



# BOC Aviation 1Q 2022 Review

27 APRIL 2022

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# 1Q 2022 and Recent Developments



## STRONG ASSET QUALITY

- 530 aircraft owned, managed and on order<sup>1</sup>
- 4.1 years<sup>2</sup> average fleet age; 8.2 years<sup>2</sup> average remaining lease term
- 96.7% aircraft utilization rate



## ROBUST LIQUIDITY

- US\$6 billion of available liquidity
- More than covers 2022 target capex and maturing liabilities
- Well positioned to support future investment



## PROACTIVE INVESTMENT STRATEGY

- Seven aircraft deliveries
- 22 lease commitments signed
- Committed to acquire 13 new aircraft, including 11 Boeing 737 MAX 8 aircraft for lease to Lynx Air



## STRONG CREDIT RATINGS

- A- by S&P Global Ratings
- A- by Fitch Ratings



## FUTURE GROWTH

- Announced the purchase of 80 new Airbus A320NEO family aircraft, scheduled for delivery between 2027 and 2029
- Largest aircraft order in the Company's history



## EXPERIENCED MANAGEMENT AND OWNERSHIP

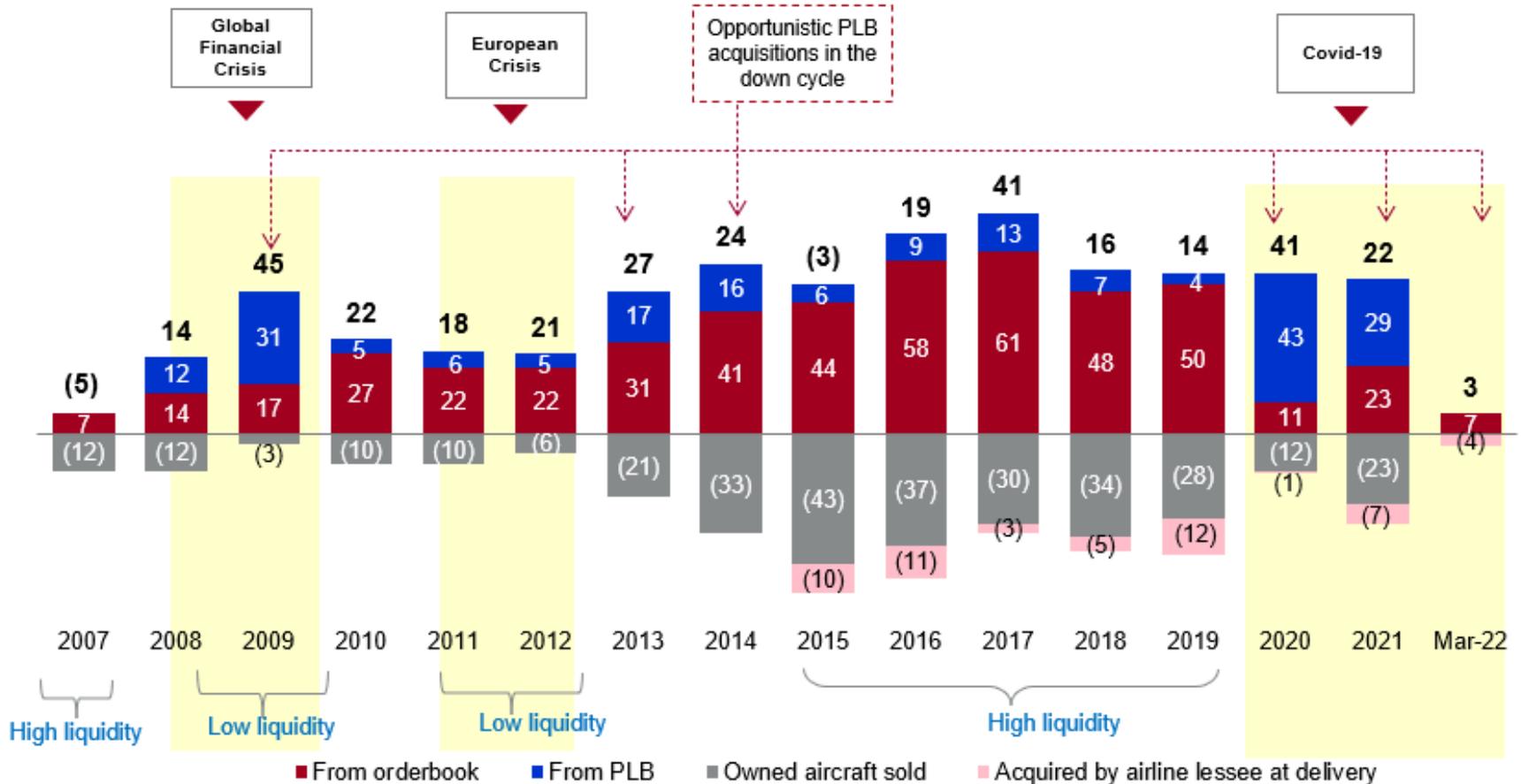
- Experienced management team successfully managed through multiple cycles
- Bank of China provides ongoing support

**A strong start to the year with new aircraft purchase commitments for future growth**

All data as at 31 March 2022 unless otherwise indicated  
See Appendices - Endnotes

# How We Invest

## Number of aircraft delivered, purchased and sold



## Investing in aircraft through multiple cycles

All data as at the end of the relevant period

# Popular and Fuel-Efficient Fleet

## Our aircraft portfolio

Aircraft type	Owned aircraft	Managed aircraft	Aircraft on order <sup>1</sup>	Total
Airbus A320CEO family	102	15	0	117
Airbus A320NEO family	92	0	33	125
Airbus A330CEO family	10	1	0	11
Airbus A330NEO family	6	0	0	6
Airbus A350 family	9	0	0	9
Boeing 737NG family	72	14	0	86
Boeing 737 MAX family	40	0	55	95
Boeing 777-300ER	26	4	1	31
Boeing 777-300	0	1	0	1
Boeing 787 family	21	1	21	43
Freighters	5	1	0	6
<b>Total</b>	<b>383</b>	<b>37</b>	<b>110</b>	<b>530</b>

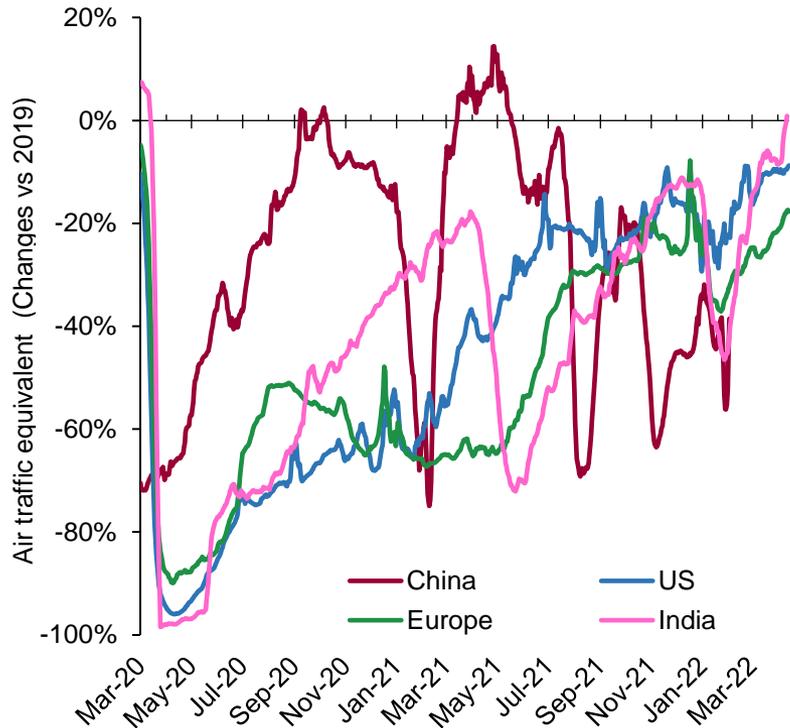
**100% of orderbook comprises latest technology aircraft**

All data as at 31 March 2022  
See Appendices - Endnotes

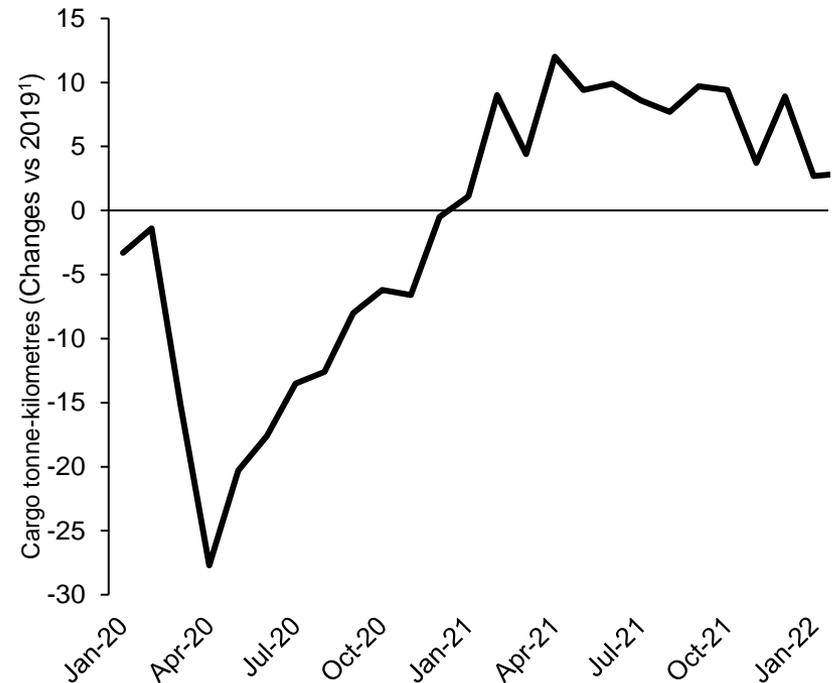


# Air Traffic Recovery

Countries with significant domestic markets demonstrate rising passenger demand



Strong global air cargo performance



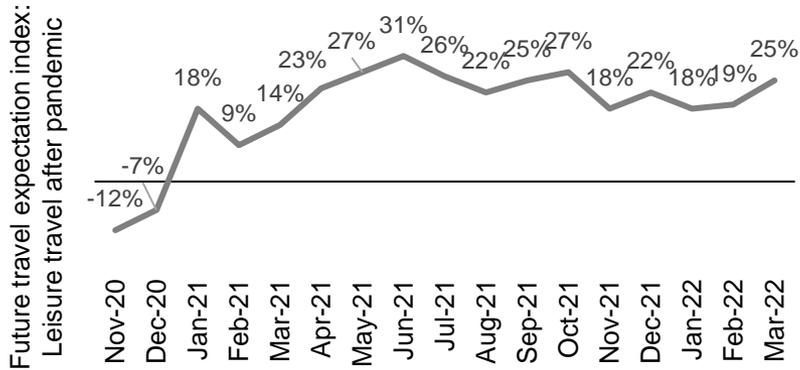
Recovery in large domestic markets following a resurgent cargo market

See Appendices - Endnotes

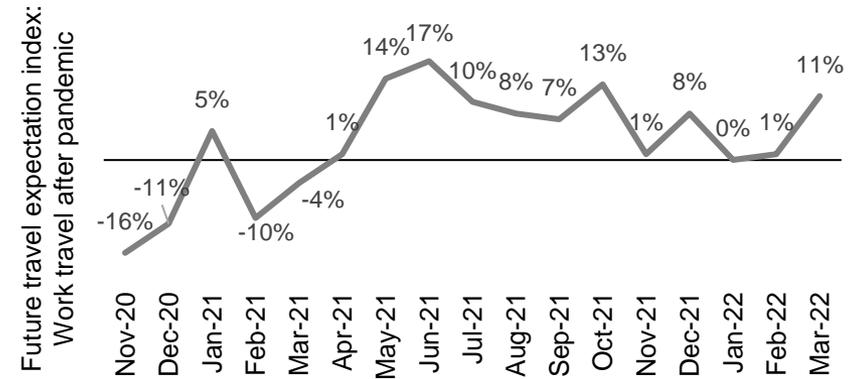


# Forward Bookings Drive Recovery in Aircraft Utilisation

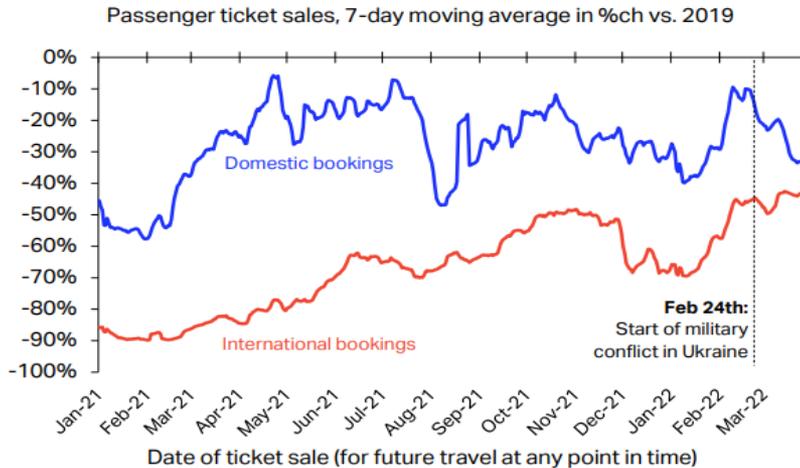
## US leisure demand trajectory robust



## ...with business travel beginning to accelerate

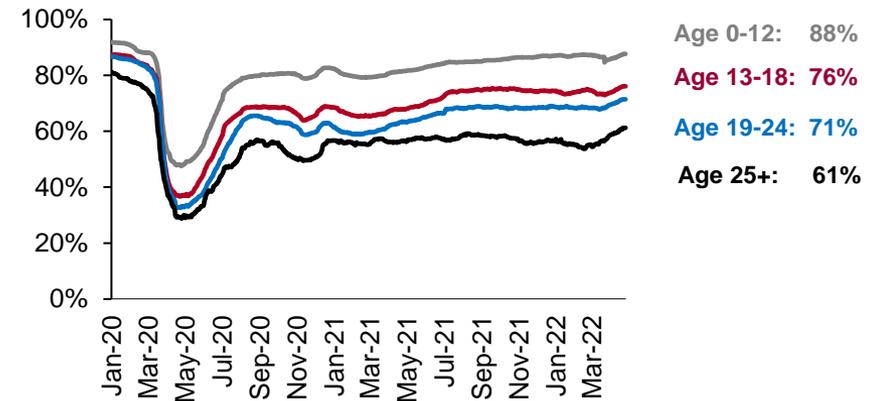


## Passenger ticket sales (% change vs 2019)



## Rising utilisation rates

1st Jan 2020 – 25 Apr 2022

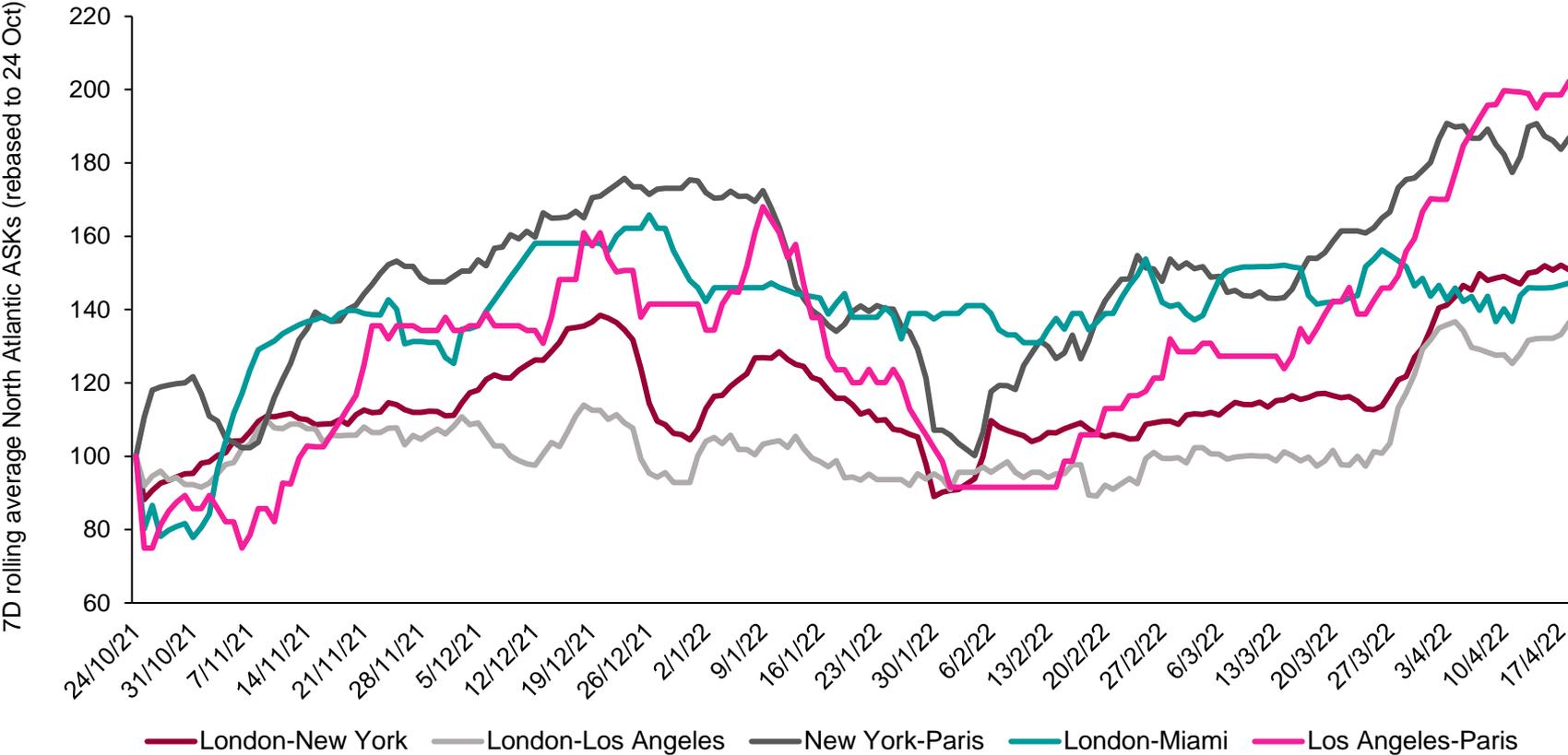


**Domestic and short haul recovery drives demand for narrowbody aircraft**

See Appendices - Endnotes

# Return of International Air Travel

## Strong transatlantic travel demand



Improving trans-Atlantic traffic as border controls removed and Omicron impact fades

See Appendices - Endnotes



# China Passengers Delay Regional Air Traffic Recovery

## Impact of China on ASEAN tourist arrivals

Country	Number of passengers from China		Change
	2019	2021	
Indonesia	3,343,184	46,296	-99%
Thailand	18,849,446	100,109	-99%
Laos	564,035	37,672	-93%
Cambodia	4,062,050	75,864	-98%
Vietnam	4,879,386	24,558	-99%
Malaysia	6,131,479	43,368	-99%
Philippines	3,226,629	19,837	-99%
<b>Total</b>	<b>41,056,209</b>	<b>347,704</b>	<b>-99%</b>

Potential for substantial improvement once China reopens its borders

See Appendices - Endnotes

# Rising Jet Fuel Prices

Jet fuel price, US\$/barrel



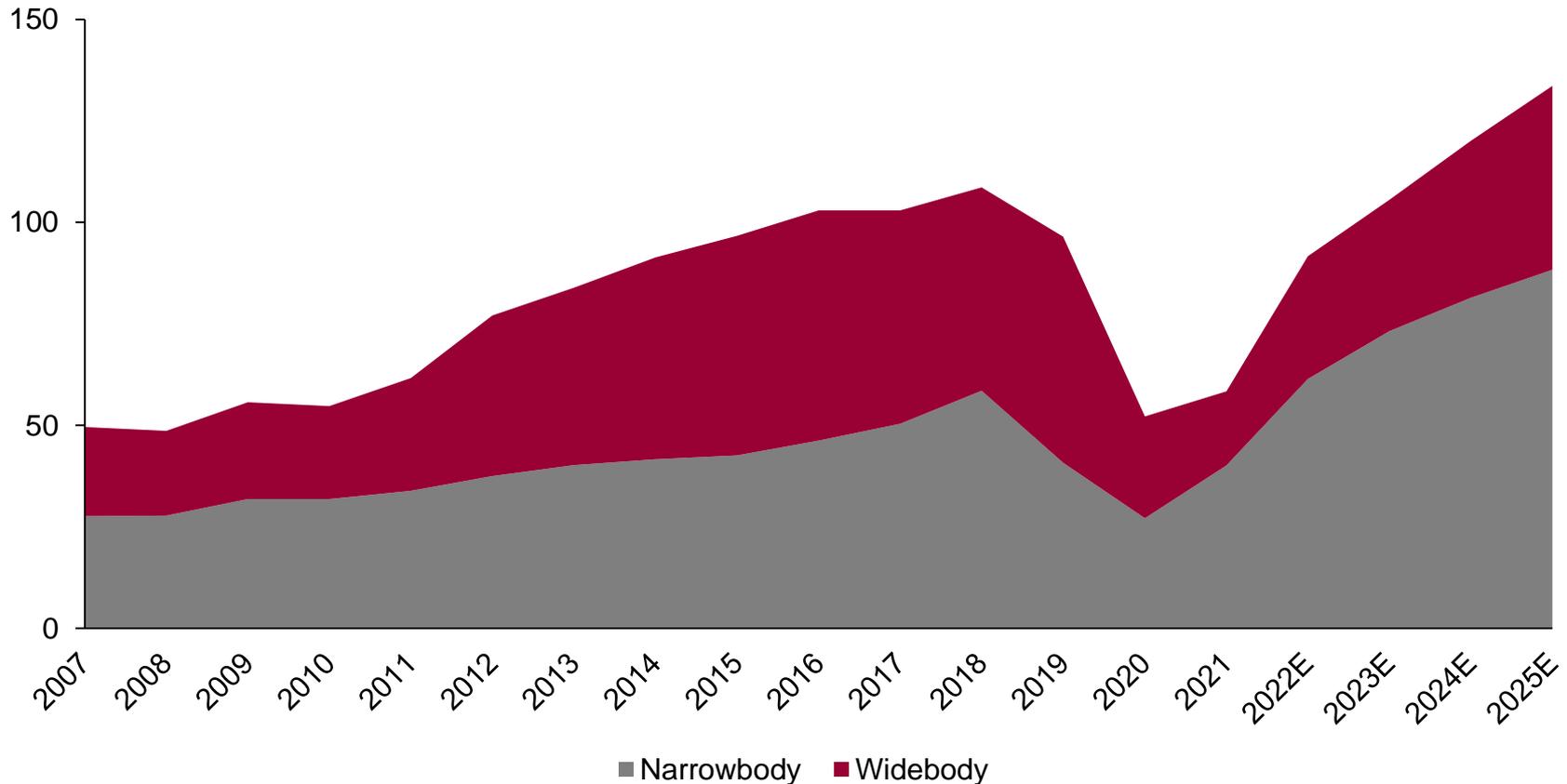
Fuel prices remain high and volatile

See Appendices - Endnotes



# Airlines' Capital Investments Are Projected to Exceed US\$120 Billion by 2024

Annual airline capex – US\$ billion



All data as at 31 December 2021  
See Appendices - Endnotes

# Lessors Own 51% of the Aircraft Market Today

Proportion of fleet on operating lease



**Lessors own 51% of the aircraft market today; this proportion has potential to increase**

All data as at 31 March 2022  
See Appendices - Endnotes



# Looking Ahead

- Improving airline traffic visible globally
  - Resurgence in passenger numbers in large domestic markets already clear
  - Long-haul markets recovering as new travel lanes are opened
  - Omicron impact has fallen away in EU and US markets; Asia is poised to follow suit as more markets open up
  - Russian airspace closure having limited effect on overall travel demand
- Higher interest rates and fuel prices provide financing opportunities for well-capitalised operating lessors
- China re-opening will drive upside for Southeast Asia: travel volumes already recovering and this before the 41 million Chinese that travelled to the region in 2019
- A global aircraft operating lessor committed for the long-term
  - Robust delivery numbers in 2021
  - Orderbook and available liquidity position us well to capture airline demand upturn
  - New orders refresh delivery pipeline
  - Earnings resilience, with 28 years of unbroken profitability across multiple industry cycles

# APPENDICES

# Russian Exposure Snapshot as at 31 March 2022

Net exposure of aircraft leased  
to Russian airlines

**US\$589 million**

**17** owned aircraft  
with **4** airlines

**2.5%** of total assets as at 31 March 2022

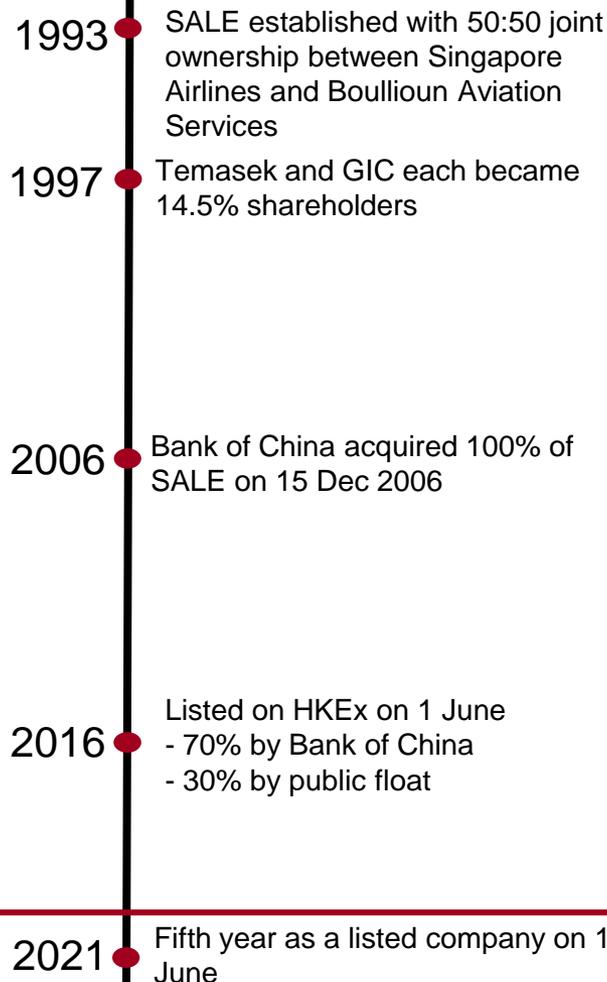
**10%** of \$6bn available liquidity as at end-2021

**<12%** of \$5.3bn of equity as at end-2021

Manageable exposure for the Company

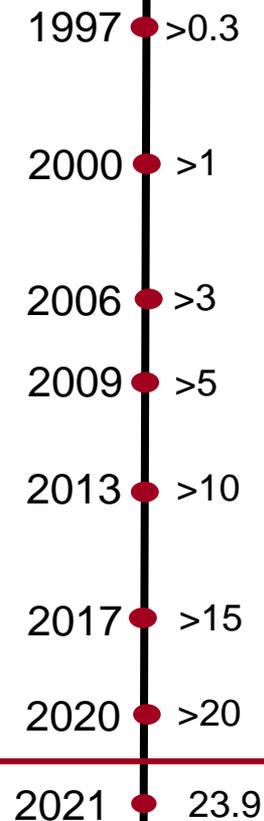
# The BOC Aviation Journey

## Ownership



## Total assets

US\$ billion



All data as at the end of the relevant period



# BOC Aviation – Who Are We?

## Bank of China

70% owned by BOC

**US\$23.9 billion**

Total assets

## Listed on HKEX

HKEX code: 2588

**A-** Investment grade credit ratings  
from S&P and Fitch

**530**

Aircraft in fleet<sup>1</sup>

**4.1 years; 8.2 years**

Average fleet age & lease term remaining<sup>2</sup>

**28**

Years of unbroken profitability

**US\$5.5 billion**

Cumulative profits since inception

**Top 5**

Global aircraft operating lessor

**15%**

Average ROE since 2007

**Industry leader with best-in-class financial performance**

All data as at 31 December 2021 unless otherwise indicated  
See Appendices - Endnotes



# Globally Diverse Management Team



**Robert Martin**  
*Managing Director & Chief Executive Officer*

**Zhang Xiaolu**  
*Vice-Chairman & Deputy Managing Director*

**Steven Townend**  
*Deputy Managing Director & Chief Financial Officer*

**David Walton**  
*Deputy Managing Director & Chief Operating Officer*

**Deng Lei**  
*Chief Commercial Officer (Asia Pacific & the Middle East)*

**Paul Kent**  
*Chief Commercial Officer (Europe, Americas, Africa)*

- 34 years of banking and leasing experience
- Managing Director and Board Director since July 1998

- 31 years of banking experience
- In charge of Risk Management, Market Research, Board Secretariat and Corporate Affairs departments

- 30 years of banking and leasing experience
- In charge of Finance, Treasury, Tax, Investor Relations and Settlement

- 35 years of legal, aviation finance and leasing experience
- In charge of Procurement, all operations and related departments

- 23 years of banking experience
- In charge of revenue activities for Asia Pacific and Middle East

- 25 years of aircraft finance and leasing experience
- In charge of revenue activities for Europe, Americas and Africa

**Nationality**



**Highly experienced senior management team**

All data as at March 2022



# Core Competencies - BOC Aviation Track Record

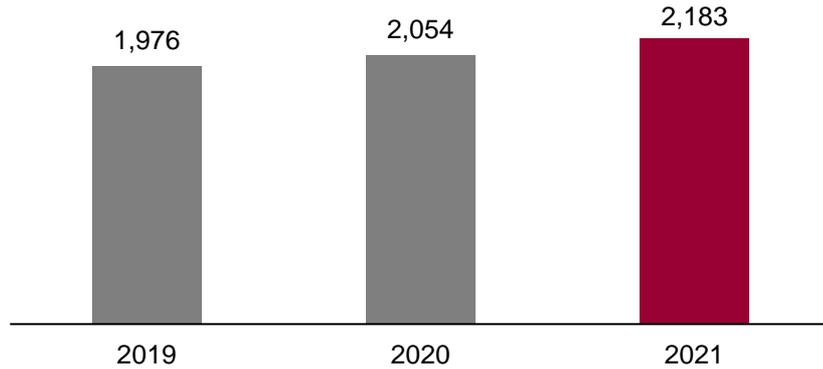
## Since inception in 1993:

- Purchasing More than 900 aircraft purchased totalling more than US\$51 billion
  - Leasing More than 1,150 leases executed with more than 170 airlines in 57 countries and regions
  - Financing<sup>1</sup> More than US\$37 billion in debt raised since 1 January 2007
- 
- Sales More than 390 aircraft sold
  - Transitions 109 transitions
  - Repossessions<sup>2</sup> 65 aircraft in 19 jurisdictions

# Resilient Performance in a Difficult Market

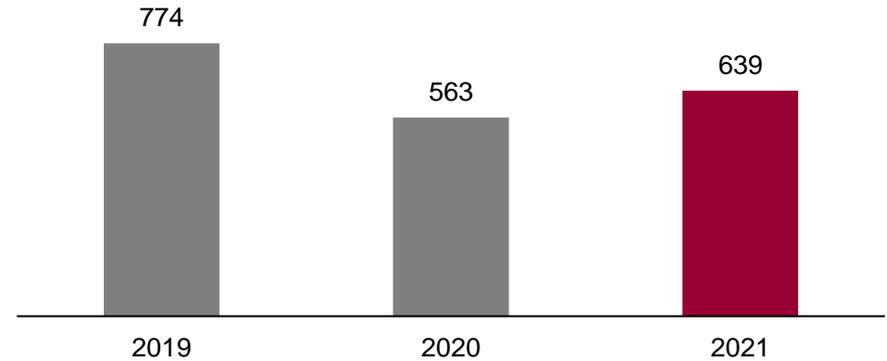
## Fleet growth underpins growth in revenues

US\$ million



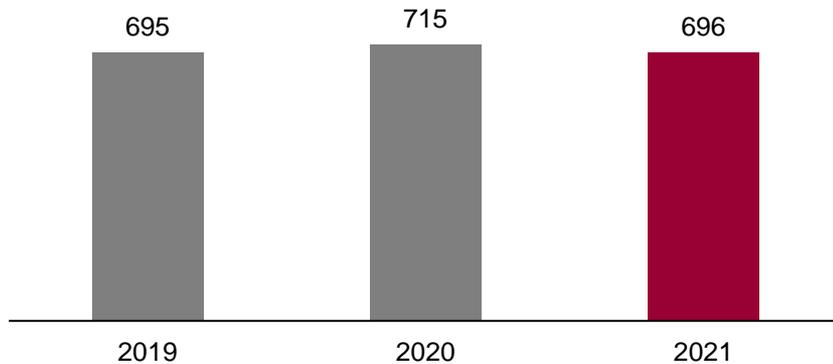
## Improving profit before tax

US\$ million



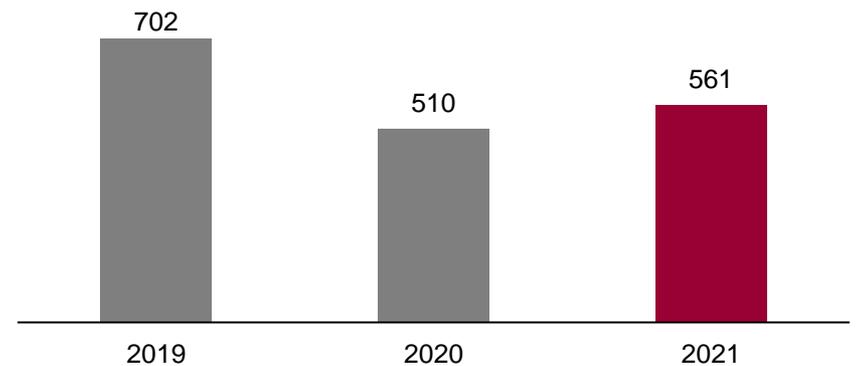
## Consistently high core lease rental contribution<sup>1</sup>

US\$ million



## Increasing net profit after tax

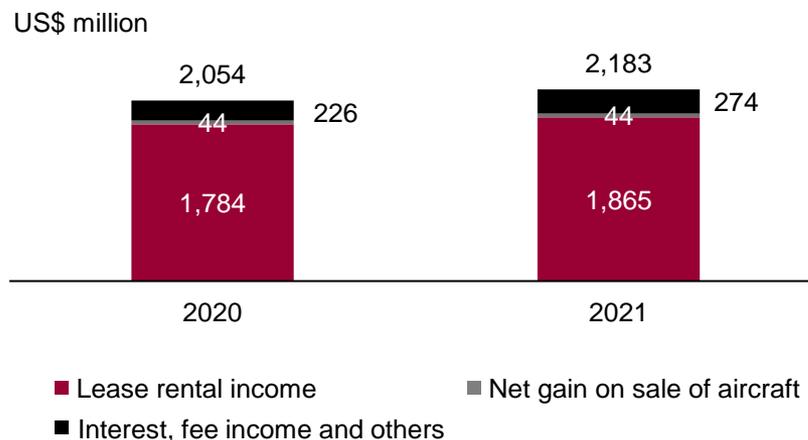
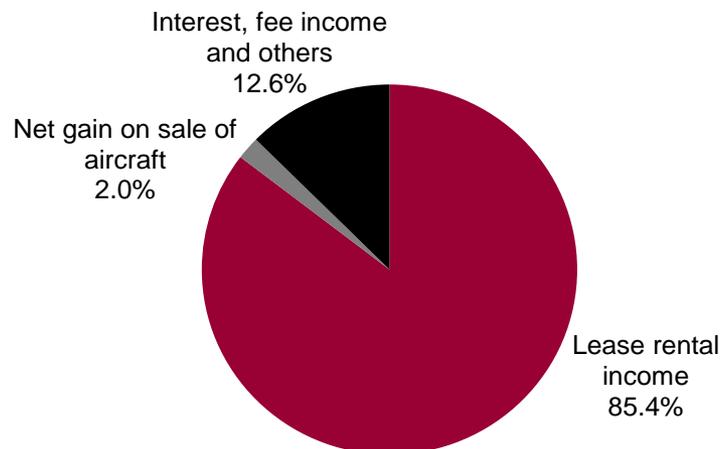
US\$ million



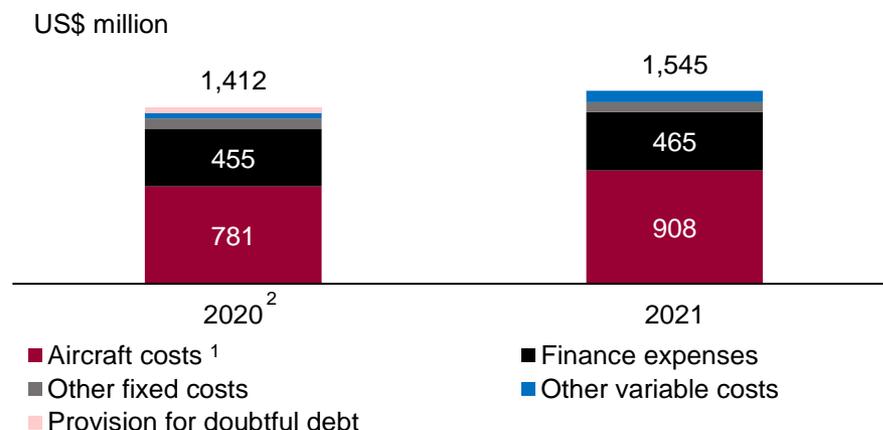
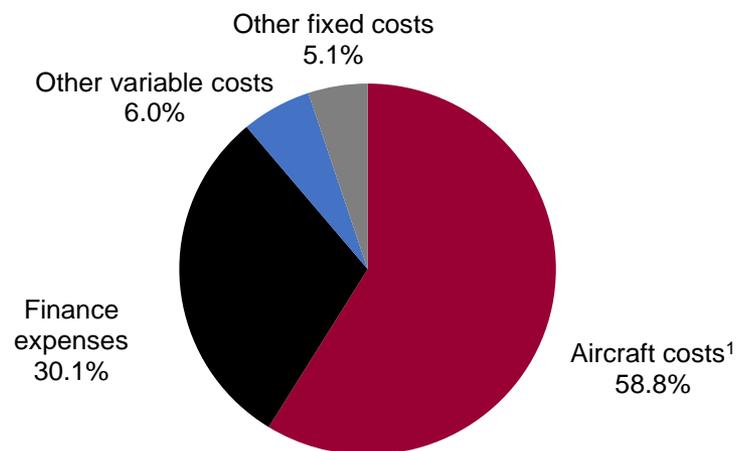
All data as at 31 December 2021  
See Appendices - Endnotes

# Lease Rental Income Continues to Dominate Revenue

Lease rental income consistently over 85% of total revenues and other income



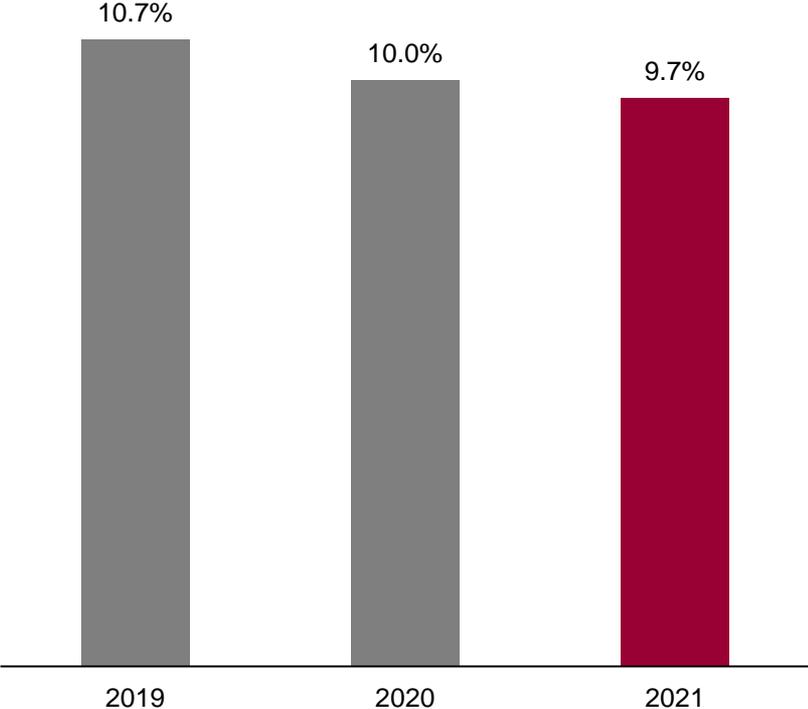
Depreciation of aircraft and financing costs are key costs



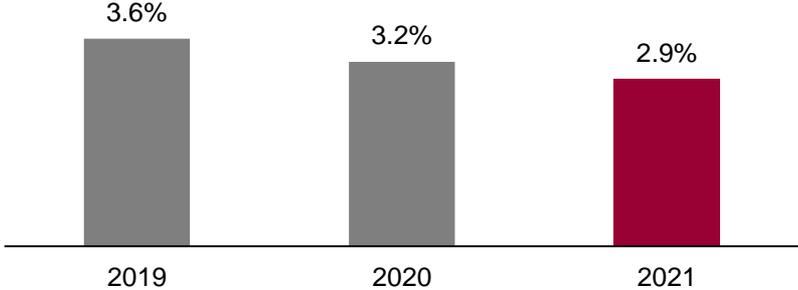
All data as at 31 December 2021  
See Appendices - Endnotes

# Lease Yields Reflect Market Environment

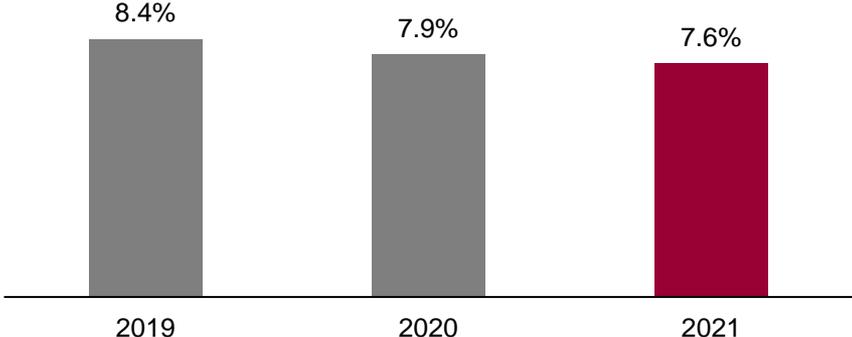
Lease rate factor<sup>1</sup> high at around 10%



Reduced cost of debt<sup>2</sup>



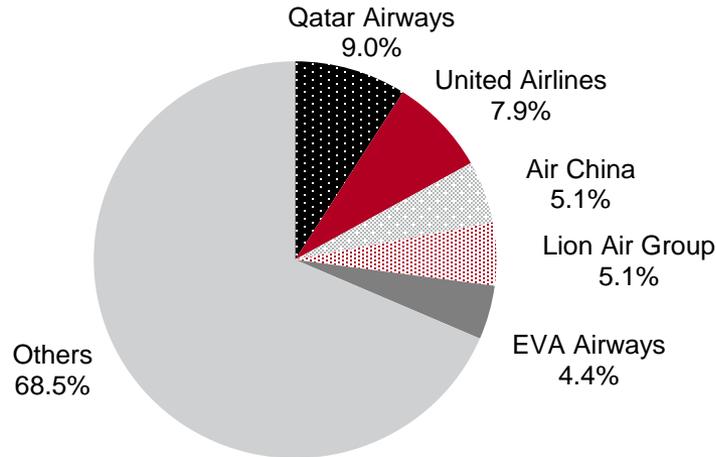
Lower net lease yield<sup>3</sup>



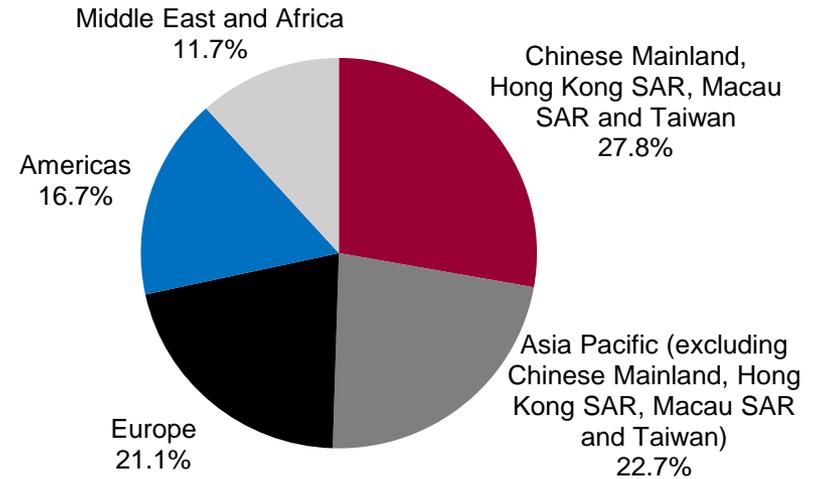
All data as at 31 December 2021  
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# Globally Diversified Portfolio

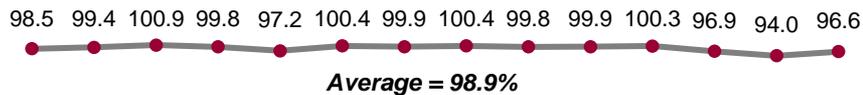
## Lease portfolio diversified by customer<sup>1,2</sup>



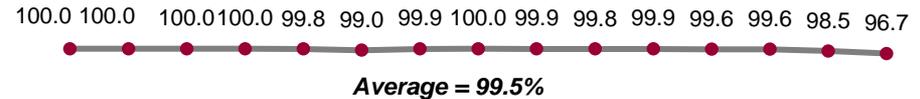
## ...and increasingly diversified by geography<sup>1,3</sup>



## Collection rate (%)



## Fleet utilization (%)<sup>4</sup>



2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 Mar-22

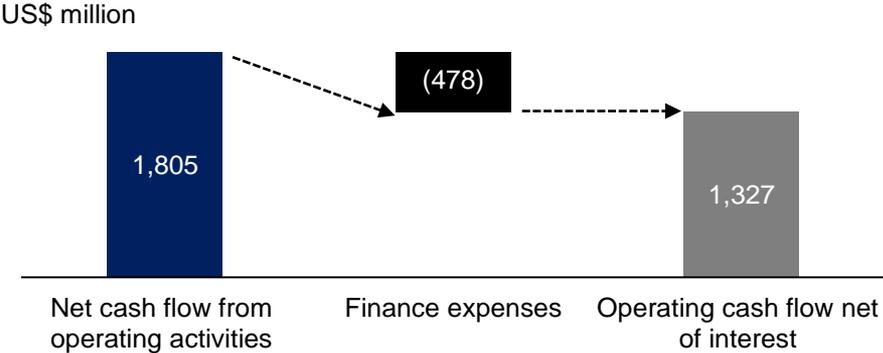
All data as at 31 December 2021 unless otherwise indicated  
See Appendices - Endnotes

# Operating Cash Flow Net of Interest

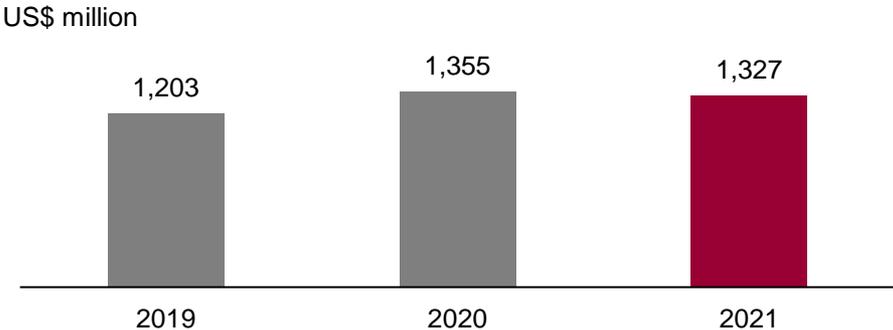
## Operating cash flow net of interest<sup>1</sup>

- Operating cash flow in excess of US\$1.3 billion; matching 2020 despite a challenging environment
- Strong collection efforts in 2022 will further enhance cash flow
- Expecting 36 aircraft to be delivered in 2022<sup>2</sup>

## Operating cash flow net of interest<sup>1</sup> for FY2021



## Consistently high operating cash flow net of interest<sup>1</sup>



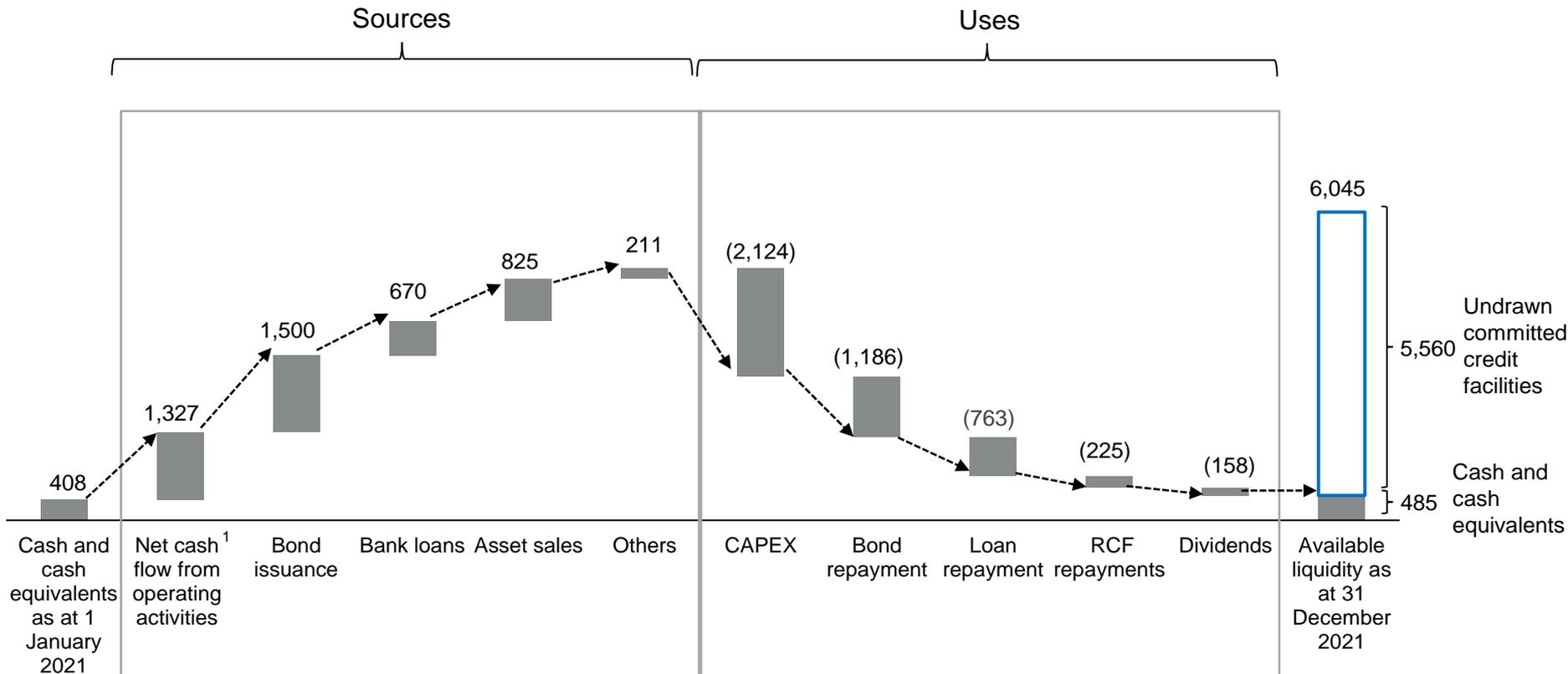
**Operating cash flow net of interest continues to be stable in 2021**

All data as at 31 December 2021  
See Appendices - Endnotes

# Diverse Funding Channels Utilised in 2021

## Sources and Uses of Cash

US\$ million



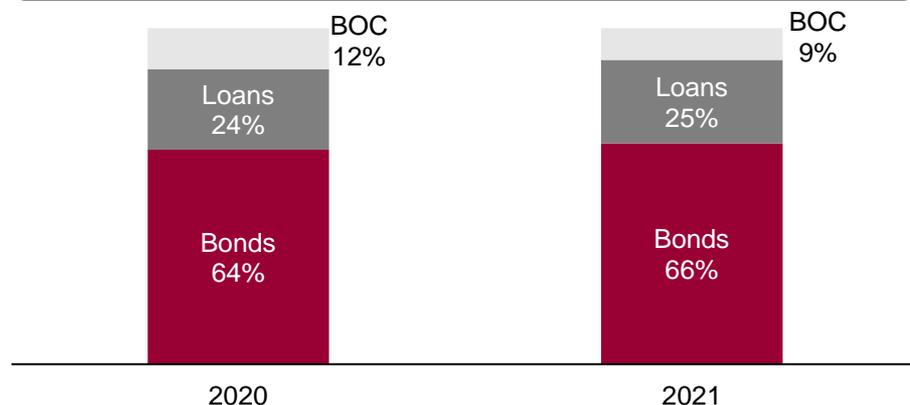
**US\$6 billion of committed available liquidity**



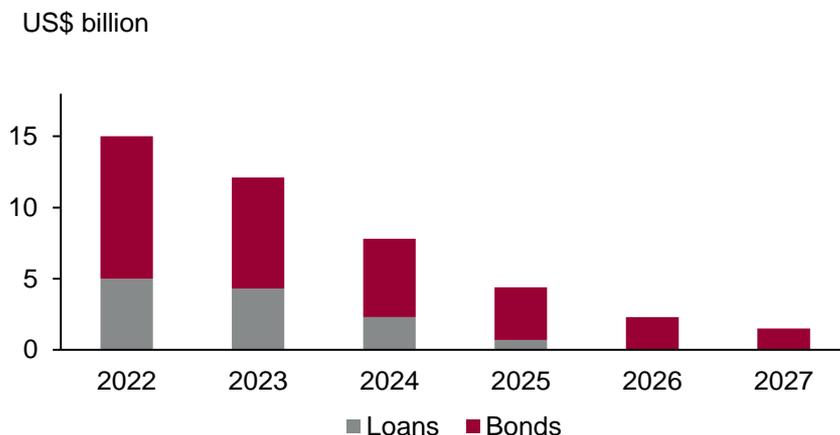
All data as at 31 December 2021  
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# Flexible Capital Structure and Ample Backstop Liquidity

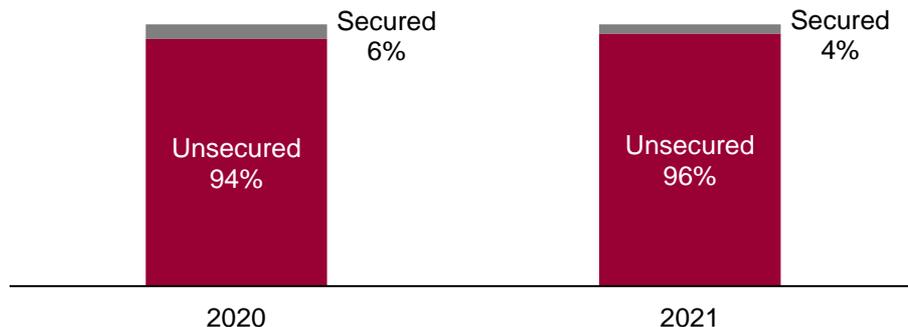
## Sources of debt<sup>1</sup>



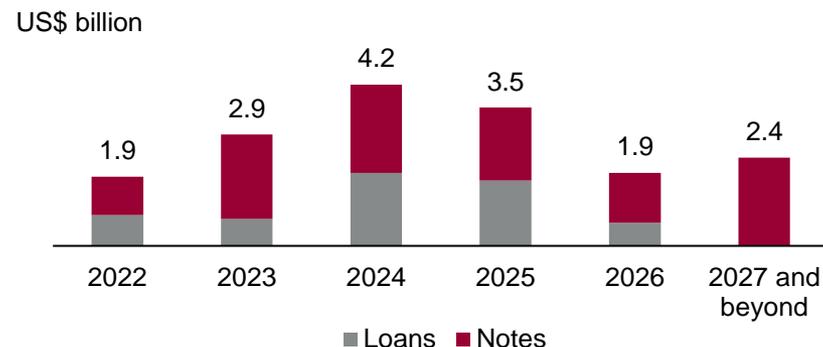
## Outstanding debt amortises over a long term



## Increasing unsecured funding



## Near term debt maturities well covered by US\$6 billion available liquidity



**Liability management is a key strength**

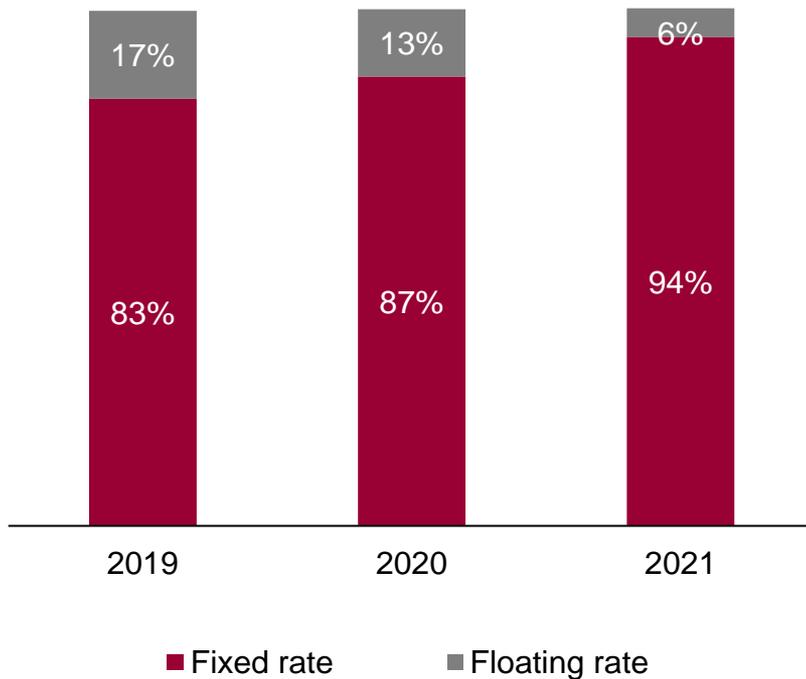
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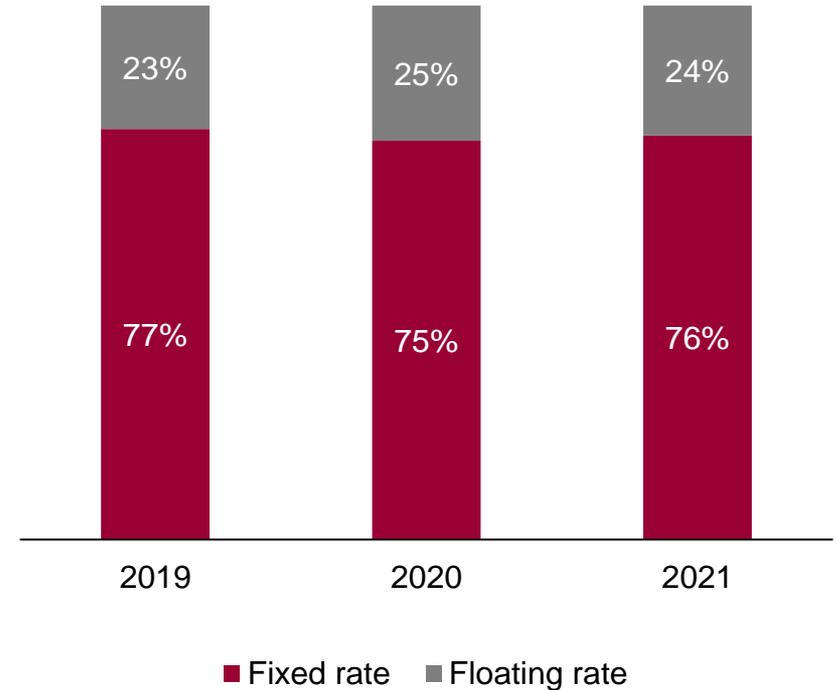
# High Proportion of Fixed Rate Leases and Debt

## Proportion of fixed rate leases rising steadily<sup>1</sup>

By net book value



## Stable proportion of fixed rate debt<sup>2</sup>



All data as at 31 December 2021  
See Appendices - Endnotes

# 2021 ESG Highlights

## Environmental

- **100%** carbon neutral for direct emissions
- Direct GHG emissions reduction **ahead of target**
- **100%** latest technology aircraft in the orderbook
- **Two-thirds** of our owned fleet is latest technology aircraft
- **3.9** years average fleet age
- Piloted our grassroots employee **ESG pledge**

## Social

- **More than US\$50,000** in donations
- **1,400** volunteer hours in local communities
- **More than 2,900** training hours
- **Eight** employee surveys
- **34** Company-wide townhalls
- **20** nationalities across five offices

## Governance

- **Three** female Board of Directors out of 11
- **Three** nationalities on the Board
- **Cybersecurity 2.0** upgrades
- **Nil** regulatory breaches or legal cases
- **100%** completion of compliance training

All data as at 31 December 2021

# Endnotes (1)

- **SLIDE 3: 1Q 2022 and Recent Developments**
  1. Includes all commitments to purchase aircraft including those where an airline customer has the right to acquire the relevant aircraft on delivery
  2. Weighted by net book value of owned fleet as at 31 March 2022
- **SLIDE 5: Popular and Fuel-Efficient Fleet**
  1. Includes all commitments to purchase aircraft including those where an airline customer has the right to acquire the relevant aircraft on delivery
- **SLIDE 6: Air Traffic Recovery** - Sources: China MoT (Air Pax YoY) TravelSky (Traffic), TSA (Throughput), Eurocontrol (Flights), AWN ADS-B (Flights), IATA
  1. Changes compared to 2021 with effect from January 2022
- **SLIDE 7: Forward Bookings Drive Recovery in Aircraft Utilisation** - Sources: IATA Air Passenger Market Analysis – February 2022, Cirium fleet data, Cowen and Company lodging and loyalty tracker
- **SLIDE 8: Return of International Air Travel** – Sources: ADS-B database updated as of 18 April 2022
- **SLIDE 9: China Passengers Delay Regional Air Traffic Recovery** – Sources: BOC Aviation analysis
- **SLIDE 10: Rising Jet Fuel Prices** – Sources: Bloomberg, 21 April 2022
- **SLIDE 11: Airlines' Capital Investments Are Projected to Exceed US\$120 Billion by 2024-** Source: BOC Aviation Analysis
- **SLIDE 12: Lessors Own 51% of the Aircraft Market Today** – Sources: Ascend, as at 31 March 2022, based on aircraft of 100+ seats. Fleet data for 2020 onwards includes aircraft in-service and aircraft additionally parked from end-2019 due to Covid-19 fleet grounding.

# Endnotes (2)

- **SLIDE 17: BOC Aviation – Who Are We?**
  1. Includes owned, managed and aircraft on order as at 31 March 2022
  2. Weighted by net book value of owned fleet as at 31 March 2022
- **SLIDE 19: Core Competencies - BOC Aviation Track Record**
  1. As at 31 December 2021
  2. Includes repossessions and consensual early returns
- **SLIDE 20: Resilient Performance in a Difficult Market**
  1. Impairment charges comprise impairment of aircraft and financial assets
  2. Calculated as operating lease rental income and finance lease interest income less aircraft depreciation, finance expenses apportioned to operating lease rental income and finance lease interest income, amortisation of deferred debt issue costs and lease transaction closing costs
- **SLIDE 21: Lease Rental Income Continues to Dominate Revenue**
  1. Comprises aircraft depreciation and impairment
  2. Excludes loss on investment in equity instruments
- **SLIDE 22: Lease Yields Reflect Market Environment**
  1. Calculated as operating lease rental income divided by average net book value of aircraft and multiplied by 100%
  2. Calculated as the sum of finance expenses and capitalized interest, divided by average total indebtedness. Total indebtedness represents loans and borrowings before adjustments for deferred debt issue costs, fair values, revaluations and discounts/premiums to medium term notes
  3. Calculated as operating lease rental income less finance expenses apportioned to operating lease rental income, divided by average of aircraft net book value (including aircraft held for sale).

# Endnotes (3)

- **SLIDE 23: Globally Diversified Lease Portfolio**
  1. Based on net book value including aircraft subject to finance leases and excluding aircraft off lease as at 31 December 2021
  2. For certain airlines, the percentage includes leases to affiliated airlines whose obligations are guaranteed by the named airline
  3. Based on the jurisdiction of the primary obligor under the relevant operating lease
  4. Fleet utilization is the total days on-lease in the period as a percentage of total available lease days in the period
- **SLIDE 24: Operating Cash Flow Net of Interest**
  1. Calculated as net cash flows from operating activities less finance expenses paid
  2. Including two delivered in March 2022 YTD
- **SLIDE 25: Diverse Funding Channels Utilised in 2021**
  1. Calculated as net cash flow from operating activities less finance expenses paid
- **SLIDE 26: Flexible Capital Structure and Ample Backstop Liqui**
  1. Drawn debt only
- **SLIDE 27: High Proportion of Fixed Rate Leases and Debt**
  1. By net book value including aircraft subject to finance lease and aircraft held for sale, and excluding aircraft off lease
  2. Fixed rate debt included floating rate debt swapped to fixed rate liabilities



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