How cases have developed globally

- Over the last 24 hours, confirmed cases rose 3.5 per cent to over 2.5m globally, growing slightly faster than on Sunday and Monday. Fatalities attributed to the virus rose by 4.2 per cent to over 177,000.

- Of the top ten most impacted countries, only Russia (10th) has seen daily case or fatality growth rates above 10 per cent on any of the last five days.

- US cases rose 4.8 per cent to over 824,000 in the last day, reverting higher after lower case growth over each of the past two days. Similarly, fatalities rose 6.6 per cent, which was higher than the previous three days but down from last Friday.

- New York cases rose by just over 4,400, the second smallest one-day increase since March. Case growth has now been under two per cent in four of the past five days. Fatality growth in the state of 4.0 per cent was up slightly on the past three days, but the current five-day average of 4.1 per cent compares favourably with the previous five days of 8.0 per cent (excluding the large one-day rise due to a revision from the New York City health department).

- German cases increased by 0.9 per cent for the second day in a row and the country has now done better than Italy and Spain in terms of slowing its case growth rate. Deaths in Germany rose 4.6 per cent, slightly lower than yesterday’s growth rate but higher than the 2.3 per cent rate recorded this past Sunday.

- Cases in the UK rose by 3.4 per cent over the past 24 hours, down from 3.9 per cent the previous day. Over 800 deaths were announced yesterday which was an increase of 5.0 per cent, more than the past two days where the average increase was 3.2 per cent. The ‘Tuesday effect’ of reporting catch-up appears to be still affecting the data. However even with this, the daily percentage increase remains lower than the rates observed at the end of last week.

- France’s number of ICU patients fell to the lowest levels in three weeks, according to DG of Health Salomon. The number of fatalities in the country rose by 2.6 per cent, just below the five-day average of 3.0 per cent. Cases rose by 2.6 per cent, which is just a shade lower than the 2.9 per cent average over the last week.

- The Netherlands confirmed 730 new cases, the fewest since mid-March, increasing the country’s total by 2.2 per cent to 34,318. Fatalities rose 4.4 per cent to just shy of 4,000 highlighting the global trend of increases in fatalities lagging improvements in case growth.
Italy and Spain both have low case growth but further improvements are taking time. Italy’s case growth of 1.5 per cent compares with the five-day average of 1.7 per cent, while Spain’s case growth of 2.0 per cent is consistent with the five-day average. These rates are not slowing as quickly as we saw in China or South Korea and so may be a template for what the rest of Europe and the US can expect.

Singapore continues to have volatile case growth, with overall confirmed cases rising by nearly 14 per cent to 9,125 in the last 24 hours. Of the countries we are monitoring, it is the only one that has seen a larger increase in cases in the last day compared with 14 days ago. Fatalities in the country thankfully remain low, but more cases will pressure the healthcare system.

Russia, which recently joined the ten most-afflicted countries, is the only one whose daily increase in fatalities (12.6 per cent) is higher than two weeks prior (8.6 per cent).

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>
<th>Total Testing</th>
<th>Tests/ 1M Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>824,438</td>
<td>2,491</td>
<td>4.8% 3.7% 3.2% 4.8% 4.5%</td>
<td>8.4%</td>
<td>4,187,392</td>
<td>12,651</td>
</tr>
<tr>
<td>New York</td>
<td>256,555</td>
<td>13,197</td>
<td>1.8% 2.0% 1.9% 5.2% 2.0%</td>
<td>6.2%</td>
<td>649,325</td>
<td>33,401</td>
</tr>
<tr>
<td>Spain</td>
<td>204,178</td>
<td>4,367</td>
<td>2.0% 0.8% 2.2% 1.9% 3.2%</td>
<td>4.4%</td>
<td>930,230</td>
<td>19,896</td>
</tr>
<tr>
<td>Italy</td>
<td>183,957</td>
<td>3,043</td>
<td>1.5% 1.3% 1.7% 2.0% 2.1%</td>
<td>2.8%</td>
<td>1,450,150</td>
<td>23,985</td>
</tr>
<tr>
<td>France</td>
<td>159,299</td>
<td>2,440</td>
<td>2.6% 1.6% 3.3% 0.0% 1.4%</td>
<td>5.0%</td>
<td>463,662</td>
<td>7,103</td>
</tr>
<tr>
<td>Germany</td>
<td>148,453</td>
<td>1,772</td>
<td>0.9% 0.9% 1.4% 1.6% 2.7%</td>
<td>5.2%</td>
<td>1,728,357</td>
<td>20,629</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>130,175</td>
<td>1,918</td>
<td>3.4% 3.9% 5.1% 5.1% 5.4%</td>
<td>9.9%</td>
<td>535,342</td>
<td>7,888</td>
</tr>
<tr>
<td>Turkey</td>
<td>95,591</td>
<td>1,136</td>
<td>5.1% 5.4% 4.8% 4.8% 5.9%</td>
<td>12.1%</td>
<td>713,409</td>
<td>8,482</td>
</tr>
<tr>
<td>Iran</td>
<td>84,802</td>
<td>1,010</td>
<td>1.6% 1.6% 1.7% 1.7% 1.9%</td>
<td>3.2%</td>
<td>1,728,357</td>
<td>20,629</td>
</tr>
<tr>
<td>China</td>
<td>82,788</td>
<td>58</td>
<td>0.0% 0.0% 0.0% 0.0% 0.0%</td>
<td>0.1%</td>
<td>535,342</td>
<td>7,888</td>
</tr>
<tr>
<td>Russia</td>
<td>52,763</td>
<td>362</td>
<td>12.0% 10.0% 16.5% 14.9% 14.6%</td>
<td>15.7%</td>
<td>2,142,604</td>
<td>14,682</td>
</tr>
<tr>
<td>Brazil</td>
<td>43,079</td>
<td>203</td>
<td>5.7% 5.4% 4.7% 7.9% 11.5%</td>
<td>16.1%</td>
<td>291,922</td>
<td>1,376</td>
</tr>
<tr>
<td>Belgium</td>
<td>40,956</td>
<td>3,538</td>
<td>2.4% 3.9% 3.5% 2.9% 3.8%</td>
<td>5.4%</td>
<td>167,110</td>
<td>14,343</td>
</tr>
<tr>
<td>Netherlands</td>
<td>34,318</td>
<td>1,998</td>
<td>2.2% 2.3% 3.4% 3.7% 4.2%</td>
<td>4.9%</td>
<td>171,415</td>
<td>9,780</td>
</tr>
<tr>
<td>Switzerland</td>
<td>28,063</td>
<td>3,243</td>
<td>0.4% 0.7% 1.2% 1.2% 1.3%</td>
<td>2.5%</td>
<td>227,554</td>
<td>26,293</td>
</tr>
<tr>
<td>India</td>
<td>20,080</td>
<td>15</td>
<td>8.3% 5.2% 7.6% 14.0% 6.9%</td>
<td>7.2%</td>
<td>447,812</td>
<td>325</td>
</tr>
<tr>
<td>Sweden</td>
<td>15,322</td>
<td>1,517</td>
<td>3.7% 2.7% 4.1% 4.6% 5.4%</td>
<td>9.4%</td>
<td>94,500</td>
<td>9,357</td>
</tr>
<tr>
<td>Japan</td>
<td>11,512</td>
<td>91</td>
<td>3.4% 3.1% 4.9% 5.2% 6.0%</td>
<td>9.0%</td>
<td>124,550</td>
<td>9,998</td>
</tr>
<tr>
<td>South Korea</td>
<td>10,694</td>
<td>209</td>
<td>0.1% 0.1% 0.1% 0.1% 0.2%</td>
<td>0.4%</td>
<td>571,014</td>
<td>11,136</td>
</tr>
<tr>
<td>Singapore</td>
<td>9,125</td>
<td>1,618</td>
<td>13.9% 21.6% 9.9% 18.7% 14.1%</td>
<td>9.6%</td>
<td>94,796</td>
<td>16,811</td>
</tr>
<tr>
<td>Mexico</td>
<td>9,501</td>
<td>74</td>
<td>8.3% 6.2% 10.2% 9.0% 9.2%</td>
<td>14.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Worldwide</td>
<td>2,563,384</td>
<td>330</td>
<td>3.5% 3.0% 2.2% 3.9% 4.8%</td>
<td>6.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Deutsche Bank, WHO, CDC, ECDC
Figure 2: Change in coronavirus fatalities over the last five days across major affected areas the world

<table>
<thead>
<tr>
<th>Country/Territory</th>
<th>Confirmed Deaths</th>
<th>Deaths/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></td>
<td></td>
<td></td>
<td>T-1</td>
<td>T-2</td>
</tr>
<tr>
<td>United States</td>
<td>45,340</td>
<td>137</td>
<td>6.6%</td>
<td>4.8%</td>
</tr>
<tr>
<td>New York</td>
<td>19,693</td>
<td>1,013</td>
<td>4.0%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Spain</td>
<td>21,282</td>
<td>455</td>
<td>2.1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Italy</td>
<td>24,648</td>
<td>408</td>
<td>2.2%</td>
<td>1.9%</td>
</tr>
<tr>
<td>France</td>
<td>20,796</td>
<td>319</td>
<td>2.6%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Germany</td>
<td>5,086</td>
<td>61</td>
<td>4.6%</td>
<td>4.7%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>17,337</td>
<td>255</td>
<td>5.0%</td>
<td>2.8%</td>
</tr>
<tr>
<td>Turkey</td>
<td>2,259</td>
<td>27</td>
<td>5.6%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Iran</td>
<td>5,297</td>
<td>63</td>
<td>1.7%</td>
<td>1.8%</td>
</tr>
<tr>
<td>China</td>
<td>4,636</td>
<td>3.2</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Russia</td>
<td>456</td>
<td>3.1</td>
<td>12.6%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Brazil</td>
<td>2,741</td>
<td>13</td>
<td>6.0%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Belgium</td>
<td>5,998</td>
<td>518</td>
<td>2.9%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3,916</td>
<td>228</td>
<td>4.4%</td>
<td>1.8%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1,478</td>
<td>171</td>
<td>3.4%</td>
<td>2.6%</td>
</tr>
<tr>
<td>India</td>
<td>645</td>
<td>0.5</td>
<td>9.0%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Sweden</td>
<td>1,765</td>
<td>175</td>
<td>11.7%</td>
<td>2.6%</td>
</tr>
<tr>
<td>Japan</td>
<td>281</td>
<td>2.2</td>
<td>6.8%</td>
<td>11.4%</td>
</tr>
<tr>
<td>South Korea</td>
<td>238</td>
<td>4.6</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Mexico</td>
<td>857</td>
<td>6.6</td>
<td>20.4%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Singapore</td>
<td>11</td>
<td>2.0</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Worldwide</td>
<td>177,415</td>
<td>23</td>
<td>4.2%</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank, WHO, CDC, ECDC

Exit Strategy

- Italy: Prime Minister Conte said that a plan to ease the lockdown from 4 May will be presented this week.
- New York Governor Andrew Cuomo signaled that he may consider a staggered reopening of the state. He announced the state will allow elective surgeries to take place starting next week in regions without large coronavirus outbreaks.
- The Netherlands will reopen primary schools and daycare centers starting 11 May while all other measures constituting what Prime Minister Mark Rutte has called an “intelligent lockdown” are extended until at least 19 May. The ban on mass events, including professional football, was extended until 1 September.

Medical Updates

- Scientists at the University of Cambridge have found a positive correlation between living in areas of England with high levels of air pollution and the severity of Covid-19.
- UK: Official statistics show that, for the week ending 10 April, 33.6 per cent of all deaths in England and Wales mentioned Covid-19. London was the region with the highest proportion of deaths involving Covid-19, at 53.2 per cent.
UK: The government will give £40.5m to vaccine development projects, with human trials beginning Thursday. £20m will go to the University of Oxford to fund clinical trials, while the other £20.5m will go to development projects at Imperial College London.

Laboratory Corp of America received FDA approval for the first home-testing kit for the virus. The kits are expected to be available in most states with a doctor’s order in the coming weeks.

France: Only about six per cent of the French population will have been infected with the virus when the country’s lockdown is relaxed next month. According to the Institut Pasteur, Public Health France, and the country’s national scientific research centre, the predicted infection rate was “very much below the level needed to avoid a second wave if all control measures were to be lifted”.

A panel of medical experts convened by the US National Institutes of Health recommended against the use of the anti-malaria drug hydroxychloroquine in combination with the antibiotic azithromycin. The NIH panel, made up of doctors, pharmacy experts and government researchers cited potential heart issues.

Major virus updates over the past day

EU: There are plans to prolong curbs on the export of personal protective equipment (including masks, gloves and garments) while narrowing the scope, EU Trade Commissioner Hogan said. The restrictions, due to lapse on Saturday after six weeks, will be extended for 30 days.

Singapore: The partial lockdown has been extended until 1 June

UK: Britain’s parliament agreed to new rules allowing members to take part in proceedings remotely during the lockdown.

The 193 members of the UN General Assembly on Monday adopted by consensus a resolution that calls for “equitable, efficient and timely” access to any future vaccines developed to fight the virus.

The WHO regional director for the Western Pacific, Dr Takeshi Kasai, said “We need to ready ourselves for a new way of living for the foreseeable future.” He added that the “approach to stopping transmission must continue to adapt at least until a vaccine or very effective treatment is found.”

Germany: The Oktoberfest beer festival will be cancelled for the first time since World War II.

Spain: the Running of the Bulls in Pamplona will be cancelled.

Company Updates

Netflix saw a record of 15.8m new subscribers during the first quarter, almost doubling the 8.47m consensus forecast. The company warned that it expects cancelations over the next few months as users leave containment.

Coca Cola reported a one per cent decline in net revenues in the first quarter, however, sales volumes have dropped by a quarter during April. The company also said it will prioritise its dividend.

Philip Morris withdrew its 2020 earnings guidance

Danone withdrew its full-year guidance as a result of the uncertainty. However, it reported like-for-like sales growth of 3.7 per cent in the first
quarter.

- French finance minister Le Maire said that support will be granted to Air France-KLM “in the coming days”.

- French carmaker PSA warned the European auto industry faces a 25 per cent drop in sales this year and a sales drop as severe as 50 per cent in 2020. That would be the biggest annual fall since the 1970s.

**Economic Data Highlights**

- Germany: The ZEW Survey’s current situation reading fell to -91.5 in April, its lowest level since May 2009. However, the expectations reading rose to 28.2, above the -42.0 reading expected and its highest level since July 2015.

- US: Existing home sales in March fell by 8.5 per cent month-on-month, their largest decline since late 2015.

- Switzerland: Exports of Swiss watches fell by 21.9 per cent on a year-on-year basis in March, according to the Federation of the Swiss Watch Industry. That was the largest annual decline since the financial crisis.

- UK: In the December-February period before the effects of the pandemic hit, the employment rate hit a record high of 76.6 per cent.

- Greece: Bank of Greece governor Stournaras said the baseline scenario is for the Greek economy to contract by around four per cent this year.

**Fiscal and Monetary Updates**

- US: The Senate passed a $484bn stimulus bill to replenish the small business aid program, pay for coronavirus testing and fund hospitals. The House could vote on the bill as early as Thursday.

- UK: Around 185,000 businesses have used the Coronavirus Job Retention Scheme so far, where the government pays 80 per cent of the wages of furloughed workers.

- Spain: Deputy Prime Minister Calvino said an EU finance ministers’ agreement this month on a €500bn package of palliative emergency economic measures was “welcome but clearly not enough”. She said the recovery fund should be of “appropriate size”; a Spanish government document dated Sunday cites estimates of €1tn to €1.5tn. She added that it would be “funded through permanent debt issued by the European institutions”, to be paid back by new revenue sources in the hands of the European Commission.
Figure 3: There has been increasing case growth in regions like Singapore and Russia just as Western Europe and the US flatten out.

Covid-19 case growth after 100 confirmed cases

Source: Deutsche Bank, WHO, CDC, Worldometer

Figure 4: New cases in the US and Europe on a 3 day average basis seem to be slowing across the board.

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

Source: Deutsche Bank, WHO, CDC, Worldometer
Figure 5: Fatalities across the world have slowed substantially compared to where we were in 2 weeks ago with hospitals seeing less strain in different regions.

Covid-19 Total Fatalities by Country

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

Source: Deutsche Bank, WHO, CDC, Worldometer

Figure 6: The growth in fatalities in the US or Germany has not yet slowed on a 3 day average basis, yet we have seen the trend in fatalities lag the trend in new cases across Europe.

3D average of Daily Covid-19 Fatalities by Country

Source: Deutsche Bank, WHO, CDC, Worldometer
Figure 7: New York State and England were the last two major regions we are watching that have seen their rate of new fatalities start to flatten.

Covid-19 Total Deaths by Region

Days since 10th death in the region

Confirmed/Deaths

10 20 40 80 160 320 640 1280 2560 5120 10240

1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41

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

Figure 8: The US and Italy continue to test at very high levels, but have seemed to hit certain ceilings, while the U.K. continues to expand slowly.

Daily tests per 1 million of the population

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

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*Other information available upon request

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