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After COVID 19 Air Transportation
COVİD 19 Sonrasında Havayolu Taşımacılığı

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ABSTRACT

After Covid 19, international trade traffic changed direction, air transportation remained in the background compared to other modes of transport. Air transport is a fast growing mode of transport among other modes of transport in the world. This mode of transportation, which serves nationally and internationally, has an important role in the economic, social and cultural areas of the countries and regions. This is a rapidly growing mode of transport. Turkey, a country linking Asia with Europe and air transport, it is not at the desired level. Airline, which is an indispensable element of modern life, is the engine of development in the global business world, health education and tourism. Flight cancellation, late departure (flight delay) or delays due to failure to arrive at the time of arrival, false information about the flight, accident loss or baggage damage, disabled passenger denial and limited mobility are the disadvantages of airline transportation. Airline transportation, which is preferred due to its rapid access to its disadvantages, is experiencing a troubled period due to covid 19, which affected the world in 2020. The COVID-19 outbreak that started in Wuhan, China at the end of 2019 affected the whole world. With the spread of the epidemic, economic activities related to global trade declined and air transport operations declined. Countries use the airline to protect against the contagious effect of COVID-19 in line with the recommendations of the World Health Organization. Airline companies stopped most of their flight activities by first restricting transportation and then closing their borders. This situation caused a decrease in the revenues of the aviation industry, an increase in financial losses and an increase in other sectors related to the aviation sector. In this study, one of the measures taken in the aviation sector within the scope of COVID-19 was mentioned and the economic impact of the epidemic on the sector was examined. In addition, assessments of the current situation of Turkey's aviation sector has been based on the indicators. This article aims to provide business leaders with an insight into the evolving COVID-19 situation and its implications for their companies.

Keywords: COVID-19, Air Transport, İnternational Trade Traffic, World Health Organization

ÖZET

Covid 19'dan sonra uluslararası ticaret trafiği yön değiştirdi, hava taşımacılığı diğer ulaşım modlarına göre arka planda kaldı. Hava taşımacılığı, dünyadaki diğer ulaşım modları arasında hızla büyüyen bir nakliye modudur. Ulusal ve uluslararası düzeyde hizmet veren bu ulaşım şekli, ülke ve bölgelerin ekonomik, sosyal ve kültürel alanlarında önemli bir role sahiptir. Bu, hızla büyüyen bir ulaşım şeklidir. Türkiye, Avrupa ile Asya'yı birbirine bağlayan bir ülkedir ve hava taşımacılığı, istenen seviyede değildir. Modern yaşamın vazgeçilmez unsuru olan havayolu, küresel iş dünyasında, sağlık eğitiminde, turizmde kalkınmanın lokomotifi konumundadır. Uçuş iptali, geç kalkış (uçuş gecikmesi) veya varış anında gelememe nedeniyle yaşanan gecikmeler, uçuş hakkında yanlış bilgi, kaza kaybı veya bagaj hasarı, engelli yolcu reddi ve sınırlı hareketlilik havayolu taşımacılığının dezavantajlarıdır. Dezavantajlarına hızlı erişim sağlaması nedeniyle tercih edilen havayolu taşımacılığı, 2020 yılında dünyayı etkisi altına alan covid 19 nedeniyle hava yolu taşımacılığı sıkıntılı bir dönem yaşamaktadır. 2019'un sonunda Çin'in Wuhan kentinde başlayan COVID-19 salgını tüm dünyayı etkiledi. Salgının yayılmasıyla birlikte küresel ticaretle ilgili ekonomik faaliyetler azaldı ve hava taşımacılığı operasyonları geriledi. Ülkeler, Dünya Sağlık Örgütü'nün tavsiyeleri doğrultusunda COVID-19'un bulaşıcı etkisinden korunmak için hava yolunu kullanmaktadır. Hava yolu şirketleri, uçuş faaliyetlerinin çoğunu önce ulaşımı kısıtlayarak sonra da sınırlarını kapatarak durdurdu. Bu durum havacılık sektörünün gelirlerinin düşmesine, mali kayıplarının artmasına ve havacılık sektörü ile ilgili diğer sektörlerin artmasına neden oldu. Bu çalışmada COVID-19 kapsamında havacılık sektöründe alınan önlemlerden birine değinilmiş ve salgının sektöre olan ekonomik etkisi incelenmiştir. Ayrıca Türkiye havacılık sektörünün mevcut duruma ilişkin değerlendirmeler, göstergelere dayalı olarak yapılmıştır. Bu makale, iş liderlerine gelişen COVID-19 durumu ve şirketleri için etkileri hakkında bir bakış açısı sağlamayı amaçlamaktadır.

Anahtar Kelimeler: COVID-19, hava yolu taşımacılığı, uluslararası ticaret trafiği, Dünya Sağlık Örgütü

1. THE EFFECT OF COVID-19 ON AİR TRANSPORTATİON

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COVID-19 crossed an inflection point during the week of February 24, 2020. Cases outside China exceeded those within China for the first time, with 54 countries reporting cases as of February 29. As of 25 May 2020, 347 697 deaths resulting from 5 392 654 laboratory-confirmed infectious cases of coronavirus disease (COVID-19) had been reported. 1,2 Global travel contributed to the rapid growth of cases in Wuhan, China and internationally, including other Asian countries, Europe and the United States of America. (Shoi Shi, 2020. The outbreak is most concentrated in four transmission complexes China (centered in Hubei), East Asia (centered in South Korea and Japan), the Middle East (centered in Iran), and Western Europe (centered in Italy). In total, the most-affected countries represent nearly 40 percent of the global economy. The daily movements of people and the sheer number of personal connections within these transmission complexes make it unlikely that COVID-19 can be contained. The situation in China has stabilized with the implementation of extraordinary public-health measures, new cases are also rising elsewhere, including Latin America (Brazil), the United States (California, Oregon, and Washington), and Africa (Algeria and Nigeria). The US Centers for Disease Control and Prevention has set clear expectations that the United States will experience community transmission, and evidence is emerging that it may be happening already.

The shutdown affected a population of about 60 million, including 11 million in Wuhan. Although this radical move was questioned by many people due to the high economic (and other) costs associated, this approach appeared to be vindicated as the curve for the spread of the disease outside. On March 14, 2020, only Wuhan was classified as a high-risk area and the rest of the province was medium- or low-risk (Yahua Zhanga, Anming Zhangb, Jiaoe Wang, 2020) Compared to the previous year, the global aviation industry's freight load factor (FLF) recovered despite the coronavirus outbreak in December 2019. The freight load factor (FLF) for airlines in the Asia Pacific region increased by 12 percent in July 2020. Despite the slowdowns in the air freight levels since 2020, countries imposed less strict measures on air freight cargo compared to the passenger aviation, which is estimated to experience a 314 billion U.S. revenue loss in 2020. As the cross-border transportation is banned in many countries, air freight cargo may become an alternative to transport goods until the COVID-19 has been contained. Besides, since the beginning of 2020, the air freight rates between Hong Kong and Europe, and Hong Kong and North America have declined presumably due to a reduction in total demand

Table 1 Year-on-year freight load factor (FLF) change in July 2020, by region

	FLF growth/loss
Africa	15.8%
North America	13.4%
Asia Pacific	12%
Total market	11.5%
Latin America	11.1%
Europe	11%
Middle East	7.7%
(Mazareanu, 2020) Source	

2. Literature

Various studies have considered the link between the movement of people and the imported cases of COVID-19. (Zhao, , 2020.) found that the number of air passengers from Wuhan and local population can be used to explain the number of cases in the infected cities. (Ai, 2020) reported a sig- nificant and positive relationship between population movement and the number of COVID-19 cases. They

argued that some cases could be avoided and prevented if the city closure was implemented earlier. However, most of these studies only consider one transport mode or the total movement of people regardless of the transport means (Yahua Zhanga, Anming Zhangb, Jiaoe Wang, 2020).

COVID-19 at a global level, owing largely to the growing availability of affordable air travel. The risk of transmission of respiratory infections on airplanes was a major concern to the public and airline industry. Some studies suggested that air transport is a mode that contributes to the accelerating and amplifying influenza propagation, as such transmission can occur in the flight or at the airports (see a comprehensive survey by (Bowen Jr., 2006.) However, other studies on the ventilation systems and patient outcomes showed that the dissemination of pathogens during the flight occurs rarely (see a good survey by (Leder, 2005)). For example, quite a few studies suggested that in-flight transmission of SARS was not common. (Wilder Smith, 2003.) Wil- der-Smith et al. (2003) reported that in-flight transmission occurred in one of the three flights with SARS patients on board. The authors note that the risk of in-flight transmission is lower than that reported for influenza, but may increase if süper spreaders are on board. However, while the transmission risk in the flight may be low, flights can carry people with the virus to new places. Bowen Jr and Laroe (2006) attempted to examine the link between air transport accessibility and the speed of SARS diffusion.

Yahua Zhanga, Anming Zhangb, Jiaoe Wang, cities with airport or HST stations tend to be large or at least medium-sized cities, and thus have higher GDP. The correlation matrix of all the independent variables suggest that moderate correlations exist between some variables, but none of them are greater than 0.6.

Yahua Zhanga, Anming Zhangb, Jiaoe Wang, examıned the role that each transport mode played in diffusing the cases of COVID-19. They nvestigated the factors influencing the number of imported cases from Wuhan and the spread speed and pattern of the pandemic. The gravity model is used with a consideration of the factors of the frequencies of high-speed train (HST), coach and air ser- vices (flights) between Wuhan and the other domestic cities.

According to Zhanga, Zhangb, Wang,'s examine results cities without airports or HST stations recorded an average of 30.7 cases, while those with airports or HST stations reported an average of 87.7. The difference is not statistically significant at a significance level of 5% if equal variances are assumed. Interestingly, if unequal variances are assumed, the difference is statis- tically significant. This is also the case when the February 1, 2020 data are used. Therefore, it seems that the link between the presence of an airport or HST station and the number of cumulative confirmed cases is not very strong based on the *t*-test. For the arrival day (ARRDAY) variable, they find that cities with air- ports or HST stations recorded its first case of COVID-19 within a significantly shorter time (17.7 days) calculated from January 10, 2020, than those without such facilities (24.8 days) at the level of 1%. It seems that a transport infrastructure such as airport or HST station can speed up the spread of the virus. Yahua Zhanga, Anming Zhangb, Jiaoe Wang, found significant links between flight and HST frequencies out of Wuhan and the number of COVID-19 cases in the destination cities. The presence of an airport or HST station at a city is significantly related to the speed of the pandemic spread, but its link with the number of total confirmed cases is weak. The farther the distance from Wuhan, the lower number of cases in a city and the slower the dissemination of the pandemic. The longitude and latitude values don't have a significant relationship with the number of total cases, but can increase the speed of the COVID-19 spread.

Most of these studies only consider one transport mode or the total movement of people regardless of the transport means (Yahua Zhanga, Anming Zhangb, Jiaoe Wang, 2020, s. 37).

Shoi Shi, Shiori Tanaka, Ryo Ueno, Stuart Gilmour, Yuta Tanoue, Takayuki Kawashima, Shuhei Nomura, Akifumi Eguchi, Hiroaki Miyata & Daisuke Yoneoka have shown that the impact of travel restrictions was limited for most air- ports, with almost zero (median) change in risk of virus importation. The degree of travel restriction was assumed to be a 75% reduction in the flight volume.

As a result, almost all airports would have observed a minor relative change in risk. To investigate the effect of passenger volume on the relative change in risk, they changed the passenger volume reduction from 75% to 50% or 25%. They observed a volume-dependent in- crease in risk in several areas including North America, part of Europe and the Russian Federation. Notably, when evaluating the effect of cancelling only 25% or 50% of flights (as opposed to 75% in the original assumption), the overall geographical distribution of the relative change in risk was similar, suggesting that passenger volume has a nonlinear effect on risk and the optimal volume reduction may depend on the particular airport and its network. From results, they can conclude that travel restrictions based on reductions in passenger volume would only make a minor contribution to the prevention of virus importation among countries (Shoi Shi, 2020) (Shoi Shi, 2020, s. 518). Researchers list the countries that introduced travel restriction policies and/or experienced importation of the virus A total of 28 countries had cases of COVID-19 as at 26 February 2020. A total of 21 of these countries imported the virus before implementing travel restrictions and seven countries imported the virus after the introduction of travel restrictions The arrival time of the virus ranged from 39 to 80 days since the first case was identified in Wuhan on 8 December 2019.

Chinazzi et al. (2020) constructed a global meta- population disease transmission model to project the impact of travel limitations on the national and international spread of COVID-19; the results show that the travel quarantine of Wuhan delayed the overall epidemic progression by 3–5 days in mainland China. Chinazzi et al. (2020) also estimated that a reduction of 90% or more in travel to and from China would extend the period during which the importation of cases is greatly reduced. Other important studies include Bogoch et al. (2020), Gilbert et al. (2020), Lai et al. (2020), and Haider et al. (2020). Bogoch et al. (2020) analyzed international airline passenger trips from ten Chinese cities: Wuhan, Beijing, Shanghai, Kunming, Chengdu, Xiamen, Haikou, Guangzhou, Shenzhen and Hong Kong, and the results show that Taipei, Bangkok, Tokyo, Seoul and Singapore received the highest number of passengers from the aforementioned cities. Gilbert et al. (2020) and Lai et al. (2020) also used air travel data of departures from airports in the affected provinces in China. Gilbert et al. (2020) focused especially on Africa and estimated the risk of importation into each African country and the results show that Egypt, Algeria, and South Africa were the countries at highest importation risk from airport risk of importation and exportation of the COVID-19 pandemic. (Managi, 2020)

Fig. 1. Population, airport locations, and confirmed global cases of COVID-19 until March 14, 2020

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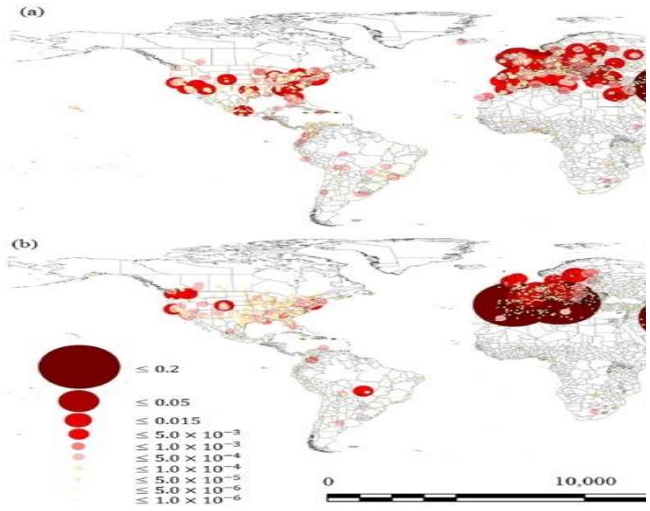

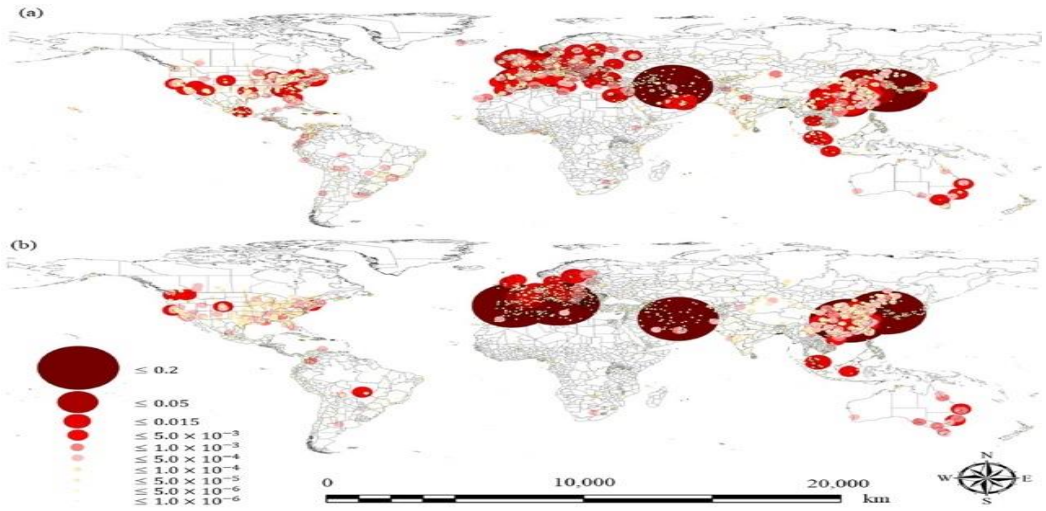
(a)
(b)
≤ 0.2
≤ 0.05
≤ 0.015
≤ 5.0 × 10⁻³
≤ 1.0 × 10⁻³
≤ 5.0 × 10⁻⁴
≤ 1.0 × 10⁻⁴
≤ 5.0 × 10⁻⁵
≤ 5.0 × 10⁻⁶
≤ 1.0 × 10⁻⁶
0
10,000
20,000
km
N
W
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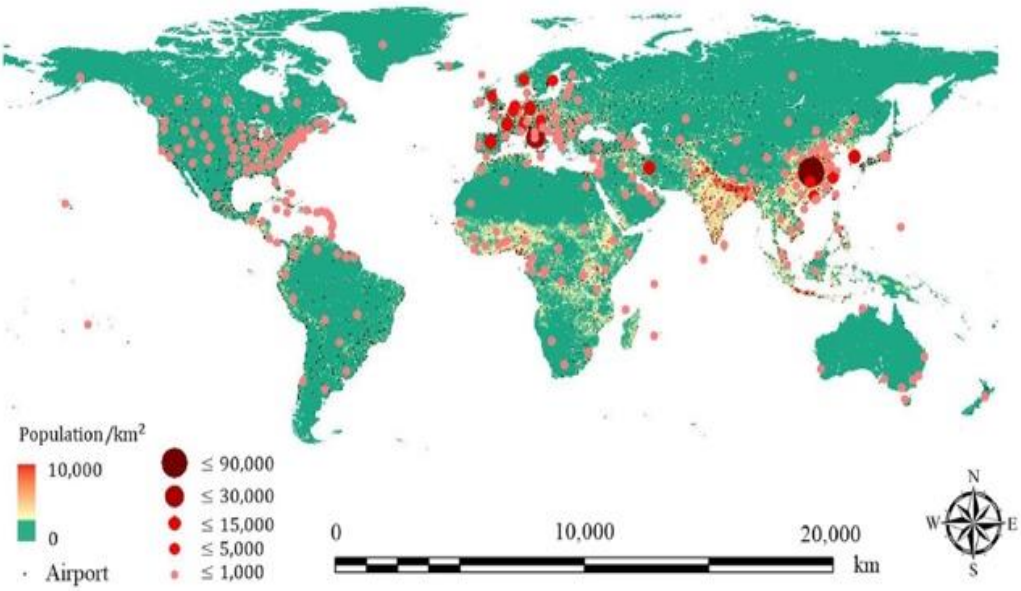
S

Fig. 2. Relative risk of importation (a) and exportation (b) (Unit: %). 42



Source (Hiroki Nakamura)

However, due to the travel bans imposed by several countries, it is still useful to consider some scenarios to analyze the counter measures for the spread of the COVID-19 pandemic through airport and airline travel restrictions. when air travel from an airport in the high cumulative incidence area is reduced by a larger percentage, the risk flow decreases gradually. However, even when the strictest reduction counter measure is implemented, the risk flow of importation and exportation in China, Iran, the U.S., and some countries in Europe still exists. However, as many countries can reduce the risk flow of importation and exportation, the pandemic disease still prevails in some areas. This means that it is more indispensable for these countries to undertake counter measures for COVID-19 such as home quarantine . This indicates the necessity of reducing air travel as much as possible; specifically, more than a 90% reduction is necessary in areas of high cumulative incidence. Therefore, flights must be minimized and politics should play a significant role in restricting travel to benefit individual countries as well as global health. Figs. show the results of the risk flow and the relative risk of importation and exportation of COVID-19 via airports. Fig. 1 , 2 shows the relative risk of importation and exportation of each airport and Fig. 2 shows the summarized values for each country. And some airports, including in China and Iran, have a higher risk of both importation and exportation than other airports, while some airports in Europe, especially Italy, have a higher risk of exportation than of importation. Moreover, the U.S. seems to have more airports with a relative risk of importation than with relative risk of exportation. This means that although the U.S. didn't show a high number of cumulative confirmed cases relative to the population on March 14, 2020, it has potential relative risk to import the pandemic disease (Hiroki Nakamura).

3. Covid 19 and Airline Measures

World Health Organization, Ministry of Health, Public Health Directorate, ICAO and IATA recommendations and regulations explains in detail in the line. In this context, the health status of the passengers entering the country was tried to be analyzed using thermal cameras at the airports. Medical personnel took care of the passengers with high fever symptoms; In case of doubt, passengers are banned or restricted from entering the country. In some countries, passengers have been asked to

carry health certificates indicating that they are well or have no discomfort. Since the entry of passengers and citizens from some countries with high patient density is prohibited, the flights are reduced and the spread of the disease has been tried to be prevented.

Very significant portion of cargo (70-80%) in air transportation is carried in the lower compartments of passenger aircraft, and due to the cancellation of passenger flights there has been a significant decrease in the volume of cargo transported in passenger aircraft which has resulted in an increased demand for cargo aircraft. Airlines have started to organize their passenger aircraft quickly and are now using them for cargo transportation due to increasing cargo demands which fill the void caused by the drastic decrease in passenger demand.

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Very significant portion of cargo (70-80%) in air transportation is carried in the lower compartments of passenger aircraft, and due to the cancellation of passenger flights There has been a significant decrease in the volume of cargo transported in passenger aircraft which has resulted in an increased demand for cargo aircraft. The number of passenger flights canceled in this current situation is so high that the demand for airlines is many times more than the current supply. At this point, airlines that charged 80 percent of the cost of passenger aircraft to passengers and 20 percent to cargo were suddenly obliged to charge the full cost of the aircraft to cargo alone. Airlines have started to organize their passenger aircraft quickly and are now using them for cargo transportation due to increasing cargo demands which fill the void caused by the drastic decrease in passenger demand. As the transmission and spread of the disease is accelerated in airports where human activity is intense, taking precautions in aircrafts, cancellation of flights, the safety of pilots and other employees, has increased the concern and hesitation towards the aviation sector. World Health Organization's flights to protect public health. It has the power to restrict and stop. the International

Civil Aviation Organization (ICAO), International Air Transport Association (IATA), Airports Council International (ACI), Europe Aviation Crisis Coordination Center (EACCC), European Aviation Safety Agency (EASA), Organizations such as the Centers for Disease Prevention and Control (CDC), the Federal Aviation Administration (FAA) information sharing, cooperation within The WHO. For passenger safety and flight crew safety with the work of international organizations. The procedures to be followed have been prepared. Isolating the suspected patient

The procedures for the procurement of medical supplies are discussed (CAAC, 2020). Guideline for Airports (the 2nd Version), Erişim Tarihi: 23.03.2020, https://www.iata.org/airport- (CAAC, 2020a).

In Turkey, by The Directorate General of Civil Aviation Safety Flight Operations The Bulletin was issued on 24.03.2020 within the scope of COVID-19. To protect public health, to minimize the risk of transmission, to increase the health safety of aviation personnel a bulletin with a set of rules, rules, suggestions and recommendations; After the body temperature of all carriers is determined by thermal cameras from the entrance of the airport, the necessary disinfection procedures are performed to ensure flight safety. The ventilation, cleaning, security, etc. issues of the airport buildings are covered in detail. Air Transport Operations, Terminal Operations, Ground Handling Agencies and Representation, Supervision and Management organizations It covers all related units and personnel. Flight Operations Safety Bulletin, COVID-19 The procedures required to be implemented in the conduct of aviation activities within the scope of; World Health Organization, Ministry of Health, Public Health Directorate, ICAO and IATA recommendations and regulations explains in detail in the line. In this context, the health status of the passengers entering the country was tried to be analyzed using thermal cameras at the airports. Medical personnel took care of the passengers with high fever symptoms; In case of doubt, passengers are banned or restricted from entering the country.

Covid-19 predicts the damage caused by the pandemic as $ 314 billion on a global scale. According to IATA's April 2020 Survey, 86 percent of the sector representatives dont foresee a recovery before 6 months. Moreover, the prolongation of this process means that the burden on airline companies becomes even heavier. US airlines expect government support.

Cargo shipped on the special flights included essential medical supplies, pharma and personal protective equipment, and routes served included US hubs and key international destinations. In 2010 the European Commission fined 11 air cargo carriers nearly €1 billion for operating a worldwide cartel that affected cargo services within the Euro- pean Economic Area (EEA). The carriers coordinated their action on surcharges for fuel and security with- out discounts over a six-year period. The European Commission's fines on the air cargo carriers were reduced by 50 percent in relation to sales between the EEA and third countries to take into account the fact that the harm of the cartel fell outside of the EEA's jurisdiction. International maritime transport has also regularly been a target of enforcement: in 2018 the European Union levied $ 458 million in fines on four maritime car carriers for customer allocation and price-fixing for deep-sea transport of vehicles.

Turkish Airlines Cargo currently provides service with 26 cargo aircraft and MNG Airlines with 8 cargo aircraft in order to fulfill all demands at maximum capacity. However, due to the sharp decrease in the capacity of passenger aircraft, and the high cost of carrying cargo with cargo aircraft, an increase in air freight in the coming period is inevitable.

Air France KLM Martinair Cargo (AFKLMP) has formed a taskforce to define the steps needed to help ship Covid-19 vaccines. Working in close consultation with the pharma industry and related forwarders, the airline has assessed specific requirements for shipping Covid-19 vaccines when they become available.

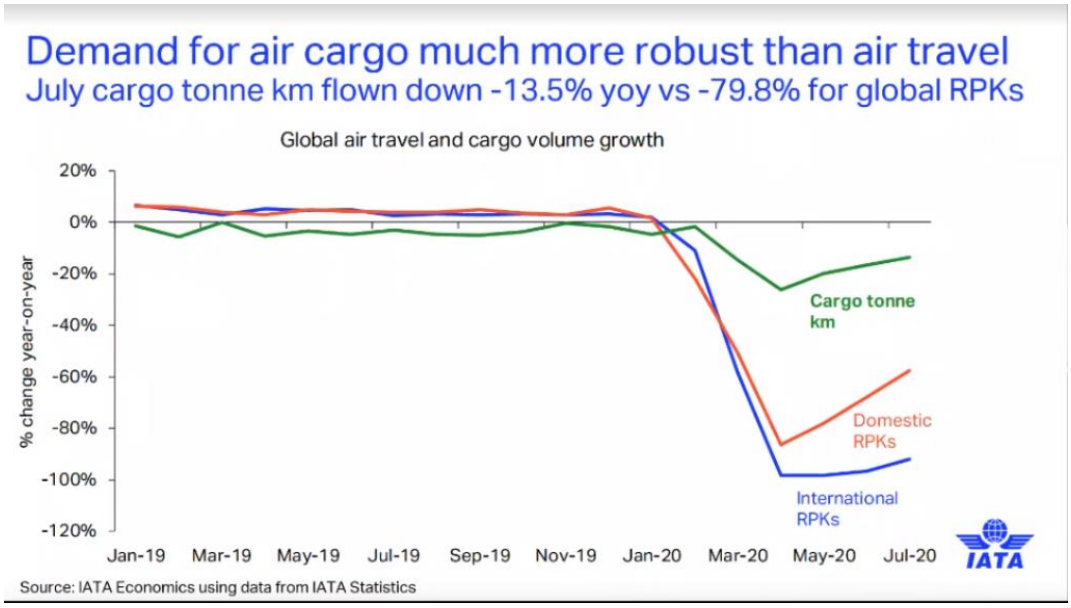
https://www.aircargonews.net/sectors/pharma-logistics/afklmp-creates-vaccine-shipment-taskforce/.

AFKLMP has operated over 5,500 cargo-only flights since the start of the corona crisis. United Airlines Cargo has flown its 5,000th cargo-only passenger aircraft flight since it began operating them in March. During that time, the carrier has transported almost 170m tonnes of airfreight on these cargo-only flights alone, which are operated with some of its Boeing 777s and 787 aircraft.

Since the start of the pandemic, United Cargo has also transported 48,538m tonnes of medical supplies to aid in the fight against coronavirus using a combination of cargo-only flights and the bellyhold of passenger flights.

According to World Bank global air Cargo volumes were hit much less than the passenger business. By July, we saw cargo tonne km (CTKs) just over 13% lower than a year earlier. Air cargo has been driven as governments have unlocked their economies.

Figure 3 Global Air Cargo Volumes



Cargo is following a fairly typical recession recovery cycle, unlike the air passenger business which clearly has been hit by an unprecedented shock. In a recovery period for the world economy, typically companies turn to air as their preferred mode of transport to get inventory, components, production and facilities going as quickly as possible to supply recovering demand".

Cargo flights and transactions in warehouses are being carried out under challenging conditions as all airline companies strive to conduct cargo flights without stop-overs, and flight crews perform their duties by staying in self isolation at hotels. According to the latest announcement, Sabiha Gokcen Airport has been closed to flights for one month as from April 1st. Air cargo agencies that continue to perform their activities at both Ataturk and Istanbul Airports, face financial difficulties due to the decline in their business volumes. Despite this, the rental payments of the offices at both airports continue even though the air cargo volume has decreased significantly and these offices have become almost nonfunctional. For this reason, UTİKAD has made a request to the IGA for Istanbul Airport and for Turkish Airlines, and to the DHMI for Ataturk Airport, to temporarily suspend the rental payments of the offices at these airports https://www.aviationturkey.com/en/content/utikad-analysis-covid-19-impact-on-the-logistics-sector-320https

WTO members have highlighted the negative impact of the COVID-19 pandemic on the participation of developing countries in world trade. At a meeting of the Committee on Trade and Development on 7 July dedicated to Aid for Trade, members noted that developing countries' exports of goods and services have been badly affected by a global decline in demand and disruptions in production chains.

At the meeting, WTO members agreed to extend the period for implementing the current Aid for Trade work programme, "Empowering Connected, Sustainable Trade", and to schedule the next Global Review for 2022. They also agreed to work towards reflecting the impact of the COVID-19 pandemic in the work programme, possibly through an addendum (h, 2020).

Many airline bosses cling to the hope that global passenger numbers will follow the same trajectory as in the wake of previous disruptions, such as the terrorist attacks of September 11th 2001 or the global financial crisis of 2007-09 (see chart 2). After a few months of disarray, travel patterns then

reverted to normal and growth resumed. Despite the slowdowns in the air freight levels since 2020, countries imposed less strict measures on air freight cargo compared to the passenger aviation, which is estimated to experience a 314 billion U.S. revenue loss in 2020. As the cross-border transportation is banned in many countries, air freight cargo may become an alternative to transport goods until the COVID-19 has been contained. Besides, since the beginning of 2020, the air freight rates between Hong Kong and Europe, and Hong Kong and North America have declined presumably due to a reduction in total demand.

(https://www.statista.com/statistics/415013/freight-load-factor-by-region/#statisticContainer, 2020).

Lufthansa is talking to European governments about financial support. That may require relaxing EU state-aid rules. Mr Trump's vague talk of assistance to stricken industries, including airlines, remains just that for now.

British Airways is set to cut up to 12,000 jobs from its 42,000-strong workforce due to a collapse in business because of the coronavirus pandemic. The impact of the virus outbreak on group revenues. In the first three months of 2020 revenues fell 13% to €4.6bn (£4bn). Worse is to come warned Stephen Gunning, IAG's chief financial officer.

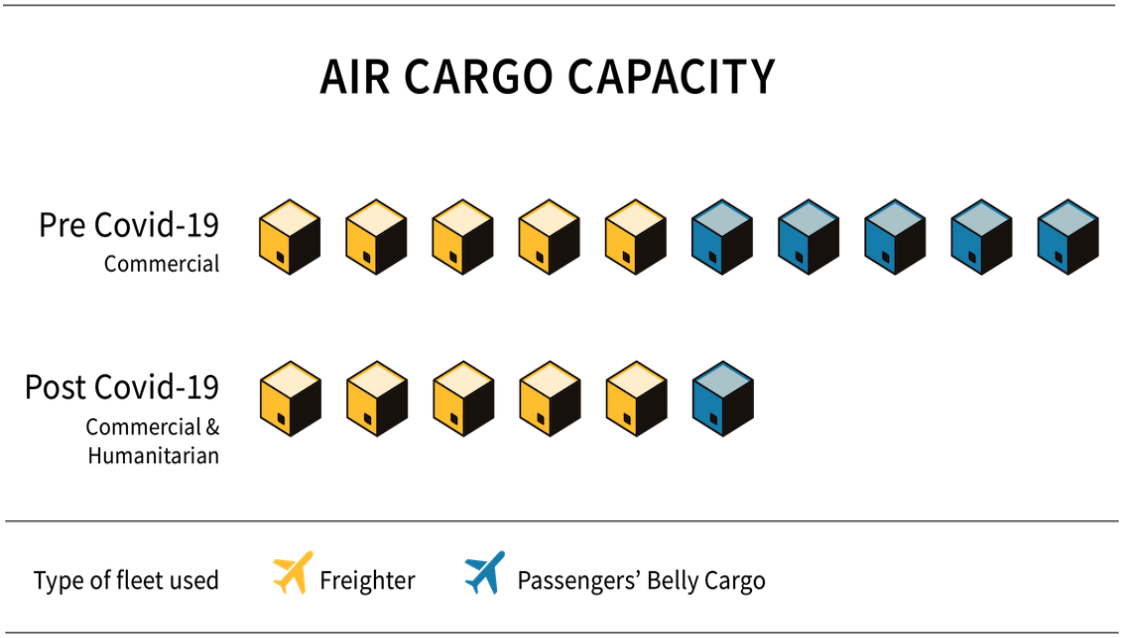
In the UK, EasyJet has laid off its 4,000 UK-based cabin crew for two months. And Sir Richard Branson has appealed to the government to help bail out his Virgin Atlantic airline with a loan thought to be up to £500m.

Elsewhere, Qantas has put 20,000 staff on leave, while Air Canada has done the same for about 15,200 employees. Norwegian Air has said it could run out of cash by mid-May. At American Airlines, about 4,800 pilots have agreed to take short-term leave on reduced pay and more than 700 are taking early retirement.

The airline can survive on its financial reserves for the moment - and take advantage of the government's job retention scheme to furlough employees for a short period. Government support of this kind is very short term. With a quick recovery it might be enough to save a large number of jobs (https://www.bbc.com/news/business-52462660, 2020)

Some companies are actively benchmarking their efforts against others to determine the right policies and levels of support for their people. Leaders must communicate with employees with the right level of specificity and frequency (http://www.amcham-egypt.org/bic/pdf/corona1/McKinsey_Co%20-%20COVID-19-Implications%20For%20Business.pdfA).

Figure 4 After Covid Air Cargo



Source https://www.aircargonews.net/airlines/iata/iata-outlook-cargo-is-fo

Figure 4 shows post Covid 19 passengers level at Belly Cargo have decressed

Compounding is the trend toward economic protectionism that was evident before the current pandemic. There is growing concern that some leading economies might soon move to develop trade policies with the goal to secure certain supply chains (e.g., pharmaceuticals, medical supplies, lithium-ion batteries) to meet their needs with domestic production. This potential supply chain evolution warrants further study and engagement by relevant stakeholders.

The International Civil Aviation Organization (ICAO), the United Nations' (UN) specialized agency for civil aviation, is collaborating with other UN organizations, including the World Health Organization (WHO), for a coordinated global response to the pandemic and to help to restore global air traffic operations.

Under Title IV, Economic Stabilization and Assistance to Severely Distressed Sectors of the United States Economy, Congress approved $500 billion in federal assistance to severely distressed sectors of the economy as part of the larger $2 trillion stimulus package. The approved programs include $61 billion to the aviation sector. The Act provides support to the airline industry through loans, loan guarantees, and grants. The Act also provides relief for certain federal excise taxes, such taxes on airline passenger tickets, cargo, and aviation fuel.

Where state-level intervention is required, air cargo stakeholders, which include air carriers and freight forwarders, have asked ICAO to work with regulators and encourage:

Extension of expiring licenses, certifications or approvals e.g. pilot licenses, and dangerous goods recurrent training;

Facilitation of charter flights operating essential services, providing them greater operational and financial flexibility, as well as hoping that airlines will allocate some cargo capacity for scheduled services;

Flexibility on rules regulating transport of crews, curfews, slot amendments, etc.; and

Temporary granting of additional traffic rights (e.g., seventh freedom for cargo flights).

RESULS

The transportation and logistics industry perform one of the most vital services of the modern globalized and interconnected world. Since the beginning of 2020, more and more countries across the globe shut down their borders and limited transportation and travel to contain the coronavirus (COVID-19) outbreak, thus, creating impediments for international trade and transportation.. As a consequence of the coronavirus outbreak, important supply chains in the logistic and transportation industry are hampered, though differently across air, freight and sea sectors. Year-on-year freight load factor (FLF) change in July 2020, by region Air freight is a crucial means of transport of goods for industries that perform under restricted timespan. Its operations enable a firm to realize a transportation within a few hours instead of days or weeks. Nonetheless, it is the least cost-effective for most of the industrial organizations. Between 2009 and 2019, air freight traffic continued to recover back to its pre-2008 crisis level. The global air freight market size is forecasted to increase between 2019 and 2022 exponentially, reaching 37 million metric tons.

The COVID-19 crisis has been emotionally challenging for many people, changing day-to-day life in unprecedented ways. For companies, business as usual isn't an option. They can start by drawing up and executing a plan to support employees that is consistent with the most conservative guidelines that might apply and has trigger points for policy changes. Governments must act to implement more liberal economic regulatory frameworks, which may be the surest way to ensure air cargo carriers can develop robust operations and fleets, as well as have the flexibility to respond to crisis situations, like the current one.

Some states have already responded to these needs. For example, the Chinese government will support air cargo operators needing to lease or to purchase freighters. Further, it will direct support toward express delivery firms to help them support expanded air services and overseas operations.

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