



# LOOKING FORWARD TO TOMORROW'S WORLD SURGE IN DEMAND FOR AIR FREIGHT RAISES AVIATION'S OUTLOOK, BUT FOR HOW LONG?

by Chris Jackson

## *Takeaways*

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- Material growth of the global freighter fleet is necessary to meet demand
- Growth of e-commerce and emerging market economies are key drivers
- Environmental issues will have an increasing impact on the air freight industry



**T**he air cargo industry has proven itself to be remarkably resilient to the impact of the COVID-19 pandemic. Indeed, the pandemic has shone a spotlight on the air cargo industry and its critical importance to the aviation industry as a whole and the global economy more generally. Many players in the industry who previously paid little attention to air cargo are now looking to it as a long-term opportunity to diversify and invest in a growing sector.

### **COVID-19 reduced demand for passenger flights but stimulated air freight demand**

COVID-19's impact on the aviation industry is well documented. At the peak of the pandemic in May 2020, the weekly flight frequency for global passenger airlines declined by about 70 percent (as compared with data for May 2019).

Before the pandemic, much of the world's air cargo (around 54 percent) was transported in the hold of passenger aircraft (so-called 'belly cargo'). Accordingly, and with such a large proportion of the global passenger aircraft fleet not being operated, the air cargo industry has been significantly impacted.

Although cargo operators and freight forwarders have continued to operate freighter aircraft, many of these aircraft are hub-focused and cannot access the same extensive route network as commercial passenger aircraft. As a result, the air cargo industry has also lost the convenience and efficiency offered by transportation via belly cargo.

Coupled with the decline in air cargo capacity, the pandemic has itself precipitated an increase in the volume of cargo requiring transportation. The rapid transportation of pharmaceuticals, medical equipment, personal protective equipment, etc., has been critical in the global fight against the pandemic. However, this spike in demand for air cargo capacity will (hopefully) be relatively short-lived; although there is every likelihood that similar humanitarian crises will occur in the future.

Another important factor to bear in mind when considering the demand for air cargo capacity is the growth of e-commerce. The pandemic is believed to have hastened the global transition to e-commerce (by as many as five years, according to IBM) and thereby increased the volume of goods requiring transportation. This is likely to have a long-term impact on the air cargo industry.

E-consumers expect speed, predictability of delivery times, and visibility. In the context of cross-border e-commerce, this means that air cargo logistics providers are very well positioned to take advantage of this growing sector of the market.

As a result of present circumstances, many airlines have redeployed their passenger aircraft as “freighters”. This has enabled those airlines to take advantage of the buoyant air cargo market to mitigate the massive losses caused by the drop in passenger ticket sales. Unlike the conversion of a passenger aircraft to a freighter, the conversion to a ‘freighter’ is comparatively low cost and offers the airline the flexibility of converting the aircraft back to passenger configuration as demand returns.

A white paper issued by IATA in March 2019 (The Cargo Facility of the Future), forecasted an annual increase in the air cargo market of around 4 percent in the next 20 years. However, in a post-COVID world, this forecast would seem conservative. Even as the impact of the pandemic subsides, air cargo demand remains strong and we have every reason to believe that this will continue for the foreseeable future.

The bottom line is that with the continued growth in the volume of global air freight, and as ‘freighter’ aircraft are returned to passenger-carrying duties, the air cargo market desperately requires increased capacity. Unfortunately, slots for passenger-to-freighter conversions, and the delivery of new freighter aircraft, can’t currently keep up with demand.

### **The importance of air freight in supply chain logistics**

With the growth of e-commerce, expedited shipping has become crucial to growing global trade. While only 2 percent to 3 percent of global trade moves by air, that small percentage represents around 35 percent of global trade by value.





# The primary benefits of air cargo are speed and reliability.

## *Speed*

With vastly reduced shipping times for air cargo compared to popular alternatives, such as trucks and ships, companies around the world have access to supplies that were once impossible for them to access due to time and/or price constraints.

This has allowed them to reduce prices and make their goods more accessible to the general population. Companies have therefore been able to boost profits by taking advantage of these competitive prices, not only allowing for cheaper consumer goods but also offering more opportunities to enter other lucrative industries.

Coupled with the economic benefit to companies outlined above, the modern consumer has also benefitted from the growth of air cargo. E-commerce has increased the necessity for speed and convenience. The modern consumer expects their purchased products to be delivered almost instantaneously (if not the next day or overnight, within a couple of days) and air cargo is often the only way of achieving this.

## *Reliability*

Air cargo is the safest mode of transport, with accidents resulting in the loss of cargo happening far less than with transportation via road or sea.

Airlines have secure handling measures in place to ensure staff or third parties do not interfere with cargo. In conjunction with technological advances in cargo handling such as freight tracking, air cargo provides a safe and secure mode of transport for goods and products.

The speed and reliability that air cargo offers means that this will remain the preferred mode of transportation for time-sensitive, higher-value goods. It's no surprise, therefore, that air cargo is overwhelmingly used for the transportation of equipment, consumer electronics, pharmaceuticals, healthcare products, and retail products.

## Trends changing the shape of the air freight industry

### *The COVID-19 pandemic*

As noted above, the COVID-19 pandemic has given rise to a material reduction in air cargo capacity. As a consequence, shipping rates have risen. The use of “preighters” and the increase in passenger-to-freighter conversions, as well as the increase in production of freighter aircraft by the manufacturers, are easing capacity constraints. However, shipping rates likely will remain volatile in the short-to-medium term (at least until the global passenger fleet – and particularly wide-body aircraft – return to the skies).

### *Economic growth of the emerging markets and e-commerce*

The rapid economic growth of the emerging markets (particularly China), and e-commerce more generally, is another major factor giving rise to the constraints in air cargo capacity. Unlike the impact of the COVID-19 pandemic on the air cargo sector, this is a longer-term issue that will need to be addressed through growth in the global fleet of freighter aircraft.

### *Supply chain diversification and the increase in regional air cargo*

More companies are seeking to diversify their supply chains to reduce cost, mitigate risk, and, ultimately, simplify supply chain management. In particular, with rising labor costs in countries like China, together with increases in shipping rates, the economic benefits of offshoring manufacturing make less commercial sense than they once did. This, combined with the modern consumer’s desire for higher quality products and short lead times, has increased the prevalence of onshoring and nearshoring. Consequently, many U.S. businesses, for example, have transferred manufacturing from China to places like Mexico and Canada. As a result of this, regional air cargo traffic is expected to increase.

### *Omni-channel logistics*

Omni-channel logistics enables businesses to tailor how their products are purchased and delivered to meet the needs of the modern consumer. Consumers expect to find the products they want both in store and online, to use technology to make purchases, and to have their purchases delivered to their doorstep within a couple of days. Accordingly, airlines are seeing a need to look beyond traditional airport-to-airport service. Now, airlines and other stakeholders see opportunities in providing seamless end-to-end services. For example, in the United States, Amazon is expanding its Amazon Air Services and combining it with its ground transport services.

### *The use of cargo drones*

For logistics companies, the first and last mile constitute the most expensive and least efficient part of a delivery. Typically, this requires significant manpower, vehicle numbers, and time. Further, goods are increasingly required in remote areas with limited airport facilities, which presents further challenges for logistics companies.

These issues have therefore contributed to the rapid progress of drone technology. Wing, the cargo drone specialist owned by Google parent Alphabet, achieved a breakthrough in this respect in April 2019. It was awarded the first-ever U.S. Federal Aviation Administration air carrier certificate licensing unlimited commercial deliveries using cargo drones. The license made no restrictions on flights over crowds or urban areas – the first time this had been granted outside a pilot project.



### *Environmental considerations*

All sectors of the aviation industry are under scrutiny from an environmental perspective, but particularly the air cargo sector because it has historically used older, more polluting aircraft. Further to this, transport by air cargo causes far more environmental harm, including greenhouse gas emissions, than other modes of transport. Air freight produces immensely more CO<sub>2</sub> equivalent emissions per ton-kilometer than transport by rail or sea. Accordingly, many air cargo carriers are now looking into the use of sustainable aviation fuels and investment in more efficient aircraft and carbon offsets. It is inevitable that the air cargo industry will look to become greener, which will change the make-up of the global air cargo fleet.

### **The future of air freight in the context of the aviation industry**

According to Boeing's World Air Cargo Forecast (2020-2039), the global world freighter fleet will grow by more than 70 percent over the next 20 years. Boeing predicts that by 2039, 2,610 freighters will be delivered, with approximately half replacing retiring aircraft and the remainder needed to meet projected traffic growth. More than one-third of these deliveries will be new wide-body cargo aircraft; nearly two-thirds of the deliveries will be conversions from passenger aircraft.

The majority of those aircraft deliveries will require some form of financing. Accordingly, in addition to the opportunities that the growth of the air cargo market presents to airlines, logistics companies, manufacturers, and MROs, there will be increased opportunities for the finance and leasing community to get in on the action.

### **Author**



#### **Chris Jackson**

Partner  
London  
+44 (0)20 3116 3477  
christopher.jackson@reedsmith.com

Chris acts for lessors, banks, private equity funds and airlines in relation to domestic and cross-border asset finance and leasing transactions. Chris has particular experience in aircraft and engine leasing and trading, structured finance and sales finance. Chris also advises on the procurement of aviation assets and on after-market support programs provided by manufacturers.

Identified as a leading individual in the aviation finance and leasing market, Chris is recognized for his "in-depth understanding of the aircraft leasing and finance business" (*The Legal 500 UK*, 2017) and his "sensible and commercial" approach to matters (*Chambers & Partners UK*, 2018).