Future of Aviation: Beyond COVID or With COVID?

Kelvin Lee
Assistant Director
Member & External Relations
IATA Asia-Pacific

27 August 2021
Every day in ...

<table>
<thead>
<tr>
<th>Year</th>
<th>Passengers (millions)</th>
<th>Flights</th>
<th>Value of goods carried (billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>12.4</td>
<td>106,600</td>
<td>$17.8</td>
</tr>
<tr>
<td>2020</td>
<td>4.9</td>
<td>44,900</td>
<td>$16</td>
</tr>
</tbody>
</table>

Source: IATA
Current situation

Fear of new COVID variants

Worsening domestic situation

Worsening border restrictions impacting international travel

Slower than expected vaccination

Vaccine hesitancy
International air services remain near to lows
March 2021 routes only 50% of normal, frequencies only 48% of normal

Source: IATA Economics using data from SRS Analyser
Travel restrictions hurting quality of life

Q28. Which of the following impacted you personally as a result of COVID-19 travel restrictions?

Q26. Do you agree strongly, agree somewhat, disagree somewhat or disagree strongly with each of the following statements?

- Feeling the loss of freedom that comes with flying: 42%
- Unable to see family members: 41%
- Missing a key human moment (wedding, funeral, family etc.): 36%
- Mental stress of feeling contained/isolated: 33%
- Unable to do business normally: 32%
- Inability to connect with other people in my professional field: 30%
Two thirds planning an early return to travel

<table>
<thead>
<tr>
<th>Response</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not wait at all</td>
<td>20%</td>
</tr>
<tr>
<td>Wait a month or two</td>
<td>37%</td>
</tr>
<tr>
<td>Wait six months or so</td>
<td>28%</td>
</tr>
<tr>
<td>Wait a year or so</td>
<td>12%</td>
</tr>
<tr>
<td>Not resume my usual travel plans for the foreseeable future</td>
<td>4%</td>
</tr>
</tbody>
</table>

Q12. Once the pandemic has been contained, how long would you wait, if at all, to return to your usual travel plans?
*Note that the wording of this question has changed slightly since it was asked in the April 2020 wave of this survey.
I will not travel if there is a chance I may be quarantined at my destination

48% Agree strongly
37% Agree somewhat

85% Total

Majority won’t travel if there’s a chance of quarantine

NB Numbers may not always add up due to rounding.
Q13. Do you agree strongly, agree somewhat, disagree somewhat or disagree strongly with the following statement?
Frustration with continued travel restrictions

- COVID-19 will not disappear so we need to manage its risks while living and traveling normally: 38% Agree strongly, 45% Agree somewhat, 84% Total
- I am frustrated by COVID-19 air travel restrictions: 27% Agree strongly, 36% Agree somewhat, 63% Total
- We know enough about COVID-19 risks to be able to travel without restrictions: 24% Agree strongly, 35% Agree somewhat, 59% Total
- I think the air travel restrictions go too far: 23% Agree strongly, 29% Agree somewhat, 52% Total

NB Numbers may not always add up due to rounding.
Q24. When it comes to the COVID-19-related air travel restrictions in your country, do you agree strongly, agree somewhat, disagree somewhat or disagree strongly with each of the following?
Setting targets and planning to re-open borders

When it comes to opening borders, we need to find the right balance between managing COVID-19 risk and getting the economy going again

- Agree strongly: 36%
- Agree somewhat: 49%
- Total: 85%

Governments should set COVID-19 targets (such as testing capacity or people vaccinated) to re-open borders

- Agree strongly: 32%
- Agree somewhat: 52%
- Total: 84%

Country borders should be opened progressively as COVID-19 cases decrease

- Agree strongly: 28%
- Agree somewhat: 52%
- Total: 80%

Border closures should end as testing and vaccine capacity increases

- Agree strongly: 25%
- Agree somewhat: 45%
- Total: 70%

NB Numbers may not always add up due to rounding.

Q26. Do you agree strongly, agree somewhat, disagree somewhat or disagree strongly with each of the following statements?
Multi-layered measures to address COVID risks

COVID-19 likely to become endemic

No zero-risk way to reopen borders

Multi-layered approach

Risk modelling
Vaccines and Air Travel

- Travel cannot be limited to vaccinated passengers
- Waiting for full vaccination before reopening borders not an option
- Governments should prioritize aviation for access to vaccines
- IATA supports unrestricted access to travel for vaccinated travelers
- Implement digital vaccination certificates based on WHO and ICAO standards for international travel
Testing and Air Travel

- Insufficient testing capacity
  for both departing and arriving passengers to meet future travel demand

- Costly and slow testing
  such that it impacts end-to-end passenger experiences

- Standardized digital testing certificates
  to facilitate mutual acceptance

- Acceptance of IATA Travel Pass framework
  for a digital solution in processing testing/vaccination certificates
Worldwide COVID rules and regulations

Timatic

Contactless app
App to manage & share biometric identity and health credentials

Lab Solutions
Labs available nearby that can get tested

Modular

Interoperable

ICAO DTC

W3C Standards
Enable Contactless Travel where passengers can create a digital version of their passport, and share with airlines, airports and border authorities. Passengers can proceed through the airport using their face as their passport and boarding pass.
Structural change in aviation driven by the supply-side
Technology, liberalization & innovation drove unit costs down 90%

Unit cost of air transport, US$/ATK, inflation-adjusted

Source: IATA Economics using data from ICAO, IATA Statistics and OECD
Need for market stimulation by Governments

Current Risks

• $173 bn provided in aid but more aid needed
• Advances in testing and vaccines but bookings still low
• Airlines not cash positive until Q4 2021
• Risk of widespread failures and inability to support economic recovery
• Urgent need to reopen borders and stimulate demand

Market Stimulation Benefits

• Support faster recovery
• Avoid distortion of competition by being available to all airlines
• Boost demand and benefit entire aviation value chain
• Benefit passengers and local economies
• Easy application /exit for governments
### Proven market stimulation options and benefits

<table>
<thead>
<tr>
<th>Charges, taxes and fees</th>
<th>Route subsidies</th>
<th>Flight/ seat incentives</th>
<th>Advance payment/ vouchers</th>
<th>Passenger travel subsidies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve affordability of travel</td>
<td>Connect rural communities and businesses; revive tourism</td>
<td>Travelers multiply investment through money spent in the economy</td>
<td>Kick start markets and provide direct benefits to passengers</td>
<td>Help affordability and generate benefits for tourism and economy</td>
</tr>
<tr>
<td>Lower ‘external’ costs boost demand</td>
<td>Can operate routes even if unviable on commercial terms</td>
<td>Support low load factor/yield flights</td>
<td>More stability in bookings and support for cash flow</td>
<td>Lower overall cost of travel boosts demand</td>
</tr>
</tbody>
</table>
RPKs will recover to 2019 levels in 2023

Source: IATA/Tourism Economics Air Passenger Forecast, April 2021 update
Air travel demand to rise above 7bn in the next 20 years

Source: IATA/Tourism Economics, Air Passenger Forecasts April 2021
2021 - 2039

CURRENT TRENDS

Growth and change in passenger journeys by region (% 2021 - 2039)

- **World**: 3.2% year of recovery to 2019 levels: 2023
- **North America**: 1.7% year of recovery to 2019 levels: 2023
- **Latin America**: 2.9% year of recovery to 2019 levels: 2023
- **Africa**: 3.6% year of recovery to 2019 levels: 2024
- **Middle East**: 3.6% year of recovery to 2019 levels: 2024
- **Asia Pacific**: 4.5% year of recovery to 2019 levels: 2023
- **Europe**: 2.0% year of recovery to 2019 levels: 2024

Our scenario analysis indicates that global air passenger growth could plausibly be in the range of 1.5% and 3.6% over the next 20 years.

Country pairs with the biggest changes in passenger numbers

<table>
<thead>
<tr>
<th>Country pair</th>
<th>Annual % growth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International country pairs only</strong></td>
<td></td>
</tr>
<tr>
<td>China - Thailand</td>
<td>5.6%</td>
</tr>
<tr>
<td>India - UAE</td>
<td>6.9%</td>
</tr>
<tr>
<td>China - Japan</td>
<td>4.6%</td>
</tr>
<tr>
<td><strong>Domestic Markets</strong></td>
<td></td>
</tr>
<tr>
<td>Within China</td>
<td>5.0%</td>
</tr>
<tr>
<td>Within India</td>
<td>6.2%</td>
</tr>
<tr>
<td>Within US</td>
<td>1.4%</td>
</tr>
</tbody>
</table>

Source: IATA/Tourism Economics Air Passenger Forecasts. May 2021
Top 10 air passenger markets 2019-39

Top 10 largest air passenger markets over time (ranked by passenger numbers, to/from and within each country)

- US
- China
- UK
- Spain
- India
- Japan
- Germany
- Italy
- France
- Indonesia

Source: IATA/Tourism Economics, Air Passenger Forecasts April 2021
In summary

COVID-19 likely to become endemic

Catalyst for advances in technology

Aviation needs support for recovery and growth
Thank you