COVID-19 Vaccine Narratives

Epsilon Theory

Event Narrative Structure Analysis for August 2020

Executive Summary

In conversations with our institutional partners and research clients during the month of July, we have received one question more often than any other: **"Are COVID-19 Vaccine narratives moving markets?"**

The short answer is *yes.*

The longer answer is *yes, but we are not sure you can do much about it.*

Analysis and Commentary

Like many of you, our intuition has been that a not insubstantial portion of market volatility since April has consisted of greedy responses to reports of or a growing belief in promising vaccine outcomes over a day or two, and then a return to fearful responses as that optimism deflated over the following days.

We decided to explore whether and to what extent this has been true, and to what extent the behavior might be predictable.

Accordingly, we constructed a universe of all US financial markets news available in LexisNexis relating to US equity markets between April 1 and July 20, 2020. We then created **two** distinct regimes based on subsets of that universe that referenced COVID-19 vaccines, "cures", remedies and pharmaceutical treatments.

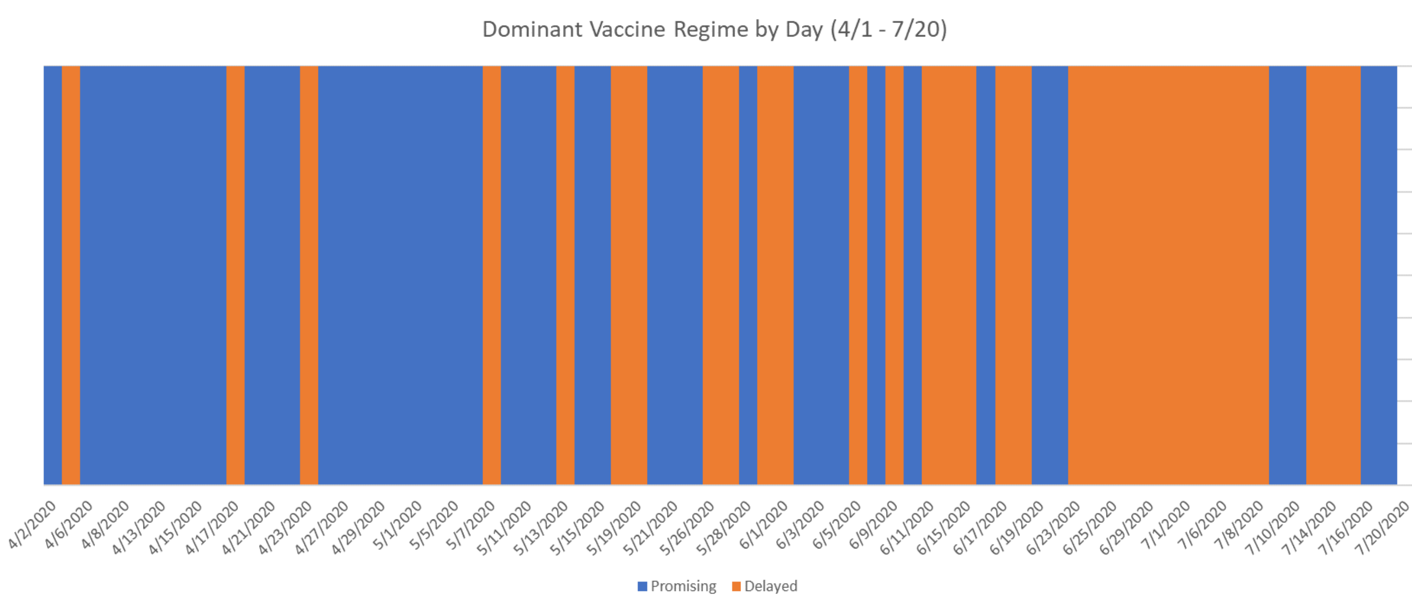
Our model defined one such regime based on language relating to promising results, trials, announcements and manufacturing estimates. We called this the "**Promising**" regime.

We defined the second regime based on language relating to delays, setbacks, disappointments and "late 2021"-type language about the expected broad availability date of a COVID-19 vaccine. We call this the "**Delayed**" regime.

Because our intuition was that this was a mechanic playing out over periods as short as one day in some cases, we assigned each day over the period one of the above two regimes—probably better called *states* since we're dealing with only single days—based on its relative *Narrative Strength.*

As it happens, while there were individual flips, typically the dominance of each narrative regime took place over periods of multiple days, or up to a week.

We present the daily regimes over this period in the graph below.



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Analysis and Commentary (cont.)

We observe two implications in the data. The first is immediately visible from the graph on the previous page. The tendency of vaccine news has trended from optimism and promise to one of delay and disappointment over this period. We do not have a great deal of (read: any) insight into what this trend portends, whether it contains valuable information about asset prices, news outlet proclivities/biases or actual vaccine development.

The second requires us to observe the behavior of risk assets in connection with these daily regimes. What we found is exactly in line with our hypothesis: when a promising vaccine narrative is dominant, same-day returns tend to be well *above* average, and next-day returns tend to be well *below* average. The effect is consistent across all GICS sectors. Similarly, "Delayed" narrative states have produced *below average* same-day returns and *above average* subsequent day returns. These patterns are consistent across our analysis period, but have been about 50% *stronger* in June and July.

A 50bp daily spread in the S&P is nothing to shake a stick at, but we are skeptical. Between pre-market movements and frequent sign flips, we suspect most of it would be eaten up in frictional costs. This is also a very limited data set. In short, we don't think it is tradeable. But if you have had the feeling that daily volatility has begun tracking this issue above many others, you are also not crazy.