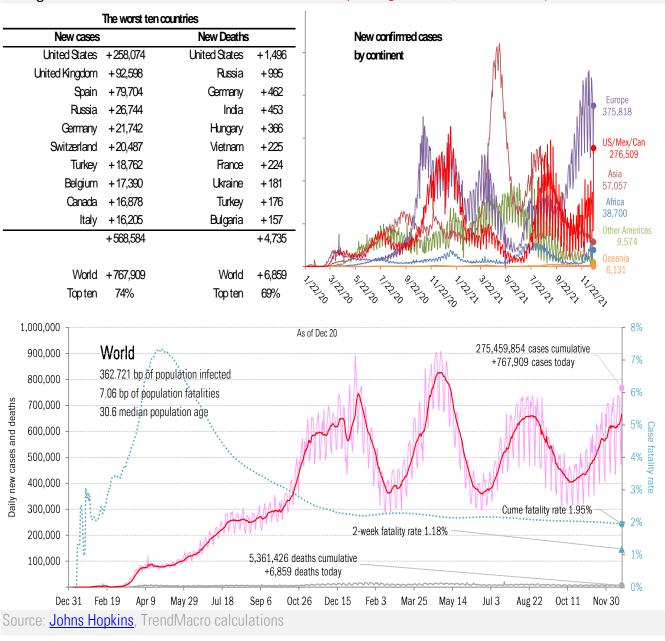


Trend Macrolytics, LLC Donald Luskin, Chief Investment Officer Thomas Demas, Managing Director Michael Warren, Energy Strategist

#### Data Insights: Covid-2019 Monitor

Tuesday, December 21, 2021

#### The global scorecard

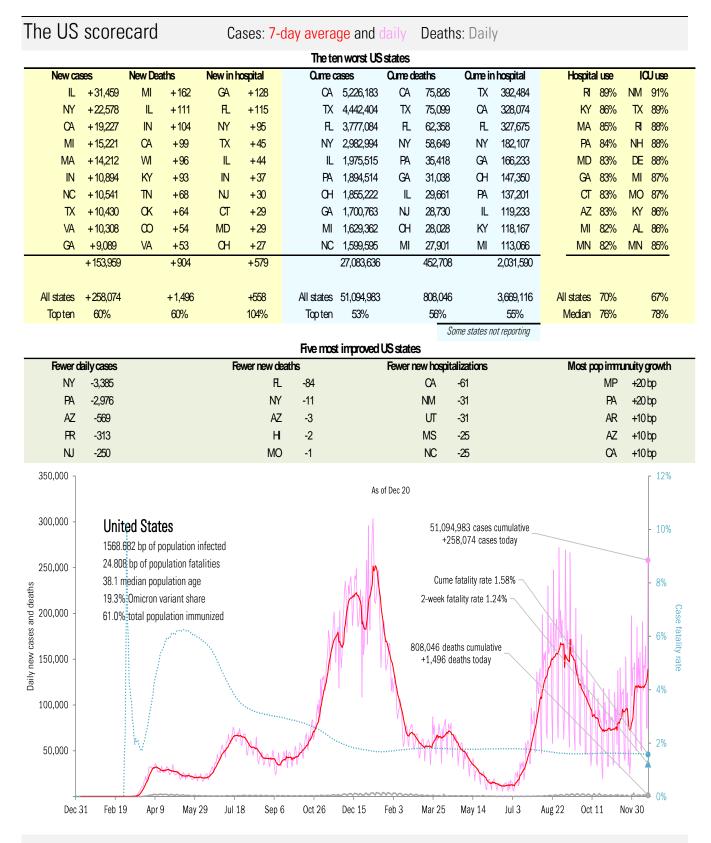


Cases: 7-day average and daily Deaths: Daily

#### For more information contact us:

Donald Luskin: 214 550 2121 <u>don@trendmacro.com</u> Thomas Demas: 704 552 3625 <u>tdemas@trendmacro.com</u>

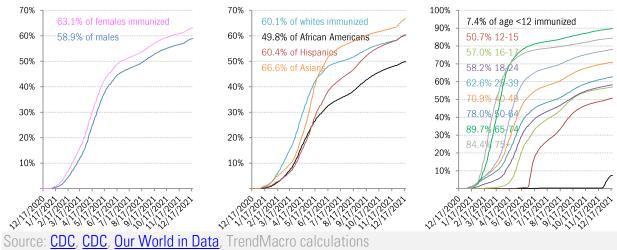
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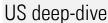


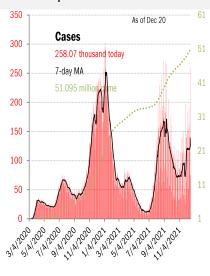
Source: Johns Hopkins, Dept. of Health and Human Services, CDC, TrendMacro calculations

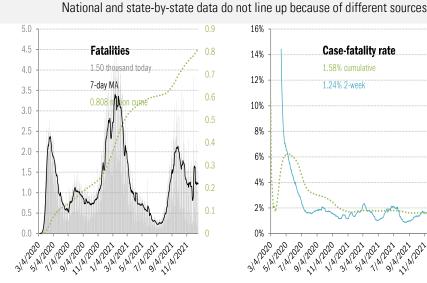
Doses 50 Boosters 6 Total population 24 Age 12 to 17 1 Age 18 to 64 16 Age 65 and over 5 J&J 4% Moderna 38% Pfizer 58% Sta At least part as % po	lative	the US and the world				Today		Immunity	Full	Partia
One     Total population   24     Age 12 to 17   1     Age 18 to 64   16     Age 65 and over   5     J&J   4%     Moderna   38%     Pfizer   5     AK   6     64.4%   55.9%     VA   ID     74.7%   51.8%     67.3%   46.0%     0R   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     55.9%   57.9%     AZ   66.5%     65.5%   57.9%	9,338,343					+1.148 million		US	61.0%	72.9%
One     Total population   24     Age 12 to 17   1     Age 18 to 64   16     Age 65 and over   5     J&J   4%     Moderna   38%     Pfizer   5     AK   6     64.4%   55.9%     VA   ID     74.7%   51.8%     67.3%   46.0%     0R   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     55.9%   57.9%     AZ   66.5%     65.5%   57.9%	61,779,176					+0.662 million		UK	69.0%	75.5%
Age 12 to 17 1 Age 18 to 64 16 Age 65 and over 5 J&J 4% Moderna 38% Pfizer 58% Full im as % po 64.4% 55.9% WA ID 74.7% 51.8% 67.3% 46.0% OR NV 73.4% 68.6% 66.0% 56.0% CA UT 81.7% 66.5% 55.9% AZ 66.5% 56.5% 56.5%	dose	% Pop	o Immune		% рор	New immune today		France	72.1%	77.79
Age 18 to 64 16 Age 65 and over 2 J&J 4% Moderna 38% Pfizer 58% At least part as % po Full im as % po 64.4% 55.9% WA ID 74.7% 51.8% 67.3% 46.0% OR NV 73.4% 68.6% 66.0% 56.0% CA UT 81.7% 66.5% 65.5% 57.9% AZ 66.5% 56.5%	7,840,277	74%	209,226,356		62%	+0.174 million		Spain	80.9%	83.59
Age 65 and over J&J J&J 4% Moderna 38% Pfizer 58% At least part as % po Full im as % po 64.4% 55.9% WA ID 74.7% 51.8% 67.3% 46.0% OR NV 73.4% 68.6% 66.0% 56.0% CA UT 81.7% 66.5% 57.9% AZ 66.5% 56.5%	5,029,398	63%	12,618,843		53%	+0.012	million	Germany	69.8%	72.89
J&J 4% Moderna 38% Pfizer 58% At least part as % po Full im as % po 64.4% 55.9% WA ID 74.7% 51.8% 67.3% 46.0% OR NV 73.4% 68.6% 66.0% 56.0% CA UT 81.7% 66.5% 65.5% 57.9% AZ 66.5% 56.5%	7,625,565	82%	142,600,202		70%	+0.079 million		Italy	73.7%	79.49
4% Moderna 38% Pfizer 58% Ak 64.4% 55.9% WA ID 74.7% 51.8% 67.3% 46.0% OR NV 73.4% 68.6% 66.0% 56.0% CA UT 81.7% 66.5% 65.5% 57.9% AZ 66.5% 56.5%	58,094,821	100%	49,566,632		90%	+0.012 million		Australia	76.0%	78.99
Wodema 38%   Pfizer 58%   Sta At least part as % po Full im as % po     64.4%   5.9%   Full im as % po     64.4%   D     55.9%   74.7%   51.8%     67.3%   46.0%     OR   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     57.9%   AZ     66.5%   57.9%     AZ   66.5%     56.5%   56.5%     56.5%   56.5%				Every Am	erican >18	3 immuniz	ed in	Israel	62.9%	69.69
Wodelina 38%   Pfizer 58%   At least part as % po     AK   64.4%     55.9%   WA     Max   1D     74.7%   51.8%     67.3%   46.0%     OR   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     57.9%   AZ     66.5%   57.9%     HI   83.8%								Canada	77.0%	82.89
Wodelina 38%   Pfizer 58%   At least part as % po     AK   64.4%     55.9%   WA     Max   1D     74.7%   51.8%     67.3%   46.0%     OR   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     57.9%   AZ     66.5%   57.9%     HI   83.8%	4.	l 116 days						Japan	78.0%	79.59
Pfizer   At heast part     58%   as % po     64.4%   55.9%     64.4%   55.9%     WA   ID     74.7%   51.8%     67.3%   46.0%     OR   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     65.5%   57.9%     AZ   66.5%     65.5%   56.5%     56.5%   56.5%     HI   83.8%	ate	Best		by Apr 14		4		Africa	8.6%	13.39
58% as % po   Full im as % po   64.4% 55.9%   VNA ID   74.7% 51.8%   67.3% 46.0%   OR NV   73.4% 68.6%   66.0% 56.0%   CA UT   81.7% 665.5%   57.9% AZ   66.5% 56.5%   HI 83.8%	ial immunity			74.3% of	opulation	>18 immu	nized	India	39.5%	59.59
K Full im as % po   64.4% 55.9%   WA ID   74.7% 51.8%   67.3% 46.0%   OR NV   73.4% 68.6%   66.0% 56.0%   CA UT   81.7% 66.5%   65.5% 57.9%   AZ 66.5%   66.5% 56.5%   56.5% 56.5%	as % population Middle 18.0% previously te							Brazil	66.2%	77.39
64.4%   ID     74.7%   51.8%     67.3%   46.0%     67.3%   46.0%     67.3%   46.0%     0R   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     65.5%   57.9%     AZ   66.5%     66.5%   56.5%     56.5%   56.5%     HI   83.8%	Full immunity 92.2% VS				vs 60% ad	ult herd im	imunity	China	82.6%	84.89
55.9%   WA ID   74.7% 51.8%   67.3% 46.0%   67.3% 46.0%   0R NV   73.4% 68.6%   66.0% 56.0%   65.5% 57.9%   AZ 66.5%   66.5% 56.5%	pulation	Wors	t					Global data differ	s due to source	s, timing
WA   ID     74.7%   51.8%     67.3%   46.0%     OR   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     65.5%   57.9%     AZ   66.5%     56.5%   56.5%     HI   83.8%				WI		As of Dec 20		ſ	ME	
WA   ID     74.7%   51.8%     67.3%   46.0%     OR   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     65.5%   57.9%     AZ   66.5%     56.5%   56.5%     HI   83.8%				67.6%					84.7%	
74.7% 51.8%   67.3% 46.0%   OR NV   73.4% 68.6%   66.0% 56.0%   CA UT   81.7% 66.5%   65.5% 57.9%   AZ 66.5%   56.5% 56.5%				61.5%					75.1%	
67.3% 46.0%   OR NV   73.4% 68.6%   66.0% 56.0%   CA UT   81.7% 66.5%   65.5% 57.9%   AZ 66.5%   56.5% 56.5%	MT	ND	MN	IL	MI		NY	VT	NH	
OR   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     65.5%   57.9%     AZ   66.5%     56.5%   56.5%     81.7%   66.5%	61.5%	61.6%	70.8%	71.5%	62.9%		82.3%	88.2%	94.9%	
OR   NV     73.4%   68.6%     66.0%   56.0%     CA   UT     81.7%   66.5%     65.5%   57.9%     AZ   66.5%     56.5%   56.5%     81.8%   66.5%	53.6%	52.0%	65.0%	63.8%	56.3%		71.1%	76.6%	66.4%	
66.0% 56.0%   CA UT   81.7% 66.5%   65.5% 57.9%   AZ 66.5%   56.5% 56.5%	WY	SD	IA	IN	OH	PA	NJ	MA		
CA   UT     81.7%   66.5%     65.5%   57.9%     AZ   66.5%     56.5%   56.5%     HI   83.8%	55.2%	69.7%	64.1%	57.4%	60.0%	85.2%	82.3%	89.3%		
81.7% 66.5% 65.5% 57.9% AZ 66.5% 56.5% HI 83.8%	47.0%	56.4%	58.4%	51.7%	54.9%	61.0%	69.9%	74.0%		
65.5% 57.9% AZ 66.5% 56.5% HI 83.8%	CO	NE	M0	KY	WV	VA	MD	СТ	RI	
AZ 66.5% 56.5% HI 83.8%	73.7%	65.7%	61.8%	61.9%	89.7%	78.0%	79.3%	87.3%	87.1%	
66.5% 56.5% HI 83.8%	65.6%	59.2%	52.7%	53.8%	71.6%	67.5%	69.8%	74.1%	75.7%	
56.5% HI 83.8%	NM	KS	AR	TN	NC	SC	DC	DE		
HI 83.8%	79.7%	68.4%	62.1%	58.1%	74.5%	62.1%	86.5%	75.6%		
83.8%	65.7%	56.5%	50.8%	50.9%	56.2%	52.7%	66.9%	63.5%		
83.8%		OK	LA	MS	AL	GA				
83.8%		65.1%	56.8%	55.2%	57.9%	60.4%				
		53.0%	49.9%	48.0%	47.2%	50.4%		_		_
62.6%		TX					FL	[	PR	
		66.0%					73.7%		87.7%	
		56.4%					62.9%		76.4%	

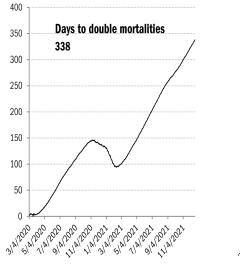
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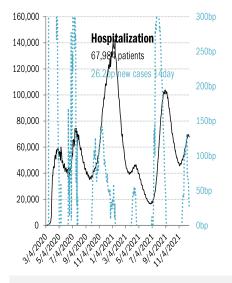


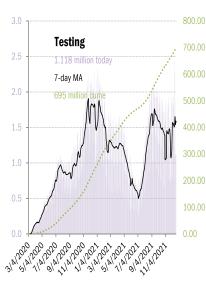


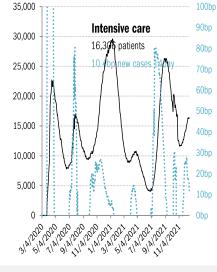


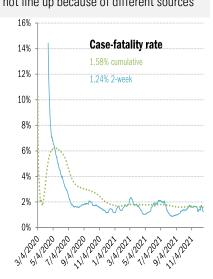


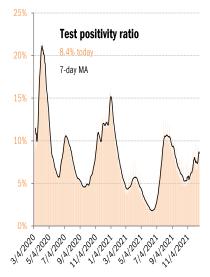


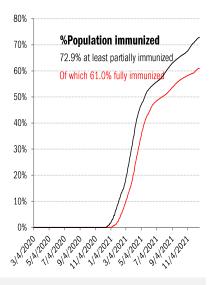




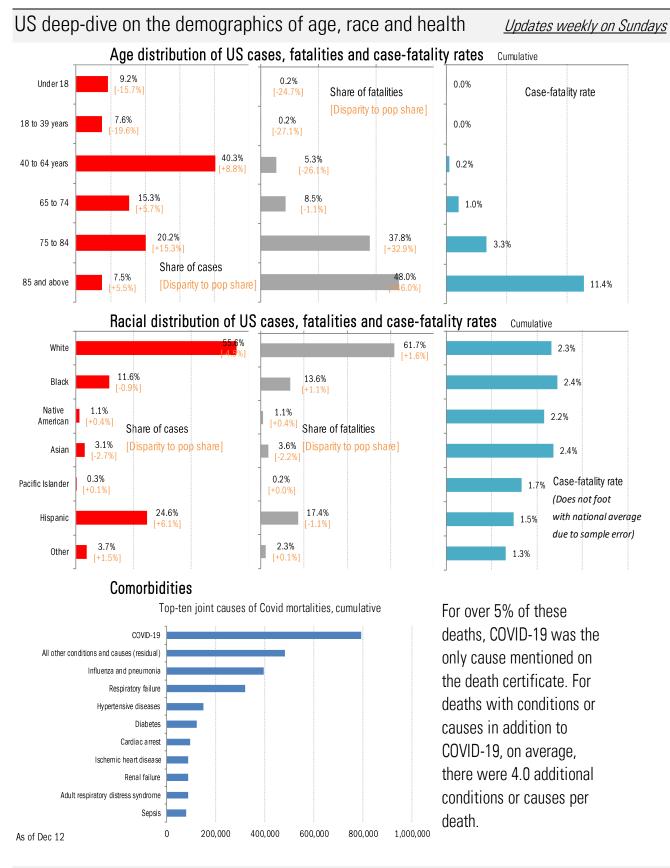








Source: Johns Hopkins, Covid Act Now, TrendMacro calculations



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

### Recommended reading

#### Biden Administration to Distribute 500 Million At-Home Covid-19 Test Kits

Sabrina Siddiqui and Andrew Restuccia *Wall Street Journal* December 21, 2021

#### The Supreme Court's Covid Vaccine Test

*Wall Street Journal* December 20, 2021

### Carnival's long-term demand indicates Omicron threat

<u>will fade soon</u>

Praveen Paramasivam and Ananya Mariam Rajesh *Reuters* December 20, 2021

#### Fear in a time of Covid

Paul Dolan *The Critic* December 20, 2021

#### Anthony Fauci, Political Thug

John Hinderaker *Power Line Blog* December 19, 2021

## Breakthrough infections generate 'super immunity' to COVID-19, study suggests

Erik Robinson *Oregon Health & Science University* December 16, 2021

#### Antibody Response and Variant Cross-Neutralization After SARS-CoV-2 Breakthrough Infection

Timothy A. Bates et al. Jama Network December 16, 2021

#### Move over Superman, COVID-19 'super immunity'

possible after breakthrough infections, study finds Shiv Sudhakar *Fox News* 

December 19, 2021

# Ex-FDA officials, medical experts flog feds for politicizing COVID, misrepresenting evidence

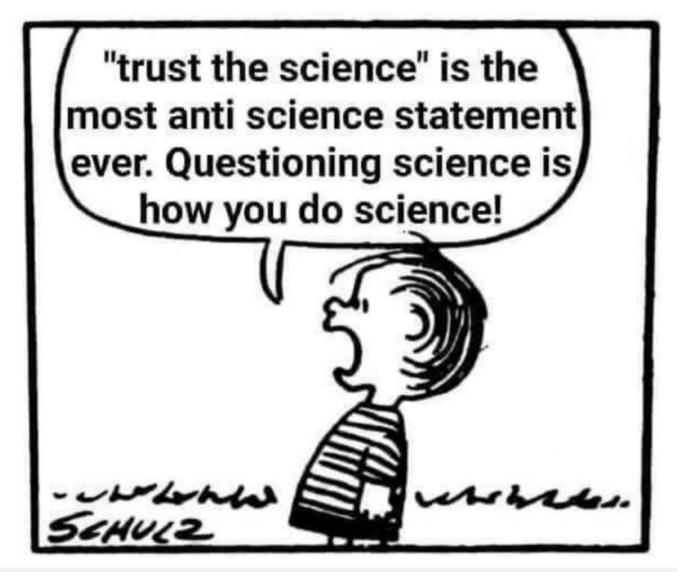
Greg Piper *Just the News* December 16, 2021

#### It's time to abolish 'emergency' COVID-19 powers

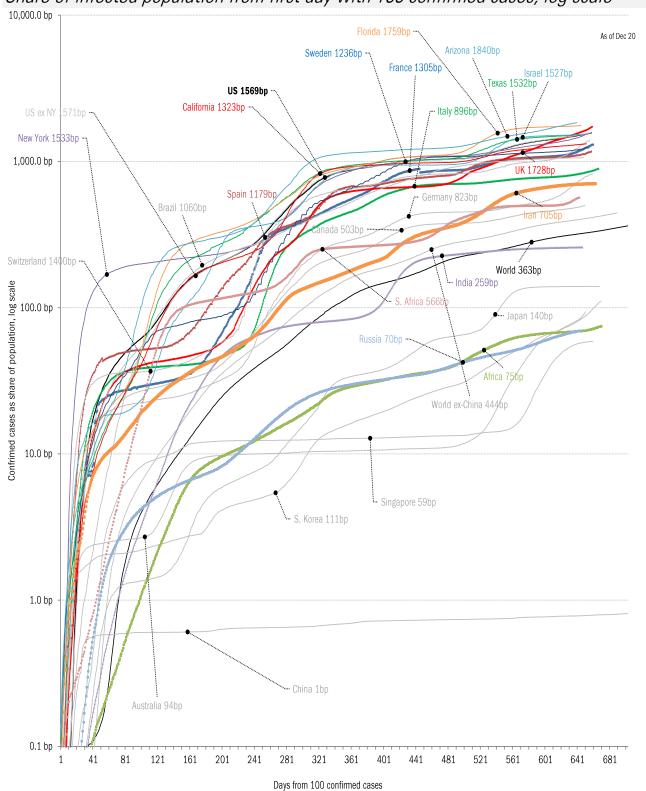
Glenn Reynolds *New York Post* December 16, 2021

### Fauci Doesn't Expect Lockdowns; Hospitals Likely Stressed

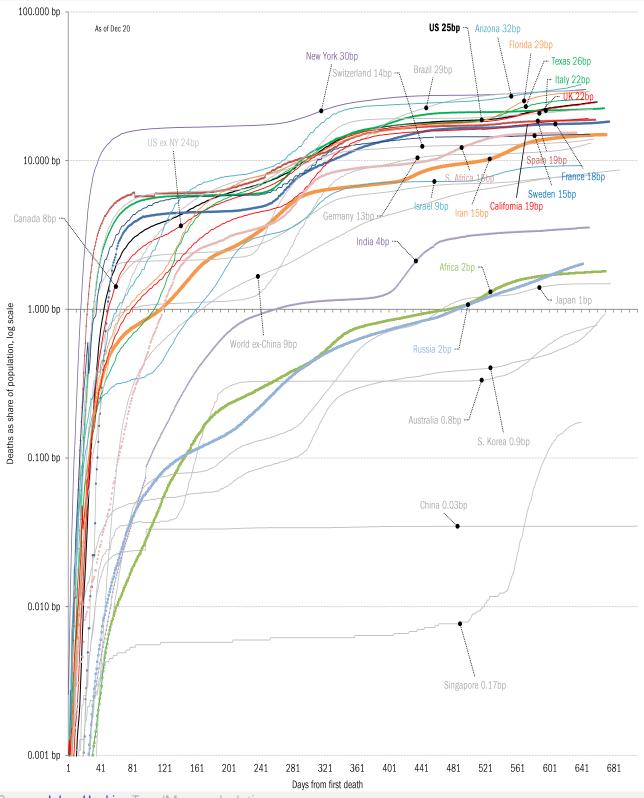
Alan Goldstein *Bloomberg* December 19, 2021



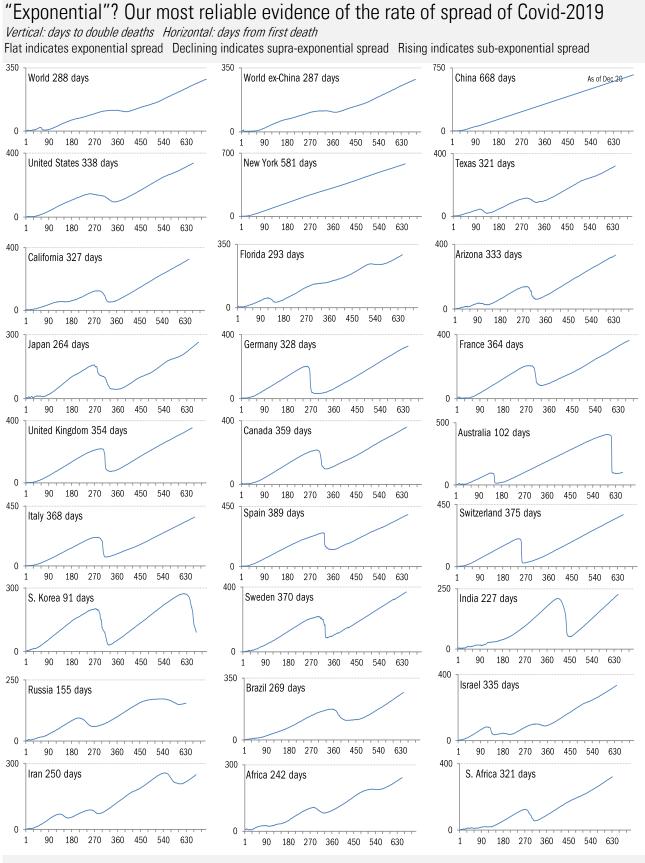
Source: Our beloved clients, Power Line blog "The Week in Pictures" and CTUP



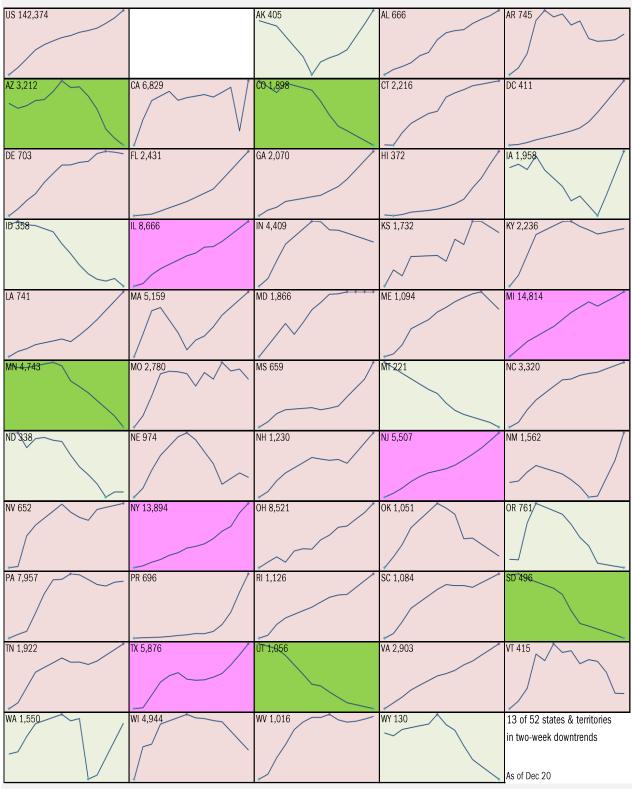
## The coronavirus <u>case</u> accelerometer... tracking the world's infection curves *Share of infected population from first day with 100 confirmed cases, log scale*



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

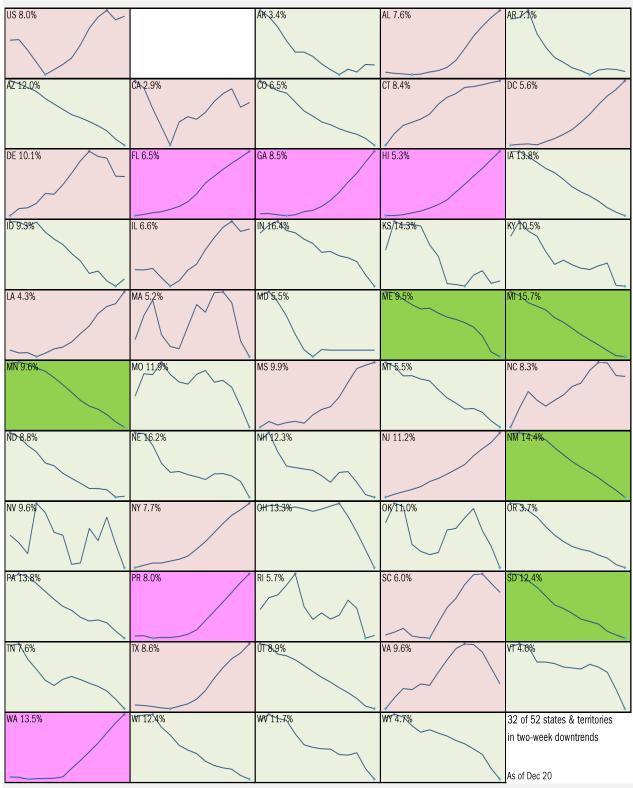


Requirement to <u>Open Up America Again</u>: 14-day "downward trajectory" in new cases *14-day moving average, last 14 days Most recent value displayed* • High • Low Downward trajectory Five best Upward trajectory Five worst



Source: Johns Hopkins, TrendMacro calculations

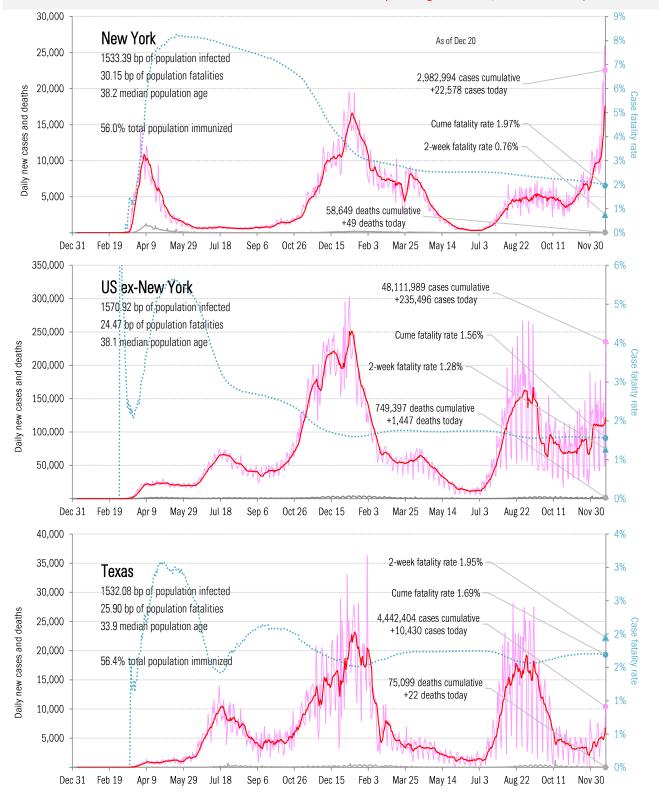
Alt requirement to <u>Open Up America Again</u>: 14-day "downward trajectory" in pos tests *14-day moving average, last 14 days Most recent value displayed* • High • Low Downward trajectory Five best Upward trajectory Five worst



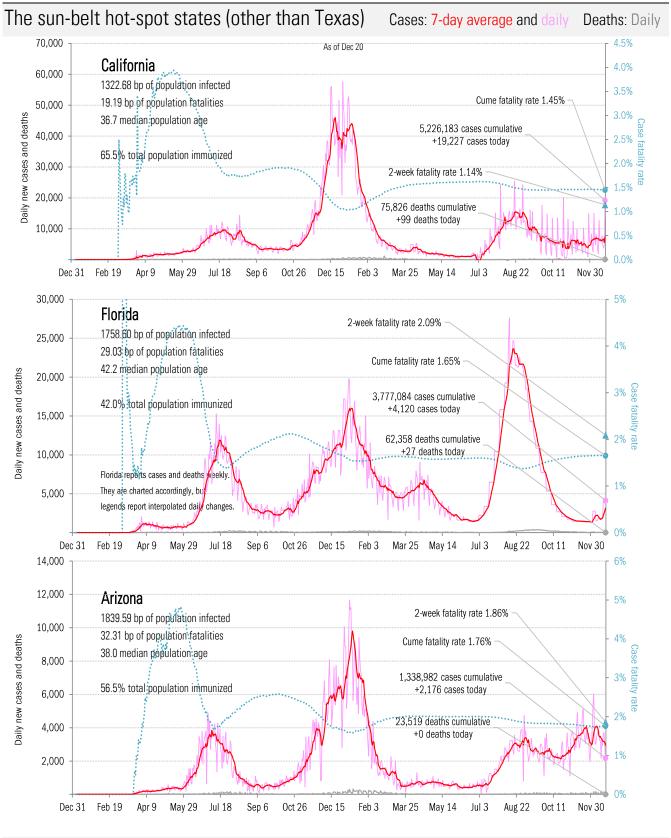
Source: Covid Act Now, TrendMacro calculations

From Ground Zero to the Rio Grande

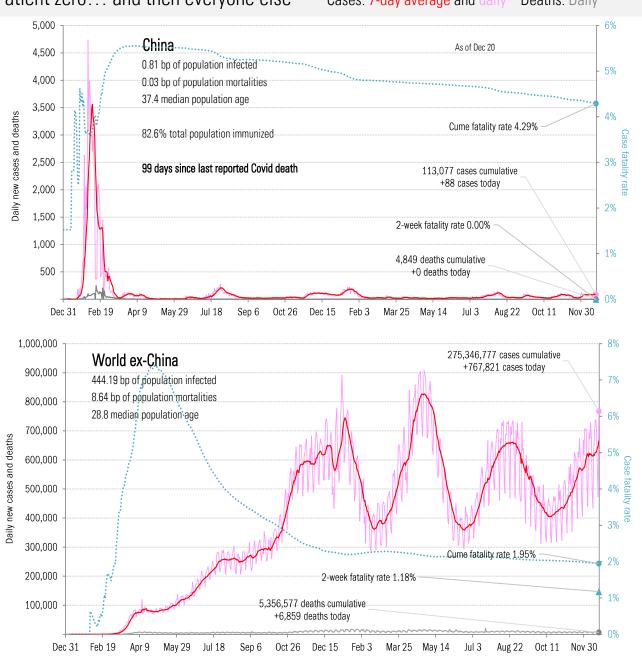
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations



Source: Johns Hopkins, TrendMacro calculations

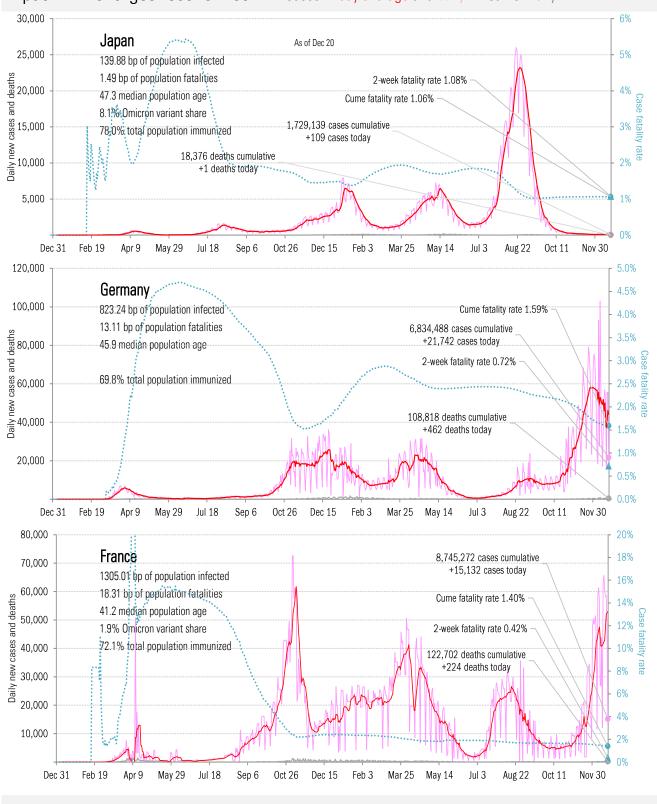


Patient zero... and then everyone else

Cases: 7-day average and daily Deaths: Daily

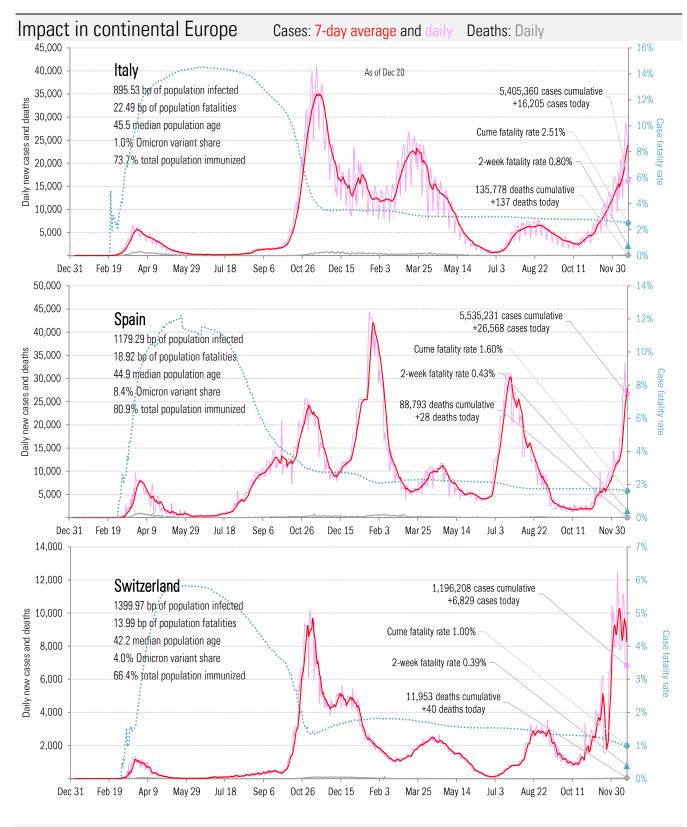
Source: Johns Hopkins, TrendMacro calculations

Impact in the largest economies Cases: 7-day average and daily Deaths: Daily

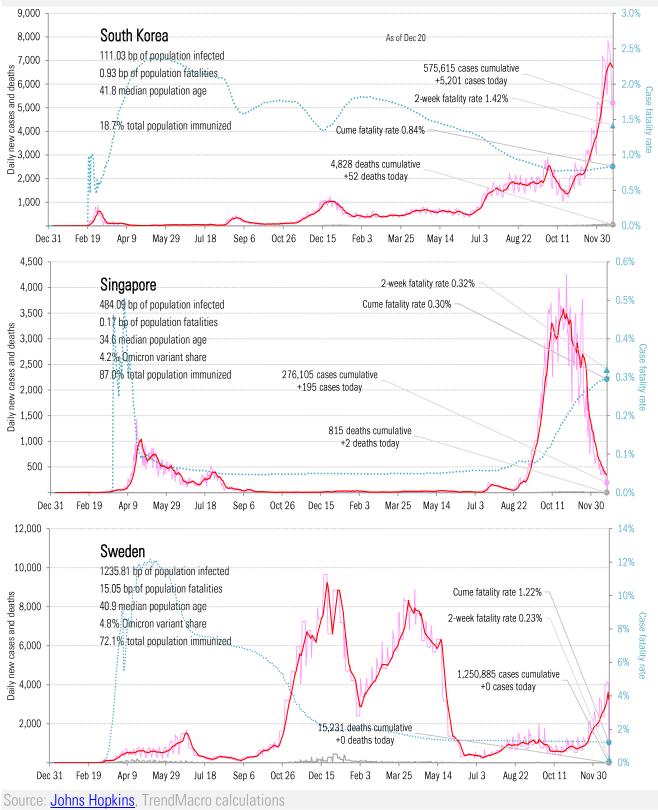


100,000 18% 90,000 United Kingdom 16% As of Dec 20 80,000 1728.25 bp of population infected 14% 11,518,255 cases cumulative Daily new cases and deaths 22.16 bp of population fatalities 70,000 +92,598 cases today 12% 40.5 median population age 60,000 37.2% Omicron variant share 10% Cume fatality rate 1.28% fatality 50,000 69.0% total population immunized 8% 40,000 rate 6% 2-week fatality rate 0.26% 30,000 4% 147,723 deaths cumulative 20,000 +44 deaths today 2% 10,000 0% Dec 15 Dec 31 Feb 19 Apr 9 May 29 Jul 18 Sep 6 Oct 26 Feb 3 Mar 25 Aug 22 Oct 11 Nov 30 May 14 Jul 3 12,000 9.0% Canada 8.0% 10,000 503.05 bp of population infected 1,906,306 cases cumulative 7.0% +5,626 cases today 7.95 bp of population fatalities Daily new cases and deaths 8,000 6.0% 40.8 median population age Cume fatality rate 1.58% 2.9% Omicron variant share 5.0% 6,000 77.0% total population immunized 2-week fatality rate 0.62% 4.0% 4,000 3.0% 30,116 deaths cumulative +19 deaths today 2.0% 2,000 1.0% 0.0% Aug 22 Dec 31 Feb 19 Apr 9 May 29 Jul 18 Sep 6 Oct 26 Dec 15 Feb 3 Mar 25 May 14 Jul 3 Oct 11 Nov 30 5,000 4.5% 4,500 Australia 4.0% 259,174 cases cumulative 9368 bp of population infected +4,492 cases today 4,000 3.5% 0.78 bp of population fatalities Daily new cases and deaths 3,500 37.9 median population age 3,000 77.6% Omicron variant share Cume fatality rate 0.83% 2.5% 2,500 76.0% total population immunized 2.0% 2,000 2-week fatality rate 0.45% 1.5% 1,500 2,154 deaths cumulative 1.0% 1,000 +8 deaths today 0.5% 500 0.0% Apr 9 Jul 18 Dec 31 Feb 19 May 29 Sep 6 Oct 26 Dec 15 Feb 3 Mar 25 May 14 Jul 3 Aug 22 Oct 11 Nov 30

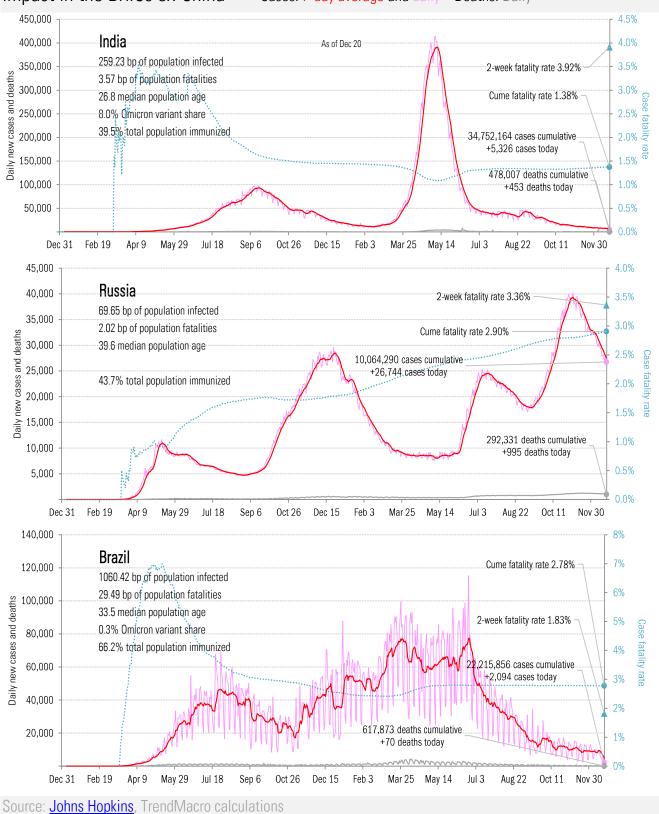




Impact in other hot-spots Cases: 7-day average and daily Deaths: Daily

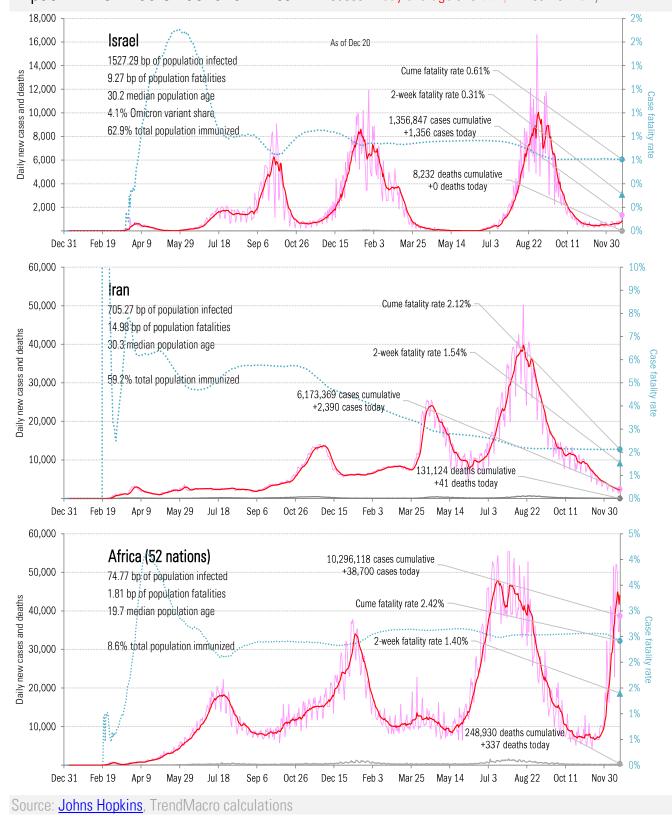


Impact in the BRICs ex-China Cases: 7-day average and daily Deaths: Daily



Impact in the Middle East and Africa

Cases: 7-day average and daily Deaths: Daily



Impact in Africa, continued Cases: 7-day average and daily Deaths: Daily

