COVID-19

Initial impact* assessment of the novel Coronavirus

IATA Economics

20\textsuperscript{th} February 2020

*This is a preliminary scenario. It is likely to change as the situation evolves and evidence builds.
Previous disease outbreaks have peaked after 1-3 months and recovered pre-outbreak levels in 6-7 months.

Impact of past disease outbreaks on aviation

Avian Flu (2005) RPKs to, from and within South-East Asia
Avian Flu (2013) Asia Pacific Airlines RPKs
MERS Flu (2015) RPKs to, from and within South Korea

SARS (2003) Asia Pacific Airlines RPKs
SARS (2003) China Domestic Market RPKs

Source: IATA Economics using data from IATA Statistics
SARS caused the only annual decline in Asia-Pacific traffic in almost two decades.
SARS experience may underestimate today’s impact because China’s economic size is now much greater.

China’s Contribution to World Economy

- **Share in World Economy**: 4% (2002) vs. 16% (2018)
- **Share in Trade (Exports + Imports)**: 5% (2002) vs. 13% (2018)
- **Share in Manufacturing**: 10% (2002) vs. 39% (2018)
- **Share in Travel & Tourism**: 5% (2002) vs. 18% (2018)

Source: IATA Economics using data from the IMF WEO, UN, WTTC
Since SARS China and other Asia Pacific airlines’ share in worldwide RPKs have risen from 27% to 35%
China’s domestic market has become twice as important for total Asia Pacific airlines’ RPKs

Asia-Pacific airlines RPKs 2002

- International Traffic: 70%
- Domestic Traffic: 30%
- Domestic China: 12%

Asia-Pacific airlines RPKs 2019

- International Traffic: 45%
- Domestic China: 28%

Source: IATA Economics using data from IATA Statistics
Asia-Pacific airlines are most exposed to Chinese markets, but others impacted if COVID-19 effects widen

Base revenues: excluding revenues from ancillaries, baggage fees, etc.

Source: IATA Economics using Jan-Nov 2019 data from DDS
January data from China indicates a sharper decline than SARS outbreak in the first month after the outbreak.

Daily China Passenger Numbers (Domestic+International)

Index (January 1st 2019 = 100)

Days before and after the start of the Chinese New Year Holiday

Start of the Chinese New Year Holiday

Jan 31st 2020: Daily passenger numbers down ~40% vs Feb 11th 2019

Source: IATA Economics using data from DDS
February data shows further decline with domestic + international China passenger numbers down around 60%

Source: IATA using data from DDS

Year-on Year Change in Passenger Numbers

- **Within China**
- **China International**

<table>
<thead>
<tr>
<th>Period</th>
<th>% Change in Passenger Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 23-Feb 8</td>
<td>-10%</td>
</tr>
<tr>
<td>Feb 8- Feb 15</td>
<td>-50%</td>
</tr>
<tr>
<td>Feb 16- Feb 22</td>
<td>-70%</td>
</tr>
</tbody>
</table>

This data shows tickets sold for travel on these dates minus refunds and exchanges. It is for scheduled travel and so will not include charter services.

Source: IATA using data from DDS
If COVID-19 impact has a SARS-shaped profile this implies a 13% loss of RPKs in 2020 for Asia-Pacific airlines.

Source: IATA Economics using data from IATA Statistics
COVID-19 ‘SARS-shaped’ scenario implies a 4.7% loss to industry-wide RPKs in 2020 and a $29bn loss of passenger revenues.

<table>
<thead>
<tr>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>-13.0%</td>
<td>-27.8</td>
</tr>
<tr>
<td>North America</td>
<td>-0.4%</td>
<td>-0.7</td>
</tr>
<tr>
<td>Europe</td>
<td>-0.4%</td>
<td>-0.6</td>
</tr>
<tr>
<td>Middle East</td>
<td>-0.2%</td>
<td>-0.1</td>
</tr>
<tr>
<td>Africa</td>
<td>-0.4%</td>
<td>-0.04</td>
</tr>
<tr>
<td>Latin America</td>
<td>-0.1%</td>
<td>-0.03</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td><strong>-4.7%</strong></td>
<td><strong>-29.3</strong></td>
</tr>
</tbody>
</table>

Scenario notes: Regional impacts outside Asia Pacific Region are based only on the direct exposure to Chinese markets. No additional or second round weakness of Asia Pacific markets are included. SARS had wider impacts but so far COVID 19 has 99% of its cases in mainland China. Revenue impacts are estimated based on the 2020 RPK impact assuming no change in yields.
### 2020 RPK forecasts before and after COVID-19 (assumes ‘SARS-shaped’ scenario and no other changes)

<table>
<thead>
<tr>
<th>Region of airline registration</th>
<th>December 2019 forecast</th>
<th>COVID-19 ‘SARS-shaped’ scenario impact</th>
<th>Implied COVID-19 ‘SARS-shaped’ scenario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia Pacific</td>
<td>4.8%</td>
<td>-13.0%</td>
<td>-8.2%</td>
</tr>
<tr>
<td>North America</td>
<td>3.8%</td>
<td>-0.4%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Europe</td>
<td>3.8%</td>
<td>-0.4%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Middle East</td>
<td>2.5%</td>
<td>-0.2%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Africa</td>
<td>3.8%</td>
<td>-0.4%</td>
<td>3.4%</td>
</tr>
<tr>
<td>Latin America</td>
<td>4.3%</td>
<td>-0.1%</td>
<td>4.2%</td>
</tr>
<tr>
<td><strong>Industry</strong></td>
<td><strong>4.1%</strong></td>
<td><strong>-4.7%</strong></td>
<td><strong>-0.6%</strong></td>
</tr>
</tbody>
</table>

Scenario notes: The December 2019 forecast can be found at [Economic performance report](#). The final column is indicative, showing how the forecasts RPK growth numbers for 2020 could be reduced if this particular COVID-19 scenario came about. It takes no account of any other changes, such as lower fuel prices, policy actions or knock-on and second-round effects. The scenario impacts are subtracted from the December forecast for simplicity, though this is not exact.
Lower fuel prices may provide some offset

With no hedging or change in the crack spread, a 6 $/b lower fuel price could save $13 billion off the industry’s 2020 fuel bill. Our December forecasts were based on an average 63 $/b oil price. However, many airlines will have hedged 2020 fuel so this benefit – if no further change – could be delayed for some.

Source: IATA Economics using data from Refinitiv Datastream
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