

What to do with Excess Aircraft: Supply and demand scenario forecasting

The Ishka View

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Reading the signals

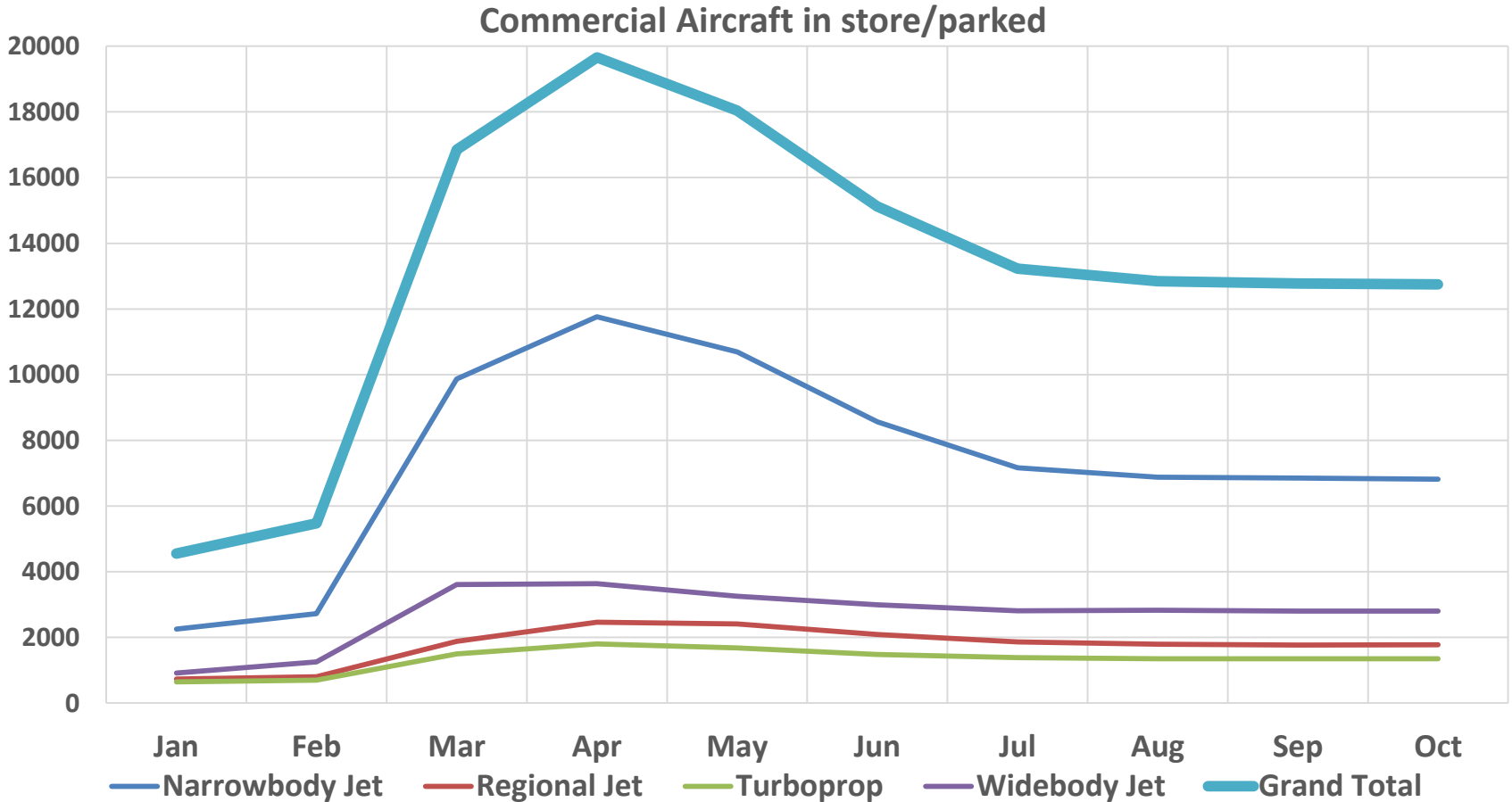
The Stored Aircraft Population

What is 'Excess' – and how to measure?

Scenario Building

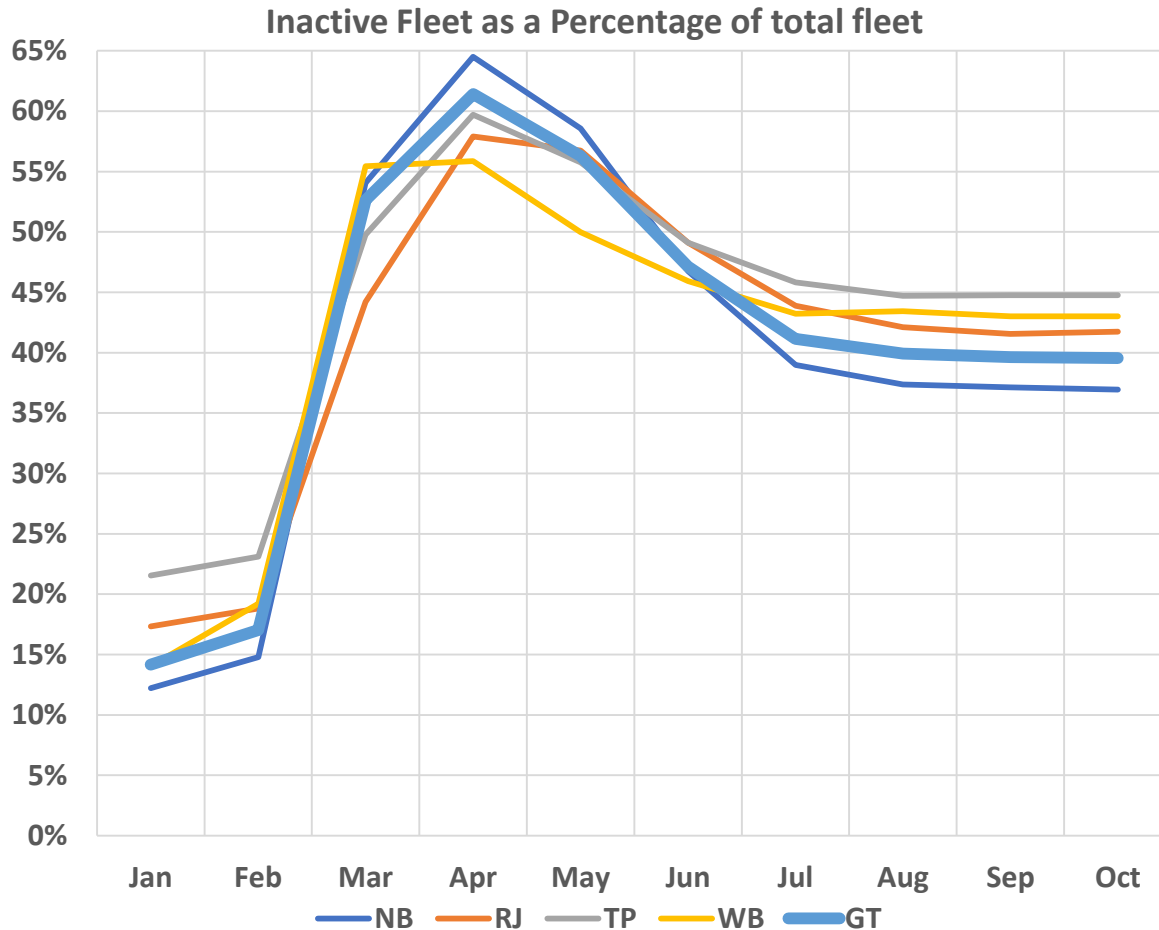
Findings

What's In Store? There was plenty to start with...



Source: CAPA Fleets

Where do we go from here...



Inactive fleet rose from 10-20% of the total to 55-65%, then eased back to 35-45%

Surplus today – but needed tomorrow.

As passenger traffic levels improve, what is the likely 'recovery' period for the market – when (and how) will the surplus be re-absorbed?

Scenario Building – Demand

Ishka has modelled a number of scenarios on how air passenger traffic (demand) levels might respond in the near term, based on key trends seen for far in 2020. This includes factoring in:

- Lockdowns
- Travel regulations
- Consumer sentiment
- Structural changes among other factors

Data is broken down by:

- Regions (EU / ASPAC / NA / LA / ME / AFR)
- Segment (Domestic & International)
- Fleet Segmentation (NB / WB / RJ / TP)

Each regions fleet is then modelled against variations in load factor performance, which reflect different recovery profiles and which dictate the number of aircraft that may be required to satisfy the categorised demand. These scenarios generate curves that are often referred to as:

- V-shaped
- U- or flat bottom U-
- L- or Lazy L-,
- W- or Sawtooth etc.

Scenario Building - Supply

Existing fleet at the end of 2019, the forward looking inventory is adjusted to recognise:

- Incoming new deliveries - we are monitoring the OEM production and delivery rates and adapting the incoming delivery view accordingly.
- 737 MAX return to service
- Outgoing retirements –
 - there is an increased focus on green credentials, fuel and operating cost efficiency.
 - A blanket view was therefore taken to ‘retire’ passenger aircraft over 20 years of age as a proxy for the general volume of retirements (aircraft going into long term storage as well as parted out) and to retire others as they reach 20 years of age over time (some may be younger in reality).
- Freighter Conversions

A Scenario View

Passenger Traffic

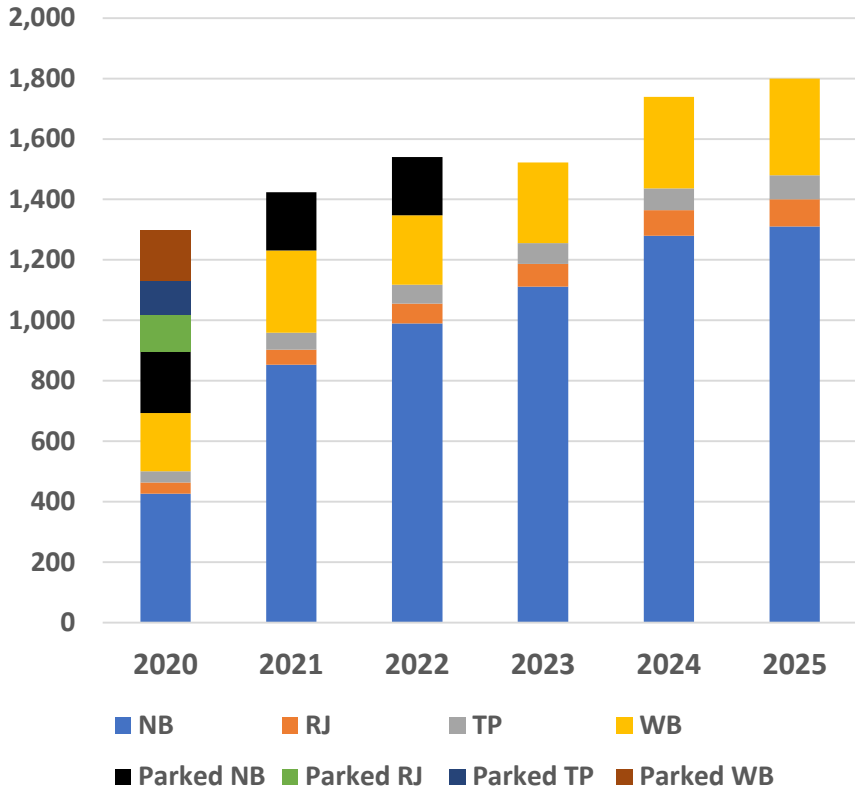
- A 'Gradual Recovery' Scenario – no longer a 'V' shape
- Start-stop recovery style that is dependent on how the virus progresses
- Domestic markets improve earlier than International
- New initiatives (rapid testing, health pass) underway to support international travel
- The Economic angle – has repercussions for a number of years
- Some impact also anticipated from the 'flight shame' movement and a reduction in business traffic levels in the near term
- Trend suggests a return to 2019 traffic levels in 3-4 years, however with a wide variation by region and segment
- Overall uncertainty remains high

Aircraft Fleet Inventory

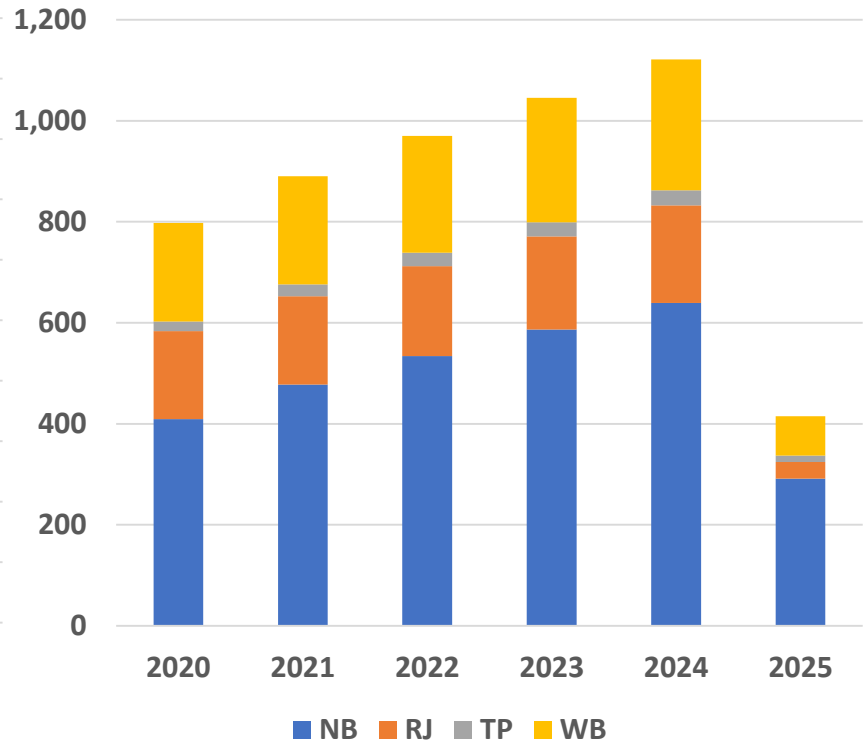
- Incoming – major OEMs have initiated production cuts, Boeing and Airbus will remain at subdued production levels into 2022, most other OEMs also scaling back
- Outgoing - Accelerated Retirements with whole sub-fleets stood down, but not (yet) being parted out immediately

Incoming and Outgoing – additions/deletions to Inventory

Fleet Additions since Dec 2019



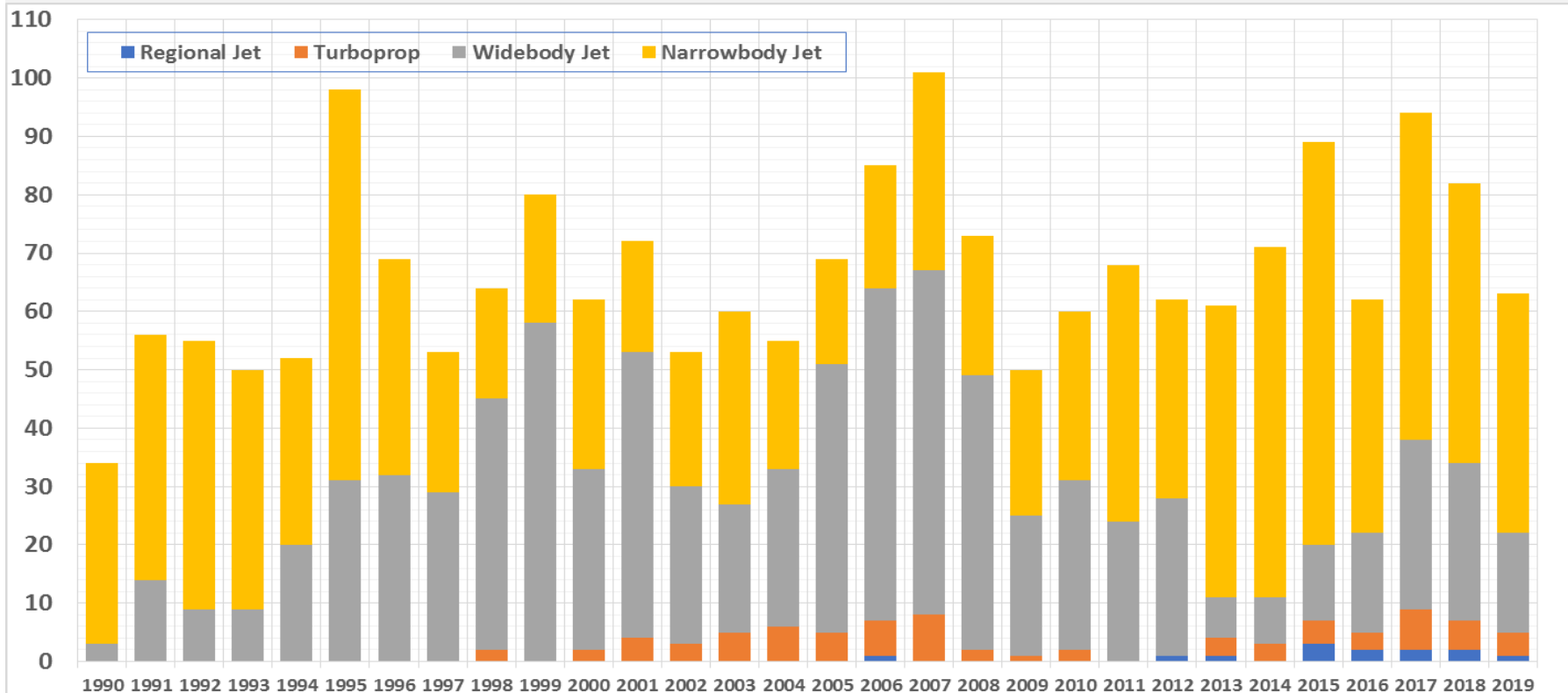
Fleet Deletions since Dec 2019



Source: Ishka Research

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Freighter conversions since 1990



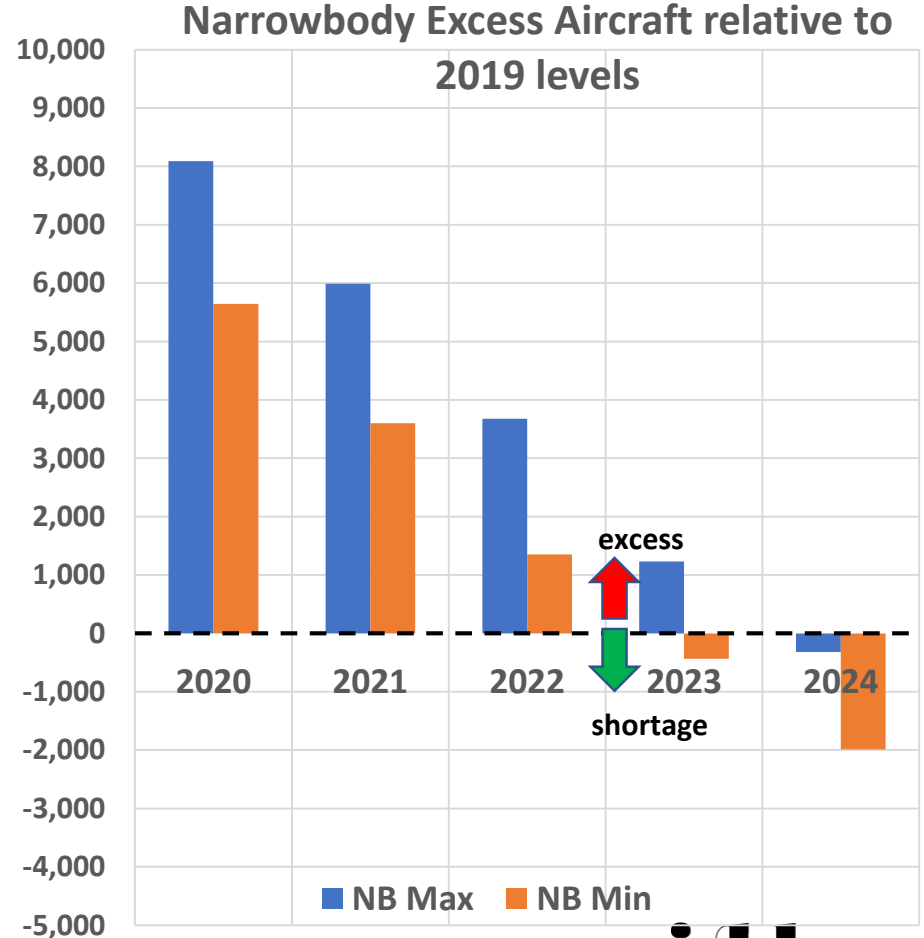
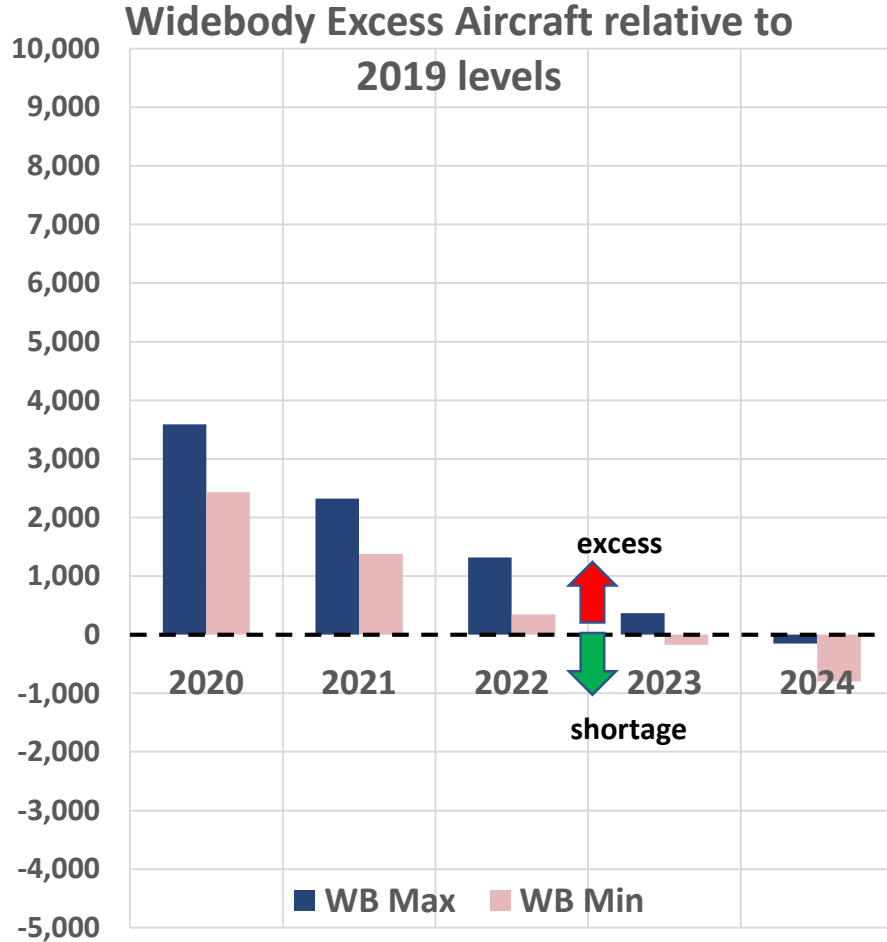
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Widebody	9%	25%	16%	18%	38%	32%	46%	55%	67%	73%	50%	68%	51%	37%	49%	67%	67%	58%	64%	48%	48%	35%	44%	11%	11%	15%	27%	31%	33%	27%
Narrowbody	91%	75%	84%	82%	62%	68%	54%	45%	30%	28%	47%	26%	43%	55%	40%	26%	25%	34%	33%	50%	48%	65%	55%	82%	85%	78%	65%	60%	59%	65%

Source: CAPA / Ishka Research

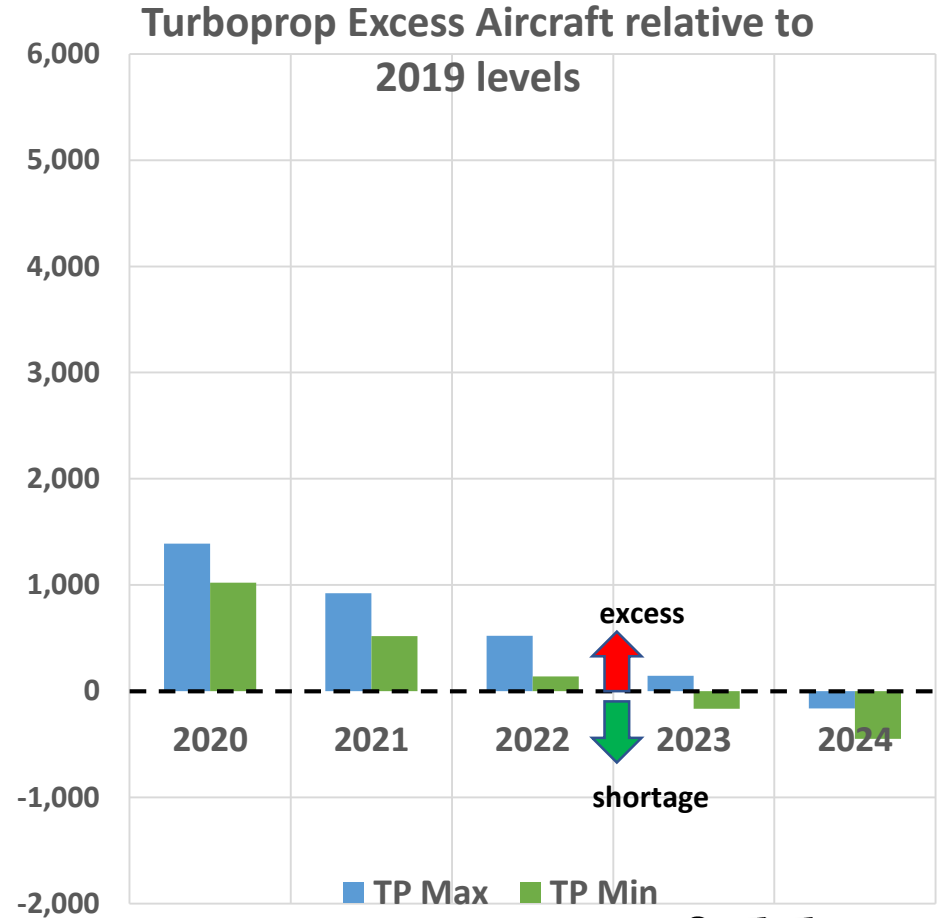
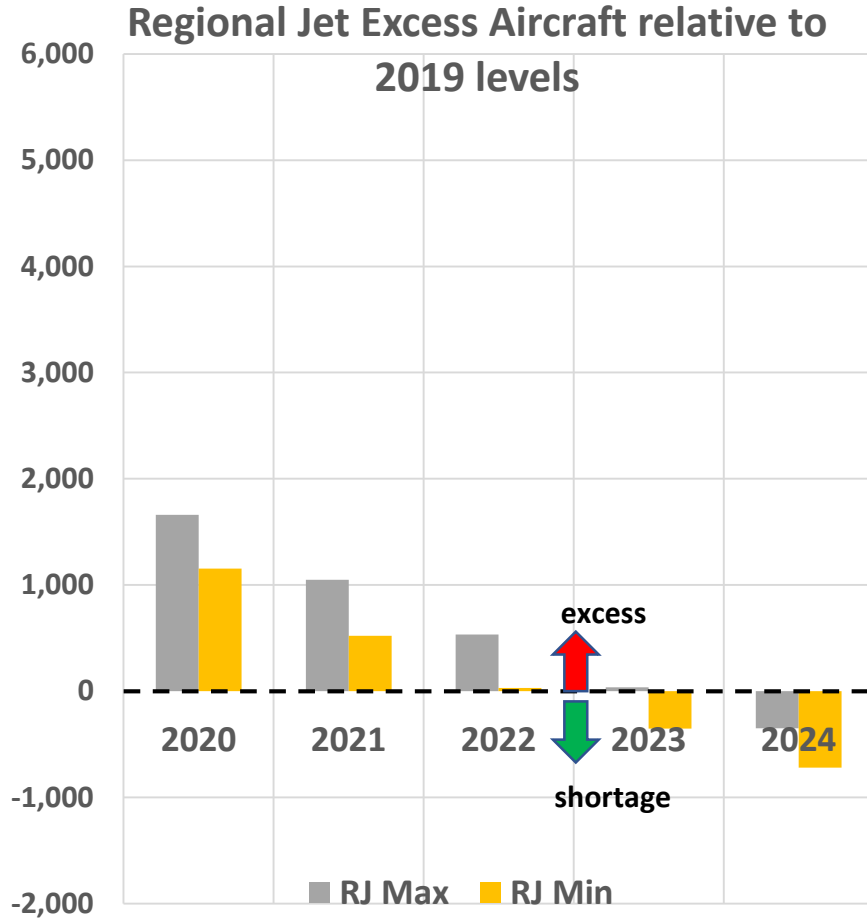
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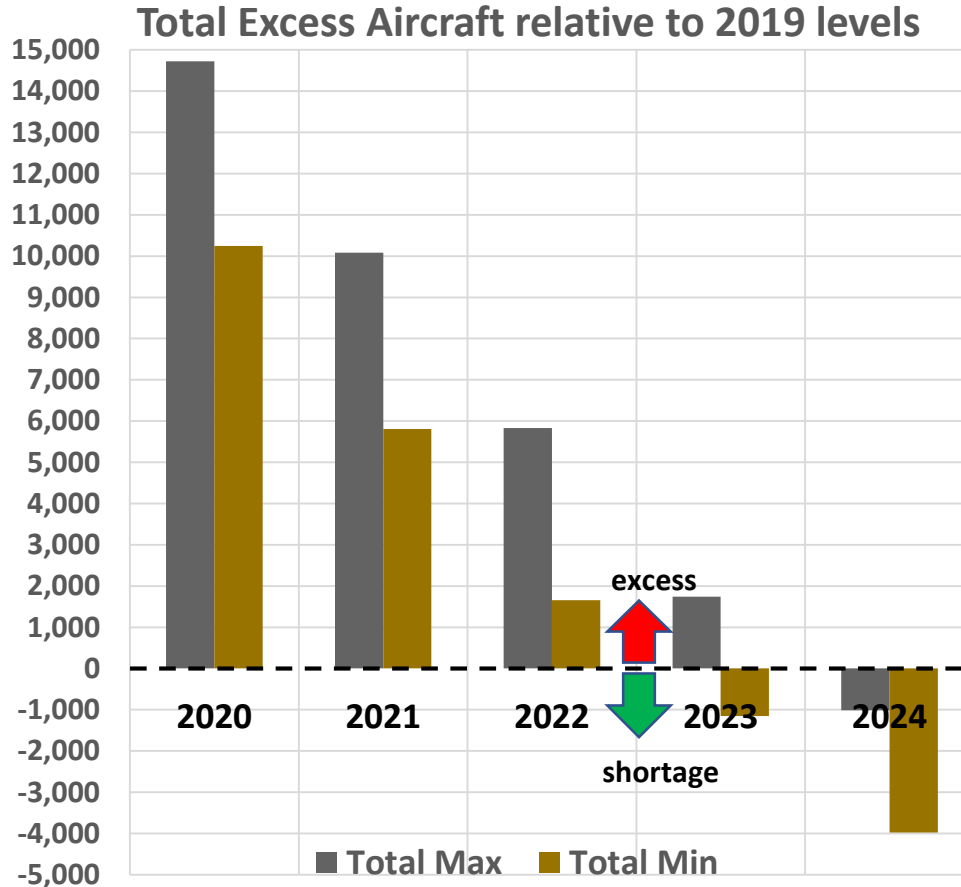
'Gradual Recovery' Scenario



'Gradual Recovery' Scenario



What happens to the excess?



Some thousands of aircraft might not be needed for 2-3 years.

Prudent care and maintenance is one answer for those likely to return

Will airlines accept aircraft out of hibernation or order new replacements? Can they afford it?

Significant rates to watch:
Passenger Traffic Growth
Airline Revenue and Yield
Aircraft Production
Aircraft Retirement

Managing the Excess - Active v Inactive

Inactive Aircraft

Incentive to 'part out' in near term has gone (less flying = lower demand for parts support, dampening down prices). Leads to expanded parked/stored categories: Long Term 'inactive' - prior to part out e.g. will all newly-parked MD-80s be kept in serviceable condition?

Short Term 'inactive' - kept serviceable in preparation for traffic recovery – widebodies and younger aircraft especially

Traditional 'inactive' - older aircraft (12-18 years) between leases, potential conversion candidates, or in need of maintenance

Active Aircraft

Some aircraft (mainly narrowbody) kept serviceable by rotation - reducing utilisation per aircraft. Widebodies more likely to rotate over a longer cycle (e.g. two weeks)

Consequences - will require a near term adjustment regarding ownership and rental costs to make it economically viable. PBH is being offered as one solution.

Thank you

Time for Q&A

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