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BLAST

COVID-19 UPDATE: IHME Takeaways. The more "fear" the better the outcome. Masks as good as vaccines. Israel shows markets did not care about cases...

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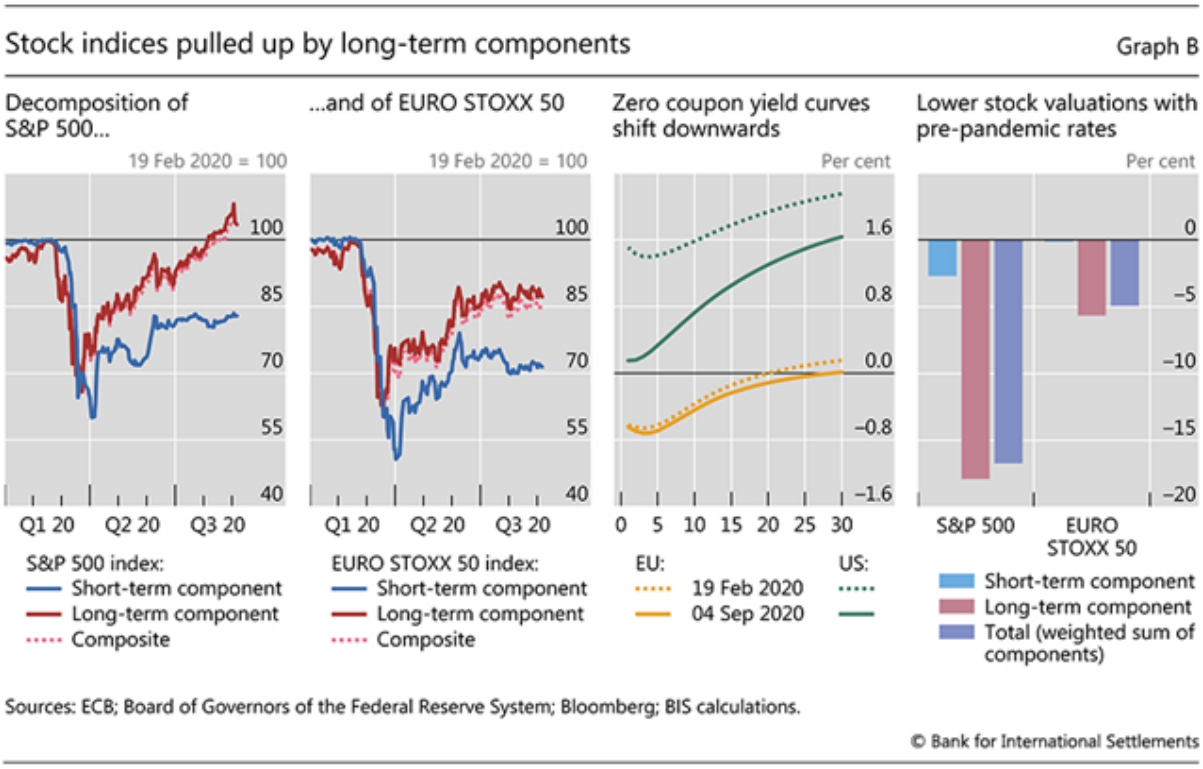
STRATEGY: COVID-19 single most important market factor YTD in 2020 and into YE...

Looking at the first 9 months of 2020, the pandemic has been the single most important factor for markets. The pandemic drove monetary policy, fiscal stimulus and economic and behavioral changes -- a quadfecta of impacts. In fact, while the BIS (Bank of International Settlements) comments that Fed policy accounts for 50% of the recovery of stocks, the Fed move is all due to COVID-19.



https://www.bis.org/publ/qtrpdf/r_qt2009a.htm

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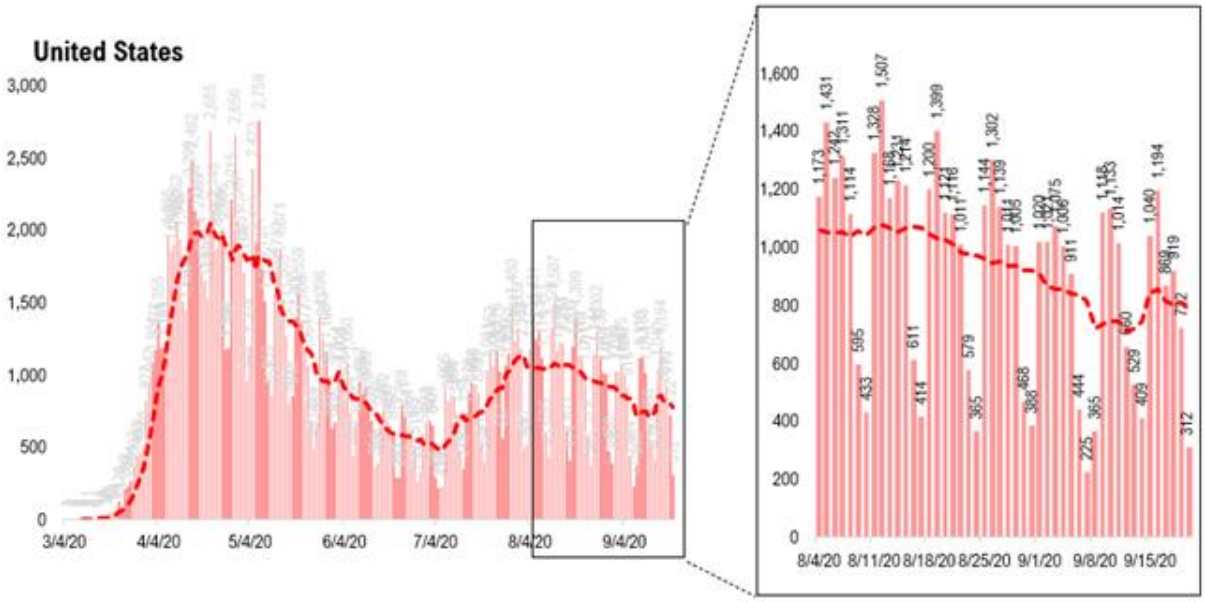
And as we look into YE, COVID-19 remains the single biggest influence:

- COVID-19 vaccine/cure will affect 2020 elections
- COVID-19 daily case trends will influence Americans' behavior
- COVID-19 is behind the fiscal stimulus

So in short, COVID-19 remains a central influence. And unfortunately, it is completely unpredictable. Fortunately, daily deaths are trending lower and now 89% off their highs. The moving average for daily deaths was messed up due to the Labor Day holiday closures but this week will be the true trend. Read below (Point #3) to see what well-known COVID-19 model forecasters expect for US deaths this Winter -- hint, two very different outcomes.



Source: COVID-19 Tracking Project

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The latest commentary from JPMorgan US Fixed Income team caught my eye. They see:

- US rates drifting lower into YE
- US corporate bond spreads tightening (rally)

Both would be good for equities. Hence, despite the risks developing, stocks have good risk/reward.

Cross Sector Overview

- Just as the weather watchers track tropical depressions, bond market participants have their own trouble spots on the radar. The persistent pandemic and November national elections lead the list, but uncertainty over further fiscal stimulus, the Fed's new policy framework, benchmark reform and the fickleness of year-end funding markets all make our worry list.
- **Economics:** The FOMC enhanced forward guidance, signaling rates will be at zero lower bound for at least a few years. This meeting was the first time the FOMC published the 2023 dots, which showed that the median Committee participant expects no hikes through 4Q 2023.
- **Rates:** We see downside risk to yields over the near term, given lower likelihood of another round of fiscal stimulus and quarter-end portfolio rebalancing flows: take profits on 5s/30s curve steepeners and look for better location for reentry. Risks of year-end funding stress are down but not out. The Big Bang inched closer this week with the first (and only) look at size and direction for the LCH auction.
- **Credit:** We discuss what we believe are eight drivers of tighter spreads and six risks or drivers of wider spreads. Taking all of these into account, we maintain our 150bp YE spread forecast, which is 15bp tighter than current levels.

Source: JPMorgan

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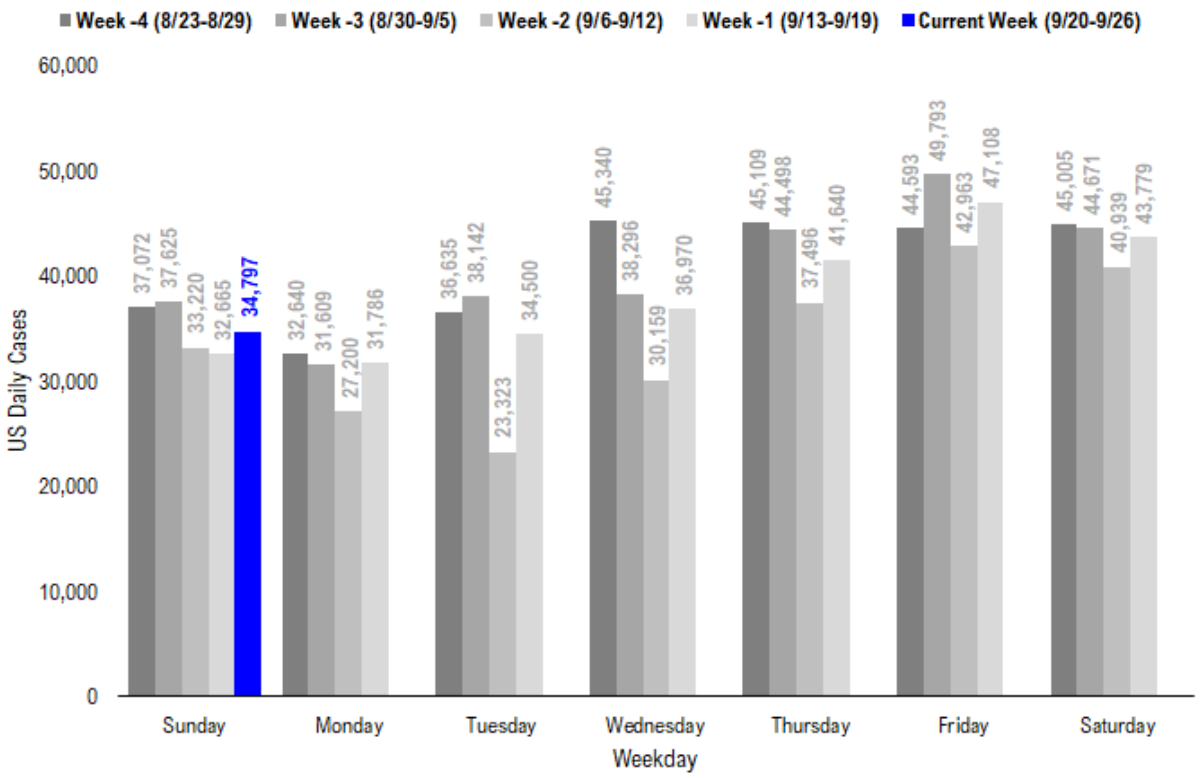
POINT 1: Daily cases 34,797 up +2,132 vs 7D, improving each of the past 5 days

Last week, we commented that the rise in US daily cases seemed to be some type of distortion in trends due to the Labor Day holiday -- that is, long weekend and closures mean reported data was less complete last week. And this week, we are seeing a catch up of this data. So, this week would be a week to see what the proper trend is (baseline). Yesterday's daily cases were up +2,132 vs 7D ago, but this rise is at a declining rate. So, the next few days will be worth watching.



Source: COVID-19 Tracking Project

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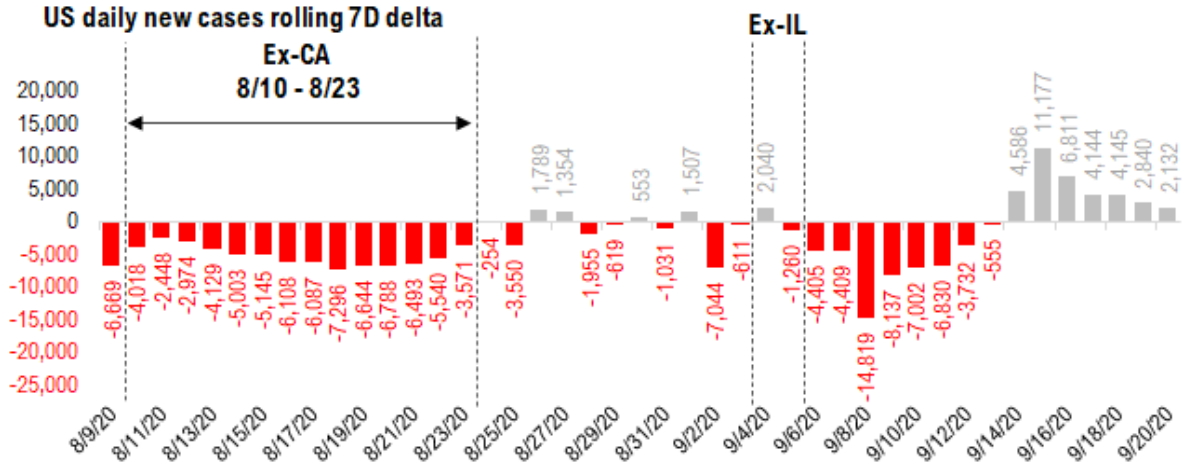
This week will give us a clearer picture...

Again, the daily change vs 7D ago, in our view, is the leading indicator as it is what influences the 7D moving average. The 7D delta is up, meaning cases are higher vs 7D ago, but the level of increase is slowing. It was +2,132 yesterday but it was +11,177 last Tuesday.

- and every day since last Tuesday has seen this rise at a smaller pace
- the question is whether this will go negative this week



Source: COVID-19 Tracking and Fundstrat

These are the 6 states with the highest 7D delta in daily reported cases. The top of the list is Tennessee. Tennessee is accounting for ~50% of the rise vs 7D ago, so this state has the biggest impact.

6 states with largest 7D delta in daily cases

Tennessee	2,075 vs 933 (-7D)	+1,142
Pennsylvania	733 vs 76	+657
Minnesota	1,296 vs 723	+573
Texas	2,241 vs 1,840	+401
Nebraska	410 vs 80	+330
Oklahoma	1,003 vs 695	+308
Total		+3,411

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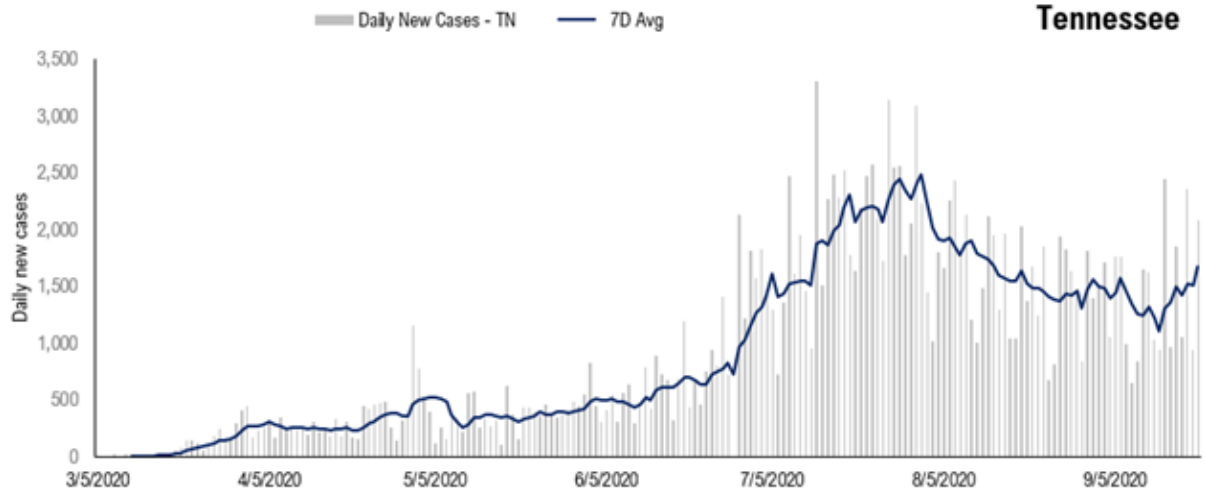
Tennessee daily cases have been rising in the past few weeks as shown below and this is likely heavily influenced by a surge in cases at their universities and colleges.



Source: COVID-19 Tracking Project

As the NY Times data below shows, there are 59 colleges in TN reporting cases and you can see that the large schools are reporting a surge in cases (the bar chart/heatmap).

Source: NY Times

6 states with largest 7D delta in daily cases

Indiana	746 vs 1,243 (-7D)	-497
California	4,265 vs 4,625	-360
Louisiana	936 vs 1,281	-345
Alabama	798 vs 1,109	-311
Missouri	1,328 vs 1,613	-285
Georgia	1,134 vs 1,409	-275
Total		-2,073

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Daily Case Increases (by State) (09/20)

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

				Sorted		
		7D Ago	**Last 3-day Trend**			
		9/13/20	9/18/20	9/19/20	9/20/20	vs 7D ago
	United States	32,665	47,108	43,779	34,797	+2,132
	States:					
1	California	4,625	3,630	4,304	4,265	
2	Florida	2,423	3,204	3,573	2,521	
3	Texas	1,840	3,978	3,433	2,241	<--higher
4	Tennessee	933	2,357	942	2,075	<--higher
5	Wisconsin	1,582	2,533	2,283	1,665	
6	Illinois	1,462	2,223	2,529	1,402	
7	North Carolina	1,196	1,443	1,229	1,333	
8	Missouri	1,613	1,795	1,387	1,328	
9	Minnesota	723	1,085	914	1,296	<--higher
10	Georgia	1,409	1,834	2,284	1,134	
11	Oklahoma	695	1,249	1,237	1,003	<--higher
12	Louisiana	1,281	979	0	936	
13	Utah	628	1,117	1,077	920	<--higher
14	New York	725	790	986	862	
15	Virginia	874	1,242	953	856	
16	Alabama	1,109	1,106	1,301	798	
17	Ohio	837	1,011	951	762	
18	Indiana	1,243	1,037	1,076	746	
19	Pennsylvania	76	760	1,162	733	<--higher
20	Iowa	784	1,183	847	621	
21	Arkansas	508	724	803	549	
22	Colorado	417	605	606	501	<--higher
23	South Carolina	567	872	922	468	
24	Arizona	384	518	609	467	<--higher
25	New Jersey	297	487	461	453	<--higher
26	Kentucky	530	758	978	436	
27	Maryland	577	543	682	412	
28	Nebraska	80	502	466	410	<--higher
29	Nevada	317	501	323	385	<--higher
30	Massachusetts	286	454	599	359	<--higher
31	North Dakota	426	507	377	351	
32	Washington	350	404	597	349	
33	Mississippi	254	497	655	277	
34	Puerto Rico	171	479	694	262	<--higher
35	South Dakota	201	389	369	252	<--higher
36	Idaho	112	470	288	244	<--higher
37	Oregon	181	282	257	202	
38	West Virginia	178	253	191	180	
39	Montana	96	224	292	136	<--higher
40	Delaware	123	48	83	117	
41	Alaska	62	109	85	93	<--higher
42	Wyoming	49	95	33	91	<--higher
43	Hawaii	113	111	110	77	
44	New Mexico	100	151	162	67	
45	District of Columbia	40	62	50	53	<--higher
46	Maine	29	43	30	44	<--higher
47	U.S. Virgin Islands	9	4	0	27	<--higher
48	New Hampshire	44	47	59	27	
49	Northern Mariana Islands	0	0	0	6	
50	Vermont	7	1	4	5	
51	Rhode Island	99	132	0	0	
52	Michigan	0	695	483	0	
53	Kansas	0	1,415	0	0	
54	Guam	0	29	43	0	
55	Connecticut	0	141	0	0	
56	American Samoa	0	0	0	0	

Source: COVID-19 Tracking and Fundstrat

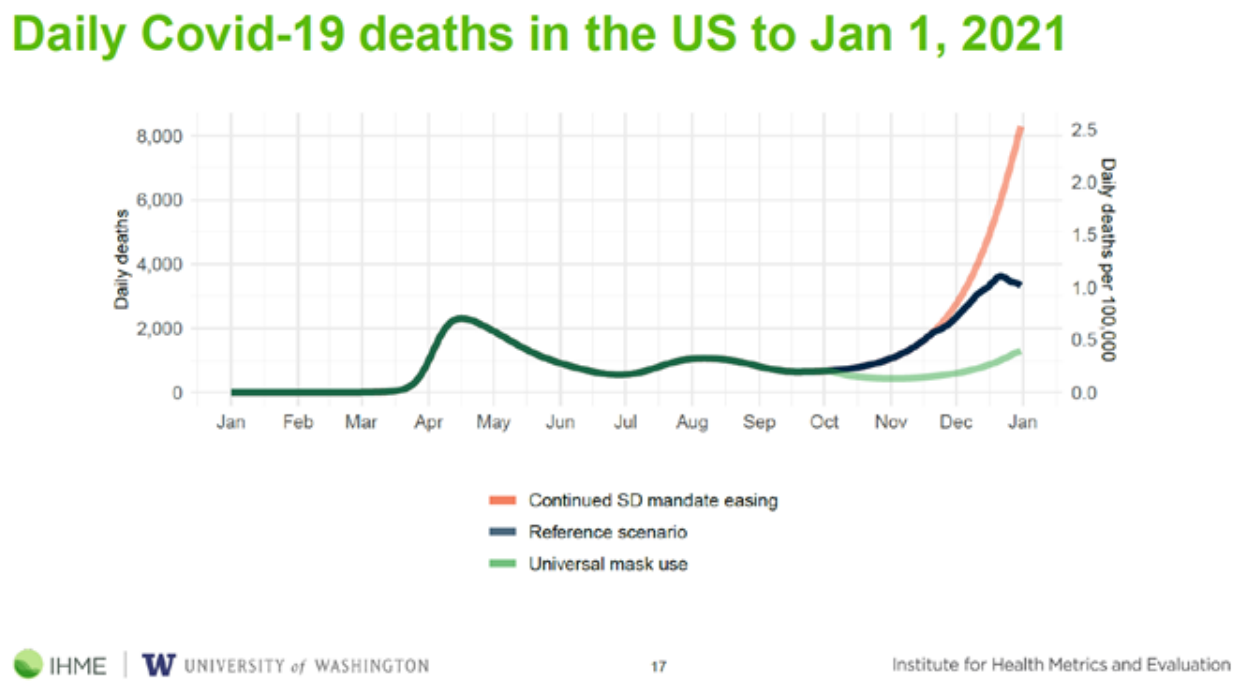
POINT 2: IHME Takeaways. The more "fear" the better the outcome. Masks as good as vaccines. They see a resurgence in US deaths in Winter.

We hosted a webinar last Friday with Chris Murray, Head Scientist for the IHME. For a Friday afternoon, this was very well attended with >700 registered and ~500 tuned in. We had received over 59 questions, which is quite a number, and we were not able to get to all the questions. If you miss this zoom, the replay is:

The replay can be accessed here --> (click here for video replay and click here for audio replay).

There were many topics discussed, so I want to give a few high-level takeaways:

- IHME sees a US second wave starting in early October, pushing daily deaths to 4,000 (mid-case) and to as high as 8,000 per day
- The peak of US daily deaths in April was 2,200 per day, so IHME sees a 2X-4X surge beyond prior highs
- While several factors drive this, the two primary drivers: (i) seasonality and (ii) Americans will get "careless" as they get comfortable.
- Mitigation comes down to mask compliance, which they see as more effective than US vaccines (see below) and better policy response.
- Things that are "contrary" to models: (i) low prevalence in Asia, Africa, Pakistan and Sweden and (ii) fatality rates improving (+vaccine);



The over-arching message from IHME is that public policy can have a big influence on the outcome of this second wave. As highlighted above, if mask mandates are universal, the US daily deaths would never rise above 1,000 in the winter. Currently, mask mandates are not universal. IHME believes masks reduce risks by 40%. Murray also noted that this might be more effective than a vaccine. For vaccines, if 50% of US takes it and it is 60% effective, this is only a 30% reduction. Thus, masks > vaccine, in this example.

I agree with Murray's assertion that there is a self-defeating loop in COVID. As the US cases slow, there is a risk that Americans become less vigilant and this leads to carelessness and we see a renewed spread. To an extent, this is what we are seeing at colleges and universities. Thus, the more "fearful" Americans are, the better the compliance.

- But I realize this is easier said than done for America. Even if there was a national mask mandate, this does not guarantee compliance.

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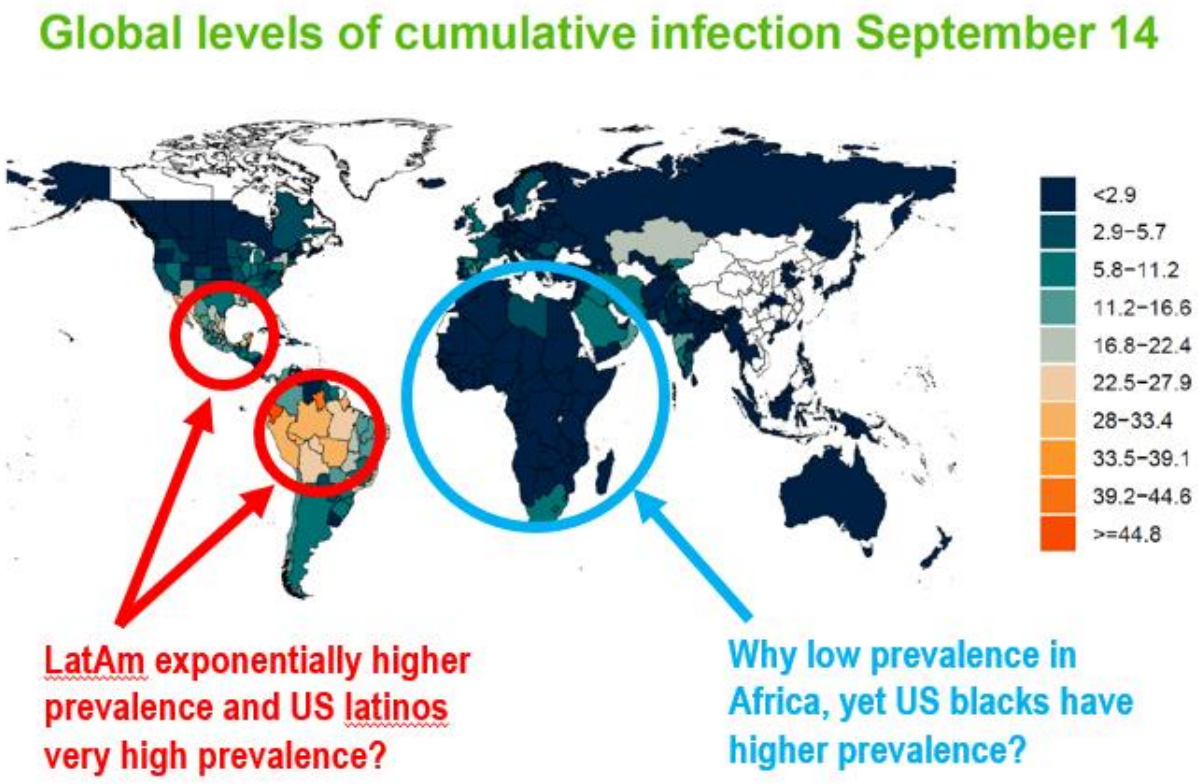
Why are some nations seeing low prevalence?

One of the most curious charts, to me, is this one. Murray was highlighting case prevalence across the World and he commented that there is unusually low prevalence in: Asia, Southeast Asia, sub-Saharan Africa and Pakistan.

He did conjecture there could be some other factor at work, such as biological or dietary.
- He noted that Southeast Asians tend to have a higher exposure to bats and bat viruses and thus inferring immunity (ala t-cells)
- For Africa, he notes there is a lot of work that polio vaccinations could be inferring some immunity.
- Overall, this is why "herd immunity" is not necessarily at 80%-90% but he sees it at more like 40%

- But what really struck me was the exponentially higher prevalence in Latin and Central America.
- Nearly 10X the rest of the World
- And also, that in the US, Blacks and Latinos are disproportionate share of US cases, but this diverges outside the US



Source: IHME

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Massachusetts is an example, where Blacks and Latinos are 19% of the total state population but are 44% of total cases in that state. This is pretty common across many states and the conventional explanation is that Latinos and Blacks are taking the "riskier" jobs and thus, are more vulnerable.

- the issue with this "broad brush" conclusion is that if Latinos/Blacks are 44% of cases in MA, does this mean they are 44% of the employed in "risky jobs"? If this was true, public policy could easily fix this.
- I don't think this fully explains the difference.
- Incidentally, vitamin D is gaining increasing acceptance as a mitigating factor, and Latin Americans and US Latinos and US blacks are known to be vitamin D deficient.
- Moreover, Nordic nations (including Sweden) eat a lot of salmon, which is a big source of vitamin D and that is a region with low prevalence as well
- I am not a scientist, but this is food for thought

Race and ethnicity data by state

Type a state's name to jump to it: State or territory

Massachusetts

Massachusetts has reported race and ethnicity data for:

The following tables reflect only those cases and deaths where race/ethnicity is known and reported by Massachusetts. If this state's reporting percentages are low, interpret with caution.

72% CASES

99% DEATHS

Cases and deaths by race/ethnicity

Race/ethnicity	Percentage of population	Percentage of cases	Percentage of deaths
Black or African American alone	7%	13% ◆	8%
Hispanic or Latino *	12%	31% ◆	7%
Asian alone	6%	3%	3%
Native Hawaiian and Pacific Islander alone	<1%	- 1	- 1
American Indian or Alaska Native alone	<1%	- 1	- 1
Two or more races	2%	- 1	- 1
White alone	72%	44%	76%
Some other race alone	<1%	9% 1	6% 1

Source: COVID-19 Tracking Project

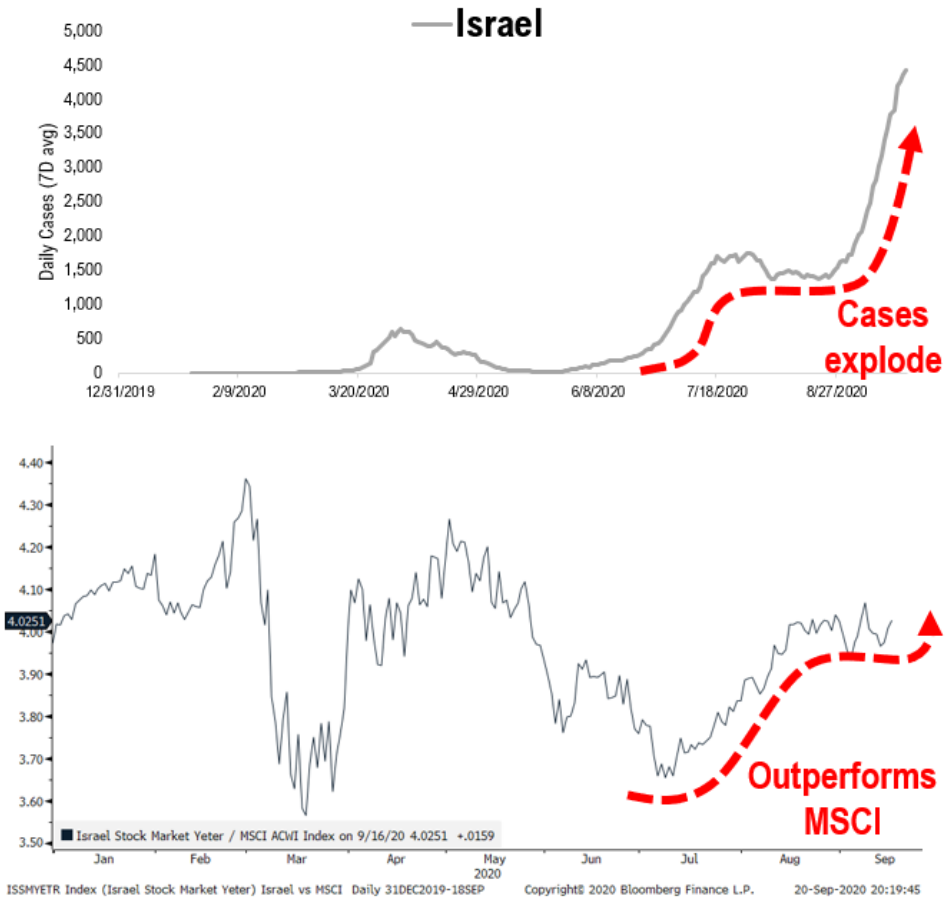
POINT 3: IHME and Youyang Gu similar model accuracy, completely different views...
Quite a number of clients pointed out that if the IHME forecast is right, wouldn't this be negative for financial markets? The answer is not so simple.

Foremost, the future is uncertain, so the key takeaway from every forecast is the process behind the view, but the actual output can be less important. 2020 is a lesson in this. After all, we saw multiple instances of markets over-reacting to models/forecasts that proved incorrect -- even recently, many policy makers were saying US cases would hit 100,000 this Summer.

Israel shows that markets stopped caring about cases...
More importantly, we can look at the case of Israel. Dr. Murray noted this nation saw a massive massive second wave of cases with recent daily cases averaging 5,000 per day compared to <1,000 in March. In fact, Israel had to institute new restrictive measures to slow the spread.

- But take a look at the Israel equity market (ISSMYETR Index on BBG) versus MSCI
- Since early June when Israel cases began to explode, ISSMYETR has been outperforming MSCI

Bottom line, the future is uncertain and how financial markets react to data is uncertain.



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Look at the horrific forecast error of Imperial College...

The IHME presentation compared the accuracy of forecasts of different models. And what stands out is the massive forecast error of Imperial College. Recall, it is the Imperial College forecast that prompted global policy makers to shut down the economy. In fact, as one of our clients, John Gordon, passed along to me, the WSJ editorial commented about how policy makers would act differently with their current knowledge. The WSJ editorial referenced a recent study in the Annals of Internal Medicine, which reported that the infection fatality rate for non-institutionalized persons under 40 was 0.01%, way below the 5%-10% of Imperial College. And the same WSJ edition quoted the German Health minister saying that the government would have applied a less sweeping program of measures with benefit of today's greater knowledge about how to manage infections.

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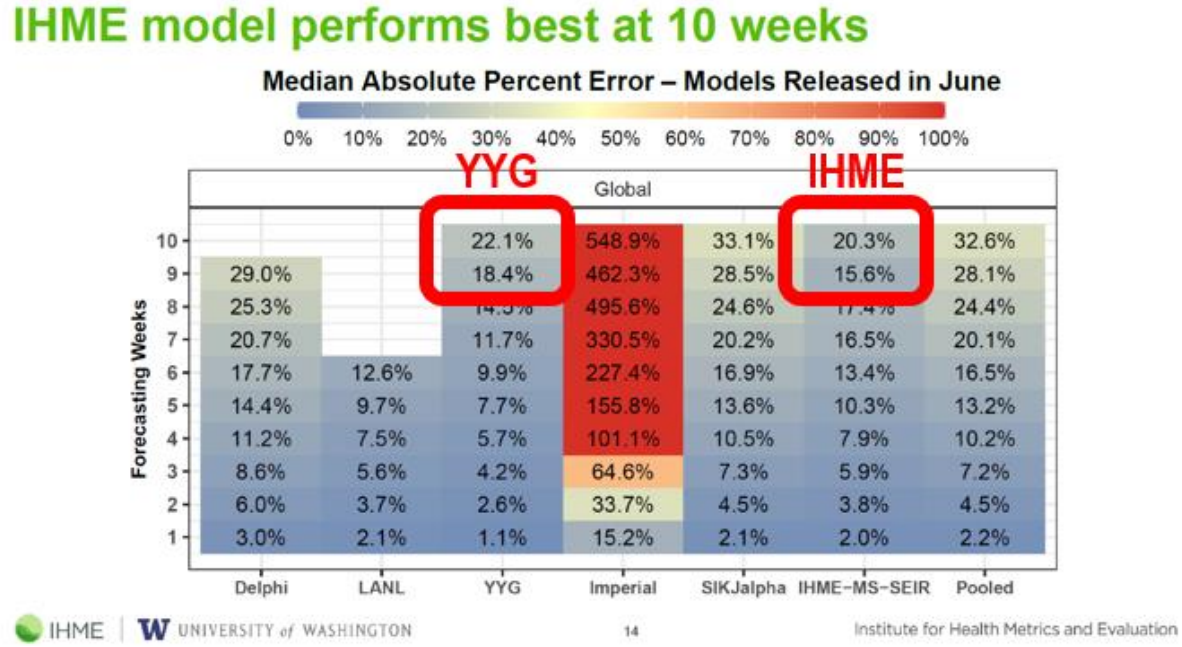
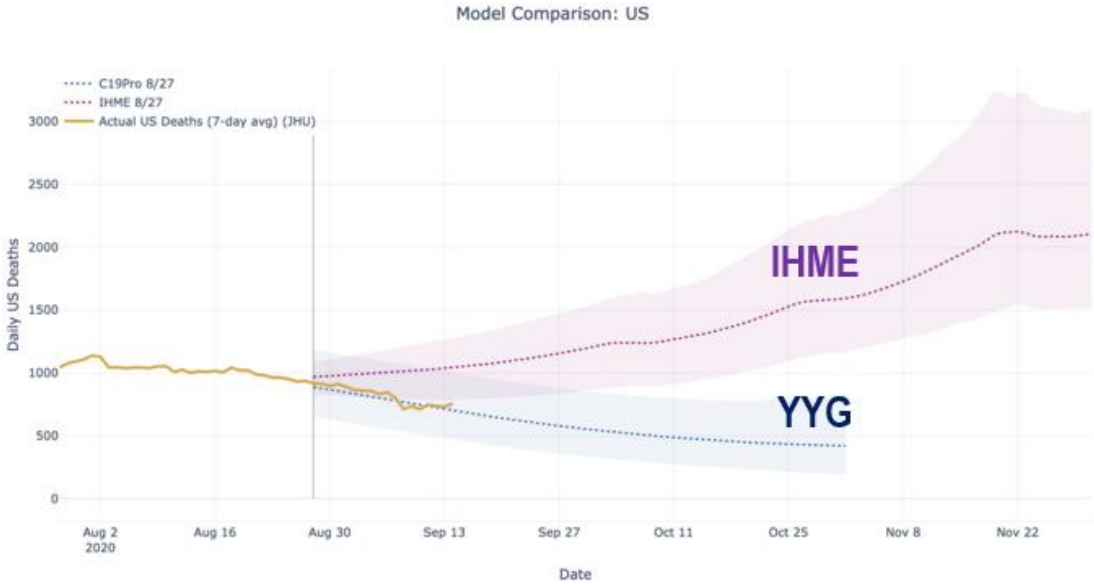
IHME and Youyang Gu have similar model accuracy, but completely different views...
The model accuracy of IHME and a young data scientist, Youyang Gu are similar, with about 22% error after 10 weeks. This is something highlighted by Murray.



But look at these two forecasts today. They are completely divergent.

- IHME sees a massive rise in deaths in the coming weeks.
- YYG sees US daily deaths falling below 500

Thus, the future is uncertain.



Source: twitter.com

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