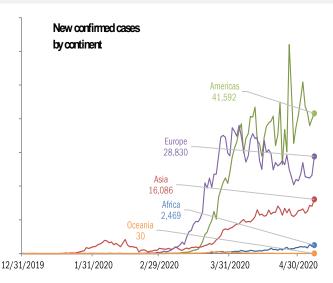


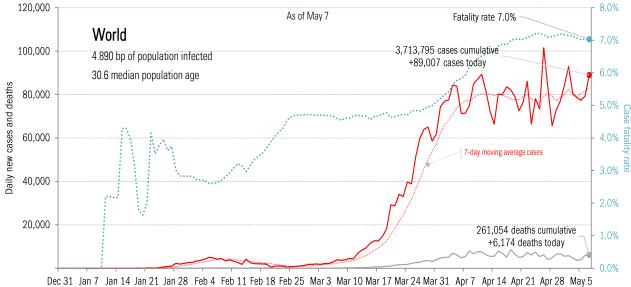
Data Insights: Covid-2019 Monitor

Thursday, May 7, 2020

The global scorecard

The worst ten countries New Deaths New cases +24.128 +2,353 US Russia +10,559 UK +649 Brazil +10,503 Brazil +615 UK +6,211 +369 Italy France +4,183 Belgium +323 Peru +3,628 France +278 India +3,561 Mexico +197 Turkey +2,253 Canada +189 +1,687 Germany Saudi_Arabia +123 India Iran +1,680+89 +68,393 +5,185 World +89,007 World +6.174 Top ten 84% 77% Top ten





Source: ECDC, TrendMacro calculations

For more information contact us:

Donald Luskin: 312 273 6766 don@trendmacro.com
Thomas Demas: 704 552 3625 tdemas@trendmacro.com

Copyright 2020 Trend Macrolytics LLC. All rights reserved. This document is not to be forwarded to individuals or organizations not authorized by Trend Macrolytics LLC to receive it. For information purposes only; not to be deemed to be recommendations for buying or selling specific securities or to constitute personalized investment advice. Derived from sources deemed to be reliable, but no warranty is made as to accuracy.

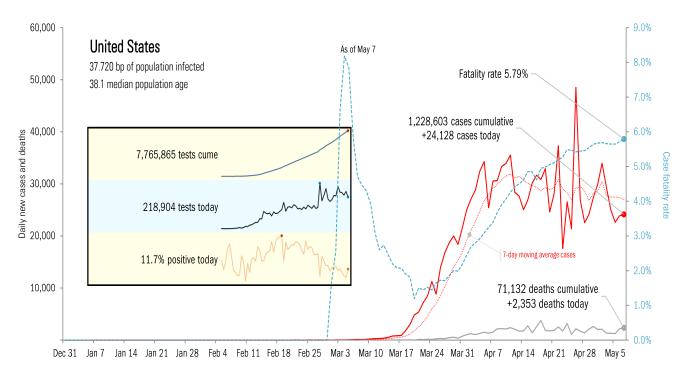
| TL _ | | | | |
|------|-----|-----|------|----|
| The | US. | SCO | reca | ro |

National and state-by-state data do not line up because of different sources

| The ten worst US states | | | | | | | | | | | |
|-------------------------|---------|------------|--------|------------|----------|------------|-----------|------------|--------|------------|----------|
| New cas | es | New Deaths | 3 | New in | hospital | Qume c | ases | Ourne de | aths | Cume in | hospital |
| NY | +3,352 | NJ | +305 | NY | +672 | NY | 324,544 | NY | 19,877 | NY | 70,539 |
| CA | +2,603 | NY | +232 | MA | +249 | NJ | 131,890 | NJ | 8,549 | CT | 7,758 |
| IL | +2,270 | MA | +208 | FL | +230 | MA | 72,025 | MA | 4,420 | MA | 7,080 |
| MA | +1,754 | IL | +136 | MD | +160 | IL | 68,232 | MI | 4,250 | FL | 6,776 |
| NJ | +1,297 | CA | +95 | GA | +131 | CA | 58,815 | PA | 3,106 | GA | 5,765 |
| TX | +1,053 | PA | +94 | OH | +96 | PA | 51,845 | L | 2,974 | MD | 5,497 |
| MD | +1,046 | ан | +90 | CO | +81 | MI | 45,054 | CT | 2,718 | VA | 4,113 |
| GA | +985 | CT | +85 | KY | +74 | FL. | 38,002 | CA | 2,412 | OH | 4,052 |
| PA | +888 | MI | +71 | TN | +65 | TX | 34,422 | LA | 2,115 | CO | 2,919 |
| IN | +837 | Æ | +69 | MN | +55 | CT | 30,995 | R. | 1,605 | WI | 1,694 |
| | +16,085 | | +1,385 | | +1,813 | | 855,824 | | 52,026 | | 116,193 |
| All states | +25,518 | All states | +1,949 | All states | +2,120 | All states | 1,221,123 | All states | 67,256 | All states | 131,477 |
| Top ten | 63% | Top ten | 71% | Top ten | 86% | Top ten | 70% | Top ten | 77% | Top ten | 88% |

Five most improved US states

| | • | | |
|-------------------|------------------|----------------------------|-----------------|
| Fewer daily cases | Fewer new deaths | Fewer new hospitalizations | Most recoveries |
| NJ -1,027 | PA -460 | VA -103 | TX +831 |
| CT -960 | MI -59 | NM -60 | VT +706 |
| VA -764 | CT -53 | OH -51 | MN +391 |
| WA -145 | LA -51 | MN -24 | OR +265 |
| IA -115 | FL -44 | OK -20 | IA +231 |
| | | | |



Source: States and test data Covid Tracking Project, US data ECDC, TrendMacro calculations

Recommended reading

For the first time in its history, New York City deliberately shut down its entire subway system this morning

Andy Rose *CNN*May 6, 2020

BlackRock's Fink Delivers Grim Outlook With Tax Hikes for Corporate America

Sridhar Natarajan Bloomberg May 6, 2020

Influenza vaccination and respiratory virus interference among Department of Defense personnel during the 2017–2018 influenza season

Greg G. Wolff *Vaccine* October 10, 2019

New York survey shows many hospitalized coronavirus patients were not working or traveling CNN

May 6, 2020

Dumb reopening might just work

John Cochrane

The Grumpy Economist

May 4, 2020

Chloroquine is a potent inhibitor of SARS coronavirus infection and spread

Martin J Vincent et al. Virology Journal August 22, 2005

Hong Kong's airport begins use of 'disinfection' technologies

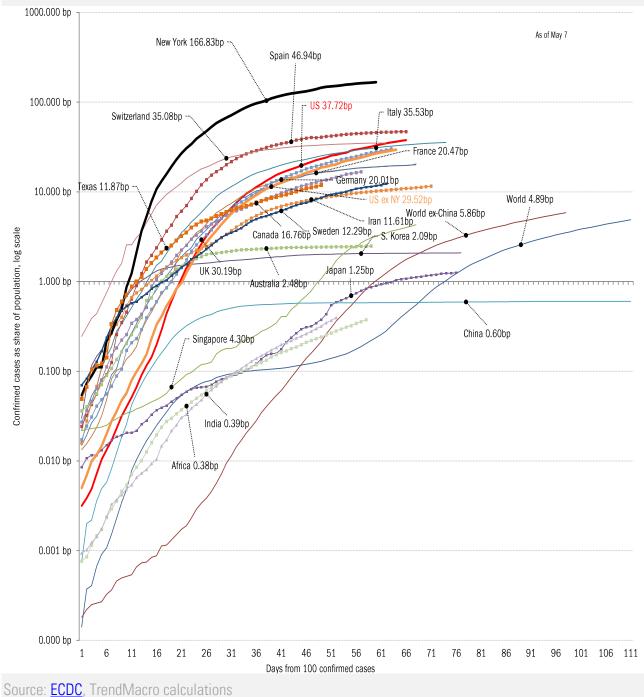
Joe Bates *Airport World* May 4, 2020

Meme of the day

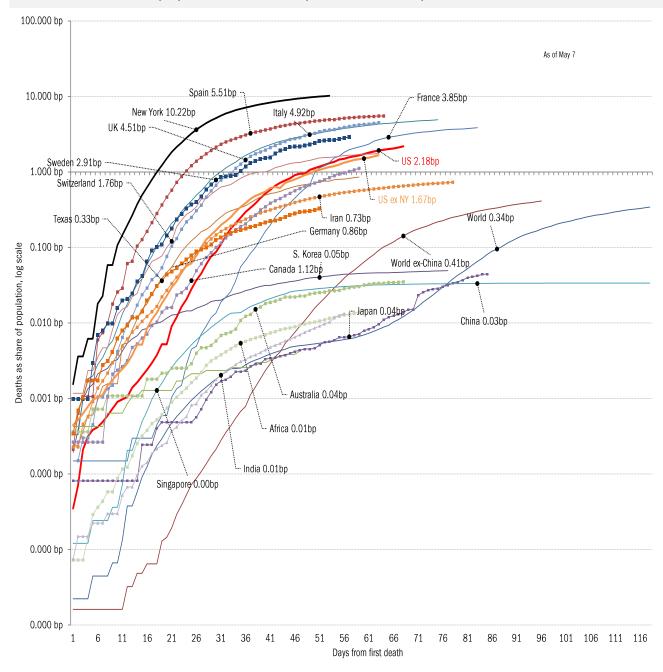


Source: Our beloved clients, and Power Line blog "The Week in Cartoons"

The coronavirus <u>case</u> accelerometer... tracking the world's infection curves Share of infected population from first day with 100 confirmed cases, log scale

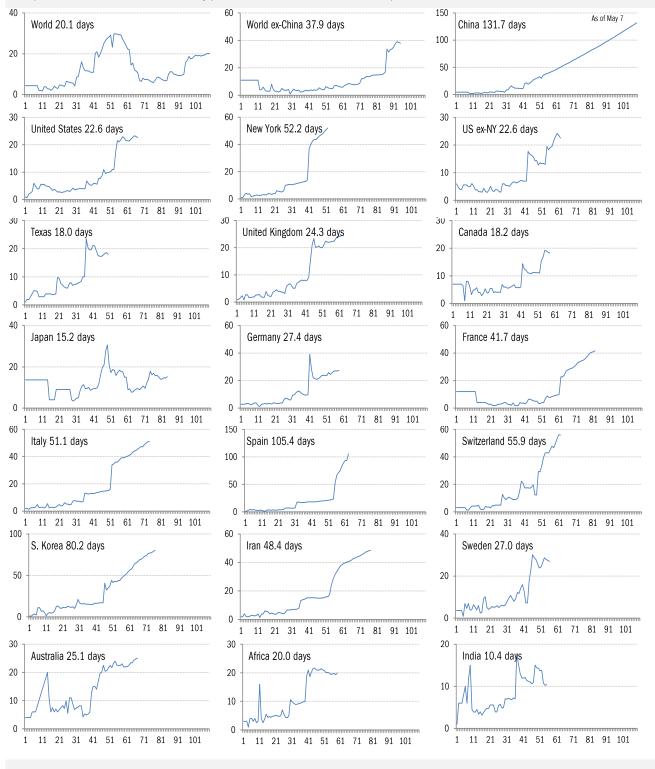


The coronavirus <u>mortality</u> accelerometer ... tracking the world's fatality curves *Share of deceased population from day of first fatality*

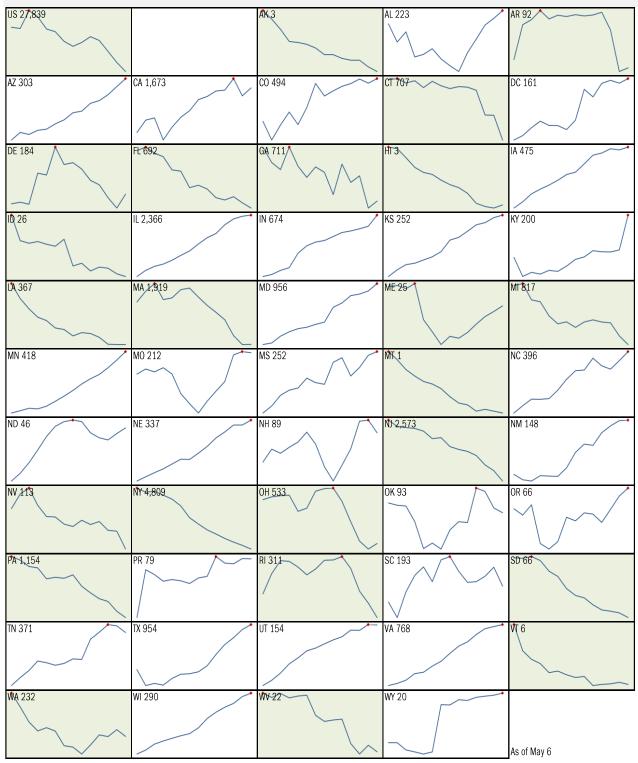


Our most reliable evidence of slowing the Moore's law of Covid-2019 Vertical: number of days it takes to double deaths Horizontal: days from first death Progress means seeing the line move up and to the right...

Extrapolated between actual doubling points. The most anomalous extrapolations are smoothed.

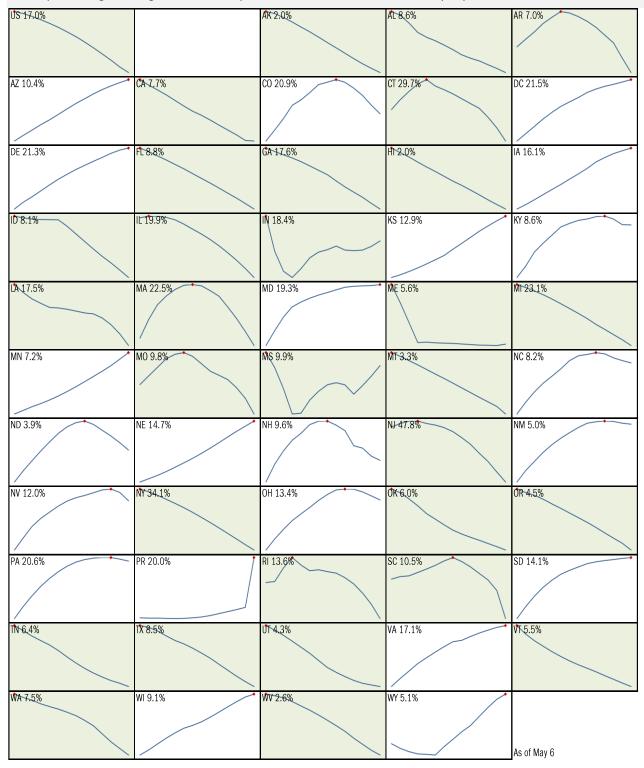


Requirement to <u>Open Up America Again</u>: ■ 14-day "downward trajectory" in new cases *14-day moving average, last 14 days Most recent value displayed*



Source: Covid Tracking Project, TrendMacro calculations

Alt requirement to <u>Open Up America Again</u>: ■ 14-day "downward trajectory" in pos tests 14-day moving average, last 14 days Most recent value displayed

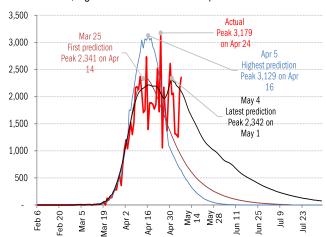


Source: Covid Tracking Project, TrendMacro calculations

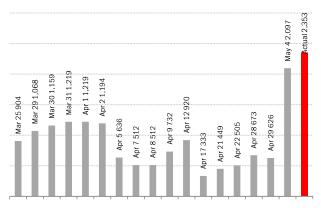
Reality-checking the models: actuals versus **IHME** predictions

New daily fatalities

Actual versus first, highest and latest model mean predictions



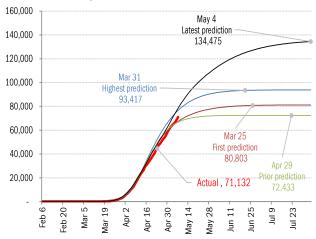
For this day, versus all model mean predictions



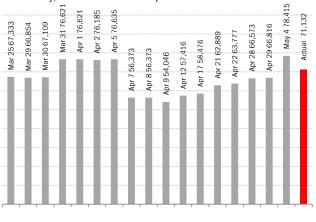
As of May 7

Cumulative fatalities

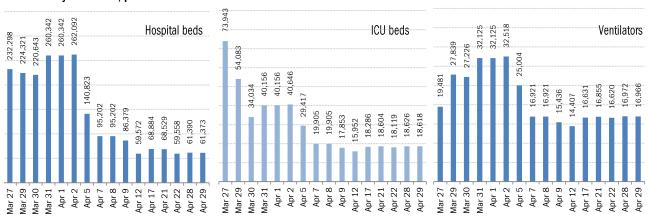
Actual versus first, highest and latest model mean predictions

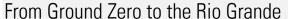


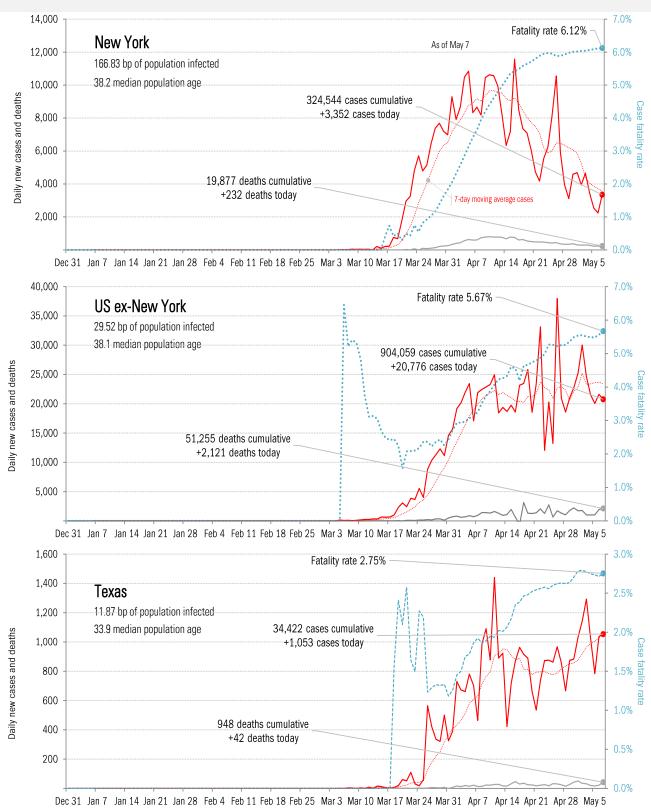
For this day, versus all model mean predictions



Healthcare system stress, peak estimated at each model revision







Patient zero... and then everyone else

