**COVID-19 Has Forced Several Airlines Across the Globe to Restructure or Cease Operations**

Selected Airline Bankruptcies and/or Shutdowns From March 1 to Present

<table>
<thead>
<tr>
<th>United States</th>
<th>Outside the USA*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compass Airlines</td>
<td>Aeromexico (Mexico)</td>
</tr>
<tr>
<td>ExpressJet (pending 9/30)</td>
<td>Air Mauritius (Mauritius)</td>
</tr>
<tr>
<td>Miami Air International</td>
<td>Alitalia (Italy)</td>
</tr>
<tr>
<td>RavnAir Group</td>
<td>Avianca (Colombia)</td>
</tr>
<tr>
<td>Trans States Airlines</td>
<td>Comair (South Africa)</td>
</tr>
</tbody>
</table>

* UK-based Virgin Atlantic filed Chapter 15 in the United States – “a solvent restructuring of an English company”

Source: A4A research
New U.S. Cases of COVID Surged in Mid-June, Peaked on July 24

Source: World Health Organization and U.S. Centers for Disease Control and Prevention
The World Economy Is Projected to Shrink Nearly 4% in 2020
Revenues Will Take Even Longer to Recover

“The consensus among health experts is that the pandemic may now be near its peak in some regions, but COVID-19 will remain a threat until a vaccine or effective drug treatment is made widely available, which may not occur until the second half of 2021.”

S&P Global GDP Growth Forecasts* for 2020

<table>
<thead>
<tr>
<th>Region</th>
<th>GDP Growth Forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>-5.0%</td>
</tr>
<tr>
<td>China</td>
<td>-7.8%</td>
</tr>
<tr>
<td>Eurozone</td>
<td>-8.1%</td>
</tr>
<tr>
<td>UK</td>
<td>-4.9%</td>
</tr>
<tr>
<td>Japan</td>
<td>-5.0%</td>
</tr>
<tr>
<td>India</td>
<td>-7.0%</td>
</tr>
<tr>
<td>Brazil</td>
<td>-3.8%</td>
</tr>
<tr>
<td>World</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

Source: Standard & Poor's, “The Global Economy Begins A Slow Mend As COVID-19 Eases Unevenly, (July 1, 2020)
For U.S. Airlines, Passenger Volumes* Remain 65% Below Year-Ago Levels
In Week Ending Sept. 6 – Domestic Air Travel Down 62%, International Down 84%

7-Day Rolling Year-Over-Year Change (%) in Onboard Passengers*

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners) * Onboard ("segment") passengers

airlines.org
For U.S. Passenger Airlines, Worldwide Departures Remain 47% Below 2019 Levels
In Week Ending Sept. 6 – Domestic Flights Down 44%, International Flights Down 73%

7-Day Rolling Year-Over-Year Change in Aircraft Departures (%)

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)
Nationwide: Washington, DC / New York / Hawaii Are Seeing the Largest Air Service Reductions

% Change in Scheduled Passenger Flights: September 2020 vs. 2019 – All Airlines and Destinations

Source: Diio by Cirium published schedules (Aug. 28, 2020) for all airlines providing scheduled service to all destinations

Note: DC consists of Washington Reagan (DCA) and Washington Dulles (IAD)
Domestic U.S. Load Factor* Averaged 51% in Most Recent Week, Versus 80% a Year Earlier
Shift in Timing of Labor Day a Factor

Weekly Average Domestic Load Factor* (%)

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)

* Revenue passenger miles divided by available seat miles
In the Week Ending Sept. 6, Domestic U.S. Flights Averaged 61 Passengers*
Domestic Flights Averaged ~99 Passengers per Departure Over the Course of 2019

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)

* Onboard ("segment") passengers.
U.S. Airline Capacity Cuts Have Not Caught Up With the Severe Drop in Demand

7-Day Rolling Year-Over-Year Change (%) in Systemwide Traffic and Capacity*

Traffic (RPMs) | Capacity (ASMs)

Source: A4A member passenger airlines as reported to A4A on a consolidated company basis (including branded code share partners)

*RPM = revenue passenger mile; ASM = available seat mile
TSA Checkpoint Traveler Throughput* Down 62% Year Over Year
Daily Average Bottomed Out at 95K in April 11-17

Source: Transportation Security Administration

*TSA Traveler Throughput: 7-Day Moving Average (in Thousands)

Source: Transportation Security Administration

* U.S. and foreign carrier customers traversing TSA checkpoints; 2019 is year-ago same weekday
In July, TSA Checkpoint Volumes Declined Most in New York, Hawaii, DC, Vermont and MA/NJ

% Change in Traveler Throughput by U.S. State – July 2020 vs. July 2019

Source: TSA
Travel to the State of Hawaii* Is Almost Nonexistent – Down 93% Year Over Year

Air Travel to Hawaii: 7-Day Moving Average*

On March 26, the State of Hawai'i initiated a mandatory 14-day self-quarantine for all passengers arriving from out of state. (On April 1, it was expanded to include interisland travel.)

Source: Hawaii Department of Business, Economic Development & Tourism

* Daily passenger counts include returning residents, intended residents and visitors but exclude interisland and Canada passengers.
The Rapid Decline of Demand – Especially Business Travel – Has Pummeled Airline Revenues

YOY Change (%) in Operating Revenues*

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1Q20</th>
<th>2Q20</th>
<th>3Q20</th>
<th>4Q20</th>
</tr>
</thead>
<tbody>
<tr>
<td>(%)</td>
<td>(17.4)</td>
<td>(86.5)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: A4A analysis of reports by Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United

Total Operating Revenues* (Cents) per ASM

<table>
<thead>
<tr>
<th>Quarter</th>
<th>1Q</th>
<th>2Q</th>
<th>3Q</th>
<th>4Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* As reported on a consolidated company basis for systemwide operations
Sales* for Future Air Travel From U.S. Airports Remain Highly Depressed
Net Booked* Revenue Down 84% From 2019 Driven Largely by Evaporation of Business Travel

Source: Airlines Reporting Corporation (ARC) for most U.S. and foreign carriers for any flight to/from/within the United States

* Sales transactions minus refunds, for all future travel up to 330 days out.
Corporate Air Travel* Has Yet to Recover From the Steep Declines That Began in March

Source: Airlines Reporting Corporation (ARC)

* Results do not include sales of tickets purchased directly from airlines and are not net of refunds or exchanges.
Domestic U.S. Air Cargo Demand Continues to Outperform U.S.-International
Asia Up on Non-China Volumes

% Change YOY in Air Cargo* Between the United States and World Areas – U.S. and Foreign Airlines

Source: Bureau of Transportation Statistics, T1 (U.S. carriers) and T-100 International Market (U.S. and foreign flag carriers)

* Pounds of freight and mail enplaned in scheduled and nonscheduled services
Airlines Are Taking a Wide Variety of Self-Help Actions to Reduce Cash Burn

Selected Examples of Actions to Improve Cash Flow From Operations, Investing and Financing

» Making historic capacity cuts, parking and/or retiring older aircraft (and, in some cases, entire fleet types)
» Utilizing passenger planes on cargo-only missions, either belly-only or belly and main cabin
» Cutting executive compensation and implementing voluntary leave and early retirement programs
» Freezing hiring and non-essential spending (e.g., employee travel, consultants, events, marketing, training)
» Consolidating footprint at airport facilities (e.g., concourses); shuttering lounges; halting real estate projects
» Simplifying onboard product (e.g., food and beverage)
» Negotiating with vendors: cobranded credit cards, airports (i.e., zero-interest rent deferrals), regional airline partners (i.e., reduced block hours), fuelers, caterers, etc. to achieve relief on payment terms/timing
» Deferring aircraft deliveries and reducing non-aircraft (e.g., ground equipment, IT) capital expenditures
» Raising funds via capital markets: borrowing funds via unsecured or secured loans and/or selling stock
» Selling/mortgaging aircraft/engines/other assets
» Suspending capital return programs, including share repurchases and the payment of future dividends

Source: A4A and member companies
The Pandemic Has Taken a Material Toll on U.S. Airline Employment
Voluntary Reductions, Retirements, Job Changes, Employer Shutdowns and Other Factors at Play

<table>
<thead>
<tr>
<th>Carrier Universe</th>
<th>Scheduled U.S. Passenger Airlines</th>
<th>All U.S. Passenger and Cargo Airlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measure</td>
<td>FTEs* (000)</td>
<td>Headcount (000)</td>
</tr>
<tr>
<td>All-Time High</td>
<td>Jun-2001: 545.9</td>
<td>May-2001: 760.8</td>
</tr>
<tr>
<td>Post-2000 Low Point</td>
<td>Apr-2010: 376.7</td>
<td>Apr-2010: 562.3</td>
</tr>
<tr>
<td>Pre-COVID Peak</td>
<td>Mar-2020: 460.0</td>
<td>Feb-2020: 755.2</td>
</tr>
<tr>
<td>Latest Available Data Point</td>
<td>Jun-2020: 410.6</td>
<td>Jul-2020: 706.8</td>
</tr>
<tr>
<td>Change vs. Pre-COVID</td>
<td>(49.4)</td>
<td>(48.4)</td>
</tr>
</tbody>
</table>

Source: Bureau of Transportation Statistics based on payroll near the 15th of the month

* Full-time equivalents (FTE) = full-time workers plus 0.5 * part-time workers
Over the Past Two Decades, Job Gains/Losses Have Mirrored the Industry’s Financial Health
From March to June, U.S. Passenger Airline Employment Fell by Nearly 50,000 FTEs

U.S. Scheduled Passenger Airline Full-Time Equivalent Employees (000s)

Source: Bureau of Transportation Statistics for scheduled U.S. passenger airlines (i.e., all that report scheduled passenger revenue)
Twenty-Nine Percent of the U.S. Passenger Airline Fleet Remains Idle
Peak Occurred in Mid-May; Trough Occurred in Mid-August

Source: masFlight

U.S. Passenger Airlines: Idled Aircraft*

<table>
<thead>
<tr>
<th>Date</th>
<th># of Aircraft</th>
<th>% of Active Fleet</th>
</tr>
</thead>
<tbody>
<tr>
<td>31-Dec</td>
<td>300</td>
<td>5</td>
</tr>
<tr>
<td>31-Jan</td>
<td>353</td>
<td>6</td>
</tr>
<tr>
<td>29-Feb</td>
<td>316</td>
<td>5</td>
</tr>
<tr>
<td>31-Mar</td>
<td>1,171</td>
<td>19</td>
</tr>
<tr>
<td>30-Apr</td>
<td>3,002</td>
<td>49</td>
</tr>
<tr>
<td>18-May</td>
<td>3,204</td>
<td>52</td>
</tr>
<tr>
<td>31-May</td>
<td>2,991</td>
<td>49</td>
</tr>
<tr>
<td>30-Jun</td>
<td>2,403</td>
<td>39</td>
</tr>
<tr>
<td>31-Jul</td>
<td>1,874</td>
<td>30</td>
</tr>
<tr>
<td>15-Aug</td>
<td>1,752</td>
<td>28</td>
</tr>
<tr>
<td>30-Aug</td>
<td>1,769</td>
<td>29</td>
</tr>
</tbody>
</table>

* Idle defined as inactive for the previous seven days

Source: masFlight
Lower Jet-Fuel Prices Have Provided Some Cost Relief, But Rising Again With More Flying

Sources: Energy Information Administration (EIA) Weekly Petroleum Status Report
Decline in Demand for Air Transportation Has Meant Greatly Reduced Jet-Fuel Consumption

Source: Bureau of Transportation Statistics F41 Schedule P12A, all services

% Change YOY in U.S. Airline Industry Fuel Consumption

Domestic | International | Systemwide
---|---|---
Jan: 2.4 | | |
Feb: 2.5 | | |
Mar: (22.4) | (65.4) | (66.3)
Apr: | (60.7) | |
May: | | |
Jun: | | |
Jul: | | (50.8)
Aug: | | |
Sep: | | |
Oct: | | |
Nov: | | |
Dec: | | |

Source: Bureau of Transportation Statistics F41 Schedule P12A, all services
U.S. Airlines Are Facing an Elevated Breakeven Load Factor Throughout 2020
In April-September 2020, Even a Load Factor of 100% Would Not Suffice

Breakeven Load Factor* (%)

Source: Wolfe Research estimates and filings of Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United

* Calculation excludes CARES Act payroll support program funds
Collectively, U.S. Airlines Expect Cash Burn to Persist Through Winter 2020/2021
Given Lack of Demand (Especially Business Travel), Survival Depends Primarily on Cost Reduction

Average Monthly Cash Burn* (in Billions), U.S. Passenger Airlines

Source: A4A and various airline equity analysts

* Ticket and cargo sales - cash operating expenses - cash refunds - capital expenditures - interest expense – repayment of debt

1Q20 2Q 3Q 4Q 1Q21

- Weak Asia/Europe demand
- Surging refunds (COVID)
- Front-loaded CapEx
- Debt service ~$3.4B

1Q20

2Q

- Sales plunge systemwide
- Refunds reach ~$5B
- CapEx falls to ~$1B
- Rising debt service

3Q

- Depressed ticket sales
- Refunds remain elevated
- Rising debt service

4Q

- Debt service → $4B

1Q21

Source: A4A and various airline equity analysts
Airlines Are Coping by Taking on Billions in Debt
Total Debt Projected to Increase ~50% From End of 2019 to End of 2020

“For 2021 and beyond, we anticipate a major deleveraging cycle as the industry will have no choice but to address its significant debt load.” (Deutsche Bank, “Airline Industry Update,” July 1, 2020)

Source: A4A, equity analysts and filings of Alaska, Allegiant, American, Delta, Hawaiian, JetBlue, Southwest, Spirit and United
In 2020, S&P Has Lowered Its Credit Ratings on Eleven U.S. and Canadian Airlines*
Ratings Actions Taken to Reflect Weakened Financial Condition and Heightened Risk

* Publicly traded U.S. carriers in S&P Global coverage universe

Source: Standard & Poor's
“On 8 June, the…National Bureau of Economic Research made official what we already knew: February marked the end of the longest…US economic expansion on record…” (June)

“[W]e assume a vaccine becomes available by mid-2021, allowing the economy to accelerate then. We project growth of 3.1% in 2021 and 4.1% in 2022. **GDP surpasses its previous peak in the spring of 2022, and the economy regains full employment late in 2023…”** (August)
After 9/11 and the Global Financial Crisis, It Took Years for Air-Travel Demand to Recover
Passenger Volumes Took More Than Seven Years to Recover From the Financial Crisis/Oil Spike

Source: A4A Passenger Airline Cost Index and Bureau of Transportation Statistics (Form 41 Schedule T1)

* Passengers enplaned systemwide on U.S. airlines in scheduled and nonscheduled services
We Are Unlikely to See a Return to 2019 Passenger Volumes Before 2023-2024
2021-2022 Clouded by Uncertainty re: State of Pandemic, Vaccination/Therapeutics, Economy

Estimated U.S. Airline Industry Passenger Traffic Change (%) vs. 2019 Levels

Source: A4A and various airline equity analysts
After 9/11 and the Global Financial Crisis, it took years for air-cargo demand* to recover. Cargo volumes took 10 years to recover from the financial crisis/oil spike.

Source: Bureau of Transportation Statistics (Form 41 Schedule T1)

* Cargo revenue ton miles (RTMs) flown on U.S. passenger and cargo-only airlines in scheduled and nonscheduled services.
Key Points

» In the first two months of 2020, operating revenues grew more than 5% – we were on our way to another record.

» After burning ~$10B per month of cash in late March, U.S. airlines are burning over $5B per month in summer 2020.

» Air travel took 3 years to recover from 9/11 and 7+ years from the global financial crisis. Air cargo took 10 years post-GFC.

» When traffic returns, low-yield (VFR, then vacationers) is likely to return faster than high-yield (corporate) and international, with implications for the pace of revenue recovery, the need for cost reduction/containment, and the return to profitability.
  ▪ Businesses first cut back hiring and travel and entertainment; in a recovery, those are the last things they restore. These travelers are essential due to how often they fly and the cabins/fares they purchase, among other reasons.

» People will be reluctant to travel – or even to book travel – until there is a strong degree of confidence that the health crisis and associated risks are behind us. The COVID-19 global pandemic constitutes a black-swan public health crisis that will only be solved once an effective vaccine is developed, but vaccines usually take a year or longer to develop.

» In addition to concerns about the spread of the virus and the associated restrictions on the movements of citizens, businesses and consumers are facing a sharp global economic downturn of unknown duration.
  ▪ The economic and consumer psychology effects of COVID-19 are deep and global.
  ▪ High unemployment and reduced HHNW worth + strained government coffers = curtailed travel budgets for households and organizations.

» Once demand has recovered, it will take years for airlines to retire the newly accumulated billions of dollars of debt and to address the sizable associated interest expense, limiting their wherewithal to rehire and reinvest.
### Aviation Is in the Early Innings of a Multiyear, Multistage Recovery

<table>
<thead>
<tr>
<th>Contain the Virus</th>
<th>Stabilize the Economy</th>
<th>Increase Efficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Recovery</td>
<td>Revenue Recovery</td>
<td>Financial Recovery</td>
</tr>
<tr>
<td>Reduce Cash Burn</td>
<td>Restore Profitability &amp; Rebuild Margins</td>
<td>Repair Balance Sheets</td>
</tr>
</tbody>
</table>

**Aviation-Government Collaboration on Health/Facilitation/Safety/Technology**

**Cost-Reduction Initiatives + Business Model Adaptation + Debt Reduction**

Airlines for America
We Connect the World

airlines.org