

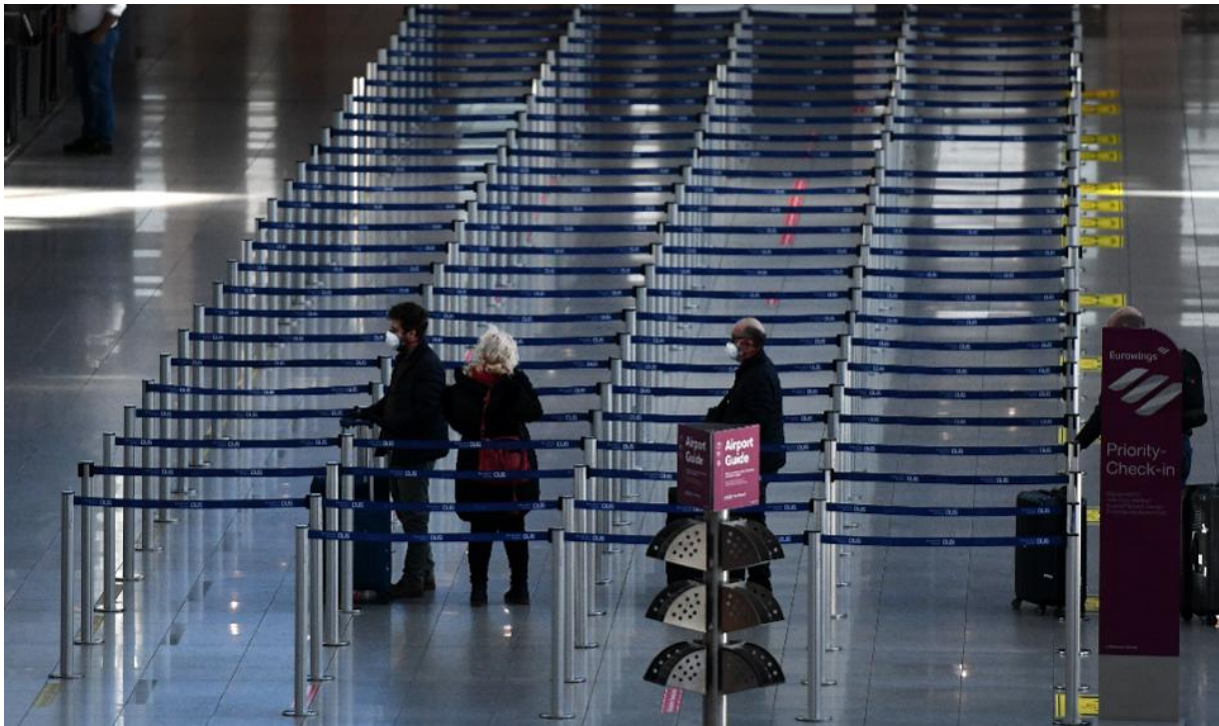
# How COVID-19 Is Transforming Global Aviation's Outlook



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COVID-19 has had a bigger impact on global aviation than any other crisis since 2000 (Photo by Ina ... [+] AFP VIA GETTY IMAGES)

*By Tom Stalnaker and Khalid Usman*

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Except for healthcare, there are few industries more severely affected by the latest coronavirus pandemic than global aviation. Airlines around the world are confronting the challenge of a sharp decline in demand, complicated by almost total uncertainty about when the virus will be under control and travel can return to normal.

Many of the hardest hit countries, such as the United States and Italy, have seen ticket sales plummet. In Italy, in recent weeks, the drop exceeded 80 percent at times.

In the US, failure to conduct early, broadscale testing and to respond more aggressively have led to a rapid spread of the virus. The number of confirmed US cases of COVID-19 — the name for the disease caused by the coronavirus — topped 213,000, as of April 2, according to the US Centers for Disease Control and Prevention. That's several times higher than the official COVID-19 count in China, where the population is four times the size of the US. *[UPDATE: As of April 12, confirmed cases in the US were more than 525,000 and deaths exceeded 20,000, according to the CDC.]*

The collapse in demand has led major airlines worldwide to announce severe cost-cutting measures, request government assistance, and, in the case of certain airlines, ground fleets. Many airlines are seeing more cancellations than bookings. Unless the virus is effectively contained within the next couple of months, we expect the depressed demand environment and reduced global revenue passenger kilometers (RPKs) — a widely accepted metric of air travel demand — to persist well into 2021.

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## **When will it end?**

Containing the coronavirus is proving a challenge. While China — COVID-19's country of origin — reported zero new cases on March 18, it saw an uptick in new cases in the latter part of the month, almost entirely connected to people arriving from other countries. In response, on March 27, China banned virtually all foreigners from entering the country. It now requires returning Chinese nationals to go into a two-week quarantine. The government also reduced the number of international flights.

This setback is an example of why a recovery in aviation may take longer than many had hoped. Travel may not return to normal until the virus is conquered worldwide and international borders are reopened.

The Pew Research Center estimates that three billion people live in countries where borders have been completely closed to tourists, business travelers, and others who are neither citizens nor residents; 93 percent of the world's population lives in countries with some cross-border restrictions on people who aren't citizens or residents. Like China, almost all nations now require citizens and residents to undergo some form of quarantine after arriving.

## **Rising costs**

On March 23, the International Air Transport Association (IATA) increased its global estimate on lost passenger airline revenue from the latest strain of coronavirus to \$252 billion for 2020. That was up from an estimated \$113 billion on March 5 and \$29 billion two weeks before that. The new number would put revenue in 2020 44 percent lower than 2019.

IATA also estimates that RPKs worldwide could be expected to be down as much as 38 percent this year versus 2019. It is a truly global shock, with no region left unscathed from the virus and global economic disruption.

Airlines around the world will need as much as \$200 billion in government assistance to survive, IATA now predicts. As airlines weigh financial options to bridge the demand shock, most find themselves with only enough cash on hand to make it through two months. Many have negotiated lines of credits to help them move forward.

Given the global nature of the COVID-19 pandemic that threatens to throw many economies into recession — including the world's biggest, the US — it could take passenger air travel demand anywhere from several months to two years to recover to 2019 levels. This depends on multiple factors including the speed of virus containment, restoration of confidence in air travel, and a return to normal economic and social activity.

## **Cuts in capacity**

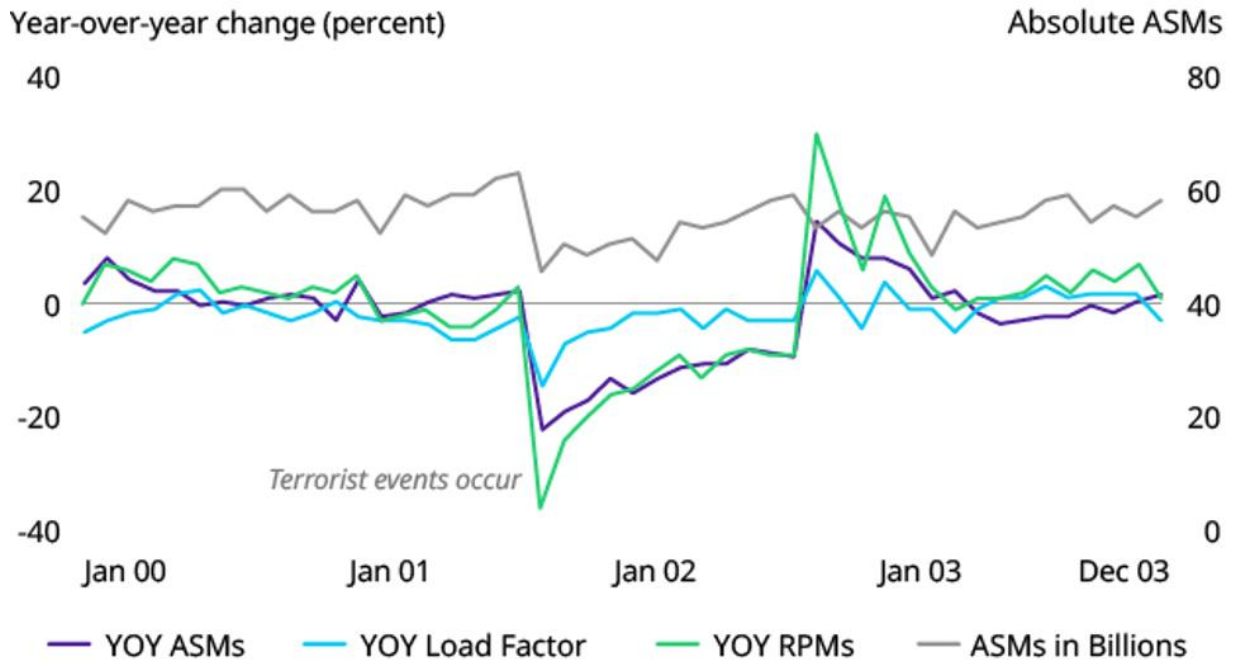
To cope with the impact of COVID-19, airlines have adopted a pragmatic strategy of reducing capacity in line with falling travel demand to certain geographies that are affected. Global capacity was down 19.4 percent in March and is expected to fall close to 60 percent in April, according to the OAG, a provider of digital flight data and analytics. In the US, published capacity reductions, as of April 2, indicate a decline of 49 percent in April — a number that has been rising in recent days and will likely move higher, as carriers make weekly adjustments.

During 9/11, SARS, and the 2008 financial crisis and 2009 global recession — which also included the first few months of the H1N1 pandemic — demand measured in RPKs dropped between 15 and 30 percent in the affected regions. The in-service fleet contracted quickly in response to the crises, dropping between three percent and 4.5 percent over a two-to-four-month period. The recovery period for these crises lasted about a little more than four months for every percentage-point drop in the rate of growth of gross domestic

product. Ultimately, in the case of 9/11 and the 2008 crisis and ensuing recessions, demand took 12 to 18 months to recover in the affected markets.

During the 2003 SARS outbreak, demand on routes between Hong Kong and the US collapsed – with RPKs falling more than 80 percent; it took more than six months to recover. While Hong Kong suffered the second-highest death toll from SARS worldwide, its officials used what they learned during SARS about the need for early testing and social distancing to limit the impact of COVID-19.

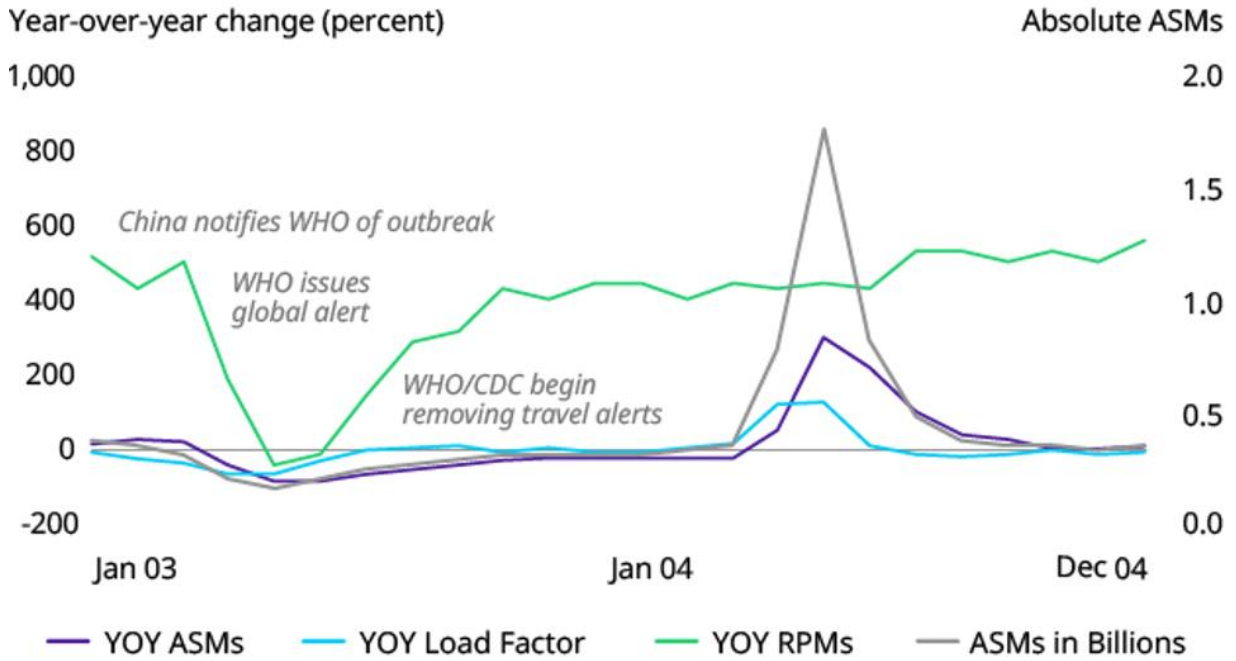
**9/11/2001: Immediate impact event followed by gradual recovery  
(Domestic US results)**



Note: YOY = year-over-year, ASMs = available seat miles, LF = load factor, RPMs = revenue passenger miles, Source: Planestats.com/T100

The impact of the 9/11 terrorist attacks on US aviation OLIVER WYMAN

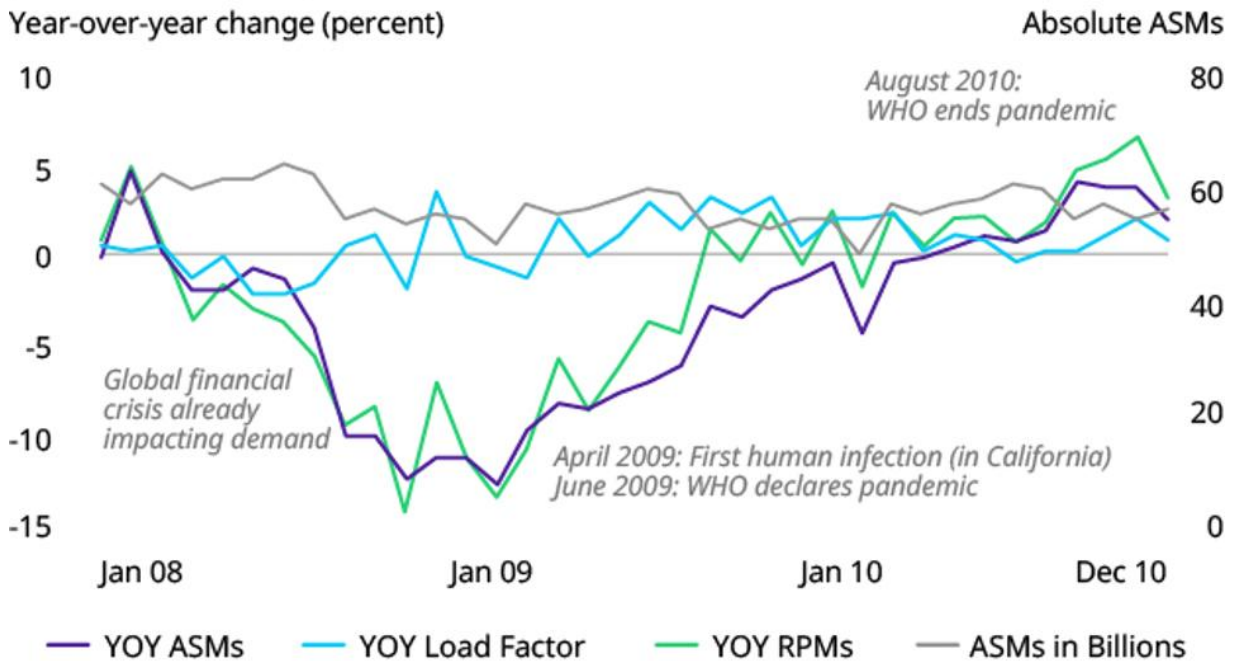
## SARS: Immediate and geographically-focused impact event followed by recovery (US-Hong Kong results)



Note: YOY = year-over-year, ASMs = available seat miles, LF = load factor, RPMs = revenue passenger miles, Source: Planestats.com/T100

The impact of the 2003 SARS outbreak on US aviation OLIVER WYMAN

## Global Economic Crisis and H1N1: Gradual impact followed by gradual recovery (Domestic US results)



Note: YOY = year-over-year, ASMs = available seat miles, LF = load factor, RPMs = revenue passenger miles, Source: Planestats.com/T100

The impact of the 2008 global financial meltdown, recession and the H1N1 pandemic on US aviation OLIVER WYMAN

## Shrinking global fleet

The contraction of the global commercial in-service fleet because of COVID-19 is already more pronounced than in any of the prior crises. A total decline in fleet size of over 20 percent is expected by the end of May, with the highest reductions in regions where the virus has already spread rapidly — Western Europe, Asia-Pacific, China, and North America. But that number is expected to rise globally for the year.

Like previous shocks to aviation, many aircraft that are not already in storage are expected to see lower utilization. A period of years may be required to recreate the close to 28,000-aircraft fleet that existed at the beginning of 2020, even if travel demand returns at a quicker pace than currently expected.

Despite record order books, the financial uncertainties caused by COVID-19 are expected to compel airlines to defer or cancel new aircraft deliveries. In the months after 9/11, new aircraft orders decreased, cancellations increased, and the pace of commercial deliveries dropped throughout 2002 and 2003. As a result of COVID-19, we expect a more significant and immediate reduction, with operators deferring or even cancelling deliveries where possible until at least the third quarter of 2020 and possibly longer. This will include some of 737 MAX aircraft delayed by the 2019 grounding of the jet by regulatory agencies.

### **China opens for business**

China and other parts of Asia have had relative success battling the virus, using extensive testing, lockdowns, and tough restrictions. After watching air travel demand sink more than 80 percent at the peak of the infection in mid-February, Chinese domestic travel has begun to rebound in March, with bookings down by only 63 percent mid-month and domestic passenger yields stabilizing, according to IATA. Factories and businesses have reopened, and China is pushing for a return to economic normalcy.

The recent collapse of oil prices could help both airlines and the global economy recover faster. Jet fuel is one of the biggest cost line items for any airline, and jet fuel prices are now down more than 50 percent compared with the second quarter of 2019.

Our energy practice expects the price of crude to stay depressed for at least a year and potentially 18 months because of six months-worth of excess crude being held in storage depressing prices even with production cuts by Saudi Arabia and Russia. On April 2, markets rallied after President Trump claimed Russia and Saudi Arabia were ready to cut production. He said he would broker a deal at a summit he would organize.

### **Uneven recovery**

The COVID-19 pandemic is proving to be more difficult to navigate than prior shocks because of the significant increase in global travel over the past decade. Given that virus containment and economic recovery will be uneven, it will be vital to monitor developments in countries where the virus appears to be contained and detect early signals of rebound amid an otherwise noisy environment.

Moving forward, aviation — and the rest of the economy — will need to be agile. When making network and capacity decisions, airlines must stand ready to pivot quickly, especially given the industry’s increasingly strained financial position. They should consider the probability of different recovery scenarios and understand the financial implications and risks behind each move they make.

These are unprecedented times for the industry. Air transportation systems are critical for the vitality of economies, and how governments and airlines collectively manage both the crisis and recovery will set the future course of the industry for the foreseeable future.

*Rory Heilakka, Andrew Buchanan, Grant Alport, and Aaron Taylor contributed insights and research to this article. Rory and Grant are principals in the transportation practice. Andrew is a vice president, and Aaron is a senior manager in charge of Oliver Wyman’s [PlaneStats](#) database and the [PlaneStats e-newsletter, Now Arriving](#).*



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