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# Economic Aspects of COVID-19 on Civil Aviation

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- **Economic impact of COVID-19 on civil aviation**
- **ICAO COVID-19 interactive dashboards**
- **Financial relief and mitigation measures**
- **Value creation to determine level of States Support**
- **Activities on air transport economics in support of CART implementation**



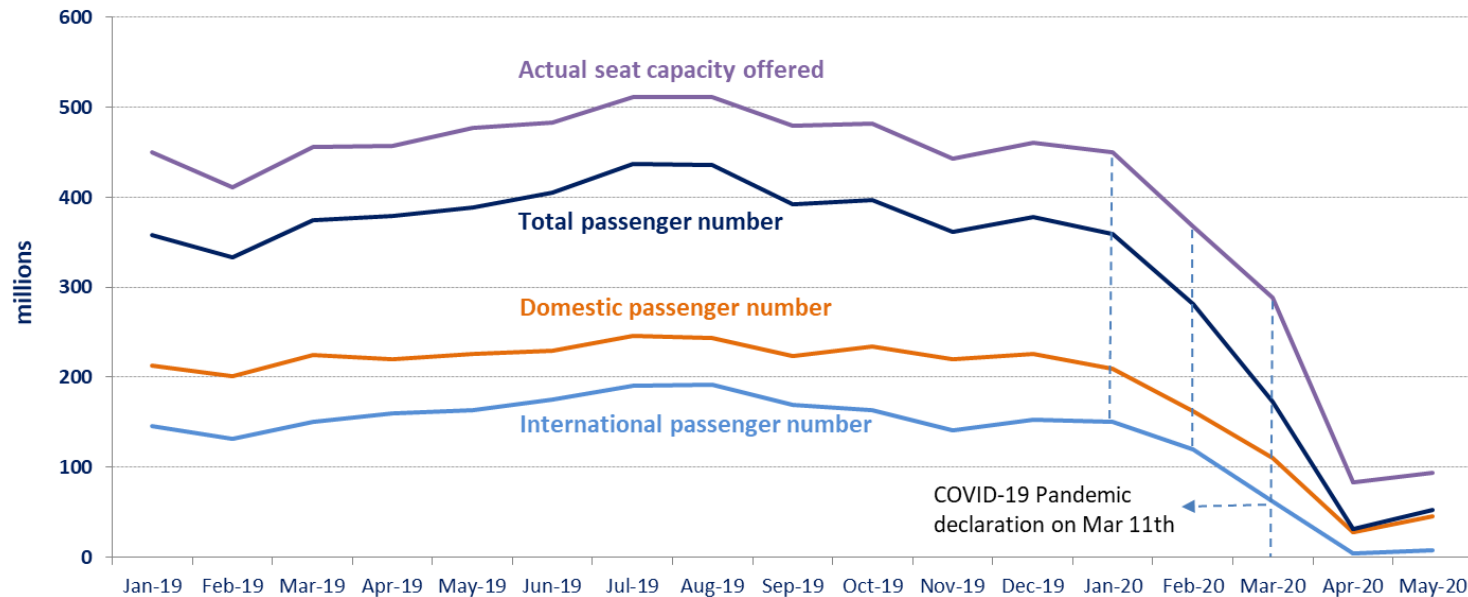
## Economic Impact of COVID-19 on Civil Aviation

Figures and estimates herein are **subject to substantial changes**, and will be updated with the situation evolving and more information available.



# Drastic capacity cut along with dramatic drop in demand

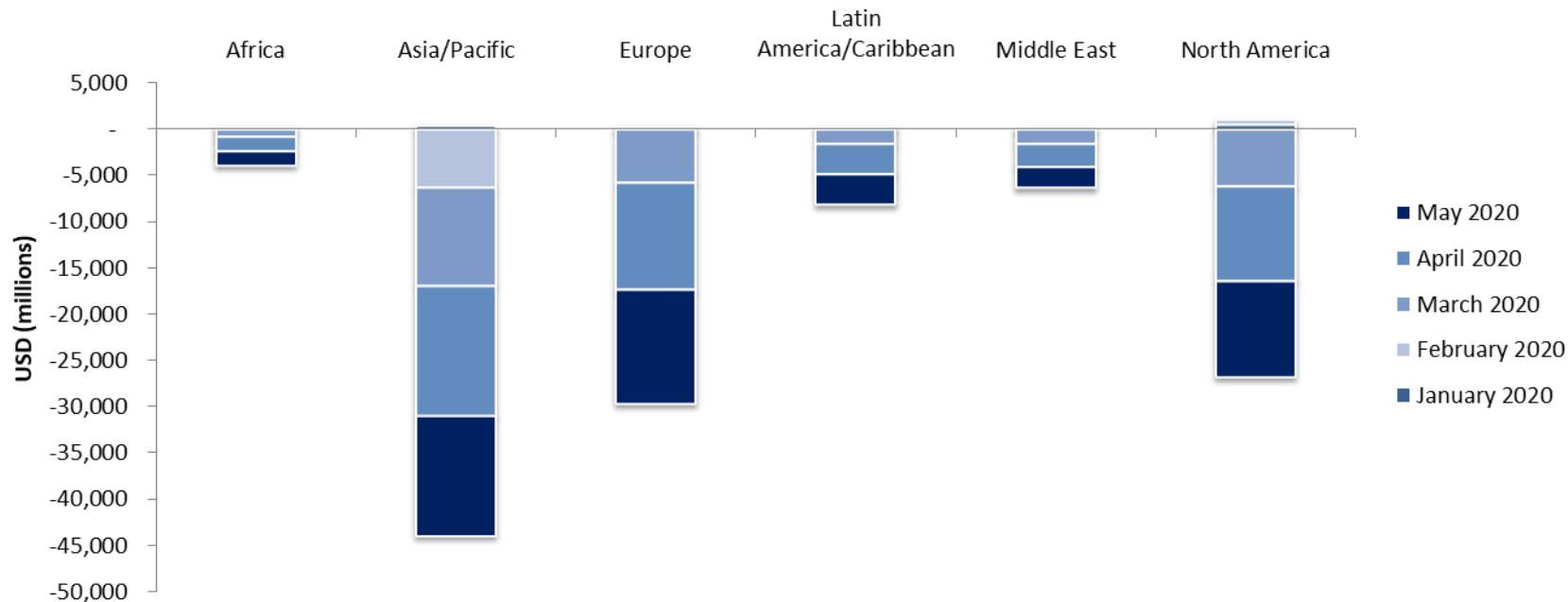
Both capacity and demand plunged, and reached the bottom low in April 2020 with merely less than 10% of the level seen in 2019; Number of passengers from Jan to May dropped by 48% from 1.8 billion in 2019 to 0.9 billion in 2020





# Airline passenger revenue of all regions plummeted

**Airlines are expected to loss approximately USD 117 billion passenger revenue from Jan to May 2020 compared to 2019**

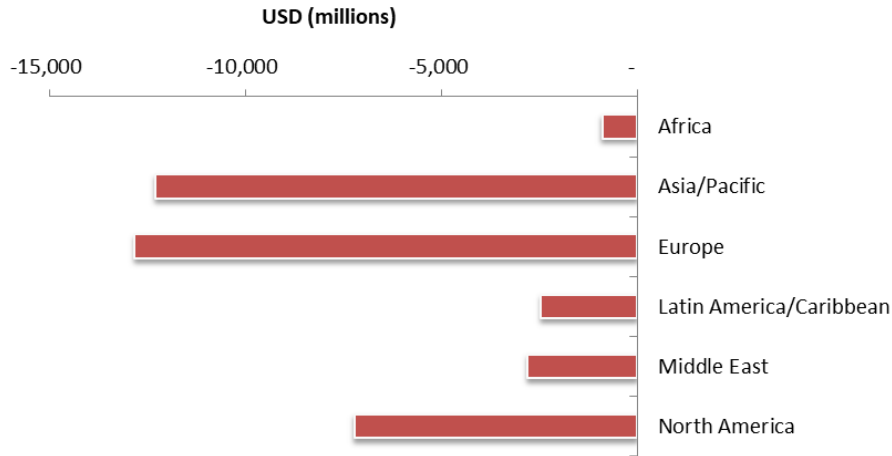




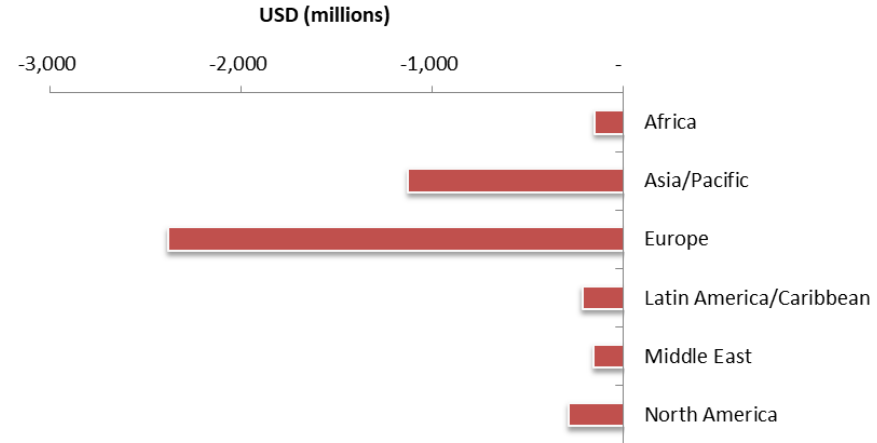
# Airport and ANSP revenues were also severely impacted

**Airport and ANSP are estimated to loss approximately USD 38 and 4 billion from Jan to May 2020 compared to 2019**

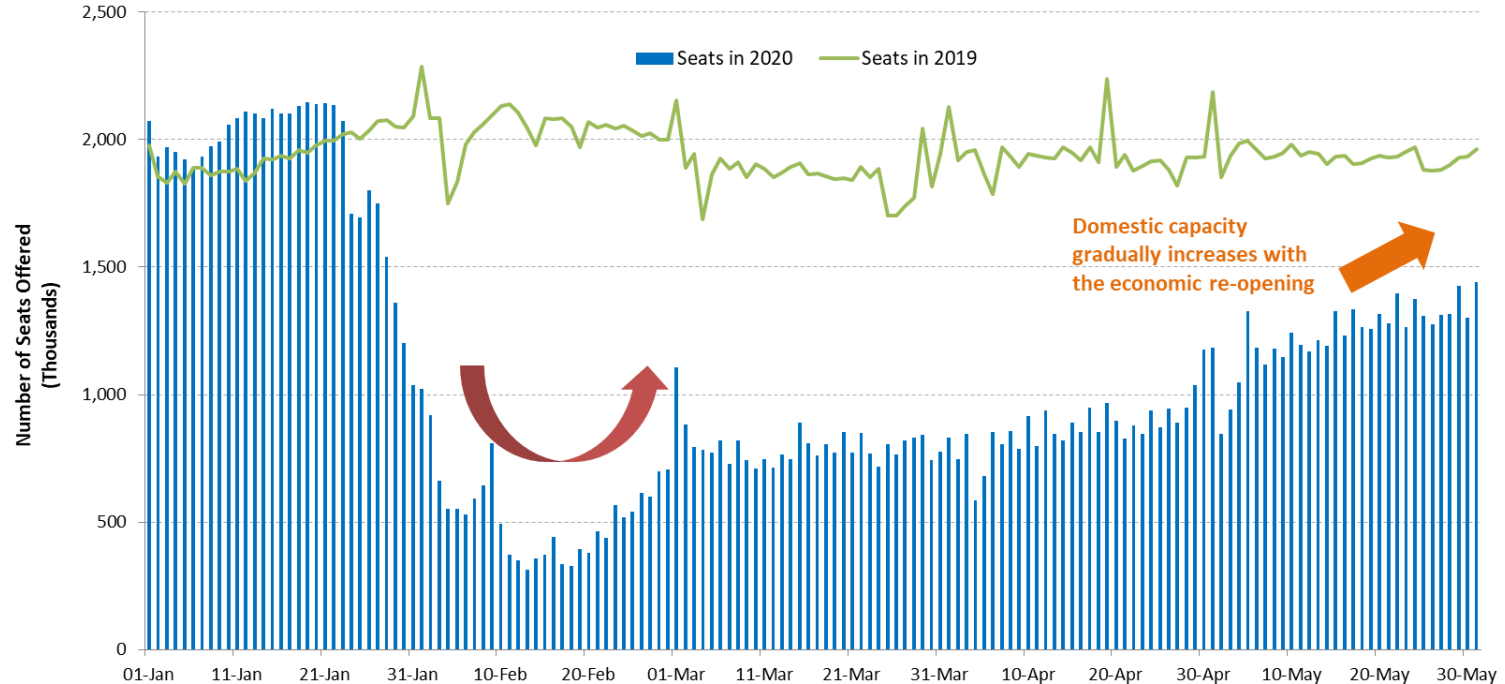
### Airport



### ANSP

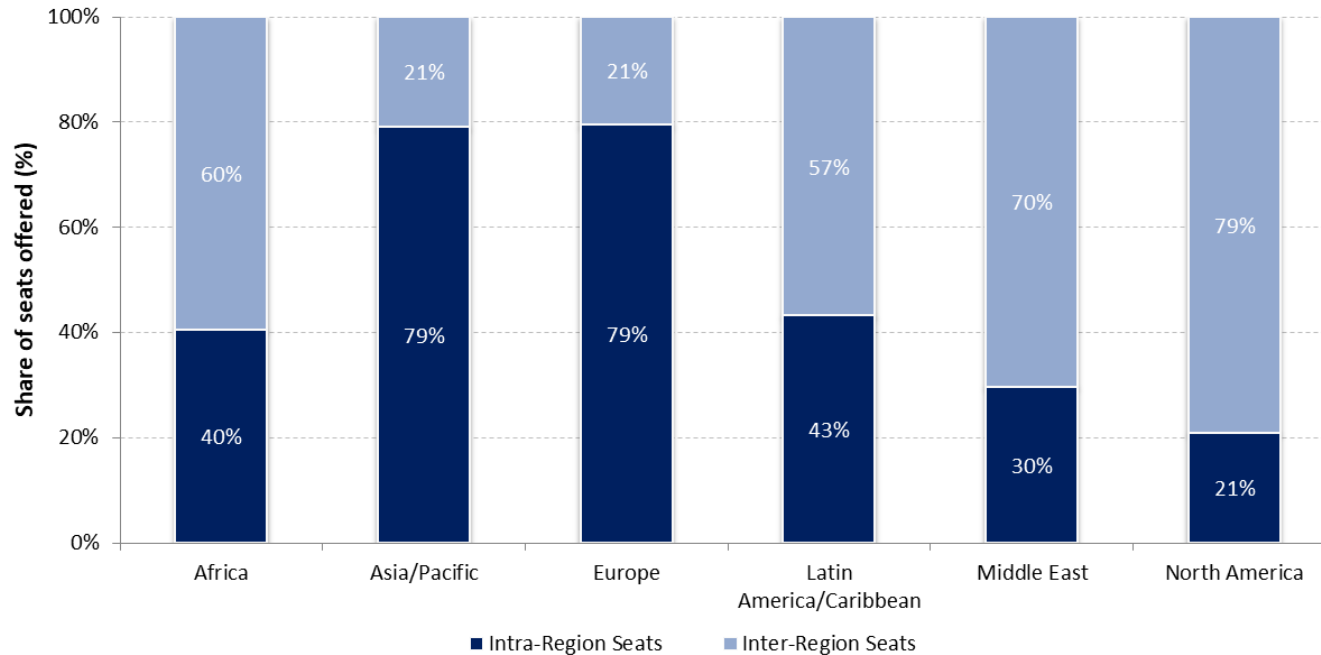


## Domestic passenger traffic in China already bottomed out in mid-February, followed by the slow pace of recovery

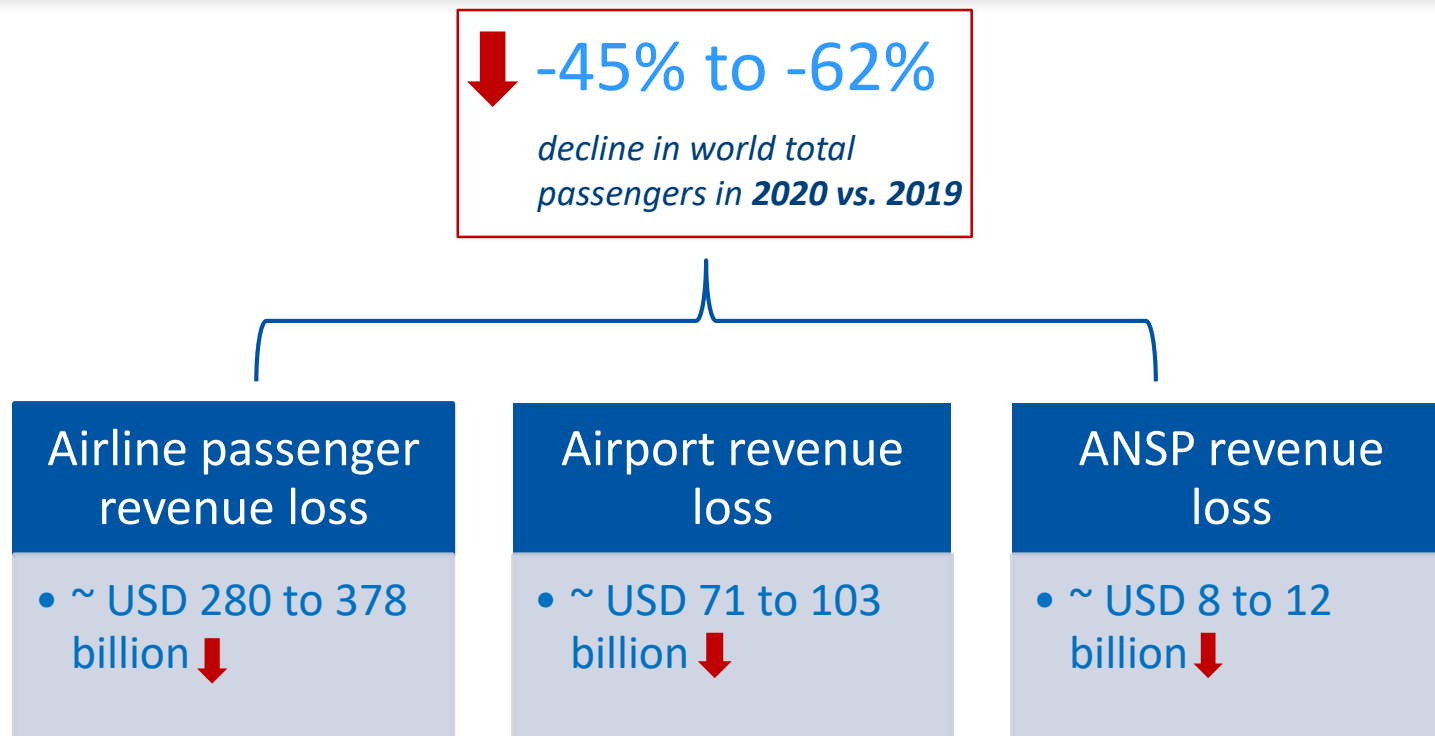


# Regions with higher share of intra-region traffic are expected to recover faster

**Almost 80% of international seats offered in Asia/Pacific and Europe were for intra-regional traffic (2019)**

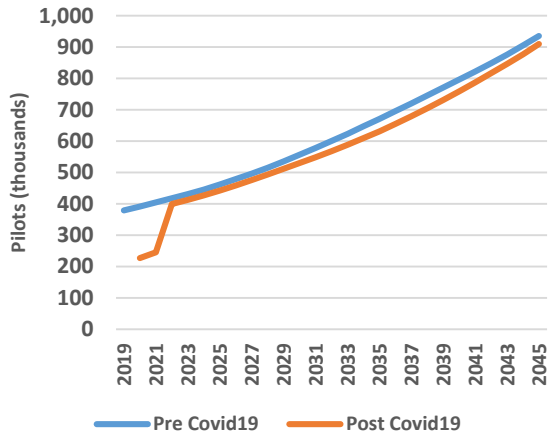


## Scenario estimate of industry revenue loss for the year of 2020

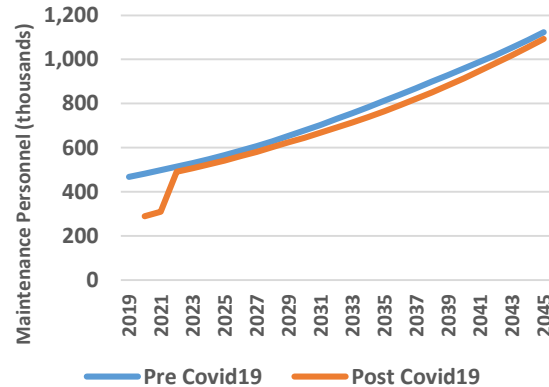


Demand for trained aviation professionals declines by 40% in 2021 before returning to 96% of pre-COVID-19 levels in 2022

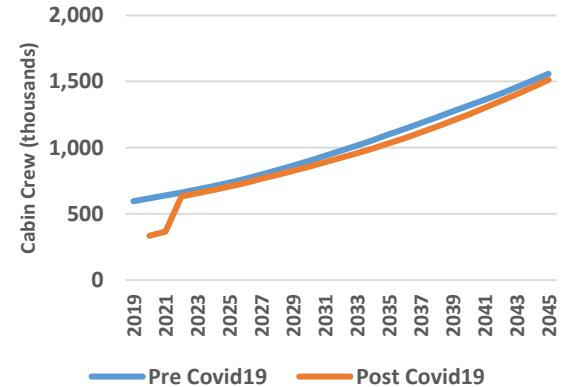
Global Demand for Pilots



Global Demand for Maintenance Personnel



Global Demand for Cabin Crew





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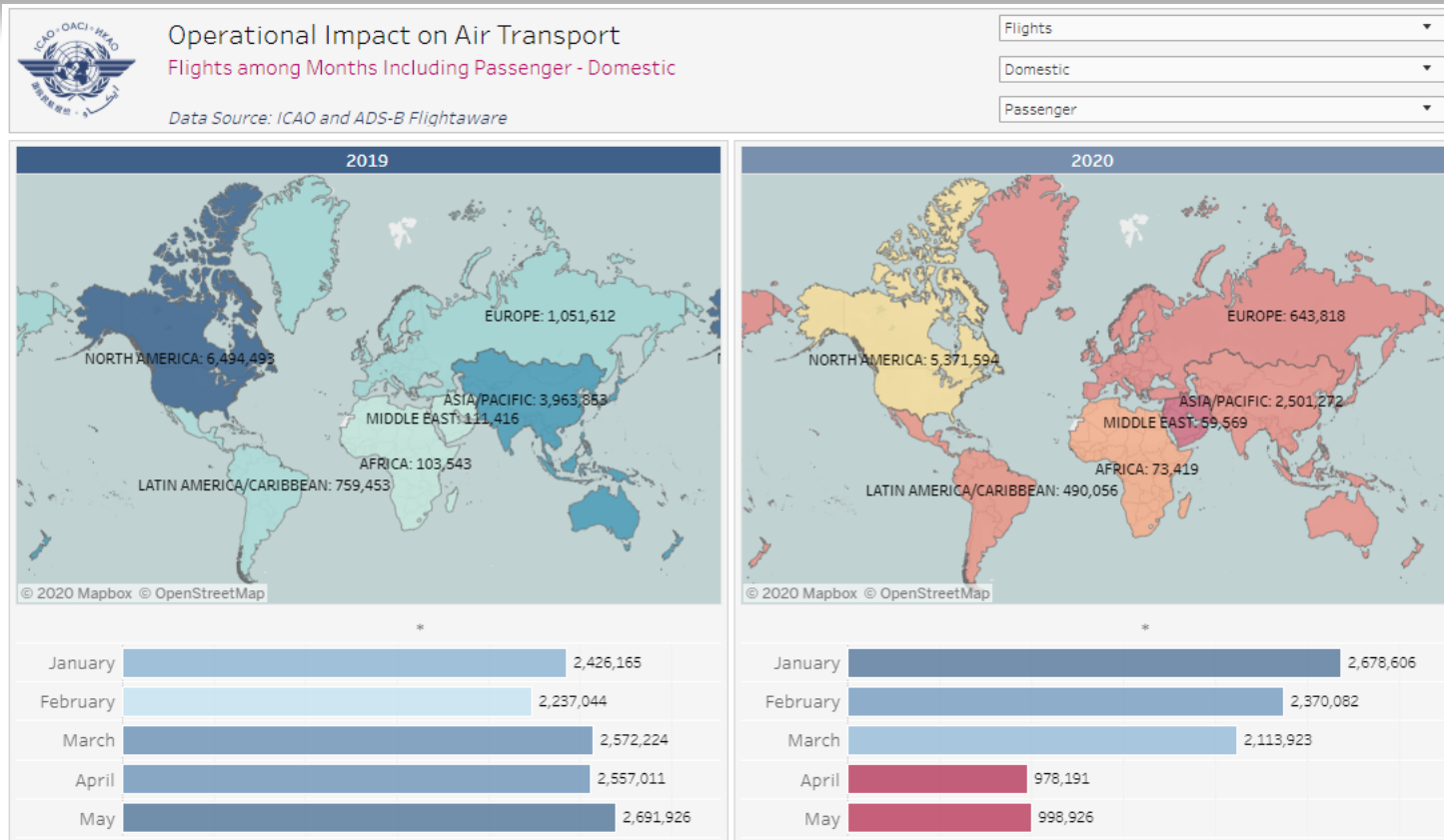
# ICAO COVID-19 Interactive Dashboard



**ICAO COVID-19 dashboards provide real-time data and trends to monitor and access the evolving impact of COVID-19 on civil aviation**

- **Operational impact on air transport**
- **Economic impacts including financial impact on airlines, airports and ANSPs**
- **Aircraft utilization**
- **Country-pair traffic**

***Link: <https://data.icao.int/COVID-19/>***





## Financial relief and mitigation measures



**Depending on the nature of the measures, in general, financial relief and mitigation measures can be classified into four categories**

- **Industry mitigation measures (operational)**
- **Industry mitigation measures (financial)**
- **State regulatory support measures**
- **State fiscal and monetary relief measures**



Form of measures	Effect/Impact	Constrain/Challenge
a) Increase in cost of travel	Enable air carriers to make operations on routes with break even at reduced load factors.	Higher price elasticity of demand might be expected due to pandemic.
b) Diverting excess passenger capacity to non-scheduled passenger and cargo operations	Put unutilized scheduled passenger capacity into use to infuse much needed liquidity.	Competition from other transport modes for carriage of cargo; Conversion of passenger aircraft to cargo entails upfront costs.
c) Fuel hedging	Provide certainty on future fuel costs and reduce the risk of unviable operations due to fuel costs variability.	Variability in real fuel prices could make hedging contracts unprofitable; Prices of hedges usually carry an upfront cost.
d) Mergers and acquisitions	Mergers and acquisitions within the air transport value chain will reduce the costs of operations and optimize use of capacity.	Monopoly and competition laws as well as restrictions on foreign ownership and control; poor valuations due to pandemic could act as a barrier.

Form of measures	Effect/Impact	Constrain/Challenge
a) Negotiation of reduced rates or defer payments to input providers	Lower costs, reduce short-term payments and free up cash; Make operations on routes break even at reduced load factors.	Existing contracts and business continuity concerns could adversely impact the negotiation on reduction or deferment.
b) Negotiation of reduced interest rates or deferred loan payments to lenders and aircraft lessors	Lower costs, reduce short-term payments and free up cash.	
c) Diluting equity or equity financing	Raise capital by selling shares in the market or by pledging it with financial institutions for a discount over market prices; Alternatively air carriers could issue preferential shares or convertible debentures to financial institutions where the capital has a loan and an equity component convertible at a premium over market at a future date.	a) Domestic and foreign financial institutions could buy shares directly from market instead of negotiating a discount with the owner if they expect valuation to decline further.
		b) States could limit ownership of equity if the investment is from a foreign fund or investor due to ownership and control restrictions.

Form of measures	Effect/Impact	Constrain/Challenge
d) Securitizing future earnings for present capital from State owned and private banks and financial institutions	Diverse funding and financing sources; Monetize existing and predictable cash flows expected to sustain business; Availability of capital could make some operations viable under a low demand, capacity constrained environment.	Uncertainty of future revenue streams; Process of securitizing can be complex. Discounting future flows carries a cost.
e) Monetizing the value of frequent flyer programme (FFP) such as mortgaging FFP for loans	Diverse funding and financing sources; Monetize existing and predictable cash flows expected to sustain business; Availability of capital could make some operations viable under a low demand, capacity constrained environment.	Potential unfavorable terms leading airlines to give up some control over the programme; could impact customer loyalty.
f) Cost control and management including reduction in hiring, reduction in salary, voluntary unpaid time-off, temporary furlough, reduction in workforce	Increase availability in short term working capital	Reduction in skilled workforce could impact post pandemic operations.

Form of measures	Effect/Impact	Constrain/Challenge
<p>a) Negotiation of more liberal agreements including open skies and cooperative arrangements on identified routes such as pooling agreement and joint venture</p> <p>b) Relaxation on foreign ownership and control rules</p>	<p>Availability of capital could make some operations viable under a low demand, capacity constrained environment</p>	<p>Regulatory changes take time and due process needs to be followed. Consideration of the valuation of its own national operators could impact the decision of the State to relax ownership and control regulations.</p>
<p>c) Temporary suspension of slot rules</p>	<p>Provide flexibility to allow air carriers to plan and adjust schedules with appropriate levels to respond to market conditions and changing demand projections; Air carriers can avoid the need to run empty services in order to maintain slots, and can allocate aircraft to other routes.</p>	<p>Limitation on allocating unutilized slots to those required operations. Timing of re-commencing or continuing the suspended slot rules could be a challenge.</p>
<p>d) Bankruptcy code</p>	<p>Can preserve the future valuation of air carrier and give a fresh start for future effort by canceling many of the unsecured debts, while allowing the carrier to pay Creditors a portion of debts depending on its ability to pay as indicated in the court order (called the Discharge); After filing for bankruptcy, the Discharge prevents the creditors of the carrier from taking actions to collect the debts.</p>	<p>Lack of bankruptcy law in States, creating a bankruptcy law is a lengthy regulatory process.</p>



Form of measures	Effect/Impact	Constrain/Challenge
a) Cash injection as grant, or through loans and loan guarantees with zero or low interest	Availability of capital could make operations viable under a low demand, capacity constrained environment; Valuation of air carrier of the State will be preserved with possibility of recoup through future valuation. Reduced bankruptcies of air carrier will preserve the direct and indirect value addition and jobs generated from air transport.	Competing priorities of the State by different sectors in the economy and the low value addition to the national economy from air transport relative to other sectors.
b) Wage subsidies or provide wage guarantee by absorbing a portion of wage costs for qualified personnel as deemed appropriate by the State		
c) Government takes equity in its air carriers with the option to sell it back to the carrier at a premium over market price when valuations improve		
d) Taxation relief, including alleviation of payroll taxes, corporate taxes, concession fees or other government incomes		
e) Reduction or deferred payment of taxes and charges imposed by State on operators		
f) Operating i.e. route specific grants		



## **Council Aviation Recovery Task Force (CART) Recommendation on Economic and Financial Measures**

***CART Recommendation 10** - Member States should consider appropriate extraordinary emergency measures to support financial viability and to maintain an adequate level of safe, secure and efficient operations, which should be inclusive, targeted, proportionate, transparent, temporary and consistent with ICAO's policies, while striking an appropriate balance among the respective interests without prejudice to fair competition and compromising safety, security and environmental performance.*



*Example 1 - Germany has thrown Lufthansa a €9bn lifeline, agreeing a bailout that gives Berlin a veto in the event of a hostile bid for the airline. The largest German corporate rescue since the coronavirus crisis struck will result in the government taking a 20% stake, which could rise to 25% plus one share in the event of a takeover attempt, as it seeks to protect thousands of jobs.*

*Example 2 - The United States confirmed on a USD 2 trillion stimulus packages under the Coronavirus Aid, Relief, and Economic Security Act (Cares Act) in March 2020. The approved programmes include USD 61 billion to the aviation section such as USD 25 billion in loans and loan guarantees for passenger airlines, repair stations and ticket agents, USD 4 billion loans and loan guarantees for cargo airlines, USD 10 billion in grants-in-aid for airports, and USD 25 billion in funding to be used exclusively for US passenger airline employee wages, salaries and benefits.*

*Example 3 - Air Canada is hoping to raise more than \$1 billion in share and debt offerings to bolster its cash position amid the financial devastation of the COVID-19 pandemic*



## Value creation to determine level of States Support



**International harmonized framework and tool to evaluate economic contribution of aviation**

- **Aviation Satellite Account (ASA) methodological framework to measure the direct value added of aviation**
- **Value Added Calculator to support States to assess how much value added can be generated through the support to aviation, as well as to the national economy as a whole such as GDP and jobs.**



## Activities on air transport economics in support of CART implementation



## Activities with respect to air transport and economics in ICAO global roadmap in support of States' implementation of the recommendations and guidance issued by the CART

Activity	Deliverable
Monitor and assess the economic impact of COVID-19 on aviation	ICAO economic impact analysis of COVID-19 on civil aviation
Update interactive dashboard to provide real-time impact and trends encompassing pertinent aspects of air transport	COVID-19 impact dashboard linking with UN
Develop post-COVID-19 air traffic forecasts	Updated ICAO long-term traffic forecast
Develop guidance on financial, operational and regulatory relief and mitigation measures by States and industry	Guidance material to elaborate Recommendation 10
Evaluate the economic contribution of aviation to national economy	Value added calculator allowing States and other users to evaluate the value creation from the financial support provided to aviation
Collect and disseminate information on passenger assistance, as well as financial and economic recovery measures	Compendium of these information



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