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Push and pull factors on aircraft lease rates.

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Strategic and Market Analysis

Introduction

There are multiple factors that influence aircraft lease rates and while interest rates are typically cited as one of the major drivers, other factors can often have an even bigger impact.

In this paper we have identified eight significant factors that drive aircraft lease rentals and we discuss each in more detail in the following pages.

We have used a circle as many of the factors interact with and influence each other. At any given time, their relative importance can be larger than at other times. Accordingly, we have not looked to make any single segment larger or smaller than the other.

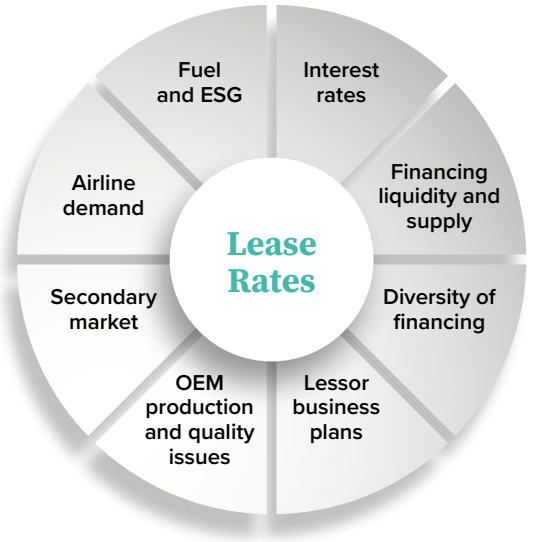
We have colour coded the factors on a traffic light system with a view to showing those which we feel will have a very strong positive impact on leases rates *(dark green)* to those that will act as a drag on lease rates *(red)*.

While this is not a formulaic approach, the methodology provides a good sense of the future directional movements of lease rates for narrowbody aircraft over the coming period.

All charts in the document relate to the secondary and new aircraft placement market as both of these segments are currently moving in tandem.

Our conclusion is that most of these factors point to lease rates in the secondary and new aircraft placement market to remain high.

We believe the SLB Market will remain competitive due to the ongoing production issues at the OEMs reducing supply into the wider market.



Traffic Light System

- Strong Positive Impact
- Positive Impact
- Neutral Impact
- Negative Impact

Interest rates to put upward pressure on lease rates

Higher interest rates normally put an upward pressure on aircraft lease rates.

The first way in which higher interest rates impact lease rentals relates to the rental structure for new aircraft deliveries where even for "fixed rental" leases, a base rental is typically agreed with the airline but adjusts with interest rate movements between signing the lease and delivery of the aircraft. On the other hand, for floating rent agreements, which are less common, the rent will vary with interest rates throughout the lease term, often resetting every six months.

The second way through which higher interest rates impact aircraft rents is the passing on of the higher cost of funding for lessors to airlines in order to maintain their minimum profitability targets which is reflected in the quoted base rent.

Indeed, lessors with maturing debt may incur significantly more expensive financing terms compared to those that were negotiated prior to the beginning of the 2023 tightening cycle. The impact varies noticeably between lessors but nevertheless there is an upward pressure for the entire industry.

2024 is set to be a significant year for debt maturities across the leasing sector with almost $18 billion of bonds falling due across eight IG-rated lessors along with over $3 billion of bank debt maturing and $2.5 billion of drawn RCF balances which will require refinancing

In addition, the sector has significant near-term capex needs relating to its orderbook commitments with $18.8 billion of aircraft contracted to deliver to lessors in the coming year although due to manufacturing delays at the OEMs a portion of this will shift to the right.

In the secondary placement market, the supply/demand dynamic is the primary influence on rental rates, with the influence of interest rates less mechanical.

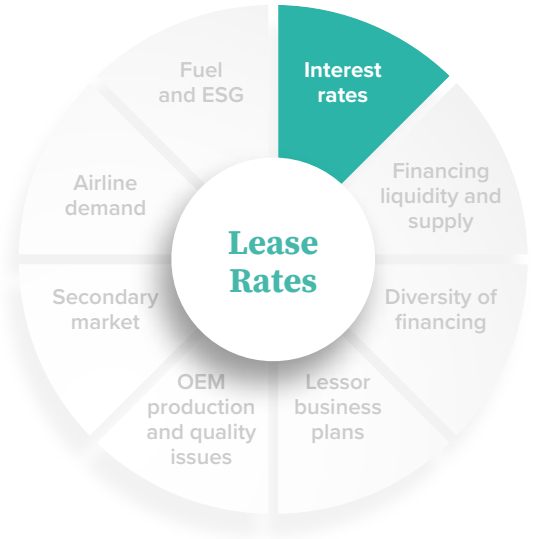
Interest rates began to increase from Mar-22 reacting to high inflation post Covid-19 which was due to several causes, among which was the increase in oil prices, disruption in international supply chains, and geopolitical instability. The rationale of this increase lies in the mandate of the Fed to keep inflation to "normal" levels.

As of Dec-23, the Bloomberg consensus estimate for CPI inflation in 2024 is 2.7%, remaining slightly above the Fed target of 2.0%. Even though this value is lower than that registered at the beginning of Q4-23 (3.2%), inflation is proving to be persistently above the 2% target.

This figure, coupled with a still relatively tight US labour market, supports the hypothesis that it is still premature to expect rates to fall to the historically low levels we saw in the 2020/22 period.

Indeed, even though the Bloomberg consensus for the Federal Funds Rate in Q4 2024 is 4.5% vs current 5.25%-5.5%, policymakers have made explicit the possibility of maintaining the rate at current levels or even higher if the inflation target proved difficult to achieve.

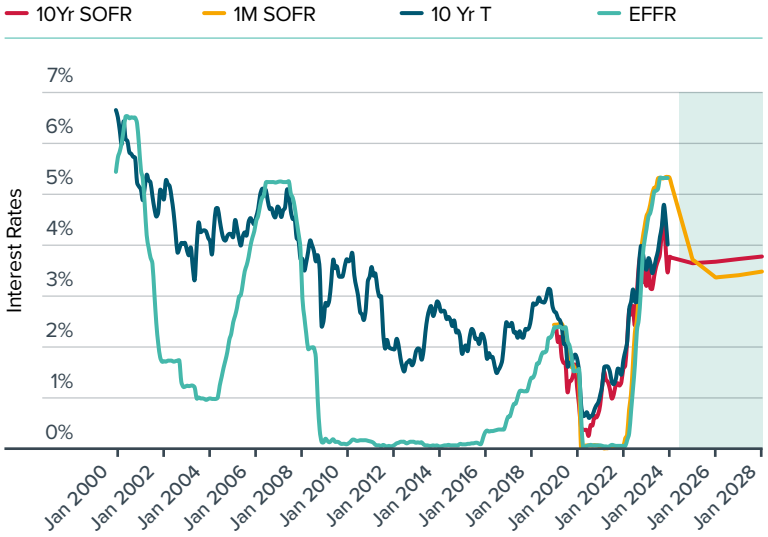
Accordingly, there has been some tempering of expectations that rates would decline faster and earlier. Hence, our view is that interest rates will continue to support higher lease rates.



Interest rates unlikely to fall in H1-24.

Most lessors passing on increased funding costs.

Figure 1: Interest Rates 2000 – 2028



Source: Bloomberg. Forecast 10Yr SOFR and 1M SOFR are per forward curves as at January 2024.

Industry financing – more options but at higher margins

Notwithstanding the OEMs manufacturing delays, the financing needs of the airline industry will continue to rise year on year due to increased production and higher sale prices.

In general, we do not expect to see any significant change in liquidity at central bank level, but we do see some very positive signs in the diversity of funding.

Leasing exists within a competitive world where airlines typically look to see what financing options they have and price one source of funding against another. As we look into the start of 2024, the outlook for a number of the funding channels is more positive than it was last year on the back of the continued recovery in airline profitability.

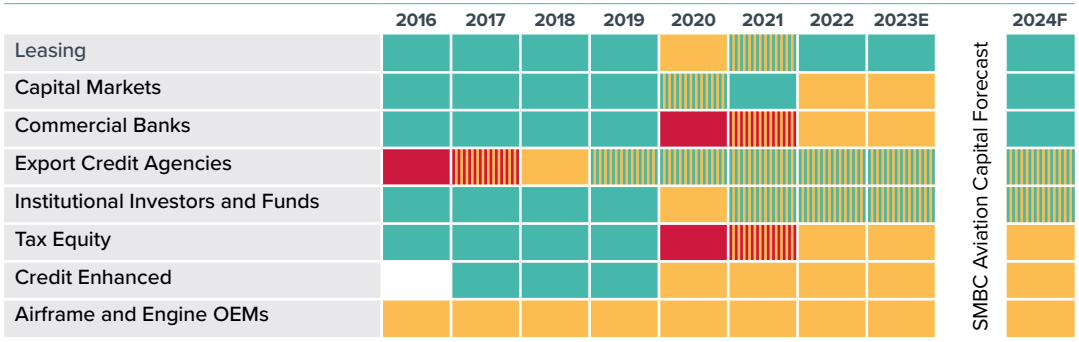
As some airlines are looking to rebuild their balance sheets, there is strong demand for debt products and leases with routes to ownership. This demand is being met by commercial banks, institutional investors and funds who have built out their alternative lending platforms and some of the bank backed lessors.

As these are debt related products, pricing has risen in line with interest rates. These increases have supported higher lease rates in airlines minds.

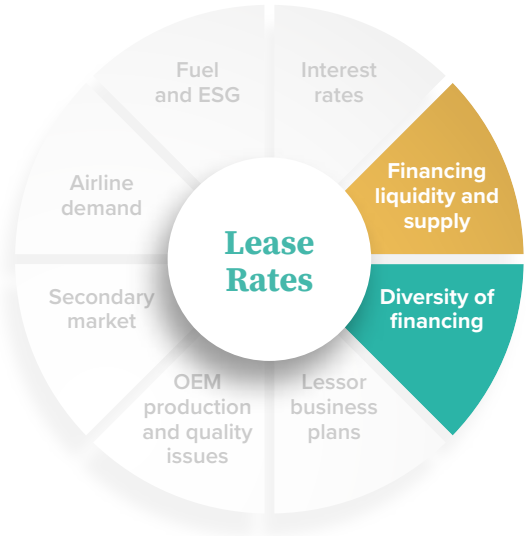
We are also seeing green shoots in the capital markets with the EETC market remaining open for US carriers and very strong international carriers. While the ABS market is closed, there is increasing confidence that we will see issues as the year progresses although it might be 2025-26 before we see any equity notes being issued.

The outlook for the Japanese tax market is mixed on the back of the weak yen. Some Japanese investors have fixed yen budgets and as such they are now focused on older aircraft which have lower capital values. That said, demand remains robust for new technology narrowbody assets with strong counterparties. This demand has and will continue to lead to very competitive pricing for some SLB campaigns.

Figure 2: Boeing Commercial Aircraft Finance Market Outlook (CAFMO) and SMBC Aviation Capital forecast



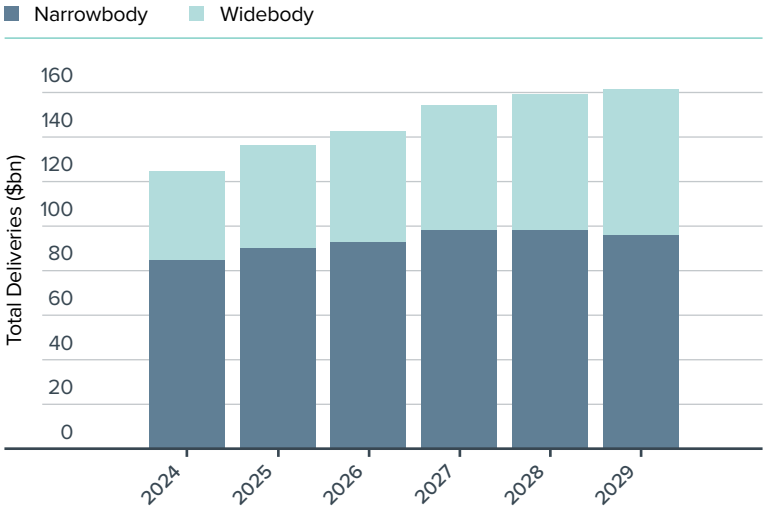
Source: Boeing Commercial Aircraft Finance Market Outlook & SMBC Aviation Capital Analysis



Green shoots especially for debt products.

No change to liquidity at government level.

Figure 3: Total Deliveries



Source: SMBC Aviation Capital Forecast

Lessors to act more rationally but OEM delays restrict supply in SLB market

The last 12 months have seen a number of changes in the lessor market that will have an impact on supply in both the secondary and new aircraft placement markets over the coming period.

We believe that geopolitical and financial issues over the last 12 months have caused some lessors to review their business plans. In some cases, they have chosen to actively exit the business (e.g. Standard Chartered) while in others they are repositioning their business to be more regionally focused. This is a trend we see continuing into 2024 and beyond. These moves will reduce the level of competition on some campaigns.

We also think that some leasing company owners are reviewing their investments on the back of a number of factors such as:

1. The premium that Standard Chartered achieved for their leasing business.
2. A lack of critical portfolio size within the shareholder's larger organisation
3. The opportunity to get better returns outside of the aviation space

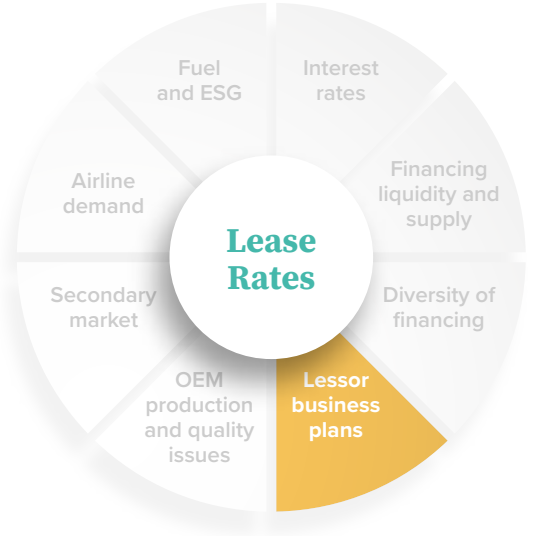
We have also seen the number of lessors with direct orders contract. While this may be a reflection of the fact that the OEMs are sold out in the near term, we have seen some players sell or look to sell their order book e.g. ALAFCO. We would also note that there are some orders by Russian leasing companies that may not be delivered.

This reduction in orderbooks comes at a time when the pricing power has moved in favour of the lessors as airlines are looking to grow their operations.

The sharp decline in aircraft in storage has also had a meaningful impact on lease rates as demand is comfortably ahead of supply. The well publicised tightness in the MRO market also means that any unexpected jump in aircraft on ground is unlikely to reverse this situation as any new operator will have to join a queue to get the aircraft into their fleet. This particular dynamic is expected to remain in place for at least the next two years.

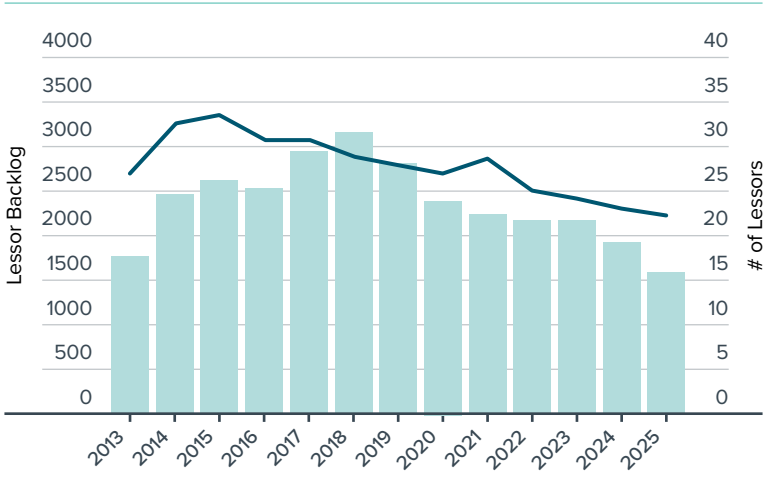
The SLB market remains very competitive due to a combination of limited supply from the airlines coupled with businesses who are trying to execute growth plans. Some new entrants in particular are very aggressive as they look to grow their portfolios.

In summary, we do see some lessors acting more rationally as they move away from a growth for growth sake mentality and focus more on economic returns.



More rational competition albeit SLB market to remain competitive.

Figure 4: Lessor Backlog



Source: Cirium Fleets Analyzer. Western built jets, Narrowbody and Widebody aircraft.

OEM production delays and secondary market demand driving lease rates up

Production rates continue to increase from the trough in 2020, but supply chain constraints together with production quality issues continue to restrain growth plans.

Boeing had been targeting 400-450 737-Max deliveries in 2023 but revised this down to 375-400 following quality issues with the aft-pressure bulkheads. Boeing ultimately delivered 396 units, marginally higher than the 387 in 2022. They plan to increase production rates from ~38 per month in 2023 to 45 in 2024. However, production increases have been impacted from the consequences of the Alaska Airlines' Max-9 door loss which will also further delay the certification of the Max-7 and Max-10.

Airbus delivered 571 x A320neo family members (+11% on 2022) with the growth attributed to the larger A321 family member and 68 x A220s (+19%).

Airbus plans to increase A320neo family production to 65p/m by the end of 2024 but faces the potential real head wind of the PW GTF powder metal issue should more engines be allocated to the spare engine pool rather than new deliveries. There are 3000-3500 engines impacted by the GTF powder issue. All of these engines will need to be reviewed in the coming years. Already there are 450 aircraft on the ground either waiting for inspection or repair/replacement. The grounded fleet is expected to peak at 650 aircraft in the second half of 2024. This work will take up to 9 months per aircraft

So, despite production trending upwards, there remains a supply constraint for new aircraft which will lead to increased lease rates for new deliveries. This shortage has also led to an increased demand from airlines for extensions or secondary leases of current tech aircraft driving up lease rates for these types.

The stored rate of commercial aircraft continues to trend down with narrowbody aircraft approaching pre-Covid levels. Widebody storage rates are higher, but reducing as Asia long-haul networks reactivate. This market will be very sensitive to how quickly China opens to international traffic.

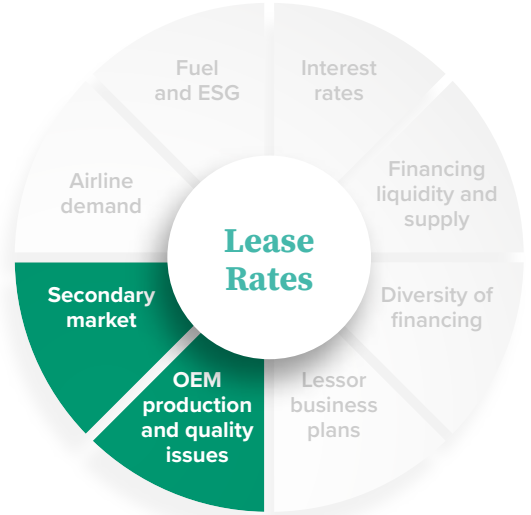
Aircraft retirements in 2023 exceeded the prior two years but were still below the levels seen in 2019 and 2020. Due to supply constraints and strong passenger demand, we will see owners/operators continue to defer retirements to maintain capacity levels.

Since 2012 lessors account for almost two thirds of aircraft deliveries, the majority of which are through the SLB market. Between 2013 and 2022 SLBs on narrowbody aircraft averaged 37% of deliveries but this dropped to 28% in 2023, driven by constrained production. With fewer SLB opportunities for lessors, increased competition means tighter returns.

Compared to previous production plans around 3,500 single aisle aircraft were not delivered as a result of the MAX grounding and Covid-19. While this was offset by lower passenger traffic, the world fleet has aged by about one year compared to 2019 with the share of very young aircraft in the fleet at historical lows.

In addition, Max deliveries have been focused on some of the stronger airlines such as Ryanair, United and Southwest who are less likely to use SLB financing thus reducing supply and making other SLB campaigns more competitive.

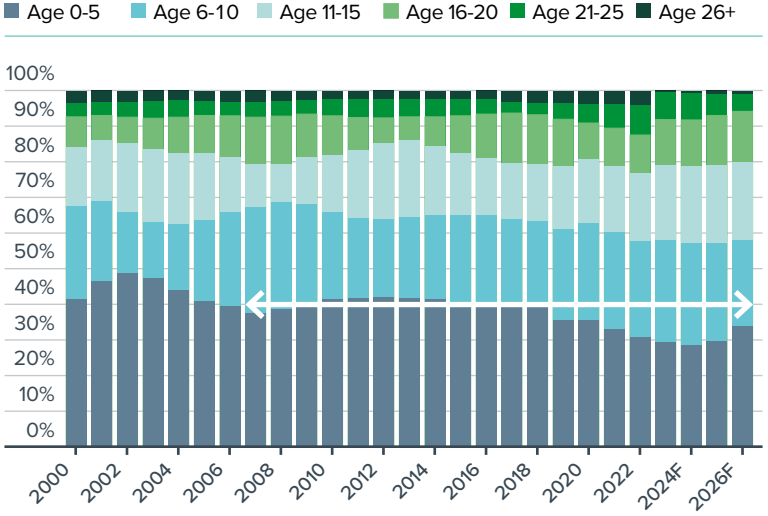
We feel that the OEMs issues are a multiyear challenge and as such will impact supply for at least two years.



Headwinds to planned production increases.

Increased demand in the secondary market.

Figure 5: Age profile of Airbus and Boeing narrowbody fleet



Source: Cirium Fleets Analyzer.

Airline demand robust

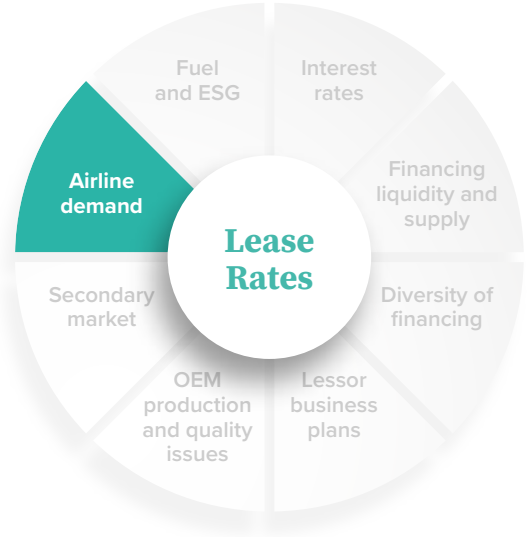
After an almost four-year recovery cycle, airline capacity finally exceeded 2019 levels at the end of 2023. However, we see further upside, with published schedules indicating further growth into Q1-24.

There is wide variation on a regional basis and on a domestic versus international basis, perfectly highlighted by the Chinese market where domestic schedules are up 17% versus 2019, while international departures are down 36% at the end of Q4. Long-haul remains softer than short-haul, while transatlantic has recovered, transpacific is down 16% and Europe-Asia down 8%.

Airlines have returned to profitability led by North America and Europe, but it will take some time to recover from the almost $140bn of losses in 2020 with IATA forecasting net profits of $23bn for 2023 and a modest increase to $26bn in 2024, equivalent to about $5.40 per passenger. Much of this improvement will come from Asia.

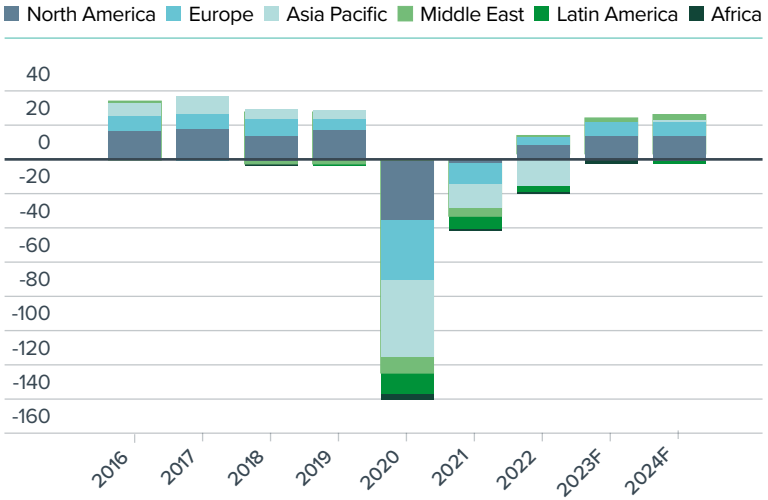
A key component of the airlines financial recovery is premium traffic which has recovered faster than total passenger traffic. An interesting dynamic has emerged post-Covid where corporate recovery has been muted but premium cabins are being filled with affluent leisure travellers, which according to AF-KLM has more than offset reduced corporate travel. A note of caution for this space, should corporate travel be structurally impaired, and the premium leisure space recedes there will be an impact on airline yields.

Non-fuel costs are also on the rise particularly driven by labour costs. Undersupply of skilled positions including pilots and aircraft mechanics have led to upward pressure on wages and salaries, particularly in countries with low unemployment rates. An example of this is the union negotiations with US carriers. The recent pilot agreement at United Airlines will cost more than $10 billion on a four-year contract while at American Airlines it is worth a slightly less amount over the same term.



IATA forecast 2024 profitibility to be in line with 2023.

Figure 6: Net Profit ($bn)

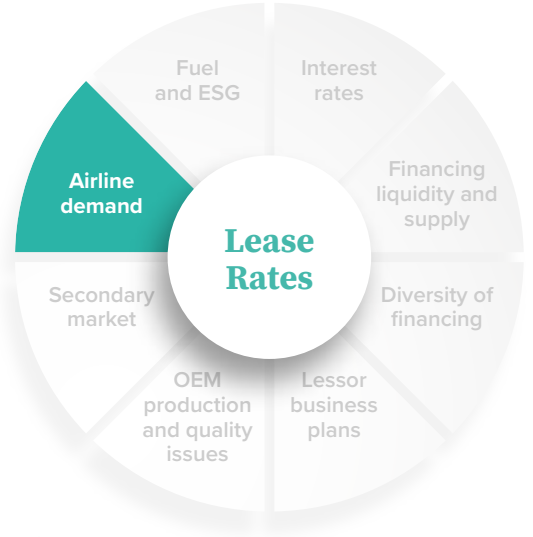


Source: IATA

Airline demand robust (continued)

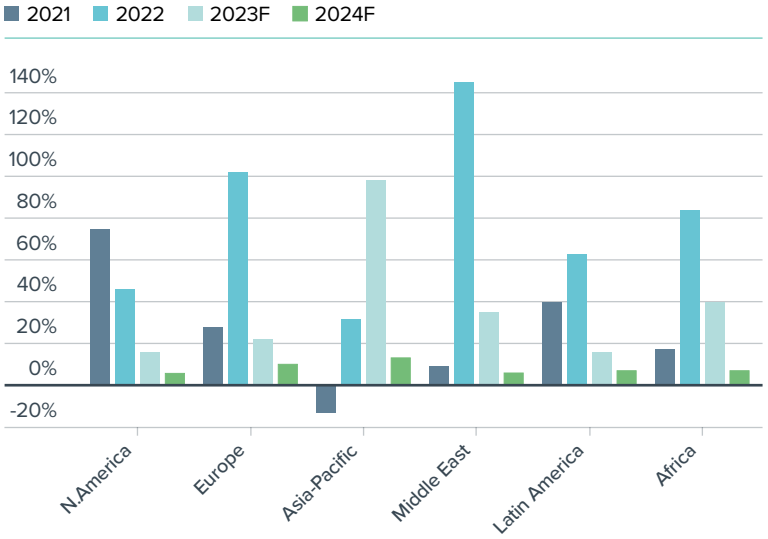
Airline debt levels increased significantly following the onset of Covid-19 leading to sharp increases in debt-to-equity ratios. For larger airlines, those with revenues exceeding USD $5bn, the average debt-to-equity ratio more than doubled from 1.6 to 3.6. Airlines in the revenue range of USD $1-5bn saw their average debt ratio increase from 3.8 to 4.1, while airlines with revenues of less than USD $1bn saw their average debt ratio increase from 2.5 to 4.0. Ishka estimates that c.$56bn of the $98.5bn debt portion of state aid has been repaid.

Airline treasury departments are also focusing on deleveraging with stronger credits turning more to cash for delivery financing of new aircraft, although some may refinance down the line. Others continue to use leasing.



Asia to drive traffic recovery in 2024.

Figure 7: Year on Year Traffic Growth



Source: IATA

Fuel and ESG price outlook

Oil prices began trending up from mid 2020 following the sharp drop at the onset of Covid-19, and increased sharply in Q2-22 after Russia's invasion of Ukraine; reaching the $120/b mark before averaging $83/b in 2023. IATA's latest industry forecast assumes a relatively flat fuel cost of $87.5/b for 2024.

This looks a reasonable forecast as whilst global oil production growth is forecast to slightly outpace growth in consumption, pricing pressures will remain subdued due to a rebuilding of inventories.

More important for aviation is the "crack-spread", which is the incremental cost of refining the crude oil into jet fuel. From 2016 until the Russian invasion of Ukraine the crack spread rarely exceeded $20 but spiked to $65 in 2022. Although this trended down to its long-term average cost in the first half of 2023 it has since increased to around $30.

In 2022 jet fuel accounted for 30% of an airline's operating costs, rising to 35% if the airline is an LCC. In theory, an airline would look to pass on some of this additional cost, but this may not always be possible. This means that in low season, airlines will continue to prioritize operation of their new tech, fuel efficient aircraft while reducing utilization on prior generation aircraft.

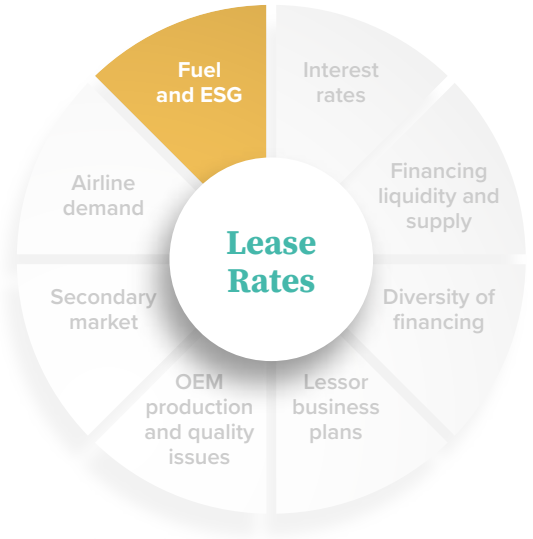
According to IATA, average air ticket prices recovered to pre-pandemic levels in May-22. In that month, OECD CPI was 15% higher compared to May-19, however, jet fuel price was up 92% on the same basis. This is particularly challenging due to the price of fuel accounting for a significant portion of airline costs.

Although following different trends, compared to Jan-20 average air fare increases now match the rise in consumer price inflation (CPI) over the same term.

Airlines looking for certainty in fuel costs can hedge, generally via swaps or options. Hedging is most common in Europe and Asia, while the US and Middle East regards it more of an expensive insurance product. This view may be influenced by the fact that the US and Middle East carriers do not have currency volatility to take into account when buying fuel. Of airlines who do hedge, the vast majority have strong balance sheets, where they are able to pay a swap rate above the spot price for the comfort of known fuel costs.

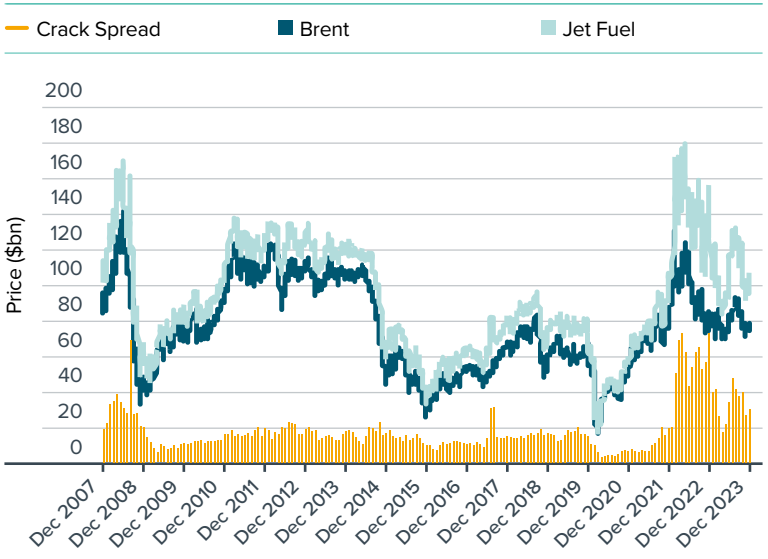
Many airlines do see fuel efficient aircraft as being a core part of their commitment to reduce emissions as the new engines are producing 15% less fuel burn.

Demand for more fuel efficient new-tech aircraft will remain strong on back of elevated fuel costs, or more importantly crack spreads, and the requirement for airlines to reduce emissions to meet environmental targets.



IATA forecasting oil prices to remain broadly stable through 2024.

Figure 8: Fuel Prices



Source: Bloomberg. Brent price is BFO Brent, Jet fuel price is Jet Fuel 54

Summary: Push and pull factors on lease rates point to higher rates

– Stable Fuel outlook
– ESG considerations remains in focus
– New Tech = Good

– Interest rates to remain relatively stable in the short term. Lessors looking to pass on higher funding costs

– Shortage of new aircraft supply
– Traffic recovery in Asia

– No change to liquidity at government level

– Less availability, more extensions
– Less new aircraft production
– New Tech engine performance and support

– Debt markets ok
– ABS and EETC still closed
– JOL/JOLCO weak
– Exim / ECA sluggish

– Slower production ramp-up
– Production issues at Boeing
– Engine Groundings

– Somewhat more rational pricing behaviour but still competitive with limited SLB availability

Traffic Light System Strong Positive Impact · Positive Impact · Neutral Impact · Negative Impact

Glossary

Asset Back Security (ABS)
Asset Backed Security uses a Special Purpose Vehicle (SPV) to purchase aircraft, typically sourced from the books of an existing lessor with the SPV holding the rights to lease payments to airlines. The SPV finances the purchase of the aircraft through the issuance of tranched Notes to investors.

Current Market Lease Rate (CMLR)
This relates to an operating lease rate, this is specifically a “net dry operating lease” rate. The lease of an aircraft whereby the lessor takes all of the risks and rewards of ownership, and the lessee takes all of the risks and rewards of operation.

EETC
Enhanced Equipment Trust Certificates are corporate debt securities structured though SPVs, typically issued by airlines and secured on aircraft.

ESG
Environmental Social and Governance is a framework that is used to determine how sustainable an organisation or company is.

IATA
The International Air Transport Association is the trade association for the world’s airlines representing some 320 airlines or 83% of total air traffic.

Japanese Operating Lease (JOL)
JOL is an operating lease funded by the equity investment from Japanese investor(s) and non-recourse debt from financial institution(s). This structure is used mainly in the aviation industry to provide airlines with 100% financing of aircraft. The equity investor(s) will enjoy tax benefits from the JOL structure and exposed to the residual value risk at the end of the lease.

Japanese Operating Lease with Call Option (JOLCO)
JOLCO is an operating lease which gives the lessee an option to purchase the asset at the end of the lease, or at some point during the lease period, at the purchase price determined at the commencement of the lease.

Narrowbody aircraft
Also known as a single aisle aircraft, allowing up to 6 abreast seating in a cabin less than 4m with a single aisle (passage between rows of seats).

Operating Lease
From a financial reporting perspective, a lease that has the characteristics of a usage agreement and also meets certain criteria established by the FASB. Such a lease is not required to be shown on the balance sheet of the lessee. The term also is used to refer to leases in which the lessor has taken a significant residual position in the lease pricing and- therefore- must salvage the equipment for a certain value at the end of the lease term in order to earn its rate of return.

Original Equipment Manufacturer (OEM)
Companies involved with the design, manufacture and assembly of aircraft e.g. Boeing, Airbus, CFM, P&W and Honeywell.

Sale-Lease Back (SLB)
A transaction that involves the sale of equipment to a leasing company and a subsequent lease of the same equipment back to the original owner who continues to use the equipment.

Widebody aircraft
Also known as a twin aisle aircraft, allowing at least 7 abreast seating in a cabin more than 5m with a two aisles (passage between rows of seats).

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Shane is Head of the Strategic and Market Analysis Team leading a team of six analysts who have responsibility for SMBC Aviation Capital's proprietary models, databases and market analysis. He joined the company in 2005 as a credit risk analyst covering customers in Asia Pacific. Shane spent 10 years as an equity analyst covering airlines with NCB Stockbrokers and HSBC Securities in Singapore. He holds a Bachelor of Commerce Degree and a Masters in Business Studies in Banking and Finance from University College Dublin.

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Darren joined SMBC Aviation Capital in 2004 as a Residual Value Risk Analyst before joining the credit risk team covering airlines in Europe and North Africa. In 2014 he joined the Strategic and Market Analysis team with responsibility for industry analysis, forecasting and portfolio risk management. Prior to joining SMBC Aviation Capital, Darren worked in the semiconductor industry and has an Engineering Degree and an MBA from Trinity College Dublin.

David Griffin

David is VP Strategic and Market Analysis. He initially joined SMBC Aviation Capital in 2021 as a member of the Commercial Analysis team, with responsibility for assessment and evaluation of all company transactions including asset acquisitions, placements and trading before joining the SMA team in March 2023. Prior to joining SMBC Aviation Capital, David was a Valuation Consultant with Ascend by Cirium. David holds a Bachelor's Degree in Aeronautical Engineering and a Master's in Business Management, both from the University of Limerick. He is also an ISTAT Certified Appraiser.

Queries

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