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Air France-KLM: Dysfunctional France

Some chief executives merely resign quietly when they have had enough of running a company. It takes a special talent to offer the company's staff the opportunity for a vote of confidence and make the decision for them. And yet this effectively what Jean-Marc Janaillac, the now former Chairman and CEO of Air France-KLM (and Chairman Air France) has done.

Unlike its peers at IAG and Lufthansa (and its sister company KLM), Air France has been unable to persaude its unions that legacy working practices and employment conditions from a regulated era have to change in a deregulated market-oriented environment. And it is thirty years since the European industry was deregulated.

The French flag carrier has been battling to come to agreements with its unions — and particularly the pilots' unions — for many years on a series of issues (ranging from working hours to scope clauses, pay, limits on expansion of Transavia, and even who should be allowed to train the pilots to upgrade to 787s).

The current problem revolves around pay: the company has had a pay freeze since 2011, and having finally achieved operating profits after five years of heavy losses following the global financial crisis the unions put in a demand for an immediate 5% pay increase; the company countered with an offer of a 7% increase spread over three years. Impasse in negotiations led to a series of strikes from February, which the company estimates has cost it €27m in the first quarter, and will have a negative impact of €300m on operating profits for the full year.

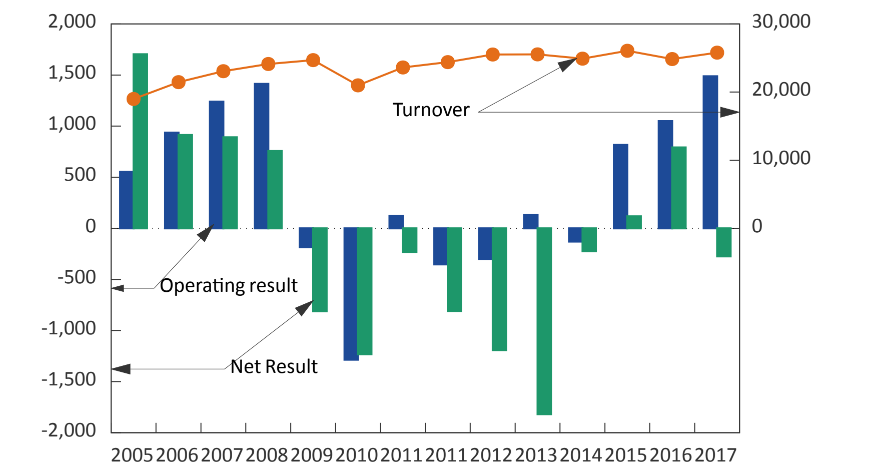
In a dramatic move Janaillac, perhaps feeling that the rank and file of the workforce were not totally in agreement with the union stance (and having seen that participation in the series of strikes had been falling) put the matter to a company-wide vote. In a press release in mid-April he stated: "Air France must emerge from this impasse. In the face of such a severe situation and because the company's future could be under threat, I have decided to launch this consultation with all staff... I will be personally accountable for the consequences of this vote."

His gamble (if such it were) failed and so, with a vote of 55% against the company's proposal, he resigned.

This issue includes

But the issue is not unique to Air France. More it may reflect a backlash against the attempts by President Macron to reform the uncompetitive employment conditions in France, and even maybe to transform the traditional policy of *dirigisme* (see *Aviation Strategy* June

AIR FRANCE-KLM FINANCIAL RESULTS (€m)



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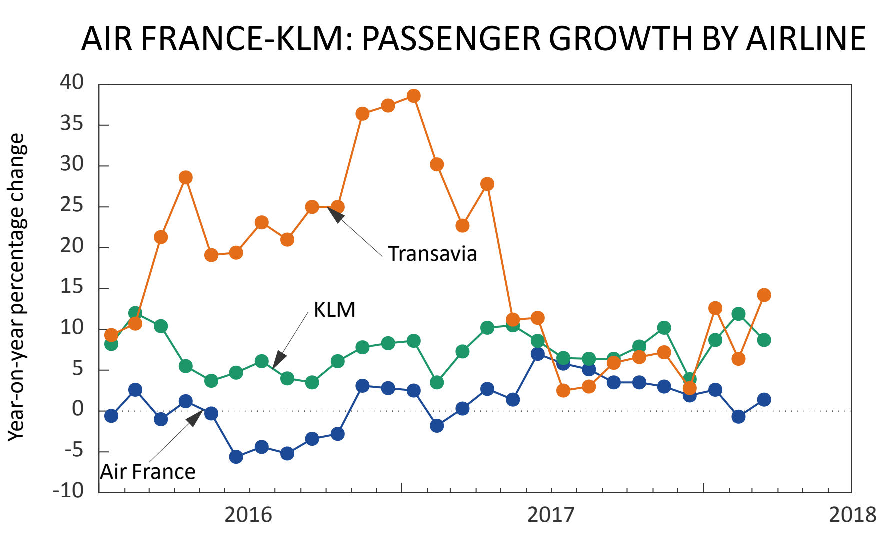
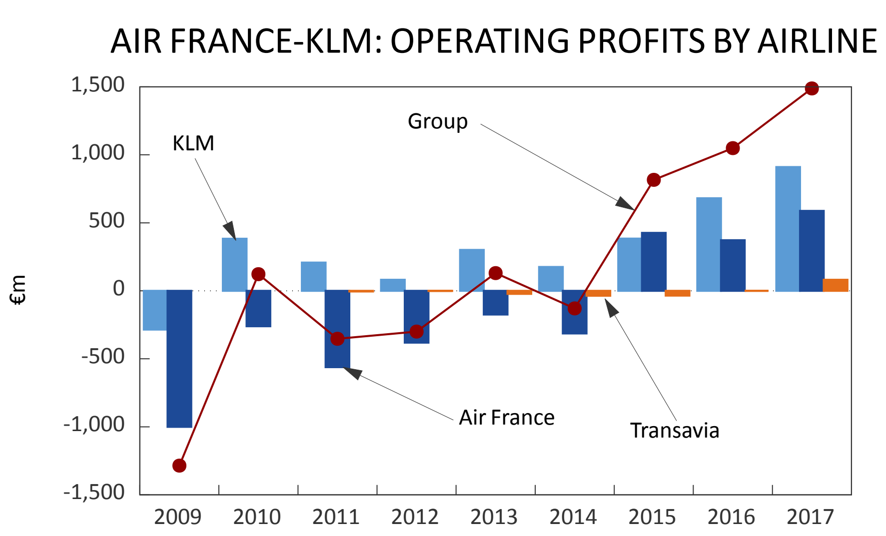
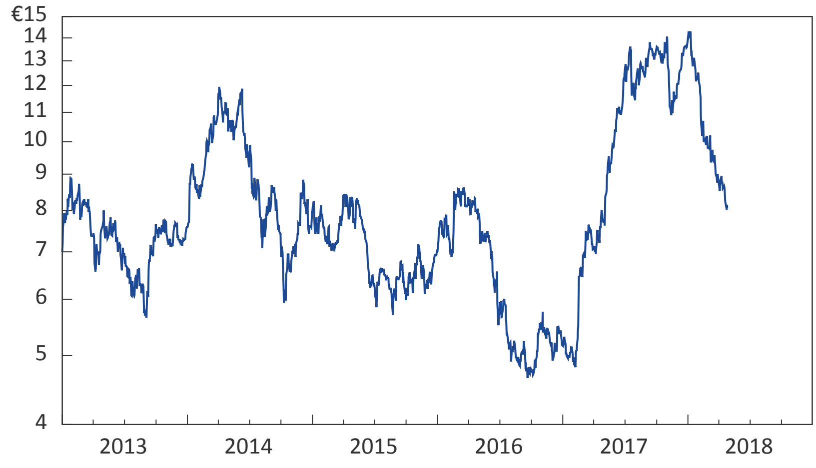


2017). The country has been beset by protests and strike action: SNCF (state railways), air traffic control (a perennial problem), civil servants, energy workers, students and even rubbish collectors.

As an interim measure Anne-Marie Couderc (a board member, former politician, and Minister of State in the 1990s) has been appointed non-executive Chairman of the Group. Frédéric Gagey (Group CFO), Pieter Elbers (KLM CEO) and Franck Terner (Air France CEO) will jointly act as Group CEO in triumvirate while the board tries to find a suitable replacement. Any of these three would be eminently suitable, but Gagey having done a stint as Chairman and CEO of Air France may not want to; Pieter Elbers is not French; and, none of the three are alumni of the Ecole Nationale d'Administration. They just didn't go to the right university (again, see *Aviation Strategy* June 2017).

Meanwhile the first quarter results show the widening disparity





in fortunes of the Dutch and French flags. Total group revenues in the quarter were up by 1.8% year on year to €5.8bn with total passenger numbers up by 5% and unit revenues by 1.2%. Group operating losses worsened to €(186)m from a restated €(33m) despite the early Easter. These figures have been flattered by a change in accounting policies: the group decided to adopt IFRS 16 early from the start of 2018 (accounting for leases which becomes mandatory from 2019, see *Aviation Strategy* April 2016). Originally published group operating losses in Q1 2017 had reached €(143)m.

KLM separately did very well: revenues were up by 7.4% to €2.4bn and operating profits doubled to €60m for the quarter — a margin of 2.5%. Air France by contrast saw revenues fall 1% to €3.6bn and operating losses triple to €(178)m from €(57)m.

As shown in the chart on the facing page KLM has been able to generate operating profits in each of the last seven years since the global financial crisis while the larger Air France only managed to return to profitability at the operating level in 2015.

It is hardly surprising that the Group, in announcing the first quarter results, guided that it expected the full year operating profit to be "notably below [that of] 2017".

This *crise de confiance* has led to suggestions in the Netherlands that KLM would be better off outside the group; and in France that Air France could (and may be allowed to) fail.

The Dutch unions remain supportive of the partnership and the group structure and appear disappointed that Janaillac did what he did. "To disentangle the companies would be stupid" stated Leen van der List of Federatie Nederlandse Vakbeweging (FNV, the union federation). "This is a global business in which you need strong partnerships."

But they also seem annoyed at the intransigence of the Air France pilots: "Asking for a raise from the top of the barricade and waving a flag is absurd" said Robert Swankhuizen of the Nederlandse Vereniging voor Luchtvaart Technici (NVLT, the mechanics union) adding "their demands are irresponsible".

KLM and its unions have had their ups and downs but have tended to have a rational consensual approach to industrial relations. Michiel Wallaard of the Christelijk Nationaal Vakverbond (CNV) stated "KLM is basically doing better than ever, as we have struck two very sober labour agreements in recent years. We now expect the other parts of the company to follow". He went on "we want to continue with Air France and are not asking for a divorce, but... we need to think about Plan 'B"'.

France's economy minister Bruno Le Maire said that the French State would not come to the rescue. "Air France will disappear", he stated, "if it does not make the necessary efforts to be competitive. We're minority shareholders... those that think that whatever happens the state will come to Air France's rescue and soak up Air France's losses are mistaken."

Indeed, the French state holds 14.3% of the equity (and up to 28% of the votes), but also has two directors on the 15-strong Group board and one further ministerially appointed representative.

The employees also have two board directors representing employee shareholders and two further representatives appointed respectively by the *Comité de Groupe Français* and the European Works Council.

Highlighting the contrast in attitudes, one of the pilots' unions, the Syndicat National des Pilotes de Ligne (SNPL), claimed Air France-KLM was able to deal with the losses as it was a "perfectly healthy group economically" — financial analysis is not necessarily their strong point — and in any case it was the government that was responsible for what's going on saying *"we know perfectly well that the true decision-maker from the beginning of this conflict remains the state"*.

AirAsia: Not appreciated and undervalued

AirAsia is not appreciated, as least on the Kuala Lumpur stock exchange where its share value has fallen by a third over the past two months, and that from a level which Tony Fernandes, founder and CEO of Asia's leading LCC, regarded as substantially undervaluing his airline.

Unaudited accounts for 2017 indicate that the AirAsia Group achieved a net operating margin of 16.3%, in the upper range of LCC expectations, and grew net profits to \$394m, up by 38% on 2016. First quarter results for 2018 are guided as being strong. It has gone through some troubled times, notably in 2014 when a combination of adverse events — a "perfect storm" — pushed it into losses, the airline group has grown rapidly, by about 13% pa on average in seat capacity terms since 2010. (All these figures refer to AirAsia Berhad, excluding the long-haul AirAsiaX and its associates.)

AirAsia Berhad's current stock market value is about MYR10.3bn (US\$2.5bn) with a p/e ratio of 4.9. This contrasts with Ryanair's p/e of 14, even more so with the newer Asian LCCs — Indigo and Spring Airlines, both at 28, and VietJet at 32 — and the traditional Asian flag-carriers — SIA at 15, Thai Airways at 31, China Southern at 17.

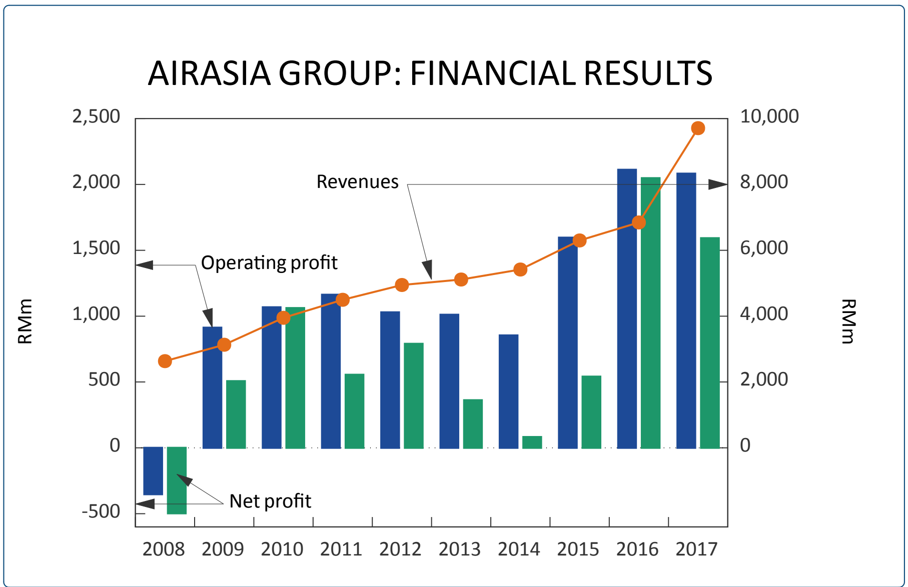
By its own calculations, AirAsia's Enterprise Value (total of equity market value and net debt) as a multiple of EBITDA (operating cash flow) was 7.3 at the end of the first quarter 2018 against a global average of 12.9. It reckons that the group's true value is over twice that of implied by the stockmarket — around \$5.4bn.

The direct cause of AirAsia's recent share price slump was a political blunder by Tony Fernandes. In the early May elections in Malaysia Fernandes threw his support behind the incumbent prime minister Najib Razak, who had been in power since 2009, appearing in a promotional video and changing the paint scheme on two of his aircraft from red to blue, Najib's campaign colours. Then, contrary to the polls and to Fernandes' horror, 92-year-old former leader Mahathir Mohamad was returned to the prime minstership by the electorate.

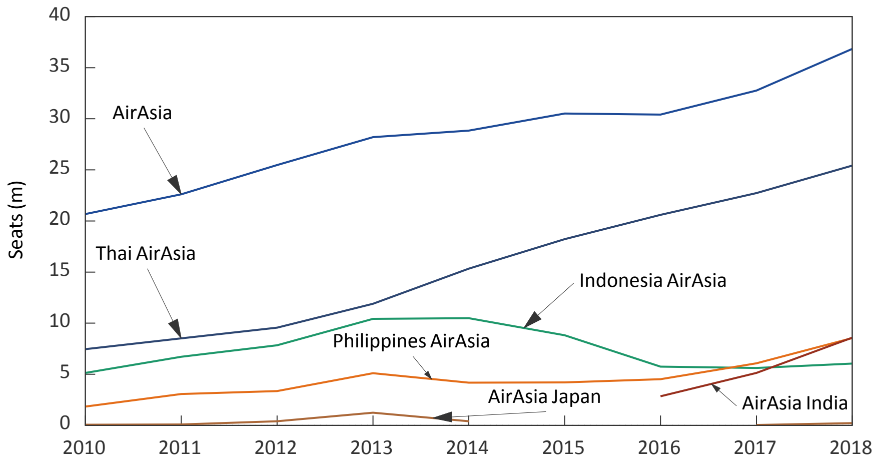
This is more than just embarrassment for Fernandes. In Malaysia business success depends on political connections and patronage. *The Economist*'s "crony capitalism" index, which attempts to rank the importance of political influence on business success, specifically on the success of commercial billionaires, places Malaysia second only to Russia (other Asian countries, notably Indonesia, Singapore and India also rank highly). Moreover, Mahathir has a reputation for ruthlessness; Najib temporarily ended up in gaol on improbable morality charges.

Since the election Fernandes has been trying hard to repair the damage, pleading that his support for Najib was only because he was pressurised by Najib who had objected to AirAsia adding frequencies on the election day. He issued a contrite statement on Facebook, which has attracted millions of views in Malaysia and Southeast Asia.

How all this will play out is anyone's guess, but it difficult to see how Fernandes and AirAsia can benefit. They are on the wrong side of Mahathir who may now throw his support behind the flag-carrier MAS, which is showing signs of a recovery from the worst of its traumas (and



AIRASIA GROUP: CAPACITY DEVELOPMENT



on the wrong side of the Malaysian Aviation Commission which is investigating AirAsia's scheduling during the election). Fernandes can now try to indicate his support for the Mahathir regime, but then he exposes himself to retribution from whoever replaces Mahathir, an event which may not be too far in the future given the prime minister's advanced years.

For investors, these tortuous politics in Kuala Lumpur are anathema. And the situation is further complicated by the fact that AirAsia's valuation on the Bursa is supposed to reflect the prospects of not just the core Malaysian operation but that of airlines in five other Asian countries– Thailand, Indonesia, India, the Philippines and Japan — plus that of its leasing associate, Asia Aviation Capital.

AirAsia's foreign airlines were all established as partnerships with local enterprises, to comply with ownership regulations, with AirAsia typically taking a 40-49% stake. They were officially deemed to be associates, meaning AirAsia "had significant influence over these investees [but] did not have power over them". Their results were reflected in AirAsia's consolidated results on an equity basis as an item below the net operating level, with the amounts reflecting the parent company's ownership proportions. However, little detail was provided on the how these amounts were calculated, and how exactly the various associates were performing, so analysts were frustrated in their efforts to understand the economics of the whole AirAsia Group

Fernandes himself has attributed AirAsia's poor share price performance to the group's over-complex structure and lack of transparency. His proposed solution is to evolve the group so that each of the associates will be 100% owned by the parent company and the stockholders of AirAsia Indonesia, AirAsia Philippines, etc will be able to "trade up" — the OneAirAsia strategy. How this can be achieved in practice is unknown, though the idea, mooted last year, of a Hong Kong holding company appears to have been parked.

As regards the 2017 (January to December, unaudited) accounts, AirAsia has made some progress, renegotiating the Brand Licensing Agreements (BLAs) with Indonesia Air Asia and Philippines AirAsia, with the effect that these airlines are now regarded as subsidiaries, "complying at all times with recommendations made by the [parent] company under the BLA". We do not have space in this article to explain the accountancy changes involved in this consolidation (to be honest, we couldn't explain them with limitless space) but we have been able to pull together summary financials for AirAsia Berhad, the Malaysian core operation, including results from consolidated associates, and P&Ls for the four main foreign companies (see table on the next page). All the accounts have been converted from

AIRASIA GROUP BALANCE SHEET

	Dec 2017 US$m
Non current assets	
Fleet	3,031
Aircraft Deposits	483
Others	574
Total	4,089
Current assets	
Cash etc	466
Receivables	342
Aircraft Deposits	166
Others	118
Total	1,091
Total Assets	5,179
Current Liabilities	
Sales in advance	244
Payables	453
Borrowings	483
Others	41
Total	1,221
Non Current Liabilities	
Payables	557
Debt	1,820
Total	2,377
Total Equity	1,581
Total Liabilities	5,179

Note: Unaudited Accounts.

AIRASIA AIRLINES FINANCIAL RESULTS (US$ millions)

	AirAsia Bhd			Thai AirAsia			AirAsia India			Indonesia AirAsia			Philippines AirAsia		
	2017	**2016**	**Change**	**2017**	**2016**	**Change**	**2017**	**2016**	**Change**	**2017**	**2016**	**Change**	**2017**	**2016**	**Change**
Pax (m)	39.1	35.1	+11%	19.8	17.2	+15%	4.4	2.5	+76%	4.6	4.7	-2%	5.3	4.0	+33%
Net Op. Margin	16.3%	17.2%	-1%	6.7%	10.2%	-3%	-5.3%	-17.1%	+12%	3.5%	5.5%	-2%	4.2%	-19.2%	+23%
Net Margin	16.4%	15.1%	+1%	7.9%	9.5%	-2%	-4.6%	-17.5%	+13%	-13.1%	0.4%	-13%	2.5%	-28.2%	+31%
Revenue/pax	61	54	+14%	55	52	+5%	54	49	+11%	60	61	-1%	58	55	+5%
Revenues	**2,403**	**1,894**	**+27%**	**1,089**	**902**	**+21%**	**236**	**121**	**+95%**	**277**	**285**	**-3%**	**306**	**221**	**+39%**
Staff	398	300	+32%	166	126	+31%	42	23	+81%	53	46	+14%	**39**	**32**	+21%
Fuel	698	509	+37%	321	229	+40%	93	54	+73%	90	85	+6%	**98**	**72**	+38%
MRO	161	97	+66%	89	81	+10%	30	15	+101%	41	44	-7%	**57**	**52**	+10%
Airport & User	313	260	+20%	185	150	+23%	36	18	+105%	57	57	-0%	**37**	**30**	+25%
Leasing	161	116	+39%	150	135	+11%	37	24	+56%	42	44	-4%	**41**	**34**	+22%
Depreciation	227	175	+30%	44	32	+35%	2	1	+18%	12	10	+18%	**5**	**7**	-34%
Others (income)	(71)	(8)	nm	43	43	-0%	9	7	+19%	(35)	(24)	+43%	**11**	**32**	-67%
Total Op Costs	**1,888**	**1,449**	**+30%**	**997**	**797**	**+25%**	**249**	**142**	**+75%**	**261**	**263**	**-1%**	**288**	**258**	**+12%**
Op Profit	**516**	**446**	**+16%**	**93**	**105**	**-12%**	**(12)**	**(21)**	**-40%**	**16**	**23**	**-30%**	**18**	**(37)**	**nm**
Finance costs	123	120	+2%	19	13	+44%			-100%	6	7	-12%	**5**	**5**	+1%
Net Op Result	**393**	**326**	**+21%**	**73**	**92**	**-20%**	**(12)**	**(21)**	**-40%**	**10**	**16**	**-38%**	**13**	**(42)**	**nm**
Associates	23	19	+20%												
Other	101	(13)	nm	10	(2)	nm	2	(0)	nm	7	14	nm	**(5)**	**(20)**	nm
PBT	**517**	**332**	**+56%**	**83**	**90**	**-7%**	**(11)**	**(21)**	**-49%**	**17**	**30**	**-43%**	**8**	**(62)**	**nm**
Taxes (Credit)	123	46	+167%	(2)	4	nm			+0%	53	29	+85%	**0**	**0**	+0%
Net Result	**394**	**286**	**+38%**	**86**	**85**	**+0%**	**(11)**	**(21)**	**-49%**	**(36)**	**1**	**nm**	**8**	**(62)**	**nm**

Sources: AirAsia Unaudited Accounts to Dec 2017, Analyst Presentation, March 2018.
Notes: Converted to US$ from local currencies at end-year exchange rates

local currencies to US dollars to allow inter-company comparison. 2016 figures are pro forma, adjusted by AirAsia from previously published group results, which themselves had been restated, to allow like-for-like comparisons.

✈ The core Malaysian operation, **AirAsia Berhad**, accounted for just over half the passengers carried but 82% of the net operating profits generated. Its net operating profits of $393m equated to a margin of 16.4%, by far the highest of the AirAsia airlines. It benefitted from the continued retrenchment of MAS on domestic routes and the failure of Malindo, Lionair's Malaysian joint venture, to further penetrate this market.

✈ **Thai AirAsia**, 45% owned by AirAsia Berhad, is the second most important airline. In 2017 it performed well against loss-making local LCCs, Nok Air and Bangkok Airlines, increasing passengers by 15% to 19.8m. But its net operating profit margin slipped back to 7.9% from 9.5% in 2016.

✈ **Indonesia AirAsia**, 49%- owned, performed poorly in 2017, officially blamed on the effects of volcanic eruptions in Bali, though Lionair provides fierce domestic competition and flag-carrier Garuda has chosen to expand rather than contract out of its financial crisis. Passengers carried fell by 2% to 4.6m, and the net operating margin was reduced from 5.5% in 2016 to 3.5% in 2017,

✈ **AirAsia Philippines** is seen by Fernandes as proving huge upside potential, though Cebu Pacific is a strong LCC competitor. An IPO was originally planned for the 40%-owned airline in the first quarter of 2018 but has been postponed, officially to the end of the year. The airline moved into profit last year following heavy 2016 losses, though the net operating margin was only 2.5%.

✈ **AirAsia India**, 49% owned by AirAsia 51% by the Tata Group, expanded rapidly in 2017 but has not yet achieved break-even at the operating level. An investigation by the Indian authorities into AirAsia's award of an international licence is worrying.

✈ **AirAsia Japan** is now 57% owned by AirAsia Bhd, the rest by local private equity and retail companies. The airline restarted flying last October, the previous venture with ANA having been grounded. A loss of $44m for 2017 was reported.

✈ AirAsia reported that there were no updates on AirAsia China, a joint company with China Everbright Group and the Henan provincial government. Nor is there any further information on AirAsia Vietnam, a joint venture with local aviation interests.

From fixed assets to digital vision

Air Asia's stated strategy is to become "asset light". In March this year it announced the long-planned sale of of its aircraft leasing business, 100%-owned subsidiary Asia Aviation Capital Ltd (AACL), to three entities (FLY Leasing , Incline B Aviation Partnership and Herondell) managed by BBAM, one of the global top five lessors.

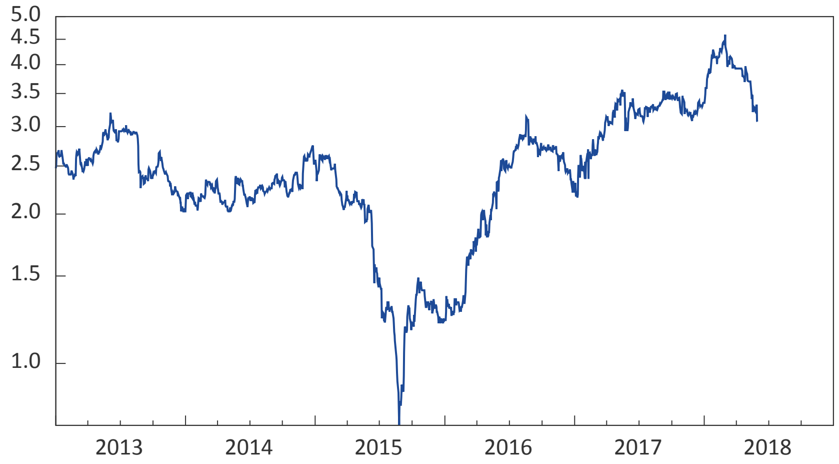
The transaction involves 84 A320-family units in the AACL portfolio, of which 79 will be leased back for operation by AirAsia. The price quoted was $1.2bn, of which $1.1bn in cash and $100m in shares in the BBAM entities, representing about 10% of their capital. In addition, AirAsia agreed the future sale of 98 deliveries to BBAM.

According to AirAsia only about $200m of the proceeds of $900m has been allocated to pay down debt, the use of the rest of the funds to be determined, though a special dividend is certain.

Tony Fernandes commented: "This is a perfect outcome to a strategy we started in 2004 and I'm thrilled at the execution of our long-term vision. We have now disposed of most of our physical non-core assets and we are thrilled to be embarking on our new digital strategy which will build a very valuable group of assets."

When asked what AirAsia's most valuable asset now is, Fernandes inevitably responds "Data". He has a vision of evolving AirAsia into a digital empire, leveraging the consumer data garnered from operating a cashless airline. As always with digital visions (and such sales account for only about 7% of AirAsia's revenues at present), it is hard to pin down exactly what is meant. A recent presentation referred, overwhelmingly, to the "implementation of consumer analytics, data collection, cloud warehousing, data visualisation, integration and machine learning... real time insights, deep learning, predictive intelligence, etc, etc". In practice, there are a large number of ongoing projects, under the RedBeat Ventures label, for example: Travel 360, Vidi, Rokki (travel portals); Online 365, RedTix (reservations and ticketing); Big Loyalty and BigPay (FFP and credit cards); RedBox (fast parcels).

AIRASIA SHARE PRICE PERFORMANCE



All this must raise questions in investors' minds. Why does AirAsia think it has an advantage over other airlines, LCC and Legacy, which are all implementing digital strategies? Who does AirAsia think it will be primarily competing against? Other airlines, the plethora of digital start-ups competing in the same fields, or ultimately, Amazon, Google, Baidu?

Ryanair lesson

Despite all the questions and its structure, AirAsia is a very successful airline, carrying as a group a total of around 74m passengers in 2017 at a load factor of 88% and operating over 200 A320 family aircraft. By 2021 the fleet is planned to increase to 300-plus units, transporting over 100m passengers. The basis of its success was adapting the Ryanair model to the Asian market, initially using the expertise of Conor McCarthy, formerly COO at the Irish airline. But AirAsia has deviated from one aspect of the Ryanair model, which is not generally appreciated.

Michael O'Leary has created a wild, sometimes obnoxious, persona for public consumption, but when it comes to Investor Days or analyst briefings, he is razor sharp in explaining Ryanair's strict adherence to its core strategy, its operations and plans, and, importantly, how precisely these are represented in the airline's accounts. He and his team have a mastery of detail and the ability to present clear unambiguous numbers, which gives investors confidence. Tony Fernandes, despite his undoubted charisma, does not. Similarly, Ryanair's published accounts are standard and austere and useful, whereas AirAsia's annual reports are overloaded with glossy photos and short on relevant detail.

Aviation Strategy

Vueling: A new focus on "Quality"

VUELING has undergone a significant turnaround over the last 18 months — but is this due primarily to the LCC's management or the imposition of new practices and discipline by IAG?

Based in Barcelona, Vueling was founded in 2004 before merging with Clickair in 2009 (see *Aviation Strategy,* May 2009). After being bought by IAG in April 2013, today the LCC operates to more than 100 destinations in Spain, Europe, North Africa and the Middle East out of 14 domestic bases (Barcelona, Madrid, Bilbao, Oviedo, Valencia, Alicante, La Coruña, Palma de Mallorca, Ibiza, Seville, Malaga, Tenerife, Santiago and Las Palmas) and five international ones — Rome, Florence, Paris, Amsterdam and Zürich.

Vueling follows the standard LCC business model though with a focus on both leisure and business passengers, with an FFP called Vueling Club and three fare types, one of which — Excellence — is a basic business product that includes access to lounges, ticket flexibility and in-flight catering.

Vueling currently operates a fleet of 109 aircraft, with an average age of just over seven years. It comprises five A319s, 89 A320s and 15 A321s — all of which are Classic models rather than neos, though 47 A320neos are on firm order.

In calendar 2017 Vueling reported revenue of €2,085m — just 2.9% up on 2016, despite a 6.4% increase in passengers carried, to 29.6m. Average revenue per passenger dropped 3.3% in 2017, to €70.50, but unit revenue per ASK increased 1.5% year-on-year, to 6.07€¢.

However, operating profit rose from €48.4m in 2016 to €181.1m last year, and net profit increased from €48.9m in 2016 to €117.3m in 2017. This was largely due to a 3.4% reduction in costs in 2017, with fuel down 14.4% year-on-year thanks to "significantly better performance on hedging than in 2016". Non-fuel costs rose by 0.3% in 2017, which was notably less than the increase in revenue. Unit cost per ASK (excluding fuel) for 2017 was 4.35€¢, some 1.1% up compared with 2016, but total unit cost last year was 5.61€¢ — 4.8% less than in 2016.

The results were part of a turnaround at the airline that Enrique Dupuy de Lôme Chávarri, CFO of IAG, calls "very efficient". The CFO says Vueling "spread itself too thin during 2015 and 2016 as it went through growth then", and Willie Walsh, CEO of IAG, also said "the quality of expansion in 2016 was not good".

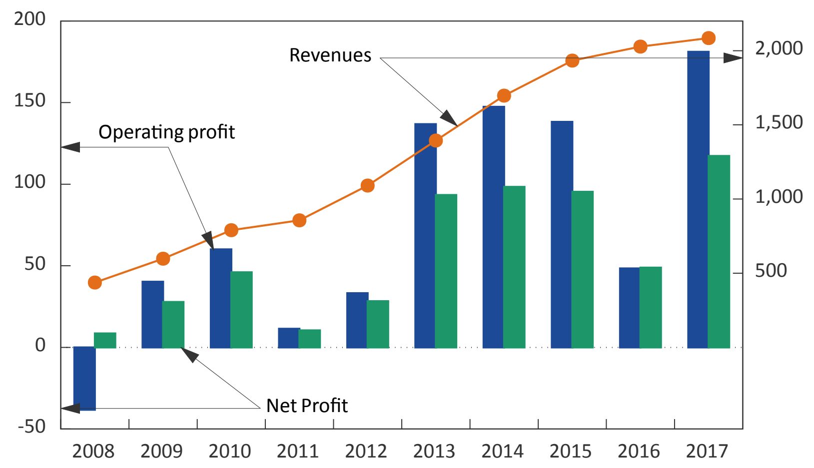
Strategy tweaks

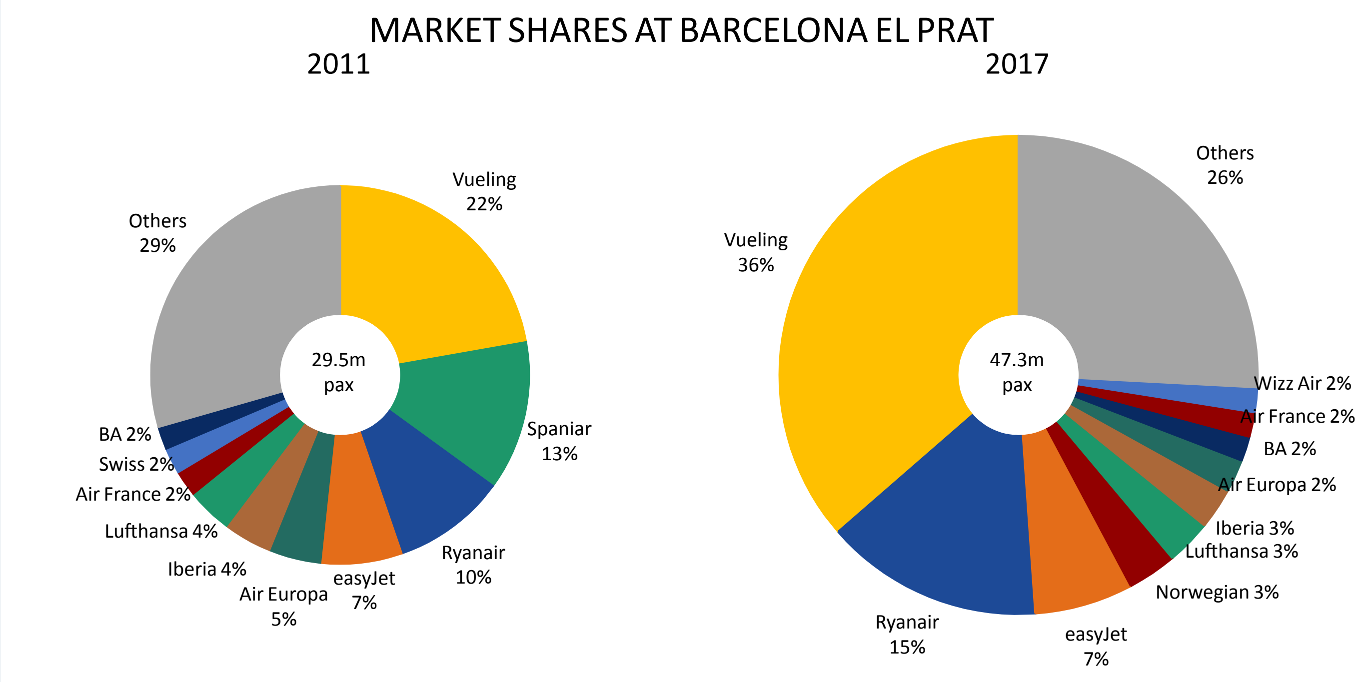
The key to the turnaround has been an adjustment in Vueling's strategy, with an emphasis — according to Dupuy — on improving the "quality of the network" — ie focussing on more frequencies to existing routes rather than adding new destinations.

Vueling launched only five new routes through the whole of 2017, and last year the airline's capacity rose by just 1.5% year-on-year — though with traffic up 3.8%, the passenger load factor increased 1.9 percentage points to 84.7%.

Frequency growth has focused primarily on the Barcelona base, and it's clear that Vueling's prime objective is to consolidate and strengthen its position there. Last year Vueling had a 36% share of all passengers carried through Barcelona's El Prat airport — well ahead of its closest challenger, Ryanair (with 14.7% — see chart on the facing page). That's a sig-

VUELING FINANCIAL RESULTS (€m)





nificant increase in the lead over second place it had back in 2011, when Vueling had a 22% share, ahead of the now departed Spanair with 13% (see *Aviation Strategy*, December 2011).

The grip of the low-cost model on Barcelona is clear — the top four airlines in 2017 in terms of passengers carried were LCCs, accounting for more than 61% of the total market.

A new addition is LEVEL, a low-cost, long-haul airline that was announced by IAG in March 2017 and launched in Barcelona with two A330s (in a two-class configuration) just three months later. It currently operates from Barcelona to Oakland, Buenos Aires, Los Angeles (the summer only) and Boston (the latter launching in March this year). A third A330 will join the Barcelona-based fleet this summer, while a second base, at Paris Orly, will launch in July this year, with two A330s stationed there.

Walsh says feed from Vueling (and other IAG airlines) into LEVEL "hasn't been as important with the start-up as we thought", and that feed hasn't been needed as LEVEL's point-to-point demand on underserved city pairs has been strong — though "ultimately, we do believe that feed from short-haul makes the long-haul model work in the long-term".

El Prat strength

Vueling is based at Terminal 1 at El Prat, a facility that was opened in 2009 and which brought Barcelona's capacity up to 55m passengers a year (the previous Terminal 1 then became Terminal 2). But El Prat probably only has a few more years of passenger growth before it hits this maximum capacity, and so a new satellite terminal — called T1S — that will increase annual capacity by another 15m passengers, will be built by 2026.

This February the Spanish Ministry of Development announced total expenditure of over €2bn on a "Master Plan" to 2026 that includes the new terminal and investment in a new high speed (AVE) train connection between El Prat and Girona airport, effectively linking the two as a single airport system.

Girona airport is 92km north of Barcelona and carried just 1.9m passengers last year — though Ryanair accounted for 1.4m of them, which emphasises the Irish LCC's position as the main rival to Vueling. Ryanair also operates out of another Catalan airport — Reus, to the south of Barcelona, which handled a total of 1m passengers in 2017 (of which Ryanair accounted for 370,000).

Both Vueling and Ryanair are benefiting from (and clearly contributing to) the increasing prominence of Barcelona airport compared with its main rival within Spain — Madrid Barajas.

As can be seen in the chart on the next page, in terms of passengers carried the gap between the two airports has shrunk slowly but steadily. Back in 2000, expressed as a percentage of passengers flown through Madrid, Barcelona carried 60% of the passengers that its great rival did, but this had risen to 89% by 2017. That's due to a variety of reasons, not least because Barcelona's economic and tourism importance has grown much faster relative to the capital in the last two decades, and (clearly related to that) because of a significant increase in point-to-point routes to/from Barcelona — pioneered by LCCs such as Vueling.

Domestic focus

As part of its turnaround strategy, at the same time as higher frequencies on existing routes Vueling has also been redistributing capacity from international to the domestic market, where it says "the company is more profitable, to the detriment of other markets with a lower return".

Looking at the Spanish market as a whole, Vueling is in second place compared with Ryanair (see chart below), with a 14% share (Ryanair has 17.7%). In relative terms, however, Vueling's share has improved significantly since its takeover by IAG. In 2011 its share of the total Spanish market was 11.7% — much further behind Ryanair's then 17.1% share. The Spanish market has grown substantially over that period (from 177.9m passengers carried in 2011 to 248.6m in 2017), but what's clear is that Vueling's share nationally depends largely on its grip on the Barcelona market, which accounted for 49.4% of all passengers carried to/from and within Spain by Vueling last year.

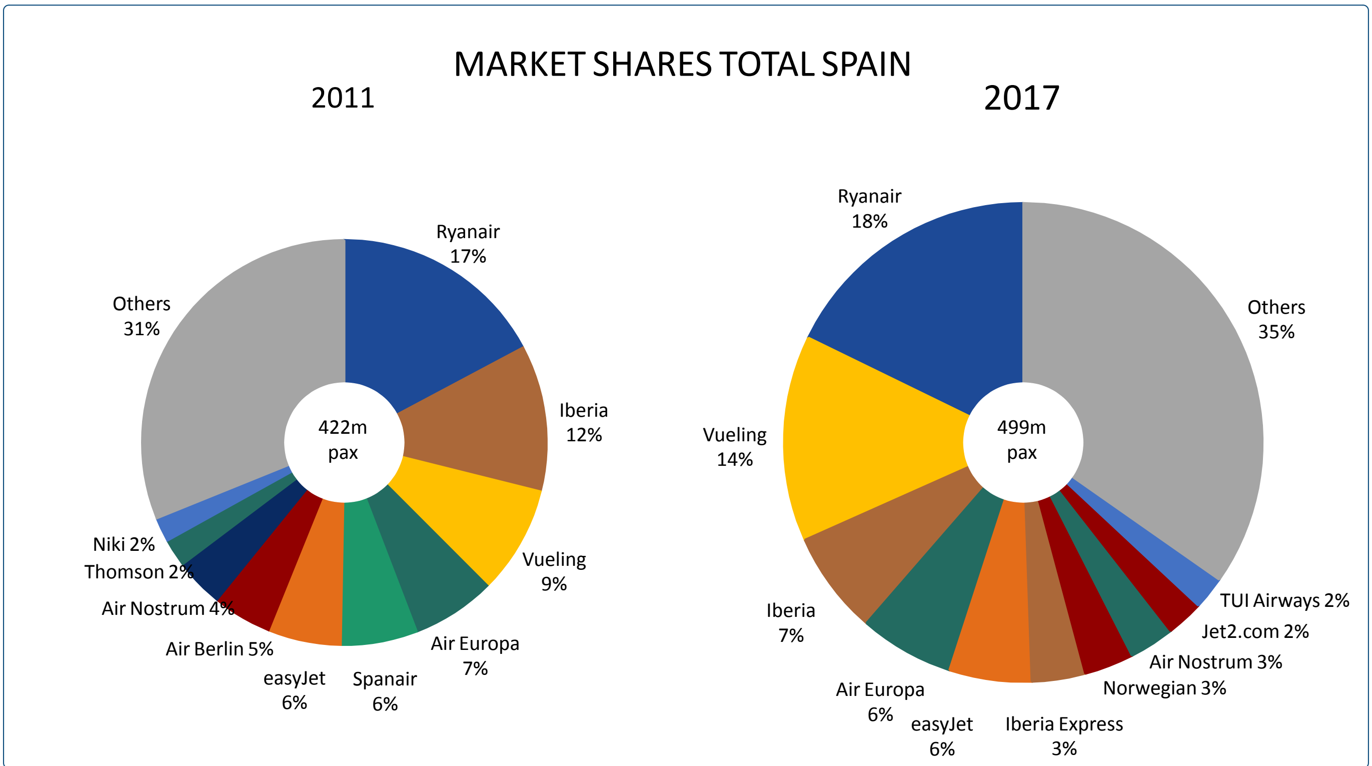
Vueling's main Spanish competitor is Mallorca-based Air Europa, which dates to 1986 and is owned by Spanish travel company Globalia. Today it operates a mixed fleet of 45 aircraft on both short- and long-haul routes to Europe and the Americas. Out of Barcelona, Air Europa operates 15 competing routes, with 12 of them being to domestic destinations, and will increasingly become a rival as Vueling attempts to win further domestic market share.

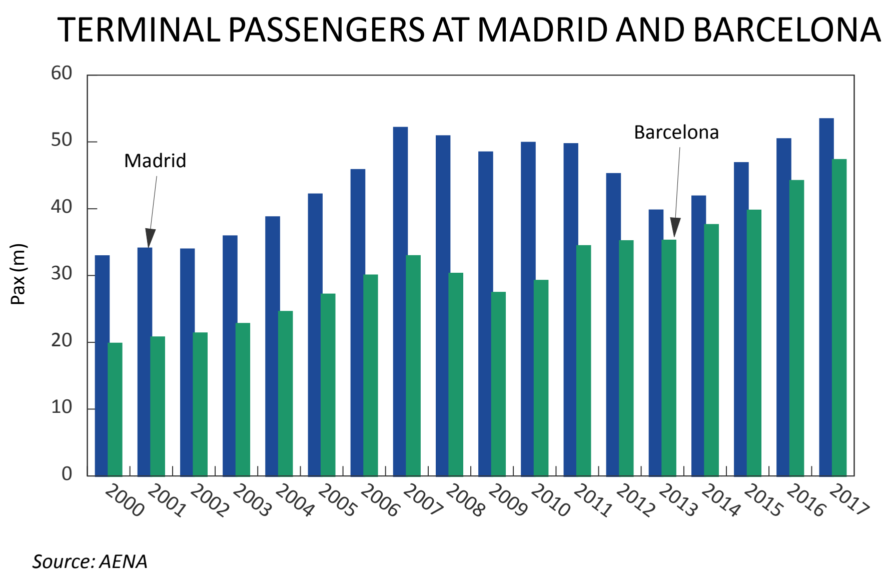
Outside of Spain, Vueling's operating bases at Paris and Rome (France and Italy are its secondary markets within Europe), are also seeing some frequency improvement, though Vueling has closed bases at Brussels, Palermo and Catania, each of which had a single A320 stationed there.

This tweak in strategy is a part of a major restructuring programme called NEXT, which Vueling has been implementing since late 2016.

NEXT has four objectives (or to use Vueling's language, "pillars") — to deliver an "LCC customer proposition"; to reduce costs; to develop a "high-performing organisation"; and to return to sustainable and profitable growth.

Some of that sounds like generic,





meaningless MBA-speak; in plainer terms, what the company did was review all aspects of its operations. This ranges from technical changes (such as a new hand luggage policy and better turnaround times) to more automated processes to "better balancing depth and breadth" across its route network. A Phase 2 of NEXT is now under way, which is focussing on better management of seasonality in its resources, increasing its market share at destinations where it is already the market leader, and driving more digitisation within its entire business.

Whose idea?

Many of these NEXT efforts are being driven by what IAG is doing at a corporate level anyway. For example, through 2017 IAG has been taking measures to take a "digital approach to transforming" its business, with themes such as automation, data processing and digital innovation (which are all core parts of Vueling's NEXT programme).

This leads to the bigger question of just how much of Vueling's turnaround is due to its own management and how much is due to IAG mandates?

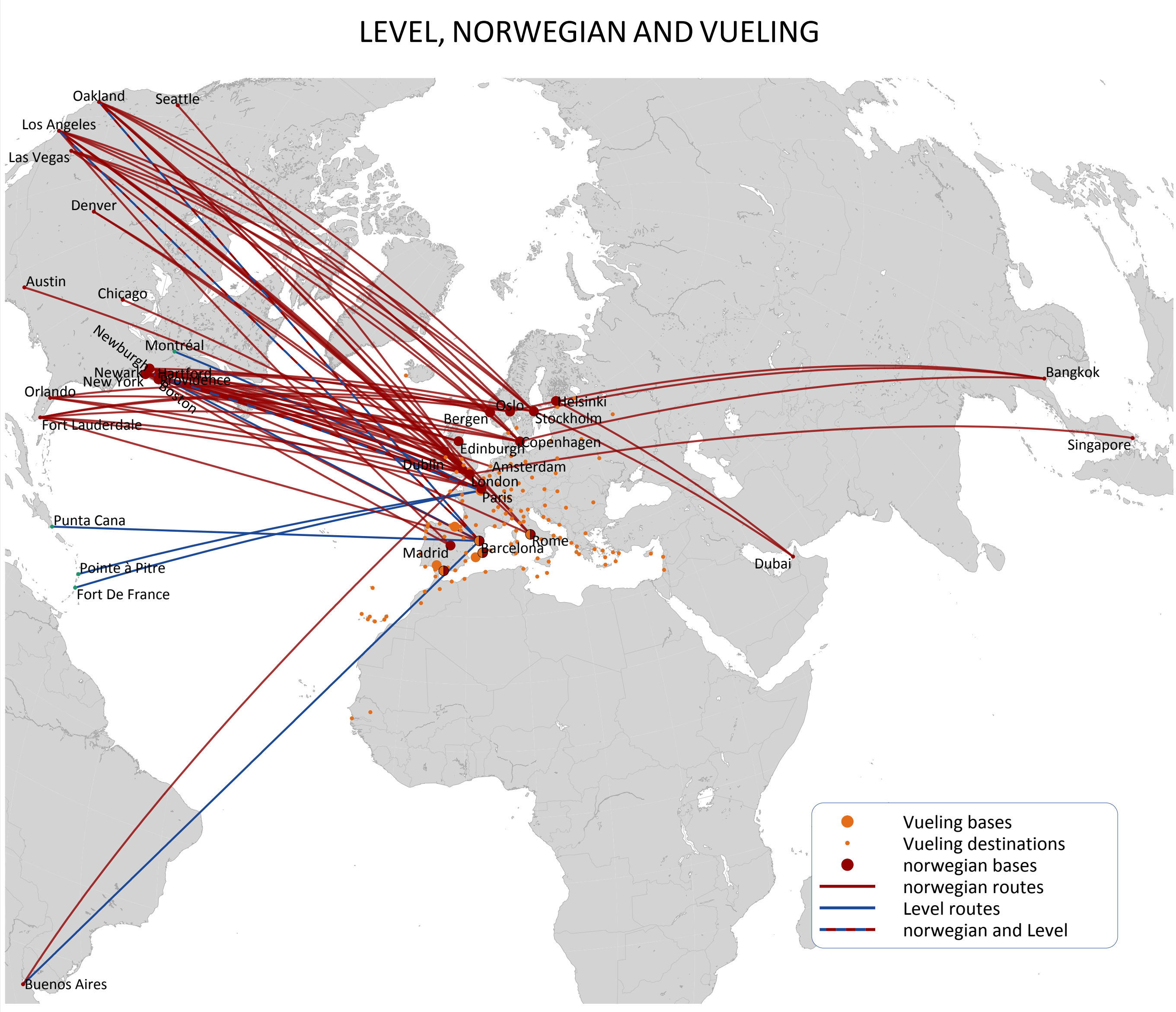
IAG beefed up Vueling's management team through 2016, expanding its management committee from four to seven. Former Iberia CFO Javier Sánchez-Prieto became chairman and chief executive of Vueling in April 2016, replacing Alex Cruz (who became chairman and chief executive of BA), and in — in September of that year — the LCC hired Michael Delehant (formerly VP of corporate strategy at Southwest) as chief strategy officer (he is formally in charge of NEXT at Vueling).

Did the crucial about-turn in strategy to reduce expansion and focus on frequency on existing routes, plus a on emphasis on domestic rather than international markets, come from Vueling management, or was it driven by IAG? Unconfirmed sources suggest it's more the latter than the former, and there certainly have been managerial "wobbles" at Vueling. For example, Sanchez-Prieto made bizarre (and erroneous) comments earlier this year that expansion of El Prat airport was being stopped by a no-fly zone over Leo Messi's nearby house, which led to a boycott from some of the many fans of FC Barcelona in the city.

Ultimately, however, it's not who initiated the strategic refocussing that counts, but that it is occurring and — for the moment — succeeding. There are signs, though, that capacity restraint is starting to ease off. In the first quarter of 2018, Vueling's capacity rose 5.9% compared with January to March of 2017 (traffic rose 9.2% in the period, leading to a 2.3 point rise in load factor, to 74.8%). And capacity increases will accelerate during 2018 — in the second quarter of 2018 and FY18 capacity is planned to be +12.1% and +13.3% respectively.

Perhaps Vueling's management is worried by some of the more adverse effects of the effective capacity freeze in 2017. Since 2012 Vueling's employees have almost doubled but ASKs have always grown faster — until 2017 that is, where for the first time in recent years the airline's capacity growth fell behind the increase in employees, leading to Vueling's first drop in productivity (as measured by ASKs per employees) in its history.

There are other challenges, not least of which is Vueling's image in the market. For example, Vueling is notorious among its regular customers for late departure times. Even using the usual 15-minute fudge that allows up to a quarter of an hour delay before departing flights are declared "unpunctual", in 2016 the proportion of punctual flights was well under 70%. After a huge effort to improve this, the 2017 figure at Vueling improved by 11.3%, to 79.9% — but there is still a lot of improvement to be made before Vueling catches up with Iberia's 2017 punctuality figure of 90%. (It must be added that this is a problem affecting all airlines operating to El Prat Barcelona airport.)



The map above presents an image of a formidable low cost IAG network, merging Vueling's southern European power base with Norwegian's dominance in Scandinavia markets, and linking into Norwegian's, and Level's long-haul bases and Atlantic and Far East operations.

In practice, integrating the three airlines is likely to be problematic — different cultures, different fleets, the risk of undermining loyalty to regional brands, and so on. Then there might be broader strategic issues for IAG: can the markets, especially the Atlantic, be segmented into full service and low cost in the long term? To what extent will the new IAG integrated low cost airline compete with the network carriers in the IAG Group?

Part of the reason that Vueling has worked as an LCC within IAG is that it is in effect the flag-carrier of Catalonia. A Europe-wide and intercontinental LCC within IAG would be a different proposition. Indeed, there may still be a corporate memory at BA of what happened with Go; that low cost associate started to compete too effectively with BA on some key intra-Europe routes, with the UK competition authorities insisting on Chinese walls between BA and Go as it considered that Go could be used unfairly to block other low cost new entrants. In the end BA divested Go and it eventually ended up in easyJet.

Southwest: New initiatives plus tax breaks

RECENT weeks have been tough for Southwest Airlines, the largest US carrier in terms of domestic passengers. Southwest suffered a horrific accident on April 17, in which debris from a failed CFM56-7B engine broke the window of the 737-800, leading to a passenger being partially sucked out and dying from her injuries.

The effects have been severe in terms of a reduction in bookings and unit revenues. Southwest's shares have fallen sharply and its first-half financial results will fall short of original projections.

However, the negative effects of the Flight 1380 tragedy are likely to be short-lived (as tends to be the case with aviation accidents). Southwest expects to be fully back of track financially in the second half of this year.

Southwest is benefiting from several factors this year. First, after staging an unusually disruptive fleet transition in September 2017, when it retired all of its remaining 737-300 Classics, Southwest will get its fleet "back in balance" in the second half of 2018 with new aircraft deliveries.

Second, Southwest will start reaping significant benefits from a new reservation system deployed last year. Enhancements to revenue management will start taking effect in mid-2018, leading to $200m incremental revenues this year.

Third, Southwest will enjoy significant tax windfalls this year as a result of the Tax Cuts and Jobs Act of December 2017, which reduced the US corporate tax rate from 35% to 21% and changed tax depreciation rules to allow 100% first year capital allowances.

Southwest is the biggest beneficiary of the tax reform among US airlines, because it is a full US taxpayer and has significant ongoing fleet capex. An estimated 23-23.5% tax rate this year (including state taxes), down from 36% in 2017, will significantly boost its cash flow and net earnings in 2018.

Fourth, unlike other US carriers, Southwest has fuel hedges in place that will provide meaningful protection in an environment of rising fuel prices.

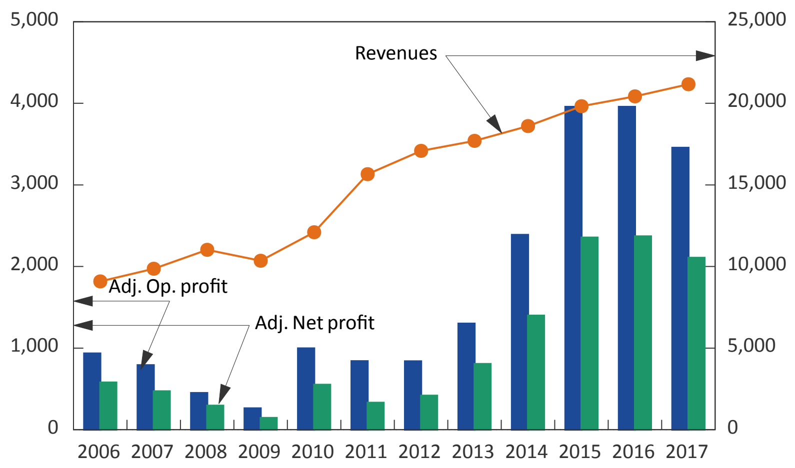
2017 was a challenging year for Southwest because of the implementation of the two strategic initiatives (fleet transition and reservation system). CEO Gary Kelly noted in the latest annual report that 2018 would be the first year in a decade with no major deployment planned and that Southwest would focus on harvesting the benefits of the past investments.

After a three-year growth spurt in near-international markets, which included significant investment in US gateway airports, Southwest will also be taking it easy on the international front in 2018.

But there is a new high-profile expansion project on the horizon: adding Hawaii to the network with 737-800 ETOPS-operations in late 2018 or early 2019.

Financially, Southwest is looking as strong ever. Despite fuel and labour cost pressures, 2017 was the third best year in the airline's history, with an operating margin of 16.3%, net margin excluding special items of 10% and pretax ROIC of 25.9%. The margins were among the highest in the industry. It was Southwest's 45th consecutive year of profitability — a record unmatched in the US

SOUTHWEST'S FINANCIAL RESULTS (US$m)



Notes: The figures include AirTran's results from May 2, 2011 onwards.
Source: Company reports

SOUTHWEST'S 737 DELIVERY SCHEDULE

	Firm			Options	Extra		
	737-800	737 MAX 7	737 MAX 8†	737 MAX 8	737-700	737 MAX 8	Total
2018	26		19		1		**46**
2019		7	20			3	**30**
2020			35				**35**
2021			44				**44**
2022			27	14			**41**
2023		12	22	23			**57**
2024		11	30	23			**64**
2025			40	36			**76**
2026				19			**19**
Total	**26**	**30**	**237**	**115**	**1**	**3**	**412**

Note: † Southwest has flexibility to substitute MAX 7s for MAX 8 firm orders beginning in 2019. As of April 25, Southwest had taken delivery of 11 737-800s, one 737-700 and one MAX 8 this year.
Source: Southwest

airline industry and possibly in all of corporate America.

Southwest also still has one of the best balance sheets in the industry, with strong liquidity and very low debt. At the end of March, the leverage ratio was around 30%.

The fleet transition

Southwest became the first airline in North America to fly the MAX 8 in October 2017 and had received 13 of the type by year-end (15 as of mid-May). But it still took delivery of 39 737-800s from Boeing last year, along with 18 pre-owned 737-700s.

The decision to retire all remaining 62 737-300s in September 2017, to coincide with the MAX 8's introduction, was interesting to say the least. It was not only expensive (a $96m charge was recorded in 2017) but disruptive in that the sharp reduction in the number of aircraft forced Southwest to temporarily operate a "sub-optimal flight schedule", with more flights in the less profitable off-peak hours. Southwest's fleet declined from 735 aircraft in mid-2017 to 706 at the end of 2017.

But Southwest calculated that the negative effects would be more than offset by $200m of economic benefits through 2020 (from reduced fuel, maintenance and out-of-service costs). Southwest expects to "re-optimise" its schedule by the second half of 2018 thanks to new aircraft deliveries. It expects to grow the fleet by 46 units this year to a new high of 752 aircraft.

Since December Southwest has revised its Boeing order commitments twice, which essentially meant exercising 80 MAX 8 options for 2019-2022 delivery, bringing forward some MAX 8 deliveries and deferring some MAX 7 firm orders.

The new MAX 8 orders are mainly for 737-700 replacement, though Southwest will have the option to keep some of the 700s longer if good growth opportunities materialise.

At the end of March, Southwest's fleet consisted of 513 737-700s, 190 737-800s and 14 MAX 8s. The owned/leased split was 83%/17%. The firm orderbook included 236 MAX 8s (plus 115 options), 30 MAX 7s and 17 737-800s.

The aggressive fleet modernisation and upgauging will help keep unit costs in check. Southwest has seen its cost advantage narrow in the past decade (legacy carriers' cost cuts, service to more expensive airports, international expansion, ageing of the workforce, 83% unionisation, expensive labour deals especially in 2016, etc.).

Reservation system benefits

The switchover to a new reservation system in 2017 was the culmination of a multi-year effort to completely transition to the Amadeus Altea Passenger Service System. The project involved a $500m investment and the benefits are now ramping up, with $200m in pretax benefits expected in 2018, escalating to $500m by 2020.

The main initial benefit, according to Southwest executives, is "O&D bid pricing capability" — an opportunity to "maximise revenue by really optimising the mix of nonstop and connecting passengers on the network". The old method apparently optimised revenues at the *flight* level. The new O&D functionality was introduced in the first quarter and will be fully deployed in the coming months.

Later the new reservation system will also facilitate foreign point of sale, schedule optimisation, better yield management of ancillary offerings, passenger service improvements and more codeshare deals.

International growth spurt

Southwest entered the international arena relatively late, at least compared to the newer-generation North American LCCs. The airline took its time because its business model was built on simplicity and it did not have the systems or technology in place to handle international flights.

The initial opportunity arose via Southwest's 2011 acquisition of AirTran Airways, which operated some near-international services to the Caribbean. Southwest took over those services in the second half of 2014, after spending three years to upgrade its reservations systems, learn from AirTran's international experience and train employees.

In early 2015 Southwest added its first new international destinations (San Jose in Costa Rica and Puerto Vallarta in Mexico), but the main growth spurt came in October 2015 with the inauguration of the airline's new international terminal at Houston Hobby (HOU). Southwest began daily flights to six destinations in Mexico, the Caribbean and Central America on the same day, and added more routes later that quarter.

Southwest chose to build HOU into a major international gateway, because the Wright Amendment prohibits international flights from its Dallas Love Field home base and it already operated extensive domestic services from HOU. Houston, with its sizable Latin population and large local market, makes an excellent gateway to Latin America.

The $150m international concourse at HOU, which has five gates and an estimated capacity of 25 daily departures, was initially paid for by Southwest, but this year the airline received a $116m reimbursement from the City of Houston and will recoup the remainder through reduced rental payments.

As its second major gateway project, Southwest opened a new five-gate international concourse at Ft. Lauderdale-Hollywood International Airport (FLL) in the spring of 2017. The new facility enabled it to expand its South Florida international schedule to nine nonstop destinations.

The new concourse, which was part of FLL's Terminal 1 modernisation project (due to be completed in mid-2018), was paid for by the local authority but was overseen and managed by Southwest, thus ensuring that the airline got exactly what it wanted.

Aside from those two high-profile gateway projects, Southwest's strategy has been to add international service from a large number of US cities (around 16) to a relatively small number of overseas destinations (14 so far). The ten countries served are: Mexico, Jamaica, The Bahamas, Aruba, Dominican Republic, Costa Rica, Belize, Cuba, the Cayman Islands and the Turks and Caicos.

Such a strategy minimises risk and is most cost-efficient. Southwest's leading or strong position at numerous US airports ensures significant domestic feed to its international services.

Costs are also minimised by keeping aircraft mostly interchangeable between the domestic and international networks.

In both Houston and South Florida, Southwest faces significant competition from other US airlines' international services. At Houston, the primary competitor is United, which operates from IAH but matches Southwest's fares when necessary. FLL is a Latin America/Caribbean gateway also for JetBlue and Spirit. That said, Southwest thrives in head-to-head competition with other carriers.

Among the less successful markets, Cuba has been challenging for US airlines, especially in the Trump era. Southwest originally initiated service to three destinations in Cuba, but in 2017 it pulled out of Varadero and Santa Clara, in favour of concentrating its service on Havana.

Southwest's international revenues have more than doubled in the past two years, from $287m in 2015 to $595m in 2017. Generally speaking, the markets are maturing nicely. It seems that the Southwest brand has been just as highly regarded internationally as in the domestic market. The airline offers good value to both the leisure and business traveller. Having international routes is important to FFP members, many of whom are business travellers, and to Southwest employees.

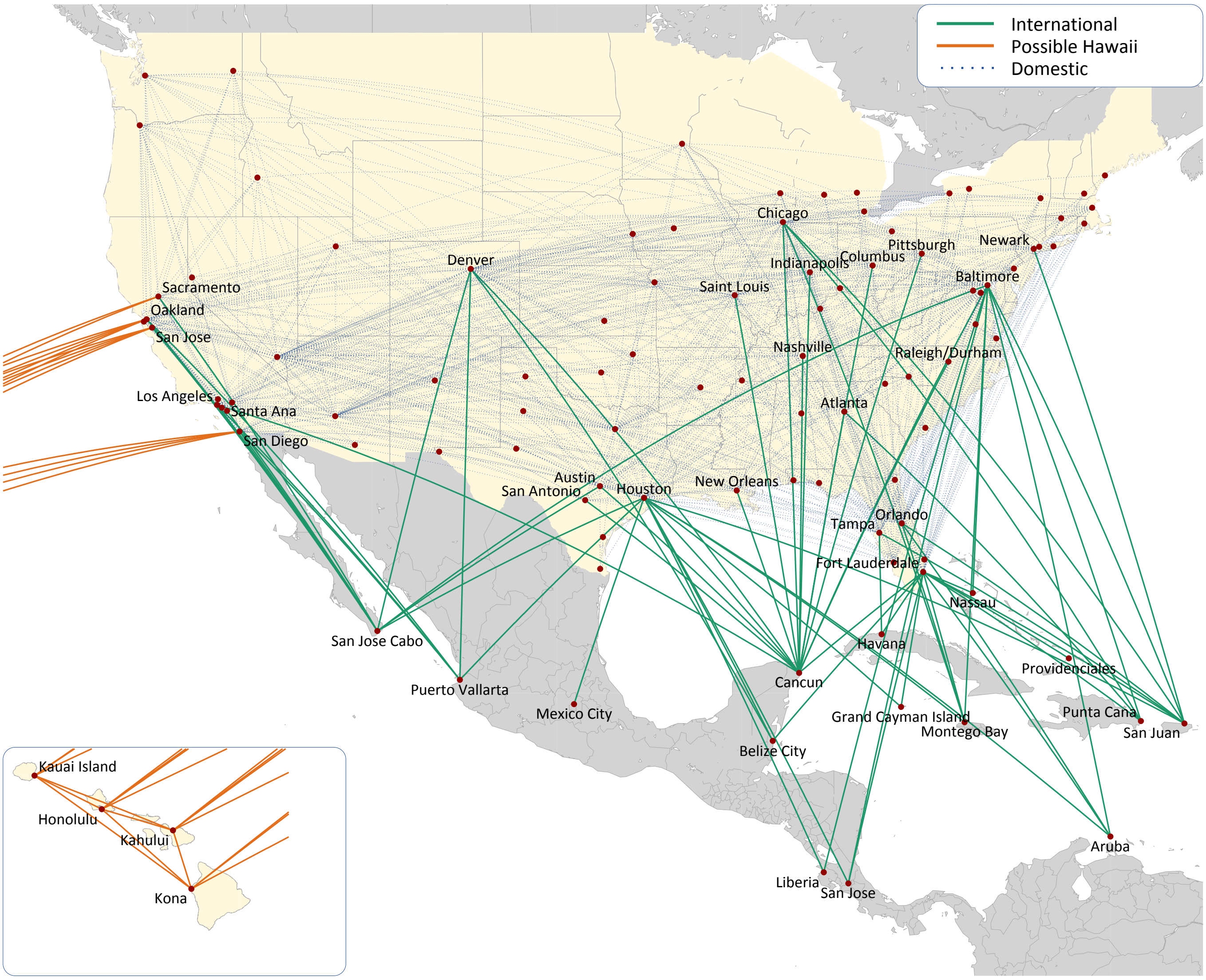
But the international network is still small (in comparison with the massive domestic network), accounting for only 4% of system ASMs and 2.8% of revenues last year.

Hawaii calling

Southwest's current expansion priority is to add Hawaii to its network with flights from California. The launch date has not yet been announced, because the airline is still awaiting ETOPS clearance, but the management hopes to at least start selling the flights this year.

The Hawaii destinations and

SOUTHWEST: OVERSEAS ROUTE NETWORK



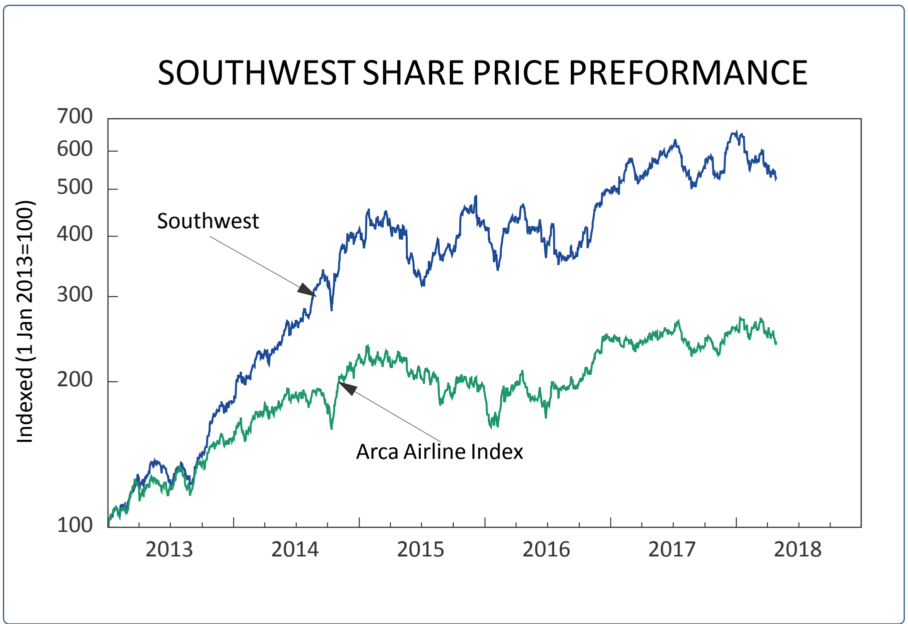
Note: Possible Hawaii – Southwest has announced the cities it plans to serve but not yet specified the routes (see text)

the California gateway cities were announced in early May, though the routes are not yet known. Southwest will fly in some combination from Oakland, San Diego, San Jose and Sacramento to Honolulu, Lihue, Kona and Kahului, using the 737-800s. The airline has said that there could be additional tag routes in Hawaii.

The Hawaii move is certain to be a success, in the first place, because of Southwest's formidable market position in California. Southwest accounts for 63% of the intra-California market and 26% of all commercial air travel (including international) to and from California.

Southwest has added much capacity in California in the past couple of years in response to Alaska's acquisition of Virgin America. The aggressive Hawaii plans are part of that response (though Southwest's management had talked about Hawaii for many years).

Because of the ALK-VA merger and the competitive responses, California is seeing intense competition and not the healthiest of unit revenue trends. But Southwest claims that it has been able to increase load factors and generate strong profits in California. Since West Coast customers already know the airline, the management expects the Hawaii operations to become profitable relatively



quickly.

The move is of concern to Hawaiian and Alaska Airlines, which have the biggest exposures to the West Coast-Hawaii market. Then again, those routes have long been very competitive, desirable for airlines of all shapes and sizes (important to staff morale and the success of FFPs).

Southwest feels that it is in a good position to launch Hawaii this year also because it does not have any other major expansion projects in the works. Currently 3% or less of its markets are "under development" — a low percentage by historical standards.

Although Southwest anticipates growing total ASMs in the "low 5% range" in 2018, which would be higher than last year's 3.6% growth, it would still be modest by historical standards and not out of line with other airlines' plans. International growth will be in the "low-to-mid single digits".

While Southwest will continue to compete aggressively in California and other key markets such as Denver, Houston and Chicago, it is consolidating its Central Michigan operations in Detroit by ceasing service to Flint in June.

Southwest is able to strengthen its presence at New York LGA and Washington DCA because of a recent agreement with Alaska to lease 12 and eight slots, respectively, at those airports for a decade or so. Alaska has no use for those slots until perimeter rules at LGA and DCA are relaxed to allow nonstop service to the West Coast.

Because of the decades-long speculation that Southwest is running out of growth opportunities (at least domestically), CEO Gary Kelly likes to comment on that subject at AGMs. This time, at the May 16 event, he said that, in addition to Hawaii, Southwest had identified "as many as 50 additional opportunities to expand our route network in North America and parts of South America". That would take the airline from the current 100 to over 150 destinations. Kelly never mentions a time frame, but Southwest clearly has the aircraft orderbook to support such growth, at whatever pace it chooses.

While Southwest's business model has evolved quite a bit in the past decade, the key attributes remain unchanged: primarily point-to-point service (76% of its customers flew nonstop in 2017); low fares; high-frequency, conveniently timed short-haul flights; some long-haul services; and carefully thought-out ancillary offerings. The latter means no bag fees, no change fees, free live TV and "the most generous FFP in the world". Southwest believes that especially the "bags fly free" policy gives it a competitive advantage over the rest of the US industry.

Capital allocation plans

The investment-grade balance sheet and strong cash flow and profit generation have meant generous employee profit-sharing payments ($543m for 2017), significant shareholder returns via dividends and share buybacks ($1.9bn in 2017, adding up to $8.2bn since 2011) and significant investment in fleet modernisation, facilities and technology.

Southwest seems to be taking a similar (balanced) approach with the use of the tax reform windfalls. First, it was one of four US airlines that followed the example of numerous S&P 500 companies and paid its employees a $1,000 cash bonus specifically related to the tax reform in early January. (A bit of a no-brainer since the bonus was tax-deductible and, if booked in 2017, offered the greatest tax savings.)

Shareholders got their extra rewards at the AGM in mid-May. Southwest raised its quarterly dividend by 28%, citing the strong Q1 results and savings from the tax reform. The annualised dividend is now $370m. Southwest also authorised a new $2bn share repurchase programme, which will kick in on the completion of the $350m remaining from the previous $2bn programme.

In early January Southwest was quick to announce a "further investment in its Boeing fleet" specifically to take advantage of the tax reform. It was about the exercise of the 40 MAX 8 options and would clearly have happened anyway. However, some analysts have commented in recent months that, even though the management had not specifically said so, Southwest could accelerate international growth in the new tax environment.

The management stated in April that after the Boeing order revisions, this year's total capex would be $2-2.1bn, of which $1.2bn would be aircraft capex. CFO Tammy Romo talked about aircraft capex averaging $1.2-1.3bn annually in the next five years — a level she described as "manageable".

Southwest clearly could afford to help the US airline industry consolidate a bit more in the coming years, and analysts grilled the management on that subject in the Q1 call. The answer was predictable: Southwest's priority now is to grow organically, but should an acquisition opportunity arise that improved shareholder value, the airline would take a look at it.

At the AGM, CEO Kelly had some encouraging news about the accident investigation: Southwest had completed the inspection of 35,500 CFM engine fan blades and had found no problems. The fan blades would be further examined by GE. So, although the full impact remains unclear, the worst-case scenario could be just more frequent engine inspections, plus some litigation costs (lawsuits from passengers).

Southwest is expecting its RASM performance to bottom out in the current quarter and the second half of 2018 to see improvement, reflecting a recovery from the accident, flight schedule re-optimisation and the new revenue management capabilities.

Cost pressures are also easing, with the recovery from the fleet deficit and hence restoration of former efficiency levels, as well as faster ASM growth. Despite hefty pay awards granted to mechanics under a new deal reached in April, Southwest expects its CASM-ex to remain flattish in 2018.

So Southwest is looking at another year of strong operating earnings, with the margin remaining similar to last year's, and substantially higher net earnings because of the lower tax rate. Analysts expect the operating results to improve significantly in 2019 as Southwest sets about to fully monetise the new reservation system.

After surging by 30% in 2017 (beating its peers), Southwest's share price has been the industry's worst performer year-to-date. In late May the shares were almost uniformly recommended as a strong buy or buy. Among the three or so neutrals, JP Morgan analysts said that their rating simply reflected "better risk-to-reward at the legacy carriers"; the latter have more exposure to the current strong recovery trends in international and corporate demand.

By Heini Nuutinen
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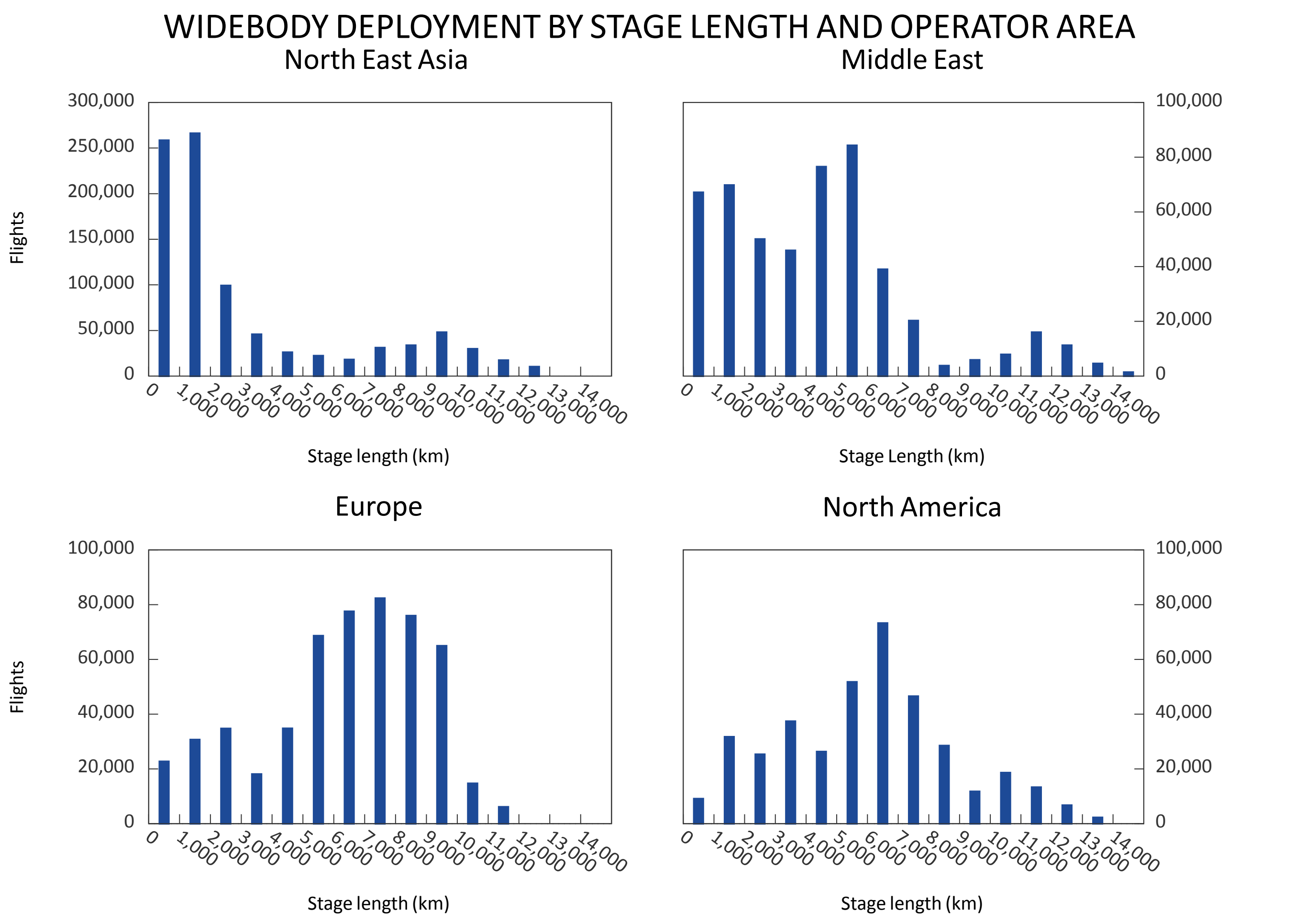
Widebodies not just for long haul

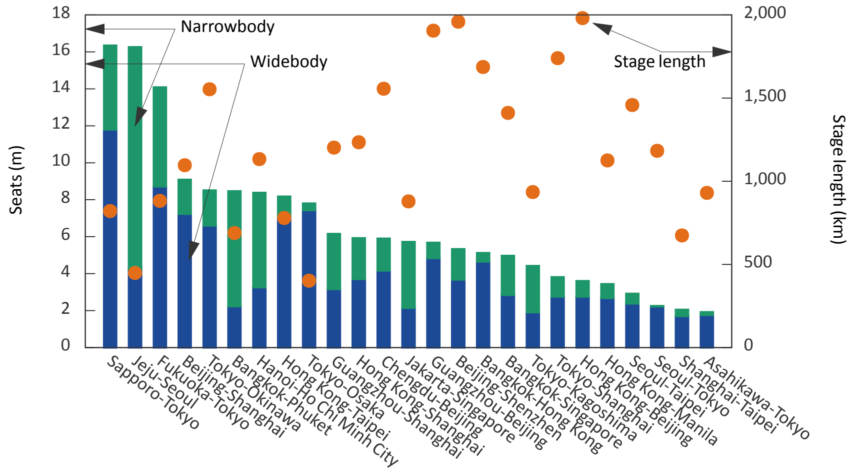
WITH GREAT fanfare at the end of March, Qantas launched the first non-stop air service between Australia and the UK. Covering 14,500km in a little over 17 hours in a 236-seat 787-9, the flight from Perth to London is one of the longest commercial routes in the world (vying with Qatar's Doha-Auckland service).

This is a far cry from the original "kangaroo" route, which took four days with seven intermediary stops. Qantas CEO, Alan Joyce stated "Qantas has been preparing for this moment for 98 years... since we were founded in 1921". Qantas would probably prefer to be able to operate London to Sydney non-stop. But at 17,000km *that* is still unlikely to be commercial for some years yet; and it is 1,500km further than Singapore-New York, which SIA struggled to operate profitably but is planning to reopen this winter using its new A350-900ULR (with only 162 seats).

This is the ultimate expression of the widebody aircraft: to allow the carriage of passengers on long haul routes in the most efficient way; to have the structure to carry the payload and the fuel needed; to get safely with all the payload to the end of the route. For the airline operator the widebody is a very expensive aluminium can: and the greater the utilisation, the more efficient the operation and the better likelihood of underlying profitability.



WIDEBODIES ON SHORT ROUTES
NORTH EAST ASIAN CARRIERS



Note: Top 25 city-pair routes of less than 2,000km on which carriers in North East Asia operate widebody equipment ranked by total seat capacity.
Source: schedule data.

However, long-haul operations are a small part of the total industry: 90% of all seats flown are operated on routes of less than 4,000km. Of widebody operations, only 50% of all flights worldwide are operated on segments with stage lengths greater than 4,000km, and 30% of flights by widebody aircraft are on routes of less than 2,000km.

There are many reasons why an operator would want to use a widebody on short-medium haul routes. Firstly, it may be part of a "tagged" route which, while not particularly profitable can be a legitimate way to open access to new markets. Secondly, there may be operational reasons: it may make sense to use the aircraft on a short local sector to avoid keeping it on the ground, either because of curfew and time-zone differences or because of parking constraints at a home base airport. Thirdly, it may be that the extra seating capacity is required on relatively dense short haul routes with existing high frequencies. Fourthly it may be that the operator only has widebody aircraft available.

There are some major differences by region. The chart on the preceding page shows the deployment of widebody equipment by stage length by operators based in four regions: North East Asia (including Japan, South Korea and Greater China), Middle East, Europe and North America.

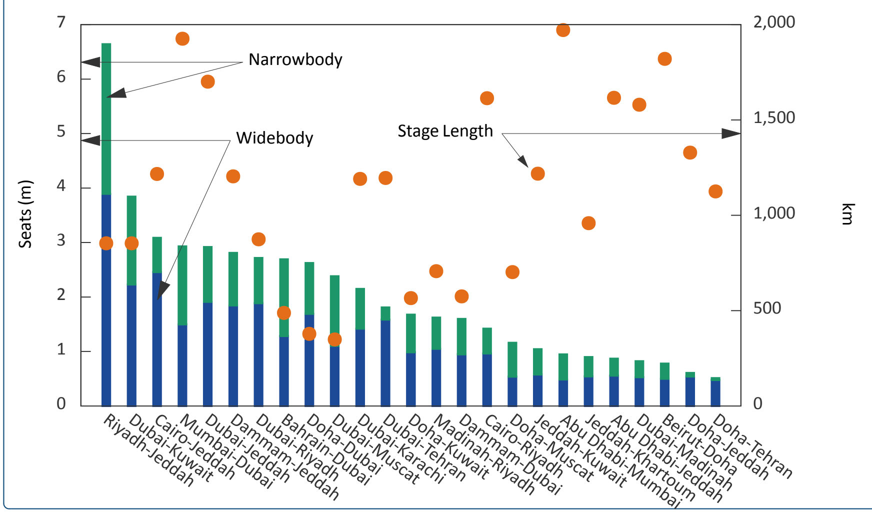
✈Asia

The data for North East Asia shows that nearly 60% of all that region's operators' widebody flights are operated on sectors of less than 2,000km.

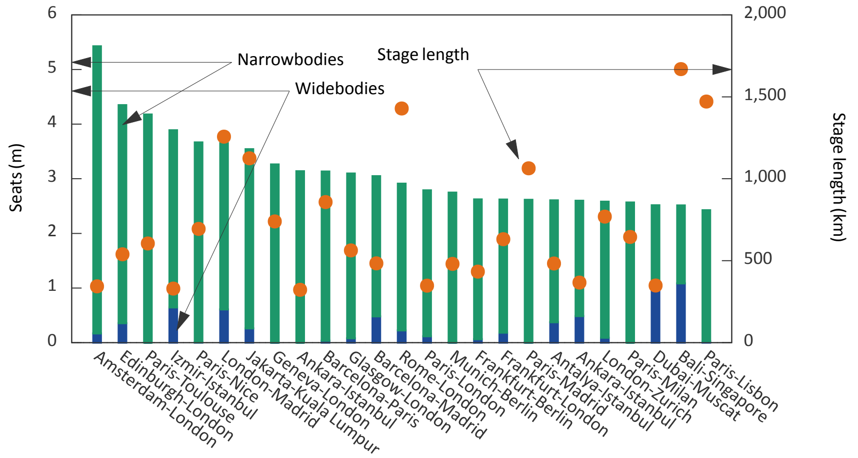
A large portion of this refers to the Japanese domestic market, where high density routes and capacity constraints lead to a need for high seating capacity aircraft (in the 1970s Boeing developed a short range 747 specifically for that market, with a design life encompassing twice as many take-offs and landings as the original version). In 2017 37% of all domestic Japanese seats were flown on widebody aircraft which accounted for 19% of all flights (compared with 2% of seats and 1% of flights in the US domestic market) although this is down from 55% and 30% respectively in 2010.

However, the number of routes involving core domestic Chinese routes has been increasing as the domestic market has grown strongly: 11 of the top 25 routes shown in the chart left involve destinations

WIDEBODIES ON SHORT ROUTES
MIDDLE EAST CARRIERS



WIDEBODIES ON SHORT ROUTES
EUROPEAN CARRIERS



in China, Hong Kong and Taipei; for example 80% of the seats between Beijing and Shanghai (a sector length of around 1,000km) are operated on widebodies.

✈Middle East

The data for the carriers in the Middle East is also unusual: 46% of all widebody flights are operated on stage lengths of less than 4,000km and 27% on less than 2,000km.

Much of this could be a result of the widebody operating strategies of the Superconnectors (and particularly Emirates, which had the shortest route — at 349km — operated using an A380 between Dubai and Doha at least until the blockade of Qatar). Here the question maybe the need to reposition aircraft — Dubai, Abu Dhabi and Doha get congested at peak waves. Also each of the Superconnectors operate tagged (and circular) routes at the end of long haul sectors.

✈North America and Europe

For North America and Europe the data shows what one would expect to be a normal distribution weighted to the longer haul: 67% of widebody flights by carriers in North America, and 80% by carriers in Europe are operated on sectors greater than 4,000km.

For each of the two regions there is a peak of operations between 5-10,000km reflecting the importance of the North Atlantic.

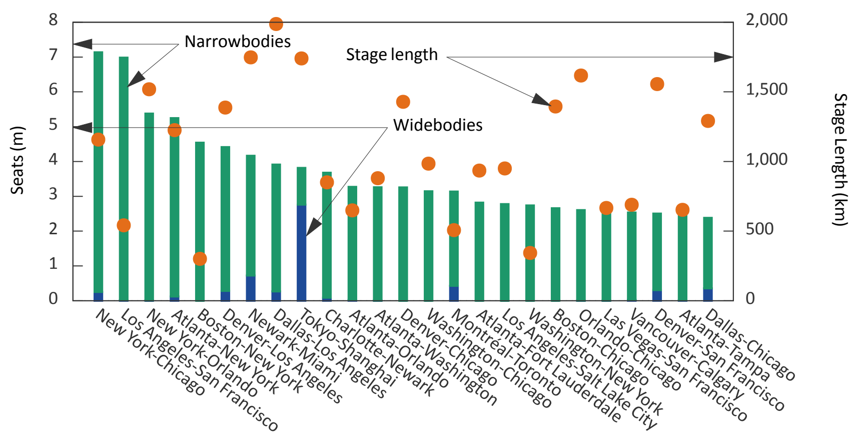
For interest we also ran this data exercise for the schedules in 1994. At that time the chart for European operators showed a remarkable similarity to the current position for the Middle East carriers. But that was an era of A300s, pre Channel Tunnel or high speed trains, and before the onset of European deregulation.

MOMA or another solution?

There is a valid need for high density aircraft on short-medium haul routes, but the widebodies currently in production that can provide the seating capacity seem to be designed for maximum operational efficiency on longer haul operations. Some operators may decide that older fully depreciated large equipment may efficiently be used profitably on shorter sectors.

Boeing has been debating the possible development of the middle-of-the-market (MOMA) or new mid range aircraft (NMA) to fill in the perceived gap between capabilities of the top of its 737 MAX and the bottom of its 787 series and replace the ageing 767 and 757. Whether the programme goes ahead, twin-aisle or single, or a further modification to existing models, will no doubt depend on discussions with potential customers. Airbus appears to consider that the A321neoLR fulfils the range capability.

WIDEBODIES ON SHORT ROUTES
NORTH AMERICAN CARRIERS



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