

The Rocky Road to Recovery

FROM THE start of the jet age in the 1950s to the end of 2019 the commercial airline industry had generated around \$200bn total net profits. In the three years since the start of the Covid-19 pandemic the industry is estimated to have lost \$186bn. And those losses have in simplistic terms been covered by debts: IATA estimates that the world's airlines' total debt burden has risen by over \$220bn, or 50%, since the beginning of 2020 to give an industry total of \$650bn.

But the industry is on the road to recovery. Airline traffic in domestic, US and European markets is gradually approaching, if not in some cases exceeding pre-pandemic levels. Sustained travel restrictions in Asia, combined with China's zero-covid policy had restrained the ability to fly in that area of the world through most of 2022. That policy and those barriers have now gone, leading to a rapid recovery particularly in the Chinese domestic market: the latest figures from IATA for February show domestic traffic in the PRC only 8% below pre-

pandemic levels. International traffic as expected has further to go: overall in February global RPKs were still 22% below those in the same month of 2019. But this masks a stronger performance in Western markets: IATA's figures show demand on North- and Mid-Atlantic routes almost back to "normal".

Recent results from the European and US majors have highlighted a distinct level of "pent-up demand" fuelling a willingness for travellers to pay inflated ticket prices for the opportunity of taking a flight denied for

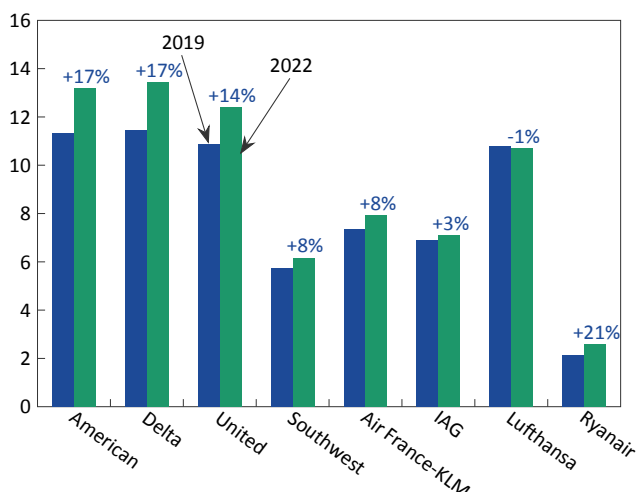
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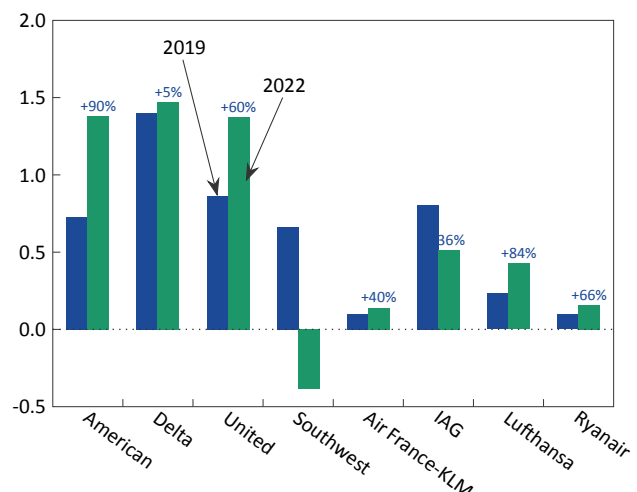
the previous few years. Pricing in the industry is generally a reflection of the demand/capacity environment, so with capacity below normal levels and strong demand, it is not surprising to see ticket prices surge. And capacity is being constrained: supply-

FINANCIAL RESULTS (\$bn) Q4 2022 v Q4 2019

Revenues



Operating Profits



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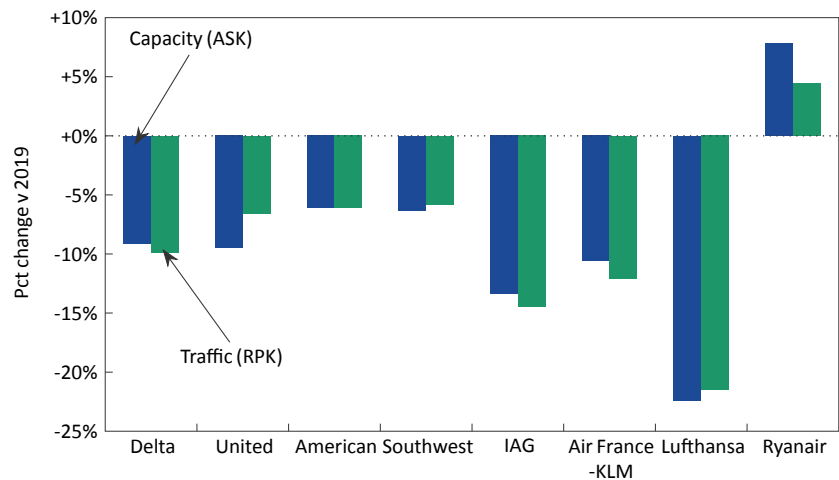
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TRAFFIC AND CAPACITY Q4 2022 cf Q4 2019



chain issues at the OEMs delaying new deliveries; at the MRO bases delaying the return of stored aircraft; at the engine manufacturers restricting the provision of spares.

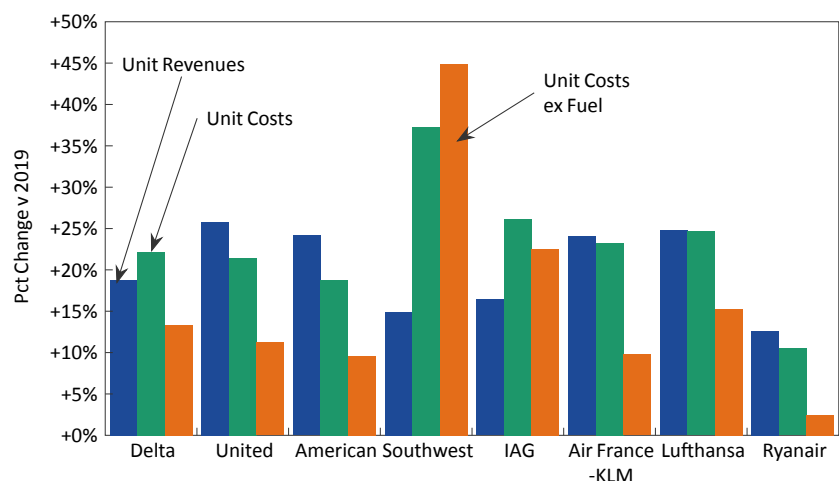
Unit revenues have been rising at eye-watering levels: up by 20-25% compared with the same period in 2019.

There has also been a very strong increase in operating unit costs, partly because of the reduced capacity, but also from very high fuel prices

— for the major network players on either side of the Atlantic Q4 2022 unit costs were 15-20% higher than they had been in the same period in 2019 (slightly higher for the Europeans because of US dollar strength), half of that increase a result of fuel.

High ticket prices seem here to stay but will be absorbed by demand. Ryanair CEO Michael O’Leary has predicted that an expected 15% rise in airfares this summer (following a 12% increase last year) will have no impact

UNIT REVENUES AND COSTS Q4 2022 cf Q4 2019



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on bookings.

In the Q4 figures the three US majors all reported record levels of quarterly revenues, 14-17% higher than the same period of 2019, and strong improvements in underlying operating profits compared with the pre-pandemic period. This trend has continued into the first quarter of 2023. (Southwest's figures are distorted by an operational burnout in December storms). In Europe, the results were not so marked, partly because of a greater exposure to international flying: but operating profits were above

2019 levels for all the large carriers save IAG — and Ryanair uniquely among this group had higher capacity and traffic than in 2019.

It is rare to see airlines being able to fully recoup strong increases in fuel costs: higher ticket prices would normally have a negative impact on demand. Does this undermine the traditional view of price elasticity in the industry?

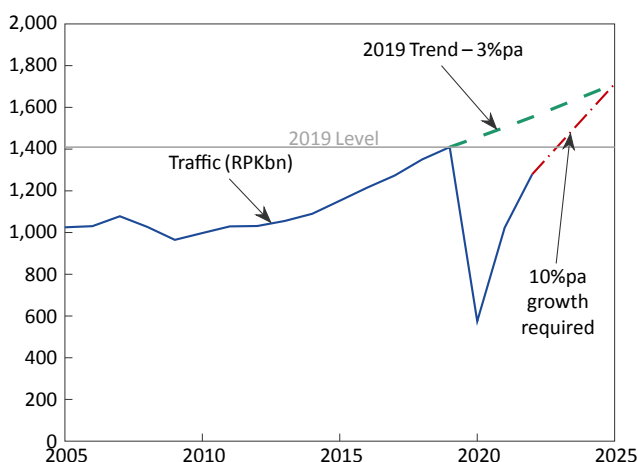
Whatever the validity of using “pent-up demand” as an economic term, this is the first (and extended) traffic downturn in the industry

caused not by economic weakness, but the imposition of constraints on the freedom to travel (the Chernobyl disaster, eruption of Eyjafjallajökull, the SARS and MERS crises all pale into insignificance).

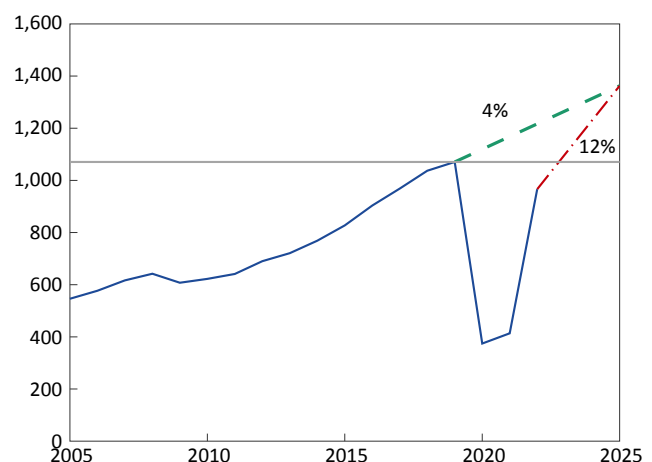
In 2019 the airline industry carried nearly 4.5bn passengers. Over the three years since the start of the crisis there may have been some 7bn passenger journeys that just did not take place because of health restrictions.

PROJECTING TRAFFIC FLOWS TO TREND (1)

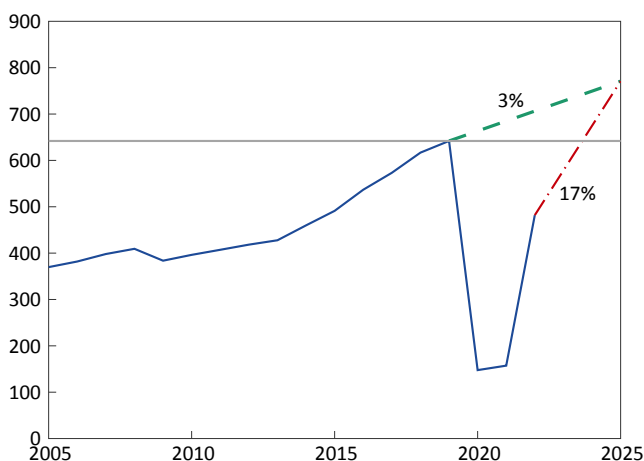
Within North America



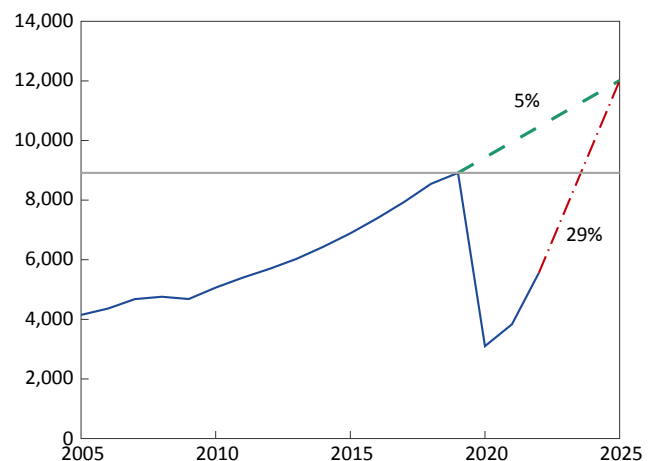
Within Europe



Europe-North America



World Total



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Business travel altered

One of the fallouts from the pandemic is a change in the nature of business and corporate travel. The significant rise in remote working and availability of technology such as Zoom to facilitate online meetings has been cited as a reason why business travel *per se* will never return to pre-pandemic levels. An increased emphasis on carbon footprint and ESG credentials is also providing an excuse for corporate unwillingness to book travel.

In Europe, Lufthansa notes that business traffic volumes are still only 60% of the level they had been pre-pandemic (although revenues only 30% down). It and the other network carriers have been highlighting the success of premium leisure. (Ryanair, needless to say doesn't bother working out why people travel: it flies the planes and takes the money.)

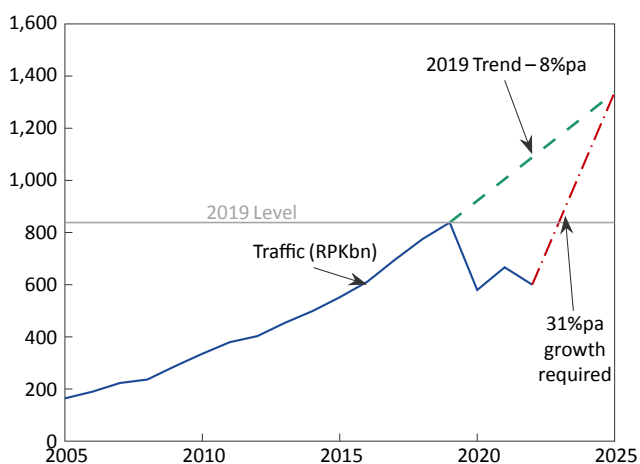
But Delta and American in their latest results' calls noted that there has been a shift towards "blended" business and leisure travel away from traditional corporate sales channels.

United also notes a shift in seasonality.

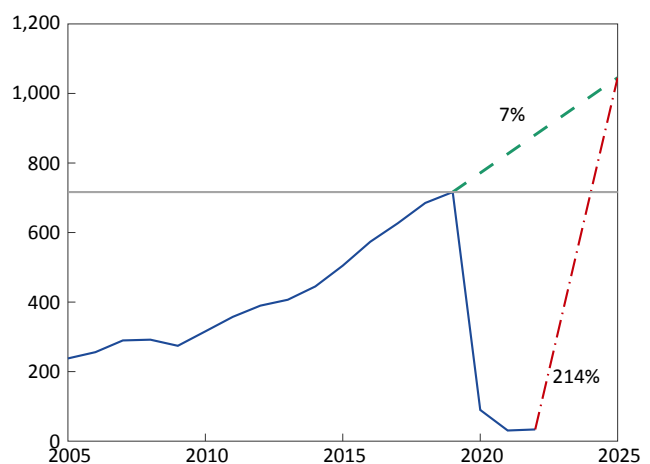
Corporate customers are apparently increasingly allowing personnel to book travel themselves, and encouraging them to "tack-on" leisure and weekend breaks. And this is probably being paid for through a branded credit card linked to frequent flyer programmes (and earning miles that can be spent on "free" flights): in the first quarter Delta's remuneration from Amex reached a record \$1.7bn, 38% higher year over year, from co-brand acquisitions and spend growth.

PROJECTING TRAFFIC FLOWS TO TREND (2)

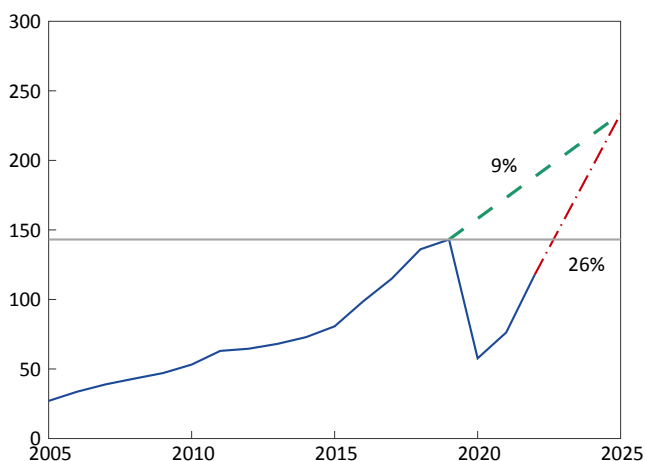
Within China



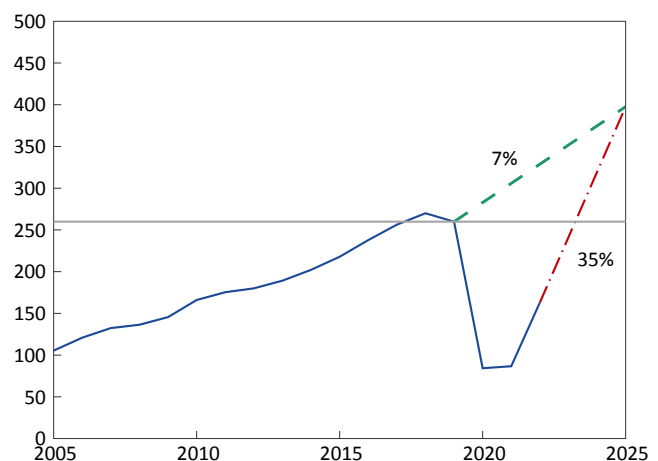
China International



Within South Asia



South Asia to Other Regions



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(Delta expects full year 2023 benefits from its Amex relationship of \$6.5bn, more than 50% higher than it had been in 2019). At the same time Delta mentioned that while SME sales might have recovered, sales through corporate channels were still 15% below 2019 levels.

This trend goes in hand with a continuing shift in distribution channels along with the rollout of NDC (New Distribution Capability). An IATA/McKinsey report looking at the impact of the pandemic on the aviation value chain (Dec 2022) points out that the proportion of bookings made online direct to the supplier in 2021 made up 48% of the total, with online travel agents accounting for another 18% — more than double the ratio it had been ten years earlier.

Does this undermine the traditional expectations of income elasticity when looking at future developments in the industry?

A return to long term trend?

In past cycles in the industry, traffic levels have in general bounced back to trend within five years of the downturn. Will it happen this time round?

In the graphs on pages 3–4 we show the traffic trends on select traffic routes since 2005 (in RPK terms). We have extrapolated a line from the level seen in 2019, before the pandemic obliterated expectations, using the 2019 forecast (from Boeing) of the medium term growth rates to project the levels of traffic we might then have expected to see by 2025.

We then add a line showing the annual rate of growth needed from 2023 in order to meet that long term trend in 2025.

The implied compound annual growth rates within North America and within Europe of 10-12% for the next two years appear plausible, as does the 17% for the North Atlantic. China's domestic demand, by all accounts, could well exceed the 28% growth needed to bring 2023 levels

of traffic above 2019 levels: India needs only an 18% growth this year to do the same. Chinese international travel, decimated by the zero-covid policy, has a very steep hill to climb: a recent survey by Dragon Trail Int'l suggests that only 15% of travellers had made plans to travel abroad in 2023, and that 30% had no intention to do so. (Only 40% of respondents had travelled abroad before).

A concern may be that to achieve a return to trend requires a solution to supply-chain issues. In the meantime the restraint on capacity, with continuing strength of demand, should provide the opportunity for airlines to generate the cash and profits to pay down the debt and the cost of the pandemic.

As Michael O'Leary, quoted in the *Financial Times*, said: "I would hope we are in for two or three years of reasonably stable capacity, reasonably stable pricing. But then fuel could mess it up. Or an Icelandic volcano — or war and pestilence somewhere".

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India: A golden age?

INDIA is being proposed as the new key driver of global passenger demand, supplanting China, just as India in April surpassed China as the most populous country in the world (1.426bn people).

The historic growth rate in Indian airline traffic has been strong, but from a low base — during 2005-19 the domestic CAGR was 13.2% and the international CAGR 10.2%.

The potential for Indian aviation has been recognised for some time. IATA in a 2018 special report indicated that 2037 passenger volumes were likely to be in the 512m to 823m range. In 2019 total passengers (domestic and international, Indian and foreign airlines) peaked at 202m.

This April ACI at the EU-India Aviation Summit held in Delhi, called for a liberalised regulatory regime between the two regions and produced a forecast indicating a CAGR of around 8% pa up to 2041 bringing

the Indian market up to 1.1bn passengers.

Meanwhile, the IMF and the World Bank are predicting real GDP growth in the order of 6-7% for India in 2023 and 2024, by some margin the best among the world's major economies.

Yet the aviation business doesn't seem to have quite bought into the concept of India as a super-power. For instance, in Airbus' 2022 Global Market Forecast the Middle East, China and SE Asia are highlighted as major drivers of new aircraft demand, but not India. While IndiGo is one of Airbus' most important A320neo customers, some of the other Indian airline orders recorded by the OEMs look a bit uncertain.

The big news this year was that Tata-owned Air India has committed to a 470-unit mega-order with both Boeing and Airbus, which has focused the OEMs' and lessors' attention on

the subcontinent (see following article for more discussion on the Air India Group's ambitions).

India's growth economics and demographics

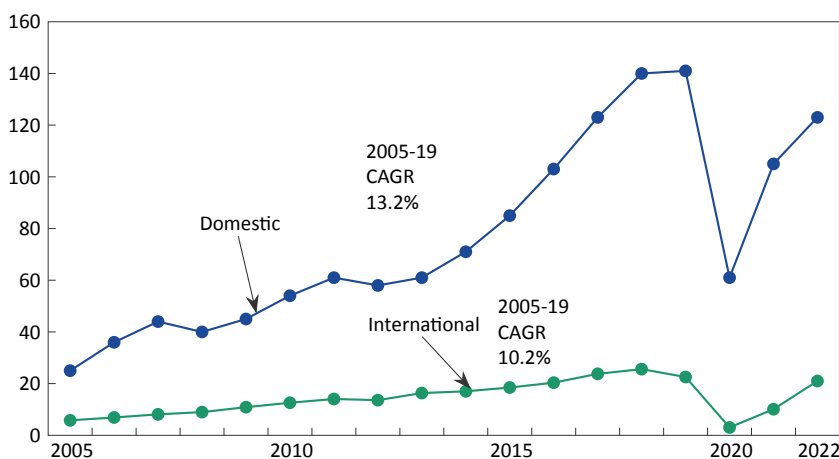
Two graphs taken from EY's *India@100* economic analysis, published in October 2022, give an interesting insight into global trends. These very long-term projections, up to 2046-50, are in one sense slightly absurd — nothing is really predictable — but they do reflect how developmental economists and management consultants are thinking about the world, and that in turn will influence how the global economy will evolve.

Firstly, although all growth rates mature over time, India has the ability to keep its advantage over China and the USA. Secondly, China will in the next five years overtake the USA in terms of share of global GDP (measured on PPP basis), it will then plateau whereas India will continue to increase its share, eventually catching the USA.

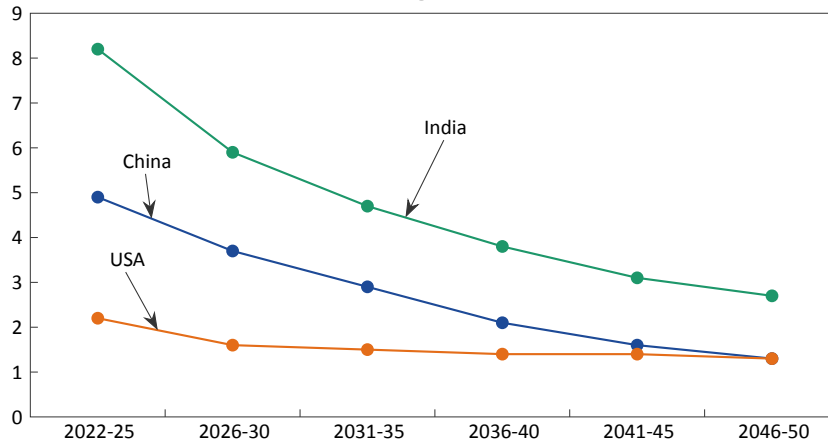
Indian optimists have started referring to an *Amrit Kaal*, roughly translated as "golden age" of strong extended economic and social progress. The parallels are: Germany, 1950-69, Japan 1956-72, USA 1959-66, China 1982-2011.

A large part of analysis refers 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

INDIAN AIRLINES: LONG TERM TRAFFIC TRENDS



LONG TERM PROJECTED GDP GROWTH (5-Year Average Growth, PPP)



with the West's ageing population (one estimate is 550,000 personnel in the USA by 2026). India can solve this problem by training up health care professionals who could work either in home country facilities or temporarily in foreign countries.

Modi's transport infrastructure project

More immediately, the government of Narendra Modi is concentrating on boosting transport infrastructure in order to facilitate rapid GDP growth. Investment is on a China-type scale.

India's notoriously slow railways are being replaced by state-of-the-art rapid transit — for example, a new line between Mumbai and Ahmedabad will reduce travel time from six hours to under two. Freight corridors are also being built, linking the Punjab and West Bengal and between Delhi and Mumbai. Roads are being upgraded everywhere. Airports are being built or rebuilt throughout the country — ₹1tr (\$12bn) is budgeted over the next two years, and the number of commercial airports is up from 74 in 2014 to 148 today,

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.

Moreover, the young urban population tends to be well-educated and adept in the skills that the world needs, ie technology.

India's export growth is being driven by IT services: growth at around 14% pa over the past 20 years to \$255bn in FY 2022. India has realistic ambitions to overtake Silicon Valley as the global software innovator.

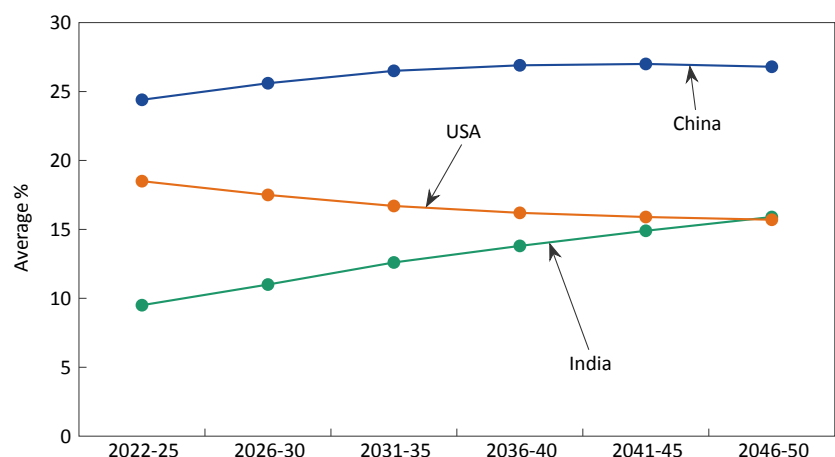
India is the world leader in Global Capability Centres (GCCs). These are an evolution from the outsourcing of back-office functions like billing, revenue accounting and tele-sales by Western corporations, into more complex business activities that involve problem-solving, product innovation and strategy development.

Over half of the world's GCCs — 1,500 — are based in India, and nearly 70% of them belong to US-

headquartered companies, followed by 20% from Europe and 10% from Asia/Pacific. 80 of the top 100 global retail and CPG (Consumer Packaged Goods) companies are estimated to have GCCs in India.

Health services represent another fast-growing industry — with patients travelling to India for treatment by highly qualified but much less expensive medical staff. There is an acute shortage of health workers to deal

SHARES IN GLOBAL GDP



Source: EY, Oct 2022 India @100

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and is expected to increase to 220 by 2025. Funding will come from the Airports Authority of India, about \$3bn, and private construction companies, \$9bn.

A sample of current airport projects:

- Navi Mumbai, a secondary airport for Mumbai, designed to handle 90m passengers by 2036.
- Capital New Delhi, addition of

new facilities with capacity for 70m passengers.

- Bhiwadi, a greenfield airport near Alwar.

- Hyderabad Rajiv Gandhi, new passenger terminals to grow capacity to 34m by 2024.

- MIHAN (Multi-Modal International Hub at Nagpur), the largest investment project currently, constructing a cargo hub and a Special

Economic Zone.

- Chennai, replacement of two terminals and development of a new secondary airport.

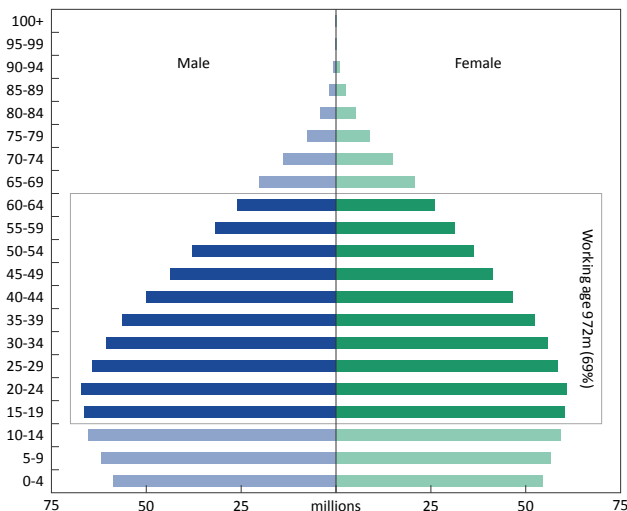
- Mani, greenfield airport.

- Jewar, greenfield airport.

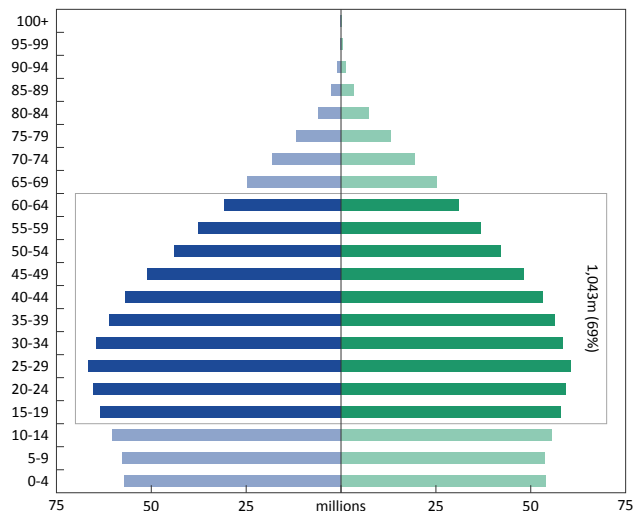
What all this does to India's carbon footprint is another issue, but one that has to put in the context of a serious reduction (hopefully) of India coal-burning power generation.

INDIA POPULATION PYRAMIDS 2023-2050

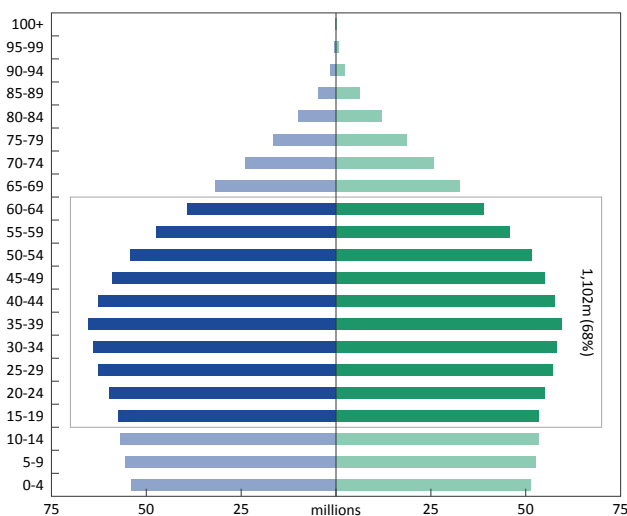
2023 (1.4bn)



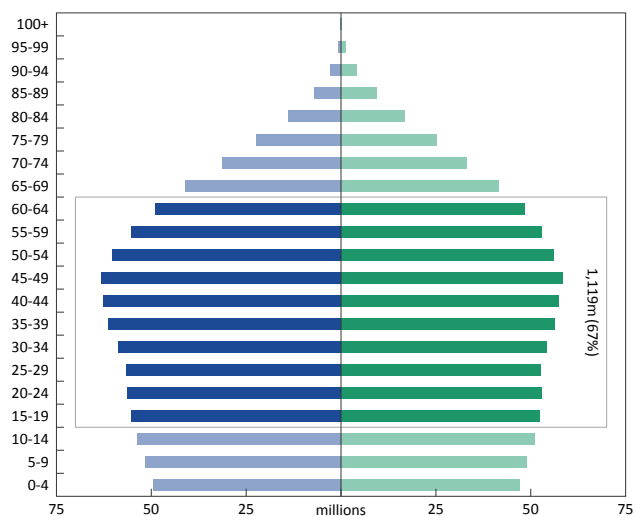
2030 (1.5bn)



2040 (1.6bn)



2050 (1.7bn)

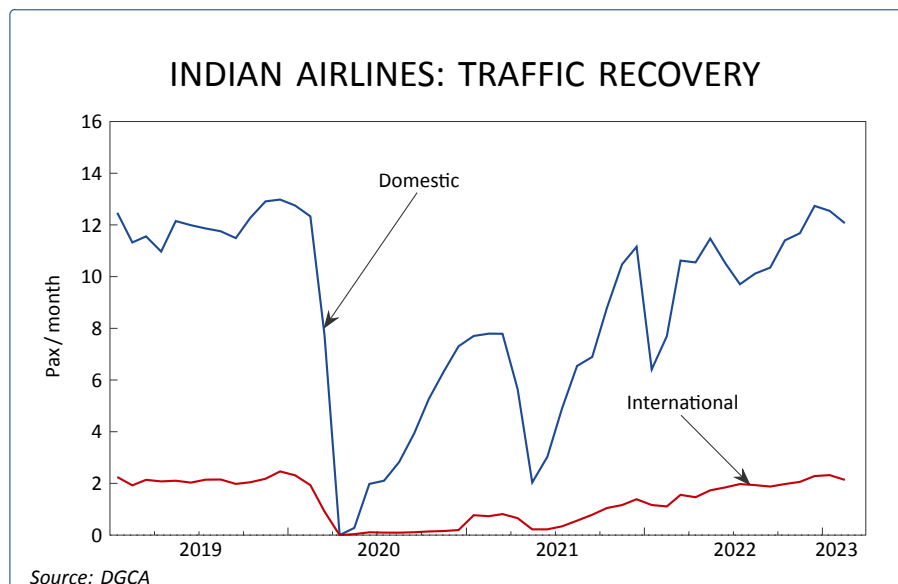


Source: UN World Population Prospects 2022

Air India Group: Mega-transformation

SO IS THE new Tata-controlled Air India Group capable of exploiting the potential of the Indian aviation market?

Appointed in mid-2022, the new CEO of the Air India Group, Campbell Wilson, a New Zealander, has been blitzing the media with his vision for a new Air India. His background is the SIA Group, where he was VP of sales and marketing and CEO of Scoot, SIA's LCC. The task that he oversees is to rejuvenate the dinosaur Air India, whose privatisation process lasted over 20 years; integrate it with a different type of full service carrier — Vistara, a joint venture between Tata, with 51%, and SIA, with 49%, which started up in 2015, and is based at Delhi; at the same time as merging Air India Express, with another LCC, though one with a very different operating model — AIX Connect, which is the rebranded Air Asia India, Air Asia having sold out its stake to Tata.

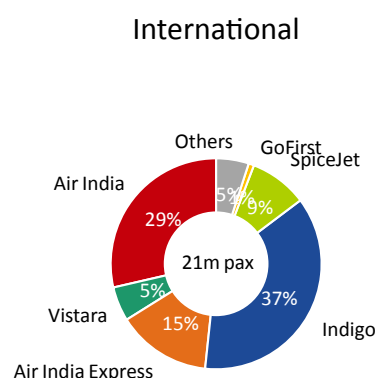
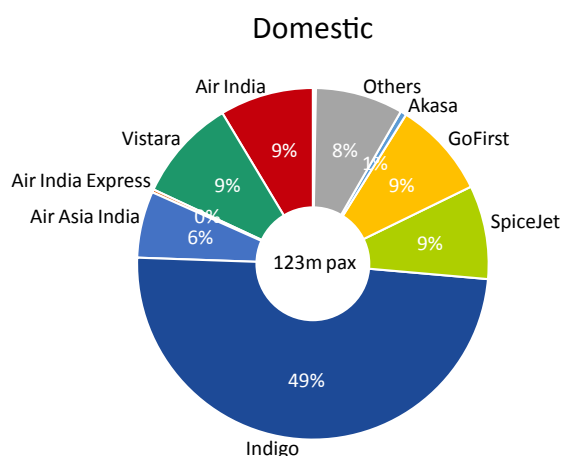


Campbell Wilson maintains that his approach is to regard the new Air India as a type of start-up, working from a clean sheet of paper. The clean sheet of paper approach is complicated enough for a start-up LCC (we had some deep experience of Indian complexities, working on the first wave of start-ups 20 years ago)

but the reality is that all the sheets of paper are embossed with Legacy issues. The management team has somehow to totally dismantle embedded systems and demolish entrenched hierarchies to create a new Air India.

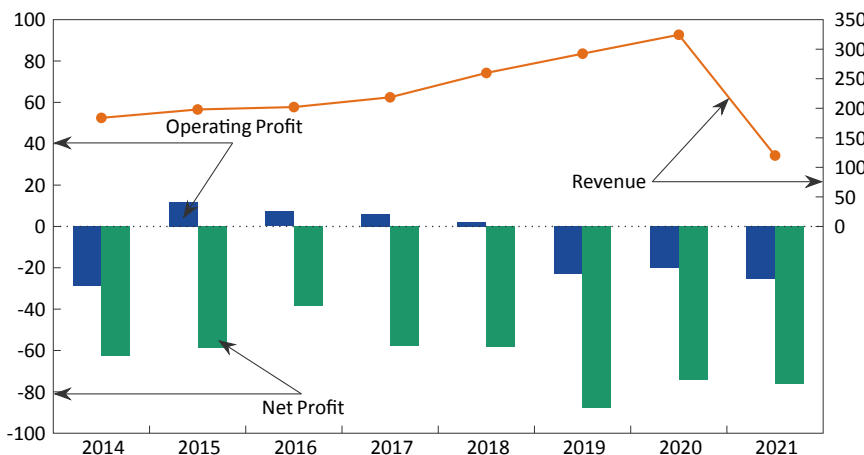
However, there is the huge advantage of having Tata as the pur-

INDIA MARKET 2022



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AIR INDIA: FINANCIAL RESULTS (₹bn)



its commitment to order 250 Airbus aircraft to boost its domestic and international operations.”

There is a major practical issue in obtaining delivery slots, given the size of MAX and NEO backlogs and the production delays that have affected all types, but especially the widebody A340s and 787s. Consequently, Air India will be taking six Airbus A350-900s that were designated for Aeroflot, keeping the Russian interiors.

So it is currently unclear as to when the fleet build-up will take place. And a sizeable proportion of the orders will be for replacement of elderly A320neos and 777s in the current fleet of 230 aircraft (see table below).

The 470-unit order has great symbolic value: it reflects Air India’s intent to grow to the same scale as the 600-unit fleets of the main Chinese carriers or even the 900-unit fleets of the US majors. But in terms of numerical fleet size and orders the Air India Group lags way behind IndiGo which has a current firm backlog of 485 A320neos and an operating fleet of 267.

As for financing the mega-order — the value of which would be

chaser. The financial details of the transaction were that the Tata bid totalled ₹180bn (\$2.4bn) for Air India and Air India Express plus 50% of the ground handling company jointly owned by Air India and Singapore Airport Terminal Services (SATS). Only ₹27bn (\$360m) of the purchase price was in cash, the remaining ₹150bn was the assumption of debt.

The mega-order

In February, Air India announced a mega-order for 190 737-8 and -10 MAXs, 20 787-9/10s, and 10 777Xs,

plus options for another 50 MAXs and 20 787-9s. The airline also placed an order for 40 A350-900/1000s and confirmed its order for 210 A320/21neos.

President Biden himself revealed the Boeing deal apparently after taking a telephone call from Indian Prime Minister Narendra Modi. However, it may be interesting that as at the end of April Boeing was not showing the order in its official backlog, nor was Airbus. The Airbus press release did not actually confirm the order, carefully stating: “Air India has announced

AIR INDIA FLEET

	Air India	Vistara	AI Express	AIX Connect	Total	Avg age	Orders in Mfr Backlog†	Mega Order	Options
A319	18				18	15.0			
A320ceo	9			23	32	12.3			
A320neo	27	46		5	78	3.6	8	140	
A321ceo	14				14	14.0			
A321neo	2	8			10	1.1		70	
A350								40	
777	20				20	13.7		10	
787	27	4			31	8.0	3	20	50
737		1	26		27	11.9		190	
Total	117	59	26	28	230	8.7	11	470	50

Notes: AI Regional has 8 ATR42/72s. † April 2023. Officially recorded orders are for Vistara.

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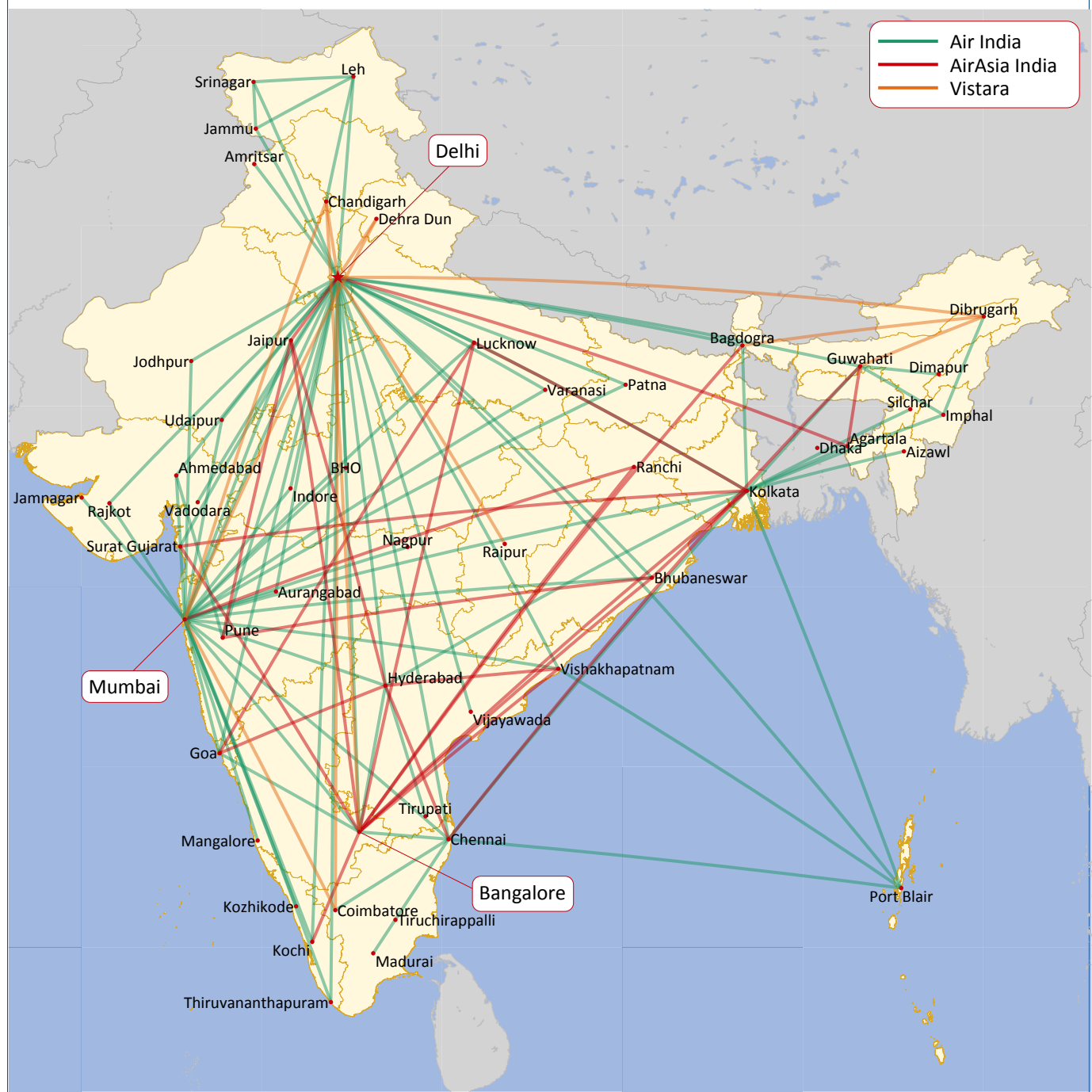
around \$30bn, estimated on likely transaction prices not list prices — details are sparse at present, the airline referring to a combination debt, equity and leases.

Potentially Tata brings formidable financial muscle to negotiations with

the OEMs. Although still largely controlled by family trusts, there are 29 stockmarket-quoted Tata companies with a combined equity market valuation of around \$250bn (about 25 times greater than IAG's, for comparison). Each unit — Chem-

icals, Steel, Motors, IT, Consultancy, Retail, Hotels, etc operates independently and has its own credit rating, usually investment grade because of the parentage of the Tata Group, which itself is reputed to have a quasi-sovereign credit status.

AIR INDIA: DOMESTIC ROUTE MAP



Four airlines, two mergers

Under the new regime there appear to be encouraging signs of an improvement in the financial health of the Group with the Indian press hinting at positive results in the latest two quarters. However, the actual results available simply underline the loss-generating ability of the Group.

Air India's financials pre-pandemic were almost as bad as during the pandemic — see graph on page 10 below (and there are serious suspicions that its losses were understated). In the financial year to March 2021 Air India reported a net loss of ₹71bn (\$0.9bn) on revenues of ₹121bn.

Unfortunately, Vistara too has been consistently loss-making since inception, necessitating equity injections from its parents, Tata and SIA. In FY 2022 (year to March 2022) it produced a net loss of ₹21bn (\$250m) or 40% on its revenues of ₹53bn.

So merging the two full-service carriers will not generate immediate synergies. There is not one successful model that can be applied to the new Air India. The implication is that creative destruction is needed.

Then there is the issue of the new low-cost Air India airline, which is being built around Air India Express, subsuming AirAsia India. This will give some desperately needed scale to the low-cost operation: in 2022 Air India Express and AirAsia India carried just 10.8m passengers between them, nowhere near the volume of the leading LCC IndiGo which carried 68m.

However, again the two operating models are not obviously compatible. Air India Express is an almost purely international airline based at Cochin in the state of Kerala. Remarkably for a state-owned company, it has found

a specialist role — transporting Indian workers to/from Kerala and the Arabian Gulf — and was consistently profitable in the years immediately before the pandemic, though its FY 2022 results showed a net loss of ₹7bn (\$87m).

AirAsia India, set up in 2013 as a joint venture between Tata (51%) and AirAsia (49%), the idea being to import the Malaysian LCC's expertise into the Indian domestic market, has been consistently loss-making. Now fully owned by Tata It recorded a net loss of ₹15bn (\$180m) in FY2022, more than its revenue. With its main base at Bangalore, the global IT hub, AirAsia India has just not achieved the scale to compete with IndiGo or even SpiceJet in the domestic market.

Also there is no fleet commonality. Air India Express is a 737-800 operator, while AirAsia India is a A320 operator. The new entity will be 737MAX operator with reportedly 50 units out of the mega-order being allocated to Air India Express. AirAsia India has been shrinking its operation, returning A320s to AirAsia in Malaysia.

The big question is: how will the full-service and the low-cost airlines operate alongside each other. Domestic India and India-Middle East is essentially an LCC market, with price-sensitive demand, an average stage length domestically of only about 970km, and a point-to-point network rather than a hub and spoke network.

In 2022 Air India and Vistara combined carried about 18% of domestic passengers with AirAsia India and Air India Express combined carrying a further 6%. IndiGo, by contrast, had nearly half the market.

The universal truth with low-cost subsidiaries is that they cannibalise traffic from the mainline carriers. This

outcome would seem inevitable in the Indian market. The logical solution might be to move all domestic and India-Middle East operations to the new Air India Express, but that would cause union and, maybe, political ructions.

Branding

Although Vistara had the stronger brand among the Indian business travel community, its name (in Sanskrit meaning "limitless expansion") will go, subsumed into Air India. History made this brand decision inevitable — Tata founded the airline back in the 1930s and the Executive Chairman until 1978 was the legendary industrialist, J.R.D. Tata.

The aim is to recapture the image of the airline when it was known as Maharajah. A London-based brand and design consultancy — Futurebrands — has been commissioned to create Air India's new identity — something global, airline of choice, equivalent to Emirates or SIA, etc.

The airline's customers would just be happy with an improvement in booking practices, reliability and on-board service. Skytrax reviews generally award Air India two or three stars out of five. One of the Legacy problems involve the reservation and yield management system at the carrier which have not changed much since the 70s or 80s. Radical change is now promised apparently involving using ChatGPT, which sounds intriguing. The seating product or products have yet to be defined, but Vistara's three-cabin offer on all domestic routes will surely disappear.

International network

The map on the facing page illustrates the international network using an isometric projection centred on Delhi.

Aviation Strategy

AIR INDIA: LONG HAUL ROUTE MAP



The dense medium-haul operation to the Arabian Gulf states is characterised by intense competition from the super-connectors and, increasingly, the A321NEO/737MAX operations of the Indian LCCs — IndiGo, and SpiceJet — and the Arabian LCCs — Air Arabia, Flydubai, Jazeera, flyadeal, Wizz Abu Dhabi, etc.

Air India's problem here is that to grow in this market it has to abandon its traditional regulatory conservatism. Air India had no competitive response to the rise of the super-connectors, retaining a narrow bilateral mentality, regarding sixth freedom traffic as being somehow unfair.

And this policy does not appear to have changed: earlier this year India refused to expand bilateral rights on India-Dubai from the 6.9m total annual seats allocated to each country. Emirates is at the limit of its allocation and was frustrated by India's refusal to expand capacity. Chairman Tim Clarke commented: "It will be in India's best interests to open up because ... every country that embraces liberalisation and wants investment has to open up". Perhaps the new Air India just isn't ready yet.

The Middle East carriers — Emirates, Qatar, and Etihad — are Air India's main, and dominant, competitors on India-Europe routes, connecting traffic flows over their global hubs. THY is an increasingly important player, and the new Saudia may add more competition — see *Aviation Strategy*, December 2022.

However, in the India-Europe market Air India could create a lucrative business, offering direct service to main and secondary European cities from Delhi and other Indian cities, assuming it can get its pricing and product right. The London route is by far the most important. Air

India has been able to push weekly frequencies up to 17 for summer 2023 from 14, operating to Heathrow from Delhi and Mumbai, and has also moved four Heathrow services to Gatwick, from Goa, Cochin, Ahmedabad and Amritsar.

There are at least 20 cities with populations of over 20m in India, which points to a potential network for Air India that could compete effectively with the super-connectors and the European flag-carriers. On many of the Indian non-hub to European non-hub sectors, there could be enough local traffic to justify direct service, which would also solve the problem of gaining additional slots at Heathrow, Gatwick or CDG. The bilaterals would, of course, have to be liberalised.

Air India has talked about developing a multiple international hub structure in the subcontinent, which may essentially be the same strategy as outlined above. Developing Delhi as a global hub to compete with the Middle Eastern hubs has been mooted, but surely is a non-starter for commercial, logistical and regulatory reasons.

The route network to North America is an illustration of India's geopolitical status — a flawed but huge Western-style democracy but maintaining cordial relations with Russia.

As the map on the previous page reveals, Air India operates to seven North American cities overflying Russia, which, following the invasion of Ukraine, is sanctioned for all European and North American airlines. In the process, Air India is further breaking Western sanctions by paying en route charges to the Russian state.

A4A is raising objections in Washington, calling for airlines (Emirates and others as well as Air India) that

operate trans-Russia routes to be banned from US. This could cause friction between Air India and its Star Alliance partner United; Air India has been hoping to deepen its relationships with United and Lufthansa.

Labour conflict

One of Air India's many problems has been its bloated and frequently intransigent workforce. But the key battle, as always, is with the pilots unions — the Indian Commercial Pilots Association (ICPA) and the Indian Pilots Guild (IPG) at Air India — a battle which is partly symbolic rather than purely financial. Campbell Wilson's team have tackled entrenched practices and the unions who have responded with some emotional language and, predictably, an attempt to undermine the new management by going directly to the Tata Group Chairman, Natarajan Chandrasekaran.

The proposed new pay structure includes a flying allowance component of only 40 hours/month in place of 70, has condemned as "draconian" by the pilots unions, even though the 70-hour rule would imply that every pilot was flying at the maximum regulatory limit (about 840 hours a year).

Taking on legacy pilots is a frustrating exercise for any management team. Senior pilots tend to be entrenched in their aviation world view and are usually cushioned by pensions, savings, and longstanding political and military relationships. Their resistance to change is perfectly logical from their perspective. And their position is bolstered by a global shortage of cockpit crew and the fact that the new management cannot threaten to cut back premium long-haul services.

Indian airline competition

There are two relative cost problems for the Air India Group

Firstly, the cost gap within the Group: according to an analysis by DGCA of 2021/22 stage length-adjusted unit costs Air India's cost per ASK, at the equivalent of US\$9.2 was about 55% higher than Vistara's US\$5.9. Secondly, the cost gap between the lower cost Group airlines, Air India Express and AirAsia India, and the LCC competition: they had a unit cost averaging US\$4.8/ASK, 12% above IndiGo's US\$4.3. The new ULCC — Akasa — will be aiming for costs roughly half of the Air India Group LCCs.

These comparisons encapsulate Air India's basic problem — how to compete on cost with IndiGo and the other Indian carriers.

Last year the highly respected Pieter Elbers arrived from KLM to take over as CEO at IndiGo, after a slightly turbulent period when the two founders, Rahul Bhatia, head of the InterGlobe conglomerate, and Rakesh Gangwal, previously CEO of USAirways fell out and battled in court. FY2023 (to March) financials are not yet available, but the third quarter results were promising — a net profit of ₹14bn (\$170m) on revenues of ₹149bn.

Elbers has stated that IndiGo is “embarking on the next level of growth” — we will cover the airline in detail in the next issue of *Aviation Strategy*. Meanwhile, its passenger share of the Indian domestic market was 49% in 2022 compared to 24% for the Air India Group, and its share of the international market (Indian carriers only) was 37% compared to 49% for Air India, Vistara, and Air India Express combined.

Opportunities for both IndiGo

and Air India are emerging as a result of shake-outs among the other carriers, which could leave capacity gaps as well as taking out substantial aircraft orders placed in more optimistic times.

SpiceJet, the first of the low-cost new entrants back in 2004, has teetered on the edge of bankruptcy in recent years, and had to ground its MAX fleet in 2019 before the pandemic hit. Compensation from Boeing, some clever negotiating with lessors and a strong performance from its cargo unit SpiceXpress appear to have rescued the carrier for the time being at least. It had about 9% of the domestic market last year, and has 129 MAXs on order.

SpiceJet's prospects have been improved with the voluntary liquidation of Go First, blamed on a dispute with P&W over the reliability of engines for its 55-unit A320 fleet. This event enabled SpiceJet to borrow \$500m from the government's Emergency Credit Line Guarantee Scheme (ECLGS) in order to return 25 of its grounded 737s to service.

It is not clear whether Go First will cease operating or restructure (it is owned by the very wealthy Wadia Group), but its problems go beyond the P&W issue. The smallest of the wave of LCCs that entered the Indian market around 2005, Go Air (as it was then) never found the scale of IndiGo nor achieved genuine LCC operational performance. In 2021, it announced a strategy to transition to the ULCC model and planned an IPO which did not materialise. Go First, nevertheless, achieved a market share of about 9% domestically in 2022, and has 88 A320neos on firm order.

Perhaps a better bet for a disruptive ULCC in the Indian market is Akasa — because it is starting from

a clean sheet of paper. Akasa was founded by Rakesh Jhunjhunwala, a high-profile investor, starting up in August 2022 at what he assessed as being the bottom of the market. It currently operates 19 737 MAXs and plans to expand rapidly with a further 52 units on order. But it has also announced plans for international services which may not fit in the ULCC model, at least at this stage of its development.

Finally, there is JET Airways, which because of various creditor disputes, has not managed to restart despite being awarded an AOC over a year ago. It still officially has an order backlog of 135 MAXs.

So there are lots of exciting challenges for the Air India Group — merger implantation, fleet planning, bilateral liberalisation, brand enhancement, LCC versus full service balance, cost reduction and competitive response, etc. Tata has given the new entity a five-year timeframe to effect the transition.



Hawaiian Airlines: Aloha to Amazon

HAWAIIAN Airlines is a long-established niche player. The eleventh largest commercial passenger airline in the USA, it is a *destination* carrier: it exists to bring tourists into Hawai'i and cater for the travel needs of residents of the pelagic State. Niches have their problems, especially in a commodity market such as aviation: too attractive and competitors encroach. In the post-pandemic leisure-oriented recovery, Hawaiian Airlines is facing intensified competition. But it may have found a way to diversify while sticking to its roots.

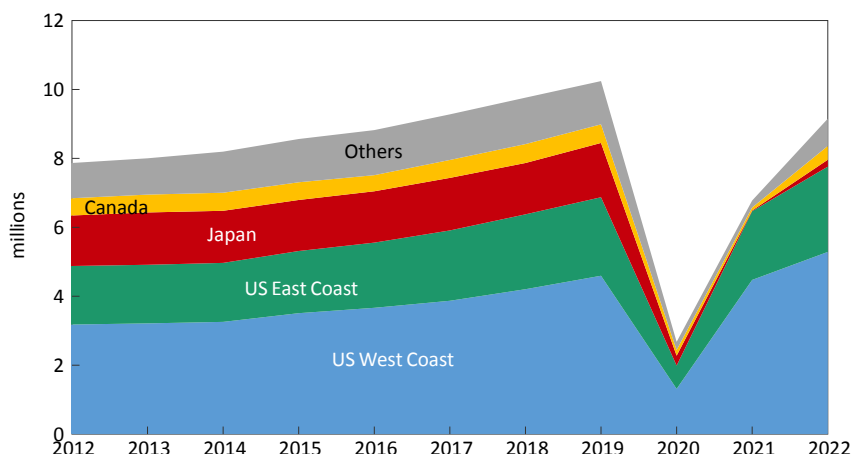
Dependence on tourism

Hawai'i is a collection of 137 (mostly uninhabited) volcanic islands in the middle of the Pacific Ocean, spanning a distance of 2,400km and itself 3,500km or so from the West coast of the USA. It is the only island State in the Union, the only one in the tropics, the only one to have an Asian-majority population (and the only one to have formerly been an independent Kingdom, let alone feature the British Union Jack on its flag).

It is also possibly the only place in the world — following the 1986 introduction of the Aloha Spirit Law — where everyone is constitutionally required to be nice.

The state has a resident population of 1.4m, over two-thirds living on the island of O'ahu, home to the state capital Honolulu. With a total coastline of 1,200km it has a plethora of tropical beaches and at 20° North of the equator is an attractive year-round tourist destination.

HAWAI'I TOURIST ARRIVALS BY AIR

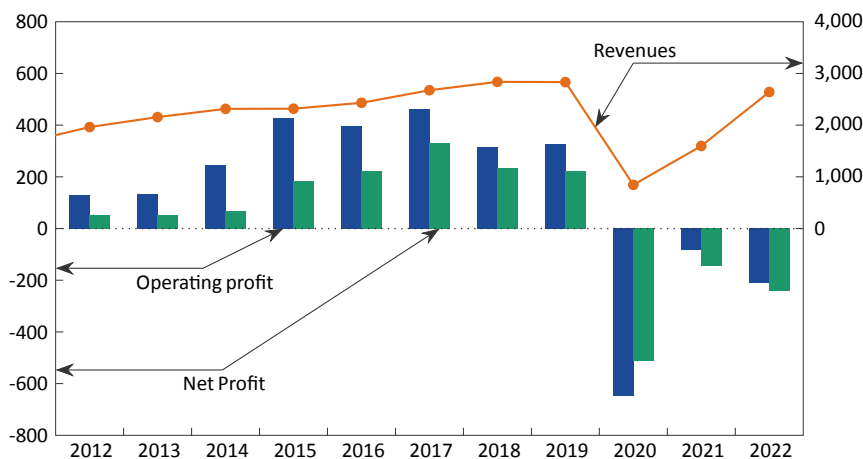


In 2019 there had been 10.2m visitors inbound to the state, 5% up on the previous year, and reflecting a compound average growth rate of 5%pa over the previous decade. Average length of stay appears to be 8-10 days, suggesting that on average the number of visitors staying on the

islands is equivalent to 20% of the resident population. Tourism is a vital part of the economy, accounting (in normal times) for over 20% of GDP.

Nearly two-thirds of visitors are domestic: 45% from the West Coast of continental US and 21% from the East Coast (8,000km away). In 2019

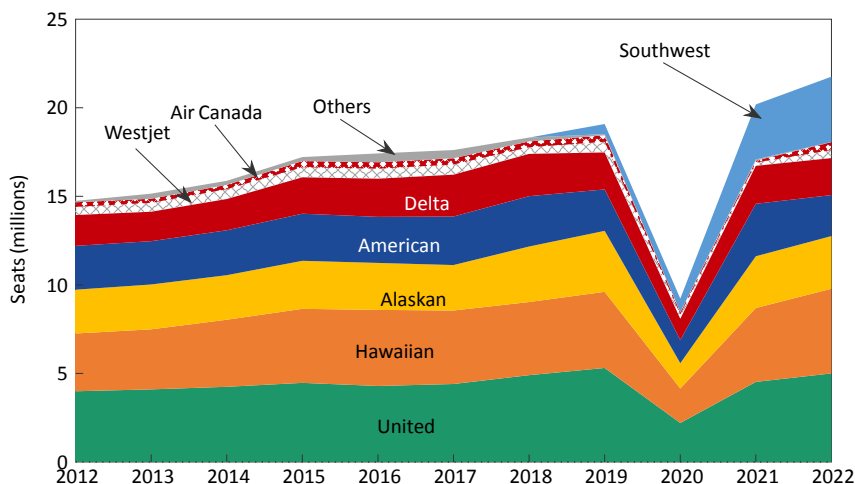
HAWAIIAN HOLDINGS FINANCIAL RESULTS (\$m)



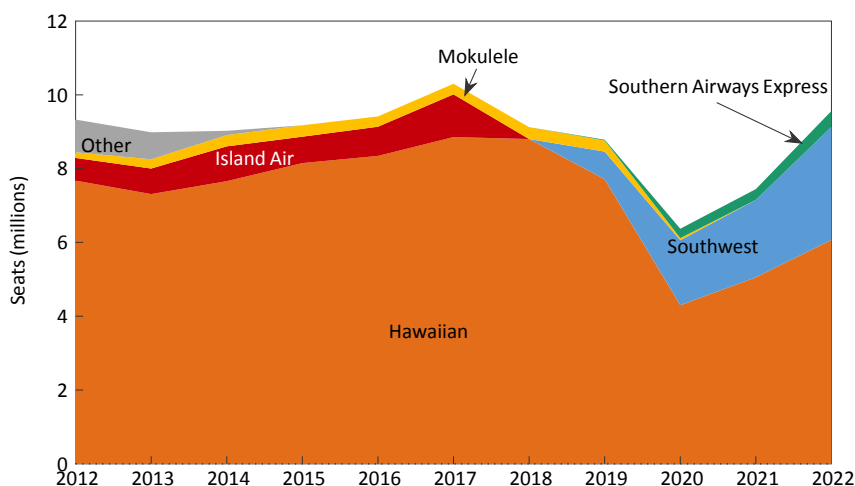
Aviation Strategy

HAWAI'I SEAT CAPACITY TRENDS

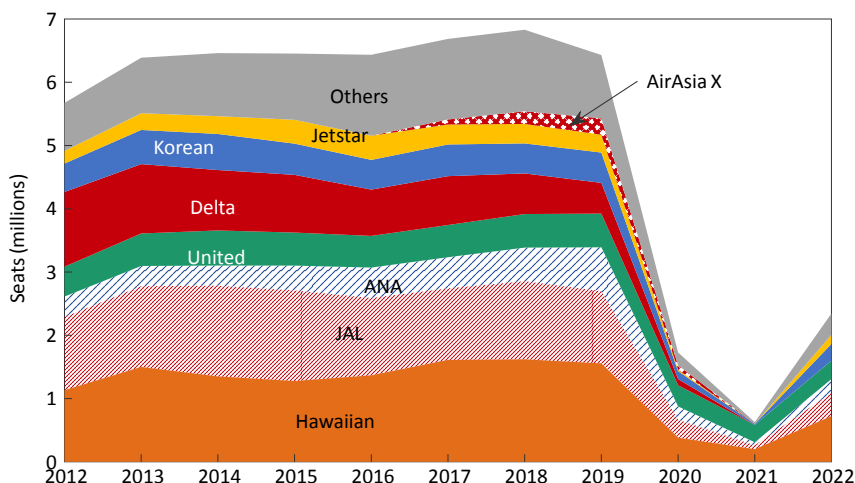
Continental US/Canada – Hawai'i



Neighbor Island Capacity



Asia/South Pacific – Hawai'i



Japan contributed a further 15% and Canada 5%. Visitors from other parts of Asia and Pacific account for relatively small parts of the total, but had portrayed strong growth in the previous decade: visitors from Australasia had grown by an average 10% a year and accounted for 4% of the total: those from Korea by 16%pa to a 2% share.

Honolulu is the main entry point, with pre-pandemic for 62% of air capacity, but there is also a substantial level of service into Kahului on the island of Maui (20% of the total), with Līhu'e on Kaua'i and Kona on the Big Island (Hawai'i) each about 10%.

Hawaiian Airlines has a strong 20% market share of the North American traffic, slightly behind market leader United, but is open to significant competition from the three legacy majors, United, Delta and American which along with Alaskan (with its strong West Coast presence) have the ability to funnel demand through their connecting hubs on the mainland. In 2019, Southwest entered the market (see *Aviation Strategy* Jan/Feb 2020) — introducing 14 daily departures to the islands from four points in California: Oakland, San Jose, Sacramento and San Diego.

Southwest also entered the intra-island market. Hawaiian had a commanding position in what it refers to as the "Neighbor Island" routes, with a near monopoly following the collapse of Hawaiian Island Air in 2017. Air travel is essential to get around the archipelago and the market is characterised by high frequency very short haul routes — the densest route, with over 30 flights a day, is between Honolulu and Kahului a distance of 160km; the longest between Kona and Līhu'e, a mere 420km.

Aviation Strategy

Pandemic slump and swift recovery

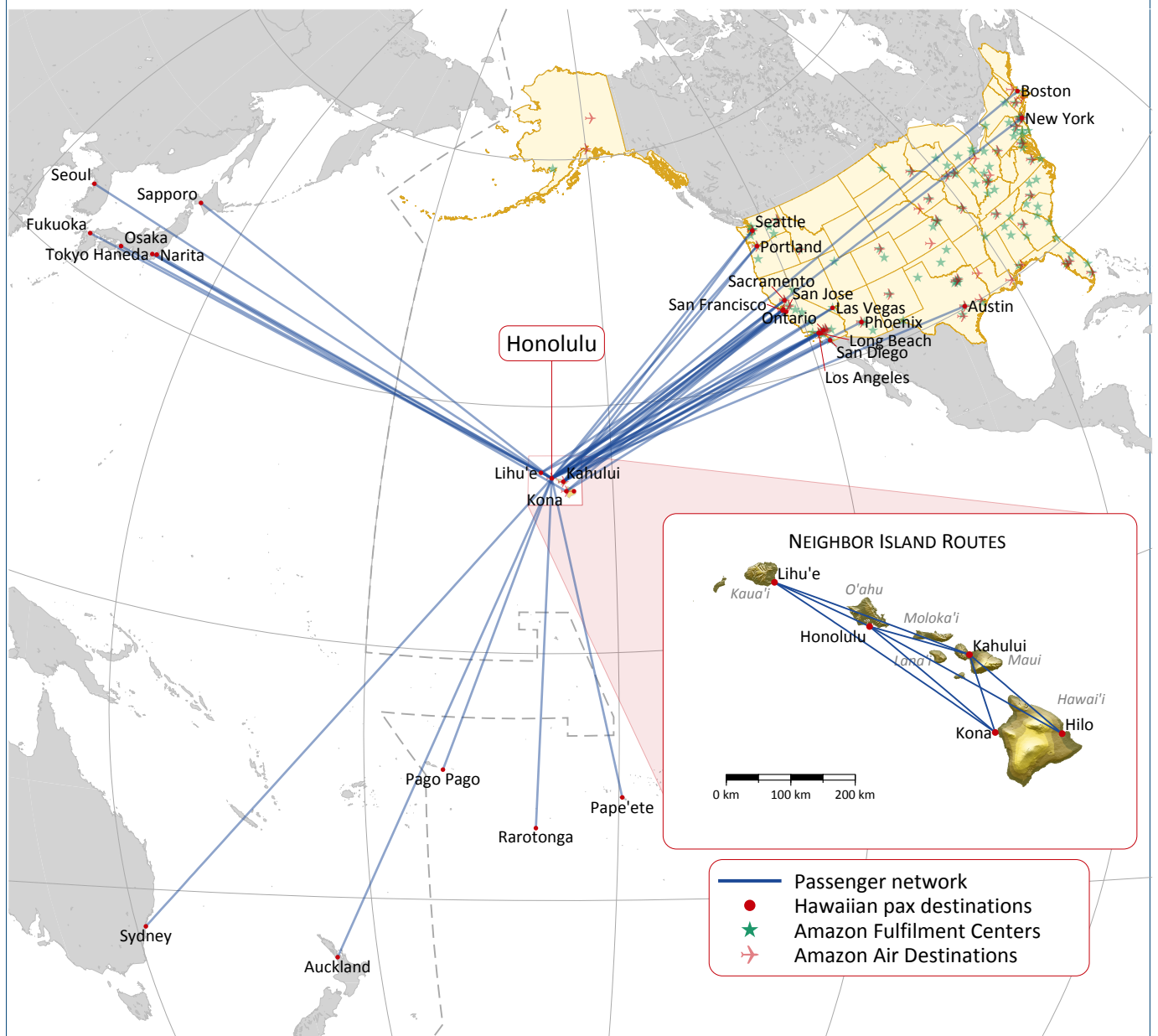
From mid-March 2020 the islands were closed and remained so for the rest of that year. In April the Hawai'i Visitors and Convention Bureau (HVCB) even requested the media to refrain from "publishing any stories about Hawai'i that might

encourage people to travel to the islands". The total number of inbound visitors to Hawaii in 2020 fell by 74% year-on-year to 2.7m.

But in 2021 there was a strong rebound in air capacity from continental USA as airlines there chased a recovery trend in leisure traffic (for want of anywhere else to put long range aircraft). Southwest ex-

tended its aggressive expansion into the islands (over the last two years adding services from Los Angeles, Long Beach, Phoenix and Las Vegas) and building a 30% share of seats offered on Near Neighbor routes. In 2021 North American seat capacity to Hawaii rebounded to a level 10% higher than it had been in 2019. This trend continued into 2022 resulting

HAWAIIAN AIRLINES ROUTE NETWORK



HAWAIIAN: FINANCIAL DATA

\$m	2017	2018	2019	2020	2021	2022	@end December	2019	2022
Revenue	2,675	2,837	2,832	845	1,597	2,641	Property and equipment	2,317	1,874
Net income	331	233	224	(511)	(145)	(240)	Right of use assets	633	459
							Other LT assets	303	128
Operating cash flow	331	509	485	(311)	251	(58)	Current assets	875	1,678
Net capex	(308)	(353)	(394)	9	(39)	(35)	of which cash etc	619	1,394
Inc in debt	(62)	15	117	518	615	(188)	Current liabilities	(1,075)	(1,120)
Equity raised				41			Debt and leases	(1,204)	(2,007)
Dividends and buy-backs	(114)	(130)	(93)	(12)			Other liabilities	(766)	(679)
Net increase in cash	(152)	40	116	245	828	(282)	Shareholders' equity	1,082	333

in seat capacity 15% higher than pre-Covid levels — roughly where it would have been expected to have been had the pandemic not taken place.

Traffic continued to be impacted by the waves of Covid-19 variants, and visitors from continental USA in 2021 were still some 6% below 2019 levels. But in 2022 domestic visitor arrivals exceeded 7.7m, 13% higher than in 2019.

International recovery has been slower: Asia kept its borders tightly closed, and Japan in particular did not reopen for foreign travel until November 2022. It did not help that the US Dollar strengthened by 20% on a trade weighted basis in the three years of the pandemic. International visitors to Hawaii in 2021 were 90% down on 2019 levels (those from

Japan down by 99%) and still 63% below prepandemic volumes in 2022 (Japan 87%).

Profits recovery elusive

In the five years to 2019 the airline had been strongly profitable with operating margins averaging 14% over the period, and net margins 9%. Fiscal 2020 was wipeout, as it was for many airlines, with net losses of over \$500m on revenues 70% down (see chart on page 16). But the carrier did well to limit losses in the second year of the pandemic to \$140m with revenues only 45% lower than “normal”. Over the two years of the crisis the group raised over \$40m in equity; slashed capital spending and sold assets; took on \$1.2bn in debt; and rescheduled deliveries of the 12 787 aircraft is has on order (the first is

now due to be delivered towards the end of 2023, to commence service in 2024).

But its fourth quarter and full year results for 2022 disappointed observers. There was a strong performance on North American routes where revenues proved to be 24% higher for the year than they had been in 2019. But international revenues, still waiting for reopening of borders, remained 55% below prepandemic levels (accounting for 12% of passenger revenues down from 26% in more normal times), and revenues on the inter-island “Near Neighbor” routes, experiencing intense competition from Southwest, were 25% below 2019 levels.

In addition, in October 2022 Honolulu airport started work on resurfacing and re-engineering runways which has caused significant delays and disruption particularly to the high frequency inter-island services. The damage to Hawaiian’s operational performance toppled the airline from the accolade of having the best on-time performance in the US industry — a position it had held for 18 years.

For 2022 as a whole the Group suffered another net loss of \$240m.

HAWAIIAN AIRLINES FLEET

	In service	Δ v2019	Avg Age	Orders	Options
717	19	-1	21.2		
A321	18	+1	4.3		9
A330	24		9.8		
787-9				12	8
ATR42/72		-7			
Total	61	-7	11.7	12	17

These challenges have continued into the current year. For the first quarter the company reported robust leisure demand from North America and a restoration of its international network giving “solid demand” of bookings from Australia, New Zealand and South Korea. It noted that sales in Japan were disappointing and “far from recovery”, but mentioned that international traffic “was buoyed by strong US point-of-sale activity”. (This may be surprising: there are no doubt many Hawaiian residents eager to visit Japan, but the state’s 1.4m population is not that large a market; while travellers from continental US connecting on to Hawaiian’s international network would be taking very circuitous routes.)

Works on the runways at Honolulu appear to have overrun and continue to provide operational challenges. In addition, the company is constrained by supply chain issues for P&W engine delays: five of its 18 A321s are currently grounded waiting spares, and the airline is operating the larger A330s suboptimally to fill in. The Near Neighbor routes continue to see yield pressure from Southwest’s aggressive incursion, but management takes comfort

in that Hawaiian is “resoundingly outperforming” its competitor.

First quarter revenues totalled \$612m, 28% up on the prior year period, following a 15% increase in capacity and an eight point improvement in load factors (the corresponding period last year had a negative impact from the Omicron variant). But the airline suffered an adjusted net loss of \$112m, an \$18m improvement on the same quarter in 2022.

Amazon Transformation

In October last year, Hawaiian signed an extensive agreement with Amazon.com to provide air cargo services for the e-commerce giant. Amazon will lease a fleet of 10 converted A330-300 freighters and pay Hawaiian to operate them on its behalf between its “completion centers” within the US. The deal is for an initial eight year period (extendable to 15 years), and Amazon has the option to add to the fleet.

The first A330 will arrive in Q4 2023, and it is expected that all ten aircraft will be operational in 2024.

Hawaiian will be paid a fixed monthly fee per aircraft, a per-flight-hour fee and a fee for each flight cycle operated. Amazon will also

reimburse Hawaiian for operating expenses, including fuel, certain maintenance and insurance premia. To support the new cargo operation, Hawaiian said it will establish a pilot base on the continental US, grow existing maintenance bases and expand the hiring of pilots and other personnel.

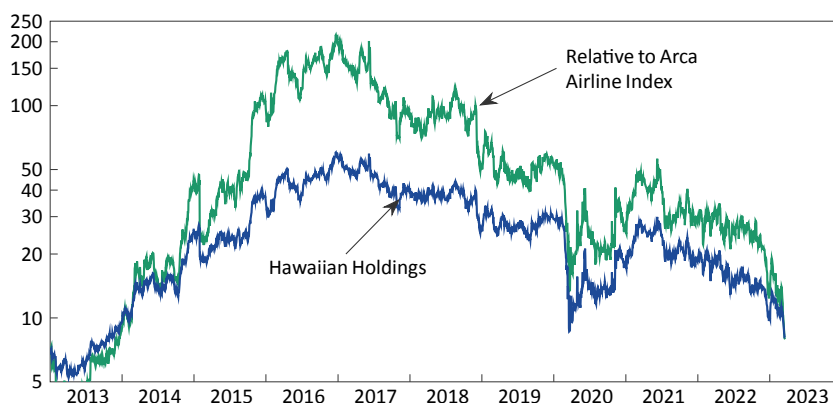
The A330 will be the largest aircraft in Amazon’s fleet. The retailer started its own virtual cargo airline in 2015 partly perhaps to reduce dependency on FedEx and UPS. It has grown it rapidly and currently has 90 aircraft in service — with a mixture of 767F, 737F and ATRs. The aircraft are operated on its behalf by a collection of different airlines round the world (including Atlas Air, Air Transport Intl and Sun Country Airlines in the US, Cargojet in Canada, ASL Airlines Ireland in Europe and Quikjet in India) and only carry Amazon parcels.

In many of the partner airlines, Amazon has taken an equity stake, or has options or warrants to do so. So with Hawaiian: it has issued warrants allowing Amazon to acquire a 15% equity stake over the next nine years. Some of the warrants vested on signing. Future vesting will depend on Amazon spending up to \$1.8bn for Hawaiian’s air cargo services.

“This relationship provides a catalyst to grow our business and the unique opportunity to diversify our revenue sources while capitalizing on our established strengths,” said Hawaiian CEO Peter Ingram. “In the 17 years I’ve been at Hawaiian this is the most exciting and transformational move we’ve made.”

Going by the share price performance, the markets don’t quite yet believe him. In time they will.

HAWAIIAN SHARE PRICE PERFORMANCE



The Regulation of Air Transport. From Protectionism to Liberalisation, and Back Again?

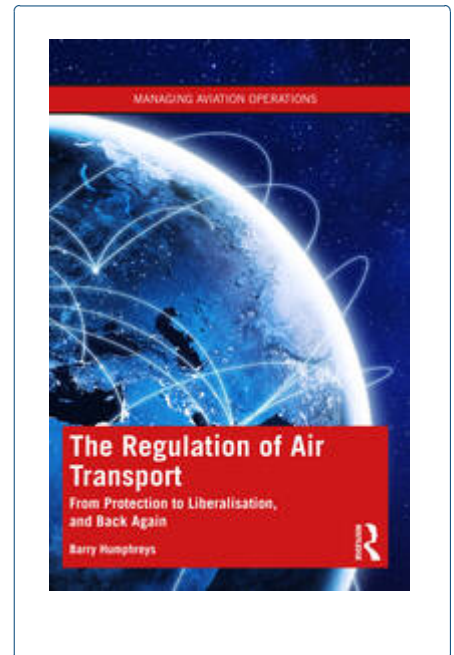
IT IS SOMETIMES difficult to remember, even for us 'oldies', just how restrictive air transport used to be. The economic regulatory environment which emerged from the Chicago Conference of 1944, and survived for many years thereafter, was characterised by strict government control over tariffs, routes and capacity, State ownership of most major airlines and open collusion on fares and schedules (not only permitted, but usually actually required by governments). The predictable result was an inefficient, loss-making industry focused on the interests of producers rather than consumers.

I recall in the late 1970s, over 30 years after Chicago and despite the impact of US domestic deregulation, attending several meetings of the European Civil Aviation Conference, along with representatives of other countries and their airline ministers, to discuss the filing of air tariffs. The norm at the time was for the flag carrier of one State to file proposed fares with its national authority on behalf of both itself and its opposite foreign partner on a route. The foreign airline would reciprocate with its authorities. In other words, for the London — Paris route, for example, BEA/British Airways would file fares for itself and for Air France with the UK Civil Aviation Authority and Air France would do likewise with the French Government. The proposal was that airlines should be allowed to file their own fares in both jurisdictions. Just file them, put them in the post; there was no expectation

that the fares filed by a foreign carrier would actually be approved unless the national airline agreed. After several meetings it was concluded that this was far too radical a reform to be contemplated.

Much of this has changed over the years, of course, with deregulation/liberalisation and open skies bilateral air services agreements. My recently published book ('The Regulation of Air Transport. From Protectionism to Liberalisation, and Back Again.' Routledge, 2023) traces the development of the economic regulation of the aviation industry from the protectionism of the Chicago era to the more liberal, competitive environment we see today, as well as addressing many of the problems the industry will face going forward. Airports, air transport management, the environment and technological developments are all discussed, but it is the evolution of the airline sector, the core of the whole industry, which is most controversial.

Today we are used to the low-cost airline model, highly competitive with prices changing almost constantly and carriers willing to enter and leave markets with hardly a second thought. The fact that such a model would have been impossible under the old tightly regulated regime is a clear indication of the progress which has been made. How could Ryanair or easyJet operate if their fares had to be submitted for approval by two governments months in advance? How could they test new markets when governments



restricted access to protect their State-owned legacy carriers? It is just unthinkable.

Yet despite the progress towards a more liberal regulatory environment, which has certainly brought benefits for all stakeholders, not least the travelling public, two policies of the old protectionist era remain, and act as serious inhibitors for the health of airlines. The first is the fact that unlike the rest of the aviation industry, airlines remain loss makers overall. Even during the period immediately before the outbreak of the Covid epidemic, certainly one of the more prosperous times for the industry, according to IATA only 30 airlines in the world earned their cost of capital.

Companies that do not earn their cost of capital on a regular basis are not sustainable in the longer term, at least not without external support.

And that, of course, is precisely what has happened with airlines, decade after decade. Airlines have been repeatedly saved by government bail-outs and/or Chapter 11-type bankruptcies. This is not a viable, sustainable industry in its present form. Airlines are reputed to have destroyed more capital than they have created since the first Wright Brothers flight. Little wonder that Warren Buffett once remarked that Karl Marx couldn't have done as much damage to capitalists as Orville did.

The main reasons for such a poor financial performance is to be found in the second hang-over from the Chicago era. The failure of the Chicago negotiators to agree to a multilateral economic regulatory regime, combined with the acceptance of complete State sovereignty of the skies above their territories, led directly to bilaterally-agreed Air Services Agreements. Core to these agreements, designed to prevent third country free riders from taking advantage of what had been negotiated, were the rules governing who could own and control an airline. It is these rules, mostly still in existence today, which have determined the structure of the airline industry and its persistent lack of profitability.

It was perhaps understandable that initially airlines should be very much nation based. They were, after all, regarded as being of strategic importance and were reliant on government largesse, financial as well as regulatory. Yet to this day carriers remain overwhelmingly nation based. This most international of industries does not contain a single truly global company such as is found in most other major sectors. Attempts to achieve many of the benefits of cross-border mergers by means of global alliances

have been of only limited success. Even within the EU internal aviation market, with its concept of a Community Carrier, the full benefits of international consolidation have been difficult to achieve because of complicated governance procedures put in place in attempts to overcome the ownership and control rules.

If proof was needed of what could be achieved by reforming these archaic regulations, one only has to look to the US market. For many years US carriers were the financial basket cases of international aviation, losing more money as a group than airlines in any other region. By the time of the emergence of the Covid epidemic, however, they had been transformed into the most profitable carriers. Why? Because they were able to consolidate among themselves, unaffected by cross-border ownership and control restrictions, so that today just four airlines account for some 80% of the large US market. There is no reason to believe that similar progress could not be made internationally if the ownership and control rules could be reformed.

Open skies agreements represented a major step towards 'normalising' international air transport, but they have failed to address two issues: cabotage services and, especially, airline ownership and control rules. The problem today is that further progress towards liberalising the industry has come to a halt. Ownership and control reform really requires multilateral agreement, which inevitably is extremely difficult to achieve; bilateralism simply doesn't work in this context. The great hope was the EU/US negotiations to create a trans-Atlantic Open Aviation Area, but they failed because of US protectionist lobbying. Despite some chipping away at the margins,

in South America for example, there is nothing else on the horizon which offers hope of fundamental reform.

This is a pity given the benefits which reform would produce. However, an additional problem is that not only has progress come to an end, there is a real risk that we could go backwards. Protectionism is on the march again, typified by the campaigns in Europe and North America against expansion by the Gulf carriers, including all the old protectionist arguments from earlier decades. The immediate threat in this case may have passed, but it is by no means dead. Similarly, aviation cannot isolate itself from the anti-globalisation arguments which are increasingly dominating international trade debates.

Other negative factors include the impact of Brexit and the higher costs which inevitably will follow future technological innovations and environmental measures. Brexit is relevant because the European Union has been a major proponent of further liberalisation in its negotiations with third countries. The fact that the EU Commission was able to maintain such a policy in the face of opposition from more conservative Member States, especially France and Germany, owes much to the support it received from the UK. That support is no longer present in the internal EU debates which determine negotiating mandates.

Technology advances have been one of the key characteristics of the aviation industry since the Wright Brothers, driving down unit costs (and therefore fares) and helping to counter airline inefficiency prior to deregulation/liberalisation/open skies. It is difficult today to identify new technical break-throughs, at least ones that will bring efficiency

Aviation Strategy

improvements to match the introduction of the jet engine and wide-body and twin-engined long-haul aircraft. The principal focus is quite rightly on reducing aviation's impact on the environment, but this will almost certainly result in higher not lower costs.

The environmental movement, with its anti-aviation agenda, is clearly here to stay. While the financial crisis of 2008/09 led to the public becoming less concerned about the environment and focussing more on issues related to the economy and job creation, something which lasted several years, the post-Covid period has seen no such reaction. The environment remains a key

factor in the political debate in many countries and the aviation industry will have to accommodate that. The jury is out, to say the least, on whether it will succeed in becoming carbon free, but there can be little doubt that whatever happens, costs will increase. The technology, the fuel and the probably inevitable environmental taxes will all lead to higher costs and therefore higher fares, and therefore to demand lower than it would otherwise have been. In the absence of discovering that basic economics has been wrong all along, there does not seem to be any other outcome.

The history of the aviation industry over the past century or so

has been remarkable. Particularly since the end of the Second World War, it has expanded substantially and by reducing fares has essentially democratised international air travel. The question arises, however, whether such progress is coming to an end. Further liberalisation may be a challenge too far, and combined with growing protectionism and higher costs and fares mean that the future may be far more challenging. Hardly an optimistic view of the future, but possible an accurate one.

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Dr Barry Humphreys was for many years a senior manager with the UK Civil Aviation Authority and then a Director of Virgin Atlantic Airways.

On his retirement from Virgin, he chaired the trade body for UK airlines and was a Non-Executive Director of NATS, the UK air traffic management company. He continues to write and lecture on aviation issues and carry out occasional consultancy projects, and is currently Chairman of a UK start-up airline.

In 2016, he was made a Commander of the Order of the British Empire (CBE) for services to aviation and charity.

His book, 'The Regulation of Air Transport. From Protectionism to Liberalisation and Back Again', has recently been published by Routledge. Available from www.routledge.com/9781138327986 at a 10% discount using voucher code AFL01 at check-out.

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