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Sustainability of the aviation industry: "Air Cargo Operational Freedom, the need for a unique economic regime for all-cargo services"

(Presented by TIACA)

A quick google search of the word sustainability brings up over 1.3 billion entries and is playing an increasingly larger and more important role in our work, social and private lives. This is particularly true of global industries which have varying impacts on many different countries. The Air Cargo industry is probably one of the most global industries and therefore comes under increased scrutiny for how we conduct ourselves as individual businesses and collectively as a community.

Sustainability has also come into even more focus as a result of the pandemic and the air cargo industry has challenged itself to transform to ensure it is taking every sustainable consideration into account.

For many, the term sustainability is often limited to the environmental aspects, which are critically important for protecting the planet however TIACA believes that true sustainability can only be achieved when you look holistically at how we individually and collectively impact People, Planet and enhance global Prosperity, the three Ps.

This paper shall tackle one aspect of operational activity which is currently limited by restrictive and outdated economic regulatory regimes and calls upon national and international regulatory bodies to effect the change necessary to facilitate enhanced operational efficiency which also results in enhanced support of global supply chains and the subsequent economic benefits. Furthermore, enhanced asset utilization and efficiency leads to better service offering and reduced environmental impact.

Specifically, the introduction of a multilateral approach to all-cargo service liberalization and reduction of barriers to open market access would facilitate greater access to global capacity, enhance operational efficiency, increase asset utilization and reduction of subsequent environmental impact.

The pandemic has exposed the inefficiencies that still exist in air cargo networks, which are caused by outdated policies. It has also supported the long-held argument that the passenger and cargo industries are completely different business models. As such, they require unique and specifically tailored regulatory frameworks.

The air cargo industry has a unique role to play in ensuring the global community has adequate support and opportunity to improve national economies and the lives of its citizens.

We live in a global community and the air cargo industry is a leading driver of a successful global economy, connecting people and things. This is equally true for developed and developing nations.

The Covid pandemic demonstrated the role that air cargo plays in supporting society by safely and securely transporting medical supplies, perishable goods, high tech equipment, consumer needs and almost everything else that can fit inside an aircraft. We also saw the great innovative spirit of air cargo by reconfiguring grounded passenger aircraft into makeshift freighters to address the overwhelming global demand for capacity.

Cargo services were vital during the pandemic, looking back to early 2020, as Governments around the world scrambled to close their international borders in response to the first wave of the COVID-19 spread across the planet, they soon realised that air cargo operations would be vital to fight it. Air cargo was the only way to bring much-needed emergency supplies to hospitals around the globe, but also to keep business of all sizes in operation, and support exponential e-commerce growth.

Quarantines and other health measures designed to limit infection spread through passenger traffic caused severe disruptions in cargo flows, to everyone's detriment. It should be noted that pre-Covid cargo volumes were transported approximately 50% on dedicated air cargo freighters and the remainder in the bellies of passenger aircraft, providing much needed global network connectivity.

Passenger services were grounded and the belly-hold capacity that would otherwise have been supplied by passenger airlines evaporated. Cargo traffic continued to move only thanks mostly to all-cargo airlines and express carriers that continued to operate as well as some passenger aircraft operated in cargo only configurations. At the height of the shutdown of the global passenger industry, approximately 2,500 passenger aircraft were deployed for cargo only operations.

In a State Letter addressed to contracting States, the then Secretary General of ICAO, Dr Fang Liu, recognised that 'There is an urgent need to ensure sustainability of the global air cargo supply chain and in maintaining the availability of medication, and equipment such as ventilators, masks and other health and hygiene-related goods, which are necessary to assist in reducing the public health risk of the spread of COVID-19."

The consequences of the pandemic require flexible supply chains. The pandemic and subsequent economic crisis will cause many industries to consider changes to their supply chains in order to make them more resilient. This could include relocating and diversifying production centers, modifying distribution channels, and revaluating the value-proposition of safe, fast, and efficient air cargo to their businesses. In response to their customers' needs, cargo operators and the broader air cargo industry will need to adapt.

The pandemic has also moved e-commerce into the mainstream. Millions of people around the world shopped on-line for the first time because they did not have access to traditional retail outlets. Even as shops open again, many will keep resorting to on-line purchases. E- commerce is just another form of trade and is projected to reach USD 5 trillion in value in 2021 according to a report published by e-marketer.com, Global e-commerce forecast 2021.

Recent data, April 2022, released by Airports Council International (ACI) illustrates the starkly different impact on passenger and cargo volumes arising from the Covid pandemic. The following charts reflect the growth or rather contraction in the case of the passenger side of the industry for the full year 2021.

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INTERNATIONAL PASSENGERS*

2021	2020	2019	Airport	2021	% change vs 2020	% change vs 2019
1	1	1	DUBAI, AE (DXB)	29 110 609	12.7	-66.3
2	6	14	ISTANBUL, TR (IST)	26 466 169	66.0	-33.1
3	2	3	AMSTERDAM, NL (AMS)	25 488 783	22.1	-64.4
4	5	8	FRANKFURT, DE (FRA)	22 697 490	34.8	-64.0
5	4	6	PARIS, FR (CDG)	22 616 995	18.7	-67.6
6	7	15	DOHA, QA (DOH)	17 701 978	41.4	-54.4
7	3	2	LONDON, GB (LHR)	17 624 931	-14.7	-76.8
8	31	26	ANTALYA, TR (AYT)	17 148 111	160.4	-40.3
9	10	11	MADRID, ES (MAD)	15 337 775	38.8	-65.9
10	28	61	CANCÚN, MX (CUN)	13 261 951	94.5	-19.7

* International passengers enplaned and deplaned

The Top 10 airports measured in terms of international passengers enplaned and deplaned shows all airports contracted with levels of contraction varying between -19% and -76%.

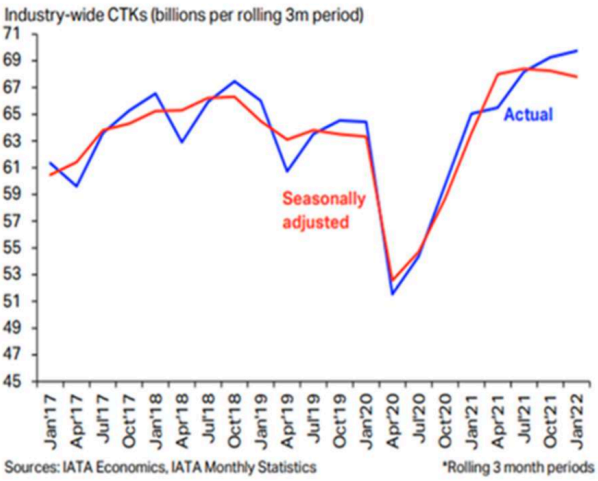
Conversely, the Top 10 airports measured in international freight loaded and unloaded reflects 9 showing growth from between 6% and 29%. See chart below;

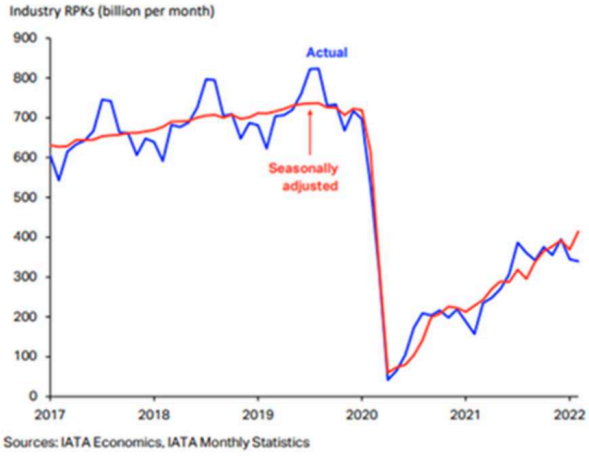
INTERNATIONAL FREIGHT (METRIC TONNES)*

2021	2020	2019	Airport	2021	% change vs 2020	% change vs 2019
1	1	1	HONG KONG SAR, HK (HKG)	4 986 256	12.8	6.0
2	3	3	INCHEON, KR (ICN)	3 273 004	18.6	22.9
3	2	2	SHANGHAI, CN (PVG)	3 245 548	9.9	14.9
4	4	6	TAIPEI, TW (TPE)	2 793 584	20.2	29.0
5	7	7	TOKYO, JP (NRT)	2 591 255	32.3	27.0
6	6	5	DOHA, QA (DOH)	2 589 283	20.7	19.1
7	5	10	ANCHORAGE AK, US (ANC**)	2 438 809	9.8	25.5
8	8	4	DUBAI, AE (DXB)	2 319 185	20.0	-7.8
9	9	9	FRANKFURT, DE (FRA)	2 194 653	20.7	11.9
10	10	12	MIAMI FL, US (MIA)	2 040 547	17.9	19.6

*International freight loaded and unloaded in metric tonnes

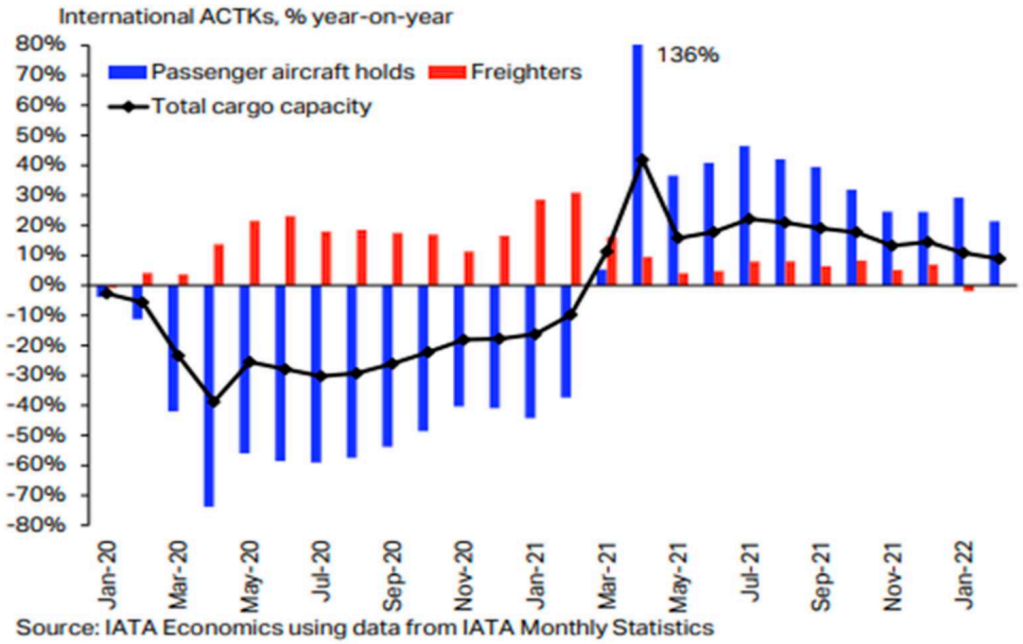
This clear differentiation in business can also be seen in the charts below, produced by IATA, which reflect the depth of business contraction at the outset of the pandemic and the different recovery paths, with air cargo volumes having already recovered to eclipse pre pandemic levels, meanwhile international passenger traffic still remains significantly below 2019 levels.





The shortfall in capacity arising from the mostly grounded passenger network was made up in part by increased existing freighter utilization, deferred retirements of older freighters, the return to service of some parked aircraft and the deployment of a number of grounded passenger wide-bodied aircraft such as the B777, B787, A330 and A350 aircraft for cargo only operations. Some of the passenger aircraft had their seats removed to further enhance the available air cargo capacity. Regulatory exemptions, following a safety review assessment, were granted by EASA and the FAA to facilitate this enhanced use of available in cabin space for cargo transport.

The Chart below, produced by IATA, reflects the evolution of capacity loss and recovery and once again demonstrates that dedicated freighter networks have played a crucial role in addressing capacity demands during the Covid pandemic and will continue to do so in the post pandemic environment.



In a recent working paper submitted to the ICAO Air Transport Regulation Panel, ATRP/16- WP/7 14/3/22, the ICAO Secretariat recognized the following;

AIR CARGO OPERATIONS DURING THE COVID-19 PANDEMIC

2.1 The COVID-19 pandemic and the associated public health risk mitigation measures, including travel restrictions and border closures, resulted in unprecedented depressed travel demand and significant disruptions to businesses and supply chains in global air transport. In the second quarter of 2020, passenger demand for international air transport dropped by over 90 per cent. The concomitant drop in supply removed cargo capacity provided by belly holds at a time when air cargo operators depended on that capacity to transport approximately 50 per cent of air cargo globally. At the beginning of 2022, the demand for international passenger services is still below 70 per cent below the level of the same period in 2019.

2.2 The air cargo operations at this critical period of the pandemic have made it apparent that all-cargo services operate under different conditions and uses different business models from passenger services. Air cargo services have shown their vital role in advancing economic benefits and transporting quickly and reliably critical medical goods, when they are most needed.

The working paper further espoused;

2.3 It would be prudent to match this operational demand with specific regulatory framework that facilitates safe, secure, efficient, expeditious and sustainable air cargo growth. It was in this context that Recommendation 16 of the report of the ICAO Council Aviation Recovery Task Force (CART) encouraged Member States to consider the temporary lifting of restrictions to air cargo operations, including but not limited to, granting extra-bilateral rights, in particular for all-cargo services, to foreign airlines to facilitate the transportation of essential goods, supplies and COVID-19 vaccines.

We now need to focus on what is required within air cargo to maximize the opportunities and create the most efficient and effective industry possible for the post pandemic environment. We need to ensure the right work force but we also need to ensure we have the right regulations that balance control and facilitation. We also need the right work procedures and practices and of course we need to wholeheartedly embrace the opportunities that a fully digitalized environment presents.

In order to support the air cargo industry through what will be quite a period of transformation, TIACA has developed a Sustainability roadmap, released in November 2021 to coincide with the COP26 discussions regarding transport, aviation and supply chains.

The Roadmap looks at the 17 United Nations Sustainable Development Goals and maps how air cargo contributes to their attainment. The value of air cargo is proudly showcased and indications of where the industry needs to go from here is also covered.

Sustainability strategies and verified credentials will no doubt in future become the license to operate and as the air cargo industry has shown throughout its 110+ year history, the tougher the challenge the more it will collaborate to overcome.

As previously stated, contrary to passenger services, all-cargo operations never stopped during the pandemic. They played a vital role in delivering essential medical equipment and, later, vaccines to fight the pandemic, while the flow of cargo transported on passenger airliners simply stopped. This has exposed the distinct nature of all-cargo operations.

In addition, cargo operations will need to adapt to a changing economic environment after the pandemic, as manufacturers adapt their supply chains to make them more resilient, for instance by diversifying production centres around the world. Flexibility in all-cargo operations will be essential to meet this new demand and make sure resources are used in the most efficient way.

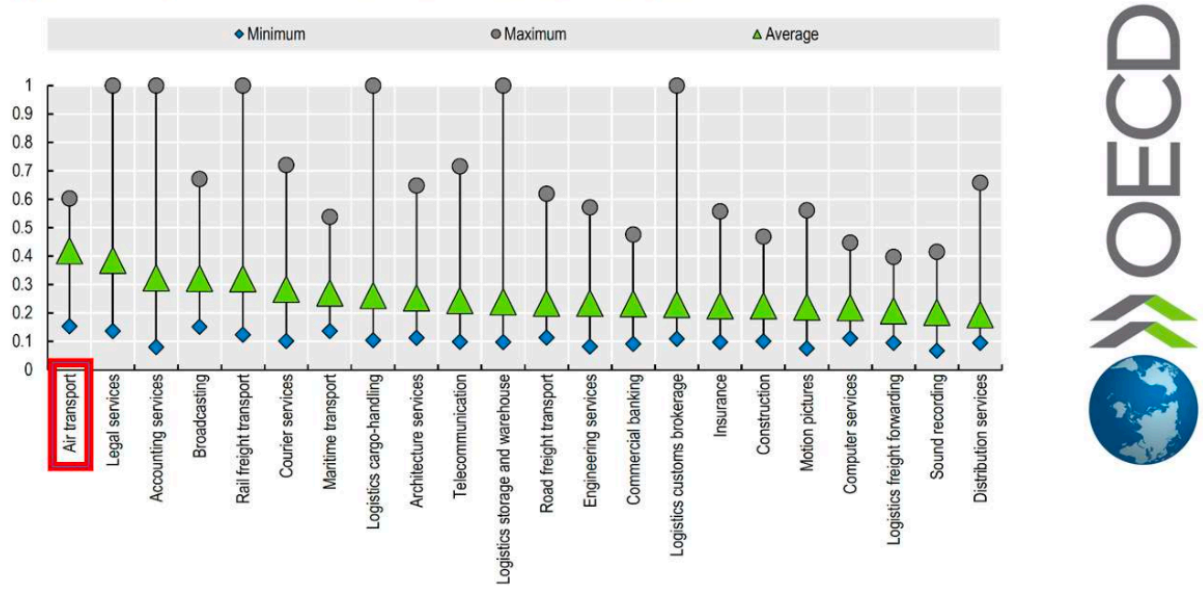
According to the International Air Transport Association (IATA), see chart below, the total global value of inbound tourism by air in 2019, pre covid, was USD 850 billion, during the same time frame the value of air cargo exports was USD 6.489 trillion, nearly 8 times as valuable for national economies. The projected numbers for 2021 were USD 354 billion for tourism and USD 7.467 trillion for air cargo, more than 20 times as valuable.

Worldwide Airline Industry	2019	2020	2021E	2022F
Unique city pairs	22104	15473	18788	
Compared to 1998	116%	51%	83%	
Transport cost, US$/RTK (2018$)	77.6	70.5	72.8	75.5
Compared to 1998	-56%	-60%	-58%	-57%
Value of trade carried, $billion	6,489	5,964	7,467	8,007
% change over year	-2.6%	-8.1%	25.2%	7.2%
Value of tourism spend, $billion	850	310	354	626
% change over year	6.5%	-63.5%	14.2%	76.8%

Note: RTK = Revenue Tonne Kilometers,. The total number of 'routes' or airport pairs is much higher due to multiple airports in some cities and connections are counted both ways..

Yet, at the same time, according to the OECD, air transport is, on average, the most restricted service there is, more so even than broadcasting or maritime transport. This results in significant inefficiencies that have ripple effects across the economies of all contracting States.

Figure 3. STRI, minimum and maximum values by sector, 2021



The International Air Cargo Association (TIACA) and the Global Express Association (GEA) submitted a Statement to the ICAO High-level Conference on COVID-19, October 2021, drawing lessons from the COVID-19 pandemic and making the case for a more liberal all-cargo regime world-wide.

The paper highlighted and underscored the need to:

(i) draw lessons from the COVID-19 pandemic, which has highlighted the differences between passenger and all-cargo operations;

(ii) anticipate the requirement for flexibility in international supply chains, as the world economy adapts to the consequences of the pandemic;

(iii) bear in mind the positive trade effects of all-cargo operations for all contracting States; and

(iv) take necessary steps to formulate an open, flexible, and distinct regulatory regime for all-cargo operations under the auspices of ICAO.

DIFFERENT BUSINESS MODELS

The proposal for a dedicated all-cargo services economic regime is based on the fact that all- cargo and passenger services operate with different business models, addressing different challenges and different business needs.

For all-cargo airlines and express carriers, flying cargo is their only business. Unlike most passengers, cargo – express or not – travels one way. Without the necessary traffic rights, freighter airplanes risk travelling empty half the time, or at least their capacity would be underutilised, and resources would be wasted.

Furthermore, as the pandemic amply demonstrated, cargo traffic poses different health risks than passenger traffic – and provides different benefits to people, governments and economies.

Logically, different business models call for different regulatory approaches.

This is further deemed necessary when you consider the accepted industry forecasts for when passenger volumes and subsequent global network connectivity may recover.

The IATA / Tourism Economics Air Passenger Forecast, issued in March 2022, indicates that international passenger numbers may not return to 2019 levels until 2025. By that time, air cargo volumes, which have already exceeded the 2019 levels, may be 20-25% higher, placing additional stress on capacity and network demands if the industry remains under the traditional and now outdated economic regime.

Passenger numbers, share of 2019	2021	2022	2023	2024	2025
Industry-wide	47%	83%	94%	103%	111%
International	27%	69%	82%	92%	101%
Domestic	61%	93%	103%	111%	118%

Source: IATA/Tourism Economics Air Passenger Forecast, March 2022

OPEN MARKETS FOR ALL-CARGO SERVICES LET BUSINESS THRIVE

Where countries have adopted a more liberal policy, all-cargo services, whether traditional or express, have thrived as a result – and they have, in turn, helped generate valuable activity, jobs and other benefits for the many businesses that they serve. Air cargo typically accounts for about 35 per cent of international trade by value, as reported by IATA, and generates significantly greater income than inbound tourism for most States as reflected earlier.

However, there remains many countries that still follow a more restrictive approach in permitting market access to all-cargo air services. The current situation, globally, presents a very mixed landscape for cargo operators.

We must make sure we create the foundations of a resilient global air-cargo network that is ready for the next crisis. Let us make sure that ICAO and other regulatory bodies step up to this challenge and make it a top priority to define an open, flexible and distinct regulatory regime for all-cargo services around the world.

Such a regime must include the whole range of traffic rights, including fifth and seventh freedoms, so as to allow all-cargo operators the ability to optimise the use of their fleets by picking up cargo where and when there is demand for the service and transporting it to where and when the client requests it, with their dedicated fleet, through the most efficient routing; and to make efficient business decisions by allowing them flexibility in the routing of their cargo, and in handling their own fleets.

Such policies, in practice, support both all-cargo and passenger carriers and facilitate the commercial aviation sector fulfilling its global mission to be an economic force for good in support of the global economy and the United Nations 17 Sustainable Development Goals.

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