



# ishka

Market. Metal. Money.  
Outlook Improves but Risks Remain

Ishka Advisory Webinar  
Thursday 16<sup>th</sup> March, 2023

[www.ishkaglobal.com](http://www.ishkaglobal.com)

# Introducing your Ishka presenters



Eddy Pieniazek  
Head of Advisory



Paul O'Driscoll  
Head of Advisory  
Americas &  
Certified ISTAT  
Appraiser



Stuart Flaye  
Senior Consultant



Sid Narkhede  
Head of  
Airline Analysis



Chris Keene  
Head of  
Client Relationships



# Agenda



## Market

**Macro Market.** Signals and indicators from airline traffic and financial results. **Airline Market.** Regional performance. Upsides and positives are interwoven with headwinds and risks.

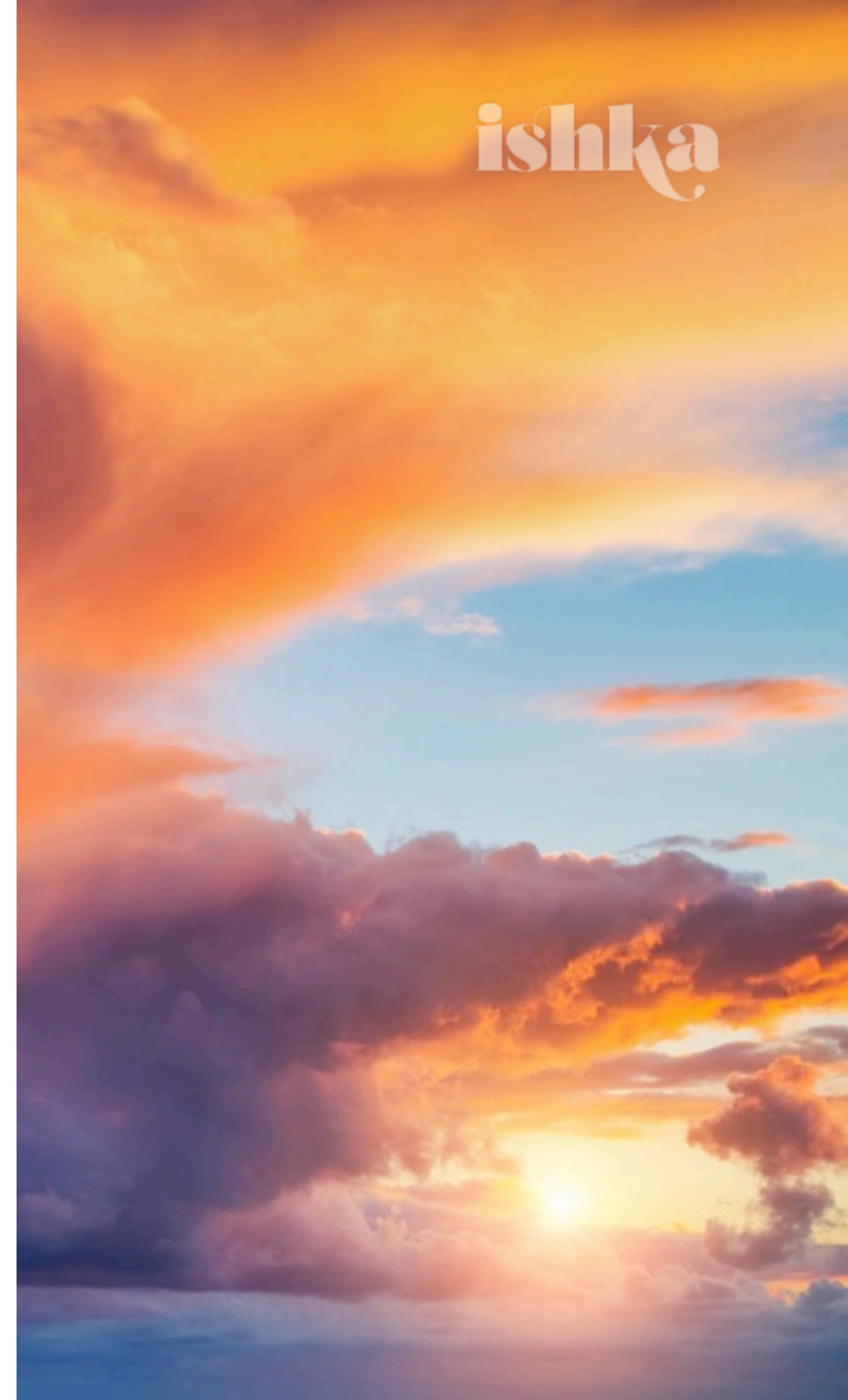
## Metal

The Delivery Conundrum. How OEMs are faring in 2023. Explaining the bottleneck. It's not just about engines (or maybe it is.)

## Money

The Ishka Values Indicators: aircraft values and lease rate performance in Q1. New build pricing v secondary market developments. Will Q2 be any different?

**Live Q&A:** put your questions to the team



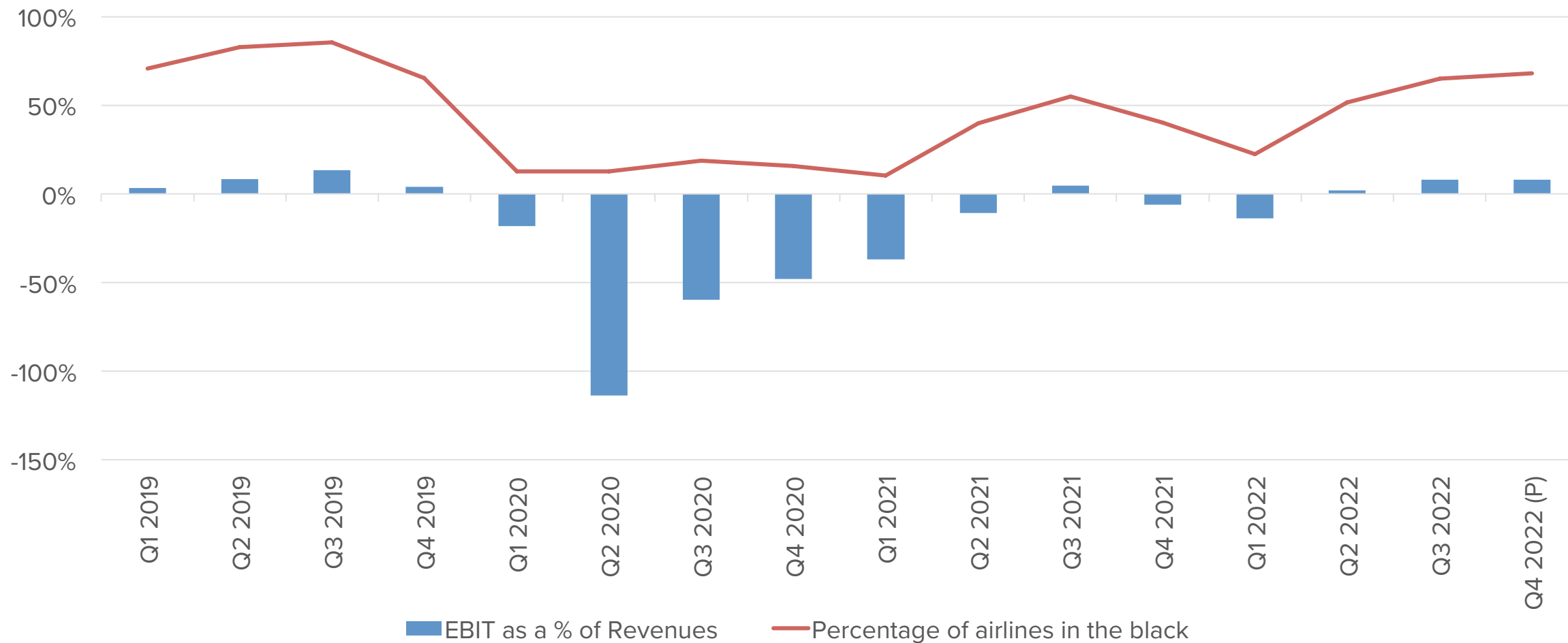


Sid Narkhede  
Head of Airline Analysis  
The Airline Market

# Q4 caps a positive 2022 for most airlines



EBIT as a percentage of Revenues

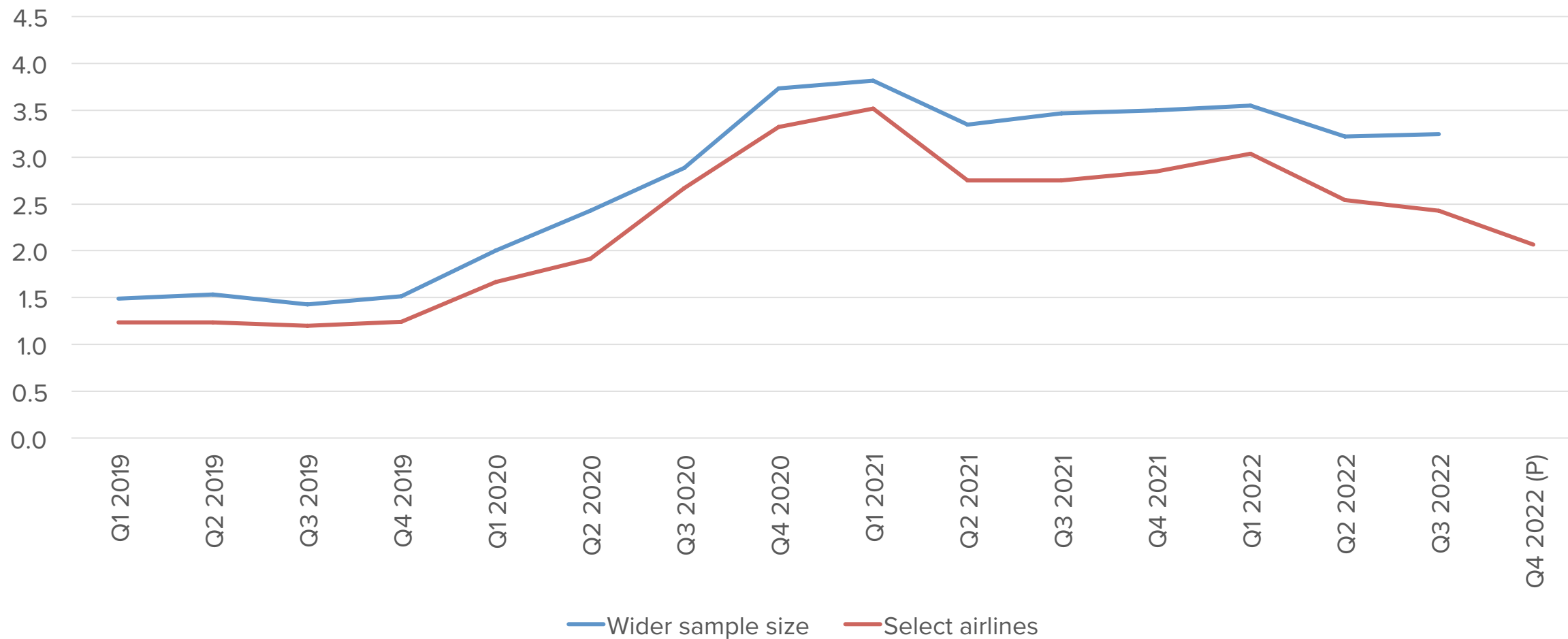


Source: Bloomberg, **Ishka Airline Credit Profiles and Ishka Calculations**. Sample Size – 68 airlines (Q4 2022 – 41 airlines). Sample size could vary by quarter marginally depending on airline disclosures. \*Q4 2022 results are preliminary, not all airlines have released results.

# Balance sheets improving but only for select few...

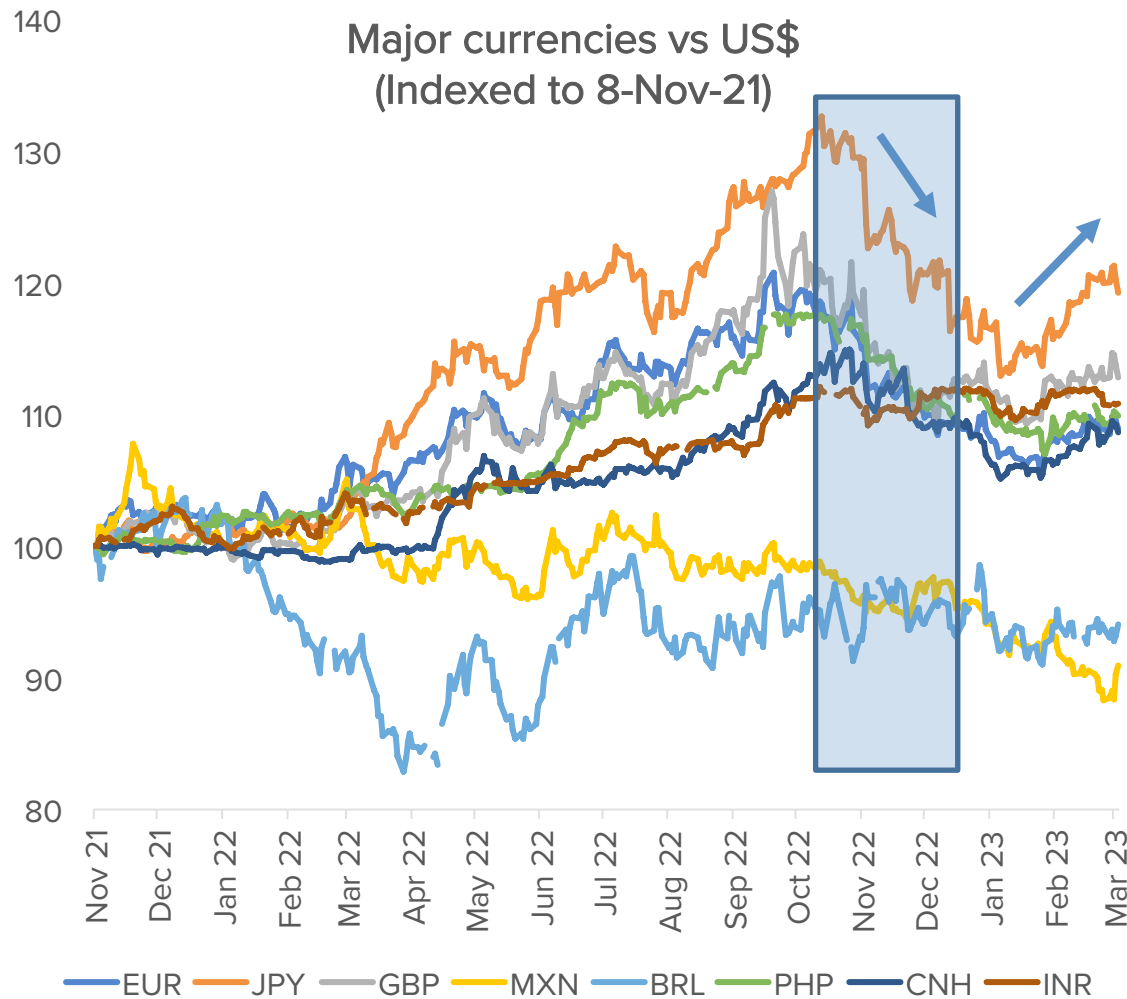


Net Debt to Equity

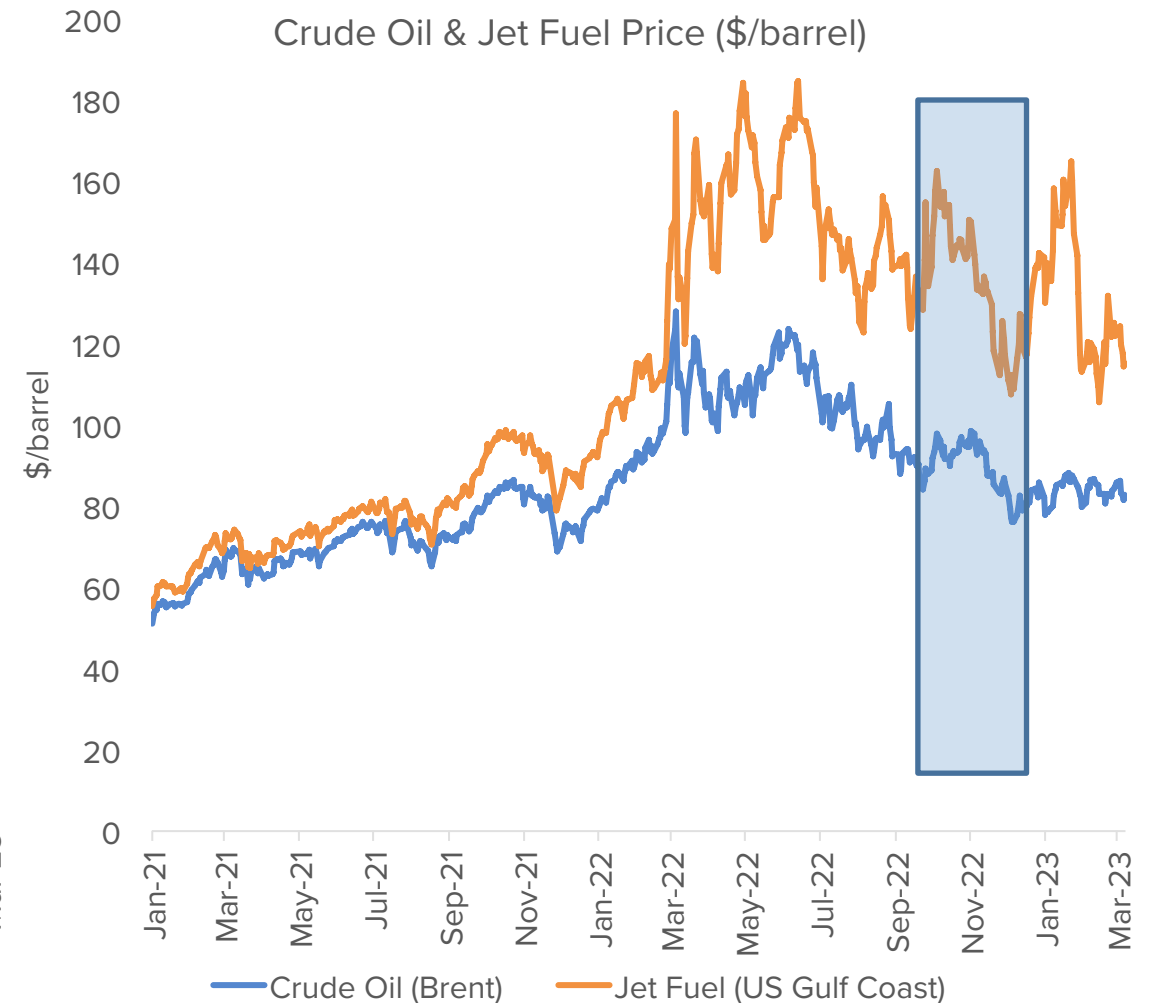


Source: Bloomberg, **Ishka Airline Credit Profiles and Ishka Calculations**. Wider sample size – 68 airlines. Sample size could vary by quarter marginally depending on airline disclosures. \*Select airlines sample size – 41 airlines. \*Q4 2022 results are preliminary, not all airlines have released results.

# Currency and fuel continue to remain volatile...



Source: Bloomberg





## 2023 – a year of cautious optimism



2022 was a positive year overall despite all the challenges

**Airlines** from all regions returned to the **black**

**Asia Pacific** is showing signs of robust recovery and overall demand remains healthy

But we do know that meaningful challenges/pressures still exists

Events over the past week in the US have highlighted **uncertainties** with the **macroeconomic** situation

**Inflation** remains high at various levels

**High cost** environment for airlines

Additional challenges from **supply chain** issues

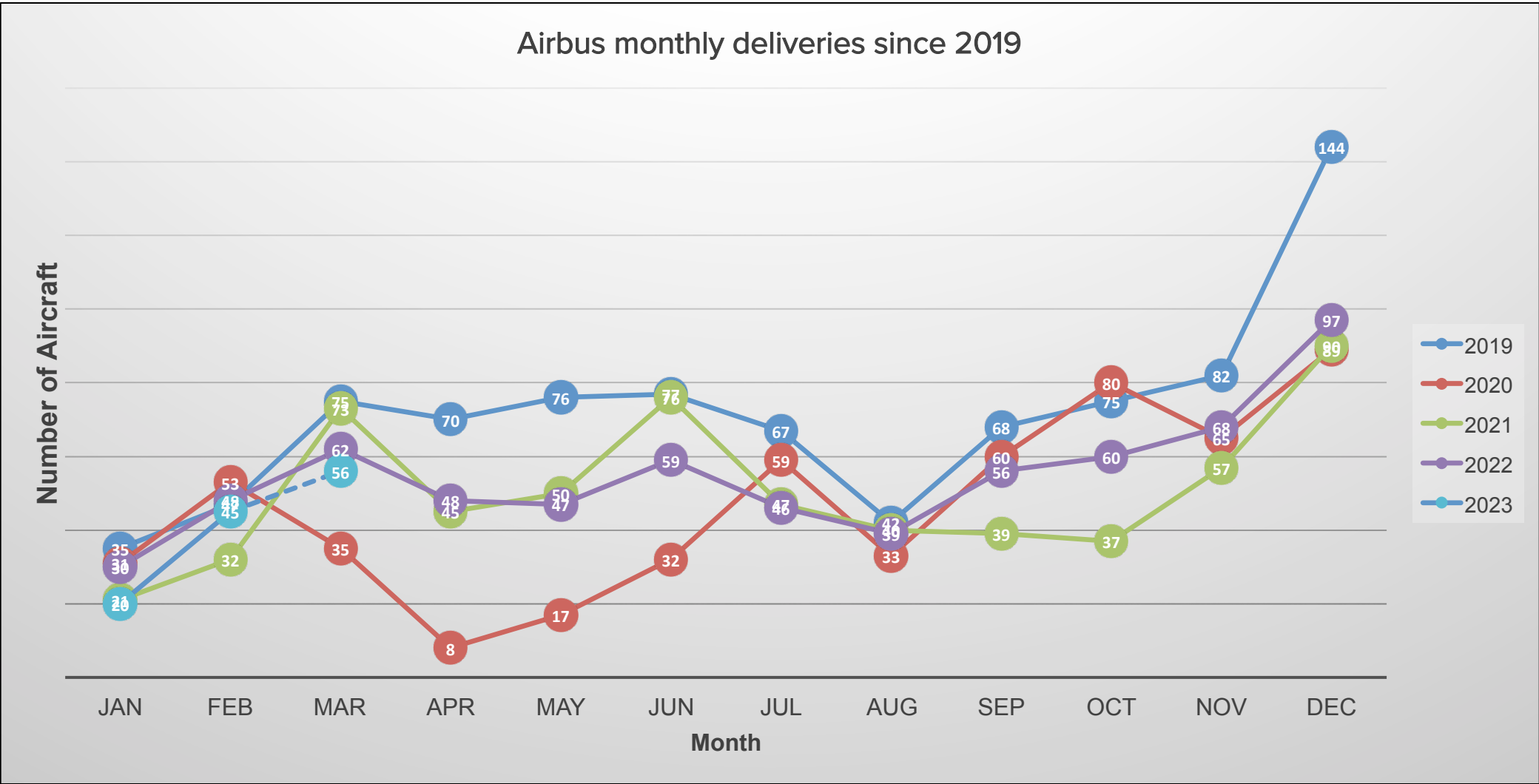
While balance sheets are improving, that's a **trend limited** to select airlines



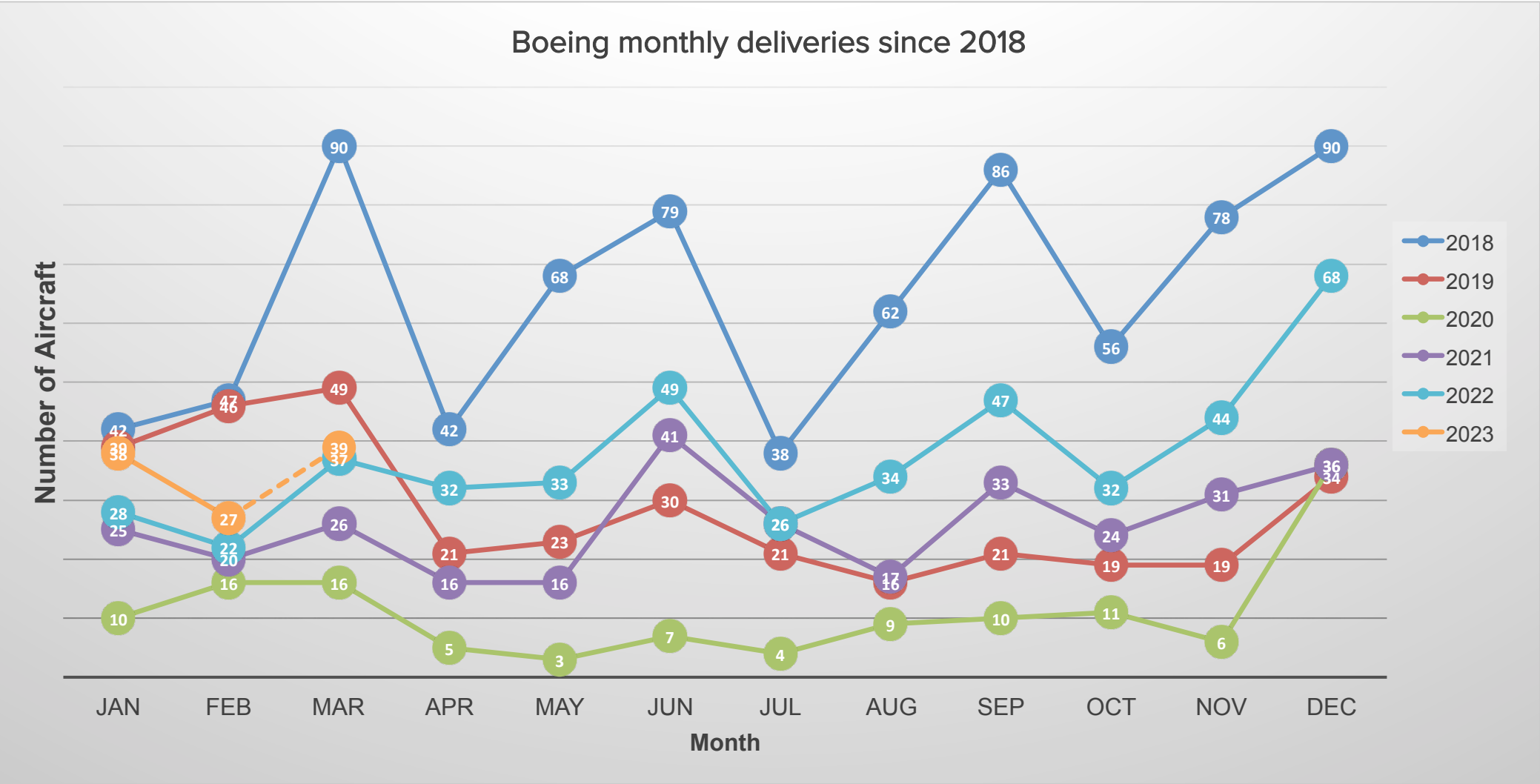


Stuart Flaye  
Senior Consultant  
The Metal. Deliveries

Airbus monthly deliveries since 2019



Source: CH Aviation / OEM report



Source: CH Aviation / OEM report



# Delivery Forecast



Sep-2022 Estimate		Nov-2022 Delivery Estimate	2022 Actual	2022 Approx. Market Value	2023 Delivery prediction
55 (63)	Airbus				
516 (550)	A220	52	53	\$1,872m	70
20 (20)	A320 family	519	516	\$29,246m	620
56 (50)	A330	28	27	\$2,754m	34
647 (683)	A350	65	62	\$9705m	72
	Total	663	658	\$43,576m	796
	Boeing				
361 (500)	737	344	374	\$16,994m	408
6 (7)	747	5	5	\$978m	1
19 (20)	767	17	18	\$1,122m	19
24 (24)	777	25	24	\$3,550m	26
45 (60)	787	30	31	\$3,800m	84
455 (611)	Total	422	452	\$26,444m	538
36 (68)	Embraer	58	54	\$1,856m	68
17 (38)	ATR	26	22	\$533m	48
4 (6)	DHC	4	4	\$72m	0
1,159 (1,406)	Overall Total	1,173	1,190	\$72,481m	1,450



# Key Takeaways



Delays set to continue throughout 2023 and into 2024

Billed as a 'redo of '22'

The term “excusable delay” is being tested

Airlines having to extend leases or source used aircraft to cover for delays

Double-edged sword for lessors

Airline fleet plans suffering, not in time for northern hemisphere summer season





Paul O'Driscoll  
Head of Ishka Advisory Americas  
Certified ISTAT Appraiser

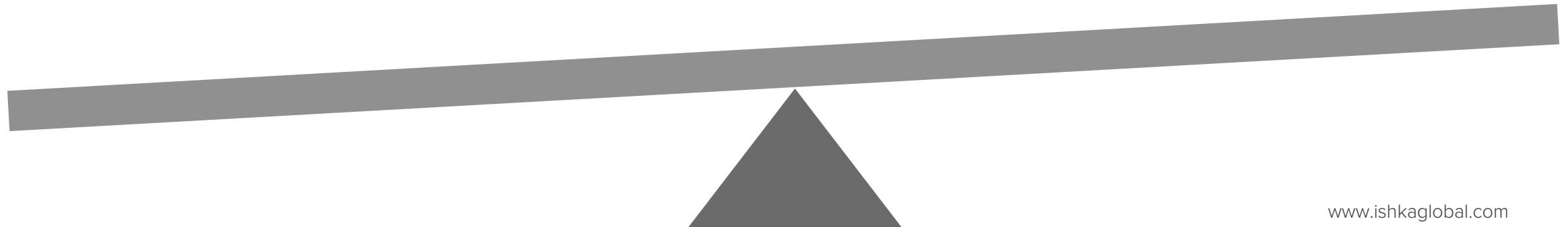


## Need more engine production for new aircraft deliveries

- Lack of high skilled labor
- Supply chain issues
  - Forging and casting suppliers getting most of the blame
- Material cost pressure
  - Impact of Russian War

## Need more spare engines and replacement parts

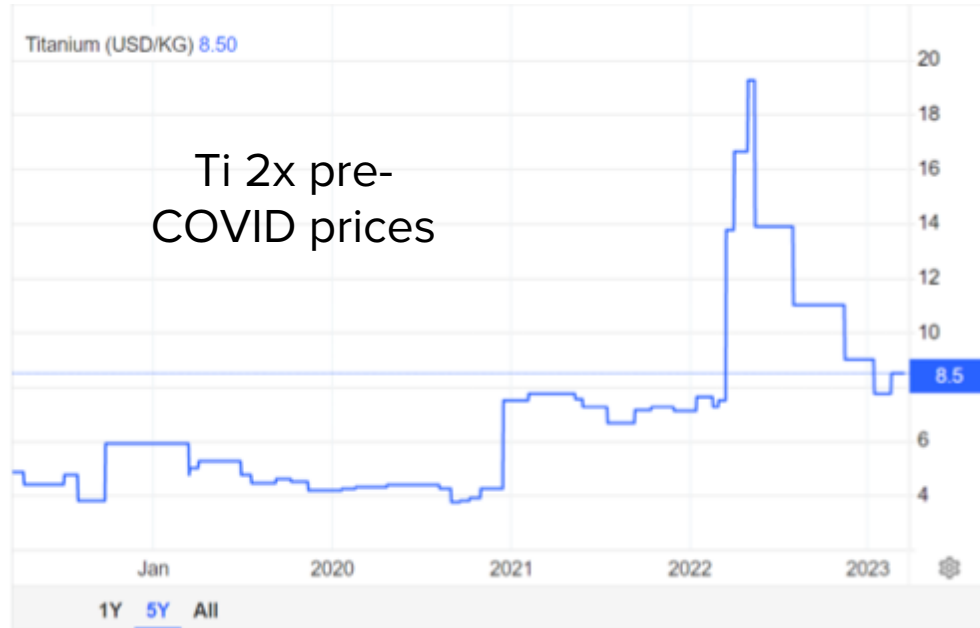
- Parts needed to support existing operators
- New tech engine reliability is **currently** vastly inferior to 3<sup>rd</sup> generation engines
  - CFM56 had been achieving 20,000FC
  - Coking issues on require repair potentially every 1,000FC (now a line maintenance issue)



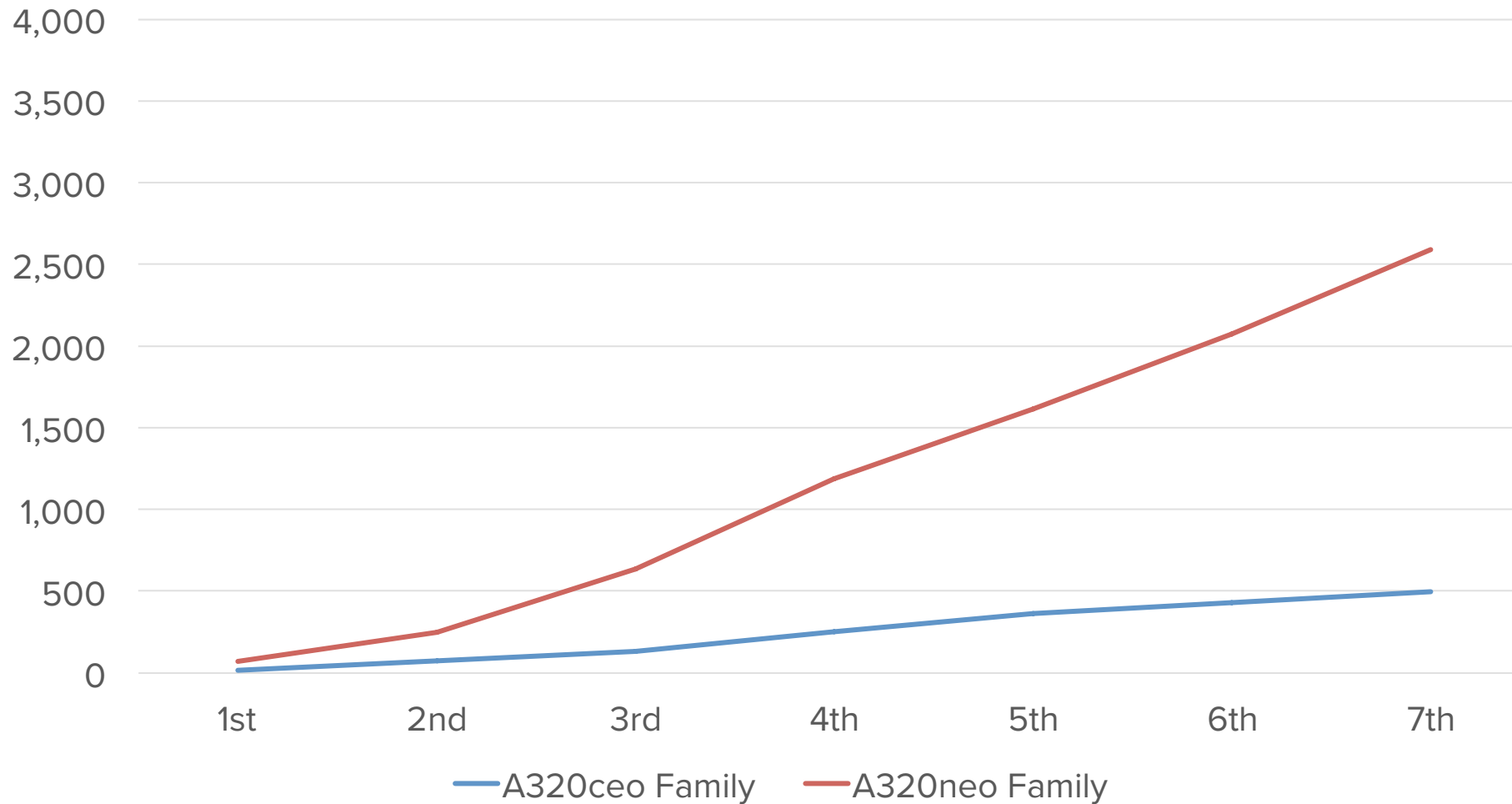
## Increase cost of materials: not gone away



- Some key aerospace raw materials are still significantly more expensive than there were pre-COVID
- Supply dynamics unlikely to improve in the short-term



# A320 Family CEO v's NEO production ramp



CEO Family new engines

- CFM56-5A
- V2500-A1

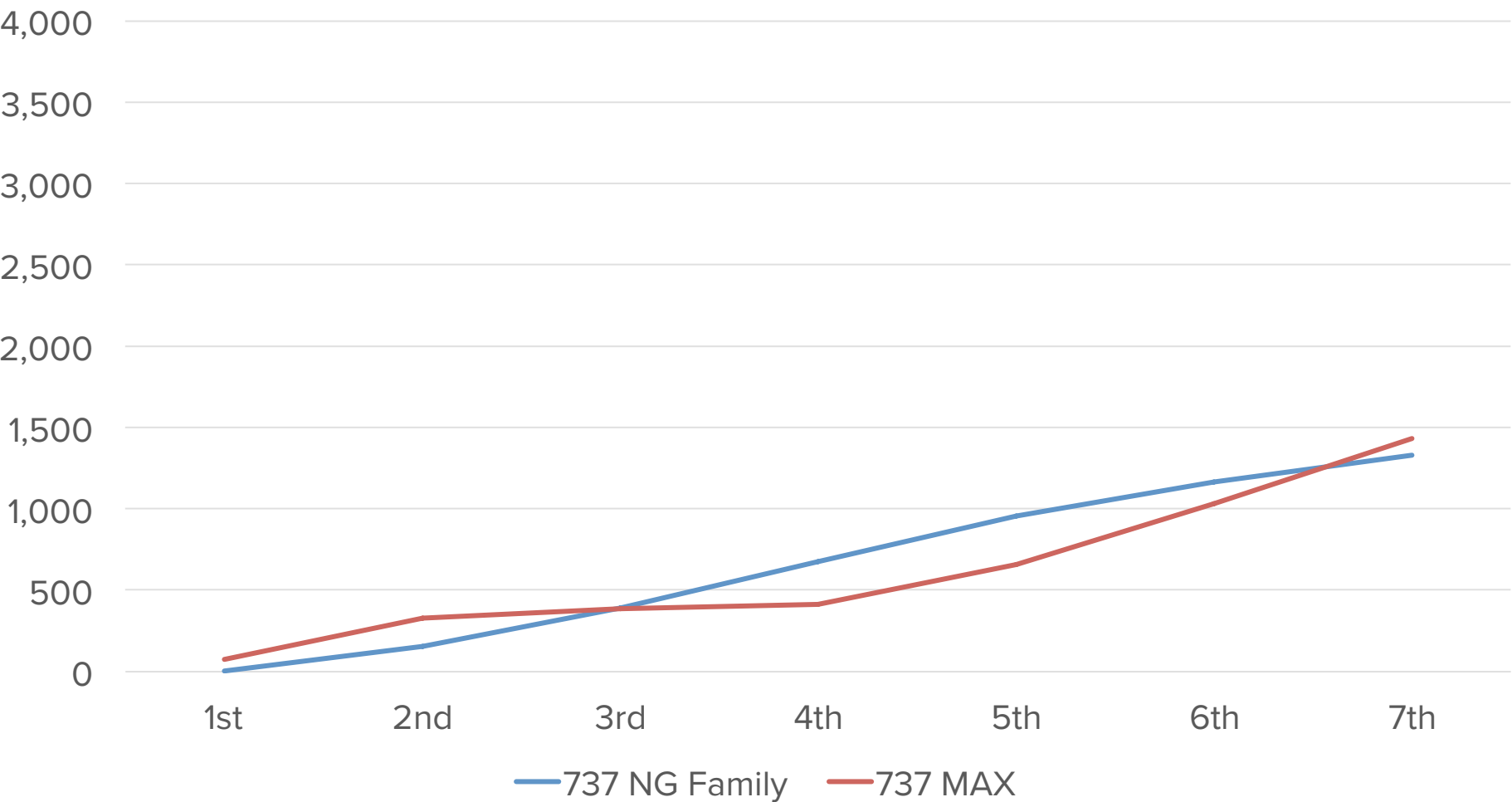
NEO Family new engines

- LEAP 1A
- PW1100G

7yrs into the A320 program the CFM56-5B was introduced

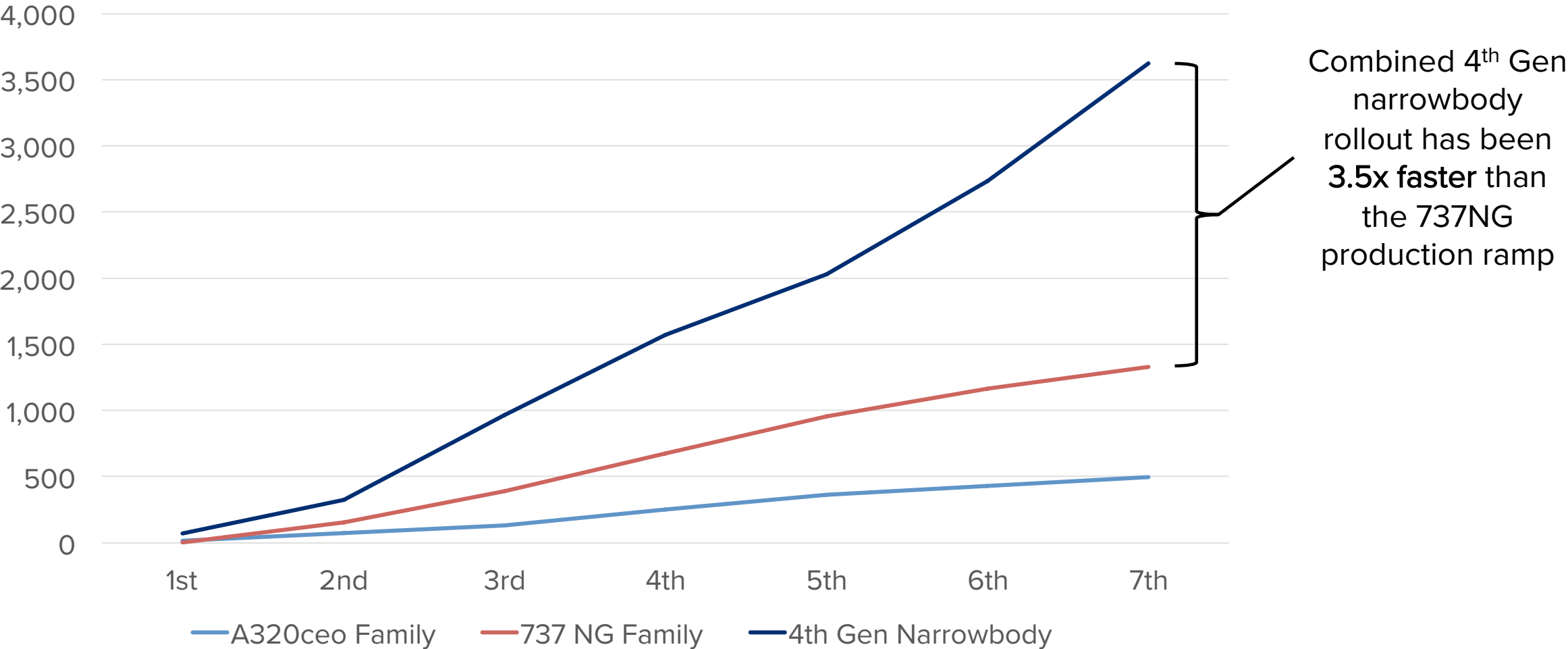


# Boeing 737 MAX v's NG production rollout

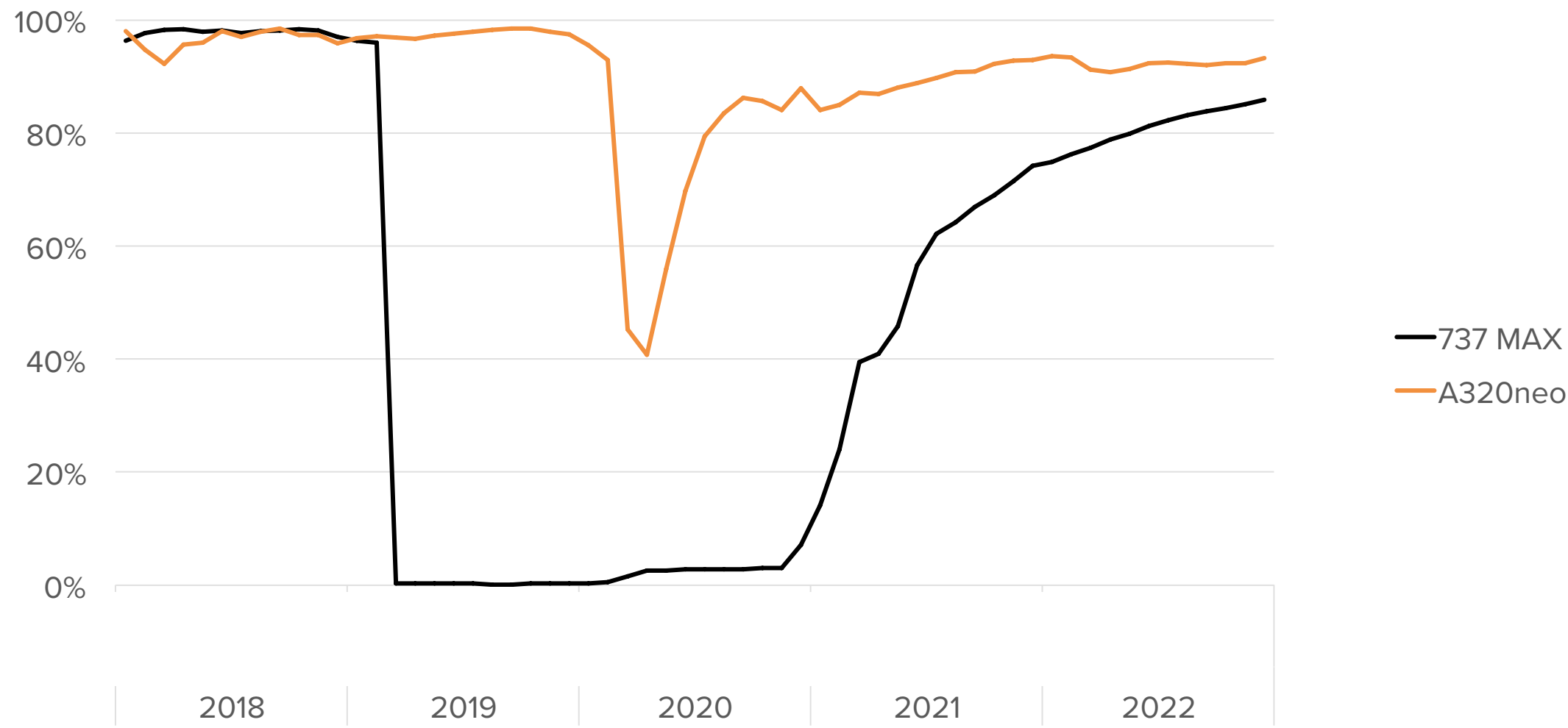


- Notes:
- NG was a mature program
  - MAX had production issues unrelated to the engine

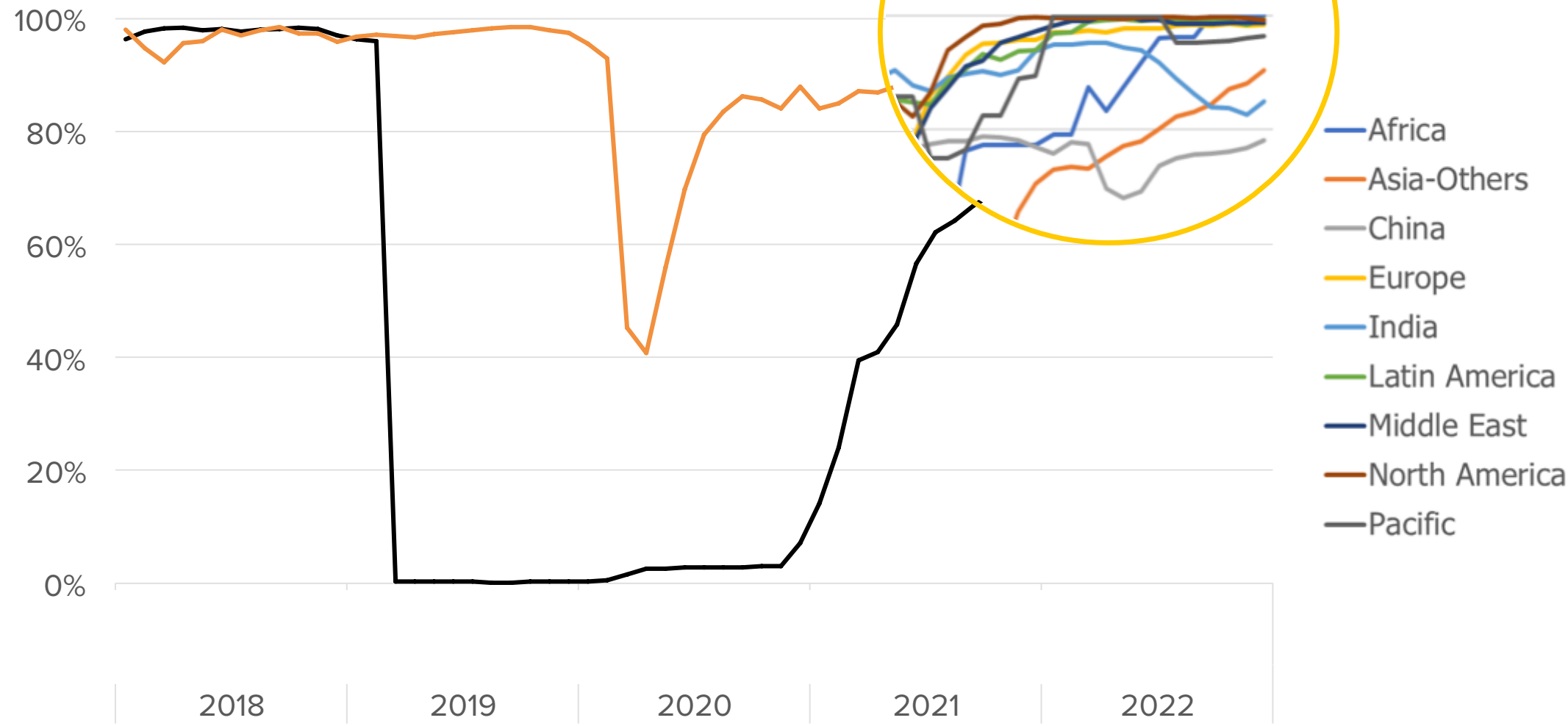
First time that both major OEMs have rolled out simultaneous new generation aircraft



# % of New Tech Narrowbodies In Service are returning to pre-COVID levels



But some regions still lag...





# Conclusions



- Hardware is hard
- Economics of 4<sup>th</sup> generation engines are still not fully known
- Achieving 3<sup>rd</sup> gen level engine reliability could be 5-10yrs away
- Engine programs will need time or generate profit
- Don't hold your breath for the next generation of engine, whether it's fueled by A1 Jet or anything else



Eddy Pieniazek  
Head of Ishka Advisory

# Where are the real deals – and how many?



## What do we want to know about transactions (apart from \$):

- How many are there?
- Which assets are moving?
- How old are they?
- New v Used?
- Single-aisle, Twin-Aisle, Regional Jet, Turboprop, Freighter
- What types of deal?
- How long in store before reactivation?

## Interrogating the database

Extract from database all aircraft that 'moved' to a new operator in January and February 2023\*

**315** records met the description

**149** (47%) were new/first time deliveries  
(14 already over 1 year old, mainly B737 MAX and B787)

=**166** events involved used equipment

\* Includes December 2022 'contractual' deliveries which entered service in 2023  
Database – ch-aviation

## Only 36 'fresh' Narrowbody leases Jan-Feb '23

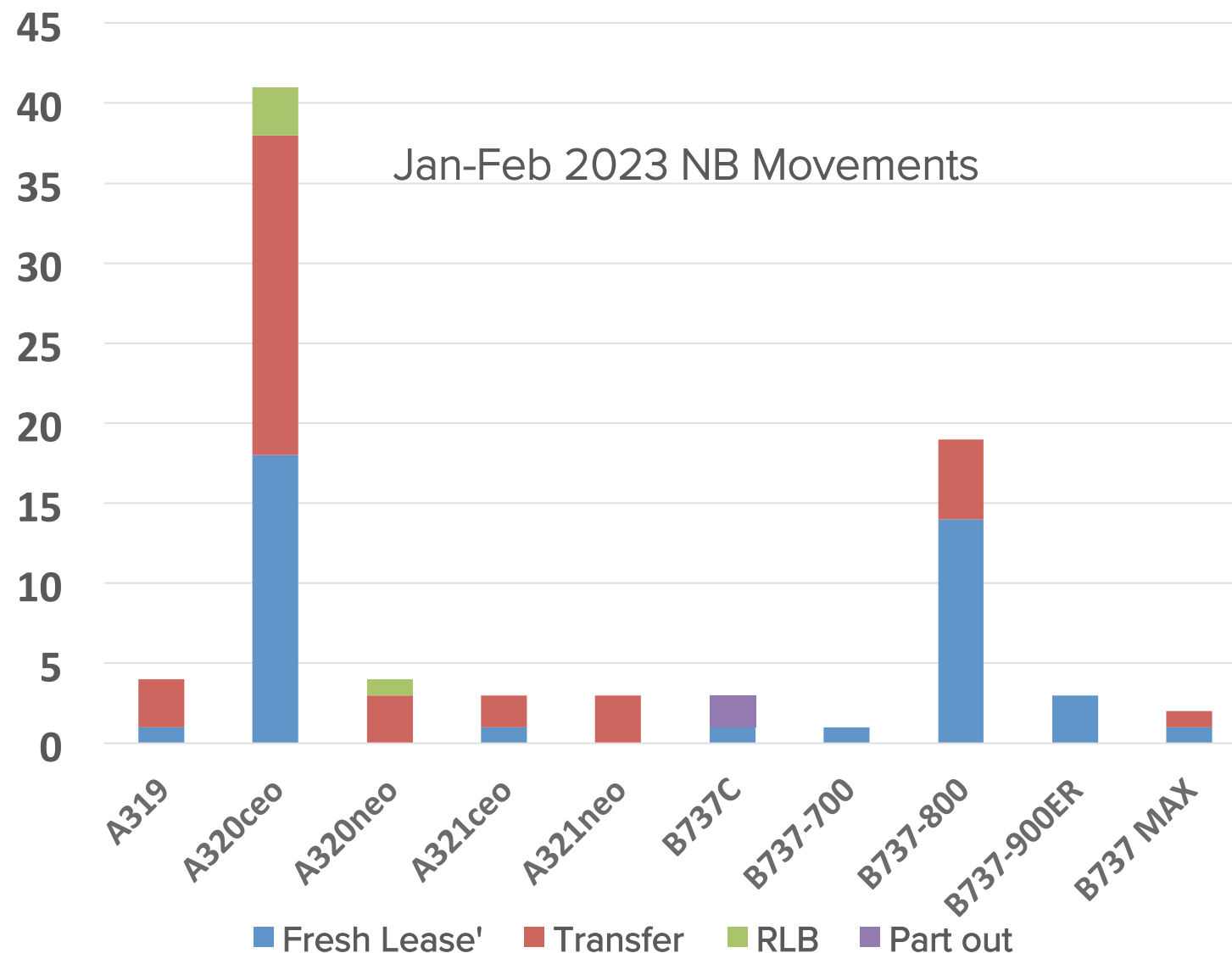


Stripping out VIP, Military, WB, RJ, TP, F etc. leaves us with 84 narrowbody movements

The majority (37) are internal transfers between airlines within a Group

Only 36 are 'fresh leases' requiring new lease terms

A few aircraft had been returned to lessors, parked and eventually leased back to the same carrier





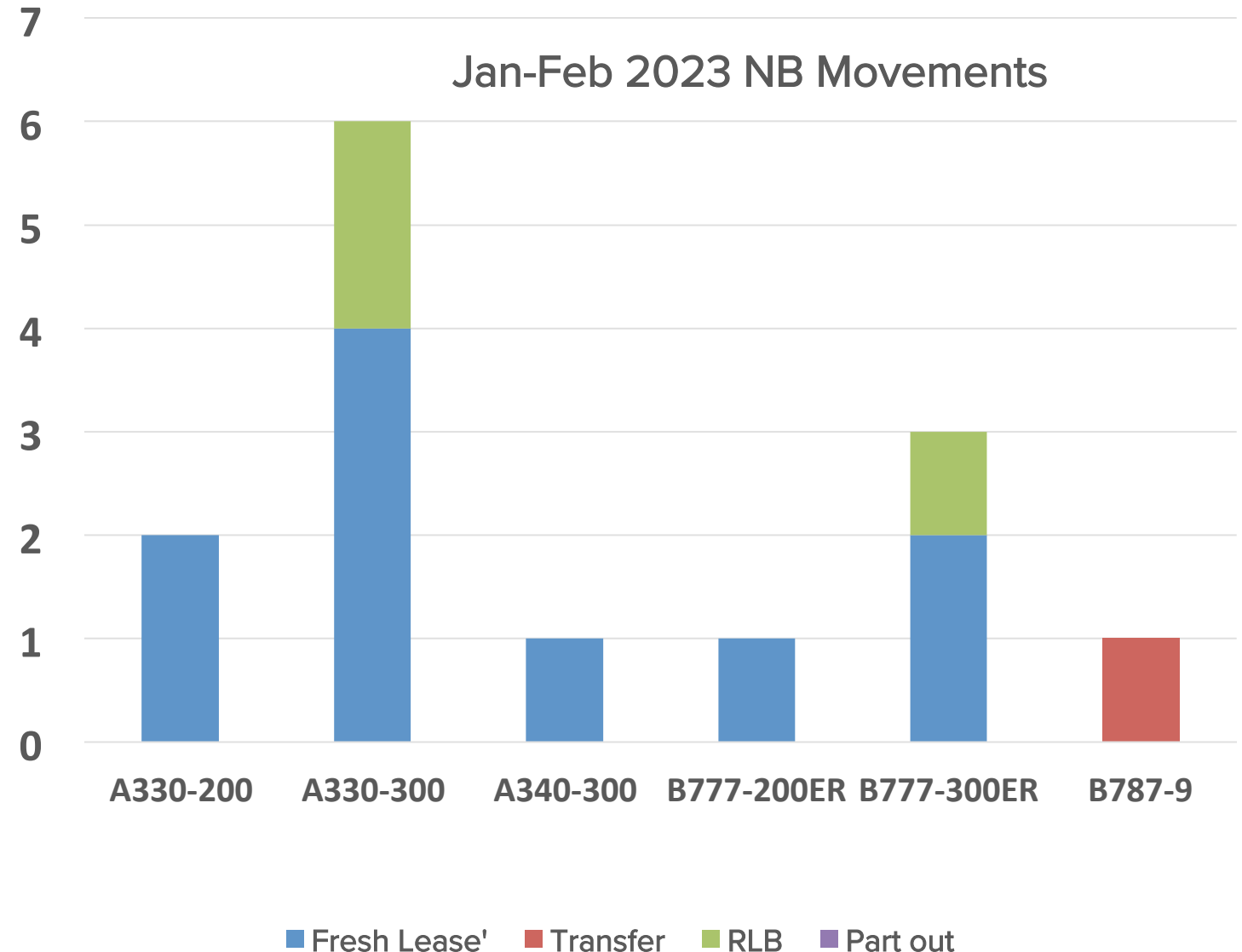
## Only 14 'fresh' Widebody leases Jan-Feb '23



Stripping out VIP, Military, other classes etc. leaves us with 14 widebody movements

The majority (10) are 'fresh leases' requiring new lease terms

Three aircraft had been returned to lessors, parked and eventually leased back to the same carrier



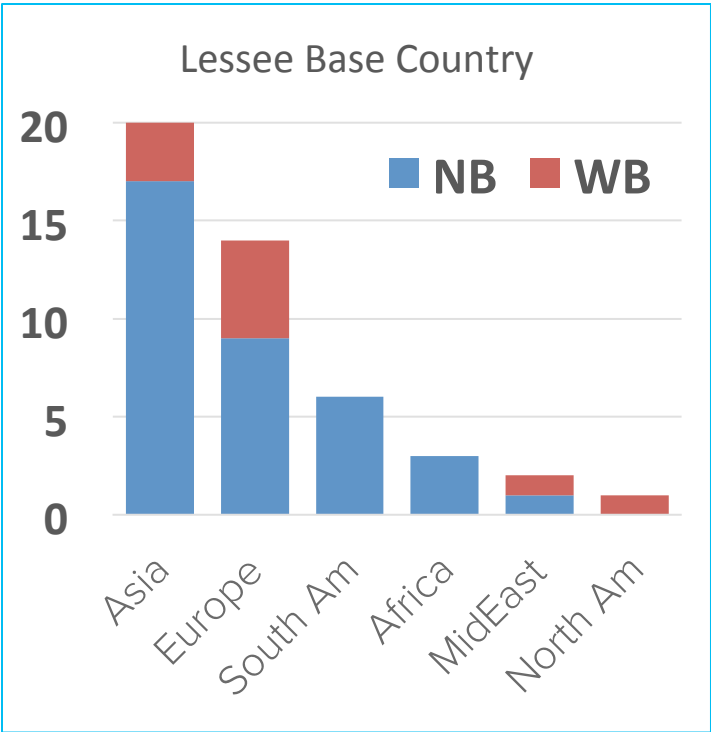
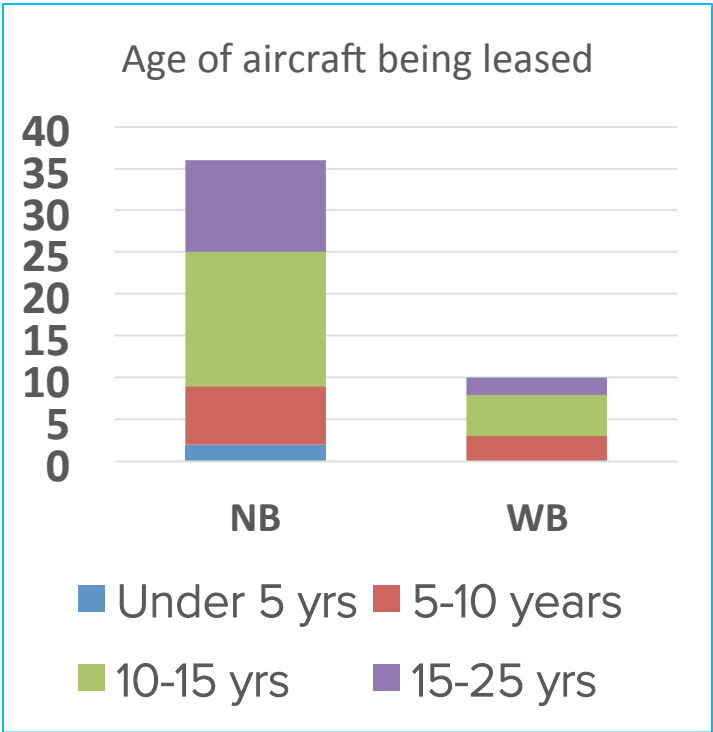
# Observations



Storage – Aircraft entering new leases have spent a lot of time on the ground

Age – Someone is spending money on reactivating older aircraft

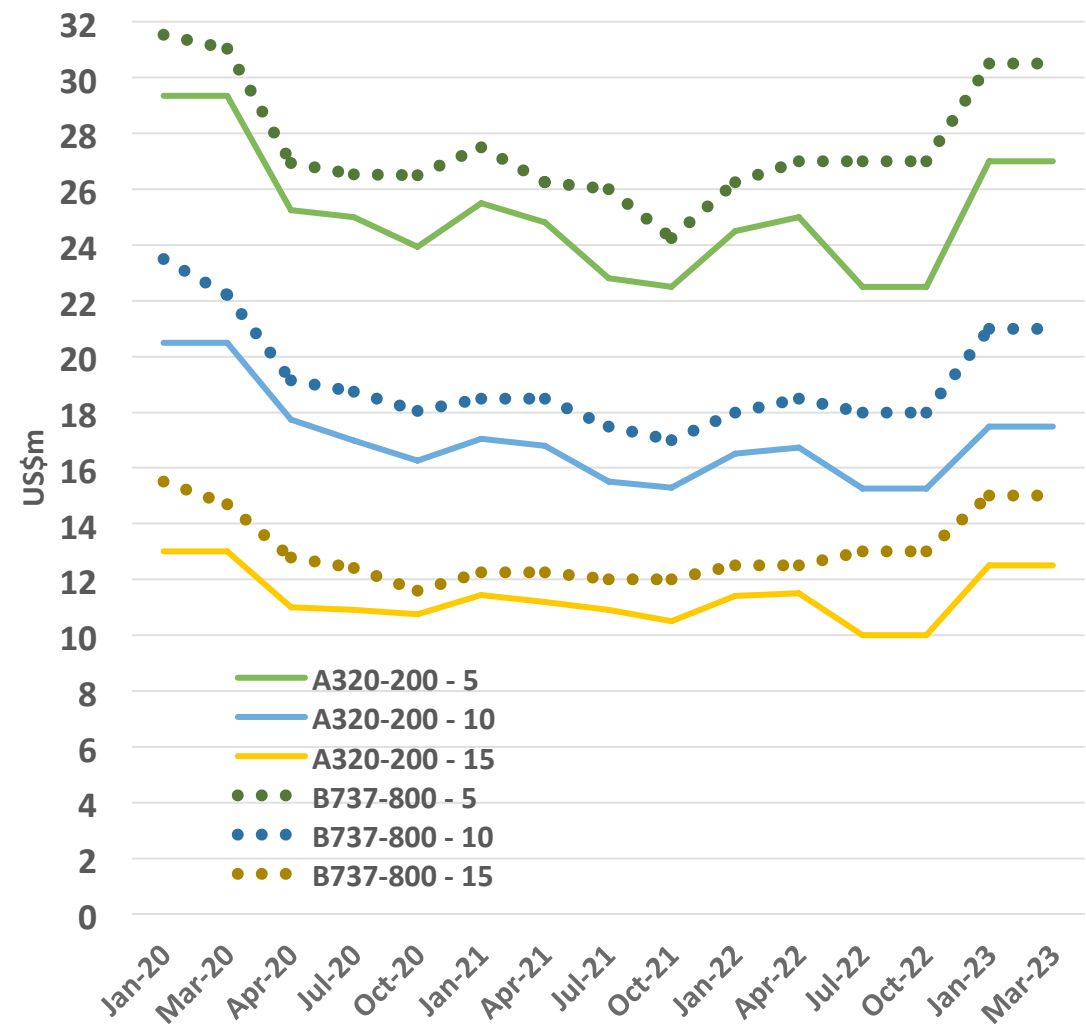
Where – Asia and Europe focus for used equipment – US preferring new



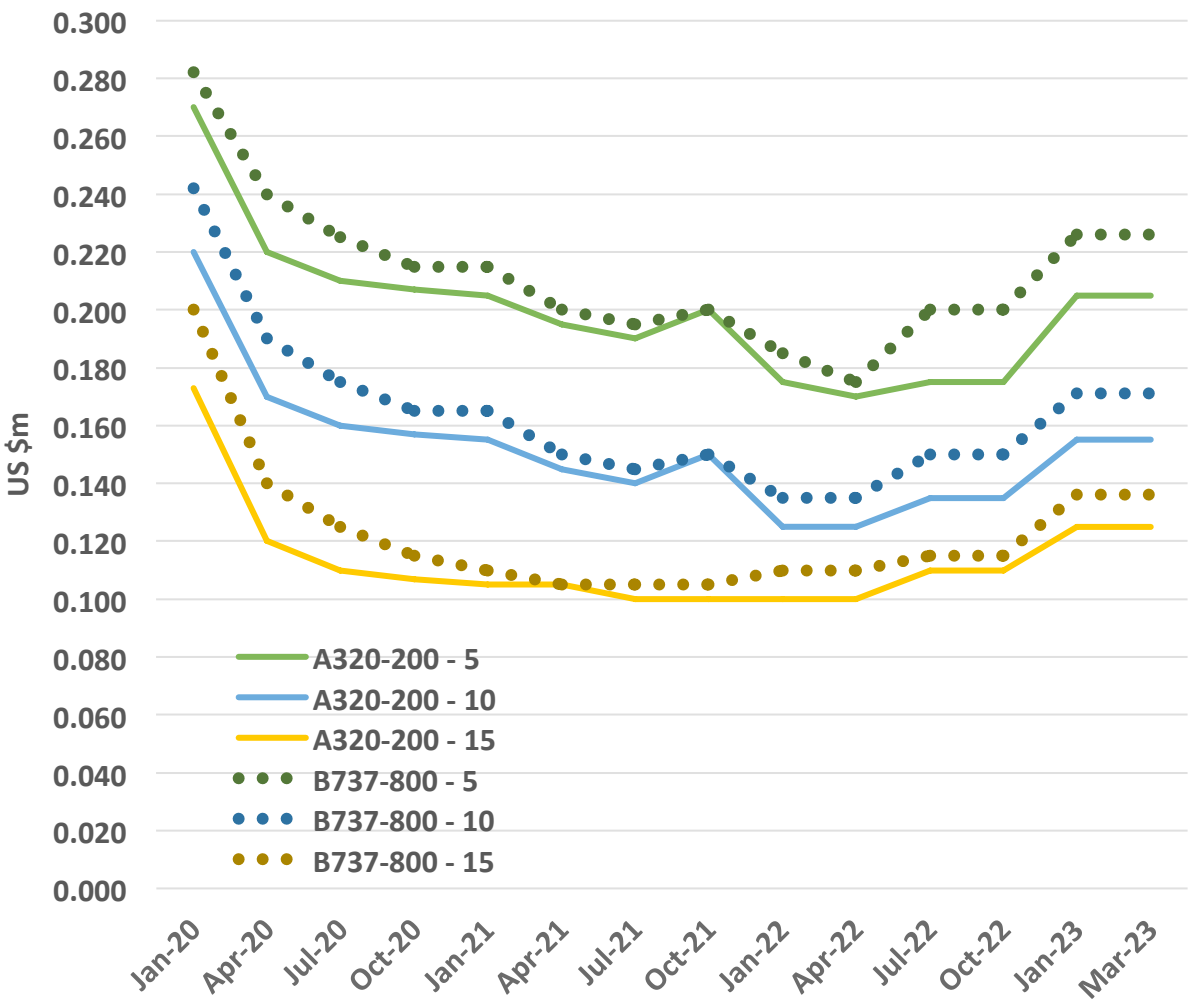
# Narrowbody Values and Lease Rates Improving



### Market Values



### Market Lease Rates

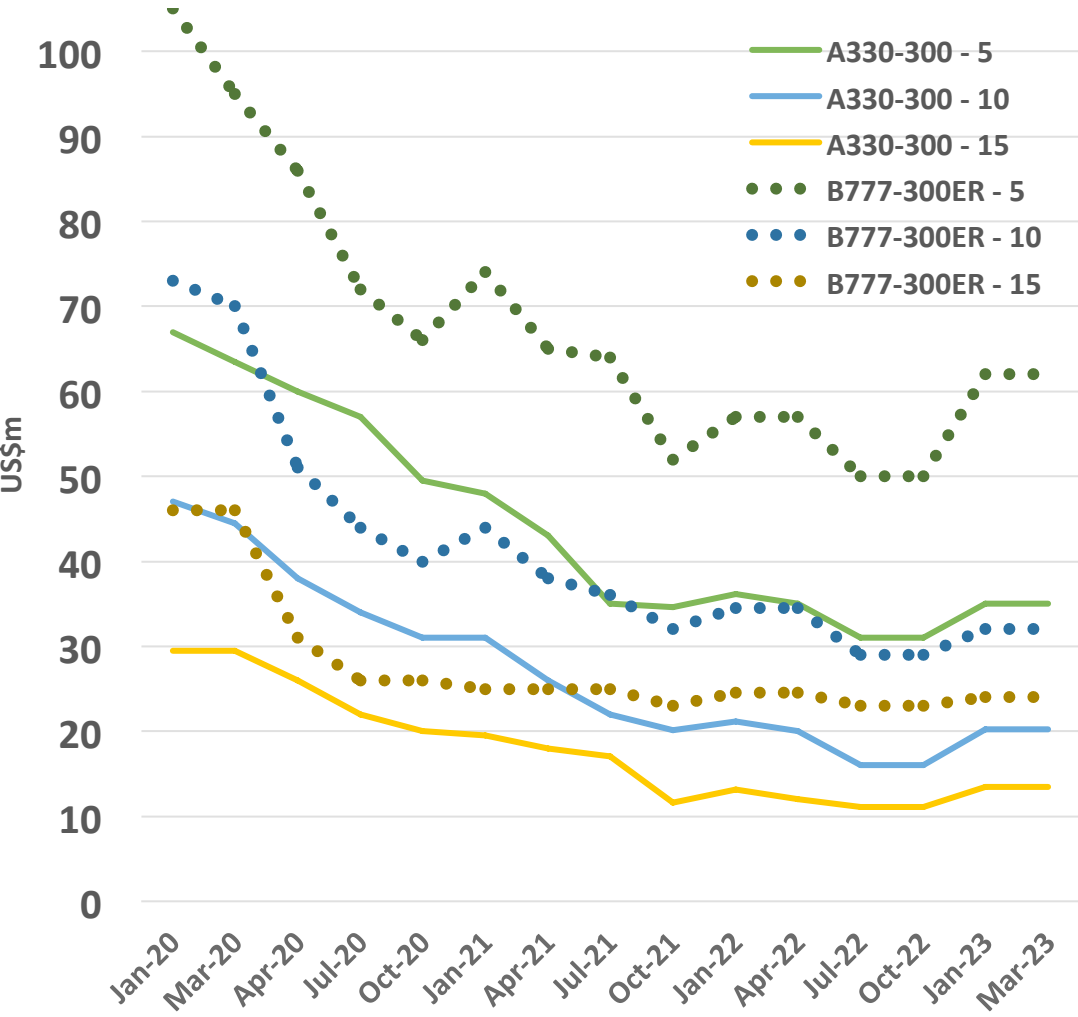


Source: Ishka Transactions Economics

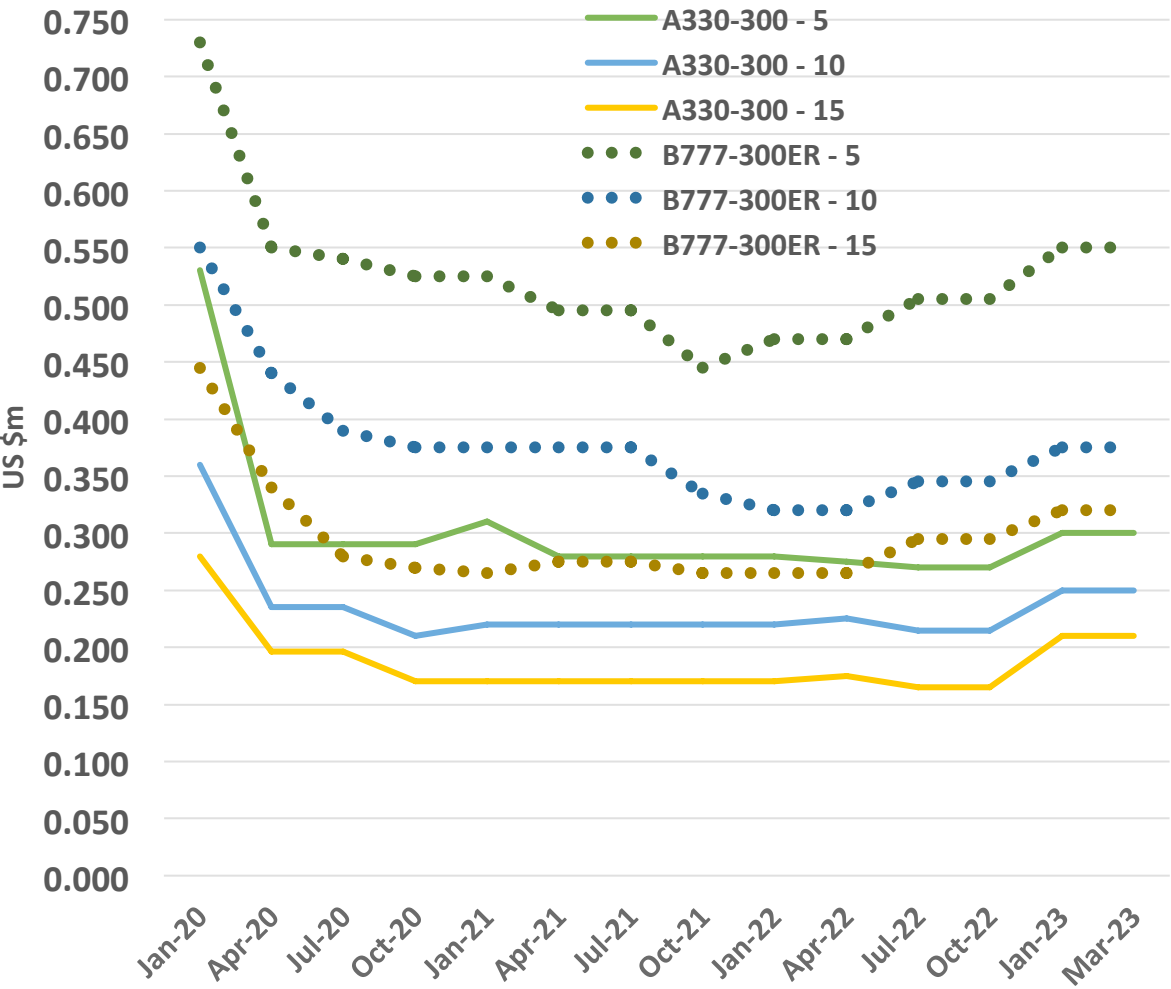
# Widebody Recovery lagging



Market Values

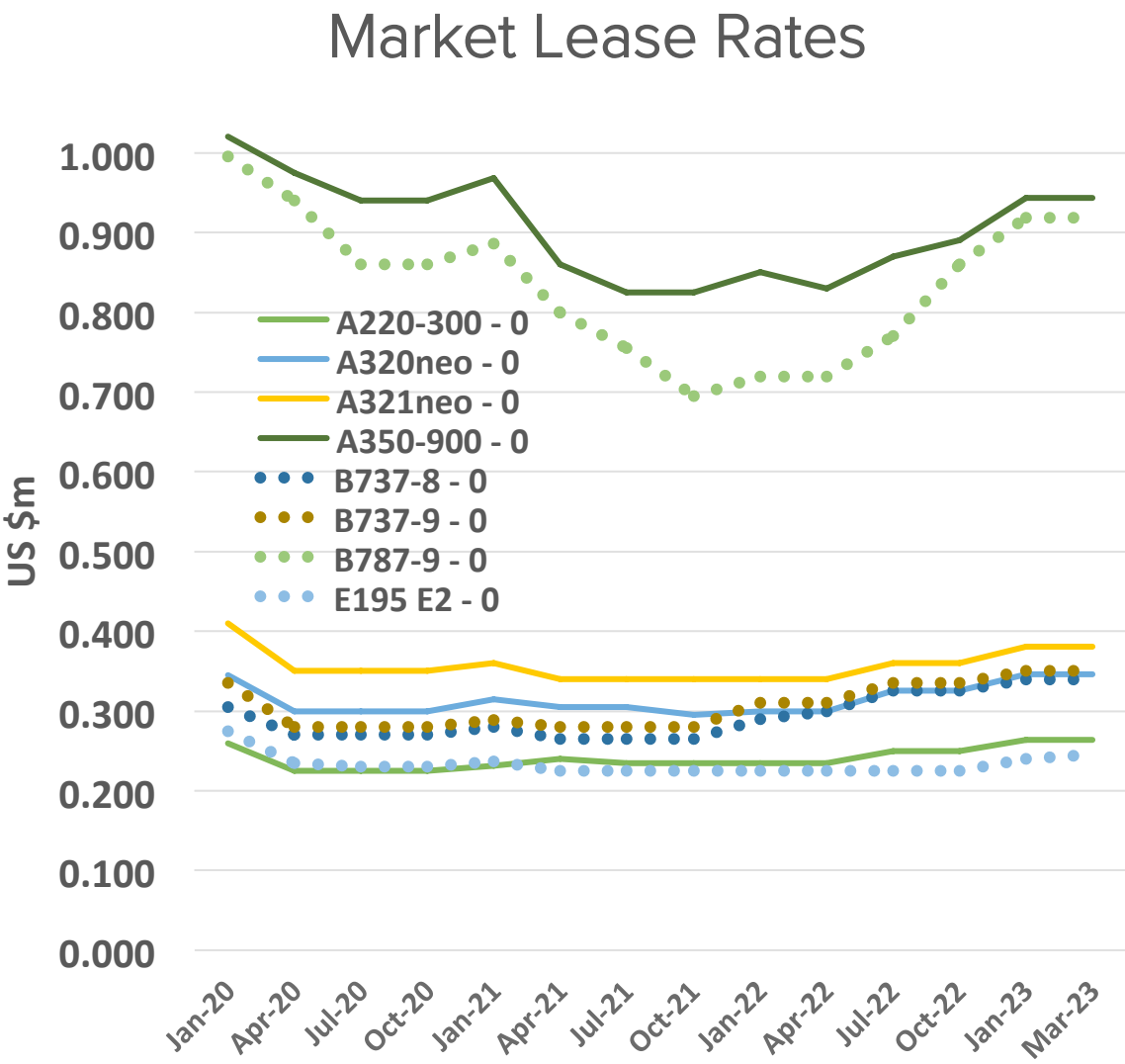
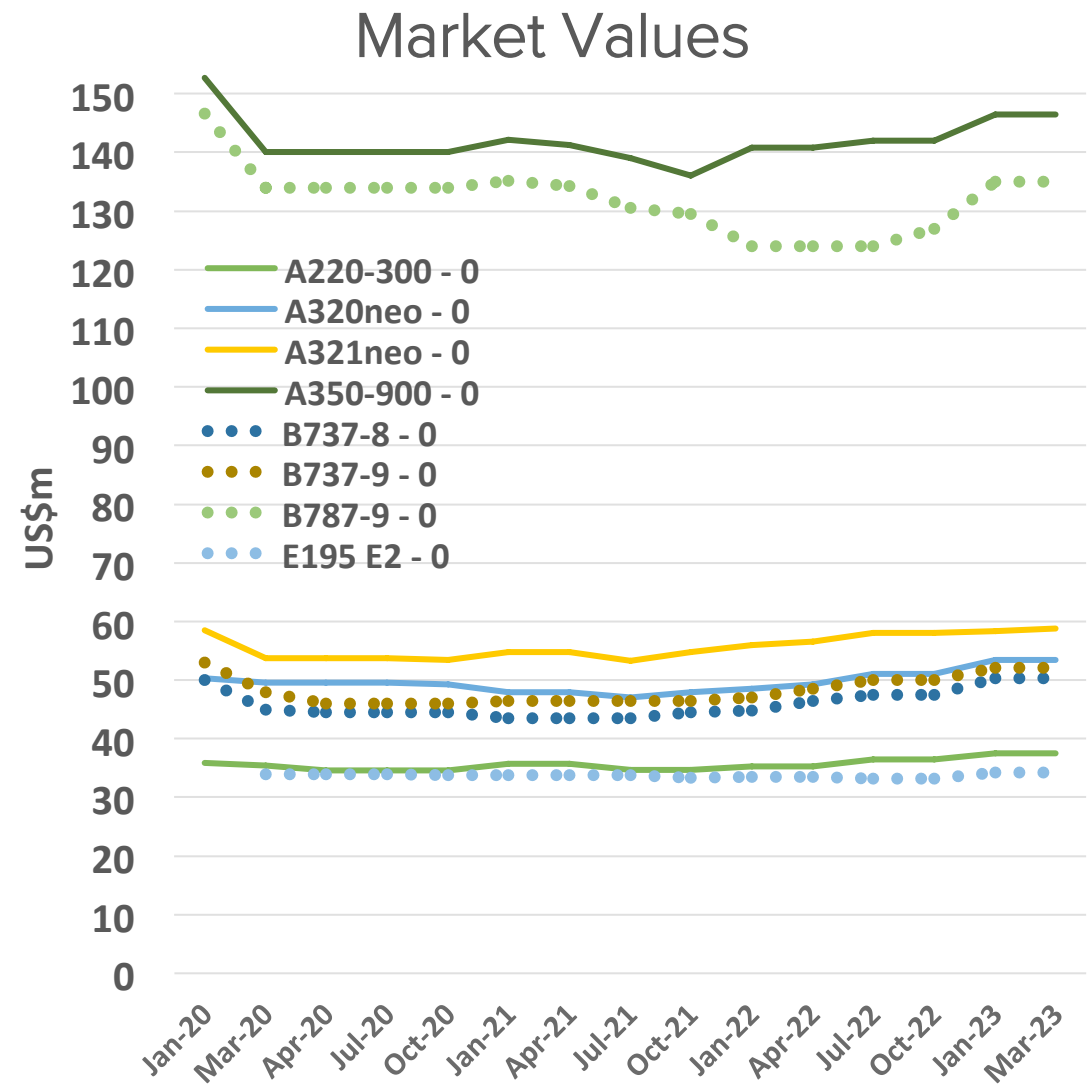


Market Lease Rates





# New Builds - benefitting from under-production



Source: Ishka Transactions Economics



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# Ishka Advisory



Eddy Pieniazek, Head of Ishka Advisory is a world-renowned expert in aviation with over 45 years' experience.

Eddy leads our team delivering a range of bespoke consultancy services to alleviate risk and position your company for profitable growth.

We operate at the very heart of the industry, with long-standing relationships with lessors, institutional investors, banks, finance houses, airlines, OEMs, suppliers and the legal and insurance communities.

We constantly track the global aviation market so our clients receive the most accurate and trusted advice. Whether it's the latest aircraft values, global trends or the competitive environment, we stay up-to-date with the information that matters.

The Ishka Advisory logo is located in the top right corner, featuring the word 'ishka' in a bold, lowercase sans-serif font, with 'ADVISORY' in a smaller, uppercase sans-serif font below it. The background of the right side of the slide is a dark blue gradient with a faint, stylized profile of a person's face and a network of glowing blue lines and dots, suggesting a global or technological theme.

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