How cases have developed globally

- Global cases passed 1 million last night, rising by just under 80,000 or 8.5 per cent over the last 24 hours to 1,015,672. As 500,000 global cases were passed on 26 March, cases have doubled in roughly a week.

- The global new case growth continues to slow and has now been below ten per cent for five consecutive days. Of the top ten countries by overall case count, only the US (13.9 per cent), the UK (14.4 per cent), and Turkey (15.7 per cent) have double-digit new case growth rates.

- The US now has over 245,000 cases, or almost a quarter of the global total, with New York State up to 93,053. New York State has seen new case growth drop over the past week, but it is still one of the most affected regions in the world. The state saw a positive improvement in the growth rate of deaths (down to 14.4 per cent) in the last 24 hours, but now has 131 deaths per million of the state’s population, which is only exceeded by Italy (230) and Spain (221) of the most affected countries.

- The UK daily fatality rate improved yesterday to 24.2 per cent and has seen a lot of volatility in recent days, but this roughly is in line with the seven-day average of 26 per cent. There is better news on the case growth front, where it looks like yesterday’s 17 per cent was a slight outlier versus the tight range around 14 per cent seen this week. The UK was slightly slower to shut down and with testing likely to soon ramp up from low levels it would be a surprise to see this daily growth number come down quickly.

- Italy and Spain are on their way to becoming the ‘former’ hot spots of Europe. Italy (115,242 cases) matched its lowest growth rate of fatalities at 5.8 per cent and new case growth remains lower at 4.2 per cent. Spain (112,065 cases) posted its third-lowest growth in fatalities (10.2 per cent) since the beginning of the outbreak and new case growth fell below eight per cent for the first time.

- Germany continues to see very tight ranges in case and fatality growth, at 7.0-8.5 per cent and around 20 per cent, respectively. Testing has been increasing in the country even though it is already at high levels.

- Turkey has been added to the tables as it has crept inside the top ten most impacted countries this week.

- We have also adjusted the new cases and fatalities charts in the pdf to log charts in line with our cumulative charts. These show even more clearly that many western countries are not seeing new cases or fatalities level off and fall as quickly as China did. This has implications for the likely date that restrictions will be lifted.
We have started to gather data on testing rates around the world and included a graph per million of population in four countries. The US and Italy have ramped this up recently, but the UK is far behind. South Korea, which is held up as the gold standard, tested early as the graph shows and maintained that level throughout their crisis. If readers come across good testing data (with histories) for other countries please reach out to us.

Figure 1: Change in coronavirus cases over the last five days across major affected areas the world

<table>
<thead>
<tr>
<th>Country/Territory</th>
<th>Confirmed Cases</th>
<th>Cases/1M Population</th>
<th>Last 5 Days Daily Rate of Change</th>
<th>Rate of Change 14 days ago</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>245,080</td>
<td>740</td>
<td>T-1 13.9% T-2 14.2% T-3 14.8% T-4 14.5% T-5 16.1%</td>
<td>11.1%</td>
</tr>
<tr>
<td>New York</td>
<td>93,053</td>
<td>4,787</td>
<td>T-1 10.9% T-2 10.3% T-3 12.9% T-4 12.8% T-5 11.6%</td>
<td>54.9%</td>
</tr>
<tr>
<td>Italy</td>
<td>115,242</td>
<td>1,906</td>
<td>T-1 4.2% T-2 4.5% T-3 4.0% T-4 4.1% T-5 5.6%</td>
<td>14.6%</td>
</tr>
<tr>
<td>Spain</td>
<td>112,065</td>
<td>2,397</td>
<td>T-1 7.6% T-2 8.5% T-3 9.1% T-4 9.8% T-5 9.4%</td>
<td>16.5%</td>
</tr>
<tr>
<td>Germany</td>
<td>84,794</td>
<td>1,012</td>
<td>T-1 8.7% T-2 8.6% T-3 7.4% T-4 7.1% T-5 8.2%</td>
<td>51.2%</td>
</tr>
<tr>
<td>China</td>
<td>81,620</td>
<td>57</td>
<td>T-1 0.1% T-2 0.0% T-3 0.0% T-4 0.1% T-5 0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Hubei</td>
<td>67,802</td>
<td>1,159</td>
<td>T-1 0.0% T-2 0.0% T-3 0.0% T-4 0.0% T-5 0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>France</td>
<td>59,105</td>
<td>905</td>
<td>T-1 3.7% T-2 9.3% T-3 17.0% T-4 10.9% T-5 6.9%</td>
<td>14.7%</td>
</tr>
<tr>
<td>Iran</td>
<td>50,468</td>
<td>601</td>
<td>T-1 6.0% T-2 6.7% T-3 7.5% T-4 8.3% T-5 8.2%</td>
<td>6.7%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>33,718</td>
<td>497</td>
<td>T-1 14.4% T-2 17.2% T-3 13.6% T-4 13.4% T-5 14.2%</td>
<td>21.5%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>18,827</td>
<td>2,175</td>
<td>T-1 6.0% T-2 7.0% T-3 4.3% T-4 7.4% T-5 5.3%</td>
<td>63.3%</td>
</tr>
<tr>
<td>Turkey</td>
<td>18,135</td>
<td>216</td>
<td>T-1 15.7% T-2 15.9% T-3 25.0% T-4 17.5% T-5 24.5%</td>
<td>88.0%</td>
</tr>
<tr>
<td>Belgium</td>
<td>15,348</td>
<td>1,326</td>
<td>T-1 9.9% T-2 9.3% T-3 7.4% T-4 9.8% T-5 18.6%</td>
<td>25.7%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>14,697</td>
<td>855</td>
<td>T-1 8.0% T-2 8.1% T-3 7.2% T-4 8.1% T-5 11.3%</td>
<td>21.7%</td>
</tr>
<tr>
<td>South Korea</td>
<td>10,062</td>
<td>196</td>
<td>T-1 0.9% T-2 0.9% T-3 1.0% T-4 1.3% T-5 1.9%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Sweden</td>
<td>5,568</td>
<td>551</td>
<td>T-1 12.6% T-2 11.5% T-3 10.1% T-4 8.9% T-5 7.3%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Japan</td>
<td>2,617</td>
<td>21</td>
<td>T-1 9.8% T-2 9.5% T-3 11.5% T-4 4.7% T-5 10.2%</td>
<td>5.3%</td>
</tr>
<tr>
<td>India</td>
<td>2,543</td>
<td>2</td>
<td>T-1 27.3% T-2 43.0% T-3 11.7% T-4 22.2% T-5 3.7%</td>
<td>32.0%</td>
</tr>
<tr>
<td>Worldwide</td>
<td>1,015,672</td>
<td>130</td>
<td>T-1 8.5% T-2 9.0% T-3 9.3% T-4 8.8% T-5 8.9%</td>
<td>13.7%</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank, WHO, CDC, ECDC
Medical updates

- Dr Hans Kluge, the head of WHO’s Europe office, said that over 95 per cent of deaths in Europe were among the over 60s. However, he warned that age was not the only risk factor in being affected by a severe form of the virus.

- The Francis Crick Institute has developed its own rapid-response virus test, which it hopes can be used on 500 healthcare workers a day starting next week.

- University of Pittsburgh researchers are developing a potential vaccine for the coronavirus that would be administered through a microneedle array. The team has applied for clinical trials with the FDA, but the horizon for any vaccine to be tested and mass produced remains 12 months out.

- New York City asked anyone leaving their home to wear a face mask, while the White House is separately drafting new guidelines asking the same nationally. In NYC, officials advise that infected people may spread the Covid-19 for days before they even begin to show symptoms.

Major virus updates over the past day

- Bruegel, the European economic think tank, published a report yesterday highlighting electricity consumption across the continent during the various lockdowns. Italy, Spain, France, Belgium, and the UK have seen reductions in the range of 14-29 per cent, while Germany has used six per cent less energy. Meanwhile, the five per cent rise in Sweden makes it the only country mentioned in the report with increased usage. That highlights the fewer restrictions in the Nordic country compared with other European nations.

- China: The foreign ministry defended China’s approach to the coronavirus
as “open and transparent”, following a Bloomberg News report that US intelligence reports said that China had under-reported case and fatality numbers.

- Russia: President Putin extended the stay-at-home period until 30 April.
- US: The Democratic convention planned for July has been moved to August.
- US: One consequence of the unprecedented job losses in the states is the loss of health insurance policies for those who were registered through their companies. Based on rough estimates on industry-specific claims, the Economic Policy Institute believes that 3.5m American workers lost insurance, not including their dependents.
- Hong Kong: The government announced that bars and pubs will close for 14 days. That is a warning to western countries that they should take the threat of a second wave seriously.
- North Korea: The director of the anti-epidemic department of the Central Emergency Anti-epidemic Headquarters, said no one in the country had been infected so far, in spite of international scepticism.
- South Korea: Patients with coronavirus will be able to vote by mail or as absentees in the country’s parliamentary elections on 15 April.
- Israel: Health minister Yaakov Litzman was diagnosed with the virus.
- EU: Commission President Von Der Leyen said she is “particularly concerned with the situation in Hungary”, where Prime Minister Orban can now rule by decree indefinitely.
- EU: Von Der Leyen also apologised to Italy on Thursday for a lack of solidarity from Europe in tackling its coronavirus crisis. She promised greater help to deal with the economic fallout in a letter saying, “They did not realise that we can only defeat this pandemic together, as a Union. This was harmful and could have been avoided,” she wrote. “Today Europe is rallying to Italy’s side.”
- Ireland: Deputy Prime Minister Coveney said regarding the current restrictions in place that “we will need to go beyond that initial deadline” of 12 April.

Company Updates

- Amazon will roll out temperature checks and face masks for staff at all of their warehouses in the US and Europe by early next week.
- The CEO of Zoom, Eric Yuan, said that in March the company reached more than 200m daily participants, compared with a maximum of 10m daily meeting participants, on both free and paid services, as of the end December 2019.
- British Airways is set to furlough 28,000 employees, paying them 80 per cent of normal pay, with the UK government covering up to 2,500 pounds / month and the airline the balance. That came as IAG, parent company of BA, cancelled its dividend.
- Emirates will restart some flights outbound from the UAE from 6 April.
- Walgreens Boots Alliance notified investors that overall sales are declining even though some stores saw a quick spike in sales when shutdowns started.
- Boeing has suspended production at a plant in the US that makes military helicopters.
KfW chief executive Günther Braunig expects German companies will claim between €50bn and €100bn in state-backed emergency liquidity loans over the next several weeks.

German newspaper Handelsblatt reported that German carmakers held a call with Chancellor Merkel on Wednesday on how to get production restarted.

Ford reported a 12.5 per cent drop in first-quarter sales, slightly worse than its peers.

In the UK, National Express, the country’s largest long-haul coach operator announced it will suspend services across the nation from Sunday.

Economic Data Highlights

US: The number of initial jobless claims rose to 6.65m in the week to 28 March, exceeding the previous week’s 3.31m reading. The figure exceeded even the highest forecasts. For comparison, the worst week in the financial crisis was “only” 665,000 in March 2009, and the prior all-time peak was in 1982 at 695,000.

Spain: the number jobless claims rose by 302,265 in March, the most on record.

UK: In a survey on the business impact, the Office for National Statistics found that 27 per cent of businesses said they are reducing their staff levels in the short term. The data was taken from 9-22 March, so before Britons were advised to stay in their homes.

Germany: Economy minister Altmaier said the full-year contraction of the German economy will likely exceed 5 per cent this year.

France: Labour minister Penicaud said 4m workers are on temporary unemployment.

France: The Committee of French Automobile Manufacturers said car sales fell 72 per cent in March and 34 per cent in the first quarter.

Ireland: The live register, which measures demand for jobless benefits, rose...
to a seasonally adjusted 207,200 in March, up from 182,800 the prior month. Furthermore, 283,000 claimed the pandemic unemployment payment and 25,100 claimed the new coronavirus wage subsidy.

Fiscal and Monetary Updates:

- **Euro Area:** The ECB announced it will extend the timeline for the review of its monetary policy strategy from the end of 2020 to mid-2021. It also postponed the annual ECB Forum on Central Banking in Sintra until November.

- The World Bank has approved a $1bn emergency loan to India to fund its healthcare sector ahead of an expected surge in cases. The Bank also said it has approved an initial $1.9bn in funds for virus response operations in 25 developing countries.

- **Australia:** Prime Minister Morrison announced that around a million families will receive free child care.
Figure 4: The US and Italy have ramped up testing recently, but the U.K. is far behind. South Korea widely tested early and maintained that level throughout their crisis.

![Daily tests per 1 million of the population](Image)

Source: Deutsche Bank, CDC, ECDC, OurWorldInData

Figure 5: The US and UK have yet to see their curves bend as much as continental Europe in recent days.

![Covid-19 case growth after 100 confirmed cases](Image)

Source: Deutsche Bank, WHO, CDC, Worldometer
Figure 6: Cases in the US continue to rise as Europe new cases have largely rolled over or flattened

3 Day Average of Daily New Cases Since Country Observed 100th case

Source: Deutsche Bank, WHO, CDC, Worldometer
Figure 7: New York State and England are the only two major regions we are watching that have yet to see rate of new fatalities flatten

- Covid-19 Total Deaths by Region

Days since 10th death in the region

Confirmed Deaths

If deaths double every week
If deaths double every 3 days
If deaths double every 2 days
If deaths double everyday

Source: Deutsche Bank, NHS, Covid Tracking Project, ECDC, Santepublicquefrance, Interaktiv.morgenpost

Figure 8: France, UK, and US continue to see increasing numbers of deaths, while Italy and Spain are starting to roll over

- Daily Covid-19 Fatalities by Country

Source: Deutsche Bank, WHO, CDC, Worldometer
Figure 9: Spain’s and Italy’s growth rate of fatalities have started to flatten over the past week.

Covid-19 Total Fatalities by Country

Source: Deutsche Bank, WHO, CDC, Worldometer

Figure 10: CDC Data of how the virus affects different ages across the US

Source: Deutsche Bank, CDC study through March 13

Figure 11: How the virus affects different ages across some of the most affected countries

Source: Deutsche Bank, CCDC, ECDC, OurWorldinData
Appendix 1

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