COVID-19 How will the structure of the aviation sector be changed by COVID-19?

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30th June 2021



Previous demand shocks to air travel transitory impact Air travel still down 2/3 in COVID pandemic. Risk of long-lasting damage





Source: IATA Economics using data from IATA Monthly Statistics

Structural change in aviation driven by the supply -s ide Technology, liberalization & innovation drove unit costs down 90%



Source: IATA Economics using data from ICAO, IATA Statistics and OECD

Doubling city -pairs connected in the past 25 years Connectivity was damaged by COVID-19; 18% fall in city-pairs by year end





Source: IATA Economics using data from ICAO, IATA Statistics and OECD

Domestic air connectivity restored, risk for international China domestic air connectivity full recovery. International Q4 2021 - 50%

China domestic and international air connectivity



Source: IATA Economics using data from OAG and IATA's air connectivity measurement methodology

This demand shock has been uneven across markets Hardest hit has been international air travel. Air cargo much less affected.

Cargo tonne km (CTK) and passenger km (RPK), Jan 2020 = 100



Source: IATA Economics using data from IATA Monthly Statistics. Data is adjusted for seasonality.

Constraint to connectivity is border travel restrictions Border controls on air travel remain high in all regions



Source: IATA Economics analysis based on Oxford University data

Vaccination should allow markets to reopen in stages Rollout of vaccination is uneven, as is governments' approach to risk



Source: IATA Economics using forecasts from Airfinity Science Tracker https://science.airfinity.com/covid-19-science-macro as of 9 Apr 2021

International markets show air travel rises when allowed Impact of Europe's air corridors and removal of quarantine in Americas



Source: IATA Economics using data from IATA Monthly Statistics. Data is adjusted for seasonality.

Will 'Zoom' cause structural loss of business passengers? Long-haulservices and network business models supported by high yield

EXHIBIT 17: Summary of outlook for different business travel types



Source: Bernstein analysis

Source: Bernstein. The Future of Work. 12 April 2021

We estimate COVID-19 long-term loss of 2 years growth Strong rebound when border travel barriers removed but not full recovery

Global O-D passengers, billion



Source: IATA Economics using data from Tourism Economic/IATA Air Passenger Forecast, April 2021.

But 2020/1 revenue shock challenge as many costs fixed Difficult to avoid fleet and other 'semi-fixed' costs, so cash burn high

Global airlines revenue, USD billion



Source: IATA Economics Airline Industry Financial Forecast update, April 2021

More than US\$173bn airline losses in 2020 and 2021 Unprecedented losses for airlines, far higher than during Great Recession



Source: IATA Economics Airline Industry Financial Forecast update, April 2021

Government aid could distort airline competition But significant proportion is debt and some aid conditional on remedies



- 46% of aid is reimbursable or deferral of liabilities
- The remaining 54% also resulted in limited distortion of competition:
 - 1 Most of the equity financing (USD 36bn) was provided in the EU (subject to slot divestments), Asia-Pacific and Middle East
 - 2 Wage subsidies have been available to all airline employees employed in a given country
 - 3 Ticket tax reductions have primarily benefitted passengers



Source: IATA Economics analysis using public information and data from SRS Analyser, DDS, FlightRadar 24, TTBS, ACIC, Platts, Airline Analyst, annual reports

Survival at cost of huge rise in airlines' debt by end -2020 Essential deleveraging will absorb free cash flow for years limiting CAPEX



Source: IATA Economics using data from own estimates of Government aid, private debt estimates from Airfinance Journal, November 2020. Debt includes adjustment for operating leases.

Darwinian creative destruction may be absent

Failure and consolidation usually important part of adjustment to shock

Commercial airlines, worldwide exits and entries



Source: IATA Economics using data from Ascend.

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