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Data Insights: Covid-2019 Monitor

Saturday, October 31, 2020

The global scorecard



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The US scorecard

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



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

Recommended reading

No More Lockdown

Van Morrison October 22, 2020

MIT has a new AI model that can detect asymptomatic COVID-19 patients just by the using the sound of their coughs recorded over phone calls

Prabhjote Gill *Business Insider* October 29, 2020

A Message from the Office of the Mayor

Village of Orland Park Mayor *Keith Pekau* October 27, 2020

<u>'Difficult winter': Europe divided on lockdowns;</u> cases soar

Lorne Cook, Samuel Petrequin and Frank Jordans Associated Press October 29, 2020

Meme of day



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



The coronavirus <u>case</u> accelerometer... tracking the world's infection curves

Source: ECDC, TrendMacro calculations



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

Source: ECDC, TrendMacro calculations

Our most reliable evidence of slowing exponential growth of Covid-2019

Vertical: days to double deaths Horizontal: days from first death

Flat indicates exponential spread Declining indicates supra-exponential spread Rising indicates sub-exponential spread



Source: <u>ECDC</u>, TrendMacro calculations

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* • High • Low Downward trajectory Five best Upward trajectory Five worst



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* • High • Low Downward trajectory Five best Upward trajectory Five worst



Source: Covid Tracking Project, TrendMacro calculations

Reality-checking the models: actuals versus IHME predictions

New daily fatalities

Actual versus first, highest, lowest and latest model mean predictions



As of Oct 31

Cumulative fatalities

Actual versus first, highest, lowest and latest model mean predictions



Healthcare system stress, peak and ultimate estimated at each model revision



Source: ECDC, IHME, TrendMacro calculations



From Ground Zero to the Rio Grande





The sun-belt hot-spot states (other than Texas)

Source: ECDC, TrendMacro calculations



Patient zero... and then everyone else

Source: ECDC, TrendMacro calculations



Source: **<u>ECDC</u>**, TrendMacro calculations



Source: <u>ECDC</u>, TrendMacro calculations



Source: ECDC, TrendMacro calculations

Impact in other hot-spots



Source: ECDC, TrendMacro calculations

Impact in the BRICs ex-China 120,000 4.0% India As of Oct 31 3.5% 100,000 60.70 bp of population infected 8,137,119 cases cumulative 3.0% Daily new cases and deaths 0.89 bp of population fatalities +48,268 cases today 80,000 26.8 median population age 2.5% Case Cume fatality rate 1.47% 60,000 2.0% 7-day moving average cases 1.5% 40,000 2-week fatality rate 0.90% 1.0% 20,000 120,018 deaths cumulative 0.5% +551 deaths today 0.0% Dec 31 Jan 21 Feb 11 Mar 24 Apr 14 May 5 May 26 Jun 16 Jul 28 Sep 29 Oct 20 Mar 3 Jul 7 Aug 18 Sep 8 20,000 2.5% 1,599,976 cases cumulative Russia 18,000 +18,283 cases today 11.07 bp of population infected 16,000 2-week fatality rate 2.25% 2.0% 0.19 bp of population fatalities Daily new cases and deaths 14,000 39.6 median population age Case 12,000 1.5% Cume fatality rate 1.73% e fatality rate 10,000 8,000 6,000 4,000 0.5% 27,656 deaths cumulative 2,000 +355 deaths today 0.0% Dec 31 Jan 21 Feb 11 Mar 3 Mar 24 Apr 14 May 5 May 26 Jun 16 Jul 7 Jul 28 Aug 18 Sep 8 Sep 29 Oct 20 80,000 8% Brazil Cume fatality rate 2.89% 70,000 7% 263.32 bp of population infected 60,000 6% 7.59 bp of population fatalities Daily new cases and deaths 33.5 median population age 50,000 5% 5,516,658 cases cumulative 4% fatality rate +22,282 cases today 40,000 30,000 20,000 2% 159,477 deaths cumulative +508 deaths today 2-week fatality rate 1.96% 10,000 1% 0% Dec 31 Jan 21 Feb 11 Mar 3 Mar 24 Apr 14 May 5 May 26 Jun 16 Jul 7 Jul 28 Aug 18 Sep 8 Sep 29 Oct 20

Source: <u>ECDC</u>, TrendMacro calculations



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