



**COVID-19 UPDATE: 5 regions in NY state open up in Phase I -- not NYC, but progress still. There is actually a lot more "certainty" than we realize. Europe re-openings (some 30D ago) have not led to second waves.**

**THIS MESSAGE IS BEING SENT SOLELY TO CLIENTS OF FUNDSTRAT GLOBAL ADVISORS**

It looks like the day is finally here for NY state. Gov. Cuomo confirmed that 5 (of 8 regions) of the state meet the 7 (of 7) criteria needed to move to Phase One, this Friday 5/15. The opening includes manufacturing, agriculture, hunting/forestry, many parts of retail. It is comprehensive (discussed below) but NYC/Long Island and Western NY are not among those opening.

The most obvious reality regarding COVID-19 is that nearly everyone would agree there is a lot of uncertainty. There is no playbook for a pandemic. And 10-yr histories, 20-year and even 50-yr datasets are not useful, because they encompass exactly ZERO similar episodes. And because of this, most investors say there is too much uncertainty. If I had to highlight the two biggest uncertainties, it is:

- Path of the COVID-19 healthcare crisis --> When will it end? When is the vaccine/cure coming? Will there be a second wave in the Fall?
- Economic resilience --> Will consumers ever return to a restaurant, movie or concert? How much damage has been wrought? What is the new normal?

And these are biggies. In fact, these 2 alone explain why we all end up saying "the future is uncertain."

On the flip side, there are actually 5 things (+1 bonus) are in fact, "certain"

- We are certain this is not a normal business cycle --> it is a pandemic cycle leading to policy decisions;
- We are certain policymakers, both White House and Fed acted with lightning speed --> never have they been this fast and large;
- We are certain bond market is functioning well, both on new issuance (HG + HY) and liquidity -> reasons might vary
- We are certain that consumers are emerging from their bunkers --> the speed is unknown
- We are certain everyone is "uncertain" --> right?

Bonus: S&P 500 has retraced 50% of its losses and since 1929, in the 10 declines >30%, a 50% retrace has eliminated a retest of the low.

The 5 certainties are actually quite important. Because these 2 uncertainties and 5 certainties

can anchor a framework around understanding the crisis. Foremost, it tells us that one cannot really have an investment view without having a sense for where we are in the healthcare crisis. This is the reason that half of our commentary has focused on this. But at the same time, as the economies re-open, we need to calibrate our "certainties" against these incoming data points.

In the commentary below, we focus on the two "uncertainties"

-- Europe has "re-opened" for 1M (Austria) and the good news, no sign of 2nd wave. The opposite in fact as cases still collapse.

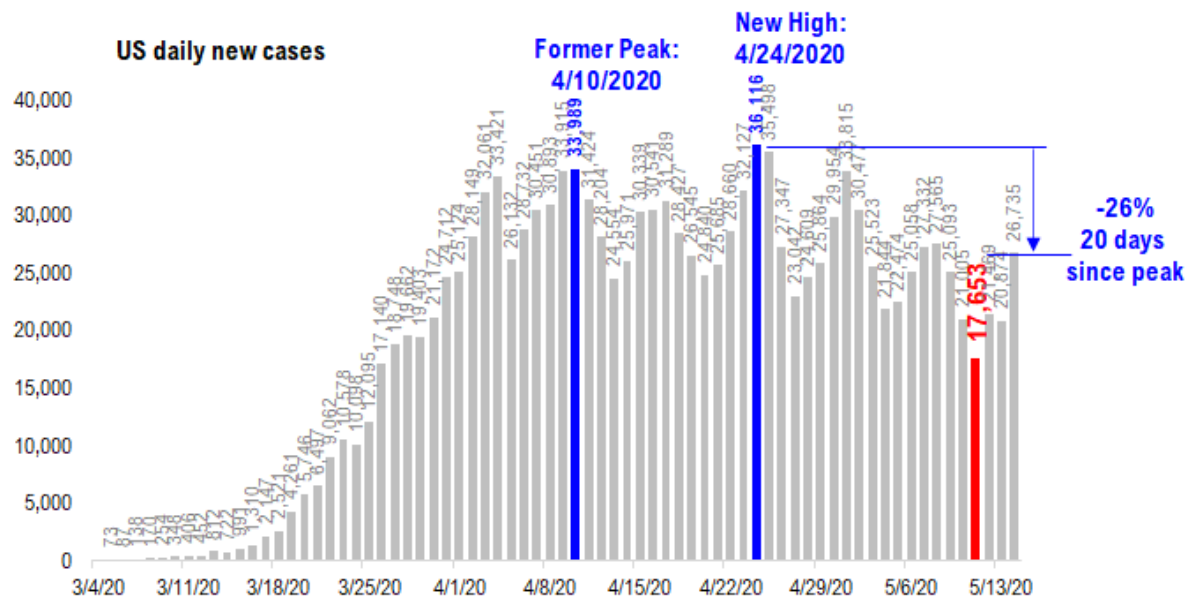
-- Refining NYC mortality rates, to reflect 4 serology studies. Bottom line? If someone has no underlying condition, COVID-19 mortality is nearly identical to seasonal flu (please read carefully, and not jump to conclusions). This poses less risk to employees + customers as restrictions are relaxed.

Equities have wobbled this week, sinking 5% through Wednesday, before having a solid reversal today. But the S&P 500 is still within those two levels we see as a battleground 50% retrace (2,794) and 62% retracement (2,934) and the current close is almost in the middle (2,864). But sentiment remains negative, which means stocks do not have to correct as deeply. Even the AAI retail investor survey came in at -28, identical to last week and shows deep skepticism by the public on this rally.

**POINT #1: NY state set to open Phase One 5 regions on 5/15, pretty comprehensive opening. USA cases rise to 26,375, 3 consecutive days of increases... 6 states account for 2/3 rise...**

Total USA COVID-19 cases rose to 26,735 reported today, up +5,861 from 20,875 yesterday. This is a material rise. And mix explains most of the rise as 6 states account for 2/3 of the rise.

- Total COVID-19 cases +5,851 (+28%) vs 1D ago
- Total tests rose to 377,601 from 312,130 (+21%)



Source: COVID-19 Tracking Project

**6 states account for 2/3 of the rise in cases today... and testing was up 28%...**

The 6 states contributing to this gain:

- IL	3,239 vs 1,677 (1D)	+1,562
- MI	1,191 vs 370	+821
- MA	1,685 vs 1,165	+520
- MD	1,091 vs 751	+340
- FL	808 vs 479	+329
- NJ	1,144 vs 817	+327

Total 6 states +3,899 (66% of rise)

Are these 6 states seeing a new breakout? This is not entirely clear. IL posted a >4,000 1D change earlier this week and this 3,239 is quite high. IL is not really relaxing restrictions, relative to other states. So, this is potentially explained by the rise in IL testing.

- IL conducted 22,678 tests yesterday vs 17,668 1D ago but the case increase is still higher.
- MI is on this top culprit for the first time. The state attributes these two factors: (i) to "backlogged test results" being reported to MDSS (Michigan Disease Surveillance Systems) and also (ii) expanded tests at prisons.

So the MI rise certainly looks more like a lagged effect, rather than a change in trend. But IL, we are not so sure. We have to monitor case count there. In the meantime, we view this for now as a mix shift. But this does bear watching. In Points #2, we talk about the case re-opening experiences of Europe, some countries have been open for >30D now.

## Daily Case Increases (by State) (05/14)

% total new cases (state cases/ total US cases)  
% total US pop (state population/ total US population)

*Sorted*  
Last 3-day trend growth rates

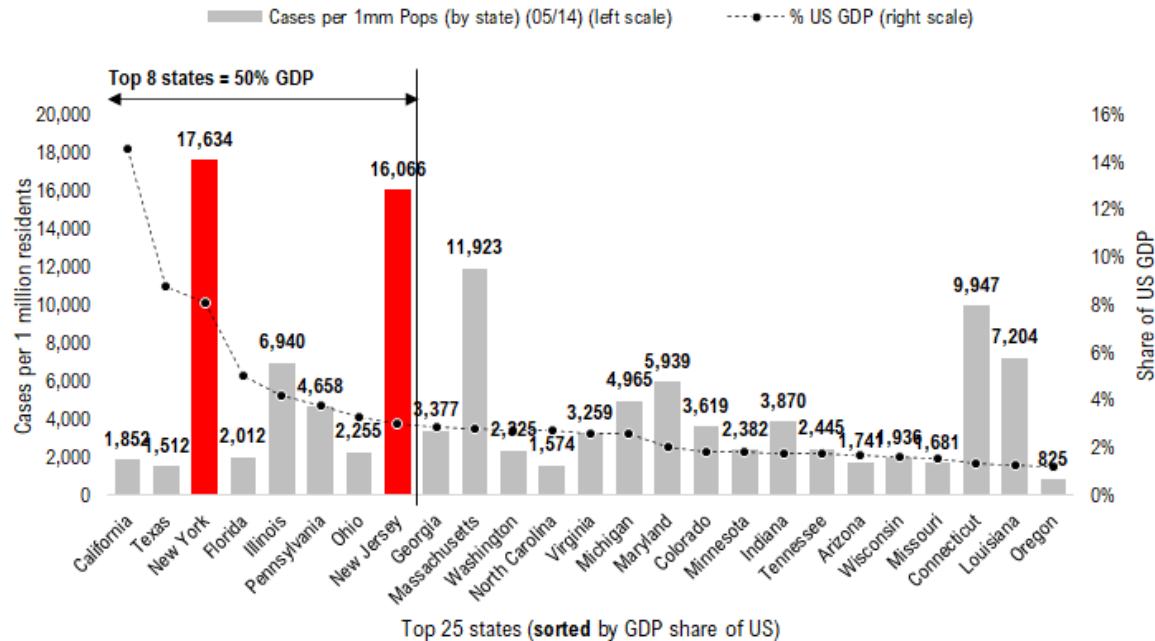
*The stats for New Hampshire is not updated as of Thursday 8PM...*

	5/12/20	5/13/20	5/14/20	
United States	21,469	20,874	26,735	
<b>States:</b>				
1 Illinois	4,014	1,677	3,239	<-higher
2 New York	1,430	2,176	2,390	
3 California	1,443	1,759	2,023	
4 Massachusetts	870	1,165	1,685	<-higher
5 Texas	1,179	1,355	1,448	
6 Michigan	469	370	1,191	<-higher
7 New Jersey	798	817	1,144	<-higher
8 Maryland	688	751	1,091	<-higher
9 Virginia	730	946	1,067	
10 Pennsylvania	837	707	938	
11 Louisiana	235	612	827	<-higher
12 Florida	941	479	808	
13 North Carolina	301	470	691	<-higher
14 Ohio	473	471	636	
15 Connecticut	568	522	609	
16 Indiana	500	346	580	
17 Georgia	633	697	526	
18 Minnesota	695	423	518	
19 Arizona	356	440	498	
20 Mississippi	234	182	393	<-higher
21 Iowa	539	377	386	
22 Wisconsin	193	291	373	<-higher
23 Colorado	278	318	363	
24 Alabama	301	307	351	
25 Nebraska	120	383	341	
26 Tennessee	567	259	329	
27 Delaware	176	211	271	<-higher
28 Washington	261	208	182	
29 Rhode Island	164	221	181	
30 Missouri	88	136	175	<-higher
31 South Carolina	135	103	159	
32 District of Columbia	96	99	152	<-higher
33 Kentucky	176	227	145	
34 New Mexico	143	152	139	
35 Arkansas	121	72	130	
36 Utah	70	188	129	
37 Oklahoma	119	120	110	
38 Nevada	159	83	105	
39 Puerto Rico	43	30	98	
40 North Dakota	53	76	65	
41 Oregon	72	58	63	
42 South Dakota	49	69	60	
43 Maine	15	38	50	
44 West Virginia	12	20	29	
45 Idaho	33	31	27	
46 Wyoming	6	14	12	
47 Alaska	2	0	4	
48 Vermont	1	2	3	
49 Guam	1	0	1	
50 U.S. Virgin Islands	0	0	0	
51 New Hampshire	79	60	0	
52 Montana	2	1	0	
53 Northern Mariana Islands	0	0	0	
54 Kansas	0	352	0	
55 Hawaii	1	3	0	
56 American Samoa	0	0	0	

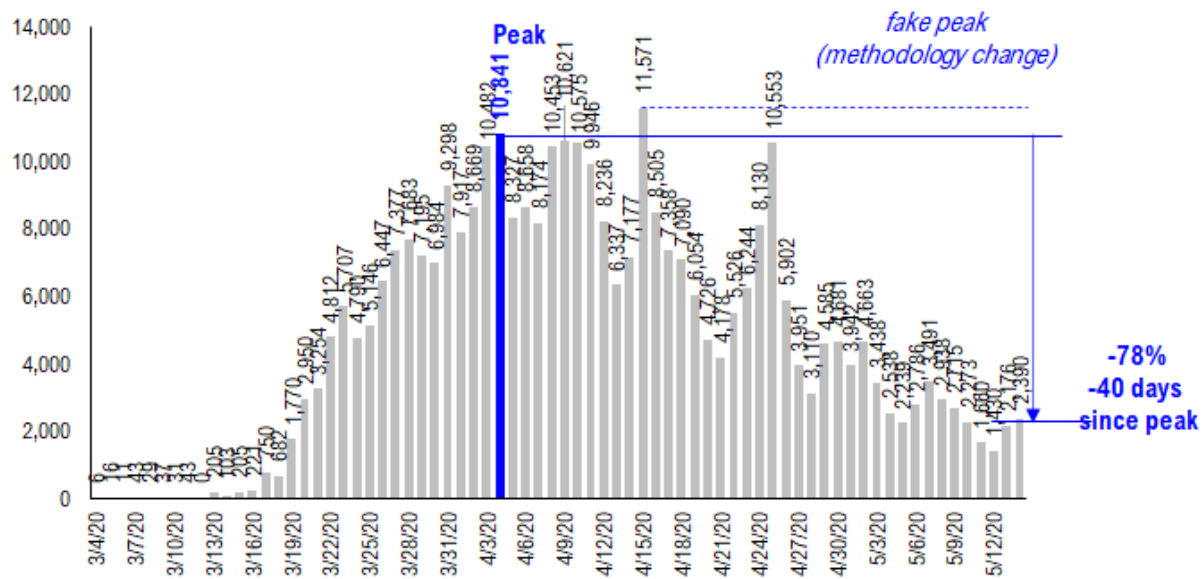
Source: COVID19 Tracking Project

## NY has the worst COVID-19 cases per 1mm in the country and is opening. CA is among the lowest and still closed...

The fact that NY state is opening is setting up an interesting contrast to CA's somewhat more cautious approach. CA is easing restrictions in phases, but the state counties have taken their own interpretation of these guidelines. Hence, the Alameda dispute with Tesla. And LA county extending its stay-at-home orders.

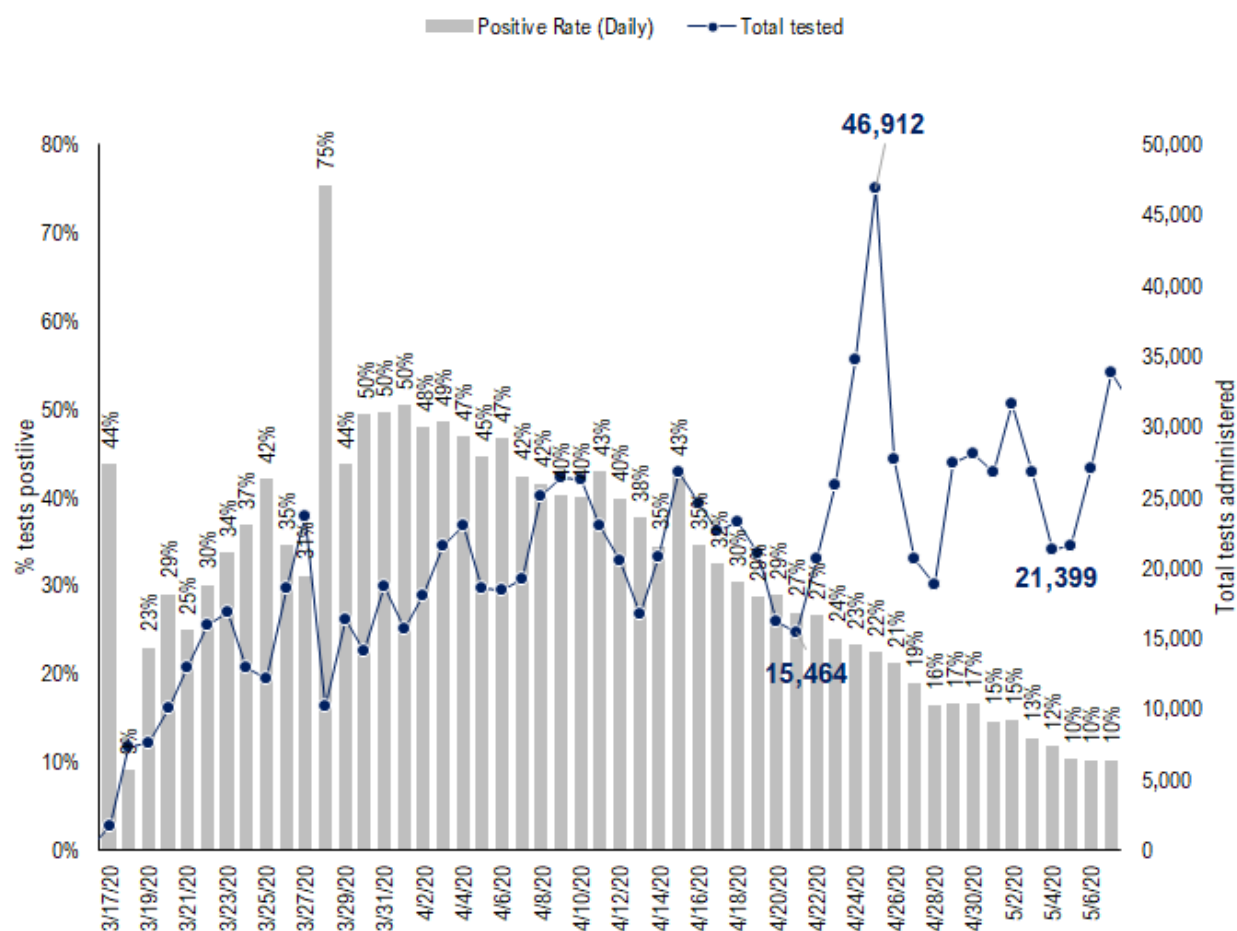


More recently, though, NY state figures have shown steady improvement. This after being the epicenter of the COVID-19 crisis in the US (the other epicenter is nursing homes). Total cases in NY state are drifting lower (in choppy steps).



source: COVID-19 tracking project

And even % tests positive has fallen to 10% and remained at those levels. So even higher testing levels (see blue line) are not resulting in higher levels of cases. This is the reason the state is confident in approving several regions to move to Phase One re-opening (see below).



source: COVID-19 tracking project

**5 regions in NY state meet the 7 of 7 criteria to open Phase I 5/15 --> Central New York (new today), Finger Lakes, Mohawk Valley, North Country, Southern Tier**

Gov Cuomo in his press briefing today announced 5 regions of NY state meet the 7 criteria to open by this Friday. The 7 criteria encompass case growth, hospital resources and capacity as well as contact tracing capabilities. And this number of regions grew to 5 by today (from 3 earlier in the week). The regions noted are:

- Central New York (new today),
- Finger Lakes,
- Mohawk Valley,
- North Country and
- Southern Tier



NYC, Long Island and even Western NY are not on this list (see map below).



Source: NY Governor's office

### ***Phase One re-opening is fairly comprehensive***

The Phase One opening for NY state is fairly comprehensive. It encompasses:

- Construction
- Agriculture, Forestry, Fishing and Hunting
- Retail (see below)
- Manufacturing
- Wholesale Trade

So it looks like parts of NY state will be well ahead of CA in terms of breadth of economic re-openings.

## **Overview: Reopening in Phases**

► Businesses in each region will re-open in phases. Re-opening refers to non-essential businesses and business activities. Essential businesses and business activities that are open will remain open.

The guidelines below apply to both non-essential businesses in regions that are permitted to re-open and essential businesses throughout the state that were previously permitted to remain open.

Eligibility for reopening will be determined by [health metrics](#) for each region.

Here is a breakdown of industries in each phase:

### **Phase One: Eligibility for regional reopening determined on May 15th**

- Construction
- Agriculture, Forestry, Fishing and Hunting
- Retail - (Limited to curbside or in-store pickup or drop off)
- Manufacturing
- Wholesale Trade

Source: Governor's office

Retail trade has a broad definition and it looks like most businesses (see below) and even covers all types of retailers.

## Phase One: Retail Trade

Phase One includes delivery, curbside, and in-store pickup service only for the following businesses:

- Clothing Stores
- Direct Selling Establishments
- Electronics and Appliance Stores
- Electronic Shopping and Mail-Order Houses
- Furniture and Home Furnishing Stores
- Florists
- General Merchandise Stores
- Health and Personal Care Stores
- Jewelry, Luggage, and Leather Goods Stores
- Lawn and Garden Equipment and Supplies Stores
- Office Supplies, Stationery, and Gift Stores
- Used Merchandise Stores
- Shoe Stores
- Sporting Goods, Hobby, Musical Instrument and Book Stores
- Other Miscellaneous Store Retailers

Source: Governor's office

**POINT #2: 5 countries in Western Europe have been open for at least 3 weeks. No signs of "second wave"**

***14 countries have opened, representing 66% of Europe's GDP, \$14.5T USD...***

Based on the data gathered by our data science team, led by tireless Ken, 14 countries in Europe have eased stay-at-home restrictions and are in some state of re-opening. The countries are summarized below and are sorted based on the date of the re-open (earliest at top).

- Austria is the first nation to open up, having opening on 4/14/2020, and now open for 30 days and running
- 5 nations have been open for at least 3 weeks: Austria, Denmark, Germany, Norway and the Czech Republic.



			GDP impact			At re-open		Current		
Country	Date	Tentative plan	GDP	as %	as %	Days since open	Daily cases/ 1mm (5d avg)	Daily Cases per 1mm	Daily Cases % off peak	Days past peak
			(current US\$)	Europe GDP	World GDP					
Composite Countries opening up			\$14,466	66.1%	16.8%					
Austria	4/14/2020	Small shops are slated to reopen April 14, with larger stores to follow on May 1. Restaurants, hotels and schools may be able to reopen in mid-May	\$455	2.1%	0.5%	30	22	4	-97%	48
Denmark	4/15/2020	Nursery and primary schools to reopen April 15, while companies will resume business gradually	\$356	1.6%	0.4%	29	30	13	-81%	36
Germany	4/20/2020	Ms. Merkel said smaller nonessential stores could resume operations starting on Monday under certain conditions. Schools will restart in stages beginning May 4	\$3,948	18.0%	4.6%	24	29	11	-87%	47
Norway	4/20/2020	Prime Minister Erna Solberg announced schools, universities and technical colleges can start opening their doors on April 27. And services that require personal contact, such as hairdressers and physiotherapists, can be	\$434	2.0%	0.5%	24	15	3	-95%	47
Czech Republic	4/23/2020	Health Minister Adam Vojtech announced the country lifted a ban on non-essential movement and travel abroad on Apr 23 and allow up to 10 people meet in public on Apr 24. The universities will be reopen on Apr 27.	\$245	1.1%	0.3%	21	11	4	-87%	39
Switzerland	4/27/2020	Switzerland Government announced a gradual reopen plan: Establishments like hair/beauty salons, hardware stores and flower shops will be allowed to operate as of April 27. In the second stage, starting May 11, schools, other non-food retailers and markets will reopen, while for museums, libraries, and zoos the date is June 8.	\$705	3.2%	0.8%	17	21	4	-98%	51
Iceland	5/4/2020	Icelandic government announced that Icelandic preschools and elementary schools will return to regular operation; salons, massage parlours, and museums will reopen; and gatherings of up to 50 people will be allowed in Iceland starting on May 4.	\$26	0.1%	0.0%	10	1	3	-99%	41
Italy	5/4/2020	PM Conte wrote "Before the end of this week, I hope to communicate the reopening plan to you and explain the details of this complex program. A reasonable prediction is that we will apply it starting May 4th".	\$2,084	9.5%	2.4%	10	28	15	-86%	53
Poland	5/4/2020	Prime Minister Mateusz Morawiecki announced the hotels and shopping malls will be allowed to reopen starting from May 4 and pre-schools will have the option to open on May 6. Further steps to unfreeze the economy, including a reopening of restaurants, will be announced at a later date.	\$586	2.7%	0.7%	10	7	7	-52%	1
Spain	5/4/2020	Prime Minister Pedro Sanchez on 4/28 announced a four-phase lockdown easing plan. Starting from May 4th, the phase 1 of the plan will allow restaurants to reopen for takeaway and gyms for individual training sessions. Phase 2 will allow small business to reopen and Phase 3 will allow restaurants to reopen for dining in.	\$1,419	6.5%	1.7%	10	22	14	-93%	49
Portugal	5/4/2020	Prime Minister Antonio Costa announced on 4/30 that the government will allow small stores to reopen from May 4th. Shops in malls and the largest stores will have to wait until June 1 to reopen.	\$241	1.1%	0.3%	10	23	21	-86%	33
Netherlands	5/11/2020	Prime Minister Mark Rutte told reporters at a televised briefing that starting May 11, primary schools will partially reopen, while adolescents up to 18 years old would be allowed to resume group sports under certain conditions.	\$914	4.2%	1.1%	3	17	13	-83%	33
France	5/11/2020	Prime Minister Edouard Philippe has unveiled a strategy for bringing an end to the nationwide lockdown. Starting from May 11th, non-essential shops and markets will open their doors again, but not bars and restaurants.	\$2,778	12.7%	3.2%	3	10	0	-101%	31
Finland	5/14/2020	Prime Minister Sanna Marin announced Finland will reopen schools and daycare centers on May 14. While students at upper secondary and vocational schools will continue to study remotely, the reopening will be a gradual	\$277	1.3%	0.3%	0		9	-81%	39

Source: Fundstrat

### **Any second wave in Europe? Looking at 3 nations: Austria (30D), Germany (24D) and Italy (10D)...**

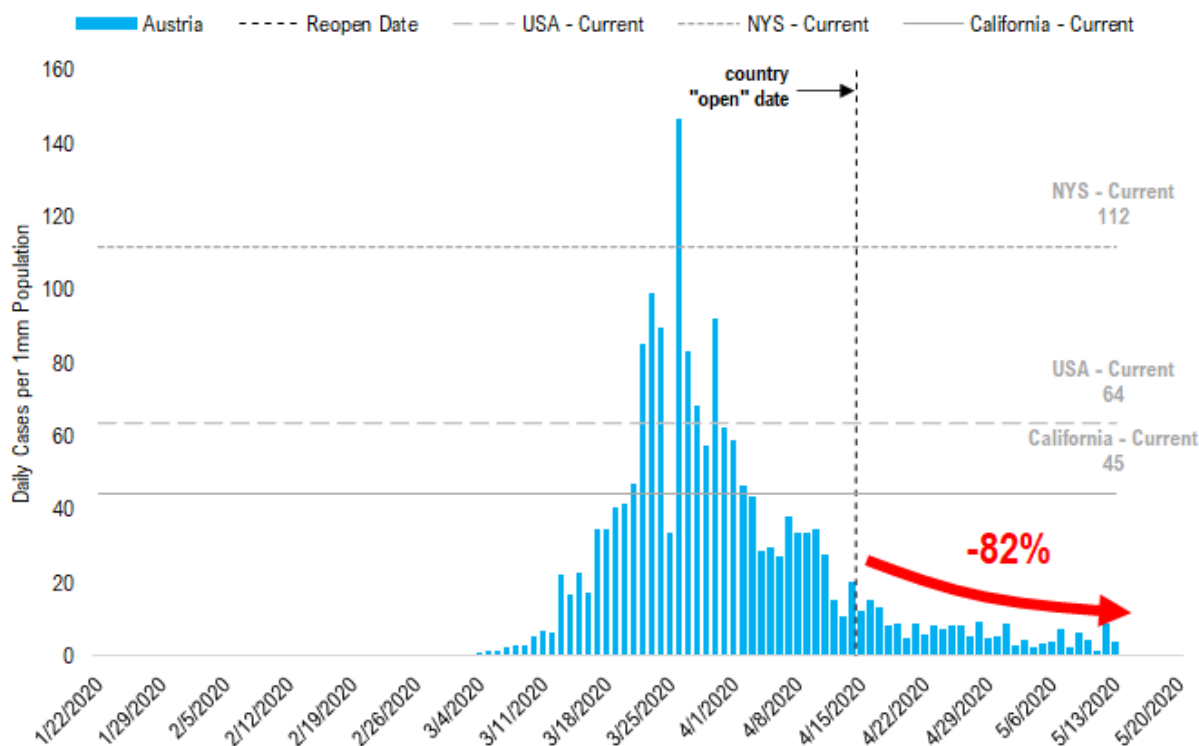
Of the 14 nations, we looked at 3 nations we view as significant -- rest assured, this is not 'cherry-picking' as each country in Europe looks exactly like these nations. We have time series charts, showing daily reported cases, scaled as "daily cases/ 1 million residents" and for comparative purposes, added the current equivalent statistic for New York, California and USA overall, each represented by a horizontal line.

- Austria. Since opening 30 days ago, daily COVID-19 cases down 82%
- Germany. Since opening 24 days ago, daily COVID-19 cases down 62%
- Italy. Since opening 10 days ago, daily COVID-19 cases down 47%

### **Austria -- Open 30 days, cases down 97% from peak (48 days ago). Current daily cases are 4 per 1 million residents...**

Austria was the first European nation to re-open (and thus, the longest) has been open for the past 30 days. The re-opening has been smooth enough that the nation is set to open borders to European travel by next month.

- Daily cases has plunged from the data of open, at 22 cases per 1mm residents to 4 cases per 1mm.
- Daily cases peaked at 147 per 1mm on 3/26/2020, or 3 weeks before the country re-opened.
- Since opening, daily cases have fallen another 82% (see below)
- Even Apple re-opened its retail stores in Vienna on 5/5, or two weeks ago.



Source: Johns Hopkins, COVID-19 Tracking Project and Fundstrat

### **Germany -- Open 24 days, cases down 87% from peak (47 days ago). Current daily cases**

**are 11 per 1 million residents...**

Germany is Europe's largest economy representing 18% of the Europe GDP. Construction did not fully cease in Germany, enabling the economy to still function (9% of Germany's GDP). The country did not have the most restrictive lockdown, either, allowing many non-essential activities to remain open.

Country	Population	#Cases		#Death	#Death per 1mm Residents
		Total Cases	per 1mm Residents		
Greece	10,423,054	2,760	265	155	14.9
Poland	37,846,611	17,204	455	861	22.7
Croatia	4,105,267	2,213	539	94	22.9
Serbia	8,737,371	10,295	1,178	222	25.4
Czechia	10,708,981	8,269	772	290	27.1
Iceland	341,243	1,802	5,281	10	29.3
Norway	5,421,241	8,175	1,508	229	42.2
Hungary	9,660,351	3,341	346	430	44.5
Moldova	4,033,963	5,406	1,340	185	45.9
Estonia	1,326,535	1,751	1,320	61	46.0
Slovenia	2,078,938	1,463	704	103	49.5
Finland	5,540,720	6,054	1,093	284	51.3
Romania	19,237,691	16,002	832	1,036	53.9
Austria	9,006,398	15,997	1,776	624	69.3
Denmark	5,792,202	10,865	1,876	533	92.0
<b>Germany</b>	<b>83,783,942</b>	<b>174,098</b>	<b>2,078</b>	<b>7,861</b>	<b>93.8</b>
Portugal	10,196,709	28,132	2,759	1,175	115.2
Luxembourg	625,978	3,904	6,237	103	164.5
Switzerland	8,654,622	30,413	3,514	1,870	216.1
Ireland	4,937,786	23,401	4,739	1,497	303.2
Netherlands	17,134,872	43,410	2,533	5,581	325.7
Sweden	10,099,265	27,909	2,763	3,460	342.6
France	65,273,511	178,184	2,730	27,077	414.8
United Kingdom	67,886,011	230,985	3,403	33,264	490.0
Italy	60,461,826	222,104	3,673	31,106	514.5
Spain	46,754,778	228,691	4,891	27,104	579.7
Andorra	77,265	760	9,836	49	634.2
Belgium	11,589,623	53,981	4,658	8,843	763.0

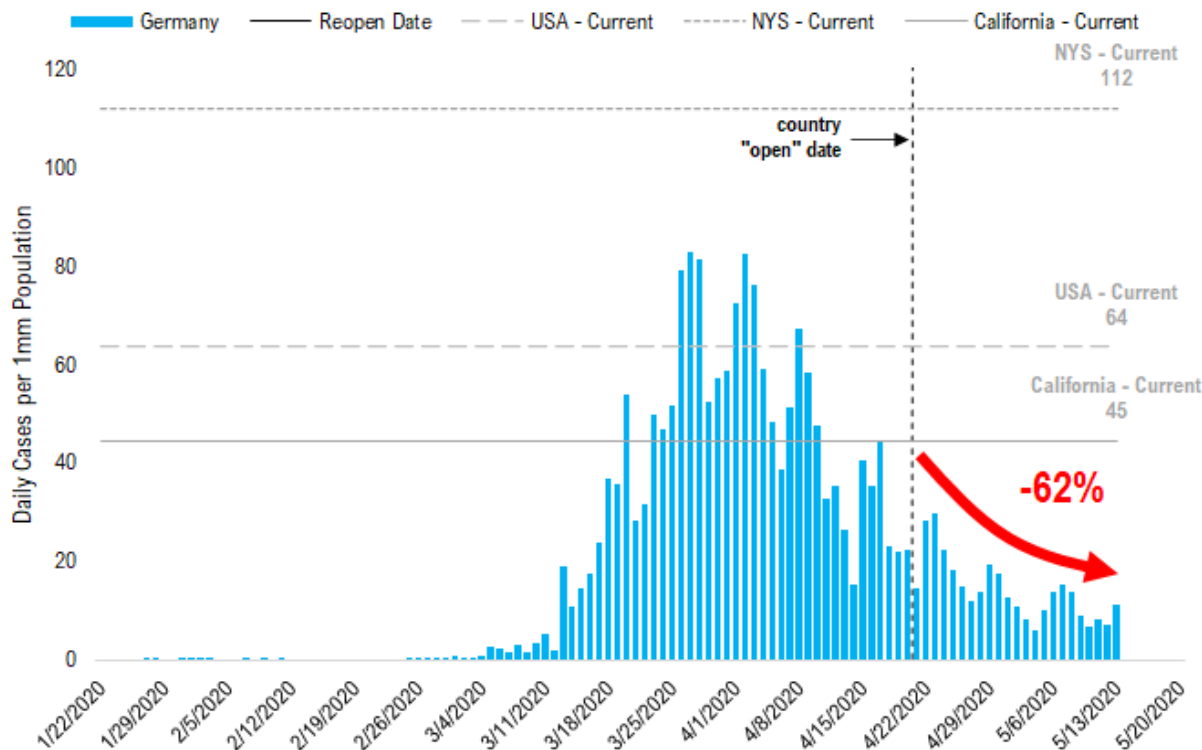
And yet, Germany outperformed other European nations in terms of deaths with 94 per 1 million compared to 515 for Italy (see above). Chancellor Angela Merkel has focused on striking a balance between public health and reviving the economy. In this way, Germany is a model for many Western nations.

- On 4/20, small shops, hardware stores and auto retailers were open.
- On 5/4, salons opened
- On 5/6, restaurants, hotels, retailers, tattoo parlors and night clubs

So it has been a fairly comprehensive and liberal economic opening. And in the 24 days since opening, Germany's case data has continued to improve. And this, in spite of a broad easing of

restrictions.

- Daily cases peaked at 83 per 1mm on 3/27/2020, or 3 weeks before the country re-opened.
- Since opening, daily cases have fallen another 62% (see below)

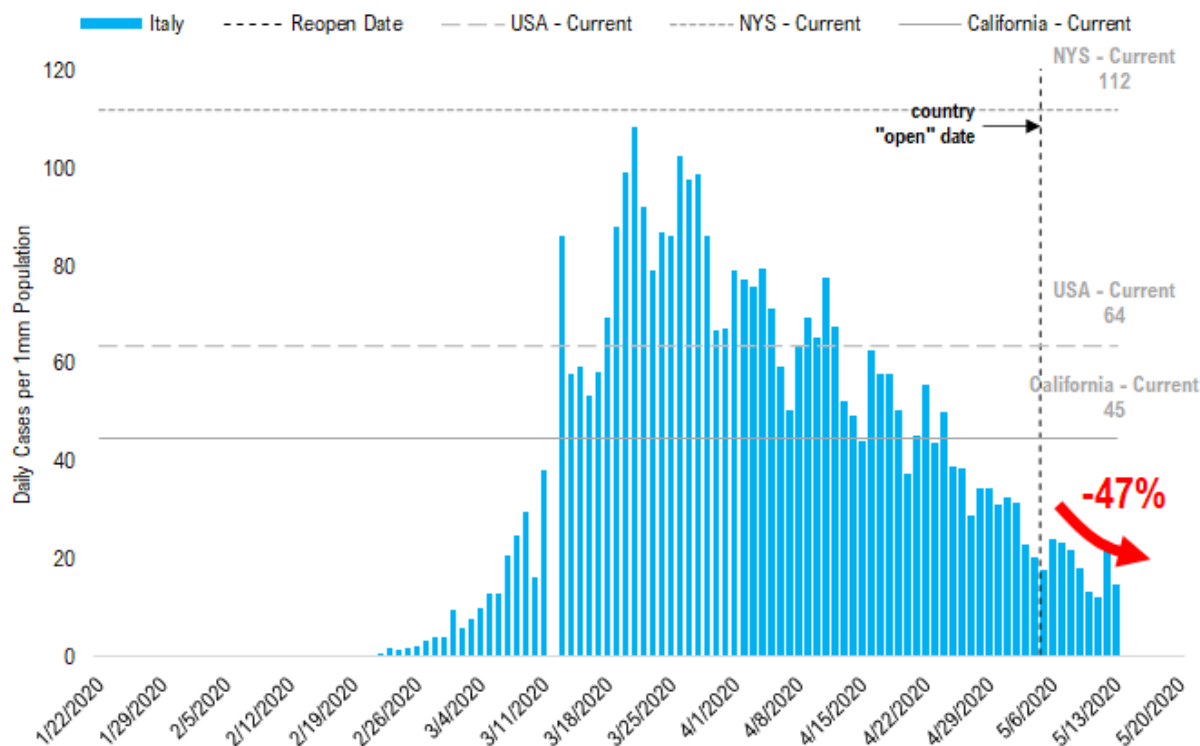


Source: Johns Hopkins, COVID-19 Tracking Project and Fundstrat

**Italy -- Open 10 days, cases down 86% from peak (53 days ago). Current daily cases are 15 per 1 million resident...**

Early in this global pandemic, Italy was the hardest hit nation, and despite a high quality healthcare system, saw their healthcare system become overwhelmed and leading to a mortality rate of 14%, one of the highest in the World. Since cases peaked on 3/21, Italy finally eased restrictions on 5/4/2020.

- Since opening, daily cases have fallen another 47% (see below)
- Daily cases are now off 86% from their peak
- The trend in daily cases is still falling



Source: Johns Hopkins, COVID-19 Tracking Project and Fundstrat

The takeaway is that European nations are not seeing a second wave since opening. This should give some comfort about what the US experience might be in coming weeks.

**POINT #2: Revisiting NYC COVID-19 Mortality. ~3X deadlier than flu (2017-2018) and ~9X deadlier for 50-64 years old (but 83% of these had "higher risk underlying condition"...**

**NYC fatality rate = 8.2%, >25% for those >age 65. Adjusted for implied prevalence per serology, overall 0.73% and 2.23% >age 65**

NY Gov Cuomo has conducted 4 serology studies statewide, totaling >40,000 antibody tests, so it is exhaustive and two were focused on the general population (see below) with the other two focused on healthcare workers and 'essential workers' (NYPD, transit, etc.). But the antibody studies showed NYC prevalence of COVID-19 is somewhere between 9X to 13X higher (see below). And since then, NY Gov Cuomo has referred to COVID-19 prevalence as >20% of NYC residents (vs official case prevalence of ~2%).

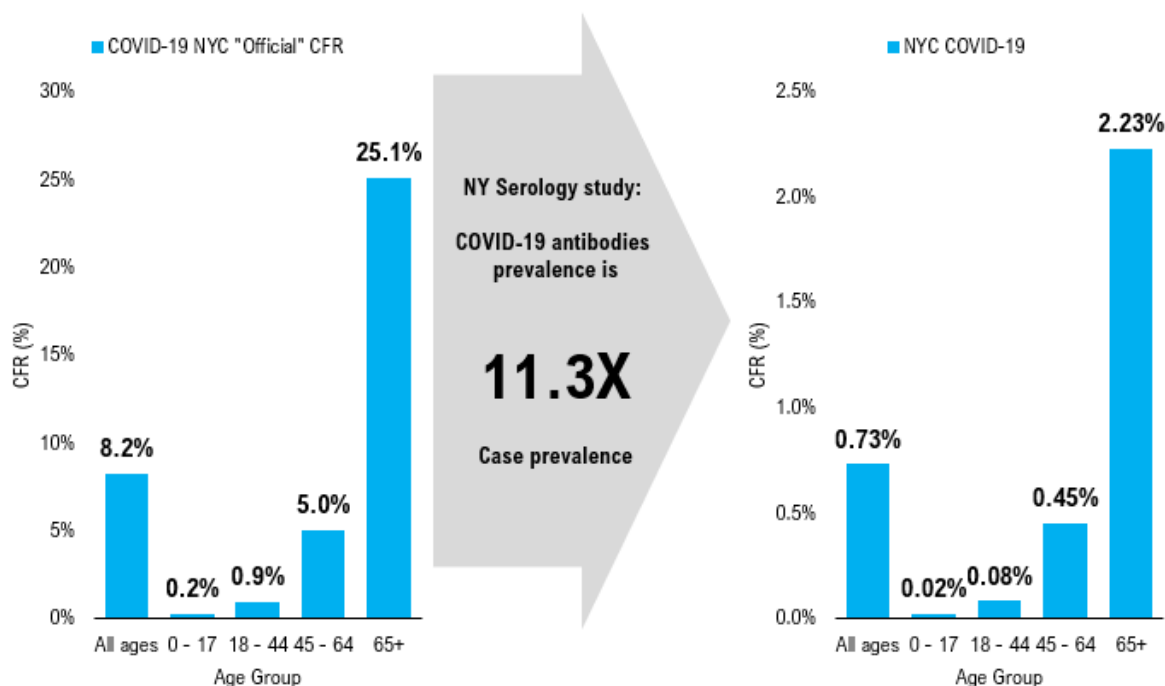
- this naturally alters the case fatality rate, since with a higher number of cases (denominator), the CFR would be lower.

Date	Authors	Region	# tested	% positive	Implied cases per 1mm		"Official" cases per 1mm	Ratio "study" vs "official"	
					Low	High		Low	High
5/7/2020	New York State	New York City		19.9%	199,000	199,000	20,965	9X	9X
		Westchester		13.8%	138,000	138,000	31,943	4X	4X
		Long Island		11.4%	114,000	114,000	26,128	4X	4X
		Downstate healthcare worker	~27,000						
		New York City		12.2%	122,000	122,000			
		Westchester		6.8%	68,000	68,000			
		Long Island		11.1%	111,000	111,000			
4/27/2020	New York State	Statewide	7,500	14.9%	149,000	149,000	15,170	10X	10X
		New York City	3,225	24.7%	247,000	247,000	19,472	13X	13X
		Long Island	1,080	14.4%	144,000	144,000	23,931	6X	6X
		Westchester/Rockland	495	15.1%	151,000	151,000	30,695	5X	5X
		Rest of State	2,693	3.2%	32,000	32,000	3,614	9X	9X

Source: NYC governor's office.

Adjusting the denominator, we recalculated the CFR for COVID-19 below. And given NYC provides CFR by age groups, we have those listed below. The CFR overall drops to 0.73% (still high) but way better than 8.2%. The adjusted figures basically show that many cases are mild and do not require hospitalizations. But that this does not reduce the human toll of this disease. As of mid-week, over 15,000 NYC residents succumbed to COVID-19.

**Figure: Case Fatality Rate by Age, official and adjusted for higher prevalence, based on serology**  
NYC Health Dept



Source: Fundstrat, Bloomberg, Factset

**Comparing serology-adjusted CFR to 2017-2018 flu season... ~3X for most age groups**



### but 9X for age 50-64

But this serology adjusted CFR is useful to compare to 2017-2018 flu season. This is shown below. The age groups show that COVID-19 is indeed deadlier than the seasonal flu, but by a much lower margin:

	<u>COVID</u>		<u>FLU</u>	
- age 0-17	0.02%	vs	0.01%	3.3X (rounding)
- age 18-49	0.08%	vs	0.02%	4.0X
- age 50-64	0.45%	vs	0.05%	8.7X <--- WHOA!!!!
- age 65-plus	2.23%	vs	0.86%	2.6X
Overall	0.73%	vs	0.14%	5.3X <--- due to age 50-64

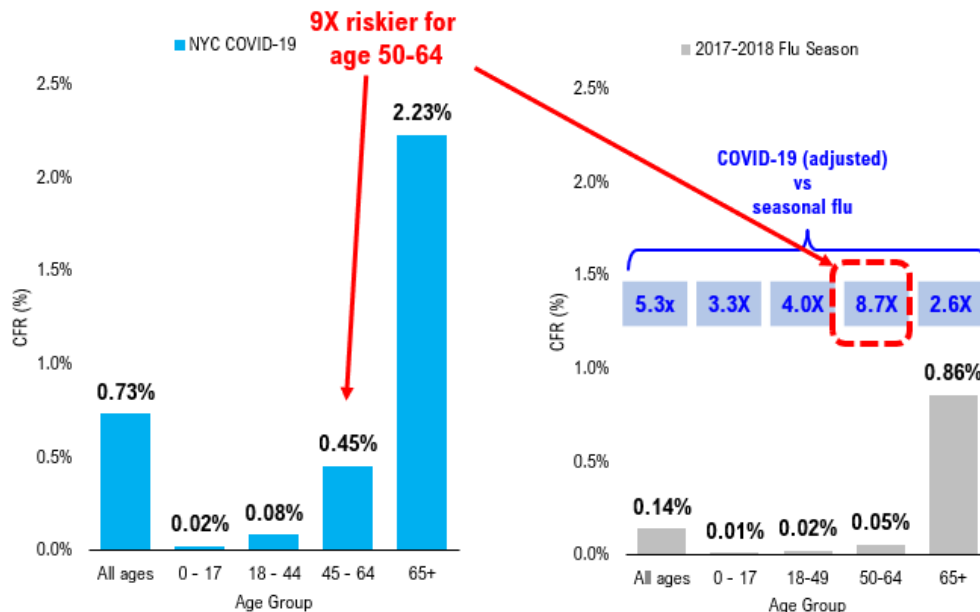
There is a few issues with this comparison.

First, the COVID-19 serology tests could be inaccurate and thus, overstate and even understate the totals. But given the 4 sets of NY state tests, and very similar results, at least the results are consistent. In fact, this is the reason we are looking at the NYC data. Additionally, if there are type i (false positives) and type ii (failed to detect) errors, given NYC has the highest official prevalence of any city, means the testing data generally is more accurate even with both types of errors.

Second, the flu mortality data is from the CDC and is the US overall. The mortality rate of flu may vary by region; thus, NYC could have a different seasonal flu death rate.

There are other limitations, but those two come to mind.

Figure: Case Fatality Rate by Age, official and adjusted for higher prevalence, based on serology  
NYC Health Dept



Source: Fundstrat, Bloomberg, Factset

**83% of NYC COVID 50-64 years old had a known underlying "risk factors"... this mitigates**

***the higher death rates, somewhat...***

NYC also discloses whether the deceased had any underlying conditions (see table below). Of 15,101 deaths, 11,290 had one of the known underlying risk factors for COVID-19, or 75%. The disclosed risk factors are:

- Diabetes
- Lung disease
- Cancer
- Immunodeficiency
- Heart Disease
- Hypertension
- Asthma
- Kidney disease
- GI/Liver disease
- Obesity

This is a long list of factors. And it is a large enough laundry list, that it does make it seem like many adults will fall into this category. But this also shows that age 45-64 death rates are impacted by this.

- 83% of COVID-19 deaths in NYC for 45-64 (different age band from above) had a known condition.
- 15% had "unknown" (so not clear, if they had some condition)
- 2% had "no underlying" condition

In other words, the risk of mortality for a 50-64 year old, with no underlying condition is 0.07% [0.45% adjusted CFR x 17% (no condition)]. This is nearly identical to the risk of death from the seasonal flu -- 0.05%.

### NYC COVID-19 Deaths Among Confirmed Cases

	Underlying Conditions <sup>1</sup>	No Underlying Conditions	Underlying Conditions Unknown	Total
<b>Age Group</b>				
- 0 to 17	6	1	3	10
- 18 to 44	472 <b>83%</b>	17	107	596
- 45 to 64	<b>2826</b>	71	486	3383
- 65 to 74	2775	5	973	3753
- 75 and over	5210	2	2144	7356
- Unknown	1	0	2	3
<b>Sex</b>				
- Female	4404	13	1468	5885
- Male	6811	83	2222	9116
- Unknown	75	0	25	100
<b>Borough</b>				
- Bronx	2891	17	339	3247
- Brooklyn	3259	24	1313	4596
- Manhattan	1319	9	672	2000
- Queens	3346	46	1137	4529
- Staten Island	469	0	252	721
- Unknown	6 <b>75%</b>	0	2	8
<b>Total</b>	<b>11290</b>	96	3715	15101

<sup>1</sup>Underlying illnesses include Diabetes, Lung Disease, Cancer, Immunodeficiency, Heart Disease, Hypertension, Asthma, Kidney Disease, GI/Liver Disease, and Obesity.

**Why does this matter? As restrictions ease, employees + customers as restrictions overall lower risk + special vigilance for "underlying conditions"**

The key takeaway is again about how this impacts employees and customers as stay-at-home restrictions ease. The risk to an adult without the underlying condition, even older adults, is actually quite low.

- On a total basis, for a 50-64 years old, the overall risk of death is 0.45%. This is high and 9X higher than flu.
- But if this adult has none of the above conditions, the risk of death is 0.07%, which is nearly identical to flu.
- And if someone has mitigation factors like PPE, hand sanitizer, masks, etc., the overall risk is less scary.

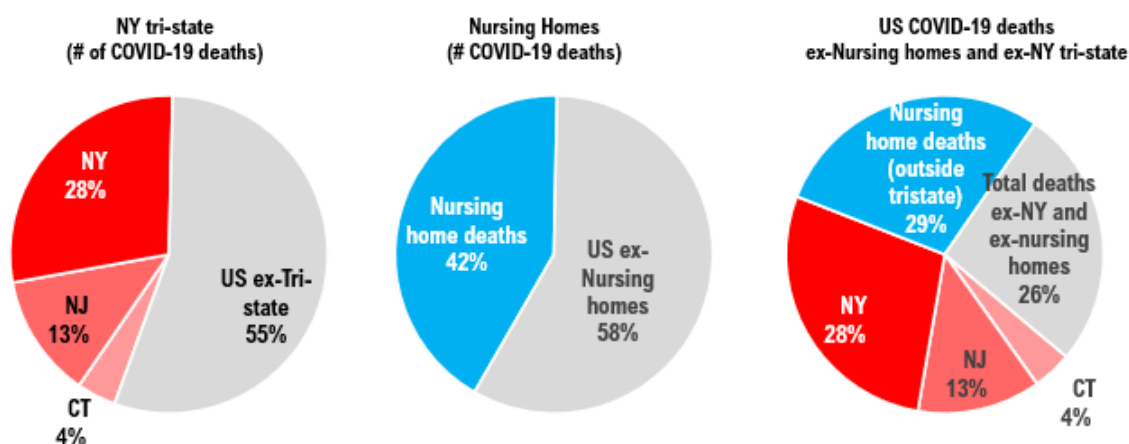
This is our takeaway.

**Finally, remember the dual epicenter --> NY tri-state area + nursing homes = 74% of all COVID-19 deaths**

To summarize, recall that COVID-19 deaths have 2 epi-centers, and outside these epicenters, the experience with COVID-19 is much lower:

- NYC tri-state (NY + CT + NJ) share of deaths 45%
- Nursing homes (including tri-state area) share of deaths 42%
- combined NYC tri-state + nursing homes 74% (there is overlap)
- ex-NYC tri-state and ex-nursing homes share of deaths 26%

**Figure: % of COVID deaths attributable to NY tristate area and Nursing home residents**  
From state health departments



Source: Fundstrat, Bloomberg, Factset

This is a shocking statistic. 74% of the COVID-19 mortality is tied to 2 epicenters. And again, this is not to minimize the tragedy. But this means of the ~87,000 COVID-19 deaths in the USA.

- it is ~23,000 outside the 2 epi-centers.

This is a far less deadly disease when considering loss of life from obesity, cancer, smoking, drug overdoses, car accidents, etc. Now credit to this is, in part, due to the mitigation from stay-at-home. And this also means the US has a lower "emotional damage" base to deal with, compared to looking at the headline data on deaths and mortality rate (both lower).

**STRATEGY: Stocks have upside because there is more certainty than consensus realizes, not because we think stocks are "cheap" on 2020 EPS.**

This has been a volatile week for equities. But as we have noted in our prior commentaries, it is also perfectly rational for investors to expect profit taking and a sentiment reset. We just do not think a pullback warrants major tactical changes. Partly because we do not find sentiment to be that constructive.

In every Zoom/call we do (way more Zoom), investors can cite a litany of problems with stocks. And especially if they are looking at single names:

- there is zero visibility
  - the good ones are expensive on 2021 EPS
  - hard to know if things have bottomed
- etc. etc.

But the best times to put fresh money into equities, is when economic data is absolutely at the nadir (which a lot of data seems to suggest this). In fact, one chart we want to post again is the US ISM manufacturing index. The April reading was 41. And this figure is likely to fall to sub 40 next month.

If it rises, then the equity case for stocks is arguably stronger, because it show the magnitude of the contraction is milder than implied by the labor reports (which is our view).

**Figure: ISM Manufacturing**

Since 2007



Source: Fundstrat, Bloomberg, Factset

**Bad news = good news when it comes to the ISM. Since 1950, S&P 500 has unusually**

### **strong 12M gains when USM ISM manufacturing <43...**

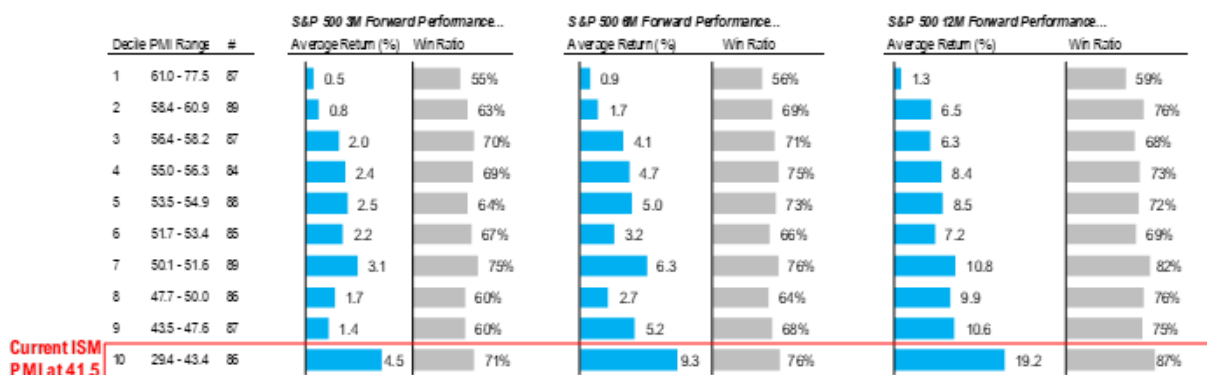
In the last 70 years (since 1950), the best time to actually invest in the S&P 500 is when the PMIs are below 43. We broke the ISM levels into 10 deciles and then mapped the forward return of the S&P 500. As shown below, the best single decile for S&P 500 forward returns is when the PMIs are below 43. This is an instance of bad news = good for stocks.

- when PMI <43, 12M S&P 500 return is 19% and positivity 87% of the time
- when PMI >61, 12M S&P 500 return is 1% and positivity 59% of the time

So the opposite is true as well. When PMIs are strong, S&P 500 returns are poor.

The bottom line? We think the fact there is more certainty than most appreciate is a positive.

Figure: ISM Manufacturing and forward S&P 500 returns  
Since 1950





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