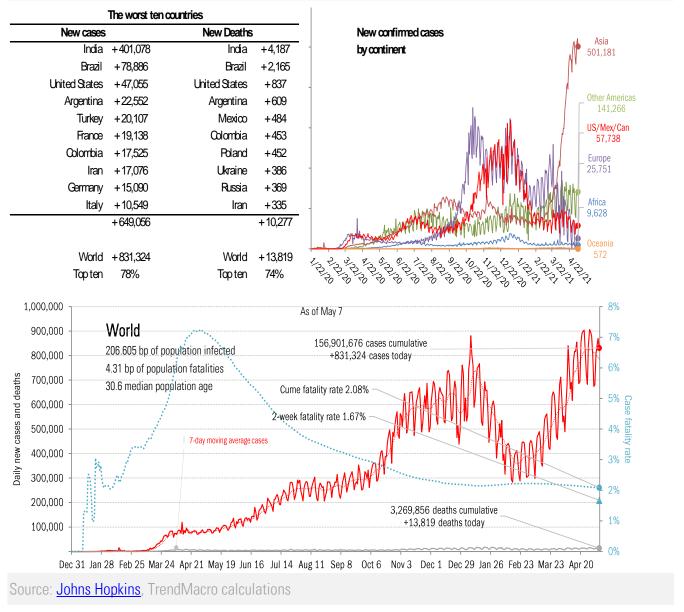


Trend Macrolytics, LLC Donald Luskin, Chief Investment Officer Thomas Demas, Managing Director Michael Warren, Energy Strategist

Data Insights: Covid-2019 Monitor

Saturday, May 8, 2021

The global scorecard



For more information contact us:

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The US scorecard

			_				en worst US						_		
New cases		New Deaths		New in hospital		Quime cases		Quime deaths		Qume in hospital		Hospital use		ICU us	
R.	+4,165	R.	+86	GA	+92		3,755,869	CA	62,220	TX	238,313		91%		32%
M	+3,367	CH	+84	LA	+58	TX		NY	52,611	CA	230,813	MA	84%		22%
IL	+3,328	CA	+66	NV	+33	Æ	2,262,598	TX	50,583	Æ	168,332	PA	82%		19%
TX	+2,851	TX	+56	CA	+26	NY	2,066,989	R.	35,635	NY	128,946	CT	82%	R	189
CA	+2,696	GA	+43	IL	+25	IL	1,351,395	PA	26,453	GA	101,032	MO	82%	MN	18%
PA	+2,629	PA	+43	TN	+22	PA	1,170,729	NJ	25,769	PA	84,578	MD	82%	00	17%
NY	+2,459	NC	+42	KY	+ 19	GA	1,108,317	IL	24,524	CH	81,827	MI	81%	PA	16%
NC	+1,932	IL	+41	WV	+ 18	СН	1,081,518	GA	20,337	IL	76,129	GA	80%	ID	15%
MN	+1,450	NY	+39	AR	+ 17	NJ	1,006,905	СН	19,428	KY	72,134	MN	79%	WA	14%
WA	+1,408	MI	+30	ан	+ 12	NC	980,498	MI	19,253	MI	65,918	FL.	78%	WV	14%
	+26,285		+530		+322		17,696,745		336,813		1,248,022				
VI states	+47,055		+837		+7	All states	32,651,865		580,901		2,222,932	All states	70%		67%
Top ten	56%		63%		4600%	Topten	54%		58%		56%	Median	72%		10%
									So	me states n	ot reporting				
						Five mos	t improved	US state	5						
Fewer da	aily cases			F	ewer new de				ew hospita	lizations		Most	opimm	unuity gr	ow
MI	-746				MI	-93			0R	-44			H	+3121	р
PA	-644				CA	-18			IN	-27			NH	+264 b	p
NJ	-446				PA	-18			WA	-25			MD	+107 b	•
TN	-418				IA	-15				-21			DE	+102 k	•
R.	-339				SC	-14				-19			ME	+101 k	-
50,000 00,000 -	1002.	t ed Stat 454 bp of p	opulation				As of May a	,						- 10.0	
50,000 -	17.834 bp of population fatalities 32,651,865 cases cumulative +47,055 cases today - 8.0%														
						Cume fa	atality rate 1.7	3%	$\overline{}$.	AAN I	V				
00,000 -						2-week fatality i	ato 1 05%				À				
				and the second		Z-WEEN IALAIILY I	are 1.00/0 —				Δ.			- 6.0%	
50,000 -			1	t											,
,000			1		۲,	0,901 deaths c	umulative								
					JC	+837 deaths t			N					- 4.0%	
00,000 -						Sector Sector									
								·····					4.4		
			1.			Mr.		, NNY				MARAM	A.	2.0%	
50,000 -			M.		N	1. 1.10	AAA MA	NN"					U/A	2.0/0	
			[m	Mara	MARN	~	A Maria	•					N	4	
			đ	V 9 1	w.w.v.		7_day n	loving average	ecases				_		
							1 day ii							↓ 0.0%	

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

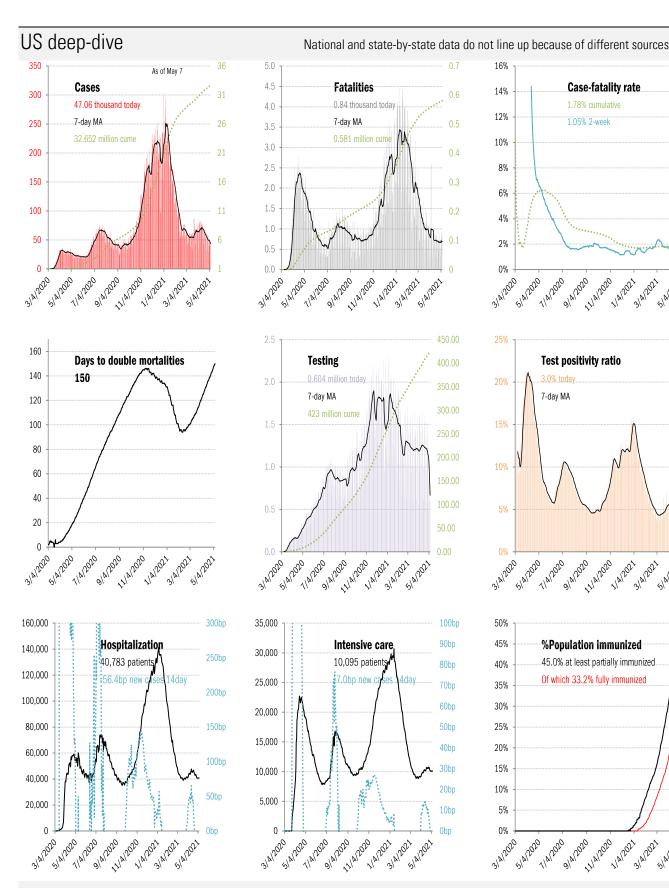
0			mes m	the US		ie wor					E11	Doutiel
US overall 339.19 mil		distributed					Over last d +2.53 milli		Immunity US	Full 33.2%	Partial 45.0%	
		administere	hd				+2.35 milli	,		US UK	33.2% 24.7%	45.0% 51.7%
		is partially i					+2.85 milli		J&J 3%	France	24.7% 11.0%	25.2%
		is fully imm				+0.97 million/day +1.96 million/day				Spain	12.7%	28.4%
117.77100			umzou				11.50 mm	onyuuy		Germany	9.0%	32.1%
77.6% of c	listributed	doses adm	inistered	Modern					Pfizer		11.7%	26.9%
46.3% of l			iniistorou	34.3% full	immunity			44%	Australia	1.6%	0.6%	
10.0 /0 01 0		liai		01.070101	minancy				53%	Israel	58.6%	62.6%
						At today's	s dosing p	ace.	-	Canada	3.2%	37.4%
							erican >18		in	Japan	0.9%	2.4%
		0.4	- 4 -							Africa	0.4%	1.0%
		St	ate			10	day	S		India	2.4%	9.6%
		Immunities	distributed			by Jul 22				Brazil	7.1%	14.9%
	as % population**			54.3% of population >18 im					nized	Global data differ	rs from sources,	timing
AK	AK At least partial immunity			13.7% previously tested posi						China NA	ME	
56.9%				Best 68.0% vs 60% adult he					nmunity*		58.8%	
42.6%	42.6% Full immunity				dle						56.8%	
36.5%		as % po	pulation	IVIIC	die	P					43.7%	
				Wo	ret	WI				VT	NH	
				VVC	ist	49.8%				63.2%	55.2%	
						46.8%				59.5%	57.1%	
						38.1%		1	. n <i>i</i>	41.1%	32.9%	
	WA	ID	MT	ND	MN	IL	MI		NY	MA		
	53.9%	44.2%	50.5%	45.1%	49.6%	53.5%	53.0%		54.2%	60.4%		
	48.7%	34.9%	41.7%	39.8%	48.5%	48.2%	44.0%		49.6%	59.2%		
	35.1% OR	28.8% NV	34.0% WY	33.9% SD	36.6% IA	32.9% IN	34.8% OH	PA	38.2% NJ	40.7% CT	RI	
	52.7%	44.9%	44.9%	54.5%	49.5%	45.1%	49.5%	56.0%	55.8%	59.9%	62.1%	
	46.9%	44.9%	44.9% 34.6%	45.4%	49.5%	37.5%	49.5% 41.5%	51.9%	53.5%	56.8%	54.2%	
	33.5%	40.9% 30.4%	29.1%	40.4 % 39.0%	45.3 % 37.1 %	29.4%	34.7%	35.2%	39.8%	42.7%	40.0%	
	CA	UT	CO	NE	M0	KY	WV	VA	MD	DE	40.0 /0	
	55.8%	44.7%	53.2%	50.3%	46.7%	48.4%	49.8%	53.0%	57.0%	57.0%		
	50.7%	40.7%	48.2%	44.1%	38.6%	42.0%	36.3%	49.1%	50.5%	48.6%		
	33.6%	25.8%	36.3%	35.8%	29.6%	33.6%	31.6%	36.4%	37.3%	35.8%		
		AZ	NM	KS	AR	TN	NC	SC	DC			
		51.1%	53.4%	50.9%	46.9%	43.7%	51.8%	48.4%	68.5%			
		41.9%	52.5%	43.5%	36.4%	35.4%	40.2%	37.5%	50.2%			
		30.9%	40.4%	34.1%	27.2%	27.0%	31.7%	29.3%	32.8%			
				OK	LA	MS	AL	GA				
				50.6%	42.6%	44.5%	45.9%	49.3%				
				39.2%	33.2%	31.8%	33.4%	36.1%			1	
				31.0%	28.3%	24.9%	25.3%	26.8%				
HI				TX					FL		PR	
57.9%				50.0%					54.6%		56.9%	
58.2%				39.4%					43.5%		40.8%	
40.2%				29.3%		As of May 7			31.6%		27.3%	

Rolling out the vaccines in the US and the world

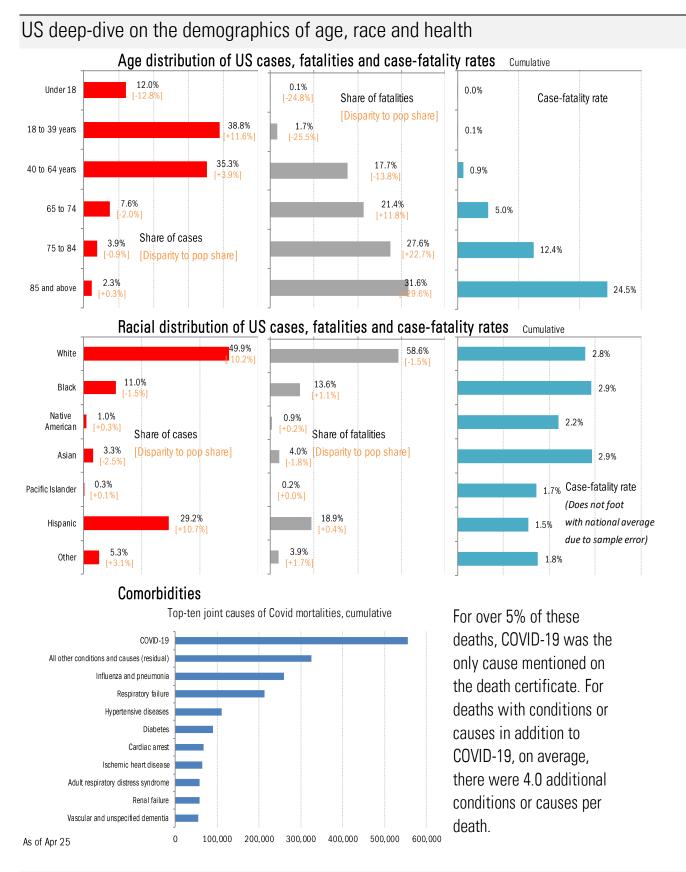
* Includes persons >18 fully immunized or previosuly tested positive, no overlap. Disregards untested positives, natural immunities.

** One dose of Pfizer/Moderna counts as half an immunity, one dose of J&J as a full immunity

Source: CDC, CDC, Our World in Data, TrendMacro calculations



Source: Johns Hopkins, Covid Act Now, TrendMacro calculations



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

Recommended reading

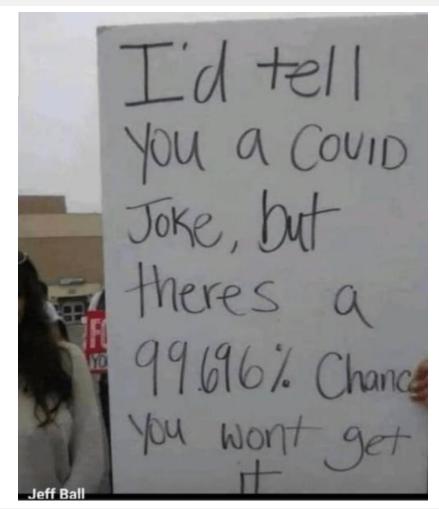
AstraZeneca Weighs Seeking Full U.S. Approval for Covid Shot, Skipping Emergency-Use Application Jenny Strasburg and Thomas M. Burton

Wall Street Journal May 7, 2021

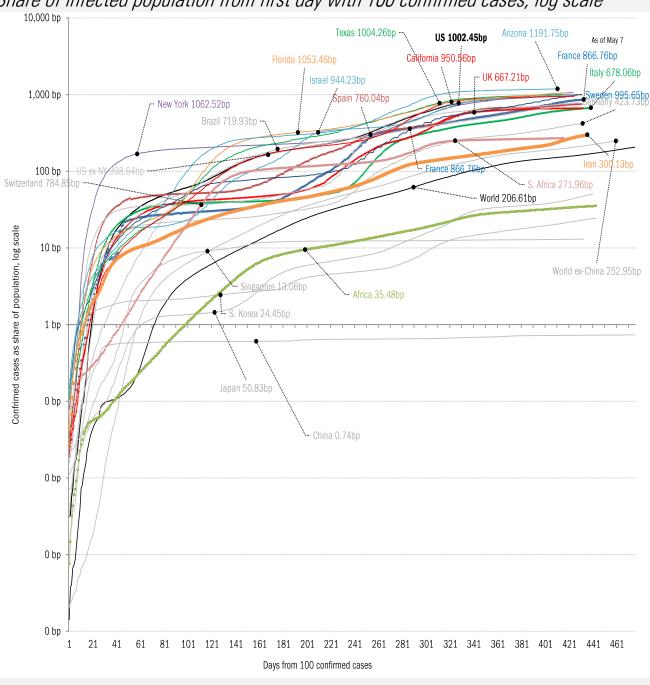
EU's Michel says US vaccine patent waiver will not solve supply problem

Sam Fleming, Jim Brunsden and Mehreen Khan *Financial Times* May 8, 2021

Meme of the day

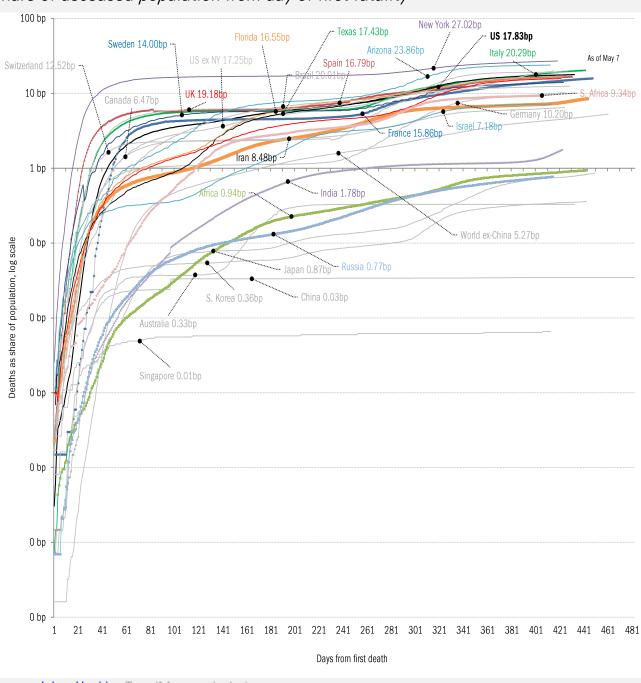


Source: Our beloved clients, and Power Line blog "The Week in Pictures"



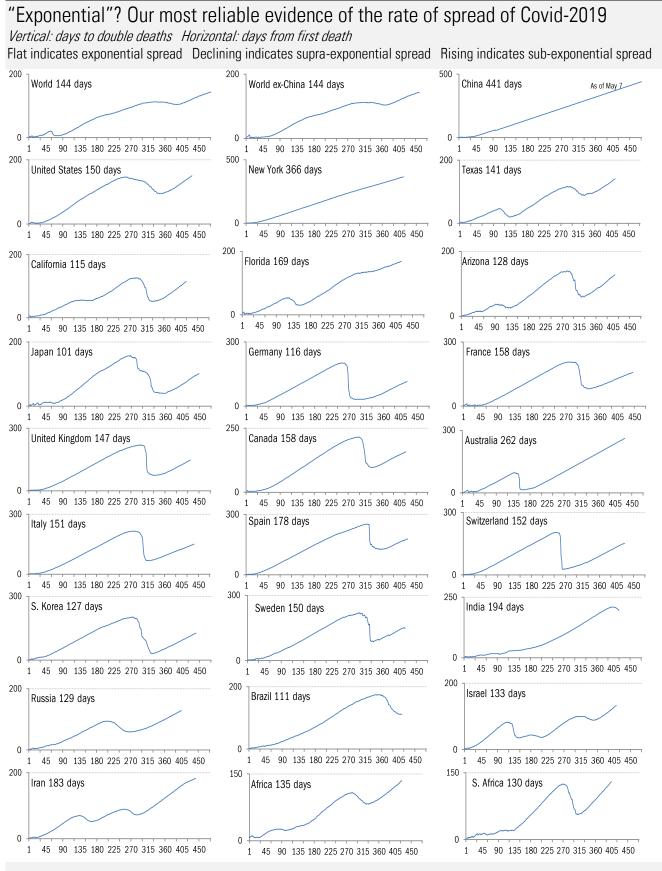
The coronavirus <u>case</u> accelerometer... tracking the world's infection curves *Share of infected population from first day with 100 confirmed cases, log scale*

Source: Johns Hopkins, TrendMacro calculations



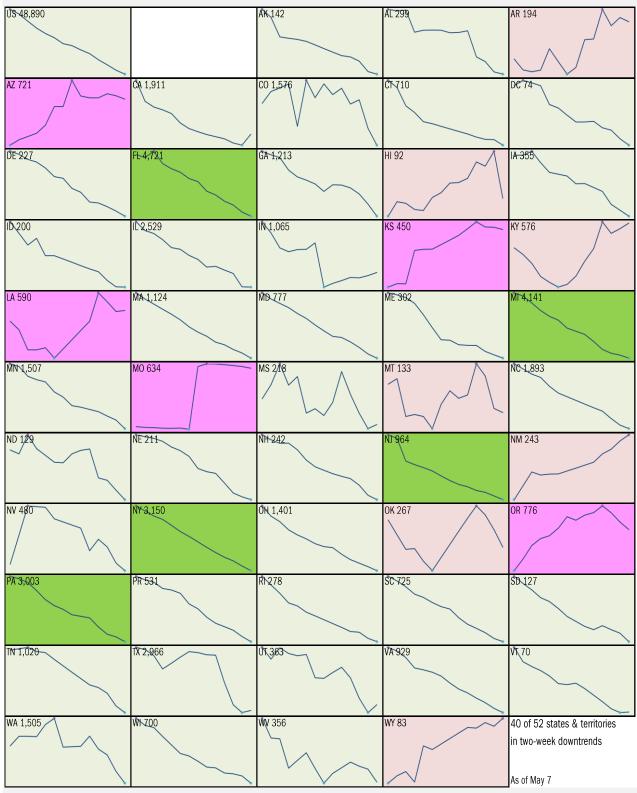
The coronavirus <u>mortality</u> accelerometer ... tracking the world's fatality curves *Share of deceased population from day of first fatality*

Source: Johns Hopkins, TrendMacro calculations



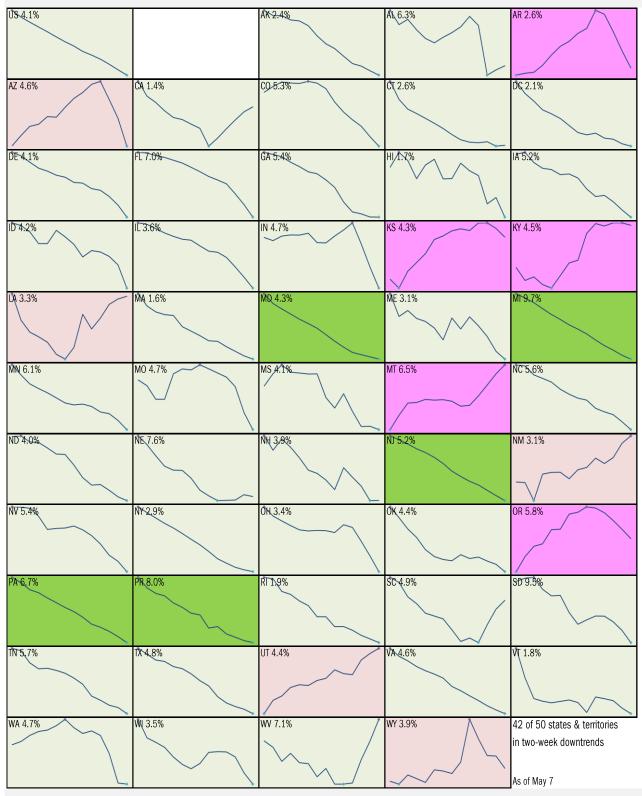
Source: Johns Hopkins, TrendMacro calculations

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

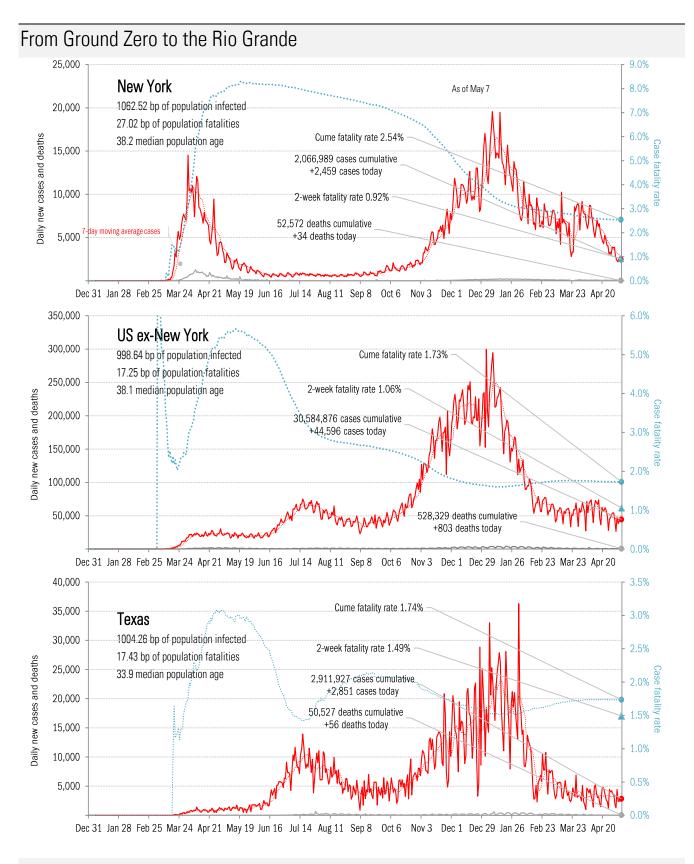


Source: Johns Hopkins, TrendMacro calculations

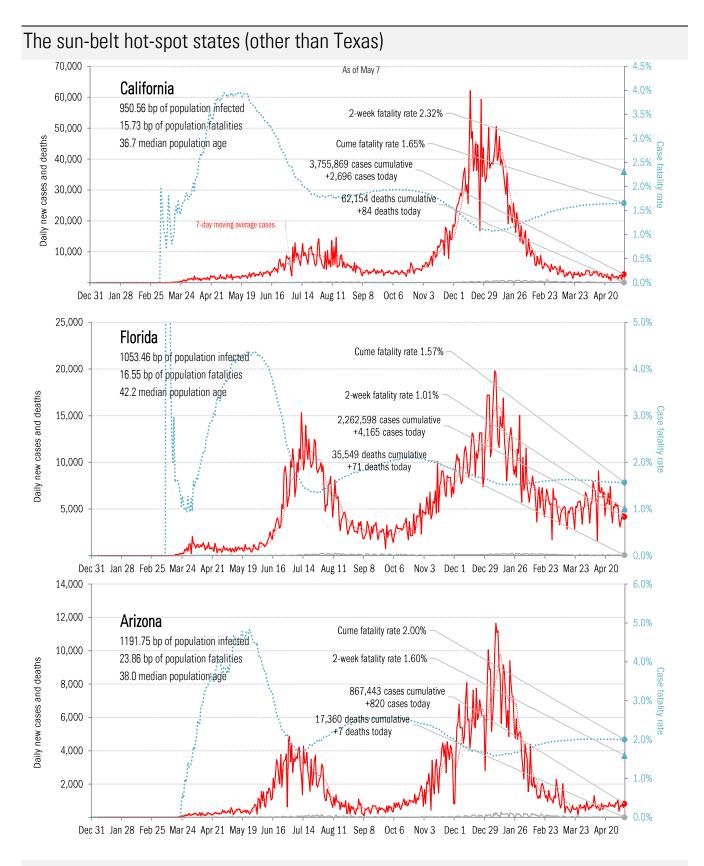
Alt requirement to <u>Open Up America Again</u>: 14-day "downward trajectory" in pos tests *14-day moving average, last 14 days Most recent value displayed* • High • Low Downward trajectory Five best Upward trajectory Five worst



Source: Covid Act Now, TrendMacro calculations

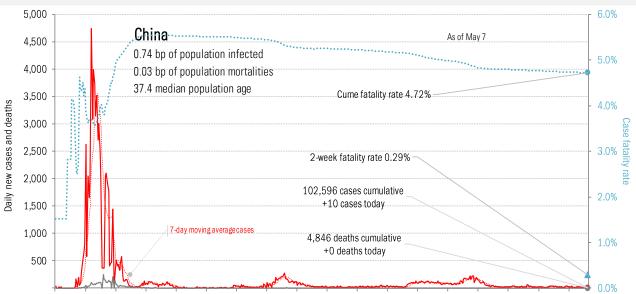


Source: Johns Hopkins, TrendMacro calculations

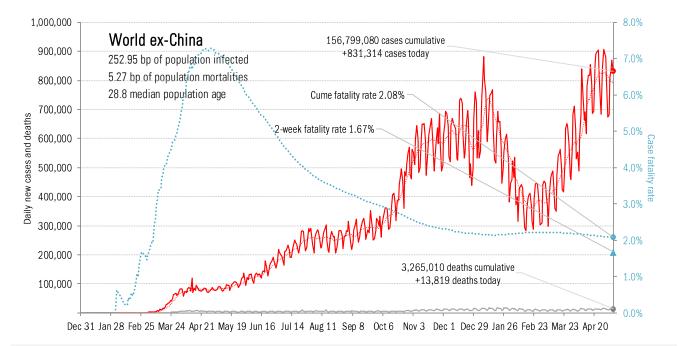


Source: Johns Hopkins, TrendMacro calculations

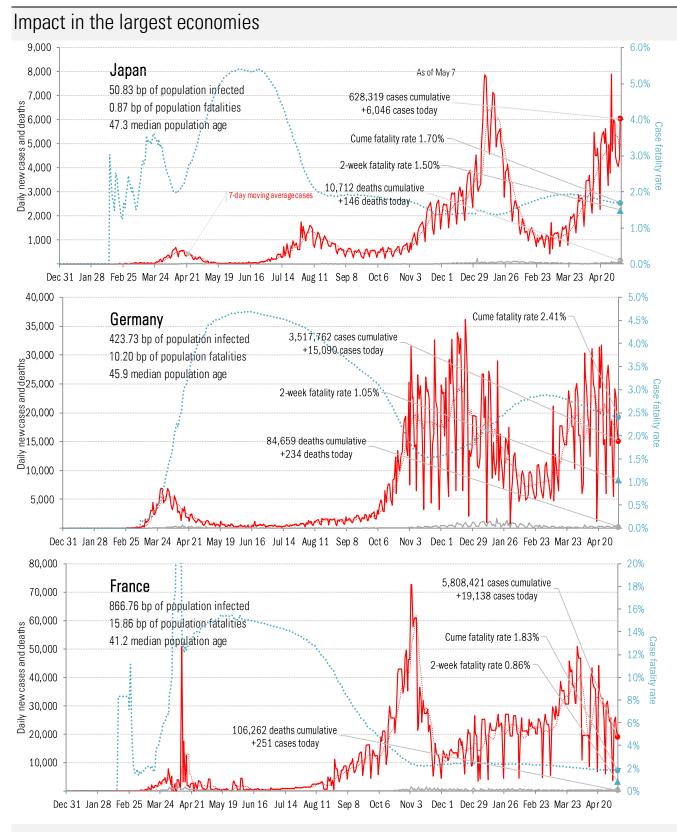
Patient zero... and then everyone else



Dec 31 Jan 28 Feb 25 Mar 24 Apr 21 May 19 Jun 16 Jul 14 Aug 11 Sep 8 Oct 6 Nov 3 Dec 1 Dec 29 Jan 26 Feb 23 Mar 23 Apr 20

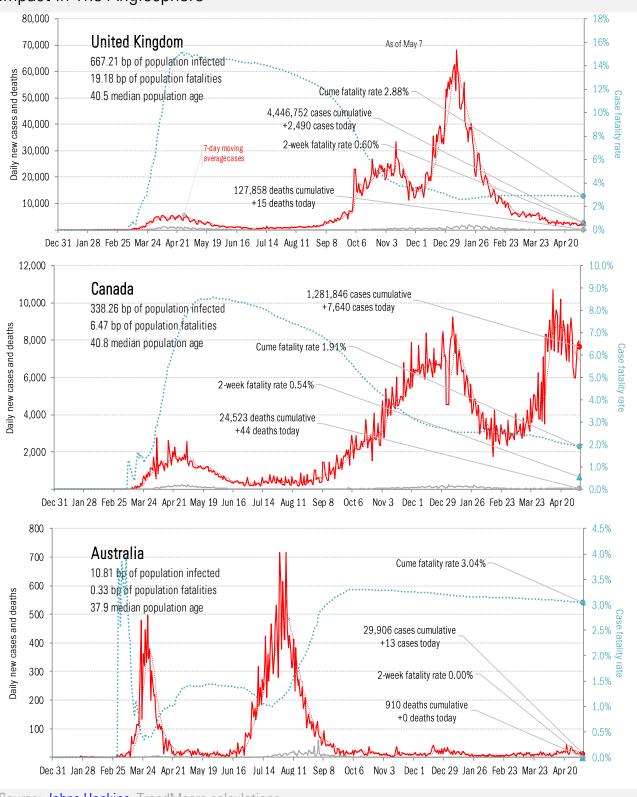


Source: Johns Hopkins, TrendMacro calculations

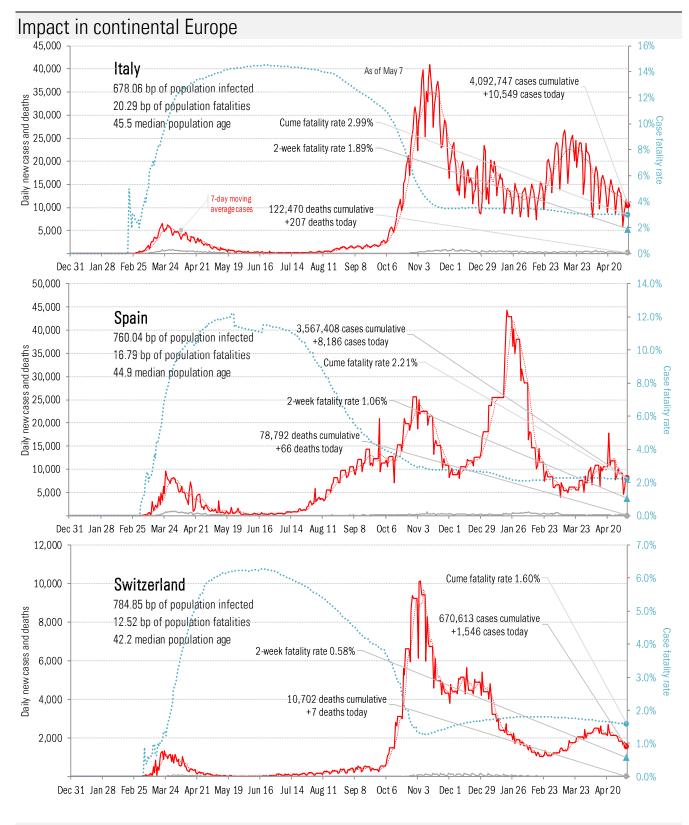


Source: Johns Hopkins, TrendMacro calculations

Impact in The Anglosphere

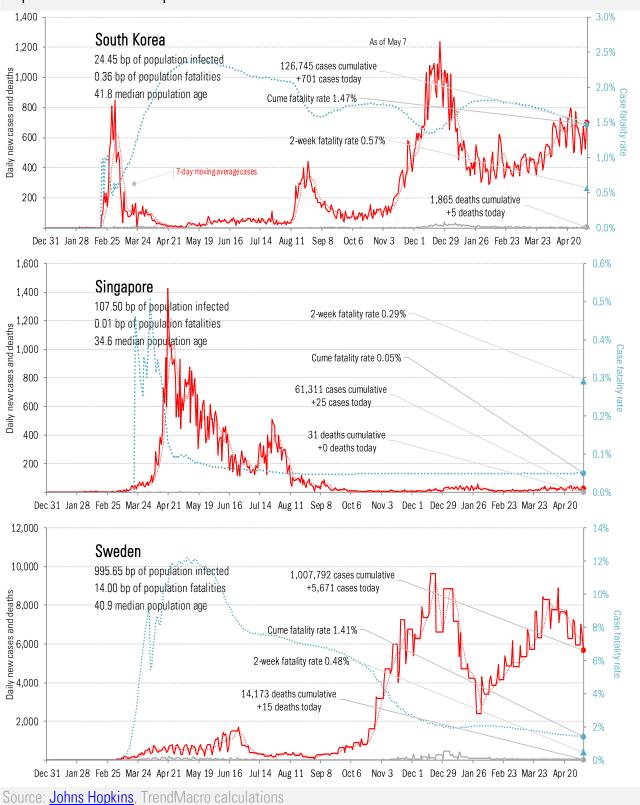


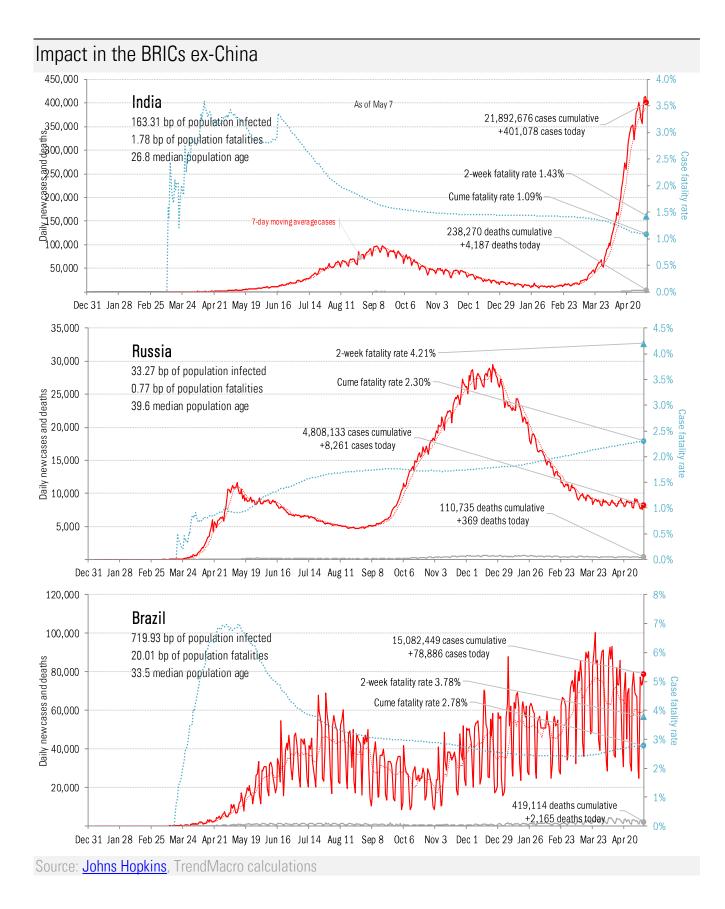
Source: Johns Hopkins, TrendMacro calculations

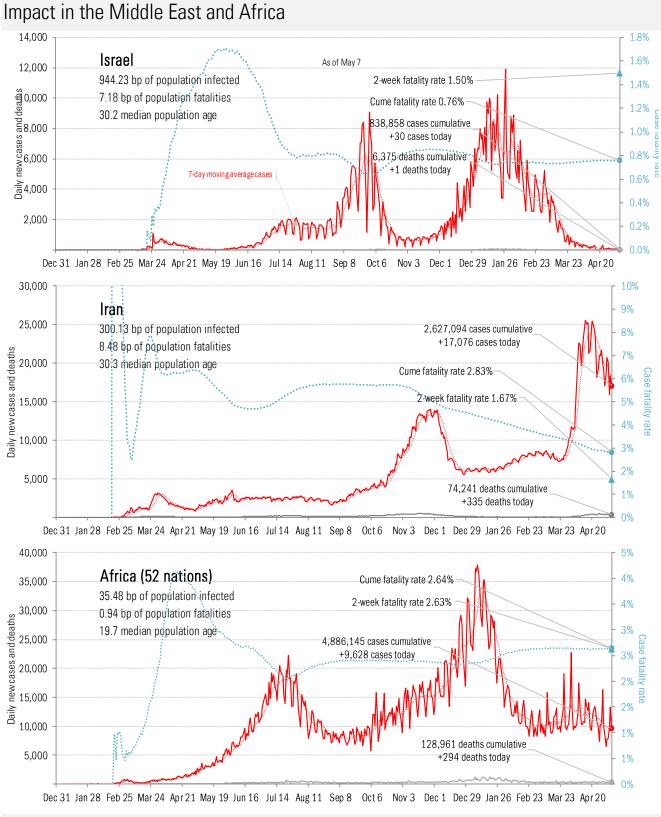


Source: Johns Hopkins, TrendMacro calculations

Impact in other hot-spots

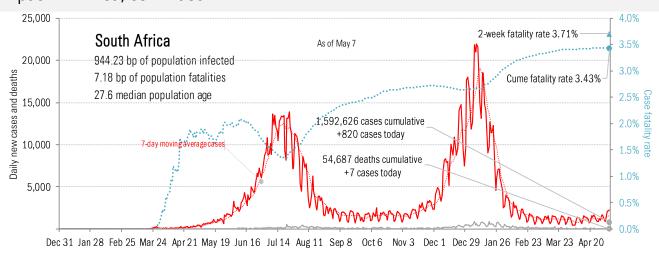






Source: Johns Hopkins, TrendMacro calculations

Impact in Africa, continued



Source: Johns Hopkins, TrendMacro calculations