COVID-19 and the U.S. Economy

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Outline of my Presentation

• Put current events into historical perspective

• Track the economic effects of COVID-19 using high frequency data

• Discuss possible long-term consequences
“Expansions don’t die of old age; something kills them.”
- Yellen, Bernanke, Blinder in 2019
August 1929 was the peak before the Great Depression

February 2020 was the peak before the current recession
Comparing the Unemployment Rise to the Great Depression

Unemployment Rate Rise After Business Cycle Peak

2020 rise was much faster than the Great Depression.

Fortunately, it was short-lived.
• **Deaths**
  - 50 million deaths worldwide
  - 675,000 deaths in U.S. (0.6% of 104 million population)

• **U.S. Waves**
  - Spring 2018: small wave, brought home by troops
  - Fall 2018: more lethal mutation, **peak October 2018**.
  - Winter 2019 – small wave in some parts of the country.

Data from François Velde, “What Happened to the U.S. Economy During the 1918 Influenza Pandemic?” 2020.  
In contrast, with COVID-19 mortality is near 0 for the young, but rises rapidly with age 60+.
Cities and a few states imposed “non-pharmaceutical interventions”

Shut down large public gatherings, staggered business hours, closed some businesses, closed schools, imposed quarantines on infected people, required masks.

Most cities imposed these measures in Fall 1918. The median duration of the partial business closures was 28 days.
Figure 4: Timing and duration of closings in 43 US cities. Source: Hatchett, Mecher, and Lipsitch (2007), http://influenzaarchive.org, and various newspapers.

From Velde (2020)
Burns and Mitchell (1946) – creators of the official NBER business cycle chronology

- Business cycle peak in August 1918, the trough in March 2019
- Called it a contraction “of exceptional brevity and moderate amplitude.”
The stock market fell in late 1918/early 1919 but surged thereafter.

Industrial production fell but rebounded quickly.

Figures from Velde (2020)
Back to the Present:
The Economic Effects of COVID-19
• Events are happening quickly – we can’t wait for the usual government data.

• Fortunately, we now have **private-label high-frequency “Big Data”** to track the economy’s movements.

Much of the data I will use is from the Chetty, Friedman, Hendren, Stepner Opportunity Insights Economic Tracker.

[Tracktherecovery.org](http://Tracktherecovery.org)
Some Key Indicators

- Consumer Spending
- Small Business Revenue
- Employment and Unemployment
Daily data from Opportunity Insights, which

• uses data from Affinity Solutions

• benchmarks to aggregate data on retails sales and consumer spending
Now let’s compare California to the national numbers
California spending fell farther (-38% at trough) and has recovered less than national spending.
National Consumer Spending: By Category

Percent Change in All Consumer Spending*
In the United States, as of July 08, 2020, total spending by all consumers decreased by 6.8% compared to January 2020.

*Change in average consumer credit and debit card spending, indexed to January 4-31 2020 and seasonally adjusted. This series is based on data from Affinity Solutions.

First updated: July 13, 2020  next update expected: July 21, 2020
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First updated: July 15, 2020  next update expected: July 21, 2020
Consumer Spending by Income Quartile

- $3.1 Billion (31%)
- $1.4 Billion (17%)

https://bcf.princeton.edu/event-directory/covid19_24/
• Spending of high income households fell more – major factor in decline in aggregate spending.

• Spending of low income households recovered very quickly.
Why Did Spending Fall?

Spending declines are more health-driven, rather than income-driven. How do we know?

- Spending on “in-person services” declined the most
- Small income losses for high-income households
- Unemployment insurance more than fully replaced income losses of low-income households
- Counties with higher prevalence of COVID cases experienced greater spending declines
Evidence that Spending Decline was Not Income-Driven

From Cox et al., “Initial Impacts of the Pandemic on Consumer Behavior”

Spending declined and saving rates soared. After stimulus payments arrived, spending by the lowest income households completely recovered.

Source: Bureau of Economic Analysis.

Small Businesses

Data from Opportunity Insights, Balla-Elliott et al. (2020)
Small business revenue declined significantly. California was similar to the national decline.
Figure 4: Shares of businesses temporarily closed by state in the May 9, 2020 survey

This figure plots the share of firms that are temporarily closed businesses as of the May 9th survey wave. N=33,001.
Employment and Unemployment

Data from Opportunity Insights, BLS, and ADP
Initial Unemployment Insurance Claims

**Current Unemployment Claims per 100 People**
In **California**, as of July 04 2020, there were **1.36** initial unemployment claims per 100 people in the labor force.

California’s rise was greater than the national rise.
California’s unemployment rate rose more and has stayed higher than the national rate.
The lowest wage workers have borne the greatest employment losses.

Based on slide from Erik Hurst, June 26, 2020 Princeton webinar, ADP data.
https://bcf.princeton.edu/event-directory/covid19_27/
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<tbody>
<tr>
<td>Arts, Entertainment and Recreation</td>
<td>-50.7%</td>
<td>-41.5%</td>
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<tr>
<td>Accommodation and Food Services</td>
<td>-45.5%</td>
<td>-34.1%</td>
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<td>Retail Trade</td>
<td>-28.7%</td>
<td>-18.5%</td>
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<td>Other Services</td>
<td>-25.0%</td>
<td>-17.1%</td>
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<td>Transportation and Warehousing</td>
<td>-21.7%</td>
<td>-23.2%</td>
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<td>Real Estate, Rental and Leasing</td>
<td>-20.9%</td>
<td>-19.6%</td>
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<td>Wholesale Trade</td>
<td>-17.6%</td>
<td>-12.3%</td>
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<td>Administrative and Support</td>
<td>-17.0%</td>
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<td>Educational Services</td>
<td>-16.6%</td>
<td>-17.5%</td>
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<td>Health Care and Social Assistance</td>
<td>-16.5%</td>
<td>-8.8%</td>
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<td>Construction</td>
<td>-13.5%</td>
<td>-4.5%</td>
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<tr>
<td>Manufacturing</td>
<td>-12.4%</td>
<td>-8.6%</td>
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<td>Professional, Scientific, and Tech Services</td>
<td>-12.1%</td>
<td>-9.1%</td>
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<tr>
<td>Finance and Insurance</td>
<td>-1.3%</td>
<td>-0.7%</td>
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The evidence suggests that spending by high income individuals has led to job losses by low wage individuals. Why?

- The high income individuals are much more likely to be able to work from home and can shelter in place more comfortably.

- This has led to significant declines in spending on in-person services and on businesses-related travel.

- These types of businesses employ many low-wage workers.
Where is the Economy Now?

Forecasts from IHS Markit

IHS Markit produces monthly GDP estimates
Forecasts for Q2 GDP
IHS Markit Forecasts a -35.7% (annual rate) decline from Q1

Source: IHS Markit
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What will Happen Over the Next 6 Months?

Much depends on the progress of the disease and on medical technology.

- Individual behavior can have a big effect
- Policy responses matter
Longer Run Effects on the Economy
Possible Longer-Run Consequences

- If business must stay closed for longer, many jobs are likely to be destroyed.

- Acceleration of the decline of brick-and-mortar retailing.

- Acceleration of the substitution of capital for labor in service sector (Roomba for housekeeper, self-ordering at fast food restaurants, etc.).

- Permanent decline in the amount of travel due to substitution of virtual meetings for in-person meetings.

- Threat of future pandemics could lead to:
  - More uncertainty, especially for some businesses.
  - Changes in commercial building architecture
  - Reversal of agglomeration benefits (i.e. dense cities with public transport vs. spread-out activity)

- Human capital and inequality
Human Capital and Inequality

Effects of COVID on Educational Progress by Income Group

Math Lessons Completed on Zearn Platform

- Top Income Quartile
- Middle Income
- Bottom Income Quartile

January 8, January 22, February 5, February 19, March 4, March 18, April 1, April 15, April 29, May 13
• It is no exaggeration to state that the recent economic events are unprecedented.

• Even if a vaccine were approved for widespread use tomorrow, there would be lasting economic effects.

• One hopes that we learn from some of the missteps during the current pandemic so that we are better able to deal with future ones.

Thank you!