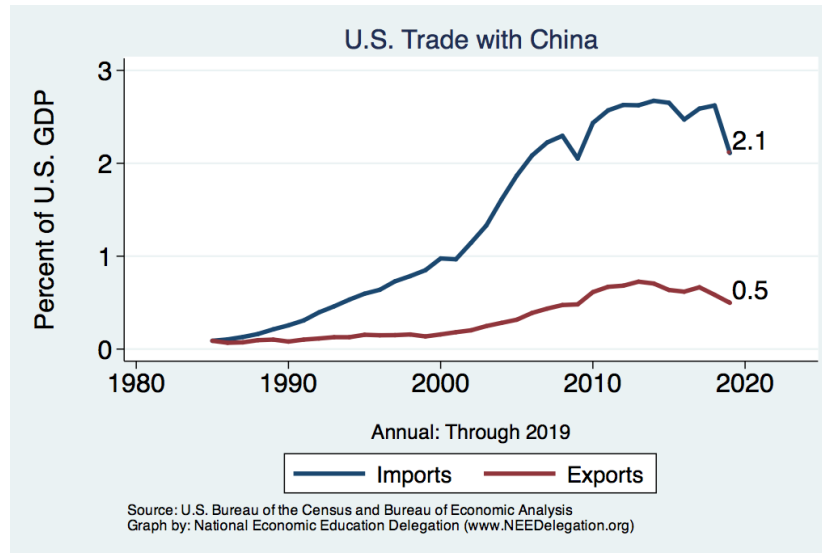


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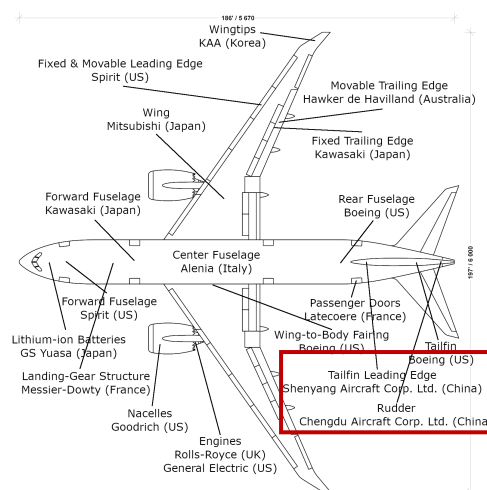
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Trade with China is Significant, but Small



Coronavirus: Supply Chains

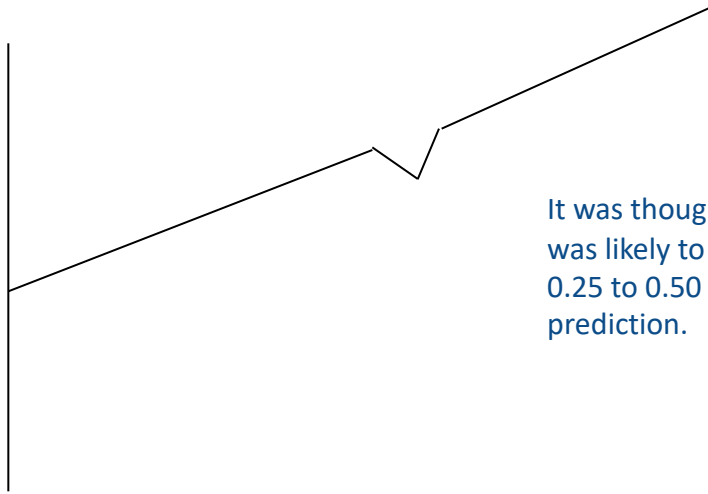


- Boeing 787 Dreamliner
- Parts and components from suppliers all over the world:

- Japan
- Italy
- China
- Australia
- ...

Modest Impact on GDP of COVID-19

GDP
per Capita



It was thought that the effect was likely to be to slow GDP by 0.25 to 0.50 from its baseline prediction.



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Time

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The Escalation of the Economic Effects



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Coronavirus: Demand Side

- **Stock market**
 - Postpone major purchases
- **Event cancellations**
 - More broadly tourism
- **Universal pseudo-quarantine**
 - Work from home
 - Eat at home
 - Watch movies at home

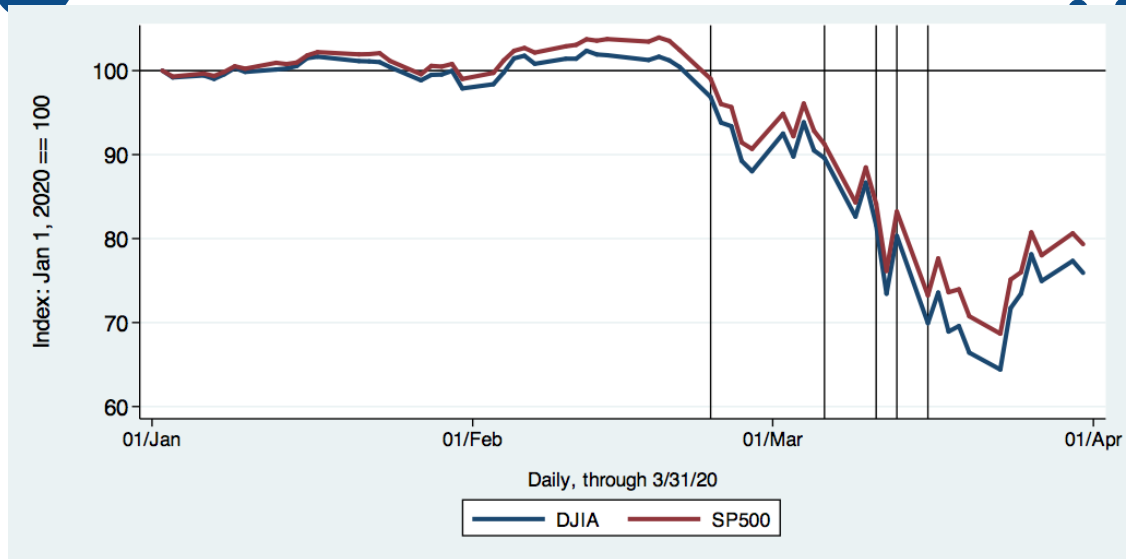


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DJIA and S&P 500



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Particularly Vulnerable Industries

Industry	Share of GDP
Arts, entertainment, and recreation	1.1
Management of companies and enterprises	1.9
Other services, except government	2.1
Accommodation and food services	3.1
Transportation and warehousing	3.2
Retail trade	5.5
Educational services, health care, and social assistance	8.7
Manufacturing	11.3
Real estate and rental and leasing	13.3
Total	50.2

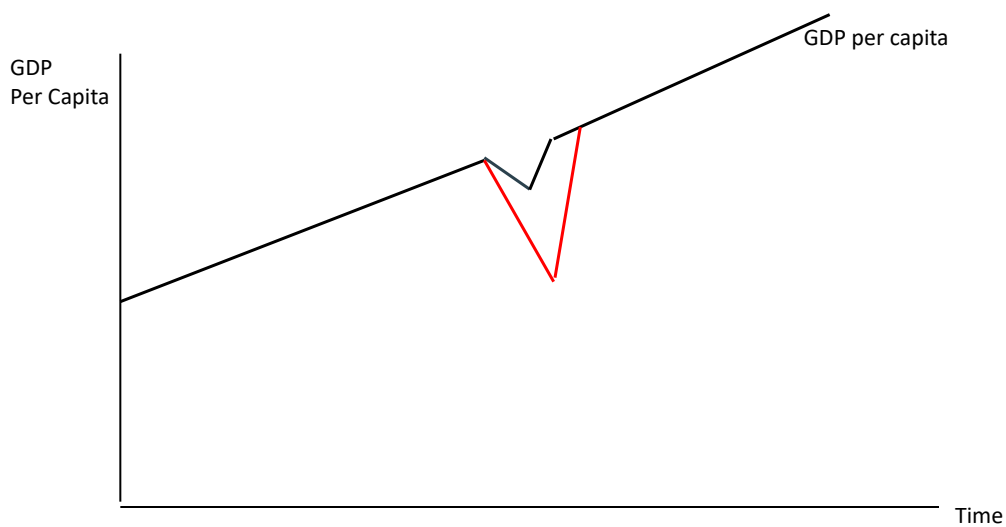


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Impact on GDP of COVID-19 – No Social Distancing



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Epidemiology

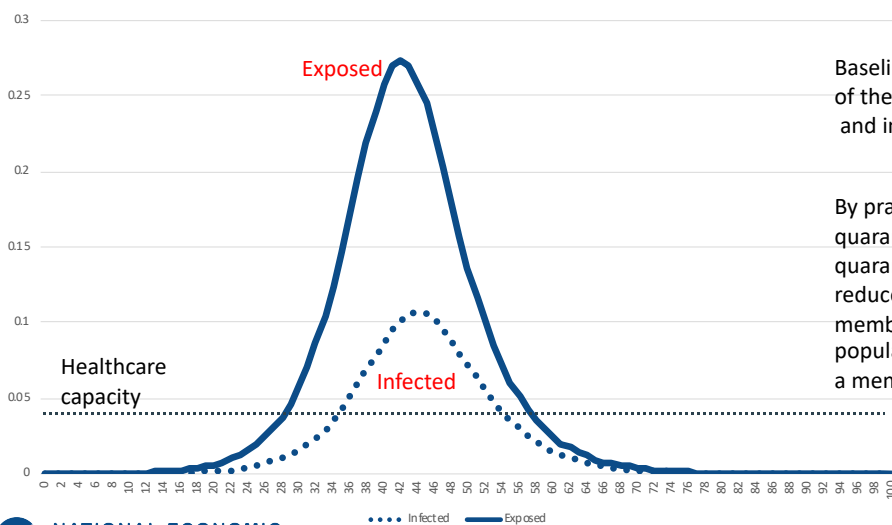


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Exposed and Infected – Baseline Case



Baseline case of the fraction of the population exposed and infected.

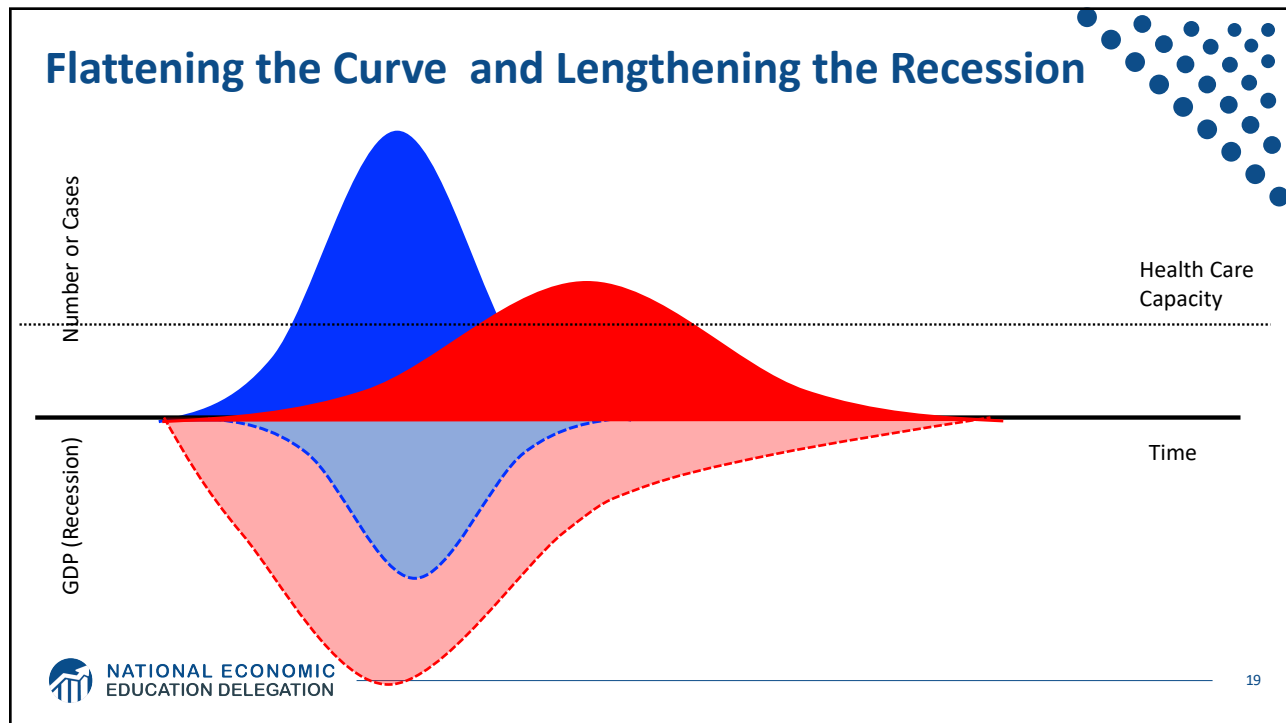
By practicing social distancing, quarantining the sick, and self-quarantining the exposed, you may reduce the likelihood that (or when) a member of the susceptible population will be in contact with a member of the exposed population.



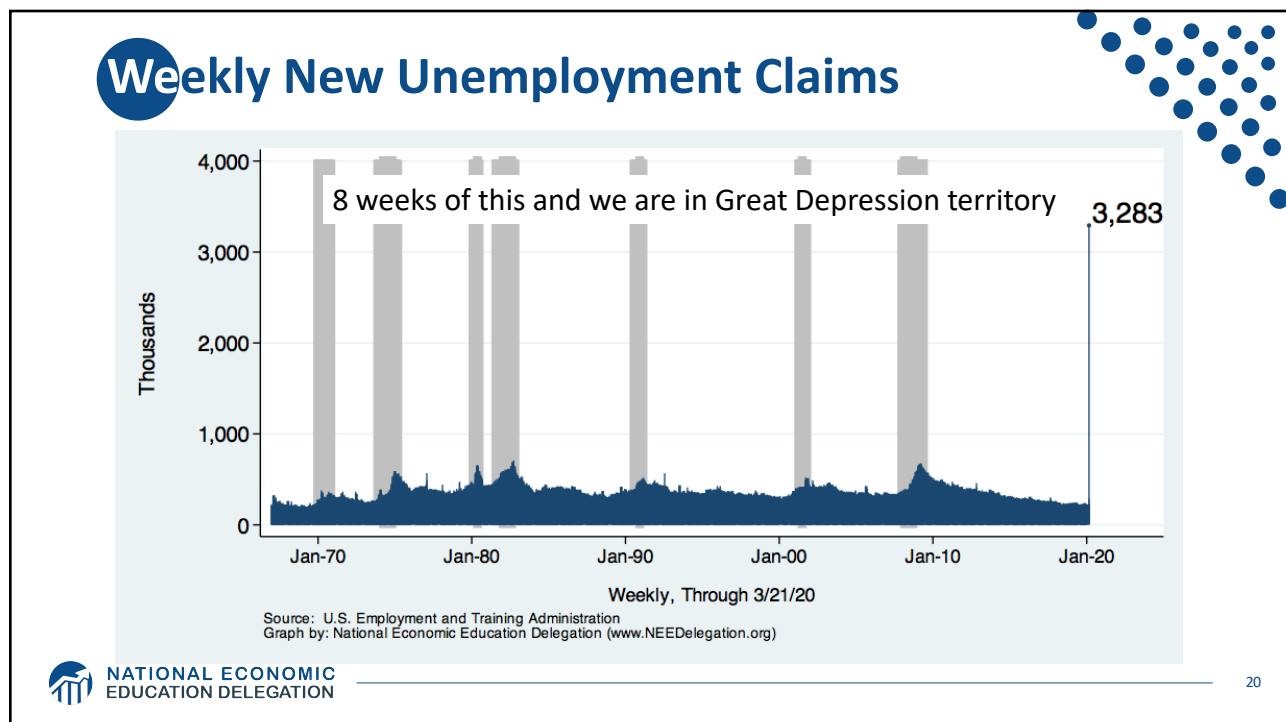
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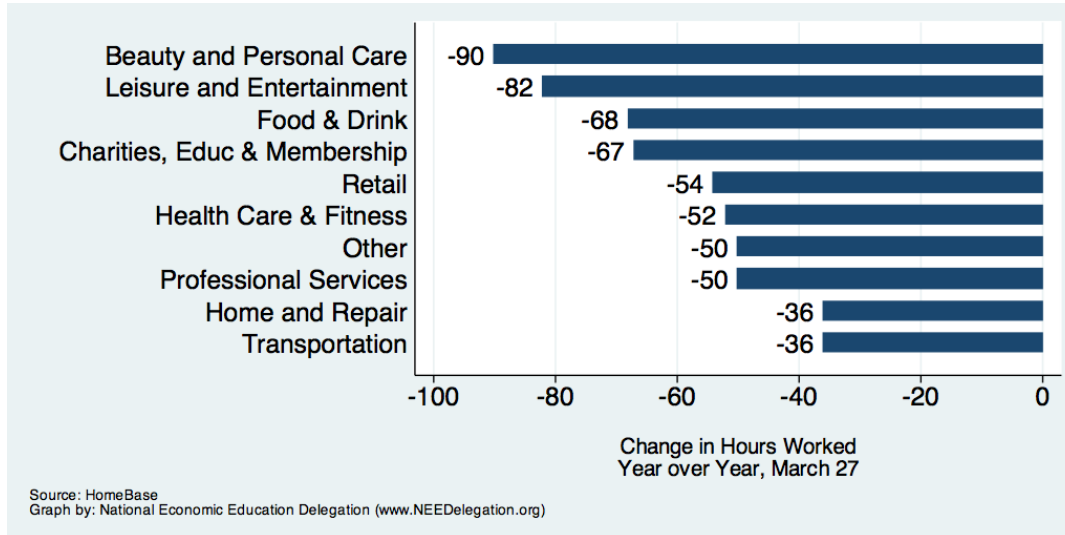


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Percent Change Hours Worked

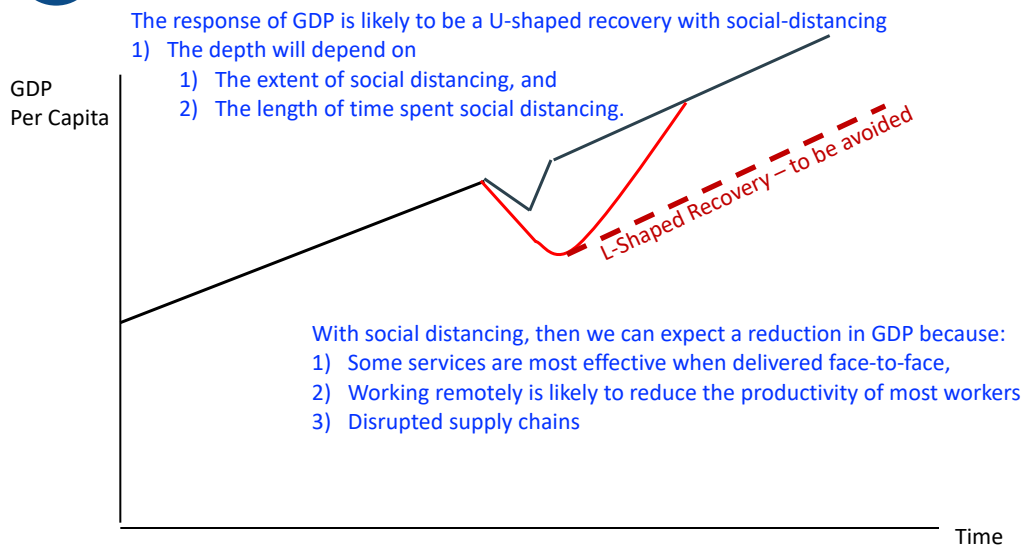


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Impact on GDP of COVID-19 – W/Social Distancing



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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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Cost Benefit Analysis: Some Additional Info

• Value of a statistical life: \$5-14 million

- Depends on what the right value of a life is.
- Depends on net difference in # of deaths.

• Size of the economy: ~\$2 trillion per month

- Depends on economic impact
 - Of containment policies
 - Of unabated virus



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BOTE Cost Benefit Analysis

BOTE: Back Of The Envelope

- If we evaluate the the value of a statistical life at \$7 million, and
- we think that social distancing reduces the number of deaths by 600,000
- Benefit of Saved Lives is: \$4.2 Trillion
- Survivors may face long-term health effects – 2 million valued each at \$500,000
- Survivor Cost: \$1 Trillion
- **Total Benefit of Social Distancing: \$5.2 Trillion**



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

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BOTE Cost Benefit Analysis

BOTE: Back Of The Envelope

- Cost of “Shelter in Place” or “Lockdown”
- The cost of a non-workday reduces unadjusted quarterly GDP by about 0.4%.
- There are about 60+ workdays in a quarter and we lost about 1/8 or March.
- **The cost of a “lockdown” is roughly \$1.3 Trillion**



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<http://caseymulligan.blogspot.com>

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Economic Crisis Tools

Fiscal and Monetary Policy



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Priorities for Policy

- **Policies to protect public health**
 - Long run benefits for the economy.
 - Though there may well be short run pain.
- **Policies to protect the economically vulnerable**
- **Policies to maintain resiliency of the economy**
 - Help firms stay in business, maintain ties with workers
- **Policies to stimulate aggregate demand**
 - Long run – once the economic switch is turned back on



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Fiscal Policy Timeline

Phase	Amount (\$ bn)	Action
Phase 1 March 6	\$8	Emergency response, health care, vaccine development, prevention
Phase 2 March 18	\$100	Paid sick leave, unemployment insurance, free virus testing
Phase 3 Pending	\$250	Direct cash payments to families with income cap; \$1,200 per adult, \$500 per child
	\$250	Enhanced unemployment benefits
	\$350	Small business loans up to 250% of monthly payroll
	\$100	Corporate tax changes
	\$17	Community lending
	\$500	Loans & loan guarantees for businesses, incl. airlines
	\$180	State and local governments & Education
	\$100	Hospitals
TOTAL	\$1.5-2.5 Trillion	7-12% of GDP



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Source: J.P. Morgan Asset Management. Data are as of March 23, 2020.

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The Most Important Roles of Monetary Policy

I. Macroeconomic Stabilization

- Raise aggregate demand by changing interest rates. To raise demand it needs to lower interest rates
 1. Traditional Monetary Policy uses open market purchases of short-term US Treasuries to lower short-term interest rates (in particular the federal funds rate).
 2. Quantitative Easing (QE) is where the Fed buys long-term Treasuries and Mortgage-backed securities to more directly affect these rates.

II. Insuring Liquidity in Lending Markets by acting as the “Lender of Last Resort”

- The Fed has unlimited access to dollars and when the private sector does refuses to make illiquid loans, the Fed can. This ensures that borrowers have access to credit.
 1. The Fed can make loans directly or by buying new debt issues (thereby increasing “market liquidity.”)
 2. The Fed can also provide loans to intermediaries, so that they in turn can provide loans to customers. (there by increasing “funding liquidity”)



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Macroeconomic Stabilization:

I. Short-term Interest Rates

1. March 3, the Fed lowers the target range for the federal funds rate from 1.75-1.5 percent to 1.25-1.0 percent.
2. March 15, the Fed lowers the target range to 0.25-0.0 percent, essentially 0.

II. QE

1. March 15, the Fed announces a QE program
 1. \$500 billion in Treasuries and
 2. \$200 billion in agency mortgage-backed securities.
2. March 23, QE is unlimited and should include commercial mortgage-backed securities



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Insuring Market Liquidity

March 17-23, the Fed announced

1. The Primary and Secondary Market Credit Facilities which will allow the Fed to buy corporate bonds so that companies can continue to pay workers.
2. The Commercial Paper Funding Facility which will allow the Fed to buy short-term debt of companies.
3. A Main Street Business Lending Program where the Fed will aid the Small Business Administration in making loans.



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Insuring Funding Liquidity

March 17-23, Lending Facilities for

1. Money Market Mutual Funds who buy commercial paper.
2. Primary Dealers who provide short-term financing in many different asset markets, such as repurchase agreements (repos).
3. Financial Institutions that trade state and local municipal bonds.
4. Foreign central banks, so that they can be “lenders of last resort” for foreign financial institutions who want dollar liquidity.



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Monetary Policy Timeline

Date	Action
March 3	Fed Funds Rate Lowered 1.75-1.5 to 1.25-1
March 15	Fed Funds Rate Lowered to 0.25-0 Announced QE of \$700 billion
March 17	Commercial Paper Funding Facility Primary Dealer Credit Facility
March 18	Money Market Mutual Fund Liquidity Facility
March 23	Primary Market Corporate Credit Facility Secondary Market Corporate Credit Facility Term Asset-Backed Securities Loan Facility Unlimited QE
TBA	Main Street Business Lending Program

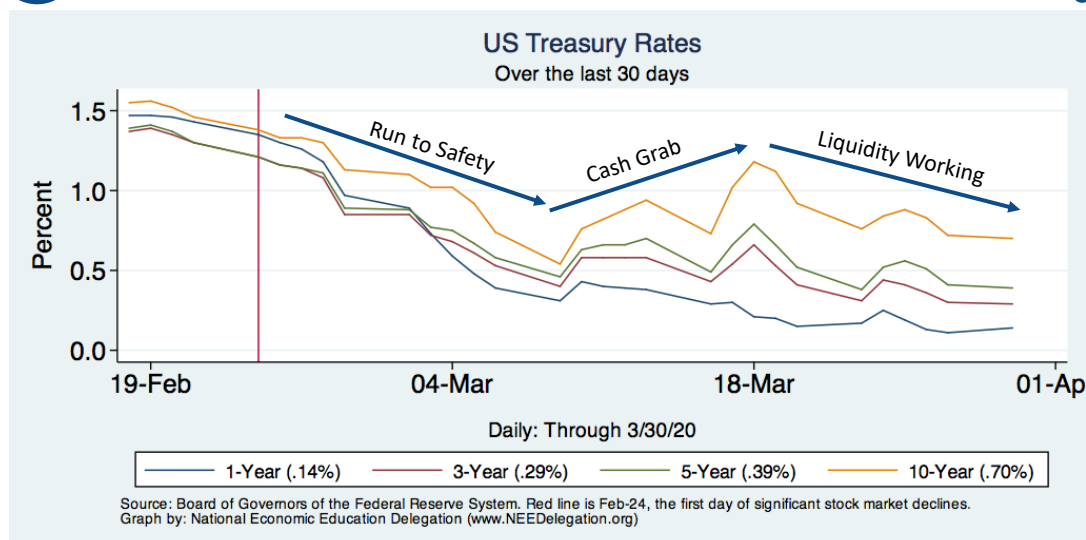


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US Treasury Rates: A Safe Haven?



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What is next and what else can be done?

- **How do we pay for it?**
 - Run larger deficits
 - Run the printing press MMT
 - Firms and/or individuals borrow through Treasury
- **Additional fiscal measures.**
 - Buyer of last resort (Piketty and Zucman)
 - Employer of last resort (MMT)
- **Additional cash disbursements.**
- **Ultimately: more fiscal policy to restart the economy.**



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What have we learned? Positive Take-Aways

- May improve the delivery of some services.
- Encourage firms, households, governments to have a business continuity plan.
- In an integrated world, this will likely not be the last pandemic...
 - Improve social insurance for these types of events.
 - Allow more flexibility to governments and firms to respond.
- Potential learning to be carried forward:
 - Telecommuting
 - Telehealth
 - The value of the "walk around the block".



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Big Open Questions

- When will the dust settle?
- When the dust settles:
 - How close will ties be between businesses and their pre-CV employees?
 - How much will the business environment change?
 - More automation?
 - More telecommuting?
- Broadly speaking: How quickly can things bounce back?
- What will the overall economic cost be.



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Conclusion

- COVID-19 is a health crisis that has extreme macroeconomic implications.
- Negative GDP growth 2020:Q2. -25% is possible.
- The macroeconomic effects are derived from a perfect storm.
 - Supply, demand, and financial.
- Fiscal and monetary response should be targeted at health crisis first and income and employment maintenance.
- Broad agreement among economists: Cure < Disease
- Have to be ready to stimulate the economy when health crisis is over.



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Thank you!

Any Questions?

www.NEEDelegation.org

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Contact NEED: info@needelegation.org

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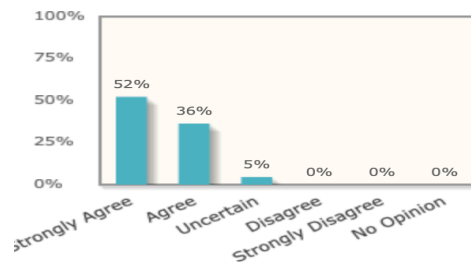
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University of Chicago – Experts Poll

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



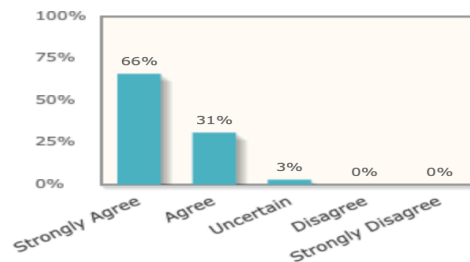
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Source: IGM Economic Experts Panel
www.igmchicago.org/igm-economic-experts-panel



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Responses weighted by each expert's confidence



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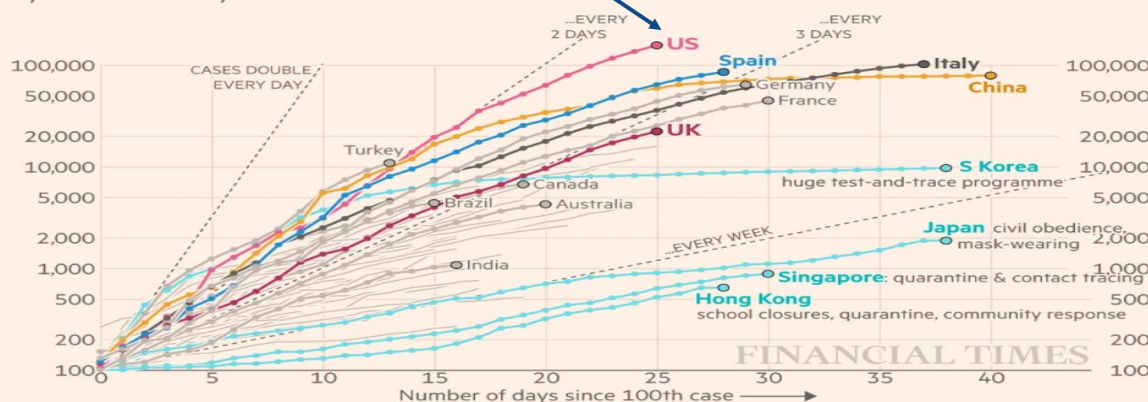
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Confirmed Cases by Country

Country by country: how coronavirus case trajectories compare

Cumulative number of confirmed cases, by number of days since 100th case



FT graphic: John Burn-Murdoch / @jburnmurdoch

Source: FT analysis of Johns Hopkins University, CSSE; Worldometers; FT research. Data updated March 30, 19:00 GMT



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