



Looking Beyond the Abyss

Some perspectives on developments and their consequences

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5th November 2020



Agenda

- A view on where the industry is now
 - Structural damage and change inevitable
- Perspectives and scenarios over the near and medium term and time taken to recover to previous levels of activity – meaningful forecasts are impossible
- Consequences for “airline models” as well as across the system – if airlines don’t make money then few in the system are able to either
- Opportunities as well as challenges

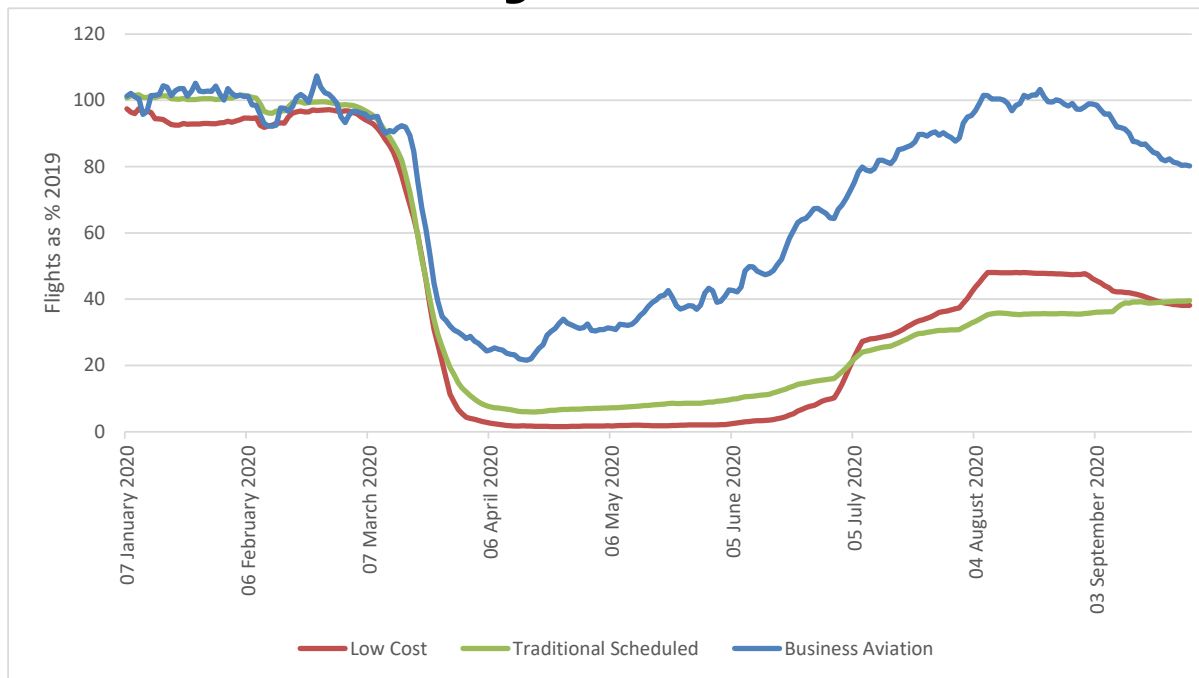


Where are we now? - some management views

- *“ Our new trading environment will involve: an industry and competitors that are structurally different; an economy recovering from deep recession; a customer base with new expectations and continued uncertainty on borders.....International destinations still unlikely to open until July 2021....majority of group international fleet expected to remain grounded in FY 2021” - Qantas FY20 results presentation 20th August 2020*
- *“the traffic assumption for Paris Aéroport is approximately -63% for 2020 compared to 2019. The recovery in traffic will be slow: traffic could return to the level reached in 2019 between 2024 and 2027. Regarding the group's international platforms, traffic could return to the level reached in 2019 between 2021 and 2023. Groupe ADP H1 2020 financial report*
- *“we predict that the market recovery will be a slow one; this means that we will be cutting our costs significantly and in the long run.... The market environment will remain challenging for years to come” – Lufthansa H1 2020 financial report*
- *“Relaunch 50 is aligned to reaching (a) traffic volume of between 50 and 60 million passengers in 2022/2023.... moderate growth is expected after this point and for the long term (in 2019 the number was 70.5 million)” – Fraport H1*
- *“The prospect of a recovery in travel markets during the second half of the year is increasingly uncertain, as governments grapple with a resurgence of local infections, with the re-imposition of community lockdowns and further tightening of travel restrictions.- AAPA DG June traffic results (where passenger traffic was just 2% of what it was in June 2019)*
- *Finnair has updated its traffic programme for October....it will fly approximately 70-80 daily flights instead of the previously planned approximately 200 to 42 destinations...In October 2019 Finnair flew about 350 flights a day to more than 100 destinations: News release 9th September 2020*



Flights handled by Eurocontrol

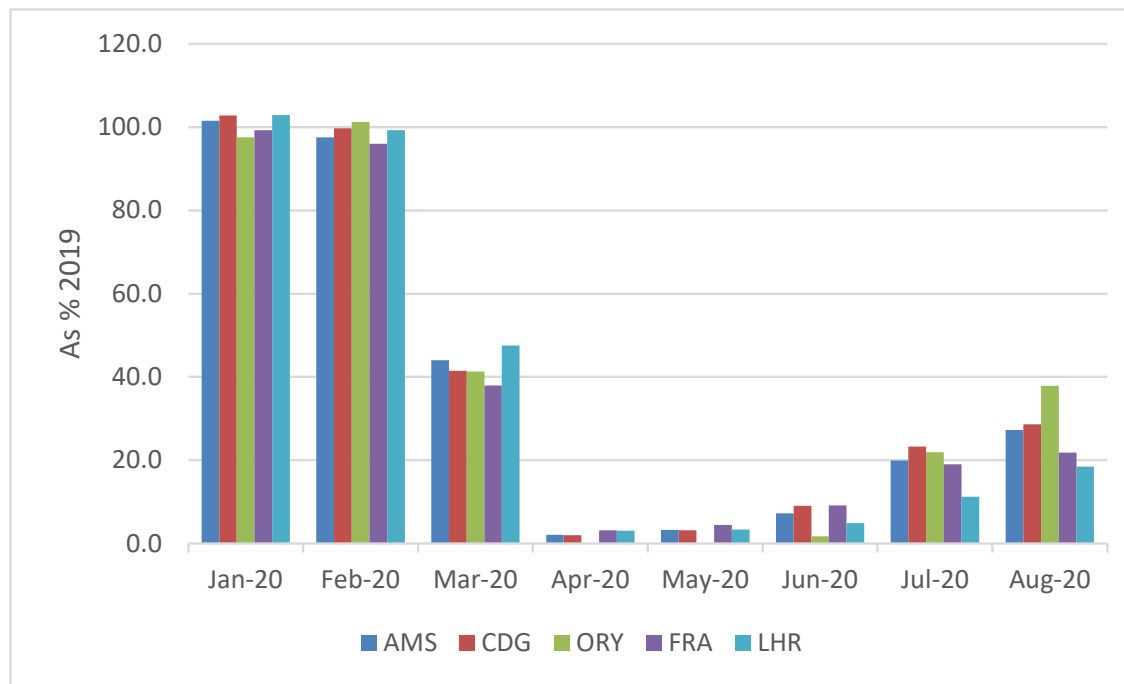


Source: CTAIRA from Eurocontrol data

- Business aviation at or above previous levels, Traditional scheduled stalled and “low cost” recessing and likely to fall further back given lack of momentum and follow through
- Dependence on domestic and short haul likely to continue given constraints associated with meaningful restart let alone recovery in long haul markets
- Absence of business traffic and increased significance of VFR traffic has had material impact on yields for both airlines and airports.



European airports experience

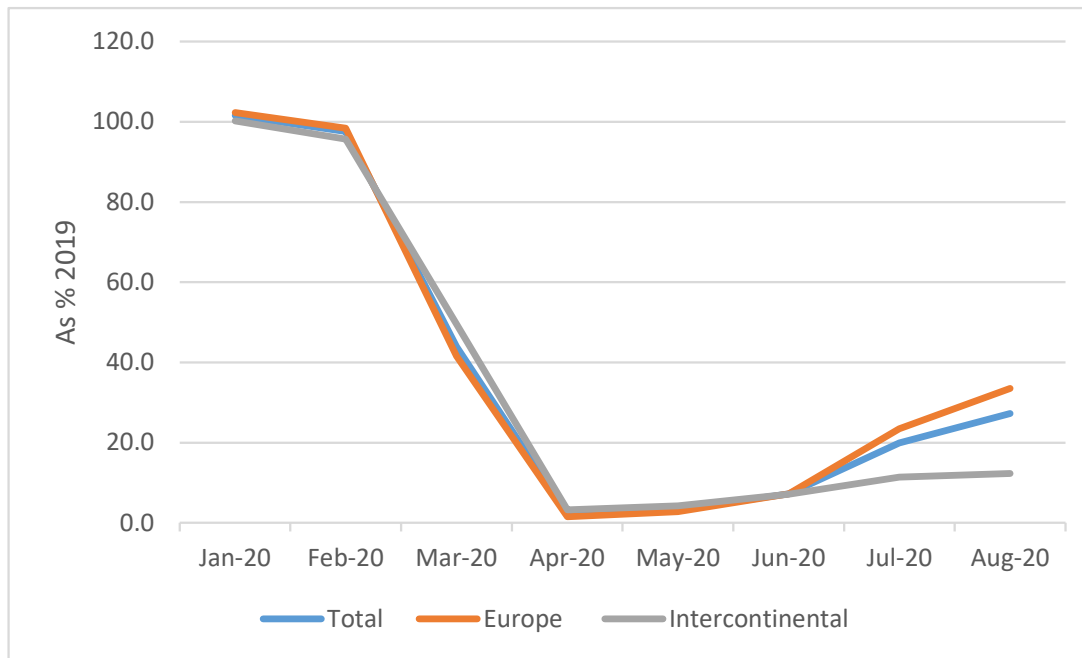


Source: CTAIRA from company data

- Elsewhere:
 - Gatwick in Q2 handled 45,000 passengers in 2020 vs 12.5m in 2019
 - In Q2 2020 LHR cash interest payable was £170m but revenue was £119m



Amsterdam – traffic by broad type

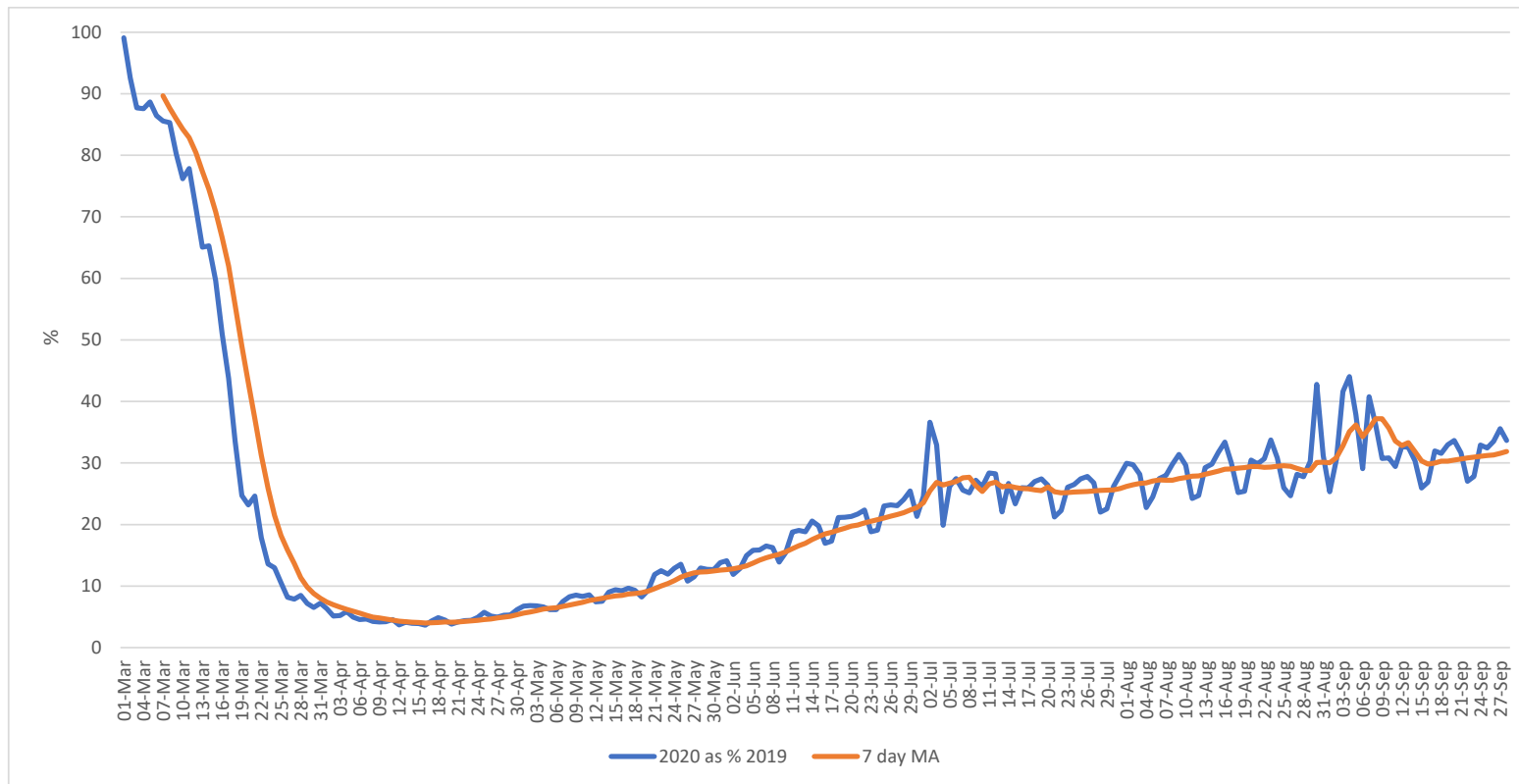


Source: CTAIRA from company data

- No real surprise but need to be clear of the likely impacts of what will be a structural change over the near and medium term



US passenger trends (1)

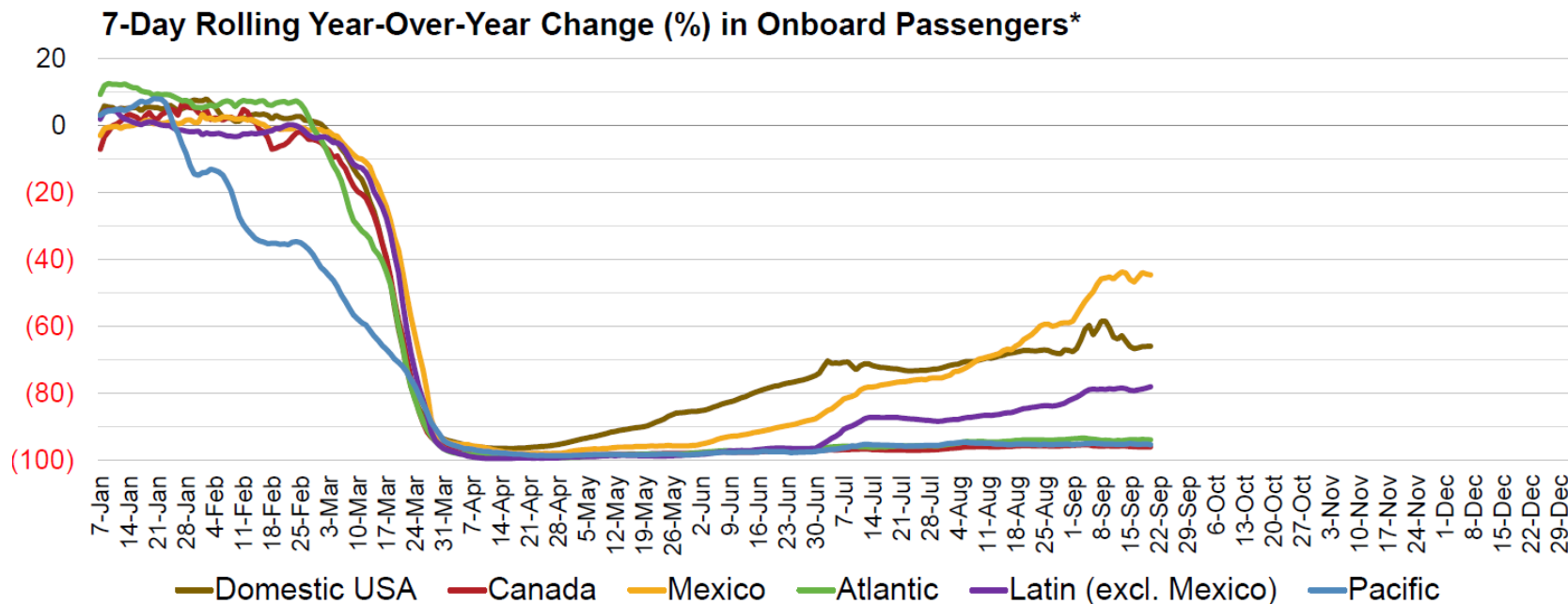


Source: CTAIRA from TSA data

- “Distortion” due to “4th July” and “Memorial Day” – outlook based on underlying trend suggests falling short of the previously expected 40% by start of IATA winter season



US passenger trends (2)



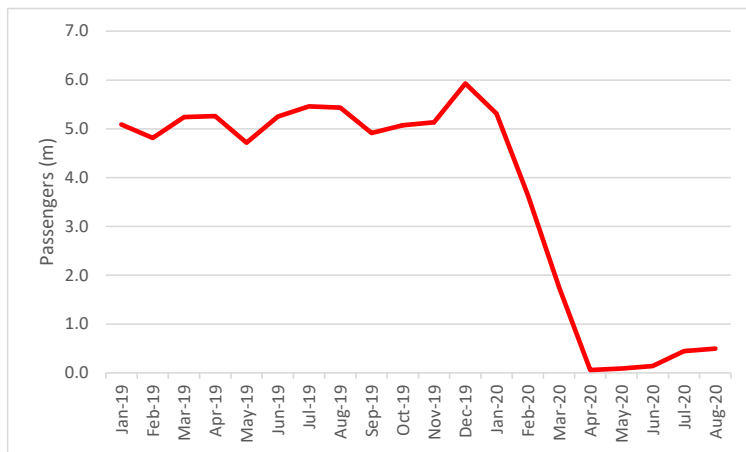
Source: Airlines for America

- Pacific, Atlantic and Canada flatlining
- Greatest relative recovery in traffic to/from Mexico reinforces view of VFR momentum
- Ending of CARES support will result in reductions in domestic service levels



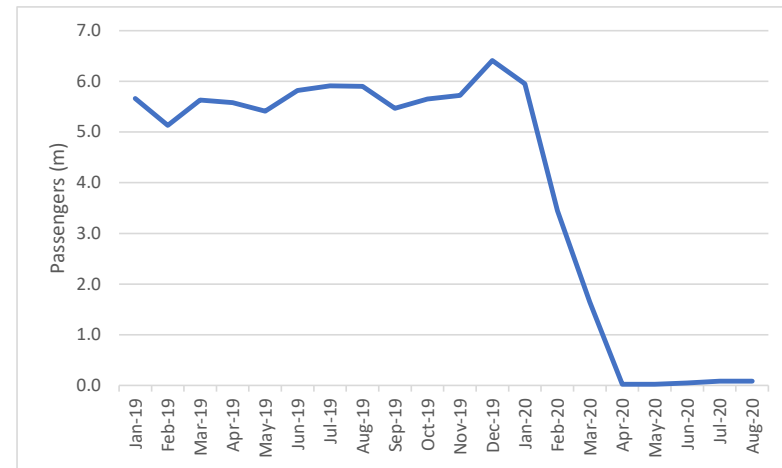
Asian Airport experiences

Kuala Lumpur (KUL) Airport



Source: CTAIRA from MAHB data

Singapore Changi Airport



Source: CTAIRA from CAAS data

- Singapore effectively closed and little activity at KUL
- Latest AAPA data shows August traffic for its members down 97% vs. August 2019.
- Elsewhere:
 - DXB is operating with +/-25% of movements but with only between 10-15 % of passenger volumes(20,000 pax a day) – material negative impact on transfer volumes given “thinned schedules”



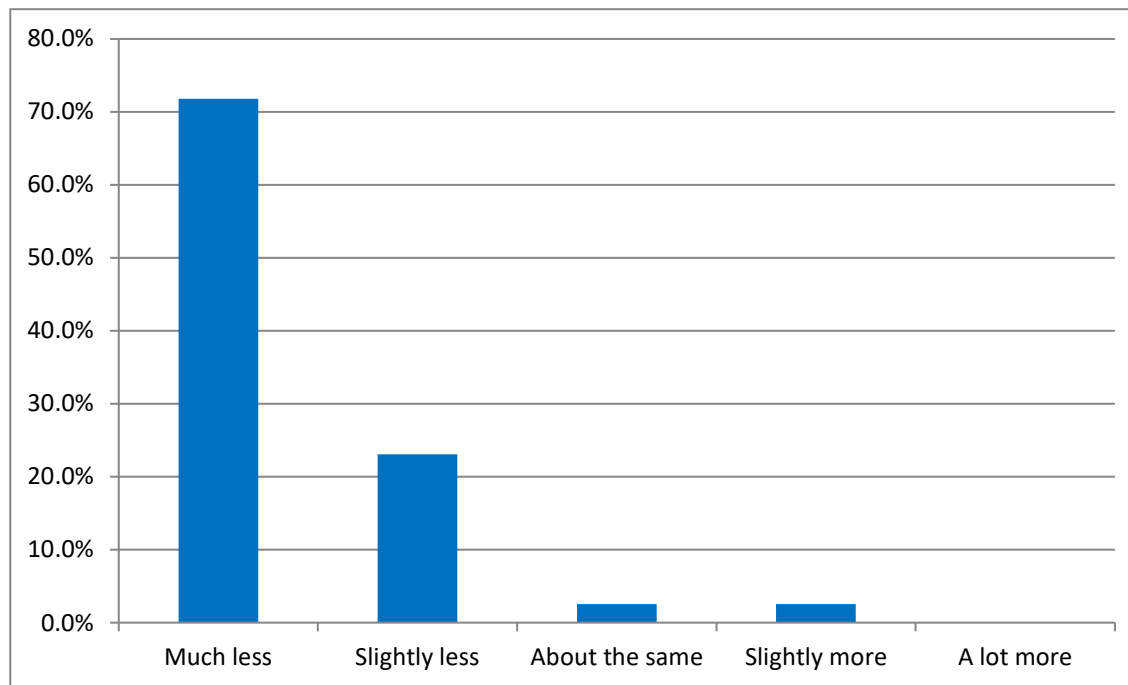
The current constraints

- We have identified the principal constraints to not only travel now but the speed at which it is likely to recover to previous levels as:
 - Closed markets
 - Government decisions and in first instance corridors with or without airport testing
 - Travel restrictions including ad-hoc introduction of quarantine
 - A function of in country outbreaks at each end of the route
 - Lack of passenger confidence
 - Function of risk perception and also “freedom to travel”
 - Economic damage resulting from COVID-19
 - Generally material and will be long lasting in some cases not least economies that depend upon inbound tourism
 - Cash
 - Need for additional new cash but to enable businesses to restart and recover and not just cover losses



View on future business travel

Compared with the last 12 months how do you expect business travel to be over the next year?



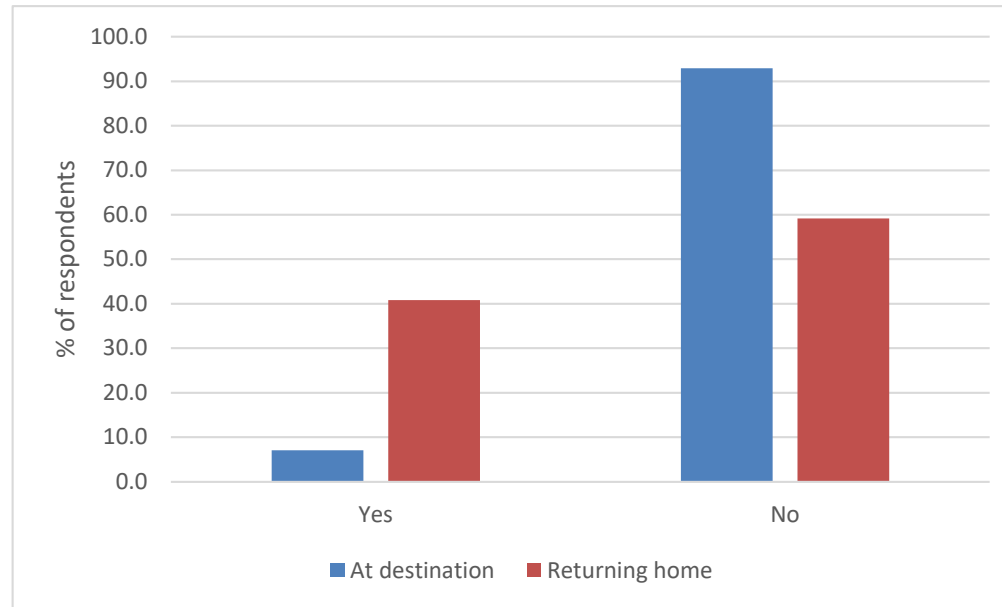
Source: CTAIRA Travel survey September 2020

- No real surprises here but issue then is how much is “much less”?



View on restrictions

Would you still travel if required to go into quarantine?



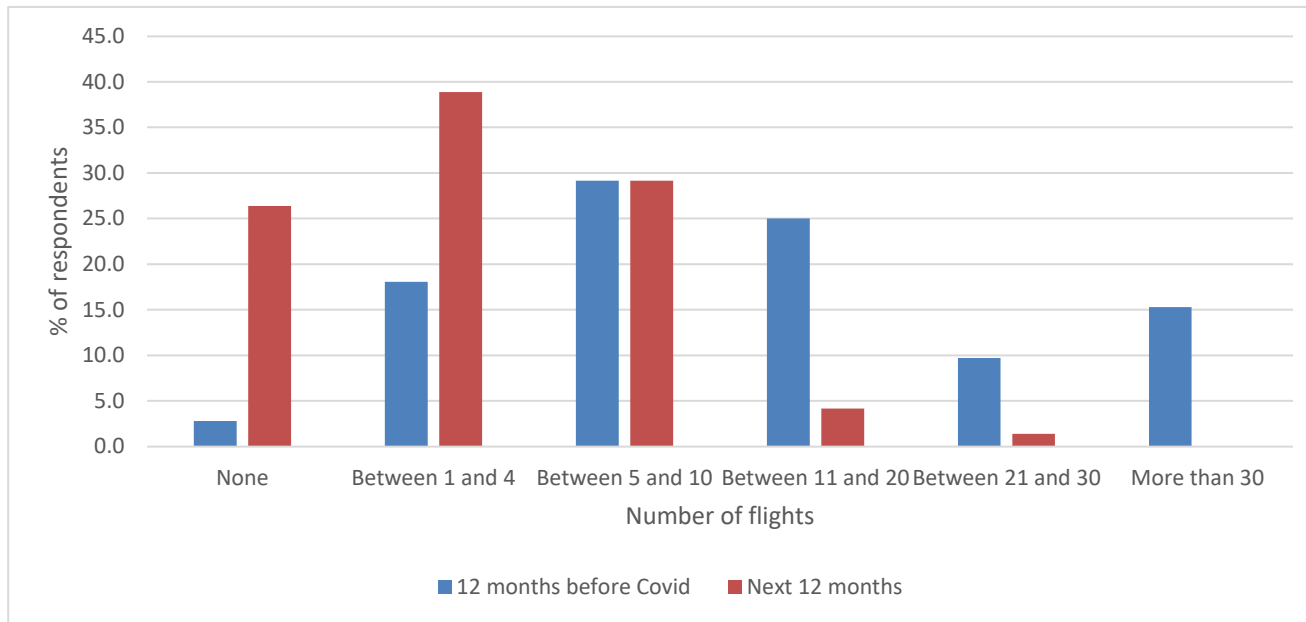
Source: CTAIRA Travel survey September 2020

- Not only quarantine but the unpredictability of its introduction a key constraint – whilst more people prepared to quarantine on return than when we last asked the question in late June, the proportion not willing to travel if need to quarantine on arrival broadly similar.
- Need an internationally agreed set of standards and testing to be put in place but where despite best efforts still insufficient traction where conditions and access determined nationally



View on number of business flights

How do you expect the number of business flights you take to compare pre and post COVID?



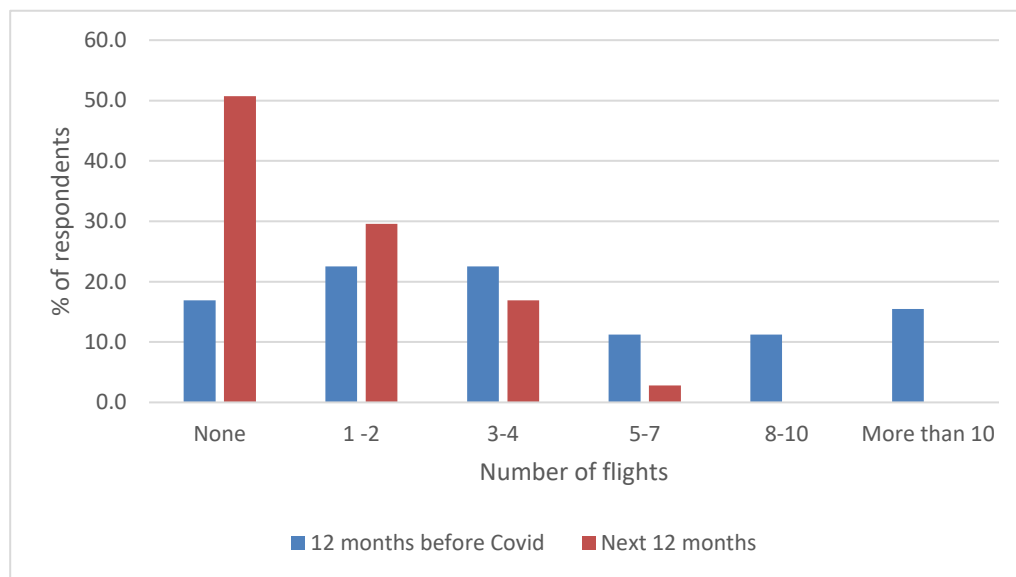
Source: CTAIRA Travel survey September 2020

- Deeper analysis of the data suggests that business travel over next year likely only to be some 30% of what it was in the 12 months pre-COVID
- Material volume and value effect for airlines, airports with consequences for cash



View on long haul business flights

How do you expect the number of long haul business flights you take to compare pre and post COVID?



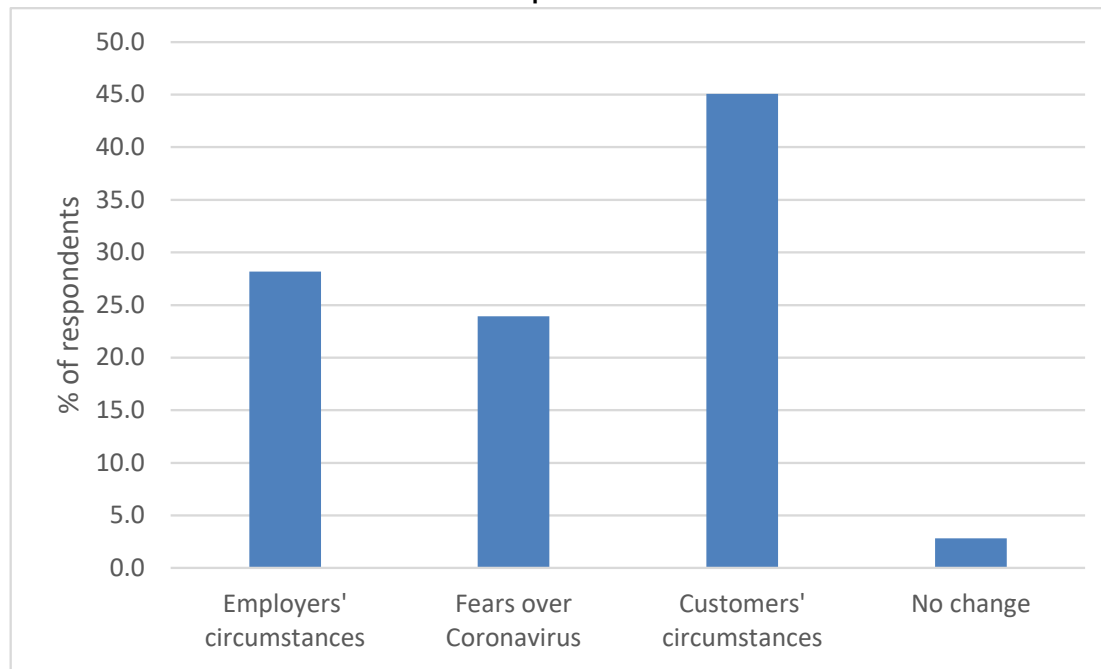
Source: CTAIRA Travel survey September 2020

- Expected collapse in long haul business flying – whilst not unexpected will be painful
- Material and likely structural reduction in long haul fleets and retirement of less efficient aircraft; utilisation of some modern aircraft unchanged vs a year ago
- However in week of 7th September 2020 89 flights scheduled for worldwide A380 fleet vs 2306 in corresponding week in 2019



The economic impact on travel

What is the reason for an expectation of lower business travel?



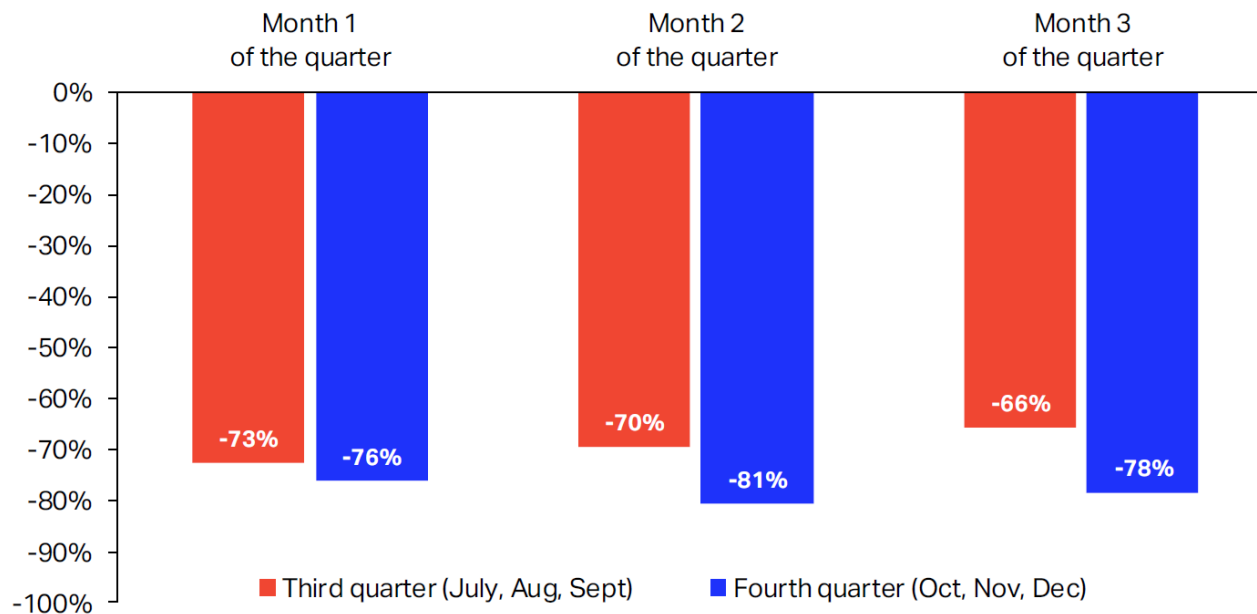
Source: CTAIRA Travel survey September 2020

- Almost 75% cited economic reasons



A pretty bleak outlook

Forward Bookings for the Quarter Ahead
(% change vs the same period a year ago)



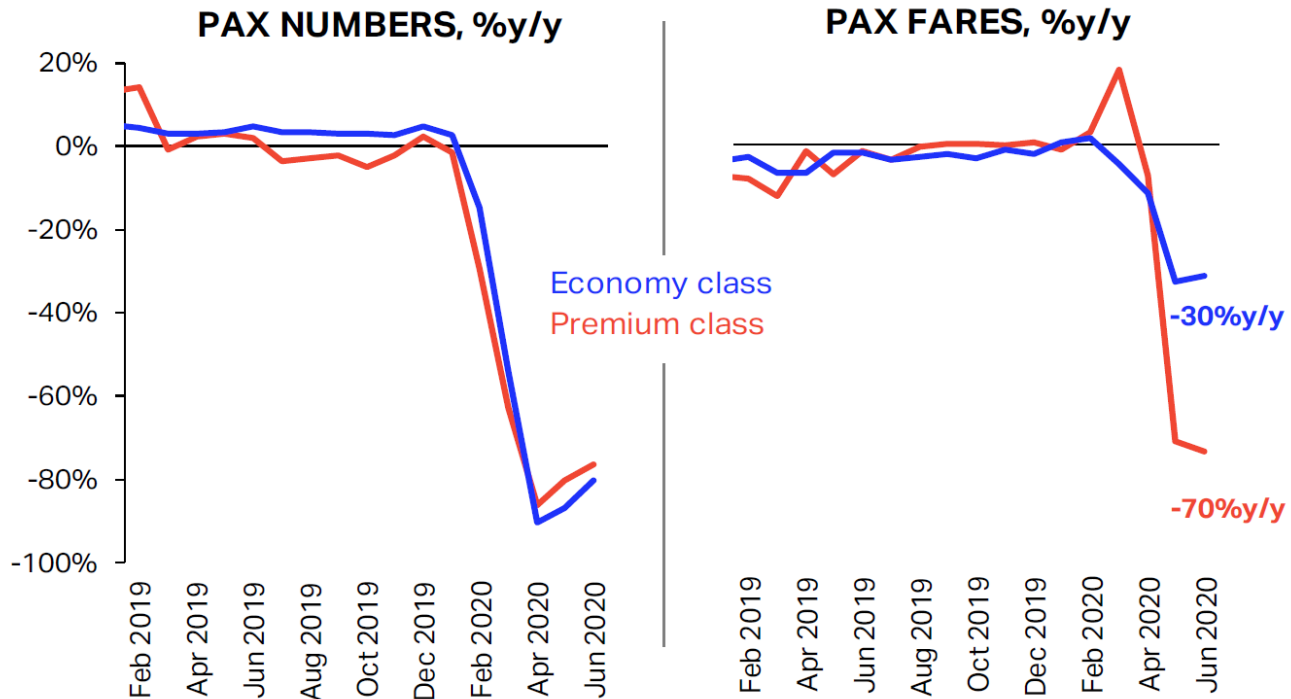
Source: IATA Economics using DDS ticketing data

- Late booking at best with the resultant challenges in terms of capacity planning and cash



Value as well as volume effects

Economy passengers moving into business class



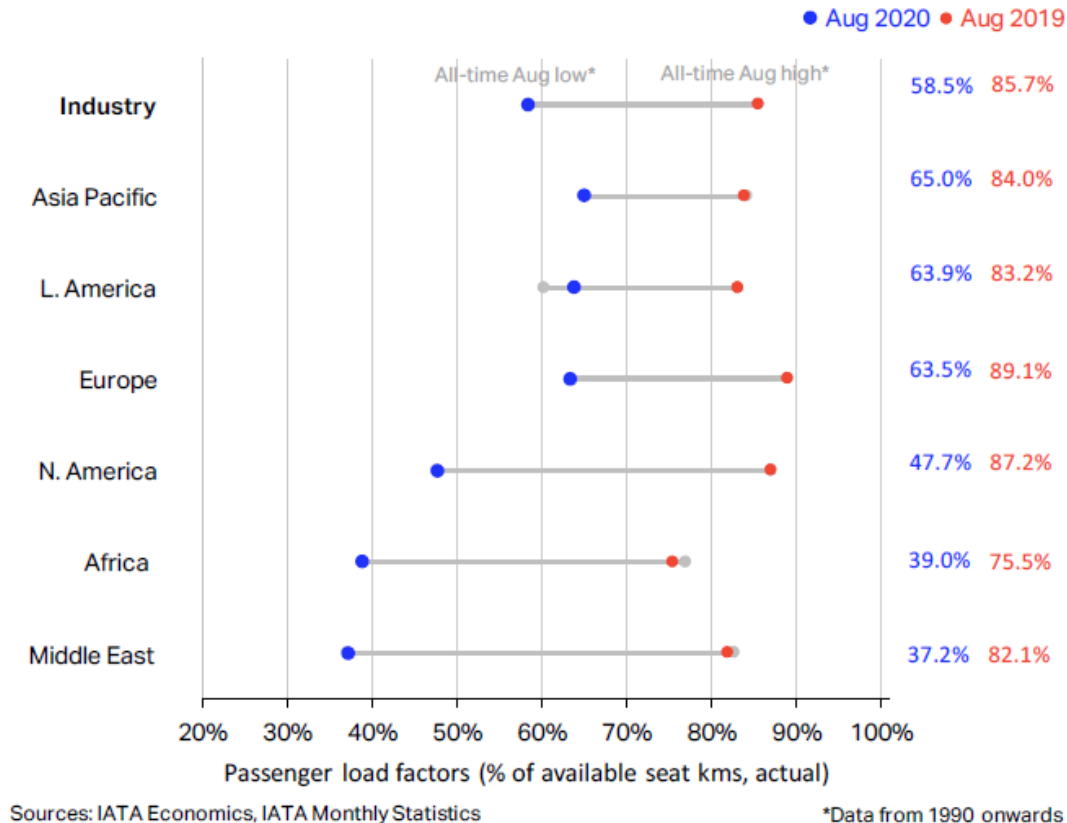
Source: IATA Economics using DDS

Premium class = first & business class

- Material and likely structural impact but where main near term impact is on yield and cash



Challenge to make money



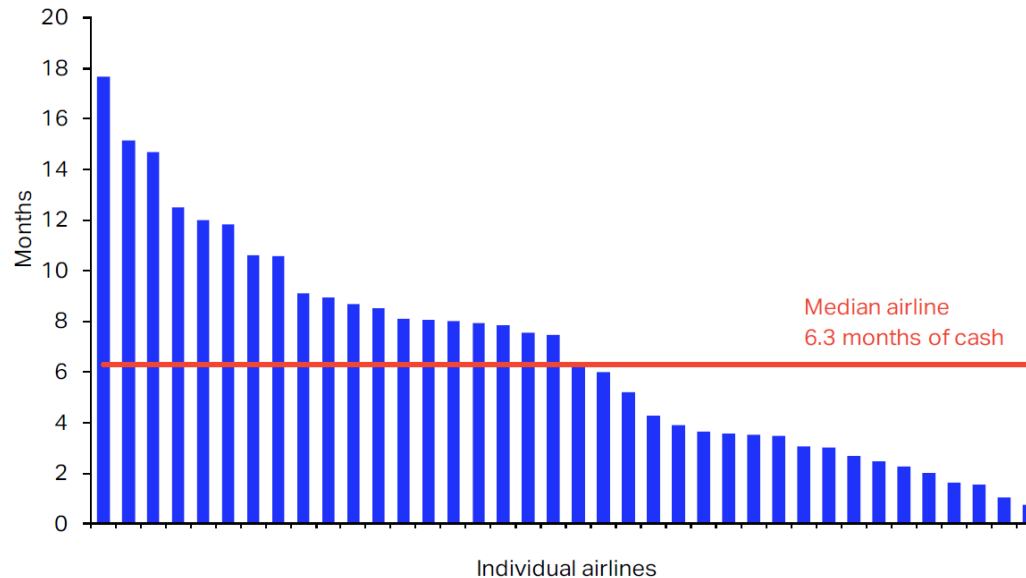
- Poor loads in the key revenue and cash earning month



Taking a view on cash

Cash may run out for some airlines during tough winter season

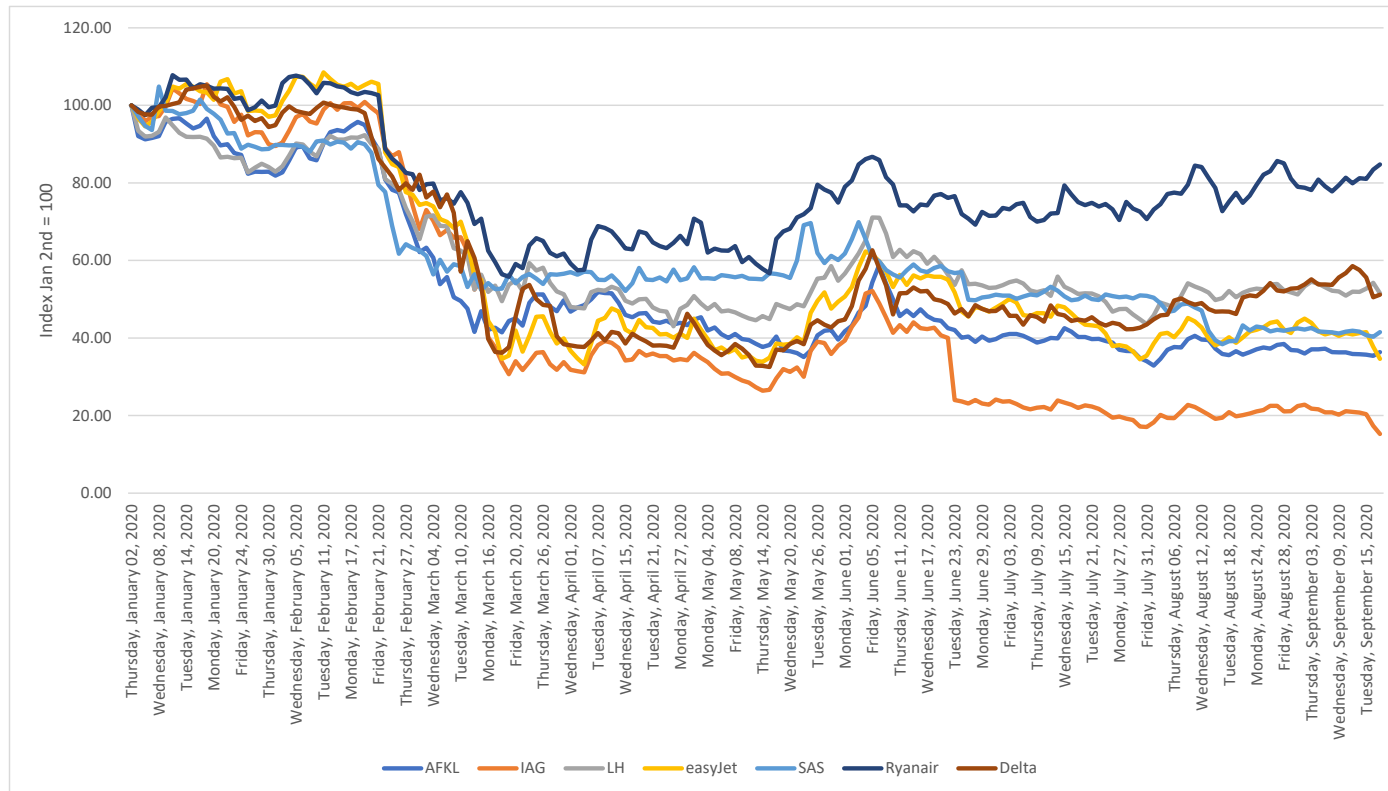
2020 Q2 cash + cash equivalents / 2020 Q2 cash burn



Source: IATA Economics using data from the Airline Analyst

- Will be worse in Q3, Q4 and Q1 2021 due to outflows and minimal inflow
- Increased gap between the “haves” and “have nots” largely determined by access to affordable capital - e.g. coupon on Finnair bond 10.25% (notwithstanding significant government ownership) vs 3% on Ryanair bond (was oversubscribed 4x).
- Not looking good but where will the cash come from and what are the consequences of it not materialising?

Selected share price movements - airlines



Source: CTAIRA from ft.com

- Not looking good but where will the cash come from and what are the consequences of it not materialising?
- Recent round of downgrading target prices



Still downside risk – no immediate bounce-back

Table 1: Gross domestic product, volume (percentage change on preceding year, 2001-2021)

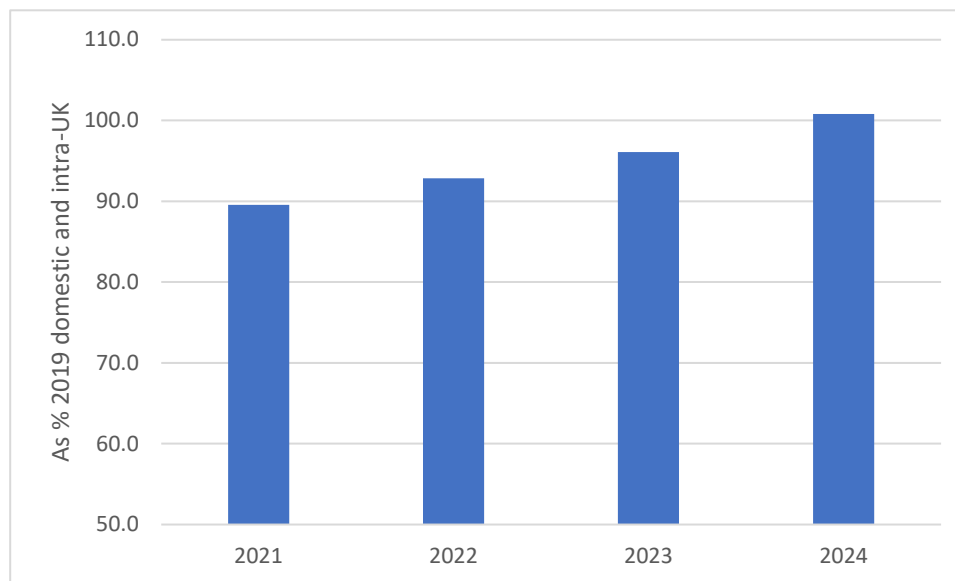
30.6.2020

	5-year averages			2016	2017	2018	2019	Summer 2020 forecast		Spring 2020 forecast	
	2001-05	2006-10	2011-15					2020	2021	2020	2021
Belgium	1.9	1.5	1.3	1.5	1.9	1.5	1.4	-8.8	6.5	-7.2	6.7
Germany	0.5	1.2	1.7	2.2	2.5	1.5	0.6	-6.3	5.3	-6.5	5.9
Estonia	7.3	-0.3	3.3	2.6	5.7	4.8	4.3	-7.7	6.2	-6.9	5.9
Ireland	5.3	0.4	6.7	3.7	8.1	8.2	5.5	-8.5	6.3	-7.9	6.1
Greece	3.9	-0.3	-4.0	-0.2	1.5	1.9	1.9	-9.0	6.0	-9.7	7.9
Spain	3.3	1.0	0.0	3.0	2.9	2.4	2.0	-10.9	7.1	-9.4	7.0
France	1.7	0.8	1.0	1.1	2.3	1.8	1.5	-10.6	7.6	-8.2	7.4
Italy	0.9	-0.3	-0.7	1.3	1.7	0.8	0.3	-11.2	6.1	-9.5	6.5
Cyprus	4.0	2.7	-1.7	6.7	4.4	4.1	3.2	-7.7	5.3	-7.4	6.1
Latvia	8.2	-0.5	3.6	1.8	3.8	4.3	2.2	-7.0	6.4	-7.0	6.4
Lithuania	7.6	1.1	3.8	2.6	4.2	3.6	3.9	-7.1	6.7	-7.9	7.4
Luxembourg	2.9	2.4	2.9	4.6	1.8	3.1	2.3	-6.2	5.4	-5.4	5.7
Malta	2.1	2.0	5.7	5.8	6.5	7.3	4.7	-6.0	6.3	-5.8	6.0
Netherlands	1.3	1.4	0.7	2.2	2.9	2.4	1.7	-6.8	4.6	-6.8	5.0
Austria	1.8	1.3	1.1	2.1	2.5	2.4	1.6	-7.1	5.6	-5.5	5.0
Portugal	0.9	0.6	-0.8	2.0	3.5	2.6	2.2	-9.8	6.0	-6.8	5.8
Slovenia	3.6	1.9	0.4	3.1	4.8	4.1	2.4	-7.0	6.1	-7.0	6.7
Slovakia	5.0	4.9	2.6	2.1	3.0	3.9	2.4	-9.0	7.4	-6.7	6.6
Finland	2.6	0.9	0.1	2.8	3.3	1.5	1.1	-6.3	2.8	-6.3	3.7
Euro area	1.5	0.8	0.8	1.9	2.5	1.9	1.3	-8.7	6.1	-7.7	6.3
Bulgaria	5.7	3.2	1.8	3.8	3.5	3.1	3.4	-7.1	5.3	-7.2	6.0
Czechia	3.9	2.4	1.7	2.5	4.4	2.8	2.6	-7.8	4.5	-6.2	5.0
Denmark	1.3	0.2	1.3	3.2	2.0	2.4	2.4	-5.2	4.3	-5.9	5.1
Croatia	4.5	0.5	-0.2	3.5	3.1	2.7	2.9	-10.8	7.5	-9.1	7.5
Hungary	4.4	-0.2	2.1	2.2	4.3	5.1	4.9	-7.0	6.0	-7.0	6.0
Poland	3.1	4.8	3.0	3.1	4.9	5.3	4.1	-4.6	4.3	-4.3	4.1
Romania	5.6	2.8	3.0	4.8	7.1	4.4	4.1	-6.0	4.0	-6.0	4.2
Sweden	2.6	1.8	2.2	2.1	2.6	2.0	1.2	-5.3	3.1	-6.1	4.3
EU	1.7	1.0	1.0	2.1	2.7	2.1	1.5	-8.3	5.8	-7.4	6.1
P.M.: United Kingdom	2.8	0.5	2.0	1.9	1.9	1.3	1.5	-9.7	6.0	-8.3	6.0

Source: Eurostat



A scenario for intra-EU traffic – UK



Source: CTAIRA WTF model

- Driven in part by underlying trend GDP growth rates but also where the likelihood is that at least in the near term (even allowing for “freedom of movement”) the volume of travel for any given level of GDP will be lower due to supply side adjustments. Similarly the value will be lower too given the structural change in at least near term demand.



APAC likely to recover quickest

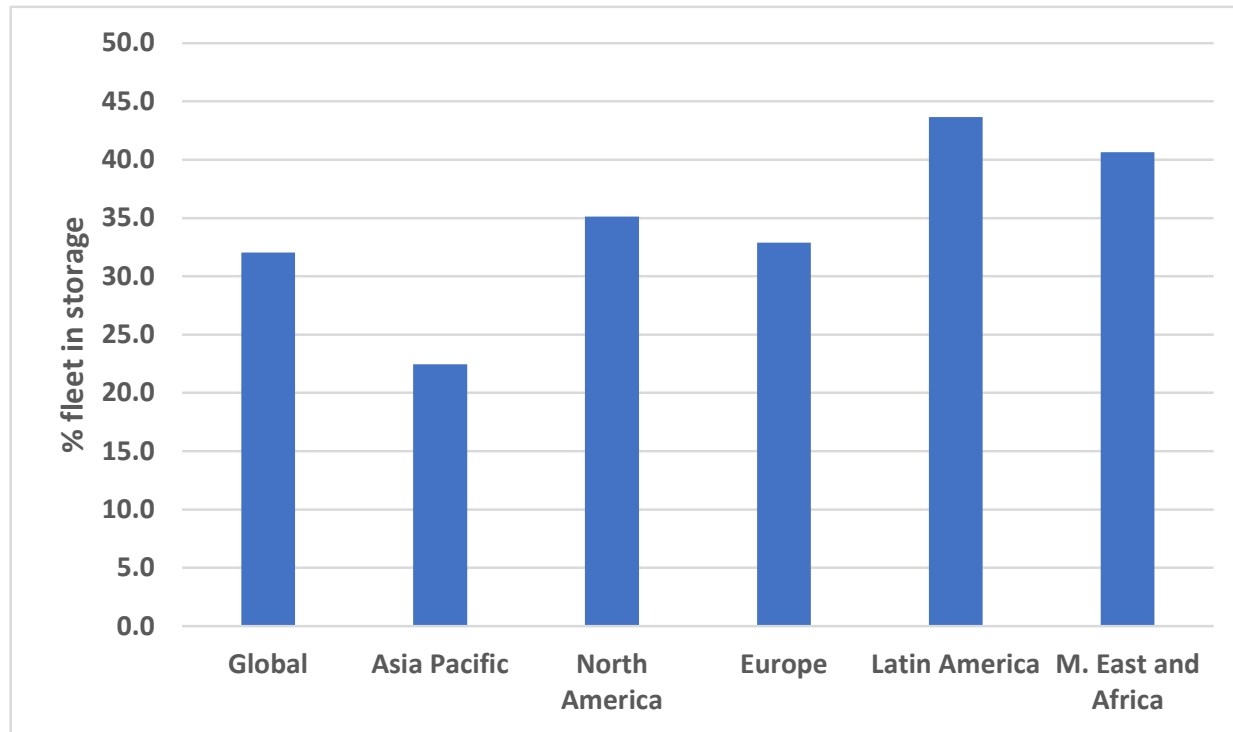
% change vs previous year	2018	2019	2020 forecast	2021 forecast
Bangladesh	7.9	8.2	5.2	6.8
Cambodia	7.5	7.1	-4.0	5.9
Hong Kong, China	2.8	-1.2	-6.5	5.1
India	6.1	4.2	-9.0	8.0
Indonesia	5.2	5.0	-1.0	5.3
Malaysia	4.8	4.3	-5.0	6.5
Maldives	6.9	5.9	-20.5	10.5
Pakistan	5.5	1.9	-0.4	2.0
People's Republic of China	6.7	6.1	1.8	7.7
Philippines	6.3	6.0	-7.3	6.5
Republic of Korea	2.7	2.0	-1.0	3.3
Singapore	3.4	0.7	-6.2	4.5
Sri Lanka	3.3	2.3	-5.5	4.1
Taipei, China	2.7	2.7	0.8	3.5
Viet Nam	7.1	7.0	1.8	6.3

Source: CTAIRA from ADB data

- Inevitably a wide range of experiences and expectations and in some cases a dip in growth this year and in many others a significant recovery in 2021.
- Experience of Maldives highlights the impact on tourism dependent economies.



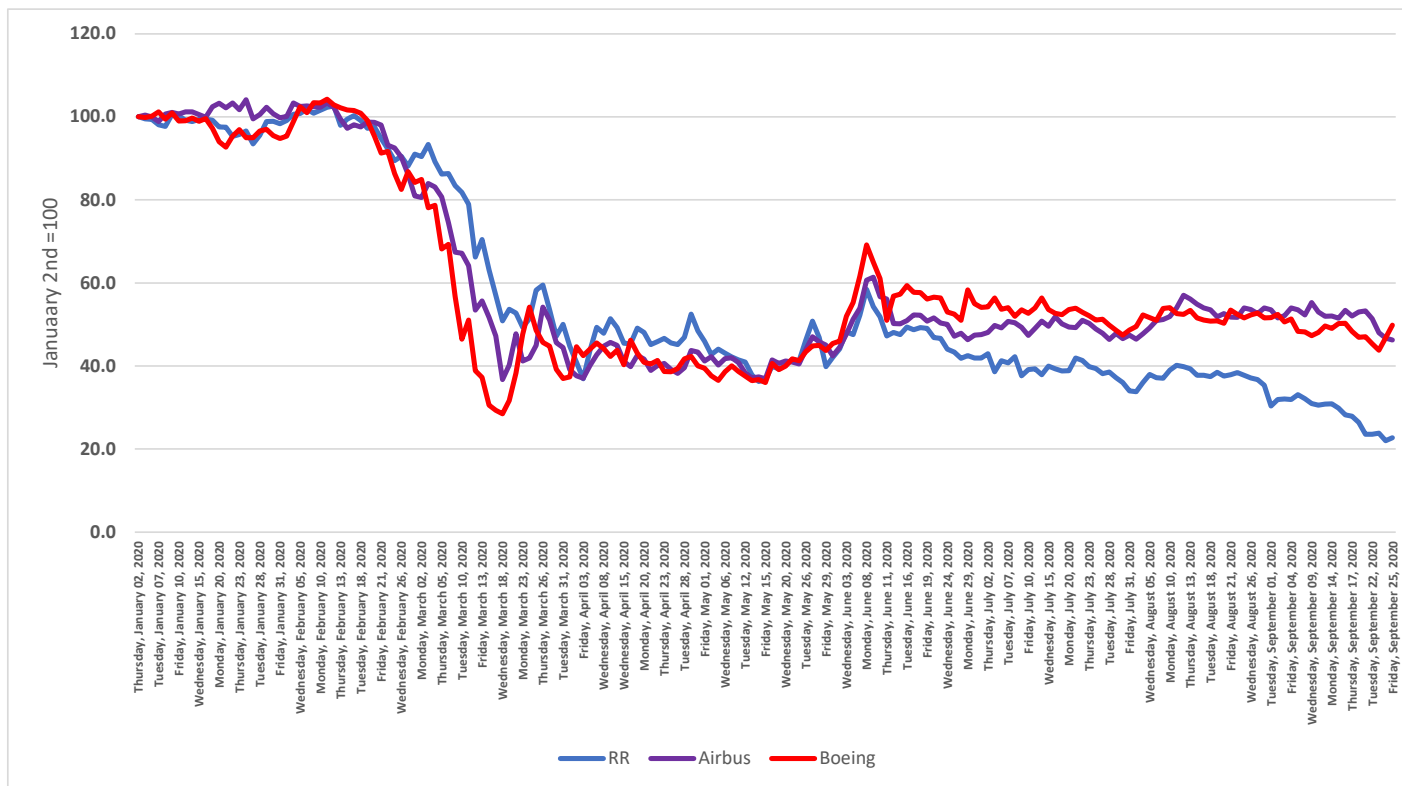
Taking a systems approach – by region



Source: CTAIRA from Cirium Airline Insights Report

- Clear that a significant proportion of these will have been permanently removed from service – and not just older long haul aircraft as are seeing 10 year old narrow bodies being scrapped

Selected share price movements - manufacturers



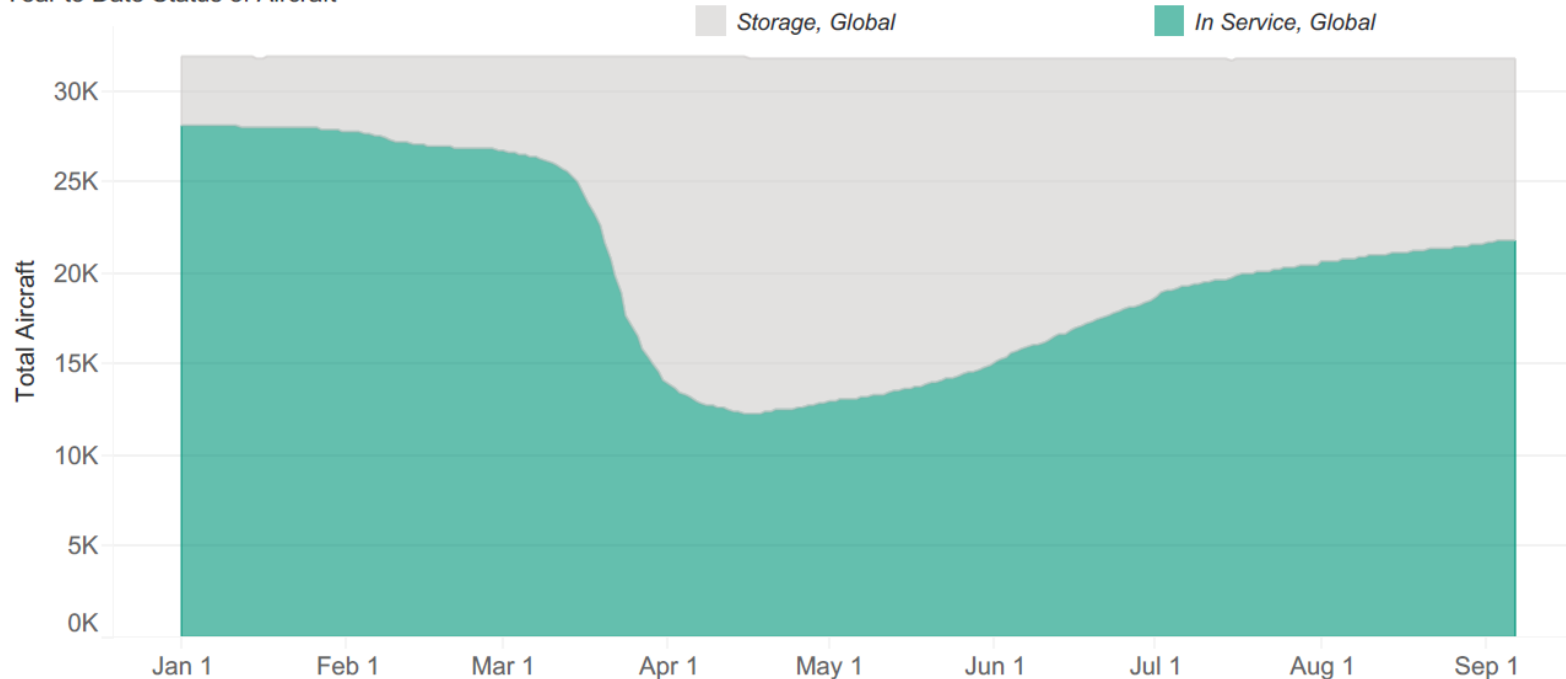
Source: CTAIRA from ft.com

- Real issues for Rolls-Royce



Taking a systems approach – global capacity

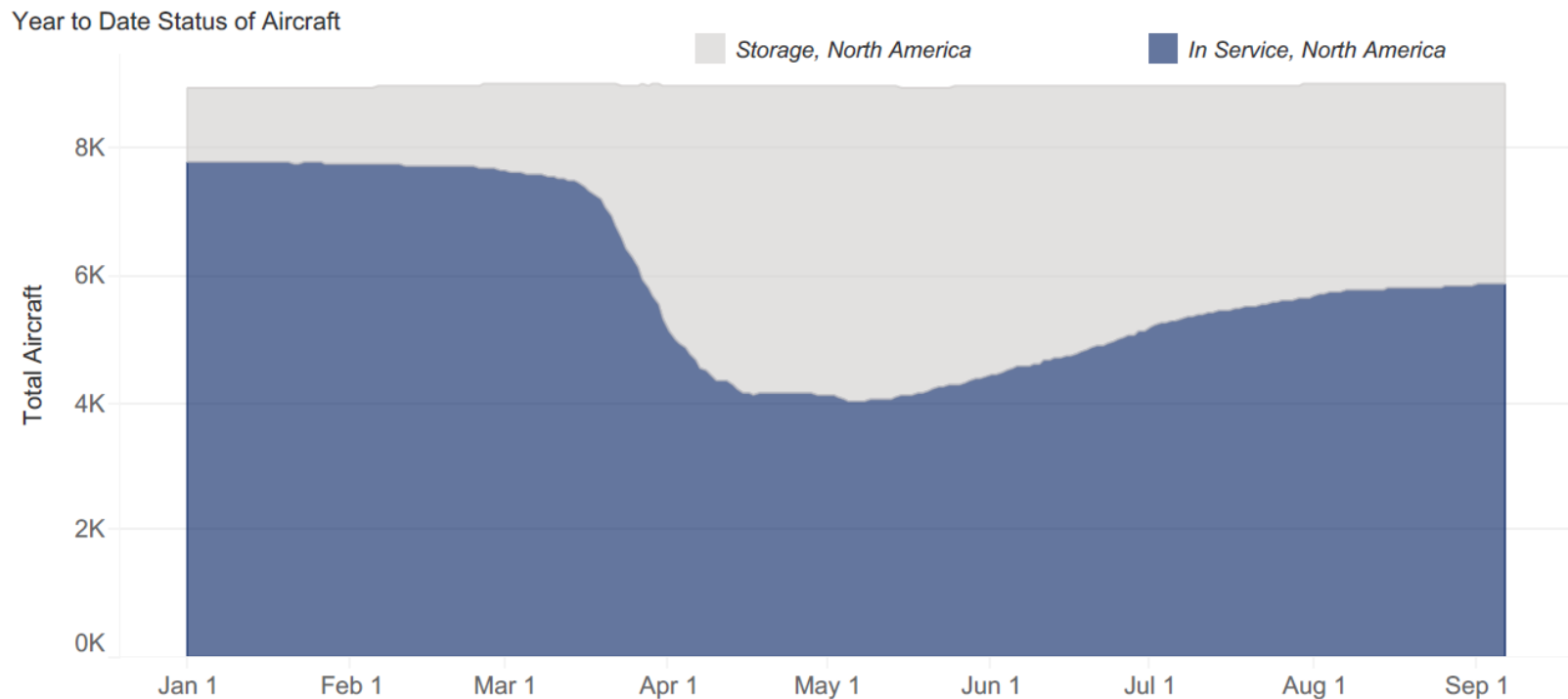
Year to Date Status of Aircraft



Source: Cirium Airline Insights Report

- Currently some 21,617 aircraft in service and 10,195 in storage.

Taking a systems approach – NAM capacity



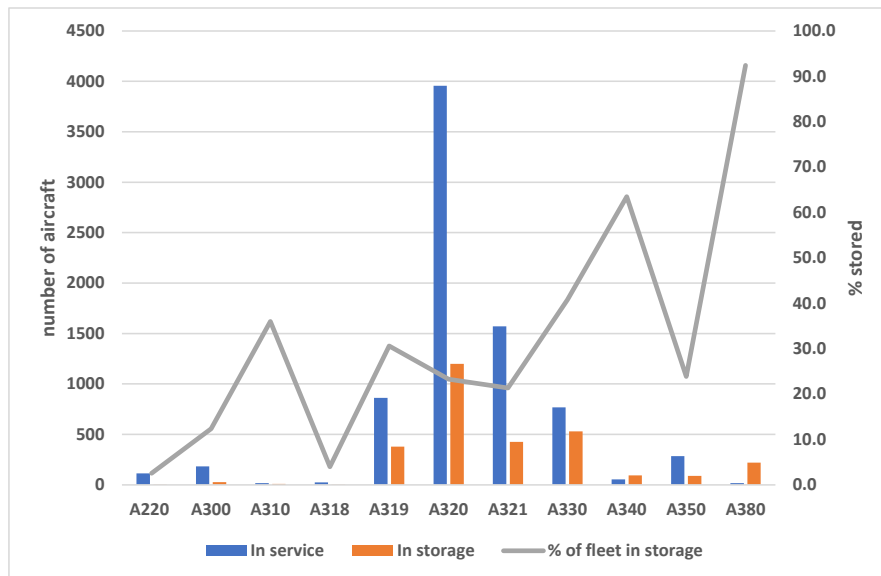
Source: Cirium Airline Insights Report

- Currently some 5,849 aircraft in service and 3,167 in storage.

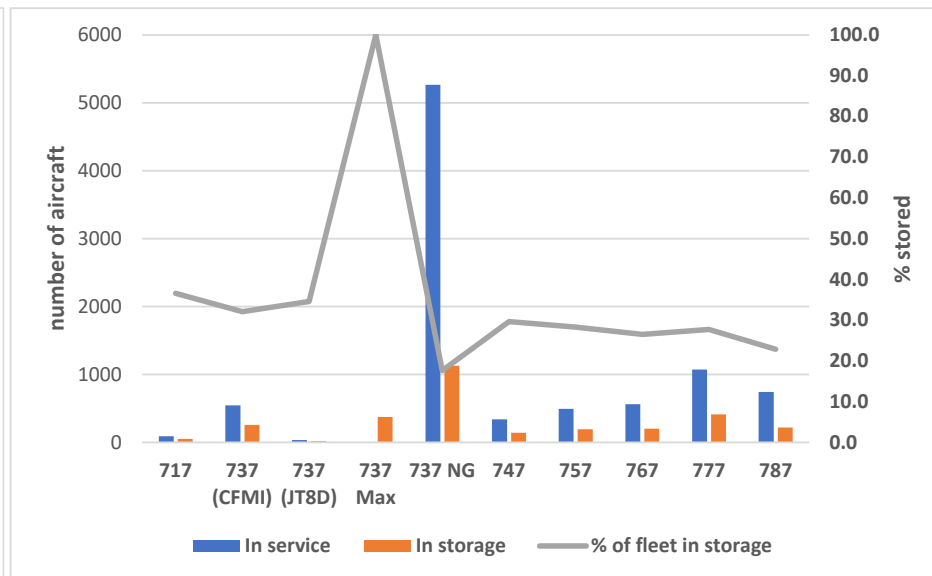


Activity by manufacturer and type

Airbus



Boeing



Source: CTAIRA from Ascend data

- Few surprises here - some very clear statements of intent re A380, B747 etc but also clear from utilisation statistics that where being operated A350 and B787 hours broadly similar to those of 2019



So what might it mean?

- Still facing a hiatus until at least the first two constraints (market access and restrictions) are relieved to some degree and where key issues for some remain (profitable?) restart (on a route basis) and for others a move to the recovery phase; Winter will be more challenging than previously expected.
- Traveller confidence related to testing and population wide testing
- The time taken for economies to bounce back, and then grow again, will have a material and differentiated impact
- End of “have metal will fly strategies” as crisis brings an opportunity to reduce non-productive fleet – secondary aircraft market still disorderly.
- New market entrants with new models particularly in dislocated markets with low cost of entry but also need for a number of small countries to consider “virtual airlines” as the only affordable way to provide required connectivity and economic and societal benefit.
- More point to point – as unless “demand aggregators” fully restore schedules then connecting services significantly decline in attractiveness.
- Potentially a more concentrated industry and a move back towards (sustainably profitable) demand side economics and away from supply side determination – the airline shake out has yet to run its course but is closer to hand as reality catches up with rhetoric and it becomes clear that sustaining the unsustainable is no longer possible.



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