

Brexit: the Aviation Deal

FINALLY agreed on Christmas Eve, the new trade agreement between the UK and the EU puts in place the post-divorce visitation rights for air travel between the two. The UK officially left the European Union on the 31st January 2020 and had a transition period to negotiate the basis of its future relationship which ended on the 31st December. Had there been no agreement, no one could be sure of the legal basis for international air transport between the two.

The aviation section covers a mere 25 of the 1,256 pages in the document — which shows its perceived importance. It encompasses three main points.

For **traffic rights**, the first four freedoms of the air are reciprocally agreed as a matter of course. There will be no restriction of fares or tariffs, and no requirement to file for approvals. There is unlimited access for UK airlines to serve any point in EU member states carrying fare paying passengers from territories of the UK, and reciprocal rights for EU airlines to points in the UK. The agreement allows for co-terminalisation (serving more than one point on the same service — as if that could possibly make commercial sense in Europe) and, subject to bilateral negotiation with individual states, the possibility for fifth freedom cargo-only flights. Cabotage (the right for an EU airline to carry traffic between two points

within the UK or a UK airline to carry passengers between two points in the EU) is excluded.

In effect, the impact on the intra-European operations of the network carriers or the LCCs, which have established both UK and European country AOCs, will be minimal.

The agreement provides clarification on what constitutes a UK and an EU airline, using the traditional concepts of **“ownership and control”**.

An EU airline is defined as an air carrier that must be owned directly, or through majority ownership by an EU member state, a member state of the European Economic Area (EEA), Switzerland, their nationals or any combination thereof and has its principal place of business in the Union and has a valid air operator certificate issued by the competent authority of the Union or Member State.

A UK airline is one that has its principal place of business in the UK,

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holds a UK air operator certificate, and either:

➔ (a) be owned directly, or through majority ownership and effectively controlled by the UK, its nationals or both; or

➔ (b) be owned directly, or through majority ownership by an EU member state, a member state of the EEA, Switzerland, their nationals or any combination thereof whether alone or together with the UK and/or nationals of the UK *and* on 31st De-

TO ALL OUR READERS

A HAPPY AND PROSPEROUS 2021

Thanks for sticking with us through the difficulties of 2020

Aviation Strategy

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December 2020 held a valid operating licence in accordance with Union Law.

This element of the agreement is of concern. The whole question of substantial ownership and control as a determinant of where an airline belongs arose from the 1945 Chicago convention, from which ICAO was created, and has regularly been used in the wording of bilateral air service agreements. It was a pragmatic solution at the time: most airlines outside the USA were nationalised, and Europe was still at war. But through the liberalisation and globalisation of the industry since the 1978 Deregulation Act in the US, it has become an increasingly outdated concept.

Since the early 2000s ICAO's preferred ASA model has defined a country's airlines as being those air carriers with their principal place of business in that country, without reference to ownership. So far only one country, Columbia, has adopted it, and everyone else insists on a majority level of national ownership of any airline — the USA requiring 75% US ownership of voting rights and 50% of total capital, while the EU requires a simple majority of ordinary shares.

The UK included a version of the more liberal approach in its recent agreement with the US — primarily because flag-carrier British Airways on the face of it is owned by a Spanish registered company (IAG) and Virgin Atlantic is ostensibly controlled (although only 49%-owned) by Delta.

Regulations restricting ownership by nationality ignore the global nature of the capital markets. It is conceivable that a teacher in Berlin could have some of her savings invested in a unit trust run by a US investment fund that is managed and quoted in London and has a shareholding as part of its portfolio in Irish registered Ryanair. And the financial

markets in London and the US are more oriented to equity investments and more willing to risk capital in the airline industry.

Europe's financially most successful airlines — Ryanair, IAG, easyJet (with a major Cypriot Greek shareholder domiciled in Monaco) and Wizz Air (effectively owned and controlled by US-based Indigo Partners) — have a large shareholding base officially registered in the UK, all of which became non-qualifying as part of EU ownership limits on 1st January. Each rushed out measures to disenfranchise them — this means that UK shareholders in these airlines can retain their shares but have lost all their voting rights. New investment by UK nationals may be restricted.

This is an exercise in futility. However, the third major point the agreement makes provides a glimmer of hope. Recognising "the potential benefits" it says that the UK and EU agree to talk about "examining options for the **reciprocal liberalisation** of ownership and control" within a year (or so) as a result of which they may decide to amend the agreement. This may mean a reversion to the negotiating tables of the 1980s with the aim of restoring the European liberal aviation regime embodied in the "Third Package", now undermined by Brexit.



If you are locked down and feeling a bit gloomy, nothing will raise your spirits more than a read of the aviation section of the Brexit agreement:

[CLICK HERE](#)



Copa: The Pandemic in Panama

COPA AIRLINES has been the most successful Latin American airline, as measured by profitability, growth, operational efficiency, brand perception, etc. It is also arguable that it has been the most successful pure hub-and-spoke, international-only airline in the world, though much smaller than Emirates, Qatar or SIA.

First of all, some highlights of Copa's performance before Covid 19 shut the airline down in 2020.

- Copa has been consistently profitable, with an average annual 10.2% net profit margin during the period 2011-19 (the only loss recorded was in 2015 when it incurred a \$432m currency translation charge on funds held in Venezuela as a consequence of the extreme devaluation of the Bolívar).

- Passenger volumes have grown at an annual average of 7.2% during 2011-19 reaching 15.4m in 2019, a year that was negatively impacted by the grounding of its 737 MAX fleet.

- Operating out of its Tocumen hub to 80 destinations, with a narrow-body fleet averaging 104 units, Copa achieved 11.3 hours average daily utilisation and 3.7 departures per day per aircraft (average stage length of 1,288nm), while maintaining 99.8% schedule reliability performance and a 91.4% ontime performance in 2019.

- Its operating cost per ASM was 9.4¢/ASM, roughly the same as Southwest, adjusted for stage length, and below that of JetBlue.

- Its passenger unit revenue at 10.4¢/ASM was about 10% above those of Southwest and JetBlue,

again adjusted for stage length, and 40% above its main Latin American rivals, LATAM and Avianca.

- It markets itself as a full-service carrier and regularly picks up SkyTrax and other trophies for product and ontime performance.

- Without any form of state funding Copa has maintained a strong balance sheet with the type of liquidity needed for reliance in the Covid crisis — at the end of 2019 a net debt to equity ratio of 0.8/1 and \$850m in cash, nearly 32% of annual revenues.

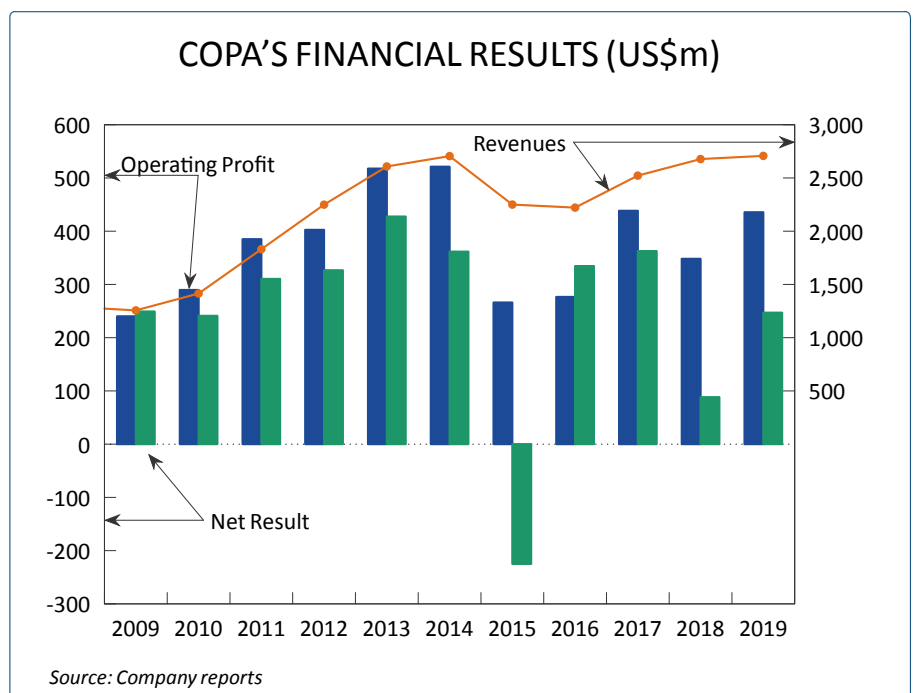
- The management team is long-established and highly regarded, led by CEO Pedro Heilbron. The Heilbron family and other prominent Panamanian families own 28% of the airline's stock through an investment vehicle called CAISA which owns all the voting shares, and hence this group controls all major investment and owner-

ship strategies; the remaining 72% of the share capital is listed on the NYSE.

That was 2019 and before. In March 2020 the Panamanian government closed down air travel to/from the country, reopening partially in mid-August, then in October removing restrictions on the entry of non-Panamanian citizens at Tocumen. In effect, Copa was closed down completely for 135 days, but by November had managed to resume service to 38 destinations, with traffic running at 20% of 2019 levels.

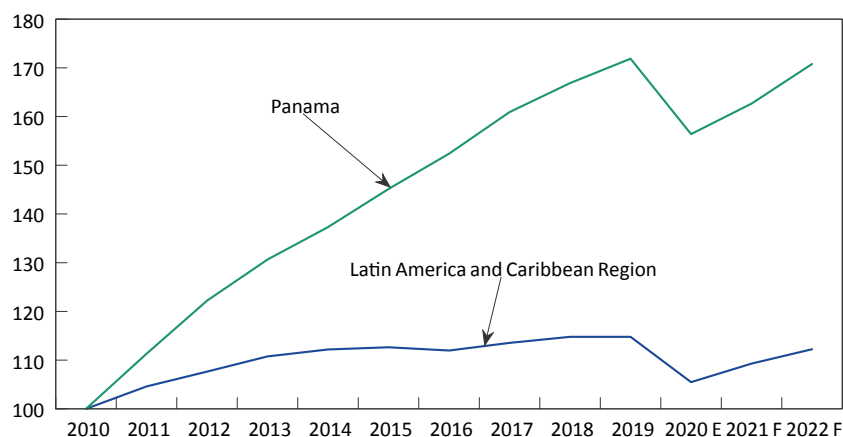
Net losses for the second and third quarters of 2020 have been reported as \$504m. No official forecast is yet available for the full year, but the result will be dire.

However, its balance sheet afforded Copa the necessary protection, and it has not sought nor received state aid from the Panamanian



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CONTRASTING REAL GDP GROWTH: PANAMA AND LATIN AMERICA TOTAL



Source: IMF Economic Outlook, Oct 2020

Copa's RPMs were down 75% on the same month in 2019, and the load factor was down 7.3 points to 78.3%.

Pre-Covid about one third of Copa's passengers were Panama O&D travellers and two thirds connecting passengers. Panama is a small but dynamic country whose GDP has hugely outperformed the rest of the Latin American — see graph left — its economy is largely based on the Panama Canal. Containership and tanker transits through the canal have held up well during the Covid crisis, though cruiseship visits have more or less disappeared. Eco-tourism has potential. In September the government announced a five-year tourism plan with planned investment of over \$300m, partly financed by the Inter-American Development Bank (IDB).

However, for Copa the core business is connecting thin O&D markets through its Hub of the Americas strategy (there is one minor domestic route operated by Copa from Panama City to David). In 2019 Copa estimated that 81% of the O&D markets had less than 20 passengers per day each way. Note the contrast between Copa's network that links multiple secondary points between South America, North America and the Caribbean and JetBlue's network map (see page 11), where traffic flows to/from the Caribbean and South America are dominated by the New York market.

Copa's contention is that most Latin American markets cannot sustain point-to-point service in normal times let alone in a post-Covid market. Copa is best positioned to capture returning traffic, and by funneling the various flows over its hub it will be able to smooth out variations in traffic recovery on different O&D markets. This will be a test of the re-

government. In April it shored up its liquidity through a \$350m convertible debt offering, with an interest rate of at 4.5% pa for five years; this debt was priced at about half that achieved by American Airlines for its bond issue at the same time.

As at September 2020 Copa's net debt to equity ratio had risen to a still conservative 1.04/1 and cash has risen to \$870m. In total Copa's man-

agement estimates total available liquidity, including credit facilities, to be \$1.3bn, more than comfortable with cashburn during the third quarter running at \$36m a month, down from \$76m in the first months of the pandemic.

The aim is to reduce cashburn further to \$25m a month by the end of the year, but that clearly depends on how demand recovers. In November

COPA: BALANCE SHEET (US\$bn)

	September 2020	December 2019
Fleet and other fixed assets	2.43	2.82
Held for Sale	0.14	0.12
Investments	0.14	0.13
Intangibles	0.10	0.11
Receivables	0.03	0.13
Cash etc	0.87	0.85
Others	0.18	0.20
TOTAL ASSETS	3.89	4.36
Long term debt	1.61	1.38
Short term liabilities	0.80	1.04
TOTAL LIABILITIES	2.41	2.42
SHAREHOLDERS' EQUITY	1.48	1.94

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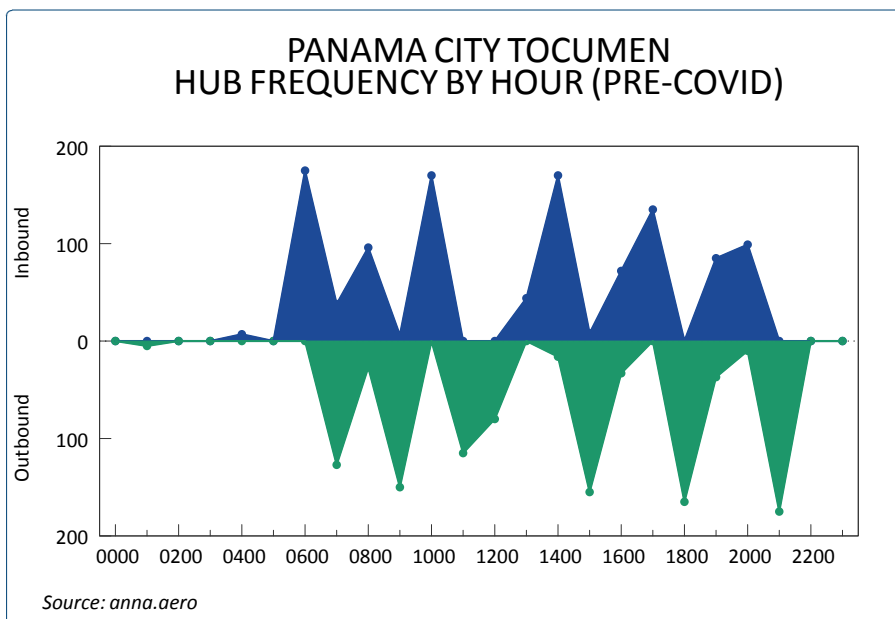
COPA: (PRE-COVID) ROUTE MAP



silience of its operating model.

Pre-Covid Copa had built up to a six-wave pattern at Tocumen. Even with a fairly robust traffic recovery in the second half of 2021 Copa will presumably have to redesign that wave pattern, perhaps reverting to its pre-2018 four-wave operation. On its dense routes — like Bogotá, Havana, Lima and Miami, which had six-plus daily flights in 2019 — Copa can operate efficiently at lower frequencies, but the lower density, single daily frequency routes may cause logistical problems: the prospective traffic volumes may not justify resuming operations but not restarting these sectors impacts connecting routes and damages the overall economics of the hub system. Lower frequencies also tend to lengthen connecting times at the hub which could undermine competitiveness on some routes. Rebuilding a connecting network is always going to be more complicated than resuming a point-to-point operation.

PANAMA CITY TOCUMEN HUB FREQUENCY BY HOUR (PRE-COVID)



Source: *anna.aero*

More generally, Copa remains exposed to economic and political conditions in its main markets; after the US its most important country markets are Columbia, Brazil, Mexico, Ecuador and Argentina. In its October *Economic Outlook* the IMF observed that “the [Latin American] region contains only 8% of the global population, but it represents roughly 20% of Covid-19 infections and 30% of deaths from the virus. On the economic side, the region’s economy is projected to shrink by 8% in 2020, which is nearly double the 4.4% contraction expected worldwide. The economic outlook for 2021 shows the region will be playing catch up with the growth of 3.6% expected compared to 5.2% for the rest of the world”.

Fleet rationalised

Copa entered 2020 expecting to grow its fleet from 104 units to 120 in 2022, but it also had a flexible fleet plan whereby the end-2024 fleet could have totalled a maximum of 150 units or a minimum of 95, flexibility coming from retirement options, lease extensions and “slide rights” on MAX deliveries. In the event. Covid caused a radical revision of that plan — at the end of November the fleet, active and parked, consisted of 70 aircraft, 63 737-800s and seven 737 MAX9s. Management’s best guess is that the end-2021 fleet will be about 85.

To put a positive spin on the situation, the Covid crisis has accelerated Copa’s rationalisation of the fleet. The sale of the entire Emb 190 fleet has been completed, albeit at a significantly lower price, \$79m in total, than was expected last year, and the aircraft will be delivered to the purchaser over the period to June 2021. The 14-unit 737-700 fleet has also been put up for sale and will not be operated by Copa again.

Copa has converted some of its leases on its 737-800s to power-by-the-hour agreements. Such agreements are usually made by airlines in financial distress but in Copa’s case the aircraft were coming to the end of their lease term and the lessor appears to have been more than willing to accept some income from power-by-the hour rentals than having to park unplaceable aircraft.

Following the recertification of the MAX, Copa will be one of the first airlines to restart operations, probably in early January. The MAXes parked in Panama are currently going through maintenance procedures to restore them to operational status while seven units, parked by Boeing at Seattle, are due for delivery over the

COPA: FLEET PROFILE

	In service	Parked	Total	Average age	On Order
737-700†		14	14	18.4	
737-800	51	12	63	8.0	
737MAX8				–	33
737MAX9	3	4	7	1.5	6
737MAX10				–	15
Total	54	30	84	9.2	54

Notes: † held for sale

next year.

The MAX grounding affected Copa badly in 2019 but not having to make progress payments in 2020 year has been a benefit. Negotiations are nearing a conclusion with Boeing on the compensation to be paid, whether in cash payments (no payments have yet been made by Boeing) and/or in delivery price reductions. Copa placed its 61-unit firm order in 2013 and, as one of the most important airline clients for the MAX, would have received a major discount, probably making the unit price close to the \$54m believed to have been paid by Southwest, which is about half the list price. How much more Copa is aiming to cut the price to reflect grounding compensation is inevitably highly confidential

Copa’s rationalised fleet will consist of 737-800s with 154-160 seats (plans to densify the full NG fleet to 166 have been put on hold) and MAX 9s configured to 166 or 174 seats. Compared to the mixed Embraer/ 737-700/737-800 fleet, total unit costs per seat will be reduced by 6%, according to Copa.

Costs cut

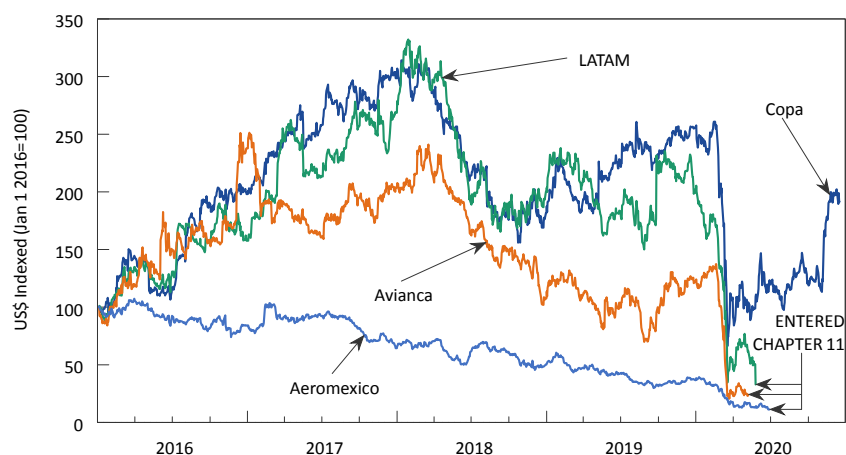
Unit revenues will be under pressure for some time. Pre-Covid Copa had a strong business segment, over half the total volume, which allowed it to

achieve RASM of 10.4¢ in 2019. The average one-way fare was \$169. The traffic profile in 2020 changed to an equal division in passenger numbers between VFR, Leisure and Business, and this is likely to continue through 2021, according to the airline’s management.

Pre-Covid Copa had launched its “sub-6 Project”, a series of initiatives designed to bring its CASM ex-fuel down to under US\$6. It has intensified its efforts and slightly modified the target to include maintaining the 2019 ex-fuel CASM of US\$6.6 while operating at 70-80% of the 2019 level. It is seizing the opportunity presented by the crisis to attack fixed costs, aiming to take out 40% by renegotiating all supplier contracts, airport agreements and lease terms. There have also been extensive lay-offs of staff at the airline — Copa managed to cut its employee costs by 61% in the third quarter of 2020, when there was almost no flying, compared to the same period in 2019.

Construction of Terminal 2 at Tocumen airport is now complete and will fully open in the first quarter of 2021. This is the third phase of a long-term investment made by AITSA, the 100% government owned operating company, which will include a new runway and other infrastructure improvements. Copa, which in normal

LATIN AMERICA: SHARE PRICE PERFORMANCE



times accounted for over 80% of the throughput at Tocumen airport and which had been experiencing congestion problems, will consolidate all its operations in Terminal 2.

In the short term there could be a conflict of interest between the airline and the airport. Copa needs to at least freeze its airport costs while the airport management is under pressure from its bondholders, who have \$1.45bn of Tocumen debt, to ensure compliance with its Debt Service Coverage Ratio (DSCR) covenants, which would imply an increase in rates. In November AITSA obtained an additional \$100m in government-guaranteed credit facilities, which should ease the liquidity concerns during 2021.

Chapter 11 carriers and the new competitive scene

Copa's share price, quoted on the NYSE, has fallen by just 28% since March 2020 and the company is still has a stockmarket valuation of US\$3.3bn. By contrast, shareholders in its three main listed rivals in Latin America — Aeroméxico, Avianca and LATAM — face being wiped out, their shares having been suspended

when they entered into Chapter 11 bankruptcy protection.

The policy response to Covid in Latin America has been very different to North America or Europe; governments generally have refused to support distressed airlines. According to IATA the EBIT margin for Latin American airlines was -94% in the third quarter of 2020 compared to -91% for North America while state aid as a percentage of 2019 revenues was less than 1% for Latin America and more than 25% for North America.

The Chapter 11 bankruptcies of its rivals apparently present opportunities for Copa. But Pedro Heilbron's comments at the results presentations have been low-key, stating that Copa was very happy to have avoided Chapter 11 as the outcome of the process was always unpredictable, but there was the possibility that going through Chapter 11 would enable its rivals to close the cost gap on Copa. In summary, Copa is "careful not to assume the weakness of others".

Painful in the short term, in the longer term Chapter 11 bankruptcy may be a more effective response to the Covid crisis than government bail-outs, which perpetuate funda-

mental weaknesses and load the carrier with debt and political obligations. It depends on whether companies can take advantage of Chapter 11 protection to effect fundamental cost cutting, management change, network/fleet streamlining, etc.

Aeroméxico, Avianca and LATAM have all managed to attract investors, while operating under Chapter 11, and those investors will be expecting radical restructuring and financial returns.

Aeroméxico entered 2020 in a weak state, losing market share to dynamic LCCs like Volaris and VivaAerobus, and just about breaking even at EBIT level. After two months of Covid the airline had burnt through almost all its cash reserves and its net asset value was negative to the tune of -\$1bn. Delta, which owned 49% of the carrier, was unable to further support its Mexican partner. Aeroméxico declared Chapter 11 in June, with CEO Andrés Conesa making some optimistic noises about using the Chapter 11 process to re-invent the airline, cutting its cost base, terminating leases and switching to Power by the Hour contracts, and rationalising its fleet from 122 aircraft at mid-year to around 80 units.

Aeroméxico attracted a Debtor-in-Possession (DIP) investor — the New York-based private equity giant, Apollo Global Management, which has agreed a loan of \$1bn to be delivered in tranches of \$100m providing various turn-around targets are met. DIP financing for companies under Chapter 11 protection has to be approved by the US bankruptcy courts as it confers on the investor first claim on the company's assets if it ends up in Chapter 7.

Columbia's Avianca was also in a poor financial state pre-Covid, reporting a net loss including exceptional

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items of US\$894m on revenues of \$4.6bn for 2019. In May Avianca filed for Chapter 11 protection.

In October Avianca received approval for DIP financing totalling just over US\$2.0 bn. United and other investors committed \$722m and, as a condition of their loans, will have “super-majority” control of the airline. \$1.3bn was raised in DIP loans from institutional investors in an offering coordinated by JP Morgan, the notes bearing interest rates of LIBOR plus 10.5-12 points. According to Anko van der Werff, CEO of Avianca, “... with this DIP financing, Avianca has ample liquidity to support our operations ...”.

Before the crisis United held a majority share, but not majority voting rights, in Avianca, and had been pursuing a tripartite antitrust-immunised alliance with Avianca and Copa. That agreement was not filed with the US DoT before Avianca’s bankruptcy and is now in limbo.

The relationship between Copa and Avianca has been complicated by the success of Wingo, a Bogotá-based

ULCC which Copa converted out of a formerly loss-making full service subsidiary in 2016. Pre-Covid, Wingo was expanding rapidly and appears to have been resilient throughout the Covid crisis, with its fleet expanding from five to seven 737-800s leased from its parent.

LATAM, the continent’s pre-eminent carrier, was apparently in a strong position pre-Covid. Its net result in 2019 was \$887m, and in January 2020 Delta finalised an agreement to buy 20% of the airline’s shares for \$1.9bn and to invest a further \$350m in expanding the joint venture.

However, having recorded a \$2bn net loss in the first quarter of FY 2020 and unable to access state aid from either Chile or Brazil, LATAM filed for Chapter 11 bankruptcy protection in May. While Delta has continued the legal process to obtain an antitrust-immunised codeshare for itself and LATAM, finance for the Brazilian/Chilean carrier has come from other sources. \$900m in DIP finance was raised from the Cueto family,

which controls 21% the airline, and Qatar Airways which has 10%.

Oakland Capital Management, a Los Angeles-based fund that claims to be the world’s biggest investor in distressed companies was the key investor, committing to \$1.3bn. The effective interest rate on Oaktree’s DIP financing might be regarded as distressing — LIBOR plus 11 points plus fees, adding up to an estimated 14.2%pa. This is a major incentive for LATAM to achieve a rapid turn-around and recapitalise.

The post-Covid competitive scene will be intriguing: no significant state-controlled flag carriers; the main full-service network carriers forced to go through Chapter 11 restructurings that might produce powerful new airlines or might force them out of business; the dynamic LCCs in Mexico and Brazil; and Copa Airlines. Its core strategy is convincing: focus intently on rebuilding the Panama hub and use the crisis to strip out costs.

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JetBlue: Creating opportunities from the Covid crisis

THE US airline industry may have consolidated — the top three legacy network carriers of Delta, United and American, along with archetypal LCC Southwest, controlled 80% of industry revenues in 2019 — but there is still room for healthy innovation.

And over the past twenty years JetBlue has provided much of that innovation to have successfully grown to become the 6th largest player in the market just behind Alaska Airlines with 4.1% of industry revenues in 2019 (and 4.6% of passengers).

It entered 2020 as little prepared as anyone else for the crisis of the Covid pandemic. But it had been consistently profitable over the preceding decade, despite an average growth in revenues of nearly 10% a year, and had a relatively healthy balance sheet. Cash and cash equivalents at the end of Dec 2019 stood at \$1.3bn (16% of annual revenues), long term debt (including leases) at \$2.7bn with shareholders' equity of \$4.8bn (see table on page 12).

JetBlue was one of the first to act decisively in February in reaction to the approaching crisis — and was the first to abandon “change fees” in an attempt to bolster flagging demand (subsequently followed by the major network carriers and made “permanent”). As the operating environment worsened it worked hard to preserve cash, reduce fixed and variable costs: consolidating operations in New York, Massachusetts and Los Angeles; parking less efficient aircraft; implemented salary cuts of 20%-50% across the board. It

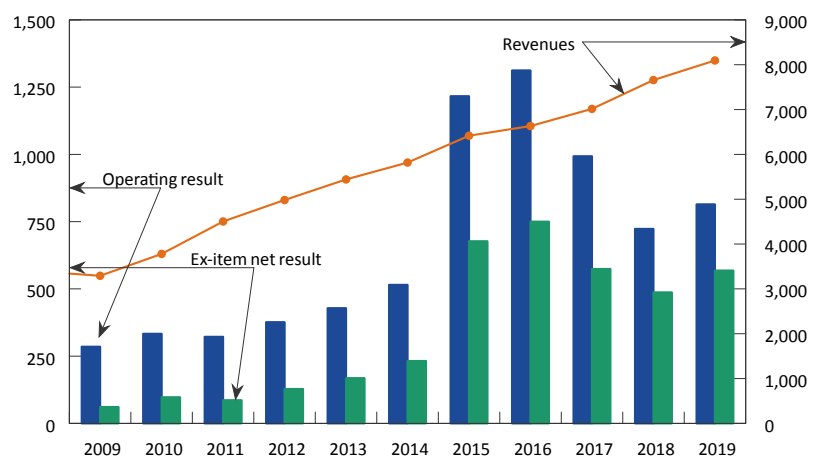
took advantage of the government's payroll support scheme to the tune of \$1bn, drew down \$550m from a revolving credit facility, \$1bn from a term loan in March (fully repaid in the third quarter) and another \$750m in June. In April it raised \$150m from its co-brand credit card partner for the pre-purchase of loyalty points. It completed public placements of ETCs in the amount of another \$1bn secured on 49 A321 aircraft in August and completed another \$445m of sale and leaseback transactions. In the fourth quarter it started drawing on the \$1.14bn loan facility from the Government provided under the CARES Act programme (and in November reached agreement with the Treasury to increase the loan capacity to \$1.95bn).

In the first nine months of the year it registered total losses (on a GAAP basis) of \$1.26bn at the oper-

ating level, and \$981m after tax. But in doing so it had reduced its operating cash burn from over \$18m a day in March to \$7.8m/day in the second quarter and \$6m/day by September. Management estimated that in the fourth quarter daily cash outflow would approach \$4m. At the end of September JetBlue had \$3bn in cash (37% of 2019 revenues), positive net current assets, and still had positive shareholders' equity of \$3.7bn. And then in December it bolstered its balance sheet further successfully raising \$500m in new equity.

JetBlue does not seem to be deviating from its long term plans. At the end of the year it had 267 aircraft in its fleet (see table on the following page), on the last day of the year having taken delivery of its first A220, with outstanding orders for a further 69 of the type and 74 A321neos. In October the company

JETBLUE: FINANCIAL RESULTS (\$m)



Source: Company reports

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JETBLUE FLEET PROFILE

	In service	Parked	Total	Avg Age	On order
A220		1	1	0.0	69
A320	108	22	130	15.3	
A321	60	3	63	4.5	
A321neo	13		13	0.8	74
ERJ-190	40	20	60	12.2	
Total	221	46	267	11.3	144

renegotiated with Airbus the timing of the future deliveries of the A321 aircraft, effectively postponing 15 of the type into 2027 (see graph on the current page), but did not change the timing or the volume of the A220s. The company will be using the using these to replace its 60-strong fleet of ERJs, and pre-Covid had seen the type as an “economic game-changer” (see *Aviation Strategy* Jul/Aug 2018), providing a range of 3,300nm, 40% lower fuel burn and nearly 30% improvement in direct operating costs per seat and significantly lower maintenance costs.

During 2020, and despite the damage to operations caused by the collapse of traffic demand, JetBlue

opened more than 60 new routes — more than it had done in the whole of the preceding five years.

CEO Robin Hayes explained that in normal (pre-Covid) times substantially all of the airline’s growth had come from adding capacity to existing routes, with only a handful of aircraft available to take on the “risk” of experimenting with new routes. But in the pandemic, he said, “everything is risky... Suddenly, we have planes on the ground and business travel demand that’s depressed for a while. It’s a fabulous time to experiment with routes.”

And he sees that the recovery in demand, when it comes, will lead fully into JetBlue’s strengths: short

haul, domestic, point-to-point, and leisure oriented. In the pre-crisis market, over 80% of its traffic was leisure- or VFR-based, and 85-90% point-to-point.

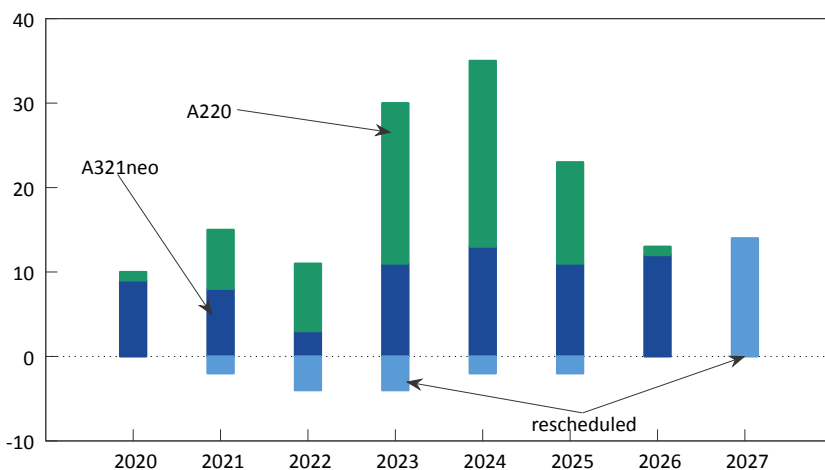
Equally important for its recovery plans is the position it has been able to build in its main “Focus cities”. These have seemingly been chosen either as major metropolises that can be the source of strong originating demand, or those where there is equally strong demand as a leisure destination.

Based in New York (where it dubs itself New York’s Official Home Town Airline) it is the largest carrier at Kennedy airport, but has taken the opportunity of the crisis to expand services from Newark and La Guardia. Overall in 2019 it was the third largest domestic operator out of New York’s three main airports with a near 13% share of passengers (see table on page 12).

Its second most important city is that of Boston where it had a 29% share of passengers, well ahead of the second largest carrier Delta. It was also the largest operator at Fort Lauderdale and San Juan (there is no coincidence that New York has the largest community of State-side Puerto Ricans), and the fourth largest at Orlando.

Its other focus is Los Angeles. Here it had emphasised using Long Beach rather than Los Angeles International (LAX) and had built operations to dominate the small airport (3.5m passengers in 2019 vs 88m at LAX), carrying twice as many passengers as the next largest operator, Southwest. But taking all the Los Angeles airports into account JetBlue had gained a “natural” 4% share of the market. This traffic will now be consolidated at LAX following JetBlue’s alliance with American.

JETBLUE AIRCRAFT DELIVERY SCHEDULE



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American alliance

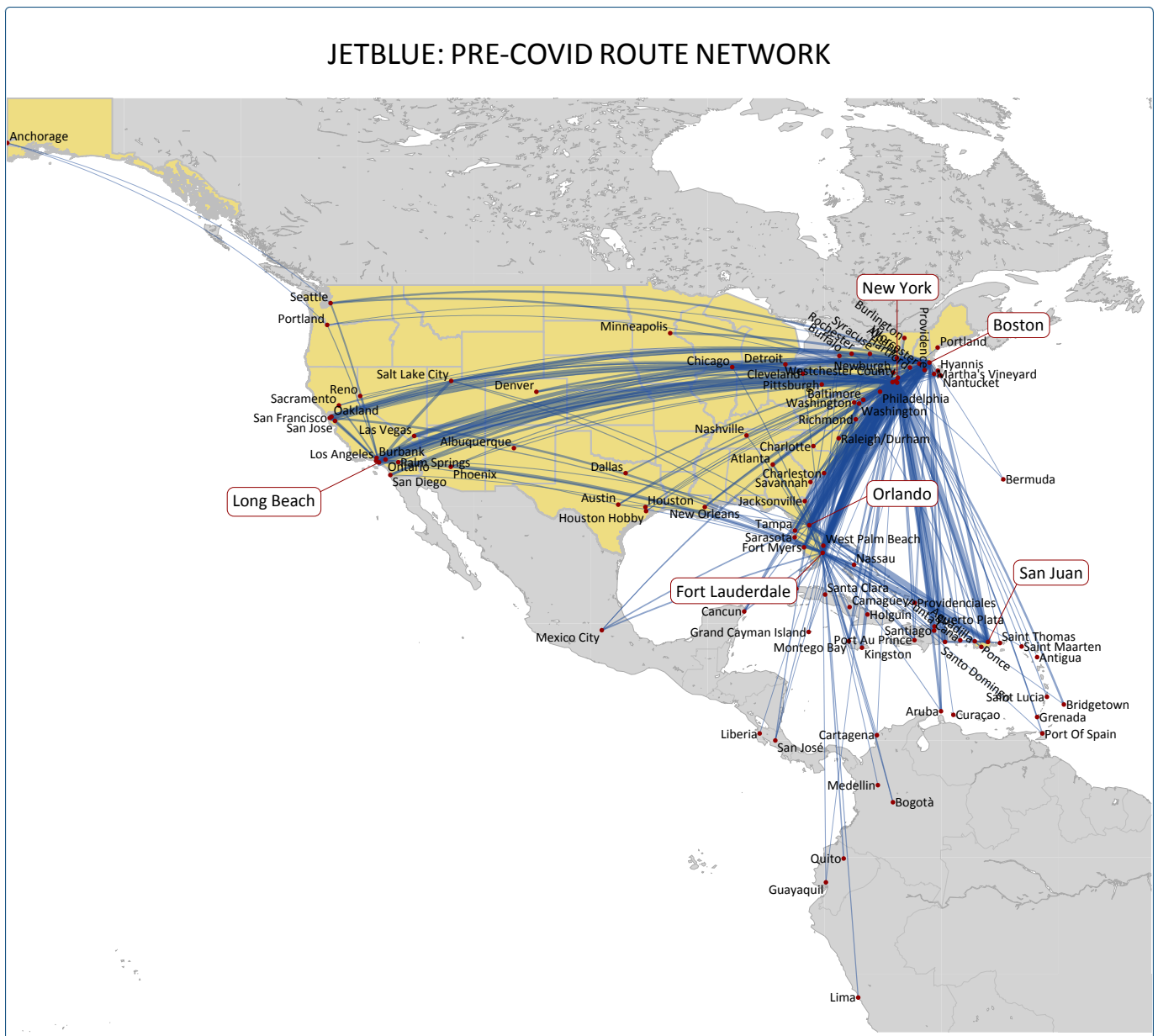
In July, JetBlue and American Airlines announced the signing of a “strategic partnership”. The alliance between the two encompasses a slew of code-share agreements and loyalty benefits and is focused on the US northeast coast and particularly JetBlue’s strengths at New York and Boston — JetBlue (in more normal times) carried twice as many passengers as American at JFK and 50% more than American at Boston. American saw

the region as a gap in its nationwide coverage, in the same way the West Coast had been seen until a similar deal struck with Alaska at the beginning of 2020. The two carriers describe the alliance as providing seamless connections between their two networks, and the usual marketing hype of “giving customers new options with improved schedules, competitive fares and nonstop access to more domestic and international destinations”. The deal was tacitly approved by the DoT in November.

American in particular had allowed its international offering out of New York to stultify — the number of international destinations served had fallen by 40% since 2010 — but as part of the agreement has stated that it will immediately start new services to Tel Aviv, Athens and Rio and “once the coronavirus pandemic has ended... [the alliance will] facilitate American adding new long-haul markets in Europe, Africa, India and South America”.

JetBlue, however, has clearly

JETBLUE: PRE-COVID ROUTE NETWORK



JETBLUE: POSITION IN TOP FOCUS CITIES 2019

Market	Passengers (m)	Share	Rank	Largest competitor	Share
New York†	8.96	12.8%	3	United	19.1%
Boston	6.01	29.0%	1	Delta	14.6%
Fort Lauderdale	4.26	23.6%	1	Spirit	23.1%
Orlando	2.90	11.7%	4	Southwest	21.6%
Los Angeles†	1.94	4.3%	6	American	15.8%
San Juan	1.32	32.7%	1	American	14.6%

Source: DoT Form 41

Notes: † includes all airports

stated that it will join neither the oneworld alliance nor the immunised joint venture that American has with British Airways, Iberia and Aer Lingus on the Atlantic. But it says it views the partnership “as the next step in our plan to accelerate our coronavirus recovery... and fuel JetBlue’s growth into the future”.

As a sign of future direction for JetBlue, in October it announced that it would close its base at Long Beach and concentrate all Los Angeles operations at LAX (where American is the leading player). It also in December

announced its first routes into American’s hub in Miami (from Los Angeles, JFK, Newark and Boston).

Over the last decade JetBlue had been remarkably successful in encroaching on the longer range strong O&D domestic routes, particularly damaging the incumbents with its high quality low premium fare “Mint” service. The chart on the next page shows how by 2019 JetBlue had become the largest operator out of Boston to both Los Angeles and San Francisco and had made significant inroads into United’s lead out of New

York to the west coast conurbations. They also exemplify American’s relative weakness.

Atlantic ambitions

In a presentation at the company’s Investor day back in 2016 the company had highlighted that it was present in 39 out of the top 50 domestic and international destinations from Boston with London, Paris and Dublin marked as “not currently served”. Given that London and New York are by far the largest gateways on the Atlantic it would be surprising not to try services to London.

Speaking at London’s Aviation Club two years ago, Robin Hayes announced plans to start operations to London in 2021, describing it as “the biggest metropolitan area we don’t serve” from its main hubs. Despite the coronavirus pandemic these plans seem still to be in place.

Three of the six A321neos still planned for delivery in 2021 and all three of those planned for 2022 are the long range variants. In November JetBlue was able to secure 14 slots a week at London Gatwick starting in the Winter 2021/22 season and a further 28 slots at London Stansted, but failed (unsurprisingly) to gain access to Heathrow.

JetBlue is most likely to fit out the aircraft with a form of its Mint premium service. The current Mint service JetBlue operates on transcon services is operated on 159-seat A321s: 12 full lie-flat bed seats (7ft6in bed length) and 4 closed “suites” in the front cabin, 41 standard seats in “Even More Space” cabin (37in-41in seat pitch) and 102 standard seats in the “Core” cabin (33in seat pitch); complimentary food service; seat back IFE with TV and films; AC power at each seat; relatively high speed wi-fi internet access. The company

JETBLUE BALANCE SHEET

	\$m	September 2020	December 2019
Flight equipment		7,745	7,997
Operating lease assets		833	912
Other P&E		630	617
Other assets		770	606
Cash etc	3,019		1,328
Other current assets	436		458
Current debt and leases	(513)		(472)
Air traffic liability	(1,253)		(1,119)
Other current liabilities	(1,042)		(1,072)
Net Current Assets		647	(877)
TOTAL ASSETS		10,625	9,255
Long term debt		(4,439)	(1,990)
Operating leases		(782)	(690)
Deferred taxes and other		(1,687)	(1,776)
LONG TERM LIABILITIES		(6,908)	(4,456)
SHAREHOLDERS EQUITY		3,717	4,799

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stated that it plans to reimagine the product offering for the European market.

JetBlue's entry onto the Atlantic will be disruptive, but will it be successful? The Atlantic has been a graveyard for many wannabees from the all-business class operations of MaxJet and Silverjet at the top of the last cycle to recent casualties such as Norwegian in its attempt to pioneer long haul low cost.

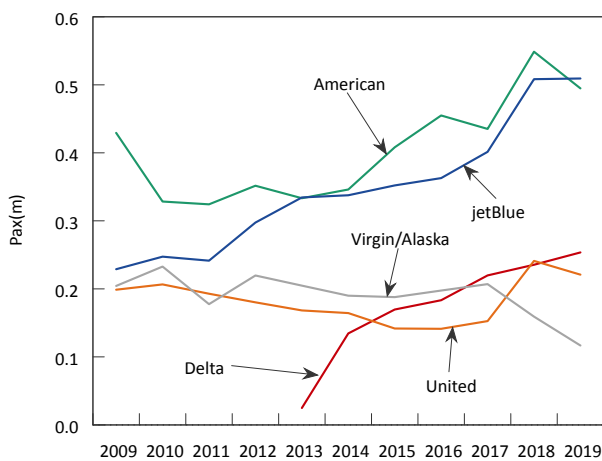
However, JetBlue is embarking on the venture focused on its strong bases at JFK and Boston; its model is based on point-to-point O&D demand (only 10% of its passengers connect, while New York-London is the strongest O&D market on the Atlantic). Unlike Norwegian, it is attacking core routes with relatively small aircraft, an efficient cost base, and an excellent brand image.

The Atlantic market will have

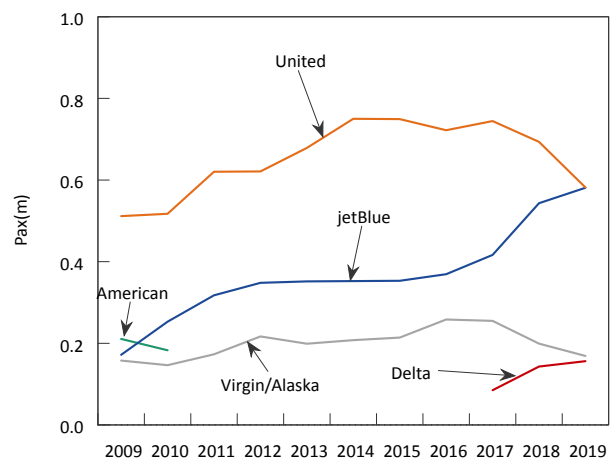
changed when traffic eventually recovers. Business travel volumes are likely to be smaller, and passengers will be more selective and much more price-sensitive. The incumbents will probably be forced to raise Economy fares to compensate for relatively lower Business revenue. All this will suit JetBlue.

TRANSCON MARKET DEVELOPMENT

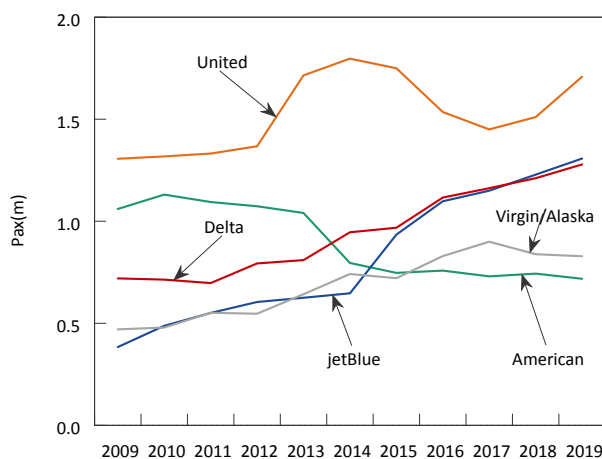
Boston – Los Angeles



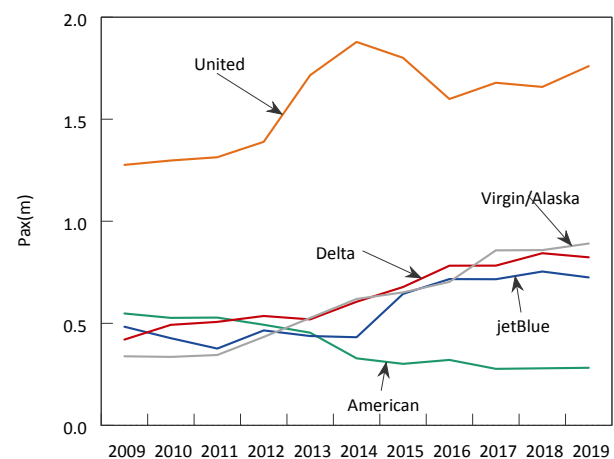
Boston – San Francisco



Los Angeles – New York



San Francisco – New York



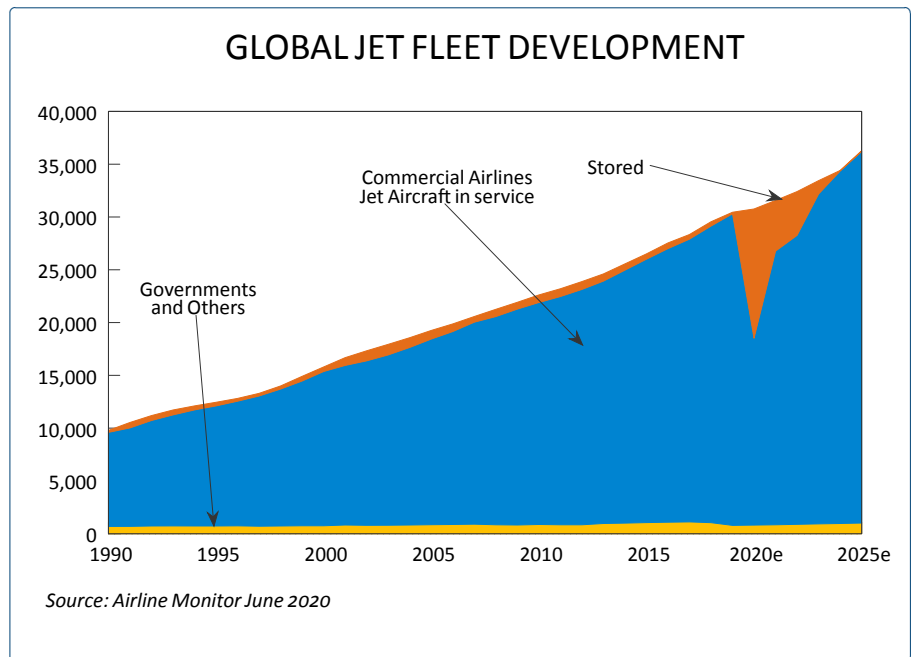
Coping with a Glut of Aircraft

AT THE end of November nearly a third of the world's fleet of some 30,000 jet aircraft were parked or in storage: this is equivalent to the total number of aircraft that had been in commercial service in 1990; in one year wiping out more than a decade of growth.

In any normal year there is a small proportion of aircraft that are temporarily parked or mothballed — pending return to service, conversion or scrappage (see chart right). Over the past three decades this has averaged 3% of the total world fleet (slightly more than the natural retirement rate), but has tended to fluctuate depending on the state of the economic and aviation cycles. The ratio shows peaks of 5% after the 1990 downturn and 5.0-5.5% between 2002 and 2004 in the aftermath of the September 11th calamity. In the past decade it has averaged 2%.

But aircraft are meant to be flown, and parking an aircraft for any length of time is not a simple matter of locking the doors and putting the key on a shelf. Finding somewhere to park is the first problem: airport parking charges do not come cheap (and in a normal year account for about 2% of global airport fees).

To put an aircraft for a short period of time in an “active parked state” (meaning that it could be brought back into service at any time) requires continuous monitoring. Its interior is first checked thoroughly, water drained, catering equipment removed, pitot tubes, engines and any other access points sealed to



stop the ingress of unwanted visitors.

It then enters a short term storage programme with set maintenance tasks required to be performed every ten days: running the engines and the APU; rotating the tyres; checking the air conditioning, hydraulics and either keeping the batteries charged or disconnecting them completely.

This is all in addition to the aircraft's regular maintenance programme.

To put an aircraft into longer term storage, it's best to find a nice dry desert location — aircraft “boneyards” — not only to minimise corrosion, but also to keep the cabin free of humidity and avoid moulds and rank smells. In addition to the steps taken for short term storage, preparation involves fixing window coverings to protect the cabin and cockpit from the effects of the sun;

fixing desiccant bags and humidity indicators in the engines in inlets and exhausts; oils are drained and replaced with antioxidant inhibition fluid; batteries disconnected; controls locked; and landing gear covered to prevent birds nesting.

Reactivation into service can take 40-100 man hours, essentially reversing the storage process: coverings removed; water systems restored and purified; fuel tanks checked and lines cleared of algae; and finish outstanding checks on the aircraft's maintenance calendar.

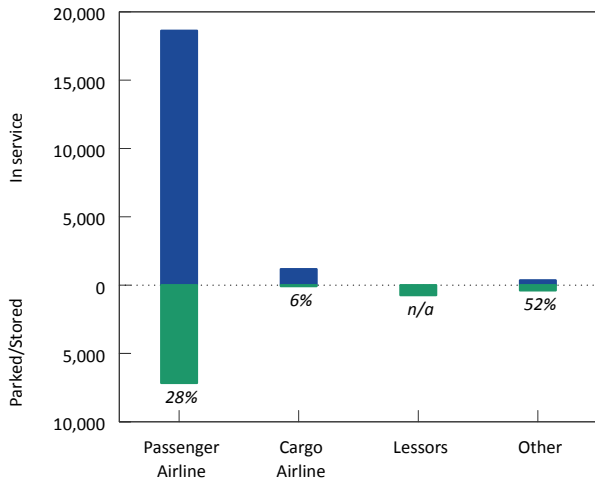
The charts on the next page show an analysis of the distribution of the fleet in service and in storage in November by a choice of different criteria. These highlight:

➔ **By operator/ownership:** Overall 28% of airline operated passenger jets were parked or stored at the end of November, but only 6% of the very

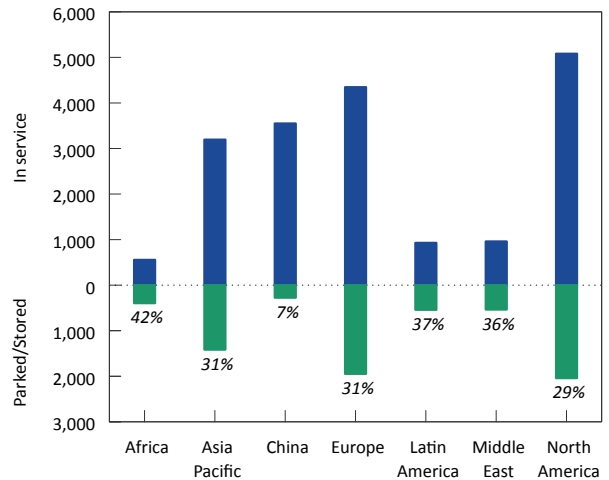
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AIRCRAFT IN SERVICE, PARKED AND IN STORAGE

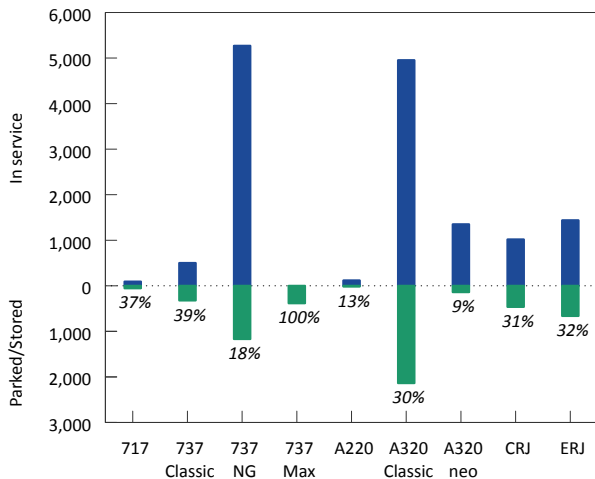
By Owner/Operator



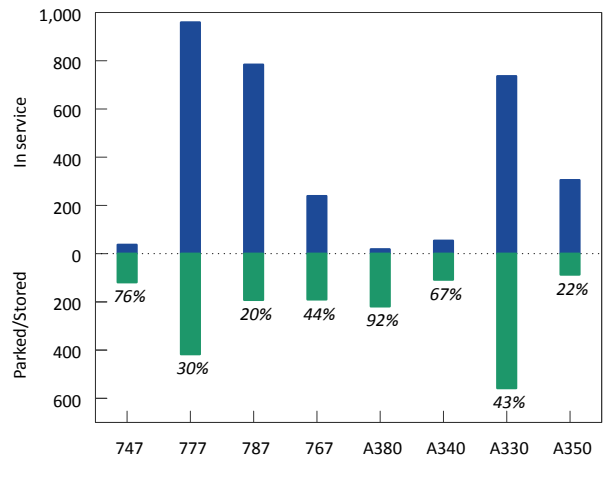
By Region



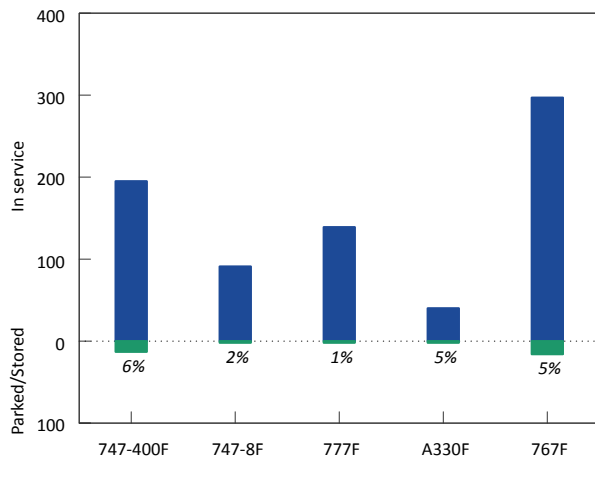
Narrowbody/Regional



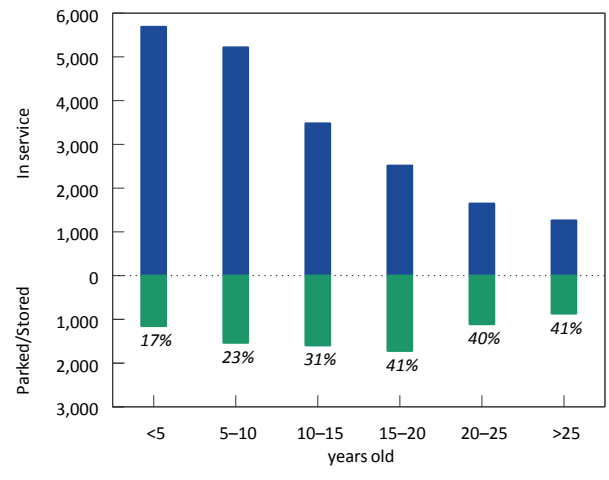
Widebodies



Freighters



By Age Range



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much smaller Cargo fleet. Lessors had been left with around 737 aircraft unproductively on the ground.

✈ **By region:** In Europe and North America 30% of the total airline fleet was parked, while in the smaller regions of Africa, Middle East and Latin America the proportion was closer to 40%. Excluding China, the Asia Pacific region also appears to have 30% of the fleet on the ground: but in China, where the huge domestic market has recovered to exceed pre-Covid levels, the proportion is only 7%.

✈ **By type:** Narrowbodies and regional jets account for 80% of the world's fleet, and slightly more of the RJs were parked compared with the short haul workhorses of the 737 and A320 family aircraft. Although the entire 737MAX fleet was still grounded only 18% of the 737NG aircraft were parked compared with 30% of the A320 Classics.

Among widebody passenger aircraft some 30% in total were parked, but a significantly higher proportion of older and higher capacity equipment while only 20% of the 787s and A350s were in storage. Over 90% of the world's fleet of A380s were parked, the only operators still flying the equipment being Emirates, China Southern, Korean and HiFly Malta (a

Portuguese charter carrier, the only airline to have acquired a second-hand A380, and which since the date of this analysis has put it into storage).

There should be no surprise that substantially all of the relatively small fleet of all-freight aircraft were in service: the grounding of long-haul wide-body flights has removed a substantial portion of available cargo space.

✈ **By age range:** it makes economic sense to park older equipment, and a higher proportion — over 40% — of the aircraft more than 15 years-old (in turn accounting for 40% of the world fleet) were in storage. (The median age of the aircraft in storage in November was 14.4 years compared with 8.9 years for those still in service.) It is possible that a large proportion of these could be permanently retired from passenger service, and airlines have chosen to accelerate retirement plans for their older and larger capacity equipment.

One of the trickier aspects of looking at future aircraft market balance is projecting the rate of permanent retirement from service. Boeing in its 2020 Commercial Market Outlook upped its estimates of retirement rates, particularly over the next decade, suggesting that 56% of aircraft deliveries up to 2030 would

be for replacement compared with the 44% figure it had in its 2019 CMO (for a twenty year period to 2029). Ed Greenslet's June 2020 forecast in *Airline Monitor* (on which the chart on page 14 is based) expects retirement rates to run at 4-5% of the opening fleet in each of the next three years — more than twice the average rate seen in the past decade. His (optimistic?) forecast suggests that the world jet fleet in service could get back to the pre-covid levels by the end of 2023.

What will be intriguing will be to see quite where these aircraft return to service. So many of the large established carriers are likely to emerge from the Coronavirus crisis with badly damaged balance sheets, and are making plans for substantially smaller operations. Others, currently on critical life support, may still not survive. But for the first time in 40 years there will be a large number of cheap, second-hand equipment available for new start-ups. Monitoring the development of the parked fleet will be important: this is one of the key factors that will influence the future shape of the industry.

AIRCRAFT ORDERS AND DELIVERIES 2019-20

	Net Orders					Deliveries					
	Airbus		Boeing			Airbus		Boeing			
	2020	2019	2020	2019	2020	2019	2020	2019			
A220	30	63	737	-1,034	-183	A220	38	48	737	43	127
A320	263	654	747	-4		A320	446	642	747	5	7
A330	-14	89	767	11	26	A330	19	53	767	30	43
A350	-11	32	777	-1	-4	A350	59	112	777	26	45
A380		-70	787	2	74	A380	4	8	787	53	158
Total	268	768	-1,026	-87		Total	566	863	157	380	

Freighter Values and Lease Rates: October 2020 assessment

THE FOLLOWING tables reflect the current values (not “fair market”) and lease rates for cargo aircraft. Figures are provided by The Aircraft Value Analysis Company (see below for contact details).

The values and rates reflect AVAC’s opinion of the worth of the aircraft in the present market.

In assessing current values, AVAC bases its calculations on many factors such as number of type in service, number on order and backlog, projected life span, build standard, specification etc. Lease

rates are calculated independently of values and are all market based.

In contrast to the passenger sector, freighters have generally held their values throughout 2020. There has been some escalation in lease rates for available second hand aircraft.

FREIGHTER VALUES (US\$m)				
	New	5 years old	10 years old	20 years old
A300-600RF			17.7	11.7
A321F			25.9	19.7
A330-200F	73.4	59.9	46.4	
737-300QC				5.5
737-800CF			30.9	
747-400F			33.6	21.6
747-400ERF			30.8	
747-8F	156.7	125.7	94.7	
757-200PF				11.9
767-300F	46.8	39.9	32.9	19.0
777-200F	139.2	111.6	84.0	
MD-11F				2.9

FREIGHTER LEASE RATES (US\$000)				
	New	5 years old	10 years old	20 years old
A300-600RF			159	130
A321F			241	210
A330F	608	525	445	
737-300QC				78
737-800CF			265	
747-400F			434	312
747-400ERF			459	
747-8F	1,327	1,087	860	
757-200PF				102
767-300F	363	324	299	219
777-200F	1,100	935	787	
MD-11F				76

AIRCRAFT AND ASSET VALUATIONS

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