

Net Zero: What Progress?

FIGURES from Berkeley Earth suggest that 2024 was the warmest year on record. The California-based research establishment estimates that global mean surface temperatures last year were 1.62°C above pre-industrial levels. This followed on from a warm 2023, the only other year to have registered temperatures higher than 1.5°C above the 1850-1900 baseline.

A strong El Niño in the South Pacific, which lasted from mid 2023 to mid 2024 is likely to have had a major impact — the two year aberration from trend similar to that seen in the 1870s, a period with a similar super El Niño.

It is also possible, the researchers suggest, that the January 2022 Hunga Tonga eruption was a major contributor to unusual weather in 2023 and 2024. Unlike most volcanoes, the eruption of Hunga Tonga was rich in water vapour and low in sulfur. Usually, a large volcanic eruption can result in a period of cooling because sulfur dioxide particles in the atmosphere reflect sunlight away from the planet, but the Hunga Tonga eruption may have contributed warming instead because of the greenhouse effect caused by its injection of 150m tonnes of water vapour into the stratosphere.

They note that the warming spike observed in 2023 and 2024 has been extreme and represents a larger than expected deviation from the previous warming trend. Over the past 50 years, they point out, global warming has proceeded in an almost linear fashion, consistent with an almost linear increase in total CO_2 emissions. Berkeley Earth further warns that the 2023/24 performance suggests that the past warming rate is no longer a

reliable predictor of the future, and perhaps additional factors have created conditions for faster warming in the short-term. At least, with the onset of a mild cooling El Niña at the beginning of this year, the hope is that 2025 may not be as bad.

Separately, the World Meteorological Organization (WMO) issued its Global Annual to Decadal Climate Update in May. It also points to record temperatures in 2024, although a little lower at only 1.55°C above the 1850-1900 baseline. It projects that it is likely that one of the next five years will break the 2024 record, and

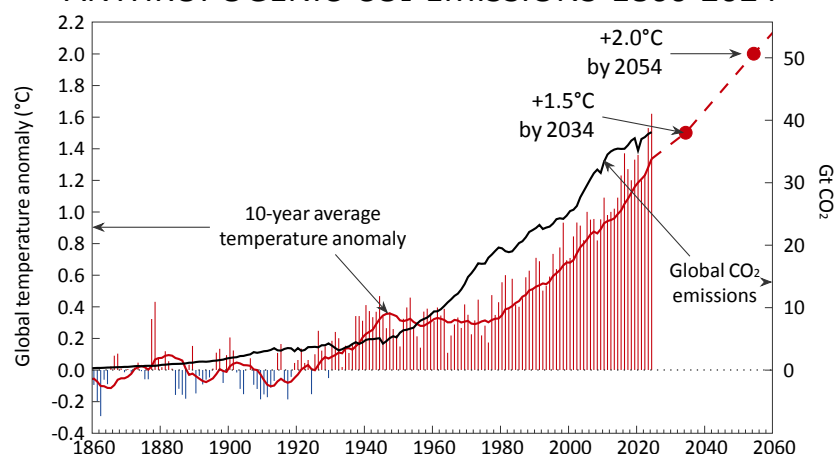
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suggests that there is a 70% chance that the 2025-2029 five-year average will exceed 1.5°C above pre-industrial levels.

This level of temperature increase on a sustained basis is seen a

GLOBAL AVERAGE TEMPERATURES AND ANTHROPOGENIC CO_2 EMISSIONS 1860-2024



Sources: University of California Berkeley: Global (land and ocean) temperature anomalies relative to 1850-1900 average; Our World In Data.

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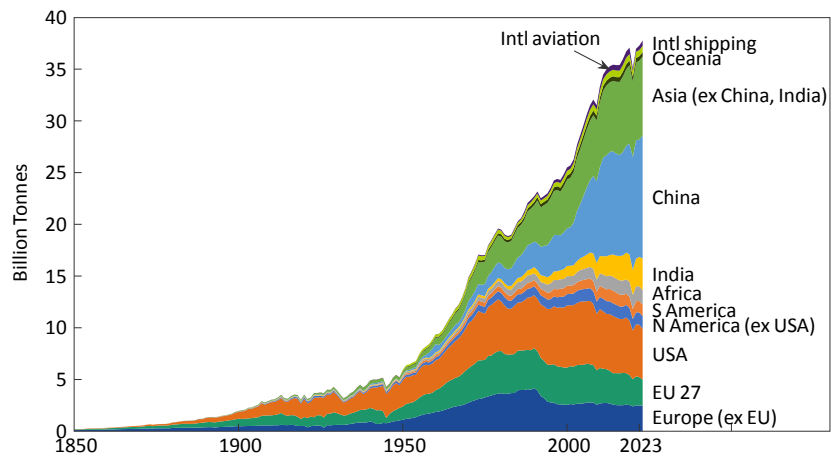
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GLOBAL CO₂ EMISSIONS BY REGION



trigger for certain irreversible climate tipping points and is a key tenet of the Paris Agreement, signed at the 2015 United Nations Climate Change Conference (COP21).

As a reminder, the agreement lists a series of commitments:

- ✈ To “pursue efforts” to limit global temperature rises to 1.5°C, and to keep them “well below” 2.0°C above those recorded in pre-industrial times;
- ✈ To achieve a balance — net zero — between the greenhouse gases that humans put into the atmosphere and the gases that they actively remove, in the second half of this century;
- ✈ Each country to set its own emission-reduction targets, reviewed every five years to raise ambitions;
- ✈ Richer countries to help poorer nations by providing funding — climate finance — to adapt to climate change and switch to renewable energy.

The +1.5°C aspirational limit is seen as covering a multi-decade average; that the past two years have exceeded it does not necessarily mean

that the target has been breached. However, if the linear trend since the start of the century continues, the ten year average temperature anomaly could well hit it by 2034.

Aviation — Net Zero relies on SAF

Aviation is estimated to account for 2.5% of anthropogenic CO₂ output from fossil fuels — roughly a gigatonne of CO₂ expected for 2025 from burning 100bn gallons of jet fuel.

The vast majority of fuel is used on medium and long-haul flights for which there is not (yet) a viable alternative to a fuel with the same hydrochemical chemical formula as fossil sourced jet fuel.

Air traffic will continue to grow, albeit at a lower rate than historically. IATA is suggesting a global annual increase in the number of passengers of around 3.5% over the next 25 years. The 5bn passengers expected in 2025 could double to over 10bn by 2050, and carbon emissions reach 2Gt CO₂ a year.

So, the only solution for the industry to achieve “net zero” is to find a fuel manufactured from sources of

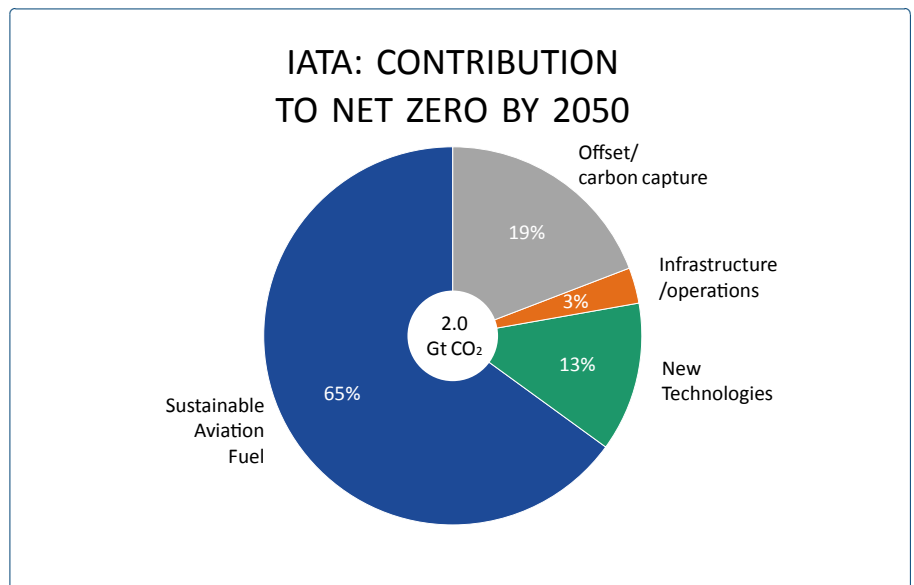
carbon (and hydrogen) that have absorbed carbon from the atmosphere: the hope being to create a closed loop — Sustainable Aviation Fuels (SAF).

(For descriptions of the processes to produce SAF see *Aviation Strategy* Jan/Feb 2024).

The industry's "pathway" to net zero is partly based on an expected improvement in fuel efficiency from new generation aircraft, a modest improvement in infrastructure and operations (such as air traffic control and airway management), the imposition of carbon offset controls (such as CORSIA and the European ETS) — but 65% of the CO₂ "saved" will need to come from sustainable aviation fuels.

SAF production reached 1m tonnes in 2024 — double that in 2023 but still less than 0.3% of industry fuel requirement. It is expected to double again in the current year to over 2m tonnes. But production is building rapidly.

In the US, the Energy Information Administration (EIA) reports that current SAF capacity stands at 30,000 barrels a day up from 2,000 in early



2024; this in large part is a result of the federal tax incentives and SAF volume mandates from the US Environment Protection Agency (EPA) under its Renewable Fuel Standards Program (RFS). The EIA expects SAF will account for around 2% of the USA's jet fuel consumption of 1.7m b/d by 2026.

Europe, instead of offering incentives, has imposed mandates on the fuel suppliers. The EU's ReFuelEU programme came into effect at the be-

ginning of this year and specifies that 2% of the fuel supplied to airports in 2025 must be SAF, that proportion rising to 70% by 2025. It has also introduced anti-tankering rules on all airlines operating to EU airports by requiring airlines to uplift a minimum percentage of their fuel needs at EU airports.

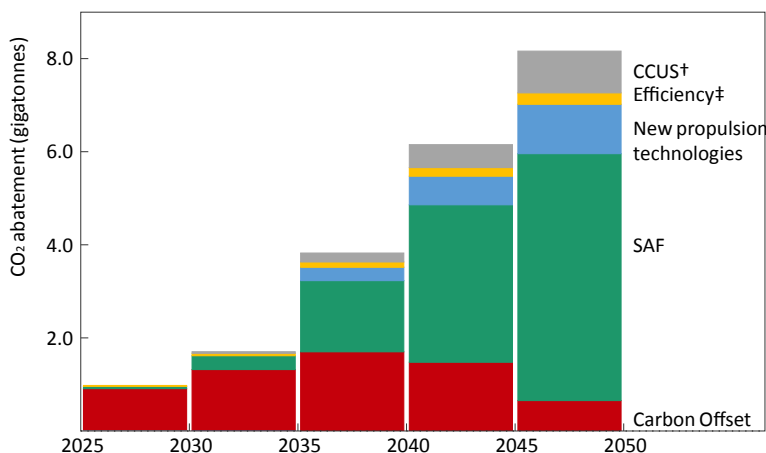
According to FuelsEurope (a lobbying group for the fuel refiners and distributors) the current EU capacity of HEFA (the most common bio-SAF) is about 1.5m tonnes a year — more than enough to cover the ReFuelEU 2% mandate for 2025 — and there are firm plans to add refining capacity of an additional 2.4m tonnes/year by 2029.

SAF remains expensive to produce, but FuelsEurope notes that the average SAF premium over conventional jet fuels has fallen from a ratio of over four times to below two in the matter of three years.

IATA is not particularly happy with the position in Europe: it would prefer a few carrots rather than the sticks of imposed regulation.

At the industry body's AGM in June, Director General Willie Walsh complained that, in Europe, most fuel

IATA: ESTIMATED ABATEMENT PATHWAYS TO NET ZERO



Source: IATA. Notes: † CCUS=Carbon capture, utilisation and storage; ‡ Efficiency=improvements above "business as usual"

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suppliers have preferred to pass on their cost of complying with the legislation by charging a “compliance fee” to each tonne of fossil jet fuel purchased — and that these fees average twice the premium to conventional jet fuel than suggested by current SAF prices. This pricing behaviour, he suggested, works against the development of a global, liquid, and transparent SAF market as suppliers avoid contracting for the supply of mandated SAF with airlines. In typically blunt fashion he said: “That’s a billion-dollar windfall for fuel suppliers. This is the EU great green scam.”

Climate Finance

IATA had more to complain about at the end of June.

The Global Solidarity Levies Task Force (GSLTF) put out a proposal for a global progressive tax on frequent and premium class air passengers.

The GSLTF is co-led by France, Kenya and Barbados (and in this proposal joined by Spain). It states that it is responsible for designing

proposals for solidarity levies on undertaxed sectors that contribute disproportionately more to global carbon emissions, are undertaxed and/or benefit extensively from globalisation. These solidarity levies, it says, can help generate finance for climate and development action. The task force was formed following the 2023 Nairobi Climate Declaration (in the lead up to COP28). By COP30 later in 2025 it aims to “enable governments to bring together a coalition of the willing ready to implement one or more of these levies”.

The group has cited a report from CE Delft that examines the relative merits of imposing levies (taxes) on:

- ✈ jet fuel for commercial aviation;
- ✈ modular ticket levy (priced by length of haul);
- ✈ frequent flyer levy (exponentially priced by annual frequency of flight);
- ✈ private jet fuel levy (no brainer!).

The report concludes that a tax on jet fuel “performs best in terms of mobilizing climate finance and promoting climate justice, achieving high CO₂ emission reductions (10%

reduction through both demand and supply-side effects), strong revenue potential (€84bn), and limited distributive impacts, though its legal implementation is more complex and challenging. A ticket levy performs slightly less effectively, achieving a 6% reduction in CO₂ emission through demand-side effects and generating €62bn in revenue. However, its legal implementation is more straightforward. The private jet fuel levy, while targeting only 2% of global aviation emissions and generating modest revenues (€6bn), scores well on climate justice and faces fewer legal obstacles compared to a fuel levy on commercial flights”.

Part of the aim of the proposal would be to redistribute the tax raised to countries (particularly those dependent on tourism) which will be hard hit by climate change.

But as IATA points out yet again, the airline industry is a highly competitive and low margin business, and the €84bn potential tax grab equates to three times the forecast net profits for the industry in 2025.

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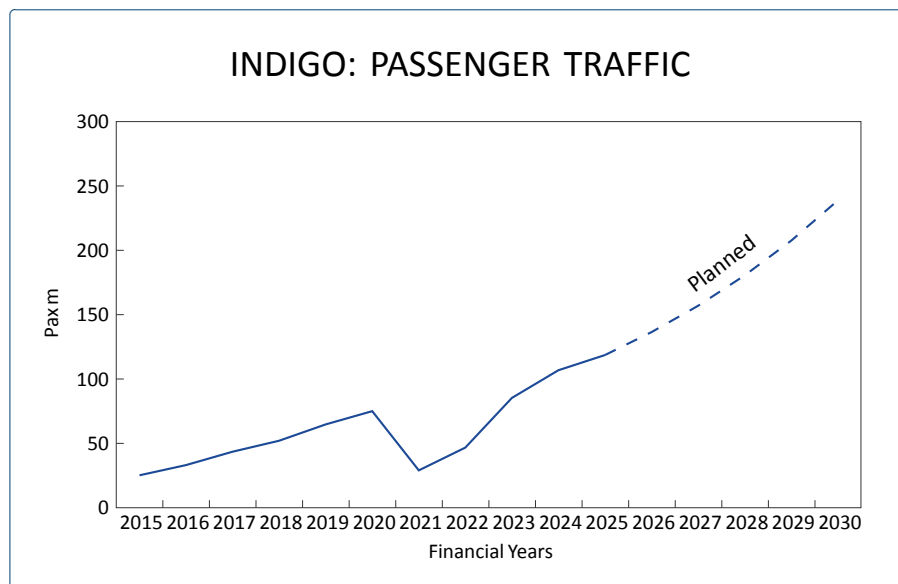
IndiGo: Pushing the Limits of the LCC Model

PIETER Elbers has now been CEO of IndiGo for three years, after 30 years at KLM, eight as CEO.

KLM evolved into the ultimate hub and spokes airline, building waves of connecting flights from its one base at Amsterdam and using an innovative alliance with Northwest to create a global network, despite having a minuscule home market. Its possibly questionable decision was the merger with Air France which was designed to overcome the problems of scale and open up new markets, but which also brought bureaucratic management structures and an unbalanced contribution to profits to KLM's detriment.

IndiGo has been by far the most successful of the wave of Indian new entrants of the mid noughties, achieving by this year a dominant position in the fast growing, potentially huge domestic market. Essentially a domestic point-to-point LCC, IndiGo has evolved by adding some frills and entering into codesharing alliances. But it now plans to transform into a global airline operating long-haul with A321 XLRs and A350s.

The reason that the decision to order A350s raises concern among some analysts is that no LCC has successfully amalgamated narrowbody and widebody operations. Many of the leading European and US LCCs have considered long-haul widebody ventures but have not taken their plans forward. Air Asia does have Air Asia X but has never been able to meld its A320 and A330 operations, and Air Asia X has been consistently unprofitable.

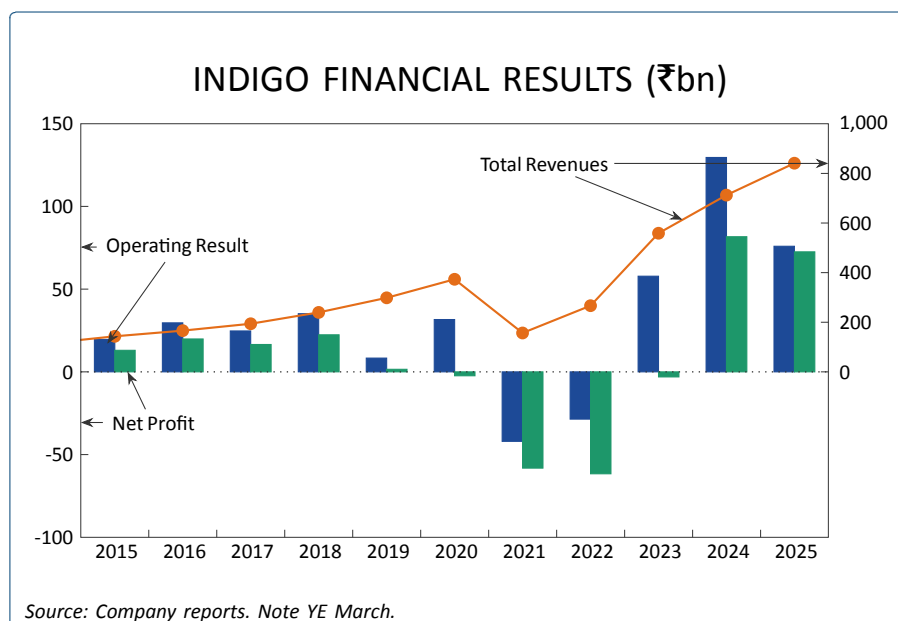


However, Elbers has pointed out that the A350 decision, with flying due to start in 2027, was the result of long-term planning. He enjoys widespread respect in the industry and appears to have adapted very well to the Indian environment, even trying a few sentences in Hindi at in-

dustrial events.

India : A global super-power

With a population of 1.44 billion India overtook China as the world's most populous country in 2023. It looks as if it will also displace China as the main global driver of aviation demand.



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The economy is powerful and tech driven, the fourth largest in the world. Annual real GDP growth rates in the 5 to 6% range are confidently predicted for the next five years. (But average annual GDP per capita is only \$2,700, a reminder of the wide inequality in the country.)

Some observers have started referring to an *Amrit Kaal*, roughly translated as “golden age” of strong extended economic and social progress. The parallels are: Germany, 1950-69, Japan 1956-72, USA 1959-66, China 1982-2011.

A large part of growth story relates to demographics. It not just population growth, which is expected to peak around 2060, but the fact that India is youthful; at present 68% of India's population is in the working age group — and India is now forecast to supply up to 24% of the incremental *global* workforce over the next ten years. China, by contrast will

hit peak population in the next few years and a rapidly diminishing proportion of the population will be of working age, largely because of the one-child policy.

Aviation forecasts are also highly positive. According to IATA, the number of passengers traveling to, from, and within India is expected to grow at an average 5.6% pa over the next 20 years, with the total passenger volume (domestic and international) reaching about 600m by 2044, compared to 174m in 2024. India is already the third-largest air transport country in terms of passengers, behind the US and China.

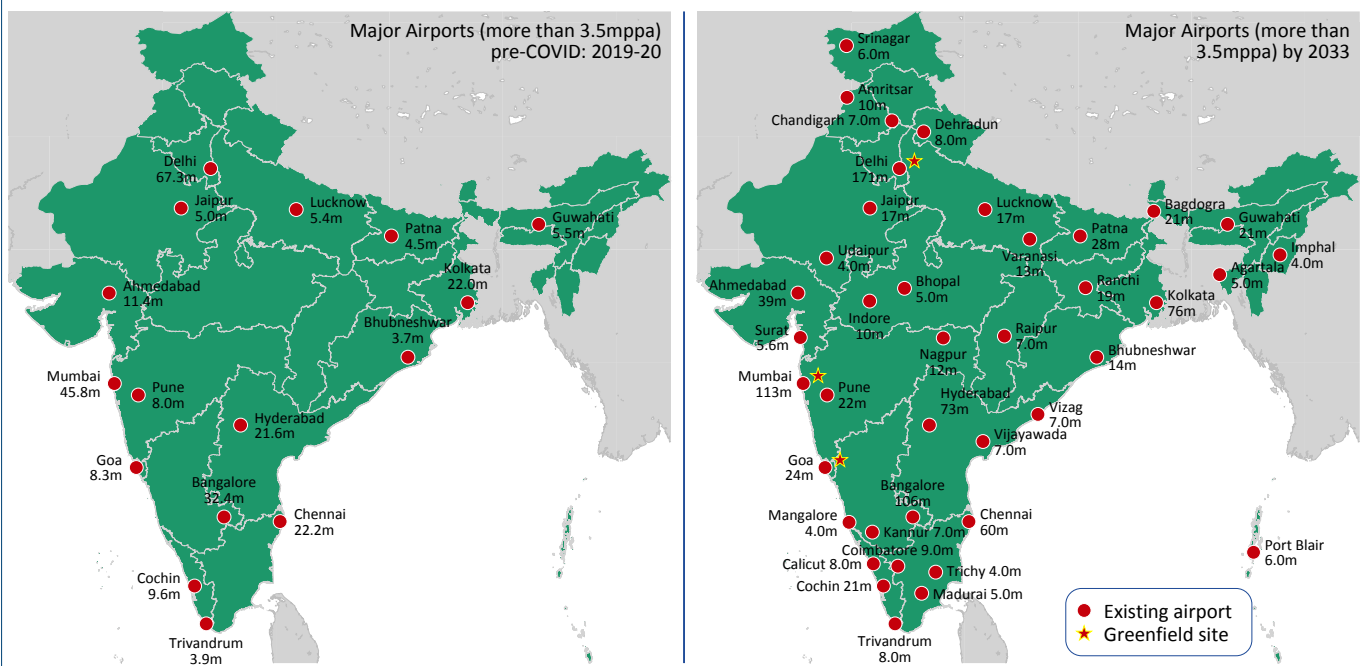
The maps below give a concrete illustration of Indian investment in aviation infrastructure. number of operational airports is set to increase from 125 in 2024 to 230 by 2030, with further plans to reach 350-400 by 2047.

Evolving model

IndiGo started off with a classic LCC model: a point-to-point LCC operation, single A320 family fleet, load factor in the high 80s, excellent dispatch reliability, average aircraft utilisation around 11.5 hours per day, built-in in a capital cost advantage through a series of mega-orders from Airbus, financed using sale and leasebacks, no frills but consistent service.

The specific target market for IndiGo was to divert middle class passengers from the very slow railways to aeroplanes, and then to stimulate new markets. Train passengers still provide major growth potential. Later this decade bullet trains will arrive on the sub-continent, but it still takes a minimum of 15.40 hours to travel from Delhi to Mumbai by train whereas IndiGo's flight time is 2.15 hours. Incidentally, both cities will open new secondary airports this

EXPECTED DEVELOPMENT OF MAJOR INDIAN AIRPORTS 2019-2033



Source: IATA

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year — Noida and Navi.

IndiGo has modified the model, in a way that would horrify LCC purists like Ryanair.

Firstly, it has implemented code-sharing. Its main partners are: Virgin Atlantic, JAL, BA, Qantas and Air France/KLM/Delta. IndiGo has two types of agreements:

✈ Inbound codeshare where the partner airline places its code on IndiGo's domestic flights, eg Virgin Atlantic connects its London-Bangalore flight with IndiGo's Bangalore-Goa flight.

✈ Outbound codeshare where IndiGo flights connect to other airlines for onward travel, eg IndiGo flies from nine Indian cities to Singapore where passengers can connect onto Qantas services.

Although growing, revenue from codeshare agreements is a single-digit percentage of IndiGo's overall revenue.

Secondly, IndiGo has a loyalty program is called BluChip. Key features include: no blackout dates and lifetime validity for points, and 50% additional points offered as an incentive to book through direct channels.

Thirdly, IndiGo offers Business Class — branded as IndiGo Stretch — on some international and domestic flights. A321s are typically configured with 12 Stretch seats and 208 economy seats. The Business Class fare is approximately three times that of Economy, and benefits include priority check-in, advance seat selection, and additional baggage allowance.

IndiGo financials

Immediately before the pandemic IndiGo's financial results were not impressive by LCC standards, or by any airline standards, the result of over-capacity in the Indian domestic market and management disruption caused by a severe falling-out between the two founders of the airline, Rahul Bhatia and Rakesh Gangwal. During the pandemic, FY 2022 and FY2023, the airline accumulated ₹119.8bn (US\$1.44bn) of net losses. FY2023 was marginally loss-making but, under new management, there has been a marked return to profitability in the last two years,

In FY 2025 IndiGo Increased its revenues by 17.3% to ₹808bn and achieved a net profit of ₹72.6 billion,

a margin of 9%. The net profit was slightly down on the previous year, attributed mostly to exchange rate movements. This is impressive by historic Indian industry standards, and compares well to the leading European LCCs post-pandemic — Ryanair achieved a 11.5% net margin in FY 2025.

IndiGo was able to take advantage of a concentrated domestic market (see below) and push up RASK by 3.7% to ₹4.96, but CASK increased by 6.4% to ₹4.38 despite a fall in fuel costs.

Notably, ex-fuel unit costs rose by 12.5% in FY 2025 compared to the previous year. However, this must be considered in the light of the logistical challenges that IndiGo has met: it has been receiving on average 1.3 additional aircraft every week, which means constant flows of flying, ground and maintenance personnel to recruit and train at the same time as expanding maintenance facilities and establishing new airport bases.

In addition, IndiGo faced Airbus delivery delays and grounding because of the GTF engine issues. This peaked in the middle of 2024 pushing IndiGo to wet lease capacity in and ex-

INDIGO (INTERGLOBE AVIATION) FINANCIALS (Rs bn)

FY (end March 31)	2019	2020	2021	2022	2023	2024	2025	End March	2025
Revenues	298.2	372.9	156.8	266.5	558.8	712.3	841.1	Fleet (Right of Use)	493.0
Net result	1.6	(2.3)	(58.1)	(61.7)	(3.0)	81.7	72.5	Other Fixed Assets	161.3
Operating Cashflow	31.6	69.7	(16.1)	20.9	127.3	211.8	240.6	Current Assets	316.2
Capex and Investments	(25.4)	(45.7)	32.0	15.0	(40.6)	(117.6)	(127.8)	Cash and equivalents	188.6
Free Cashflow	6.2	24.0	15.9	35.9	86.7	94.2	112.8	Total Assets	1,159.1
Inc/(Dec) in Debt	(5.9)	(24.1)	(17.7)	(30.8)	(84.3)	(109.7)	(99.8)	LT debt and leases	724.9
Total Change in Cash	0.3	(0.1)	(1.8)	5.1	2.4	(15.5)	13.0	Current liabilities	341.2
								Total Liabilities	1,066.1
								Shareholders' Equity	93.0

Note: 1 Billion Rs = US\$ 12 million

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tend existing operating leases. IndiGo has reached a compensation agreement with P&W.

A few years ago, IndiGo's balance sheet looked strained, in fact it showed negative shareholder equity. That has now been repaired: as of March 2025, IndiGo had ₹1.16trn of assets (40% of which were for "right of use", capitalising its operating leased fleet) as against ₹1.06trn of liabilities, giving shareholders' equity of ₹93bn (US\$1.1bn). Still, given the scale of its fleet investment plan IndiGo will need to further strengthen its balance sheet.

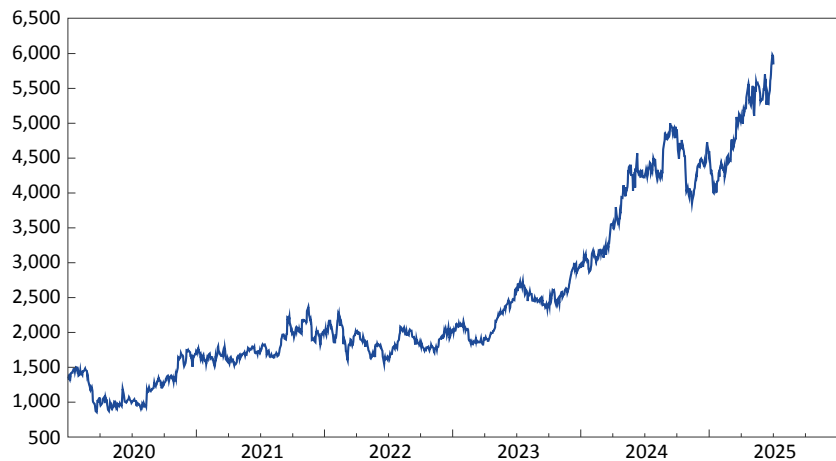
The Indian stock market has looked very favourably at IndiGo, quoted under Interglobe Aviation. The share price has tripled since 2023, giving a current market capitalisation of ₹2.3trn (US\$28bn). This compares to \$31bn for Ryanair. Its PE ratio is about 31/1 compared to Ryanair's 19/1, which implies full confidence in IndiGo's rapid expansion plans and/or over-exuberance on the part of Indian investors.

The share price surge has taken place despite, or perhaps because of, a sell-off of shares by the two founders, especially Rakesh Gangwal whose interests now own an estimated 13.5% of the airline compared to 37% three years ago. Rahul Bhatia's stake in Interglobe Aviation is estimated to be down to 36% from 38% (behind IndiGo is Bhatia's InterGlobe Enterprises, a conglomerate that is privately controlled and releases little financial information, but which operates across 28 countries with a workforce of 55,000).

Achieving market dominance

The background to this very good financial performance has been a consolidation of the Indian market. This year IndiGo has achieved a domestic

INDIGO (INTERGLOBE AVIATION)
SHARE PRICE PERFORMANCE



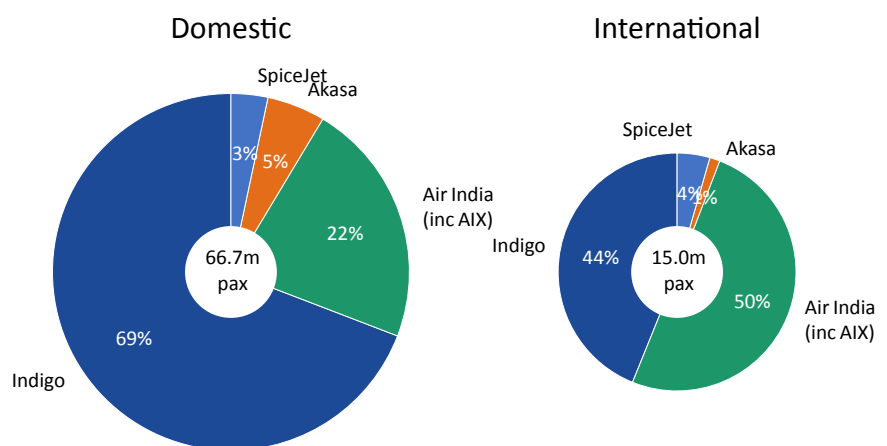
market share (measured by passengers) of nearly 70%; three years ago it had just under half of the domestic market. In the international market IndiGo now accounts for 44% of Indian airline traffic compared to 50% for the Air India group.

IndiGo's domestic and international network has five main bases at Delhi, Mumbai, Bangalore, Hyderabad and Kolkata — the main metropolitan centres of the country (by contrast Air India focuses its international services heavily on Delhi).

Although IndiGo operates on point-to-point principles, there is enough connecting traffic at some of these bases, Hyderabad in particular, for them to be described as hubs. With over 90% of the Indian population living close to IndiGo's 91 airports the carrier has achieved a dense network, including a substantial number of thin monopoly routes.

Given India's economic growth prospects and the planned airport development there would appear to be plenty of potential for further domes-

INDIAN AIRLINE MARKET SHARES



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tic growth. However, IndiGo is focusing on the internationalisation of its network; in the short term it aims to increase its international ASKs to over 30% of its total (from about 27% currently). Its international expansion can be seen in terms of concentric circles around India. The first circle encompasses the Middle East, a natural extension of the domestic market with strong migrant worker flows, an open-skies environment in which IndiGo comes into direct competition with the Super-Connectors and strong Middle Eastern LCCs like flydubai and Air Arabia. The second circle refers to new routes to South-east Asia where it competes with LCCs like Air Asia and Lion Air as well as network carriers like SIA. The third circle involves start-up routes to Central

Asia, Indonesia and Africa; many of these routes require XLR equipment which is due to start arriving this year.

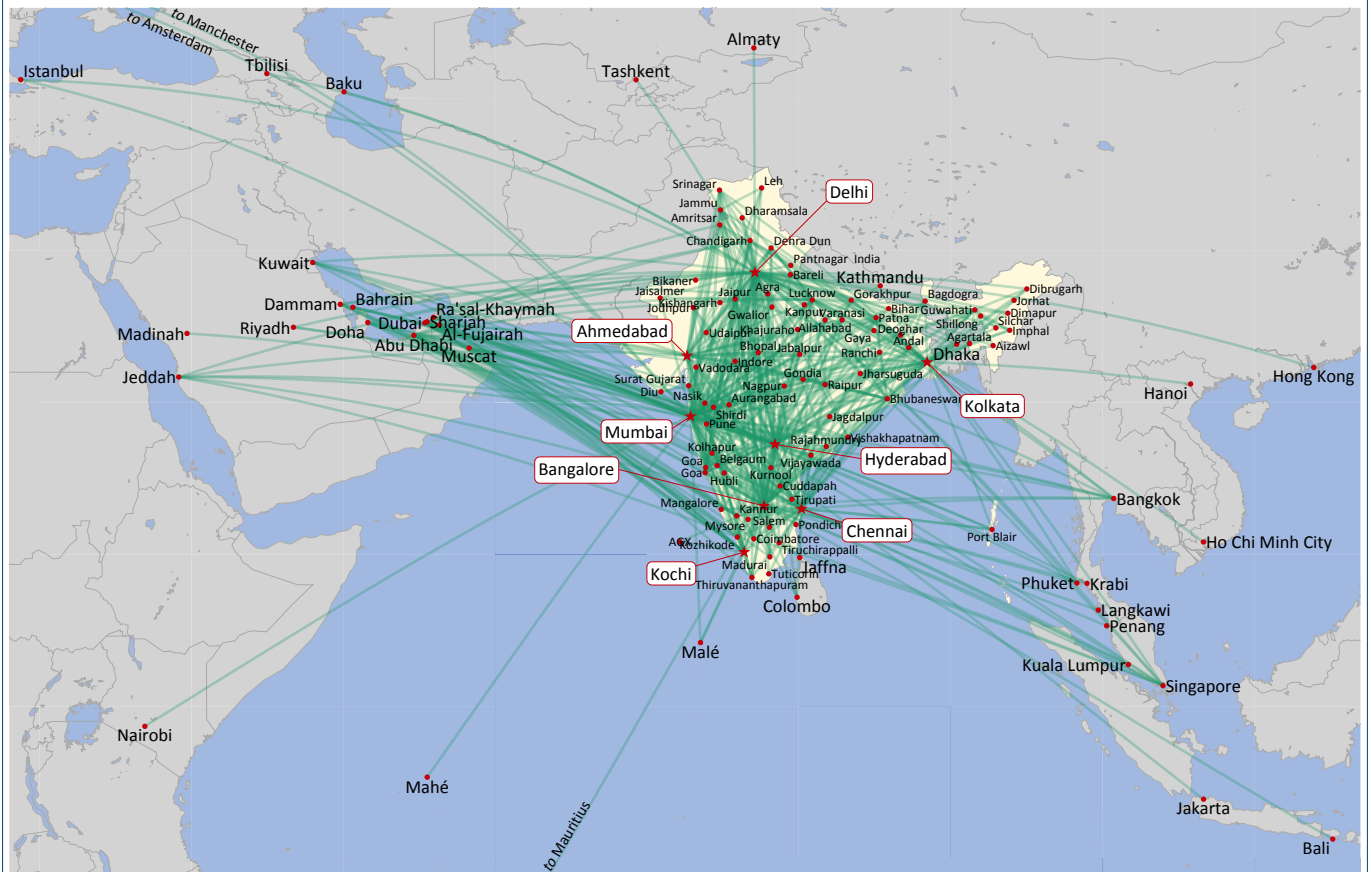
The fourth circle is under development: operating genuine long-haul to Europe. Up to 8-9 hours, the A321 XLR can be used on European services, configured with 195 seats of which 12 are business class. Beyond this stage length and/or for dense roots IndiGo has to switch from narrowbodies to the A350. In order to gain widebody experience IndiGo is damp leasing 787-9s from North Atlantic Airways (Norse provides the cockpit crew, IndiGo the cabin crew). By early 2026 it expects to have six 787-9s in operation to Europe, having recently started up to Manchester and Amsterdam.

Fleet investment

IndiGo launched the one of the world's most ambitious investment programme in 2023, when Elbers announced the largest ever aircraft order (by number of units) — 500 A320neo-family aircraft (125 A320s and 375 A321s, including 90 A321XLR aircraft, with deliveries to begin in 2025). The value of this order is probably around \$25-30bn (estimated not list pricing). At June this year IndiGo's A320/21 family orderbook totalled 884 units, making IndiGo Airbus' most important customer.

In 2024 Elbers made another remarkable announcement — an order for 30 A350-900s plus options for a further 70, with deliveries starting in 2027. In June this year 30 of the op-

INDIGO: ROUTE NETWORK



INDIGO FLEET

	In Service	Firm Orders
A320 ceo	27	
A320 neo	186	237
A321 ceo	3	
A321 neo (inc XLRs)	140	648
A350-900		60
737 MAX	6	
777/787 (damp leased)	3	
ATR 72	48	30
Total	413	975

Note: As at June 2025

tions were firmed up, doubling IndiGo's commitment to 60 units valued at about \$7bn.

The rationale for the radical decision to invest in the widebodies can be summarised as:

- With India's economic prospects, the long-haul market is simply one that IndiGo cannot afford to ignore. The decision to order the A350 was the result of a long-term planning process. And short-term preparation for the A350 operation is currently underway through the operation of damp leased 787s;

- With its dominance of the domestic market, IndiGo is assured of feed to all its main international bases to/from long-haul flights;

- IndiGo is well placed to serve the huge and wealthy Indian diaspora which is currently poorly provided for. There is a preference for direct services from Europe to various Indian cities rather than having to connect through Middle Eastern global hubs;

- IndiGo has been developing its premium product, and it will be able to design an A350 business class specifically suited to Indian long-haul. Although the airline has not yet finalised the seating configuration

of the A350, a substantial business class will be necessary for widebody economics to work;

- IndiGo is confident of maintaining the type of unit cost advantage that he enjoys in the short/medium-haul market in the long-haul sector. While this is certainly the case with regard to Air India and Western flag carriers, it is less certain that IndiGo can match the type of unit costs achieved by Emirates and the other super-connectors;

- IndiGo is a prime customer for Airbus and has a good working relationship with the OEM which will con-

tinue into the A350. It expects the same type of relationship with Rolls Royce which will provide the Trent XWB engine for the A350s;

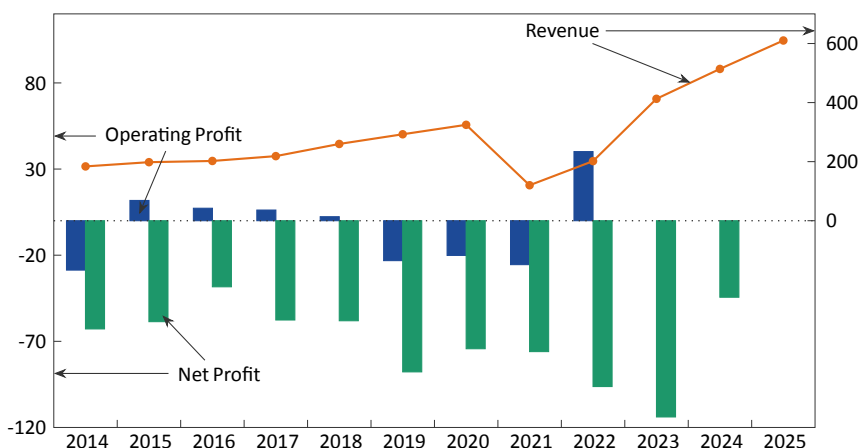
- The long-haul development is in line with the official policies of Narendra Modi's government.

Air India's preoccupations

Air India's overwhelming preoccupation at the moment is dealing with the consequences of the tragic 787 crash at Ahmedabad. But the likelihood is that Air India, as with other large network airlines or flag-carriers, will be able to emerge from this crisis. As well as traditional political support, Air India has the resources of the all-powerful Tata group behind it.

Just before the crash it was speculated that the airline was on the point of placing an order for 100-plus narrowbodies, adding to its mega-order of 2023 (estimated at \$30bn -plus for 470 aircraft). This order reflected Air India's intent to grow to the same scale as the 600-unit fleets of the main Chinese carriers or to match IndiGo's ambitions. Currently, the Air India group has 442 narrowbodies (737MAXes and A320/21neos) and 74 widebodies (A350s, 787s and

AIR INDIA: FINANCIAL RESULTS (₹bn)



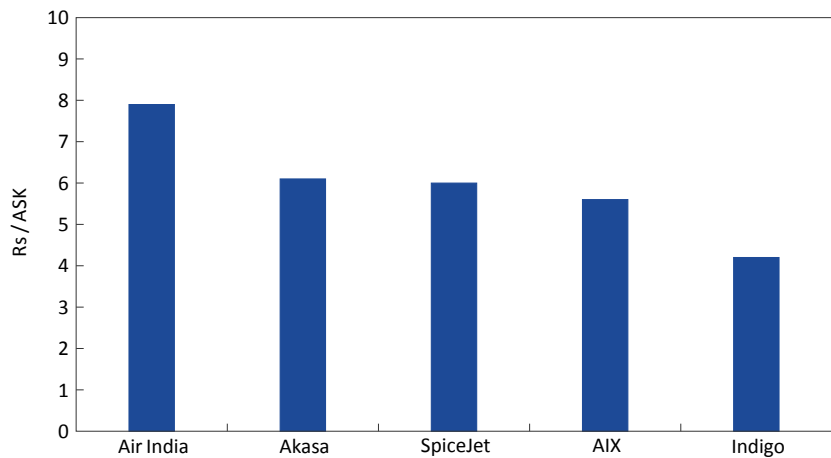
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777Xs) on firm order.

Air India's financial results are now buried within TATA's accounts and information is limited. Total revenue was reported to have risen by 14% to ₹610bn (\$7.3bn) in FY2025, but there has been no clarification of whether the long run of operating losses under state control has been reversed.

Under CEO Campbell Wilson, Air India has a similar global vision to IndiGo. However, Air India has complex structural issues, specifically the ongoing process of merging two full-service airlines, Air India itself and Vistara, neither of which has been commercially successful, at the same time as finishing amalgamating two very different LCCs, Air India

COMPARISON OF ADJUSTED UNIT OPERATING COSTS



Source: DGCA

Note: 2023 basis, adjusted to 1095km stage length

AIR INDIA: INTERNATIONAL ROUTE NETWORK



Express and Air Asia India, into one unit. On the other hand, Air India is now fully owned by the mega conglomerate that is TATA, whose publicly listed companies are valued at over \$300bn, and which employs over 700,000 people in, for example, Tata Consultancy Services, Tata Motors, Tata Steel, Tata Chemicals, and Tata Power. Their travel departments will presumably have been instructed or nudged to use Air India wherever possible.

The map opposite illustrates air India's long-haul network into primary points in Europe and North America, the same points that IndiGo is likely to target with its new A350s. It is unlikely that Air India will be able to compete on unit costs with IndiGo, but it has many decades of experience in restricting bilaterals in its favour and protecting its slots at global hubs.

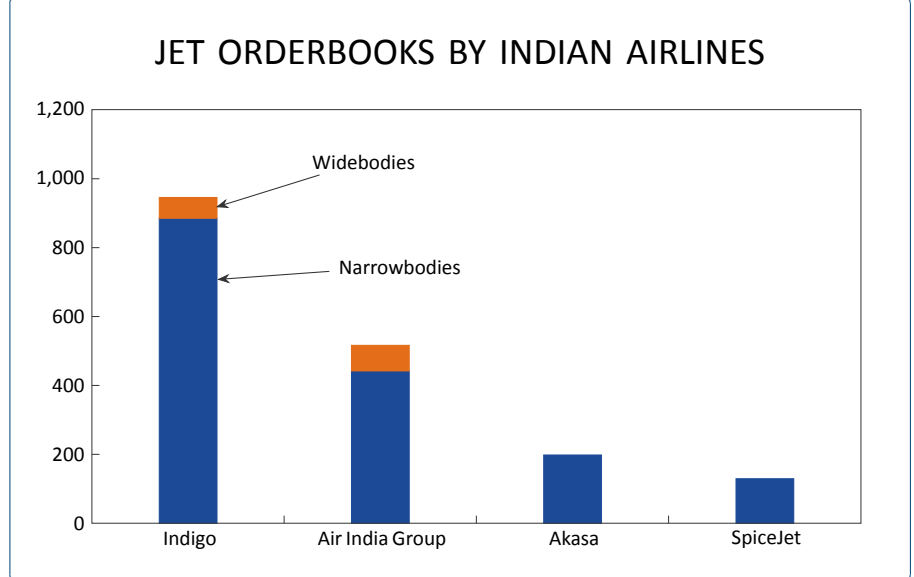
LCC competitors' implosion

IndiGo's dominance in the domestic market is not just the result of its rapid growth but also a consequence all the self-destruction of its local LCC rivals.

Three years ago, Go Air, which had about 3% of the domestic market, announced its transition to a ULCC by rebranding as Go First. Owned by the powerful Wadia Group it attempted an IPO which failed, then it went into liquidation in 2023.

SpiceJet, the first of the low-cost new entrants back in 2004, had to ground its MAX fleet in 2019 before the pandemic hit. Compensation from Boeing, offering equity to lessors and a strong performance from its cargo unit SpiceXpress rescued the carrier, but its finances deteriorated post-pandemic.

It has been forced to downsize its operations and now has only about 3% of the domestic market



compared to 9% three years ago. It does however retain 5% of the international market because of continuing operations to the Middle East. There are tentative signs that its finances may have stabilised — it reported a net profit of ₹5.8bn (\$70m) for FY2025 against a net loss of ₹4.1bn the previous year. Total revenue was down by 25% to ₹52.8bn (\$635m). By the beginning of this year the fleet was down to 62 units, only half of which were operational. Intriguingly, the airline still maintains that it has 129 737 MAXes on order.

Akasa was a 2022 start-up founded by Rakesh Jhunjhunwala, a well-known investor and stock-market trader, entering at what he assessed as being the bottom of the market, with the intention of creating India's first ULCC.

The scale of Akasa's ambitions is clear; it has an orderbook of 198 MAXes, but its development has been severely hampered by delivery delays, and its current fleet consists of only 30 MAXes. And there is limited financial information, although it is reported that Akasa made a remarkable net loss of ₹19.8bn (\$240m) in FY 2025. According to a Akasa

spokesman, quoted in the Indian press: "This is neither surprising nor unanticipated. Our robust business plan provides for these losses."

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Virgin Australia: A Textbook Restructuring?

VIRGIN Australia was one of the first airlines to succumb to the effects of the COVID-19 pandemic. Already weakened by years of losses, an intense domestic price war in 2019, and unfortunately-timed corporate activity (buying out the minority shareholder in its FFP), Australia's second airline ran out of cash in April 2020 and voluntarily submitted to administration.

Five years later, with two years of healthy profits under its belt, it has just had its listing on the Australian Stock Exchange restored through the sale of 30% of its equity (236m existing and one new share at A\$2.90 apiece) giving the company a market capitalisation of A\$2.3bn.

In late 2020, US-based private investment company Bain Capital bought Virgin Australia from the administrators, Deloitte, for A\$3.5bn — A\$730m in cash and assuming A\$450m in worker entitlements and secured debt of A\$2.3bn (out of the total A\$4.8bn debt at the time). Trade creditors, and bondholders took a 90% haircut. The then shareholders (which included Richard Branson's Virgin Group, Singapore Airlines, Etihad, and two Chinese carriers Hainan and Qingdao Airlines) lost their entire investment. (After the deal, Branson went on to take a 5% stake, presumably in BC Hart, Bain Capital's investment vehicle that became the airline's sole shareholder).

Restructuring needed

Founded in 2000 as LCC Virgin Blue, by the 2010s it had forgotten its original mantra of keeping things simple. It

rebranded as Virgin Australia in 2011, moved into long haul international flying using a handful of 777s, added wide bodies and "business" class to its domestic network, and bought LCC Tigerair Australia. It tried to copy all that its main rival Qantas did.

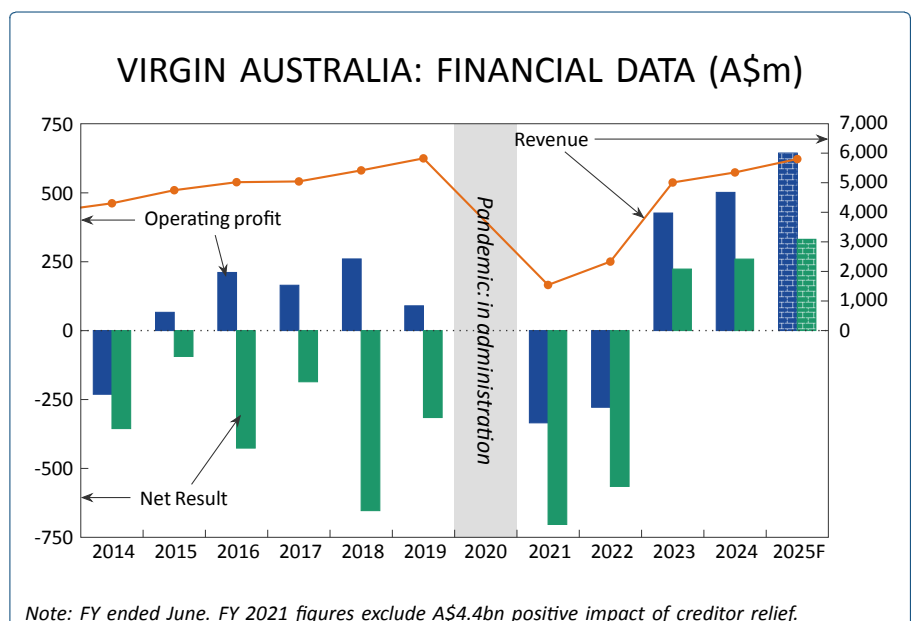
By the end of 2019 the Virgin Australia Group consisted of four main divisions:

- ✈ Virgin Australia Domestic (including Virgin Australia Regional), operating to 39 destinations in Australia with a fleet of 96 narrowbody, widebody and turbo prop aircraft;
- ✈ Virgin Australia International, flying to 15 destinations across New Zealand, Pacific Islands, North America and Asia with a fleet of 22 widebody aircraft;
- ✈ Tigerair Australia, its low cost brand, flying to 12 destinations within Australia using a fleet of 15 A320s and 737s;
- ✈ Velocity, its FFP loyalty programme.

The problem was that neither Virgin Australia International nor Tigerair made a profit. In the five years ended 2019 the group had achieved an average underlying operating margin of only 3.4%; but it had lost money at the net level in every year: a total of A\$1.7bn over the period.

Mike Murphy, senior partner at Bain Capital, quoted in *Forbes*, said: "It was sitting on a fleet that was too big, and a business perimeter that was too much. The long-haul international business had never made money. Its low-cost carrier business Tigerair had always struggled since the day they acquired it. It was clear things needed to change, and part of the attraction was just what was possible on the cost and complexity reduction under ownership and throughout the administration process."

A structural strategic reset was



needed.

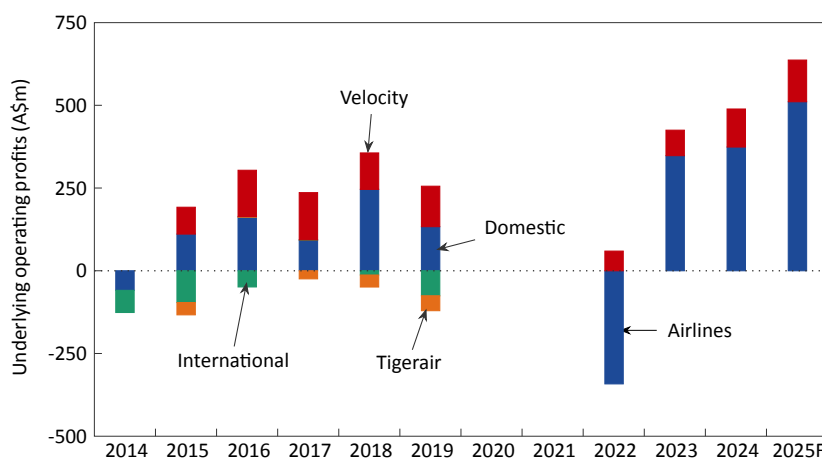
Under the leadership of new CEO Jayne Hrdlicka (a former Bain Capital consultant, former CEO of Jetstar and Qantas Loyalty), the company pivoted away from the full-service and international direct competition against Qantas to a hybrid business model — a mid-tier “value carrier” focusing on domestic (and, eventually, short-haul international) routes to appeal to leisure and SME business traffic. Free perks (food, luggage) were abandoned to concentrate on an unbundled buy-on-board and ancillary pricing product. The widebodies went and long haul international routes closed. Tigerair Australia was dismantled and its mixed fleet of 15 A320s and 737s returned to lessors.

The mainline fleet was simplified, with the disposal of ATRs and Embraers, to concentrate on the 737 as a single aircraft type. By the end of 2020, it had halved its fleet to 58 737s but since then has rebuilt its strength to 95 units (including eight 737MAXs). It is in the process of further streamlining the 737 fleet with a retrofit seat densification programme to give a standardised 182

seat count.

Following an internal review, the group decided to continue operating Virgin Australia Regional Airlines (VARA). This provides scheduled and charter services focusing on the resource communities in Western Australia — mostly underwritten by long term contracts — that had used a mixture of aged A320s and F100s. The group is in the process of replacing these with new E190-E2s (of which it has four on firm order).

VIRGIN AUSTRALIA: SEGMENT PROFITABILITY



Note: FY end June

The operational reset gave the group the opportunity for deep cost restructuring: a third of the workforce were laid off, collective agreements renegotiated, and structurally the group reduced the underlying head office staffing levels. It also renegotiated (and exited) over 500 “onerous” contracts delivering annual savings of nearly A\$300m. From the accounts it looks as if Bain only had to inject A\$247m in new equity.

The restructuring plan paid off. Virgin Australia retained its 35% share of the domestic duopoly (against Qantas Group’s 63%). For the year ended June 2023, Virgin Australia was able to announce its first (underlying) profit in 11 years. It generated an underlying operating profit of A\$426m on revenues of A\$5.0bn (a margin of 8.5%) and net profits of A\$223m. Further recovery in FY2024 allowed it to report operating profits of A\$501m on revenues of A\$5.4bn (a near respectable 9.4% margin) and a net result of. And the group is forecasting that its result for FY25 will see revenues almost back to prepandemic levels at A\$5.8bn,

VIRGIN AUSTRALIA FLEET PLAN

	2019	2024	2025		2026		Orders
	June	Dec	June	Dec	June	Dec	
B777	5						
A330	6						
737NG	85†	86	87	85	82	79	
737MAX8		8	8	14	20	26	25
A320	15*	7	5	4			
F100	14	3	1	1			
ATR42	14						
E1	5						
E190-E2				3	4	6	4
Total	144	104	101	107	106	111	29

Source: Company Prospectus.

Notes: †six 737 and *nine A320 operated by Tigerair Australia

VIRGIN AUSTRALIA FINANCIAL DATA (A\$m)

	end June	2021	2022	2023	2024		at end	Dec 2024
Revenue		1,543	2,334	5,011	5,353	Property, plant and equipment		2,555
Net income		(703)	(566)	129	259	Other LT assets		633
Operating cash flow		267	262	1,043	900	Current assets		1,375
Capex		(38)	(102)	(149)	(269)	incl Cash		1,071
Free cash flow		229	160	894	631	Current liabilities		(3,002)
Debt		(14)	(51)	(84)	(414)	Net current liabilities		(1,627)
Equity		247		(730)*	(367)†	Debt & lease liabilities		(1,786)
Total cash flow		462	109	80	(150)	Provisions		(614)
						Equity		(840)

Notes: * Capital return to shareholder; † Dividends

operating profits up by 28% to A\$644m and a net result 28% higher at A\$331m.

Bain Capital seems to have been able to apply a textbook case of strategic restructuring, financial discipline, and operational refocusing to effect the turnaround in Virgin Australia's fortunes. They have also applied the private equity textbook policy of extracting cash returns: in the last two financial years it took A\$1.1bn in a return of capital and payment of dividends — with a further A\$100m dividend paid out in the six months ended December 2024.

Mike Murphy explains: "For us, as a private equity firm, we've always been very explicit that we are five-to-seven-year investors typically. We are now at five years, and I expect us to be investors for at least another couple of years. But at some point for our investors and our business model, we ultimately need to exit. An IPO is a step in that long journey." The IPO saw Bain disposing of 40% of its shareholding in Virgin Australia. It decided not to use the opportunity to raise new equity to bolster the balance sheet (except for one share — which is there presumably as a quirk of ASX rules). At the end of December

the airline still had negative equity of A\$840m. Post issue, Bain retains a 40% stake. The next largest shareholder is Qatar Airways with 23%.

Qatar Airways

Qantas (a member of the oneworld alliance), operates a comprehensive joint venture agreement with superconnector Emirates for services through the Middle East on the kangaroo route. So, maybe it shouldn't be surprising that Qatar Airways (a member of, and banker to the oneworld alliance) should be interested in some link with Virgin Australia.

In 2023, Qatar had applied almost to double the number of weekly services it is permitted to operate into the four main Australian cities. The bilateral ASA limited them to 28 direct services into Sydney, Brisbane, Perth and Melbourne from Doha (although with no limitation on aircraft gauge), and an additional seven services via, or onto, another point in Australia (such as Adelaide, Canberra, Darwin, Gold Coast). There are no limitation on services that don't touch the four metropolises. The application was rejected.

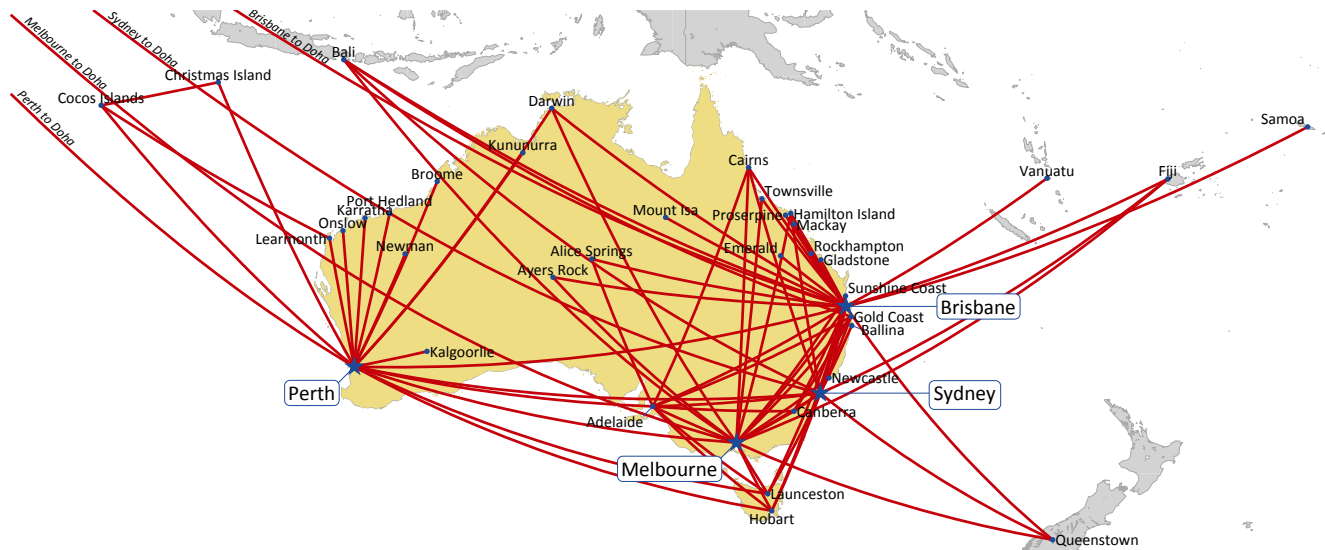
A year later Qatar Airways reached agreement to acquire a 25%

VIRGIN AUSTRALIA KEY STATISTICS

	FYE June	2023	2024	2025F
Airlines				
Passengers carried (m)		18.9	19.2	20.8
ASK (m)		30,030	32,374	33,630
Load factor (%)		84.0%	83.0%	85.5%
RASK (cents per ASK)		16.2	15.9	16.5
CASK (cents per ASK)		15.1	14.7	15.0
Statutory underlying EBIT margin		7.4%	7.6%	9.4%
Velocity				
Member numbers at period end (m)		11.5	12.3	13.3
Statutory underlying EBIT margin		23.4%	28.2%	27.6%

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VIRGIN AUSTRALIA ROUTE MAP



stake in Virgin Australia from Bain Capital (for QR1.87bn, or A\$785m). This was effected in April 2025 following government approval. With the stake comes an agreement for Virgin Australia to “operate” flights to Doha from Sydney, Brisbane, Perth and Melbourne — taking up reciprocal rights under the bilateral. However, the aircraft will be wet-leased from Qatar Airways.

Virgin Australia this as a “capital-light” method of accessing long-haul international routes, seeing a benefit in offering its customer base with convenient connections to 170 destinations worldwide through Doha; and envisages potential enhanced feed on to its domestic services. It states that the overall impact of the wet lease arrangement and the new services on its level of operating profits is expected to be immaterial.

Australia — a two airline market

Australia is an unusual airline market. The continent has a huge land mass of 7.7m km², but a population of only 26.6m (a density of just over 3 people per square kilometre). There is a lot of empty space.

It is highly urbanised: 65% of the population live in the four main cities of Sydney (population 5.6m), Melbourne (5.4m), Brisbane (2.8m), Perth (2.4m) and Adelaide (1.5m). Distances between the main urban centres are large, with limited realistic transport alternatives to air travel.

The domestic air system is characterised by a “golden triangle” of routes between Melbourne, Sydney and Brisbane. Indeed Melbourne to Sydney is the second largest route in the world by number of flights offered (and fourth largest in terms of seats). Moreover 44% of all domestic air trips touch Sydney.

Domestically it is a two airline market, and has been for decades. Virgin Australia has a 36% share of the total number of seats compared with the

Qantas Group’s 57%. Traffic growth has been modestly good over the 20 years up to 2019, growing at a compound rate of 3.5% a year in passenger numbers. Passenger numbers this year have almost recovered to prepandemic levels.

Internationally it is more complex. The country has 20 designated international airports, but 90% of international traffic is concentrated on the four main cities. Australians like flying, averaging 3.5 trips per head. However, the centres to which passengers really want to fly are a long way from anywhere.

Qantas has its “Sunrise” project targeting ultra-long haul non-stop services: it is operating Perth-London (14,500km) and has plans for Sydney-London (17,000km) and Sydney-New York (16,000km).

But on the whole inter-regional routes to and from Australia have to stop somewhere, which gives rise to intense 5th and 6th freedom competition.

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