IAG: Creating value through plug and play

AT THE beginning of November IAG held its annual capital markets day highlighting how well it was performing, and especially in comparison with peers. Management bemoaned the "unfairness" of the low rating that its shares attract on the stockmarkets. It has done a good job in creating value since its creation through the merger of British Airways and Iberia in 2011, augmented by successful acquisitions and integration of Vueling, Aer Lingus and bmi. Is this complaint justified?

Both BA and Iberia were a bit late in the European consolidation game, but this did mean that they could create a structure for growth taking the best ideas from and avoiding the pitfalls of their major competitors Air France-KLM and Lufthansa Group.

And IAG has a unique structure. The umbrella corporate organisation, IAG, maintains "parent neutrality": there is an impartial treatment of individual branded airlines within the group. This is in complete contrast to competitors in Europe (eg Lufthansa) where the main brand is dominant, or mergers in the US where subsidiary brands have been subsumed into a single operating brand.

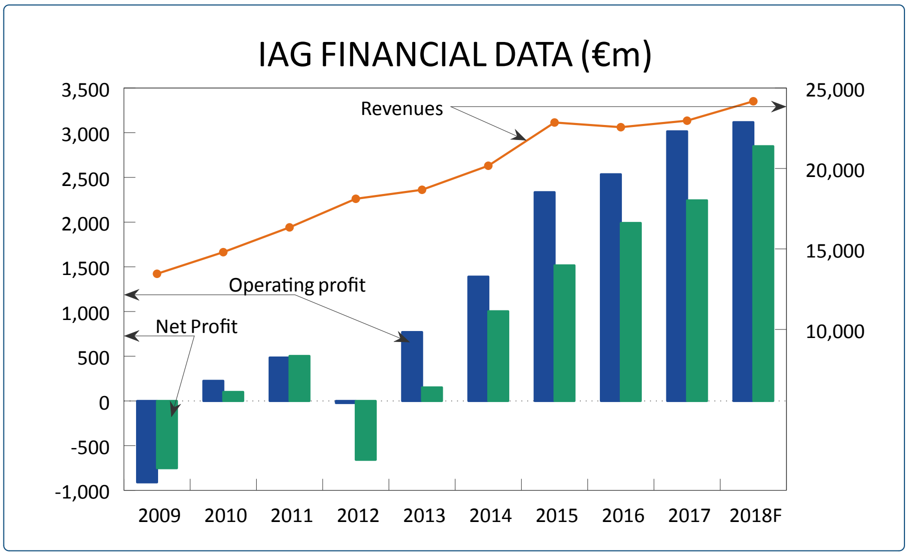
The operating branded airlines are independently operated as separate units, but have to compete for capital application from the parent organisation.

From the start, the group developed a platform of common services (cargo, FFP currency, maintenance, fleet, business services, IT). The idea behind it being that any future airline brand acquisitions could easily be "plugged in" to the structure with minimal disruption and maximum immediate synergies.

IAG is the corporate parent. CEO Willie Walsh describes its role to set the long term vision for the group, define portfolio attractiveness, make the capital allocation decisions and exert vertical and horizontal influence across the group. He avers that the neutrality and independence of the corporate parent from the operating companies enables flexible, rapid and dispassionate decision making.

The airline operating companies define their own product strategies for their target customer segments, retaining a deep and continual understanding of their individual competitive environments. They are standalone profit centres (and independent credit entities). And he says that the portfolio of airline operating companies that the group has established "provides a good combination" of profitable businesses each with distinct and attractive market positioning and a diversified exposure to differing segments of the airline business.

The four main hubs (London,



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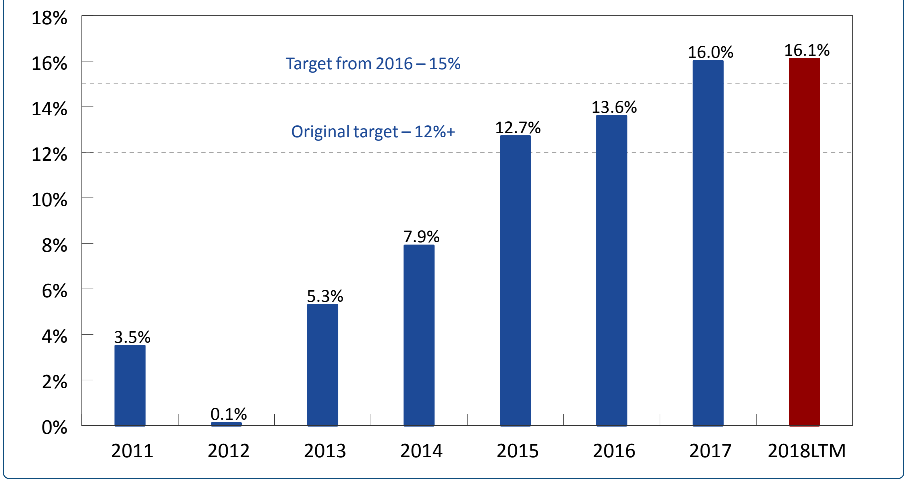
IAG: RETURN ON INVESTED CAPITAL

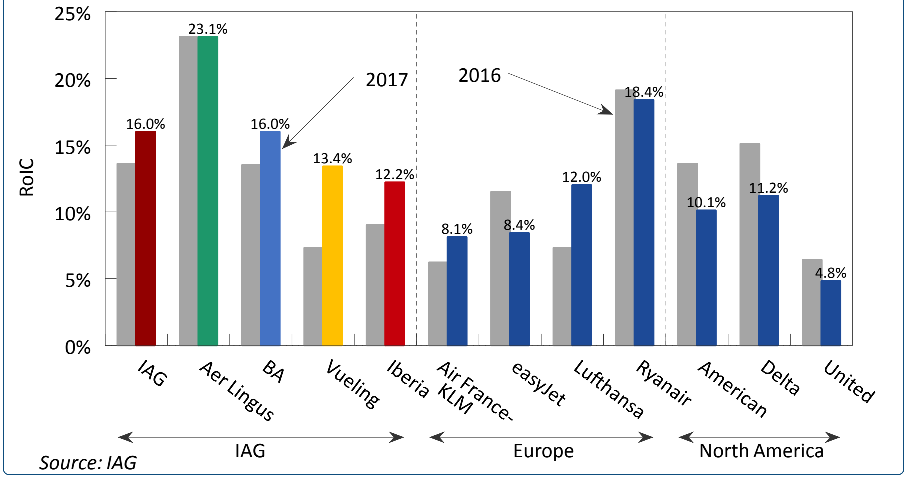


Madrid, Dublin and Barcelona) are complementary on a geographical basis and, the company says, each has a clearly defined role in the total IAG system underpinned by a strong local market.

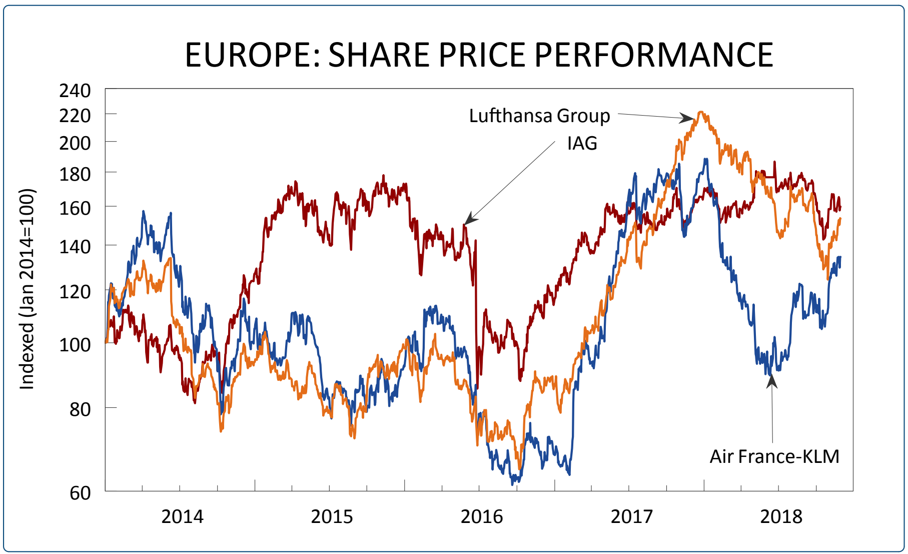
British Airways' position at London Heathrow is the jewel in the crown: London is *the* international gateway into Europe and the base of the strongest aviation market in Europe. Iberia at Madrid Barajas provides very strong cultural and transport links onto growing Latin American routes. Aer Lingus has a unique position in Dublin as the westernmost major airport for access to the important Atlantic routes; strong cultural links to millions of Irish-Americans; US immigration pre-clearance; and a new runway due to open in 2021. Vueling at Barcelona is the *de facto* flag carrier for Catalonia.

Walsh highlighted that since the creation of IAG in 2011, the group has delivered outstanding results. At the time of the merger there was much doubt over the group's ability to generate the planned €400m synergies by 2015. He stated that, in the end, the total annual reported synergy from the combination of BA and Iberia reached €856m by that target year — however impossible it may be

IAG: BOASTING HIGHER RETURNS THAN PEERS



Source: IAG



for an outside observer to work it out.

He also emphasised that the group was able and committed to make tough choices. With minimal disruption (in comparison with some of its competitors) it was able to push through a 21% reduction in Iberia's average head-count since 2012.

Equally he was proud to show that the "plug-and-play" structure really works. Since acquisition by IAG the margins at Vueling improved by 5.9 percentage points and those at Aer Lingus by 9.1. Indeed at Aer Lingus since the acquisition by IAG in 2015, ex fuel unit costs have fallen by 18%, unit revenues by 9%, capacity increased by a third, operating margins and RoIC doubled.

Indeed as a group IAG states that it has delivered an 11.5% reduction in ex-fuel units costs since the merger: an annual average decline of 1.5% in constant currency terms.

As an example of the flexibility that this unique structure allows, Walsh referred to the launch of the latest airline in its portfolio: Level. Originally tagged as a "Next Generation Low Cost Carrier" the group Board approved the concept in September 2016. Tickets went on sale in March 2017 and the new carrier launched flights from Barcelona in June of that year with two A330s. In Summer 2018 it started long haul operations from Paris with another two A330s and short haul operations out of Vienna with four A321s.

Level is unusual: it is almost a virtual airline and seemingly totally customer-focused. Operations are provided by wet-leases from other group companies: Iberia provides the lift out of Barcelona as a subcontractor, BA's OpenSkies that from Paris, and a Vueling-owned Austrian AOC as a franchisee out of Vienna. The ethos is described as a maniacal focus on the core customer segment and on the cost base.

Meanwhile, Group CFO Enrique Dupuy emphasised that IAG was providing superior returns on capital having exceeded its original target of 12% RoIC in the past four years (see charts on the facing page) and its revised "sustainable" target of 15% in the past two. Moreover, IAG is generating average annual free cash flow of €2.5bn despite annual capex of a similar amount; and in the past four years has provided €2.7bn in cash returns to shareholders through dividends and share buybacks.

He added that the structure of the group makes it far more resilient to weathering any potential downturn than the individual companies had been in 2008: a diverse portfolio of brands; more flexible fleet structure; strong balance sheet; greater proportion of LCC/value airline model weighting in the portfolio — now accounting for 25% of capacity. Indeed the group's internal modelling suggests that were the 2008 GFC to hit now, profits would fall (by a third) but the group would remain profitable.

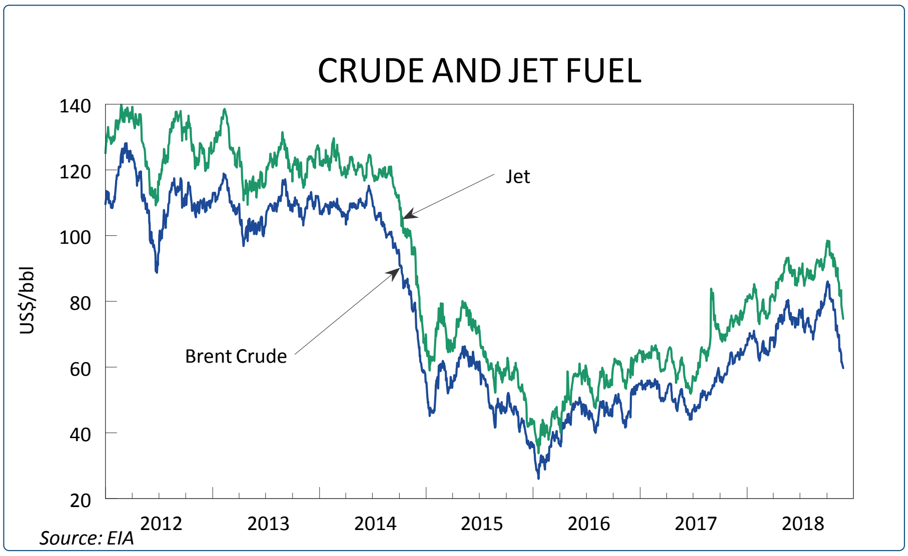
On most valuation metrics he pointed out that IAG is in the top quartile of companies in the FTSE100. And yet the share price is no higher than it was three years ago, with prospective valuation multiples (similar to Lufthansa and Air France-KLM) at a distinct discount to quoted airlines in the US, Latin America and LCC competitors in Europe.

But here's the rub. Airlines are not a "must have" sector for global investors and are still viewed as cyclical beasts dependent on fuel, economy and politics. And the political aspects of Brexit are weighing heavily (see *Aviation Strategy* Sept 2018) — while Walsh remains sanguinely positive, there are serious questions of the EU's future treatment of IAG's "ownership and control" structure as a "European" airline.

At least the UK has recently signed an open-skies bilateral agreement with the US to replace the USA-EU treaty when the UK leaves the EU. It apparently "grandfathers" current British operating airlines as British for the purpose of ownership and control. This helps not only IAG's BA, but also Virgin Atlantic who will become majority-owned (and controlled?) by Delta once Branson sells an agreed 31% stake to Air France-KLM (in which Delta owns a 10% stake) in 2019.

Aviation Strategy

Jet fuel: the IMO 2020 effect



THE TWO-YEAR upward trend in crude and Jet A prices was reversed in November, with crude slipping to around \$60/bbl and Jet A to \$75.

The outlook for crude prices is generally promising, or at least a return to prices over \$100/bbl looks unlikely (with the usual caveat about geopolitical events). According to an analysis by Bernstein, presented at a recent research conference, global capacity/demand patterns and inventory levels indicate a "price deck" of \$70/bbl for 2019-2023, with the average prices likely to fluctuate in the \$70s.

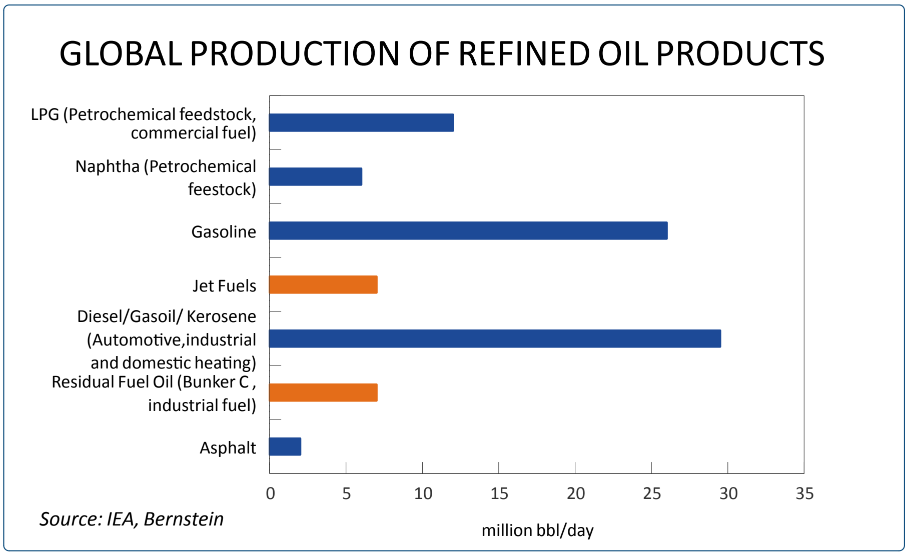
However, there is less positivity about the outlook for Jet A prices: specifically, the widening crack spread (the difference between the crude price and the refined product price), already evident in the current spot prices and on the futures markets, is expected to be maintained: Bernstein anticipate a \$15/bbl or 25% crack spread. The reason lies not in the aviation industry but in the shipping industry.

Ships burn a residual fuel oil called Bunker C. This is a sludgy, rather nasty oil which is particularly high in sulphur. As well as pollution from sulphur which affects coastal communities, shipping pumps out more greenhouse gases than aviation — its contribution to anthropogenic global warming is estimated at around 5% as compared to aviation's 3-3.5%.

The International Maritime Organisation (IMO, equivalent of ICAO) has been tightening its restrictions on Bunker C pollution since 2000, and has set a deadline of 2020 for cutting the permitted sulphur limit from the current 4.5% to 0.5% — the "IMO 2020" regulation.

The predicted effect will be to cut maritime demand for residual fuel oils by 1.8m bbl/day, and push up demand for the middle distillates, which include jet fuel, by an equivalent amount, with a consequent increase in price for these products. And because refiners cannot simply turn off the production of heavy products, the price of residual fuel oil is likely to halve (to the level at which it becomes competitive with coal as a fuel source for power stations), which means that refiners have to compensate for the losses in this product range by pushing up the prices of its more refined products, including jet fuel.

An important issue for airlines is that they generally use the crude oil futures markets to hedge — Ryanair and Southwest are exceptions, hedging specifically on jet fuel — so they may find themselves exposed to the increasing and unhedged crack spread.



IndiGo and the ultra-competitive Indian market

INDIGO has suffered a bad quarter thanks to an ultra-competitive and highly price-sensitive domestic Indian market. Is the airline's continued bullishness about its future justified?

IndiGo was founded by Rahul Batia, owner of Indian conglomerate InterGlobe Enterprises, and Rakesh Gangwal, a former CEO of US Airways, in 2006. Today the LCC operates a fleet of 189 aircraft (160 of which are on operating lease), comprising 127 A320ceos, 50 A320neos and 12 ATR 72-600s. The fleet increased by more than a third (48 aircraft) over the last 12 months, and will increase further thanks to huge outstanding orders for 355 A320neos, 25 A321neos and 38 ATR 72-600s.

The airline is based in Gurgaon (a satellite city of Delhi) and has bases at Delhi, Mumbai, Chennai, Bangalore, Hyderabad, Ahmedabad and Kolkata, from which IndiGo operates more than 1,300 flights a day to 59 destinations, of which 48 are domestic and 11 are international — Kathmandu, Dhaka, Muscat, Singapore, Kuwait City, Colombo, Bangkok, Abu Dhabi, Dubai, Sharjah, Doha. Four more international destinations are being added imminently — Phuket, Kuala Lumpur and Malé this November and Hong Kong in December.

A terrible quarter

In the first half of the 2018/19 financial year (the six months ending 30 September 2018), IndiGo reported a 16.3% rise in revenue, to ₹133.3bn (US$1,959m), based on a 26.5% rise in passengers carried to 30.8m. In the six-month period ASKs rose by 23.7% year-on-year, and with RPKs up by 24.8% passenger load factor rose 0.8 percentage points to 86.8%

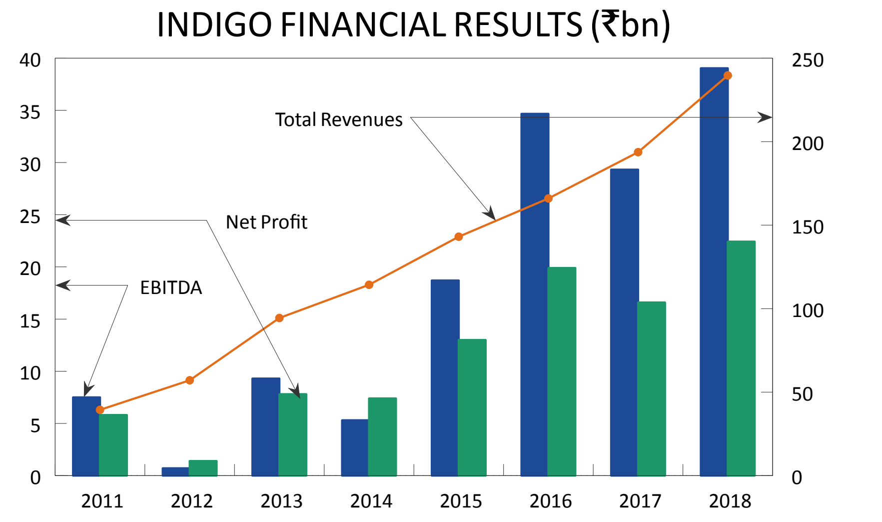
However, profit before tax fell from ₹18.8bn ($295m) in April to September 2017 to a loss of ₹9.6bn ($141m) in H1 2018/19, and at the net level an ₹13.6bn ($214m) profit in H1 17/18 became an ₹6.3bn ($93m) net loss in April-September 2018.

Most of the H1 loss arose in the second quarter of its financial year (July-September 2018), where IndiGo posted a loss before tax of ₹9.9bn ($141m) and a net loss of ₹6.5bn ($93m). More than half of the decline in second quarter profitability came from higher fuel prices, which almost doubled compared with Q2 2017/18, from ₹16.5bn to ₹30.4bn ($434m).

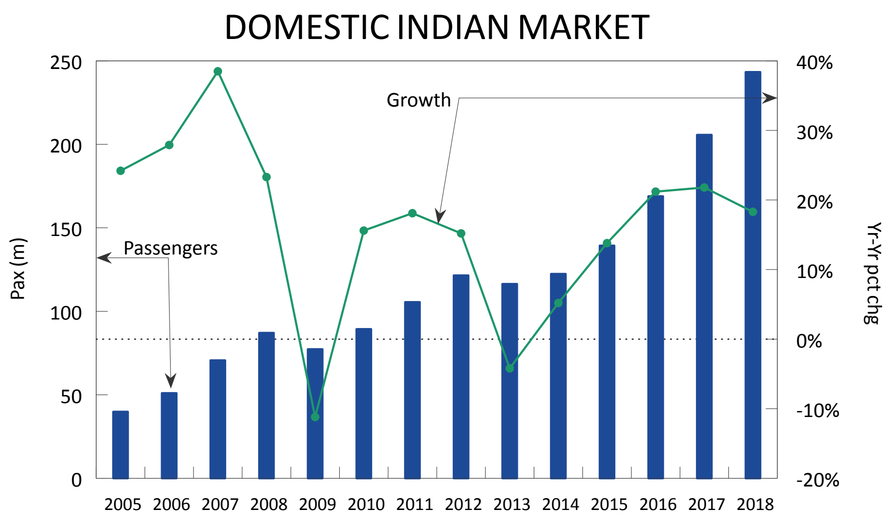
Cost per ASK rose from ₹3.01 in Q2 17/18 to ₹3.74 (5.3US¢) in Q2 18/19 (a 24.1% increase) — although even when stripping out fuel, CASK excluding fuel rose 13.5% quarter-on-quarter, to ₹2.18 (3.1US¢), due to "adverse movements in foreign exchange". In total the depreciation of the Indian rupee increased costs by ₹4.3bn ($61m) in Q2 18/19 compared with the same quarter a year ago.

Other categories of expense — such as employee payroll and aircraft rentals — also rose, though this is due to the expansion of capacity; in the second quarter the airline added 20 aircraft, launched 35 routes and entered five new city markets.

While fuel prices and depreciation of the Indian rupee are external factors, questions might be asked about management's hedging policies. More worrying still is the continuing fall in yield, down 9.7% in Q2 2018 compared with Q2 2017; as the chart on page 7 shows, yield pressure has been relentless over the last 18 months as competition increases both domestically and



Source: Company reports. Note YE March.



Source: AAI. Note: Year ends March 31st.

internationally.

IndiGo gave some detail of the yield pressure it was under in the second quarter of its financial year — whereas previously 60% of its flights were booked in the period outside 15 days from the departure of a flight, that fell to around 54% in the July-September 2018 quarter. That matters because thanks to competitive pressure, fares and yield decline closer to departure. (This Indian characteristic is the opposite of European LCC yield management techniques which aim to push fares up as departure approaches.)

IndiGo insists that it "has to match the activity of the other carriers" with regards to fares, as "obviously we are keen to protect our market share", and Rahul Batia, CEO of IndiGo, insists that IndiGo is "not leading the charge in terms of low fares. Rather, there are players in the industry who are really hurting, and for them to raise short-term cash they have to do lower fares. As a company, we have no choice but to match them." Indeed, in May this year IndiGo introduced a fuel surcharge, but it wasn't matched by competition and so the airline had to withdraw the charge.

But IndiGo also says that overall domestic capacity growth is "almost at par with the growth in traffic, so we do not believe that there is too much capacity coming into the market". Indeed, IndiGo's capacity increase for entire 18/19 financial year is expected to be around 30% year-on-year.

Overweight domestically

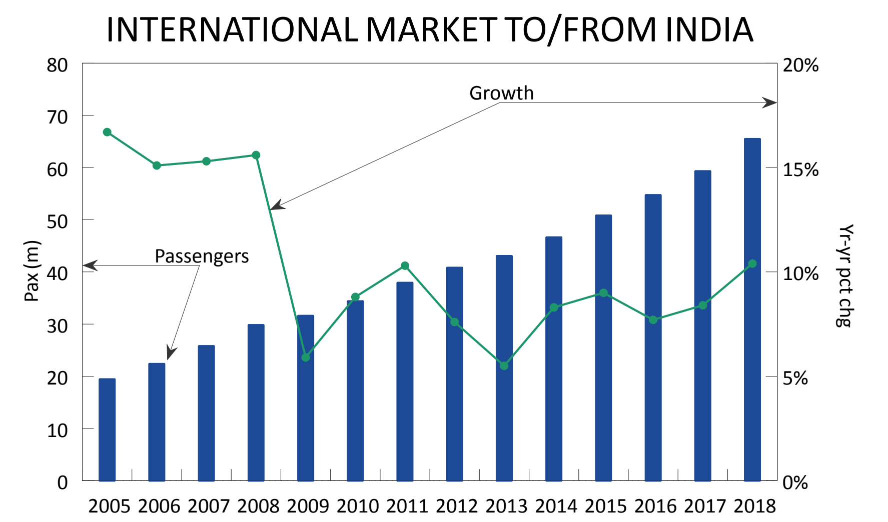
IndiGo's bullishness in terms of capacity keeping pace with demand needs to be seen within the context of the overall market — and specifically the significant disparity between the airline's domestic and international business.

In the first six months of the 2018/19 financial year, IndiGo carried 28.8m domestic and 2.0m international passengers, and IndiGo's overreliance on the domestic market can be seen in the chart on the facing page, which looks at the 2017/18 financial year (the 12 months ending 31 March 2018).

The international market accounts for just 6.1% of passengers carried, 14.5% of ASKs and 10.9% of revenue. IndiGo provides no breakdown of profits by market, but even assuming international flights are more profitable, the domestic/international split won't be too far away from these types of figures given the significant disparity between the two types of business.

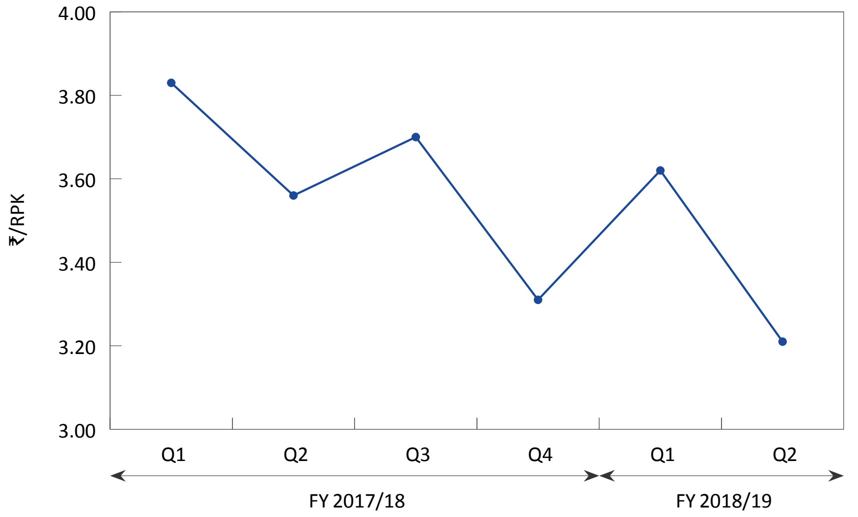
Domestic pressure

As can be seen in the graph above, the domestic Indian market has grown hugely in recent years, with its abso-



Source: AAI. Note: Year ends March 31st.

INDIGO YIELD UNDER PRESSURE



lute size increasing more than six-fold from 2004/05 to 2017/18 at an average annual growth rate of 14.9% over that 13-year period.

The reasons for that sustained increase are multiple, but a key driver is India's GDP growth and higher disposable incomes among the country's fast-growing urban population, which numbered more than 419m people out of a total population of 1,282m in 2015.

The urban proportion of the overall population (33%) is significantly lower than developed regions such as Europe (74%) and North America (82%), and so there is major potentialfor future urban growth.

Just as importantly, the current urban population in India is not concentrated in a handful of cities. India has so-called mega-cities (Mumbai had a population of 12.4m and Delhi 11.0m, according to the last census, carried out in 2011), but remarkably had 58 cities with a population of more than 1m in 2015 (compared with just 38 in the whole of Europe). This network of large cities — combined with growing disposable income — has been the impetus for the explosion in domestic aviation travel recently.

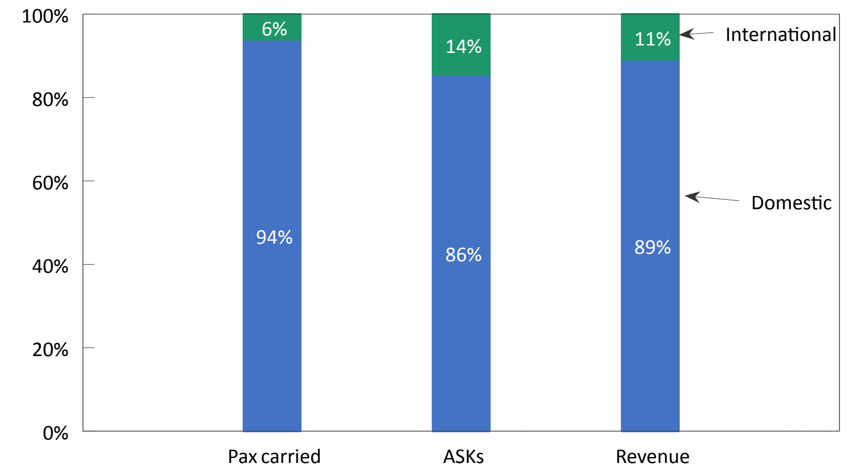
The main competition is the vast domestic rail network in India. State-owned Indian Railways employs a staggering 1.3m people and runs more than 120,000km of track linking around 7,400 train stations, making it the fourth largest rail network in the world. However, less than 50% of the network is electrified and while train travel (in the lowest class fares) is very cheap, journeys between cities can be lengthy affairs.

High-speed rail (HSR) links — classified as having operational speeds of more than 120 mph (200 kmh) — do not yet exist in India; the fastest trains between urban cities do not even hit 100 mph. Plans for HSR have been hit by political rows, but the first scheme for HSR linking Mumbai and the western city of Ahmedabad started construction in 2017, with a planned finish date of 2022 and costing more than US$14bn.

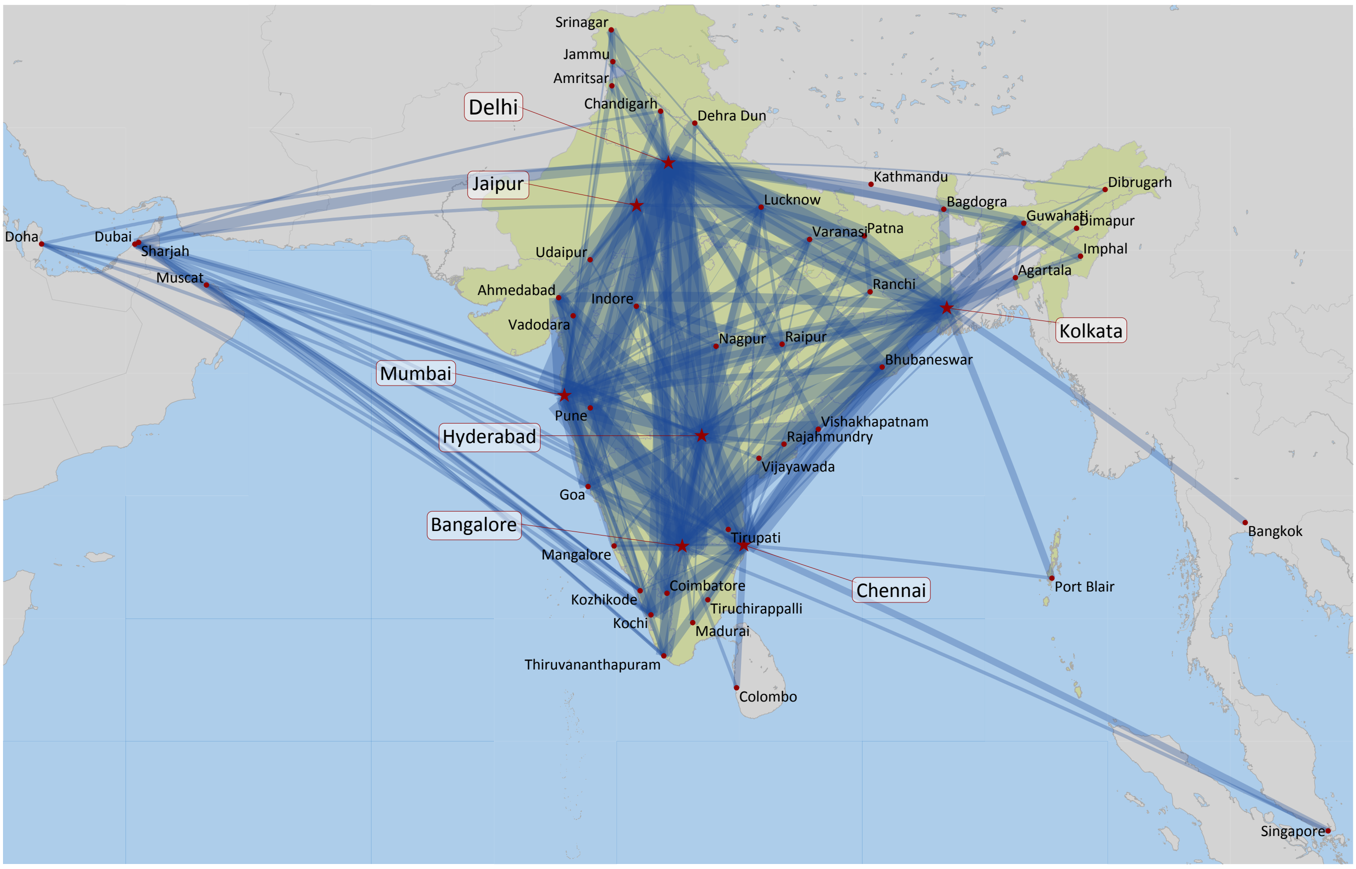
The promise is that high-speed trains on this link (which will connect the two cities in a three-hour journey) will cost less than the air fare on the route, but even if true that's just one city-pair connection, and India's airlines don't expect HSR to have a significant constraining impact on the explosive growth in domestic air travel for at least the medium-term.

As can be seen in the chart on page 9 in the 2017/18 financial year (the 12 months ending March 2018), IndiGo had a 40% share of the domestic market, with its passengers carried increasing by 17.7% compared with 2016/17. That's significantly above its rivals, who are (in order in market

INDIGO: DOMESTIC v INTERNATIONAL SPLIT FY2018



INDIGO ROUTE MAP



Note: thickness of lines directly related to annual seats operated

share), Jet Airways (a 15.0% share in 17/18), LCC SpiceJet (13.1%) and flag carrier Air India (12.0%).

Interestingly, the strongest growth in domestic passengers carried in 17/18 compared with 16/17 came from three smaller carriers — GoAir (up 25% year-on-year), AirAsia (87%) and Vistara (52%).

GoAir is an LCC based in Mumbai that largely operates domestically (to 25 destinations) and with just two international destinations — Thailand (Phuket) and Maldives (Malé). It has a fleet of 43 A320 classics and neos — with 122 A320neos on order — and operates out of Mumbai and other hubs at Delhi, Bangalore and Kolkata.

LCC AirAsia India was launched in 2014 as a joint venture between AirAsia and Tata Sons, each of which have a 49% stake. Based in Bangalore, AirAsia India operates 19 A320-200s to 21 domestic destinations out of hubs at Kolkata, Delhi and Karnataka, and like many domestic airlines has plans to launch internationally (see below).

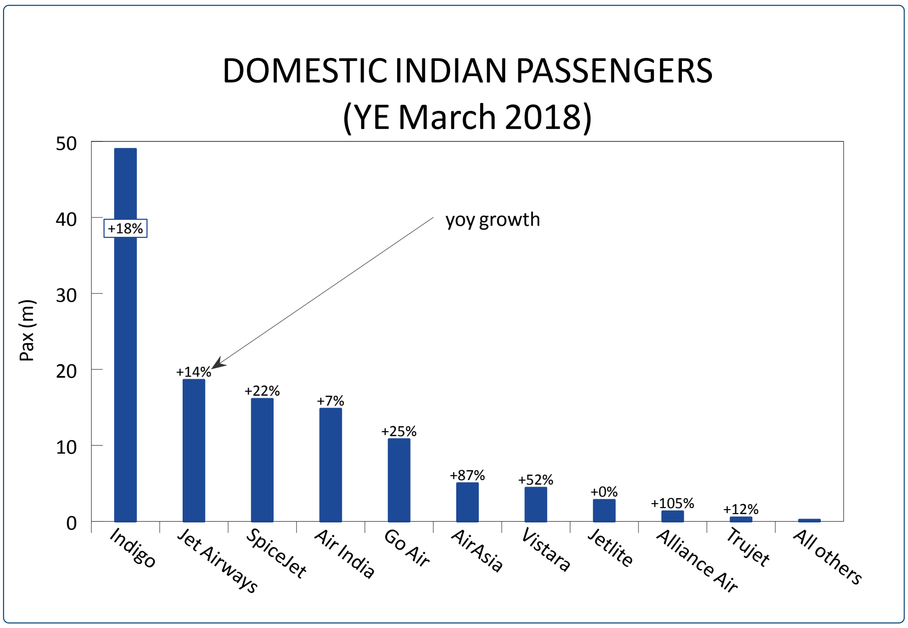
Vistara is a joint venture between Singapore Airlines and Tata Sons, and operates 21 A320ceos and neos between 22 domestic destinations. However, in July this year Vistara signed letters of intent for six 787s and 13 A320neos (estimated actual value $2bn) as part of ambitious domestic and international growth plans that also include the leasing of 37 further A320neos.

International pot of gold?

As shown in the chart on the next page, IndiGo had a 6.0% share of passengers carried to-from India in the first half of 2018/19 financial year (April-June 2018), which is significantly higher than the 3.7% share it had in the October to December 2016 quarter.

Unsurprisingly, the Air India group (the mainline plus Air India Express) is the market leader, accounting for 17.1% of the international market in April-June 2018 period, followed by Jet Airways with 12.5%, and with the only other Indian carrier present being SpiceJet (3.4%).

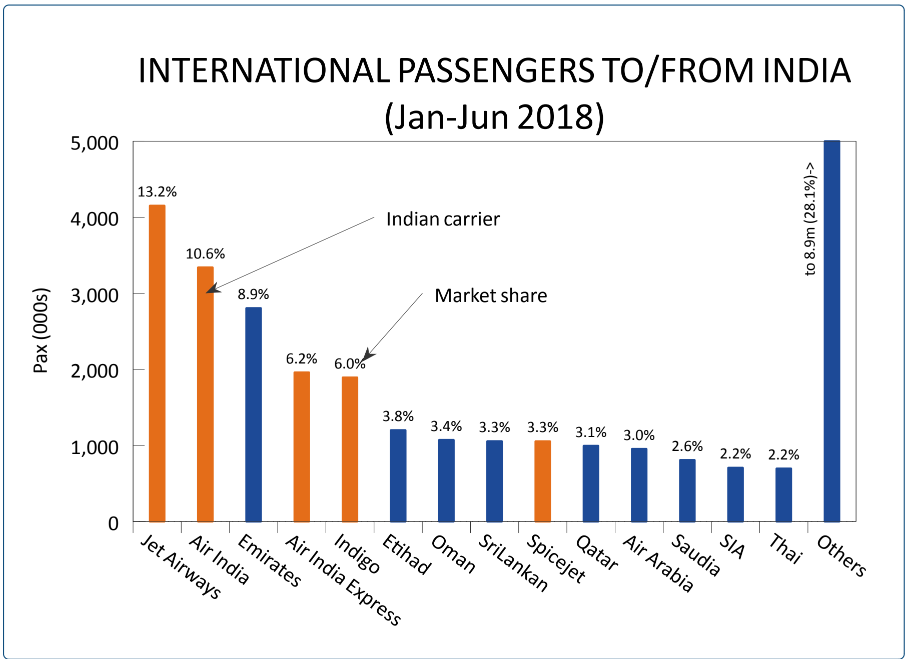
The Indian government is



gradually liberalising aviation regulations (see *Aviation Strategy,* May and September 2017), with perhaps the most important change being a modification of the 5/20 rule, which had previously required a minimum five years of domestic operations and a fleet size of at least 20 aircraft before an Indian airline could launch international operations (and which had been heavily criticised as a barrier to international expansion for Indian airlines).

A new policy enables airlines to commence international routes as long as they deploy 20 aircraft or 20% of total capacity (whichever is higher) for domestic operations, and that's the release valve that allows Indian airlines overly reliant on the highly competitive domestic market to expand onto international routes quicker and easier.

IndiGo previously said that the LCC had no plans to launch a push into long-haul routes, though the message has now changed subtly but significantly; at the call with analysts following the release of its second quarter 2018 results, IndiGo sad that "long-haul flying with widebodies remains more aspiration than a plan".



It says the greater opportunity is connecting the Indian domestic market with short-haul international destinations, and "in the interim we continue to add a lot of international markets that are within range of A320 family aircraft".

The 240-seat A321neos that are arriving from November this year can easily reach the Middle East or south-east Asia as they effectively increase the airline's range by another hour of flying (over the A320), and IndiGo's plan is "to continue to grow international aggressively, but opportunistically".

Prospects

The good news is that IndiGo's balance sheet is relatively strong: as at September 30th this year, IndiGo had non-current financial liabilities of ₹66.3bn ($915m), which is largely aircraft related but which rose a hefty ₹13.8bn ($190m) in just six months this year. Free cash stood at ₹44.2bn ($610m) at the end of September 2018, some ₹31.8bn ($439m) lower than 12 months earlier.

The imminent problem for IndiGo is that while the domestic market may continue to grow, no-one appears able to stop the erosion in yields. Unless one of more of its domestic rivals go out of business, IndiGo Can expect to come under sustained pressure for a while yet.

Fellow Indian airlines clearly face the same challenges as IndiGo. For example, Jet Airways delayed the release of its first quarter 2018/19 re-

INDIGO: FLEET

	In service	On order
A320ceo	126	
A320neo	58	224
A321neo		150
ATR-72	12	38
Total	**196**	**412**

sults (covering April to June this year) until late August, and when unveiled the group's net loss was US$198m, compared with a net profit of $9m in Q1 FY17/18. Jet says it will reduce debt, inject new capital and cut costs as part of a turnaround plan, but if Jet — or indeed any of IndiGo's rivals — did go under at any point then IndiGo would be in a good position to cherry pick the best routes. Jet is IndiGo's closest domestic rival (see chart on the preceding page), and there would be scope for route rationalisation and consolidation that might lead to yield strengthening (or at least a reduction in the current downwards pressure).

More importantly perhaps, Jet is the market leader in the international market (see chart on the previous page), and were Jet to disappear then IndiGo would jump at the chance to take over many of its routes.

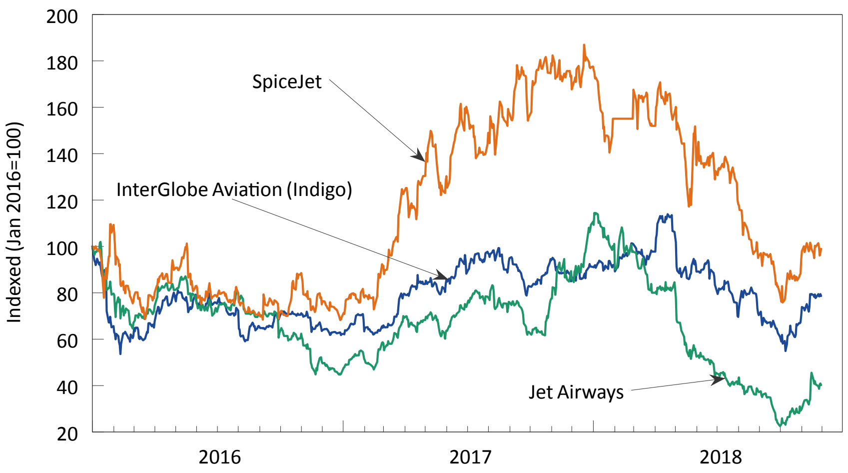
However, Jet appears to have put itself up for sale. Press rumours suggest that majority owner Naresh Goyal has agreed to give up control in the failing carrier by selling a stake to one of three interested parties: Etihad (current 24% holding but strategically challenged); Delta/Air France-KLM with whom it has a close cooperation through Europe; and the Tata group.

But regardless of the outcome, IndiGo — like every other Indian airline — is in any case pinning its hopes on international expansion in the medium-term.

The specific challenge for Indigo is just what will it do with its vast order-book? The order made in August 2017 for 50 ATR 72-600s might make sense from the domestic point-of-view, as does the imminent A321neos for an expanded medium-haul network. But on top of that an astonishing 355 A320neos are on order.

Even allowing for the replacement of the 160 aircraft that are currently leased, that's still an immense amount of new capacity that needs to be placed into the market profitably. IndiGo is the most efficient of the domestic Indian airline but the government continues to prop up Air India, so that capacity is only reducing slowly. Given the supply/demand balance in the domestic market, can IndiGo management find enough short/medium-haul international traffic to fill those seats?

INDIAN CARRIERS: SHARE PRICE PERFORMANCE



The US Big Three: Contrasting fleet, capex and balance sheet priorities

US AIRLINES' recent round of third-quarter earnings calls showcased an industry that is doing amazingly well financially and has a promising outlook for 2019 — essentially because of success in offsetting higher fuel costs with fare increases and new ancillary revenue initiatives.

The three largest carriers — Delta, American and United — saw their average fuel price soar by 37% in the third quarter; yet, their aggregate operating profit declined by only 14%, from $4.3bn in Q3 2017 to $3.7bn in the latest period. The operating margin contracted from 13.5% to 10.8%.

However, there were major differences in the trends seen by individual carriers. United — hitherto an underperformer for many years — achieved surprisingly strong results, while American — previously in hot pursuit of Delta's RASM and margin lead — encountered some challenges.

United fully offset the extra fuel costs and grew its EBIT by 2.7% in Q3, to $1.2bn or 11.1% of revenues. The remarkable performance was attributed to its most recent turnaround plan, unveiled in January 2018, which JP Morgan analysts described as the carrier's "first credible strategic effort for success".

As a result, United has overtaken American in the Big 3's operating margin league in 2018 and is projected to retain that lead in the next two years (see chart on this page).

But American's struggles have also played a part in the reversal of those positions. American had execution issues with new product offerings and saw weak RASM trends, so it was unable to overcome a $750m higher fuel bill and saw operating income plummet by 36.5% to $866m, or 7.5% of revenues, in the third quarter.

It was a disappointing development, but analysts believe that this year's issues are temporary and that 2019 will see American's margins bounce back.

Delta — the margin leader among the Big 3 throughout this decade in part because it was the first to complete a Chapter 11 restructuring and a merger in 2008 — performed well in the third quarter, with 8% revenue growth and flat non-fuel unit costs offsetting 85% of the $655m additional fuel bill. Operating profit declined by only 7.9%, to $1.6bn or 13.6% of revenues.

Analysts believe that Delta will probably maintain its margin lead in the long term because it enjoys some structural advantages, including greater hub dominance.

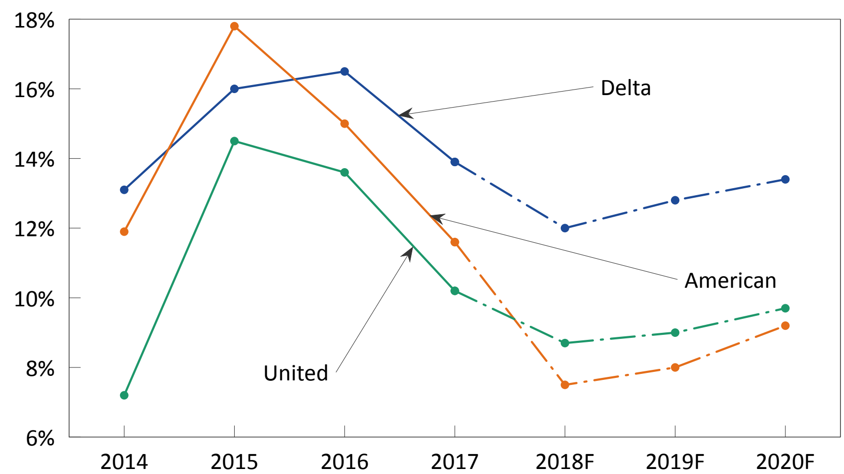
The three legacies are in very different situations regarding fleet renewal, capital spending and balance sheet priorities.

American has been on a major post-merger spending spree, investing $26.8bn on aircraft, product and facilities in 2014-2018, or $5.3bn annually. As a result, it has the youngest fleet among the network carriers but high debt levels, which some investors fear make it vulnerable in the next economic downturn.

But American's investment programme is now drawing to a close, with total capex falling to $2-3bn annually from 2020. The expectation is that deleveraging will get under way when American starts generating free cash flow (FCF).

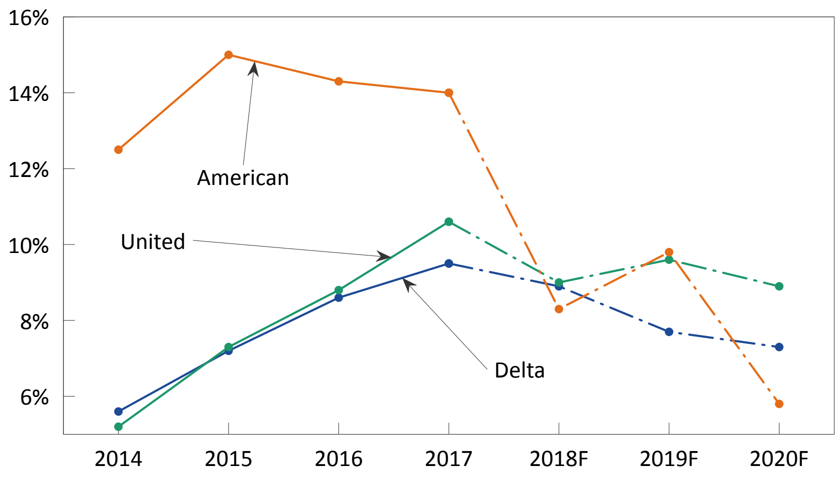
In contrast, Delta and United have

TOP THREE US CARRIERS: OPERATING MARGINS



Note: Forecasts by JP Morgan (October 30, 2018)

US TOP THREE: CAPEX AS % OF REVENUE



Note: Forecasts by JP Morgan (October 30, 2018)

focused on debt reduction since their respective mergers. They have also had more modest new aircraft order books and have acquired used aircraft more frequently.

Delta reduced its adjusted net debt by almost $11bn between 2009 and 2016, from $17bn to $6.1bn. However, in the past two years its priorities have shifted in favour of increased spending, especially on fleet and pensions.

In 2017 Delta's adjusted net debt increased to $8.8bn (and it quietly dropped the $4bn target it previously had for 2020) as it took on significant new debt to accelerate pension funding.

Delta's fleet investment too has moved into higher gear. In December 2017 it placed an order for 100 A321neos with deliveries from 2020. Its aircraft capex is set to increase from $2.8bn in 2017 to $4bn or more in 2018, though in the coming years Delta can be expected to continue its disciplined approach.

United's capital spending and leverage are somewhere in the middle between the extremes represented by Delta and American. The balance sheet is reasonably strong, especially when taking into account low pension obligations, and the new aircraft order book is quite robust. United has an interesting fleet strategy that includes many opportunistic used aircraft acquisitions and buying aircraft off-lease (more on that in the section below).

The US Big Three's contrasting capital spending trends are illustrated in the chart on the current page. Most strikingly, American is expected to see its capex as a percentage of revenues fall from the group's highest in 2016-2017 (14%-plus) to the lowest in 2020 (5.8%).

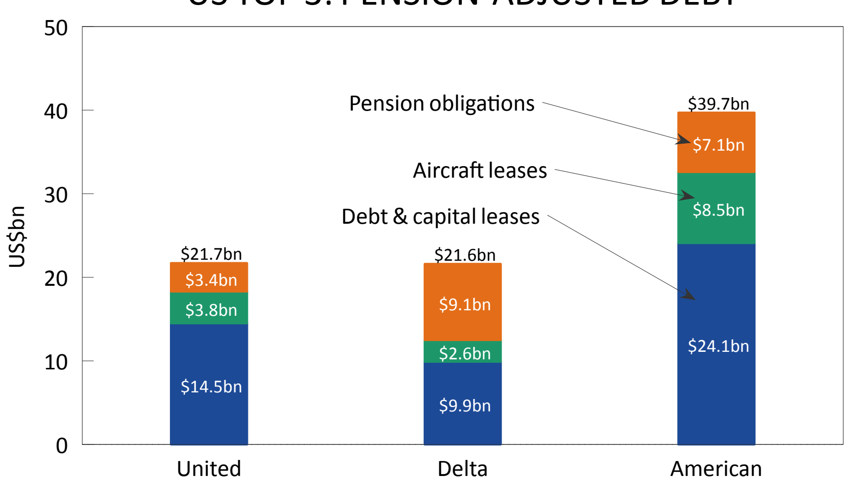
American's lease-adjusted debt, at $32.6bn on June 30, towers way above United's $18.3bn and Delta's $12.5bn (from a recent United presentation, see chart on this page). Also interestingly, if pension obligations are included, United and Delta had almost identical total adjusted debt.

The good news on the pension front is that regular sizeable contributions, good asset performance and rising interest rates have significantly reduced the pension burden for all three airlines.

American: Fleet renewal on home stretch

American accomplished many feats in record time following its Chapter 11 exit and merger: becoming highly profitable, passing key merger integration hurdles smoothly, reaching joint labour deals, signing lucrative

US TOP 3: PENSION-ADJUSTED DEBT



Notes: Q2 2018; Aircraft leases capitalised at 7x
Source: United Airlines presentation

credit card agreements, and initiating share buybacks and dividends just six months out of bankruptcy.

Post-merger American also became noted for its significant investment in new aircraft and the product, as it set about to restore itself as "the greatest airline in the world". Between 2014 and 2017, American brought in 400-plus new mainline aircraft and 100 regional aircraft.

The downside of the spending spree and the aggressive use of cash to repurchase stock was the need to take on significant debt. In September American's long-term debt and capital leases amounted to $22.3bn, with the net adjusted debt/EBITDAR ratio being 4.5x.

American feels comfortable about the debt level, first, because it maintains a strong cash position — $7.4bn in unrestricted cash and available facilities in September.

Second, most of American's debt is aircraft-related and at very attractive all-in interest rates (weighted average coupon of 4.59%, which is broadly in line with Delta and United). American has lower credit ratings than its peers, but it locked in long-term aircraft finance when interest rates were at their lowest.

Third, American feels that the new fleet will give it a significant competitive advantage, both in terms of lower costs and a better product.

2017 was officially the final year of American's "accelerated fleet renewal" programme, which has meant aircraft capex falling from an annual average of $4.6bn in 2014-2017 to $1.9bn in 2018.

But next year will see a spike to $2.9bn, as American takes delivery of large RJs that replace 50-seaters, along with narrowbody aircraft to replace the remaining MD-80 fleet, which will be retired after the 2019 summer season.

After 2019 aircraft capex will decline dramatically, to around $1.2bn in 2020 and $1bn in 2021. Those figures reflect the recent deferral of 22 A321neo deliveries, which reduced 2019-2021 capex by $1.2bn.

American continues to take delivery of A319s, 737 MAXs and 787-9s, and its A321neo deliveries will begin next year. In May American finally cancelled US Airways' old A350 order and instead committed to 47 additional 787s, which will replace A330-300s and other widebodies.

CFO Derek Kerr noted in October that, in terms of mainline aircraft, "everything is really in place for the next four or five years" but that there would be more large RJs to replace 50-seaters (an order for 15 more E175s subsequently followed).

American has had significant non-aircraft capex ($1.8bn in both 2017 and 2018) because of the need to update the product after a long gap. The investments will continue in 2019 and 2020 ($1.7bn in both years) but will moderate from 2021 onward.

American has made more than $1.5bn in pension contributions in the past five years, which will continue.

The reduction in capex should allow American to start generating significant FCF from 2020, part of which could be used to reduce leverage. At this point, though, the management merely talks about "natural deleveraging" — just paying off debt as it comes due and not replacing it.

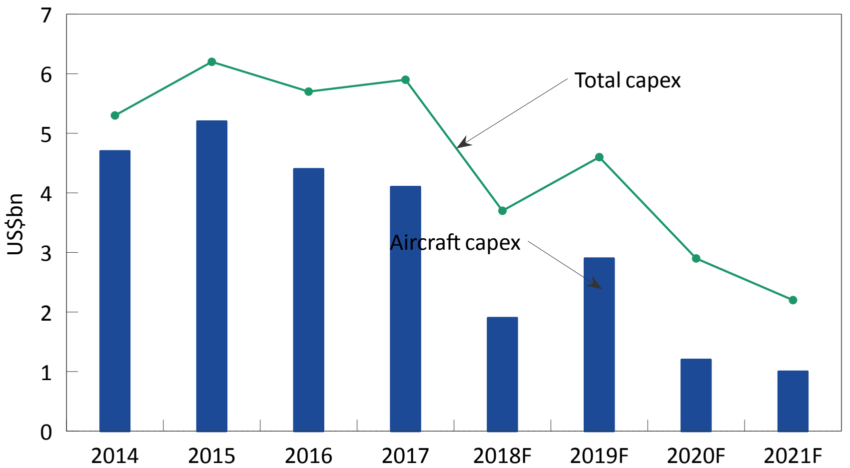
American maintains a $7bn minimum liquidity target; anything over that can be returned to shareholders. The board has authorised $13bn in share repurchases since the merger, of which $1.65bn has not yet been used.

Because of the lagging RASM and margins, as of mid-October American's shares had lost 35% of their value this year. But both the management and Wall Street are quite bullish about the prospects in 2019 and beyond.

One reason for that is that American is still reaping benefits from merger integration and catching up with Delta and United on the product front.

In October American completed a

AMERICAN: MODERATING CAPITAL SPENDING



Note: Total capex does not include pension obligations.
Source: American Airlines presentation (October 2, 2018)

AMERICAN'S FLEET PLAN

		2017	2018F	2019F	2020F
Mainline	A319	125	127	133	133
	A320	48	48	48	48
	A321	219	219	219	219
	A321neo			17	32
	A330-200	15	15	15	15
	A330-300	9	9	9	9
	737-800	304	304	304	299
	737 MAX	4	20	40	50
	757	34	34	24	24
	767-300	24	24	18	5
	777-200	47	47	47	47
	777-300	20	20	20	20
	787-8	20	20	20	32
	787-9	14	20	22	22
	E190	20	20	14	
	MD-80	45	30		
	Total mainline	**948**	**957**	**950**	**955**
Regional	CRJ200	68	35	21	21
	CRJ700	110	119	113	113
	CRJ900	118	118	132	133
	Dash 8-100	3			
	Dash 8-300	11			
	E175	148	154	174	174
	ERJ140	21	51	49	49
	ERJ145	118	118	118	118
	Total regional	**597**	**595**	**607**	**608**

Source: American Airlines Investor Update October 25, 2018

four-year project to move all 27,000 flight attendants into one scheduling system — an integration milestone that will improve operational flexibility, help optimise the network and drive efficiencies. Also, American expects $300m in new cost savings in 2019 under its "One Airline" project.

In addition to the cost savings from new and larger aircraft, American expects to benefit from a reduction in the number of sub-fleets (from 52 to 30) and a harmonisation of aircraft seating configurations.

American has identified $1bn of incremental revenue opportunities in 2019. Much of it will come from product segmentation, namely basic economy refinements and the completion of the installation of premium economy (mid-2019). The latter will be further monetised with new revenue management and merchandising capabilities. American can expect to continue growing its share of corporate travellers.

The management believes that American has unique growth opportunities in three key hubs — DFW, Charlotte and DCA. The opening of 15 additional gates in DWF in early 2019 will enable American to add 100 more daily departures at its largest and most profitable hub.

American has moved aggressively to address higher fuel prices and its own underperformance. It has eliminated unprofitable routes, including Chicago-Beijing (which was reportedly losing $50m annually). It has reduced 2019's planned system capacity growth by one point to 2%, which is the lowest among the legacies, and much of it will come from DFW incremental flying. American is projecting only 1-2% ex-fuel CASM growth in 2019, similar to this year's 1.5% increase.

And it will help not having to pay cash taxes until (probably) 2021. At the end of last year American still had $10bn in federal Net Operating Loss (NOL) carry-forwards, which will last longer because the December 2017 tax reform.

Delta: Accelerating fleet spending

In the ten years since completing its merger with Northwest, Delta has beaten its US legacy peers handsomely on all fronts, be it profit margins, ROIC, debt reduction or returning capital to shareholders.

It has the strongest balance sheet, with unrestricted liquidity of $5.1bn, long-term debt and capital leases of $8.1bn, adjusted net debt of $10.2bn and a leverage ratio (adjusted net debt to EBITDAR) of 1.28x in September. It is the only one of the Big Three with investment grade ratings (from all three main rating agencies).

Delta is a product innovator (the creator of basic economy, for example) and achieves a RASM premium over the other legacies. It has deployed many unusual strategies, such as buying an oil refinery and acquiring minority equity stakes in multiple foreign airlines.

But the focus on balance sheet strengthening has meant "underinvestment" in the fleet (as one analyst put it). The average age of Delta's fleet is 16.2 years, compared to United's 14.3 and American's 10.1.

Delta is well positioned to operate older aircraft because of its technical expertise (MRO) and commercial skills. And, in all fairness, Delta has had successful fleet renewal, restructuring and upgauging programmes in place for some years. Under its "balanced capital deployment" strategy, Delta reinvests 50% of its operating cash flow in the business, which allows for the replacement of 30% of its mainline fleet in 2017-2020.

But Delta needed to step up fleet renewal at some point, and it seems to have happened this year. Its total capex, which averaged only $2.6bn annually in 2013-2015 and then rose to $3.2bn in 2016 and $3.7bn in 2017, has soared to around $4.9bn in 2018.

Delta has not disclosed this year's aircraft capex, but with 60 new aircraft deliveries and a recent decision to purchase and finance (at substantially lower cost) $600m of aircraft that were previously slated for operating leases, this year's aircraft capex is likely to be at least $4bn. That compares with $2.8bn in 2017, $2.4bn in 2016 and $2.2bn in 2015.

The key theme of Delta's refleeting is upgauging. Domestically, so far it has involved replacing 50-seater RJs with larger RJs, MD-88/90s with A321ceos, and 737-900ERs and 757-200s with 737-900ERs.

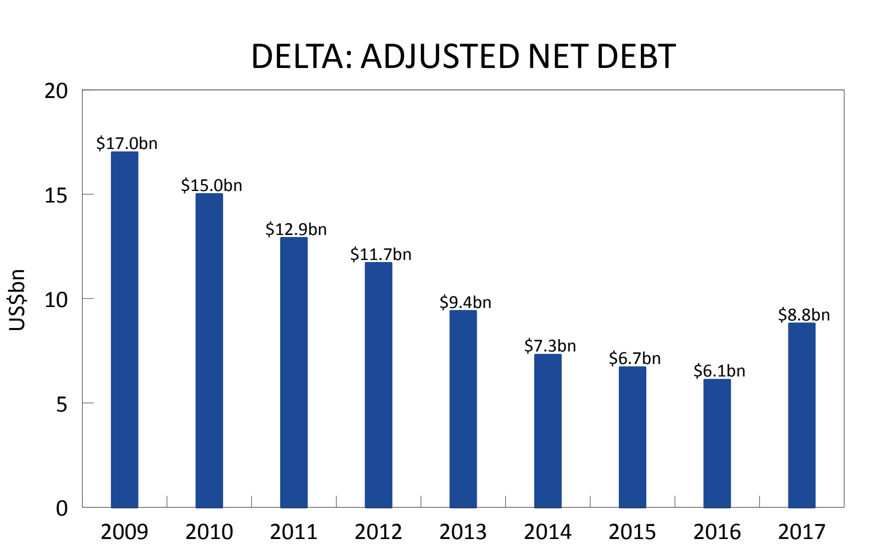
Delta's first A220s will enter service in early 2019, mainly re-

DELTA'S FLEET AND ORDERS

		Owned	Finance lease	Operating lease	Total	Average Age	Orders	Options
Mainline	717-200	3	15	73	**91**	17.1		
	737-700	10			**10**	9.7		
	737-800	73	4		**77**	17.0		
	737-900ER	65		39	**104**	2.7	26	
	757-200	89	9	2	**100**	21.1		
	757-300	16			**16**	15.6		
	767-300	2			**2**	25.3		
	767-300ER	55	1		**56**	22.3		
	767-400ER	21			**21**	17.8		
	777-200ER	8			**8**	18.8		
	777-200LR	10			**10**	9.5		
	A220-100						75	100
	A319-100	55		2	**57**	16.6		
	A320-200	55	3	4	**62**	23.1		
	A321-200	35		28	**63**	1.0	64	
	A321-200neo						100	100
	A330-200	11			**11**	13.5		
	A330-300	28		3	**31**	9.7		
	A330-900neo						33•	
	A350-900	11			**11**	0.7	14	
	MD-88	80	13		**93**	28.0		
	MD-90	49			**49**	21.6		
	Total mainline	**676**	**45**	**151**	**872**	**16.2**	**314•**	**150**

		CRJ200	CRJ700	CRJ900¶	E170	E175	Total
Regional†	Endeavor Air‡	42	3	109			**154**
	ExpressJet§		12				**12**
	SkyWest	86	25	37		37	**185**
	Compass					36	**36**
	Republic				22	16	**38**
	GoJet		22	7			**29**
	Total regional	**128**	**62**	**153**	**22**	**89**	**454**

Source: Delta 10Q (October 11, 2018)
Notes: † operated by Delta's partners; ‡ wholly owned by Delta; § relationship ends November 30, 2018; ¶ there are orders for 19 CRJ900s for 2018-2020 delivery (for SkyWest); • includes 10 additional A330-900s ordered in mid-November 2018.



Note: Debt and capitalised leases less cash and short-term investments.
Source: Delta reports and presentations

placing 50-seat RJs. From 2020, the A321neos will start replacing the remaining older narrowbodies. Delta recently ordered 19 CRJ-900s to replace older aircraft operated by SkyWest.

On the international front, as part of its highly successful Pacific restructuring, Delta has replaced its 747 fleet with A350s, with A330neos following in the future. The result has been a significant improvement in profitability on the Pacific.

At its December 2017 investor day Delta noted that upgauging had driven nearly $1bn in cost savings over four years, with another $300m savings expected in 2018.

The revenue benefits of upgauging are also substantial, because new and larger aircraft facilitate a better product and have space for more premium class seats.

The leadership said in October that the fleet transformation was "still in the middle innings" and would continue into the mid-2020s. "No carrier has as much opportunity to benefit from upgauging as Delta over the next 5-10 years."

Delta executives said at a conference in March 2018 that they were actively engaged with Boeing on a potential 797/NMA, which could fit in well as a 757/767 replacement.

The leadership indicated in January that Delta's $2bn portfolio of airline investments was "essentially complete". The line-up includes minority equity stakes in Virgin Atlantic (49%), Aeromexico (49%), Air France-KLM (10%), GOL (9%) and China Eastern (3%). The focus now is on deeper integration, as well as building out the more recent JVs with Aeromexico, Korean Air and WestJet.

That said, there may well be further opportunistic airline investments. Many believe that an increase in the GOL stake is only a matter of time.

While Delta's aircraft spending will increase, it will still be disciplined and within a framework of a balanced capital allocation strategy. The airline is committed to continued debt reduction, maintaining an investment grade balance sheet, funding pension plans to the tune of $500m annually and returning 75% of FCF to shareholders ($2bn-plus in both 2017 and 2018).

Getting to a fully funded status with pensions is considered a priority. The $2.6bn increase in Delta's adjusted net debt in 2017 was mainly because a decision to take new unsecured debt to accelerate pension funding (Delta is able to access such debt because of its investment-grade status).

Conveniently, Delta may have achieved its debt reduction and pension funding goals by the time it becomes a taxpayer after using up its NOLs, which is currently expected to be in 2020.

Delta is on track to deliver its fourth consecutive year of pretax profits exceeding $5bn in 2018, despite $2bn higher fuel costs. It has maintained strong revenue growth, driven by a surge in sales from premium products, while bringing ex-fuel CASM growth back in check (1-2% this year, compared to 4.3% in 2017).

Delta's top financial priority in 2019 is to return to margin growth, which is achievable given the strong revenue momentum and positive cost trends. The current plan envisages 3% ASM growth next year, but the management has indicated that it will be reduced if necessary.

United: New orders or more used aircraft?

United's long quest to realise the full potential of its assets, which include a powerful global network and well-located hubs, and its many setbacks and struggles are legendary (see *Aviation Strategy*, December 2016). But evidence is mounting in 2018 that United's efforts are finally succeeding.

The turnaround is a result of a new strategy that has boosted connecting traffic at three mid-continent

UNITED'S FLEET PLAN

		2017	2018F	Orders†
Mainline	A350-900			45
	777	88	92	
	787	33	40	24
	767	51	54	
	757	77	77	
	737 MAX		10	151
	737NG	329	329	
	A319/A320	166	166	
	Total mainline	**744**	**768**	**220**
Regional	Q200	7		
	ERJ135	3		
	ERJ145	168	176	
	CRJ200	85	128	
	CRJ700	65	64	
	E170	38	38	
	E175	152	153	25
	Total regional	**518**	**559**	**25**

Source: United Airlines (October 16 investor update and SEC filings). Note: † at year end 2018

hubs. The plan envisages system capacity growth accelerating to 4-6% annually in 2018-2020, with domestic outpacing international.

As a concrete example that the strategy is working, in Q3 the three hubs saw a 6.8% PRASM improvement, compared to a 5.6% increase in the rest of the network. And that was despite capacity being up by 9.7% in the three hubs, compared to 2.3% in other parts of the network.

United apparently undertook a complex review of the hubs' connectivity patterns and then made appropriate changes to schedules and frequencies, especially keeping premium travellers in mind.

It is early days yet, but the turnaround appears to be winning over investors' confidence. United was the year's best performing US airline stock through mid-October.

United's fleet strategy is complicated and the annual capex has fluctuated a lot because of opportunistic used aircraft acquisitions, buying many aircraft off lease and frequent order revisions or deferrals (reflecting the long quest for winning strategies and many management changes).

United's total capex peaked at \$4.7bn in 2017 (after 2016's \$3.2bn) as it took delivery of 19 new aircraft and purchased eight used aircraft and 46 aircraft off lease. This year's total capex will be \$3.6-3.8bn, with 24 new aircraft deliveries and many used aircraft transactions. In 2019-2020 total capex is expected to be somewhere between the 2017 and 2018 figures.

Like American, United has invested heavily in product, technology and infrastructure; its non-aircraft capex amounted to \$1.1bn in both 2017 and 2018. Notable projects have included basic economy, Polaris business class, Premium Plus and a new revenue management system (Gemini).

United began taking 737 MAX 9 deliveries in June 2018 and will have received 10 by year-end, with another 51 on firm order. In 2017 100 of the original MAX 9 order were converted to the MAX 10, which will start arriving in late 2020 (among other things, to replace older 757-200s). United also has an agreement to purchase 20 used A319s for delivery in 2020-2021.

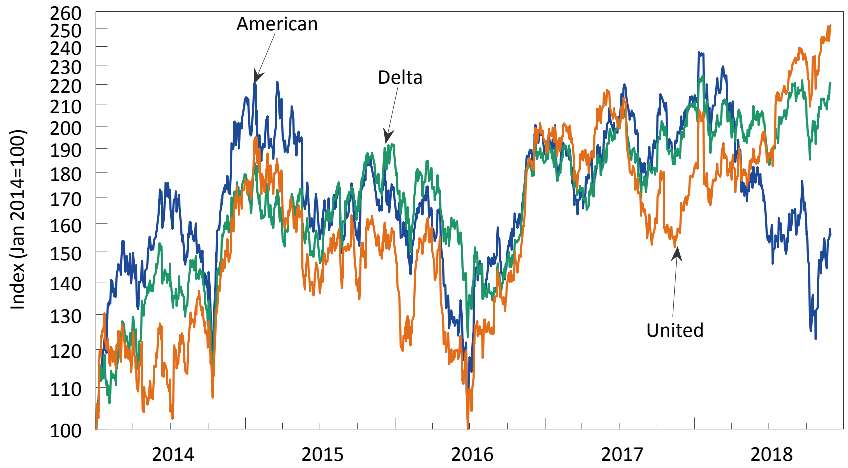
On the widebody front, United has orders in place for 45 A350-900s for 2022-2027 delivery (originally an order for 35 A350-1000s with earlier deliveries).

United retired its last 747s in 2017, replacing them with 777-300ERs and 787-9s. Its last 777-300ER will be delivered in the current quarter.

The year-end fleet will include 40 787s, with 24 more on order. Earlier this month United became the first operator of the 787-10 in the Americas and the first airline to have all three 787 variants in the fleet. According to *Flightglobal*, United will configure the 787-10 to 318 seats and, among other markets, will deploy the type on six transatlantic routes from next summer. The type has 66 more seats than the 787-9 and only a 1,205nm penalty. In total, United has ordered 14 787-10s, 38 787-9s and 12 787-8s.

In Q3 United ordered 25 additional E175s for 2019 delivery and signed a separate deal to purchase 54 ERJ145s off-lease, also in 2019. All will be operated by regional partners.

The E175s are replacement aircraft, because United has reached the maximum limit of 70-seat or larger RJs in its scope clause. The issue is part of the current negotiations with the pilots, whose contract becomes amendable on January 31. United's scope clause is more restrictive than American's and Delta's, and it has become a bigger issue because of the desire to strengthen hubs.



According to the CFO's recent comments, United is actively looking for additional used aircraft to supplement new aircraft deliveries. The management calls it a "capital-efficient and flexible" way to grow. The strategy also helps de-risk the balance sheet.

The fleet plan has significant flexibility in the event of a downturn. United could reduce its capacity by up to 12% in each of the next two years through lease expirations (31 in 2019 and 43 in 2020) and by retiring "late life-cycle" aircraft (63 in 2019 and 66 in 2020).

United's balance sheet is reasonably healthy, with lease-adjusted debt of $18.3bn, a lease-adjusted debt/EBITDA ratio of 3.1x and unrestricted liquidity of $7.1bn in June. However, United benefits from relatively low pension obligations. Its credit ratings (Ba2/BB) have been on a gradual upward path in the past two years.

Like its peers, United now returns significant amounts of capital to shareholders via share repurchases (but not yet dividends). The repurchases amounted to $1.8bn in 2017 and $1bn in January-September 2018. Pension contributions have been running at around $400m annually. The minimum liquidity target is $5bn.

This year's consolidated 4.9% ASM growth (up from 2017's 3.5%) will help United achieve "flat-to-down-1%" ex-fuel CASM in 2018, while commercial initiatives will also contribute to the quest to offset a $2.5bn higher fuel bill.

Like its peers, United believes that it has the momentum to improve operating margin in 2019. And its ambitious 2020 EPS goal of $11-13 is now more achievable, even though it would still require 20% CAGR in EPS in 2019-2020. United still has to prove that it can consolidate its turnaround.

By Heini Nuutinen
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Jet values and lease rates

THE FOLLOWING tables reflect the current values (not "fair market") and lease rates for narrowbody and widebody jets. Figures are provided by The Aircraft Value Analysis Company (see following page for contact details) and are not based exclusively on recent market transactions but more generally reflect AVAC's opinion of the worth of the aircraft. 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.

JET VALUES ($m)

			Years old					Years old		
		New	**5**	**10**	**20**		**New**	**5**	**10**	**20**
Regional	Emb 175†	27.5	22.3			S100-95a	23.1	17.1		
	Emb 195	30.8	24.1	14.0						
Narrowbody	A220-100	31.8				717-200			7.7	
	A220-300	35.3				737-300♯				1.9
	A319‡			12.9	6.7	737-400♯				2.7
	A319 neo	40.6				737-500♯				1.7
	A320-200‡			16.8	8.9	737-600♯			9.0	4.3
	A320 neo	50.3	40.2			737-700♯			14.5	6.8
	A321-200♯	49.7	39.3			737-800♯			18.6	9.5
	A321 neo	59.2				737 MAX 7	40.7			
	A321 neo LR	61.6				737 MAX 8	52.7			
						737 MAX 9	53.5			
						737 MAX 10	56.0			
						757-200*				6.8
Widebody	A330-200†‡	78.7	64.6	41.8		747-400*				5.9
	A330-300 Regional	88.6	68.2			747-8I	141.2	109.7		
	A330-900 neo	114.9				767-300ER§		30.8	26.6	13.4
	A340-300 ER*				8.6	777-200LR		42.2	30.5	
	A350-900	149.9				777-900	184.5			
	A350-1000	168.3				787-8	121.8	91.1		
	A380-800‡	223.8	173.1	84.1		787-9	143.2			
						787-10	157.3			

Source: AVAC.
*Notes: As at end-October 2018, lease rates assessed separately from values. † = Enhanced, ‡ = IGW, ♯ = LGW, § = HGW, * = for conversion*

JET LEASE RATES ($'000s/month)

		New	Years old 5	Years old 10	Years old 20		New	Years old 5	Years old 10	Years old 20
Regional	Emb 175†	206	188			S100-95	146	132		
	Emb 195	238	210	150						
Narrowbody	A220-100	252				717-200			101	
	A220-300	282				737-300♯				56
	A319‡		137	83		737-400♯				56
	A319 neo	329				737-500♯				38
	A320-200‡			172	141	737-600♯			98	65
	A320 neo	384	313			737-700♯			145	86
	A321-200♯	383	312			737-800♯			184	148
	A321 neo	453				737 MAX 7	326			
	A321 neo LR	468				737 MAX 8	412			
						737 MAX 9	423			
						737 MAX 10	484			
						757-200*				
Widebody	A330-200†‡	679	593	489		747-400*				
	A330-300 Regional	743	634			747-8I	1,025	895		
	A330-900 neo	893				767-300ER§		273	248	214
	A340-300 ER*					777-200LR		459	407	
	A350-900	1,212				777-900	1,729			
	A350-1000	1,612				787-8	886	732		
	A380-800‡	1,823	1,437	782		787-9	1,164			
						787-10	1,322			

Source: AVAC.
*Notes: As at end-October 2018, lease rates assessed separately from values. † = Enhanced, ‡ = IGW, ♯ = LGW, § = HGW, * = for conversion*

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