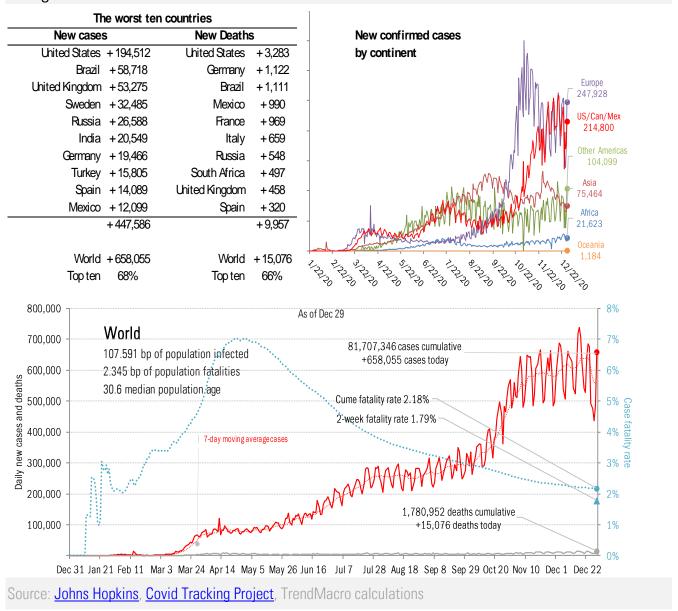


Trend Macrolytics, LLC Donald Luskin, Chief Investment Officer Thomas Demas, Managing Director Michael Warren, Energy Strategist

Data Insights: Covid-2019 Monitor

Wednesday, December 30, 2020

The global scorecard



For more information contact us: Donald Luskin: 312 273 6766 don@trendmacro.com

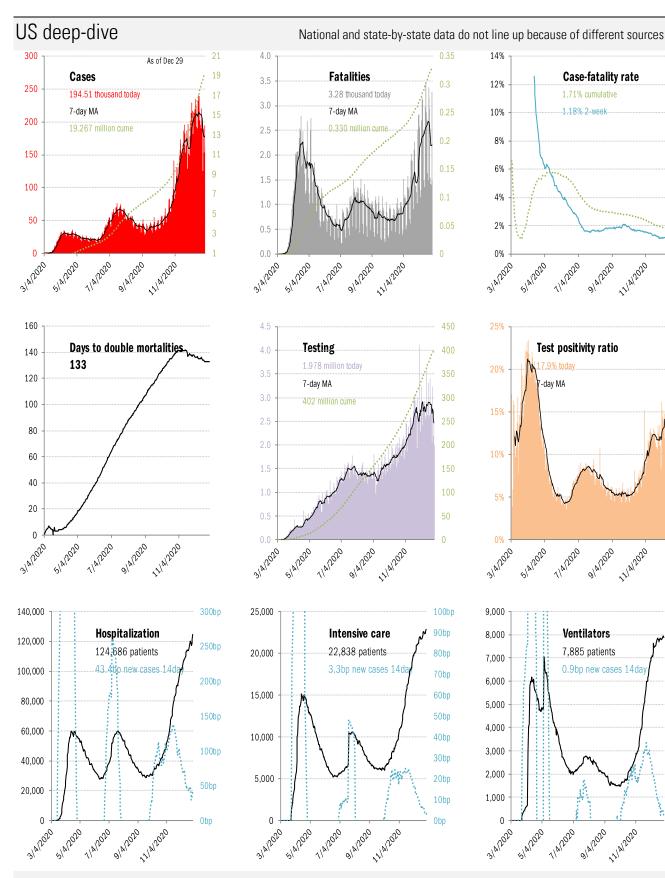
Thomas Demas: 704 552 3625 tdemas@trendmacro.com

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The US scorecard

| | | | | | | | n worst US | | | | | | |
|----------------------|--------------------------------|------------|---------------------------|-----------------|---|------------|--------------|---------|---------------------------|--------------|----------------------------------|---|------------------|
| New cases | | New Deaths | | New in hospital | | Cume cases | | | | | in hospital | Hospital use ICU use | |
| | + 32,552 | PA | +267 | CA | + 598 | | 2,187,221 | NY | 29,756 | NY | 89,995 | NV 169% | NM 98% |
| | +31,245 | CA | +242 | ΤX | + 424 | | 1,715,978 | ΤX | 26,762 | R | 62,999 | RI 87% | AL 92% |
| R. | +11,748 | TX | +241 | NY | + 255 | Æ | 1,270,063 | CA | 24,526 | NJ | 46,784 | GA 81% | RI 91% |
| NY | +11,438 | MI | +212 | CK | + 198 | IL | 948,006 | R. | 21,718 | GA | 41,403 | MD 79% | GA 90% |
| PA | + 8,545 | AZ | + 171 | NC | + 185 | NY | 943,990 | NJ | 18,777 | Ю | 37,636 | SC 79% | NV 87% |
| СН | +7,526 | IN | + 165 | Æ | + 171 | СН | 682,570 | IL | 17,596 | AZ | 36,075 | CA 78% | OK 87% |
| GA | + 5,853 | СН | + 151 | NJ | + 146 | PA | 622,349 | PA | 15,353 | IN | 34,534 | AZ 77% | CA 87% |
| IL | + 5,644 | NY | + 127 | VA | + 135 | TN | 572,589 | MI | 12,966 | AL | 33,452 | DC 75% | TX 85% |
| TN | + 4,797 | IL | + 126 | TN | + 123 | GA | 552,712 | MA | 12,218 | MD | 26,247 | MA 75% | WV 85% |
| MA | + 4,145 | NJ | + 126 | MO | + 111 | NC | 524,279 | GA | 10,779 | MN | 21,605 | FL 75% | TN 84% |
| | + 123,493 | | +1,828 | | +2,346 | | 10,019,757 | | 190,451 | | 430,730 | | |
| II - t - t | . 404 540 | | . 0.000 | | .0454 | | 40.007.000 | | 000.005 | | 070 050 | | 700 |
| | + 194,512 | | +3,283 | | +3451 | | 19,267,233 | | 329,605 | | 676,253 | All states 70% | 76% |
| Top ten | 63% | | 56% | | 68% | Top ten | 52% | | 58% | na etatae r | 64% ot reporting | Median 67% | 74% |
| | | | | | | Five most | improved | US stat | | 6 310103 11 | otroponing | | |
| Fewer | daily case | s | | F | ewer new | | | | new hosp | oitalizat | ions | Most recover | eries |
| CT | -7,690 | | | | CT | -93 | | | AL - | 215 | | TX | +29,782 |
| AZ | -7,287 | | | | KS | -41 | | | ОН - | 135 | | СН | + 11,993 |
| KS | -6,373 | | | | WY | -32 | | | NY - | 121 | | PA | + 11,692 |
| СК | -2,254 | | | | NM | -11 | | | GA - | 120 | | TN | + 10,218 |
| CA | -1,925 | | | | IL | -8 | | | AZ - | 115 | | IN | + 5,036 |
| 00,000 50,000 - | 591.5 10.11 | 9 bp of p | population opulation f | atalities | a far a start a | | As of Dec 29 | | 1 | | 3 cases cumula 12 cases today | | - 6.0% |
| 00,000 - | 38.1 n | nedian po | opulation a | ge | / | | | | Cu | me fatality | v rate 1.71% | M | - 5.0% - 4.0% |
| 50,000 - | US | /accina | ations | | | | A. | | 2-week f | atality rate | 1.18% | | |
| | 11.45 million doses distibuted | | | | 2-week fatality rate 1.18% | | | | | | | | |
| 00,000 - | | | t doses re | 1 | | | - | | 9,605 death +3,283 dea | | ve | land the second s | |
| 50,000 - | | | | | | | AN | M | 10,200 aca | NAA | A A A | | - 2.0% |
| | | | | \mathcal{N} | $\mathcal{M}_{\mathcal{N}}$ | And | پ | | · • | | | | |

Source: Covid Tracking Project, Dept. of Health and Human Services, CDC, TrendMacro calculations



30bp

25bp

20bp

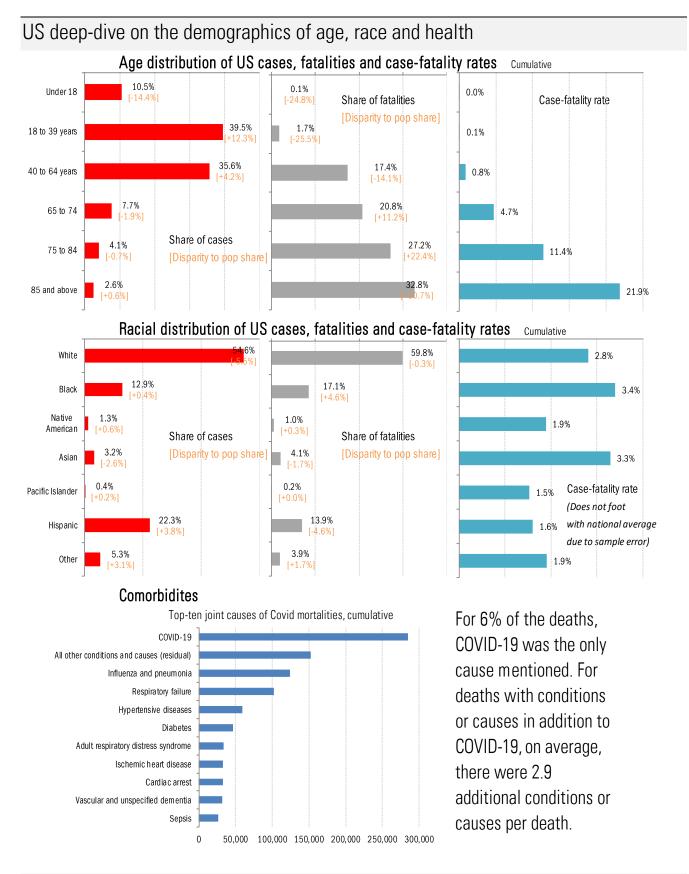
15bp

10bp

5bp

0bp

Source: Covid Tracking Project, TrendMacro calculations



Source: Distributions <u>CDC</u>, Comorbidities <u>CDC</u>, TrendMacro calculations

Recommended reading

U.S. Reports First Case of New Covid-19 Variant

Lukas I. Alpert and Daniela Hernandez *Wall Street Journal* December 29, 2020

Louisiana GOP Congressman-Elect Luke Letlow Dies of Covid-19

Natalie Andrews *Wall Street Journal* December 30, 2020

<u>Covid poses 'greatest threat to mental health since</u> second world war'

lan Sample *The Guardian* December 27, 2020

Executive Order on Expanding Educational Opportunity

Through School Choice

Donald J. Trump *The White House* December 28, 2020

Meme of day



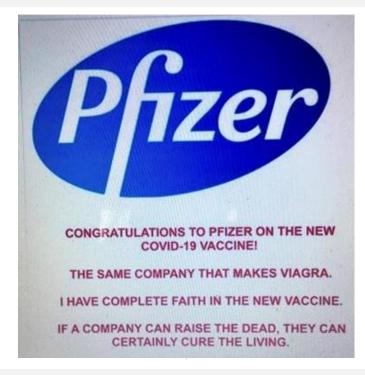
Paul Embery *The Post by Unherd* December 29, 2020

Mysterieuze, kunstzinnige protestmars in Nederland | Guerilla Mask Force

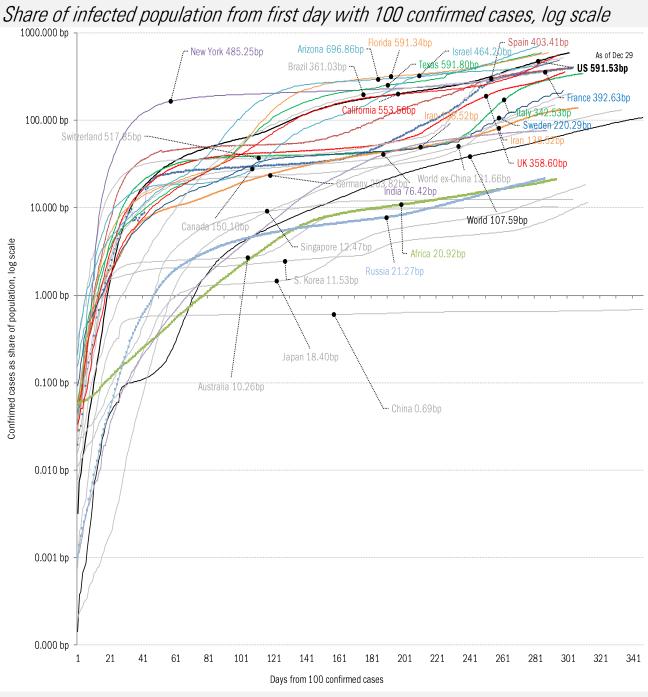
Cafe Weltschmerz December 1, 2020

Donald Trump, Michelle Obama Most Admired in 2020

Jeffrey M. Jones *Gallup* December 29, 2020

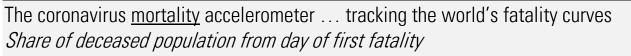


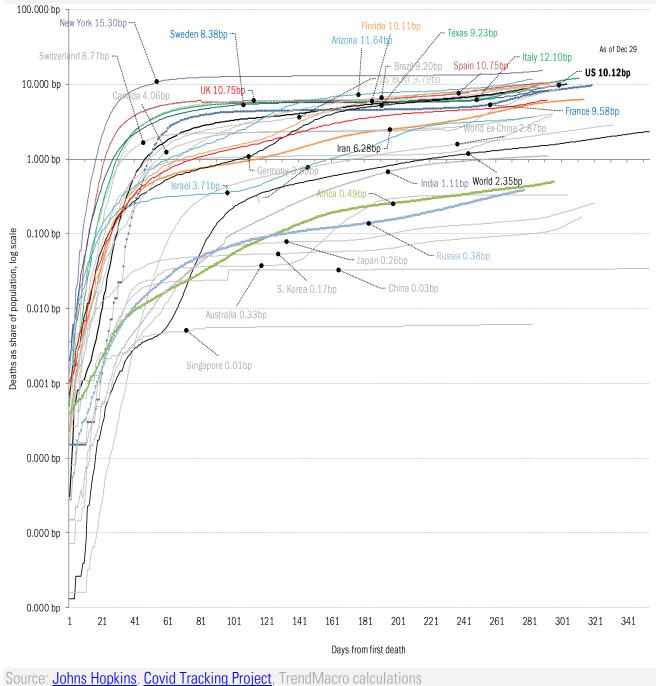
Source: Our beloved clients, and Power Line blog "The Week in Pictures"

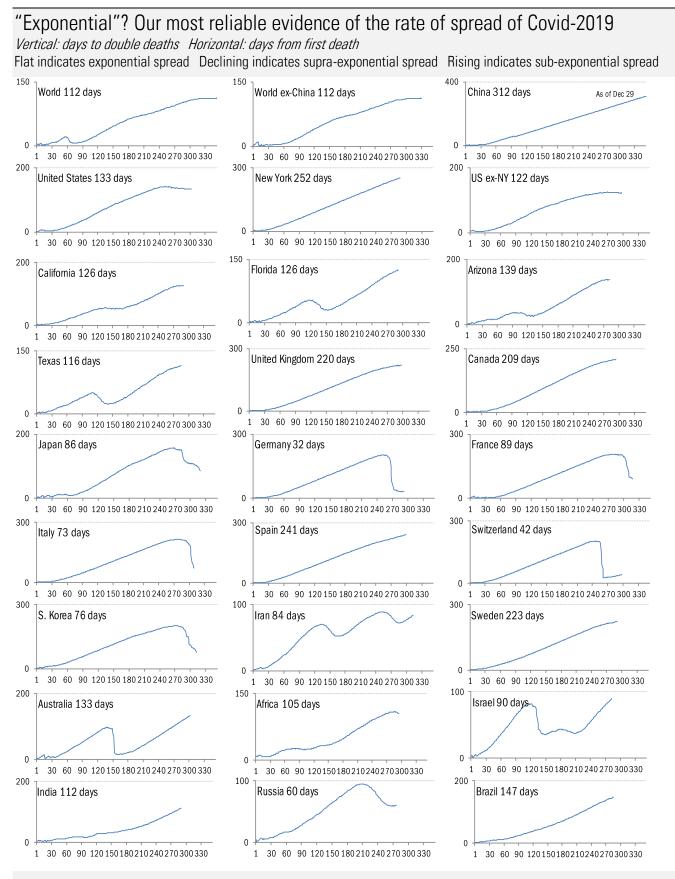


The coronavirus <u>case</u> accelerometer... tracking the world's infection curves Share of infected population from first day with 100 confirmed cases, log scale

Source: Johns Hopkins, Covid Tracking Project, TrendMacro calculations







Source: Johns Hopkins, Covid Tracking Project, 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

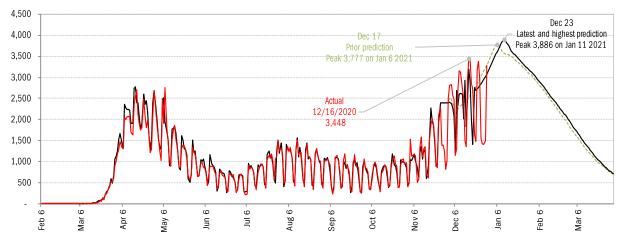


Source: Covid Tracking Project, TrendMacro calculations

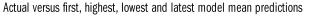
Reality-checking the models: actuals versus IHME predictions

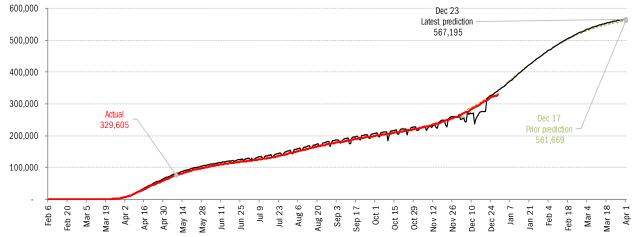
New daily fatalities

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

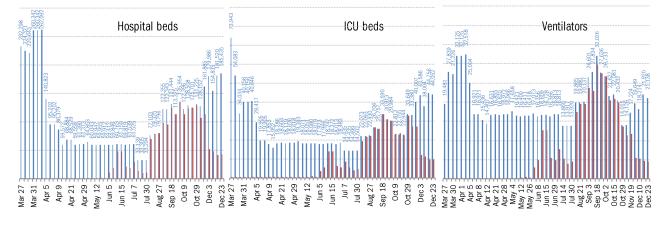


Cumulative fatalities



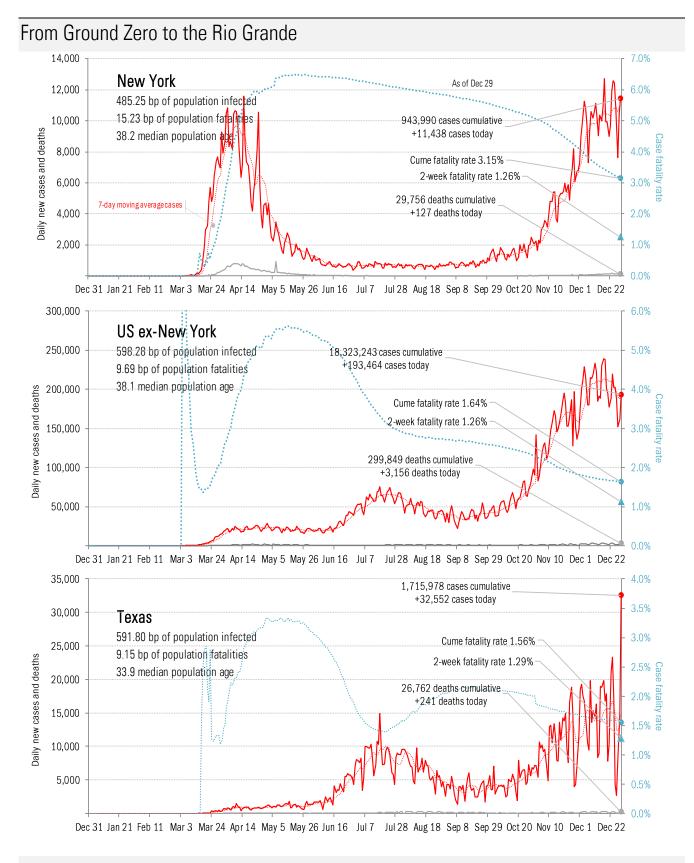


Healthcare system stress, peak and ultimate estimated at each model revision

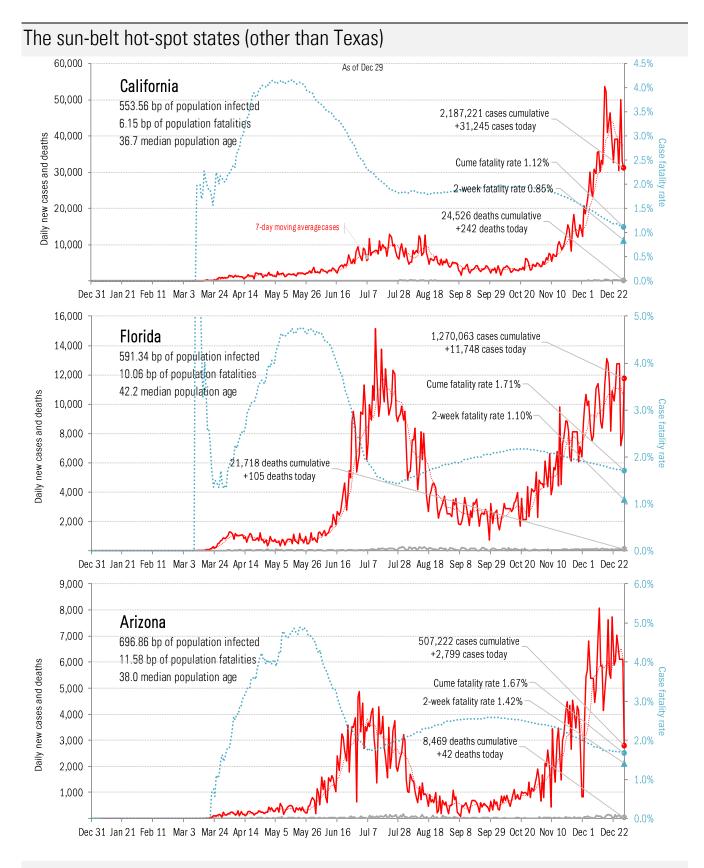


Source: IHME, Covid Tracking Project, TrendMacro calculations

As of Dec 29

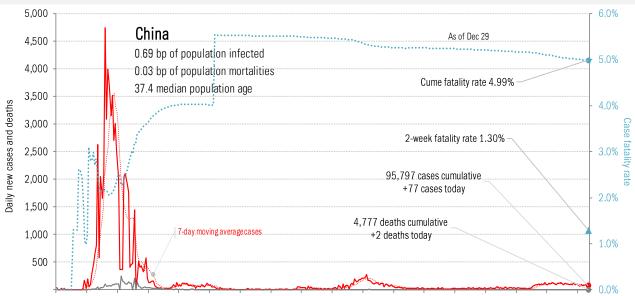


Source: Covid Tracking Project,, TrendMacro calculations

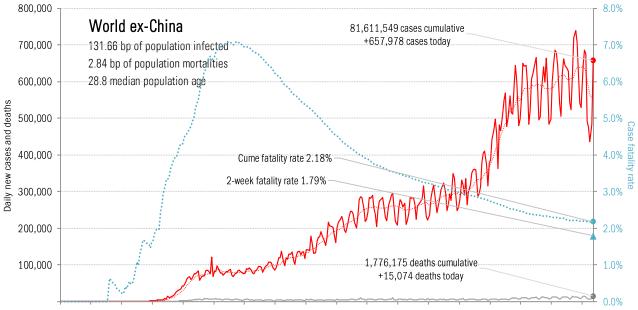


Source: Covid Tracking Project,, TrendMacro calculations

Patient zero... and then everyone else

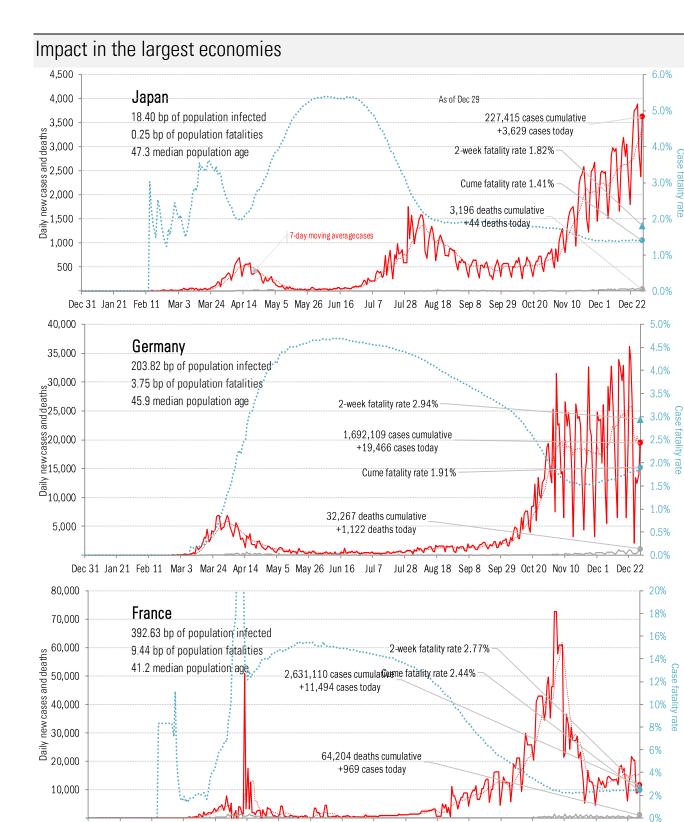


Dec 31 Jan 21 Feb 11 Mar 3 Mar 24 Apr 14 May 5 May 26 Jun 16 Jul 7 Jul 28 Aug 18 Sep 8 Sep 29 Oct 20 Nov 10 Dec 1 Dec 22



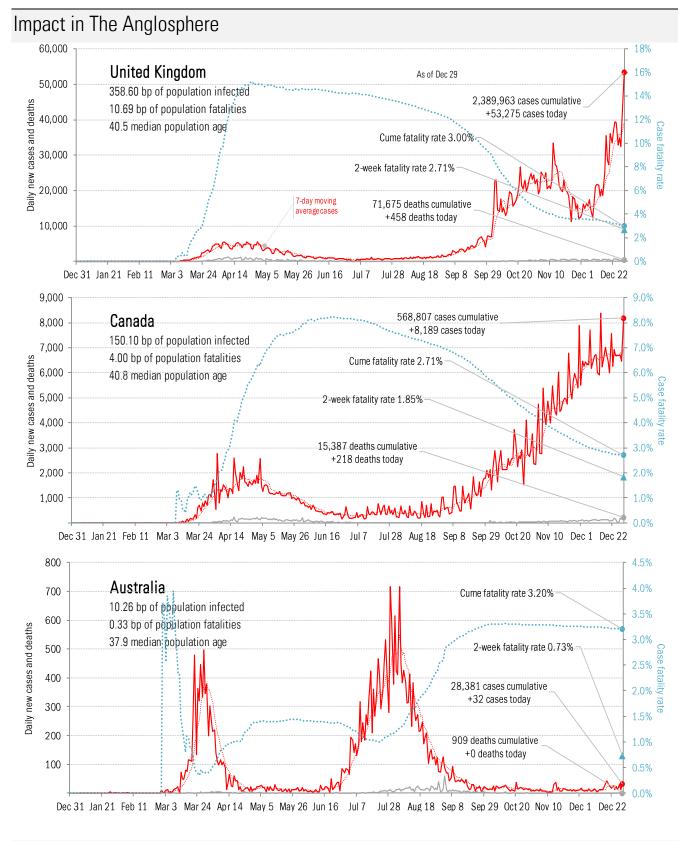
Dec 31 Jan 21 Feb 11 Mar 3 Mar 24 Apr 14 May 5 May 26 Jun 16 Jul 7 Jul 28 Aug 18 Sep 8 Sep 29 Oct 20 Nov 10 Dec 1 Dec 22

Source: Johns Hopkins, Covid Tracking Project, TrendMacro calculations

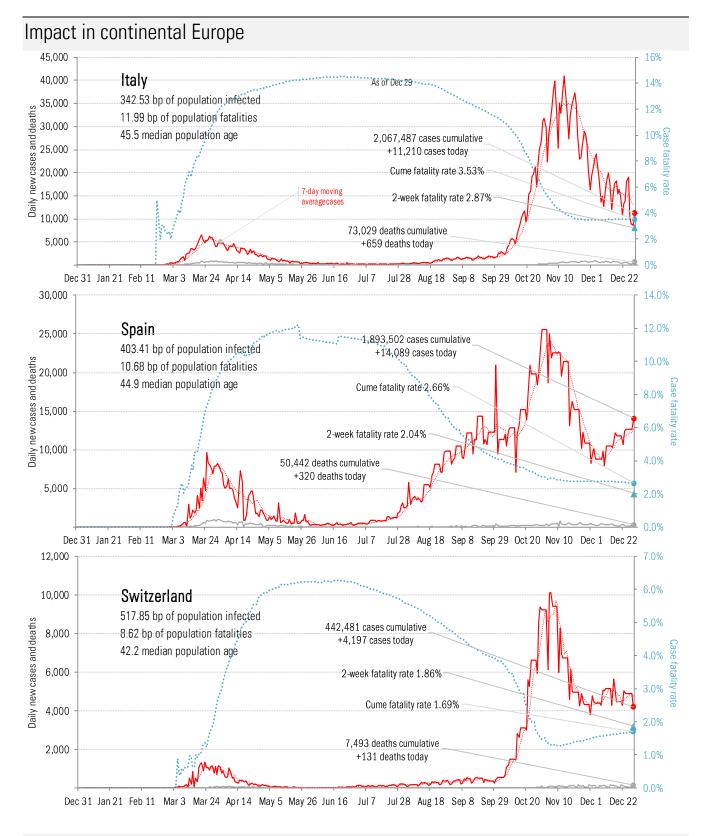


Dec 31 Jan 21 Feb 11 Mar 3 Mar 24 Apr 14 May 5 May 26 Jun 16 Jul 7 Jul 28 Aug 18 Sep 8 Sep 29 Oct 20 Nov 10 Dec 1 Dec 22

Source: Johns Hopkins, TrendMacro calculations

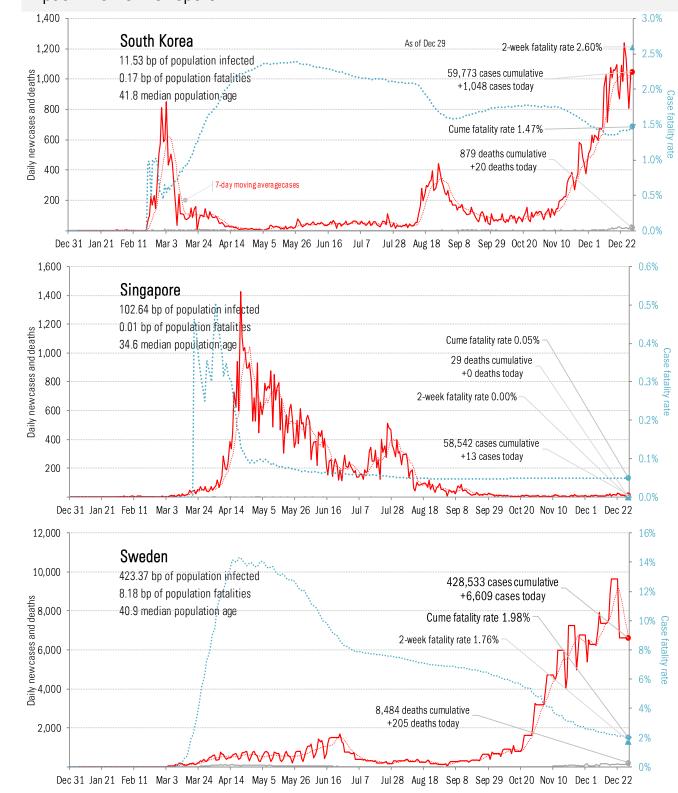


Source: Johns Hopkins, TrendMacro calculations

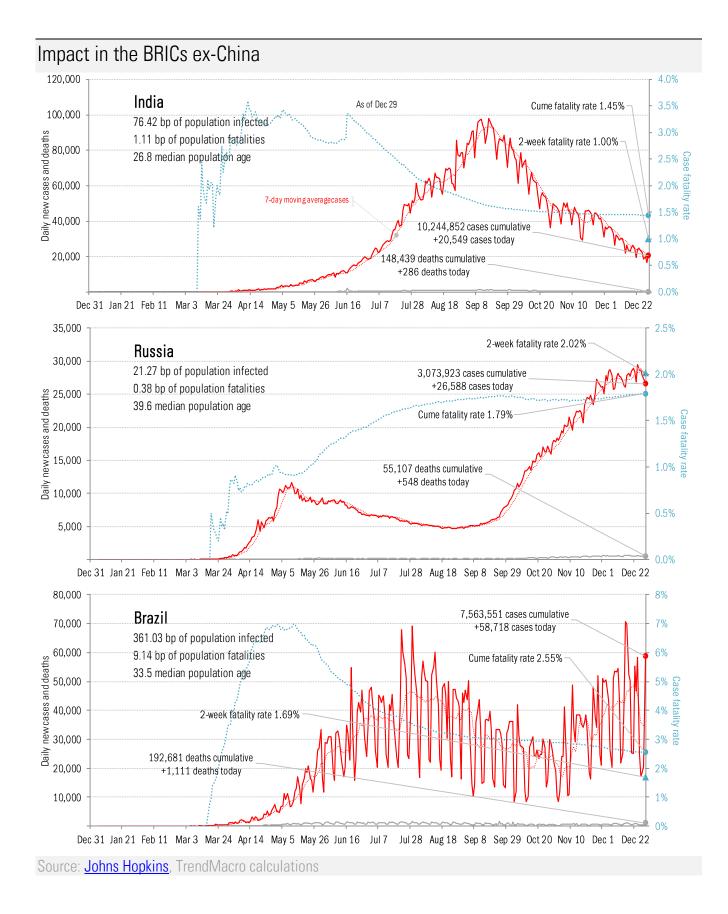


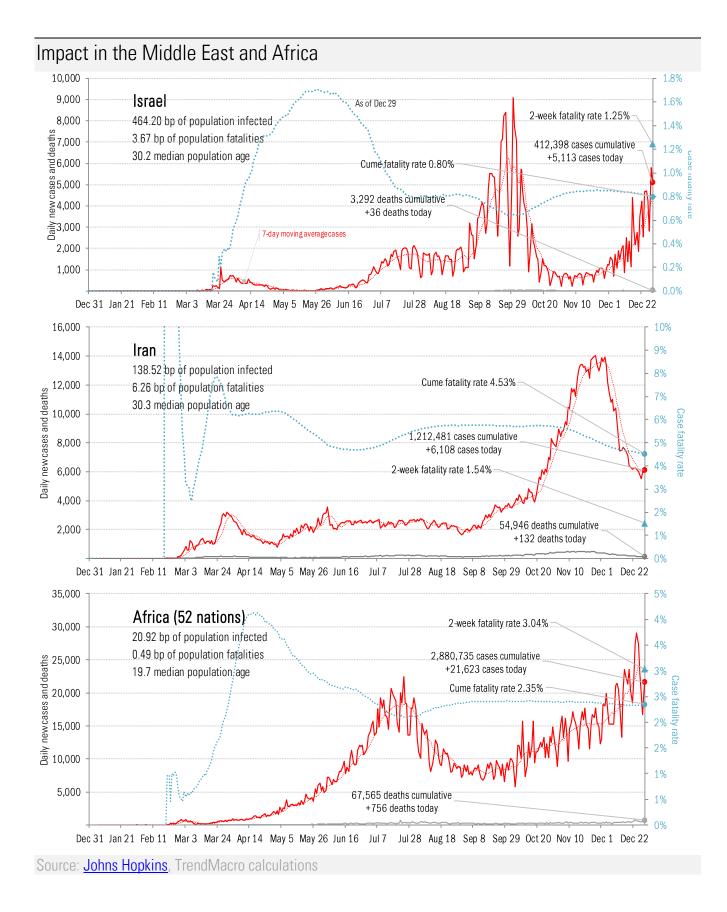
Source: Johns Hopkins, TrendMacro calculations

Impact in other hot-spots



Source: Johns Hopkins, TrendMacro calculations





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