



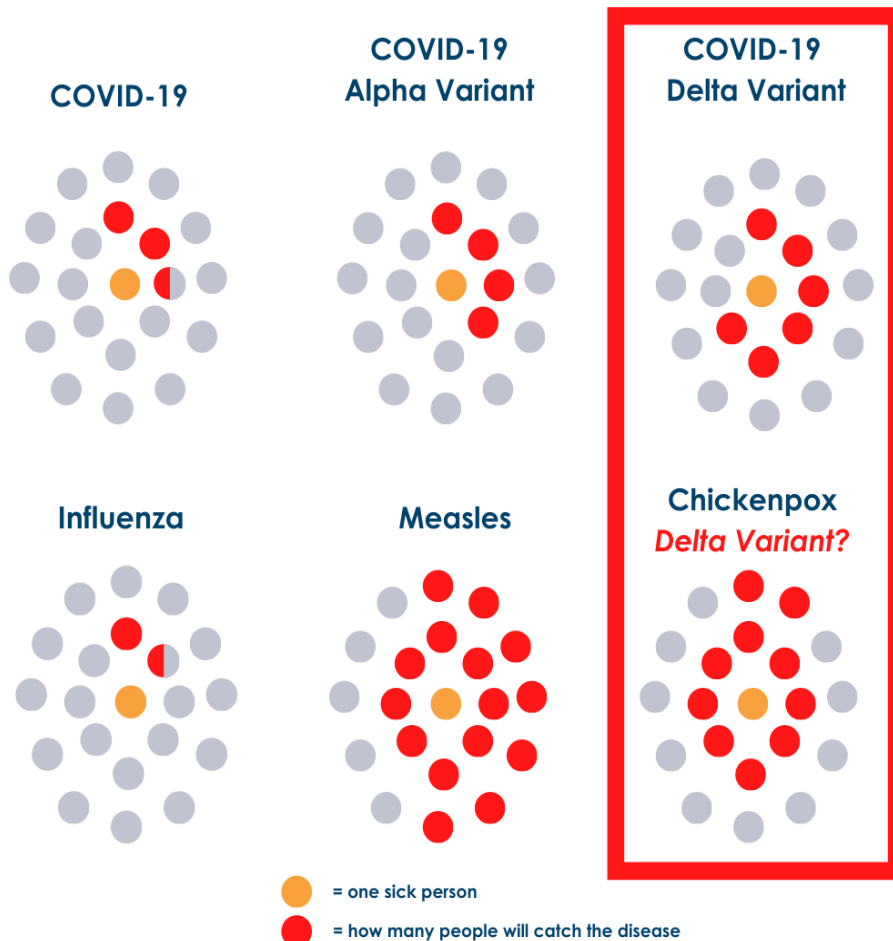
Market Commentary: What Delta Means for the Market July 2021

New cases of Covid have unfortunately increased over the last few weeks as the Delta variant has become the dominant strain in America. The overarching financial question is how this new variant may affect the economy. Is there a risk of a new shutdown of parts if not all of the U.S. economy? If not a full shutdown, what are the risks to the economy due to a resurgence of the virus and how or when do we get to the fabled herd immunity?

Based on a combination of clear efficacy data on the vaccine, the pulse of the nation and characteristics of the current variant, there is no chance in our opinion that there will be a shutdown:

- Vaccinations are actually doing their job, meaning, based on current data, there is a low / reasonable risk for the vast majority of vaccinated people to resume most, if not all activities.
- Americans (and most likely all humans) have more or less become exhausted by restrictions placed on them and so are more willing to take on risk (whether consciously or not) in “living” life.

How Contagious Is the Delta Variant?

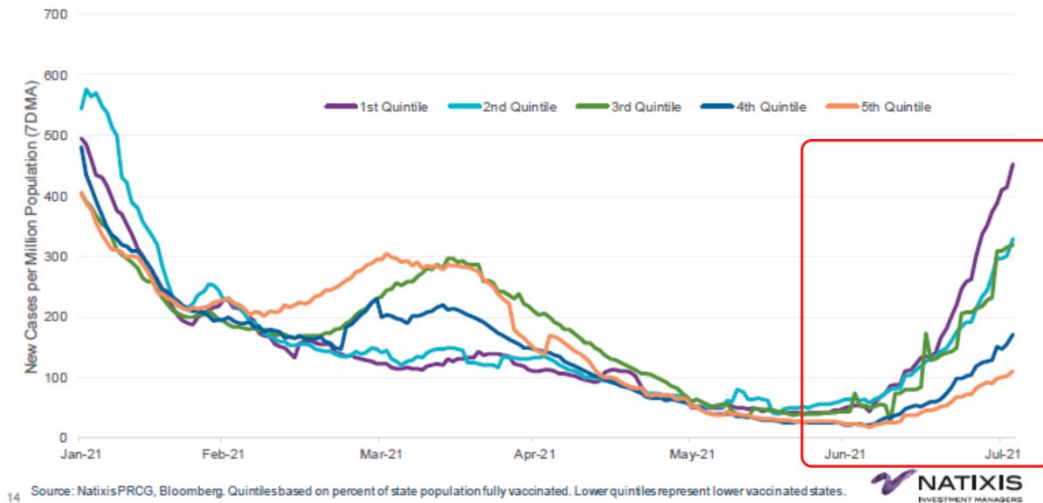


When we originally covered this topic in [October 2020](#), we discussed R_0 (pronounced R-Nought), which is a measurement of how contagious a disease is. The original Covid-19 variant had an R_0 of 2.5 which means that an infected person would on average infect 2.5 additional people given no mitigating factors (e.g., no one with antibodies, no social distancing, no masks etc.). We have heard two conflicting accounts of just how contagious Delta is: (1) That it is 50% more contagious than the Alpha variant which was 50% more contagious than the original variant. This would put it at an R_0 of -6 ($2.5 * 1.5 = 3.75 * 1.5 = -6$) or (2) that it is as contagious as chickenpox which has an R_0 of between 8 and 12, depending on who you ask, which is considerably higher than 6^1 . While directionally we understand it is way more contagious, R_0 is really important to understand the level of herd immunity.



Case Growth by Vaccination Progress

State Case Growth by Vaccination Progress
(1/31/21–8/2/21)



14 Source: NatixisPRCG, Bloomberg. Quintiles based on percent of state population fully vaccinated. Lower quintiles represent lower vaccinated states. NATIXIS INVESTMENT MANAGERS 1

Herd immunity is dependent on the R_0 level of a disease. In the absence of other mitigating factors as well as perfectly randomized features of a society², the math is quite easy: You want to ensure that < 1 person is infected for each person who has the disease which will result in a declining and ultimately disappearing incident rate. With an original R_0 of 2.5, 60%+ herd immunity would do the trick: $2.5 * 60\% = 1.5$. An infected individual would pass on the virus to, on average, 2.5 other individuals given no mitigating factors. However, 60% of those random individuals would be vaccinated resulting in only 1 individual becoming infected ($2.5 - 1.5 = 1$). There would be no exponential growth and the virus remains contained (like measles is supposed to be given the historical prevalence of society immunizing³ and so many other diseases that there are current vaccines for.)

However, with an R_0 of 10, one needs 90%+⁴ herd immunity in order to slow the spread! That does not seem feasible with current pushback in our society. More disturbingly, it provides more opportunity for the virus to morph into a potentially more infectious and dangerous disease. It is why governments will most likely continue to ramp up the pressure on the non-vaccinated populations around the world by not allowing them to enjoy their “freedom”⁵.

To be clear, vaccines have a direct, material, and clear beneficial effect on the economy in that it increases productivity. It really is that straight forward and simple. There is also abundant, rigorous data supporting vaccination – it is clear.

¹ This graph shows the most COVID-19 new cases in the U.S. from June 2021 to July 2021 came from states with low numbers of vaccinated people.

² For example, distribution of vaccinated people are perfectly randomized rather than the reality where it tends to be based on socio-economic characteristics and other unfortunate human divisions (and most unfortunately, by political alignment which truly makes no sense for a number of reasons).

³ Measles is incredibly contagious. With an R_0 of 16 – 18 you need greater than 95% community vaccination rates. There is a reason that we got to those rates – people do not want measles!!! But perhaps we are becoming too complacent in our ‘good’ health, or our memories are short? With recent groups of people becoming anti-vaccination, the whole world becomes at risk – especially those immune-compromised participants who are not able to receive vaccines in the first place.

⁴ Each infected person on average infects 10 other people. In order to lower that infection rate to 1 you need to vaccinate 9 out of 10 = 90%.

⁵ Self vs. society is a fascinating conversation that we will not delve into as it is beyond the scope of our expertise.



Tale of the Tape

COVID-19 / VACCINE DEATHS IN U.S.

	COVID-19	VACCINE
DEATHS	630,506	< 12
DEATHS (%)	.19%	.000006%
UNVACCINATED DEATHS (JAN. 1 - JULY 27)	257,734	
VACCINATED DEATHS (JAN. 1 - JULY 27)	1,263	

Vaccinations ready our immune system to immediately fight a virus. Historically, this was accomplished by placing a weakened or dead virus on which the body can take a few practice rounds in developing its own natural defenses. New technology has allowed us to use pieces of synthetic virus to replicate the effect necessary to get our immune system going. Vaccines have been incredible for the human race, mostly limiting what was once routine pain, suffering, and death to the 20 or so shots almost every American child receives prior to the age of 20⁶. This head start allows for materially better results in defeating the virus, which should optimally allow for no further spread.

The CDC has a database called [SAER](#) which allows for any incidence of death following the vaccine to be documented and to allow for the CDC to further investigate. With approximately

150 million Americans vaccinated, some amount will die post vaccine purely from a statistical standpoint. The CDC is responsible for teasing out whether the vaccine was responsible for death or not. To date, 6,340 incidences of death post vaccine have been uploaded to SAER. Of those uploads, only the incidence of TTS associated with the JNJ vaccine have been flagged as an increased risk by the CDC. We could only find reports pointing to 3 deaths, but we have heard 6 and 12 thrown around so placed that up in the tale of the tape.

A Note on Market Structure and Local Business

Last month we focused on market structure in our Explorations. After publishing we recognized that perhaps the most important aspect of market structure is trust in the system. That when an investor makes an investment that can have a high level of confidence that they will not be defrauded. That there are transparent rules and an infrastructure to support and protect the flow of investments. It is what differentiates developed markets like the US from emerging markets like Russia and China – yes, China. It is why everyone conducts business in the US dollar and will continue to do so for the foreseeable future.

This realization came to me while reading a page-turner, *Red Notice* by [Bill Browder](#), which tells the true story of an early institutional investor in Russia who eventually got on the wrong side of Putin, which resulted in the killing of his tax attorney, Sergie Magnitsky, at the hands of the Russian authorities. This led to the [Magnitsky Act](#). The Russian government and associated thugs first tried to take money directly from Bill Browder’s funds and when they failed to do so attempted to “Red Notice” him back to Russia. Russia also tried to coerce those associated with Bill Browder to assist them in their efforts leading to the tragic death of Sergie Magnitsky. Market structure in Russia is no good (obviously).

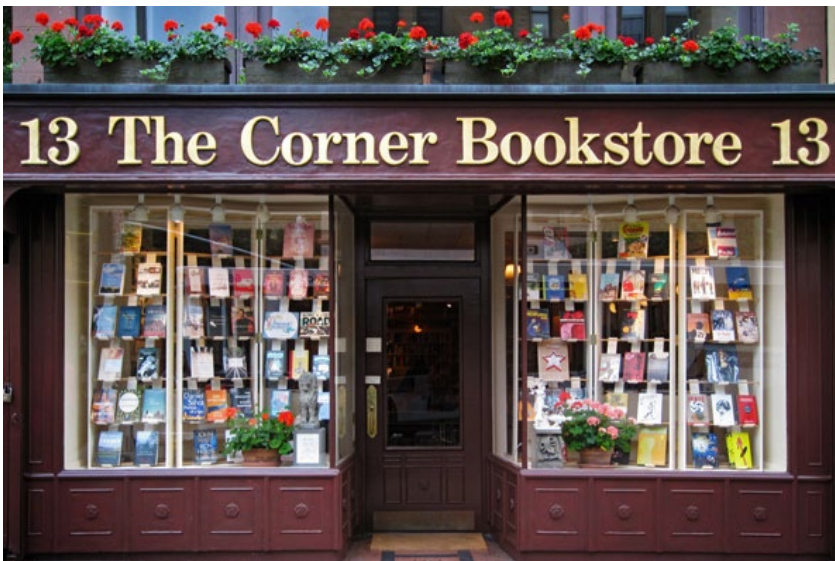
⁶ As a reminder, we basically wiped-out native Americans through disease that can now be prevented by vaccines – unfortunately, we could have prevented some damage back then, but we most likely held back...



FOUNTAINHEAD INSIGHTS

Another point we did cover in market structure was “fees” vs. “costs”. A Fee is that upfront transparent charge for a product. The costs encompass other elements reducing the value of a transaction / investment. For example, the difference in price of where one can buy and sell a product (so cost would be the difference of where one can buy a product vs. the fair value of the product). Translating to other areas of economic activity: **Google search and Robinhood are both “free,” but both have additional, less transparent, costs. Google sells your data to the highest bidder, Robinhood sells your transaction to a single trader.**

I was recommended *Red Notice* no less than three times by the proprietor of the local bookstore in my neighborhood. The book definitely had a “fee” that was higher than that charged on Amazon. In my equation, I prefer to pay the cost for neighborly human interaction and a pretty store front vs. an algorithm and local warehouse on wheels. Beware of “free”.



Covid-19 has been the most disruptive community wide event in our lifetime – and we imagine and hope for most of our readers’ lifetimes as well. One of the reasons it is so disruptive (and there are many) is how new it is to us. It helps to be able to chip away where one could in understanding current and future implications. For example, there were numerous reasons to believe we would have a vaccine relatively quickly as compared to therapeutics in 2020 – a topic we wrote about quite a bit. Now, the math is relatively straightforward on vaccines and the ability to achieve herd immunity which will allow for better economic outcomes for us as a country.

Covid-19 has also created a reassessment for us all of what is important and what is not. Us humans tend to love a deal. But there are hidden costs everywhere. We see these hidden costs every day in the marketplace and focused a full Explorations on it – [Market structure link](#). We also see these costs in search and other areas of life which we have also touched on prior. At Fountainhead, we are regularly going beyond the stated fees in attempting to understand the true costs of an exposure.

***IMPORTANT DISCLOSURE:** The information contained in this report is informational and intended solely to provide educational content that we find relevant and interesting to clients of Fountainhead. All shared thought represents our opinions and is based on sources we believe to be reliable. Therefore, nothing in this letter should be construed as investment advice; we provide advice on an individualized basis only after understanding your own circumstances and needs.*