

Trade and COVID-19 Guidance Note

FACILITATING AIR FREIGHT – POLICIES AND ACTIONS¹

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KEY MESSAGES

- Air connectivity is at the center of the COVID-19 crisis: global air cargo capacity has dropped substantially since most commercial passenger flights have been cancelled or grounded worldwide;
- Air cargo operators are trying to satisfy the existing demand, and also support pandemic-related relief efforts, mostly with freighters, and also with repurposed passenger widebody aircrafts (carrying freight in the main cabin);
- The economic impact for developing countries is likely to be felt directly through the loss of cargo capacity and skyrocketing air cargo rates, as well as cascading effects from all-cargo operations;
- Governments should coordinate and work with industry to ease regulatory and operational restrictions on air cargo operations to ensure market access, essential operations and timely turnaround at airports and hubs;
- Many passenger airlines (responsible for hauling half of air cargo globally) will require financial support or restructuring, in a context of prolonged revenue starvation and assets' immobility;

AIR CARGO IN THE COVID-19 PANDEMIC

The evolving COVID-19 crisis is taking a huge toll on aviation services worldwide. The travel bans in effect and the sharp drop in demand have resulted in the grounding of passenger flights almost shutting down the global air transport market and significantly disrupting cross-border trade carried in passenger widebody aircraft (Figure 1a and 1b)². Only 20 percent of the widebody passenger capacity is still flying today. And since about half of air cargo globally travels in commercial scheduled passenger flights—mostly in the belly hold compartments of widebody aircrafts—hence daily international cargo capacity has dropped by approximately 35-40 percent in March 2020, as compared to 2019. Conversely, all-cargo operations (airlines using freighters and integrator carriers)³ have continued to serve and even increased capacity between early February and end-March 2020 (Figure 2)⁴. However, the overall market drop in capacity is creating upward pressures in cargo rates, that have doubled or more between January and March 2020 (Figure 3)⁵. The upward movement on cargo rates is probably also related to lower levels of contestability as passenger airline competitors are offering only minimal levels of belly capacity.⁶

¹ Trade and COVID-19 Guidance Notes are prepared by the Global Trade and Regional Integration Unit of the World Bank to provide practical measures governments can implement to mitigate the impact of the COVID-19 virus outbreak. For further information about this note please contact Daniel Saslavsky (Economist; Dsaslavsky@worldbank.org) and Cordula Rastogi (Senior Transport Economist; crastogi@worldbank.org), or Antonio Nucifora (Practice Manager, Global Trade and Regional Integration Unit, anucifora@worldbank.org). We would like to thank Caroline Freund, Antonio Nucifora, and the global trade team for their comments and inputs. A full list of Trade and Covid-19 briefs is available at <https://www.worldbank.org/en/topic/trade/brief/trade-and-covid-19>

² Air transportation's share of world trade in goods is only 2 percent measured by weight but more than 40 percent by value. In widebody passenger aircraft, namely Boeing 747, 767, 777, 787, and Airbus 330, 340, 350 and 380, cargo travels in the lower-deck compartments known also as bellyhold ("belly") compartments, that can offer between 12 and 25 tons worth of cargo carrying capacity. Meanwhile, freighters typically serve high-density trade lands (transatlantic, EU-China, and US-China markets) where volumes are always substantial.

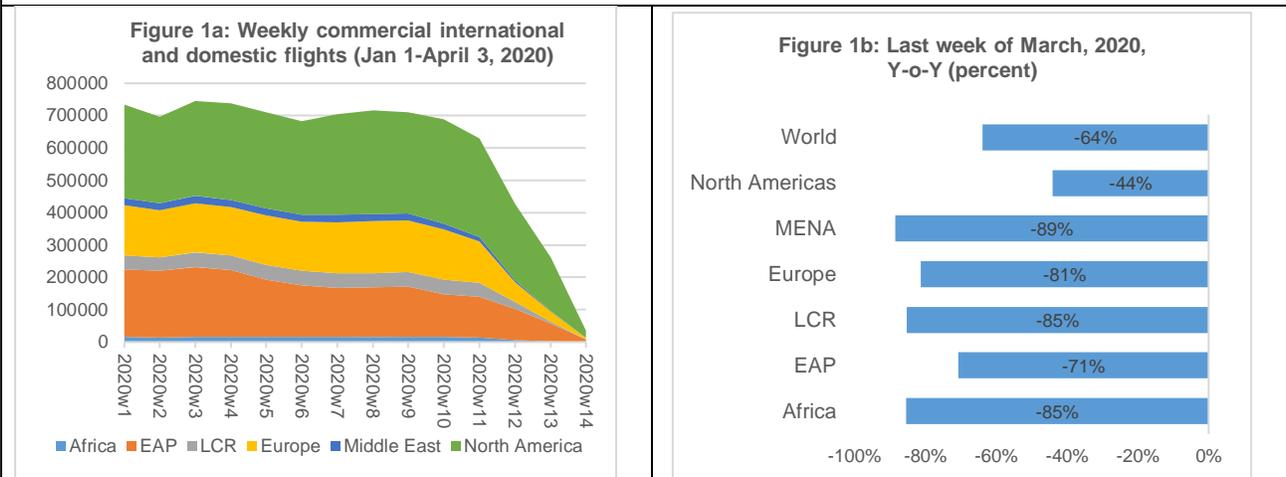
³ Freighter operators include Combination carriers that operate both passenger aircraft and freighters (e.g. Lufthansa) and all-cargo airlines that exclusively operate freighters (e.g. Cargolux, Atlas Air). Integrator carriers (UPS, Fedex, TNT, DHL) are vertically integrated operators that operate their own fleet of freighter aircraft, also act as forwarders, and providers of value-added logistics services, including last-mile delivery.

⁴ This refers to global daily international available cargo capacity.

⁵ Westbound movements, as in China-US, Europe-US and China-Europe have doubled or more in the last two weeks, to compensate the lack of capacity caused by grounded passenger widebodies.

⁶ Preliminary analysis shows increasing market concentration (Herfindahl) especially for trade lanes from developing countries.

Figure 1a and 1b: Evolution of global weekly commercial flights



Source: World Bank Group based on FlightRadar24.
Note: Includes regular and charter, passenger and cargo.

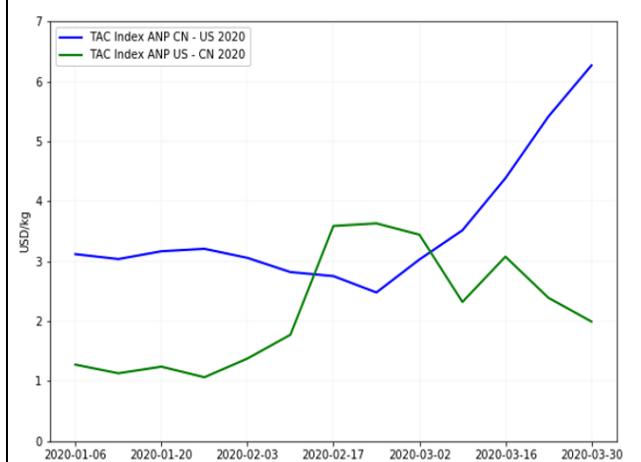
Source: World Bank Group based on FlightRadar24.
Note: Includes regular and charter, passenger and cargo.

Figure 2: Daily international cargo capacity, February – March 2020 (Thousand Tons)



Source: World Bank based on Flight Radar 24.
Note: dotted lines are 7-day moving average of daily capacity.

Figure 3: Air cargo rates (USD/kg)



Source: TAC Index - Air Cargo News:
<https://www.aircargonews.net/data/airfreight-rates-continue-to-increase/>
Note: Blue denotes China-US trade lanes and green US-China trade lanes.

The effects of the crisis are felt both in developed as well as developing countries. The reduction in uplift capacity is particularly acute in certain trade lanes, like Latin America and Africa to Europe. Main trade lanes (EU-China, TransAtlantic, US-China) are also about 50 percent below recent levels. Given the hub- and spoke nature of passenger aviation networks, individual route capacity cuts have system-wide effects, especially for developing countries, that typically would be served by a lesser number of non-stop flights to/from their key trading markets. On the other hand, year-on-year air cargo volumes dropped by 23 percent in March 2020, as a direct consequence of the COVID-19 crisis.⁷

Air cargo is important in the fight to slow the spread of COVID-19 where the fast delivery of supplies prevails over cost issues. A plethora of anecdotal cases illustrate the role of the industry for rush delivery of medical equipment and goods. In the past weeks, reports indicate that over 1.5 billion face masks are to be distributed across Europe, Africa and the United States, mostly coming from China.⁸ Along the same lines,

⁷ Expressed in chargeable weight. Source: <https://www.aircargonews.net/data/clive-data-services-airfreight-volumes-fell-23-in-march/>

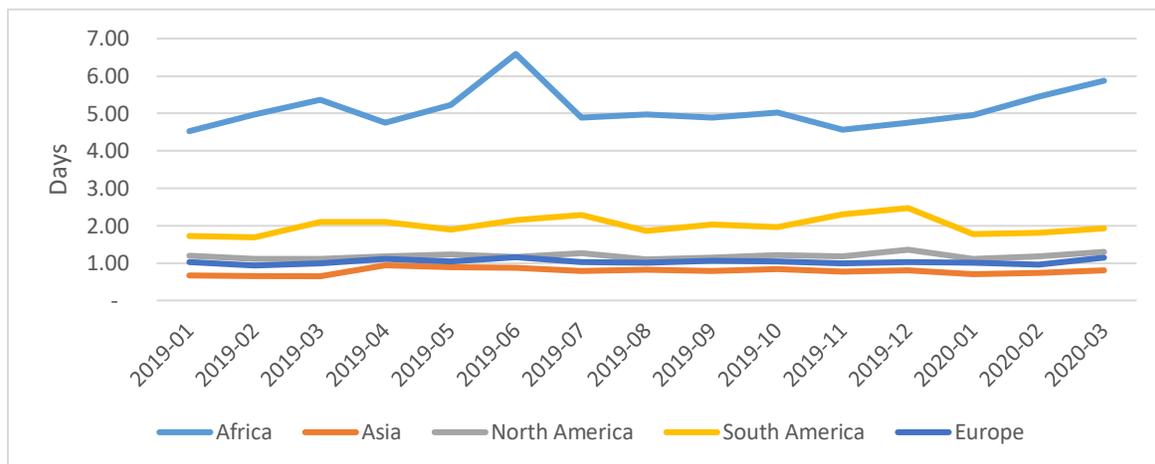
⁸ <https://geodis.com/newsroom/press-release/geodis-establishes-air-bridge-china-transport-millions-masks>
<https://abcnews.go.com/International/wireStory/africa-emergency-medical-supplies-chinas-jack-ma-69734247>

charter freighters or repurposed passenger widebodies have also assisted with hauling at least 2 million COVID testing kits, and thousands of surgical gowns, gloves, ventilators, and thermometers to developing and advanced economies. The industry has not only helped with rapid mobilization of large quantities of uplift capacity, but also with the internal country logistics, especially through integrator carriers, that have very developed domestic networks of distribution by air and land.

Developing countries that are small and remote or exporting time-sensitive, valuable or perishable goods with limited shelf-life are experiencing unprecedented market conditions. In the horticulture sector, where air freight plays a key role, potential losses are staggering given the impacts on jobs, balance of payments in developing countries that have a high concentration of this sector (US\$ 3 billion for flower exporting developing countries' in exports—one third of the global cut flower trade—and over 300,000 jobs at risk)⁹. Airlift is also essential for sectors that are part of global value chains (GVCs), such as fast fashion, fisheries, pharmaceuticals, or electronics and automotive parts, as well as for global immunization efforts (it distributes over 3 million temperature-sensitive vaccines each year). Small or remote economies where their small scale is not enough to attract scheduled cargo services or frequent widebody operations, are now dependent only on charter flights or very limited passenger feeder services to regional hubs (e.g. such is the example of the Caribbean States with Miami, or in the Pacific States with Australia). The bottlenecks here are typically related to the limited availability of belly hold space in narrowbody passenger scheduled services, that prioritize non-revenue loads (e.g. baggage) over cargo.¹⁰

On the positive side, the COVID-19 crisis has not radically impacted ground processing time at airports (including border customs clearance) of import air cargo shipments¹¹. This is based on a sample of major airports in developed and developing countries, including China (Figure 6). It is worth highlighting the difference in import release times at African airports as compared to the other regions— in Africa ground handling and border clearance takes on average 5-6 days compared to other global and regional hubs which take only 1-2 days.

Figure 6 – High-Frequency Shipment-Level Data: Measuring import air cargo release time (Jan 2019-Mar 2020) – Real time measurement (Days)



Source: World Bank Group based on IATA CargoIQ.

Notes: (1) release time is defined as time elapsed between ready for pickup and delivery to the customer. (2) Airports average - Africa (Addis Ababa; Nairobi); North America (Atlanta; Chicago O'Hare; Miami); Europe (Frankfurt); South America (Bogota; Sao Paulo; Mexico City); Asia (Hong Kong; Seoul; Shanghai; Singapore).

<https://www.dcvelocity.com/articles/45510-fedex-launches-network-for-carrying-covid-19-test-kits>
<https://finance.yahoo.com/news/airlines-governments-3pls-creative-emergency-192257163.html>

⁹ Includes Colombia, Kenya, Uganda and Ethiopia

¹⁰ In typical configurations, the B737 or A320 can accommodate between 1-3 tons of payload cargo depending on the length of the route, load factor, and other features. Passenger widebody aircraft can accommodate between 12 and 25 tons

¹¹ Based on a "Big Data" partnership between the World Bank Group and IATA, air cargo shipments are being continuously tracked in real-time, from origin airport to destination, where time markers are automatically recorded by airline and forwarder IT systems

RECOMMENDATIONS FOR POLICY ACTIONS

Recommendations for policy actions to improve aviation services during the COVID-19 crisis **are aimed at ensuring the availability of air cargo operations**, maintaining cross-border supply chains unimpeded and allowing priority essential and humanitarian goods to arrive the fastest and cheapest way possible. Other relevant policy actions should target the implementation of business continuity plans and enhanced preparedness by all actors intervening in the handling of aircraft, crews and cargo – including those in charge of border clearance of goods.¹²

SHORT-TERM POLICY ACTIONS: CONTINUITY, AGILITY AND SAFETY		
A. Continuity of air services (restrictions on crew)		
Policy Action	Results Indicator	Responsible Agency
Relaxing restrictions and curfews to asymptomatic air operators' crews and specialized air cargo essential personnel	Order Enacted	Public Health Authority, Aviation Authority
B. Regulatory issues for air cargo industry		
Expedite cargo flight approvals, including ferry and overflight permits, and temporary elimination of all fees (airport and navigation) for humanitarian flights	Orders enacted	Aviation Authority, Ministry of Transport
Temporary full liberalization of traffic rights for all-cargo flights	Bilateral Air Service Agreements modified	Aviation Authority, Ministry of Transport
Allow repurposing passenger aircraft to operate as freighters ¹³	Orders enacted.	Aviation Authority, Delegated Safety Oversight Body/Ministry of Transport
C. Operating restrictions on air cargo operations		
Temporary removal or flexibilization of night curfews for the operation of air cargo flights	Orders issued	Aviation Authority
Temporary relaxing slot restrictions for air cargo flights	Slot Allocation directives re-issued	Airport Authority and/or Airport Operator

Medium-term actions are targeted to ease the post-emergency situation, enabling business continuity, but also aiming to address structural issues that have curtailed its expansion for decades. Probably, the most urgent actions be thought to ensure that air carriers can survive in a context of extended traffic and cargo revenue starvation, and hard-currency debt overhang (especially state-owned enterprises).

Other post-COVID structural reforms will be needed to spur growth, addressing issues of over-taxation in the aviation sector, and limited competition in input markets, as well as market access to international air services (for cargo and passenger) and foreign ownership limitations – still marked by protectionism and national interest in detriment of travelers. In addition, trade facilitation issues (automation and digitalization) and capacity building in different aspects such as emergency preparedness and coordination, safety and cargo security compliance will also have to be addressed.

¹² Rastogi and Arvis (2020). Trade and COVID-19 Guidance Note. Logistics and Freight Services: Policies to Facilitate.

¹³ This allows the use of the passenger cabin to carry unaccompanied cargo. It is important to note that at all moments, States have an obligation, as members of the international civil aviation system, to provide continuous and adequate oversight on air carriers, in terms of ICAO Annex 6 (Aircraft Operations), Annex 8 (Airworthiness), Annex 9 (Facilitation), Annex 17 (Security) and Annex 18 (Dangerous Goods), so that safety standards are complied with.

ANNEX 1: ADDITIONAL RESOURCES

Trade and COVID-19 Guidance Notes:

[Trade and Covid-19 Brief Page](#)

[Managing Risk and Facilitating Trade in the COVID-19 Pandemic](#)

[Do's and Don'ts of Trade Policy in the Response to COVID-19](#)

[Trade in Critical COVID-19 Products](#)

[Trade Responses to the COVID-19 Crisis in Africa](#)

[Logistics and Freight Services: Policies to Facilitate Trade](#)

[Health Services Trade and the COVID-19 Pandemic](#)

Other resources:

[Espitia, Rocha, Ruta \(2020\). "Database on COVID-19 trade flows and policies"](#)