Macroeconomic Outcomes and COVID-19:

A Progress Report

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Brookings Papers on Economic Activity

Overview

- Data on Lost GDP and Covid Deaths

  ○ No simple tradeoff

  ○ Complicated interaction: policy, history, luck, and timing

- Outline

  ○ Simple framework

  ○ Cumulative losses across countries, cities, and states

  ○ Dynamics

Key Lesson: A heterogeneous set of places — Seoul, Tokyo, Germany, Norway — have good performance on both dimensions. We should study them!
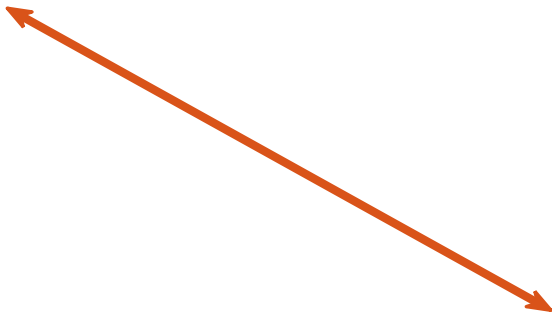
Covid Deaths per Million People, September

Seoul	5
Tokyo	25
Norway	50
Germany	100
San Francisco	200
NY excluding NYC	400
Florida, Italy, U.S., U.K., Brazil, Spain, London	600
Paris, Mississippi, Washington DC	800
Louisiana, Miami, Chicago, Philadelphia	1000
Madrid, Boston, Stockholm	1400
Lombardy, New Jersey	1700
New York City	2800

Short-Term Trade Off

GDP LOSS (PERCENT)
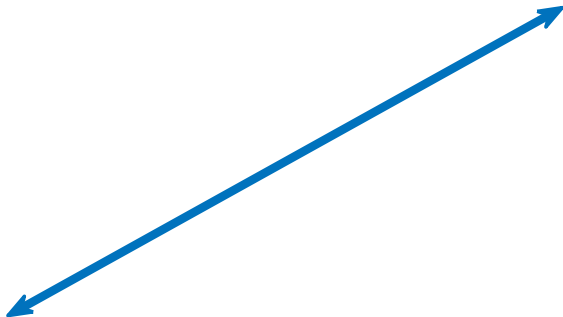
Shut down economy

Keep economy open

COVID DEATHS PER MILLION PEOPLE

Dynamics, Policy, and Luck Can Shift the Tradeoff
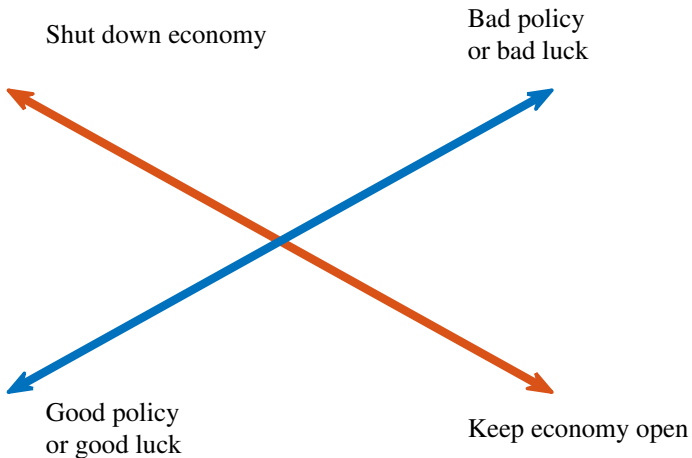
GDP LOSS (PERCENT)

Bad policy
or bad luck

Good policy
or good luck

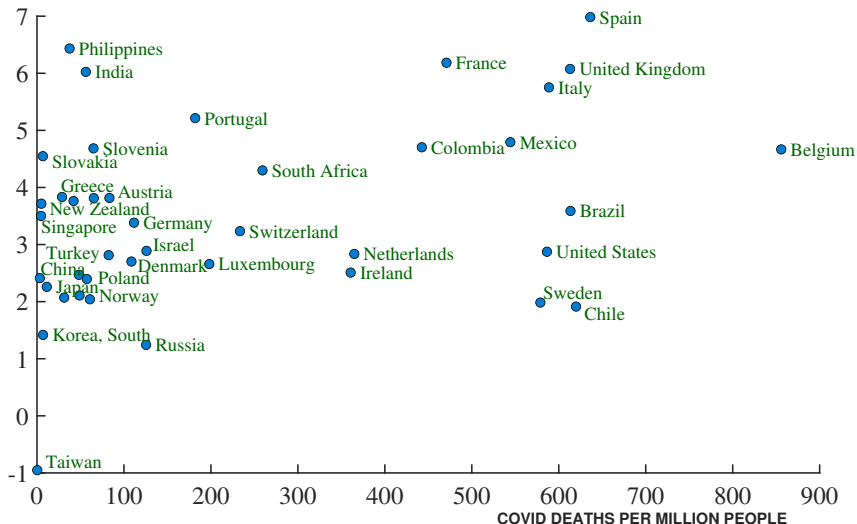**COVID DEATHS PER MILLION PEOPLE**

Putting together...

GDP LOSS (PERCENT)

Shut down economy

Bad policy
or bad luck

Good policy
or good luck

Keep economy open

COVID DEATHS PER MILLION PEOPLE

International Covid Deaths and Lost GDP, 2020

GDP LOSS (PERCENT YEARS)

Scatter plot. Y-axis labeled GDP LOSS (PERCENT YEARS) ranging from -1 to 7. X-axis labeled COVID DEATHS PER MILLION PEOPLE ranging from 0 to 900.

Data points:
- Spain (~630, 7)
- Philippines (~40, 6.45)
- France (~470, 6.15)
- India (~45, 6.05)
- United Kingdom (~615, 6.1)
- Italy (~570, 5.75)
- Portugal (~185, 5.2)
- Slovenia (~65, 4.7)
- Colombia (~440, 4.7)
- Mexico (~545, 4.7)
- Belgium (~855, 4.65)
- Slovakia (~5, 4.55)
- South Africa (~260, 4.3)
- Greece (~20, 3.8)
- Austria (~70, 3.8)
- New Zealand (~5, 3.5)
- Brazil (~600, 3.65)
- Singapore (~5, 3.3)
- Germany (~75, 3.25)
- Switzerland (~230, 3.2)
- Israel (~120, 2.95)
- Turkey (~45, 2.75)
- Netherlands (~360, 2.8)
- United States (~610, 2.85)
- China (~3, 2.35)
- Denmark (~100, 2.6)
- Luxembourg (~195, 2.6)
- Ireland (~365, 2.45)
- Poland (~55, 2.2)
- Japan (~15, 2.1)
- Norway (~55, 2.0)
- Sweden (~580, 2.0)
- Chile (~625, 1.9)
- Korea, South (~5, 1.45)
- Russia (~125, 1.2)
- Taiwan (~5, -0.95)

COVID DEATHS PER MILLION PEOPLE

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U.S. States: Covid Deaths and Cumulative Excess Unemployment

CUMULATIVE EXCESS UNEMPLOYMENT (PERCENT YEARS)

COVID DEATHS PER MILLION PEOPLE
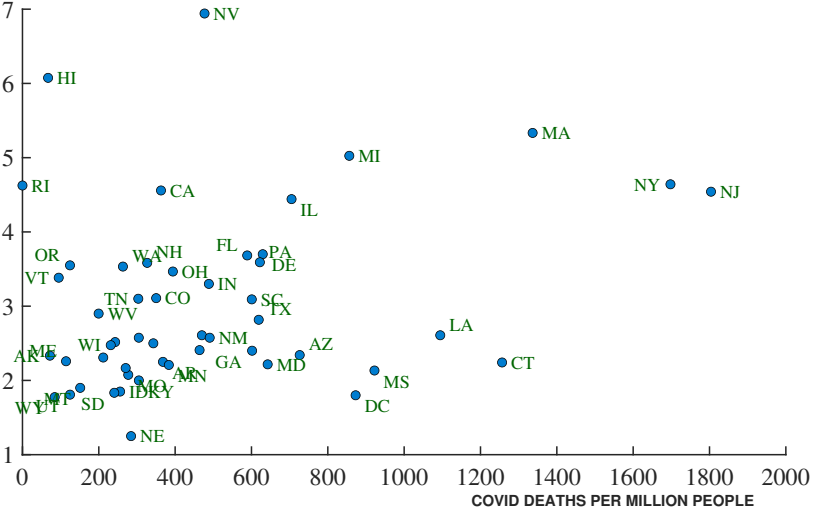
Google Mobility Reports Data

- Available daily, very disaggregated geographically, up to date
  - In contrast to GDP and unemployment

- Use the retail and restaurants component

- Good correlation with other measures
  - Correlation with GDP loss = 0.68
  - Correlation with state excess unemployment = 0.69

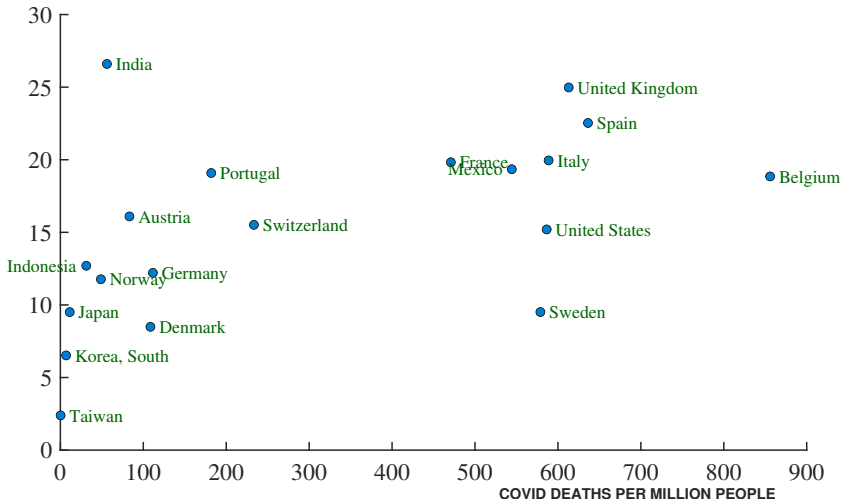# Google Activity Data for Key Global Cities
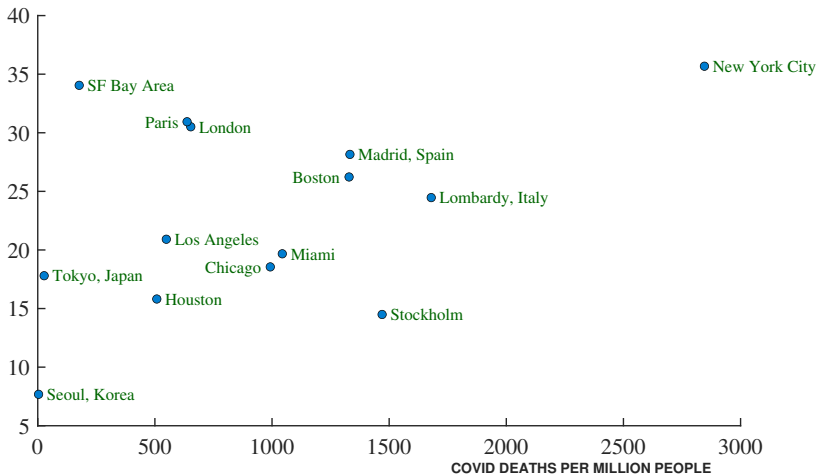

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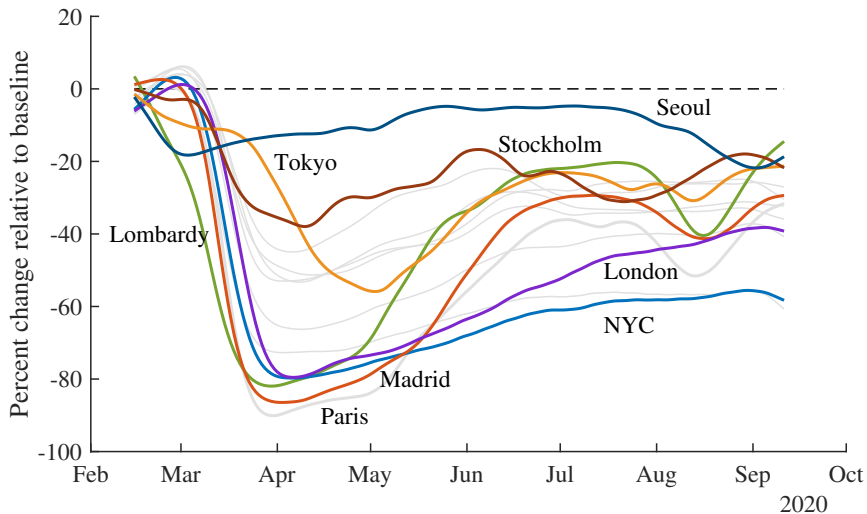
Google Activity Data for U.S. States
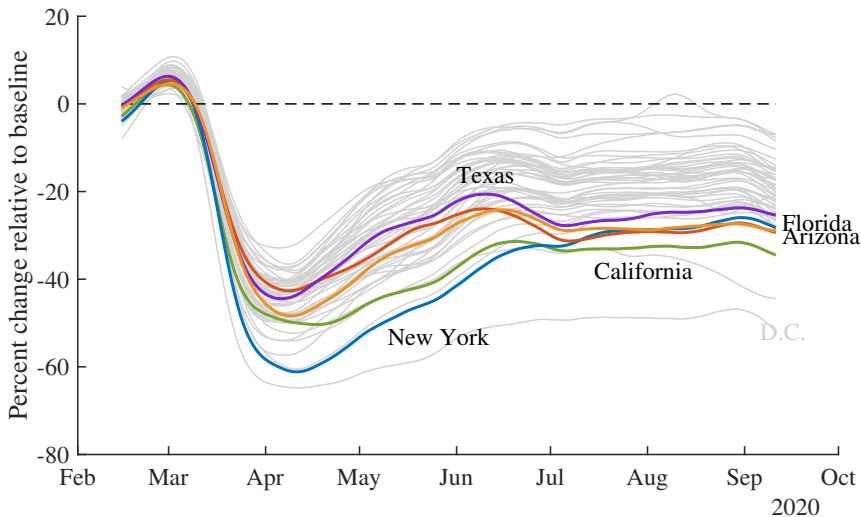
Covid Deaths and Cumulative Google Activity

CUMULATIVE REDUCED ACTIVITY(PERCENT YEARS)

COVID DEATHS PER MILLION PEOPLE

Global Cities: Covid Deaths and Cumulative Google Activity

CUMULATIVE REDUCED ACTIVITY(PERCENT YEARS)

Plot data points: New York City; SF Bay Area; Paris; London; Madrid, Spain; Boston; Lombardy, Italy; Los Angeles; Miami; Chicago; Tokyo, Japan; Houston; Stockholm; Seoul, Korea
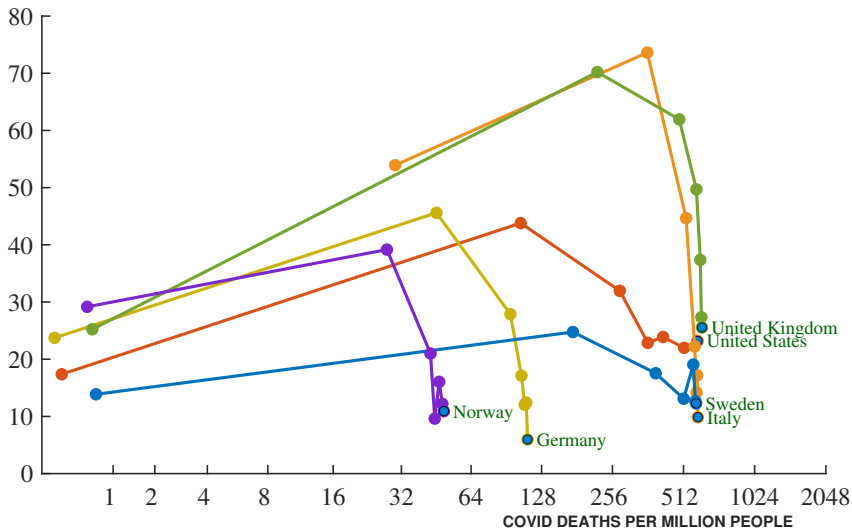
COVID DEATHS PER MILLION PEOPLE

Dynamics: Outcomes over Time

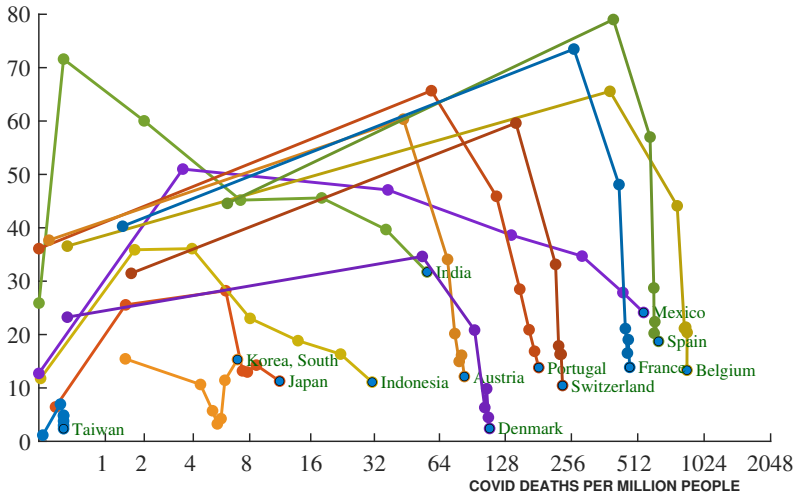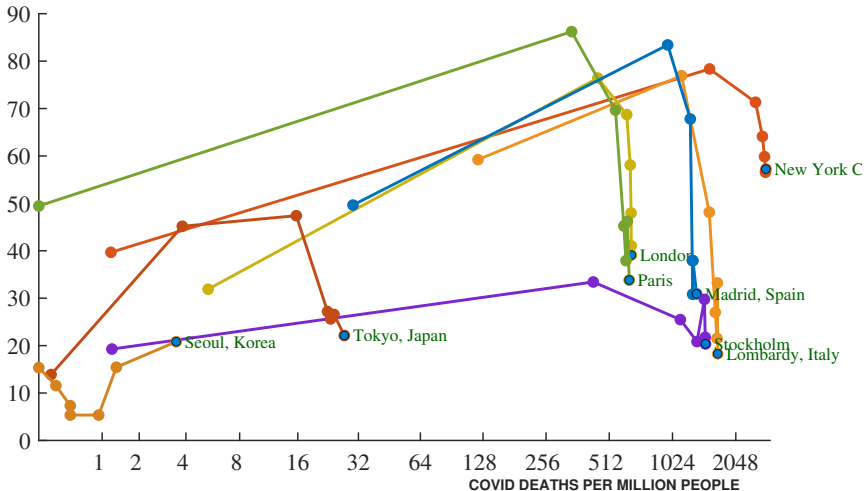# Countries: Monthly Evolution from March to September

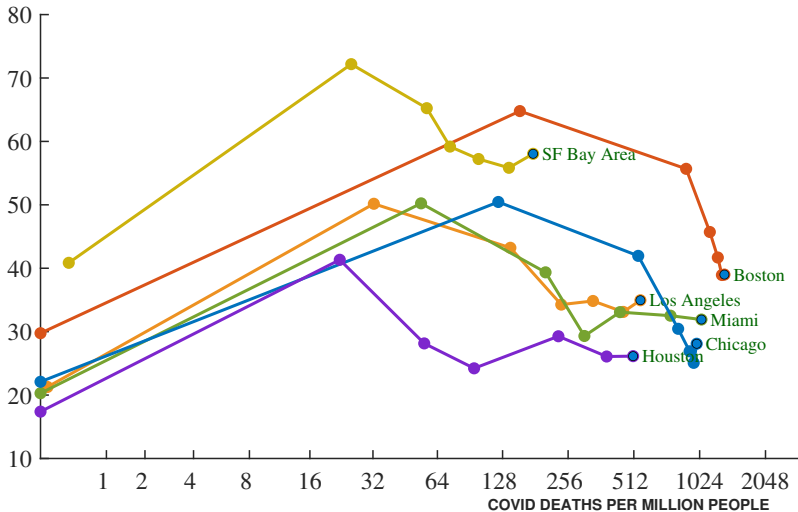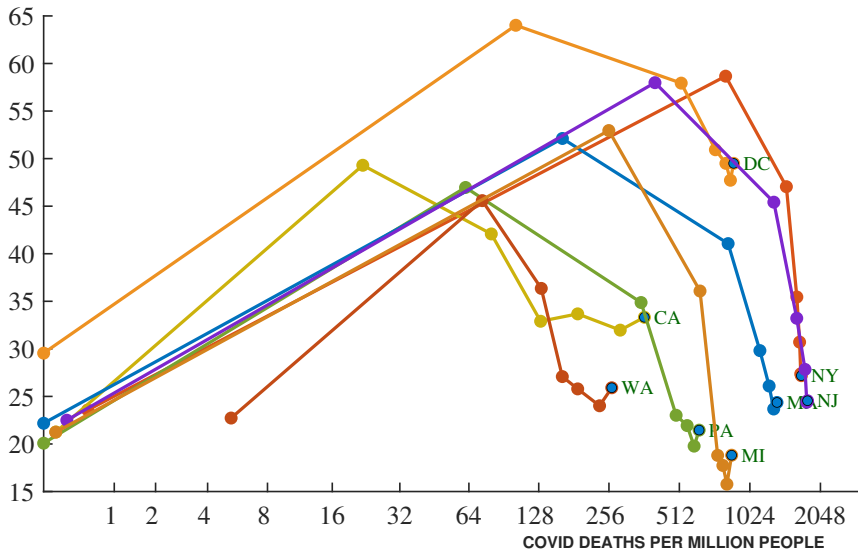# Countries: Monthly Evolution from March to September

REDUCED ACTIVITY (PERCENT)

COVID DEATHS PER MILLION PEOPLE

Labels on chart: Taiwan, Korea, South, Japan, Indonesia, India, Austria, Denmark, Portugal, Switzerland, France, Mexico, Spain, Belgium

Global Cities: Monthly Evolution from March to September

REDUCED ACTIVITY (PERCENT)

COVID DEATHS PER MILLION PEOPLE

New York C
London
Paris
Madrid, Spain
Stockholm
Lombardy, Italy
Seoul, Korea
Tokyo, Japan

Global Cities: Monthly Evolution from March to September

REDUCED ACTIVITY (PERCENT)

COVID DEATHS PER MILLION PEOPLE

SF Bay Area
Boston
Los Angeles
Miami
Chicago
Houston

REDUCED ACTIVITY (PERCENT)

COVID DEATHS PER MILLION PEOPLE

U.S. States: Monthly Evolution from March to September

REDUCED ACTIVITY (PERCENT)

COVID DEATHS PER MILLION PEOPLE
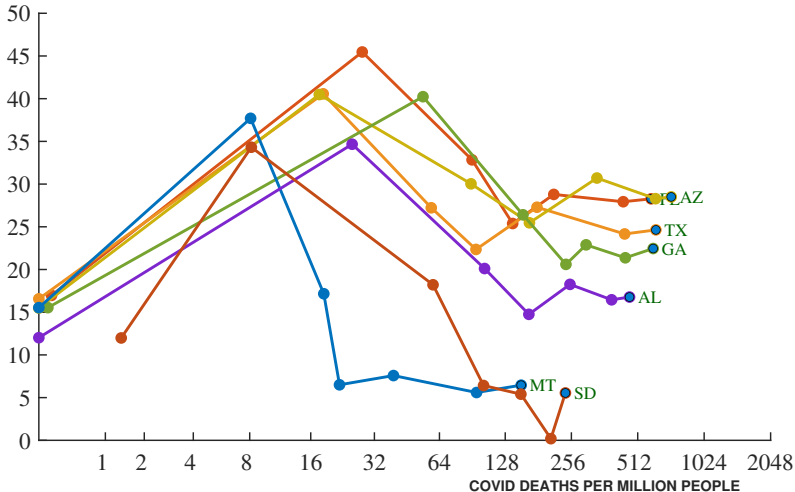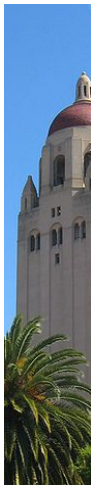
Concluding Remarks

Summary

GDP LOSS

California
[lucky? too tight?]

New York City
Lombardy
United Kingdom
Madrid
[unlucky? bad policy?]

Germany, Norway
Japan, S. Korea
China, Taiwan
Kentucky, Montana
[lucky? good policy?]

Sweden
[unlucky? too loose?]

COVID DEATHS