How cases have developed globally

- Global cases rose 3.1 per cent to over 2.7m worldwide, while global fatalities rose 4.1 per cent to just over 190,000. The five-day average case growth now sits at 2.8 per cent, compared with 4.1 per cent over the prior period, while average fatality growth has slowed to 3.5 per cent over the past five days versus 5.9 per cent for the five-days previous. So slow, steady, consistent improvements rather than spectacular ones.

- We have included two new charts today showing the total number of cases and fatalities in each country over time in proportion to their overall populations. When looking at the proportional deaths, Belgium jumps off the page, but as we highlighted yesterday this come down to the country having a far broader criteria for inclusion in fatality statistics. These charts also show the similarity of much of Northern Europe’s experience. The Netherlands, UK, and France are all tracking the same fatality path as did Italy, on a population adjusted basis. For all the criticism in the US, it is tracking well below the European hotspots on this measure. The China and South Korea lines are so low they are hardly visible on these graphs. This hints at how much more difficult and prolonged the exit strategy will be in Europe and the US.

- US cases rose 3.3 per cent, which is faster than yesterday but is just under the five-day average of 3.4 per cent. Meanwhile, fatalities grew 4.6 per cent to nearly 50,000. In New York, case growth accelerated for the second day in a row, up to 2.4 per cent. Despite that, the state saw the second-slowest daily increase in fatalities yet at 2.5 per cent compared with the 3.4 per cent average of the previous five days.

- New York’s neighboring state New Jersey is set to pass 100,000 cases itself later today, though the state has seen a lower mortality rate with 5368 deaths. The Governor of the state said that test results were coming faster recently, now taking five to seven days, rather than as long as 14 days. This highlights that some of these case numbers may be quite backward looking.

- Cases in Germany rose 1.6 per cent, increasing slightly for the second day in row. Similarly new deaths rose 4.9 per cent, which was a little faster than the day before.

- Cases in the UK rose by 3.4 per cent for the third day in a row, taking total confirmed cases to 139,246. Fatalities, meanwhile, slowed to 3.5 per cent, just under the five-day average of 3.9 per cent.

- The number of confirmed cases in Turkey rose past 100,000 yesterday, with 3,116 new cases in the past 24 hours, growth of 3.2 per cent. Turkey’s
fatalities rose 4.8 per cent to 2,491. Both rates were the slowest of the outbreak as the country announced a four-day lockdown in 31 cities lasting until midnight Sunday.

- Italy’s rate of new fatalities remains very stable, increasing by between 1.8 and 2.2 per cent for the sixth day in a row. The 2,646 new cases represents a 1.4 per cent increase, near the lowest of the outbreak. The country continues to see fewer active cases as the number of newly-recovered patients rose to 3,033.

- Sweden now has recorded more than 2,000 deaths, though the rate of new fatalities has slowed to 4.3 per cent in the last 24 hours, after spiking over the past two days. Case growth in the country has been relatively consistent, with the 4.7 per cent increase over the last four days exactly equal to the 15-day case growth average.

**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>868,945</td>
<td>2,625</td>
<td>T-1 3.3% T-2 2.0% T-3 4.8% T-4 3.7% T-5 3.2%</td>
<td>7.6%</td>
<td>4,696,704</td>
<td>14,189</td>
</tr>
<tr>
<td>New York</td>
<td>268,581</td>
<td>13,816</td>
<td>T-2 2.4% T-3 1.8% T-4 2.0% T-5 1.9%</td>
<td>7.8%</td>
<td>669,982</td>
<td>34,463</td>
</tr>
<tr>
<td>Spain</td>
<td>213,024</td>
<td>4,556</td>
<td>T-1 2.2% T-2 2.1% T-3 2.0% T-4 0.8% T-5 2.2%</td>
<td>3.0%</td>
<td>930,230</td>
<td>19,896</td>
</tr>
<tr>
<td>Italy</td>
<td>189,973</td>
<td>3,142</td>
<td>T-1 1.4% T-2 1.8% T-3 1.5% T-4 1.3% T-5 1.7%</td>
<td>2.8%</td>
<td>1,579,909</td>
<td>26,131</td>
</tr>
<tr>
<td>France</td>
<td>159,460</td>
<td>2,443</td>
<td>T-1 -0.3% T-2 0.4% T-3 2.6% T-4 1.6% T-5 3.3%</td>
<td>5.0%</td>
<td>663,662</td>
<td>7,103</td>
</tr>
<tr>
<td>Germany</td>
<td>153,129</td>
<td>1,828</td>
<td>T-1 1.6% T-2 1.5% T-3 0.9% T-4 0.9% T-5 1.4%</td>
<td>3.3%</td>
<td>2,072,669</td>
<td>24,738</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>139,246</td>
<td>2,052</td>
<td>T-1 3.4% T-2 3.4% T-3 3.4% T-4 3.9% T-5 5.1%</td>
<td>8.0%</td>
<td>583,496</td>
<td>8,598</td>
</tr>
<tr>
<td>Turkey</td>
<td>101,790</td>
<td>1,210</td>
<td>T-1 3.2% T-2 3.2% T-3 5.1% T-4 5.4% T-5 4.8%</td>
<td>11.2%</td>
<td>791,906</td>
<td>9,415</td>
</tr>
<tr>
<td>Iran</td>
<td>87,026</td>
<td>1,036</td>
<td>T-1 1.2% T-2 1.4% T-3 1.6% T-4 1.6% T-5 1.7%</td>
<td>3.0%</td>
<td>643,962</td>
<td>8,598</td>
</tr>
<tr>
<td>China</td>
<td>82,804</td>
<td>88</td>
<td>T-1 0.0% T-2 0.0% T-3 0.0% T-4 0.0% T-5 0.1%</td>
<td>0.1%</td>
<td>583,496</td>
<td>8,598</td>
</tr>
<tr>
<td>Russia</td>
<td>62,773</td>
<td>430</td>
<td>T-1 8.2% T-2 9.9% T-3 12.0% T-4 10.0% T-5 16.5%</td>
<td>17.6%</td>
<td>2,401,616</td>
<td>16,457</td>
</tr>
<tr>
<td>Brazil</td>
<td>50,036</td>
<td>236</td>
<td>T-1 8.3% T-2 7.2% T-3 5.7% T-4 5.4% T-5 4.7%</td>
<td>10.0%</td>
<td>291,922</td>
<td>1,376</td>
</tr>
<tr>
<td>Belgium</td>
<td>42,797</td>
<td>369</td>
<td>T-1 2.2% T-2 2.3% T-3 2.4% T-4 3.9% T-5 3.5%</td>
<td>6.7%</td>
<td>179,666</td>
<td>5,519</td>
</tr>
<tr>
<td>Netherlands</td>
<td>35,921</td>
<td>2,091</td>
<td>T-1 3.1% T-2 1.5% T-3 2.2% T-4 2.3% T-5 3.4%</td>
<td>6.1%</td>
<td>187,000</td>
<td>10,885</td>
</tr>
<tr>
<td>Switzerland</td>
<td>28,496</td>
<td>3,293</td>
<td>T-1 0.6% T-2 0.7% T-3 0.4% T-4 0.7% T-5 1.2%</td>
<td>3.1%</td>
<td>227,554</td>
<td>26,293</td>
</tr>
<tr>
<td>India</td>
<td>23,039</td>
<td>17</td>
<td>T-1 7.8% T-2 6.4% T-3 6.3% T-4 5.2% T-5 7.6%</td>
<td>13.0%</td>
<td>500,542</td>
<td>363</td>
</tr>
<tr>
<td>Sweden</td>
<td>16,755</td>
<td>1,659</td>
<td>T-1 4.7% T-2 4.5% T-3 3.7% T-4 2.7% T-5 4.1%</td>
<td>6.0%</td>
<td>94,500</td>
<td>9,357</td>
</tr>
<tr>
<td>Japan</td>
<td>12,368</td>
<td>98</td>
<td>T-1 3.5% T-2 3.8% T-3 3.4% T-4 3.1% T-5 4.9%</td>
<td>14.6%</td>
<td>124,550</td>
<td>9,885</td>
</tr>
<tr>
<td>South Korea</td>
<td>10,708</td>
<td>209</td>
<td>T-1 0.1% T-2 0.0% T-3 0.1% T-4 0.1% T-5 0.1%</td>
<td>0.0%</td>
<td>583,971</td>
<td>11,390</td>
</tr>
<tr>
<td>Singapore</td>
<td>11,178</td>
<td>1,982</td>
<td>T-1 10.2% T-2 11.1% T-3 13.9% T-4 21.6% T-5 9.9%</td>
<td>10.4%</td>
<td>94,796</td>
<td>9,415</td>
</tr>
<tr>
<td>Mexico</td>
<td>11,633</td>
<td>90</td>
<td>T-1 10.3% T-2 11.0% T-3 8.3% T-4 6.2% T-5 10.2%</td>
<td>11.7%</td>
<td>94,796</td>
<td>16,811</td>
</tr>
<tr>
<td>Worldwide</td>
<td>2,707,356</td>
<td>348</td>
<td>T-1 3.1% T-2 2.5% T-3 3.5% T-4 3.0% T-5 2.2%</td>
<td>6.1%</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>United States</td>
<td>49,845</td>
<td>151</td>
<td>T-1 4.5% T-2 5.2% T-3 6.6% T-4 4.8% T-5 4.2%</td>
<td>12.5%</td>
</tr>
<tr>
<td>New York</td>
<td>20,861</td>
<td>1,073</td>
<td>T-1 2.5% T-2 3.4% T-3 4.0% T-4 3.4% T-5 3.5%</td>
<td>11.6%</td>
</tr>
<tr>
<td>Spain</td>
<td>22,157</td>
<td>474</td>
<td>T-1 2.0% T-2 2.0% T-3 2.1% T-4 2.0% T-5 2.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Italy</td>
<td>25,549</td>
<td>423</td>
<td>T-1 1.8% T-2 1.8% T-3 2.2% T-4 1.9% T-5 1.9%</td>
<td>3.1%</td>
</tr>
<tr>
<td>France</td>
<td>21,856</td>
<td>335</td>
<td>T-1 2.4% T-2 2.6% T-3 2.6% T-4 2.8% T-5 1.9%</td>
<td>8.1%</td>
</tr>
<tr>
<td>Germany</td>
<td>5,575</td>
<td>67</td>
<td>T-1 4.9% T-2 4.5% T-3 4.6% T-4 4.7% T-5 2.3%</td>
<td>6.1%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>18,738</td>
<td>276</td>
<td>T-1 3.5% T-2 4.4% T-3 5.0% T-4 2.8% T-5 3.6%</td>
<td>12.3%</td>
</tr>
<tr>
<td>Turkey</td>
<td>2,491</td>
<td>30</td>
<td>T-1 4.8% T-2 5.2% T-3 5.6% T-4 6.1% T-5 6.7%</td>
<td>10.8%</td>
</tr>
<tr>
<td>Iran</td>
<td>5,481</td>
<td>65</td>
<td>T-1 1.7% T-2 1.8% T-3 1.7% T-4 1.8% T-5 1.7%</td>
<td>3.0%</td>
</tr>
<tr>
<td>China</td>
<td>4,636</td>
<td>3.2</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>Russia</td>
<td>555</td>
<td>3.8</td>
<td>T-1 8.2% T-2 12.5% T-3 12.6% T-4 12.2% T-5 15.3%</td>
<td>23.7%</td>
</tr>
<tr>
<td>Brazil</td>
<td>3,331</td>
<td>16</td>
<td>T-1 13.9% T-2 6.7% T-3 6.0% T-4 5.1% T-5 3.8%</td>
<td>12.2%</td>
</tr>
<tr>
<td>Belgium</td>
<td>6,490</td>
<td>561</td>
<td>T-1 3.6% T-2 4.4% T-3 2.9% T-4 2.6% T-5 4.2%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>4,177</td>
<td>243</td>
<td>T-1 3.0% T-2 3.5% T-3 4.4% T-4 1.8% T-5 2.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>1,549</td>
<td>179</td>
<td>T-1 2.7% T-2 2.1% T-3 3.4% T-4 2.6% T-5 1.8%</td>
<td>5.7%</td>
</tr>
<tr>
<td>India</td>
<td>721</td>
<td>0.5</td>
<td>T-1 5.9% T-2 5.6% T-3 9.0% T-4 5.9% T-5 7.3%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Sweden</td>
<td>2,021</td>
<td>200</td>
<td>T-1 4.3% T-2 9.7% T-3 11.7% T-4 2.6% T-5 1.9%</td>
<td>9.7%</td>
</tr>
<tr>
<td>Japan</td>
<td>328</td>
<td>2.6</td>
<td>T-1 9.7% T-2 6.4% T-3 6.8% T-4 11.4% T-5 6.3%</td>
<td>3.5%</td>
</tr>
<tr>
<td>South Korea</td>
<td>240</td>
<td>4.7</td>
<td>T-1 0.0% T-2 0.8% T-3 0.4% T-4 0.4% T-5 0.9%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Mexico</td>
<td>1,069</td>
<td>8.3</td>
<td>T-1 10.2% T-2 13.2% T-3 20.4% T-4 3.8% T-5 5.5%</td>
<td>11.5%</td>
</tr>
<tr>
<td>Singapore</td>
<td>12</td>
<td>2.1</td>
<td>T-1 0.0% T-2 9.1% T-3 0.0% T-4 0.0% T-5 -</td>
<td>-</td>
</tr>
<tr>
<td>Worldwide</td>
<td>190,743</td>
<td>25</td>
<td>T-1 4.1% T-2 3.3% T-3 4.2% T-4 3.1% T-5 2.8%</td>
<td>7.3%</td>
</tr>
</tbody>
</table>

Source: Deutsche Bank, WHO, CDC, ECDC

Exit Strategy

- France: President Macron told mayors that a plan to ease the lockdown will be announced around Tuesday next week.
- UK: Scotland’s first minister, Nicola Sturgeon, said the lockdown will likely be lifted in phases, and that some measures would remain in place into next year.
- Italy’s manufacturing, automotive and construction industries will reopen on 4 May when the country starts its reopening process. The industries will need to guarantee social distancing and protective measures.

Medical Updates

- Sub-Saharan Africa: The World Health Organization warned that the number of deaths from malaria in the region could double if the focus on the coronavirus led to a reduction in access to anti-malaria medicines.
- UK: Ministers will review scientific advice on the effectiveness of wearing face masks in public.
- US: A New York State study found that 13.9 per cent of those tested had antibodies for the virus, indicating that nearly 2.7m may have been infected in the state. This would make that fatality rate roughly 0.6 per cent.
- Siemens Healthineers has developed an antibody test that takes 14
minutes to determine whether someone has been infected. The test is more than 99 per cent accurate and will be available by late May. It plans to produce 25m tests a month by June.

- Gilead’s potential antiviral drug for the coronavirus, Remdesivir, did not perform well in its first randomised clinical trial according to documents published prematurely by the WHO. Gilead responded, saying that the trial was terminated early due to low enrollment and thus did not produce meaningful conclusions.

- The European Medicines Agency yesterday warned of exacerbated cardiac risks from the combination of Hydroxychloroquine with an antibiotic like azithromycin, because both can cause heart-rhythm problems.

**Major virus updates over the past day**

- Indonesia: Domestic air and sea travel have been temporarily banned from today. The air travel ban will last until June 1, and the sea travel until 8 June. Cargo transportation is exempted.

- Greece: The country’s lockdown was extended by a week until 4 May.

- Malaysia: The country’s lockdown was extended by two weeks, until 12 May.

- South Africa: President Ramaphosa said the country will look to ease lockdown restrictions on 1 May.

- A study of 318 outbreaks in China found that only in one instance did transmissions occur outdoors, involving just two cases. The vast majority of outbreaks occurred in the home or in public transport. This raises the possibility for some services to move outdoors (religious, gym classes, restaurants, etc).

- UN Secretary-General António Guterres said the pandemic has seen “disproportionate effects on certain communities, the rise of hate speech, the targeting of vulnerable groups, and the risks of heavy-handed security responses undermining the health response.” He warned that with “rising ethno-nationalism, populism, authoritarianism and a push back against human rights in some countries, the crisis can provide a pretext to adopt repressive measures for purposes unrelated to the pandemic.”

- EU trade commissioner Phil Hogan said that “Strategic autonomy does not mean that we should aim for self sufficiency”. “Given the complexity of supply chains to the European Union, this would be an unattainable goal … we have to look at how to build resilience based on how we can diversify, not be totally reliant on one geographical entity for supplies of everything.”

- ECB President Lagarde told EU leaders that the region’s GDP could fall as much as 15 per cent and that too little was done too late. The remarks came during a video conference meeting of the 27 EU leaders.

**Company Updates**

- Credit Suisse put aside Sfr568m in provision for credit losses in the first quarter, up from just Sfr81m in the same quarter last year.

- Unilever withdrew its 2020 outlook.

- Daimler said that earnings before interest and tax in the first quarter fell to €617m, down from €2.8bn for the same quarter the previous year.

- Eli Lilly Chief Executive David Ricks said the pandemic is expected to have
long-term negative impacts. The company expects to see de-stocking of medicines in future quarters as patients seek to fill additional prescriptions now.

- Reports indicate Pret A Manger is in talks over a €100m emergency loan.
- The ECB has changed its rules to accept “fallen angel” bonds that lose their investment-grade credit rating to maintain access to cheap liquidity. In February, the OECD estimated that $275bn of non-financial corporate bonds could become fallen angels by being downgraded below the triple-B level minimum required for investment grade status within the next year.

**Economic Data Highlights**

- The April flash PMIs showed a sharp deterioration around the world:
  - The Euro Area composite PMI fell to a record low of 13.5, down from 29.7 in March. The services PMI fell to 11.7, also a record low, and the manufacturing PMI fell to 33.6, the lowest since February 2009.
  - The composite PMIs also fell to record lows in Germany (17.1), France (11.2), the UK (12.9) and the US (27.4).
- US: Weekly initial jobless claims fell to 4.427m in the week to 18 April. This is the third consecutive week that the number has declined, down from a peak of 6.867m.
- Germany: GfK’s consumer confidence reading for May fell to an all-time low of -23.4
- France: The INSEE’s business climate composite indicator fell to 62 in April, its lowest level since the start of the series in 1980 and also the largest drop in a month.
- UK: Of businesses that either continue to trade or have temporarily paused trading, 27 per cent of the workforce have been furloughed, according to a survey from the Office of National Statistics during the period 23 March to 5 April.
- US: New home sales in March fell to an annual rate of 627,000, down from 741,000 in February. The 15.4 per cent monthly decline was the largest since July 2013.

**Fiscal and Monetary Updates**

- At the European Council Summit, EU leaders were not able to reach agreement on the EU Recovery Fund yesterday, with the key battleground being the overall ratio of grants versus loans.
- US: The House of Representatives passed the $484bn aid package that replenishes the Paycheck Protection Program and provides funds for hospitals and further testing.
- US: The Treasury signalled that companies seeking government aid must certify their explicit need. This comes as large firms, with other avenues to access liquidity, have come under scrutiny. Companies wishing to return money already accepted can do so by 7 May without penalty.
- UK: The Debt Management Office said it will sell £180bn of bonds from May to July.
- US: In a Gallup poll, 58 per cent of respondents said they had confidence in the Federal Reserve Chair to do the right thing for the economy. This is the highest score for a Federal Reserve Chair since 2004 under Alan Greenspan.
- Ukraine: The central bank lowered its key rate by 200 basis points to eight per cent.

- Three-month Euribor climbed to a four-year high of minus 0.16 per cent on Thursday. The gap between Euribor and overnight index swaps, which track interest rates set by the ECB, has reached its widest since the height of the eurozone debt crisis in 2012.

- The UN called for the creation of an international agency to oversee sovereign debt relief programmes for developing countries, which it said face unsustainable debt repayments of $2.6tn this year and $3.4tn in 2021.
Figure 3: Much of Northern Europe’s experience has been very similar on a population adjusted measure

Covid-19 Cases per 1 million of the country’s population

Days since country announced 100th case

Cases per 1 million of the population

Source: Deutsche Bank, WHO, CDC, JHU

Figure 4: Netherlands, the U.K., and France are all tracking the same fatality path as Italy did on a population adjusted basis

Covid-19 Fatalities per 1 million of the country’s population

Days since country announced 10th death

Deaths per 1 million of the population

Source: Deutsche Bank, WHO, CDC, JHU
Figure 5: There has been increasing case growth in regions like Singapore and Russia just as Western Europe and the US flatten out.

Figure 6: New cases in the US and Europe on a 3 day average basis seem to be slowing across the board.

Source: Deutsche Bank, WHO, CDC, Worldometer
Figure 7: Fatalities across the world have slowed substantially compared to where we were 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 8: 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 9: 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

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

Figure 10: The US has seen in a spike in testing in recent days, while the U.K. and South Africa continue to expand slowly.

Daily tests per 1 million of the population

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

Important Disclosures

*Other information available upon request
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