

#virus

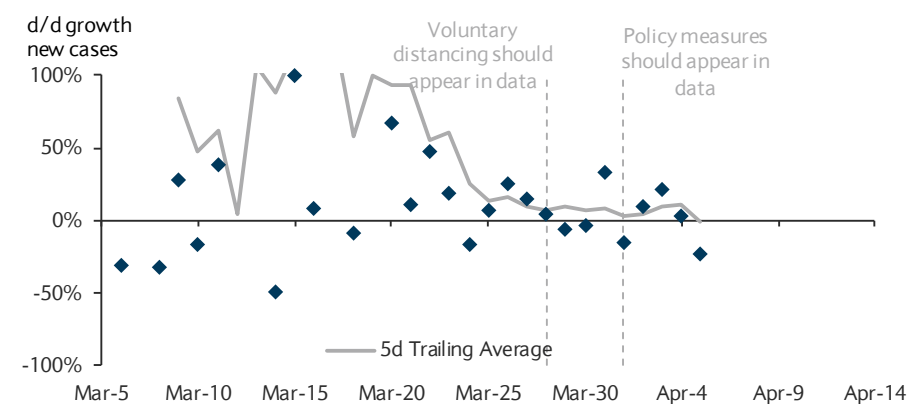
Data Science High Frequency Indicators Update US COVID-19 case growth is finally slowing, but economic damage is not

The growth rate of confirmed COVID-19 new cases is slowing in New York, reflecting the effect of social distancing policies, and has fallen nationwide as well. Nevertheless, the pace of economic damage as measured by jobless claims appears to be holding steady at extreme levels.

Five-day trailing new case growth in New York has fallen into negative territory for the first time since the beginning of March. That matches the point where we would have expected to see it if social distancing policies were beginning to work. Other encouraging signs for fighting the epidemic this week include a slowdown in NYC emergency room visits for flu-like and respiratory illnesses, and several days of negative case growth nationally.

Less encouraging on the financial front are indicators that show economic damage is continuing at extreme levels. New unemployment filings appear to be topping out, but at an extremely high level: unemployment-related NYC 311 calls are tracking at almost exactly the same number as last week, though some other states even experienced a w/w slowdown in jobless filings. Last week's 6.6mn Initial Jobless Claims number was still several multiples higher than the most extreme job loss events that occurred prior to 2020, so maintaining that level suggests rapid ongoing economic decline.

FIGURE 1
New York case growth has slowed just as social distancing should show up in data



Source: the COVID Tracking Project, Barclays Research

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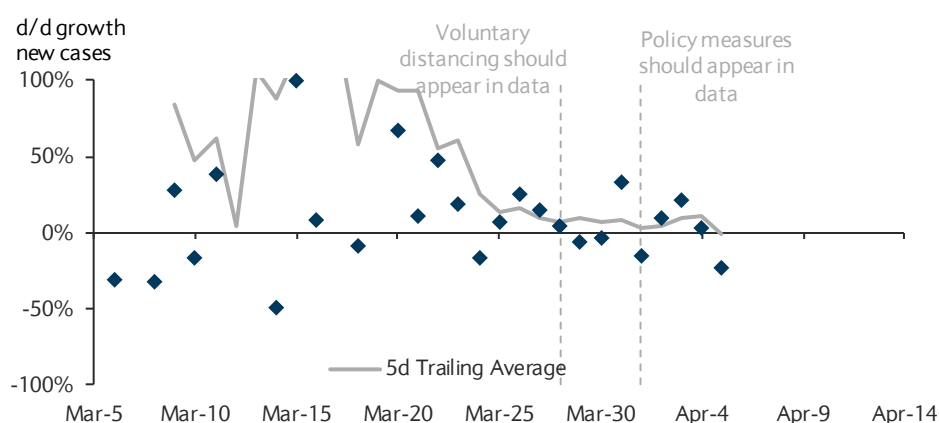
COVID-19 new case growth is starting to moderate, but the economic damage is not

In last week's High Frequency Indicator Update (*This Week Should Show If Social Distancing Policies Are Working*, March 31, 2020), we suggested that the influence of social distancing policy should start to show up in New York State data in the days after April 1. Indeed, as of April 5, the 5d trailing average for new case growth has dipped into negative territory for the first time since the outbreak rose in earnest at the beginning of March (Figure 2). That slower case growth has arrived even as testing in the state has continued to grow, with the average daily number of tests 16% higher in the past five days than in the prior five-day period.

The possibility of a genuine inflection is also supported by the data on NYC emergency room visits for flu-like and respiratory illnesses, which we believe to be an indicator of case volume that is unaffected by testing availability. Those have finally seen a sustained decline after almost two weeks of near daily records (Figure 9). Although fewer emergency room visits do not immediately translate into less stress on the hospital system – ICU beds in particular tend to be occupied by people who first visited emergency rooms at least a few days before – it does indicate the potential for relief in the system (at least in New York).

FIGURE 2

The 5d trailing average for new case growth in NYC finally dipped into negative territory on April 5th, which

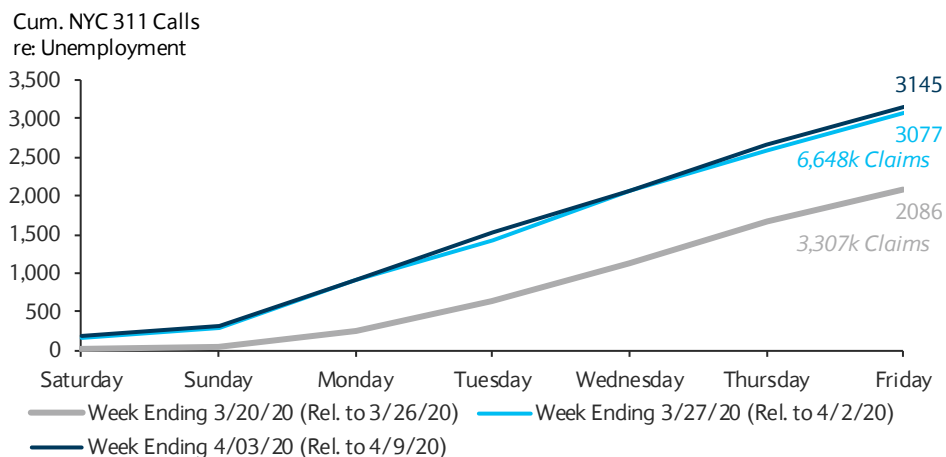


Source: the COVID Tracking Project, Barclays Research

Although there may finally be signs of at least improving direction for the current epicenter of COVID-19 in the US, data suggest that economic damage has not relented. Unemployment-related calls to NYC's 311 line last week tracked almost exactly in line with the prior week. It is an improvement on the margin to not have a further significant jump; however, given the all-time record 6.6mn jobless claims filed in the previous week, merely continuing at the same pace indicates extreme economic stress.

FIGURE 3

Calls to NYC 311 about unemployment insurance started are tracking at almost exactly the same pace as the prior week, which corresponded to 6.6mn Initial Jobless Claims

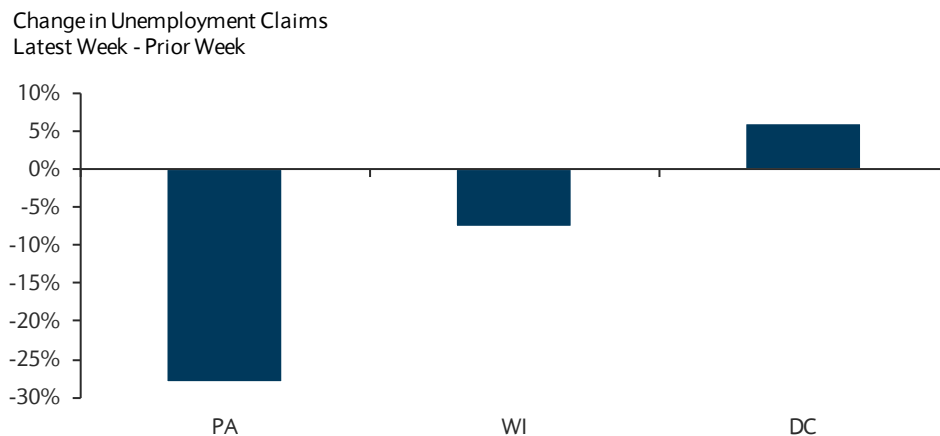


Source: NYC Open Data, Barclays Research

There is some evidence from other states that this week's initial jobless claim number will not be quite as high as last week's. A number of states have started to report daily filings of initial unemployment claims. Of those, both Pennsylvania and Wisconsin reported lower claims numbers in the week ending April 3 (which correspond to the April 9 Initial Jobless Claim report), while Washington DC saw a further uptick (Figure 4).

FIGURE 4

New jobless claim filings are also up slight in Washington DC, but down in WI and PA



Source: State government websites, Barclays Research

High Frequency Series Updates

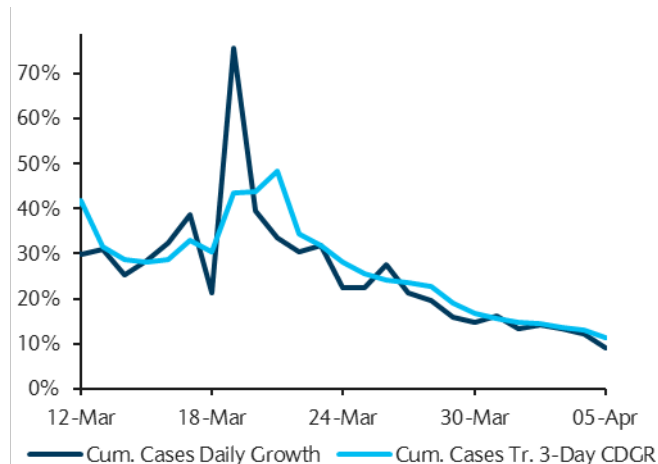
Tracking COVID-19 Confirmed Cases

There were 28,222 confirmed new cases of COVID-19 in the US yesterday, a decrease of 5,042 from 33,264 new cases the day before. The cumulative total cases grew to 337,072 from 308,850 the day before. The three-day trailing daily CDGR in cumulative cases was 11%.

There were 139,959 new tests administered for COVID-19 in the US yesterday, a decrease of 40,579 from 180,538 new tests the day before. The positive test rate was 20%, up from 18% the day before.

FIGURE 5

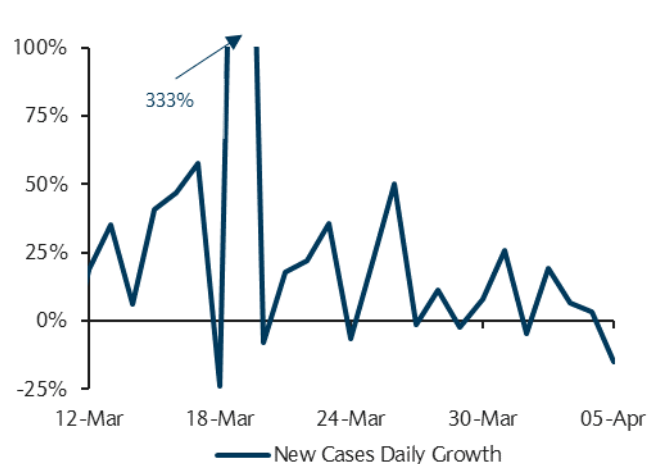
US Daily Growth in Cumulative Total Cases



Note: Chart since the US crossed the 100-case threshold. Source: Johns Hopkins, Barclays Research

FIGURE 6

US Daily Growth in New Cases



Note: Chart since the US crossed the 100-case threshold. Source: Johns Hopkins, Barclays Research

FIGURE 7

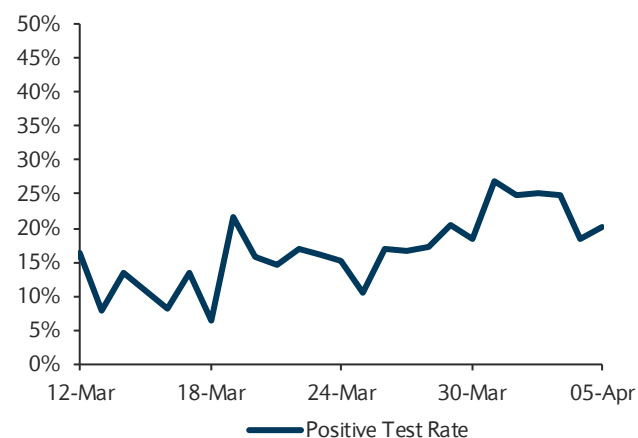
Growth in New Total Tests



Source: the COVID Tracking Project, Barclays Research

FIGURE 8

Positive Test Rate



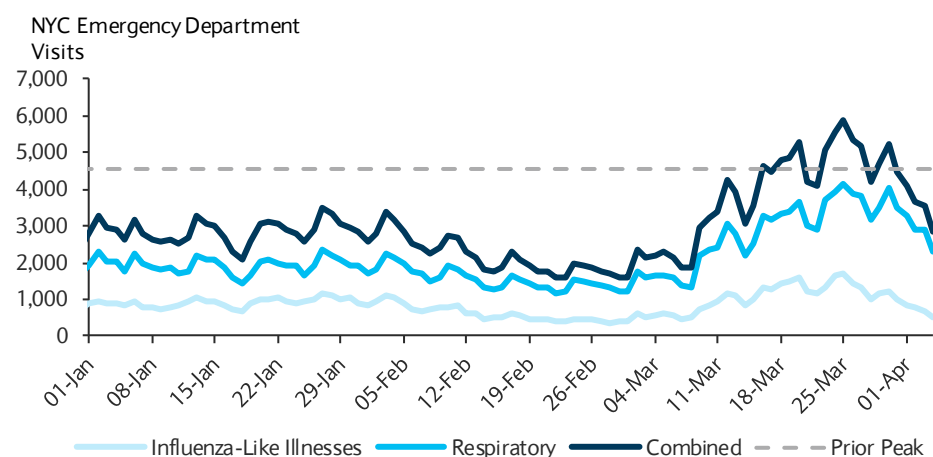
Source: Johns Hopkins, the COVID Tracking Project, Barclays Research

New York City Hospital Emergency Room Admissions

In New York City, the number of emergency room visits has finally seen a sustained decline from record highs. They are still elevated, with levels consistent with a bad flu season, but with a clear downward trajectory. Because of the time needed for patients to progress to needing critical care (reported to average about seven days after first requiring hospitalization), and time critical cases spend in ICUs, peak stress on NYC hospitals probably remains a bit into the future. However, this is a piece of supporting evidence that NYC's social distancing measures are working. In addition, public health officials should now be able to make more accurate estimates of the ultimate peak and better plans for how to manage it.

FIGURE 9

NYC hospital emergency room visits for combined flu-like and respiratory illnesses have finally declined off record highs



Source: New York City Department of Health, Barclays Research

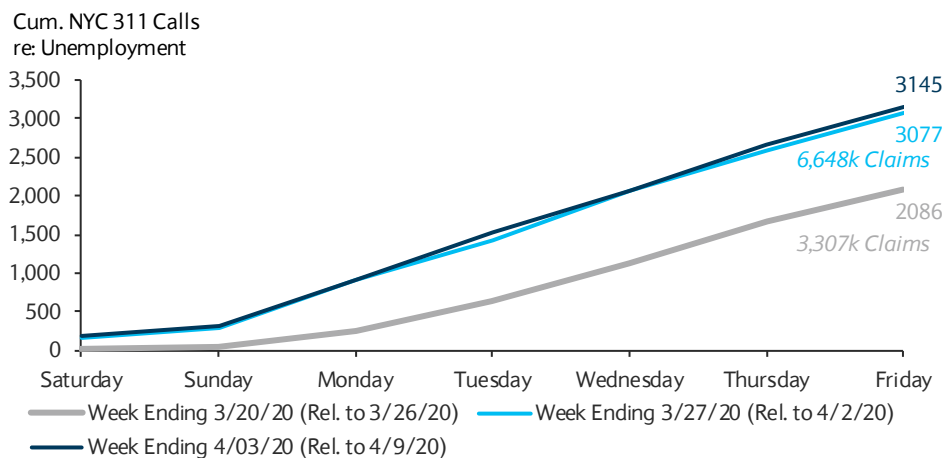
For details about how we look at emergency room admissions, see [Data Science High Frequency Indicators: NYC Emergency Room Admissions Are Already at Peaks](#), March 16, 2020.

Jobless Claims

NYC 311 calls about unemployment have proven to be quite useful in anticipating the jump in national Initial Jobless Claims filings released every Thursday. After huge jumps in each of the previous weeks, the week ending April 3 had tracked almost exactly in line with the prior week (ending March 27). Given that the prior week aligned to a new claims numbers of 6.6mn new claims, it seems reasonable to expect another extremely large absolute number of new claims this week, but perhaps no further incremental large leap.

FIGURE 10

Calls to NYC 311 about unemployment insurance started are tracking at almost exactly the same pace as the prior week, which corresponded to 6.6mn Initial Jobless Claims



Source: NYC Open Data, Barclays Research

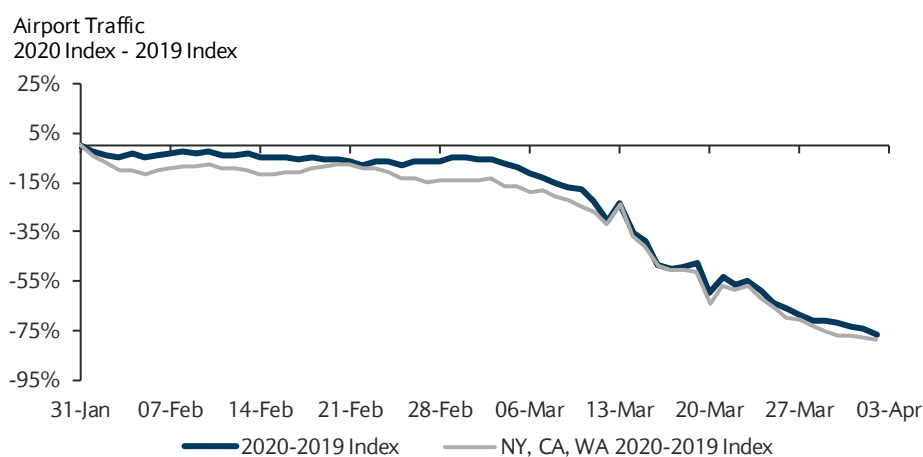
For details about how we look at the relationship between 311 unemployment calls and initial jobless claims, see [311 Calls About Unemployment Lead Weekly Jobless Claims](#), March 24, 2020.

Airports

Nationally, airport traffic has now declined nearly 80% y/y. Given the likelihood that some of the total traffic at airports represents workers, it is all but certain that passenger volumes have declined even further. Unlike some series like NYC subway ridership, air traffic does not yet appear to have reached a hard floor, leaving some room for further declines, which are likely to continue as the number of scheduled flights finally declines.

FIGURE 11

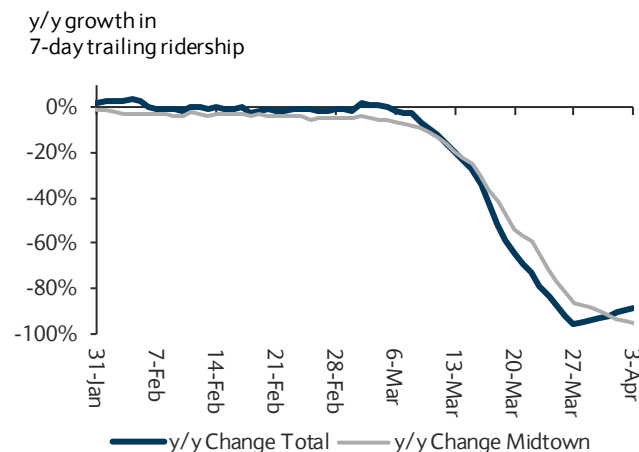
Traffic at airports has continued to fall, although it has not reached a bottom



Source: Complementics, Barclays Research

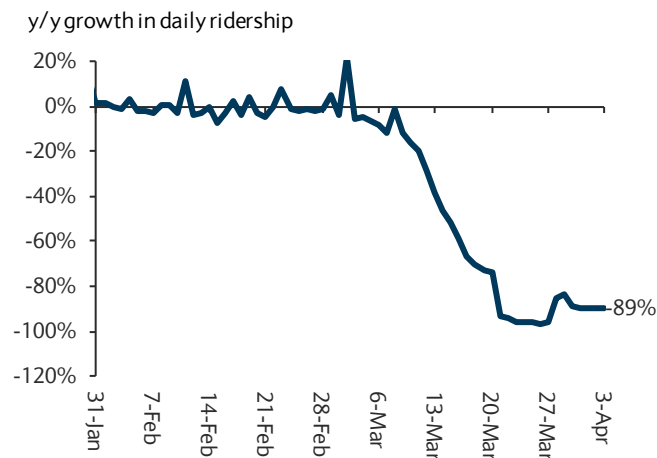
For details about how we look at airport traffic, see [Data Science High Frequency Indicators: US Airport Traffic Is Down and Falling](#), March 12, 2020.

FIGURE 12

NYC subway ridership is down to near zero

Source: MTA, Barclays Research

FIGURE 13

There was a small bump in daily ridership this week, but it looks more like a data artifact than a sustained change

Source: MTA, Barclays Research

NYC Subways

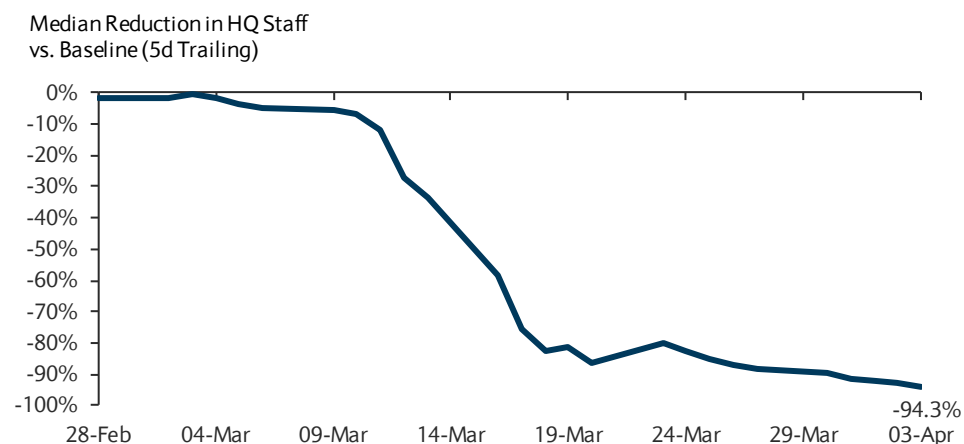
Subway ridership has appeared to remain at the now flattened steady rate of down 96% (Figure 13).

For details about how we look at subway ridership, see [Data Science High Frequency Indicators: NYC Subway Ridership Is Declining](#), March 10, 2020.

S&P 500 Headquarters

S&P 500 company headquarters staffing is also starting to flatten as it approaches zero. The median company has reduced headquarters staffing by almost 95%. This is a modest further reduction from last week.

FIGURE 14

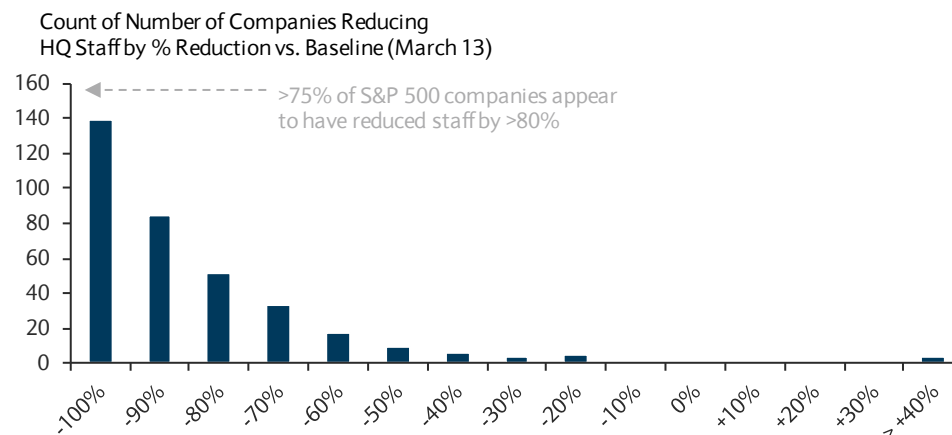
S&P 500 company HQ staffing is holding steady at very reduced levels

Source: Complementics, Barclays Research

And >75% of S&P 500 constituents have cut staffing by more than 80% (Figure 15), a figure that is basically constant since last week.

FIGURE 15

More than 75% of S&P 500 companies have reduced headquarters staff by 80% or more, essentially unchanged from last week



Source: Complementics, Barclays Research

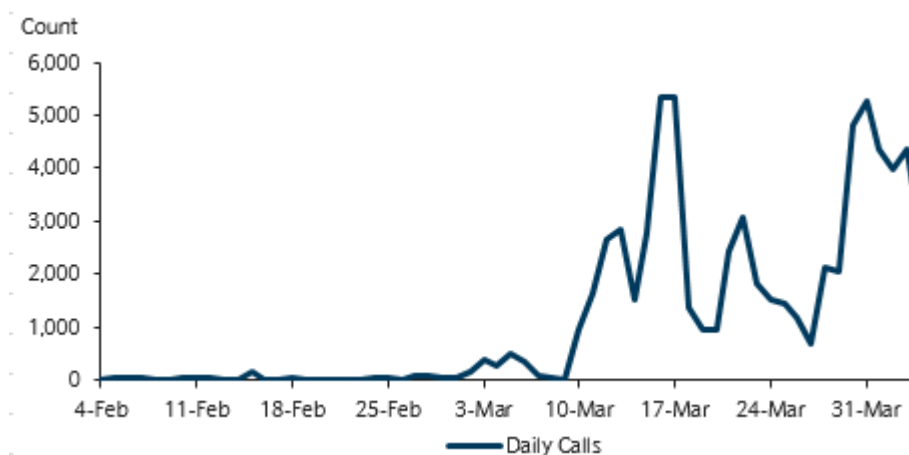
For details about how we look at S&P HQ staffing, see [Data Science High Frequency Indicators: S&P Companies Have Committed to Social Distancing](#), March 16, 2020.

NYC 311 Calls for COVID-19 Information

After sustaining a multi-week decline in calls for COVID-19 information, there was a flare up this week, with calls reaching levels just under the highs of mid-March before falling back again.

FIGURE 16

NYC 311 calls seeking information about COVID-19 have sustained a decline first seen last week



Source: NYC Open Data, Barclays Research

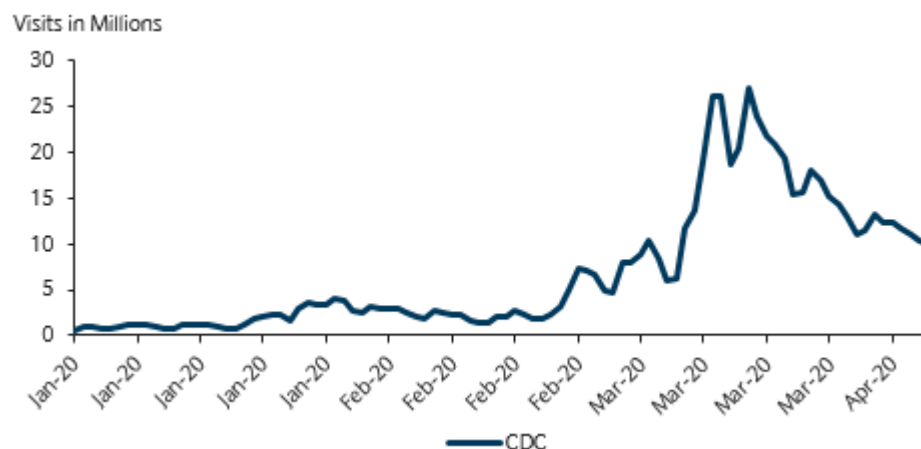
For details about how we look at 311 call volume, see [Data Science High Frequency Indicators: COVID-19 Calls to NYC's 311 Are Starting to Spike](#), March 13, 2020.

Visits to the CDC Website

Visits to the CDC website have continued their declines off mid-March peaks (Figure 17).

FIGURE 17

Visits to CDC website have now sustained a multi-week decline from their peak



Source: analytics.usa.gov, Barclays Research

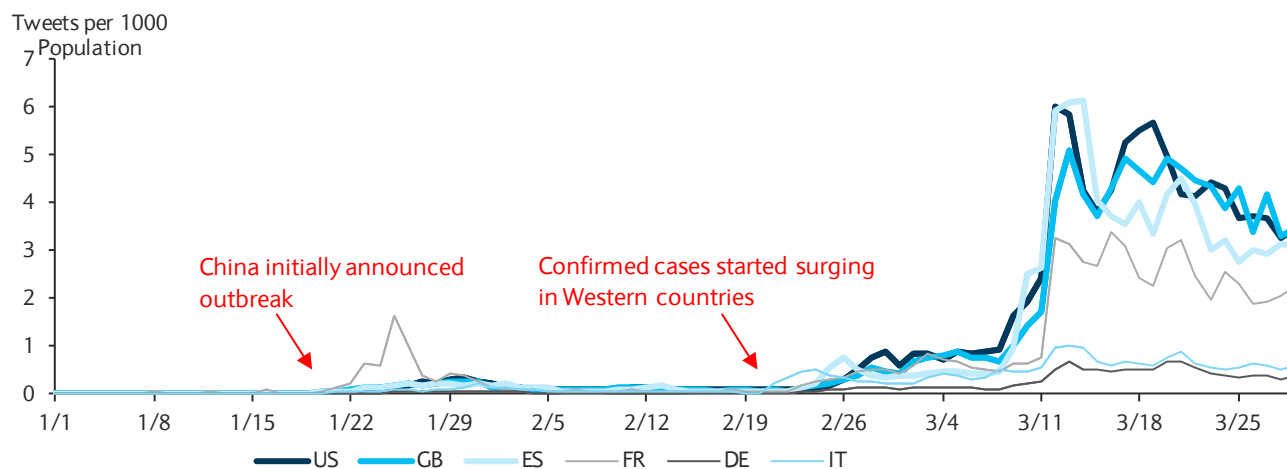
For details of how we look at CDC website traffic, see [Data Science High Frequency Indicators: Visits to CDC Websites Have Spiked](#), March 16, 2020.

Twitter

Tweets that are “virus” or “covid” related have continued their steady decline after a sharp uptick for several weeks (Figure 15). They remain at a much higher level than usual, however, suggesting that engagement remains high even if no longer accelerating as sharply.

FIGURE 18

Population normalized count of “virus” or “covid” related tweets, by country



Source: Twitter, United Nations, Barclays Research

For details about how we look at tweet volume, see [Data Science High Frequency Indicators: COVID-19 Tweet Surges Vary by Country](#), March 16, 2020.

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