



January 19, 2022

COVID Pandemic Perspectives

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The Long Wave Was Not a Friendly Gesture

After almost two years, and wave after wave after wave, it seems as though the COVID 19 pandemic will never come to an end.

The following analysis contains SKBA's perspectives on the current state of the COVID crisis and how things may be getting better than you think around the globe. This can have profound impacts on the economy and who will benefit as COVID transitions to an endemic disease.

We have divided it into two parts, an overview at the beginning and a deeper dive into the data and analysis that follows for those that find the subject to be of interest.

Summary

- The Coronavirus pandemic created both temporary and permanent impacts on worldwide health and economic progress, including devastating economic shutdowns and dislocations.
- The pandemic has bifurcated the corporations into COVID "haves" – accelerating revenues and of companies serving work-at-home and shelter-in-place products and services – and "have nots" – while disrupting virtually all other industrial, commodity, and transportation businesses.
- The repeated waves of subsequent COVID variants have stymied the ability of economies to fully reopen. This has delayed the timing of the recovery and the eventual shift of the market's focus back in favor of the beneficiaries of the economic rebound.
- The now rapid distribution of vaccines and therapeutics appears to be ready to bring an end to the negative impacts of COVID, even if new variants emerge.
- Saying goodbye to the Long COVID Wave should result in dramatic shifts in favor of economically sensitive value companies that will benefit from the economic rebound.

Each *unfriendly* wave has either halted economic activity, as with the economic shutdowns that accompanied the Alpha wave, or delayed the return to normal economic life, as has been the case with the Delta and now Omicron waves. It has also generated stock and bond market buying and selling waves. These waves within the markets have been particularly seen among stocks that are economically sensitive, versus the shelter-in-place beneficiaries, or by Federal Reserve Board policies that suppress interest rates.

Will we ever get out of these repeated cycles and return to normal? The answer from this observer is *YES*. Our commentary and opinions here will illustrate why *good news may be on the way in the midst of today's confusion*.

Oh, and by the way, as a member of the Omicron Pledge Class in my fraternity at college many many moons ago, the correct pronunciation is "Oh-micron", NOT "Ah-micron!" Just setting the record straight for newscasters...and others...

Overview | Advancing Towards a Post Pandemic World

The following contains an analysis of what is going on in a sample of 152 countries, not just in aggregate, but at the individual region and country level. It uses data compiled from Johns Hopkins University's (JHU) COVID public database¹ containing records on cases, deaths, and vaccinations, and is not a study of the scientifically- determined efficacy of vaccines or therapeutics for COVID. Not every country around the world is included, but this report provides comparisons of large versus small countries, of representative countries from different continents and regions, along with islands versus city-states. It examines the status of infections along with the therapy strategies used by each country and the result in terms of the impact on infection case rates and death rates using a non-linear ordinal ranking system.

In looking at the data, one can challenge the results for any country based on poor data collection (the absence of available information) or deliberately choosing not to reveal data. The latter is the case with China; as none of its statistics have been, or currently are trustworthy, and the government chooses not to reveal much of anything. So despite having a 2021 estimated population (according to the Worldwide Population Review) of 1.4 billion people this data is excluded. As China's vaccine appears to be less efficacious (as has Russia's vaccine), China appears to be following a **lockdown** strategy to try to control the spread of the disease. Nevertheless, ex China, the JHU data is some of the best available and suitable for our study.

The world has been so focused on the politics of vaccinations under the assumption this is the only way the out of the pandemic. As such, until recently, many other advances underway have been ignored. It is useful to remember that in the developed world, the initial strategy to deal with the pandemic was to slow the path of disease expansion to prevent case rates from overwhelming the health care systems' ability to respond in each country, as well as protect vulnerable populations. Lesser developed countries with fewer health care options had to follow different paths. I believe it has become apparent that it is not possible to prevent the spread of subsequent COVID variants to all parts of the globe. All countries must learn to live with this disease while remaining "open."

Consequently, **Table 1** highlights our ranking system applied to each country versus its own case history using the JHU COVID data as of January 17, 2022. JHU data changes daily and weekly, but the graphic pictures for each country can be subjectively categorized (our opinions) in to five mutually exclusive groups with the ordinal rank of 1 being the best condition, in which both case and death rates have fallen to new lows compared to 2021 highs, up to the worst condition of 5, in which case and death rates have risen to new highs. The results displayed are surprising.

Table 1			Number of	Ex China	Average Vaccine
Infection Group	SKBA Group Rank	Population	Countries	% of Total Pop	Doses/100 Pop*
Cases & Deaths New Lows	1	3,285,814	48	54%	100.50
Case & Deaths Flatish to lower	2	158,712	5	3%	75.62
Cases New High/Deaths NOT	3	2,225,132	76	36%	116.97
Deaths New Highs/Cases NOT	4	-	0	0%	
Cases & Deaths New Highs	5	455,619	23	7%	106.64
*Note Population Weighted by Group		6,125,277	152	100%	

Contrary to what we believe is the general perception, 48 countries and 54% of the world's population (ex China) are seeing, even in the face of Omicron, cases and deaths at or near new lows (SKBA Infection Group Rank #1)! The surge in Omicron cases caused some countries to move from Infection Groups 1 and 2 into Infection Group 3 in just the last three weeks, but the Omicron case spike does not appear to be causing death rates to go to new highs. In addition, Infection Group 1 countries are only second best in terms of average vaccination rates (doses administered per 100 persons) at roughly one shot per person, and Infection Group 2 has an even lower vaccination rate (76 does per 100 in population). These levels would not appear to provide enough herd protection for these countries to be at new case rate and death rate lows – Anomaly #1 that we explore in the "Deep Dive" section of this newsletter.

¹ <https://coronavirus.jhu.edu>

The second largest infection group, Rank #3, are countries in which case rates have risen (or exploded) to new highs, but death rates are not following suit. Seventy-six countries and 36% of population sampled find themselves in this condition, including the U.S. While the high average level of vaccination (about 117 doses per 100 in population) could be helping to keep death rates from going to new highs, the fact that case rates have moved up so fast as the Omicron variant spreads like wildfire, leads to Anomaly #2, “Why are death rates not moving higher in tandem with cases?” This question is also explored in the “Deep Dive” analysis. However, whether what appears to be the less severity in illness from Omicron or not, the combination of the countries in Infection Groups 1 and 3 now cover 90% of world population and the fatality rates appear more likely to be winding down, rather than surging to new highs. We are not seeing a return to the fear and uncertainty seen around the world in the spring of 2020.

Still struggling with high and rising death rates are the 23 countries and only 7% of the world’s population that find themselves in Infection Groups 4 (none during the week ended January 17, 2022) and 5. Some have likely used the low efficacy vaccines from Russia and China, along with having a low vaccination rate as indicated in the red boxes.

COVID-19 and its treatments are a moving target. The “Deeper Dive” examines each country’s therapy strategy (by our analysis) and how those that haven’t worked were or are being changed by the countries pursuing them. Consequently, whether due to the continued rapid pace of vaccinations and boosters, the availability of antiviral therapeutics (such as Pfizer’s Paxlovid and other cheaper generics already in use), plus the so-far lower incidence of serious illness from Omicron, and finally, growing potential for herd immunity from both those that have been infected or vaccinated, there appears to be a good chance the Omicron wave could be the last “unfriendly long wave” of COVID. We all want the COVID pandemic to turn into an endemic disease, like the flu. Perhaps this analysis gives you more reason to be hopeful that the world is moving rapidly toward this goal in the first half of 2022.

So don’t freak out if your stocks periodically go haywire from the change in the change on COVID. Recovery from the pandemic, along with the huge stimulus from the Federal Government and the Federal Reserve Board, will continue to generate abnormally high real GDP growth, price inflation, and cyclical gains on corporate profits. Yet because so many COVID beneficiaries saw revenues get pulled forward from future years into the pandemic years (such as investing in work-from-home devices and services), their post-pandemic growth rates are likely to slow. In contrast, those companies most dependent upon the reopening of the economy that periodically lagged during the pandemic, could finally fully recover revenue and earnings and see more sustained earnings growth relative to the COVID beneficiaries. In our view, this is the right place to focus among “value” stocks for next few years.

Just remember the importance of a long-term investment outlook like that that we have employed at SKBA for over 30 years.

Deeper Dive | Therapy Strategies by Country and Region

As stated in the summary above, it is remarkable to observe that nearly half of the countries in our sample and 58% of the 6.1 billion global population (ex China) are seeing, or have seen, both case and death rates drop and remain near new lows. We'll examine why this might be the case as we review what we call each country's "Therapy Strategy." At the other end of the spectrum, either from the impact of the Delta or more recently Omicron variants, both case and death rates have gone through the roof in 23 countries. Yet this group represents only 7% of the total sample population. The global view tends to believe the pandemic and the new variant is out of control everywhere. However, this does not reflect reality and is mostly based on the surge in reported case rates caused of late by Omicron.

There are two anomalies already posed by Infection Groups 1 and 3 discussed in the summary:

- 1) How have many countries ended up in Infection Group 1 when they have neither had the benefit of efficacious vaccines nor can be determined to have acquired herd immunity?
- 2) For those countries that are in Infection Group 3, what might explain why have death rates NOT followed case rates to new highs?

For the answers, **Table 2** below examines the Therapy Strategy pursued from our presumed best (1) to worst (9). Note that these Therapy Strategies we assigned as representative of a country's response to dealing with the pandemic. Nothing is intended to suggest that such therapies are efficacious, but only the Infection Group Score associated with these Therapies. Furthermore, most countries are pursuing multi-strategies to deal with the pandemic. At the same time, the assignment is made on the primary strategy.

Table 2 Therapy Group	Therapy Group Number *	Population	Ex China % of Total Pop	Number of Countries	Infection Group Score
High Efficacy Vaccines	1	1,167,330	19%	40	2.60
Low Efficacy Vaccines	2	560,211	9%	15	3.40
Ivermectin	3	2,463,530	40%	23	1.87
NTD w/IVM**	4	984,369	16%	26	2.77
Possible Herd Immunity	6	21,777	0%	4	2.75
Low Vaccination Rate	7	714,468	12%	28	2.36
Breakthrough Cases	8	168,433	3%	12	3.33
Lock Down Strategy	9	45,158	1%	4	3.50
Totals	*SKBA Assigned	6,125,277	100%	152	

**Note NTD stands for countries with Neglected Topical Diseases

It's not hard to understand the good results for Therapy Group 1 – attacking the COVID problem with highly effective vaccines. Since the Pfizer and Moderna vaccines (the highest efficacy) were developed in the U.S. and Europe, their rapid deployment in the northern hemisphere (excluding China and Russia) has produced one of the best average infection scores (2.60 which is between the second best rank of 2 and the third best rank of 2). Yet the lack of vaccine availability and the slow rollout worldwide forced other countries to adopt different policies.

Therapy Group 3, in contrast, has the lowest and most desirable Infection Group Score at 1.87. Why is this?

India is a great case study. In the spring of 2021, cases and death rates were soaring. India had tried China's vaccine, only to be disappointed in the results. On May 11th, the Indian state of Goa in the southwest of the country approved the use of Ivermectin (IVM) for all adults, and the state of Uttar Pradesh in the north followed suit shortly thereafter along with the entire nation by early June. It should be noted that these approvals went counter to the recommendation of the Indian Council of Medical Research (ICMR), which changed its mind to go against approving the use of IVM and some other therapeutics. Also note that the surge in deaths in early 2021 threatened the Modi government as panic regarding deaths

rates raged among the population of India. Nevertheless, **Table 3** highlights what happened since adoption, as India has seen a greater than a 90% decline in cases (until the recent Omicron surge) and deaths.

<u>Weekly Averages</u>	<u>May Peaks*</u>	<u>December Lows</u>	<u>December Lows</u>	<u>% Change from Peak</u>	<u>Jan 16, 2022 Levels</u>
Cases	2,737,000	Dec 26th	46,495	-98.3%	1,673,000
Deaths	29,330	Dec 26th	2,443	-91.7%	2,515

Source: Johns Hopkins University COVID Data

*Note: Case rates peak in May 11th week vs peak deaths in May 23rd

Consider how difficult it is to conduct a random sample study and even more so a double-blind drug trial amidst the populations of the largest countries in the world when death rates skyrocketed and governments acted out of desperation to find a cure without the benefit of receiving the efficacious vaccines that had just begun distribution in the U.S. and Europe. There have been at least 16 studies in different regions on such therapeutics use for COVID, but with small sample sizes, even positive results would not make a convincing case for efficacy against COVID. Nevertheless, these countries adopted the use of a drug only approved for human use as an anti-parasitic because it was readily available and inexpensive.

I believe in the use of vaccinations for all kinds of disease prevention and am happy I've received approved doses and a booster of the vaccines developed in the U.S. It may surprise you, however, that **Table 2** highlights there are at least 23 countries that have formally approved or informally adopted the use of therapeutics to treat COVID, covering 40% of the world's population. Often discussing the use of such therapeutics not approved by the FDA or CDC has become "verboden" in the U.S. Yet, as stated, in their collective act of desperation due to lack of efficacious vaccines or soaring case and death rates last spring, these mostly southern hemisphere countries progressively began to permit the use of Ivermectin to treat COVID as a therapeutic, including nearly all of South America. Further note that the average ordinal ranking score (right-hand column in **Table 2**) demonstrates that, whether properly tested or not, countries using Therapy Strategy 3 as a treatment for COVID have, statistically speaking, the lowest Infection Group score (most favorable). At 1.87, these countries are experiencing the best outcome in controlling COVID after a disastrous start. *Anomaly #1 may now be partly explained*, and vaccines becoming more readily available are likely to sustain this success.

Africa poses a completely different problem. Our sample of 32 African countries recorded a population-weighted, cumulative death-to-population ratio of 0.03% better than all Northern Hemisphere regions except Japan & North Asia and Australia/New Zealand. Since the start of the pandemic and as recorded in JHU's COVID cumulative death statistics, the worldwide death-to-population ratio, ex-China, has risen to 0.09%. How can this be?

<u>Weekly Averages</u>	<u>Summer Peaks</u>	<u>November Lows</u>	<u>November Lows</u>	<u>December* 26th Level</u>	<u>Jan 16, 2022 Levels</u>
Cases	133,999	Nov 7th	1,840	140,577	33,238
Deaths	2,916	Nov 21st	90	466	911

Source: Johns Hopkins University COVID Data

*Note: Case rates peak shown occurred in week of December 19th

A perfect example of this latter case is South Africa, believed to the origin of Omicron. **Table 4** compares the peak case and death rates in July to the extraordinary lows (with only 90 deaths in the week shown!). As with India, South Africa has approved therapeutics to treat COVID. Also, there is typically a lag (in this example equal to two weeks in the July and

November) between the peak or trough in case rates and the corresponding peak or trough in death rates. Yet even as Omicron sent case rates to new highs, the corresponding death rate increase, while still tragic, is only 16% of the summer peak death rate. With case rates already in decline from the December spike, death rates remain at less than one-third of the summer peaks. South Africa's current characterization then puts it back into Infection Group 1, case rates have fallen again and death remain close to the December lows. **Tables 1 and 2** begged the question as to why this is happening; for this picture does not match the hysteria that grips many observers and caused the U.S. immediate response to be one of shutting down all flights in and out of South Africa. This is further highlighted by the low vaccination rate in the country, only 48 doses of vaccine administered per 100 of population. Compare this to the U.S. that has administered 157 doses per 100 of population as of the December 27th per data from JHU.

In Sub-Saharan Africa, 31 countries joined together some years ago to collectively treat Neglected Tropical Diseases (NTDs) by 2020. These diseases include Onchocerciasis (River Blindness) caused by a parasitic worm that is safely treated with Ivermectin; that also happens to have antiviral properties². A study by the National Institute of Sensory Organs, Tokyo Medical Center, conclude that these 31 countries had statistically significant lower mortality from COVID 19 than the 22 African countries that were not part of the NTD group. This study was titled, "Why COVID-19 is not so spread in Africa: How does Ivermectin affect it?" Most of the countries in the African sample are split between Infection Group 1 and 3.

This is then may be an answer to Anomaly #2. Since drugs like IVM are routinely and safely used in Sub-Saharan Africa, perhaps they have had a beneficial effect on lowering fatality but not necessarily case rates, but low case rates (outside South Africa) may be a function of low rates of testing and poor data collection. One additional answer might be the younger average age of the population than in much of the northern hemisphere countries. Yet, this is good news from whatever source creates it.

Success/Failure of All Other Therapy Groups

- I. There are only four countries that, in addition to China, appeared to have tried repeated or long-term **Lockdown** strategies (in the initial absence of efficacious vaccines): Australia, Austria, New Zealand, and Norway. Suffice it say, this strategy worked for a time and the cumulative number of deaths are low. But success with this strategy is waning as it is difficult to maintain lockdowns forever. While having half the population of Sweden, which kept its economy open, Norway's case/death trends have worsened of late compared to Sweden. Effectiveness in these four countries is tied for last at 3.50.
- II. Equally poor were the results of the 12 countries with **breakthrough cases**, defined as having high vaccination rates with effective vaccines, but still have reached new highs in cases and deaths. No good explanation exists for this outcome.
- III. **Low Efficacy Vaccines** provided by either China or Russia have produced poor results as both cases and deaths are skyrocketing (i.e. Russia). The average infection score at 3.40 is just short of the worst results at 3.50 for Therapy Groups 8 and 9.
- IV. One would expect that **Low Vaccination Rates** would result in poor Infection Group results, and they do with the 4th worst score at 2.36. These scores could change with time as vaccinations are ramping up for many. As increased vaccination rates become more widespread, one would expect both case and death rates to improve dramatically.
- V. **Herd Immunity** occurs by our definition when the sum of total reported cases plus half the number of doses administered covers and is greater than 100% or more of the population. With this stringent measure, few countries (mostly city states) even appear to qualify based on official JHU data but the four of those that did do now have relatively low Infection Group scores (2.75 on average). Yet it is quite likely that case rates are widely underreported in most countries, as might be death rates in part of South America, Africa, India and part of Asia. So herd immunity might be achieved even when our crude measure of it doesn't indicate this is likely to be the

² [https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370\(21\)00239-X/fulltext](https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(21)00239-X/fulltext)

case. This could be even truer given the easy transmissibility of Omicron, which might already be conferring increased herd immunity around the world.

Without discussing every region or country, it appears that **Table 1 and 2** support the idea that the world is progressively conquering COVID. The Omicron wave, with faster transmission but lower severity, should be viewed as a mechanism to bring the pandemic to an end sooner, not later.

The result may well be that the world economies reopen faster than is currently expected and that supply chains recover, demand for goods and services is restored to pre-pandemic levels, and the U.S. and worldwide economic recoveries proceed at a robust pace for the next couple of years.

So as previously stated, don't freak out if your stocks periodically go haywire from the change in the change on COVID. Remember the importance of a long term investment outlook.



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